J. CLOSING CERTIFICATES

CERTIFICATE OF TRANSURBAN (895) US HOLDINGS LLC

June 22, 2006

The undersigned, being a duly elected Authorized Officer of Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Company"), hereby delivers this certificate on behalf of the Company pursuant to Section 4.1(f) of that certain Loan Agreement, dated as of June 22, 2006 (as amended, modified and/or supplemented from time to time, the "Loan Agreement"), by and among Transurban (895) US Holdings LLC, a Delaware limited liability company, as the Borrower, the Lenders party thereto, and DEPFA Bank plc, in its capacity as Administrative Agent. Capitalized terms used herein but not defined herein shall have the respective meanings assigned to such terms in Appendix A to the Loan Agreement. The undersigned hereby certifies that:

1. I am the duly elected, qualified and acting Authorized Officer of the Company.

2. Attached hereto as Exhibit A is a true, correct complete copy of the certificate of formation of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the limited liability company agreement of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

4. Attached hereto as Exhibit C are true and complete copies of the resolutions duly adopted by the Member of the Company by unanimous written consent, dated June 22, 2006 authorizing the transactions contemplated under the Loan Agreement. Such resolutions have not been subsequently modified, revoked, repealed, rescinded or otherwise amended, and remain in full force and effect in the form adopted and are the only resolutions adopted by the Member relating to the matters described therein.

5. The Company is a Delaware limited liability company duly formed and validly existing under and by virtue of the laws of the State of Delaware. Attached hereto as Exhibit D is a Certificate of Good Standing of the Company obtained from the Secretary of State of Delaware on June 12, 2006.

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

IN WITNESS WHEREOF, the undersigned Treasurer of the Company has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: James Christopher Brant
Title: Treasurer

I, Mark Licciardo, hereby certify that James Christopher Brant is, as of the date hereof, the duly elected and acting Treasurer of the Company and the signature set forth above is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: Mark Licciardo
Title: Secretary

EXHIBIT A

Certificate of Formation

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS ON FILE OF "TRANSURBAN (895) US HOLDINGS LLC" AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

CERTIFICATE OF FORMATION, FILED THE SEVENTH DAY OF JUNE, A.D. 2006, AT 1:59 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE AFORESAID LIMITED LIABILITY COMPANY, "TRANSURBAN (895) US HOLDINGS LLC".

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4171055 8100H

060562644

AUTHENTICATION: 4816695

DATE: 06-12-06

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:11 AM 06/07/2006
FILED 01:59 PM 06/07/2006
SRV 060550188 - 4171035 FILE

CERTIFICATE OF FORMATION

OF

TRANSURBAN (895) US HOLDINGS LLC

This Certificate of Formation of Transurban (895) US Holdings LLC, dated as of June 7, 2006, is being duly executed and filed by Robert J. Willson, Jr., an authorized person, to form a limited liability company under the Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq.)

FIRST: The name of the limited liability company is Transurban (895) US Holdings LLC (the "Company").

SECOND: The address of the registered office of the Company in the State of Delaware is 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, County of New Castle.

THIRD: The name and address of the registered agent for service of process on the Company in the State of Delaware is Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, County of New Castle.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Formation as of the date first above written.

/s/ Robert J. Willson, Jr.
Robert J. Willson, Jr.
Authorized Person

EXHIBIT B

Limited Liability Company Agreement

FIRST AMENDMENT

OF

LIMITED LIABILITY COMPANY AGREEMENT

OF

TRANSURBAN (895) US HOLDINGS LLC

This Amendment is made as of June 15, 2006 by Transurban (895) General Partnership, being the sole Member (the "Member") of Transurban (895) US Holdings LLC, a Delaware limited liability company (the "LLC"), for the purpose of amending the Limited Liability Company Agreement of the Company dated May 25, 2006 (the "LLC Agreement").

RECITAL

WHEREAS, the Member of the LLC desires to amend the LLC Agreement so as to classify the interests in the Company as a security governed by Article 8 of the Uniform Commercial Code, as amended (the "UCC"), pursuant to §8-103(c) of the UCC.

AMENDMENT

NOW THEREFORE, the Member amends the LLC Agreement as follows:

1. The definition of Units is hereby deleted in its entirety and the following language is inserted in lieu thereof:

> *"Units" means a measure of ownership interest in the Company classified and defined as securities governed by Article 8 of the Uniform Commerical Code, as amended.*

IN WITNESS WHEREOF, the undersigned being a duly authorized representative of the Member has executed this First Amendment as of the day and year first above written.

TRANSURBAN (895) GENERAL PARTNERSHIP

By: Transurban (USA) Development Inc., its Manager

By: [signature]
Name: Ken Daley
Title: President

CHIDM31/2439658.1

TRANSURBAN (895) US HOLDINGS LLC

LIMITED LIABILITY COMPANY AGREEMENT

TABLE OF CONTENTS

		Page
ARTICLE 1	DEFINITIONS	1
ARTICLE 2	FORMATION OF COMPANY	1
2.1	FORMATION	1
2.2	PRINCIPAL PLACE OF BUSINESS	1
2.3	REGISTERED OFFICE AND REGISTERED AGENT	2
2.4	TERM	2
ARTICLE 3	BUSINESS OF COMPANY	2
ARTICLE 4	UNITS AND CONTRIBUTIONS TO THE COMPANY	2
4.1	UNITS; CERTIFICATES	2
4.2	CAPITAL CONTRIBUTIONS	2
ARTICLE 5	RIGHTS AND OBLIGATIONS OF MEMBER	2
5.1	LIMITATION OF LIABILITY	2
5.2	COMPANY BOOKS	3
ARTICLE 6	MANAGEMENT; MEETINGS; OFFICERS	3
6.1	MANAGEMENT BY MEMBER	3
6.2	OFFICERS OF COMPANY	3
6.3	ELECTION AND TERM OF OFFICE	3
6.4	REMOVAL	3
6.5	DUTIES AND POWERS OF OFFICERS	3
ARTICLE 7	STANDARD OF CARE AND INDEMNIFICATION OF MEMBERS, OFFICERS AND EMPLOYEES	4
7.1	STANDARD OF CARE	4
7.2	INDEMNIFICATION OF MEMBERS, OFFICERS AND EMPLOYEES	4
ARTICLE 8	ALLOCATIONS, DISTRIBUTIONS, ACCOUNTING, RECORDS AND REPORTS	4
8.1	ALLOCATIONS OF NET PROFITS AND NET LOSSES	4
8.2	DISTRIBUTIONS	4
ARTICLE 9	DISSOLUTION AND TERMINATION	5
9.1	DISSOLUTION	5
9.2	WINDING UP, LIQUIDATION AND DISTRIBUTION OF ASSETS	5
9.3	CERTIFICATE OF CANCELLATION	5
ARTICLE 10	MISCELLANEOUS PROVISIONS	6
10.1	AMENDMENTS	6

TABLE OF CONTENTS
(Continued)

Page

10.2 SEVERABILITY 6
10.3 CREDITORS 6
10.4 CONSTRUCTION 6
10.5 ASSIGNMENT 6
10.6 GOVERNING LAW 6

TRANSURBAN (895) US HOLDINGS LLC

LIMITED LIABILITY COMPANY AGREEMENT

This Limited Liability Company Agreement ("Agreement") is made as of May 25, 2006, for the organization and operation of the above named limited liability company (the "Company").

The undersigned hereby declares as follows:

ARTICLE 1

DEFINITIONS

For purposes of this Agreement the following terms have the meanings indicated (unless otherwise expressly provided herein):

"Certificate" means the Certificate of Formation of the Company as filed with the Delaware Secretary of State, as the same may be amended from time to time.

"Delaware Act" means the Delaware Limited Liability Company Act at Title 6 of the Delaware Code, §§ 18-101 *et seq.*

"Member" means the undersigned and any other person who becomes a Member of the Company in accordance with this Agreement.

"Units" means a measure of ownership interest in the Company.

ARTICLE 2

FORMATION OF COMPANY

2.1 FORMATION

The Company has been organized as a Delaware limited liability company by executing and delivering the Certificate to the Secretary of State of the State of Delaware in accordance with and pursuant to the Delaware Act.

2.2 PRINCIPAL PLACE OF BUSINESS

The Company may locate its places of business at any place or places as the Member may deem advisable.

2.3 REGISTERED OFFICE AND REGISTERED AGENT

The Company's initial registered agent and registered office is Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, New Castle County.

2.4 TERM

The term of the Company will be perpetual.

ARTICLE 3

BUSINESS OF COMPANY

The business of the Company will be:

(a) own, operate and manage the Pocahontas tollway project in the Commonwealth of Virginia; and

(b) to carry on any other lawful business or activity in connection with the foregoing or otherwise, and to have and exercise all of the powers, rights and privileges which a limited liability company organized pursuant to the Delaware Act may have and exercise.

ARTICLE 4

UNITS AND CONTRIBUTIONS TO THE COMPANY

4.1 UNITS; CERTIFICATES

The capital of the Company will be represented by Units. The Units of the Member are reflected on Schedule 4.1, as the same may be amended from time to time. The Member may make such rules and regulations as they may deem appropriate concerning the issuance and registration of Units, including the issuance of certificates representing Units. Unless the Member decides otherwise, Units will be issued without certificates.

4.2 CAPITAL CONTRIBUTIONS

The Member will contribute the amount set forth on Schedule 4.1 as its capital contribution. The Member will not be required to make additional capital contributions.

ARTICLE 5

RIGHTS AND OBLIGATIONS OF MEMBER

5.1 LIMITATION OF LIABILITY

The Member will not be personally liable to creditors of the Company for any debts, obligations, liabilities or losses of the Company, whether arising in contract, tort or otherwise, beyond the Member's capital contribution under Section 4.2.

5.2 COMPANY BOOKS

The officers will maintain and preserve, during the term of the Company, all accounts, books and other relevant Company documents.

ARTICLE 6

MANAGEMENT; MEETINGS; OFFICERS

6.1 MANAGEMENT BY MEMBER

The business and affairs of the Company will be managed by the Member. The Member will have full and complete authority, power and discretion to manage and control the business of the Company, to make all decisions regarding those matters and to perform any and all other acts or activities customary or incident to the management of the Company's business and objectives. The Member may act through written or unwritten resolutions or certifications of any nature. The Member may from time to time authorize the opening of bank accounts in the name of the Company, and the Member will determine who will have the signatory power over such accounts. The Member will have the power and authority on behalf of the Company to borrow money for the Company on such terms as the Member deems appropriate, and in connection therewith, to hypothecate, encumber and grant security interests in the assets of the Company to secure repayment of the borrowed sums. No debt will be contracted or liability incurred by or on behalf of the Company except by the Member, or to the extent permitted under the Delaware Act, by the officers or other agents or employees of the Company expressly authorized to contract such debt or incur such liability by the Member.

6.2 OFFICERS OF COMPANY

The Member may appoint officers of the Company which may consist of the officers listed in Schedule 6.2 and such other officers as may be appointed by the Member. Any two or more offices may be held by the same person. The officers will act in the name of the Company and will supervise its operation under the direction and management of the Member, as further described in Schedule 6.2. Appointment of officers will not divest the Member of the right to manage and control the Company.

6.3 ELECTION AND TERM OF OFFICE

The officers of the Company will be elected by the Member. The initial officers of the Company are as follows:

NAMES	TITLES
Ken Daley	President
James Christopher Brant	Treasurer
Mark Licciardo	Secretary
Paul Geoffrey Bennett O'Shea	Vice-President
Michael Kulper	Vice President

Each officer will hold office until his successor is duly elected and has qualified, or until his earlier death, resignation or removal in the manner hereinafter provided. Appointment of an officer will not of itself create contract rights.

6.4 REMOVAL

The Member may remove any officer at any time with or without cause.

6.5 DUTIES AND POWERS OF OFFICERS

The Officers will have such duties and powers as are described in Schedule 6.2.

ARTICLE 7

STANDARD OF CARE AND INDEMNIFICATION OF MEMBERS, OFFICERS AND EMPLOYEES

7.1 STANDARD OF CARE

Neither the Member nor any officer will be liable to the Company by reason of the actions of such person in the conduct of the business of the Company except for fraud, gross negligence or willful misconduct.

7.2 INDEMNIFICATION OF MEMBERS AND OFFICERS

The Company will, to the fullest extent to which it is empowered to do so by the Delaware Act or any other applicable law, indemnify and make advances for expenses to any person who was or is a party, or is threatened to be made a party, to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a Member, officer or employee of the Company, against losses, damages, expenses (including attorneys' fees), judgments, fines and amounts reasonably incurred by him in connection with such action, suit or proceeding.

ARTICLE 8

ALLOCATIONS, DISTRIBUTIONS, ACCOUNTING, RECORDS AND REPORTS

8.1 ALLOCATIONS OF NET PROFITS AND NET LOSSES

The profits, losses, and other items of the Company will be allocated to the Member. There will be no "special allocations."

8.2 DISTRIBUTIONS

Distributions will be made as follows:

(a) Subject to Section 18-607 of the Delaware Act, the Company will make interim distributions as the Member shall determine.

(b) Upon liquidation of the Company, liquidating distributions will be made in accordance with Section 9.2.

ARTICLE 9

DISSOLUTION AND TERMINATION

9.1 DISSOLUTION

(a) The Company will be dissolved only upon the occurrence of any of the following events:

(i) by written decision of the Member; or

(ii) upon the entry of a decree of judicial dissolution under Section 18-802 of the Delaware Act.

(b) Dissolution of the Company will be effective on the day on which an event described in Section 9.1(a) occurs, but the Company will not terminate until a certificate of cancellation is filed with the Secretary of State of the State of Delaware and the assets of the Company are distributed as provided in Section 9.2. Notwithstanding the dissolution of the Company, prior to the termination of the Company, the business of the Company and the affairs of the Member will continue to be governed by this Agreement.

9.2 WINDING UP, LIQUIDATION AND DISTRIBUTION OF ASSETS

Upon dissolution, an accounting will be made of the Company's assets, liabilities and operations, from the date of the last previous accounting until the date of dissolution. The Member will:

(a) sell or otherwise liquidate all of the Company's assets as promptly as practicable;

(b) discharge all liabilities of the Company, including liabilities to the Member as a creditor of the Company to the extent permitted by law, excluding liabilities for distributions to Members; and

(c) distribute the remaining assets to the Member.

9.3 CERTIFICATE OF CANCELLATION

When all debts, liabilities and obligations of the Company have been paid and discharged, or adequate provisions have been made for their payment or discharge, and all of the remaining property and assets of the Company have been distributed, a certificate of cancellation setting forth the information required by the Delaware Act will be executed by one or more authorized persons and filed with the Delaware Secretary of State. Upon such filing, the existence of the Company will cease, except for the purpose of suits, other proceedings and appropriate action as provided in the Delaware Act. The Member will have authority to distribute any Company property discovered after dissolution, convey real estate and take such other action as may be necessary on behalf of and in the name of the Company.

ARTICLE 10

MISCELLANEOUS PROVISIONS

10.1 AMENDMENTS

This Agreement may be amended at any time by a writing executed by the Member.

10.2 SEVERABILITY

If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Agreement will remain in full force and effect. Any provision of this Agreement held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

10.3 CREDITORS

None of the provisions of this Agreement are for the benefit of or enforceable by any creditors of the Company.

10.4 CONSTRUCTION

All references in this Agreement to "Articles" and "Sections" refer to the corresponding Articles and Sections of this Agreement unless the context indicates otherwise. The headings of Articles and Sections in this Agreement are provided for convenience only and will not affect its construction or interpretation. All words used in this Agreement will be construed to be of such gender or number as the circumstances require. The terms "include" or "including" indicate examples of a foregoing general statement and not a limitation on that general statement. Any reference to a statute refers to the statute, any amendments or successor legislation, and all regulations promulgated under or implementing the statute, as in effect at the relevant time.

10.5 ASSIGNMENT

The Member may effect an assignment of the Member's Units by means of any written agreement or instrument of transfer signed by the Member and the assignee. An assignee of the Member's Units will become a member and will have and may exercise all rights and powers of a member, including the right to participate in the management of the business and affairs of the Company.

10.6 GOVERNING LAW

This Agreement will be governed by and interpreted in accordance with the laws of the State of Delaware, without regard to conflicts of laws principles that would require the application of any other law, and the Certificate.

The Member has executed this Agreement as of the date indicated in the first sentence of this Agreement.

MEMBER:

TRANSURBAN (895) GENERAL PARTNERSHIP

By: Transurban (USA) Development Inc., its Manager

By: _____

Name: MARK LICCIARDO

Title: COMPANY SECRETARY

SCHEDULE 4.1

Name and Address of Member	Amount of Initial Capital Contribution	Units
Transurban (895) General Partnership 2711 Centerville Road, Suite 300 PMB #2005 Wilmington, Delaware 19808 Tax ID: 20-4877357	$1,000	1,000

SCHEDULE 6.2

DUTIES AND POWERS OF OFFICERS

Chairman. The chairman will be the chief executive officer of the Company in charge of the entire business and all the affairs of the Company and will have the powers and perform the duties incident to that position, including the power to bind the Company in accordance with this Schedule. The chairman will, when present, preside at all meetings of the Members. He will have such other powers and perform such duties as are specified in this Agreement and as may from time to time be assigned to him by the Members of the Company.

The chairman will have general and active management of the business of the Company and will see that all orders and resolutions of the Members are carried into effect. The chairman may execute bonds, mortgages and other contracts (whenever requiring a seal, under the seal of the Company), except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof is expressly delegated by the Members to some other officer or agent of the Company. The chairman will have general powers of supervision and will be the final arbiter of all differences between officers of the Company, and such decision as to any matter affecting the Company will be final and binding as between the officers of the Company subject only to the Members.

President. The president will be the chief operating officer of the Company and will assist the chairman in the discharge of all his duties. In the absence of the chairman, at the chairman's request or if the chairman is unable to act, the president will preside at meetings of the Members. The president will have concurrent power with the chairman to sign, with the secretary or any other proper officer of the Company thereunto authorized by the Members any certificates of the Company, deeds, mortgages, bonds, contracts or other instruments which the Members have authorized to be executed, except in cases where the signing and execution thereof is expressly delegated by the Members or by this Agreement to some other officer or agent of the Company, or is required by law to be otherwise signed or executed. In general the president will perform all duties incident to the office of the president and such other duties as may be prescribed by the Members of the Company from time to time.

The Vice Presidents. At the request of the chairman, or in the absence of the president or in the event of his inability or refusal to act, a vice president (or in the event there be more than one vice president, the vice presidents in the order designated, or in the absence of any designation, then in the order of their election) will perform the duties of the president, and when so acting, will have all the powers of and be subject to all the restrictions upon the president. Any vice president will perform such other duties as from time to time may be assigned to him by the chairman, the president or the Members of the Company.

The Treasurer. The treasurer will be the chief financial officer of the Company. The treasurer will not be required to give a bond for the faithful discharge of his duties. He will: (i) have charge and custody of and be responsible for all funds and securities of the Company; (ii) (ii) receive and give receipts for moneys due and payable to the Company from any source whatsoever, and deposit all such moneys in the name of the Company in such banks, trust companies or other depositaries as will be selected by the Members; and (iii) in general perform

all the duties incident to the office of treasurer and such other duties as from time to time may be assigned to him by the president or by the Members.

The Secretary. The secretary will: (a) keep the minutes of the Members' meetings in one or more books provided for that purpose; (b) see that all notices are duly given in accordance with the provisions of this Agreement or as required by law; (c) be custodian of Company records; (d) keep a register of the post office address of each Member furnished to the secretary by such Member; (e) sign with the chairman, the president or a vice president (as designated by the chairman), any certificates representing Units, the issuance of which has been authorized by resolution of the Members; (f) certify the resolutions of the Members and other documents of the Company as true and correct; and (f) in general perform all duties incident to the office of secretary and such other duties as from time to time may be assigned to him by the chairman, the president, a vice president (as designated by the chairman) or the Members of the Company.

Assistant Secretaries. Each assistant secretary shall in general assist the secretary and perform all duties incident to the office of assistant secretary and such other duties as from time to time may be assigned to him by the chairman, the president, a vice president (as designated by the chairman), the treasurer, the secretary or the Members of the Company.

EXHIBIT C

Resolutions

TRANSURBAN (895) US HOLDINGS LLC

WRITTEN CONSENT OF SOLE MEMBER

JUNE 22, 2006

The undersigned, being the sole member of Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Company"), hereby consents, pursuant to the Company's Limited Liability Company Agreement, to the adoption of the resolutions below taking or authorizing the actions specified therein.

WHEREAS, the Company is an indirect parent of Transurban (895) LLC, a Delaware limited liability company (the "Operator");

WHEREAS, pursuant to an asset purchase agreement to be entered into between the Operator and Pocahontas Parkway Association ("PPA"), a Virginia non-stock, not-for-profit company, and the current operator of the Pocahontas Parkway and associated facilities, PPA intends to sell, transfer, convey and deliver to the Operator all of its right, title, and interest in and to the management, operation and maintenance of the Pocahontas Parkway and all of the rights, property and other interests of PPA associated therewith;

WHEREAS, in connection with the acquisition, the Operator will be a party to a certain Amended and Restated Comprehensive Agreement with the Virginia Department of Transportation ("VDOT") to develop and operate the Route 895 Connector pursuant to which VDOT will grant to the Operator a permit to operate, maintain, manage, and collect tolls on the Pocahontas Parkway toll road and the associated facilities;

WHEREAS, the Company intends to finance a portion of the costs of the acquisition of the concession and permit of the Pocahontas Parkway toll road, and certain other costs related to such acquisition and to the operation and refurbishment of the Pocahontas Parkway toll road pursuant to financing arrangements to be entered with a group of banks or other lending institutions (the "Financing"); and

WHEREAS, the undersigned deem it advisable and in the best interests of the Company to so finance such costs, and in furtherance thereof to negotiate, execute, deliver and enter into, and perform its obligations under, the Loan Agreement (the "Loan Agreement") substantially on the terms and subject to the conditions set forth in the form of such agreement in Exhibit A attached hereto, and all other agreements, security agreements, mortgages, deeds of trust, notes, promissory notes, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Loan Agreement and the transactions contemplated thereby, including, without limitations, the agreements described on Schedule 1 hereto (the "Loan Documents").

Resolution No. 1 – Loan Documents

NOW THEREFORE, BE IT RESOLVED, that (i) the Loan Agreement and the other Loan Documents described on Schedule 1 hereto, copies of which have been presented to the undersigned, are approved, and (ii) the Authorized Persons (as defined below) be, and each of

them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Loan Agreement and any and all other Loan Documents and the transactions contemplated thereby (including, without limitation, in connection with causing the Company to comply with, observe and perform its covenants, agreements and obligations set forth in the Loan Agreement, and making any filings or declarations with any governmental authority in connection with any of the foregoing) in such form and substance as determined by any Authorized Person. For the purposes hereof, "Authorized Persons" shall mean the President, Treasurer, Secretary or any Vice President of the Company.

Resolution No. 2 – Grant of Liens and Security Interests Pursuant to the Loan Agreement

RESOLVED, that the Company grant liens and security interests in all or substantially all of its assets and properties to secure the Company's obligations to or for the benefit of the lenders and other financial institutions providing the Financing (including without limitation providing any interest rates or other hedging arrangement with respect thereto). In connection therewith and in order to assist in the granting of a lien and security interest in the Company, the Company shall issue certificates representing all of the Units of the Company. A specimen copy of such certificates in the form attached hereto as Exhibit B shall be placed in Company's corporate books.

Resolution No. 3 – General Authority

RESOLVED, that the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to take and do all such other and further acts, and to negotiate, prepare, execute, deliver and cause the performance of, all such further instruments and documents, and to effect all such further filings and declarations as are necessary, appropriate or advisable to effectuate the foregoing resolution and to consummate and implement the transactions contemplated by the Loan Documents, and the execution and delivery by such Authorized Persons of any such instruments or documents or the taking or doing by them of any such act in connection with the foregoing matters shall establish conclusively the authority therefor from the Company and the approval and ratification by the Company of the instruments or documents so executed and the acts so taken or done; and

RESOLVED FURTHER, that any and all actions heretofore or hereafter taken by the Authorized Persons of the Company within the intent of the foregoing resolutions be, and hereby are, ratified, confirmed and approved in all respects.

IN WITNESS WHEREOF, the undersigned sole member has executed this Written Consent as of the date first written above.

TRANSURBAN (895) GENERAL PARTNERSHIP, its sole member

By: TRANSURBAN (USA) DEVELOPMENT INC, its manager

By: _____

Name: Ken Daley

Title: PRESIDENT

EXHIBIT A

LOAN AGREEMENT

SEE TAB 26

Exhibit B

Specimen Copy of Certificates

Certificate Number: 1

Number of Units: 1,000

TRANSURBAN (895) US HOLDINGS LLC

A LIMITED LIABILITY COMPANY ORGANIZED UNDER THE LAWS OF THE STATE OF DELAWARE

THIS CERTIFIES that **Transurban (895) General Partnership, a Delaware general partnership** is the owner of One Thousand (1,000) Units of Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Company"), transferable only on the books of the Company by the holder hereof, or its duly authorized attorney, and in compliance with, and subject to any restrictions contained in, the Limited Liability Company Agreement of the Company as amended from time to time. This certificate and the Units represented hereby are governed by Article 8 of the Uniform Commercial Code, as amended (the "UCC"), pursuant to §8-103(d) of the UCC.

IN WITNESS WHEREOF, the Company has caused this Certificate to be signed by its duly authorized officer as of this 14th day of June, 2006.

Ken Daley
President

MEMBERSHIP TRANSFER POWER

FOR VALUE RECEIVED Transurban (895) General Partnership does hereby sell, assign and transfer unto _____ one hundred percent (100%) of the membership interest of Transurban (895) US Holdings LLC, a Delaware limited liability company, standing in its name on the books of said company, represented by Certificate No. _____, and does hereby irrevocably constitute and appoint _____ to transfer the said membership interest on the books of said company with full power of substitution in the premises.

Dated: _____ ___, _____

TRANSURBAN (895) GENERAL PARTNERSHIP

By: M. Kulper
Name: MICHAEL KULPER
Title: VICE PRESIDENT

SCHEDULE I

LOAN DOCUMENTS

1. Loan Agreement, to be dated as of June 22, 2006, among the Company, as Borrower, the Lenders party thereto, Bayerische Hypo-Und Vereinsbank AG, New York Branch, Banco Espirito Santo De Investimento, S.A., and DEPFA Bank plc, as Mandated Lead Arrangers, and DEPFA Bank plc, as Administrative Agent;

2. Promissory Notes, to the extent requested by any Lender;

3. ISDA Master Agreement, together with a Schedule and Confirmation, each to be dated as of June 22, 2006, between the Company and Banco Espirito Santo, S.A.;

4. ISDA Master Agreement, together with a Schedule and Confirmation, each to be dated as of June 22, 2006, between the Company and Bayerische Hypo-Und Veriensbank AG, New York Branch;

5. ISDA Master Agreement, together with a Schedule and Confirmation, each to be dated as of June 22, 2006, between the Company and DEPFA Bank plc;

6. Collateral Agency and Account Agreement, to be dated as of June 22, 2006, among the Company, Transurban (895) LLC, Transurban (895) Finance Inc., Transurban (895) Holdings Inc., DEPFA Bank plc, as Administrative Agent, and Wells Fargo Bank, N.A., as the Collateral Agent;

7. Security Agreement, to be dated as of June 22, 2006, between the Company and the Collateral Agent; and

8. Affiliate Subordinated Note, to be dated as of June 22, 2006, issued by Transurban (895) General Partnership to the Company.

EXHIBIT D

Good Standing Certificate

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "TRANSURBAN (895) US HOLDINGS LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWELFTH DAY OF JUNE, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "TRANSURBAN (895) US HOLDINGS LLC" WAS FORMED ON THE SEVENTH DAY OF JUNE, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE NOT BEEN ASSESSED TO DATE.

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4171055 8300

060562644

AUTHENTICATION: 4816694

DATE: 06-12-06

BRINGDOWN CERTIFICATE
OF TRANSURBAN (895) US HOLDINGS LLC

June 29, 2006

This certificate is delivered pursuant to the Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Borrower"), the several banks and other financial institutions from time to time parties thereto (the "Lenders"), the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, in his or her capacity as a duly authorized officer of the Borrower and not personally, does hereby certify that as of the date hereof (i) the certifications made in the certificate attached hereto as Attachment 1 (the "Officer's Certificate") are true and correct and (ii) the documents attached to the Officer's Certificate remain in full force and effect and have not been revoked, amended, supplanted or otherwise modified.

[Signature page follows.]

IN WITNESS WHEREOF, I hereunto affix my signature solely in the capacity as a dully authorized officer of the Borrower, and not personally as of the date hereof.

TRANSURBAN (895) US HOLDINGS LLC

By: M. Kulper
Name: MICHAEL KULPER
Title: VICE PRESIDENT

ATTACHMENT 1

OFFICER'S CERTIFICATE

SEE TAB 41

CERTIFICATE OF TRANSURBAN (895) HOLDINGS LTD.

June 22, 2006

The undersigned, being a duly elected Authorized Officer of Transurban (895) Holdings Ltd., a Bermuda company (the "Company"), hereby delivers this certificate on behalf of the Company pursuant to Section 4.1(f) of that certain Loan Agreement, dated as of June 22, 2006 (as amended, modified and/or supplemented from time to time, the "Loan Agreement"), by and among Transurban (895) US Holdings LLC, a Delaware limited liability company, as the Borrower, the Lenders party thereto, and DEPFA Bank plc, in its capacity as Administrative Agent. Capitalized terms used herein but not defined herein shall have the respective meanings assigned to such terms in Appendix A to the Loan Agreement. The undersigned hereby certifies that:

1. I am the duly elected, qualified and acting Vice President of the Company.

2. Attached hereto as Exhibit A is a true, correct complete copy of the memorandum of association of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the bye-laws of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

4. Attached hereto as Exhibit C are true and complete copies of the resolutions duly adopted by the Board of Directors of the Company by unanimous written consent, dated June 22, 2006 authorizing the transactions contemplated under the Loan Agreement. Such resolutions have not been subsequently modified, revoked, repealed, rescinded or otherwise amended, and remain in full force and effect in the form adopted and are the only resolutions adopted by the Board of Directors relating to the matters described therein.

5. The Company is a Bermuda company duly formed and validly existing under and by virtue of the laws of Bermuda. Attached hereto as Exhibit D is a Certificate of Compliance of the Company obtained from the Registrar of Companies on June 15, 2006.

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Mark Licciardo	President	
James Christopher Brant	Vice President and Treasurer	
Renee Hill	Secretary	

[Signature page to follow.]

IN WITNESS WHEREOF, the undersigned Vice President of the Company has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: James Christopher Brant
Title: Vice President

I, Mark Licciardo, hereby certify that James Christopher Brant is, as of the date hereof, the duly elected and acting Vice President of the Company and the signature set forth above is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: Mark Licciardo
Title: President

EXHIBIT A

Articles of Incorporation

FORM No. 2

BERMUDA

THE COMPANIES ACT 1981

MEMORANDUM OF ASSOCIATION OF COMPANY LIMITED BY SHARES
Section 7(1) and (2)

MEMORANDUM OF ASSOCIATION

OF

Transurban (895) Holdings Ltd.

(hereinafter referred to as "the Company")

1. The liability of the members of the Company is limited to the amount (if any) for the time being unpaid on the shares respectively held by them.

2. We, the undersigned, namely,

Name and Address	Bermudian Status (Yes or No)	Nationality	Number of Shares Subscribed
James Bodi Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	No	Canadian	1
Marcia Gilbert Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	Yes	British	1
Robert Dummett Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	Yes	British	1
Dionne Hackett Canon's Court, 22 Victoria Street Hamilton HM 12, Bermuda	Yes	British	1

do hereby respectively agree to take such number of shares of the Company as may be allotted to us respectively by the provisional directors of the Company, not exceeding the number of shares for which we have respectively subscribed, and to satisfy such calls as may be made by the directors, provisional directors or promoters of the Company in respect of the shares allotted to us respectively.

3. The Company is to be an Exempted Company as defined by the Companies Act 1981.

4. The Company, with the consent of the Minister of Finance, has power to hold land situate in Bermuda not exceeding ____ in all, including the following parcels:-

   Not Applicable.

5. The authorised share capital of the Company is US$12,000.00 divided into 12,000 shares of par value US$1.00 each. The minimum subscribed share capital of the Company is $12,000.00 in United States currency.

6. The objects for which the Company is formed and incorporated are:-

   As set forth in paragraphs (b) to (u) inclusive of the Second Schedule to the Companies Act 1981.

7. The Company has the powers set out in The Schedule annexed hereto.

Signed by each subscriber in the presence of at least one witness attesting the signature thereof:-

James Bodi	Rashida Bean
Marcia Gilbert	Rashida Bean
	Rashida Bean
Dionne Hackett	Rashida Bean
(Subscribers)	(Witnesses)

Subscribed this 13 th day of June 2006

STAMP DUTY (To be affixed)

THE COMPANIES ACT 1981

SECOND SCHEDULE (section 11(2))

Subject to Section 4A, a company may by reference include in its memorandum any of the following objects, that is to say the business of -

(a) insurance and re-insurance of all kinds;

(b) packaging of goods of all kinds;

(c) buying, selling and dealing in goods of all kinds;

(d) designing and manufacturing of goods of all kinds;

(e) mining and quarrying and exploration for metals, minerals, fossil fuels and precious stones of all kinds and their preparation for sale or use;

(f) exploring for, the drilling for, the moving, transporting and refining petroleum and hydro carbon products including oil and oil products;

(g) scientific research including the improvement, discovery and development of processes, inventions, patents and designs and the construction, maintenance and operation of laboratories and research centres;

(h) land, sea and air undertakings including the land, ship and air carriage of passengers, mails and goods of all kinds;

(i) ships and aircraft owners, managers, operators, agents, builders and repairers;

(j) acquiring, owning, selling, chartering, repairing or dealing in ships and aircraft;

(k) travel agents, freight contractors and forwarding agents;

(l) dock owners, wharfingers, warehousemen;

(m) ship chandlers and dealing in rope, canvas oil and ship stores of all kinds;

(n) all forms of engineering;

(o) developing, operating, advising or acting as technical consultants to any other enterprise or business;

(p) farmers, livestock breeders and keepers, graziers, butchers, tanners and processors of and dealers in all kinds of live and dead stock, wool, hides, tallow, grain, vegetables and other produce;

(q) acquiring by purchase or otherwise and holding as an investment inventions, patents, trade marks, trade names, trade secrets, designs and the like;

(r) buying, selling, hiring, letting and dealing in conveyances of any sort; and

(s) employing, providing, hiring out and acting as agent for artists, actors, entertainers of all sorts, authors, composers, producers, directors, engineers and experts or specialists of any kind;

(t) to acquire by purchase or otherwise and hold, sell, dispose of and deal in real property situated outside Bermuda and in personal property of all kinds wheresoever situated;

(u) to enter into any guarantee, contract of indemnity or suretyship and to assure, support or secure with or without consideration or benefit the performance of any obligations of any person or persons and to guarantee the fidelity of individuals filling or about to fill situations of trust or confidence;

(v) to be and carry on business of a mutual fund within the meaning of section 156A.

The Schedule

(referred to in Clause 7 of the Memorandum of Association)

(a) to borrow and raise money in any currency or currencies and to secure or discharge any debt or obligation in any manner and in particular (without prejudice to the generality of the foregoing) by mortgages of or charges upon all or any part of the undertaking, property and assets (present and future) and uncalled capital of the company or by the creation and issue of securities;

(b) to enter into any guarantee, contract of indemnity or suretyship and in particular (without prejudice to the generality of the foregoing) to guarantee, support or secure, with or without consideration, whether by personal obligation or by mortgaging or charging all or any part of the undertaking, property and assets (present and future) and uncalled capital of the company or by both such methods or in any other manner, the performance of any obligations or commitments of, and the repayment or payment of the principal amounts of and any premiums, interest, dividends and other moneys payable on or in respect of any securities or liabilities of, any person, including (without prejudice to the generality of the foregoing) any company which is for the time being a subsidiary or a holding company of the company or another subsidiary of a holding company of the company or otherwise associated with the company;

(c) to accept, draw, make, create, issue, execute, discount, endorse, negotiate and deal in bills of exchange, promissory notes, and other instruments and securities, whether negotiable or otherwise;

(d) to sell, exchange, mortgage, charge, let on rent, share of profit, royalty or otherwise, grant licences, easements, options, servitudes and other rights over, and in any other manner deal with or dispose of, all or any part of the undertaking, property and assets (present and future) of the company for any consideration and in particular (without prejudice to the generality of the foregoing) for any securities;

(e) to issue and allot securities of the company for cash or in payment or part payment for any real or personal property purchased or otherwise acquired by the company or any services rendered to the company or as security for any obligation or amount (even if less than the nominal amount of such securities) or for any other purpose;

(f) to grant pensions, annuities, or other allowances, including allowances on death, to any directors, officers or employees or former directors, officers or employees of the company or any company which at any time is or was a subsidiary or a holding company or another subsidiary of a holding company of the company or otherwise associated with the company or of any predecessor in business of any of them, and to the relations, connections or dependants of any such persons, and to other persons whose service or services have directly or indirectly been of

benefit to the company or whom the company considers have any moral claim on the company or to their relations connections or dependants, and to establish or support any associations, institutions, clubs, schools, building and housing schemes, funds and trusts, and to make payment towards insurance or other arrangements likely to benefit any such persons or otherwise advance the interests of the company or of its members or for any national, charitable, benevolent, educational, social, public, general or useful object;

(g) subject to the provisions of Section 42 of the Companies Act 1981, to issue preference shares which at the option of the holders thereof are to be liable to be redeemed;

(h) to purchase its own shares in accordance with the provisions of Section 42A of the Companies Act 1981.

THE COMPANIES ACT 1981

FIRST SCHEDULE (section 11(1))

A company limited by shares, or other company having a share capital, may exercise all or any of the following powers subject to any provision of law or its memorandum -

(1) [*repealed by 1992:51*]

(2) to acquire or undertake the whole or any part of the business, property and liabilities of any person carrying on any business that the company is authorised to carry on;

(3) to apply for, register, purchase, lease, acquire, hold, use, control, licence, sell, assign or dispose of patents, patent rights, copyrights, trade marks, formulae, licences, inventions, processes, distinctive marks and similar rights;

(4) to enter into partnership or into any arrangement for sharing of profits, union of interests, co-operation, joint venture, reciprocal concession or otherwise with any person carrying on or engaged in or about to carry on or engage in any business or transaction that the company is authorised to carry on or engage in or any business or transaction capable of being conducted so as to benefit the company;

(5) to take or otherwise acquire and hold securities in any other body corporate having objects altogether or in part similar to those of the company or carrying on any business capable of being conducted so as to benefit the company;

(6) subject to section 96 to lend money to any employee or to any person having dealings with the company or with whom the company proposes to have dealings or to any other body corporate any of whose shares are held by the company;

(7) to apply for, secure or acquire by grant, legislative enactment, assignment, transfer, purchase or otherwise and to exercise, carry out and enjoy any charter, licence, power, authority, franchise, concession, right or privilege, that any government or authority or any body corporate or other public body may be empowered to grant, and to pay for, aid in and contribute toward carrying it into effect and to assume any liabilities or obligations incidental thereto;

(8) to establish and support or aid in the establishment and support of associations, institutions, funds or trusts for the benefit of employees or former employees of the company or its predecessors, or the dependants or

connections of such employees or former employees, and grant pensions and allowances, and make payments towards insurance or for any object similar to those set forth in this paragraph, and to subscribe or guarantee money for charitable, benevolent, educational or religious objects or for any exhibition or for any public, general or useful objects;

(9) to promote any company for the purpose of acquiring or taking over any of the property and liabilities of the company or for any other purpose that may benefit the company;

(10) to purchase, lease, take in exchange, hire or otherwise acquire any personal property and any rights or privileges that the company considers necessary or convenient for the purposes of its business;

(11) to construct, maintain, alter, renovate and demolish any buildings or works necessary or convenient for its objects;

(12) to take land in Bermuda by way of lease or letting agreement for a term not exceeding fifty years, being land *bona fide* required for the purposes of the business of the company and with the consent of the Minister granted in his discretion to take land in Bermuda by way of lease or letting agreement for a term not exceeding twenty-one years in order to provide accommodation or recreational facilities for its officers and employees and when no longer necessary for any of the above purposes to terminate or transfer the lease or letting agreement;

(13) except to the extent, if any, as may be otherwise expressly provided in its incorporating Act or memorandum and subject to this Act every company shall have power to invest the moneys of the Company by way of mortgage of real or personal property of every description in Bermuda or elsewhere and to sell, exchange, vary, or dispose of such mortgage as the company shall from time to time determine;

(14) to construct, improve, maintain, work, manage, carry out or control any roads, ways, tramways, branches or sidings, bridges, reservoirs, watercourses, wharves, factories, warehouses, electric works, shops, stores and other works and conveniences that may advance the interests of the company and contribute to, subsidise or otherwise assist or take part in the construction, improvement, maintenance, working, management, carrying out or control thereof;

(15) to raise and assist in raising money for, and aid by way of bonus, loan, promise, endorsement, guarantee or otherwise, any person and guarantee the performance or fulfilment of any contracts or obligations of any person, and in particular guarantee the payment of the principal of and interest on the debt obligations of any such person;

(16) to borrow or raise or secure the payment of money in such manner as the company may think fit;

(17) to draw, make, accept, endorse, discount, execute and issue bills of exchange, promissory notes, bills of lading, warrants and other negotiable or transferable instruments;

(18) when properly authorised to do so, to sell, lease, exchange or otherwise dispose of the undertaking of the company or any part thereof as an entirety or substantially as an entirety for such consideration as the company thinks fit;

(19) to sell, improve, manage, develop, exchange, lease, dispose of, turn to account or otherwise deal with the property of the company in the ordinary course of its business;

(20) to adopt such means of making known the products of the company as may seem expedient, and in particular by advertising, by purchase and exhibition of works of art or interest, by publication of books and periodicals and by granting prizes and rewards and making donations;

(21) to cause the company to be registered and recognised in any foreign jurisdiction, and designate persons therein according to the laws of that foreign jurisdiction or to represent the company and to accept service for and on behalf of the company of any process or suit;

(22) to allot and issue fully-paid shares of the company in payment or part payment of any property purchased or otherwise acquired by the company or for any past services performed for the company;

(23) to distribute among the members of the company in cash, kind, specie or otherwise as may be resolved, by way of dividend, bonus or in any other manner considered advisable, any property of the company, but not so as to decrease the capital of the company unless the distribution is made for the purpose of enabling the company to be dissolved or the distribution, apart from this paragraph, would be otherwise lawful;

(24) to establish agencies and branches;

(25) to take or hold mortgages, hypothecs, liens and charges to secure payment of the purchase price, or of any unpaid balance of the purchase price, of any part of the property of the company of whatsoever kind sold by the company, or for any money due to the company from purchasers and others and to sell or otherwise dispose of any such mortgage, hypothec, lien or charge;

(26) to pay all costs and expenses of or incidental to the incorporation and organization of the company;

(27) to invest and deal with the moneys of the company not immediately required for the objects of the company in such manner as may be determined;

(28) to do any of the things authorised by this Schedule and all things authorised by its memorandum as principals, agents, contractors, trustees or otherwise, and either alone or in conjunction with others;

(29) to do all such other things as are incidental or conducive to the attainment of the objects and the exercise of the powers of the company.

Every company may exercise its powers beyond the boundaries of Bermuda to the extent to which the laws in force where the powers are sought to be exercised permit.

EXHIBIT B

Bye-laws

BYE-LAWS

of

Transurban (895) Holdings Ltd.

I HEREBY CERTIFY that the within written Bye-Laws are a true copy of the Bye-Laws of **Transurban (895) Holdings Ltd.** as subscribed by the subscribers to the Memorandum of Association and approved at the Statutory Meeting of the above Company on **19 June 2006.**

Marcia Gilbert

Secretary

APPLEBY

APPLEBY | SPURLING | HUNTER

INDEX

BYE-LAW	SUBJECT	PAGE
1	Interpretation	1
2	Registered Office	2
3	Share Rights	2
4	Modification of Rights	3
5	Shares	3
6	Certificates	4
7	Lien	4
8	Calls on Shares	5
9	Forfeiture of Shares	6
10	Register of Shareholders	7
11	Register of Directors and Officers	7
12	Transfer of Shares	7
13	Transmission of Shares	8
14	Increase of Capital	9
15	Alteration of Capital	10
16	Reduction of Capital	10
17	General Meetings and Written Resolutions	11
18	Notice of General Meetings	11
19	Proceedings at General Meetings	12
20	Voting	13
21	Proxies and Corporate Representatives	15
22	Appointment and Removal of Directors	17
23	Resignation and Disqualification of Directors	17
24	Alternate Directors	18
25	Directors' Fees and Additional Remuneration and Expenses	18
26	Directors' Interests	19
27	Powers and Duties of the Board	19
28	Delegation of the Board's Powers	21
29	Proceedings of the Board	21
30	Officers	23
31	Minutes	23
32	Secretary and Resident Representative	24
33	The Seal	24
34	Dividends and Other Payments	25
35	Reserves	26
36	Capitalisation of Profits	26
37	Record Dates	27
38	Accounting Records	27
39	Audit	28
40	Service of Notices and Other Documents	28
41	Winding Up	29
42	Indemnity	29
43	Amalgamation	30

44 Continuation 31
45 Alteration of Bye-Laws 31

BYE-LAWS

of

Transurban (895) Holdings Ltd.

INTERPRETATION

1 Interpretation

1.1 In these Bye-Laws, unless the context otherwise requires:

"Bermuda" means the Islands of Bermuda;

"Board" means the Board of Directors of the Company or the Directors present at a meeting of Directors at which there is a quorum;

"the Companies Acts" means every Bermuda statute from time to time in force concerning companies insofar as the same applies to the Company;

"Company" means the company incorporated in Bermuda under the name of **Transurban (895) Holdings Ltd.** on **13 June 2006**;

"Director" means such person or persons as shall be appointed to the Board from time to time pursuant to these Bye-Laws;

"Indemnified Person" means any Director, Officer, Resident Representative, member of a committee duly constituted under these Bye-Laws and any liquidator, manager or trustee for the time being acting in relation to the affairs of the Company, and his heirs, executors and administrators;

"Officer" means a person appointed by the Board pursuant to these Bye-Laws and shall not include an auditor of the Company;

"paid up" means paid up or credited as paid up;

"Register" means the Register of Shareholders of the Company;

"Registered Office" means the registered office for the time being of the Company;

"Resident Representative" means (if any) the individual (or, if permitted in accordance with the Companies Acts, the company) appointed to perform the duties of resident representative set out in the Companies Acts and includes any assistant or deputy Resident Representative appointed by the Board to perform any of the duties of the Resident Representative;

"Resolution" means a resolution of the Shareholders or, where required, of a separate class or separate classes of Shareholders, adopted either in general meeting or by written resolution, in accordance with the provisions of these Bye-Laws;

"Seal" means the common seal of the Company and includes any authorised duplicate thereof;

"Secretary" includes a temporary or assistant or deputy Secretary and any person appointed by the Board to perform any of the duties of the Secretary;

"share" means share in the capital of the Company and includes a fraction of a share;

"Shareholder" means a shareholder or member of the Company provided that for the purposes of Bye-Law 42 it shall also include any holder of notes, debentures or bonds issued by the Company;

"these Bye-Laws" means these Bye-Laws in their present form or as from time to time amended;

1.2 For the purposes of these Bye-Laws, a corporation shall be deemed to be present in person if its representative duly authorised pursuant to the Companies Acts is present.

1.3 Words importing only the singular number include the plural number and vice versa.

1.4 Words importing only the masculine gender include the feminine and neuter genders respectively;

1.5 Words importing persons include companies or associations or bodies of persons, whether corporate or un-incorporate.

1.6 A reference to writing shall include typewriting, printing, lithography, photography and other modes of representing or reproducing words in a legible and non-transitory form.

1.7 Any words or expressions defined in the Companies Acts in force at the date when these Bye-Laws or any part thereof are adopted shall bear the same meaning in these Bye-Laws or such part (as the case may be).

REGISTERED OFFICE

2 Registered Office

The Registered Office shall be at such place in Bermuda as the Board shall from time to time appoint.

SHARES AND SHARE RIGHTS

3 Share Rights

3.1 Subject to any special rights conferred on the holders of any share or class of shares, any share in the Company may be issued with or have attached thereto such preferred, deferred, qualified or other special rights or such restrictions, whether in regard to dividend, voting, return of capital or otherwise, as the Company may by

Resolution determine or, if there has not been any such determination or so far as the same shall not make specific provision, as the Board may determine.

3.2 Subject to the Companies Acts, any preference shares may, with the sanction of a resolution of the Board, be issued on terms:

3.2.1 that they are to be redeemed on the happening of a specified event or on a given date; and/or,

3.2.2 that they are liable to be redeemed at the option of the Company; and/or,

3.2.3 if authorised by the memorandum of association of the Company, that they are liable to be redeemed at the option of the holder.

The terms and manner of redemption shall be provided for in such resolution of the Board and shall be attached to but shall not form part of these Bye-Laws.

3.3 The Board may, at its discretion and without the sanction of a Resolution, authorise the purchase by the Company of its own shares upon such terms as the Board may in its discretion determine, provided always that such purchase is effected in accordance with the provisions of the Companies Acts.

4 Modification of Rights

4.1 Subject to the Companies Acts, all or any of the special rights for the time being attached to any class of shares for the time being issued may from time to time (whether or not the Company is being wound up) be altered or abrogated with the consent in writing of the holders of not less than seventy five percent (75%) of the issued shares of that class or with the sanction of a Resolution passed at a separate general meeting of the holders of such shares voting in person or by proxy. To any such separate general meeting, all the provisions of these Bye-Laws as to general meetings of the Company shall *mutatis mutandis* apply, but so that the necessary quorum shall be one or more persons holding or representing by proxy any of the shares of the relevant class, that every holder of shares of the relevant class shall be entitled on a poll to one vote for every such share held by him and that any holder of shares of the relevant class present in person or by proxy may demand a poll.

4.2 The special rights conferred upon the holders of any shares or class of shares shall not, unless otherwise expressly provided in the rights attaching to or the terms of issue of such shares, be deemed to be altered by the creation or issue of further shares ranking pari passu therewith.

5 Shares

5.1 Subject to the provisions of these Bye-Laws, the unissued shares of the Company (whether forming part of the original capital or any increased capital) shall be at the disposal of the Board, which may offer, allot, grant options over or otherwise dispose

of them to such persons, at such times and for such consideration and upon such terms and conditions as the Board may determine.

5.2 The Board may in connection with the issue of any shares exercise all powers of paying commission and brokerage conferred or permitted by law.

5.3 Except as ordered by a court of competent jurisdiction or as required by law, no person shall be recognised by the Company as holding any share upon trust and the Company shall not be bound by or required in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share or in any fractional part of a share or (except only as otherwise provided in these Bye-Laws or by law) any other right in respect of any share except an absolute right to the entirety thereof in the registered holder.

6 Certificates

6.1 The preparation, issue and delivery of certificates shall be governed by the Companies Acts. In the case of a share held jointly by several persons, delivery of a certificate to one of several joint holders shall be sufficient delivery to all.

6.2 If a share certificate is defaced, lost or destroyed, it may be replaced without fee but on such terms (if any) as to evidence and indemnity and to payment of the costs and out of pocket expenses of the Company in investigating such evidence and preparing such indemnity as the Board may think fit and, in case of defacement, on delivery of the old certificate to the Company.

6.3 All certificates for share or loan capital or other securities of the Company (other than letters of allotment, scrip certificates and other like documents) shall, except to the extent that the terms and conditions for the time being relating thereto otherwise provide, be issued under the Seal. The Board may by resolution determine, either generally or in any particular case, that any signatures on any such certificates need not be autographic but may be affixed to such certificates by some mechanical means or may be printed thereon or that such certificates need not be signed by any persons.

7 Lien

7.1 The Company shall have a first and paramount lien on every share (not being a fully paid share) for all monies, whether presently payable or not, called or payable, at a date fixed by or in accordance with the terms of issue of such share in respect of such share, and the Company shall also have a first and paramount lien on every share (other than a fully paid share) standing registered in the name of a Shareholder, whether singly or jointly with any other person, for all the debts and liabilities of such Shareholder or his estate to the Company, whether the same shall have been incurred before or after notice to the Company of any interest of any person other than such Shareholder, and whether the time for the payment or discharge of the same shall have actually arrived or not, and notwithstanding that the same are joint debts or liabilities of such Shareholder or his estate and any other person, whether a Shareholder or not. The Company's lien on a share shall extend to all dividends

payable thereon. The Board may at any time, either generally or in any particular case, waive any lien that has arisen or declare any share to be wholly or in part exempt from the provisions of this Bye-Law.

7.2 The Company may sell, in such manner as the Board may think fit, any share on which the Company has a lien but no sale shall be made unless some sum in respect of which the lien exists is presently payable nor until the expiration of fourteen (14) days after a notice in writing, stating and demanding payment of the sum presently payable and giving notice of the intention to sell in default of such payment, has been served on the holder for the time being of the share.

7.3 The net proceeds of sale by the Company of any shares on which it has a lien shall be applied in or towards payment or discharge of the debt or liability in respect of which the lien exists so far as the same is presently payable, and any residue shall (subject to a like lien for debts or liabilities not presently payable as existed upon the share prior to the sale) be paid to the person who was the holder of the share immediately before such sale. For giving effect to any such sale, the Board may authorise some person to transfer the share sold to the purchaser thereof. The purchaser shall be registered as the holder of the share and he shall not be bound to see to the application of the purchase money, nor shall his title to the share be affected by any irregularity or invalidity in the proceedings relating to the sale.

8 Calls on Shares

8.1 The Board may from time to time make calls upon the Shareholders in respect of any monies unpaid on their shares (whether on account of the par value of the shares or by way of premium) and not by the terms of issue thereof made payable at a date fixed by or in accordance with such terms of issue, and each Shareholder shall (subject to the Company serving upon him at least fourteen (14) days notice specifying the time or times and place of payment) pay to the Company at the time or times and place so specified the amount called on his shares. A call may be revoked or postponed as the Board may determine.

8.2 A call may be made payable by instalments and shall be deemed to have been made at the time when the resolution of the Board authorising the call was passed.

8.3 The joint holders of a share shall be jointly and severally liable to pay all calls in respect thereof.

8.4 If a sum called in respect of the share shall not be paid before or on the day appointed for payment thereof the person from whom the sum is due shall pay interest on the sum from the day appointed for the payment thereof to the time of actual payment at such rate as the Board may determine, but the Board shall be at liberty to waive payment of such interest wholly or in part.

8.5 Any sum which, by the terms of issue of a share, becomes payable on allotment or at any date fixed by or in accordance with such terms of issue, whether on account of the nominal amount of the share or by way of premium, shall for all the purposes of

these Bye-Laws be deemed to be a call duly made, notified and payable on the date on which, by the terms of issue, the same becomes payable and, in case of non-payment, all the relevant provisions of these Bye-Laws as to payment of interest, forfeiture or otherwise shall apply as if such sum had become payable by virtue of a call duly made and notified.

8.6 The Board may on the issue of shares differentiate between the allottees or holders as to the amount of calls to be paid and the times of payment.

9 Forfeiture of Shares

9.1 If a Shareholder fails to pay any call or instalment of a call on the day appointed for payment thereof, the Board may at any time thereafter during such time as any part of such call or instalment remains unpaid serve a notice on him requiring payment of so much of the call or instalment as is unpaid, together with any interest which may have accrued.

9.2 The notice shall name a further day (not being less than fourteen (14) days from the date of the notice) on or before which, and the place where, the payment required by the notice is to be made and shall state that, in the event of non-payment on or before the day and at the place appointed, the shares in respect of which such call is made or instalment is payable will be liable to be forfeited. The Board may accept the surrender of any share liable to be forfeited hereunder and, in such case, references in these Bye-Laws to forfeiture shall include surrender.

9.3 If the requirements of any such notice as aforesaid are not complied with, any share in respect of which such notice has been given may at any time thereafter, before payment of all calls or instalments and interest due in respect thereof has been made, be forfeited by a resolution of the Board to that effect. Such forfeiture shall include all dividends declared in respect of the forfeited shares and not actually paid before the forfeiture.

9.4 When any share has been forfeited, notice of the forfeiture shall be served upon the person who was before forfeiture the holder of the share but no forfeiture shall be in any manner invalidated by any omission or neglect to give such notice as aforesaid.

9.5 A forfeited share shall be deemed to be the property of the Company and may be sold, re-offered or otherwise disposed of either to the person who was, before forfeiture, the holder thereof or entitled thereto or to any other person upon such terms and in such manner as the Board shall think fit, and at any time before a sale, re-allotment or disposition the forfeiture may be cancelled on such terms as the Board may think fit.

9.6 A person whose shares have been forfeited shall thereupon cease to be a Shareholder in respect of the forfeited shares but shall, notwithstanding the forfeiture, remain liable to pay to the Company all monies which at the date of forfeiture were presently payable by him to the Company in respect of the shares with interest thereon at such rate as the Board may determine from the date of forfeiture until payment, and the

Company may enforce payment without being under any obligation to make any allowance for the value of the shares forfeited.

9.7 An affidavit in writing that the deponent is a Director of the Company or the Secretary and that a share has been duly forfeited on the date stated in the affidavit shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share. The Company may receive the consideration (if any) given for the share on the sale, re-allotment or disposition thereof and the Board may authorise some person to transfer the share to the person to whom the same is sold, re-allotted or disposed of, and he shall thereupon be registered as the holder of the share and shall not be bound to see to the application of the purchase money (if any) nor shall his title to the share be affected by any irregularity or invalidity in the proceedings relating to the forfeiture, sale, re-allotment or disposal of the share.

REGISTER OF SHAREHOLDERS

10 Register of Shareholders

The Secretary shall establish and maintain the Register at the Registered Office in the manner prescribed by the Companies Acts. Unless the Board otherwise determines, the Register shall be open to inspection in the manner prescribed by the Companies Acts between 10:00 a.m. and 12:00 noon on every working day. Unless the Board so determines, no Shareholder or intending Shareholder shall be entitled to have entered in the Register any indication of any trust or any equitable, contingent, future or partial interest in any share or any fractional part of a share and if any such entry exists or is permitted by the Board it shall not be deemed to abrogate any of the provisions of Bye-Law 5.3.

REGISTER OF DIRECTORS AND OFFICERS

11 Register of Directors and Officers

The Secretary shall establish and maintain a register of the Directors and Officers of the Company as required by the Companies Acts. The register of Directors and Officers shall be open to inspection in the manner prescribed by the Companies Acts between 10:00 a.m. and 12:00 noon on every working day.

TRANSFER OF SHARES

12 Transfer of Shares

12.1 Subject to the Companies Acts and to such of the restrictions contained in these Bye-Laws as may be applicable, any Shareholder may transfer all or any of his shares by an instrument of transfer in the usual common form or in any other form which the Board may approve. No such instrument shall be required on the redemption of a share or on the purchase by the Company of a share.

12.2 The instrument of transfer of a share shall be signed by or on behalf of the transferor and where any share is not fully-paid, the transferee. The transferor shall be deemed to remain the holder of the share until the name of the transferee is entered in the Register in respect thereof. All instruments of transfer when registered may be retained by the Company. The Board may, in its absolute discretion and without assigning any reason therefor, decline to register any transfer of any share which is not a fully-paid share. The Board may also decline to register any transfer unless:

12.2.1 the instrument of transfer is duly stamped (if required by law) and lodged with the Company, accompanied by the certificate for the shares to which it relates, and such other evidence as the Board may reasonably require to show the right of the transferor to make the transfer,

12.2.2 the instrument of transfer is in respect of only one class of share, and

12.2.3 where applicable, the permission of the Bermuda Monetary Authority with respect thereto has been obtained.

12.3 Subject to any directions of the Board from time to time in force, the Secretary may exercise the powers and discretions of the Board under this Bye-Law.

12.4 If the Board declines to register a transfer it shall, within three (3) months after the date on which the instrument of transfer was lodged, send to the transferee notice of such refusal.

12.5 No fee shall be charged by the Company for registering any transfer, probate, letters of administration, certificate of death or marriage, power of attorney, stop notice, order of court or other instrument relating to or affecting the title to any share, or otherwise making an entry in the Register relating to any share.

TRANSMISSION OF SHARES

13 Transmission of Shares

13.1 In the case of the death of a Shareholder, the survivor or survivors, where the deceased was a joint holder, and the estate representative, where he was sole holder, shall be the only person recognised by the Company as having any title to his shares; but nothing herein contained shall release the estate of a deceased holder (whether the sole or joint) from any liability in respect of any share held by him solely or jointly with other persons. For the purpose of this Bye-Law, estate representative means the person to whom probate or letters of administration has or have been granted in Bermuda or, failing any such person, such other person as the Board may in its absolute discretion determine to be the person recognised by the Company for the purpose of this Bye-Law.

13.2 Any person becoming entitled to a share in consequence of the death of a Shareholder or otherwise by operation of applicable law may, subject as hereafter

provided and upon such evidence being produced as may from time to time be required by the Board as to his entitlement, either be registered himself as the holder of the share or elect to have some person nominated by him registered as the transferee thereof. If the person so becoming entitled elects to be registered himself, he shall deliver or send to the Company a notice in writing signed by him stating that he so elects. If he shall elect to have his nominee registered, he shall signify his election by signing an instrument of transfer of such share in favour of his nominee. All the limitations, restrictions and provisions of these Bye-Laws relating to the right to transfer and the registration of transfer of shares shall be applicable to any such notice or instrument of transfer as aforesaid as if the death of the Shareholder or other event giving rise to the transmission had not occurred and the notice or instrument of transfer was an instrument of transfer signed by such Shareholder.

13.3 A person becoming entitled to a share in consequence of the death of a Shareholder or otherwise by operation of applicable law shall (upon such evidence being produced as may from time to time be required by the Board as to his entitlement) be entitled to receive and may give a discharge for any dividends or other monies payable in respect of the share, but he shall not be entitled in respect of the share to receive notices of or to attend or vote at general meetings of the Company or, save as aforesaid, to exercise in respect of the share any of the rights or privileges of a Shareholder until he shall have become registered as the holder thereof. The Board may at any time give notice requiring such person to elect either to be registered himself or to transfer the share and, if the notice is not complied with within sixty (60) days, the Board may thereafter withhold payment of all dividends and other monies payable in respect of the shares until the requirements of the notice have been complied with.

13.4 Subject to any directions of the Board from time to time in force, the Secretary may exercise the powers and discretions of the Board under this Bye-Law.

SHARE CAPITAL

14 Increase of Capital

14.1 The Company may from time to time increase its capital by such sum to be divided into shares of such par value as the Company by Resolution shall prescribe.

14.2 The Company may, by the Resolution increasing the capital, direct that the new shares or any of them shall be offered in the first instance either at par or at a premium or (subject to the provisions of the Companies Acts) at a discount to all the holders for the time being of shares of any class or classes in proportion to the number of such shares held by them respectively or make any other provision as to the issue of the new shares.

14.3 The new shares shall be subject to all the provisions of these Bye-Laws with reference to lien, the payment of calls, forfeiture, transfer, transmission and otherwise.

15 Alteration of Capital

15.1 The Company may from time to time by Resolution:

15.1.1 divide its shares into several classes and attach thereto respectively any preferential, deferred, qualified or special rights, privileges or conditions;

15.1.2 consolidate and divide all or any of its share capital into shares of larger par value than its existing shares;

15.1.3 sub-divide its shares or any of them into shares of smaller par value than is fixed by its memorandum, so, however, that in the sub-division the proportion between the amount paid and the amount, if any, unpaid on each reduced share shall be the same as it was in the case of the share from which the reduced share is derived;

15.1.4 make provision for the issue and allotment of shares which do not carry any voting rights;

15.1.5 cancel shares which, at the date of the passing of the Resolution in that behalf, have not been taken or agreed to be taken by any person, and diminish the amount of its share capital by the amount of the shares so cancelled; and

15.1.6 change the currency denomination of its share capital.

15.2 Where any difficulty arises in regard to any division, consolidation, or sub-division under this Bye-Law, the Board may settle the same as it thinks expedient and, in particular, may arrange for the sale of the shares representing fractions and the distribution of the net proceeds of sale in due proportion amongst the Shareholders who would have been entitled to the fractions, and for this purpose the Board may authorise some person to transfer the shares representing fractions to the purchaser thereof, who shall not be bound to see to the application of the purchase money nor shall his title to the shares be affected by any irregularity or invalidity in the proceedings relating to the sale.

15.3 Subject to the Companies Acts and to any confirmation or consent required by law or these Bye-Laws, the Company may by Resolution from time to time convert any preference shares into redeemable preference shares.

16 Reduction of Capital

16.1 Subject to the Companies Acts, its memorandum and any confirmation or consent required by law or these Bye-Laws, the Company may from time to time by Resolution authorise the reduction of its issued share capital or any share premium account in any manner.

16.2 In relation to any such reduction, the Company may by Resolution determine the terms upon which such reduction is to be effected including, in the case of a reduction of part only of a class of shares, those shares to be affected.

GENERAL MEETINGS AND WRITTEN RESOLUTIONS

17 General Meetings and Written Resolutions

17.1 The Board shall convene and the Company shall hold general meetings as Annual General Meetings in accordance with the requirements of the Companies Acts at such times and places as the Board shall appoint. The Board may, whenever it thinks fit, and shall, when required by the Companies Acts, convene general meetings other than Annual General Meetings which shall be called Special General Meetings.

17.2 Except in the case of the removal of auditors or Directors, anything which may be done by Resolution in general meeting may, without a meeting and without any previous notice being required, be done by Resolution in writing, signed by all of the Shareholders or any class thereof or their proxies, or in the case of a Shareholder that is a corporation (whether or not a company within the meaning of the Companies Acts) by its representative on behalf of such Shareholder, being all of the Shareholders of the Company or any class thereof who at the date of the Resolution in writing would be entitled to attend a meeting and vote on the Resolution. Such Resolution in writing may be signed in as many counterparts as may be necessary.

17.3 For the purposes of this Bye-Law, the date of the Resolution in writing is the date when the Resolution is signed by, or on behalf of, the last Shareholder to sign and any reference in any enactment to the date of passing of a Resolution is, in relation to a Resolution in writing made in accordance with this Bye-Law, a reference to such date.

17.4 A Resolution in writing made in accordance with this Bye-Law is as valid as if it had been passed by the Company in general meeting or, if applicable, by a meeting of the relevant class of Shareholders of the Company, as the case may be. A Resolution in writing made in accordance with this Bye-Law shall constitute minutes for the purposes of the Companies Acts and these Bye-Laws.

18 Notice of General Meetings

18.1 An Annual General Meeting shall be called by not less than five (5) days notice in writing and a Special General Meeting shall be called by not less than five (5) days notice in writing. The notice shall be exclusive of the day on which it is served or deemed to be served and of the day for which it is given, and shall specify the place, day and time of the meeting, and, the nature of the business to be considered. Notice of every general meeting shall be given in any manner permitted by these Bye-Laws to all Shareholders other than such as, under the provisions of these Bye-Laws or the terms of issue of the shares they hold, are not entitled to receive such notice from the Company and every Director and to any Resident Representative who or which has delivered a written notice upon the Registered Office requiring that such notice be sent to him or it.

Notwithstanding that a meeting of the Company is called by shorter notice than that specified in this Bye-Law, it shall be deemed to have been duly called if it is so agreed:

18.1.1 in the case of a meeting called as an Annual General Meeting, by all the Shareholders entitled to attend and vote thereat;

18.1.2 in the case of any other meeting, by a majority in number of the Shareholders having the right to attend and vote at the meeting, being a majority together holding not less than ninety-five percent (95%) in nominal value of the shares giving that right.

18.2 The accidental omission to give notice of a meeting or (in cases where instruments of proxy are sent out with the notice) the accidental omission to send such instrument of proxy to, or the non-receipt of notice of a meeting or such instrument of proxy by, any person entitled to receive such notice shall not invalidate the proceedings at that meeting.

18.3 The Board may cancel or postpone a meeting of the Shareholders after it has been convened and notice of such cancellation or postponement shall be served in accordance with these Bye-Laws upon all Shareholders entitled to notice of the meeting so cancelled or postponed setting out, where the meeting is postponed to a specific date, notice of the new meeting in accordance with this Bye-Law.

19 Proceedings at General Meetings

19.1 In accordance with the Companies Acts, a general meeting may be held with only one individual present provided that the requirement for a quorum is satisfied. No business shall be transacted at any general meeting unless a quorum is present when the meeting proceeds to business, but the absence of a quorum shall not preclude the appointment, choice or election of a chairman, which shall not be treated as part of the business of the meeting. Save as otherwise provided by these Bye-Laws, at least one Shareholder present in person or by proxy and entitled to vote shall be a quorum for all purposes.

19.2 If within five (5) minutes (or such longer time as the chairman of the meeting may determine to wait) after the time appointed for the meeting, a quorum is not present, the meeting, if convened on the requisition of Shareholders, shall be dissolved. In any other case, it shall stand adjourned to such other day and such other time and place as the chairman of the meeting may determine and at such adjourned meeting one Shareholder present in person or by proxy and entitled to vote shall be a quorum. The Company shall give not less than five (5) days notice of any meeting adjourned through want of a quorum and such notice shall state that the one Shareholder present in person or by proxy (whatever the number of shares held by them) and entitled to vote shall be a quorum.

19.3 A meeting of the Shareholders or any class thereof may be held by means of such telephone, electronic or other communication facilities (including, without limiting

the generality of the foregoing, by telephone, or by video conferencing) as permit all persons participating in the meeting to communicate with each other simultaneously and instantaneously, and participation in such a meeting shall constitute presence in person at such meeting.

19.4 Each Director, and upon giving the notice referred to in Bye-Law 18.1 above, the Resident Representative, if any, shall be entitled to attend and speak at any general meeting of the Company.

19.5 The Chairman (or President) or, in his absence, the Deputy Chairman (or Vice-President), shall preside as chairman at every general meeting. If there is no such Chairman or Deputy Chairman (or President or Vice-President), or if at any meeting the Chairman or Deputy Chairman (or the President or Vice-President) is not present within five (5) minutes after the time appointed for holding the meeting, or is not willing to act as chairman, the Directors present shall choose one of their number to act or if only one Director is present he shall preside as chairman if willing to act. If no Director is present, or if each of the Directors present declines to take the chair, the persons present and entitled to vote on a poll shall elect one of their number to be chairman.

19.6 The chairman of the meeting may, with the consent by Resolution of any meeting at which a quorum is present (and shall if so directed by the meeting), adjourn the meeting from time to time and from place to place but no business shall be transacted at any adjourned meeting except business which might lawfully have been transacted at the meeting from which the adjournment took place. When a meeting is adjourned for three (3) months or more, notice of the adjourned meeting shall be given as in the case of an original meeting. Save as expressly provided by these Bye-Laws, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.

20 Voting

20.1 Save where a greater majority is required by the Companies Acts or these Bye-Laws, any question proposed for consideration at any general meeting shall be decided on by a simple majority of votes cast.

20.2 At any general meeting, a Resolution put to the vote of the meeting shall be decided on a show of hands unless (before or on the declaration of the result of the show of hands or on the withdrawal of any other demand for a poll) a poll is demanded by:

20.2.1 the chairman of the meeting; or

20.2.2 at least three (3) Shareholders present in person or represented by proxy; or

20.2.3 any Shareholder or Shareholders present in person or represented by proxy and holding between them not less than one tenth (1/10) of the

total voting rights of all the Shareholders having the right to vote at such meeting; or

20.2.4 a Shareholder or Shareholders present in person or represented by proxy holding shares conferring the right to vote at such meeting, being shares on which an aggregate sum has been paid up equal to not less than one tenth (1/10) of the total sum paid up on all such shares conferring such right.

The demand for a poll may be withdrawn by the person or any of the persons making it at any time prior to the declaration of the result. Unless a poll is so demanded and the demand is not withdrawn, a declaration by the chairman that a Resolution has, on a show of hands, been carried or carried unanimously or by a particular majority or not carried by a particular majority or lost shall be final and conclusive, and an entry to that effect in the minute book of the Company shall be conclusive evidence of the fact without proof of the number or proportion of votes recorded for or against such Resolution.

20.3 If a poll is duly demanded, the result of the poll shall be deemed to be the Resolution of the meeting at which the poll is demanded.

20.4 A poll demanded on the election of a chairman, or on a question of adjournment, shall be taken forthwith. A poll demanded on any other question shall be taken in such manner and either forthwith or at such time (being not later than three (3) months after the date of the demand) and place as the chairman shall direct. It shall not be necessary (unless the chairman otherwise directs) for notice to be given of a poll.

20.5 The demand for a poll shall not prevent the continuance of a meeting for the transaction of any business other than the question on which the poll has been demanded and it may be withdrawn at any time before the close of the meeting or the taking of the poll, whichever is the earlier.

20.6 On a poll, votes may be cast either personally or by proxy.

20.7 A person entitled to more than one vote on a poll need not use all his votes or cast all the votes he uses in the same way.

20.8 In the case of an equality of votes at a general meeting, whether on a show of hands or on a poll, the chairman of such meeting shall not be entitled to a second or casting vote and the Resolution shall fail.

20.9 In the case of joint holders of a share, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders, and for this purpose seniority shall be determined by the order in which the names stand in the Register in respect of the joint holding.

20.10 A Shareholder who is a patient for any purpose of any statute or applicable law relating to mental health or in respect of whom an order has been made by any Court having jurisdiction for the protection or management of the affairs of persons incapable of managing their own affairs may vote, whether on a show of hands or on a poll, by his receiver, committee, *curator bonis* or other person in the nature of a receiver, committee or *curator bonis* appointed by such Court and such receiver, committee, *curator bonis* or other person may vote on a poll by proxy, and may otherwise act and be treated as such Shareholder for the purpose of general meetings.

20.11 No Shareholder shall, unless the Board otherwise determines, be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the Company have been paid.

20.12 If:

20.12.1 any objection shall be raised to the qualification of any voter; or,

20.12.2 any votes have been counted which ought not to have been counted or which might have been rejected; or,

20.12.3 any votes are not counted which ought to have been counted,

the objection or error shall not vitiate the decision of the meeting or adjourned meeting on any Resolution unless the same is raised or pointed out at the meeting or, as the case may be, the adjourned meeting at which the vote objected to is given or tendered or at which the error occurs. Any objection or error shall be referred to the chairman of the meeting and shall only vitiate the decision of the meeting on any Resolution if the chairman decides that the same may have affected the decision of the meeting. The decision of the chairman on such matters shall be final and conclusive.

21 Proxies and Corporate Representatives

21.1 The instrument appointing a proxy or corporate representative shall be in writing executed by the appointor or his attorney authorised by him in writing or, if the appointor is a corporation, either under its seal or executed by an officer, attorney or other person authorised to sign the same.

21.2 Any Shareholder may appoint a proxy or (if a corporation) representative for a specific general meeting, and adjournments thereof, or may appoint a standing proxy or (if a corporation) representative, by serving on the Company at the Registered Office, or at such place or places as the Board may otherwise specify for the purpose, a proxy or (if a corporation) an authorisation. Any standing proxy or authorisation shall be valid for all general meetings and adjournments thereof or Resolutions in writing, as the case may be, until notice of revocation is received at the Registered Office or at such place or places as the Board may otherwise specify for the purpose. Where a standing proxy or authorisation exists, its operation shall be deemed to have been suspended at any general meeting or adjournment thereof at which the

Shareholder is present or in respect to which the Shareholder has specially appointed a proxy or representative. The Board may from time to time require such evidence as it shall deem necessary as to the due execution and continuing validity of any standing proxy or authorisation and the operation of any such standing proxy or authorisation shall be deemed to be suspended until such time as the Board determines that it has received the requested evidence or other evidence satisfactory to it.

21.3 Subject to Bye-Law 21.2, the instrument appointing a proxy or corporate representative together with such other evidence as to its due execution as the Board may from time to time require, shall be delivered at the Registered Office (or at such place as may be specified in the notice convening the meeting or in any notice of any adjournment or, in either case or the case of a written Resolution, in any document sent therewith) prior to the holding of the relevant meeting or adjourned meeting at which the person named in the instrument proposes to vote or, in the case of a poll taken subsequently to the date of a meeting or adjourned meeting, before the time appointed for the taking of the poll, or, in the case of a written Resolution, prior to the effective date of the written Resolution and in default the instrument of proxy or authorisation shall not be treated as valid.

21.4 Instruments of proxy or authorisation shall be in any common form or in such other form as the Board may approve and the Board may, if it thinks fit, send out with the notice of any meeting or any written Resolution forms of instruments of proxy or authorisation for use at that meeting or in connection with that written Resolution. The instrument of proxy shall be deemed to confer authority to demand or join in demanding a poll, to speak at the meeting and to vote on any amendment of a written Resolution or amendment of a Resolution put to the meeting for which it is given as the proxy thinks fit. The instrument of proxy or authorisation shall, unless the contrary is stated therein, be valid as well for any adjournment of the meeting as for the meeting to which it relates.

21.5 A vote given in accordance with the terms of an instrument of proxy or authorisation shall be valid notwithstanding the previous death or unsoundness of mind of the principal, or revocation of the instrument of proxy or of the corporate authority, provided that no intimation in writing of such death, unsoundness of mind or revocation shall have been received by the Company at the Registered Office (or such other place as may be specified for the delivery of instruments of proxy or authorisation in the notice convening the meeting or other documents sent therewith) at least one hour before the commencement of the meeting or adjourned meeting, or the taking of the poll, or the day before the effective date of any written Resolution at which the instrument of proxy or authorisation is used.

21.6 Subject to the Companies Acts, the Board may at its discretion waive any of the provisions of these Bye-Laws related to proxies or authorisations and, in particular, may accept such verbal or other assurances as it thinks fit as to the right of any person to attend, speak and vote on behalf of any Shareholder at general meetings or to sign written Resolutions.

BOARD OF DIRECTORS

22 Appointment and Removal of Directors

22.1 The number of Directors shall be not less than two (2) and not more than six (6) or such numbers in excess thereof as the Company by Resolution may from time to time determine and, subject to the Companies Acts and these Bye-Laws, the Directors shall be elected or appointed by the Company by Resolution and shall serve for such term as the Company by Resolution may determine, or in the absence of such determination, until the termination of the next Annual General Meeting following their appointment. All Directors, upon election or appointment (except upon re-election at an Annual General Meeting), must provide written acceptance of their appointment, in such form as the Board may think fit, by notice in writing to the Registered Office within thirty (30) days of their appointment.

22.2 The Company may by Resolution increase the maximum number of Directors. Any one or more vacancies in the Board not filled by the Shareholders at any general meeting of the Shareholders shall be deemed casual vacancies for the purposes of these Bye-Laws. Without prejudice to the power of the Company by Resolution in pursuance of any of the provisions of these Bye-Laws to appoint any person to be a Director, the Board, so long as a quorum of Directors remains in office, shall have power at any time and from time to time to appoint any individual to be a Director so as to fill a casual vacancy.

22.3 The Company may in a Special General Meeting called for that purpose remove a Director, provided notice of any such meeting shall be served upon the Director concerned not less than fourteen (14) days before the meeting and he shall be entitled to be heard at that meeting. Any vacancy created by the removal of a Director at a Special General Meeting may be filled at the meeting by the election of another Director in his place or, in the absence of any such election, by the Board.

23 Resignation and Disqualification of Directors

The office of a Director shall be vacated upon the happening of any of the following events:

23.1 if he resigns his office by notice in writing delivered to the Registered Office or tendered at a meeting of the Board;

23.2 if he becomes of unsound mind or a patient for any purpose of any statute or applicable law relating to mental health and the Board resolves that his office is vacated;

23.3 if he becomes bankrupt under the laws of any country or compounds with his creditors;

23.4 if he is prohibited by law from being a Director;

23.5 if he ceases to be a Director by virtue of the Companies Acts or is removed from office pursuant to these Bye-Laws.

24 Alternate Directors

24.1 A Director may appoint and remove his own Alternate Director. Any appointment or removal of an Alternate Director by a Director shall be effected by delivery of a written notice of appointment or removal to the Secretary at the Registered Office, signed by such Director, and such notice shall be effective immediately upon receipt or on any later date specified in that notice. Any Alternate Director may be removed by resolution of the Board. Subject as aforesaid, the office of Alternate Director shall continue until the next annual election of Directors or, if earlier, the date on which the relevant Director ceases to be a Director. An Alternate Director may also be a Director in his own right and may act as alternate to more than one Director.

24.2 An Alternate Director shall be entitled to receive notices of all meetings of Directors, to attend, be counted in the quorum and vote at any such meeting at which any Director to whom he is alternate is not personally present, and generally to perform all the functions of any Director to whom he is alternate in his absence.

24.3 Every person acting as an Alternate Director shall (except as regards powers to appoint an alternate and remuneration) be subject in all respects to the provisions of these Bye-Laws relating to Directors and shall alone be responsible to the Company for his acts and defaults and shall not be deemed to be the agent of or for any Director for whom he is alternate. An Alternate Director may be paid expenses and shall be entitled to be indemnified by the Company to the same extent *mutatis mutandis* as if he were a Director. Every person acting as an Alternate Director shall have one vote for each Director for whom he acts as alternate (in addition to his own vote if he is also a Director). The signature of an Alternate Director to any resolution in writing of the Board or a committee of the Board shall, unless the terms of his appointment provides to the contrary, be as effective as the signature of the Director or Directors to whom he is alternate.

25 Directors' Fees and Additional Remuneration and Expenses

The amount, if any, of Directors' fees shall from time to time be determined by the Company by Resolution or in the absence of such a determination, by the Board. Unless otherwise determined to the contrary, such fees shall be deemed to accrue from day to day. Each Director may be paid his reasonable travel, hotel and incidental expenses in attending and returning from meetings of the Board or committees constituted pursuant to these Bye-Laws or general meetings and shall be paid all expenses properly and reasonably incurred by him in the conduct of the Company's business or in the discharge of his duties as a Director. Any Director who, by request, goes or resides abroad for any purposes of the Company or who performs services which in the opinion of the Board go beyond the ordinary duties of a Director may be paid such extra remuneration (whether by way of salary, commission, participation in profits or otherwise) as the Board may determine, and such extra remuneration shall be in addition to any remuneration provided for by or pursuant to any other Bye-Law.

26 Directors' Interests

26.1 A Director may hold any other office or place of profit with the Company (except that of auditor) in conjunction with his office of Director for such period and upon such terms as the Board may determine, and may be paid such extra remuneration therefor (whether by way of salary, commission, participation in profits or otherwise) as the Board may determine, and such extra remuneration shall be in addition to any remuneration provided for by or pursuant to any other Bye-Law.

26.2 A Director may act by himself or his firm in a professional capacity for the Company (otherwise than as auditor) and he or his firm shall be entitled to remuneration for professional services as if he were not a Director.

26.3 Subject to the provisions of the Companies Acts, a Director may notwithstanding his office be a party to, or otherwise interested in, any transaction or arrangement with the Company or in which the Company is otherwise interested; and be a director or other officer of, or employed by, or a party to any transaction or arrangement with, or otherwise interested in, any body corporate promoted by the Company or in which the Company is interested. The Board may also cause the voting power conferred by the shares in any other company held or owned by the Company to be exercised in such manner in all respects as it thinks fit, including the exercise thereof in favour of any resolution appointing the Directors or any of them to be directors or officers of such other company, or voting or providing for the payment of remuneration to the directors or officers of such other company.

26.4 So long as, where it is necessary, he declares the nature of his interest at the first opportunity at a meeting of the Board or by writing to the Directors as required by the Companies Acts, a Director shall not by reason of his office be accountable to the Company for any benefit which he derives from any office or employment to which these Bye-Laws allow him to be appointed or from any transaction or arrangement in which these Bye-Laws allow him to be interested, and no such transaction or arrangement shall be liable to be avoided on the ground of any interest or benefit.

26.5 Subject to the Companies Acts and any further disclosure required thereby, a general notice to the Directors by a Director or Officer declaring that he is a director or officer or has an interest in a person and is to be regarded as interested in any transaction or arrangement made with that person, shall be a sufficient declaration of interest in relation to any transaction or arrangement so made.

POWERS AND DUTIES OF THE BOARD

27 Powers and Duties of the Board

27.1 Subject to the provisions of the Companies Acts, these Bye-Laws and to any directions given by the Company by Resolution, the Board shall manage the business of the Company and may pay all expenses incurred in promoting and incorporating the Company and may exercise all the powers of the Company. No alteration of these Bye-Laws and no such direction shall invalidate any prior act of the Board

which would have been valid if that alteration had not been made or that direction had not been given. The powers given by this Bye-Law shall not be limited by any special power given to the Board by these Bye-Laws and a meeting of the Board at which a quorum is present shall be competent to exercise all the powers, authorities and discretions for the time being vested in or exercisable by the Board.

27.2 The Board may exercise all the powers of the Company to:

27.2.1 sell, transfer, assign or dispose of all or any part of the undertaking, property and assets (present and future) of the Company;

27.2.2 borrow money and to mortgage or charge all or any part of the undertaking, property and assets (present and future) and uncalled capital of the Company; and

27.2.3 issue debentures and other securities, whether outright or as collateral security for any debt, liability or obligation of the Company or of any other persons.

27.3 All cheques, promissory notes, drafts, bills of exchange and other instruments, whether negotiable or transferable or not, and all receipts for money paid to the Company shall be signed, drawn, accepted, endorsed or otherwise executed, as the case may be, in such manner as the Board shall from time to time by resolution determine.

27.4 The Board on behalf of the Company may provide benefits, whether by the payment of gratuities or pensions or otherwise, for any person including any Director or former Director who has held any executive office or employment with the Company or with any body corporate which is or has been a subsidiary or affiliate of the Company or a predecessor in the business of the Company or of any such subsidiary or affiliate, and to any member of his family or any person who is or was dependent on him, and may contribute to any fund and pay premiums for the purchase or provision of any such gratuity, pension or other benefit, or for the insurance of any such person.

27.5 The Board may from time to time appoint one or more of its body to be a managing director, joint managing director or an assistant managing director or to hold any other employment or executive office with the Company for such period and upon such terms as the Board may determine and may revoke or terminate any such appointments. Any such revocation or termination as aforesaid shall be without prejudice to any claim for damages that such Director may have against the Company or the Company may have against such Director for any breach of any contract of service between him and the Company which may be involved in such revocation or termination. Any person so appointed shall receive such remuneration (if any) (whether by way of salary, commission, participation in profits or otherwise) as the Board may determine, and either in addition to or in lieu of his remuneration as a Director.

28 Delegation of the Board's Powers

28.1 The Board may by power of attorney appoint any company, firm or person or any fluctuating body of persons, whether nominated directly or indirectly by the Board, to be the attorney or attorneys of the Company for such purposes and with such powers, authorities and discretions (not exceeding those vested in or exercisable by the Board under these Bye-Laws) and for such period and subject to such conditions as it may think fit, and any such power of attorney may contain such provisions for the protection and convenience of persons dealing with any such attorney and of such attorney as the Board may think fit, and may also authorise any such attorney to sub-delegate all or any of the powers, authorities and discretions vested in him. Such attorney may, if so authorised under the Seal, execute any deed or instrument under the personal seal of such attorney, with the same effect as the affixation of the Seal.

28.2 The Board may entrust to and confer upon any Director, Officer or, without prejudice to the provisions of Bye-Law 28.3, other person any of the powers, authorities and discretions exercisable by it upon such terms and conditions with such restrictions as it thinks fit, and either collaterally with, or to the exclusion of, its own powers, authorities and discretions, and may from time to time revoke or vary all or any of such powers, authorities and discretions, but no person dealing in good faith and without notice of such revocation or variation shall be affected thereby.

28.3 The Board may delegate any of its powers, authorities and discretions to committees, consisting of such person or persons (whether a member or members of its body or not) as it thinks fit. Any committee so formed shall, in the exercise of the powers, authorities and discretions so delegated, and in conducting its proceedings conform to any regulations which may be imposed upon it by the Board. If no regulations are imposed by the Board the proceedings of a committee with two (2) or more members shall be, as far as is practicable, governed by the Bye-Laws regulating the proceedings of the Board.

29 Proceedings of the Board

29.1 The Board may meet for the despatch of business, adjourn and otherwise regulate its meetings as it thinks fit. Questions arising at any meeting shall be determined by a majority of votes. In the case of an equality of votes, the motion shall be deemed to have been lost. A Director may, and the Secretary on the requisition of a Director shall, at any time summon a meeting of the Board.

29.2 Notice of a meeting of the Board may be given to a Director by word of mouth or in any manner permitted by these Bye-Laws. A Director may retrospectively waive the requirement for notice of any meeting by consenting in writing to the business conducted at the meeting.

29.3 The quorum necessary for the transaction of the business of the Board may be fixed by the Board and, unless so fixed at any other number, shall be two (2) individuals. Any Director who ceases to be a Director at a meeting of the Board may continue to be present and to act as a Director and be counted in the quorum until the

termination of the meeting if no other Director objects and if otherwise a quorum of Directors would not be present.

29.4 A Director who to his knowledge is in any way, whether directly or indirectly, interested in a contract or proposed contract, transaction or arrangement with the Company and has complied with the provisions of the Companies Acts and these Bye-Laws with regard to disclosure of his interest shall be entitled to vote in respect of any contract, transaction or arrangement in which he is so interested and if he shall do so his vote shall be counted, and he shall be taken into account in ascertaining whether a quorum is present.

29.5 The Resident Representative shall, upon delivering written notice of an address for the purposes of receipt of notice to the Registered Office, be entitled to receive notice of, attend and be heard at, and to receive minutes of all meetings of the Board.

29.6 So long as a quorum of Directors remains in office, the continuing Directors may act notwithstanding any vacancy in the Board but, if no such quorum remains, the continuing Directors or a sole continuing Director may act only for the purpose of calling a general meeting.

29.7 The Chairman (or President) or, in his absence, the Deputy Chairman (or Vice-President), shall preside as chairman at every meeting of the Board. If at any meeting the Chairman or Deputy Chairman (or the President or Vice-President) is not present within five (5) minutes after the time appointed for holding the meeting, or is not willing to act as chairman, the Directors present may choose one of their number to be chairman of the meeting.

29.8 The meetings and proceedings of any committee consisting of two (2) or more members shall be governed by the provisions contained in these Bye-Laws for regulating the meetings and proceedings of the Board so far as the same are applicable and are not superseded by any regulations imposed by the Board.

29.9 A resolution in writing signed by all the Directors for the time being entitled to receive notice of a meeting of the Board (or by an Alternate Director, as provided for in these Bye-Laws) or by all the members of a committee for the time being shall be as valid and effectual as a resolution passed at a meeting of the Board or, as the case may be, of such committee duly called and constituted. Such resolution may be contained in one document or in several documents in the like form each signed by one or more of the Directors or members of the committee concerned.

29.10 A meeting of the Board or a committee appointed by the Board may be held by means of such telephone, electronic or other communication facilities (including, without limiting the generality of the foregoing, by telephone or by video conferencing) as permit all persons participating in the meeting to communicate with each other simultaneously and instantaneously and participation in such a meeting shall constitute presence in person at such meeting. Such a meeting shall be deemed to take place where the largest group of those Directors participating in the meeting is

physically assembled, or, if there is no such group, where the chairman of the meeting then is.

29.11 All acts done by the Board or by any committee or by any person acting as a Director or member of a committee or any person duly authorised by the Board or any committee shall, notwithstanding that it is afterwards discovered that there was some defect in the appointment of any member of the Board or such committee or person acting as aforesaid or that they or any of them were disqualified or had vacated their office, be as valid as if every such person had been duly appointed and was qualified and had continued to be a Director, member of such committee or person so authorised.

OFFICERS

30 Officers

30.1 The Officers of the Company must include either a President and a Vice-President, or a Chairman and a Deputy Chairman, who must be Directors and shall be elected by the Board as soon as possible after the statutory meeting and shall serve for such term as the Board may determine, or in the absence of such determination, until the termination of the next Annual General Meeting following their appointment. In addition, the Board may appoint any person whether or not he is a Director to hold such office as the Board may from time to time determine. Any person elected or appointed pursuant to this Bye-Law shall hold office for such period and upon such terms as the Board may determine and the Board may revoke or terminate any such election or appointment. Any such revocation or termination shall be without prejudice to any claim for damages that such Officer may have against the Company or the Company may have against such Officer for any breach of any contract of service between him and the Company which may be involved in such revocation or termination. Save as provided in the Companies Acts or these Bye-Laws, the powers and duties of the Officers of the Company shall be such (if any) as are determined from time to time by the Board.

30.2 The provisions of these Bye-laws as to resignation and disqualification of Directors shall *mutatis mutandis* apply to the resignation and disqualification of Officers.

MINUTES

31 Minutes

31.1 The Board shall cause minutes to be made and books kept for the purpose of recording:

31.1.1 all appointments of Officers made by the Board;

31.1.2 the names of the Directors and other persons (if any) present at each meeting of the Board and of any committee; and

31.1.3 all proceedings at meetings of the Company, of the holders of any class of shares in the Company, of the Board and of committees appointed by the Board or the Shareholders.

31.2 Shareholders shall only be entitled to see the Register of Directors and Officers, the Register, the financial information provided for in Bye-Law 38.3 and the minutes of meetings of the Shareholders of the Company.

SECRETARY AND RESIDENT REPRESENTATIVE

32 Secretary and Resident Representative

32.1 The Secretary (including one or more deputy or assistant secretaries) and, if required, the Resident Representative, shall be appointed by the Board at such remuneration (if any) and upon such terms as it may think fit and any Secretary and Resident Representative so appointed may be removed by the Board. The duties of the Secretary and the duties of the Resident Representative shall be those prescribed by the Companies Acts together with such other duties as shall from time to time be prescribed by the Board.

32.2 A provision of the Companies Acts or these Bye-Laws requiring or authorising a thing to be done by or to a Director and the Secretary shall not be satisfied by its being done by or to the same person acting both as Director and as, or in the place of, the Secretary.

THE SEAL

33 The Seal

33.1 The Seal shall consist of a circular device with the name of the Company around the outer margin thereof and the country and year of registration in Bermuda across the centre thereof. Should the Seal not have been received at the Registered Office in such form at the date of adoption of this Bye-Law then, pending such receipt, any document requiring to be sealed with the Seal shall be sealed by affixing a red wafer seal to the document with the name of the Company, and the country and year of registration in Bermuda type written across the centre thereof.

33.2 The Board may authorise the production of one or more duplicate seals.

33.3 The Board shall provide for the custody of every Seal. A Seal shall only be used by authority of the Board or of a committee constituted by the Board. Subject to these Bye-Laws, any instrument to which a Seal is affixed shall be attested by the signature of:

33.3.1 two (2) Directors; or

33.3.2 the Secretary and one Director; or

33.3.3 any one person authorised by the Board for that purpose;

provided that the Secretary or a Director may affix a Seal over his signature alone to authenticate copies of these Bye-Laws, the minutes of any meeting or any other documents requiring authentication

DIVIDENDS AND OTHER PAYMENTS

34 Dividends and Other Payments

34.1 The Board may from time to time declare dividends or distributions out of contributed surplus to be paid to the Shareholders according to their rights and interests, including such interim dividends as appear to the Board to be justified by the position of the Company. The Board, in its discretion, may determine that any dividend shall be paid in cash or shall be satisfied, subject to Bye-Law 36, in paying up in full shares in the Company to be issued to the Shareholders credited as fully paid or partly paid or partly in one way and partly the other. The Board may also pay any fixed cash dividend which is payable on any shares of the Company half yearly or on such other dates, whenever the position of the Company, in the opinion of the Board, justifies such payment.

34.2 Except insofar as the rights attaching to, or the terms of issue of, any share otherwise provide:

34.2.1 all dividends or distributions out of contributed surplus may be declared and paid according to the amounts paid up on the shares in respect of which the dividend or distribution is paid, and an amount paid up on a share in advance of calls may be treated for the purpose of this Bye-Law as paid-up on the share;

34.2.2 dividends or distributions out of contributed surplus may be apportioned and paid pro rata according to the amounts paid-up on the shares during any portion or portions of the period in respect of which the dividend or distribution is paid.

34.3 The Board may deduct from any dividend, distribution or other monies payable to a Shareholder by the Company on or in respect of any shares all sums of money (if any) presently payable by him to the Company on account of calls or otherwise in respect of shares of the Company.

34.4 No dividend, distribution or other monies payable by the Company on or in respect of any share shall bear interest against the Company.

34.5 Any dividend, distribution or interest, or part thereof payable in cash, or any other sum payable in cash to the holder of shares may be paid by cheque or warrant sent through the post or by courier addressed to the holder at his address in the Register or, in the case of joint holders, addressed to the holder whose name stands first in the Register in respect of the shares at his registered address as appearing in the Register or addressed to such person at such address as the holder or joint holders may in writing direct. Every such cheque or warrant shall, unless the holder or joint holders

otherwise direct, be made payable to the order of the holder or, in the case of joint holders, to the order of the holder whose name stands first in the Register in respect of such shares, and shall be sent at his or their risk and payment of the cheque or warrant by the bank on which it is drawn shall constitute a good discharge to the Company. Any one of two (2) or more joint holders may give effectual receipts for any dividends, distributions or other monies payable or property distributable in respect of the shares held by such joint holders.

34.6 Any dividend or distribution out of contributed surplus unclaimed for a period of six (6) years from the date of declaration of such dividend or distribution shall be forfeited and shall revert to the Company and the payment by the Board of any unclaimed dividend, distribution, interest or other sum payable on or in respect of the share into a separate account shall not constitute the Company a trustee in respect thereof.

34.7 The Board may also, in addition to its other powers, direct payment or satisfaction of any dividend or distribution out of contributed surplus wholly or in part by the distribution of specific assets, and in particular of paid-up shares or debentures of any other company, and where any difficulty arises in regard to such distribution or dividend, the Board may settle it as it thinks expedient, and in particular, may authorise any person to sell and transfer any fractions or may ignore fractions altogether, and may fix the value for distribution or dividend purposes of any such specific assets and may determine that cash payments shall be made to any Shareholders upon the footing of the values so fixed in order to secure equality of distribution and may vest any such specific assets in trustees as may seem expedient to the Board, provided that such dividend or distribution may not be satisfied by the distribution of any partly paid shares or debentures of any company without the sanction of a Resolution.

35 Reserves

The Board may, before declaring any dividend or distribution out of contributed surplus, set aside such sums as it thinks proper as reserves which shall, at the discretion of the Board, be applicable for any purpose of the Company and pending such application may, also at such discretion, either be employed in the business of the Company or be invested in such investments as the Board may from time to time think fit. The Board may also without placing the same to reserve carry forward any sums which it may think it prudent not to distribute.

CAPITALISATION OF PROFITS

36 Capitalisation of Profits

36.1 The Board may from time to time resolve to capitalise all or any part of any amount for the time being standing to the credit of any reserve or fund which is available for distribution or to the credit of any share premium account and accordingly that such amount be set free for distribution amongst the Shareholders or any class of Shareholders who would be entitled thereto if distributed by way of dividend and in the same proportions, on the footing that the same be not paid in cash but be applied

either in or towards paying up amounts for the time being unpaid on any shares in the Company held by such Shareholders respectively or in payment up in full of unissued shares, debentures or other obligations of the Company, to be allotted and distributed credited as fully paid amongst such Shareholders, or partly in one way and partly in the other, provided that for the purpose of this Bye-Law, a share premium account may be applied only in paying up of unissued shares to be issued to such Shareholders credited as fully paid and provided further that any sum standing to the credit of a share premium account may only be applied in crediting as fully paid shares of the same class as that from which the relevant share premium was derived.

36.2 Where any difficulty arises in regard to any distribution under this Bye-Law, the Board may settle the same as it thinks expedient and, in particular, may authorise any person to sell and transfer any fractions or may resolve that the distribution should be as nearly as may be practicable in the correct proportion but not exactly so or may ignore fractions altogether, and may determine that cash payments should be made to any Shareholders in order to adjust the rights of all parties, as may seem expedient to the Board. The Board may appoint any person to sign on behalf of the persons entitled to participate in the distribution any contract necessary or desirable for giving effect thereto and such appointment shall be effective and binding upon the Shareholders.

RECORD DATES

37 Record Dates

Notwithstanding any other provisions of these Bye-Laws, the Company may by Resolution or the Board may fix any date as the record date for any dividend, distribution, allotment or issue and for the purpose of identifying the persons entitled to receive notices of any general meeting and to vote at any general meeting. Any such record date may be on or at any time before or after any date on which such dividend, distribution, allotment or issue is declared, paid or made or such notice is despatched.

ACCOUNTING RECORDS

38 Accounting Records

38.1 The Board shall cause to be kept accounting records sufficient to give a true and fair view of the state of the Company's affairs and to show and explain its transactions, in accordance with the Companies Acts.

38.2 The records of account shall be kept at the Registered Office or at such other place or places as the Board thinks fit, and shall at all times be open to inspection by the Directors, PROVIDED that if the records of account are kept at some place outside Bermuda, there shall be kept at an office of the Company in Bermuda such records as will enable the Directors to ascertain with reasonable accuracy the financial position of

the Company at the end of each three (3) month period. No Shareholder (other than an Officer of the Company) shall have any right to inspect any accounting record or book or document of the Company except as conferred by law or authorised by the Board or by Resolution.

38.3 A copy of every balance sheet and statement of income and expenditure, including every document required by law to be annexed thereto, which is to be laid before the Company in general meeting, together with a copy of the auditors' report, shall be sent to each person entitled thereto in accordance with the requirements of the Companies Acts.

AUDIT

39 Audit

Save and to the extent that an audit is waived in the manner permitted by the Companies Acts, auditors shall be appointed and their duties regulated in accordance with the Companies Acts, any other applicable law and such requirements not inconsistent with the Companies Acts as the Board may from time to time determine.

SERVICE OF NOTICES AND OTHER DOCUMENTS

40 Service of Notices and Other Documents

40.1 Any notice or other document (including a share certificate and any notice of a general meeting of the Company) may be served on or delivered to any Shareholder by the Company either personally or by sending it through the post (by airmail where applicable) in a pre-paid letter addressed to such Shareholder at his address as appearing in the Register or by sending it by courier to or leaving it at such registered address, or, where applicable, by sending it by email or facsimile or other mode of representing or reproducing words in a legible and non-transitory form to an address supplied by such Shareholder for the purpose of the receipt of notices or documents. In the case of joint holders of a share, service or delivery of any notice or other document on or to one of the joint holders shall for all purposes be deemed as sufficient service on or delivery to all the joint holders. Any notice or other document, if sent by personal delivery, shall be deemed to have been served or delivered at the time of delivery, or if sent by post, shall be deemed to have been served or delivered forty-eight (48) hours after it was put in the post, or if sent by courier or facsimile, twenty-four (24) hours after sending, or if sent by email, twelve (12) hours after sending and in proving such service or delivery, it shall be sufficient to prove that the notice or document was properly addressed and stamped and put in the post, sent by courier, facsimile or email, as the case may be.

40.2 Any notice or other document delivered, sent or given to a Shareholder in any manner permitted by these Bye-Laws shall, notwithstanding that such Shareholder is then dead or bankrupt or that any other event has occurred, and whether or not the Company has notice of the death or bankruptcy or other event, be deemed to have been duly served or delivered in respect of any share registered in the name of such

Shareholder as sole or joint holder unless his name shall, at the time of the service or delivery of the notice or document, have been removed from the Register as the holder of the share, and such service or delivery shall for all purposes be deemed as sufficient service or delivery of such notice or document on all persons interested (whether jointly with or as claiming through or under him) in the share.

40.3 Save as otherwise provided, the provisions of these Bye-Laws as to service of notices and other documents on Shareholders shall *mutatis mutandis* apply to service or delivery of notices and other documents to the Company or any Director, Alternate Director or Resident Representative pursuant to these Bye-Laws.

WINDING UP

41 Winding Up

If the Company shall be wound up, the liquidator may, with the sanction of a Resolution of the Company and any other sanction required by the Companies Acts, divide amongst the Shareholders in specie or kind the whole or any part of the assets of the Company (whether they shall consist of property of the same kind or not) and may for such purposes set such values as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the Shareholders or different classes of Shareholders. The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trust for the benefit of the contributories as the liquidator, with the like sanction, shall think fit, but so that no Shareholder shall be compelled to accept any shares or other assets upon which there is any liability.

INDEMNITY

42 Indemnity

42.1 Subject to the proviso below, every Indemnified Person shall be indemnified and held harmless out of the assets of the Company against all liabilities, loss, damage or expense (including but not limited to liabilities under contract, tort and statute or any applicable foreign law or regulation and all reasonable legal and other costs and expenses properly payable) incurred or suffered by him by or by reason of any act done, conceived in or omitted in the conduct of the Company's business or in the discharge of his duties and the indemnity contained in this Bye-Law shall extend to any Indemnified Person acting in any office or trust in the reasonable belief that he has been appointed or elected to such office or trust notwithstanding any defect in such appointment or election PROVIDED ALWAYS that the indemnity contained in this Bye-Law shall not extend to any matter which would render it void pursuant to the Companies Acts.

42.2 No Indemnified Person shall be liable to the Company for the acts, defaults or omissions of any other Indemnified Person.

42.3 Every Indemnified Person shall be indemnified out of the assets of the Company against all liabilities incurred by him by or by reason of any act done, conceived in or omitted in the conduct of the Company's business or in the discharge of his duties in defending any proceedings, whether civil or criminal, in which judgement is given in his favour, or in which he is acquitted, or in connection with any application under the Companies Acts in which relief from liability is granted to him by the court.

42.4 To the extent that any Indemnified Person is entitled to claim an indemnity pursuant to these Bye-Laws in respect of amounts paid or discharged by him, the relevant indemnity shall take effect as an obligation of the Company to reimburse the person making such payment or effecting such discharge.

42.5 Each Shareholder and the Company agree to waive any claim or right of action he or it may at any time have, whether individually or by or in the right of the Company, against any Indemnified Person on account of any action taken by such Indemnified Person or the failure of such Indemnified Person to take any action in the performance of his duties with or for the Company PROVIDED HOWEVER that such waiver shall not apply to any claims or rights of action arising out of the fraud of such Indemnified Person or to recover any gain, personal profit or advantage to which such Indemnified Person is not legally entitled.

42.6 Subject to the Companies Acts, expenses incurred in defending any civil or criminal action or proceeding for which indemnification is required pursuant to these Bye-Laws shall be paid by the Company in advance of the final disposition of such action or proceeding upon receipt of an undertaking by or on behalf of the Indemnified Person to repay such amount if it shall ultimately be determined that the Indemnified Person is not entitled to be indemnified pursuant to these Bye-Laws.

Each Shareholder of the Company, by virtue of its acquisition and continued holding of a share, shall be deemed to have acknowledged and agreed that the advances of funds may be made by the Company as aforesaid, and when made by the Company under this Bye-Law are made to meet expenditures incurred for the purpose of enabling such Indemnified Person to properly perform his or her duties to the Company.

AMALGAMATION

43 Amalgamation

Any Resolution proposed for consideration at any general meeting to approve the amalgamation of the Company with any other company, wherever incorporated, shall require the approval of a simple majority of votes cast at such meeting and the quorum for such meeting shall be that required in Bye-Law 19.1 and a poll may be demanded in respect of such Resolution in accordance with the provisions of Bye-Law 20.2.

CONTINUATION

44 Continuation

Subject to the Companies Acts, the Board may approve the discontinuation of the Company in Bermuda and the continuation of the Company in a jurisdiction outside Bermuda. The Board, having resolved to approve the discontinuation of the Company, may further resolve not to proceed with any application to discontinue the Company in Bermuda or may vary such application as it sees fit.

ALTERATION OF BYE-LAWS

45 Alteration of Bye-Laws

These Bye-Laws may be amended from time to time by resolution of the Board, but subject to approval by Resolution.

BYE-LAWS

OF

Transurban (895) Holdings Ltd.

We, being the subscribers to the Memorandum of Association of the above company hereby subscribe to the above written Bye-Laws pursuant to section 13(4) of the Companies Act 1981.

NAME	SIGNATURE
James Bodi	James Bodi
Marcia Gilbert	Marcia Gilbert
Robert Dummett	
Dionne Hackett	Dionne Hackett

Dated this day of

EXHIBIT A

GUARANTEE AND SECURITY AGREEMENT

SEE TAB 30

EXHIBIT B

COLLATERAL AGENCY AGREEMENT

SEE TAB 29

EXHIBIT C

Resolutions

TRANSURBAN (895) HOLDINGS LTD.

UNANIMOUS WRITTEN RESOLUTIONS OF THE BOARD OF DIRECTORS

JUNE 22, 2006

The undersigned, being all the directors of Transurban (895) Holdings Ltd., a company incorporated in Bermuda (the "Company"), pursuant to the Company's Bye-laws hereby consents, pursuant to the Company's by-laws, to the adoption of the resolutions below taking or authorizing the actions specified therein. The effective date of the resolutions is the last date of execution by the signatories.

WHEREAS, the Company holds 100% of the membership interests of Transurban (895) LLC, a Delaware limited liability company (the "Operator");

WHEREAS, pursuant to an asset purchase agreement to be entered into between the Operator and Pocahontas Parkway Association ("PPA"), a Virginia non-stock, not-for-profit company, and the current operator of the Pocahontas Parkway and associated facilities, PPA intends to sell, transfer, convey and deliver to the Operator all of its right, title, and interest in and to the management, operation and maintenance of the Pocahontas Parkway and all of the rights, property and other interests of PPA associated therewith;

WHEREAS, in connection with the acquisition, the Operator will be a party to a certain Amended and Restated Comprehensive Agreement with the Virginia Department of Transportation ("VDOT") to develop and operate the Route 895 Connector pursuant to which VDOT will grant to the Operator a permit to operate, maintain, manage, and collect tolls on the Pocahontas Parkway toll road and the associated facilities;

WHEREAS, Transurban (895) US Holdings LLC (the "Borrower"), the parent of the Company, intends to finance a portion of the costs of the acquisition of the concession and permit of the Pocahontas Parkway toll road, and certain other costs related to such acquisition and to the operation and refurbishment of the Pocahontas Parkway toll road pursuant to financing arrangements to be entered with a group of banks or other lending institutions (the "Financing"); and

WHEREAS, the undersigned, having considered the corporate benefit accruing to the Company form the Financing, deem it advisable and in the best interests of the Company to assist the Borrower in implementing such Financing and in connection therewith to grant a security interest in the Company's assets and all other property, including its ownership interests in the Operator, and to guarantee the obligations of the Borrower in connection with such Financing and in furtherance thereof to negotiate, execute, deliver and enter into, and perform its obligations under, the Guarantee and Security Agreement (the "Guarantee and Security Agreement") substantially on the terms and subject to the conditions set forth in Exhibit A attached hereto, the Collateral Agency and Account Agreement (the "Collateral Agency Agreement") substantially on the terms and subject to the conditions set forth in Exhibit B attached hereto and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in

connection with, the Guarantee and Security Agreement, the Collateral Agency Agreement, the Financing and the transactions contemplated thereby.

Resolution No. 1 – Guarantee and Security Agreement

NOW THEREFORE, BE IT RESOLVED, that (i) the Guarantee and Security Agreement, a copy of which has been presented to the undersigned in the form attached as Exhibit A, is approved as being in the best interest of the Company in that substantial corporate benefit will accrue to the Company from supporting the Financing thereby, and (ii) the Authorized Persons (as defined below) be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Guarantee and Security Agreement and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Guarantee and Security Agreement, the financing and the transactions contemplated thereby in such form and substance as determined by any Authorized Person. For the purposes hereof, "Authorized Persons" shall mean the President and the Treasurer and Vice President of the Company.

Resolution No. 2 – Collateral Agency Agreement

RESOLVED, that (i) the Collateral Agency Agreement, a copy of which has been presented to the undersigned in the form attached as Exhibit B, is approved as being in the best interest of the Company in that substantial corporate benefit will accrue to the Company from supporting the Financing thereby, and (ii) the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Collateral Agency Agreement and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Collateral Agency Agreement, the financing and the transactions contemplated thereby in such form and substance as determined by any Authorized Person.

Resolution No. 3 – General Authority

RESOLVED, that the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to take and do all such other and further acts, and to negotiate, prepare, execute, deliver and cause the performance of, all such further instruments and documents, and to effect all such further filings and declarations as are necessary, appropriate or advisable to effectuate the foregoing resolution and to consummate and implement the transactions contemplated by the Guarantee and Security Agreement and the Collateral Agency Agreement, and the execution and delivery by such Authorized Persons of any such instruments or documents or the taking or doing by them of any such act in connection with the foregoing matters shall establish conclusively the authority therefor from the Company and the approval and ratification by the Company of the instruments or documents so executed and the acts so taken or done; and

RESOLVED FURTHER, that any and all actions heretofore or hereafter taken by the Authorized Persons of the Company within the intent of the foregoing resolutions be, and hereby are, ratified, confirmed and approved in all respects.

IN WITNESS WHEREOF, the directors have executed this Written Consent as of the dates set forth next to their name below.

Director	Date
James Christopher Brant	
Mark Lieciardo	

EXHIBIT D

Certificate of [Compliance]

FORM NO. 6

Registration No. 38531

BERMUDA

CERTIFICATE OF INCORPORATION

I hereby in accordance with section 14 of ***the Companies Act 1981*** issue this Certificate of Incorporation and do certify that on the **13th** day of **June, 2006**

Transurban (895) Holdings Ltd.

was registered by me in the Register maintained by me under the provisions of the said section and that the status of the said company is that of an **exempted** company.

Given under my hand and the Seal of
the REGISTRAR OF COMPANIES
this **15th** day of **June, 2006**

for **Registrar of Companies**

Registration No. 38531

BERMUDA

MINISTRY OF FINANCE

CERTIFICATE OF COMPLIANCE

I, Pamela L. Adams, **Assistant Registrar of Companies** of the **Registrar of Companies** in the Islands of Bermuda, do hereby certify that

Transurban (895) Holdings Ltd.

is a Company duly incorporated under the laws of Bermuda and is, at the date of this Certificate, in good standing, under the Companies Act 1981.

Given under my hand and the Seal of the

REGISTRAR OF COMPANIES this

21st day of June, 2006

Pamela L. Adams
Assistant Registrar of Companies

BRINGDOWN CERTIFICATE
OF TRANSURBAN (895) HOLDINGS LTD.

June 29, 2006

This certificate is delivered pursuant to the Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Borrower"), the several banks and other financial institutions from time to time parties thereto (the "Lenders"), the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, in his or her capacity as a duly authorized officer of Transurban (895) Holdings Ltd. and not personally, does hereby certify that as of the date hereof (i) the certifications made in the certificate attached hereto as Attachment 1 (the "Officer's Certificate") are true and correct and (ii) the documents attached to the Officer's Certificate remain in full force and effect and have not been revoked, amended, supplanted or otherwise modified.

[Signature page follows.]

IN WITNESS WHEREOF, I hereunto affix my signature solely in the capacity as a dully authorized officer of Transurban (895) Holdings Ltd., and not personally as of the date hereof.

TRANSURBAN (895) HOLDINGS LTD.

By: _____
Name: Mark Licciardo
Title: President

ATTACHMENT 1

OFFICER'S CERTIFICATE

SEE TAB 43

CERTIFICATE OF TRANSURBAN (895) LLC

June 22, 2006

The undersigned, being a duly elected Authorized Officer of Transurban (895) LLC, a Delaware limited liability company (the "Company"), hereby delivers this certificate on behalf of the Company pursuant to (i) Section 4.1(f) of that certain Loan Agreement, dated as of June 22, 2006 (as amended, modified and/or supplemented from time to time, the "Loan Agreement"), by and among Transurban (895) US Holdings LLC, a Delaware limited liability company, as the Borrower, the Lenders party thereto, and DEPFA Bank plc, in its capacity as Administrative Agent, and (ii) that certain Asset Purchase Agreement, dated as of June 21, 2006 (as amended, modified and/or supplemented from time to time, the "Asset Purchase Agreement"), by and between the Company and Pocahontas Parkway Association, a Virginia non-stock, not-for-profit corporation. Capitalized terms used herein but not defined herein shall have the respective meanings assigned to such terms in Appendix A to the Loan Agreement. The undersigned hereby certifies that:

1. I am the duly elected, qualified and acting Treasurer of the Company.

2. Attached hereto as Exhibit A is a true, correct complete copy of the certificate of formation of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the limited liability company agreement of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

4. Attached hereto as Exhibit C are true and complete copies of the resolutions duly adopted by the Member of the Company by unanimous written consent, dated June 22, 2006 authorizing the transactions contemplated under the Loan Agreement and the Asset Purchase Agreement. Such resolutions have not been subsequently modified, revoked, repealed, rescinded or otherwise amended, and remain in full force and effect in the form adopted and are the only resolutions adopted by the Member relating to the matters described therein.

5. The Company is a Delaware limited liability company duly formed and validly existing under and by virtue of the laws of the State of Delaware. Attached hereto as Exhibit D is a Certificate of Good Standing of the Company obtained from the Secretary of State of Delaware on June 12, 2006.

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	M. Kulper
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

IN WITNESS WHEREOF, the undersigned Treasurer of the Company has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: James Christopher Brant
Title: Treasurer

I, Mark Licciardo, hereby certify that James Christopher Brant is, as of the date hereof, the duly elected and acting Treasurer of the Company and the signature set forth above is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: Mark Licciardo
Title: Secretary

EXHIBIT A

Certificate of Formation

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS ON FILE OF "TRANSURBAN (895) LLC" AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

CERTIFICATE OF FORMATION, FILED THE FIRST DAY OF MAY, A.D. 2006, AT 5:45 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE AFORESAID LIMITED LIABILITY COMPANY, "TRANSURBAN (895) LLC".

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4068393 8100H

060562628

AUTHENTICATION: 4816686

DATE: 06-12-06

CERTIFICATE OF FORMATION

OF

TRANSURBAN (895) LLC

This Certificate of Formation of Transurban (895) LLC, dated as of May 1, 2006, is being duly executed and filed by Robert J. Willson, Jr., an authorized person, to form a limited liability company under the Delaware Limited Liability Company Act (6 Del. C. §18-101, et seq.)

FIRST: The name of the limited liability company is Transurban (895) LLC (the "Company").

SECOND: The address of the registered office of the Company in the State of Delaware is 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, County of New Castle.

THIRD: The name and address of the registered agent for service of process on the Company in the State of Delaware is Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, County of New Castle.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Formation as of the date first above written.

/s/ Robert J. Willson, Jr.
Robert J. Willson, Jr.
Authorized Person

State of Delaware
Secretary of State
Division of Corporations
Delivered 05:49 PM 05/01/2006
FILED 05:45 PM 05/01/2006
SRV 060404517 - 4068393 FILE

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EXHIBIT B

Limited Liability Company Agreement

FIRST AMENDMENT

OF

LIMITED LIABILITY COMPANY AGREEMENT

OF

TRANSURBAN (895) LLC

This Amendment is made as of June 15, 2006 by Transurban (895) Holdings Ltd, being the sole Member (the "Member") of Transurban (895) LLC, a Delaware limited liability company (the "LLC"), for the purpose of amending the Limited Liability Company Agreement of the Company dated May 2, 2006 (the "LLC Agreement").

RECITAL

WHEREAS, the Member of the LLC desires to amend the LLC Agreement so as to classify the interests in the Company as a security governed by Article 8 of the Uniform Commercial Code, as amended (the "UCC"), pursuant to §8-103(c) of the UCC.

AMENDMENT

NOW THEREFORE, the Member amends the LLC Agreement as follows:

1. The definition of Units is hereby deleted in its entirety and the following language is inserted in lieu thereof:

> *"Units" means a measure of ownership interest in the Company classified and defined as securities governed by Article 8 of the Uniform Commerical Code, as amended.*

IN WITNESS WHEREOF, the undersigned being a duly authorized representative of the Member has executed this First Amendment as of the day and year first above written.

TRANSURBAN (895) HOLDINGS LTD

By: _____
Name: Mark Licciardo
Title: President

TRANSURBAN (895) LLC

LIMITED LIABILITY COMPANY AGREEMENT

TABLE OF CONTENTS

		Page
ARTICLE 1	DEFINITIONS	1
ARTICLE 2	FORMATION OF COMPANY	1
2.1	FORMATION	1
2.2	PRINCIPAL PLACE OF BUSINESS	1
2.3	REGISTERED OFFICE AND REGISTERED AGENT	2
2.4	TERM	2
ARTICLE 3	BUSINESS OF COMPANY	2
ARTICLE 4	UNITS AND CONTRIBUTIONS TO THE COMPANY	2
4.1	UNITS; CERTIFICATES	2
4.2	CAPITAL CONTRIBUTIONS	2
ARTICLE 5	RIGHTS AND OBLIGATIONS OF MEMBER	2
5.1	LIMITATION OF LIABILITY	2
5.2	COMPANY BOOKS	3
ARTICLE 6	MANAGEMENT; MEETINGS; OFFICERS	3
6.1	MANAGEMENT BY MEMBER	3
6.2	OFFICERS OF COMPANY	3
6.3	ELECTION AND TERM OF OFFICE	3
6.4	REMOVAL	3
6.5	DUTIES AND POWERS OF OFFICERS	3
ARTICLE 7	STANDARD OF CARE AND INDEMNIFICATION OF MEMBERS, OFFICERS AND EMPLOYEES	4
7.1	STANDARD OF CARE	4
7.2	INDEMNIFICATION OF MEMBERS, OFFICERS AND EMPLOYEES	4
ARTICLE 8	ALLOCATIONS, DISTRIBUTIONS, ACCOUNTING, RECORDS AND REPORTS	4
8.1	ALLOCATIONS OF NET PROFITS AND NET LOSSES	4
8.2	DISTRIBUTIONS	4
ARTICLE 9	DISSOLUTION AND TERMINATION	5
9.1	DISSOLUTION	5
9.2	WINDING UP, LIQUIDATION AND DISTRIBUTION OF ASSETS	5
9.3	CERTIFICATE OF CANCELLATION	5
ARTICLE 10	MISCELLANEOUS PROVISIONS	6
10.1	AMENDMENTS	6

TABLE OF CONTENTS
(Continued)

		Page
10.2	SEVERABILITY	6
10.3	CREDITORS	6
10.4	CONSTRUCTION	6
10.5	ASSIGNMENT	6
10.6	GOVERNING LAW	6

TRANSURBAN (895) LLC

LIMITED LIABILITY COMPANY AGREEMENT

This Limited Liability Company Agreement ("Agreement") is made as of May 2, 2006, for the organization and operation of the above named limited liability company (the "Company").

The undersigned hereby declares as follows:

ARTICLE 1

DEFINITIONS

For purposes of this Agreement the following terms have the meanings indicated (unless otherwise expressly provided herein):

"Certificate" means the Certificate of Formation of the Company as filed with the Delaware Secretary of State, as the same may be amended from time to time.

"Delaware Act" means the Delaware Limited Liability Company Act at Title 6 of the Delaware Code, §§ 18-101 *et seq.*

"Member" means the undersigned and any other person who becomes a Member of the Company in accordance with this Agreement.

"Units" means a measure of ownership interest in the Company.

ARTICLE 2

FORMATION OF COMPANY

2.1 FORMATION

The Company has been organized as a Delaware limited liability company by executing and delivering the Certificate to the Secretary of State of the State of Delaware in accordance with and pursuant to the Delaware Act.

2.2 PRINCIPAL PLACE OF BUSINESS

The Company may locate its places of business at any place or places as the Member may deem advisable.

2.3 REGISTERED OFFICE AND REGISTERED AGENT

The Company's initial registered agent and registered office is Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, New Castle County.

2.4 TERM

The term of the Company will be perpetual.

ARTICLE 3

BUSINESS OF COMPANY

The business of the Company will be:

(a) own, operate and manage the Pocahontas tollway project in the Commonwealth of Virginia; and

(b) to carry on any other lawful business or activity in connection with the foregoing or otherwise, and to have and exercise all of the powers, rights and privileges which a limited liability company organized pursuant to the Delaware Act may have and exercise.

ARTICLE 4

UNITS AND CONTRIBUTIONS TO THE COMPANY

4.1 UNITS; CERTIFICATES

The capital of the Company will be represented by Units. The Units of the Member are reflected on Schedule 4.1, as the same may be amended from time to time. The Member may make such rules and regulations as they may deem appropriate concerning the issuance and registration of Units, including the issuance of certificates representing Units. Unless the Member decides otherwise, Units will be issued without certificates.

4.2 CAPITAL CONTRIBUTIONS

The Member will contribute the amount set forth on Schedule 4.1 as its capital contribution. The Member will not be required to make additional capital contributions.

ARTICLE 5

RIGHTS AND OBLIGATIONS OF MEMBER

5.1 LIMITATION OF LIABILITY

The Member will not be personally liable to creditors of the Company for any debts, obligations, liabilities or losses of the Company, whether arising in contract, tort or otherwise, beyond the Member's capital contribution under Section 4.2.

5.2 COMPANY BOOKS

The officers will maintain and preserve, during the term of the Company, all accounts, books and other relevant Company documents.

ARTICLE 6

MANAGEMENT; MEETINGS; OFFICERS

6.1 MANAGEMENT BY MEMBER

The business and affairs of the Company will be managed by the Member. The Member will have full and complete authority, power and discretion to manage and control the business of the Company, to make all decisions regarding those matters and to perform any and all other acts or activities customary or incident to the management of the Company's business and objectives. The Member may act through written or unwritten resolutions or certifications of any nature. The Member may from time to time authorize the opening of bank accounts in the name of the Company, and the Member will determine who will have the signatory power over such accounts. The Member will have the power and authority on behalf of the Company to borrow money for the Company on such terms as the Member deems appropriate, and in connection therewith, to hypothecate, encumber and grant security interests in the assets of the Company to secure repayment of the borrowed sums. No debt will be contracted or liability incurred by or on behalf of the Company except by the Member, or to the extent permitted under the Delaware Act, by the officers or other agents or employees of the Company expressly authorized to contract such debt or incur such liability by the Member.

6.2 OFFICERS OF COMPANY

The Member may appoint officers of the Company which may consist of the officers listed in Schedule 6.2 and such other officers as may be appointed by the Member. Any two or more offices may be held by the same person. The officers will act in the name of the Company and will supervise its operation under the direction and management of the Member, as further described in Schedule 6.2. Appointment of officers will not divest the Member of the right to manage and control the Company.

6.3 ELECTION AND TERM OF OFFICE

The officers of the Company will be elected by the Member. The initial officers of the Company are as follows:

NAMES	TITLES
Ken Daley	President
James Christopher Brant	Treasurer
Mark Licciardo	Secretary
Paul Geoffrey Bennett O'Shea	Vice-President
Michael Kulper	Vice President

Each officer will hold office until his successor is duly elected and has qualified, or until his earlier death, resignation or removal in the manner hereinafter provided. Appointment of an officer will not of itself create contract rights.

6.4 REMOVAL

The Member may remove any officer at any time with or without cause.

6.5 DUTIES AND POWERS OF OFFICERS

The Officers will have such duties and powers as are described in Schedule 6.2.

ARTICLE 7

STANDARD OF CARE AND INDEMNIFICATION OF MEMBERS, OFFICERS AND EMPLOYEES

7.1 STANDARD OF CARE

Neither the Member nor any officer will be liable to the Company by reason of the actions of such person in the conduct of the business of the Company except for fraud, gross negligence or willful misconduct.

7.2 INDEMNIFICATION OF MEMBERS AND OFFICERS

The Company will, to the fullest extent to which it is empowered to do so by the Delaware Act or any other applicable law, indemnify and make advances for expenses to any person who was or is a party, or is threatened to be made a party, to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a Member, officer or employee of the Company, against losses, damages, expenses (including attorneys' fees), judgments, fines and amounts reasonably incurred by him in connection with such action, suit or proceeding.

ARTICLE 8

ALLOCATIONS, DISTRIBUTIONS, ACCOUNTING, RECORDS AND REPORTS

8.1 ALLOCATIONS OF NET PROFITS AND NET LOSSES

The profits, losses, and other items of the Company will be allocated to the Member. There will be no "special allocations."

8.2 DISTRIBUTIONS

Distributions will be made as follows:

(a) Subject to Section 18-607 of the Delaware Act, the Company will make interim distributions as the Member shall determine.

(b) Upon liquidation of the Company, liquidating distributions will be made in accordance with Section 9.2.

ARTICLE 9

DISSOLUTION AND TERMINATION

9.1 DISSOLUTION

(a) The Company will be dissolved only upon the occurrence of any of the following events:

(i) by written decision of the Member; or

(ii) upon the entry of a decree of judicial dissolution under Section 18-802 of the Delaware Act.

(b) Dissolution of the Company will be effective on the day on which an event described in Section 9.1(a) occurs, but the Company will not terminate until a certificate of cancellation is filed with the Secretary of State of the State of Delaware and the assets of the Company are distributed as provided in Section 9.2. Notwithstanding the dissolution of the Company, prior to the termination of the Company, the business of the Company and the affairs of the Member will continue to be governed by this Agreement.

9.2 WINDING UP, LIQUIDATION AND DISTRIBUTION OF ASSETS

Upon dissolution, an accounting will be made of the Company's assets, liabilities and operations, from the date of the last previous accounting until the date of dissolution. The Member will:

(a) sell or otherwise liquidate all of the Company's assets as promptly as practicable;

(b) discharge all liabilities of the Company, including liabilities to the Member as a creditor of the Company to the extent permitted by law, excluding liabilities for distributions to Members; and

(c) distribute the remaining assets to the Member.

9.3 CERTIFICATE OF CANCELLATION

When all debts, liabilities and obligations of the Company have been paid and discharged, or adequate provisions have been made for their payment or discharge, and all of the remaining property and assets of the Company have been distributed, a certificate of cancellation setting forth the information required by the Delaware Act will be executed by one or more authorized persons and filed with the Delaware Secretary of State. Upon such filing, the existence of the Company will cease, except for the purpose of suits, other proceedings and appropriate action as provided in the Delaware Act. The Member will have authority to distribute any Company property discovered after dissolution, convey real estate and take such other action as may be necessary on behalf of and in the name of the Company.

ARTICLE 10

MISCELLANEOUS PROVISIONS

10.1 AMENDMENTS

This Agreement may be amended at any time by a writing executed by the Member.

10.2 SEVERABILITY

If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Agreement will remain in full force and effect. Any provision of this Agreement held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

10.3 CREDITORS

None of the provisions of this Agreement are for the benefit of or enforceable by any creditors of the Company.

10.4 CONSTRUCTION

All references in this Agreement to "Articles" and "Sections" refer to the corresponding Articles and Sections of this Agreement unless the context indicates otherwise. The headings of Articles and Sections in this Agreement are provided for convenience only and will not affect its construction or interpretation. All words used in this Agreement will be construed to be of such gender or number as the circumstances require. The terms "include" or "including" indicate examples of a foregoing general statement and not a limitation on that general statement. Any reference to a statute refers to the statute, any amendments or successor legislation, and all regulations promulgated under or implementing the statute, as in effect at the relevant time.

10.5 ASSIGNMENT

The Member may effect an assignment of the Member's Units by means of any written agreement or instrument of transfer signed by the Member and the assignee. An assignee of the Member's Units will become a member and will have and may exercise all rights and powers of a member, including the right to participate in the management of the business and affairs of the Company.

10.6 GOVERNING LAW

This Agreement will be governed by and interpreted in accordance with the laws of the State of Delaware, without regard to conflicts of laws principles that would require the application of any other law, and the Certificate.

The Member has executed this Agreement as of the date indicated in the first sentence of this Agreement.

MEMBER:

TRANSURBAN (895) HOLDINGS INC.

By: _____
Ken Daly
President

SCHEDULE 4.1

Name and Address of Member	Amount of Initial Capital Contribution	Units
Transurban (895) Holdings Inc. 2711 Centerville Road, Suite 300 PMB # 2006 Wilmington, Delaware 19808 Tax ID: 20-4885404	$1,000	1,000

SCHEDULE 6.2

DUTIES AND POWERS OF OFFICERS

Chairman. The chairman will be the chief executive officer of the Company in charge of the entire business and all the affairs of the Company and will have the powers and perform the duties incident to that position, including the power to bind the Company in accordance with this Schedule. The chairman will, when present, preside at all meetings of the Members. He will have such other powers and perform such duties as are specified in this Agreement and as may from time to time be assigned to him by the Members of the Company.

The chairman will have general and active management of the business of the Company and will see that all orders and resolutions of the Members are carried into effect. The chairman may execute bonds, mortgages and other contracts (whenever requiring a seal, under the seal of the Company), except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof is expressly delegated by the Members to some other officer or agent of the Company. The chairman will have general powers of supervision and will be the final arbiter of all differences between officers of the Company, and such decision as to any matter affecting the Company will be final and binding as between the officers of the Company subject only to the Members.

President. The president will be the chief operating officer of the Company and will assist the chairman in the discharge of all his duties. In the absence of the chairman, at the chairman's request or if the chairman is unable to act, the president will preside at meetings of the Members. The president will have concurrent power with the chairman to sign, with the secretary or any other proper officer of the Company thereunto authorized by the Members any certificates of the Company, deeds, mortgages, bonds, contracts or other instruments which the Members have authorized to be executed, except in cases where the signing and execution thereof is expressly delegated by the Members or by this Agreement to some other officer or agent of the Company, or is required by law to be otherwise signed or executed. In general the president will perform all duties incident to the office of the president and such other duties as may be prescribed by the Members of the Company from time to time.

The Vice Presidents. At the request of the chairman, or in the absence of the president or in the event of his inability or refusal to act, a vice president (or in the event there be more than one vice president, the vice presidents in the order designated, or in the absence of any designation, then in the order of their election) will perform the duties of the president, and when so acting, will have all the powers of and be subject to all the restrictions upon the president. Any vice president will perform such other duties as from time to time may be assigned to him by the chairman, the president or the Members of the Company.

The Treasurer. The treasurer will be the chief financial officer of the Company. The treasurer will not be required to give a bond for the faithful discharge of his duties. He will: (i) have charge and custody of and be responsible for all funds and securities of the Company; (ii) (ii) receive and give receipts for moneys due and payable to the Company from any source whatsoever, and deposit all such moneys in the name of the Company in such banks, trust companies or other depositaries as will be selected by the Members; and (iii) in general perform

all the duties incident to the office of treasurer and such other duties as from time to time may be assigned to him by the president or by the Members.

The Secretary. The secretary will: (a) keep the minutes of the Members' meetings in one or more books provided for that purpose; (b) see that all notices are duly given in accordance with the provisions of this Agreement or as required by law; (c) be custodian of Company records; (d) keep a register of the post office address of each Member furnished to the secretary by such Member; (e) sign with the chairman, the president or a vice president (as designated by the chairman), any certificates representing Units, the issuance of which has been authorized by resolution of the Members; (f) certify the resolutions of the Members and other documents of the Company as true and correct; and (f) in general perform all duties incident to the office of secretary and such other duties as from time to time may be assigned to him by the chairman, the president, a vice president (as designated by the chairman) or the Members of the Company.

Assistant Secretaries. Each assistant secretary shall in general assist the secretary and perform all duties incident to the office of assistant secretary and such other duties as from time to time may be assigned to him by the chairman, the president, a vice president (as designated by the chairman), the treasurer, the secretary or the Members of the Company.

EXHIBIT C

Resolutions

TRANSURBAN (895) LLC

WRITTEN CONSENT OF SOLE MEMBER

JUNE 22, 2006

The undersigned, being the sole member of Transurban (895) LLC, a Delaware limited liability company (the "Company"), hereby consents, pursuant to the Company's Limited Liability Company Agreement, to the adoption of the resolutions below taking or authorizing the actions specified therein.

WHEREAS, pursuant to an asset purchase agreement to be entered into between the Company and Pocahontas Parkway Association ("PPA"), a Virginia non-stock, not-for-profit company, and the current operator of the Pocahontas Parkway and associated facilities, PPA intends to sell, transfer, convey and deliver to the Company all of its right, title, and interest in and to the management, operation and maintenance of the Pocahontas Parkway and all of the rights, property and other interests of PPA associated therewith;

WHEREAS, in connection with the acquisition, the Company will be a party to a certain Amended and Restated Comprehensive Agreement with the Virginia Department of Transportation ("VDOT") to develop and operate the Route 895 Connector pursuant to which VDOT will grant to the Company a permit to operate, maintain, manage, and collect tolls on the Pocahontas Parkway toll road and the associated facilities;

WHEREAS, Transurban (895) US Holdings LLC (the "Borrower"), the indirect parent of the Company, intends to finance a portion of the costs of the acquisition of the concession and permit of the Pocahontas Parkway toll road, and certain other costs related to such acquisition and to the operation and refurbishment of the Pocahontas Parkway toll road pursuant to financing arrangements to be entered with a group of banks or other lending institutions (the "Financing"); and

WHEREAS, the undersigned deem it advisable and in the best interests of the Company to (i) negotiate, execute, deliver and enter into and perform its obligations under the Asset Purchase Agreement (the "Asset Purchase Agreement") substantially on the terms and subject to the conditions set forth in the form of such agreement in Exhibit A attached hereto, the Amended and Restated Comprehensive Agreement (the "Comprehensive Agreement") substantially on the terms and subject to the conditions set forth in the form of such agreement in Exhibit B attached hereto; and all other agreements, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Asset Purchase Agreement, the Comprehensive Agreement, and the transactions contemplated thereby, including, without limitations, the agreements described on Schedule 1 hereto (the "Additional Documents") and (ii) to assist the Borrower in implementing such Financing and in connection therewith to grant a security interest in the Company's assets and to guarantee the obligations of the Borrower in connection with such Financing and in furtherance thereof to negotiate, execute, deliver and enter into the applicable Additional Documents, and all other agreements, instruments, consents, certificates, authorization and any and all other documents and

instruments related to, and/or necessary or desirable in connection with, the Financing and the transactions contemplated thereby.

Resolution No. 1 – Asset Purchase Agreement

NOW THEREFORE, BE IT RESOLVED, that (i) the Asset Purchase Agreement a copy of which has been presented to the undersigned, are approved, and (ii) the Authorized Persons (as defined below) be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Asset Purchase Agreement and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Asset Purchase Agreement, the Financing and the transactions contemplated thereby in such form and substance as determined by any Authorized Person. For the purposes hereof, "Authorized Persons" shall mean the President, Treasurer, Secretary or any Vice President of the Company.

Resolution No. 2 – Comprehensive Agreement

RESOLVED, that (i) the Comprehensive Agreement, a copy of which has been presented to the undersigned, are approved, and (ii) the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Comprehensive Agreement and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Comprehensive Agreement, the Financing and the transactions contemplated thereby in such form and substance as determined by any Authorized Person.

Resolution No. 3 – Additional Documents

RESOLVED, that (i) the Additional Documents other than those covered in Resolutions No. 1 and 2, copies of which have been presented to the undersigned, are approved, and (ii) the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, such Additional Documents and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, such Additional Documents, the Financing and the transactions contemplated thereby in such form and substance as determined by any Authorized Person.

Resolution No. 4 – General Authority

RESOLVED, that the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to take and do all such other and further acts, and to negotiate, prepare, execute, deliver and cause the performance of, all such further instruments and documents, and to effect all such further filings and declarations as are necessary, appropriate or advisable to effectuate the foregoing resolution and to consummate and implement the transactions contemplated by the Asset Purchase Agreement, the Comprehensive Agreement

and the other Additional Documents, and the execution and delivery by such Authorized Persons of any such instruments or documents or the taking or doing by them of any such act in connection with the foregoing matters shall establish conclusively the authority therefor from the Company and the approval and ratification by the Company of the instruments or documents so executed and the acts so taken or done; and

RESOLVED FURTHER, that any and all actions heretofore or hereafter taken by the Authorized Persons of the Company within the intent of the foregoing resolutions be, and hereby are, ratified, confirmed and approved in all respects.

IN WITNESS WHEREOF, the sole member has executed this Written Consent as of the date first written above.

TRANSURBAN (895) HOLDINGS LTD.,
its sole member

By: _____
Name: James Christopher Brant
Title:

By: _____
Name: Mark Licciardo
Title:

EXHIBIT A

ASSET PURCHASE AGREEMENT

See Tab 1

EXHIBIT B

COMPREHENSIVE AGREEMENT

SEE TAB 78

SCHEDULE I

ADDITIONAL DOCUMENTS

1. Asset Purchase Agreement, to be dated as of June 21, 2006, between the Company and Pocahontas Parkway Association;

2. Amended and Restated Comprehensive Agreement, to be dated as of June 29, 2006, between the Company and Virginia Department of Transportation;

3. Bill of Sale, Assignment and Assumption Agreement, to be dated as of June 29, 2006, between the Company and Pocahontas Parkway Association;

4. Assignment of Right to Receive Funds held by Bond Trustee not Required for Discharge of Bonds, to be dated as of June 29, 2006, among the Company, Virginia Department of Transportation, and Pocahontas Parkway Association;

5. Collateral Agency and Account Agreement, to be dated as of June 22, 2006, among the Company, Transurban (895) US Holdings LLC, Transurban (895) Finance Inc., Transurban (895) Holdings Inc., DEPFA Bank plc, as Administrative Agent, and Wells Fargo Bank, N.A., as the Collateral Agent;

6. Guarantee and Security Agreement, to be dated as of June 29, 2006, among the Company, Transurban (895) Finance Inc., and Transurban (895) Holdings Ltd.;

7. Account Control Agreement, to be executed by the Company, Bank of America, N.A. and Wells Fargo Bank, National Association;

8. O&M Agreement, to be executed between the Company and the subcontractors thereto; and

9. Development Agreement, to be dated as of June 21, 2006, between the Company and WF Hunt, LLC.

EXHIBIT D

Good Standing Certificate

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "TRANSURBAN (895) LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWELFTH DAY OF JUNE, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "TRANSURBAN (895) LLC" WAS FORMED ON THE FIRST DAY OF MAY, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE NOT BEEN ASSESSED TO DATE.

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4068393 8300

060562628

AUTHENTICATION: 4816685

DATE: 06-12-06

BRINGDOWN CERTIFICATE
OF TRANSURBAN (895) LLC

June 29, 2006

This certificate is delivered pursuant to the Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Borrower"), the several banks and other financial institutions from time to time parties thereto (the "Lenders"), the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, in his or her capacity as a duly authorized officer of Transurban (895) LLC and not personally, does hereby certify that as of the date hereof (i) the certifications made in the certificate attached hereto as Attachment 1 (the "Officer's Certificate") are true and correct and (ii) the documents attached to the Officer's Certificate remain in full force and effect and have not been revoked, amended, supplanted or otherwise modified.

[Signature page follows.]

IN WITNESS WHEREOF, I hereunto affix my signature solely in the capacity as a dully authorized officer of Transurban (895) LLC, and not personally as of the date hereof.

TRANSURBAN (895) LLC

By: M. Kulper
Name: MICHAEL KULPER
Title: VICE PRESIDENT

ATTACHMENT 1

OFFICER'S CERTIFICATE

SEE TAB 45

Commonwealth of Virginia

STATE CORPORATION COMMISSION

Richmond, June 27, 2006

This certificate of registration to transact business in Virginia is this day issued for

Transurban (895) LLC

a limited liability company organized under the laws of DELAWARE and the said company is authorized to transact business in Virginia, subject to all Virginia laws applicable to the company and its business.

State Corporation Commission
Attest:

Joel H. Peck
Clerk of the Commission

CIS0322

CERTIFICATE OF PARTNERSHIP
OF TRANSURBAN (895) GENERAL PARTNERSHIP

June 22, 2006

The undersigned, being a duly elected Authorized Officer of Transurban (895) General Partnership, a Delaware general partnership (the "Partnership"), hereby delivers this certificate on behalf of the Company pursuant to Section 4.1(f) of that certain Loan Agreement, dated as of June 22, 2006 (as amended, modified and/or supplemented from time to time, the "Loan Agreement"), by and among Transurban (895) US Holdings LLC, a Delaware limited liability company, as the Borrower, the Lenders party thereto, and DEPFA Bank plc, in its capacity as Administrative Agent. Capitalized terms used herein but not defined herein shall have the respective meanings assigned to such terms in Appendix A to the Loan Agreement. The undersigned hereby certifies that:

1. I am the duly elected, qualified and acting Treasurer of the Company.

2. Attached hereto as Exhibit A is a true, correct complete copy of the certificate of partnership of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the general partnership agreement of the Partnership, and any amendments thereto, as in full force and effect on and as of the date hereof.

4. Attached hereto as Exhibit C are true and complete copies of the resolutions duly adopted by the partners of the Company by unanimous written consent, dated June 22, 2006 authorizing the transactions contemplated under the Loan Agreement. Such resolutions have not been subsequently modified, revoked, repealed, rescinded or otherwise amended, and remain in full force and effect in the form adopted and are the only resolutions adopted by the partners relating to the matters described therein.

5. The Company is a Delaware general partnership duly formed and validly existing under and by virtue of the laws of the State of Delaware. Attached hereto as Exhibit D is a Certificate of Good Standing of the Company obtained from the Secretary of State of Delaware on June 14, 2006.

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	M. Kulper
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

IN WITNESS WHEREOF, the undersigned Treasurer of the Company has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: James Christopher Brant
Title: Treasurer

I, Mark Licciardo, hereby certify that James Christopher Brant is, as of the date hereof, the duly elected and acting Treasurer of the Company and the signature set forth above is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: Mark Licciardo
Title: Secretary

EXHIBIT A

Certificate of Partnership

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS ON FILE OF "TRANSURBAN (895) GENERAL PARTNERSHIP" AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

STATEMENT OF PARTNERSHIP EXISTENCE, FILED THE SECOND DAY OF MAY, A.D. 2006, AT 1:15 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE AFORESAID GENERAL PARTNERSHIP, "TRANSURBAN (895) GENERAL PARTNERSHIP".

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4151930 8100H

060573399

AUTHENTICATION: 4825336

DATE: 06-14-06

State of Delaware
Secretary of State
Division of Corporations
Delivered 01:22 PM 05/02/2006
FILED 01:15 PM 05/02/2006
SRV 060408283 - 4151930 FILE

STATE OF DELAWARE

STATEMENT OF PARTNERSHIP EXISTENCE

OF

TRANSURBAN (895) GENERAL PARTNERSHIP

1. The name of the partnership is: Transurban (895) General Partnership

2. The address of the registered agent of the partnership in the State of Delaware is:

2711 Centerville Road, Suite 400
Wilmington, Delaware 19808
New Castle County

3. The name of the registered agent of the partnership in the State of Delaware at the above-address is:

Corporation Service Company

IN WITNESS WHEREOF, the undersigned has executed this Statement of Partnership Existence as of May 1, 2006.

TRANSURBAN (USA HOLDINGS NO 1) PTY LTD

By: [signature]
Name: Mark Licciardo
Title: Company Secretary

TRANSURBAN (USA HOLDINGS NO 2) PTY LTD

By: [signature]
Name: PAUL O'SHEA
Title: DIRECTOR

CHIDMS1/2422810.2

EXHIBIT B

General Partnership Agreement

TRANSURBAN (895) GENERAL PARTNERSHIP

**(a general partnership
formed under the laws of Delaware)**

General Partnership Agreement

Dated: May 1, 2006

TABLE OF CONTENTS

		PAGES
ARTICLE 1		
1.1	Formation and Name of partnership	1
1.2	Purpose and Powers	1
1.3	Term	2
1.4	Maintenance of Records and Books	2
ARTICLE 2 – CERTAIN DEFINED TERMS		2
ARTICLE 3 – PARTNERSHIP CAPITAL AND PARTNERSHIP INTERESTS		
3.1	Initial Partnership Capital	3
3.2	Additional Partnership Capital	3
3.3	Interest: Return of Partnership Capital	4
ARTICLE 4 – CAPTIAL ACCOUNTS; PROFITS AND LOSSES		
4.1	Capital Accounts	4
4.2	Profits and Losses	4
4.3	Profit Entitlement	4
4.4	Amounts Withheld	5
ARTICLE 5 – PARTNERSHIP PROPERTY		
5.1	Partnership Property	5
5.2	Partnership Share of Assets and Liabilities	5
ARTICLE 6 – MANAGEMENT OF BUSINESS; ADMINISTRATIVE PROVISIONS		
6.1	Management Powers	6
6.2	Partners	8
ARTICLE 7 – TRANSFERS OF PARTNERSHIP INTERESTS; WITHDRAWL		
7.1	Restriction on Transfer of Partners' Interests	9
7.2	Withdrawal	9
7.3	Waiver of Partition	9
ARTICLE 8 – DISSOLUTION OF THE PARTNERSHIP		
8.1	Events Causing Dissolution	10
8.2	Election to Continue	10

ARTICLE 9 – LIQUIDATION OF THE PARTNERSHIP 10

ARTICLE 10 – EXCULPATION AND INDEMNIFICATION OF THE PARTNERS AND OTHER INDEMNIFIED PERSONS

10.1 Exculpatory Provisions 11
10.2 Indemnification of partners and Other Covered Persons 12
10.3 Duties and Liabilities of Covered Persons 14
10.4 Joint and Several Liability 14

ARTICLE 11 – MISCELLANEOUS PROVISIONS

11.1 Other Business 14
11.2 Governing Laws 14
11.3 Entire Agreement 15
11.4 Notice 15
11.5 Severability; Substitution 15
11.6 Headings 16
11.7 Counterparts 16
11.8 Amendment to Agreement of Partnership 16

TRANSURBAN (895) GENERAL PARTNERSHIP

**(a general partnership
formed under the laws of Delaware)**

General Partnership Agreement

This General Partnership Agreement is made as of the 1st day of May 2006 (this "Partnership Agreement"), by and among the undersigned partners ("Partners").

WHEREAS, the Partners have joined together in a general partnership for the purpose of carrying on a business in common with a view to profit as hereinafter set forth.

NOW, THEREFORE, in consideration of the mutual promises of the Partners hereto one to another and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, it is agreed as follows:

ARTICLE 1

1.1 Formation and Name of Partnership

The undersigned Partners have formed a general partnership under the name of Transurban (895) General Partnership (the 'Partnership") or, if such name is not available for use in Delaware or in any other state, locality or jurisdiction in which the Partnership shall at any time transact business, such other name as the Partners (as hereinafter defined) may select. The Partners hereby elect that the Partnership shall be governed by the Delaware Revised Uniform Partnership Act, 6 Del. C. Section 15-101, et seq, (the "Act"). Each of the parties to this Partnership Agreement has been admitted as a partner of the Partnership.

1.2 Purpose and Powers

The purpose and character of the business of the Partnership is to engage in (i) the business of holding and managing investments, including in the toll road sector in the United States, and borrowing funds in respect of such investments and contributing any such funds as equity or debt to its subsidiaries for their acquisition of investments, (ii) any other business which a partnership is permitted to carry on pursuant to the Act and (iii) any other activities necessary, suitable or proper for, incidental to or arising out of the conduct of the Partnership's business or for the carrying out of the purposes hereinafter enumerated. The Partnership shall have the power to do such things and engage in such activities related to the foregoing as may be necessary, convenient or incidental to the conduct of the business of the Partnership, and have and exercise all of the powers and rights conferred upon partnerships formed pursuant to the Act and this Partnership Agreement.

1.3 Term

The term of the Partnership shall commence at the date hereof and shall continue until the winding-up of partnership affairs is completed pursuant to the provisions of Article 9 hereof.

1.4 Maintenance of Records and Books

The Partnership shall maintain at its principal place of business separate books of account for the Partnership that shall show a true and accurate record of all costs and expenses incurred, all charges made, all credits made and received, and all income derived in connection with the conduct of the Partnership and the operation of the Partnership business in accordance with this Agreement.

ARTICLE 2

CERTAIN DEFINED TERMS

The defined terms used in this Partnership Agreement shall, unless the context otherwise requires, have the meanings specified in this Article 2. The singular shall include the plural, and the masculine gender shall include the feminine and neuter, and vice versa, as the context requires.

"Act" means the Delaware Revised Uniform Partnership Act, 6 Del. C. Section 15-101, et seq, as amended from time to time.

"Affiliate" means, with respect to any Person, any other Person that controls, is controlled by or is under common control with such Person. For the purposes of this definition, "control" means the ownership, directly or indirectly, of equity securities or other ownership interests which represent more than 50% of the voting power in such Person.

"Capital Account" means that account maintained for each Partner as set forth in Article 4.1 hereof.

"Code" means the Internal Revenue Code of 1986, as amended from time to time (or any corresponding provisions of succeeding law).

"Disabling Conduct" has the meaning specified in Article 10.1(a) hereof.

"General Partner" or "General Partners" means Transurban (USA Holdings No 1) Pty Ltd and Transurban (USA Holdings No 2) Pty Ltd, both of which are companies which have their principal place of business at Level 43, Rialto South Tower, 525 Collins Street, Melbourne Victoria 3000, Australia and includes any Person who

becomes a successor or additional general partner pursuant to the terms of this Partnership Agreement.

"Interest" or "Partnership Interest" means the right of a Partner to certain economic benefits to which such Partner may be entitled under the provisions of this Partnership Agreement.

"Partner" means any General Partner.

"Partnership" means Transurban (895) General Partnership, a Delaware general partnership.

"Partnership Agreement" means this agreement.

"Partnership Capital" means the total amount of cash (or the equivalent value thereof in property or services rendered) contributed to the Partnership by all of the Partners, or by any one Partner as the context may require.

"Partnership Property" means the property of the Partnership as set forth in Article 5 hereof.

"Percentage of Partnership Interest" means those percentage interests listed in Exhibit A hereto, as such percentage interests may be adjusted from time to time under the terms hereof.

"Person" means any individual, partnership, corporation, company, trust or other entity.

ARTICLE 3

PARTNERSHIP CAPITAL AND PARTNERSHIP INTERESTS

3.1 Initial Partnership Capital

Each Partner has contributed or shall contribute to the capital of the Partnership the property listed next to its name at "Exhibit A" hereto, as consideration for the Percentage of Partnership Interest reflected thereon.

3.2 Additional Partnership Capital

From time to time when necessary or desirable for the furtherance of the Partnership business or the preservation or improvement of its property, the Partners may, upon unanimous consent, call for additional Partnership Capital. All Partners shall be entitled to participate in any increase in Partnership Capital in accordance with the Percentage of Partnership Interest held by such Partners at the date such additional capital is called for, provided, however, that if any Partner (the "Non-Contributing Partner") elects not to contribute to an increase of Partnership Capital or elects not to

contribute one hundred percent (100%) of its proportionate share, then the remaining Partners shall have the right to contribute the unpaid portion of such additional capital call allocated to the Non-Contributing Partner in the same ratio that the Partnership Interests of the participating Partners bear to each other immediately preceding the call and, if only one Partner elects to participate, that Partner may contribute the entire increase. In such event, the aggregate Percentage of Partnership Interest held by any Non-Contributing Partner or Partners shall be reduced proportionately by the amount of any contribution made by the contributing Partners to make up any deficit, and the Partnership Interest of each contributing Partner shall be increased correspondingly.

3.3 Interest: Return of Partnership Capital

No Partner shall be paid interest on any Partnership Capital or on any positive balance in its Capital Account. No Partner shall have the right to any return of his Partnership Capital except upon withdrawal, dissolution, or liquidation of the Partnership in accordance with Articles 7.2, 8.1 or 9 hereof.

ARTICLE 4

CAPITAL ACCOUNTS; PROFITS AND LOSSES

4.1 Capital Accounts

A Capital Account shall be established and maintained for each Partner on the books of the Partnership. Each Partner's Capital Account as of any relevant date shall be the amount of his initial Partnership Capital as set forth on Exhibit "A" hereto, (i) increased by the amount of money, or the fair market value of property, contributed as additional Partnership Capital, if any, made from time to time by such Partner, (ii) increased by such Partner's allocation of Partnership profits, (iii) decreased by the amount of money withdrawn by such Partner from the Partnership, (iv) decreased by the fair market value of property distributed to such Partner by the Partnership (net of liabilities secured by such distributed property), and (v) decreased by allocations to such Partner of Partnership losses, expenses and deductions. Exhibit "A" may be amended from time to time by the Partners by unanimous consent to reflect the foregoing.

4.2 Profits and Losses

Each Partner shall be entitled or shall bear such Partner's share of all Partnership items of profits, losses, distributions, deductions, expenses, credits or allowances, if any, for any period or year pro rata in accordance with the Partner's respective Percentage of Partnership Interests. All income of the Partnership shall belong to the Partners as it accrues or arises (as relevant) in accordance with each Partner's respective Percentage of Partnership Interests and all losses shall be borne by the Partners in accordance with each Partner's respective Percentage of Partnership Interests.

4.3 Profit Entitlement

To the fullest extent permitted by law, each Partner shall, upon request by such Partner, be entitled to withdraw within 10 business days its entitlement to its share of the accumulated Partnership profit. In the event that the Partnership has a net loss the Partner shall, upon request by the Partnership, be obliged within 10 business days to make good its share of the accumulated Partnership loss, such request coming from the Partnership.

4.4 Amounts Withheld

All amounts withheld or required to be withheld pursuant to the Code or any provision of any state, local, or foreign tax law with respect to any payment, distribution, or allocation to the Partnership or the Partners and treated by the Code (whether or not withheld pursuant to the Code) or any such tax law as amounts payable by or in respect of any Partner shall be treated as amounts distributed to the Partner with respect to whom such amount was withheld pursuant to this Article for all purposes under this Agreement.

ARTICLE 5

PARTNERSHIP PROPERTY

5.1 Partnership Property

All property and rights and interest in property originally brought into the Partnership or acquired, whether by purchase or otherwise, on account of the Partnership or for the purposes and in the course of the Partnership business, are called Partnership Property, and will be held and applied by the Partnership exclusively for the purposes of the Partnership and in accordance with this Partnership Agreement, but notwithstanding Sections 15-203 and 15- 501 of the Act such property shall remain the property of the Partners, jointly.

5.2 Partnership Share of Assets and Liabilities

Consequently, each Partner shall be regarded as owning a proportionate share of the Partnership Property as tenants in partnership and as between partners is liable for a proportionate share of the liabilities of the Partnership.

ARTICLE 6

MANAGEMENT OF BUSINESS; ADMINISTRATIVE PROVISIONS

6.1 Management Powers

Except as hereafter set forth, the Partners shall have full, exclusive and complete discretion in the management and control of the business of the Partnership for the purposes herein stated and, subject to the terms hereof, shall make all decisions affecting the business of the Partnership and may take such actions as they deem necessary or appropriate to accomplish the purposes of the Partnership as set forth herein. For the avoidance of doubt, on any decision concerning the management and control of the business of the Partnership each Partner shall have a vote accorded that weight of its Percentage of Partnership Interest and each vote shall be decided by a majority. In connection with such management and control, the Partners shall have the power and authority to do or cause to be done any and all acts deemed by the Partners to be necessary or appropriate to carry out the purposes of the Partnership, including, without limitation, the following:

(i) to enter into and perform any contract, lease, arrangement or course of dealing with any Partner or Partners, or with any Person controlled by, under common control with, controlling or otherwise affiliated with any Partner or Partners;

(ii) to borrow funds, lend Partnership funds, including borrowing from or loan to any Partner, obligate the Partnership as a surety, guarantor or accommodation party to any obligation, including an obligation of any Partner, to give security on any Partnership Property, including real estate, and in general to enter into all such financial arrangements and pay all such expenses of the Partnership as the Partners shall deem appropriate;

(iii) to acquire by purchase, lease, exchange or otherwise, any real or personal property, including without limitation, to subscribe for shares or interests in any Person;

(iv) to enter into license agreements (as licensee or licensor), agreements for the acquisition or disposition of technology, and to apply for patents, trademarks and copyrights, and to reserve any tradenames or domain names;

(v) to dispose of, sell, exchange, lease, mortgage or otherwise transfer any Partnership Property in the ordinary course of business;

(vi) to deposit, withdraw, invest, pay, retain and distribute the Partnership funds in any manner, consistent with the provisions of this Partnership Agreement;

(vii) to employ agents, employees, managers, accountants, attorneys, consultants and other Persons necessary or appropriate to carry out the business and operations of the Partnership and to pay fees, expenses, salaries, wages and other compensation to such Persons and to enter into formal employment agreements, pay pensions, and establish pension, bonus or profit sharing agreements as it deems appropriate;

(viii) to pay, agree to, extend, renew, modify, adjust, submit to arbitration, prosecute, defend or compromise, upon such terms as it may determine and upon such evidence as it may deem sufficient, any obligation, investigation, proceeding, arbitration, suit, liability, cause of action or claim, including taxes, either in favour of or against the Partnership;

(ix) to determine the appropriate accounting method or methods to be used by the Partnership and to select independent financial auditors to audit the books and records of the Partnership;

(x) to establish the fiscal year of the Partnership, and to change such fiscal year from time to time;

(xi) to maintain or cause to be maintained records of all rights and interests acquired for or disposed of by the Partnership, all correspondence relating to the Partnership business and the original records of all statements, bills and other instruments furnished to the Partnership in connection with its business;

(xii) to purchase and maintain, at their discretion and at the expense of the Partnership, liability, casualty and other insurance sufficient to protect the Partners, any Person or Persons employed or engaged by the Partners or the Partnership, the Partnership and its property from and against those liabilities and hazards which may be insured against in the conduct of the Partnership's business;

(xiii) to make, execute, assign, acknowledge, deliver, perform and file on behalf of the Partnership, any and all agreements, consents, documents or instruments of any kind which the Partners may deem necessary, convenient or appropriate in carrying out the purposes and businesses of the Partnership, including, without limitation, powers of attorney, agreements of indemnification, sales contracts, deeds, options, loan agreements, mortgages, indentures, deeds of trust, notes, subscriptions, documents or instruments of any kind or character and amendments thereto. Any Person dealing with the Partners shall not be required to determine or inquire into the authority or power of the Partners to bind the Partnership and to execute, acknowledge and deliver any and all documents in connection therewith; and

(xiv) to exercise any right or power granted or permitted under the Act and not specifically enumerated in this Article 6.1.

6.2 Partners

(a) The Partners shall devote such time and attention to the business of the Partnership as may be reasonably necessary to the conduct of such business and shall act as mutual agents of each other in their relationship as Partners.

(b) The Partners may, directly or indirectly (including, without limitation, through an entity in which the Partners hold a material ownership interest), deal with the Partnership in connection with the construction, management, acquisition, operation or disposition of any Partnership Property or otherwise, as an independent contractor or as an agent for others and may receive from such others or the Partnership normal profits, compensation, commissions or other income incident to such dealings without having to account to the Partnership therefore provided that such profits, compensation, commissions or other income shall be commensurate with commercial terms generally prevalent in the industry in question.

(c) The Partners may be reimbursed by the Partnership for expenses incurred in connection with the formation of the Partnership and from time to time, for reasonable expenses incurred in connection with the operation and management of the Partnership.

ARTICLE 7

TRANSFERS OF PARTNERSHIP INTERESTS; WITHDRAWAL

7.1 Restriction on Transfer of Partners' Interests

To the fullest extent permitted by law, no Partner may sell, assign, transfer, mortgage, pledge, alienate, dispose of or encumber any Partnership Interest in whole or in part in any manner whatsoever without the unanimous consent of the other Partners.

7.2 Withdrawal

No Partner shall have the right to withdraw from the Partnership during the term hereof; provided, however, that where the Partners fail to come to an agreement, within seven (7) business days of the emergence of a disagreement between them in connection with a material matter that concerns the Partnership, all Partners shall withdraw from the Partnership and the Partnership will dissolve in accordance with Article 8 hereof.

7.3 Waiver of Partition

No Partner shall, either directly or indirectly, take any action to require partition or appraisement of the Partnership or of any of its assets or properties or cause the sale of any Partnership Property, and notwithstanding any provisions of applicable law to the contrary, each Partner (and his legal representatives, successors, or assigns) hereby irrevocably waives any and all right to maintain any action for partition or to compel any sale with respect to his Partnership interest, or with respect to any assets or properties of the Partnership, except as expressly provided in this Agreement.

ARTICLE 8

DISSOLUTION OF THE PARTNERSHIP

8.1 Events Causing Dissolution

The Partnership shall dissolve upon the happening of any of the following events:

(i) the passage of ninety (90) days after the sale or other disposition of all or substantially all of the Partnership Property;

(ii) the affirmative vote of all the Partners;

(iii) an event of Partners' withdrawal as outlined in Article 7.2 above;

(iv) the bankruptcy or dissolution of a Partner;

(v) a decree of court under Section 15-801 of the Act; or

(vi) the expiration of 99 years from commencement.

8.2 Election to Continue

Notwithstanding the foregoing (i) thru (iv), the Partnership shall not be dissolved upon the occurrence of bankruptcy, dissolution, liquidation, winding-up, withdrawal or removal of a Partner if, within ninety (90) days after such bankruptcy, dissolution, liquidation, winding-up, withdrawal or removal, the remaining Partners holding forty-five per cent (45%) of the remaining Partnership Interests agree to continue the business of the Partnership, and, in the event that there is only one remaining Partner, to the appointment of one or more additional Partners, effective as of the date of such bankruptcy, dissolution, liquidation, winding-up, withdrawal, or removal.

ARTICLE 9

LIQUIDATION OF THE PARTNERSHIP

(a) Upon dissolution of the Partnership, the Partners shall apply and distribute the Partnership Property as contemplated by this Article.

(b) After payment of liabilities owing to creditors of the Partnership, the Partners shall set aside as a reserve such amount as they deem reasonably necessary for any contingent or unforeseen liabilities or obligations of the Partnership. Such reserve may be paid over by the Partners to a bank or trustee, to be held in escrow for the purpose of paying any such contingent or unforeseen liabilities or obligations and, at the expiration of such period as the Partners may deem reasonably advisable, the amount in such reserve shall be distributed to the Partners as provided in this Partnership Agreement. After paying such liabilities and providing for such reserves and after payment of expenses of liquidation, the Partnership will cause the remaining Partnership Property to be distributed to the Partners in accordance with their respective interests therein as reflected by their positive Capital Account balances.

(c) Upon dissolution of the Partnership, if there are no Partners, the legal representative of the last surviving Partner or such other Persons who may be appointed in accordance with applicable law shall be responsible to take all action related to the winding-up and distribution of Partnership Property and shall perform the actions of the Partners described in this Article 9.

ARTICLE 10

EXCULPATION AND INDEMNIFICATION OF THE PARTNERS AND OTHER INDEMNIFIED PERSONS

10.1 Exculpatory Provisions

(a) Notwithstanding any other terms of this Partnership Agreement, whether express or implied, or obligation or duty at law or in equity, neither the Partners, their Affiliates, nor any of their respective officers, directors, shareholders, partners, employees, representatives or agents, officer, employee, representative or agent of the Partnership and its Affiliates (individually, a "Covered Person" and collectively, the "Covered Persons") shall be liable to the Partnership or any Partner for any act or omission (in relation to the Partnership, this Partnership Agreement, any related document or any transaction or investment contemplated hereby or thereby, or any resolution, instruction or direction of or by any Partner or Partners) taken or omitted in good

faith by a Covered Person and in the reasonable belief that such act or omission is in or is not contrary to the best interests of the Partnership and is within the scope of authority granted to such Covered Person by this Partnership Agreement, or the Partners, provided that such act or omission does not constitute fraud, wilful misconduct, bad faith or gross negligence ('Disabling Conduct").

(b) A Covered Person may rely and shall incur no liability in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, bond, debenture, paper, document, signature or writing reasonably believed by it to be genuine, and may rely on a certificate signed by an officer of any Person or within such Person's knowledge and may rely on an opinion of counsel selected by such Covered Person with respect to legal matters unless such Covered Person acts in bad faith.

10.2 Indemnification of Partners and Other Covered Persons

(a) To the fullest extent permitted by law, the Partnership shall indemnify and hold harmless the Covered Persons from and against any and all losses, claims, demands, liabilities, expenses (including all legal fees and expenses), judgements, fines, settlements, and other amounts arising from any and all claims, demands, actions, suits or proceedings, civil, criminal, administrative or investigative, in which the Covered Person may be involved, or threatened to be involved, as a party or otherwise, by reason of its management of the affairs of the Partnership, or the Partners or its status as a Partner, an Affiliate thereof, or partner, director, officer, stockholder, employee, representative or agent thereof or of the Partnership or a Person serving at the request of the Partnership, the Partners or any Affiliate thereof in another entity in a similar capacity, which relates to or arises out of the Partnership, its property, its business or affairs, and regardless of whether the liability or expense accrued relates to, in whole, or in part, arose or was incurred any time before, on or after the dates hereof. The negative disposition of any action, suit or proceeding by judgement, order, settlement, conviction or upon a plea of nolo contendere, or its equivalent, shall not, of itself, create a presumption that the Covered Person acted in a manner contrary to the standard set forth in Article 10.2(b) below. Any indemnification pursuant to this Article 10.2 shall be made out of the Partnership Property.

(b) A Covered Person shall not be entitled to indemnification under this Article 10.2 with respect to any claim, issue or

matter in which it has engaged in Disabling Conduct; provided, however, that a court of competent jurisdiction, may determine upon application that, despite such Disabling Conduct, in view of all the circumstances of the case, the Covered Person is fairly and reasonably entitled to indemnification for such liabilities and expenses as the court may deem proper.

(c) To the fullest extent permitted by law, expenses (including legal fees and expenses) incurred by a Covered Person in defending any claim, demand, action, suit or proceeding shall, from time to time, be advanced by the Partnership on an undertaking by or on behalf of the Covered Person to repay such amount if it shall be determined that the Covered Person is not entitled to be indemnified as authorised in this Article 10.2.

(d) The indemnification provided by this Article 10.2 shall be in addition to any other rights to which a Covered Person may be entitled under any agreement, by law or vote of the Partners as a matter of law or otherwise, both as to actions in the Covered Person's capacity as a Partner, an Affiliate thereof or a partner, director, officer, stockholder, partner, representative, employee or agent thereof; director, officer, employee, representative or agent of the Partnership or an Affiliate thereof and, as to actions in any other capacity, shall continue as to a Covered Person who has ceased to serve in such capacity and shall inure to the benefit of the heirs, successors, assigns and administrators of a Covered Person.

(e) The Partners and the Partnership may purchase and maintain insurance, to the extent and in such amounts as the Partners shall, in their sole discretion, deem reasonable, on behalf of Covered Persons and such other Persons as the Partners shall determine, against any liability that may be asserted against or expenses that may be incurred by such Covered Person in connection with activities of the Partnership or such indemnities, regardless of whether the Partnership would have the power to indemnify such Person against such liability under the provisions of this Partnership Agreement. The Partners and the Partnership may enter into indemnity contracts with Covered Persons and adopt written procedures pursuant to which arrangements are made for the advancement of expenses and the funding of obligations under this Article 10.2 and containing such other procedures regarding indemnification as are appropriate.

(f) A Covered Person shall not be denied indemnification in whole or in part under this Article 10.2 because the Covered Person had an interest in the transaction with respect to which

the indemnification applies if the transaction is otherwise permitted by the terms of this Partnership Agreement.

(g) The provisions of this Article 10.2 are for the benefit of the Covered Persons and their heirs, successors, assigns, administrators and personal representatives and shall not be deemed to be for the benefit of any other Persons. The provisions of this Article 10.2 shall not be amended in any way that would adversely affect the Covered Person without the consent of the Covered Person.

10.3 Duties and Liabilities of Covered Persons

To the extent that, at law or in equity, a Covered Person has duties (including fiduciary duties) and liabilities relating thereto to the Partnership or to the Partners, the Partners and any other Covered Person acting in connection with the Partnership's business or affairs shall not be liable to the Partnership or to any Partner for its good faith reliance on the provisions of this Partnership Agreement. The provisions of this Partnership Agreement, to the extent that they restrict the duties and liabilities of a Covered Person otherwise existing at law or in equity, are agreed by the Partners to replace such other duties and liabilities of such Covered Person.

10.4 Joint and Several Liability

Notwithstanding any provision of this Partnership Agreement or the Act to the contrary, each Partner shall be jointly and severally liable for all debts and obligations of the Partnership. Each Partner, by acquiring its interest in the Partnership and becoming a partner of the Partnership, shall be liable to the creditors of the Partnership (hereinafter referred to individually as a "Third Party Creditor", and collectively as the "Third Party Creditors"). In furtherance, but not in limitation of the generality of the foregoing, each Partner (i) is liable for any and all debts, obligations and other liabilities of the Partnership, whether arising under contract, or by tort, statute, operation of law or otherwise, enforceable directly and absolutely against each Partner by each Third Party Creditor and (ii) is deemed to and does assume, each debt, obligation and other liability of the Partnership to all Third Party Creditors.

ARTICLE 11

MISCELLANEOUS PROVISIONS

11.1 Other Business

(a) Nothing herein contained shall be construed to constitute any Partner as the agent of any other Partner with respect to any matters or business other than Partnership matters or business or in their relationship as Partners, or in any manner to limit the Partners in the carrying out of their own respective businesses.

(b) None of the Partners are hereby restricted from engaging in or possessing interests in any number of interests, trades, businesses or other ventures of every nature and description, independently or with others.

11.2 Governing Laws

It is the intent of the parties that all questions with respect to the construction of this Partnership Agreement and the rights and liabilities of the Partners and the Partnership shall be determined in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of laws. Each of the Partners hereto agrees (a) that this Partnership Agreement involves more than $100,000.00, and (b) that this Partnership Agreement has been entered into by the Partners in express reliance upon 6 Del.C. Section 2708. Each of the Partners hereby irrevocably and unconditionally agrees (a) to be subject to the jurisdiction of the courts of the State of Delaware and of the federal courts sitting in the State of Delaware, and (b) (1) to the extent such Partner is not otherwise subject to service of process in the State of Delaware, to appoint and maintain an agent in the State of Delaware as such Partner's agent for acceptance of service of legal process, and (2) to the fullest extent permitted by law, that service of process may also be made on such Partner by prepaid certified mail with a proof of mailing receipt validated by the United States Postal Service constituting evidence of valid service, and that service made pursuant to (b) (1) or (2) above shall have the same legal force and effect as if served upon such Partner personally within the State of Delaware. For purposes of implementing the Partners' agreement to appoint and maintain an agent for service of process in the State of Delaware, each such Partner does hereby appoint Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, New Castle County, as such agent.

11.3 Entire Agreement

This Partnership Agreement and the exhibits attached hereto constitute the entire agreement among the Partners hereto pertaining to the subject matter hereof and shall supersede all prior oral and written and all contemporaneous oral negotiations, commitments and understandings of the Partners in connection therewith.

11.4 Notice

Unless otherwise indicated herein, all notices, requests, demands or other communications hereunder shall be in writing to a Partner at the address or number as specified in Exhibit B hereto or such other address or number as each Partner may designate by notice of change of address or number given to the Partners in accordance with the foregoing and shall be deemed given as of (i) the date delivered, if delivered personally, (ii) five (5) days (seven (7) days for international mailings) after the postmark date if mailed by registered or certified mail, postage prepaid, return receipt requested, or (iii) the date sent if sent by cable or telecopy, such cable or telecopy transmission to be supported by a proof of transmission sheet showing that the transmission was successful and the date of the transmission.

11.5 Severability, Substitution

If for any reason any provision of this Partnership Agreement shall be judged to be invalid or unenforceable by any court or authority of competent jurisdiction, the validity or enforceability of any other provision shall be not affected and such invalid or unenforceable provision shall be replaced by a valid and enforceable provision which comes closest to creating the economic effect intended by the Partners.

11.6 Headings

Headings are for convenience only and shall not be used in construing this Partnership Agreement.

11.7 Counterparts

This Partnership Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which together shall constitute but one and the same instrument.

11.8 Amendment to Agreement of Partnership

This Partnership Agreement may be amended at any time and from time to time, but any amendment must be in writing and signed by each person who is then a Partner.

IN WITNESS WHEREOF, the Partners have caused this Partnership Agreement to be duly executed as of the day and year first above written.

Transurban (USA Holdings No 1) Pty Ltd

BY: .....
Name: Mark Licciardo
Title: duly authorised representative

Transurban (USA Holdings No 2) Pty Ltd

BY: .....
Name: PAUL O'SHEA
Title: duly authorised representative

EXHIBIT "A"

INITIAL CAPITAL CONTRIBUTIONS

	ASSETS	CASH	PERCENTAGE INTEREST
Transurban (USA Holdings No 1) Pty Ltd	Nil	$9.99	99.9%
Transurban (USA Holdings No 2) Pty Ltd	Nil	$0.01	0.1%

EXHIBIT "B"

The names, mailing addresses and cable or telecopy numbers of the partners are as follows:

NAME	ADDRESS AND NUMBER
Transurban (USA Holdings No 1) Pty Ltd	Level 43, Rialto South Tower, 525 Collins Street, Melbourne Victoria 3000, Australia Facsimile: + 61 3 9649 7380
Transurban (USA Holdings No 2) Pty Ltd	Level 43, Rialto South Tower, 525 Collins Street, Melbourne Victoria 3000, Australia Facsimile: + 61 3 9649 7380

EXHIBIT C

Resolutions

TRANSURBAN (895) GENERAL PARTNERSHIP

WRITTEN CONSENT OF PARTNERS

JUNE 22, 2006

The undersigned, being the partners of Transurban (895) General Partnership, a Delaware partnership (the "Company"), hereby consents, pursuant to the Company's Partnership Agreement, to the adoption of the resolutions below taking or authorizing the actions specified therein.

WHEREAS, the Company is an indirect parent of Transurban (895) LLC, a Delaware limited liability company (the "Operator");

WHEREAS, pursuant to an asset purchase agreement to be entered into between the Operator and Pocahontas Parkway Association ("PPA"), a Virginia non-stock, not-for-profit company, and the current operator of the Pocahontas Parkway and associated facilities, PPA intends to sell, transfer, convey and deliver to the Operator all of its right, title, and interest in and to the management, operation and maintenance of the Pocahontas Parkway and all of the rights, property and other interests of PPA associated therewith;

WHEREAS, in connection with the acquisition, the Operator will be a party to a certain Amended and Restated Comprehensive Agreement with the Virginia Department of Transportation ("VDOT") to develop and operate the Route 895 Connector pursuant to which VDOT will grant to the Operator a permit to operate, maintain, manage, and collect tolls on the Pocahontas Parkway toll road and the associated facilities;

WHEREAS, the Company is the parent of Transurban (895) US Holdings LLC (the "Borrower"), which intends to finance a portion of the costs of the acquisition of the concession and permit of the Pocahontas Parkway toll road, and certain other costs related to such acquisition and to the operation and refurbishment of the Pocahontas Parkway toll road pursuant to financing arrangements to be entered with a group of banks or other lending institutions (the "Financing");

WHEREAS, the undersigned deem it advisable and in the best interests of the Company to assist the Borrower in implementing such Financing and in connection therewith to grant a pledge in certain assets of the Company and in furtherance thereof to negotiate, execute, deliver and enter into, and perform its obligations under, the Membership Interest Pledge Agreement (the "Pledge Agreement") substantially on the terms and subject to the conditions set forth in the form of such agreement in Exhibit A attached hereto, and all other agreements, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Pledge Agreement and the transactions contemplated thereby; and

WHEREAS, the undersigned deem it advisable and in the best interests of the Company to assist the Borrower in the Financing and in connection therewith to provide financial support for the purchase of rights to operate the Pocahontas Parkway toll road and the associated facilities through the Affiliate Subordinated Note (the "Subordinated Note") substantially on the

terms and subject to the conditions set forth in the form of such agreement in Exhibit B attached hereto, and all other agreements, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Subordinated Note and the transactions contemplated thereby.

Resolution No. 1 – Pledge Agreement

NOW THEREFORE, BE IT RESOLVED, that (i) the Pledge Agreement, a copy of which has been presented to the undersigned, is approved, and (ii) the Authorized Persons (as defined below) be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Pledge Agreement and any and all other documents and the transactions contemplated thereby in such form and substance as determined by any Authorized Person. For the purposes hereof, "Authorized Persons" shall mean the President, Treasurer, Secretary or any Vice President of Transurban (USA) Development Inc., the Manager of the Company.

Resolution No. 2 – Subordinated Note

RESOLVED, that (i) the Subordinated Note, a copy of which has been presented to the undersigned, is approved, and (ii) the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Subordinated Note and any and all other documents and the transactions contemplated thereby in such form and substance as determined by any Authorized Person.

Resolution No. 3 – General Authority

RESOLVED, that the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to take and do all such other and further acts, and to negotiate, prepare, execute, deliver and cause the performance of, all such further instruments and documents, and to effect all such further filings and declarations as are necessary, appropriate or advisable to effectuate the foregoing resolution and to consummate and implement the transactions contemplated by the Pledge Agreement and the Subordinated Note, and the execution and delivery by such Authorized Persons of any such instruments or documents or the taking or doing by them of any such act in connection with the foregoing matters shall establish conclusively the authority therefor from the Company and the approval and ratification by the Company of the instruments or documents so executed and the acts so taken or done; and

RESOLVED FURTHER, that any and all actions heretofore or hereafter taken by the Authorized Persons of the Company within the intent of the foregoing resolutions be, and hereby are, ratified, confirmed and approved in all respects.

IN WITNESS WHEREOF, the undersigned partners has executed this Written Consent as of the date first written above.

TRANSURBAN (USA HOLDINGS NO 1) PTY LTD, its partner

By: _____
Name: James Christopher Brant
Title: Director

By: _____
Name: Mark Licciardo
Title: Secretary

TRANSURBAN (USA HOLDINGS NO 2) PTY LTD, its partner

By: _____
Name: James Christopher Brant
Title: Director

By: _____
Name: Mark Licciardo
Title: Secretary

EXHIBIT A

MEMBERSHIP INTEREST PLEDGE AGREEMENT

SEE TAB 32

EXHIBIT B

AFFILIATE SUBORDINATED NOTE

SEE TAB 37

EXHIBIT D

Good Standing Certificate

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "TRANSURBAN (895) GENERAL PARTNERSHIP" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE FOURTEENTH DAY OF JUNE, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "TRANSURBAN (895) GENERAL PARTNERSHIP" WAS FORMED ON THE SECOND DAY OF MAY, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE NOT BEEN ASSESSED TO DATE.

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4151930 8300

060573399

AUTHENTICATION: 4825335

DATE: 06-14-06

BRINGDOWN CERTIFICATE
OF TRANSURBAN (895) GENERAL PARTNERSHIP

June 29, 2006

This certificate is delivered pursuant to the Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Borrower"), the several banks and other financial institutions from time to time parties thereto (the "Lenders"), the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, in his or her capacity as a duly authorized officer of Transurban (895) General Partnership, a Delaware partnership (the "Partnership"), and not personally, does hereby certify that as of the date hereof (i) the certifications made in the certificate attached hereto as Attachment 1 (the "Officer's Certificate") are true and correct and (ii) the documents attached to the Officer's Certificate remain in full force and effect and have not been revoked, amended, supplanted or otherwise modified.

[Signature page follows.]

IN WITNESS WHEREOF, I hereunto affix my signature solely in the capacity as a dully authorized officer of the Partnership, and not personally as of the date hereof.

TRANSURBAN (895) GENERAL PARTNERSHIP

By: M. Kulper

Name: MICHAEL KULPER

Title: VICE PRESIDENT

ATTACHMENT 1

OFFICER'S CERTIFICATE

SEE TAB 48

CERTIFICATE OF TRANSURBAN (895) FINANCE INC.

June 22, 2006

The undersigned, being a duly elected Authorized Officer of Transurban (895) Finance Inc., a Delaware corporation (the "Company"), hereby delivers this certificate on behalf of the Company pursuant to Section 4.1(f) of that certain Loan Agreement, dated as of June 22, 2006 (as amended, modified and/or supplemented from time to time, the "Loan Agreement"), by and among Transurban (895) US Holdings LLC, a Delaware limited liability company, as the Borrower, the Lenders party thereto, and DEPFA Bank plc, in its capacity as Administrative Agent. Capitalized terms used herein but not defined herein shall have the respective meanings assigned to such terms in Appendix A to the Loan Agreement. The undersigned hereby certifies that:

1. I am the duly elected, qualified and acting Treasurer of the Company.

2. Attached hereto as Exhibit A is a true, correct complete copy of the articles of incorporation of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the bylaws of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

4. Attached hereto as Exhibit C are true and complete copies of the resolutions duly adopted by the Board of Directors of the Company by unanimous written consent, dated June 22, 2006 authorizing the transactions contemplated under the Loan Agreement. Such resolutions have not been subsequently modified, revoked, repealed, rescinded or otherwise amended, and remain in full force and effect in the form adopted and are the only resolutions adopted by the Board of Directors relating to the matters described therein.

5. The Company is a Delaware corporation duly formed and validly existing under and by virtue of the laws of the State of Delaware. Attached hereto as Exhibit D is a Certificate of Good Standing of the Company obtained from the Secretary of State of Delaware on June 14, 2006.

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Loan Agreement. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Ken Daley	President	
Michael Kulper	Vice President	M. Kulper
Mark Licciardo	Secretary	
James Christopher Brant	Treasurer	

[Signature page to follow.]

IN WITNESS WHEREOF, the undersigned Treasurer of the Company has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: James Christopher Brant
Title: Treasurer

I, Mark Licciardo, hereby certify that James Christopher Brant is, as of the date hereof, the duly elected and acting Treasurer of the Company and the signature set forth above is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: Mark Licciardo
Title: Secretary

EXHIBIT A

Articles of Incorporation

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED ARE TRUE AND CORRECT COPIES OF ALL DOCUMENTS ON FILE OF "TRANSURBAN (895) FINANCE INC." AS RECEIVED AND FILED IN THIS OFFICE.

THE FOLLOWING DOCUMENTS HAVE BEEN CERTIFIED:

CERTIFICATE OF INCORPORATION, FILED THE FIRST DAY OF MAY, A.D. 2006, AT 5:52 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE AFORESAID CERTIFICATES ARE THE ONLY CERTIFICATES ON RECORD OF THE AFORESAID CORPORATION, "TRANSURBAN (895) FINANCE INC.".

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4151493 8100H

060573416

AUTHENTICATION: 4825348

DATE: 06-14-06

State of Delaware
Secretary of State
Division of Corporations
Delivered 05:48 PM 05/01/2006
FILED 05:52 PM 05/01/2006
SRV 060404541 - 4151493 FILE

CERTIFICATE OF INCORPORATION

OF

TRANSURBAN (895) FINANCE INC.

ARTICLE 1

The name of the corporation is:

Transurban (895) Finance Inc.

ARTICLE 2

The address of the corporation's registered office in the State of Delaware is 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808, New Castle County. The name of the corporation's registered agent at such address is Corporation Service Company.

ARTICLE 3

The purpose of the corporation is to engage in any part of the world in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

ARTICLE 4

The total number of shares of stock which the corporation shall have authority to issue is 3,000, all of which shall be common stock having a par value of $0.01 per share.

ARTICLE 5

The name and mailing address of the sole incorporator are as follows:

NAME	MAILING ADDRESS
Robert J. Willson, Jr.	Baker & McKenzie LLP 130 East Randolph Drive, Suite 3500 Chicago, Illinois 60601

ARTICLE 6

In furtherance and not in limitation of the powers conferred by statute, the board of directors is expressly authorized to adopt, amend or repeal the bylaws of the corporation; provided, however, that such authorization shall not divest the stockholders of the power or limit the power of the stockholders to adopt, amend or repeal the bylaws of the corporation.

ARTICLE 7

Meetings of stockholders may be held within or without the State of Delaware, as the bylaws of the corporation may provide. The books of the corporation may be kept outside the State of Delaware at

such place or places as may be designated from time to time by the board of directors or in the bylaws of the corporation. Election of directors need not be by written ballot unless the bylaws of the corporation so provide.

ARTICLE 8

The corporation shall have the power to indemnify its directors, officers, employees or agents to the full extent permitted by the General Corporation Law of the State of Delaware as now in force or hereafter amended.

ARTICLE 9

No director shall be liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director except as provided for in Section 102(b)(7) of the General Corporation Law of the State of Delaware as now in force or as hereafter amended. Any repeal or modification of this Article shall not adversely affect any right or protection of a director of the corporation existing at the time of such repeal or modification.

ARTICLE 10

Whenever a compromise or arrangement is proposed between this corporation and its creditors or any class of them and/or between this corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this corporation under the provisions of section 291 of Title 8 of the Delaware Code or on the application of trustees in dissolution or of any receiver or receivers appointed for this corporation under the provisions of section 279 of Title 8 of the Delaware Code, order a meeting of the creditors or class of creditors and/or of the stockholders or class of stockholders of this corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors and/or of the stockholders or class of stockholders of this corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this corporation, as the case may be, and also on this corporation.

ARTICLE 11

The corporation reserves the right to amend, alter, change or repeal any provision contained in this certificate of incorporation in the manner now or hereafter prescribed by the laws of the State of Delaware, and all rights and powers conferred upon stockholders herein are granted subject to this reservation.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Incorporation this 1st day of May, 2006.

/s/ Robert J. Willson, Jr.
Robert J. Willson, Jr.
Sole Incorporator

EXHIBIT B

Bylaws

BYLAWS

OF

TRANSURBAN (895) FINANCE INC.

(a Delaware corporation)

ARTICLE 1

OFFICES

1.1 REGISTERED OFFICE

The corporation shall maintain a registered office and registered agent in the state of Delaware. The registered office and/or registered agent of the corporation may be changed from time to time by action of the board of directors.

1.2 OTHER OFFICES

The corporation may also have offices at such other places both within or outside the state of Delaware as the board of directors may from time to time determine or the business of the corporation may require.

ARTICLE 2

MEETINGS OF STOCKHOLDERS

2.1 ANNUAL MEETING; ELECTION OF DIRECTORS

(a) An annual meeting of the stockholders shall be held on the first Tuesday in September each year commencing in the year 2007. If such day should fall on a legal holiday, the meeting shall be held on the next succeeding business day that is not a legal holiday. Any other proper business may also be transacted at the annual meeting.

(b) The stockholders may elect the board of directors by written consent in lieu of the annual meeting. If the consent is less than unanimous, it will constitute a consent in lieu of the annual meeting only if all of the directorships to which directors could be elected at an annual meeting held at the effective time of the consent were (i) vacant at the effective time and (ii) filled by action of the consent.

(c) If the annual meeting is not held on the date designated for it or if the board of directors has not been elected by written consent in lieu of an annual meeting, the standing directors shall cause the meeting to be held as soon as is convenient.

2.2 SPECIAL MEETINGS

Except as otherwise required by law, special meetings of the stockholders for any purpose may be called and the location of the meeting designated by the board of directors, the chairman of the board, or the president. Holders of shares entitled to cast not less than one-third of the votes entitled to be cast at

the meeting may also call a special meeting by written request. The written request must state the purposes of the meeting and must be delivered to the chairman of the board or the president. The chairman of the board or the president, as the case may be, shall fix a date, time and place for the meeting as promptly as practicable following receipt of the written request.

2.3 REMOTE COMMUNICATION

The board of directors may, in its sole discretion, determine that a stockholders meeting shall not be held at any place, but may instead be held solely by means of remote communication. Further, the board of directors may, in its sole discretion, authorize stockholders and proxyholders not physically present at a meeting of stockholders to, by means of remote communication and subject to such guidelines and procedures as the board of directors may adopt: (a) participate in a meeting of stockholders and (b) be deemed present in person and vote at a meeting of stockholders, whether such meeting is to be held at a designated place or solely by means of remote communication. If the board of directors authorizes a meeting solely by remote communication or authorizes presence, participation and voting at a meeting by means of remote communication, the corporation must (i) implement reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxyholder, (ii) implement reasonable measures to provide such stockholders and proxyholders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (iii) maintain a record of any vote or other action taken at the meeting by means of remote communication by any stockholder or proxyholder.

2.4 NOTICE OF MEETINGS

Except as provided in Section 230 of the General Corporation Law of the State of Delaware (the "Delaware GCL"), written or printed notice of each annual or special meeting of the stockholders shall be given to each stockholder entitled to vote at the meeting. The notice (i) shall state the place, if any, date, time, means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called, (ii) shall be given not less than 10 days nor more than 60 days before the date of the meeting, and (iii) shall be given in a manner provided by and subject to Article 9 of these bylaws.

2.5 STOCKHOLDERS LIST

At least ten days before every meeting of stockholders, the officer having charge of the stock ledger shall prepare a complete list of the stockholders entitled to vote at the meeting. The list must be arranged in alphabetical order and show the address of each such stockholder and the number of shares registered in the name of the stockholder. Electronic mail addresses or other electronic contact information need not be included on the list. The list shall be open to the examination of any stockholder for any purpose germane to the meeting for a period of at least ten days prior to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to the list is provided with the notice of the meeting or (b) during ordinary business hours, at the principal place of business of the corporation. In the event the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the place of the meeting during the whole time of the meeting, and may be inspected by any stockholder present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a

reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

2.6 QUORUM

The holders of a majority of the outstanding shares of capital stock entitled to vote, present in person or represented by proxy, shall be requisite for, and shall constitute, a quorum at all meetings of the stockholders of the corporation for the transaction of business, except as otherwise required by law, the certificate of incorporation or these bylaws. If, however, a separate vote by class or series is required with respect to any matter, the holders of a majority of the shares of such class or series, as the case may be, shall constitute a quorum (as to such class or series) with respect to the matter. If a quorum is not present or represented at any meeting of the stockholders, the stockholders entitled to vote at the meeting present in person or represented by proxy shall have power to adjourn the meeting from time to time until a quorum is present or represented.

2.7 ADJOURNED MEETINGS

When a meeting is adjourned to another time and place, notice need not be given of the adjourned meeting if its time and place, if any, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at the adjourned meeting, are announced at the meeting at which the adjournment is taken. At the adjourned meeting the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.8 VOTE REQUIRED

Except as otherwise required by law, the certificate of incorporation, or these bylaws, when a quorum is present at a meeting: (a) the affirmative vote of a majority of shares present in person or represented by proxy and entitled to vote on the subject matter shall be the act of the stockholders; and (b) where a separate vote by class or series is required, the affirmative vote of the majority of shares of such class or series present in person or represented by proxy shall be the act of such class or series.

2.9 PROXIES

Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy. No proxy may be voted or acted upon after three years from its date, unless the proxy provides for a longer period. At each meeting of the stockholders, and before any voting commences, all proxies filed at or before the meeting shall be submitted to and examined by the secretary or a person designated by the secretary. No shares may be represented or voted under a proxy that has been found to be invalid or irregular.

Without limiting the manner in which a stockholder may authorize a proxy, the following shall constitute valid means of doing so:

(a) A stockholder may execute a writing authorizing another person to act for the stockholder as proxy. Either the stockholder or the stockholder's authorized officer, director, employee or agent may sign the writing. Alternatively, such person may cause his or her signature to be affixed to the writing by any reasonable means, including facsimile signature.

(b) A stockholder may authorize another person to act for the stockholder as proxy by transmitting or authorizing the transmission of a telegram, cablegram, or other means of electronic transmission to the person who will be the holder of the proxy or to a proxy solicitation firm, proxy support service organization or like agent duly authorized by the person who will be the holder of the proxy to receive such transmission. Any such transmission must either set forth or be submitted with information from which it can be determined that the stockholder authorized the transmission. If it is determined that the transmission is valid, the inspectors or, if there are no inspectors, such other persons making that determination shall specify the information upon which they relied.

Any copy, facsimile telecommunication or other reliable reproduction of such writing or transmission may be substituted or used in lieu of the original writing or transmission for all purposes for which the original writing or transmission could be used, provided that the reproduction is a complete reproduction of the entire original writing or transmission.

2.10 VOTING OF CERTAIN SHARES

With respect to shares entitled to vote:

(a) Shares standing in the name of another corporation or other entity, domestic or foreign, may be voted by such officer, agent, or proxy as the (i) bylaws or other governing document of such corporation or entity may prescribe or, (ii) in the absence of such provision, as the board of directors or other governing body of such corporation or entity may determine.

(b) Shares held in a fiduciary capacity may be voted by the fiduciary.

(c) Shares standing in the name of a trustee, receiver or pledgee may be voted by such trustee, receiver or pledgee either in person or by proxy as provided by statute.

If the shares stand of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety or otherwise, or if two or more persons have the same fiduciary relationship respecting the same shares, unless the secretary of the corporation is given written notice to the contrary and is furnished with a copy of the instrument or order appointing such persons or creating the relationship, their acts with respect to voting shall have the following effect:

(d) if only one votes, the voter's act binds all;

(e) if more than one vote, the act of the majority so voting binds all;

(f) if more than one vote, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionately unless otherwise ordered by a court having jurisdiction.

If the instrument so filed shows that any such tenancy is held in unequal interests, a majority or even split shall be a majority or even split in interest.

2.11 ACTION BY WRITTEN CONSENT OR ELECTRONIC TRANSMISSION

(a) Unless otherwise restricted by the certificate of incorporation, any action required or permitted to be taken at an annual or special meeting of stockholders may be taken by written consent without a meeting, without prior notice and without a vote, as follows:

(i) The holders of outstanding capital stock of the corporation having not less than the minimum number of votes that would be necessary to take such action at a meeting at which all shares entitled to vote thereon were present and voted must sign and date the written consent setting forth the action so taken. Consents may be executed in counterparts.

(ii) The consent(s) must be delivered to the corporation's registered office in Delaware, to its principal place of business, or to an officer or agent of the corporation having custody of the book(s) in which proceedings of meetings of the stockholders are recorded. Delivery made to the registered office must be by hand or by certified or registered mail, return receipt requested, and will be deemed delivered upon actual receipt by the registered office.

(b) All consents properly delivered in accordance with this section shall be deemed to be recorded when so delivered. No written consent shall be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered to the corporation as required by this section, written consents signed by the holders of a sufficient number of shares to take such corporate action are so recorded.

(c) A stockholder or proxyholder may consent to action by means of a telegram, cablegram or other electronic transmission. The stockholder, the proxyholder or a person or persons authorized to act for the stockholder or proxyholder must transmit the consent. The consent shall be deemed to be written, signed and dated if the transmission sets forth or is delivered with information from which the corporation can determine (i) that the transmission was transmitted by the stockholder, proxyholder or authorized person(s), and (ii) the date on which it was transmitted. The date on which the transmission is transmitted shall be deemed to be the date on which the consent was signed. No consent given by electronic transmission shall be deemed to have been delivered until it is reproduced in a paper form and delivered in accordance with Section 2.11(a), provided, however, that it may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by the board of directors.

(d) Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for all purposes for which the original writing could be used, provided that the reproduction is of the entire original writing.

(e) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the corporation as provided above.

2.12 TREASURY STOCK

Shares of its own stock belonging to the corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors of such other corporation is held, directly or indirectly, by such corporation, shall not be entitled to vote nor counted for quorum purposes. Notwithstanding the foregoing, the corporation may vote shares of its own stock that it holds in a fiduciary capacity.

ARTICLE 3

DIRECTORS

3.1 NUMBER, ELECTION AND TERM OF OFFICE

The board of directors shall consist of five (5) members, which number may be changed from time to time by action of the board of directors or the stockholders. Except as provided in Sections 3.3 and 3.4, the directors shall be elected at the annual meeting of stockholders. Elections of directors need not be by written ballot unless the board of directors votes to require a written ballot. If the election is to be by written ballot, then, if the board of directors authorizes it, a ballot submitted by electronic transmission may satisfy the requirement of a written ballot. Any such electronic transmission must either set forth or be submitted with information from which the corporation can determine that it was authorized by the stockholder or proxyholder. The directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote in the election of directors. Each director shall hold office until such director's successor is duly elected and qualified or until such director's earlier death, resignation or removal as hereinafter provided.

3.2 MANAGEMENT OF AFFAIRS OF CORPORATION

The property and business of the corporation shall be managed by or under the direction of its board of directors. The board of directors may exercise all such powers of the corporation and do all such lawful acts and things as are not reserved exclusively to the stockholders by law, the certificate of incorporation or these bylaws.

3.3 RESIGNATIONS AND VACANCIES

Any director may resign at any time by giving notice to the board of directors, the chairman of the board or the president in writing or by electronic transmission. Any such resignation shall take effect on the date of the receipt of the notice or at any later time specified in the notice. Acceptance of the resignation shall not be necessary to make it effective. If, at any time other than the annual meeting of the stockholders, any vacancy occurs in the board of directors or any new directorship is created by an increase in the authorized number of directors, a majority of the directors then in office (even if less than a quorum) may choose a successor or fill the newly created directorship. Unless removed sooner, the director so chosen shall hold office until the next annual election of directors by the stockholders and until such director's successor is duly elected and qualified. Whenever the certificate of incorporation entitles holders of any class or series of stock to elect one or more directors, vacancies and newly created directorships of such class or series may be filled by a majority of the directors elected by such class or series then in office, or by a sole remaining director so elected.

3.4 REMOVAL AND VACANCIES

Any director or the entire board of directors may be removed by the holders of a majority of the shares then entitled to vote at an election of directors except as follows: (a) if the stockholders are entitled

to exercise cumulative voting rights, then no director may be removed without cause if the votes cast against such director's removal would be sufficient to elect such director if then cumulatively voted at an election of the entire board of directors, and (b) if there are classes of directors, then the stockholders may effect such removal only for cause. The successor to any director so removed may be elected at the meeting at which the removal was effectuated. The remaining directors may fill any remaining vacancies created by the removal. Whenever the holders of any class or series are entitled to elect one or more directors by the provisions of the certificate of incorporation, the provisions of this section shall apply, in respect to the removal without cause of a director or directors so elected, to the vote of the holders of the outstanding shares of that class or series and not to the vote of the outstanding shares as a whole.

3.5 ANNUAL AND REGULAR MEETINGS

The annual meeting of the board of directors shall be held, without other notice than this bylaw, immediately after, and at the same place as, the annual meeting of the stockholders. Regular meetings of the board of directors, other than the annual meeting, may be held at such time and at such place as the board may from time to time fix by resolution and no notice (other than the resolution) need be given as to any regular meeting.

3.6 SPECIAL MEETINGS

Special meetings of the board of directors may be called by the chairman of the board or the president and shall be called by the secretary at the request of any director, to be held at such time and place, either within or outside Delaware, as shall be designated by the call and specified in the notice of such meeting.

3.7 NOTICE OF MEETINGS

Notice of special meetings of the board of directors shall be provided to each director pursuant to Article 9 of these bylaws. If such notice is mailed, it shall be deposited in the United States mail, postage prepaid, at least five calendar days before such meeting. If such notice is given by overnight courier, it shall be given to the overnight courier service for delivery at least three calendar days before such meeting. If such notice is given personally or by electronic transmission, it shall be delivered or transmitted at least one calendar day before the time of the meeting. Notwithstanding the provisions of this Section 3.7 or Article 9 of these bylaws, notice to a director whose address is outside of the United States must be by overnight courier or electronic transmission. Except as otherwise provided by law or these bylaws, meetings may be held at any time without notice if all of the directors are present or if, at any time before or after the meeting, those not present waive notice of the meeting in writing.

3.8 QUORUM REQUIRED, VOTE AND ADJOURNMENT

Except as otherwise provided by law or these bylaws: (a) at each meeting of the board of directors, the presence of not less than a majority of the whole board shall be necessary and sufficient to constitute a quorum for the transaction of business; and (b) the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors. If a quorum is not present at any meeting of directors, the directors present may adjourn the meeting, without notice other than announcement at the meeting, until a quorum is present.

3.9 COMMUNICATIONS EQUIPMENT

Unless otherwise restricted by the certificate of incorporation, any member of the board of directors or of any committee designated by the board may participate in a meeting of the directors or

committee by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by means of such equipment shall constitute presence in person at such meeting.

3.10 PRESUMPTION OF ASSENT

Unless applicable law provides otherwise, a director of the corporation who is present at a meeting of the board of directors at which action is taken on any corporate matter shall be presumed to have assented to the action taken unless: (a) the director's dissent is entered in the minutes of the meeting; or (b) the director files a written dissent to the action with the person acting as secretary of the meeting before the adjournment thereof or forwards the dissent by registered mail to the secretary of the corporation immediately after the adjournment of the meeting. Such right to dissent shall not apply to a director who voted in favor of any action.

3.11 ACTION BY WRITTEN CONSENT

Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the board of directors, or of any committee thereof, may be taken without a meeting, if all members of the board or of such committee, as the case may be, consent to the action in writing or by electronic transmission, and the writing or electronic transmission is filed with the minutes of proceedings of the board or committee. The filing shall be in paper form if the minutes are maintained in paper form and in electronic form if the minutes are maintained in electronic form.

3.12 EXECUTIVE COMMITTEE

The board of directors may designate one or more directors of the corporation to constitute an executive committee, which, to the extent provided in the resolution and except as otherwise provided by law, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the corporation.

3.13 OTHER COMMITTEES

The board of directors may designate other committees consisting of one or more directors. Each member of a committee shall serve for such term and the committee shall have and may exercise such duties, functions and powers as these bylaws and the board of directors may provide, except as otherwise restricted by law.

3.14 ALTERNATES

The board of directors may designate one or more directors as alternate members of any committee to replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the members present at any meeting and not disqualified from voting, whether or not such members constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in place of the absent or disqualified member.

3.15 QUORUM AND MANNER OF ACTING - COMMITTEES

The presence of a majority of members of any committee shall constitute a quorum for the transaction of business at any meeting of such committee, and the act of a majority of those present shall be necessary for the taking of any action at the meeting.

3.16 COMMITTEE CHAIRMAN, BOOKS AND RECORDS, ETC.

The chairman of each committee shall be selected by the board of directors from among the members of the committee. Each committee shall fix its own rules of procedure not inconsistent with these bylaws or the resolution of the board of directors designating the committee. Each committee shall meet at such times and places and upon such call or notice as shall be provided by such rules. Each committee shall keep a record of its actions and proceedings and shall report on them to the board of directors at the board's next meeting.

3.17 FEES AND COMPENSATION OF DIRECTORS

Directors shall not receive any stated salary for their services as such, but by resolution of the board of directors a fixed fee, with or without expenses of attendance, may be allowed for attendance at each regular or special meeting of the board. Members of the board shall be allowed their reasonable traveling expenses when actually engaged in the business of the corporation. Members of any committee may be allowed like fees and expenses for attending committee meetings. Nothing in these bylaws shall be construed to preclude any director from serving the corporation in any other capacity and receiving compensation therefor.

3.18 RELIANCE UPON RECORDS

Every director of the corporation, or member of any committee designated by the board of directors, shall, in the performance of such director's duties, be fully protected in relying in good faith upon the records of the corporation and upon such information, opinions, reports or statements presented to the corporation by any of the corporation's officers or employees, or committees of the board of directors, or by any other person as to matters the director reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the corporation.

3.19 DIVIDENDS AND RESERVES

Except as otherwise provided by law or the certificate of incorporation, the board of directors may declare dividends upon stock of the corporation at any regular or special meeting. Dividends may be paid in cash, in property, in shares of stock or otherwise in the form, and to the extent, permitted by law. The board of directors may set apart, out of any funds of the corporation available for dividends, a reserve or reserves for working capital or for any other lawful purpose, and also may abolish any such reserve in the manner in which it was created.

ARTICLE 4

OFFICERS

4.1 OFFICES AND OFFICIAL POSITIONS

The officers of the corporation shall consist of a president and a secretary, and may consist of a chairman of the board, a treasurer, one or more vice presidents, and such assistant secretaries, assistant treasurers, and other officers as the board of directors shall determine. The same person may hold any two or more offices. The board of directors may choose not to fill any office for any period as it may deem advisable. None of the officers need be a director, a stockholder of the corporation or a resident of Delaware. The board of directors may from time to time establish, and abolish, official positions within the divisions into which the business and operations of the corporation are divided, pursuant to Article 5

of these bylaws, and assign titles and duties to such positions. Those appointed to official positions within divisions may, but need not, be officers of the corporation. The board of directors shall appoint persons to official positions within a division and may with or without cause remove from such a position any person appointed to it. In any event, the authority incident to an official position within a division shall be limited to acts and transactions within the scope of the business and operations of such division.

4.2 ELECTION AND TERM OF OFFICE

The board of directors shall elect the officers of the corporation at its annual meeting. If the election of officers is not held at such meeting, the election shall be held at a regular or special meeting of the board of directors as soon thereafter as may be convenient. Each officer shall hold office until such officer's successor is elected and qualified or until such officer's death, resignation or removal.

4.3 REMOVAL

The board of directors may remove an officer at any time, either with or without cause; but such removal shall be without prejudice to the contract rights, if any, of the officer.

4.4 VACANCIES

The board of directors may fill a vacancy in any office for the unexpired portion of the term.

4.5 CHAIRMAN OF THE BOARD

The chairman of the board, if a chairman of the board has been elected and is serving, shall preside at all meetings of the stockholders and the board of directors. The chairman of the board shall also have power to execute, and shall execute, deeds, mortgages, bonds, contracts and other instruments of the corporation except where required or permitted by law to be otherwise executed and except where the board of directors or president expressly delegates the execution to some other officer or agent of the corporation. The chairman of the board shall perform such other duties and have such other powers as the board of directors may from time to time assign to him or her. The chairman may sign with the secretary or an assistant secretary, or the treasurer or an assistant treasurer, certificates for shares of stock of the corporation the board of directors has authorized for issuance.

4.6 PRESIDENT

The president shall be the chief executive officer of the corporation and, in the absence of the chairman of the board, shall preside at all meetings of the stockholders, the board of directors or any committee of the board of which the president is a member. The president shall have the overall supervision of the business of the corporation and shall direct the affairs and policies of the corporation, subject to such policies and directions as the board of directors may provide. The president shall have authority to designate the duties and powers of other officers and delegate special powers and duties to specified officers, so long as such designation is not inconsistent with applicable law, these bylaws or action of the board of directors. The president shall also have power to execute, and shall execute, deeds, mortgages, bonds, contracts and other instruments of the corporation except where required or permitted by law to be otherwise executed and except where the board of directors or president expressly delegates the execution to some other officer or agent of the corporation. The president may sign with the secretary or an assistant secretary, or the treasurer or an assistant treasurer, certificates for shares of stock of the corporation the board of directors has authorized for issuance. The president shall vote, or give a proxy, power of attorney or other delegation of authority to any other person to vote, all equity interests of any other entity standing in the name of the corporation. The president in general shall have all other powers

and shall perform all other duties incident to the chief executive office of a corporation or as the board of directors may from time to time assign to the president.

4.7 VICE PRESIDENTS

In the absence of the president, at the president's request or in the event of the president's inability or refusal to act, the vice presidents in order of their rank as fixed by the board of directors or, if not ranked, the vice president designated by the board of directors or the president shall perform all duties of the president, including the duties of the chairman of the board if and as assumed by the president, and, when so acting, shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties, not inconsistent with applicable laws, these bylaws, or action of the board of directors, as the board of directors or the president may from time to time assign to them. Any vice president may sign, with the secretary or an assistant secretary, or the treasurer or an assistant treasurer, certificates for shares of stock of the corporation the board of directors has authorized for issuance.

4.8 SECRETARY

The secretary shall: (a) keep the minutes of the meetings of the stockholders, the board of directors and committees of directors in one or more books provided for that purpose; (b) see that all notices are duly given in accordance with the provisions of these bylaws or as required by law; (c) have charge of the corporate records and of the seal of the corporation; (d) keep a register of the post office address of each stockholder, director and committee member which shall from time to time be furnished to the secretary by such stockholder, director or member; (e) sign with the chairman of the board, the president or a vice president, certificates for shares of stock of the corporation the board of directors has authorized for issuance; (f) have general charge of the stock transfer books of the corporation; and (g) in general, perform all duties incident to the office of secretary and such other duties as the board of directors, the chairman of the board, or president may from time to time assign to the secretary. The secretary may delegate such details of the performance of duties of the secretary's office as may be appropriate in the exercise of reasonable care to one or more persons in his or her stead, but shall not thereby be relieved of responsibility for the performance of such duties.

4.9 TREASURER

The treasurer shall: (a) be responsible to the board of directors for the receipt, custody and disbursement of all funds and securities of the corporation; (b) receive and give receipts for monies due and payable to the corporation from any source and deposit all such monies in the name of the corporation in such banks, trust companies or other depositories as shall from time to time be selected in accordance with these bylaws; (c) disburse the funds of the corporation as ordered by the board of directors or the president or as otherwise required in the conduct of the business of the corporation; (d) render to the president or the board of directors, upon request, an account of all his or her transactions as treasurer and on the financial condition of the corporation; and (e) in general, perform all duties incident to the office of treasurer and such other duties as the board of directors, the chairman of the board, or the president may from time to time may assign to the treasurer. The treasurer may sign, with the chairman of the board, the president, or a vice president, certificates for shares of stock of the corporation the board of directors has authorized for issuance. The treasurer may delegate such details of the performance of duties of such office as may be appropriate in the exercise of reasonable care to one or more persons in his or her stead, but shall not thereby be relieved of responsibility for the performance of such duties. If required by the board of directors, the treasurer shall give a bond for the faithful discharge of his or her duties in such sum, and with such surety or sureties, as the board of directors shall determine.

4.10 ASSISTANT TREASURERS AND ASSISTANT SECRETARIES

The assistant treasurers and assistant secretaries shall perform all functions and duties which the secretary or treasurer, as the case may be, may assign or delegate; but such assignment or delegation shall not relieve the principal officer from the responsibilities and liabilities of his or her office. In addition, an assistant secretary or an assistant treasurer may sign with the chairman of the board, the president, or a vice president, certificates for shares of stock the board of directors has authorized for issuance; and the assistant secretaries and assistant treasurers shall, in general, perform such duties as the secretary or the treasurer, respectively, or the president or board of directors may from time to time assign to them. The assistant treasurers shall, if required by the board of directors, give bonds for the faithful discharge of their duties in such sums, and with such surety or sureties, as the board of directors shall determine.

4.11 SALARIES

The salaries of the officers shall be fixed from time to time by the board of directors, by such officer as it shall designate for such purpose or as it shall otherwise direct. No officer shall be prevented from receiving a salary or other compensation by reason of the fact that the officer is also a director of the corporation.

ARTICLE 5

DIVISIONS

5.1 DIVISIONS OF THE CORPORATION

The board of directors shall have the power to create and establish such operating divisions of the corporation as it may from time to time deem advisable.

5.2 OFFICIAL POSITIONS WITHIN A DIVISION

The chairman of the board or the president may appoint individuals to, and may, with or without cause, remove them from, official positions established within a division but not filled by the board of directors. The individuals appointed need not be officers of the corporation. Neither the chairman of the board nor the president may remove any individual appointed by the board of directors.

ARTICLE 6

CONTRACTS, LOANS, CHECKS AND DEPOSITS

6.1 CONTRACTS AND OTHER INSTRUMENTS

The board of directors may authorize any officer(s), agent(s) or employee(s) to enter into any contract or execute and deliver any instrument in the name of and on behalf of the corporation, or of any division thereof, subject to applicable law. Such authority may be general or confined to specific instances.

6.2 LOANS

No loans shall be contracted on behalf of the corporation, or any division thereof, and no evidence of indebtedness, other than in the ordinary course of business, shall be issued in the name of the

corporation, or any division thereof, unless authorized by the board of directors. Such authorization may be general or confined to specific instances.

6.3 CHECKS, DRAFTS, ETC.

All checks, demands, drafts or other orders for the payment of money, notes or other evidences of indebtedness issued in the name of the corporation, or any division thereof, outside of the ordinary course of business shall be signed by such officers or agents of the corporation, and in such manner, as the board of directors may from time to time authorize.

6.4 DEPOSITS

All funds of the corporation, or any division thereof, not otherwise employed shall be deposited from time to time to the credit of the corporation in such banks, trust companies or other depositories as the board of directors may select.

ARTICLE 7

CERTIFICATES OF STOCK AND THEIR TRANSFER

7.1 CERTIFICATES OF STOCK

The certificates of stock of the corporation shall be in a form approved by the board of directors, shall be numbered and shall be entered in the books of the corporation as they are issued. They shall exhibit the holder's name and number of shares and shall be signed by the chairman of the board, the president or a vice president and by the treasurer or an assistant treasurer or the secretary or an assistant secretary. If any stock certificate is signed (a) by a transfer agent or an assistant transfer agent or (b) by a transfer clerk acting on behalf of the corporation and a registrar, the signature of any officer of the corporation may be facsimile. In case any officer whose facsimile signature has thus been used on any such certificate shall cease to be such officer before the certificate has been issued, the certificate may nevertheless be issued with the same effect as if he or she were such officer at the date of issue. All certificates properly surrendered to the corporation for transfer shall be cancelled and, except as set forth in Section 7.2 below, no new certificate shall be issued to evidence transferred shares until the former certificate for at least a like number of shares has been surrendered and cancelled and the corporation reimbursed for any applicable taxes on the transfer.

7.2 LOST, STOLEN OR DESTROYED CERTIFICATES

The corporation may direct a new certificate or uncertificated shares to be issued in place of any certificate theretofore issued by the corporation alleged to have been lost, stolen or destroyed, and may also require the owner of the lost, stolen or destroyed certificate, or the owner's legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against the corporation on account of the alleged loss, theft or destruction of such certificate or the issuance of a new certificate or uncertificated shares.

7.3 TRANSFERS OF STOCK

Transfers of shares of stock shall be made only on the books of the corporation by the registered holder thereof or by its attorney or successor duly authorized as evidenced by documents filed with the secretary or transfer agent of the corporation. Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession,

assignment or authority to transfer, and in compliance with any restrictions on transfer of which the corporation has notice applicable to the certificate or shares represented thereby, the corporation shall issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books. The board of directors may adopt such additional rules and regulations as it deems advisable concerning the transfer and registration of certificates of stock of the corporation.

7.4 RESTRICTIONS ON TRANSFER

Any stockholder may enter into an agreement with other stockholders or with the corporation providing for any reasonable restriction on the right of such stockholder to transfer shares of stock of the corporation held by such stockholder. If such restriction is set forth conspicuously on the certificates representing the shares or, in the case of uncertificated shares, is contained in a notice sent pursuant to Section 151(f) of the Delaware GCL, the corporation or the transfer agent shall not be required to transfer such shares upon the books of the corporation without receipt of satisfactory evidence of compliance with the terms of such restriction.

7.5 FIXING RECORD DATE

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors, and which record date shall not be more than 60 nor less than 10 days before the date of such meeting. If no record date is fixed by the board of directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors, and which date shall not be more than ten days after the date upon which the resolution fixing the record date is adopted by the board of directors. If no record date has been fixed by the board of directors, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the board of directors is required, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office, its principal place of business, or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. If no record date has been fixed by the board of directors and prior action by the board of directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day the board of directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any

such purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

7.6 STOCKHOLDERS OF RECORD

The corporation shall be entitled to treat the holder of record of any shares of stock as the holder in fact of such shares. Accordingly, the corporation shall not be bound to recognize any equitable or other claim to or interest in such shares on the part of any other person, whether or not it has express or other notice thereof, except as otherwise provided by Delaware law.

ARTICLE 8

INDEMNIFICATION

8.1 IN GENERAL

The corporation shall indemnify any person who is or was a director or officer of the corporation, or who is or has served at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, in accordance with and to the full extent permitted by the Delaware GCL as in effect at the time of adoption of this bylaw or as amended from time to time.

The corporation shall have the power to indemnify any person who is or was an employee or agent of the corporation, or who is or has served at the request of the corporation as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise, in accordance with and to the full extent permitted by the Delaware GCL as in effect at the time of adoption of this bylaw or as amended from time to time.

8.2 INSURANCE

If authorized by the board of directors, the corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or who is or has served at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, to the full extent permitted by the Delaware GCL as in effect at the time of the adoption of this bylaw or as amended from time to time.

ARTICLE 9

NOTICE

9.1 MANNER OF NOTICE

Whenever under law, the certificate of incorporation or these bylaws notice is required to be given to any stockholder, director or member of any committee of the board of directors, it shall not be construed to require personal delivery. Except as otherwise provided in Section 3.7 of these bylaws, such notice also may be given in writing by depositing it in the United States mail (postage prepaid), by express overnight courier, or by facsimile or other electronic transmission. For purposes of these bylaws, "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by the recipient through an automated process.

9.2 NOTICE TO STOCKHOLDERS BY ELECTRONIC TRANSMISSION

Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the corporation shall be effective if given by a form of electronic transmission consented to by the stockholder to whom notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any such consent shall be deemed revoked if (a) the corporation is unable to deliver by electronic transmission two consecutive notices given by the corporation in accordance with such consent and (b) such inability becomes known to the secretary or an assistant secretary of the corporation or the transfer agent, or other person responsible for giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

9.3 EFFECTIVENESS OF NOTICE

Notice given by mail shall be deemed to be given at the time it is deposited in the United States mail. Notice given by overnight courier service shall be deemed to be given when delivered to the overnight courier service for delivery. Notice given by facsimile or other electronic transmission shall be deemed given: (a) if by facsimile transmission, when directed to a number at recipient has consented to receive notice; (b) if by electronic mail, when directed to an electronic mail address at which the recipient has consented to receive notice; (c) if by a posting on an electronic network together with separate notice to the recipient of such specific posting, upon the later of (i) such posting and (ii) the giving of such separate notice; and (d) if by any other form of electronic transmission, when directed to the recipient. An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein. The requirement for notice shall be deemed satisfied, except in the case of a stockholder meeting with respect to which written notice is required by law, if actual notice is received orally or in writing by the person entitled thereto as far in advance of the event with respect to which notice is given as the minimum notice period required by law or these bylaws.

9.4 WAIVER OF NOTICE

Whenever under law, the certificate of incorporation or these bylaws notice is required to be given, a waiver thereof in writing signed by the person or persons entitled to such notice, or a waiver by electronic transmission by the person entitled to notice, whether before, at or after the time stated therein, shall be deemed equivalent to notice. Attendance by a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors or committee of directors need be specified in any written waiver of notice or any waiver by electronic transmission, unless so required by law, the certificate of incorporation or these bylaws.

ARTICLE 10

GENERAL PROVISIONS

10.1 FISCAL YEAR

The fiscal year of the corporation shall be fixed by resolution of the board of directors. In the absence of such a resolution, the fiscal year of the corporation shall be the calendar year.

10.2 CORPORATE SEAL

The board of directors may adopt a corporate seal inscribed with the name of the corporation and the words "CORPORATE SEAL" and "DELAWARE" and otherwise in the form approved by the board.

10.3 AMENDMENTS

These bylaws may be altered, amended or repealed (a) by the affirmative vote of a majority of the stock having voting power present in person or by proxy at any annual meeting of stockholders at which a quorum is present, or at any special meeting of stockholders at which a quorum is present, if notice of the proposed alteration, amendment or repeal is contained in the notice of such special meeting, or (b) by the affirmative vote of a majority of the directors then qualified and acting at any regular or special meeting of the board, if the certificate of incorporation confers such power upon the board; provided, however, that the stockholders may provide specifically for limitations on the power of directors to amend particular bylaws and, in such event, the directors' power of amendment shall be so limited; and further provided that no reduction in the number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

EXHIBIT C

Resolutions

TRANSURBAN (895) FINANCE INC.

WRITTEN CONSENT OF SOLE SHAREHOLDER

JUNE 22, 2006

The undersigned, being the sole shareholder of Transurban (895) Finance Inc., a Delaware corporation (the "Company"), hereby consents, pursuant to the Company's by-laws, to the adoption of the resolutions below taking or authorizing the actions specified therein.

WHEREAS, the Company is affiliated with Transurban (895) LLC, a Delaware limited liability company (the "Operator");

WHEREAS, pursuant to an asset purchase agreement to be entered into between the Operator and Pocahontas Parkway Association ("PPA"), a Virginia non-stock, not-for-profit company, and the current operator of the Pocahontas Parkway and associated facilities, PPA intends to sell, transfer, convey and deliver to the Operator all of its right, title, and interest in and to the management, operation and maintenance of the Pocahontas Parkway and all of the rights, property and other interests of PPA associated therewith;

WHEREAS, in connection with the acquisition, the Operator will be a party to a certain Amended and Restated Comprehensive Agreement with the Virginia Department of Transportation ("VDOT") to develop and operate the Route 895 Connector pursuant to which VDOT will grant to the Operator a permit to operate, maintain, manage, and collect tolls on the Pocahontas Parkway toll road and the associated facilities;

WHEREAS, Transurban (895) US Holdings LLC (the "Borrower"), the parent of the Company, intends to finance a portion of the costs of the acquisition of the concession and permit of the Pocahontas Parkway toll road, and certain other costs related to such acquisition and to the operation and refurbishment of the Pocahontas Parkway toll road pursuant to financing arrangements to be entered with a group of banks or other lending institutions (the "Financing"); and

WHEREAS, the undersigned, having considered the corporate benefit accruing to the Company from the Financing, deem it advisable and in the best interests of the Company to assist the Borrower in implementing such Financing and in connection therewith to grant a security interest in the Company's assets and all other property, and to guarantee the obligations of the Borrower in connection with such financing and in furtherance thereof to negotiate, execute, deliver and enter into, and perform its obligations under, the Guarantee and Security Agreement (the "Guarantee and Security Agreement") substantially on the terms and subject to the conditions set forth in Exhibit A attached hereto, and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Guarantee and Security Agreement, the Financing and the transactions contemplated thereby.

Resolution No. 1 – Guarantee and Security Agreement

NOW THEREFORE, BE IT RESOLVED, that (i) the Guarantee and Security Agreement, a copy of which has been presented to the undersigned in the form attached as Exhibit A, is approved as being in the best interest of the Company in that substantial corporate benefit will accrue to the Company from supporting the Financing thereby, and (ii) the Authorized Persons (as defined below) be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to negotiate the terms and conditions of, and to execute and deliver, and cause the performance of the Company's obligations under, the Guarantee and Security Agreement and all other agreements, instruments, consents, certificates, authorization and any and all other documents and instruments related to, and/or necessary or desirable in connection with, the Guarantee and Security Agreement, the financing and the transactions contemplated thereby in such form and substance as determined by any Authorized Person. For the purposes hereof, "Authorized Persons" shall mean the President, Treasurer, Secretary or any Vice President of the Company.

Resolution No. 2 – General Authority

RESOLVED, that the Authorized Persons be, and each of them hereby is authorized and empowered, for and on behalf of the Company, to take and do all such other and further acts, and to negotiate, prepare, execute, deliver and cause the performance of, all such further instruments and documents, and to effect all such further filings and declarations as are necessary, appropriate or advisable to effectuate the foregoing resolution and to consummate and implement the transactions contemplated by the Guarantee and Security Agreement, and the execution and delivery by such Authorized Persons of any such instruments or documents or the taking or doing by them of any such act in connection with the foregoing matters shall establish conclusively the authority therefor from the Company and the approval and ratification by the Company of the instruments or documents so executed and the acts so taken or done; and

RESOLVED FURTHER, that any and all actions heretofore or hereafter taken by the Authorized Persons of the Company within the intent of the foregoing resolutions be, and hereby are, ratified, confirmed and approved in all respects.

IN WITNESS WHEREOF, the sole shareholder has executed this Written Consent as of the date first written above.

TRANSURBAN (895) US HOLDINGS LLC,
its sole shareholder

By: _____
Name: Ken Daley
Title: PRESIDENT

EXHIBIT A

GUARANTEE AND SECURITY AGREEMENT

SEE TAB 30

Exhibit D

Good Standing Certificate

Delaware

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "TRANSURBAN (895) FINANCE INC." IS DULY INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL CORPORATE EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE FOURTEENTH DAY OF JUNE, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "TRANSURBAN (895) FINANCE INC." WAS INCORPORATED ON THE FIRST DAY OF MAY, A.D. 2006.

AND I DO HEREBY FURTHER CERTIFY THAT THE FRANCHISE TAXES HAVE NOT BEEN ASSESSED TO DATE.

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

4151493 8300

060573416

AUTHENTICATION: 4825347

DATE: 06-14-06

BRINGDOWN CERTIFICATE
OF TRANSURBAN (895) FINANCE INC.

June 29, 2006

This certificate is delivered pursuant to the Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company (the "Borrower"), the several banks and other financial institutions from time to time parties thereto (the "Lenders"), the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, in his or her capacity as a duly authorized officer of Transurban (895) Finance Inc. and not personally, does hereby certify that as of the date hereof (i) the certifications made in the certificate attached hereto as Attachment 1 (the "Officer's Certificate") are true and correct and (ii) the documents attached to the Officer's Certificate remain in full force and effect and have not been revoked, amended, supplanted or otherwise modified.

[Signature page follows.]

IN WITNESS WHEREOF, I hereunto affix my signature solely in the capacity as a dully authorized officer of Transurban (895) Finance Inc., and not personally as of the date hereof.

TRANSURBAN (895) FINANCE INC.

By: M. Kulper
Name: MICHAEL KULPER
Title: VICE PRESIDENT

ATTACHMENT 1

OFFICER'S CERTIFICATE

SEE TAB 50

CERTIFICATE OF TRANSURBAN INFRASTRUCTURE MANAGEMENT LIMITED
ABN 27 098 147 678

June 22, 2006

The undersigned, being a duly elected director of Transurban Infrastructure Management Limited (the "Company"), hereby delivers this certificate on behalf of the Company pursuant to Section 4.1(f) of that certain Loan Agreement, dated as of June 22, 2006 (as amended, modified and/or supplemented from time to time), by and among Transurban (895) US Holdings LLC, a Delaware limited liability company, as the Borrower, the Lenders party thereto, and DEPFA Bank plc, in its capacity as Administrative Agent. Capitalized terms used herein but not defined herein shall have the respective meanings assigned to such terms in Appendix A to the Loan Agreement. The undersigned hereby certifies that:

1. I am a duly elected, qualified and acting director of the Company.

2. Attached hereto as Exhibit A is a true, correct complete copy of the certificate of incorporation of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the constitution of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

4. Attached hereto as Exhibit C are true and complete copies of the record of resolutions duly adopted by the directors of the Company by unanimous written consent, dated June 27, 2006 authorizing the transactions contemplated under the Demand Note. Such resolutions have not been subsequently modified, revoked, repealed, rescinded or otherwise amended, and remain in full force and effect in the form adopted and are the only resolutions adopted by the Member relating to the matters described therein.

5. Attached hereto as Exhibit D is a true, correct complete copy of the trust deed dated 25 April 2004 between the Company (in its capacity as trustee of the Transurban (895) Finance Trust) (as unitholder) and the Company (as trustee), and any amendments thereto, as in full force and effect on and as of the date hereof.

6. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the [Demand Note]. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Kimberley Edwards	Managing Director	
Mark Licciardo	Company Secretary	
Victor Howard	General Manager, Corporate Finance	
James Christopher Brant	Chief Financial Officer	

[Signature page to follow.]

IN WITNESS WHEREOF, the undersigned director of the Company has hereunto set his or her hand as of the date first set forth above.

By: _____
Name:
Title:

I, Mark Licciardo, hereby certify that KIMBERLEY EDWARDS is, as of the date hereof, a duly elected and acting director of the Company and the signature set forth above is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: Mark Licciardo
Title: Company Secretary

EXHIBIT A

Certificate of Incorporation

Certificate of Registration of a Company

This is to certify that

TRANSURBAN INFRASTRUCTURE MANAGEMENT LIMITED

Australian Company Number 098 147 678

is a registered company under the Corporations Act 2001 and is taken to be registered in Victoria.

The company is **limited by shares.**

The company is a **public company.**

The day of commencement of registration is **the thirteenth day of September 2001.**

Issued by the
Australian Securities and Investments Commission
on this thirteenth day of September, 2001.

David Knott
Chairman

FILE COPY

EXHIBIT B

Constitution

CONSTITUTION

TRANSURBAN INFRASTRUCTURE MANAGEMENT LIMITED

ACN 098 147 678

A company limited by shares

I certify that this is a true and complete copy of the original and that this page and the preceding 47 pages are the complete document

JAMES BRETT FRANCIS BURNS
A natural person who is a current practitioner within the meaning of the Legal Practice Act 1996
Level 43, Rialto South Tower
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Freehills

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Reference: JOR

SYDNEY MELBOURNE PERTH CANBERRA BRISBANE SINGAPORE HANOI HO CHI MINH CITY
CORRESPONDENT OFFICE IN JAKARTA

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Table of contents

Rule	*Page*
1 Preliminary	**1**
1.1 Definitions and interpretation	1
1.2 Application of the Act	2
1.3 Exercise of powers	2
1.4 Currency	4
2 Share capital	**4**
2.1 Shares	4
2.2 Preference shares	4
2.3 Power to pay brokerage, commission and interest on share capital	6
2.4 Joint holders of shares	6
2.5 Equitable and other claims	7
3 Calls, forfeiture, indemnities, lien and surrender	**7**
3.1 Calls	7
3.2 Proceedings for recovery of calls	8
3.3 Payments in advance of calls	8
3.4 Forfeiture of partly paid shares	8
3.5 Indemnity for payments by the company	10
3.6 Lien on shares	10
3.7 Surrender of shares	11
3.8 General provisions applicable to a disposal of shares under this constitution	11
3.9 Interest payable by member	12
4 Distribution of profits	**13**
4.1 Dividends	13
4.2 Capitalisation of profits	14
4.3 Ancillary powers	15
4.4 Reserves	16
4.5 Carry forward of profits	16
4.6 Dividend reinvestment plans	16
4.7 Dividend selection plans	16
5 Transfer and transmission of shares	**17**
5.1 Transfer of shares	17
5.2 Power to decline registration of transfers	18
5.3 Power to suspend registration of transfers	18
5.4 Transmission of shares	18
6 General meetings	**19**
6.1 Calling general meetings	19
6.2 Notice of general meetings	19
6.3 Admission to general meetings	20
6.4 Quorum at general meetings	20
6.5 Chairperson of general meetings	21

6.6 Conduct of general meetings 21
6.7 Decisions at general meetings 22
6.8 Voting rights 23
6.9 Representation at general meetings 24

7 Directors 26

7.1 Appointment and removal of directors 26
7.2 Vacation of office 27
7.3 Remuneration of directors 27
7.4 Director need not be a member 28
7.5 Interested directors 28
7.6 Powers and duties of directors 29
7.7 Proceedings of directors 30
7.8 Convening of meetings of directors 31
7.9 Notice of meetings of directors 31
7.10 Quorum at meetings of directors 32
7.11 Chairperson and deputy chairperson of directors 33
7.12 Decisions of directors 33
7.13 Written resolutions 34
7.14 Alternate directors 35
7.15 Committees of directors 36
7.16 Delegation to individual directors 36
7.17 Validity of acts 36

8 Executive officers 36

8.1 Managing directors 36
8.2 Deputy managing directors 37
8.3 Executive directors 37
8.4 Associate directors 37
8.5 Secretaries 37
8.6 Provisions applicable to all executive officers 38

9 Indemnity and insurance 38

9.1 Persons to whom rules 9.2 and 9.3 apply 38
9.2 Indemnity 38
9.3 Limit on indemnity 39
9.4 Extent of indemnity 39
9.5 Insurance 40
9.6 Savings 40

10 Winding up 40

10.1 Distribution of surplus 40
10.2 Division of property 41

11 Minutes and records 41

11.1 Minutes of meetings 41
11.2 Minutes of resolutions passed without a meeting 41
11.3 Signing of minutes 42
11.4 Minutes as evidence 42
11.5 Inspection of records 42

12 Execution of documents 42

12.1 Manner of execution 42
12.2 Common seal 42
12.3 Safe custody of seal 42
12.4 Use of seal 42
12.5 Seal register 43
12.6 Duplicate seal 43
12.7 Share seal or certificate seal 43
12.8 Sealing and signing of certificates 44

13 Notices 44

13.1 Notices by the company to members 44
13.2 Notices by the company to directors 45
13.3 Notices by members or directors to the company 45
13.4 Notices posted to addresses outside the Commonwealth 45
13.5 Time of service 45
13.6 Other communications and documents 45
13.7 Notices in writing 45

14 General 46

14.1 Submission to jurisdiction 46
14.2 Prohibition and enforceability 46

TRANSURBAN INFRASTRUCTURE MANAGEMENT LIMITED

A company limited by shares

Constitution

1 Preliminary

1.1 Definitions and interpretation

(a) In this constitution:

Act means Corporations Act 2001;

Commonwealth means the Commonwealth of Australia and its external territories;

representative, in relation to a body corporate, means a representative of the body corporate appointed under section 250D of the Act or a corresponding previous law;

seal means any common seal, duplicate seal, share seal or certificate seal of the company; and

transmission event means:

(1) in respect of a member who is an individual:

(A) the death of the member;

(B) the bankruptcy of the member; or

(C) the member becoming of unsound mind or a person who is, or whose estate is, liable to be dealt with in any way under the law relating to mental health; and

(2) in respect of a member who is a body corporate, the dissolution of the member or the succession by another body corporate to the assets and liabilities of the member.

(b) A reference in a rule to a partly paid share is a reference to a share on which there is an amount unpaid.

(c) A reference in a rule relating to partly paid shares to a call or an amount called in respect of a share includes a reference to a sum that, by the terms of issue of a share, becomes payable on issue or at a fixed date.

(d) A member is to be taken to be present at a general meeting if the member is present in person or by proxy, attorney or representative.

(e) A director is to be taken to be present at a meeting of directors if the director is present in person or by alternate director.

(f) Where a rule establishes an office of chairperson, the chairperson may be referred to as chair or as chairman or chairwoman, as the case requires.

(g) Where a rule establishes an office of deputy chairperson, the deputy chairperson may be referred to as deputy chair or as deputy chairman or deputy chairwoman, as the case requires.

(h) A reference in a rule in general terms to a person holding or occupying a particular office or position includes a reference to any person who occupies or performs the duties of that office or position for the time being.

(i) Unless the contrary intention appears in this constitution,

(1) words importing the singular include the plural and words importing the plural include the singular;

(2) words importing a gender include every other gender;

(3) words used to denote persons generally or importing a natural person include any company, corporation, body corporate, body politic, partnership, joint venture, association, board, group or other body (whether or not the body is incorporated);

(4) a reference to a person includes that person's successors and legal personal representatives;

(5) a reference to any statute, regulation, proclamation, ordinance or by-law includes all statutes, regulations, proclamations, ordinances or by-laws amending, consolidating or replacing it, whether passed by the same or another government agency with legal power to do so, and a reference to a statute includes all regulations, proclamations, ordinances and by-laws issued under that statute; and

(6) where a word or phrase is given a particular meaning, other parts of speech and grammatical forms of that word or phrase have corresponding meanings.

(j) In this constitution headings and boldings are for convenience only and do not affect its interpretation.

1.2 Application of the Act

(a) This constitution is to be interpreted subject to the Act. However, the rules that apply as replaceable rules to companies under the Act do not apply to the company.

(b) Unless the contrary intention appears, an expression in a rule that deals with a matter dealt with by a provision of the Act has the same meaning as in that provision of the Act.

(c) Subject to rule 1.2(b), unless the contrary intention appears, an expression in a rule that is defined for the purposes of the Act has the same meaning as in the Act.

1.3 Exercise of powers

(a) The company may, in any manner permitted by the Act:

(1) exercise any power;

(2) take any action; or

(3) engage in any conduct or procedure,

which under the Act a company limited by shares may exercise, take or engage in if authorised by its constitution.

(b) Where this constitution provides that a person or body may do a particular act or thing and the word "may" is used, the act or thing may be done at the discretion of the person or body.

(c) Where this constitution confers a power to do a particular act or thing, the power is, unless the contrary intention appears, to be taken as including a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend or vary that act or thing.

(d) Where this constitution confers a power to do a particular act or thing with respect to particular matters, the power is, unless the contrary intention appears, to be taken to include a power to do that act or thing with respect to some only of those matters or with respect to a particular class or particular classes of those matters and to make different provision with respect to different matters or different classes of matters.

(e) Where this constitution confers a power to make appointments to any office or position, the power is, unless the contrary intention appears, to be taken to include a power:

(1) to appoint a person to act in the office or position until a person is appointed to the office or position;

(2) subject to any contract between the company and the relevant person, to remove or suspend any person appointed, with or without cause; and

(3) to appoint another person temporarily in the place of any person so removed or suspended or in place of any sick or absent holder of such office or position.

(f) Where this constitution confers a power or imposes a duty then, unless the contrary intention appears, the power may be exercised and the duty must be performed from time to time as the occasion requires.

(g) Where this constitution confers a power or imposes a duty on the holder of an office as such then, unless the contrary intention appears, the power may be exercised and the duty must be performed by the holder for the time being of the office.

(h) Where this constitution confers power on a person or body to delegate a function or power:

(1) the delegation may be concurrent with, or to the exclusion of, the performance or exercise of that function or power by the person or body;

(2) the delegation may be either general or limited in any manner provided in the terms of delegation;

(3) the delegation need not be to a specified person but may be to any person from time to time holding, occupying or performing the duties of, a specified office or position;

(4) the delegation may include the power to delegate;

(5) where the performance or exercise of that function or power is dependent upon the opinion, belief or state of mind of that person or body in relation to a matter, that function or power may be performed or exercised by the delegate upon the opinion, belief or state of mind of the delegate in relation to that matter; and

(6) the function or power so delegated, when performed or exercised by the delegate, is to be taken to have been performed or exercised by the person or body.

1.4 Currency

An amount payable to the holder of a share, whether by way of or on account of dividend, return of capital, participation in the property of the company on a winding up or otherwise, may be paid, with the agreement of the holder or pursuant to the terms of issue of the share, in the currency of a country other than Australia and the directors may fix a date up to 30 days before the payment date as the date on which any applicable exchange rate will be determined for that purpose.

2 Share capital

2.1 Shares

(a) Without prejudice to any special rights conferred on the holders of any shares or class of shares, the directors may issue or grant options in respect of, or otherwise dispose of, shares to such persons, for such price, on such conditions, at such times and with such preferred, deferred or other special rights or special restrictions, whether with regard to dividend, voting, return of capital, participation in the property of the company on a winding up or otherwise, as the directors think fit.

(b) In particular, the directors may differentiate between the holders of partly paid shares as to the amount of calls to be paid and the time for payment.

2.2 Preference shares

(a) The company may issue preference shares including preference shares which are, or at the option of the company are, liable to be redeemed.

(b) The certificate issued by the company for each preference share must specify or provide for the determination of:

(1) the rate of dividend applicable to the share and the times at which dividends are to be paid;

(2) the amount paid or payable on the issue of the share and, if that amount is not payable on issue, the amount unpaid on the share;

(3) the number of votes that may be exercised by the holder in respect of the share on a poll;

(4) in the case of a redeemable preference share, the time and place for redemption of the share; and

(5) any restrictions on the right to transfer the share.

(c) The dividend payable in respect of a preference share:

(1) may be at a fixed or variable rate;

(2) unless otherwise stated in the certificate for the share, will be taken to accrue from day to day; and

(3) unless otherwise stated in the certificate for the share, is payable in respect of the amount for the time being paid on the preference share.

(d) Each preference share confers on its holder:

(1) the right to payment out of the profits of the company of a cumulative preferential dividend at the rate and at the times specified in, or determined in accordance with, the certificate for the share in priority to the payment of any dividend on any other class of shares; and

(2) the right in a winding up or reduction of capital and, in the case of a redeemable preference share, on redemption to payment in cash in priority to any other class of shares of:

(A) the amount of any dividend accrued but unpaid on the share at the date of winding up or reduction of capital or, in the case of a redeemable preference share, the date of redemption; and

(B) any amount paid on the share.

(e) A preference share does not confer on its holder any right to participate in the profits or property of the company, whether on a winding up, reduction of capital or otherwise, except as set out in rule 2.2(d).

(f) The holder of a preference share has the same right as the holder of an ordinary share to receive notice of and to attend a general meeting and to receive a copy of any documents to be laid before that meeting.

(g) A preference share does not entitle its holder to vote at any general meeting of the company except in the following circumstances:

(1) on a proposal:

(A) to reduce the share capital of the company;

(B) that affects rights attached to the share;

(C) to wind up the company; or

(D) for the disposal of the whole of the property, business and undertaking of the company;

(2) during a period during which a dividend or part of a dividend on the share is in arrears; or

(3) during the winding up of the company.

(h) The holder of a preference share who is entitled to vote in respect of that share under rule 2.2(g) is, on a poll, entitled to the number of votes specified in, or determined in accordance with, the certificate for the share.

(i) In the case of a redeemable preference share, the company must, at the time and place for redemption specified in, or determined in accordance with, the certificate for the share, redeem the share and, on receiving the certificate for the share, pay to or at the direction of the holder the amount payable on redemption of the share.

(j) A holder of a preference share must not transfer or purport to transfer, and the directors must not register a transfer of, the share if the transfer would contravene any restrictions on the right to transfer the share set out in the certificate for the share.

2.3 Power to pay brokerage, commission and interest on share capital

(a) The company may make payments by way of brokerage or commission in the manner provided by the Act.

(b) Payments by way of brokerage or commission may be satisfied by the payment of cash, by the issue of fully paid shares, by the issue of partly paid shares or by any combination of the above.

(c) The company may pay interest on its share capital in the manner provided by the Act.

2.4 Joint holders of shares

Where 2 or more persons are registered as the holders of a share they hold it as joint tenants with rights of survivorship subject to the following provisions:

(a) they and their respective legal personal representatives are liable severally as well as jointly for all payments, including calls, which ought to be made in respect of the share;

(b) subject to rule 2.4(a), on the death of any 1 of them the survivor or survivors are the only person or persons the company will recognise as having any title to the share;

(c) any 1 of them may give effectual receipts for any dividend, interest or other distribution or payment in respect of the share;

(d) except in the case of persons jointly entitled to be registered as the joint holders of a share under rule 5.4(c) the company is not bound to register more than 3 persons as joint holders of the share;

(e) the company is not bound to issue more than 1 certificate in respect of the share; and

(f) delivery of a certificate for the share to any 1 of them is sufficient delivery to all of them.

2.5 Equitable and other claims

(a) Except as otherwise required by law or provided by this constitution, the company is entitled to treat the registered holder of a share as the absolute owner of that share and is not:

(1) compelled in any way to recognise a person as holding a share upon any trust, even if the company has notice of that trust; or

(2) compelled in any way to recognise, or bound by, any equitable, contingent, future or partial claim to or interest in a share on the part of any other person except an absolute right of ownership in the registered holder, even if the company has notice of that claim or interest.

(b) With the consent of the directors, shares held by a trustee may be marked in the register in such a way as to identify them as being held subject to the relevant trust.

(c) Nothing in rule 2.5(b) limits the operation of rule 2.5(a).

3 Calls, forfeiture, indemnities, lien and surrender

3.1 Calls

(a) Subject to this constitution and to the terms upon which any shares may be issued, the directors may make calls upon the members in respect of any money unpaid on their shares which is not by the terms of issue of those shares made payable at fixed times.

(b) A call may be required by the directors to be paid by instalments.

(c) Upon receiving at least 14 days' notice specifying the time and place of payment, each member must pay to the company by the time and at the place so specified the amount called on the member's shares.

(d) A call is to be taken as having been made when the resolution of the directors authorising the call was passed.

(e) The directors may revoke or postpone a call or extend the time for payment.

(f) The non-receipt of a notice of a call by, or the accidental omission to give notice of a call to, any member does not invalidate the call.

(g) If a sum called in respect of a share is not paid in full by the day appointed for payment of the sum, the person from whom the sum is due must pay:

(1) interest on so much of the sum as is unpaid from time to time, from the date appointed for payment of the sum to the date of actual payment, at a rate determined under rule 3.9; and

(2) any costs, expenses or damages incurred by the company in relation to the non-payment or late payment of the sum.

(h) Any sum unpaid on a share that, by the terms of issue of the share, becomes payable on issue or at a fixed date:

(1) is to be treated for the purposes of this constitution as if that sum was payable pursuant to a call duly made and notified; and

(2) must be paid on the date on which it is payable under the terms of issue of the share.

(i) The directors may, to the extent permitted by law, waive or compromise all or any part of any payment due to the company under the terms of issue of a share or under this rule 3.1.

3.2 Proceedings for recovery of calls

(a) In an action or other proceedings for the recovery of a call, or interest or costs or expenses incurred in relation to the non-payment or late payment of a call, proof that:

(1) the name of the defendant is entered in the register as the holder or 1 of the holders of the share in respect of which the call is claimed;

(2) the resolution making the call is recorded in the minute book; and

(3) notice of the call was given to the defendant in accordance with this constitution,

is conclusive evidence of the debt and it is not necessary to prove the appointment of the directors who made the call or any other matter.

(b) In rule 3.2(a), "defendant" includes a person against whom a set-off or counter-claim is alleged by the company and "action or other proceedings for the recovery of a call" is to be construed accordingly.

3.3 Payments in advance of calls

(a) The directors may accept from a member the whole or a part of the amount unpaid on a share although no part of that amount has been called.

(b) The directors may authorise payment by the company of interest upon the whole or any part of an amount accepted under rule 3.3(a), until the amount becomes payable, at a rate agreed between the directors and the member paying the amount.

(c) The directors may repay to a member all or any of the amount accepted under rule 3.3(a).

3.4 Forfeiture of partly paid shares

(a) If a member fails to pay the whole of a call or instalment of a call by the time appointed for payment of the call or instalment, the directors may serve a notice on that member:

(1) requiring payment of so much of the call or instalment as is unpaid, together with any interest that has accrued and all costs, expenses or damages that may have been incurred by the company by reason of the non-payment or late payment of the call or instalment;

(2) naming a further day (at least 14 days after the date of service of the notice) by which, and a place at which, the amount payable under rule 3.4(a)(1) is to be paid; and

(3) stating that, in the event of non-payment of the whole of the amount payable under rule 3.4(a)(1) by the time and at the place named, the shares in respect of which the call was made will be liable to be forfeited.

(b) If the requirements of a notice served under rule 3.4(a) are not complied with, the directors may by resolution forfeit any share in respect of which the notice was given at any time after the day named in the notice and before the payment required by the notice is made.

(c) A forfeiture under rule 3.4(b) will include all dividends, interest and other money payable by the company in respect of the forfeited share and not actually paid before the forfeiture.

(d) Where a share has been forfeited:

(1) notice of the resolution must be given to the member in whose name the share stood immediately before the forfeiture; and

(2) an entry of the forfeiture, with the date, must be made in the register of members.

(e) Failure to give the notice or to make the entry required under rule 3.4(d) does not invalidate the forfeiture.

(f) A forfeited share becomes the property of the company and the directors may sell, reissue or otherwise dispose of the share in such manner as they think fit and, in the case of reissue or other disposal, with or without any money paid on the share by any former holder being credited as paid up.

(g) A person whose shares have been forfeited ceases to be a member in respect of the forfeited shares, but remains liable to pay, and must immediately pay, to the company:

(1) all calls, instalments, interest, costs, expenses and damages owing in respect of the shares at the time of the forfeiture; and

(2) interest on so much of the amount payable under rule 3.4(g)(1) as is unpaid from time to time, from the date of the forfeiture to the date of actual payment, at a rate determined under rule 3.9.

(h) Except as otherwise provided by this constitution, the forfeiture of a share extinguishes all interest in, and all claims and demands against the company in respect of, the forfeited share and all other rights incident to the share.

(i) The directors may:

(1) exempt a share from all or any part of this rule 3.4;

(2) waive or compromise all or any part of any payment due to the company under this rule 3.4; and

(3) before a forfeited share has been sold, reissued or otherwise disposed of, annul the forfeiture upon such conditions as they think fit.

3.5 Indemnity for payments by the company

If the company becomes liable under any law to make any payment:

(a) in respect of shares held solely or jointly by a member;

(b) in respect of a transfer or transmission of shares by a member;

(c) in respect of dividends, bonuses or other money due or payable or which may become due and payable to a member; or

(d) otherwise for or on account of or in respect of a member,

whether as a consequence of:

(e) the death of that member;

(f) the non-payment of any income tax, capital gains tax, wealth tax or other tax by that member or the legal personal representative of that member;

(g) the non-payment of any estate, probate, succession, death, stamp or other duty by that member or the legal personal representative of that member; or

(h) any other act or thing,

then, in addition to any right or remedy that law may confer on the company:

(i) the member or, if the member is dead, the member's legal personal representative must:

(1) fully indemnify the company against that liability;

(2) reimburse the company for any payment made under or as a consequence of that law immediately on demand by the company; and

(3) pay interest on so much of the amount payable to the company under rule 3.5(i)(2) as is unpaid from time to time, from the date the company makes a payment under that law until the date the company is reimbursed in full for that payment under rule 3.5(i)(2), at a rate determined under rule 3.9;

(j) the company has a lien upon all dividends, interest and other money payable in respect of the shares held solely or jointly by that member or that member's legal personal representative for all money payable to the company under this rule 3.5;

(k) the company may refuse to register a transfer of any shares by or to that member or that member's legal personal representative until all money payable to the company under this rule 3.5 has been paid; and

(l) the directors may:

(1) exempt a share from all or any part of this rule 3.5; and

(2) waive or compromise all or any part of any payment due to the company under this rule 3.5.

3.6 Lien on shares

(a) The company has a first and paramount lien on:

(1) each partly paid share for all money (whether presently payable or not) called or otherwise due under this constitution in respect of that share; and

(2) all shares registered in the name of a sole holder for all money presently payable by the holder or the holder's estate to the company, including any money payable under rule 3.5.

(b) The company's lien on a share extends to all dividends payable in respect of the share and to the proceeds of sale of the share.

(c) The directors may sell any share on which the company has a lien in such manner as they think fit where:

(1) an amount in respect of which a lien exists under this rule 3.6 is presently payable; and

(2) the company has, not less than 14 days before the date of the sale, given to the registered holder of the share a notice in writing setting out, and demanding payment of, such amount in respect of which the lien exists as is presently payable.

(d) Registration by the company of a transfer of shares on which the company has a lien without giving to the transferee notice of its claim releases the company's lien in so far as it relates to sums owing by the transferor or any predecessor in title.

(e) The directors may:

(1) exempt a share from all or any part of this rule 3.6; and

(2) waive or compromise all or any part of any payment due to the company under this rule 3.6.

3.7 Surrender of shares

(a) The directors may accept a surrender of a share by way of compromise of any claim as to whether or not that share has been validly issued or in any other case where the surrender is within the powers of the company.

(b) Any share so surrendered may be sold, reissued or otherwise disposed in the same manner as a forfeited share.

3.8 General provisions applicable to a disposal of shares under this constitution

(a) A reference in this rule 3.8 to a disposal of shares under this constitution is a reference to:

(1) any sale, reissue or other disposal of a forfeited share under rule 3.4(f) or a surrendered share under rule 3.7; and

(2) any sale of a share on which the company has a lien under rule 3.6(c).

(b) Where any shares are disposed of under this constitution, the directors may:

(1) receive the purchase money or consideration given for the shares on the disposal;

(2) effect a transfer of the shares and execute, or appoint a person to execute, on behalf of the former holder an instrument of transfer of the shares or any other instrument for the purpose of giving effect to the disposal; and

(3) register as the holder of the shares the person to whom the shares have been disposed of.

(c) A person to whom shares are disposed of under this constitution is not bound to see to the regularity or validity of, or to the application of the purchase money or consideration on, the disposal and the title of that person to the shares is not affected by any irregularity or invalidity in the forfeiture or surrender of the shares or the exercise of the company's lien on the shares (as the case may be).

(d) The remedy of any person aggrieved by a disposal of shares under this constitution is limited to damages only and is against the company exclusively.

(e) The proceeds of a disposal of shares under this constitution must be applied in the payment of:

(1) first, the expenses of the disposal;

(2) second, all money presently payable by the former holder whose shares have been disposed of;

and the balance (if any) must be paid (subject to any lien that exists under rule 3.6 in respect of money not presently payable) to the former holder:

(3) in the case of an uncertificated holding, as soon as practicable after the disposal; and

(4) in the case of a certificated holding, on the former holder delivering to the company the certificate for the shares that have been disposed of or such other proof of title as the directors may accept.

(f) A statement in writing signed by a director or secretary of the company to the effect that a share in the company has been:

(1) duly forfeited under rule 3.4(b);

(2) duly sold, reissued or otherwise disposed of under rule 3.4(f) or rule 3.7; or

(3) duly sold under rule 3.6(c),

on a date stated in the statement is conclusive evidence of the facts stated in the statement as against all persons claiming to be entitled to the share and of the right of the company to forfeit, sell, reissue or otherwise dispose of the share.

3.9 Interest payable by member

(a) For the purposes of rules 3.1(g)(1), 3.4(g)(2) and 3.5(i)(3), the rate of interest payable to the company is:

(1) if the directors have fixed a rate, the rate so fixed; or

(2) in any other case, 8% per annum.

(b) Interest payable under rules 3.1(g)(1), 3.4(g)(2) and 3.5(i)(3) accrues daily and may be capitalised monthly or at such other intervals as the directors think fit.

4 Distribution of profits

4.1 Dividends

(a) The directors may pay any interim and final dividends as, in their judgment, the financial position of the company justifies.

(b) The directors may pay any dividend required to be paid under the terms of issue of a share.

(c) The payment of a dividend does not require any confirmation by a general meeting.

(d) Subject to any rights or restrictions attached to any shares or class of shares:

(1) all dividends in respect of shares must be paid in proportion to the number of shares held by a member but where shares are partly paid all dividends must be apportioned and paid proportionately to the amounts paid or credited as paid on the partly paid shares;

(2) all dividends must be apportioned and paid proportionately to the amounts so paid or credited during any portion or portions of the period in respect of which the dividend is paid;

(3) for the purposes of rules 4.1(d)(1) and (2), an amount paid or credited as paid on a share in advance of a call is to be ignored; and

(4) interest is not payable by the company in respect of any dividend.

(e) The directors may fix a record date in respect of a dividend, with or without suspending the registration of transfers from that date under rule 5.3.

(f) A dividend in respect of a share must be paid to the person who is registered, or entitled under rule 5.1(c) to be registered, as the holder of the share:

(1) where the directors have fixed a record date in respect of the dividend, on that date; or

(2) where the directors have not fixed a record date in respect of that dividend, on the date fixed for payment of the dividend,

and a transfer of a share that is not registered, or left with the company for registration in accordance with rule 5.1(b), on or before that date is not effective, as against the company, to pass any right to the dividend.

(g) The directors when determining a dividend is payable may:

(1) direct payment of the dividend wholly or partly by the distribution of specific assets, including paid-up shares or other securities of the company or of another body corporate, either generally or to specific shareholders; and

(2) direct that the dividend be paid to particular shareholders wholly or partly out of any particular fund or reserve or out of profits derived from any particular source and to the remaining shareholders wholly or partly out of any other particular fund or reserve or out of profits derived from any other particular source or generally.

(h) The directors may deduct from any dividend payable to a member all sums of money presently payable by the member to the company and apply the amount deducted in or towards satisfaction of the money owing.

(i) Where a person is entitled to a share as a result of a transmission event, the directors may, but are not obliged to, retain any dividends payable in respect of that share until that person becomes registered as the holder of the share or transfers it.

(j) Without prejudice to any other method of payment the directors may adopt, any dividend, interest or other money payable in cash in respect of shares may be paid by cheque and sent by post:

(1) to the address of the holder as shown in the register of members, or in the case of joint holders, to the address shown in the register of members as the address of the joint holder first named in that register; or

(2) to such other address as the holder or joint holders in writing directs or direct.

(k) A cheque sent under rule 4.1(j) may be made payable to bearer or to the order of the member to whom it is sent or such other person as the member may direct and is sent at the member's risk.

4.2 Capitalisation of profits

(a) Subject to any rights or restrictions attached to any shares or class of shares, the directors may capitalise and distribute among such of the members as would be entitled to receive dividends and in the same proportions, any amount:

(1) forming part of the undivided profits of the company;

(2) representing profits arising from an ascertained accretion to capital or from a revaluation of the assets of the company;

(3) arising from the realisation of any assets of the company; or

(4) otherwise available for distribution as a dividend.

(b) The directors may resolve that all or any part of the capitalised amount is to be applied:

(1) in paying up in full shares in or other securities of the company to be issued to members;

(2) in paying up any amounts unpaid on shares in or other securities of the company held by the members; or

(3) partly as specified in rule 4.2(b)(1) and partly as specified in rule 4.2(b)(2),

and such an application must be accepted by the members entitled to share in the distribution in full satisfaction of their interests in the capitalised amount.

(c) Rules 4.1(e) and (f) apply, so far as they can and with such changes as are necessary, to a capitalisation of an amount under this rule 4.2 as if references in those rules to a dividend and to the date a dividend is declared were references to a capitalisation of an amount and to the date the directors resolve to capitalise the amount under this rule 4.2.

4.3 Ancillary powers

(a) For the purpose of giving effect to any resolution for the satisfaction of a dividend in the manner set out in rule 4.1(g)(1) or by the capitalisation of any amount under rule 4.2, the directors may:

(1) settle as they think expedient any difficulty that may arise in making the distribution or capitalisation;

(2) fix the value for distribution of any specific assets;

(3) pay cash or issue shares or other securities to any members in order to adjust the rights of all parties;

(4) vest any such specific assets, cash, shares or other securities in any trustee upon such trusts for the persons entitled to the dividend or capitalised amount as may seem expedient to the directors; and

(5) authorise any person to make, on behalf of all the members entitled to any further shares or other securities as a result of the distribution or capitalisation, an agreement with the company or another body corporate providing, as appropriate:

(A) for the issue to them of such further shares or other securities credited as fully paid up; or

(B) for the payment by the company on their behalf of the amounts or any part of the amounts remaining unpaid on their existing shares or other securities by the application of their respective proportions of the sum resolved to be capitalised,

and any agreement made under an authority referred to in this rule 4.3(a)(5) is effective and binding on all members concerned.

(b) If the company distributes to members (either generally or to specific members) securities in the company or in another body corporate or trust (whether as a dividend or otherwise and whether or not for value), each of those members appoints the company as his or her agent to do anything needed to give effect to that distribution, including agreeing to become a member of that other body corporate.

4.4 Reserves

(a) Subject to this constitution, the directors may set aside out of the profits of the company such reserves or provisions for such purposes as they think fit.

(b) The directors may appropriate to the profits of the company any amount previously set aside as a reserve or provision.

(c) The setting aside of any amount as a reserve or provision does not require the directors to keep the amount separate from the other assets of the company or prevent the amount being used in the business of the company or being invested in such investments as the directors think fit.

4.5 Carry forward of profits

The directors may carry forward so much of the profits remaining as they consider ought not to be distributed as dividends or capitalised without transferring those profits to a reserve or provision.

4.6 Dividend reinvestment plans

The directors may:

(a) implement a dividend reinvestment plan on such terms as they think fit under which the whole or any part of any dividend due to members who participate in the plan on their shares or any class of shares may be applied in subscribing for securities of the company or of a related body corporate; and

(b) amend, suspend or terminate any dividend reinvestment plan implemented by them.

4.7 Dividend selection plans

The directors may:

(a) implement a dividend selection plan on such terms as they think fit under which participants may elect:

(1) to receive a dividend from the company paid wholly or partly out of any particular fund or reserve or out of profits derived from any particular source; or

(2) to forego a dividend from the company in place of some other form of distribution from the company or another body corporate or a trust; and

(b) amend, suspend or terminate any dividend selection plan implemented by them.

5 Transfer and transmission of shares

5.1 Transfer of shares

(a) Subject to this constitution and to the rights or restrictions attached to any shares or class of shares, a member may transfer all or any of the member's shares by an instrument in writing in any usual form or in any other form that the directors approve.

(b) An instrument of transfer referred to in rule 5.1(a) must:

(1) be signed by or on behalf of both the transferor and the transferee unless:

(A) the instrument of transfer relates only to fully paid shares and signature by the transferee has been dispensed with by the directors; or

(B) the transfer of the shares is effected by a document which is, or documents which together are, a proper transfer of those shares under the Act;

(2) if required by law to be stamped, be duly stamped;

(3) in the case of a transfer of partly paid shares, be endorsed by, or accompanied by an instrument executed by, the transferee to the effect that the transferee agrees to accept the shares subject to the terms and conditions on which the transferor held them and to become a member and to be bound by the company's constitution; and

(4) be left for registration at the registered office of the company, or at such other place as the directors determine, accompanied by the certificate for the shares to which it relates (if any) and such other evidence as the directors may require to prove the title of the transferor or the transferor's right to the shares and to prove the right of the transferee to be registered as the owner of the shares.

(c) Subject to the powers vested in the directors under rules 5.2 and 5.3, where the company receives an instrument of transfer in accordance with rule 5.1(b), the company must register the transferee named in the instrument as the holder of the shares to which it relates.

(d) A transferor of shares remains the holder of the shares transferred until the transfer is registered and the name of the transferee is entered in the register of members in respect of the shares.

(e) The company must not charge a fee for the registration of a transfer of shares.

(f) The company may retain any registered instrument of transfer for such period as the directors think fit.

(g) Except in the case of fraud, the company must return any instrument of transfer which the directors decline to register to the person who deposited it with the company.

(h) The directors may, to the extent permitted by law, waive all or any of the requirements of this rule 5.1.

5.2 Power to decline registration of transfers

Subject to any special rights conferred on the holders of any shares or class of shares, the directors may, in their absolute discretion, decline to register any transfer of shares.

5.3 Power to suspend registration of transfers

The directors may suspend the registration of transfers at such times and for such periods, not exceeding in total 30 days in any year, as they think fit.

5.4 Transmission of shares

(a) In the case of the death of a member, the only persons the company will recognise as having any title to the member's shares or any benefits accruing in respect of those shares are:

(1) the legal personal representative of the deceased where the deceased was a sole holder; and

(2) the survivor or survivors where the deceased was a joint holder.

(b) Nothing contained in rule 5.4(a) releases the estate of a deceased member from any liability in respect of a share, whether that share was held by the deceased solely or jointly with other persons.

(c) A person who becomes entitled to a share as a result of a transmission event may, upon producing the certificate for the share and such other evidence as the directors may require to prove that person's entitlement to the share, elect:

(1) to be registered as the holder of the share by signing and serving on the company a notice in writing stating that election; or

(2) to have some other person nominated by that person registered as the transferee of the share by executing a transfer of the share to that other person.

(d) The rules relating to the right to transfer, and the registration of transfers of, shares apply, so far as they can and with such changes as are necessary, to any transfer under rule 5.4(c)(2) as if the relevant transmission event had not occurred and the transfer were signed by the registered holder of the share.

(e) For the purpose of this constitution, where 2 or more persons are jointly entitled to any share in consequence of a transmission event they will, upon being registered as the holders of the share, be taken to hold the share as joint tenants and rule will apply to them.

(f) Notwithstanding rule 5.4(a), the directors may register a transfer of shares signed by a member prior to a transmission event even though the company has notice of the transmission event.

6 General meetings

6.1 Calling general meetings

(a) The directors may, whenever they think fit, call and arrange to hold a general meeting.

(b) A general meeting may be called and arranged to be held only as provided by this rule 6.1 or as provided by sections 249D, 249E, 249F and 249G of the Act.

(c) The directors may change the venue for, postpone or cancel a general meeting unless the meeting is called and arranged to be held by the members or the court under the Act. If a general meeting is called and arranged to be held under section 249D of the Act the directors may not postpone it beyond the date by which section 249D requires it to be held and may not cancel it without the consent of the requisitioning member or members.

6.2 Notice of general meetings

(a) Subject to this constitution and to the rights or restrictions attached to any shares or class of shares, notice of a general meeting must be given within the time limits prescribed by the Act and in the manner authorised by rule 13.1 to each person who is at the date of the notice:

(1) a member;

(2) a director; or

(3) an auditor of the company.

(b) A notice of a general meeting must specify the date, time and place of the meeting and state the general nature of the business to be transacted at the meeting.

(c) It is not necessary for a notice of an AGM to state that the business to be transacted at the meeting includes the consideration of the annual financial report, directors' report and auditor's report, the appointment of the auditor or the fixing of the auditor's remuneration.

(d) A person may waive notice of any general meeting by notice in writing to the company.

(e) The non-receipt of notice of a general meeting or proxy form by, or a failure to give notice of a general meeting or a proxy form to, any person entitled to receive notice of a general meeting under this rule 6.2 does not invalidate any act, matter or thing done or resolution passed at the general meeting if:

(1) the non-receipt or failure occurred by accident or error; or

(2) before or after the meeting, the person:

(A) has waived or waives notice of that meeting under rule 6.2(d); or

(B) has notified or notifies the company of the person's agreement to that act, matter, thing or resolution by notice in writing to the company.

(f) A person's attendance at a general meeting:

(1) waives any objection that person may have to a failure to give notice, or the giving of a defective notice, of the meeting unless the person at the beginning of the meeting objects to the holding of the meeting; and

(2) waives any objection that person may have to the consideration of a particular matter at the meeting which is not within the business referred to in the notice of the meeting or in rule 6.2(c), unless the person objects to considering the matter when it is presented.

6.3 Admission to general meetings

The chairperson of a general meeting may refuse admission to, or require to leave and remain out of, the meeting any person:

(a) in possession of a pictorial-recording or sound-recording device;

(b) in possession of a placard or banner;

(c) in possession of an article considered by the chairperson to be dangerous, offensive or liable to cause disruption;

(d) who refuses to produce or to permit examination of any article, or the contents of any article, in the person's possession;

(e) who behaves or threatens to behave in a dangerous, offensive or disruptive manner; or

(f) who is not:

(1) a member or a proxy, attorney or representative of a member;

(2) a director; or

(3) an auditor of the company.

6.4 Quorum at general meetings

(a) No business may be transacted at any general meeting, except the election of a chairperson and the adjournment of the meeting, unless a quorum of members is present when the meeting proceeds to business.

(b) A quorum consists of:

(1) if the number of members entitled to vote is 2 or more - 2 of those members; or

(2) if only 1 member is entitled to vote - that member,

present at the meeting.

(c) If a quorum is not present within 30 minutes after the time appointed for a general meeting:

(1) where the meeting was convened upon the requisition of members, the meeting must be dissolved; or

(2) in any other case:

(A) the meeting stands adjourned to such day, and at such time and place, as the directors determine or, if no determination is made by the directors, to the same day in the next week at the same time and place; and

(B) if, at the adjourned meeting, a quorum is not present within 30 minutes after the time appointed for the meeting, the meeting must be dissolved.

6.5 Chairperson of general meetings

(a) The chairperson of directors must (if present within 15 minutes after the time appointed for the meeting and willing to act) preside as chairperson at each general meeting.

(b) If at a general meeting:

(1) there is no chairperson of directors;

(2) the chairperson of directors is not present within 15 minutes after the time appointed for the meeting; or

(3) the chairperson of directors is present within that time but is not willing to act as chairperson of the meeting,

then if the directors have elected a deputy chairperson of directors, the deputy chairperson of directors must (if present within 15 minutes after the time appointed for the meeting and willing to act) preside as chairperson at the meeting.

(c) Subject to rule 6.5(a), if at a general meeting:

(1) there is no deputy chairperson of directors;

(2) the deputy chairperson of directors is not present within 15 minutes after the time appointed for the meeting; or

(3) the deputy chairperson of directors is present within that time but is not willing to act as chairperson of the meeting;

the members present must elect as chairperson of the meeting:

(4) another director who is present and willing to act; or

(5) if no other director willing to act is present at the meeting, a member who is present and willing to act.

6.6 Conduct of general meetings

(a) Any question arising at a general meeting relating to the order of business, procedure or conduct of the meeting must be referred to the chairperson of the meeting, whose decision is final.:

(b) The chairperson of a general meeting may, and must if so directed by the meeting, adjourn the meeting from time to time and from place to place,

but no business may be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.:

(c) Where a meeting is adjourned for 30 days or more, notice of the adjourned meeting must be given as in the case of an original meeting.:

(d) Except as provided by rule 6.6(c), it is not necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.

(e) Where a meeting is adjourned, the directors may change the venue of, postpone or cancel the adjourned meeting unless the meeting was called and arranged to be held by the members or the court under the Act. If a meeting is called and arranged to be held under section 249D of the Act the directors may not postpone it beyond the date by which section 249D requires it to be held and may not cancel it without the consent of the requisitioning member or members.

6.7 Decisions at general meetings

(a) Except in the case of any resolution which as a matter of law requires a special majority, questions arising at a general meeting are to be decided by a majority of votes cast by the members present at the meeting and any such decision is for all purposes a decision of the members.

(b) In the case of an equality of votes upon any proposed resolution:

(1) the chairperson of the meeting will not have a second or casting vote; and

(2) the proposed resolution is to be taken as having been lost.

(c) A resolution put to the vote of a general meeting must be decided on a show of hands unless a poll is demanded before the vote is taken or before or immediately after the declaration of the result of the show of hands:

(1) by the chairperson of the meeting; or

(2) by any member present and having the right to vote on the resolution.

(d) A demand for a poll does not prevent the continuance of a general meeting for the transaction of any business other than the question on which the poll has been demanded.

(e) Unless a poll is duly demanded, a declaration by the chairperson of a general meeting that a resolution has on a show of hands been carried or carried unanimously, or carried by a particular majority, or lost, and an entry to that effect in the book containing the minutes of the proceedings of the company, is conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against the resolution.

(f) If a poll is duly demanded at a general meeting, it will be taken in such manner and either at once or after an interval or adjournment or otherwise as the chairperson of the meeting directs, and the result of the poll will be the resolution of the meeting at which the poll was demanded.

(g) A poll demanded at a general meeting on the election of a chairperson of the meeting or on a question of adjournment must be taken immediately.

(h) The demand for a poll may be withdrawn.

6.8 Voting rights

(a) Subject to this constitution and to any rights or restrictions attached to any shares or class of shares, at a general meeting:

(1) on a show of hands, every member present in person or by proxy, attorney or representative has 1 vote; and

(2) on a poll, every member present has 1 vote for each share held by the member and in respect of which the member is entitled to vote.

(b) Where a person present at a general meeting represents personally or by proxy, attorney or representative more than 1 member:

(1) on a show of hands the person is entitled to 1 vote only despite the number of members the person represents;

(2) that vote will be taken as having been cast for all the members the person represents; and

(3) the person must not exercise that vote in a way which would contravene any directions given to the person in accordance with rule 6.9(f) in any instrument appointing the person as a proxy or attorney.

(c) A joint holder may vote at any meeting in person or by proxy, attorney or representative as if that person was the sole holder. If more than 1 joint holder tenders a vote, the vote of the holder named first in the register must be accepted to the exclusion of the other or others.

(d) The parent or guardian of an infant member may vote at any general meeting upon such evidence being produced of the relationship or of the appointment of the guardian as the directors may require and any vote so tendered by a parent or guardian of an infant member must be accepted to the exclusion of the vote of the infant member.

(e) A person entitled to a share as a result of a transmission event may vote at any general meeting in respect of that share in the same manner as if that person were the registered holder of the share if, before the meeting, the directors have:

(1) admitted that person's right to vote at that meeting in respect of the share; or

(2) been satisfied of that person's right to be registered as the holder of, or to transfer, the share under rule 5.4(c),

and any vote so tendered by such a person must be accepted to the exclusion of the vote of the registered holder of the share.

(f) A member is not entitled to vote at a general meeting unless all calls and other sums of money presently payable by that member in respect of shares in the company have been paid.

(g) An objection to the qualification of a person to vote at a general meeting:

(1) must be raised before or at the meeting at which the vote objected to is given or tendered; and

(2) must be referred to the chairperson of the meeting, whose decision is final.

(h) A vote not disallowed by the chairperson of a meeting under rule 6.8(g) is valid for all purposes.

6.9 Representation at general meetings

(a) Subject to this constitution, each member entitled to vote at a meeting of members may vote

(1) in person, or where a member is a body corporate, by its representative;

(2) by proxy; or

(3) by attorney.

If the member may cast 2 or more votes at a meeting the member may vote by 2 proxies or 2 attorneys.

(b) A proxy, attorney or representative may, but need not, be a member of the company.

(c) A proxy, attorney or representative may be appointed for all general meetings, or for any number of general meetings, or for a particular general meeting.

(d) Unless otherwise provided in the appointment of a proxy, attorney or representative or in the Act, an appointment will be taken to confer authority:

(1) to agree to a meeting being convened by shorter notice than is required by the Act or by this constitution;

(2) to speak to any proposed resolution on which the proxy, attorney or representative may vote;

(3) to demand or join in demanding a poll on any resolution on which the proxy, attorney or representative may vote;

(4) even though the instrument may refer to specific resolutions and may direct the proxy, attorney or representative how to vote on those resolutions:

(A) to vote on any amendment moved to the proposed resolutions and on any motion that the proposed resolutions not be put or any similar motion;

(B) to vote on any procedural motion, including any motion to elect the chairperson, to vacate the chair or to adjourn the meeting; and

(C) to act generally at the meeting; and

(5) even though the instrument may refer to a specific meeting to be held at a specified time or venue, where the meeting is rescheduled or adjourned to another time or changed to another venue, to attend and vote at the re-scheduled or adjourned meeting or at the new venue.

(e) Where a member appoints 2 proxies or attorneys , the following rules apply:

(1) each proxy or attorney, as the case may be, may exercise half of the member's voting rights if the appointment does not specify a proportion or number of the member's voting rights the proxy or attorney may exercise;

(2) on a show of hands, neither proxy or attorney may vote; and

(3) on a poll, each proxy or attorney may only exercise the voting rights the proxy or attorney represents.

(f) An instrument appointing a proxy or attorney may direct the manner in which the proxy or attorney is to vote in respect of a particular resolution and, where an instrument so provides, the proxy or attorney is not entitled to vote on the proposed resolution except as directed in the instrument.

(g) An instrument appointing a proxy or attorney need not be in any particular form provided it is in writing, legally valid and signed by the appointer or the appointer's attorney.

(h) Subject to rule 6.9(i), a proxy or attorney may not vote at a general meeting or adjourned meeting or on a poll unless the instrument appointing the proxy or attorney, and the authority under which the instrument is signed, or a certified copy of the authority are:

(1) received at the registered office of the company, a fax number at the company's registered office or at such other place, fax number or electronic address specified for that purpose in the notice calling the meeting before the time for holding the meeting or adjourned meeting or taking the poll (as the case may be);

(2) in the case of a meeting or an adjourned meeting, tabled at the meeting or adjourned meeting at which the person named in the instrument proposes to vote; or

(3) in the case of a poll, produced when the poll is taken.

(i) The directors may waive all or any of the requirements of rules 6.9(g) and 6.9(h) and in particular may, upon the production of such other evidence as the directors require to prove the validity of the appointment of a proxy or attorney, accept:

(1) an oral appointment of a proxy or attorney;

(2) an appointment of a proxy or attorney which is not signed or executed in the manner required by rule 6.9(g); and

(3) the deposit, tabling or production of a copy (including a copy sent by fax) of an instrument appointing a proxy or attorney or of the

power of attorney or other authority under which the instrument is signed.

(j) A vote given in accordance with the terms of an instrument appointing a proxy or attorney is valid despite:

(1) a transmission event occurring in relation to the appointer; or

(2) the revocation of the instrument or of the authority under which the instrument was executed,

if no notice in writing of the transmission event or revocation has been received by the company by the time and at 1 of the places at which the instrument appointing the proxy or attorney is required to be received under rule 6.9(h).

(k) A vote given in accordance with the terms of an instrument appointing a proxy or attorney is valid despite the transfer of the share in respect of which the instrument was given if the transfer is not registered by the time at which the instrument appointing the proxy or attorney is required to be received under rule 6.9(h).

(l) The appointment of a proxy or attorney is not revoked by the appointer attending and taking part in the general meeting but, if the appointer votes on any resolution, the proxy or attorney is not entitled to vote, and must not vote, as the appointer's proxy or attorney on the resolution.

7 Directors

7.1 Appointment and removal of directors

(a) There must be:

(1) not less than 3 directors; and

(2) subject to rule 7.1(c), not more than 12 directors.

(b) The first directors are the persons who are specified with their consent as proposed directors in the application for registration of the company.

(c) The company may by resolution:

(1) increase or reduce the minimum or maximum number of directors; and

(2) appoint or remove a director.

(d) The directors may appoint any natural person to be a director, either to fill a casual vacancy or as an addition to the existing directors, but the total number of directors must not at any time exceed the maximum number allowed under this constitution.

(e) Subject to rule 7.2 and to the terms of any agreement entered into between the company and the relevant director, a director holds office until the director dies or is removed from office pursuant to rule 7.1(c)(2).

7.2 Vacation of office

The office of a director becomes vacant:

(a) in the circumstances prescribed by the Act;

(b) if the director becomes of unsound mind or a person who is, or whose estate is, liable to be dealt with in any way under the law relating to mental health; or

(c) if the director resigns by notice in writing to the company.

7.3 Remuneration of directors

(a) Each director is entitled to such remuneration out of the funds of the company as the directors determine, but if the company in general meeting has fixed a limit on the amount of remuneration payable to the directors, the aggregate remuneration of the directors under this rule 7.3(a) must not exceed that limit.

(b) The remuneration of a director:

(1) may be a stated salary or a fixed sum for attendance at each meeting of directors or both; or

(2) may be a share of a fixed sum determined by the company in general meeting to be the remuneration payable to all directors, which is to be divided between the directors in the proportions agreed between them or, failing agreement, equally,

and if it is a stated salary under rule 7.3(b)(1) or a share of a fixed sum under rule 7.3(b)(2), will be taken to accrue from day to day.

(c) For the purposes of this constitution the amount fixed by the company as remuneration for a director, will not include any amount paid by the company or related body corporate:

(1) to a superannuation, retirement or pension fund for a director so that the company is not liable to pay the superannuation guarantee charge or similar statutory charge; or

(2) for any insurance premium paid or agreed to be paid for a director under rule 10.4.

(d) In addition to his or her remuneration under rule 7.3(a), a director is entitled to be paid all travelling and other expenses properly incurred by that director in connection with the affairs of the company, including attending and returning from general meetings of the company or meetings of the directors or of committees of the directors.

(e) If a director renders or is called upon to perform extra services or to make any special exertions in connection with the affairs of the company, the directors may arrange for a special remuneration to be paid to that director, either in addition to or in substitution for that director's remuneration under rule 7.3(a).

(f) Nothing in rule 7.3(a) restricts the remuneration to which a director may be entitled as an officer of the company or of a related body corporate in a

capacity other than director, which may be either in addition to or in substitution for that director's remuneration under rule 7.3(a).

(g) The directors may:

(1) at any time after a director dies or otherwise ceases to hold office as a director, pay to the director or a legal personal representative, spouse, relative or dependant of the director, in addition to the remuneration of that director under rule 7.3(a), a pension or lump sum payment in respect of past services rendered by that director; and

(2) cause the company to enter into a contract with the director for the purpose of providing for or giving effect to such a payment.

(h) The directors may establish or support, or assist in the establishment or support of, funds and trusts to provide pension, retirement, superannuation or similar payments or benefits to or in respect of the directors or former directors.

7.4 Director need not be a member

(a) A director is not required to hold any shares in the company to qualify for appointment.

(b) A director is entitled to attend and speak at general meetings even though that director is not a member of the company.

7.5 Interested directors

(a) A director may hold any other office or place of profit (other than auditor) in the company or any related body corporate in conjunction with his or her directorship and may be appointed to that office or place upon such terms as to remuneration, tenure of office and otherwise as the directors think fit.

(b) A director of the company may be or become a director or other officer of, or otherwise interested in, any related body corporate or any other body corporate promoted by the company or in which the company may be interested as a shareholder or otherwise and is not accountable to the company for any remuneration or other benefits received by the director as a director or officer of, or from having an interest in, that body corporate.

(c) The directors may exercise the voting rights conferred by shares in any body corporate held or owned by the company in such manner in all respects as the directors think fit (including voting in favour of any resolution appointing a director as a director or other officer of that body corporate or voting for the payment of remuneration to the directors or other officers of that body corporate) and a director may, if permitted by law, vote in favour of the exercise of those voting rights notwithstanding that he or she is, or may be about to be appointed, a director or other officer of that other body corporate and, as such, interested in the exercise of those voting rights.

(d) A director is not disqualified merely because of being a director from contracting with the company in any respect including, without limitation:

(1) selling any property to, or purchasing any property from, the company;

(2) lending any money to, or borrowing any money from, the company with or without interest and with or without security;

(3) guaranteeing the repayment of any money borrowed by the company for a commission or profit;

(4) underwriting or guaranteeing the subscription for securities in the company or in any related body corporate or any other body corporate promoted by the company or in which the company may be interested as a shareholder or otherwise, for a commission or profit; or

(5) being employed by the company or acting in any professional capacity (other than auditor) on behalf of the company.

(e) No contract made by a director with the company and no contract or arrangement entered into by or on behalf of the company in which any director may be in any way interested is avoided or rendered voidable merely because of the director holding office as a director or because of the fiduciary obligations arising out of that office.

(f) No director contracting with or being interested in any arrangement involving the company is liable to account to the company for any profit realised by or under any such contract or arrangement merely because of the director holding office as a director or because of the fiduciary obligations arising out of that office.

(g) Subject to rule 7.5(h), a director who is in any way interested in any contract or arrangement or proposed contract or arrangement may, despite that interest:

(1) be counted in determining whether or not a quorum is present at any meeting of directors considering that contract or arrangement or proposed contract or arrangement;

(2) vote in respect of, or in respect of any matter arising out of, the contract or arrangement or proposed contract or arrangement; and

(3) sign any document relating to that contract or arrangement or proposed contract or arrangement the company may execute.

(h) Rule 7.5(g) does not apply if, and to the extent that, it would be contrary to the Act.

(i) The directors may make regulations requiring the disclosure of interests that a director, and any person deemed by the directors to be related to or associated with the director, may have in any matter concerning the company or a related body corporate and any regulations made under this constitution will bind all directors.

7.6 Powers and duties of directors

(a) The directors are responsible for managing the business of the company and may exercise to the exclusion of the company in general meeting all

the powers of the company which are not required, by the Act or by this constitution, to be exercised by the company in general meeting.

(b) Without limiting the generality of rule 7.6(a), the directors may exercise all the powers of the company to borrow or otherwise raise money, to charge any property or business of the company or all or any of its uncalled capital and to issue debentures or give any other security for a debt, liability or obligation of the company or of any other person.

(c) The directors may determine how cheques, promissory notes, bankers drafts, bills of exchange or other negotiable instruments must be signed, drawn, accepted, endorsed or otherwise executed, as the case may be, by or on behalf of the company.

(d) The directors may pay out of the company's funds all expenses of the promotion, formation and registration of the company and the vesting in it of the assets acquired by it.

(e) The directors may:

(1) appoint or employ any person to be an officer, agent or attorney of the company for such purposes with such powers, discretions and duties (including powers, discretions and duties vested in or exercisable by the directors), for such period and upon such conditions as they think fit;

(2) authorise an officer, agent or attorney to delegate all or any of the powers, discretions and duties vested in the officer, agent or attorney; and

(3) subject to any contract between the company and the relevant officer, agent or attorney, remove or dismiss any officer, agent or attorney of the company at any time, with or without cause.

(f) A power of attorney may contain such provisions for the protection and convenience of the attorney or persons dealing with the attorney as the directors think fit.

7.7 Proceedings of directors

(a) The directors may meet together for the despatch of business and adjourn and otherwise regulate their meetings as they think fit.

(b) The contemporaneous linking together by telephone or other electronic means of a number of the directors sufficient to constitute a quorum, constitutes a meeting of the directors and the rules relating to meetings of the directors apply, so far as they can and with such changes as are necessary, to meetings of the directors by telephone or other electronic means.

(c) A director participating in a meeting by telephone or other electronic means is to be taken to be present in person at the meeting.

(d) A meeting by telephone or other electronic means is to be taken to be held at the place determined by the chairperson of the meeting provided that at

least 1 of the directors involved was at that place for the duration of the meeting.

7.8 Convening of meetings of directors

(a) A director may, whenever the director thinks fit, convene a meeting of the directors.

(b) A secretary must, on the requisition of a director, convene a meeting of the directors.

7.9 Notice of meetings of directors

(a) Subject to this constitution, notice of a meeting of directors must be given to each person who is at the time of giving the notice:

(1) a director, other than a director on leave of absence approved by the directors; or

(2) an alternate director appointed under rule 7.14 by a director on leave of absence approved by the directors.

(b) A notice of a meeting of directors:

(1) must specify the time and place of the meeting;

(2) need not state the nature of the business to be transacted at the meeting;

(3) may be given immediately before the meeting;

(4) may be given in person or by post or by telephone, fax or other electronic means; and

(5) will be taken to have been given to an alternate director if it is given to the director who appointed that alternate director.

(c) A director or alternate director may waive notice of any meeting of directors by notifying the company to that effect in person or by post or by telephone, fax or other electronic means.

(d) The non-receipt of notice of a meeting of directors by, or a failure to give notice of a meeting of directors to, a director does not invalidate any act, matter or thing done or resolution passed at the meeting if:

(1) the non-receipt or failure occurred by accident or error;

(2) before or after the meeting, the director or an alternate director appointed by the director:

(A) has waived or waives notice of that meeting under rule 7.9(c); or

(B) has notified or notifies the company of his or her agreement to that act, matter, thing or resolution personally or by post or by telephone, fax or other electronic means; or

(3) the director or an alternate director appointed by the director attended the meeting.

(e) The non-receipt of notice of a meeting of directors by, or a failure to give notice of a meeting of directors to, an alternate director of a director on leave of absence approved by the directors does not invalidate any act, matter or thing done or resolution passed at the meeting if:

(1) the non-receipt or failure occurred by accident or error;

(2) before or after the meeting, the alternate director or the director who appointed the alternate director or another alternate director appointed by that director:

(A) has waived or waives notice of that meeting under rule 7.9(c); or

(B) has notified or notifies the company of his or her agreement to that act, matter, thing or resolution personally or by post or by telephone, fax or other electronic means; or

(3) the alternate director or the director who appointed the alternate director or another alternate director appointed by that director attended the meeting.

(f) Attendance by a person at a meeting of directors waives any objection that person and:

(1) if the person is a director, any alternate director appointed by that person; or

(2) if the person is an alternate director, the director who appointed that person as alternate director and any other alternate director appointed by that director,

may have to a failure to give notice of the meeting.

7.10 Quorum at meetings of directors

(a) No business may be transacted at a meeting of directors unless a quorum of directors is present at the time the business is dealt with.

(b) A quorum consists of:

(1) if the directors have fixed a number for the quorum, that number of directors; and

(2) in any other case, 2 directors,

present at the meeting of directors.

(c) If there is a vacancy in the office of a director then, subject to rule 7.10(d), the remaining director or directors may act.

(d) If the number of directors in office at any time is not sufficient to constitute a quorum at a meeting of directors or is less than the minimum number of directors fixed under this constitution, the remaining director or directors must act as soon as possible:

(1) to increase the number of directors to a number sufficient to constitute a quorum and to satisfy the minimum number of directors required under this constitution; or

(2) to convene a general meeting of the company for that purpose,

and, until that has happened, must only act if and to the extent that there is an emergency requiring them to act.

7.11 Chairperson and deputy chairperson of directors

(a) The directors may elect 1 of the directors to the office of chairperson of directors and may determine the period for which that director is to be chairperson of directors.

(b) The directors may elect 1 of the directors to the office of deputy chairperson of directors and may determine the period for which that director is to be deputy chairperson of directors.

(c) The office of chairperson of directors or deputy chairperson of directors may, if the directors so resolve, be treated as an extra service or special exertion performed by the director holding that office for the purposes of rule 7.3(e).

(d) The chairperson of directors must (if present within 10 minutes after the time appointed for the holding of the meeting and willing to act) preside as chairperson at each meeting of directors.

(e) If at a meeting of directors:

(1) there is no chairperson of directors;

(2) the chairperson of directors is not present within 10 minutes after the time appointed for the holding of the meeting; or

(3) the chairperson of directors is present within that time but is not willing to act as chairperson of the meeting,

then if the directors have elected a deputy chairperson of directors, the deputy chairperson of directors must (if present within 10 minutes after the time appointed for the holding of the meeting and willing to act) preside as the chairperson of the meeting.

(f) Subject to rule 7.11(d), if at a meeting of directors:

(1) there is no deputy chairperson of directors;

(2) the deputy chairperson of directors is not present within 10 minutes after the time appointed for the holding of the meeting; or

(3) the deputy chairperson of directors is present within that time but is not willing to act as chairperson of the meeting,

the directors present must elect 1 of themselves to be chairperson of the meeting.

7.12 Decisions of directors

(a) A meeting of directors at which a quorum is present is competent to exercise all or any of the authorities, powers and discretions vested in or exercisable by the directors under this constitution.

(b) Questions arising at a meeting of directors are to be decided by a majority of votes cast by the directors present and any such decision is for all purposes a determination of the directors.

(c) In the case of an equality of votes upon any proposed resolution:

(1) the chairperson of the meeting will not have a second or casting vote; and

(2) the proposed resolution is to be taken as having been lost.

7.13 Written resolutions

(a) If:

(1) all of the directors, other than:

(A) any director on leave of absence approved by the directors;

(B) any director who disqualifies himself or herself from considering the act, matter, thing or resolution in question on the grounds that he or she is not entitled at law to do so or has a conflict of interest; and

(C) any director who the directors reasonably believe is not entitled at law to do the act, matter or thing or to vote on the resolution in question,

assent to a document containing a statement to the effect that an act, matter or thing has been done or resolution has been passed; and

(2) the directors who assent to the document would have constituted a quorum at a meeting of directors held to consider that act, matter, thing or resolution,

then that act, matter, thing or resolution is to be taken as having been done at or passed by a meeting of the directors.

(b) For the purposes of rule 7.13(a):

(1) the meeting is to be taken as having been held:

(A) if the directors assented to the document on the same day, on the day on which the document was assented to and at the time at which the document was last assented to by a director; or

(B) if the directors assented to the document on different days, on the day on which, and at the time at which, the document was last assented to by a director;

(2) 2 or more separate documents in identical terms each of which is assented to by 1 or more directors are to be taken as constituting 1 document; and

(3) a director may signify assent to a document by signing the document or by notifying the company of the director's assent in person or by post or by telephone, fax or other electronic means.

(c) Where a director signifies assent to a document otherwise than by signing the document, the director must by way of confirmation sign the document at the next meeting of the directors attended by that director, but failure to do so does not invalidate the act, matter, thing or resolution to which the document relates.

7.14 Alternate directors

(a) A director may appoint, with the approval of a majority of the other directors:

(1) a person to be the director's alternate director for such period as the director thinks fit; and

(2) another person to be the director's alternate director in the absence of any alternate director appointed under rule 7.13(a)(1).

(b) An alternate director may, but need not, be a member or a director of the company.

(c) One person may act as alternate director to more than 1 director.

(d) An alternate director is entitled, if the appointer does not attend a meeting of directors, to attend and vote in place of and on behalf of the appointer.

(e) An alternate director is entitled to a separate vote for each director the alternate director represents in addition to any vote the alternate director may have as a director in his or her own right.

(f) In the absence of the appointer, an alternate director may exercise any powers that the appointer may exercise and the exercise of any such power by the alternate director is to be taken to be the exercise of the power by the appointer.

(g) The office of an alternate director is vacated if and when the appointer vacates office as a director.

(h) The appointment of an alternate director may be terminated at any time by the appointer even though the period of the appointment of the alternate director has not expired.

(i) An appointment, or the termination of an appointment, of an alternate director must be in writing signed by the director who makes or made the appointment and does not take effect unless and until the company has received notice in writing of the appointment or termination.

(j) An alternate director is not to be taken into account in determining the minimum or maximum number of directors allowed under this constitution.

(k) In determining whether a quorum is present at a meeting of directors, an alternate director who attends the meeting is to be counted as a director for each director on whose behalf the alternate director is attending the meeting.

(l) An alternate director is entitled to be paid such remuneration as the directors think fit, either in addition to or in reduction of the remuneration payable to the director for whom the alternate director acts as alternate.

(m) An alternate director is not entitled to be remunerated by the company for his or her services as alternate director except as provided in rule 7.14(l).

(n) An alternate director, while acting as a director, is responsible to the company for his or her own acts and defaults and is not to be taken to be the agent of the director by whom he or she was appointed.

7.15 Committees of directors

(a) The directors may delegate any of their powers to a committee or committees consisting of such number of directors as they think fit.

(b) A committee to which any powers have been so delegated must exercise the powers delegated in accordance with any directions of the directors.

(c) The rules applying to meetings and resolutions of directors apply, so far as they can and with such changes as are necessary, to meetings and resolutions of a committee of directors.

(d) Membership of a committee of directors may, if the directors so resolve, be treated as an extra service or special exertion performed by the members for the purposes of rule 7.3(e).

7.16 Delegation to individual directors

(a) The directors may delegate any of their powers to 1 director.

(b) A director to whom any powers have been so delegated must exercise the powers delegated in accordance with any directions of the directors.

(c) Acceptance of such a delegation may, if the directors so resolve, be treated as an extra service or special exertion performed by the delegate for the purposes of rule 7.3(e).

7.17 Validity of acts

An act done by a person acting as a director or by a meeting of directors or a committee of directors attended by a person acting as a director is not invalidated by reason only of:

(a) a defect in the appointment of the person as a director;

(b) the person being disqualified to be a director or having vacated office; or

(c) the person not being entitled to vote,

if that circumstance was not known by the person or the directors or committee (as the case may be) when the act was done.

8 Executive officers

8.1 Managing directors

(a) The directors may appoint 1 or more of the directors to the office of managing director.

(b) A managing director's appointment as managing director automatically terminates if the managing director ceases to be a director.

8.2 Deputy managing directors

(a) The directors may appoint 1 or more of the directors to the office of deputy managing director.

(b) A deputy managing director's appointment as deputy managing director automatically terminates if the deputy managing director ceases to be a director.

8.3 Executive directors

(a) A reference in this rule 8.3 to an executive director is a reference to a director who is also an officer of the company or of a related body corporate in a capacity other than director, managing director or deputy managing director.

(b) The directors may confer on an executive director such title as they think fit.

(c) An executive director may be appointed on the basis that the executive director's appointment:

(1) as a director automatically terminates if the executive director ceases to be an officer of the company or of a related body corporate in a capacity other than director; or

(2) as an officer of the company or of a related body corporate in a capacity other than director automatically terminates if the executive director ceases to be a director.

8.4 Associate directors

(a) The directors may appoint 1 or more associate directors.

(b) The directors may confer on an associate director such title as they think fit.

(c) Even though the word "director" may appear in an associate director's title, an associate director is not to be taken to be a director of the company and is not entitled:

(1) to attend any meeting of directors except by the invitation and with the consent of the directors; or

(2) to vote at any meeting of directors.

8.5 Secretaries

(a) The directors must appoint at least 1 secretary and may appoint additional secretaries.

(b) The directors may appoint 1 or more assistant secretaries.

8.6 Provisions applicable to all executive officers

(a) A reference in this rule 8.6 to an executive officer is a reference to a managing director, deputy managing director, executive director, associate director, secretary or assistant secretary appointed under this rule 8.

(b) The appointment of an executive officer may be for such period, at such remuneration and upon such conditions as the directors think fit.

(c) Subject to any contract between the company and the relevant executive officer, any executive officer of the company may be removed or dismissed by the directors at any time, with or without cause.

(d) The directors may:

(1) confer on an executive officer such powers, discretions and duties (including any powers, discretions and duties vested in or exercisable by the directors) as they think fit;

(2) withdraw, suspend or vary any of the powers, discretions and duties conferred on an executive officer; and

(3) authorise the executive officer to delegate all or any of the powers, discretions and duties conferred on the executive officer.

(e) An executive officer is not required to hold any shares to qualify for appointment.

(f) An act done by a person acting as an executive officer is not invalidated by reason only of:

(1) a defect in the person's appointment as an executive officer; or

(2) the person being disqualified to be an executive officer,

if that circumstance was not known by the person when the act was done.

9 Indemnity and insurance

9.1 Persons to whom rules 9.2 and 9.3 apply

Rules 9.2 and 9.3 apply:

(a) to each person who is or has been a director, alternate director or executive officer (within the meaning of rule 8.6(a)) of the company;

(b) to such other officers or former officers of the company or of its related bodies corporate as the directors in each case determine; and

(c) if the directors so determine, to any auditor or former auditor of the company or of its related bodies corporate,

(each an Officer for the purposes of this rule).

9.2 Indemnity

Subject to rule 9.3, the company must indemnify each Officer on a full indemnity basis and to the full extent permitted by law against all losses, liabilities, costs,

charges and expenses (Liabilities) incurred by the Officer as an officer of the company, including without limitation:

(a) a liability for negligence; and

(b) a liability for reasonable legal costs.

9.3 Limit on indemnity

(a) The indemnity in rule 9.2 does not operate in relation to any Liability which:

(1) is a Liability to the company or any of its related bodies corporate;

(2) is a Liability for a pecuniary penalty order under section 1317G of the Act or a compensation order under section 1317H of the Act; or

(3) arises out of conduct of the Officer which was not in good faith, or which involves wilful misconduct, gross negligence, reckless misbehaviour or fraud,

provided that this rule 9.3(a) does not apply to a liability for legal costs.

(b) The indemnity in rule 9.2 does not operate in relation to legal costs incurred by the Officer in defending an action for a Liability if the costs are incurred:

(1) in defending or resisting proceedings in which the Officer is found to have a Liability referred to in rule 9.3(a);

(2) in defending or resisting criminal proceedings in which the Officer is found guilty;

(3) in defending or resisting proceedings brought by ASIC or a liquidator for a court order if the grounds for making the order are found by the court to have been established. For the avoidance of doubt, this does not include costs incurred in responding to actions taken by ASIC or a liquidator as part of an investigation before commencing proceedings for the court order; or

(4) in connection with proceedings for relief to the Officer under the Act in which the court denies the relief.

(c) If there is any appeal in relation to any proceedings referred to in rule 9.3(b), it is the outcome of the final appeal that is relevant for the purposes of rule 9.3(b).

(d) The indemnity in rule 9.2:

(1) does not extend to and is not an indemnity against any amount in respect of which the indemnity would otherwise be illegal, void, unenforceable or not permitted by law; and

(2) does not operate in respect of any Liability of the Officer to the extent that Liability is covered by insurance.

9.4 Extent of indemnity

The indemnity in rule 9.2:

(a) is enforceable without the Officer having to first incur any expense or make any payment;

(b) is a continuing obligation and is enforceable by the Officer even though the Officer may have ceased to be an officer of the relevant Group Company; and

(c) applies to Liabilities incurred both before and after the date of this deed.

9.5 Insurance

The company may, to the extent permitted by law:

(a) purchase and maintain insurance; or

(b) pay or agree to pay a premium for insurance,

for each Officer against any Liability incurred by the Officer as an officer or auditor of the company or of a related body corporate including, but not limited to, a liability for negligence or for reasonable costs and expenses incurred in defending proceedings, whether civil or criminal and whatever their outcome.

9.6 Savings

Nothing in rule 9.2 or 9.3:

(a) affects any other right or remedy that a person to whom those rules apply may have in respect of any Liability referred to in those rules; or

(b) limits the capacity of the company to indemnify or provide or pay for insurance for any person to whom those rules do not apply.

10 Winding up

10.1 Distribution of surplus

Subject to this constitution and to the rights or restrictions attached to any shares or class of shares:

(a) if the company is wound up and the property of the company is more than sufficient:

(1) to pay all of the debts and liabilities of the company; and

(2) the costs, charges and expenses of the winding up,

the excess must be divided among the members in proportion to the number of shares held by them, irrespective of the amounts paid or credited as paid on the shares;

(b) for the purpose of calculating the excess referred to in rule 10.1(a), any amount unpaid on a share is to be treated as property of the company;

(c) the amount of the excess that would otherwise be distributed to the holder of a partly paid share under rule 10.1(a) must be reduced by the amount unpaid on that share at the date of the distribution; and

(d) if the effect of the reduction under rule 10.1(c) would be to reduce the distribution to the holder of a partly paid share to a negative amount, the holder must contribute that amount to the company.

10.2 Division of property

(a) If the company is wound up, the liquidator may, with the sanction of a special resolution:

(1) divide among the members the whole or any part of the property of the company; and

(2) determine how the division is to be carried out as between the members or different classes of members.

(b) Any division under rule 10.2(a) may be otherwise than in accordance with the legal rights of the members and, in particular, any class may be given preferential or special rights or may be excluded altogether or in part.

(c) Where a division under rule 10.2(a) is otherwise than in accordance with the legal rights of the members, a member is entitled to dissent and to exercise the same rights as if the special resolution sanctioning that division were a special resolution passed under section 507 of the Act.

(d) If any of the property to be divided under rule 10.2(a) includes securities with a liability to calls, any person entitled under the division to any of the securities may within 10 days after the passing of the special resolution referred to in that rule, by notice in writing direct the liquidator to sell the person's proportion of the securities and to account for the net proceeds and the liquidator must, if practicable, act accordingly.

(e) Nothing in this rule 10.2 derogates from or affects any right to exercise any statutory or other power which would have existed if this rule were omitted.

(f) Rule 4.3 applies, so far as it can and with such changes as are necessary, to a division by a liquidator under rule 10.2(a) as if references in rule 4.3 to the directors and to a distribution or capitalisation were references to the liquidator and to the division under rule 10.2(a) respectively.

11 Minutes and records

11.1 Minutes of meetings

The directors must ensure minutes of proceedings and resolutions of general meetings and of meetings of directors (including committees of directors) are recorded in books kept for the purpose, within 1 month after the relevant meeting is held.

11.2 Minutes of resolutions passed without a meeting

The directors must ensure minutes of resolutions passed by directors (and committees of directors) without a meeting are recorded in books kept for the purpose within 1 month after the resolution is passed.

11.3 Signing of minutes

(a) The minutes of a meeting must be signed within a reasonable time by the chairperson of the meeting or the chairperson of the next meeting.

(b) The minutes of the passing of a resolution without a meeting must be signed by a director within a reasonable time after the resolution is passed.

11.4 Minutes as evidence

A minute that is recorded and signed under rules 11.1 and 11.2 is evidence of the proceeding or resolution to which it relates unless the contrary is proved.

11.5 Inspection of records

(a) The directors must ensure the minute books for general meetings are open for inspection by members free of charge.

(b) Subject to rule 11.5(a), the directors may determine whether and to what extent, and at what time and places and under what conditions, the minute books, accounting records and other documents of the company or any of them will be open to the inspection of members (other than directors).

(c) A member (other than a director) does not have the right to inspect any books, records or documents of the company except as provided by law or authorised by the directors.

12 Execution of documents

12.1 Manner of execution

The company may execute a document if the document is signed by:

(a) 2 directors; or

(b) a director and a secretary.

12.2 Common seal

The company may have a common seal. If the company has a common seal, rules 12.3 to 12.8 will apply.

12.3 Safe custody of seal

The directors must provide for the safe custody of the seal.

12.4 Use of seal

(a) The seal must be used only by the authority of the directors or of a committee of the directors authorised by the directors to authorise the use of the seal.

(b) The authority to use the seal may be given before or after the seal is used.

(c) Subject to rule 12.8, until the directors otherwise determine, every document to which the seal is fixed must be signed by:

(1) 2 directors;

(2) a director and a secretary; or

(3) a director and another person appointed by the directors to countersign that document or a class of documents in which that document is included.

12.5 Seal register

(a) The company may keep a seal register. If the company does keep a seal register the company must enter in the register particulars of any document on which the seal is fixed (other than a certificate for securities of the company), giving in each case:

(1) the date of the document;

(2) the names of the parties to the document;

(3) a short description of the document; and

(4) the names of the persons signing the document under rule 12.4(c).

(b) The register must be produced at meetings of directors for confirmation of the use of the seal since confirmation was last given under this rule 12.5.

(c) Failure to comply with rule 12.5(a) or (b) does not invalidate any document to which the seal is properly fixed.

12.6 Duplicate seal

(a) The company may have for use in place of its common seal outside the state or territory where its common seal is kept 1 or more duplicate seals, each of which must be a facsimile of the common seal of the company with the addition on its face of the words "duplicate seal" and the name of the place where it is to be used.

(b) A document sealed with a duplicate seal is to be taken as having been sealed with the common seal of the company.

12.7 Share seal or certificate seal

(a) The company may have for use on certificates for securities of the company in place of its common seal 1 or more share seals or certificate seals, each of which must be a facsimile of the common seal of the company with the addition on its face of the words "share seal" or "certificate seal".

(b) A certificate for securities of the company sealed with a share seal or certificate seal is to be taken as having been sealed with the common seal of the company.

12.8 Sealing and signing of certificates

The directors may determine either generally or in a particular case that the seal and the signature of any director or secretary or other person is to be printed on or affixed to any certificates for securities in the company by some mechanical or other means.

13 Notices

13.1 Notices by the company to members

(a) A notice may be given by the company to a member by serving it personally at, or by sending it by post in a prepaid envelope to, the member's address as shown in the register of members or such other address, or by sending it to the fax number or electronic address the member has supplied to the company for the giving of notices.

(b) A notice may be given by the company to the joint holders of a share by giving the notice in the manner authorised by rule 13.1 to the joint holder first named in the register of members in respect of the share.

(c) A notice may be given by the company to a person entitled to a share as a result of a transmission event by serving it or sending it in the manner authorised by rule 13.1(a) addressed to the name or title of the person, at or to such address, fax number or electronic address supplied to the company for the giving of notices to that person, or if no address, fax number or electronic address has been supplied, at or to the address, fax number or electronic address to which the notice might have been sent if the relevant transmission event had not occurred.

(d) The fact that a person has supplied a fax number or an electronic address for the giving of notices does not require the company to give any notice to that person by fax or electronic means.

(e) A notice given to a member in accordance with rules 13.1(a) or (b) is, despite the occurrence of a transmission event and whether or not the company has notice of that occurrence:

(1) duly given in respect of any shares registered in that person's name, whether solely or jointly with another person; and

(2) sufficient service on any person entitled to the shares as a result of the transmission event.

(f) A notice given to a person who is entitled to a share as a result of a transmission event is sufficient service on the member in whose name the share is registered.

(g) Any person who, because of a transfer of shares, becomes entitled to any shares registered in the name of a member is bound by every notice which, before that person's name and address is entered in the register of members in respect of those shares, is given to the member in accordance with this rule 13.1.

(h) A signature to any notice given by the company to a member under this rule 13.1 may be in writing or a facsimile printed or affixed by some mechanical or other means.

(i) A certificate signed by a director or secretary of the company to the effect that a notice has been given in accordance with this constitution is conclusive evidence of that fact.

13.2 Notices by the company to directors

Subject to this constitution, a notice may be given by the company to any director or alternate director either by serving it personally at, or by sending it by post in a prepaid envelope to, the director's or alternate director's usual residential or business address, or such other address, or by sending it to the fax number or electronic address as the director or alternate director has supplied to the company for the giving of notices.

13.3 Notices by members or directors to the company

Subject to this constitution, a notice may be given by a member, director or alternate director to the company by serving it on the company at, or by sending it by post in a prepaid envelope to, the registered office of the company or by sending it to the principal fax number or principal electronic address of the company at its registered office.

13.4 Notices posted to addresses outside the Commonwealth

A notice sent by post to an address outside the Commonwealth must be sent by airmail.

13.5 Time of service

(a) Where a notice is sent by post, service of the notice is to be taken to be effected if a prepaid envelope containing the notice is properly addressed and placed in the post and to have been effected:

(1) in the case of a notice of a general meeting, on the day after the date of its posting; or

(2) in any other case, at the time at which the letter would be delivered in the ordinary course of post.

(b) Where a notice is sent by fax or electronic means, service of the notice is to be taken to be effected on the day after the date it is sent.

13.6 Other communications and documents

Rules 13.1 to 13.5 (inclusive) apply, so far as they can and with such changes as are necessary, to the service of any communication or document.

13.7 Notices in writing

A reference in this constitution to a notice in writing includes a notice given by fax or electronic means.

14 General

14.1 Submission to jurisdiction

Each member submits to the non-exclusive jurisdiction of the Supreme Court of the State or Territory in which the company is taken to be registered under the Act, the Federal Court of Australia and the Courts which may hear appeals from those Courts.

14.2 Prohibition and enforceability

(a) Any provision of, or the application of any provision of, this constitution which is prohibited in any place is, in that place, ineffective only to the extent of that prohibition.

(b) Any provision of, or the application of any provision of, this constitution which is void, illegal or unenforceable in any place does not affect the validity, legality or enforceability of that provision in any other place or of the remaining provisions in that or any other place.

DATED: 13 September 2001

EXHIBIT C

Record of Resolutions

Transurban Infrastructure Management Limited ABN 27 098 147 678

(Company)

This is a record of a written resolution of all of the directors of the Company made on 27 June 2006

Documents:

The directors were advised that the negotiation and drafting of the documents listed in the schedule to which the Company is expressed to be a party (each an **Approved Document**) are being progressed. The effect of each Approved Document was explained to each director, considered and discussed.

Resolution:

The following resolution was proposed to the directors of the Company for consideration and was approved in accordance with clause 21.1(a) of the Transurban MF trust deed dated 25 April 2004 between the Company (in its capacity as trustee of the Transurban Holdings Trust) (as unitholder) and the Company (as trustee) (**Trust Deed**):

'The name of Transurban MF Holdings Trust be changed to Transurban (895) Finance Trust'.

The effect of the resolution was explained to each director, considered and discussed.

Effect of documents:

The directors determined that, having regard to all the relevant circumstances and the terms of the Approved Documents, the execution, delivery and performance of the Company's obligations under each Approved Document and the transactions evidenced by the Approved Documents:

1. are for the Company's benefit and in the best interests of the Company; and
2. are in the best interests of, and for the benefit of, each beneficiary of the Transurban (895) Finance Trust and are authorised by the constitution or trust deed constituting that trust,

and therefore should be entered into in accordance with clause 21.1(c) of the Trust Deed.

Execution of Approved Documents:

Resolved that:

1. the form, terms and provisions of;
2. the transactions contemplated by; and
3. the performance of the obligations of the Company under,

each Approved Document (and any documents or instruments incidental or related to the Approved Documents and the

transactions contemplated by the Approved Documents (**Incidental Documents**)) (as each Approved Document and Incidental Document may be approved severally by any director or secretary) are approved and accordingly the Approved Documents and the Incidental Documents be executed and delivered on behalf of, and in the name of, the Company by any two directors or a director and secretary of the Company in accordance with section 127(1) or section 127(2) of the Corporations Act 2001.

Incidental matters:

Resolved:

1 that the Company and severally each director or secretary of the Company for and on behalf of the Company, be authorised to do any thing (including, but not limited to, certification, execution and delivery of documents) required to be done, capable of being done or advisable to do under, in accordance with or incidental to any of the Approved Documents or the Incidental Documents, the transactions evidenced by the Approved Documents or the Incidental Documents or any of the above resolutions; and

2 that any director or secretary severally may, as conclusively evidenced by his or her execution or witnessing, approve any amendment to an Approved Document or an Incidental Document (whether or not material and whether or not involving changes to the parties).

Signed as a correct record of a circular written resolution of all the directors of the Company.

Company Secretary 27 / 6 / 06

Schedule – Approved Documents

1 Deed of amendment in connection with the change of name of the Transurban MF Holdings Trust to "Transurban (895) Finance Trust"; and

2 such other deeds, agreements, contracts, assignments, letters, notices, certificates, undertakings and instruments (including negotiable instruments) and other documents which are:

2.1 necessary to give effect to the transactions contemplated by any document referred to in item 1 above;

2.2 required or contemplated by, or which may become necessary or desirable in connection with, any document referred to in item 1 above;

2.3 amend, supplement or restate any document referred to in item 1 above; or

2.4 required to be executed for the purpose of the any document referred to in item 1 above or the transactions contemplated thereby.

Transurban Infrastructure Management Limited ABN 27 098 147 678 (Company)

This is a record of a written resolution of all of the directors of the Company made on 27 June 2006

Documents:

The directors were advised that the negotiation and drafting of the documents listed in the schedule to which the Company is expressed to be a party (each an **Approved Document**) are being progressed. The effect of each Approved Document was explained to each director, considered and discussed.

Effect of documents:

The directors determined that, having regard to all the relevant circumstances and the terms of the Approved Documents, the execution, delivery and performance of the Company's obligations under each Approved Document and the transactions evidenced by the Approved Documents:

1 are for the Company's benefit and in the best interests of the Company; and

2 are in the best interests of, and for the benefit of, each beneficiary of the Transurban (895) Finance Trust and are authorised by the constitution or trust deed constituting that trust.

Execution of Approved Documents:

Resolved that:

1 the form, terms and provisions of;

2 the transactions contemplated by; and

3 the performance of the obligations of the Company under,

each Approved Document (and any documents or instruments incidental or related to the Approved Documents and the transactions contemplated by the Approved Documents (**Incidental Documents**)) (as each Approved Document and Incidental Document may be approved severally by any director or secretary) are approved and accordingly the Approved Documents and the Incidental Documents be executed and delivered on behalf of, and in the name of, the Company by any authorised signatory listed below (**Authorised Signatory**) or by any two directors or a director and secretary of the Company in accordance with section 127(1) or section 127(2) of the Corporations Act 2001.

Authorised Signatories:

Resolved that each of:

(a) Kimberley Edwards;

(b) James Christopher Brant;

(c) Paul O'Shea;

(d) Mark Licciardo; and

(e) Victor Howard,

be appointed severally as Authorised Signatories of the Company and be authorised severally to be Authorised Signatories to do everything that is required to be, or capable of being, done by the Company or by an Authorised Signatory (including, but not limited to, certification, execution and delivery of documents) under or in relation to the Approved Documents and the Incidental Documents.

Incidental matters:

Resolved:

1 that the Company and severally each director, secretary or Authorised Signatory of the Company for and on behalf of the Company, be authorised to do any thing (including, but not limited to, certification, execution and delivery of documents) required to be done, capable of being done or advisable to do under, in accordance with or incidental to any of the Approved Documents or the Incidental Documents, the transactions evidenced by the Approved Documents or the Incidental Documents or any of the above resolutions; and

2 that any director or secretary severally may, as conclusively evidenced by his or her execution or witnessing, approve any amendment to an Approved Document or an Incidental Document (whether or not material and whether or not involving changes to the parties).

Execution of Approved Documents by trust:

Resolved that:

1 the Company (as trustee of the Transurban Holdings Trust) and as sole unitholder of the Transurban (895) Finance Trust, authorises the execution of the Approved Documents; and

2 any two directors or a director and a secretary of the Company are authorised to execute any record of resolution of unitholders.

Signed as a correct record of a circular written resolution of all the directors of the Company.

Company Secretary 27/6/06

Schedule – Approved Documents

1 Demand note given by the Company (in its capacity as trustee of the Transurban (895) Finance Trust) in favour of Transurban (895) US Holdings LLC, a Delaware limited liability company; and

2 such other deeds, agreements, contracts, assignments, letters, notices, certificates, undertakings and instruments (including negotiable instruments) and other documents which are:

2.1 necessary to give effect to the transactions contemplated by any document referred to in item 1 above;

2.2 required or contemplated by, or which may become necessary or desirable in connection with, any document referred to in item 1 above;

2.3 amend, supplement or restate any document referred to in item 1 above; or

2.4 required to be executed for the purpose of the any document referred to in item 1 above or the transactions contemplated thereby.

Transurban Infrastructure Management Limited ABN 27 098 147 678

(Company)

This is a record of a written resolution of all of the directors of the Company made on 27 June 2006

Documents:

The directors were advised that the negotiation and drafting of the documents listed in the schedule to which the Company is expressed to be a party (each an **Approved Document**) are being progressed. The effect of each Approved Document was explained to each director, considered and discussed.

Effect of documents:

The directors determined that, having regard to all the relevant circumstances and the terms of the Approved Documents, the execution, delivery and performance of the Company's obligations under each Approved Document and the transactions evidenced by the Approved Documents:

1. are for the Company's benefit and in the best interests of the Company; and
2. are in the best interests of, and for the benefit of, each beneficiary of the Transurban (895) Finance Trust and are authorised by the constitution or trust deed constituting that trust.

Execution of Approved Documents:

Resolved that:

1. the form, terms and provisions of;
2. the transactions contemplated by; and
3. the performance of the obligations of the Company under,

each Approved Document (and any documents or instruments incidental or related to the Approved Documents and the transactions contemplated by the Approved Documents (**Incidental Documents**)) (as each Approved Document and Incidental Document may be approved severally by any director or secretary) are approved and accordingly the Approved Documents and the Incidental Documents be executed and delivered on behalf of, and in the name of, the Company by any authorised signatory listed below (**Authorised Signatory**) or by any two directors or a director and secretary of the Company in accordance with section 127(1) or section 127(2) of the Corporations Act 2001.

Authorised Signatories:

Resolved that each of:

(a) Kimberley Edwards;

(b) James Christopher Brant;

(c) Paul O'Shea;

(d) Mark Licciardo; and

(e) Victor Howard,

be appointed severally as Authorised Signatories of the Company and be authorised severally to be Authorised Signatories to do everything that is required to be, or capable of being, done by the Company or by an Authorised Signatory (including, but not limited to, certification, execution and delivery of documents) under or in relation to the Approved Documents and the Incidental Documents.

Incidental matters:

Resolved:

1 that the Company and severally each director, secretary or Authorised Signatory of the Company for and on behalf of the Company, be authorised to do any thing (including, but not limited to, certification, execution and delivery of documents) required to be done, capable of being done or advisable to do under, in accordance with or incidental to any of the Approved Documents or the Incidental Documents, the transactions evidenced by the Approved Documents or the Incidental Documents or any of the above resolutions; and

2 that any director or secretary severally may, as conclusively evidenced by his or her execution or witnessing, approve any amendment to an Approved Document or an Incidental Document (whether or not material and whether or not involving changes to the parties).

Execution of Approved Documents by trust:

Resolved that:

1 the Company (as trustee of the Transurban Holdings Trust) and as sole unitholder of the Transurban (895) Finance Trust, authorises the execution of the Approved Documents; and

2 any two directors or a director and a secretary of the Company are authorised to execute any record of resolution of unitholders.

Signed as a correct record of a circular written resolution of all the directors of the Company.

Company Secretary 27/6/06

Schedule – Approved Documents

1 Demand note given by the Company (in its capacity as trustee of the Transurban (895) Finance Trust) in favour of Transurban (895) US Holdings LLC, a Delaware limited liability company; and

2 such other deeds, agreements, contracts, assignments, letters, notices, certificates, undertakings and instruments (including negotiable instruments) and other documents which are:

2.1 necessary to give effect to the transactions contemplated by any document referred to in item 1 above;

2.2 required or contemplated by, or which may become necessary or desirable in connection with, any document referred to in item 1 above;

2.3 amend, supplement or restate any document referred to in item 1 above; or

2.4 required to be executed for the purpose of the any document referred to in item 1 above or the transactions contemplated thereby.

EXHIBIT D

Trust Deed

Transurban MF Holdings Trust Deed

between

Transurban Infrastructure Management Limited as trustee for the
Transurban Holdings Trust

and

Transurban Infrastructure Management Limited
ACN 098 147 678

BAKER & MCKENZIE
Solicitors

Level 39, Rialto
525 Collins Street
MELBOURNE VIC 3000
Tel: (03) 9617-4200
Fax: (03) 9614-2103

Level 26, AMP Centre
50 Bridge Street
SYDNEY NSW 2000
Tel: (02) 9225-0200
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Ref: #415338 v1KFA

Contents

Clause Number	Heading	Page
1.	**Definitions**	1
1.1	Definitions	1
1.2	Interpretation	4
2.	**Trust**	5
2.1	Name of Trust	5
2.2	Trustee's consent to act	5
2.3	Initial Sum	5
2.4	Trust fund	6
3.	**Beneficial Interest of Unit Holders**	6
3.1	Beneficial interest in the Assets	6
3.2	No entitlement to any part of the Assets	6
3.3	Restrictions	6
3.4	Bound by Deed	6
4.	**Units**	7
4.1	Issue of Units	7
4.2	Classification of Units	7
4.3	Fractions and splitting	7
4.4	Issue of partly paid Units	7
4.5	Failure to pay instalment on partly paid Unit	8
5.	**Modification of Class rights**	8
5.1	Variation of Class rights	8
5.2	Effect of variation	9
6.	**Application for Units**	9
6.1	Issue Price for Units	9
6.2	Number of Units issued	9
6.3	Application for Units	9
6.4	Allotment	10
6.5	Trustee's discretion on application	10
6.6	Minimum application	10
6.7	Restriction on issue of Units	10
6.8	Compliance with Law	10
7.	**Register of Unit Holders**	10
7.1	Details of Register	10
7.2	Joint holders	11
7.3	Consequence of registration	11
7.4	Change of address	11
7.5	No recognition of Trust	12

8.	**Unit Certificates**	**12**
8.1	Issue of certificates	12
8.2	Form of certificate	12
8.3	Surrender of certificates	12
9.	**Redemption of Units**	**12**
9.1	Redemption Price for Units	12
9.2	Redemption at request of a Unit Holder	13
9.3	Redemption	13
9.4	Payment of Redemption Price	13
9.5	Minimum holding	14
9.6	Notice irrevocable	14
9.7	Order	14
9.8	Trustee's right not to redeem	14
10.	**Transfer of Units**	**15**
10.1	Form of transfer	15
10.2	Transferor holder while registered	15
10.3	Issue of new certificate	15
11.	**Transmission of Units**	**16**
11.1	Death of a Unit Holder	16
11.2	Election by representative	16
11.3	Rights on transmission	17
12.	**Income and Distributions**	**17**
12.1	Determination of income	17
12.2	Accumulation of income	17
12.3	Distribution of income to Unit Holders	17
12.4	Retained moneys	18
12.5	Interim Distributions	18
12.6	Other Distributions	19
12.7	Reinvestment	19
12.8	Classes	19
13.	**Capital**	**19**
13.1	Application of capital	19
13.2	Distribution of capital prior to Termination Date	19
14.	**Categories of income and capital**	**20**
14.1	Categories of income and capital	20
14.2	Other categories	20
14.3	Allocation of income or capital of a category	20
14.4	Allocation of expenses	21
14.5	Effect of allocation on categories of income	21
14.6	Distributed income retains categorisation	21
15.	**Valuation of Assets**	**21**
15.1	Valuation of Assets and liabilities	21
15.2	Currency conversion	22
15.3	Net Asset Value	22

16.	**Payment to Unit Holders**	**22**
16.1	Means of payment	22
16.2	Payment by cheque	22
16.3	Unit Holder under a legal disability	23
17.	**Statements and accounts**	**23**
17.1	Accounting records	23
17.2	Financial statements	23
17.3	Auditor	24
18.	**Retirement, removal and appointment of Trustee**	**25**
18.1	Retirement and removal	25
18.2	Appointment	25
18.3	Restriction on appointment	25
18.4	Provisions on appointment	25
18.5	Transfer of records and property	25
18.6	Deed binding on a new Trustee	25
18.7	Vacation of office	26
18.8	Release	26
19.	**Powers of Trustee**	**26**
19.1	General power of investment	26
19.2	Specific powers	26
19.3	Power to delegate	26
19.4	Power to act despite personal interest	27
20.	**Rights and liabilities of Trustee**	**27**
20.1	Remuneration	27
20.2	Administration expenses	27
20.3	Indemnity	28
20.4	Other capacities	28
20.5	Release of power	28
20.6	Unfettered power	29
20.7	Legal and other advice	29
20.8	Manager	29
20.9	Custodian Trustee	29
20.10	Documents of title	30
20.11	Limitation of liability	30
21.	**Variation of Trust**	**30**
21.1	Variation of Deed	30
21.2	Time variation takes effect	31
21.3	No variation to clauses 6.7(a) and 18.3	31
22.	**Meetings of Unit Holders**	**31**
22.1	Convening and adjourning a meeting of Unit Holders	31
22.2	Notice of meetings	32
22.3	Appointment of chairman	32
22.4	Determination of questions	32
22.5	Calling a poll	32
22.6	One vote per Unit	32

22.7	Giving of votes	33
22.8	Proxies and representatives	33
22.9	Quorum	33
22.10	No quorum	33
22.11	Resolutions binding	33
23.	**Limitation on liability of Unit Holders**	**34**
23.1	No partnership	34
23.2	No indemnity from Unit Holders	34
24.	**Termination of Trust**	**34**
24.1	Termination of Trust	34
24.2	Procedure on determination	35
24.3	Postponement of sale	35
24.4	Provision for liabilities	35
25.	**Notices**	**35**
25.1	Address for Notices	35
25.2	Time of receipt	36
25.3	Notices to Unit Holders	36
26.	**General provisions**	**36**
26.1	Waiver and exercise of rights	36
26.2	Counterparts	37
26.3	Rights cumulative	37
26.4	Consents and approvals	37
26.5	Jurisdiction	37
26.6	Governing Law	37

Transurban MF Trust Deed

This Deed is made on 25 April 2004.

Between

Transurban Infrastructure Management Limited ACN 098 147 678 as trustee for the Transurban Holdings Trust of Level 43, 525 Collins Street, Melbourne, Victoria 3000, Australia (**"Initial Unit Holder"**)

and

Transurban Infrastructure Management Limited ACN 098 147 678 of Level 43, 525 Collins Street, Melbourne, Victoria 3000, Australia (**"Trustee"**)

Recitals

A. The Initial Unit Holder has paid the Initial Sum to the Trustee to establish a trust on the terms of this Deed.

B. The Trustee has agreed to act as trustee of the Trust and to hold all moneys, assets and investments on the trusts and conditions set out in this Deed.

C. The provisions of this Deed apply to bind the Unit Holders and also to benefit them.

Operative provisions

1. Definitions

1.1 Definitions

In this Deed unless the context requires another meaning:

"Act" means the *Income Tax Assessment Act 1936* and the *Income Tax Assessment Act 1997* or both of them, as appropriate;

"Assets" means all cash, investments, rights and other property of the Trust, but does not include:

(a) application monies in respect of which Units are yet to be issued;

(b) redemption amounts not yet paid;

(c) any Distribution which is payable, but not yet paid (including assets held on trust in accordance with clause 9.4(d) or clause 12.3(b)); or

(d) any Distribution which is payable, but not yet paid, and is transferred to a distribution account in accordance with clauses 12.3 and 12.4;

"Associate" has the same meaning as in the Law;

"Auditor" means the auditor for the time being of the Trust;

"Business Day" means a day that banks are open for banking business, other than a Saturday or Sunday, in Melbourne, Australia;

"Class" means a class of Units created under clause 4.2;

"Distribution" for a Distribution Period means the amount determined under clause 12.3;

"Distribution Date" means the date which is 2 months after the expiration of each Distribution Period;

"Distribution Period" means the period ending 30 June or 31 December (as the case may be) in each year in which the Trust is established, or such other dates the Trustee determines;

"Dollars" and **"$"** means the lawful currency of Australia;

"Financial Year" means the period from execution of this Deed to midnight on 30 June 2004 and each subsequent year commencing on 1 July and ending at midnight on 30 June;

"Government Agency" means:

(a) a government, whether foreign, federal, state, territorial or local;

(b) a department, office or minister of a government acting in that capacity; or

(c) a commission, delegate, instrumentality, agency, board, or other government, semi-government, judicial, administrative, monetary or fiscal authority, whether statutory or not;

"GST" means goods and services tax as defined in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth) or any like tax;

"Initial Sum" means the amount of $50.00 paid by the Initial Unit Holder to the Trustee on the signing of this Deed;

"Insurable Assets" means all assets of an insurable nature which in the opinion of the Trustee are in the normal course of business usually insured;

"Issue Price" means the issue price specified in clause 6.1 or any other price determined by the Trustee from time to time;

"Law" means the *Corporations Act 2001* (Cth);

"Net Asset Value of a Class" means:

(a) the value of the Assets of a particular Class;

(b) less the liabilities attributed or attributable to the particular Class,

all as determined under clause 15;

"Non-Assessable Income" means income which the Trustee in its absolute discretion considers is not Section 95 Income for a Distribution Period;

"Redemption Price" means the redemption price determined in accordance with clause 9.1;

"Register" means the register of Unit Holders required to be maintained by this Deed;

"Resolution" means:

(a) a resolution passed at a meeting of Unit Holders of the Trust:

(i) on a show of hands, by the required majority of Unit Holders present in person or by proxy; or

(ii) if a poll is duly demanded, by the required majority of the number of Units held by Unit Holders present and voting on the poll, in person or by proxy; or

(b) unless prohibited by any law, a written resolution signed by Unit Holders holding the required majority of the Units in the Trust,

and unless otherwise stated a required majority is a simple majority;

"Section 95 Income" means "net income" within the meaning of section 95 of the Act for a Distribution Period;

"Special Resolution" means a Resolution where the required majority is 75%;

"Tax" means a tax, levy, charge, impost, deduction, withholding or duty of any nature (including GST, stamp and transaction duty) imposed at any time by any Government Agency;

(a) payable now or in the future; or

(b) required to be remitted to, or imposed, levied, collected, withheld or assessed by any Government Agency,

and any interest, expense, fine, penalty or other charge for those amounts;

"Termination Date" means the date the Trust is to be wound up under this Deed or the Law;

"Transaction Costs" means:

(a) in respect of determining the Issue Price, the Trustee's estimate of the total costs of acquiring the Assets of that Class; or

(b) in respect of determining the Redemption Price, the Trustee's estimate of the total costs of disposing all the Assets of that Class,

which, in either case, the Trustee may reduce to a lesser amount or zero;

"Trust" means the unit trust established by this Deed;

"Trustee" means the trustee for the time being of the Trust;

"Unit" means an undivided part or share of the Assets evidenced by a Unit held by a Unit Holder under this Deed; and

"Unit Holder" means the person for the time being registered under the provisions of this Deed as the holder of a Unit and includes persons registered jointly.

1.2 Interpretation

In this Deed, unless the context otherwise requires:

(a) a reference:

(i) to the singular include the plural and vice versa;

(ii) to any document (including this Deed) include references to that document as amended, consolidated, supplemented, novated or replaced;

(iii) to an agreement includes any deed, agreement or legally enforceable arrangement or understanding whether written or not;

(iv) to any person or any party includes:

(A) references to any individual, company, body corporate, association, partnership, firm, joint venture, trust and Government Agency as the case requires; and

(B) that person's successors, permitted assigns, substitutes, executors and administrators;

(v) to law:

(A) includes references to any constitutional provision, treaty, decree, convention, statute, act, regulation, rule, ordinance, proclamation, subordinate legislation, by-law, judgment, rule of common law or equity, rule of any applicable stock exchange; and

(B) is a reference to that law as amended, consolidated, supplemented or replaced;

(vi) to judgment include references to any order, injunction, decree, determination or award of any court or tribunal;

(vii) to proceeding include litigation, arbitration, and investigation;

(viii) to deliver include cause to be delivered and references to sell include procure the sale of;

(ix) to time are references to Melbourne, Australia time;

(b) headings are for convenience only and must be ignored in construing this Deed;

(c) if a period of time is specified and dates from, after or before a given day or the day of an act or event, it is to be calculated exclusive of that day;

(d) if a payment or other act must (but for this clause 1.2(d)) be made or done on a day which is not a Business Day, then it must be made or done on the next following Business Day;

(e) a warranty, representation, covenant or obligation given or entered into by more than one person binds them jointly and severally;

(f) the words "including" or "includes" mean "including, but not limited to" or "including without limitation";

(g) where a word or phrase is defined, its other grammatical forms have a corresponding meaning;

(h) this Deed must not be construed adversely to a party solely because that party was responsible for preparing it; and

(i) where any party is required to provide, or may provide, a notice or application in writing to the other party, then the Trustee may permit that notice or application to be given in electronic form and on such other terms and conditions as the Trustee may determine.

2. Trust

2.1 Name of Trust

The Trust is to be known as the Transurban MF Holdings Trust.

2.2 Trustee's consent to act

Transurban Infrastructure Management Limited is hereby appointed and agrees to act as trustee of the Trust.

2.3 Initial Sum

The Trustee acknowledges receipt of the Initial Sum which entitles the Initial Unit Holder to be entered in the register as the holder of 50 Units.

2.4 Trust fund

(a) The Trustee holds the Assets on trust for the Unit Holders on the trusts and subject to the terms of this Deed.

(b) The Assets vests in the Trustee but must be held as a separate fund.

3. Beneficial interest of Unit Holders

3.1 Beneficial interest in the Assets

Subject to any contrary right of holders of Units of a Class, the beneficial interest in the Trust is vested:

(a) in the Unit Holders for the time being; and

(b) if there is more than one Unit Holder, in those Unit Holders in proportion determined under the rights attaching to the Units each holds.

3.2 No entitlement to any part of the Assets

Subject to any contrary rights of holders of Units of a Class:

(a) a Unit does not entitle the holder of the Unit to any particular asset comprised in, or any particular part of, the Trust; and

(b) each Unit entitles a Unit Holder equally with all other Unit Holders to the beneficial interest in the Trust as an entirety.

3.3 Restrictions

A Unit Holder must not:

(a) interfere with any rights or powers of the Trustee under this Deed;

(b) exercise a right in respect of an Asset or lodge a caveat or other notice affecting an Asset or otherwise claim any interest in an Asset; or

(c) require an Asset to be transferred to the Unit Holder.

3.4 Bound by Deed

Each person upon becoming registered as the holder of a Unit (and any person claiming through them) is entitled to the benefit of and is bound by the terms of this Deed and all special rights, restrictions and conditions (if any) attaching to the Unit from time to time.

4. Units

4.1 Issue of Units

Subject to this Deed, the Trustee may create and issue additional Units from time to time.

4.2 Classification of Units

The Trustee may from time to time issue Units in different classes by attaching special rights, restrictions or other conditions to those Units. The Trustee must enter the terms of any special rights, restrictions or other conditions of a Class in the Register.

4.3 Fractions and splitting

(a) Units may be issued in fractions at the discretion of the Trustee, and the value of, and all rights and obligations attaching to, a fractional Unit will be in proportion to those of a whole Unit.

(b) Where a holding comprises more than one fraction of a Unit, the Trustee may consolidate those fractions.

(c) The Trustee may consolidate or split the Units. The Trustee must for any consolidation or split:

(i) immediately amend the Register to record the consolidation or split;

(ii) notify the Unit Holder within 30 days of the consolidation or split; and

(iii) ensure that each Unit is consolidated or split on the same basis as each other Unit.

4.4 Issue of partly paid Units

(a) The Trustee may offer any Units as partly paid Units, the Issue Price of which is payable on issue and by instalments.

(b) The Trustee must set out the terms of issue of the partly paid Units in the document offering those Units for subscription, including the amount and time for payment of the instalments unless these are left to the discretion of the Trustee.

(c) The whole of the unpaid Issue Price of each partly paid Unit is payable immediately upon termination of the Trust.

(d) A Unit Holder who holds a partly paid Unit must pay the instalments of the Issue Price in accordance with the terms of issue and in accordance with this Deed.

4.5 Failure to pay instalment on partly paid Unit

(a) If a Unit Holder does not pay an amount due on a partly paid Unit on the due date, the Trustee has a first and paramount lien over Units registered in the name of the Unit Holder which has failed to pay the amount due, including in respect of any fees or unpaid calls which are payable to the Trustee in respect of those Units and also for such amounts of interest which may be payable on such unpaid amounts in accordance with the terms of issue of the partly paid Units. The lien extends to distributions from time to time declared in respect of such Units and any costs incurred by the Trustee in relation to recovering any amounts due on the sale of the Units. If the Trustee registers any transfer of any Units which it has a lien, those Units are freed and discharged from the lien.

(b) The Trustee may sell any partly paid Units on which the Trustee has a lien as agent for the Unit Holder in any manner the Trustee thinks fit provided that no sale can be made:

(i) unless the sum in respect of which the lien exists is presently payable; and

(ii) until the expiration of 14 days after a notice in writing, stating and demanding payment of the amount which is presently payable, has been given the Unit Holder of the partly paid Units or the person entitled to the Units by reason of the death or bankruptcy of the Unit Holder.

(c) The proceeds of the sale will be received by the Trustee and applied in payment of that part of the amount in respect of which the lien exists as is presently payable, and the residue (if any) will be paid to the person entitled to the partly paid Units at the date of the sale.

(d) For the purpose of giving effect to a sale under this clause 4.5, the Trustee may authorise a person to transfer the Units sold to a purchaser of those Units. The purchaser will be registered as the holder of the Units comprised in any such transfer, and will not be bound to see to the application of the purchase money, nor will the purchaser's title to the Units be subject to any irregularity or invalidity in connection with the sale.

5. Modification of Class rights

5.1 Variation of Class rights

The Trustee may at any time modify or vary the rights attaching to a Class in a Trust provided:

(a) the modification or variation does not adversely affect the rights of other Unit Holders; and

(b) all the Unit Holders of that Class at that time consent in writing to the modification or variation.

5.2 Effect of variation

Upon the rights attaching to a Class being modified or varied under this clause 5:

(a) the Units of that Class will be held subject to any preferred, deferred or other special rights or any restrictions, as modified or varied; and

(b) the Trustee must note the Register as a result.

6. Application for Units

6.1 Issue Price for Units

(a) Subject to clause 2.3, the issue price of a Unit of a Class must be determined according to the following formula:

$$\text{Issue Price} = \frac{\text{Net Asset Value of a Class} + \text{Transaction Costs}}{\text{Number of Units on Issue in Class}}$$

(b) The Trustee may determine the Net Asset Value of a Class and Transaction Costs at such times as may be convenient for the purposes of determining the Issue Price.

(c) The Trustee may notify Unit Holders and applicants from time to time of the times at which Net Asset Value will be determined and the time when applications must be received by the Trustee.

(d) The Issue Price may be rounded as the Trustee determines to the nearest whole cent.

6.2 Number of Units issued

(a) If the Trustee accepts an application for Units in whole or in part, the number of Units issued is the number determined by the Trustee by dividing the relevant application moneys accepted by the Trustee by the Issue Price.

(b) If the Trustee accepts an application for partly paid Units in whole or in part, the number of Units issued is the number determined by the Trustee dividing the relevant application moneys accepted by the Trustee by that part of the Issue Price for a Unit which is to be paid on application.

6.3 Application for Units

A person who wishes to subscribe for Units must:

(a) complete or make an application in the form or manner determined by the Trustee;

(b) lodge or make the application at the place or address and in the manner determined by the Trustee; and

(c) include with the application the application moneys in the form or manner specified by the Trustee or by the transfer of property to be vested in the Trustee.

6.4 Allotment

A Unit created is regarded as issued or granted to the person entitled to it if and when the person's name is recorded in the Register. No rights whatsoever attach to a Unit until it is issued.

6.5 Trustee's discretion on application

The Trustee may in its absolute discretion accept or refuse to accept in whole or in part any application for Units.

6.6 Minimum application

The Trustee may from time to time set a minimum application amount for Units.

6.7 Restriction on issue of Units

(a) A Unit may not be issued to a person who is the Trustee or one of a number of trustees of the Trust. Nothing in this clause 6.7(a) is to be taken as restricting the issue of Units to:

(i) a director, officer or member of a corporate trustee of the Trust;

(ii) a sole director or a sole member of a corporate trustee of the Trust; or

(iii) any person who is a "special trustee" within the meaning of that term in section 33(1) of the *Duties Act 2000* (Vic).

(b) A Unit may not be issued if that issue would result in a breach of clause 6.6.

6.8 Compliance with Law

The Trustee must ensure that all issues of Units in the Trust that are made or to be made do not need disclosure to investors under Part 6D.2 of the Law when they were or are made.

7. Register of Unit Holders

7.1 Details of Register

The Trustee must maintain an up-to-date register of the Unit Holders in which is entered:

(a) the names of the Trust and the Trustee;

(b) the name and address of each Unit Holder as provided to the Trustee;

(c) the number of Units for which each Unit Holder (or joint holders) is registered;

(d) the date of issue of Units;

(e) where distinctive numbers are used by the Trustee, the numbers of the Units or certificates;

(f) particulars of transfers of Units;

(g) particulars of redemption of Units;

(h) special rights, restrictions or other conditions (if any) affecting or attaching to particular Units and changes to same; and

(i) such other particulars as the Trustee may decide.

7.2 Joint holders

Where 2 or more persons are registered as a Unit Holder of a Unit ("joint holders") they are, for the purposes of the administration of the Trust only, deemed to hold the Unit as joint tenants on the following conditions:

(a) the Trustee is not bound to register more than 3 persons as the joint holders of the Unit;

(b) the joint holders are jointly and severally liable for all payments, including payment of Tax, which ought to be made in respect of the Unit;

(c) on the death of a joint holder, the survivor or survivors are the only person or persons whom the Trustee will recognise as having any title to the Unit but the Trustee may require any evidence of death which it thinks fit;

(d) any one of the joint holders may give an effective receipt which will discharge the Trustee for any payment or distribution; and

(e) only the person whose name appears first in the Register as one of the joint holders is entitled to delivery of any notices, cheques or other communications and any such notices, cheques or communications given to that person is deemed to be given to all the joint holders.

7.3 Consequence of registration

Except as is otherwise expressly provided in this Deed, a person who is entered in the register as the holder of a Unit is the only person recognised by the Trustee as entitled to the Unit.

7.4 Change of address

If a Unit Holder gives the Trustee notice in writing of a change of address, the Trustee must delete the previous address of that Unit Holder as shown in the register as soon as may be practicable and insert the new address as notified in its place.

7.5 No recognition of Trust

Unit Holders have an absolute right to the Units registered in their name. The Trustee is not bound to recognise, even when having notice, any equitable, contingent or future interest, or a severable part interest, in a Unit, or in a trust for the holding of a Unit, except as may otherwise be expressly provided by this Deed.

8. Unit Certificates

8.1 Issue of certificates

(a) Each Unit Holder is entitled to be issued with a certificate for the Units registered in their name.

(b) Where Units are held jointly, the joint holders are entitled only to a certificate in their joint names and delivery of that certificate to any one of the joint Unit Holders is sufficient delivery to all of those holders.

8.2 Form of certificate

A certificate may be in the form prescribed by the Trustee from time to time, and must be signed by the Trustee.

8.3 Surrender of certificates

(a) When a Unit is transferred as permitted by this Deed, the certificate for that Unit, or evidence as to its loss or destruction satisfactory to the Trustee, must be given to the Trustee.

(b) A Unit Holder must deliver a certificate, or evidence as to its loss or destruction, to the Trustee upon request following the redemption of the Unit, or to note a change in any special right, restriction or condition attaching to the Unit.

9. Redemption of Units

9.1 Redemption Price for Units

(a) The redemption price of a Unit of a Class must be determined in accordance with the following formula:

$$\text{Redemption Price} = \frac{\text{Net Asset Value of a Class - Transaction Costs}}{\text{Number of Units on Issue in a Class}}$$

(b) If the Trustee has determined that redemptions of Units will only take place on certain days ("Determination Date"), then the calculation of a Redemption Price must be made on the Determination Date.

(c) The Redemption Price may be rounded as the Trustee determines to the nearest whole cent.

9.2 Redemption at request of a Unit Holder

If:

(a) a Unit Holder requests the Trustee in writing in a form approved by the Trustee from time to time to redeem all or part of the Units held by that Unit Holder;

(b) the Trustee determines that the Units may be redeemed without detriment or disadvantage to the other Unit Holders; and

(c) the consent in writing of Unit Holders (including the Unit Holder whose Units are to be redeemed) holding more than 75% of the issued Units is obtained,

the Trustee must redeem those Units in accordance with this clause. If any request to redeem is received after 5:00 pm on the Business Day prior to the Determination Date, the Trustee will not be obliged to redeem those Units on that Determination Date.

9.3 Redemption

Subject to clause 9.8, the Trustee must redeem Units which are to be redeemed on the Determination Date and must within 30 days of a Determination Date:

(a) pay to the relevant Unit Holder the Redemption Price for each Unit to be redeemed after deducting moneys owing by the Unit Holder to the Trustee on any account;

(b) enter in the Register that the Unit is redeemed and that the Unit Holder ceases to be the holder of the Unit; and

(c) where the certificate is returned to the Trustee, destroy the certificate or show on its face that the certificate has been cancelled.

9.4 Payment of Redemption Price

The Trustee may pay the Redemption Price:

(a) by borrowing a sufficient sum to provide the Redemption Price;

(b) by realising or selling any investment of the Trust to provide a sufficient sum to meet the Redemption Price;

(c) out of funds on hand comprising the Assets of the Trust; or

(d) by transferring to the Unit Holder having its Units redeemed Assets whose value determined in accordance with clause 15 is equal to the Redemption Price (or holding those Assets solely on trust for the Unit Holder).

9.5 Minimum holding

If compliance with a Redemption Notice would result in the Unit Holder holding Units the aggregate Redemption Price of which is less than the then current minimum application amount, the Trustee may treat the redemption notice as relating to the Unit Holder's entire holding of Units.

9.6 Notice irrevocable

A Unit Holder may not withdraw a notice given under clause 9.2(a) unless the Trustee agrees.

9.7 Order

Unless the Trustee decides otherwise, the first Units issued to a Unit Holder are the first redeemed or repurchased.

9.8 Trustee's right not to redeem

(a) If on any Determination Date the Trustee has received valid requests for redemption for in excess of 10% of the Units of a Class on issue at that time, the Trustee may:

(i) redeem those Units in whole; or

(ii) satisfy the redemption requests in part by redeeming for each Unit Holder who has lodged a request for redemption that number of Units in that Class determined by the following formula:

$$U = \frac{T}{A} \times R$$

Where:

"U" means the number of Units in that Class to be redeemed in respect of a Unit Holder who has lodged a redemption request, rounded downwards to the nearest whole number;

"T" means that number of Units which represents 10% of the issued Units of that Class on the relevant Determination Date;

"A" means the aggregate number of Units of that Class in respect of which requests for redemption have been received on the relevant Determination Date; and

"R" means the number of Units of that Class the relevant Unit Holder has requested be redeemed on the relevant Determination Date.

(b) At any time the Trustee may suspend redemptions of Units of a Class if it is impracticable for the Trustee to determine Net Asset Value of that Class:

(i) as a result of a closure or disruption to the efficient operation of any market in which the Assets of the Trust are traded; or

(ii) in the Trustee's opinion the realisation of Assets in the current market conditions would not reflect a value for the Assets which could be obtained in an orderly market.

(c) Any requests for redemption received whilst redemptions are suspended under clause 9.8(b) will be deemed to have been received prior to 5:00 pm on the Business Day following the day that the suspension ceases.

10. Transfer of Units

10.1 Form of transfer

(a) A Unit may, with the consent of the Trustee (in its sole discretion), be transferred by an instrument in writing.

(b) The Trustee is not required to give any reason for disallowing a transfer or refusing to give consent.

(c) The transfer must be in the form determined by the Trustee.

(d) Every instrument of transfer must be executed by both the transferor and the transferee.

10.2 Transferor holder while registered

Until the name of the transferee is entered in the register as the holder of the Units:

(a) the Trustee may deal with the transferor of the Units to be transferred; and

(b) that transferor remains the holder of those Units.

10.3 Issue of new certificate

(a) Upon:

(i) production to the Trustee of:

(A) a properly executed and stamped instrument of transfer; and

(B) the certificate for the Units to be transferred; and

(ii) compliance with the provisions of this Deed concerning the transfer of the Units,

the Trustee must:

(i) enter the name and address of the transferee as shown in the transfer in the Register as the holder of the Units transferred;

(ii) cancel the Unit certificate in the name of the transferor;

(iii) issue a new certificate to the transferee if it so requires for the Units transferred; and

(iv) if all of the Units comprised in the original certificate have not been transferred, issue to the transferor a new certificate for the balance of the Units comprised in the cancelled certificate.

(b) If a certificate is claimed to be lost or destroyed, the Trustee may dispense with production upon receiving evidence satisfactory to it of that loss or destruction.

11. Transmission of Units

11.1 Death of a Unit Holder

(a) If a Unit Holder dies, the survivor (where the deceased was a joint holder), or the legal personal representative of the deceased (in all other cases), is the only person recognised by the Trustee as having any title to or interest in the Units held by that holder.

(b) The Trustee must be given all evidence it may require to enable it to verify the validity of the appointment of a legal personal representative.

11.2 Election by representative

(a) Once all evidence required by the Trustee under clause 11.1(b) has been provided the legal personal representative:

(i) may elect in writing to be registered as the holder of the Unit; and

(ii) is entitled to become registered as the holder of the Unit by transmission and the Trustee must make an entry to that effect in the register.

(b) Where an election under clause 11.2(a) is not made:

(i) the provisions of this Deed relating to the transfer of Units apply as if the death of the Unit Holder had not occurred and the person entitled will continue to be the Unit Holder; and

(ii) a person nominated by the Unit Holder under a valid testamentary disposition may become registered as the transferee of the Unit;

11.3 Rights on transmission

A person entitled to a Unit by transmission may receive and give a good discharge for all moneys payable for the Unit but, except as otherwise provided in this Deed, is not entitled to any other rights or privileges of a Unit Holder unless and until that person becomes registered for the Unit.

12. Income and Distributions

12.1 Determination of income

(a) The Trustee may determine whether a receipt or outgoing is to be regarded as being on account of capital or income or partly on account of one and partly on account of the other.

(b) In determining the income of the Trust for a Financial Year the Trustee may, so far as is reasonably possible, exercise the powers given to it under clause 12.1(a), so as to minimise the liability to income and capital gains tax of the Unit Holders.

(c) If the Trustee fails to make a determination under clause 12.1(a) prior to midnight on 30 June in a Financial Year, the amount of Section 95 Income for that year in relation to the Trust is to be taken to be the income of the Trust for the purposes of this Deed.

(d) The Trustee may determine that an amount is Non-Assessable Income for that year in relation to the Trust and the Trustee may, as it considers appropriate, distribute the Non-Assessable Income to the Unit Holders under clause 12.3.

12.2 Accumulation of income

(a) The Trustee may before the end of a Financial Year resolve to accumulate a part of the income of the Trust for that Financial Year:

(i) to recoup any losses of the Trust in any prior Financial Year; or

(ii) as reserves to meet contingencies, to provide for repairs or maintenance, for depreciation or for any other purpose.

(b) The Trustee may pay tax for an accumulation out of the amount accumulated or out of capital.

12.3 Distribution of income to Unit Holders

(a) The income of the Trust for a Financial Year is distributed to the persons who at midnight on the last day of the Financial Year are the Unit Holders in proportion to the Units registered in their respective names.

(b) The Trustee may determine that a part, up to 50%, of that distributed income is to be retained by the Trustee ("retained moneys") which must be dealt with under clause 12.4.

(c) If the Trustee has not prior to midnight on 30 June of a Financial Year resolved to distribute the remaining income due to a Unit Holder under clause 12.1, that income must be credited to a separate account in the books of the Trust in the name of the Unit Holder so that those moneys will be a debt due to the Unit Holder at call and will not bear interest.

12.4 Retained moneys

The following provisions apply to retained moneys:

(a) the Trustee must set aside the retained moneys in separate accounts in the names of the Unit Holders;

(b) interest will not accrue on retained moneys;

(c) moneys standing to the credit of a retained moneys account is a debt due to the Unit Holder which is payable at the earliest of:

(i) the Termination Date;

(ii) at any time the Trustee determines; and

(iii) for a particular account, upon the Unit Holder giving at least six months' notice in writing to the Trustee requiring payment;

(d) retained moneys may be invested or otherwise dealt with by the Trustee in the same manner as the Trustee is authorised to invest or deal with the Assets;

(e) income derived from retained moneys is part of the income of the Trust; and

(f) the amount from time to time standing to the credit of the retained moneys account is to be taken into account as a debt due by the Trust in determining the value of the Assets or the value of a Unit where that valuation is to be made under a provision of this Deed.

12.5 Interim Distributions

The Trustee may determine to make interim distributions to Unit Holders of the estimated income of the Trust. If the Trustee determines to make an interim distribution:

(a) the Trustee shall determine the Distribution Period to which the proposed distribution relates;

(b) the Trustee shall determine income of the Trust which is to be distributed;

(c) the provisions of this clause 12 shall apply to such interim distribution as if a reference in this clause 12 to a "Financial Year" were a reference to the "Distribution Period" determined under paragraph (a) above; and

(d) the amount of any interim distribution will be taken into account when determining the final distribution to be made to Unit Holders in respect of the Financial Year in which such interim distribution was paid.

12.6 Other Distributions

The Trustee may at any time distribute any amount of capital or income to Unit Holders pro rata according to the number of Units held as at a time decided by the Trustee. The distribution may be in cash or by way of bonus Units (which must be issued at the then current Issue Price determined by the Trustee).

12.7 Reinvestment

The procedure for reinvestment of distributions is to be determined by the Trustee and notified to Unit Holders from time to time.

12.8 Classes

The rights of a Unit Holder under this clause are subject to the rights, obligations and restrictions attaching to the Units which they hold.

13. Capital

13.1 Application of capital

(a) All receipts, including bonus issues, dividends, sale of rights or other benefits received by the Trustee, which the Trustee considers to be in the nature of capital; and

(b) any income which is not applied or distributed under the provisions of this Deed,

is not available for distribution as income of the Trust while the Trust continues undetermined, but must be added to and held as capital of the Trust upon the trusts of this Deed and applied, invested and dealt with under the provisions of this Deed.

13.2 Distribution of capital prior to Termination Date

The Trustee may in its discretion determine at any time that the whole or any part of the capital of the Trust be distributed or applied by the Trustee:

(a) firstly in accordance with any special rights as to sharing capital attached to any Units; and

(b) then for such persons who at the time of such determination are the Unit Holders in proportion to the Units registered in their respective names.

14. Categories of income and capital

14.1 Categories of income and capital

The Trustee may separately record the following categories of income or capital in the accounts of the Trust which under the Act:

(a) are dividends:

(i) which are fully franked;

(ii) which are unfranked;

(iii) to which a foreign tax credit attaches; or

(iv) to which another separately identifiable taxation consequence or benefit may attach; and

(b) is income or capital:

(i) which has an Australian source;

(ii) which has an ex-Australian source;

(iii) to which a foreign tax or other credit attaches;

(iv) which is exempt from tax or subject to differing rates of tax or tax treatment; or

(v) which has or gives rise to any other separately identifiable taxation consequence or benefit.

14.2 Other categories

The Trustee may identify and separately record and maintain in the books of accounts of the Trust, income or capital having or for which there is attached, individual or unique characteristics other than as referred to in clause 14.1.

14.3 Allocation of income or capital of a category

(a) If the Trustee obtains the consent of all Unit Holders, the Trustee may resolve that:

(i) income of a Financial Year; or

(ii) capital which is distributed or accumulated based on a determination of the Trustee or by any provision of this Deed,

is the whole or part of the income or capital of a category, so that all or a part of that income or capital is specifically or separately allocated and identified in a distribution to a Unit Holder or in any accumulation.

(b) If the Trustee does not obtain the consent of all Unit Holders, subject to any contrary rights of any particular class of Unit Holders, income or capital of a category is to be taken to have been distributed pro rata to all Unit Holders.

14.4 Allocation of expenses

Expenses and outgoings of the Trust may at the discretion of the Trustee be allocated against, and deducted from, income or capital of any one or more categories.

14.5 Effect of allocation on categories of income

If the Trustee does not exercise its discretion in clause 14.4, outgoings and expenses of the Trust for a Financial Year must be allocated:

(a) firstly, against and deducted from income which is not income of a category; and

(b) secondly, against any income of a category to which a tax credit, rebate or exemption does not attach; and

(c) thirdly, against the remaining income.

14.6 Distributed income retains categorisation

Income or capital to which a Unit Holder becomes entitled and which can be identified as being of a category, retains its separate identity on passing to, or being received by, the Unit Holder or when the Unit Holder otherwise becomes entitled to it.

15. Valuation of Assets

15.1 Valuation of Assets and liabilities

(a) The Trustee may at any time, cause the valuation of any Asset or determine the amount of any liability.

(b) In determining whether a valuation accurately reflects the current value of an Asset, the Trustee is not to be regarded as having the knowledge of a valuer or any other expertise in respect of the valuation of Assets.

(c) The Trustee may determine valuation methods and policies for each category of Asset and change them from time to time.

(d) Each Asset must be valued at its market value unless the Trustee determines:

(i) there is no market in respect of the Asset; or

(ii) the market value does not represent the fair value of the Asset.

15.2 Currency conversion

Where it is necessary for any purpose to convert one currency into another, the Trustee shall determine the time and the manner of that conversion.

15.3 Net Asset Value

The Trustee may determine the Net Asset Value of a Class at such times as it deems appropriate.

16. Payment to Unit Holders

16.1 Means of payment

Subject to clause 12.3(b), a requirement in this Deed to distribute, pay, apply or set aside any amount for a Unit Holder may be satisfied by the Trustee in any one or more of the following means:

(a) with the consent of the Unit Holder, by placing the amount to the credit of the Unit Holder in a 24 hour call account;

(b) by drawing a cheque for the amount made payable to the Unit Holder or paying the money into a bank account in the name of the Unit Holder;

(c) with the consent of the Trustee, by paying the amount by cheque or in cash to a third party at the direction of the Unit Holder;

(d) by applying all or part of the amount in or towards satisfaction of moneys owing by the Unit Holder to the Trustee on any account;

(e) if the Trustee in its discretion thinks fit, by transferring any of the Assets in specie to the Unit Holder on receiving in cash the difference between the amount to which the Unit Holder is entitled and the value of that Asset determined under clause 15;

(f) if the Trustee resolves and the Unit Holders consent, by issuing Units to Unit Holders entitled to that amount as though the amount not distributed had been paid to them first, and then paid to the Trustee as consideration for the issued Units. The Trustee may determine the number of Units to be issued, the terms relating to those Units and the Issue Price for those Units; or

(g) by setting the amount aside to a separate account in the books of the Trust in the name of the Unit Holder following which those moneys will be a debt due to the Unit Holder at call and will be interest free.

16.2 Payment by cheque

Moneys payable by the Trustee to a Unit Holder by cheque may be sent through the post to the registered address of the Unit Holder.

16.3 Unit Holder under a legal disability

(a) Any share of income or capital available for distribution, including as Units issued under the provisions of clause 16.1(f), which is payable to a minor or a person under some other legal disability, may if the Trustee decides, be held by the Trustee under a separate trust for the minor or other person under a legal disability, until that person has attained the age of eighteen years or ceases to be under a legal disability.

(b) The following provisions apply to that separate trust:

(i) if the person entitled dies before attaining the age of eighteen years or ceasing to be under a legal disability, that interest or Units and accumulated income must be paid to or held for the personal representative of that person;

(ii) the Trustee may pay or apply that share of the income or capital available for distribution for the maintenance, education or benefit in life of that person and may pay it to a trustee for, or to a guardian of, that person or to any other person as trustee for that person without being bound to see to its application;

(iii) any money, Units or property held by the Trustee under the provisions of this clause 16.3 must be held by it on a separate trust and must not be included as part of the Assets; and

(iv) the income arising from the property and investments held on that trust is not to be treated as part of the income of the Trust.

(c) The provisions of this clause 16.3 apply as though the Units, interests or retention of income are a share in the amount available for distribution to that minor or person under a legal disability.

17. Statements and accounts

17.1 Accounting records

The Trustee must:

(a) establish and maintain proper books of account which accurately record all receipts and outgoings of the Trust; and

(b) separately record all income and capital of different categories or classes as referred to, or provided for, in this Deed.

17.2 Financial statements

The Trustee must cause financial statements to be prepared by a qualified public or chartered accountant, including a profit and loss account and a balance sheet as at the end of each

Financial Year, certified by that accountant to be a true and proper statement of the affairs of the Trust in accordance with generally accepted accounting principles and setting out all:

(a) income of the Trust;

(b) capital of the Trust;

(c) costs and disbursements and other outgoings paid or payable out of the Trust and chargeable against income;

(d) capital expenditure and liabilities chargeable to capital;

(e) investments and money comprised in the Trust;

(f) amounts held in the accumulated income account;

(g) amounts distributed by the Trustee to Unit Holders; and

(h) amounts held in retained moneys accounts under clause 12.4.

The Unit Holders may inspect those statements and the books of account for the Trust.

17.3 Auditor

(a) Unit Holders holding 51% or more of the units may by a written resolution signed by them require that an auditor be appointed to:

(i) examine the accounts of the Trust;

(ii) ascertain the correctness of any financial statement for the Trust; and

(iii) enquire into the financial affairs of the Trust as required.

(b) The Auditor will be:

(i) named in the resolution, or if not, appointed by the Trustee;

(ii) entitled to access to the accounts and other records of the Trustee for the Trust; and

(iii) entitled to be given any information and explanations requested.

(c) The costs of the Auditor are to be paid out of the Trust.

(d) The Trustee may terminate the services of the Auditor.

18. Retirement, removal and appointment of Trustee

18.1 Retirement and removal

(a) The Trustee may be removed from office as provided by law or upon the passing of a Special Resolution of Unit Holders.

(b) The Trustee may retire by three months' written notice to the Unit Holders, but its retirement will only be effective when a new Trustee's appointment is complete under clause 18.6(a).

18.2 Appointment

The Unit Holders may appoint a new Trustee by Special Resolution of Unit Holders.

18.3 Restriction on appointment

The power of appointing a new Trustee may not be exercised in favour of any person who is, at the time the power is exercised, the beneficial holder of a Unit, other than any person who is a "special trustee" within the meaning of that term in section 33(1) of the *Duties Act 2000* (Vic).

18.4 Provisions on appointment

The place of a Trustee or Trustees who have retired, resigned or been removed, may be filled by a sole appointment or by the appointment of more than one new Trustee.

18.5 Transfer of records and property

Upon the resignation, retirement or removal of the Trustee, the Trustee must promptly, at the expense of the Trust:

(a) hand to the new Trustee all books, records, documents and other property of or relating to the Trust;

(b) do all things necessary to transfer the legal title in the Assets to the new Trustee;

(c) sign authorities and give directions reasonably required by the new Trustee to give possession or control of any part of the Trust in the hands of third parties; and

(d) give any assistance reasonably required by the new Trustee to put the new Trustee into full knowledge of the affairs of the Trust.

18.6 Deed binding on a new Trustee

(a) An appointment of a new Trustee is not complete until the new Trustee covenants by deed to be bound by this Deed.

(b) Unless it is otherwise required by law for a change of Trustee to be effective, it is not necessary for the retirement of a Trustee or the appointment of a new Trustee to be effected by a registered deed.

18.7 Vacation of office

The office of Trustee is terminated and vacated:

(a) if the Trustee, being an individual, is found to be of unsound mind or a person whose person or estate is liable to be dealt with in any way under the law relating to mental health;

(b) if the Trustee becomes bankrupt or makes any arrangement or composition with creditors generally; or

(c) if the Trustee, being a company, enters into liquidation, whether compulsory or voluntary (not being a voluntary liquidation for the purposes of amalgamation or reconstruction), or has an administrator, receiver or official manager or receiver and manager appointed.

18.8 Release

When it retires or is removed, the Trustee is released from all obligations in relation to the Trust arising after the date it retires or is removed except that the Trustee is still obliged to vest the Assets in the new Trustee and to deliver all books and records relating to the Trust to the new Trustee.

19. Powers of Trustee

19.1 General power of investment

Subject to the provisions of this Deed, the Trustee has all the powers that it is possible to confer on a trustee and has all the powers that are incidental to ownership of the Assets from time to time as though it were the absolute and beneficial owner of those Assets.

19.2 Specific powers

Without limiting clause 19.1, the Trustee has the power to invest in, dispose of or otherwise deal with the Assets as the Trustee may determine in its absolute discretion and to borrow or guarantee (whether or not on security).

19.3 Power to delegate

The Trustee may authorise any person or persons to act as its delegate, to hold title to any Assets and to perform any act or exercise any discretion within the Trustee's power on the following terms:

(a) the authorisation may be in the form determined by the Trustee;

(b) the Trustee remains liable for the acts or omissions of a delegate;

(c) the Trustee may include provisions in the authorisation to protect and assist those dealing with the delegate as the Trustee thinks fit; and

(d) the delegate may be an associate of the Trustee.

19.4 Power to act despite personal interest

The Trustee may exercise or concur in exercising all powers and discretions given under this Deed or by law despite that it or any person being a director, member or Associate of the Trustee, has or may have, a direct or indirect interest in the mode or result of exercising a power or discretion or may benefit either directly or indirectly as a result of the exercise of a power or discretion.

20. Rights and liabilities of Trustee

20.1 Remuneration

The Trustee is entitled to remuneration for the Trustee's services:

(a) in that sum as approved by a Special Resolution of Unit Holders;

(b) out of the income or capital of the Trust;

(c) whether by way of periodical fee, salary, commission or otherwise; and

(d) net of any amount payable for GST on that remuneration.

20.2 Administration expenses

(a) The Trustee may pay all costs, charges and expenses of administering the Trust out of the Assets whether from capital or income, as the Trustee decides.

(b) If the Trustee is an accountant, solicitor or other person engaged in any profession, the Trustee is entitled:

(i) to be reimbursed for all costs, charges and expenses of administering the Trust incurred by the Trustee; and

(ii) to charge and be paid all usual professional charges for business transacted, time expended and acts done by the Trustee or any employee or partner in connection with the trusts of this Deed, including any acts which the Trustee, not being in any profession, could have done personally.

20.3 Indemnity

(a) The Trustee acting in good faith is entitled to be indemnified out of the Assets for all liabilities:

(i) incurred by the Trustee relating to the execution of any powers, duties, authorities or discretions vested in it by virtue of this Deed;

(ii) arising in or about the investment and administration of the Assets;

(iii) incurred in the conduct and management of any business forming part of the Trust;

(iv) arising from the acquisition of any Assets under any contract entered into by the Trustee; and

(v) including all actions, proceedings, costs, claims and demands for any matter or thing done or omitted to be done concerning the Trust.

(b) The right of the Trustee to be indemnified for any liability incurred by the Trustee is limited to the Assets in the hands of or under the control of the Trustee and does not extend to enable the Trustee to recover any loss or obtain reimbursement for any liability incurred from any Unit Holder or other person beneficially entitled to any Unit.

20.4 Other capacities

Nothing in this Deed restricts the Trustee or its Associates from:

(a) dealing with the Trust or any Unit Holder;

(b) being interested in any contract or transaction with the Trust or any Unit Holder or retaining for its own benefit any profits or benefits derived from any contract or transaction (provided that the person's interest in the contract or transaction or that of any Associate is disclosed to the Unit Holders before the contract or transaction is entered into); or

(c) acting in the same or a similar capacity in relation to any other scheme,

subject to their acting at all times with good faith toward Unit Holders.

20.5 Release of power

(a) Unless a power or discretion which may be exercised by the Trustee is required by the terms of this Deed to be irrevocable, the Trustee may release or revoke any power conferred upon it by this Deed.

(b) Any other person upon whom any power is conferred by this Deed may release or revoke any power conferred upon them.

(c) Upon the exercise of any release or revocation under this clause 20.5, the power to release or revoke is absolutely and irrevocably terminated.

20.6 Unfettered power

Where in this Deed the Trustee is entitled to exercise a power or a discretion, that power or discretion is an absolute unfettered power or discretion and, except as provided in this Deed, no Unit Holder or other person is entitled to:

(a) call into question the exercise of that power or discretion;

(b) call into question the failure to exercise that power or discretion; or

(c) require the Trustee to assign any reason for its exercise of that power or discretion or failure to exercise that power or discretion.

20.7 Legal and other advice

(a) The Trustee may take and act upon:

(i) the opinion of a solicitor or barrister in interpreting the provisions of this Deed or any document or statute, or any matter concerning the administration of the Trust or any other matter in connection with the Trust; or

(ii) the advice, statements or information of any bankers, accountants, auditors, valuers and other persons consulted by the Trustee who are in each case believed by the Trustee in good faith to be expert in relation to the matters upon which they are consulted and who are independent of the Trustee,

without being liable to any Unit Holder for any act done by the Trustee in accordance with any opinion, advice, statements or information.

(b) Nothing in this clause 20.7 prohibits or impedes the Trustee from applying to any court if the Trustee thinks fit.

20.8 Manager

The Trustee is not bound to act personally but may employ a manager or other person to transact all or any business required to be done or performed by the Trustee, including the investment activities of the Trust and the receipt and payment of money, and the Trustee may determine the remuneration to be paid to that person and be reimbursed out of the Trust for that remuneration.

20.9 Custodian Trustee

(a) It is not necessary for Assets to be registered in the name of the Trustee.

(b) Any Assets may, at the discretion of the Trustee, be registered in the name of a nominee without the necessity of disclosing that the nominee holds that Asset as nominee for and on behalf of the Trustee.

(c) The Trustee has the same powers and discretions regarding any Asset so registered as if it were registered in its own name.

20.10 Documents of title

(a) The Trustee may deposit the documents of title to any Asset with a solicitor, accountant, bank, trust company, investment or stock broker or like institution in any part of the world in which the Assets are invested or situated.

(b) The Trustee is not liable or responsible for any loss not caused by its own fault which may occur relating to the documents of title so deposited.

20.11 Limitation of liability

(a) Except to the extent that a loss arises out of the Trustee's fraud, gross negligence or breach of trust, the Trustee is not liable for any loss suffered by any Unit Holder or regarding the Trust.

(b) The liability of the Trustee is in any case limited to the Assets.

(c) The Trustee is not obliged to enter into any agreement, sign any document or assume any liability on behalf of the Trust, unless that agreement, document or assumption of liability includes a provision, satisfactory to the Trustee in its reasonable discretion, limiting the Trustee's liability under that agreement, document or assumption of liability to the amount which may be satisfied by the Trustee's right of indemnity out of the Assets.

21. Variation of Trust

21.1 Variation of Deed

Subject to clause 21.3, at any time prior to the Termination Date, this Deed may be altered, modified, varied, amended, revoked or added to (all of which are referred to in this clause 21 as a "variation") as follows:

(a) variations may be effected by the passing of a resolution by the Trustee approving the variations;

(b) a resolution signed by a duly authorised officer of the Trustee will be a variation to this Deed on the terms of that resolution;

(c) following the passing of a resolution the Trustee may elect to enter into a deed or other document detailing the variation;

(d) a variation which concerns:

(i) a provision of clause 3;

(ii) the issue, transfer or redemption of Units;

(iii) the appointment or removal of a Trustee;

(iv) a provision of this clause 21;

(v) voting rights at meetings of the Unit Holders;

(vi) a provision of clause 23; or

(vii) a provision of clause 24.1,

is not effective unless the Unit Holders have by Special Resolution signified their consent to the proposed variation, on or before the instrument of variation is executed.

(e) A variation may not:

(i) prejudicially affect the rights of a Unit Holder to income of the Trust previously set aside for it or held for its benefit; or

(ii) prejudicially affect the rights of Unit Holders, whether of a Class or not, to participate in the income or capital of the Trust in accordance with the provisions of this Deed,

unless the consent of the Unit Holder prejudicially affected or the consents of all Unit Holders whose rights are to be prejudicially affected are obtained at or prior to the time any such variation is made.

21.2 Time variation takes effect

If the requirements of this clause 21 have been complied with, the provisions of this Deed will be effectively altered, modified, varied, amended, revoked or added to, as the case may be, on the date specified in the resolution or, (if applicable) amending deed, or if no date is specified, the later of the date of the resolution, the deed or the date of any necessary approval.

21.3 No variation to clauses 6.7(a) and 18.3

The prohibitions contained in clauses 6.7(a) and 18.3 must not be altered, modified, varied, amended, severed or added to unless permitted by law.

22. Meetings of Unit Holders

22.1 Convening and adjourning a meeting of Unit Holders

(a) The Trustee may whenever it thinks fit convene a meeting of Unit Holders.

(b) The Trustee must convene a meeting of Unit Holders if required to do so by a requisition signed by or on behalf of Unit Holders registered as the holders in total of 50% or more of Units.

(c) The Trustee may adjourn a meeting of Unit Holders, whether called by itself or the Unit Holders, to that date and time, being within 21 days of the date of the adjourned meeting, and at that place, as the Trustee may determine.

22.2 Notice of meetings

(a) Not less than 7 days' notice must be given of every meeting of Unit Holders and any notice must be given to all Unit Holders specifying the general nature of the business to be transacted. The date of service of the notice is to be counted as the first day but the day of the meeting is not to be counted.

(b) A meeting may be held at shorter notice, being at least twenty-four hours, with the consent of Unit Holders holding 75% or more of the Units entitled to receive notice and attend any meeting.

(c) A meeting may be held at less than 24 hours notice with the consent of all Unit Holders entitled to receive notice and attend that meeting.

22.3 Appointment of chairman

(a) At every meeting of Unit Holders the Trustee must nominate some person, whether a Unit Holder or not, to preside as chairman.

(b) If there is an equality of votes, the chairman does not have a casting vote.

22.4 Determination of questions

Every question arising at a meeting of Unit Holders is to be decided in the first instance by a show of hands unless:

(a) it is a question which under this Deed must be decided by the holders of a prescribed percentage or more of the Units, in which case a poll is to be taken; or

(b) a poll is demanded under clause 22.5.

22.5 Calling a poll

A poll may be demanded by Unit Holders present in person or by proxy entitled to vote at meetings of the Unit Holders.

22.6 One vote per Unit

Upon a poll every Unit Holder present in person or by proxy, subject to any contrary special right, restriction or condition attaching to a Unit, will have one vote for every Unit held.

22.7 Giving of votes

Votes may be given either personally, by proxy, by attorney or, in the case of a Unit Holder which is a company, by a person appointed as an authorised representative of the company under the Law.

22.8 Proxies and representatives

(a) Every instrument of proxy or appointment of a representative must be in the form prescribed by the Trustee or otherwise in a common or ordinary form and must be signed by the Unit Holder.

(b) The instrument appointing a proxy must be deposited at the office of the Trustee not less than 24 hours, or any lesser period agreed to by the Trustee, before the time of holding the meeting or adjourned meeting (as the case may be) at which the person named as proxy proposes to vote.

22.9 Quorum

The quorum for a meeting is one Unit Holder, where there is only one Unit Holder, and otherwise 2 or more Unit Holders present personally or by proxy or by representative or attorney, who represent in total not less than 50% of the Units.

22.10 No quorum

(a) If a quorum is not present within 30 minutes after the scheduled time for the meeting, the meeting is:

(i) if convened on the requisition of Unit Holders, dissolved; or

(ii) otherwise, adjourned to a place and time decided by the Trustee.

(b) At any adjourned meeting, those Unit Holders present in person or by proxy constitute a quorum.

22.11 Resolutions binding

(a) A Resolution by Unit Holders, or by a Class of Unit Holders, binds all Unit Holders or Unit Holders of that Class, whether or not they are present at the meeting.

(b) No objection may be made to any vote cast unless the objection is made at the meeting.

(c) The decision of the chairman on any matter is final.

23. Limitation on liability of Unit Holders

23.1 No partnership

Nothing in this Deed constitutes or is to be taken to constitute:

(a) the relationship of principal and agent between the Trustee and the Unit Holders;

(b) the relationship of partners between the Trustee and the Unit Holders; or

(c) the relationship of partners between the Unit Holders.

23.2 No indemnity from Unit Holders

(a) Despite any other provision of this Deed or any rule of law to the contrary, no Unit Holder is, whether because they hold Units or because of the relationship created by this Deed, under any obligation personally to indemnify the Trustee or any creditor of the Trustee in the event of there being any deficiency of the Assets as compared with the liabilities of the Trustee for the Trust.

(b) The rights of indemnity of the Trustee or of any creditor are limited to recourse to the Assets.

(c) A Unit Holder is not liable for any loss or damage incurred or suffered by the Trustee in acting as trustee of the Trust, or otherwise in connection with the Trust, to the extent to which the loss or damage exceeds any unpaid and outstanding consideration (if any) payable for issue of the Units held by the Unit Holder.

(d) The Trustee expressly waives and releases all rights and remedies which it otherwise might have at law or in equity to recover money from a Unit Holder because of any right of indemnity or subrogation.

24. Termination of Trust

24.1 Termination of Trust

The Trust must wind-up and terminate on the first to occur of:

(a) the date of termination which Unit Holders holding not less than 90% of the Units notify the Trustee in writing;

(b) if at any time the Trustee considers it to be in the interests of the Unit Holders, the date the Trustee determines; or

(c) 80 years from the date of this Deed.

24.2 Procedure on determination

The Trustee must on the Termination Date:

(a) as soon as practicable sell, call in and convert into money the Assets;

(b) pay out all liabilities of the Trust; and

(c) pay the remainder, less all proper costs, disbursements, fees and other outgoings and less all proper provisions for future liability, to the Unit Holders (subject to any right, restriction or condition affecting the Units and the right to share in the capital of the Trust on the termination of the Trust) in proportion to the number of Units that they are registered as holders of at the Termination Date.

24.3 Postponement of sale

In winding up the Trust the Trustee may postpone the sale, calling in and conversion of any part of the Assets for the time it thinks desirable in the interests of the Unit Holders and is not responsible for any loss attributable to such postponement.

24.4 Provision for liabilities

In winding up the Trust the Trustee may make any provision it considers necessary to provide for any outgoings or liabilities (actual or contingent) of the Trust or any of the Assets before making any distribution to the Unit Holders, and subject to this, must hold the part of the Assets retained in trust for the Unit Holders otherwise entitled.

25. Notices

25.1 Address for Notices

Subject to the Trustee's right under clause 1.2(i), all notices or other communications required under this Deed to the Trustee must be:

(a) in writing and in English;

(b) addressed to the recipient at the address or facsimile number set out below or to any other address or facsimile number as a party may from time to time notify to the other:

(i) <u>to the Trustee</u>:

Address:	Level 43 525 Collins Street Melbourne Victoria 3000
Attention:	The Company Secretary
Facsimile No:	+61 3 9649 7380

(c) sent to the recipient by hand, telegram, prepaid post (airmail, if to or from a place outside Australia) or facsimile; and

(d) signed by a person duly authorised by the sender.

25.2 Time of receipt

(a) Without limiting any other means by which a party may be able to prove that a notice has been received by another party, subject to clause 25.2(b) a notice will be deemed to be duly received:

(i) if sent by hand, when left at the address of the recipient;

(ii) if sent by pre-paid post, 3 days (if posted within a country to an address in that country) or 10 days (if posted from one country to another) after the date of posting; or

(iii) if sent by facsimile, upon receipt by the sender of an acknowledgment or transmission report generated by the machine from which the facsimile was sent indicating that the facsimile was sent in its entirety to the recipient's facsimile number.

(b) If a notice is served by hand, or is received by facsimile on a day which is not a Business Day, or after 5.00 pm (recipient's local time) on any Business Day, that notice will be deemed to be duly received by the recipient at 9.00 am (recipient's local time) on the first Business Day after that day.

25.3 Notices to Unit Holders

(a) A notice, cheque or other communication required under this Deed to be given to a Unit Holder must be given in writing (which includes a facsimile transmission) and be delivered or sent to the Unit Holder at the Unit Holder's registered address or the facsimile number (if any) last advised to the Trustee for delivery of notices.

(b) A notice, cheque or other communication sent by post is taken to be received 3 days after it is posted and a facsimile transmission is taken to be received one hour after receipt by the transmittee of confirmation of transmission from the receiving facsimile machine, and proof of actual receipt is not required.

26. General provisions

26.1 Waiver and exercise of rights

(a) A waiver of a provision or of a right arising under this Deed must be given in writing signed by the party.

(b) A waiver is effective only in the specific instance and for the specific purpose for which it is given.

(c) A single or partial exercise of a right by a party does not preclude another or further exercise or attempted exercise of that right or the exercise of another right.

(d) Failure by a party to exercise or delay in exercising a right does not prevent its exercise or operate as a waiver.

26.2 Counterparts

This Deed may be signed in counterparts and all counterparts taken together constitute one document.

26.3 Rights cumulative

The rights, remedies and powers of the parties under this Deed are cumulative and not exclusive of any rights, remedies or powers provided to the parties by law.

26.4 Consents and approvals

A party may give its consent conditionally or unconditionally or withhold its approval or consent in its absolute discretion unless this Deed expressly provides otherwise.

26.5 Jurisdiction

Each party irrevocably and unconditionally:

(a) submits to the non-exclusive jurisdiction of the courts of the State of Victoria, Australia;

(b) waives any claim or objection based on absence of jurisdiction or inconvenient forum; and

(c) agrees that a document required to be served in proceedings about this Deed may be served

  (i) by being left at or delivered to its address for service of notices under clause 25; or

  (ii) in any other way permitted by law.

26.6 Governing Law

This Deed is governed by and is to be construed under the laws of the State of Victoria, Australia.

Executed as a deed.

Signed sealed and delivered)
for and on behalf of)
Transurban Infrastructure)
Management Limited)
in accordance with section 127(1) of the)
Corporations Act 2001 (Cth) by authority)
of its directors:)

Signature of secretary/director

PAUL G B O'SHEA

Name of secretary/director (please print)

Signature of director

Geoffrey Raymond Phillips

Name of director (please print)

Geoffrey Raymond Phillips

Signed sealed and delivered)
for and on behalf of **Transurban**)
Infrastructure Management Limited
in accordance with section 127(1) of the
Corporations Act 2001 (Cth) by authority
of its directors:

)
)

Signature of secretary/director

PAUL G B O'SHEA

Name of secretary/director (please print)

Signature of director

Geoffrey Raymond Phillips

Name of director (please print)

CERTIFICATE OF TRANSURBAN FINANCE COMPANY PTY LTD
ABN 65 098 539 452

June 22, 2006

The undersigned, being a duly elected director of Transurban Finance Company Pty Ltd (the "Company"), hereby delivers this certificate on behalf of the Company pursuant to Section 4.1(f) of that certain Loan Agreement, dated as of June 22, 2006 (as amended, modified and/or supplemented from time to time), by and among Transurban (895) US Holdings LLC, a Delaware limited liability company, as the Borrower, the Lenders party thereto, and DEPFA Bank plc, in its capacity as Administrative Agent. Capitalized terms used herein but not defined herein shall have the respective meanings assigned to such terms in Appendix A to the Loan Agreement. The undersigned hereby certifies that:

1. I am a duly elected, qualified and acting director of the Company.

2. Attached hereto as Exhibit A is a true, correct complete copy of the certificate of incorporation of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the constitution of the Company, and any amendments thereto, as in full force and effect on and as of the date hereof.

4. Attached hereto as Exhibit C are true and complete copies of the record of resolutions duly adopted by the directors of the Company by unanimous written consent, dated June 21, 2006 authorizing the transactions contemplated under the Demand Note Guaranty. Such resolutions have not been subsequently modified, revoked, repealed, rescinded or otherwise amended, and remain in full force and effect in the form adopted and are the only resolutions adopted by the Member relating to the matters described therein.

5. The following individuals are duly elected, qualified and acting authorized signatories of the Company, having the titles associated with the Company set forth opposite their names on the date hereof, and authorized to execute, deliver and perform the transactions contemplated under the Demand Note Guaranty. The following signature of each authorized signatory is his or her true and authentic signature:

Name	Title	Signature
Kimberley Edwards	Managing Director	
Mark Licciardo	Company Secretary	
Victor Howard	General Manager, Corporate Finance	
James Christopher Brant	Chief Financial Officer	

[Signature page to follow.]

Freehills comments 14/06/06

IN WITNESS WHEREOF, the undersigned director of the Company has hereunto set his or her hand as of the date first set forth above.

By: _____
Name:
Title:

I, Mark Licciardo, hereby certify that James Christopher Brant is as of the date hereof, a duly elected and acting director of the Company and the signature set forth above is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand as of the date first set forth above.

By: _____
Name: Mark Licciardo
Title: Company Secretary

Exhibit A

Certificate of Incorporation

Certificate of Registration on Change of Name

This is to certify that

FENNOSCANDIA PTY LIMITED

Australian Company Number 098 539 452

did on the seventeenth day of April 2002 change its name to

TRANSURBAN FINANCE COMPANY PTY LTD

Australian Company Number 098 539 452

The company is a proprietary company.

The company is limited by shares.

The company is registered under the Corporations Act 2001 and is taken to be registered in Victoria and the date of commencement of registration is the twenty-fourth day of October, 2001.

Issued by the
Australian Securities and Investments Commission
on this seventeenth day of April, 2002.

David Knott
Chairman

CERTIFICATE

Certificate of Registration of a Company

This is to certify that

FENNOSCANDIA PTY LIMITED

Australian Company Number 098 539 452

is a registered company under the Corporations Act 2001 and is taken to be registered in Victoria.

The company **is limited by shares.**

The company is a **proprietary** company.

The day of commencement of registration is **the twenty-fourth day of October 2001.**

Issued by the
Australian Securities and Investments Commission
on this twenty-fourth day of October, 2001.

David Knott

Exhibit B

Constitution

Constitution

Transurban Finance Company Pty Ltd
ACN 098 539 452

A company limited by shares

This version includes amendments by resolution August 2002

I certify that this is a true and complete copy of the original and that this page and the preceding 44 pages are the complete document

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Reference

Table of contents

Rule		Page
1	**Preliminary**	**1**
1.1	Definitions and interpretation	1
1.2	Application of the Act	3
1.3	Exercise of powers	3
1.4	Currency	4
1.5	Single member company	5
1.6	Single director company	5
2	**Sole Purpose**	**5**
3	**Share capital**	**6**
3.1	Shares	6
3.2	Preference shares	6
3.3	Joint holders of shares	7
3.4	Equitable and other claims	8
4	**Calls, forfeiture, indemnities, lien and surrender**	**8**
4.1	Calls	8
4.2	Proceedings for recovery of calls	9
4.3	Payments in advance of calls	9
4.4	Forfeiture of partly paid shares	10
4.5	Indemnity for payments by the company	11
4.6	Lien on shares	12
4.7	Surrender of shares	12
4.8	General provisions applicable to a disposal of shares under this constitution	13
4.9	Interest payable by member	14
5	**Distribution of profits**	**14**
5.1	Dividends	14
5.2	Capitalisation of profits	15
5.3	Ancillary powers	16
5.4	Reserves	17
5.5	Carry forward of profits	17
6	**Transfer and transmission of shares**	**17**
6.1	Transfer of shares	17
6.2	Power to decline registration of transfers	18
6.3	Power to suspend registration of transfers	18
6.4	Transmission of shares	18

7	**General meetings**	**19**
7.1	Calling general meetings	19
7.2	Notice of general meetings	19
7.3	Quorum at general meetings	20
7.4	Chairperson of general meetings	21
7.5	Conduct of general meetings	21
7.6	Decisions at general meetings	21
7.7	Decisions without general meetings	22
7.8	Voting rights	22
7.9	Representation at general meetings	23
8	**Resolution of single member**	**26**
9	**Directors**	**26**
9.1	Appointment and removal of directors	26
9.2	Vacation of office	26
9.3	Remuneration of directors	27
9.4	Director need not be a member	27
9.5	Interested directors	28
9.6	Powers and duties of directors	29
9.7	Proceedings of directors	30
9.8	Convening of meetings of directors	30
9.9	Notice of meetings of directors	30
9.10	Quorum at meetings of directors	31
9.11	Chairperson of directors	32
9.12	Decisions of directors	32
9.13	Written resolutions	33
9.14	Alternate directors	33
9.15	Committees of directors	35
9.16	Delegation to individual directors	35
9.17	Validity of acts	35
10	**Executive officers**	**35**
10.1	Managing directors	35
10.2	Secretaries	35
10.3	Provisions applicable to all executive officers	36
11	**Indemnity and insurance**	**36**
11.1	Persons to whom rules 11.2 and 11.3 apply	36
11.2	Indemnity	36
11.3	Limit on indemnity	37
11.4	Extent of indemnity	37
11.5	Insurance	38
11.6	Savings	38
12	**Winding up**	**38**
12.1	Distribution of surplus	38

12.2 Division of property 39

13 Minutes and records 39

13.1 Minutes of meetings 39
13.2 Minutes of resolutions passed without a meeting 39
13.3 Signing of minutes 39
13.4 Minutes as evidence 40
13.5 Inspection of records 40

14 Execution of documents 40

14.1 Manner of execution 40
14.2 Common seal 40
14.3 Safe custody of seal 40
14.4 Use of seal 40
14.5 Seal register 41
14.6 Duplicate seal 41
14.7 Share seal or certificate seal 41
14.8 Sealing and signing of certificates 42

15 Notices 42

15.1 Notices by the company to members 42
15.2 Notices by the company to directors 43
15.3 Notices by members or directors to the company 43
15.4 Notices posted to addresses outside the Commonwealth 43
15.5 Time of service 43
15.6 Other communications and documents 43
15.7 Notices in writing 44

16 General 44

16.1 Submission to jurisdiction 44
16.2 Prohibition and enforceability 44

TRANSURBAN FINANCE COMPANY PTY LTD

A company limited by shares

Constitution

1 Preliminary

1.1 Definitions and interpretation

(a) In this constitution:

Act means the Corporations Act 2001;

City Link Finance Document has the same definition as in the Security Trust Deed;

Commonwealth means the Commonwealth of Australia and its external territories;

representative, in relation to a body corporate, means a representative of the body corporate appointed under section 250D of the Act or a corresponding previous law;

seal means any common seal, duplicate seal, share seal or certificate seal of the company; and

Security Trust Deed means the security trust deed, dated on or about June 2002, between J.P. Morgan Institutional Services Australia Limited, ABN AMRO Australia Limited, Transurban Finance Company Pty Ltd ACN 098 539 452 and others;

Transaction Document means:

(1) the Security Trust Deed;

(2) a Security (as defined in the Security Trust Deed);

(3) a Senior Finance Document (as defined in the Security Trust Deed);

(4) a Subordinated Facility Document (as defined in the Security Trust Deed);

(5) an Inter-entity Loan Agreement (as defined in the Security Trust Deed);

(6) the Co-ordination Deed (as defined in the Security Trust Deed);

(7) any document entered into by the Borrower (as defined in the Security Trust Deed), in accordance with the Transaction Documents, for the purpose of incurring additional Finance Debt (as defined in the Security Trust Deed); or

(8) any other document which the Security Trustee acting on the instructions of the Majority Secured Creditors and the Security Providers (as defined in the Security Trust Deed) agree at any time,

now or in the future, is a Transaction Document for the purposes of the Security Trust Deed;

transmission event means:

(1) in respect of a member who is an individual:

(A) the death of the member;

(B) the bankruptcy of the member; or

(C) the member becoming of unsound mind or a person who is, or whose estate is, liable to be dealt with in any way under the law relating to mental health; and

(2) in respect of a member who is a body corporate, the dissolution of the member or the succession by another body corporate to the assets and liabilities of the member;

Transurban Group means, collectively, each of the following:

(1) Transurban Finance Company Pty Ltd ACN 098 539 452;

(2) Transurban Finance Trust – City Link;

(3) Transurban Holding Trust ARSN 098 807 419;

(4) City Link Trust ARSN 096 270 085;

(5) City Link Extension Pty Ltd ABN 40 082 058 615;

(6) CityLink Melbourne Limited ABN 65 070 810 768; and

(7) Transurban Holdings Limited ACN 098 143 429.

(b) A reference in a rule to a partly paid share is a reference to a share on which there is an amount unpaid.

(c) A reference in a rule relating to partly paid shares to a call or an amount called in respect of a share includes a reference to a sum that, by the terms of issue of a share, becomes payable on issue or at a fixed date.

(d) A member is to be taken to be present at a general meeting if the member is present in person or by proxy, attorney or representative.

(e) A director is to be taken to be present at a meeting of directors if the director is present in person or by alternate director.

(f) Where a rule establishes an office of chairperson, the chairperson may be referred to as chair or as chairman or chairwoman, as the case requires.

(g) A reference in a rule in general terms to a person holding or occupying a particular office or position includes a reference to any person who occupies or performs the duties of that office or position for the time being.

(h) Unless the contrary intention appears in this constitution,

(1) words importing the singular include the plural and words importing the plural include the singular;

(2) words importing a gender include every other gender;

(3) words used to denote persons generally or importing a natural person include any company, corporation, body corporate, body

politic, partnership, joint venture, association, board, group or other body (whether or not the body is incorporated);

(4) a reference to a person includes that person's successors and legal personal representatives;

(5) a reference to any statute, regulation, proclamation, ordinance or by-law includes all statutes, regulations, proclamations, ordinances or by-laws varying, consolidating or replacing it, whether passed by the same or another government agency with legal power to do so, and a reference to a statute includes all regulations, proclamations, ordinances and by-laws issued under that statute; and

(6) where a word or phrase is given a particular meaning, other parts of speech and grammatical forms of that word or phrase have corresponding meanings.

(i) In this constitution headings and boldings are for convenience only and do not affect its interpretation.

1.2 Application of the Act

(a) This constitution is to be interpreted subject to the Act. However, the rules that apply as replaceable rules to companies under the Act do not apply to the company.

(b) Unless the contrary intention appears, an expression in a rule that deals with a matter dealt with by a provision of the Act has the same meaning as in that provision of the Act.

(c) Subject to rule 1.2(b), unless the contrary intention appears, an expression in a rule that is defined for the purposes of the Act has the same meaning as in the Act.

1.3 Exercise of powers

(a) The company may, in any manner permitted by the Act:

(1) exercise any power;

(2) take any action; or

(3) engage in any conduct or procedure,

which under the Act a company limited by shares may exercise, take or engage in if authorised by its constitution.

(b) Where this constitution provides that a person or body may do a particular act or thing and the word "may" is used, the act or thing may be done at the discretion of the person or body.

(c) Where this constitution confers a power to do a particular act or thing, the power is, unless the contrary intention appears, to be taken as including a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend or vary that act or thing.

(d) Where this constitution confers a power to do a particular act or thing with respect to particular matters, the power is, unless the contrary intention appears, to be taken to include a power to do that act or thing with respect

to some only of those matters or with respect to a particular class or particular classes of those matters and to make different provision with respect to different matters or different classes of matters.

(e) Where this constitution confers a power to make appointments to any office or position, the power is, unless the contrary intention appears, to be taken to include a power:

(1) to appoint a person to act in the office or position until a person is appointed to the office or position;

(2) subject to any contract between the company and the relevant person, to remove or suspend any person appointed, with or without cause; and

(3) to appoint another person temporarily in the place of any person so removed or suspended or in place of any sick or absent holder of such office or position.

(f) Where this constitution confers a power or imposes a duty then, unless the contrary intention appears, the power may be exercised and the duty must be performed from time to time as the occasion requires.

(g) Where this constitution confers a power or imposes a duty on the holder of an office as such then, unless the contrary intention appears, the power may be exercised and the duty must be performed by the holder for the time being of the office.

(h) Where this constitution confers power on a person or body to delegate a function or power:

(1) the delegation may be concurrent with, or to the exclusion of, the performance or exercise of that function or power by the person or body;

(2) the delegation may be either general or limited in any manner provided in the terms of delegation;

(3) the delegation need not be to a specified person but may be to any person from time to time holding, occupying or performing the duties of, a specified office or position;

(4) the delegation may include the power to delegate;

(5) where the performance or exercise of that function or power is dependent upon the opinion, belief or state of mind of that person or body in relation to a matter, that function or power may be performed or exercised by the delegate upon the opinion, belief or state of mind of the delegate in relation to that matter; and

(6) the function or power so delegated, when performed or exercised by the delegate, is to be taken to have been performed or exercised by the person or body.

1.4 Currency

An amount payable to the holder of a share, whether by way of or on account of dividend, return of capital, participation in the property of the company on a winding up or otherwise, may be paid, with the agreement of the holder or

pursuant to the terms of issue of the share, in the currency of a country other than Australia and the directors may fix a date up to 30 days before the payment date as the date on which any applicable exchange rate will be determined for that purpose.

1.5 Single member company

If at any time the company has only one member then, unless the contrary intention appears:

(a) a reference in a rule to the "members" is a reference to that member; and

(b) without limiting 1.5(a), a rule which confers a power or imposes and obligation on the members to do a particular act or thing confers that power or imposes that obligation on that member.

1.6 Single director company

If at any time the minimum number of directors fixed under this constitution is 1 and the company in fact has only 1 director then, unless the contrary intention appears:

(a) a reference in a rule to "the directors" is a reference to that director; and

(b) without limiting rule 1.6(a), an rule which confers a power or imposes an obligation on the directors to do a particular act or thing confers that power or imposes that obligation on that director.

2 Sole Purpose

Notwithstanding anything else in this constitution, the company will not carry on any business or engage in any activity other than:

(a) receiving money from, or providing money to, any member of the Transurban Group (whether by way of dividend or otherwise);

(b) incurring financial indebtedness; or

(c) providing financial accommodation to any member of the Transurban Group

including (but not limited to) under or in respect of a negotiable or other financial instrument or discounting arrangement (the **Business**), or any activity reasonably incidental to the Business (including executing any document, including without limitation, the Transaction Documents and City Link Finance Documents, performing any obligation under any such document and undertaking any transaction contemplated by any such document, and giving any required guarantee, indemnity or security, including without limitation, any requisite third party security, unless otherwise agreed by the Company).

3 Share capital

3.1 Shares

(a) Without prejudice to any special rights conferred on the holders of any shares or class of shares, the directors may issue or grant options in respect of, or otherwise dispose of, shares to such persons, for such price, on such conditions, at such times and with such preferred, deferred or other special rights or special restrictions, whether with regard to dividend, voting, return of capital, participation in the property of the company on a winding up or otherwise, as the directors think fit.

(b) In particular, the directors may differentiate between the holders of partly paid shares as to the amount of calls to be paid and the time for payment.

3.2 Preference shares

(a) The company may issue preference shares including preference shares which are, or at the option of the company are, liable to be redeemed.

(b) The certificate issued by the company for each preference share must specify or provide for the determination of:

(1) the rate of dividend applicable to the share and the times at which dividends are to be paid;

(2) the amount paid or payable on the issue of the share and, if that amount is not payable on issue, the amount unpaid on the share;

(3) the number of votes that may be exercised by the holder in respect of the share on a poll;

(4) in the case of a redeemable preference share, the time and place for redemption of the share; and

(5) any restrictions on the right to transfer the share.

(c) The dividend payable in respect of a preference share:

(1) may be at a fixed or variable rate;

(2) unless otherwise stated in the certificate for the share, will be taken to accrue from day to day; and

(3) unless otherwise stated in the certificate for the share, is payable in respect of the amount for the time being paid on the preference share.

(d) Each preference share confers on its holder:

(1) the right to payment out of the profits of the company of a cumulative preferential dividend at the rate and at the times specified in, or determined in accordance with, the certificate for the share in priority to the payment of any dividend on any other class of shares; and

(2) the right in a winding up or reduction of capital and, in the case of a redeemable preference share, on redemption to payment in cash in priority to any other class of shares of:

(A) the amount of any dividend accrued but unpaid on the share at the date of winding up or reduction of capital or, in the case of a redeemable preference share, the date of redemption; and

(B) any amount paid on the share.

(e) A preference share does not confer on its holder any right to participate in the profits or property of the company, whether on a winding up, reduction of capital or otherwise, except as set out in rule 3.2(d).

(f) The holder of a preference share has the same right as the holder of an ordinary share to receive notice of and to attend a general meeting and to receive a copy of any documents to be laid before that meeting.

(g) A preference share does not entitle its holder to vote at any general meeting of the company except in the following circumstances:

(1) on a proposal:

(A) to reduce the share capital of the company;

(B) that affects rights attached to the share;

(C) to wind up the company; or

(D) for the disposal of the whole of the property, business and undertaking of the company;

(2) during a period during which a dividend or part of a dividend on the share is in arrears; or

(3) during the winding up of the company.

(h) The holder of a preference share who is entitled to vote in respect of that share under rule 3.2(g) is, on a poll, entitled to the number of votes specified in, or determined in accordance with, the certificate for the share.

(i) In the case of a redeemable preference share, the company must, at the time and place for redemption specified in, or determined in accordance with, the certificate for the share, redeem the share and, on receiving the certificate for the share, pay to or at the direction of the holder the amount payable on redemption of the share.

(j) A holder of a preference share must not transfer or purport to transfer, and the directors must not register a transfer of, the share if the transfer would contravene any restrictions on the right to transfer the share set out in the certificate for the share.

3.3 Joint holders of shares

Where 2 or more persons are registered as the holders of a share they hold it as joint tenants with rights of survivorship subject to the following provisions:

(a) they and their respective legal personal representatives are liable severally as well as jointly for all payments, including calls, which ought to be made in respect of the share;

(b) subject to rule 3.3(a), on the death of any 1 of them the survivor or survivors are the only person or persons the company will recognise as having any title to the share;

(c) any 1 of them may give effectual receipts for any dividend, interest or other distribution or payment in respect of the share;

(d) except in the case of persons jointly entitled to be registered as the holders of a share under rule 6.4(c), the company is not bound to register more than 3 persons as joint holders of the share;

(e) the company is not bound to issue more than 1 certificate in respect of the share; and

(f) delivery of a certificate for the share to any 1 of them is sufficient delivery to all of them.

3.4 Equitable and other claims

(a) Except as otherwise required by law or provided by this constitution, the company is entitled to treat the registered holder of a share as the absolute owner of that share and is not:

(1) compelled in any way to recognise a person as holding a share upon any trust, even if the company has notice of that trust; or

(2) compelled in any way to recognise, or bound by, any equitable, contingent, future or partial claim to or interest in a share on the part of any other person except an absolute right of ownership in the registered holder, even if the company has notice of that claim or interest.

(b) With the consent of the directors, shares held by a trustee may be marked in the register in such a way as to identify them as being held subject to the relevant trust.

(c) Nothing in rule 3.4(b) limits the operation of rule 3.4(a).

4 Calls, forfeiture, indemnities, lien and surrender

4.1 Calls

(a) Subject to this constitution and to the terms upon which any shares may be issued, the directors may make calls upon the members in respect of any money unpaid on their shares which is not by the terms of issue of those shares made payable at fixed times.

(b) A call may be required by the directors to be paid by instalments.

(c) Upon receiving at least 14 days' notice specifying the time and place of payment, each member must pay to the company by the time and at the place so specified the amount called on the member's shares.

(d) A call is to be taken as having been made when the resolution of the directors authorising the call was passed.

(e) The directors may revoke or postpone a call or extend the time for payment.

(f) The non-receipt of a notice of a call by, or the accidental omission to give notice of a call to, any member does not invalidate the call.

(g) If a sum called in respect of a share is not paid in full by the day appointed for payment of the sum, the person from whom the sum is due must pay:

(1) interest on so much of the sum as is unpaid from time to time, from the date appointed for payment of the sum to the date of actual payment, at a rate determined under rule 4.9; and

(2) any costs, expenses or damages incurred by the company in relation to the non-payment or late payment of the sum.

(h) Any sum unpaid on a share that, by the terms of issue of the share, becomes payable on issue or at a fixed date:

(1) is to be treated for the purposes of this constitution as if that sum was payable pursuant to a call duly made and notified; and

(2) must be paid on the date on which it is payable under the terms of issue of the share.

(i) The directors may, to the extent permitted by law, waive or compromise all or any part of any payment due to the company under the terms of issue of a share or under this rule 4.1.

4.2 Proceedings for recovery of calls

(a) In an action or other proceedings for the recovery of a call, or interest or costs or expenses incurred in relation to the non-payment or late payment of a call, proof that:

(1) the name of the defendant is entered in the register as the holder or 1 of the holders of the share in respect of which the call is claimed;

(2) the resolution making the call is recorded in the minute book; and

(3) notice of the call was given to the defendant in accordance with this constitution,

is conclusive evidence of the debt and it is not necessary to prove the appointment of the directors who made the call or any other matter.

(b) In rule 4.2(a), "defendant" includes a person against whom a set-off or counter-claim is alleged by the company and "action or other proceedings for the recovery of a call" is to be construed accordingly.

4.3 Payments in advance of calls

(a) The directors may accept from a member the whole or a part of the amount unpaid on a share although no part of that amount has been called.

(b) The directors may authorise payment by the company of interest upon the whole or any part of an amount accepted under rule 4.3(a), until the amount becomes payable, at a rate agreed between the directors and the member paying the amount.

(c) The directors may repay to a member all or any of the amount accepted under rule 4.3(a).

4.4 Forfeiture of partly paid shares

(a) If a member fails to pay the whole of a call or instalment of a call by the time appointed for payment of the call or instalment, the directors may serve a notice on that member:

(1) requiring payment of so much of the call or instalment as is unpaid, together with any interest that has accrued and all costs, expenses or damages that may have been incurred by the company by reason of the non-payment or late payment of the call or instalment;

(2) naming a further day (at least 14 days after the date of service of the notice) by which, and a place at which, the amount payable under rule 4.4(a)(1) is to be paid; and

(3) stating that, in the event of non-payment of the whole of the amount payable under rule 4.4(a)(1) by the time and at the place named, the shares in respect of which the call was made will be liable to be forfeited.

(b) If the requirements of a notice served under rule 4.4(a) are not complied with, the directors may by resolution forfeit any share in respect of which the notice was given at any time after the day named in the notice and before the payment required by the notice is made.

(c) A forfeiture under rule 4.4(b) will include all dividends, interest and other money payable by the company in respect of the forfeited share and not actually paid before the forfeiture.

(d) Where a share has been forfeited:

(1) notice of the resolution must be given to the member in whose name the share stood immediately before the forfeiture; and

(2) an entry of the forfeiture, with the date, must be made in the register of members.

(e) Failure to give the notice or to make the entry required under rule 4.4(d) does not invalidate the forfeiture.

(f) A forfeited share becomes the property of the company and the directors may sell, reissue or otherwise dispose of the share in such manner as they think fit and, in the case of reissue or other disposal, with or without any money paid on the share by any former holder being credited as paid up.

(g) A person whose shares have been forfeited ceases to be a member in respect of the forfeited shares, but remains liable to pay, and must immediately pay, to the company:

(1) all calls, instalments, interest, costs, expenses and damages owing in respect of the shares at the time of the forfeiture; and

(2) interest on so much of the amount payable under rule 4.4(g)(1) as is unpaid from time to time, from the date of the forfeiture to the date of actual payment, at a rate determined under rule 4.9.

(h) Except as otherwise provided by this constitution, the forfeiture of a share extinguishes all interest in, and all claims and demands against the

company in respect of, the forfeited share and all other rights incident to the share.

(i) The directors may:

(1) exempt a share from all or any part of this rule 4.4;

(2) waive or compromise all or any part of any payment due to the company under this rule 4.4; and

(3) before a forfeited share has been sold, reissued or otherwise disposed of, annul the forfeiture upon such conditions as they think fit.

4.5 Indemnity for payments by the company

If the company becomes liable under any law to make any payment:

(a) in respect of shares held solely or jointly by a member;

(b) in respect of a transfer or transmission of shares by a member;

(c) in respect of dividends, bonuses or other money due or payable or which may become due and payable to a member; or

(d) otherwise for or on account of or in respect of a member,

whether as a consequence of:

(e) the death of that member;

(f) the non-payment of any income tax, capital gains tax, wealth tax or other tax by that member or the legal personal representative of that member;

(g) the non-payment of any estate, probate, succession, death, stamp or other duty by that member or the legal personal representative of that member; or

(h) any other act or thing,

then, in addition to any right or remedy that law may confer on the company:

(i) the member or, if the member is dead, the member's legal personal representative must:

(1) fully indemnify the company against that liability;

(2) reimburse the company for any payment made under or as a consequence of that law immediately on demand by the company; and

(3) pay interest on so much of the amount payable to the company under rule 4.5(i)(2) as is unpaid from time to time, from the date the company makes a payment under that law until the date the company is reimbursed in full for that payment under rule 4.5(i)(2), at a rate determined under rule 4.9;

(j) the company has a lien upon all dividends, interest and other money payable in respect of the shares held solely or jointly by that member or that member's legal personal representative for all money payable to the company under this rule 4.5;

(k) the company may refuse to register a transfer of any shares by or to that member or that member's legal personal representative until all money payable to the company under this rule 4.5 has been paid; and

(l) the directors may:

(1) exempt a share from all or any part of this rule 4.5; and

(2) waive or compromise all or any part of any payment due to the company under this rule 4.5.

4.6 Lien on shares

(a) The company has a first and paramount lien on:

(1) each partly paid share for all money (whether presently payable or not) called or otherwise due under this constitution in respect of that share; and

(2) all shares registered in the name of a sole holder for all money presently payable by the holder or the holder's estate to the company, including any money payable under rule 4.5.

(b) The company's lien on a share extends to all dividends payable in respect of the share and to the proceeds of sale of the share.

(c) The directors may sell any share on which the company has a lien in such manner as they think fit where:

(1) an amount in respect of which a lien exists under this rule 4.6 is presently payable; and

(2) the company has, not less than 14 days before the date of the sale, given to the registered holder of the share a notice in writing setting out, and demanding payment of, such amount in respect of which the lien exists as is presently payable.

(d) Registration by the company of a transfer of shares on which the company has a lien without giving to the transferee notice of its claim releases the company's lien in so far as it relates to sums owing by the transferor or any predecessor in title.

(e) The directors may:

(1) exempt a share from all or any part of this rule 4.6; and

(2) waive or compromise all or any part of any payment due to the company under this rule 4.6.

4.7 Surrender of shares

(a) The directors may accept a surrender of a share by way of compromise of any claim as to whether or not that share has been validly issued or in any other case where the surrender is within the powers of the company.

(b) Any share so surrendered may be sold, reissued or otherwise disposed in the same manner as a forfeited share.

4.8 General provisions applicable to a disposal of shares under this constitution

(a) A reference in this rule 4.8 to a disposal of shares under this constitution is a reference to:

(1) any sale, reissue or other disposal of a forfeited share under rule 4.4(f) or a surrendered share under rule 4.7; and

(2) any sale of a share on which the company has a lien under rule 4.6(c).

(b) Where any shares are disposed of under this constitution, the directors may:

(1) receive the purchase money or consideration given for the shares on the disposal;

(2) effect a transfer of the shares and execute, or appoint a person to execute, on behalf of the former holder an instrument of transfer of the shares or any other instrument for the purpose of giving effect to the disposal; and

(3) register as the holder of the shares the person to whom the shares have been disposed of.

(c) A person to whom shares are disposed of under this constitution is not bound to see to the regularity or validity of, or to the application of the purchase money or consideration on, the disposal and the title of that person to the shares is not affected by any irregularity or invalidity in the forfeiture or surrender of the shares or the exercise of the company's lien on the shares (as the case may be).

(d) The remedy of any person aggrieved by a disposal of shares under this constitution is limited to damages only and is against the company exclusively.

(e) The proceeds of a disposal of shares under this constitution must be applied in the payment of:

(1) first, the expenses of the disposal;

(2) second, all money presently payable by the former holder whose shares have been disposed of;

(3) and the balance (if any) must be paid (subject to any lien that exists under rule 4.6 in respect of money not presently payable) to the former holder, on the former holder delivering to the company the certificate for the shares that have been disposed of or such other proof of title as the directors may accept.

(f) A statement in writing signed by a director or secretary of the company to the effect that a share in the company has been:

(1) duly forfeited under rule 4.4(b);

(2) duly sold, reissued or otherwise disposed of under rule 4.4(f) or rule 4.7; or

(3) duly sold under rule 4.6(c),

on a date stated in the statement is conclusive evidence of the facts stated in the statement as against all persons claiming to be entitled to the share and of the right of the company to forfeit, sell, reissue or otherwise dispose of the share.

4.9 Interest payable by member

(a) For the purposes of rules 4.1(g)(1), 4.4(g)(2) and 4.5(i)(3), the rate of interest payable to the company is:

(1) if the directors have fixed a rate, the rate so fixed; or

(2) in any other case, 8% per annum.

(b) Interest payable under rules 4.1(g)(1), 4.4(g)(2) and 4.5(i)(3) accrues daily and may be capitalised monthly or at such other intervals as the directors think fit.

5 Distribution of profits

5.1 Dividends

(a) The directors may pay any interim and final dividends as, in their judgment, the financial position of the company justifies.

(b) The directors may pay any dividend required to be paid under the terms of issue of a share.

(c) The payment of a dividend does not require any confirmation by a general meeting.

(d) Subject to any rights or restrictions attached to any shares or class of shares:

(1) all dividends in respect of shares must be paid in proportion to the number of shares held by a member but where shares are partly paid all dividends must be apportioned and paid proportionately to the amounts paid or credited on the partly paid shares;

(2) all dividends must be apportioned and paid proportionately to the amounts so paid or credited during any portion or portions of the period in respect of which the dividend is paid;

(3) for the purposes of rules 5.1(d)(1) and (2), an amount paid or credited as paid on a share in advance of a call is to be ignored; and

(4) interest is not payable by the company in respect of any dividend.

(e) The directors may fix a record date in respect of a dividend, with or without suspending the registration of transfers from that date under rule 6.3.

(f) A dividend in respect of a share must be paid to the person who is registered, or entitled under rule 6.1(c) to be registered, as the holder of the share:

(1) where the directors have fixed a record date in respect of the dividend, on that date; or

(2) where the directors have not fixed a record date in respect of that dividend, on the date fixed for payment of the dividend,

and a transfer of a share that is not registered, or left with the company for registration in accordance with rule 6.1(b), on or before that date is not effective, as against the company, to pass any right to the dividend.

(g) The directors when determining a dividend is payable may:

(1) direct payment of the dividend wholly or partly by the distribution of specific assets, including paid-up shares or other securities of the company or of another body corporate, either generally or to specific shareholders; and

(2) direct that the dividend be paid to particular shareholders wholly or partly out of any particular fund or reserve or out of profits derived from any particular source and to the remaining shareholders wholly or partly out of any other particular fund or reserve or out of profits derived from any other particular source or generally.

(h) The directors may deduct from any dividend payable to a member all sums of money presently payable by the member to the company and apply the amount deducted in or towards satisfaction of the money owing.

(i) Where a person is entitled to a share as a result of a transmission event, the directors may, but are not obliged to, retain any dividends payable in respect of that share until that person becomes registered as the holder of the share or transfers it.

(j) Without prejudice to any other method of payment the directors may adopt, any dividend, interest or other money payable in cash in respect of shares may be paid by cheque and sent by post:

(1) to the address of the holder as shown in the register of members, or in the case of joint holders, to the address shown in the register of members as the address of the joint holder first named in that register; or

(2) to such other address as the holder or joint holders in writing directs or direct.

(k) A cheque sent under rule 5.1(j) may be made payable to bearer or to the order of the member to whom it is sent or such other person as the member may direct and is sent at the member's risk.

5.2 Capitalisation of profits

(a) Subject to any rights or restrictions attached to any shares or class of shares, the directors may capitalise and distribute among such of the members as would be entitled to receive dividends and in the same proportions, any amount:

(1) forming part of the undivided profits of the company;

(2) representing profits arising from an ascertained accretion to capital or from a revaluation of the assets of the company;

(3) arising from the realisation of any assets of the company; or

(4) otherwise available for distribution as a dividend.

(b) The directors may resolve that all or any part of the capitalised amount is to be applied:

(1) in paying up in full shares in or other securities of the company to be issued to members;

(2) in paying up any amounts unpaid on shares in or other securities of the company held by the members; or

(3) partly as specified in rule 5.2(b)(1) and partly as specified in rule 5.2(b)(2),

and such an application must be accepted by the members entitled to share in the distribution in full satisfaction of their interests in the capitalised amount.

(c) Rules 5.1(e) and (f) apply, so far as they can and with such changes as are necessary, to a capitalisation of an amount under this rule 5.2 as if references in those rules to a dividend and to the date a dividend is declared were references to a capitalisation of an amount and to the date the directors resolve to capitalise the amount under this rule 5.2 .

5.3 Ancillary powers

(a) For the purpose of giving effect to any resolution for the satisfaction of a dividend in the manner set out in rule 5.1(g)(1) or by the capitalisation of any amount under rule 5.2, the directors may:

(1) settle as they think expedient any difficulty that may arise in making the distribution or capitalisation;

(2) fix the value for distribution of any specific assets;

(3) pay cash or issue shares or other securities to any members in order to adjust the rights of all parties;

(4) vest any such specific assets, cash, shares or other securities in any trustee upon such trusts for the persons entitled to the dividend or capitalised amount as may seem expedient to the directors; and

(5) authorise any person to make, on behalf of all the members entitled to any further shares or other securities as a result of the distribution or capitalisation, an agreement with the company or another body corporate providing, as appropriate:

(A) for the issue to them of such further shares or other securities credited as fully paid up; or

(B) for the payment by the company on their behalf of the amounts or any part of the amounts remaining unpaid on their existing shares or other securities by the application of their respective proportions of the sum resolved to be capitalised,

and any agreement made under an authority referred to in this rule 5.3(a)(5) is effective and binding on all members concerned.

(b) If the company distributes to members (either generally or to specific members) securities in the company or in another body corporate or trust (whether as a dividend or otherwise and whether or not for value), each of those members appoints the company as his or her agent to do anything needed to give effect to that distribution, including agreeing to become a member of that other body corporate.

5.4 Reserves

(a) Subject to this constitution, the directors may set aside out of the profits of the company such reserves or provisions for such purposes as they think fit.

(b) The directors may appropriate to the profits of the company any amount previously set aside as a reserve or provision.

(c) The setting aside of any amount as a reserve or provision does not require the directors to keep the amount separate from the other assets of the company or prevent the amount being used in the business of the company or being invested in such investments as the directors think fit.

5.5 Carry forward of profits

The directors may carry forward so much of the profits remaining as they consider ought not to be distributed as dividends or capitalised without transferring those profits to a reserve or provision.

6 Transfer and transmission of shares

6.1 Transfer of shares

(a) Subject to this constitution and to the rights or restrictions attached to any shares or class of shares, a member may transfer all or any of the member's shares by an instrument in writing in any usual form or in any other form that the directors approve.

(b) An instrument of transfer referred to in rule 6.1(a) must:

(1) be signed by or on behalf of both the transferor and the transferee unless:

(A) the instrument of transfer relates only to fully paid shares and signature by the transferee has been dispensed with by the directors; or

(B) the transfer of the shares is effected by a document which is, or documents which together are, a proper transfer of those shares under the Act;

(2) if required by law to be stamped, be duly stamped;

(3) in the case of a transfer of partly paid shares, be endorsed by, or accompanied by an instrument executed by, the transferee to the effect that the transferee agrees to accept the shares subject to the terms and conditions on which the transferor held them and to

become a member and to be bound by the company's constitution; and

(4) be left for registration at the registered office of the company, or at such other place as the directors determine, accompanied by the certificate for the shares to which it relates (if any) and such other evidence as the directors may require to prove the title of the transferor or the transferor's right to the shares and to prove the right of the transferee to be registered as the owner of the shares.

(c) Subject to the powers vested in the directors under rule 6.2 and rule 6.3, where the company receives an instrument of transfer in accordance with rule 6.1(b), the company must register the transferee named in the instrument as the holder of the shares to which it relates.

(d) A transferor of shares remains the holder of the shares transferred until the transfer is registered and the name of the transferee is entered in the register of members in respect of the shares.

(e) The company must not charge a fee for the registration of a transfer of shares.

(f) The company may retain any registered instrument of transfer for such period as the directors think fit.

(g) Except in the case of fraud, the company must return any instrument of transfer which the directors decline to register to the person who deposited it with the company.

(h) The directors may, to the extent permitted by law, waive all or any of the requirements of this rule 6.1.

6.2 Power to decline registration of transfers

Subject to any special rights conferred on the holders of any shares or class of shares, the directors may, in their absolute discretion, decline to register any transfer of shares.

6.3 Power to suspend registration of transfers

The directors may suspend the registration of transfers at such times and for such periods, not exceeding in total 30 days in any year, as they think fit.

6.4 Transmission of shares

(a) In the case of the death of a member, the only persons the company will recognise as having any title to the member's shares or any benefits accruing in respect of those shares are:

(1) the legal personal representative of the deceased where the deceased was a sole holder; and

(2) the survivor or survivors where the deceased was a joint holder.

(b) Nothing contained in rule 6.4(a) releases the estate of a deceased member from any liability in respect of a share, whether that share was held by the deceased solely or jointly with other persons.

(c) A person who becomes entitled to a share as a result of a transmission event may, upon producing the certificate for the share and such other evidence as the directors may require to prove that person's entitlement to the share, elect:

(1) to be registered as the holder of the share by signing and serving on the company a notice in writing stating that election; or

(2) to have some other person nominated by that person registered as the transferee of the share by executing a transfer of the share to that other person.

(d) The rules relating to the right to transfer, and the registration of transfers of, shares apply, so far as they can and with such changes as are necessary, to any transfer under rule 6.4(c)(2) as if the relevant transmission event had not occurred and the transfer were signed by the registered holder of the share.

(e) For the purpose of this constitution, where 2 or more persons are jointly entitled to any share in consequence of a transmission event they will, upon being registered as the holders of the share, be taken to hold the share as joint tenants and rule 3.3 will apply to them.

(f) Notwithstanding rule 6.4(a), the directors may register a transfer of shares signed by a member prior to a transmission event even though the company has notice of the transmission event.

7 General meetings

7.1 Calling general meetings

(a) The directors may, whenever they think fit, call and arrange to hold a general meeting.

(b) A general meeting may be called and arranged to be held only as provided by this rule 7.1 or as provided by sections 249D, 249E, 249F and 249G of the Act.

(c) The directors may change the venue for, postpone or cancel a general meeting unless the meeting is called and arranged to be held by the members or the court under the Act. If a general meeting is called and arranged to be held under section 249D of the Act the directors may not postpone it beyond the date by which section 249D requires it to be held and may not cancel it without the consent of the requisitioning member or members.

7.2 Notice of general meetings

(a) Subject to this constitution and to the rights or restrictions attached to any shares or class of shares, notice of a general meeting must be given within the time limits prescribed by the Act and in the manner authorised by rule 15.1 to each person who is at the date of the notice:

(1) a member;

(2) a director; or

(3) an auditor of the company.

(b) A notice of a general meeting must specify the date, time and place of the meeting and state the general nature of the business to be transacted at the meeting.

(c) A person may waive notice of any general meeting by notice in writing to the company.

(d) The non-receipt of notice of a general meeting or proxy form by, or a failure to give notice of a general meeting or a proxy form to, any person entitled to receive notice of a general meeting under this rule 7.2 does not invalidate any act, matter or thing done or resolution passed at the general meeting if:

(1) the non-receipt or failure occurred by accident or error; or

(2) before or after the meeting, the person:

(A) has waived or waives notice of that meeting under rule 7.2(c); or

(B) has notified or notifies the company of the person's agreement to that act, matter, thing or resolution by notice in writing to the company.

(e) A person's attendance at a general meeting:

(1) waives any objection that person may have to a failure to give notice, or the giving of a defective notice, of the meeting unless the person at the beginning of the meeting objects to the holding of the meeting; and

(2) waives any objection that person may have to the consideration of a particular matter at the meeting which is not within the business referred to in the notice of the meeting unless the person objects to considering the matter when it is presented.

7.3 Quorum at general meetings

(a) No business may be transacted at any general meeting, except the election of a chairperson and the adjournment of the meeting, unless a quorum of members is present when the meeting proceeds to business.

(b) A quorum consists of:

(1) if the number of members entitled to vote is 2 or more- 2 of those members; or

(2) if only 1 member is entitled to vote - that member,

present at the meeting.

(c) If a quorum is not present within 30 minutes after the time appointed for a general meeting:

(1) where the meeting was convened upon the requisition of members, the meeting must be dissolved; or

(2) in any other case:

(A) the meeting stands adjourned to such day, and at such time and place, as the directors determine or, if no determination is made by the directors, to the same day in the next week at the same time and place; and

(B) if, at the adjourned meeting, a quorum is not present within 30 minutes after the time appointed for the meeting, the meeting must be dissolved.

7.4 Chairperson of general meetings

(a) The chairperson of directors must (if present within 15 minutes after the time appointed for the meeting and willing to act) preside as chairperson at each general meeting.

(b) If at a general meeting:

(1) there is no chairperson of directors;

(2) the chairperson of directors is not present within 15 minutes after the time appointed for the meeting; or

(3) the chairperson of directors is present within that time but is not willing to act as chairperson of the meeting,

the members present must elect as chairperson of the meeting:

(4) another director who is present and willing to act; or

(5) if no other director willing to act is present at the meeting, a member who is present and willing to act.

7.5 Conduct of general meetings

(a) Any question arising at a general meeting relating to the order of business, procedure or conduct of the meeting must be referred to the chairperson of the meeting, whose decision is final.

(b) The chairperson of a general meeting may, and must if so directed by the meeting, adjourn the meeting from time to time and from place to place, but no business may be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

(c) It is not necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.

7.6 Decisions at general meetings

(a) Except in the case of any resolution which as a matter of law requires a special majority, questions arising at a general meeting are to be decided by a majority of votes cast by the members present at the meeting and any such decision is for all purposes a decision of the members.

(b) In the case of an equality of votes upon any proposed resolution:

(1) the chairperson of the meeting will not have a second or casting vote; and

(2) the proposed resolution is to be taken as having been lost.

(c) A resolution put to the vote of a general meeting must be decided on a show of hands unless a poll is demanded before the vote is taken or before or immediately after the declaration of the result of the show of hands:

(1) by the chairperson of the meeting; or

(2) by any member present and having the right to vote on the resolution.

(d) A demand for a poll does not prevent the continuance of a general meeting for the transaction of any business other than the question on which the poll has been demanded.

(e) Unless a poll is duly demanded, a declaration by the chairperson of a general meeting that a resolution has on a show of hands been carried or carried unanimously, or carried by a particular majority, or lost, and an entry to that effect in the book containing the minutes of the proceedings of the company, is conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against the resolution.

(f) If a poll is duly demanded at a general meeting, it will be taken in such manner and (subject to rule 7.6(g)) either at once or after an interval or adjournment or otherwise as the chairperson of the meeting directs, and the result of the poll will be the resolution of the meeting at which the poll was demanded.

(g) A poll demanded at a general meeting on the election of a chairperson of the meeting or on a question of adjournment must be taken immediately.

(h) The demand for a poll may be withdrawn.

7.7 Decisions without general meetings

The company may pass a resolution (except a resolution to remove an auditor) without a general meeting being held:

(a) if all of the members entitled to vote on the resolution sign a document containing a statement that they are in favour of a resolution set out in the document; and

(b) otherwise in accordance with the Act.

If a share is held jointly, each of the joint members must sign the document

7.8 Voting rights

(a) Subject to this constitution and to any rights or restrictions attached to any shares or class of shares, at a general meeting:

(1) on a show of hands, every member present in person or by proxy, attorney or representative has 1 vote; and

(2) on a poll, every member present has 1 vote for each share held by the member and in respect of which the member is entitled to vote.

(b) Where a person present at a general meeting represents personally or by proxy, attorney or representative more than 1 member:

(1) on a show of hands the person is entitled to 1 vote only despite the number of members the person represents;

(2) that vote will be taken as having been cast for all the members the person represents; and

(3) the person must not exercise that vote in a way which would contravene any directions given to the person in accordance with rule 7.9(f) in any instrument appointing the person as a proxy or attorney.

(c) A joint holder may vote at any meeting in person or by proxy, attorney or representative as if that person was the sole holder. If more than 1 joint holder tenders a vote, the vote of the holder named first in the register must be accepted to the exclusion of the other or others.

(d) The parent or guardian of an infant member may vote at any general meeting upon such evidence being produced of the relationship or of the appointment of the guardian as the directors may require and any vote so tendered by a parent or guardian of an infant member must be accepted to the exclusion of the vote of the infant member.

(e) A person entitled to a share as a result of a transmission event may vote at any general meeting in respect of that share in the same manner as if that person were the registered holder of the share if, before the meeting, the directors have:

(1) admitted that person's right to vote at that meeting in respect of the share; or

(2) been satisfied of that person's right to be registered as the holder of, or to transfer, the share under rule 6.4(c),

and any vote so tendered by such a person must be accepted to the exclusion of the vote of the registered holder of the share.

(f) A member is not entitled to vote at a general meeting unless all calls and other sums of money presently payable by that member in respect of shares in the company have been paid.

(g) An objection to the qualification of a person to vote at a general meeting:

(1) must be raised before or at the meeting at which the vote objected to is given or tendered; and

(2) must be referred to the chairperson of the meeting, whose decision is final.

(h) A vote not disallowed by the chairperson of a meeting under rule 7.8(g) is valid for all purposes.

7.9 Representation at general meetings

(a) Subject to this constitution, each member entitled to vote at a meeting of members may vote:

(1) in person or, where a member is a body corporate, by its representative;

(2) by not more than 2 proxies; or

(3) by not more than 2 attorneys.

(b) A proxy, attorney or representative may, but need not, be a member of the company.

(c) A proxy, attorney or representative may be appointed for all general meetings, or for any number of general meetings, or for a particular general meeting.

(d) Unless otherwise provided in the appointment of a proxy, attorney or representative, or in the Act, an appointment will be taken to confer authority:

(1) to agree to a meeting being convened by shorter notice than is required by the Act or by this constitution;

(2) to speak to any proposed resolution on which the proxy, attorney or representative may vote;

(3) to demand or join in demanding a poll on any resolution on which the proxy, attorney or representative may vote;

(4) even though the instrument may refer to specific resolutions and may direct the proxy, attorney or representative how to vote on those resolutions:

(A) to vote on any amendment moved to the proposed resolutions and on any motion that the proposed resolutions not be put or any similar motion;

(B) to vote on any procedural motion, including any motion to elect the chairperson, to vacate the chair or to adjourn the meeting; and

(C) to act generally at the meeting; and

(5) even though the instrument may refer to a specific meeting to be held at a specified time or venue, where the meeting is rescheduled or adjourned to another time or changed to another venue, to attend and vote at the re-scheduled or adjourned meeting or at the new venue.

(e) Where a member appoints 2 proxies or attorneys, the following rules apply:

(1) the appointment is of no effect and a proxy or attorney may not vote unless each proxy or attorney, as the case may be, is appointed to represent a specified proportion of the member's voting rights;

(2) on a show of hands, neither proxy or attorney may vote; and

(3) on a poll, each proxy or attorney may only exercise the voting rights the proxy or attorney represents.

(f) An instrument appointing a proxy or attorney may direct the manner in which the proxy or attorney is to vote in respect of a particular resolution and, where an instrument so provides, the proxy or attorney is not entitled to vote on the proposed resolution except as directed in the instrument.

(g) Subject to rule 7.9(i), an instrument appointing a proxy or attorney need not be in any particular form provided it is in writing, legally valid and signed by the appointer or the appointer's attorney.

(h) Subject to rule 7.9(i), a proxy or attorney may not vote at a general meeting or adjourned meeting or on a poll unless the instrument appointing the proxy or attorney, and the authority under which the instrument is signed or a certified copy of the authority, are:

(1) received at the registered office of the company, a fax number at the company's registered office or at such other place, fax number or electronic address specified for that purpose in the notice calling the meeting before the time for holding the meeting or adjourned meeting or taking the poll (as the case may be);

(2) in the case of a meeting or an adjourned meeting, tabled at the meeting or adjourned meeting at which the person named in the instrument proposes to vote; or

(3) in the case of a poll, produced when the poll is taken.

(i) The directors may waive all or any of the requirements of rules 7.9(g) and (h) and in particular may, upon the production of such other evidence as the directors require to prove the validity of the appointment of a proxy or attorney, accept:

(1) an oral appointment of a proxy or attorney;

(2) an appointment of a proxy or attorney which is not signed in the manner required by rule 7.9(g); and

(3) the deposit, tabling or production of a copy (including a copy sent by fax) of an instrument appointing a proxy or attorney or of the power of attorney or other authority under which the instrument is signed.

(j) A vote given in accordance with the terms of an instrument appointing a proxy or attorney is valid despite:

(1) a transmission event occurring in relation to the appointer; or

(2) the revocation of the instrument or of the authority under which the instrument was executed,

if no notice in writing of the transmission event or revocation has been received by the company by the time and at 1 of the places at which the instrument appointing the proxy or attorney is required to be deposited, tabled or produced under rule 7.9(h).

(k) A vote given in accordance with the terms of an instrument appointing a proxy or attorney is valid despite the transfer of the share in respect of which the instrument was given if the transfer is not registered by the time at which the instrument appointing the proxy or attorney is required to be deposited, tabled or produced under rule 7.9(h).

(l) The appointment of a proxy or attorney is not revoked by the appointer attending and taking part in the general meeting but, if the appointer votes on any resolution, the proxy or attorney is not entitled to vote, and must not vote, as the appointer's proxy or attorney on the resolution.

8 Resolution of single member

When the company has only 1 member:

(a) The directors must give the member 14 days' notice of any resolution that the directors propose that the company pass. The notice must be in writing and must set out the wording of the proposed resolution.

(b) The member may waive notice of any proposed resolution under rule 8(a) by notice in writing to the company.

(c) The company may pass a resolution by the member recording it and signing the record.

(d) The member must give the company notice of any resolution passed in accordance with rule 8(c) within 14 days of the passing of any such resolution. The notice must be in writing and must set out details of the resolution passed.

9 Directors

9.1 Appointment and removal of directors

(a) There must be:

(1) at least 1 director; and

(2) subject to rule 9.1(c), not more than 12 directors.

(b) The first directors are the persons who are specified with their consent as proposed directors in the application for registration of the company.

(c) The company may by resolution:

(1) increase or reduce the minimum or maximum number of directors; and

(2) appoint or remove a director.

(d) The directors may appoint any natural person to be a director, either to fill a casual vacancy or as an addition to the existing directors, but the total number of directors must not at any time exceed the maximum number allowed under this constitution.

(e) Subject to rule 9.2 and to the terms of any agreement entered into between the company and the relevant director, a director holds office until the director dies or is removed from office pursuant to rule 9.1(c)(2).

9.2 Vacation of office

The office of a director becomes vacant:

(a) in the circumstances prescribed by the Act;

(b) if the director becomes of unsound mind or a person who is, or whose estate is, liable to be dealt with in any way under the law relating to mental health; or

(c) if the director resigns by notice in writing to the company.

9.3 Remuneration of directors

(a) Each director is entitled to such remuneration out of the funds of the company as the directors determine, but if the company in general meeting has fixed a limit on the amount of remuneration payable to the directors, the aggregate remuneration of the directors under this rule 9.3(a) must not exceed that limit.

(b) The remuneration of a director:

(1) may be a stated salary or a fixed sum for attendance at each meeting of directors or both; or

(2) may be a share of a fixed sum determined by the company in general meeting to be the remuneration payable to all directors which is to be divided between the directors in the proportions agreed between them or, failing agreement, equally,

and if it is a stated salary under rule 9.3(b)(1) or a share of a fixed sum under rule 9.3((b))((2)), will be taken to accrue from day to day.

(c) For the purposes of this constitution the amount fixed by the company as remuneration for a director, will not include any amount paid by the company or related body corporate:

(1) to a superannuation, retirement or pension fund for a director so that the company is not liable to pay the superannuation guarantee charge or similar statutory charge; or

(2) for any insurance premium paid or agreed to be paid for a director under rule 10.4.

(d) In addition to his or her remuneration under rule 9.3(a), a director is entitled to be paid all travelling and other expenses properly incurred by that director in connection with the affairs of the company, including attending and returning from general meetings of the company or meetings of the directors or of committees of the directors.

(e) If a director renders or is called upon to perform extra services or to make any special exertions in connection with the affairs of the company, the directors may arrange for a special remuneration to be paid to that director, either in addition to or in substitution for that director's remuneration under rule 9.3(a).

(f) Nothing in rule 9.3(a) restricts the remuneration to which a director may be entitled as an officer of the company or of a related body corporate in a capacity other than director, which may be either in addition to or in substitution for that director's remuneration under rule 9.3(a).

9.4 Director need not be a member

(a) A director is not required to hold any shares in the company to qualify for appointment.

(b) A director is entitled to attend and speak at general meetings even though that director is not a member of the company.

9.5 Interested directors

(a) A director may hold any other office or place of profit (other than auditor) in the company or any related body corporate in conjunction with his or her directorship and may be appointed to that office or place upon such terms as to remuneration, tenure of office and otherwise as the directors think fit.

(b) A director of the company may be or become a director or other officer of, or otherwise interested in, any related body corporate or any other body corporate promoted by the company or in which the company may be interested as a shareholder or otherwise and is not accountable to the company for any remuneration or other benefits received by the director as a director or officer of, or from having an interest in, that body corporate.

(c) The directors may exercise the voting rights conferred by shares in any body corporate held or owned by the company in such manner in all respects as the directors think fit (including voting in favour of any resolution appointing a director as a director or other officer of that body corporate or voting for the payment of remuneration to the directors or other officers of that body corporate) and a director may, if permitted by law, vote in favour of the exercise of those voting rights notwithstanding that he or she is, or may be about to be appointed, a director or other officer of that other body corporate and, as such, interested in the exercise of those voting rights.

(d) A director is not disqualified merely because of being a director from contracting with the company in any respect including, without limitation:

(1) selling any property to, or purchasing any property from, the company;

(2) lending any money to, or borrowing any money from, the company with or without interest and with or without security;

(3) guaranteeing the repayment of any money borrowed by the company for a commission or profit;

(4) underwriting or guaranteeing the subscription for securities in the company or in any related body corporate or any other body corporate promoted by the company or in which the company may be interested as a shareholder or otherwise, for a commission or profit; or

(5) being employed by the company or acting in any professional capacity (other than auditor) on behalf of the company.

(e) No contract made by a director with the company and no contract or arrangement entered into by or on behalf of the company in which any director may be in any way interested is avoided or rendered voidable merely because of the director holding office as a director or because of the fiduciary obligations arising out of that office.

(f) No director contracting with or being interested in any arrangement involving the company is liable to account to the company for any profit realised by or under any such contract or arrangement merely because of

the director holding office as a director or because of the fiduciary obligations arising out of that office.

(g) A director who is in any way interested in any contract or arrangement or proposed contract or arrangement may, despite that interest:

(1) be counted in determining whether or not a quorum is present at any meeting of directors considering that contract or arrangement or proposed contract or arrangement;

(2) vote in respect of, or in respect of any matter arising out of, the contract or arrangement or proposed contract or arrangement; and

(3) sign any document relating to that contract or arrangement or proposed contract or arrangement the company may execute.

9.6 Powers and duties of directors

(a) The directors are responsible for managing the business of the company and may exercise to the exclusion of the company in general meeting all the powers of the company which are not required, by the Act or by this constitution, to be exercised by the company in general meeting.

(b) Without limiting the generality of rule 9.6(a) the directors may exercise all the powers of the company to borrow or otherwise raise money, to charge any property or business of the company or all or any of its uncalled capital and to issue debentures or give any other security for a debt, liability or obligation of the company or of any other person.

(c) The directors may determine how cheques, promissory notes, bankers drafts, bills of exchange or other negotiable instruments must be signed, drawn, accepted, endorsed or otherwise executed, as the case may be, by or on behalf of the company.

(d) The directors may pay out of the company's funds all expenses of the promotion, formation and registration of the company and the vesting in it of the assets acquired by it.

(e) The directors may:

(1) appoint or employ any person to be an officer, agent or attorney of the company for such purposes with such powers, discretions and duties (including powers, discretions and duties vested in or exercisable by the directors), for such period and upon such conditions as they think fit;

(2) authorise an officer, agent or attorney to delegate all or any of the powers, discretions and duties vested in the officer, agent or attorney; and

(3) subject to any contract between the company and the relevant officer, agent or attorney, remove or dismiss any officer, agent or attorney of the company at any time, with or without cause.

(f) A power of attorney may contain such provisions for the protection and convenience of the attorney or persons dealing with the attorney as the directors think fit.

9.7 Proceedings of directors

(a) The directors may meet together for the despatch of business and adjourn and otherwise regulate their meetings as they think fit.

(b) The contemporaneous linking together by telephone or other electronic means of a number of the directors sufficient to constitute a quorum, constitutes a meeting of the directors and the rules relating to meetings of the directors apply, so far as they can and with such changes as are necessary, to meetings of the directors by telephone or other electronic means.

(c) A director participating in a meeting by telephone or other electronic means is to be taken to be present in person at the meeting.

(d) A meeting by telephone or other electronic means is to be taken to be held at the place determined by the chairperson of the meeting provided that at least 1 of the directors involved was at that place for the duration of the meeting.

9.8 Convening of meetings of directors

(a) A director may, whenever the director thinks fit, convene a meeting of the directors.

(b) A secretary must, on the requisition of a director, convene a meeting of the directors.

9.9 Notice of meetings of directors

(a) Subject to this constitution, notice of a meeting of directors must be given to each person who is at the time of giving the notice:

(1) a director, other than a director on leave of absence approved by the directors; or

(2) an alternate director appointed under rule 9.14 by a director on leave of absence approved by the directors.

(b) A notice of a meeting of directors:

(1) must specify the time and place of the meeting;

(2) need not state the nature of the business to be transacted at the meeting;

(3) may be given immediately before the meeting;

(4) may be given in person or by post or by telephone, fax or other electronic means; and

(5) will be taken to have been given to an alternate director if it is given to the director who appointed that alternate director.

(c) A director or alternate director may waive notice of any meeting of directors by notifying the company to that effect in person or by post or by telephone, fax or other electronic means.

(d) The non-receipt of notice of a meeting of directors by, or a failure to give notice of a meeting of directors to, a director does not invalidate any act, matter or thing done or resolution passed at the meeting if:

(1) the non-receipt or failure occurred by accident or error;

(2) before or after the meeting, the director or an alternate director appointed by the director:

(A) has waived or waives notice of that meeting under rule 9.9(c); or

(B) has notified or notifies the company of his or her agreement to that act, matter, thing or resolution personally or by post, or by telephone, fax or other electronic means; or

(3) the director or an alternate director appointed by the director attended the meeting.

(e) The non-receipt of notice of a meeting of directors by, or a failure to give notice of a meeting of directors to, an alternate director of a director on leave of absence approved by the directors does not invalidate any act, matter or thing done or resolution passed at the meeting if:

(1) the non-receipt or failure occurred by accident or error;

(2) before or after the meeting, the alternate director or the director who appointed the alternate director or another alternate director appointed by that director:

(A) has waived or waives notice of that meeting under rule 9.9(c); or

(B) has notified or notifies the company of his or her agreement to that act, matter, thing or resolution personally or by post, or by telephone, fax or other electronic means; or

(3) the alternate director or the director who appointed the alternate director or another alternate director appointed by that director attended the meeting.

(f) Attendance by a person at a meeting of directors waives any objection that person and:

(1) if the person is a director, any alternate director appointed by that person; or

(2) if the person is an alternate director, the director who appointed that person as alternate director and any other alternate director appointed by that director,

may have to a failure to give notice of the meeting.

9.10 Quorum at meetings of directors

(a) No business may be transacted at a meeting of directors unless a quorum of directors is present at the time the business is dealt with.

(b) A quorum consists of:

(1) if the directors have fixed a number for the quorum, that number of directors; and

(2) in any other case 2 directors

present at the meeting of directors.

(c) If there is a vacancy in the office of a director then, subject to rule 9.10(d), the remaining director or directors may act.

(d) If the number of directors in office at any time is not sufficient to constitute a quorum at a meeting of directors or is less than the minimum number of directors fixed under this constitution, the remaining director or directors must act as soon as possible:

(1) to increase the number of directors to a number sufficient to constitute a quorum and to satisfy the minimum number of directors required under this constitution; or

(2) to convene a general meeting of the company for that purpose,

and, until that has happened, must only act if and to the extent that there is an emergency requiring them to act.

9.11 Chairperson of directors

(a) The directors may elect 1 of the directors to the office of chairperson of directors and may determine the period for which that director is to be chairperson of directors.

(b) The office of chairperson of directors may, if the directors so resolve, be treated as an extra service or special exertion performed by the director holding that office for the purposes of rule 8.3(d).

(c) The chairperson of directors must (if present within 10 minutes after the time appointed for the holding of the meeting and willing to act) preside as chairperson at each meeting of directors.

(d) If at a meeting of directors:

(1) there is no chairperson of directors;

(2) the chairperson of directors is not present within 10 minutes after the time appointed for the holding of the meeting; or

(3) the chairperson of directors is present within that time but is not willing to act as chairperson of the meeting,

the directors present must elect 1 of themselves to be chairperson of the meeting.

9.12 Decisions of directors

(a) A meeting of directors at which a quorum is present is competent to exercise all or any of the authorities, powers and discretions vested in or exercisable by the directors under this constitution. However, if the company has only 1 director, the director may pass a resolution and make a declaration by recording it and signing the record.

(b) Questions arising at a meeting of directors are to be decided by a majority of votes cast by the directors present and any such decision is for all purposes a determination of the directors.

(c) In the case of an equality of votes upon any proposed resolution:

(1) the chairperson of the meeting will not have a second or casting vote; and

(2) the proposed resolution is to be taken as having been lost.

9.13 Written resolutions

(a) If:

(1) all of the directors, other than:

(A) any director on leave of absence approved by the directors;

(B) any director who disqualifies himself or herself from considering the act, matter, thing or resolution in question on the grounds that he or she is not entitled at law to do so or has a conflict of interest; and

(C) any director who the directors reasonably believe is not entitled at law to do the act, matter or thing or to vote on the resolution in question,

assent to a document containing a statement to the effect that an act, matter or thing has been done or resolution has been passed; and

(2) the directors who assent to the document would have constituted a quorum at a meeting of directors held to consider that act, matter, thing or resolution,

then that act, matter, thing or resolution is to be taken as having been done at or passed by a meeting of the directors.

(b) For the purposes of rule 9.13(a):

(1) the meeting is to be taken as having been held:

(A) if the directors assented to the document on the same day, on the day on which the document was assented to and at the time at which the document was last assented to by a director; or

(B) if the directors assented to the document on different days, on the day on which, and at the time at which, the document was last assented to by a director;

(2) 2 or more separate documents in identical terms, each of which is assented to by 1 or more directors, are to be taken as constituting 1 document; and

(3) a director may signify assent to a document by signing the document or by notifying the company of the director's assent in person or by post, telephone, fax or other electronic means.

(c) Where a director signifies assent to a document otherwise than by signing the document, the director must by way of confirmation sign the document at the next meeting of the directors attended by that director, but failure to do so does not invalidate the act, matter, thing or resolution to which the document relates.

9.14 Alternate directors

(a) A director may appoint, with approval of a majority of the other directors:

(1) a person to be the director's alternate director for such period as the director thinks fit; and

(2) another person to be the director's alternate director in the absence of any alternate director appointed under rule 9.14(a)(1).

(b) An alternate director may, but need not, be a member or a director of the company.

(c) One person may act as alternate director to more than 1 director.

(d) An alternate director is entitled, if the appointer does not attend a meeting of directors, to attend and vote in place of and on behalf of the appointer.

(e) An alternate director is entitled to a separate vote for each director the alternate director represents in addition to any vote the alternate director may have as a director in his or her own right.

(f) In the absence of the appointer, an alternate director may exercise any powers that the appointer may exercise and the exercise of any such power by the alternate director is to be taken to be the exercise of the power by the appointer.

(g) The office of an alternate director is vacated if and when the appointer vacates office as a director.

(h) The appointment of an alternate director may be terminated at any time by the appointer even though the period of the appointment of the alternate director has not expired.

(i) An appointment, or the termination of an appointment, of an alternate director must be in writing signed by the director who makes or made the appointment and does not take effect unless and until the company has received notice in writing of the appointment or termination.

(j) An alternate director is not to be taken into account in determining the minimum or maximum number of directors allowed under this constitution.

(k) In determining whether a quorum is present at a meeting of directors, an alternate director who attends the meeting is to be counted as a director for each director on whose behalf the alternate director is attending the meeting.

(l) An alternate director is entitled to be paid such remuneration as the directors think fit, either in addition to or in reduction of the remuneration payable to the director for whom the alternate director acts as alternate.

(m) An alternate director is not entitled to be remunerated by the company for his or her services as an alternate director except as provided in rule 9.14(l).

(n) An alternate director, while acting as a director, is responsible to the company for his or her own acts and defaults and is not to be taken to be the agent of the director by whom he or she was appointed.

9.15 Committees of directors

(a) The directors may delegate any of their powers to a committee or committees consisting of such number of directors as they think fit.

(b) A committee to which any powers have been so delegated must exercise the powers delegated in accordance with any directions of the directors.

(c) The rules applying to meetings and resolutions of directors apply, so far as they can and with such changes as are necessary, to meetings and resolutions of a committee of directors.

Membership of a committee of directors may, if the directors so resolve, be treated as an extra service or special exertion performed by the members for the purposes of rule 9.3(e).

9.16 Delegation to individual directors

(a) The directors may delegate any of their powers to 1 director.

(b) A director to whom any powers have been so delegated must exercise the powers delegated in accordance with any directions of the directors.

(c) Acceptance of such a delegation may, if the directors so resolve, be treated as an extra service or special exertion performed by the delegate for the purposes of rule 9.3(e).

9.17 Validity of acts

An act done by a person acting as a director or by a meeting of directors or a committee of directors attended by a person acting as a director is not invalidated by reason only of:

(a) a defect in the appointment of the person as a director;

(b) the person being disqualified to be a director or having vacated office; or

(c) the person not being entitled to vote,

if that circumstance was not known by the person or the directors or committee (as the case may be) when the act was done.

10 Executive officers

10.1 Managing directors

(a) The directors may appoint 1 or more of the directors to the office of managing director.

(b) A managing director's appointment as managing director automatically terminates if the managing director ceases to be a director.

10.2 Secretaries

(a) The directors may appoint 1 or more secretaries.

(b) The directors may appoint 1 or more assistant secretaries.

10.3 Provisions applicable to all executive officers

(a) A reference in this rule 10.3 to an executive officer is a reference to a managing director, secretary or assistant secretary appointed under this rule 10.

(b) The appointment of an executive officer may be for such period, at such remuneration and upon such conditions as the directors think fit.

(c) Subject to any contract between the company and the relevant executive officer, any executive officer of the company may be removed or dismissed by the directors at any time, with or without cause.

(d) The directors may:

(1) confer on an executive officer such powers, discretions and duties (including any powers, discretions and duties vested in or exercisable by the directors) as they think fit;

(2) withdraw, suspend or vary any of the powers, discretions and duties conferred on an executive officer; and

(3) authorise the executive officer to delegate all or any of the powers, discretions and duties conferred on the executive officer.

(e) An executive officer is not required to hold any shares to qualify for appointment.

(f) An act done by a person acting as an executive officer is not invalidated by reason only of:

(1) a defect in the person's appointment as an executive officer; or

(2) the person being disqualified to be an executive officer,

if that circumstance was not known by the person when the act was done.

11 Indemnity and insurance

11.1 Persons to whom rules 11.2 and 11.3 apply

Rules 11.2 and 11.3 apply:

(a) to each person who is or has been a director, alternate director or executive officer (within the meaning of rule 10.3(a)) of the company;

(b) to such other officers or former officers of the company or of its related bodies corporate as the directors in each case determine; and

(c) if the directors so determine, to any auditor or former auditor of the company or of its related bodies corporate,

(each an Officer for the purposes of this rule).

11.2 Indemnity

Subject to rule 11.3, the company must indemnify each Officer on a full indemnity basis and to the full extent permitted by law against all losses, liabilities, costs, charges and expenses (Liabilities) incurred by the Officer as an officer of the company, including without limitation:

(a) a liability for negligence; and

(b) a liability for reasonable legal costs.

11.3 Limit on indemnity

(a) The indemnity in rule 11.2 does not operate in relation to any Liability which:

(1) is a Liability to the company or any of its related bodies corporate;

(2) is a Liability for a pecuniary penalty order under section 1317G of the Act or a compensation order under section 1317H of the Act; or

(3) arises out of conduct of the Officer which was not in good faith, or which involves wilful misconduct, gross negligence, reckless misbehaviour or fraud,

provided that this rule 11.3(a) does not apply to a liability for legal costs.

(b) The indemnity in rule 11.2 does not operate in relation to legal costs incurred by the Officer in defending an action for a Liability if the costs are incurred:

(1) in defending or resisting proceedings in which the Officer is found to have a Liability referred to in rule 11.3(a);

(2) in defending or resisting criminal proceedings in which the Officer is found guilty;

(3) in defending or resisting proceedings brought by ASIC or a liquidator for a court order if the grounds for making the order are found by the court to have been established. For the avoidance of doubt, this does not include costs incurred in responding to actions taken by ASIC or a liquidator as part of an investigation before commencing proceedings for the court order; or

(4) in connection with proceedings for relief to the Officer under the Act in which the court denies the relief.

(c) If there is any appeal in relation to any proceedings referred to in rule 11.3(b), it is the outcome of the final appeal that is relevant for the purposes of rule 11.3(b).

(d) The indemnity in rule 11.2:

(1) does not extend to and is not an indemnity against any amount in respect of which the indemnity would otherwise be illegal, void, unenforceable or not permitted by law; and

(2) does not operate in respect of any Liability of the Officer to the extent that Liability is covered by insurance.

11.4 Extent of indemnity

The indemnity in rule 11.2:

(a) is enforceable without the Officer having to first incur any expense or make any payment;

(b) is a continuing obligation and is enforceable by the Officer even though the Officer may have ceased to be an officer of the relevant Group Company; and

(c) applies to Liabilities incurred both before and after the date of this deed.

11.5 Insurance

The company may, to the extent permitted by law:

(a) purchase and maintain insurance; or

(b) pay or agree to pay a premium for insurance,

for each Officer against any Liability incurred by the Officer as an officer or auditor of the company or of a related body corporate including, but not limited to, a liability for negligence or for reasonable costs and expenses incurred in defending proceedings, whether civil or criminal and whatever their outcome.

11.6 Savings

Nothing in rule 11.2 or 11.3:

(a) affects any other right or remedy that a person to whom those rules apply may have in respect of any Liability referred to in those rules; or

(b) limits the capacity of the company to indemnify or provide or pay for insurance for any person to whom those rules do not apply.

12 Winding up

12.1 Distribution of surplus

Subject to this constitution and to the rights or restrictions attached to any shares or class of shares:

(a) if the company is wound up and the property of the company is more than sufficient:

(1) to pay all of the debts and liabilities of the company; and

(2) the costs, charges and expenses of the winding up,

the excess must be divided among the members in proportion to the number of shares held by them, irrespective of the amounts paid or credited as paid on the shares;

(b) for the purpose of calculating the excess referred to in rule 12.1(a), any amount unpaid on a share is to be treated as property of the company;

(c) the amount of the excess that would otherwise be distributed to the holder of a partly paid share under rule 12.1(a) must be reduced by the amount unpaid on that share at the date of the distribution; and

(d) if the effect of the reduction under rule 12.1(c) would be to reduce the distribution to the holder of a partly paid share to a negative amount, the holder must contribute that amount to the company.

12.2 Division of property

(a) If the company is wound up, the liquidator may, with the sanction of a special resolution:

(1) divide among the members the whole or any part of the property of the company; and

(2) determine how the division is to be carried out as between the members or different classes of members.

(b) Any division under rule 12.2(a) may be otherwise than in accordance with the legal rights of the members and, in particular, any class may be given preferential or special rights or may be excluded altogether or in part.

(c) Where a division under rule 12.2(a) is otherwise than in accordance with the legal rights of the members, a member is entitled to dissent and to exercise the same rights as if the special resolution sanctioning that division were a special resolution passed under section 507 of the Act.

(d) If any of the property to be divided under rule 12.2(a) includes securities with a liability to calls, any person entitled under the division to any of the securities may within 10 days after the passing of the special resolution referred to in that rule, by notice in writing direct the liquidator to sell the person's proportion of the securities and to account for the net proceeds and the liquidator must, if practicable, act accordingly.

(e) Nothing in this rule 12.2 derogates from or affects any right to exercise any statutory or other power which would have existed if this rule were omitted.

(f) Rule 5.3 applies, so far as it can and with such changes as are necessary, to a division by a liquidator under rule 12.2(a) as if references in rule 5.3 to the directors and to a distribution or capitalisation were references to the liquidator and to the division under rule 12.2(a) respectively.

13 Minutes and records

13.1 Minutes of meetings

The directors must ensure minutes of proceedings and resolutions of general meetings, and of meetings of directors (including committees of directors) are recorded, in books kept for the purpose, within 1 month after the relevant meeting is held.

13.2 Minutes of resolutions passed without a meeting

The directors must ensure minutes of resolutions passed by members and resolutions passed and declarations made by directors (and committees of directors) without a meeting are recorded in books kept for the purpose within 1 month after the resolution is passed or the declaration is made.

13.3 Signing of minutes

(a) The minutes of a meeting must be signed within a reasonable time by the chairperson of the meeting or the chairperson of the next meeting.

(b) The minutes of the passing of a resolution or the making of a declaration without a meeting must be signed by a director within a reasonable time after the resolution is passed or the declaration is made.

13.4 Minutes as evidence

A minute that is recorded and signed under rules 13.1 and 13.2 is evidence of the proceeding, resolution or declaration to which it relates unless the contrary is proved.

13.5 Inspection of records

(a) The directors must ensure the minute books for general meetings are open for inspection by members free of charge.

(b) Subject to rule 13.5(a), the directors may determine whether and to what extent, and at what time and places and under what conditions, the minute books, accounting records and other documents of the company or any of them will be open to the inspection of members (other than directors).

(c) A member (other than a director) does not have the right to inspect any books, records or documents of the company except as provided by law or authorised by the directors.

14 Execution of documents

14.1 Manner of execution

The company may execute a document if the document is signed by:

(a) 2 directors;

(b) a director and a secretary; or

(c) a director who is the only director and that director states next to the signature that that director signs in the capacity of sole director of the company.

14.2 Common seal

The company may have a common seal. If the company has a common seal, rules 14.3 to 14.8 will apply.

14.3 Safe custody of seal

The directors must provide for the safe custody of the seal.

14.4 Use of seal

(a) The seal must be used only by the authority of the directors or of a committee of the directors authorised by the directors to authorise the use of the seal.

(b) The authority to use the seal may be given before or after the seal is used.

(c) Subject to rule 14.8, until the directors otherwise determine, every document to which the seal is fixed must be signed by

(1) 2 directors;

(2) a director and a secretary;

(3) a director and another person appointed by the directors to countersign that document or a class of documents in which that document is included; or

(4) a director who is the only director and that director states next to the signature that that director witnesses the sealing in the capacity of sole director of the company.

14.5 Seal register

(a) The company may keep a seal register. If the company does keep a seal register the company must enter in the register particulars of any document on which the seal is fixed (other than a certificate for securities of the company), giving in each case:

(1) the date of the document;

(2) the names of the parties to the document;

(3) a short description of the document; and

(4) the names of the persons signing the document under rule 14.4(c).

(b) The register must be produced at meetings of directors for confirmation of the use of the seal since confirmation was last given under this rule 14.5.

(c) Failure to comply with rule 14.5(a) or (b) does not invalidate any document to which the seal is properly affixed.

14.6 Duplicate seal

(a) The company may have for use in place of its common seal outside the state or territory where its common seal is kept 1 or more duplicate seals, each of which must be a facsimile of the common seal of the company with the addition on its face of the words "duplicate seal" and the name of the place where it is to be used.

(b) A document sealed with a duplicate seal is to be taken as having been sealed with the common seal of the company.

14.7 Share seal or certificate seal

(a) The company may have for use on certificates for securities of the company in place of its common seal 1 or more share seals or certificate seals, each of which must be a facsimile of the common seal of the company with the addition on its face of the words "share seal" or "certificate seal".

(b) A certificate for securities of the company sealed with a share seal or certificate seal is to be taken as having been sealed with the common seal of the company.

14.8 Sealing and signing of certificates

The directors may determine either generally or in a particular case that the seal and the signature of any director, secretary or other person is to be printed on or affixed to any certificates for securities in the company by some mechanical or other means.

15 Notices

15.1 Notices by the company to members

(a) A notice may be given by the company to a member by serving it personally at, or by sending it by post in a prepaid envelope to, the member's address as shown in the register of members or such other address, or by sending it to the fax number or electronic address the member has supplied to the company for the giving of notices.

(b) A notice to the joint holders of a share:

(1) which relates to a resolution under 7.7, must be given by the company to each joint holder;

(2) for all other purposes, may be given by the company to the joint holder first named in the register of members in respect of the share,

in the manner authorised by rule 15.1(a).

(c) A notice may be given by the company to a person entitled to a share as a result of a transmission event by serving it or sending it in the manner authorised by rule 15.1(a) addressed to the name or title of the person, at or to such address, fax number or electronic address supplied to the company for the giving of notices to that person, or if no address, fax number or electronic address has been supplied, at or to the address, fax number or electronic address to which the notice might have been sent if the relevant transmission event had not occurred.

(d) The fact that a person has supplied a fax number or an electronic address for the giving of notices does not require the company to give any notice to that person by fax or electronic means.

(e) A notice given to a member in accordance with rules 15.1(a) or (b) is, despite the occurrence of a transmission event and whether or not the company has notice of that occurrence:

(1) duly given in respect of any shares registered in that person's name, whether solely or jointly with another person; and

(2) sufficient service on any person entitled to the shares as a result of the transmission event.

(f) A notice given to a person who is entitled to a share as a result of a transmission event is sufficient service on the member in whose name the share is registered.

(g) Any person who, because of a transfer of shares, becomes entitled to any shares registered in the name of a member is bound by every notice which,

before that person's name and address is entered in the register of members in respect of those shares, is given to the member in accordance with this rule 15.1.

(h) A signature to any notice given by the company to a member under this rule 15.1 may be in writing or a facsimile printed or affixed by some mechanical or other means.

(i) A certificate signed by a director or secretary of the company to the effect that a notice has been given in accordance with this constitution is conclusive evidence of that fact.

15.2 Notices by the company to directors

Subject to this constitution, a notice may be given by the company to any director or alternate director either by serving it personally at, or by sending it by post in a prepaid envelope to, the director's or alternate director's usual residential or business address, or such other address, or by sending it to the fax number or electronic address as the director or alternate director has supplied to the company for the giving of notices.

15.3 Notices by members or directors to the company

Subject to this constitution, a notice may be given by a member, director or alternate director to the company by serving it on the company at, or by sending it by post in a prepaid envelope to, the registered office of the company or by sending it to the principal fax number or principal electronic address of the company at its registered office.

15.4 Notices posted to addresses outside the Commonwealth

A notice sent by post to an address outside the Commonwealth must be sent by airmail.

15.5 Time of service

(a) Where a notice is sent by post, service of the notice is to be taken to be effected if a prepaid envelope containing the notice is properly addressed and placed in the post and to have been effected:

(1) in the case of a notice of a general meeting, on the day after the date of its posting; or

(2) in any other case, at the time at which the letter would be delivered in the ordinary course of post.

(b) Where a notice is sent by fax or electronic means, service of the notice is to be taken to be effected on the day after the date it is sent.

15.6 Other communications and documents

Rules 15.1 to 15.5 (inclusive) apply, so far as they can and with such changes as are necessary, to the service of any communication or document.

15.7 Notices in writing

A reference in this constitution to a notice in writing includes a notice given by fax or electronic means.

16 General

16.1 Submission to jurisdiction

Each member submits to the non-exclusive jurisdiction of the Supreme Court of the State or Territory in which the company is taken to be registered under the Act, the Federal Court of Australia and the Courts which may hear appeals from those Courts.

16.2 Prohibition and enforceability

(a) Any provision of, or the application of any provision of, this constitution which is prohibited in any place is, in that place, ineffective only to the extent of that prohibition.

(b) Any provision of, or the application of any provision of, this constitution which is void, illegal or unenforceable in any place does not affect the validity, legality or enforceability of that provision in any other place or of the remaining provisions in that or any other place.

DATED: 23 October 2001

Exhibit C

Record of Resolutions

Transurban Finance Company Pty Ltd ABN 65 098 539 452

(Company)

This is a record of a written resolution of all of the directors of the Company made on 21 June 2006

Documents:

The directors were advised that the negotiation and drafting of the documents listed in the schedule to which the Company is expressed to be a party (each an **Approved Document**) is being progressed. The effect of each Approved Document was explained to each director, considered and discussed.

Effect of documents:

The directors determined that, having regard to all the relevant circumstances and the terms of the Approved Documents, the execution, delivery and performance of the Company's obligations under each Approved Document and the transactions evidenced by the Approved Documents are for the Company's benefit and in the best interests of the Company.

Execution of Approved Documents:

Resolved that:

1 the form, terms and provisions of;

2 the transactions contemplated by; and

3 the performance of the obligations of the Company under,

each Approved Document (and any documents or instruments incidental or related to the Approved Documents and the transactions contemplated by the Approved Documents (**Incidental Documents**)) (as each Approved Document and Incidental Document may be approved severally by any director or secretary) are approved and accordingly the Approved Documents and the Incidental Documents be executed and delivered on behalf of, and in the name of, the Company by any authorised signatory listed below (**Authorised Signatory**) or by any two directors or a director and secretary of the Company in accordance with section 127(1) or section 127(2) of the Corporations Act 2001.

Authorised Signatories:

Resolved that each of:

(a) Kimberley Edwards;

(b) James Christopher Brant;

(c) Paul O'Shea;

(d) Mark Licciardo; and

(e) Victor Howard,

be appointed severally as Authorised Signatories of the Company and be authorised severally to be Authorised Signatories to do everything that is required to be, or capable of being, done by the Company or by an Authorised Signatory (including, but not limited to, certification, execution and delivery of documents) under or in relation to the Approved Documents and the Incidental Documents.

Incidental matters:

Resolved:

1 that the Company and severally each director, secretary or Authorised Signatory of the Company for and on behalf of the Company, be authorised to do any thing (including, but not limited to, certification, execution and delivery of documents) required to be done, capable of being done or advisable to do under, in accordance with or incidental to any of the Approved Documents or the Incidental Documents, the transactions evidenced by the Approved Documents or the Incidental Documents or any of the above resolutions; and

2 that any director or secretary severally may, as conclusively evidenced by his or her execution or witnessing, approve any amendment to an Approved Document or an Incidental Document (whether or not material and whether or not involving changes to the parties).

Signed as a correct record of a circular written resolution of all the directors of the Company.

Company Secretary 26/6/06

Schedule – Approved Documents

1 Demand note guaranty given by the Company for the benefit of Transurban (895) US Holdings LLC, a Delaware limited liability company; and

2 such other deeds, agreements, contracts, assignments, letters, notices, certificates, undertakings and instruments (including negotiable instruments) and other documents which are:

2.1 necessary to give effect to the transactions contemplated by any document referred to in item 1 above;

2.2 required or contemplated by, or which may become necessary or desirable in connection with, any document referred to in item 1 above;

2.3 amend, supplement or restate any document referred to in item 1 above; and

2.4 required to be executed for the purpose of the any document referred to in item 1 above or the transactions contemplated thereby.

OFFICER'S CERTIFICATE OF
TRANSURBAN (895) US HOLDINGS LLC

June 29, 2006

This certificate is delivered pursuant to sections 4.1(b) of that certain Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company, the several banks and other financial institutions from time to time parties thereto, the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, as a duly authorized officer of the Borrower and not personally, hereby certifies as of the date hereof that attached hereto as Exhibit A is a true, complete and correct copy of the Base Case Model.

[Signature page follows.]

IN WITNESS WHEREOF, the undersigned, as a duly authorized officer of the Borrower and not personally, has hereunto set his or her hand as of the date first set forth above.

TRANSURBAN (895) US HOLDINGS LLC

By: M. Kulper

Name: MICHAEL KULPER

Title: VICE PRESIDENT

EXHIBIT A

BASE CASE MODEL

ON FILE AT

ORRICK, HERRINGTON & SUTCLIFFE

OFFICER'S CERTIFICATE OF
TRANSURBAN (895) US HOLDINGS LLC

June 29, 2006

This certificate is delivered pursuant to sections 4.1(b), 4.1(d) and 4.1(k) of that certain Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company, the several banks and other financial institutions from time to time parties thereto, the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, as a duly authorized officer of the Borrower and not personally, hereby certifies as of the date hereof:

1. Attached hereto as Exhibit A is a true, complete and correct copy of the pro forma balance sheet setting forth the assets and liabilities of the Borrower.

2. I am not aware of any event, condition or circumstance that could reasonably be expected to have a Material Adverse Effect.

3. Attached hereto as Exhibit B is a true, correct and complete copy of the Base Case Model.

[Signature page follows.]

IN WITNESS WHEREOF, the undersigned, as a duly authorized officer of the Borrower and not personally, has hereunto set his or her hand as of the date first set forth above.

TRANSURBAN (895) US HOLDINGS LLC

By: M. Kulper

Name: MICHAEL KULPER

Title: VICE PRESIDENT

EXHIBIT A

Pro Forma Balance Sheet

Transurban (895) US Holdings LLC ("The Borrower")

	2006 $'000
CURRENT ASSETS	
Receivable	
Demand Note	55,000
Total Current Assets	55,000
NON-CURRENT ASSETS	
Investment in Transurban (895) Holdings LLC	119,534
Investment in Transurban (895) Finance Inc.	420,933
Deferred Tax Assets	0
Total Non-Current Assets	540,467
TOTAL ASSETS	595,467
NON-CURRENT LIABILITIES	
Deferred tax liabilities	0
Senior Borrowings	399,560
Subordinated Borrowings	76,373
Total Non-Current Liabilities	475,933
TOTAL LIABILITIES	475,933
NET ASSETS	119,534
EQUITY	
Contributed equity	119,534
Accumulated losses	0
TOTAL EQUITY	119,534

Disclaimer

The Balance Sheets prepared for each of the entities required at financial close represent management's best endevours to accurately represent the financial position of all entities at that date:

The balance sheets are provided on the basis of the following:

They have not been audited at financial close
No reconciliation to US GAAP
Tax deffered balances (if any) have not been represented
Detailed anlysis of the component parts of the permit are under review

EXHIBIT B

Base Case Model

See Tab 54

OFFICER'S CERTIFICATE OF
TRANSURBAN (895) HOLDINGS LTD.

June 29, 2006

This certificate is delivered pursuant to sections 4.1(d) and 4.1(k) of that certain Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company, the several banks and other financial institutions from time to time parties thereto, the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, as a duly authorized officer of Transurban (895) Holdings Ltd. (the "Company") and not personally, hereby certifies as of the date hereof:

1. Attached hereto as Exhibit A is a true, complete and correct copy of the pro forma balance sheet setting forth the assets and liabilities of the Company.

2. I am not aware of any event, condition or circumstance that could reasonably be expected to have a Material Adverse Effect.

[Signature page follows.]

IN WITNESS WHEREOF, the undersigned, as a duly authorized officer of the Company and not personally, has hereunto set his or her hand as of the date first set forth above.

TRANSURBAN (895) HOLDINGS LTD.

By: _____
Name: **Mark Licciardo**
Title: President

EXHIBIT A

Pro Forma Balance Sheet

Transurban (895) Holdings Ltd. ("T-Holdings")

	2006 $'000
NON-CURRENT ASSETS	
Investment in Transurban (895) LLC	119,534
Deferred Tax Assets	0
Total Non-Current Assets	119,534
TOTAL ASSETS	119,534
NON-CURRENT LIABILITIES	
Deferred tax liabilities	0
Total Non-Current Liabilities	0
TOTAL LIABILITIES	0
NET ASSETS	119,534
EQUITY	
Contributed equity	119,534
Accumulated losses	0
TOTAL EQUITY	119,534

Disclaimer

The Balance Sheets prepared for each of the entities required at financial close represent management's best endevours to accurately represent the financial position of all entities at that date:

The balance sheets are provided on the basis of the following:

They have not been audited at financial close
No reconciliation to US GAAP
Tax deffered balances (if any) have not been represented
Detailed anlysis of the component parts of the permit are under review

OFFICER'S CERTIFICATE OF
TRANSURBAN (895) LLC

June 29, 2006

This certificate is delivered pursuant to sections 4.1(d) and 4.1(k) of that certain Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company, the several banks and other financial institutions from time to time parties thereto, the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, as a duly authorized officer of Transurban (895) LLC (the "Company") and not personally, hereby certifies as of the date hereof:

1 Attached hereto as Exhibit A is a true, complete and correct copy of the pro forma balance sheet setting forth the assets and liabilities of the Company.

2. I am not aware of any event, condition or circumstance that could reasonably be expected to have a Material Adverse Effect.

[Signature page follows.]

IN WITNESS WHEREOF, the undersigned, as a duly authorized officer of the Company and not personally, has hereunto set his or her hand as of the date first set forth above.

TRANSURBAN (895) LLC

By: M. Kulper
Name: MICHAEL KULPER
Title: VICE PRESIDENT

US_EAST:160031154

EXHIBIT A

Pro Forma Balance Sheet

Transurban (895) LLC ("T895")

	2006 $'000
CURRENT ASSETS	
Cash and cash equivalents	
Debt Reserve	35,000
Maintenance Reserve	2,485
Total Current Assets	37,485
NON-CURRENT ASSETS	
Permit	502,982
Deferred Tax Assets	0
Total Non-Current Assets	502,982
TOTAL ASSETS	540,467
NON-CURRENT LIABILITIES	
Deferred tax liabilities	0
Borrowings	
Loan (Transurban (895) Finance Inc)	420,933
Total Non-Current Liabilities	420,933
TOTAL LIABILITIES	420,933
NET ASSETS	119,534
EQUITY	
Contributed equity	119,534
Accumulated losses	0
TOTAL EQUITY	119,534

Disclaimer

The Balance Sheets prepared for each of the entities required at financial close represent management's best endevours to accurately represent the financial position of all entities at that date:

The balance sheets are provided on the basis of the following:

They have not been audited at financial close
No reconciliation to US GAAP
Tax deffered balances (if any) have not been represented
Detailed anlysis of the component parts of the permit are under review

OFFICER'S CERTIFICATE OF
TRANSURBAN (895) FINANCE INC.

June 29, 2006

This certificate is delivered pursuant to sections 4.1(d) and 4.1(k) of that certain Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company, the several banks and other financial institutions from time to time parties thereto, the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, as a duly authorized officer of Transurban (895) Finance Inc. (the "Company") and not personally, hereby certifies as of the date hereof:

1 Attached hereto as Exhibit A is a true, complete and correct copy of the pro forma balance sheet setting forth the assets and liabilities of the Company.

2. I am not aware of any event, condition or circumstance that could reasonably be expected to have a Material Adverse Effect.

[Signature page follows.]

IN WITNESS WHEREOF, the undersigned, as a duly authorized officer of the Companyyl and not personally, has hereunto set his or her hand as of the date first set forth above.

TRANSURBAN (895) FINANCE INC.

By: M. Kulper
Name: MICHAEL KULPER
Title: VICE PRESIDENT

EXHIBIT A

Pro Forma Balance Sheet

Transurban (895) Finance Inc ("T-Finance")

	2006 $'000
NON-CURRENT ASSETS	
Receivables	
Loan (Transurban (895) LLC)	420,933
Deferred Tax Assets	0
Total Non-Current Assets	420,933
TOTAL ASSETS	420,933
NON-CURRENT LIABILITIES	
Deferred tax liabilities	0
Total Non-Current Liabilities	0
TOTAL LIABILITIES	0
NET ASSETS	420,933
EQUITY	
Contributed equity	420,933
Accumulated losses	0
TOTAL EQUITY	420,933

Disclaimer

The Balance Sheets prepared for each of the entities required at financial close represent management's best endevours to accurately represent the financial position of all entities at that date:

The balance sheets are provided on the basis of the following:

They have not been audited at financial close
No reconciliation to US GAAP
Tax deffered balances (if any) have not been represented
Detailed anlysis of the component parts of the permit are under review

OFFICER'S CERTIFICATE OF BORROWER REGARDING CONTRACTS AND APPROVALS

June 29, 2006

This certificate is delivered pursuant to Section 4.1(e) of that certain Loan Agreement (the "Loan Agreement") dated as of June 22, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company, the several banks and other financial institutions from time to time parties thereto, the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

The undersigned, in his or her capacity as an authorized officer of the Borrower and not personally, does hereby certify that as of the date hereof:

1. Attached hereto as Exhibit A is a true, correct and complete copy of the ARCA, which such copy is substantially in the form of the draft of such agreement dated June 29, 2006;

2. Attached hereto as Exhibit B is a true, complete and correct copy of each other Material Project Contract;

3. Attached hereto as Exhibit C is a true, correct and complete copy of each Governmental Approval listed in Schedule 5.5 of the Loan Agreement, each of which is in full force and effect; and

4. The Borrower Party to such Material Project Contract attached hereto as Exhibit B is not in default of any of its obligations thereunder and, to the knowledge of the Borrower Parties, the other party or parties to such Material Project Contract are not in default of its or their obligations thereunder.

[Signature page follows.]

IN WITNESS WHEREOF, I hereunto affix my signature solely in the capacity as an authorized officer of the Borrower, and not personally as of the date hereof.

TRANSURBAN (895) US HOLDINGS LLC

By: M. Kulper
Name: MICHAEL KULPER
Title: VICE PRESIDENT

EXHIBIT A

ARCA

SEE TAB 78

EXHIBIT B
MATERIAL PROJECT CONTRACTS

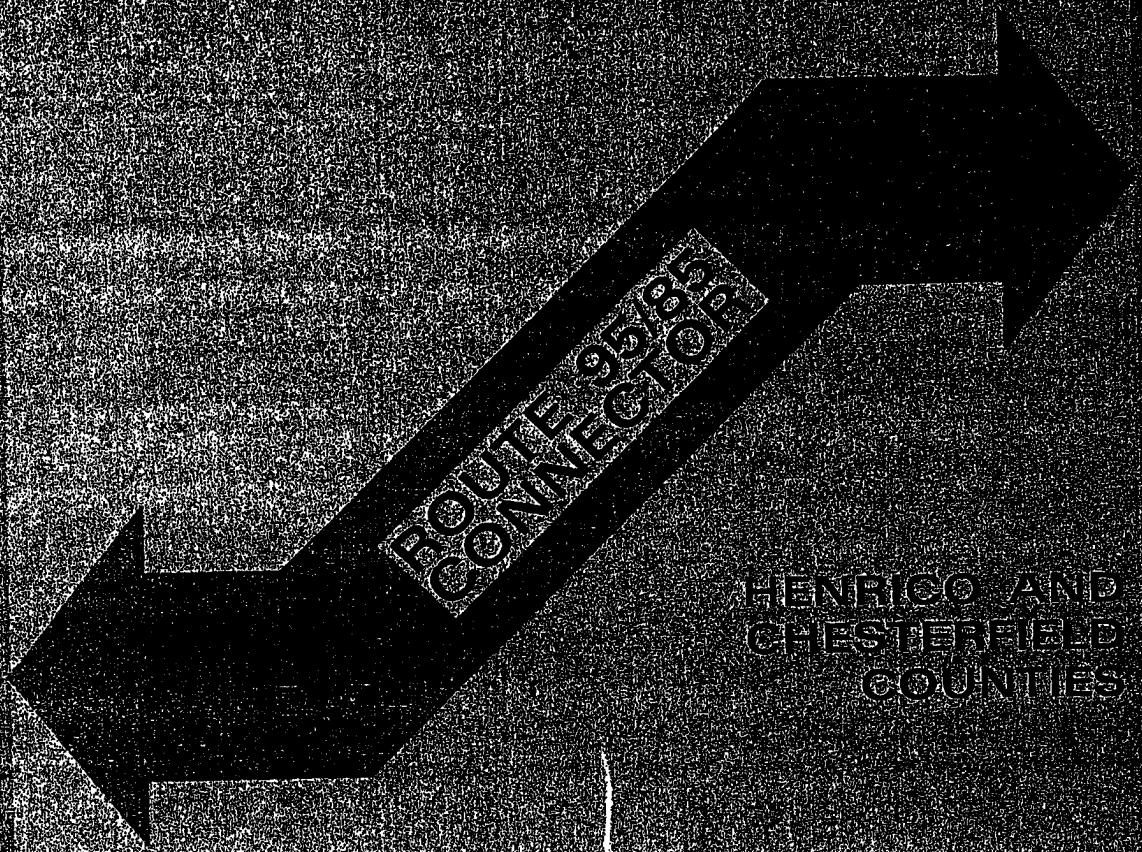
1. **Asset Purchase Agreement - See Tab 1**

2. **Technical Support Agreement - See Tab 79**

3. **Demand Note - See Tab 38**

EXHIBIT C
GOVERNMENTAL APPROVALS

FINAL ENVIRONMENTAL IMPACT STATEMENT



HENRICO AND CHESTERFIELD COUNTIES

FEDERAL HIGHWAY ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION

VIRGINIA DEPARTMENT OF
HIGHWAYS AND TRANSPORTATION

FHWA-VA-EIS-83-01-F

ROUTE 95/85
State Project: 0095-043-104, PE102
0095-020-101, PE102
Federal Project: I-IG-95-1(44)47

From the Intersection of
the Richmond-Petersburg Turnpike
To the Intersection of Proposed I-295
Counties of Henrico and Chesterfield, Virginia

FINAL
ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to 42 U.S.C. 4332(2)(C)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
and
VIRGINIA DEPARTMENT OF HIGHWAYS
AND TRANSPORTATION

8/31/83 John M. Wray
Date John M. Wray, Jr., Chief Engineer

NOT OFFICIAL

SUBJECT TO APPROVAL BY

DEPARTMENT OF TRANSPORTAT

Date Regional Federal Highway Administrator.

The following persons may be contacted for additional information concerning this document:

Mr. Paul F. Chamberlain, Division Administrator, Federal Highway Administration, 400 North Eighth Street, P. O. Box 10045, Richmond, Virginia 23240-0045, (804) 771-2371.

Mr. Robert L. Hundley, Environmental Engineer, Virginia Department of Highways and Transportation, 1401 East Broad Street, Room 1107, Richmond, Virginia 23219, (804) 786-4304.

This I-95/85 Connector Study addresses a proposal to connect the Richmond-Petersburg Turnpike with the proposed I-295 facility located in Henrico County. Of the three candidate build alternatives investigated, Alternative A is the selected alternative.

TABLE OF CONTENTS

	Page
SUMMARY	8
PURPOSE AND NEED FOR THE PROJECT	11
ALTERNATIVES	20
Build Alternatives	20
Line A	20
Line B	32
Line C	36
Other Alternatives	41
No-Build Alternative	41
Transportation Systems Management (TSM)	44
Traffic Engineering Improvements	44
Fringe Commuter Parking Facilities	44
Preliminary Alternatives	45
Laburnum Avenue Connector	45
Route 288/Hoke Brady Road Crossing	45
Dorey Park/Four Mile Creek Park	46
Tri-Cities MPO	46
Richmond MPO Resolution	47
AFFECTED ENVIRONMENT	49
Social Characteristics	49
Economic Characteristics	62
Inter-Relationship With Other Federal Activities	72
ENVIRONMENTAL CONSEQUENCES	73
Social and Economic Impacts	73
Land Use Impacts and Joint Development	78
Relocation Impacts and Available Replacement Housing	79
Air Quality Impacts	81
Noise Impacts	87
Energy Impacts	98
Water Quality/Aquatic Habitat Impacts	99
Wetlands Impacts	110
Hydrology and Floodplain Impacts	110
Wildlife Impacts	117
Prime and Unique Agricultural Land & Forest Resources	119
Aesthetic Impacts	122
Traffic and Transportation Impacts	122
Construction Impacts/Mitigation	123
Historic/Cultural Resources	124
LIST OF PREPARERS	128

LIST OF AGENCIES, ORGANIZATIONS AND PERSONS TO WHOM COPIES OF THE STATEMENT ARE SENT 130

COMMENTS AND RESPONSES 132

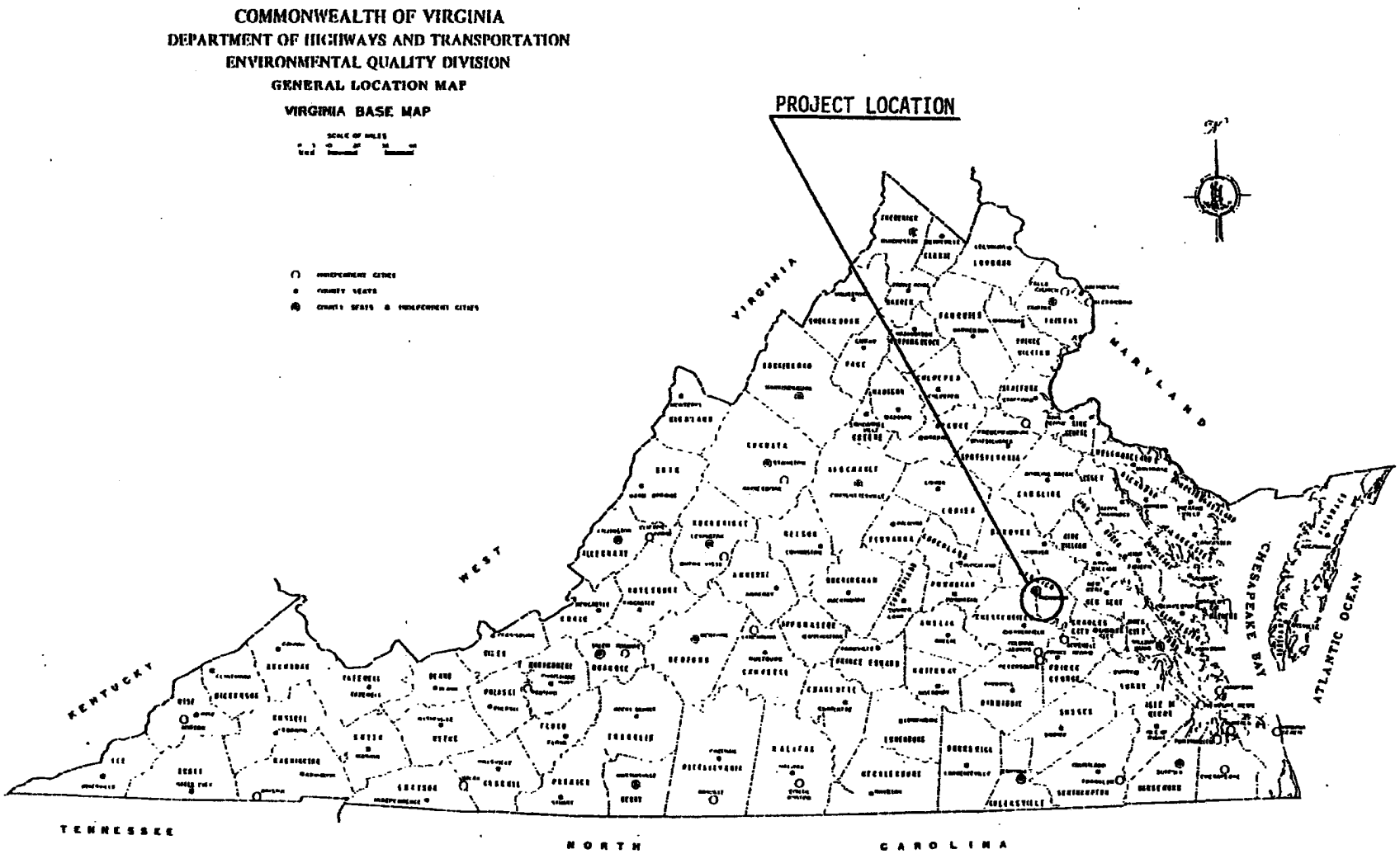
APPENDIX A 223
APPENDIX B 247
APPENDIX C 249
APPENDIX D 250

LIST OF FIGURES

		Page
1.	Virginia Map	5
2.	Study Area	6
3.	Project Location	7
4.	1995 Richmond Area Transportation Study	16
5.	Alternatives	17
6.	Typical Section - Line A	18
7.	Typical Section - Line A	19
8.	Proposed Lift-Span Bridge Interchange	23
9.	Eliminated High-Rise Bridge Interchange	28
10.	Eliminated High-Rise Bridge with James River Channelization	29
11.	Traffic Volumes - Line A	33
12.	Typical Section - Line B	34
13.	Traffic Volumes - Line B	35
14.	Typical Section - Line C	38
15.	Traffic Volumes - Line C	39
16.	Traffic Volumes - Existing 1981	42
17.	Traffic Volumes - Year 2007 No-Build	43
18.	Census Tracts	52
19.	Community Facilities & Services	59
20.	Existing Land Use	64
21.	Future Land Use	67
22.	Air Quality Sites	85
23.	Noise Analysis Locations	91
24.	Cornelius Creek Floodplain Encroachment	115
25.	Cultural Resources	127

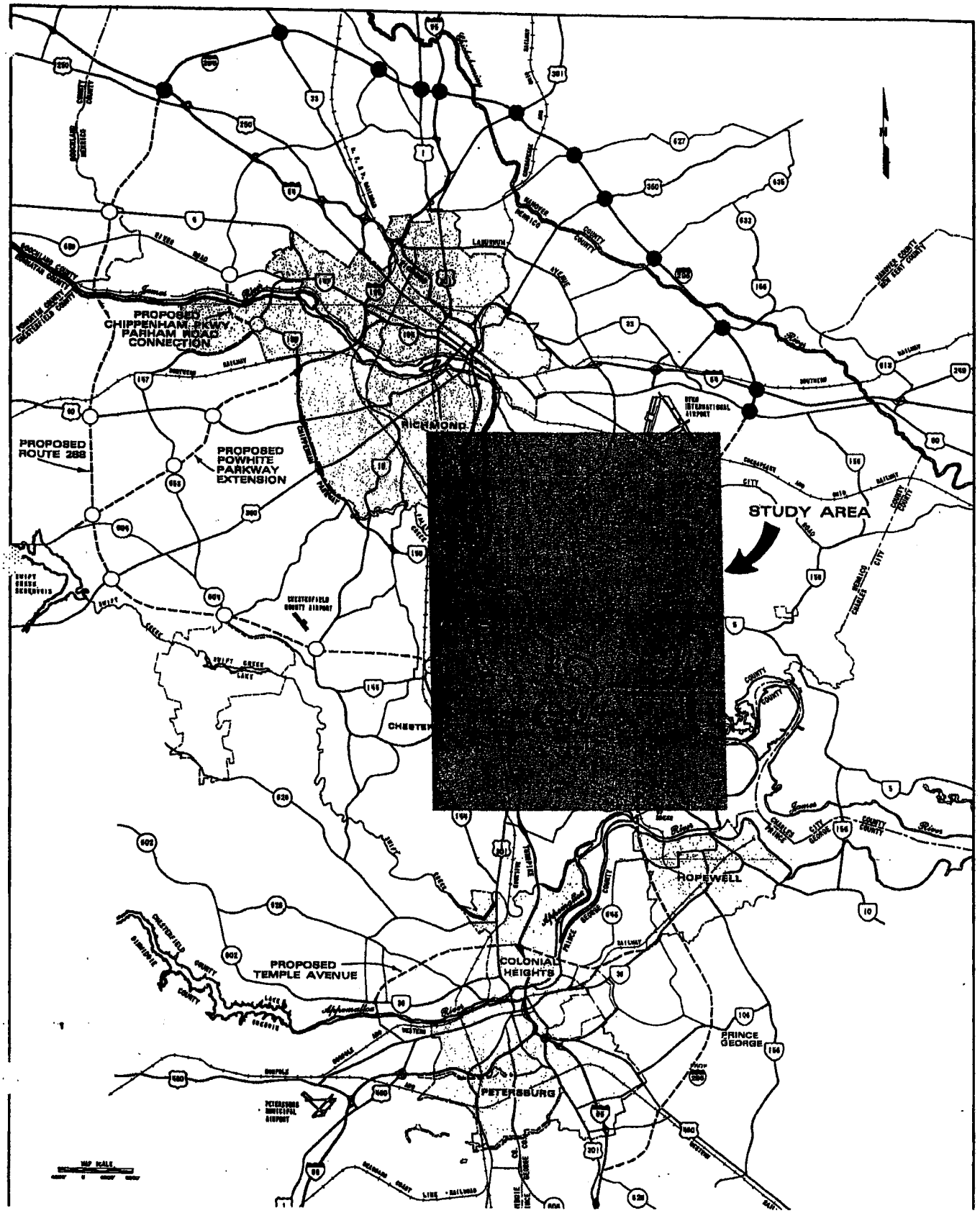
LIST OF TABLES

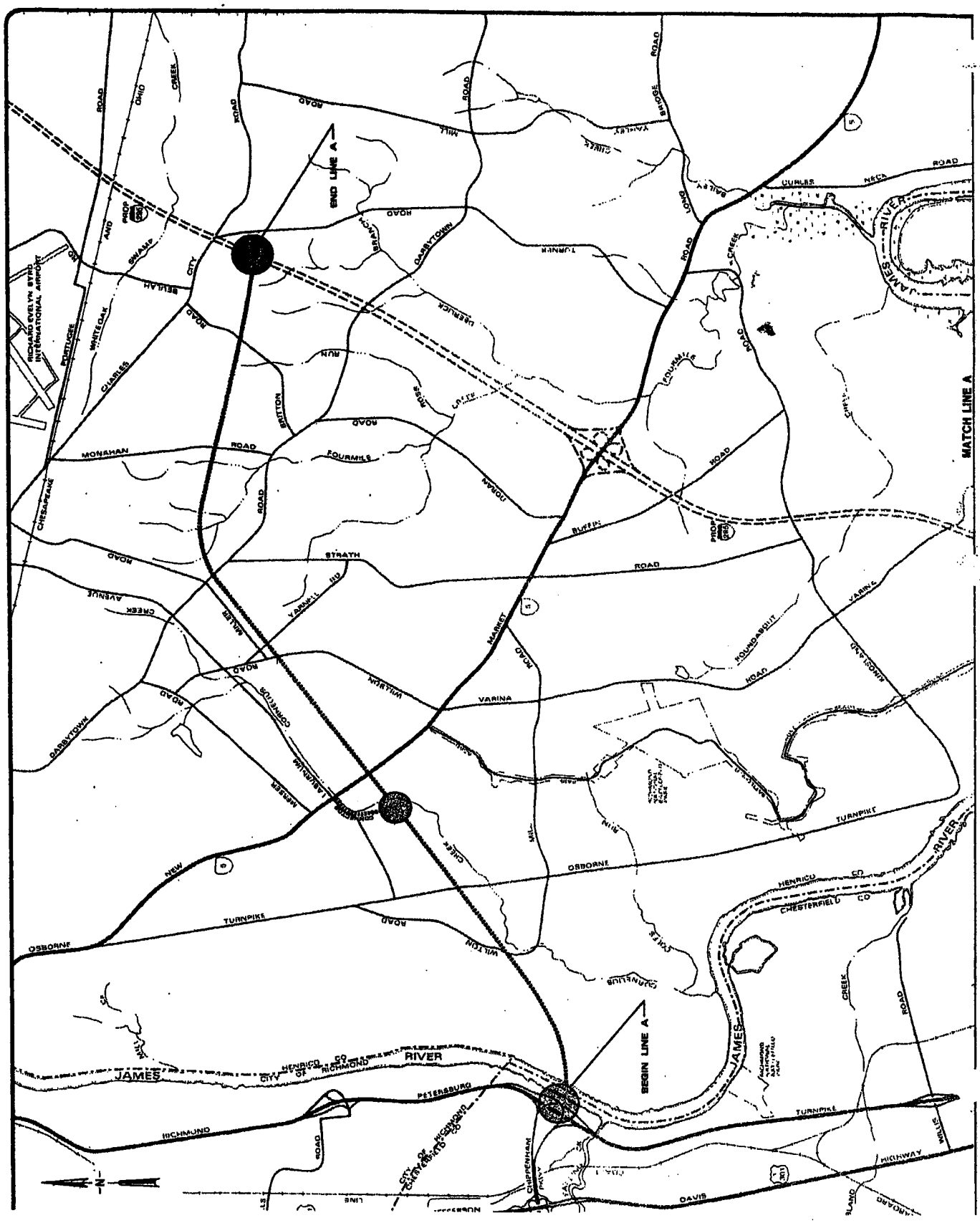
		Page
I.	Year 2007 Traffic Effect of Alternatives on the Richmond-Petersburg Turnpike	15
II.	Bridge Cost Comparisons	27
III.	Comparison of Build Alternatives (Summary of Environmental Impacts)	40
IV.	1980 Census of Population Census Tract Data	53
V.	Employment Data by Place of Work	70
VI.	Employment Data by Place of Residence	71
VII.	Peak Carbon Monoxide Concentrations (ppm) Under Worst Meteorological Conditions	86
VIII.	Noise Abatement Criteria	92
IX.	Site and Study Locations (Noise)	93
X.	Existing and Design Year Noise Levels	94
XI.	Comparison of Noise Levels and Identification of Impacts by Site	95
XII	Noise Walls Considered	96
XIII.	Stream Impacts	116

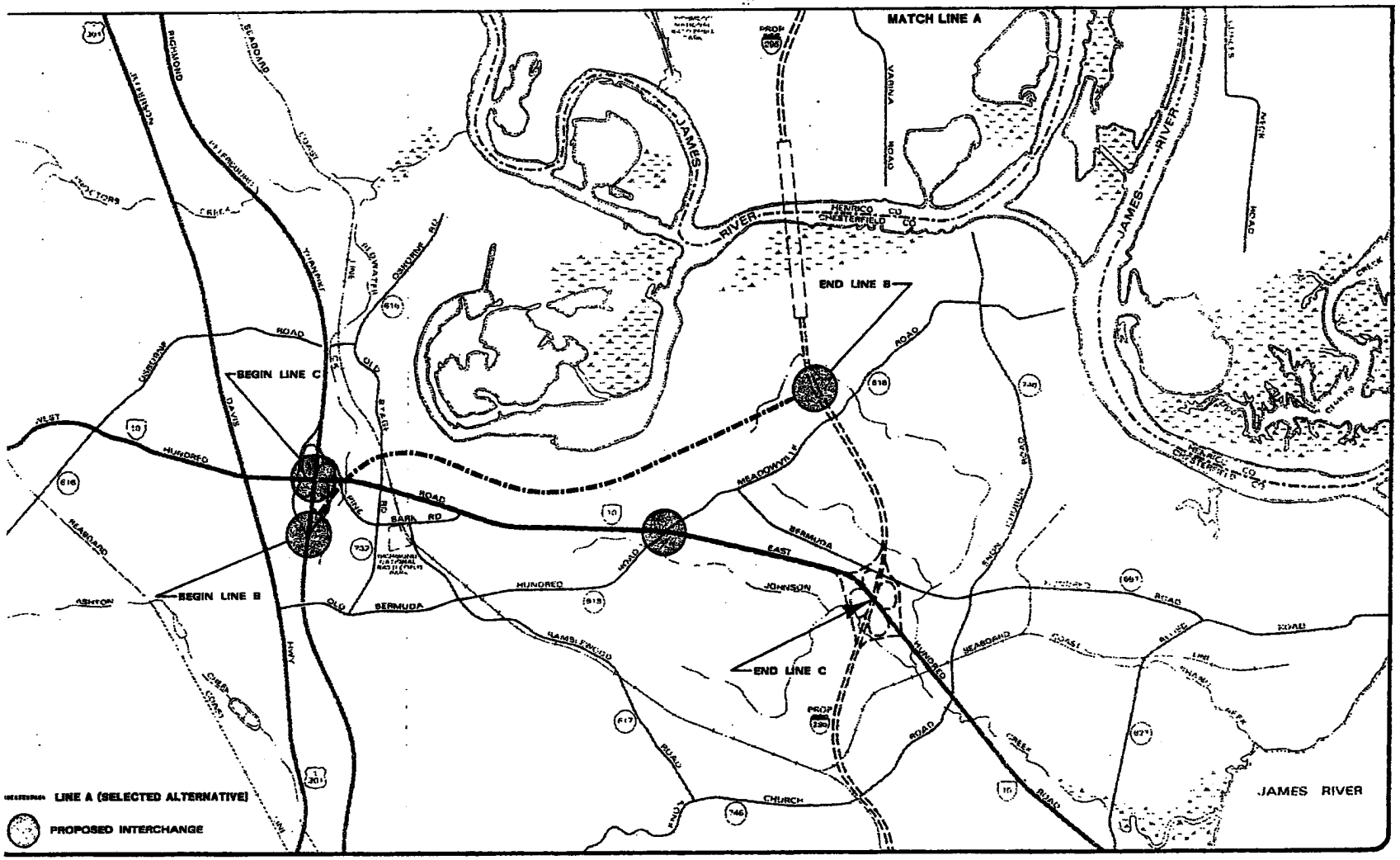


PROPOSED HIGHWAY DEVELOPMENT
ROUTE 95/85 CONNECTOR
HENRICO & CHESTERFIELD COUNTIES

Figure 1


PROPOSED CHIPPENHAM PKWY. PARHAM ROAD CONNECTION
PROPOSED ROUTE 288
PROPOSED POWHITE PARKWAY EXTENSION
STUDY AREA
RICHMOND
CHESTERFIELD COUNTY AIRPORT
PROPOSED TEMPLE AVENUE
COLONIAL HEIGHTS
HOPEWELL
PRINCE GEORGE
PETERSBURG
PETERSBURG MUNICIPAL AIRPORT
MAP SCALE


END LINE A
BEGIN LINE A
MATCH LINE A
JAMES RIVER
RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
CHESAPEAKE
MONAHAN ROAD
FOURMILE
STRATH ROAD
VARINA
OSBORNE TURNPIKE
NEW
HENRICO CO
CHESTERFIELD CO
CITY OF RICHMOND
PETERSBURG
RICHMOND
CHIPPENHAM PKWY
DAVIS HIGHWAY
CURLES NECK ROAD
DARBYTOWN
MARKET
BUFFIN
ROUNDABOUT
CHARLES
WHITEOAK
SWAMP
BEULAH
CITY
OHIO
CREEK
MILL ROAD
BRITTON
DORAN
ROSS
DEERLICK
TURNER
BRANCH
LONG BRIDGE ROAD
YARLEY
CHESTERFIELD CO
CORNELIUS
CREEK
WILTON
MILLER
CORNEGUS
LABURNUM
MERSER
PORTUGEE
N



RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

LINE A (SELECTED ALTERNATIVE)	LINE B & C	
FEDERAL PROJECT: I-IG-95-1(44)47	FEDERAL PROJECT: I-IG-95-1(44)47	
PROJECT: 0095-043-104,PE-102	PROJECT: 0095-020-101, PE-102	
FROM: INT. RICHMOND PETERSBURG TURNPIKE	FROM: INT. RICHMOND PETERSBURG TURNPIKE	
TO: INT. PROP. I-295	TO: INT. PROP. I-295	
LENGTH: 8.8 MILES	4.5 MILES (LINE B)	4.5 MILES (LINE C)

PROJECT LOCATION

FIGURE 3

SUMMARY
FEDERAL HIGHWAY ADMINISTRATION
ADMINISTRATIVE ACTION - FINAL ENVIRONMENTAL IMPACT STATEMENT

Description

The Virginia Department of Highways and Transportation has studied three connector alignments (A, B, and C) in Henrico and Chesterfield Counties (see Figures 2 and 3). All three alignments began at the Richmond-Petersburg Turnpike and terminated at approved I-295. Project length varied from 4.5 to 8.8 miles. Travel lanes in each direction ranged from two to three. Two of the three alternatives were on new location, and one alignment will require a bridge crossing at the James River (Line A).

In addition to Lines A, B, and C, the Department evaluated modal alternatives, including: mass transit, Transportation Systems Management (TSM), and the no-build option. Of all the alternatives under study, Alternative A was the selected alternative (see Table III, page 40, for comparison of alternatives).

Regulations and Permits

If the proposed action is accepted, the following regulations and coordination pertaining to water quality are applicable to this project:

- Best Management Practices," promulgated by the State Water Control Board and Environmental Protection Agency under Section 208 of P.L. 92-500 will be incorporated in the final plans as they relate to erosion control.
- Federal Insurance Administration requirements pertaining to floodplain regulations on the 100-year floodplain, President's Executive Order 11988 - Natural and Beneficial Floodplain Values.

- Federal-aid Highway Program Manual, Volume 6, Chapter 7, Section 3, Subsection 2 pertaining to major disruption of floodplains.
- Virginia Erosion and Sediment Control Handbook.
- Section 401 Water Quality Certificate.
- Section 404 Corps of Engineers Permit.
- Coast Guard Permit.
- Subaqueous Bed Permit.

This document includes a summary of all the supporting studies and conclusions of the environmental analyses conducted for this proposal. These studies and other socio-economic data are on file with VDH&T and are available for public review. They include air quality, noise analysis, energy analysis, water quality analysis, and archaeological survey.

Positive Effects

The proposed facility will have a positive effect on the environment by:

(1) providing the needed connection from I-85 to proposed I-295 for interstate travelers,

(2) providing a intra-regional thoroughfare,

(3) reducing traffic congestion on the Richmond-Petersburg Turnpike,

(4) improving access to employment, points of interest, and other transportation modes (i.e., Byrd Airport),

(5) opening up new areas for various types of development,

(6) facilitating movement of emergency vehicles, and

(7) diminishing the natural barrier effect on transportation, created by the James River.

Negative Effects

The proposed project will have an adverse effect on the environment by:

(1) requiring the relocation of twelve families,

(2) increasing ambient noise levels at various locations along the corridor,

(3) altering 160 acres of terrestrial wildlife habitat for highway construction,

(4) altering 145 acres of prime agricultural land (88 acres of which are used for farming operations) for highway construction,

(5) having both short and long-term impacts on streams in the area due to potential channelization and filling,

(6) impacting two known archaeological sites on Line A.

Significant Actions in Area, Proposed by Others

The only other known significant governmental activity in the area is a sewerage treatment plant proposed in Henrico County near Route 5, which is being funded by EPA and the County. Alternative A will not impact this facility.

FINAL
ENVIRONMENTAL IMPACT STATEMENT
PROPOSED I-95*/85 CONNECTOR
COUNTIES OF HENRICO & CHESTERFIELD, VIRGINIA

I. PURPOSE AND NEED FOR THE PROPOSED PROJECT

Background

There has been a long-identified need for a facility connecting I-95 and I-85. The approved Interstate System change in 1972 which shifted I-95 from the Richmond-Petersburg Turnpike (RPT) to a new location east of the RPT also provided an I-85/I-95 connecting link south of Petersburg. At that time, approval of a request to provide a connecting link between I-95* and the RPT in the southeast quadrant of the Richmond area was deferred. For many years the Richmond transportation plan has identified the need for a high-type transportation improvement in the southeast quadrant of the Richmond area along a general location commonly referred to as the Hoke Brady Alignment. Additionally, the transportation plan has long identified the need for an arterial improvement in the southeast quadrant of the Richmond area to connect Chippenham Parkway and Laburnum Avenue via a new bridge over the James River. This is currently considered one of the highest priority improvements in the area.

During the environmental impact statement (EIS) process for I-95*, three basic alternatives to provide a connection between I-95 and I-85/RPT were considered: the Hoke Brady Alignment in the southeast quadrant of the Richmond area, an alignment generally paralleling

---

Based on Federal approval of the new interstate located east of the RPT, this facility will be designated I-295. Wherever I-95 is shown in this document, it refers to Route 295.

Route 10 south of the James River, and the approved system location for the I-95/I-85 connecting link south of Petersburg. While the Hoke Brady Alignment offered many advantages from a transportation standpoint, the Department of Interior strongly opposed it because they felt it would adversely impact the historic Richmond National Battlefield Park (Fort Harrison) along Hoke Brady Road. For this reason, the Hoke Brady Alignment was dropped from further consideration.

In the previous I-95* study, the I-85/I-95 Connector south of Petersburg was evaluated and determined to traverse approximately 8.8 miles at a cost of approximately 56 million dollars. Furthermore, anticipated traffic usage of this section (from I-85 south of Route 460 to I-95 south of Petersburg) showed only 13,900 to 14,400 vehicles a day in 1995. Thus, this section had the least amount of projected traffic for any portion of the new facility (I-295). Therefore, the cost of the 8.8 mile section and the low traffic volumes were such as to deem this connection as not a fiscally sound expenditure of funds and it was removed from further consideration.

During the development of the Year 2000 Tri-Cities Area Transportation Study (T-CATS), an evaluation of an urban two-lane facility between I-85 and I-95 south of Petersburg was conducted. This urban connector would have traversed approximately 6 miles at a cost of approximately 15 million dollars and would have served approximately 16,000 vehicles a day by 2000; due to the cost and poor traffic service expected, the facility was dropped from the 2000 Plan. The Year 2000 T-CATS Plan was approved by the Tri-Cities MPO on August 25, 1982, without either an interstate or urban connection between I-85 and I-95.

Additionally, while the "1983 Estimate of the Cost of Completing the National System of Interstate and Defense Highway in the Commonwealth of Virginia," published in August 1982 (reflecting data as of December 31, 1981) contained the portion of I-85 from south of Route 460 to I-95 south of the SCL of Petersburg, the data reflected in that document further displays the lack of traffic usage of this connector. With a design year of 2006, the volumes displayed show 18,200 to 18,900 vehicles a day on a 9.86 mile section of roadway. The estimated cost of this facility was determined to be approximately 49 million dollars (no preliminary engineering cost included).

Thus, the projected traffic volumes for any facility, be it urban or interstate design, have been historically low and the cost estimates high compared to the amount of vehicular usage. Therefore, it was deemed fitting that the connector south of Petersburg should be dropped from consideration in this environmental impact statement.

The alternative in the vicinity of Route 10 was environmentally acceptable and traffic analysis indicated that if a connection to I-95* in this vicinity was not provided, an improvement of the RPT north of Route 10 was necessary. Therefore, the Virginia Department of Highways and Transportation (VDH&T) included the connector in the vicinity of Route 10 as part of their selected alternative for I-95*. However, when the Federal Highway Administration (FHWA) approved the Final Environmental Impact Statement (FEIS) for I-95 in May 1981, they did not approve this connector. Their approval stated in part: ". . . the proposed connector, located immediately south of the James River between the existing Richmond-Petersburg Turnpike (RPT) and the proposed project

is not approved. . . . the proposed connector between the RPT and I-95* may be approved at a future time as conditions warrant in accordance with normal planning, programming and project and development procedures."

Current Study

As a result of the May 1981 action by FHWA, VDH&T has given further consideration to the need for an I-95/I-85 connector. In view of the limited traffic service provided by a connector south of Petersburg, the previous conclusion that such an improvement is not warranted and is not in the public interest was reaffirmed.

Traffic analysis indicated that without a connection between I-95* and the Richmond-Petersburg Turnpike south of Richmond, capacity improvements to a portion of the RPT in Richmond would be necessary. Without such a connection, the RPT would be severely congested through a portion of downtown Richmond (refer to Table I).

In the EIS process for I-95*, limited analysis of improvements to the RPT indicated that such improvements (widening) would cause severe social and environmental impacts, as well as seriously impacting the existing industrial/commercial developments along the RPT. For this reason, improvement of the Richmond-Petersburg Turnpike was dropped from further consideration.

Providing a connection between I-95* and the RPT south of Richmond would significantly improve the level of service on critical sections of the RPT in Richmond.

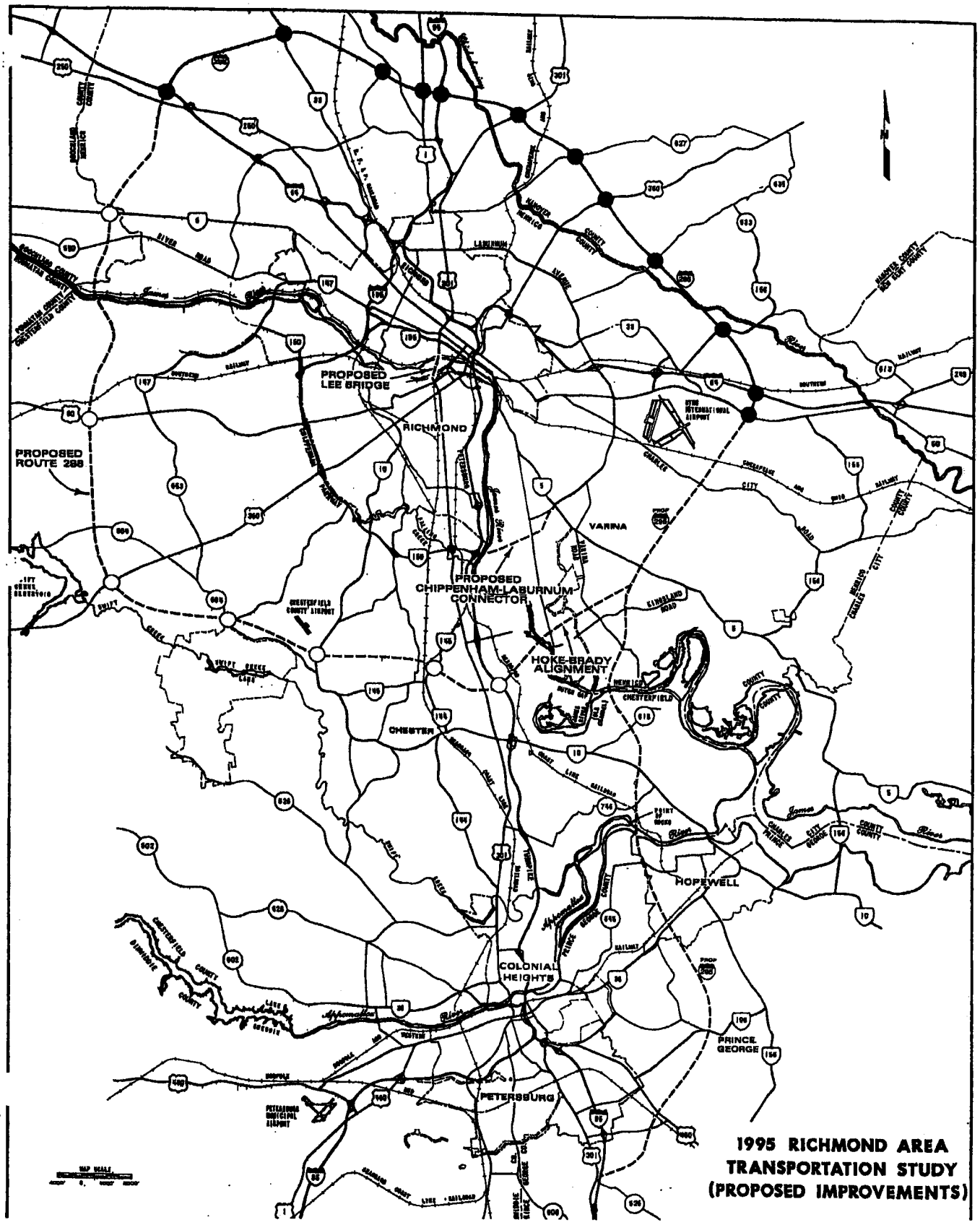
Additionally, a connector south of Richmond would partially satisfy the need for transportation improvements in this area as identified in the current 1995 Transportation Plan (see Figure 4). In view of these benefits, further consideration of such a connector is warranted.

TABLE I

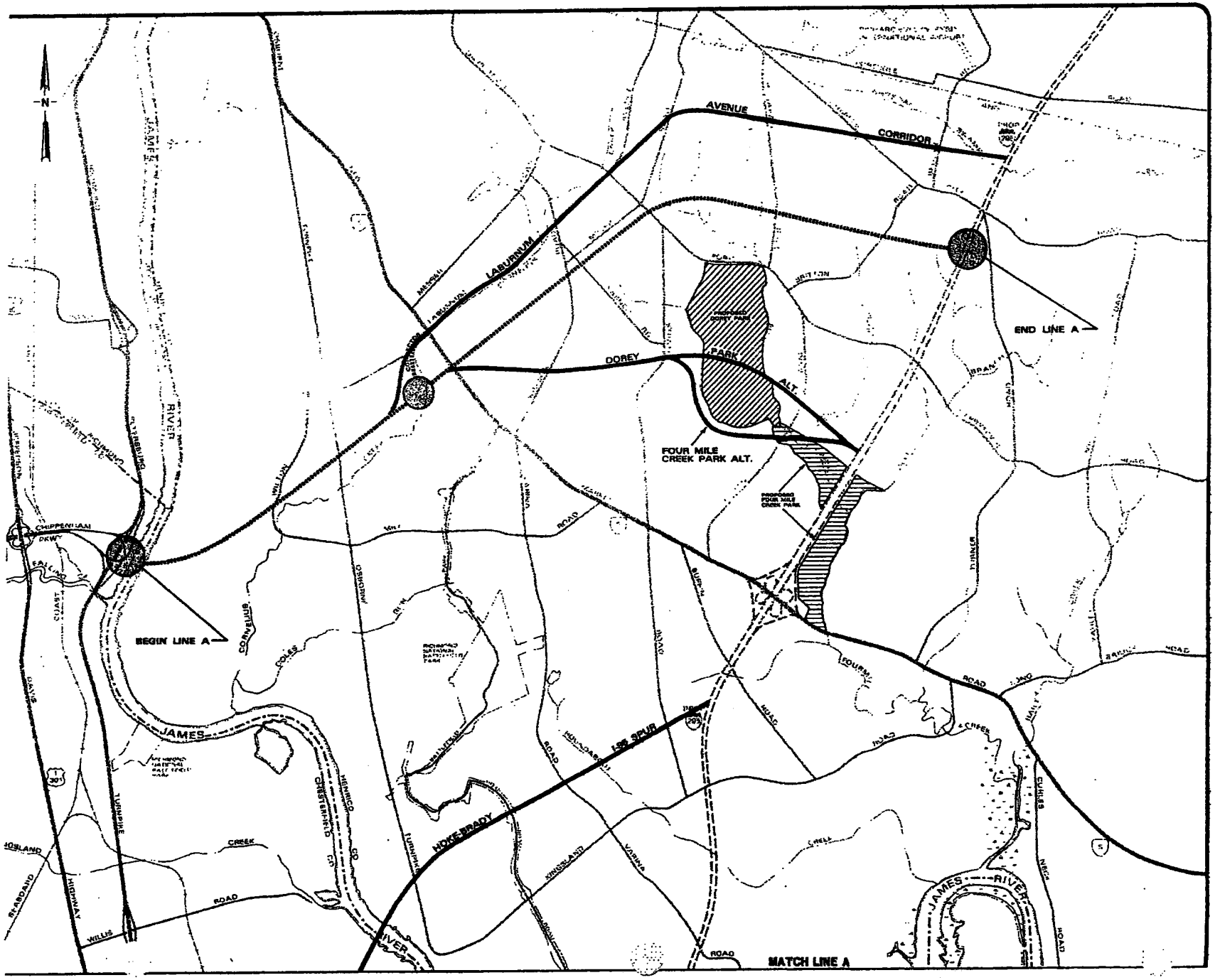
YEAR 2007 TRAFFIC
EFFECT OF ALTERNATIVES ON THE
RICHMOND-PETERSBURG TURNPIKE

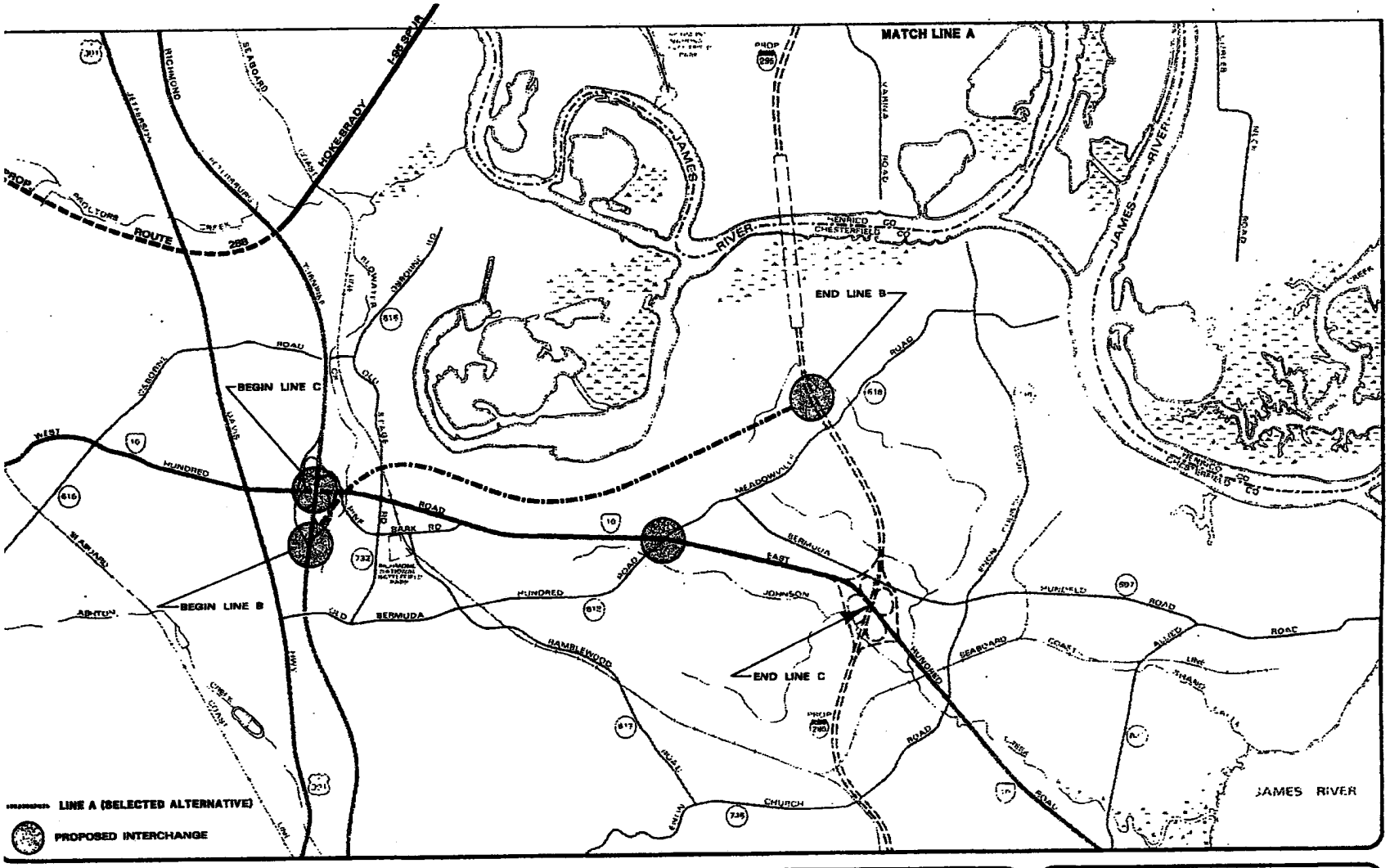
	No-Build	Alt. A	Alt. B	Alt. C
I-64 E. to Broad Street	91,380-E	65,460-C	91,960-E	91,960-E
Broad Street to R.M.A.	93,300-E	64,140-C	93,900-E	93,900-E
R.M.A. to Maury Street	102,800-E	60,260-C	103,460-E	103,460-E
Maury Street to Bells Road	96,600-E	54,200-C	97,280-E	97,280-E
Bells Road to Route 150	93,660-E	51,560-C	94,260-E	94,260-E
Route 150 to Willis Road	91,340-E	102,020-E	82,360-D	82,360-D
Willis Road to Prop. Route 288	85,260-D	92,080-E	72,420-D	72,420-D
Prop. Route 288 to Route 10	81,320-D	96,360-E	68,360-D	68,360-D
Route 10 to Walthall	67,040-D	67,520-D	67,520-D	67,520-D

This table includes the year 2007 average daily traffic and levels of service. For level of service definitions, refer to page 32.



1995 RICHMOND AREA TRANSPORTATION STUDY (PROPOSED IMPROVEMENTS)


N
AVENUE
CORRIDOR
LABURNUM
DOREY
PARK
ALT.
PROPOSED DOREY PARK
FOUR MILE CREEK PARK ALT.
PROPOSED FOUR MILE CREEK PARK
END LINE A
BEGIN LINE A
MATCH LINE A
JAMES
RIVER
HOKE-BRADY
I-95 SPUR
CHIPPENHAM PKWY
TURNPIKE
CREEK
ROAD
WILLIS
HIGHWAY
CHESTERFIELD CO
HENRICO CO
CORNELIUS
COLES
OSBORNE
BURTON
FOURMILE
CURLES
NECK
BRANCH
TURNER
BRITTON
MENSER
FALLING
CUAST
DAVIS
SEABOARD
301
295
5



RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

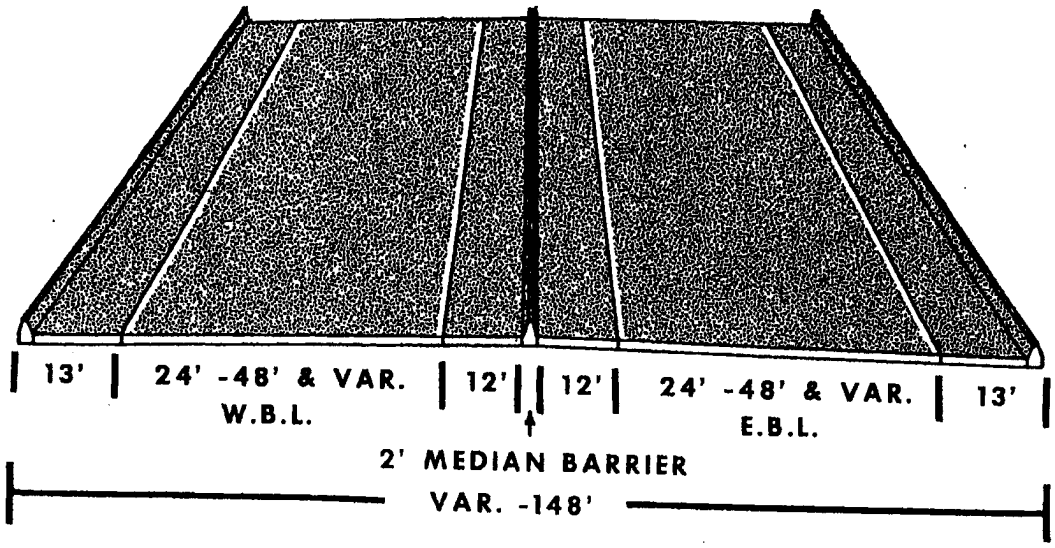
SELECTED ALTERNATIVE
(LINE A)

DELETED ALTERNATIVES

ALTERNATIVES

FIGURE 5

I-95– I-85 CONNECTOR
LINE A
BRIDGE SECTION



NOTE: THE DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS, AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE.

LINE A
FROM: PROPOSED BRIDGE OVER JAMES RIVER
TO: PROPOSED INTERCHANGE WEST OF ROUTE 5

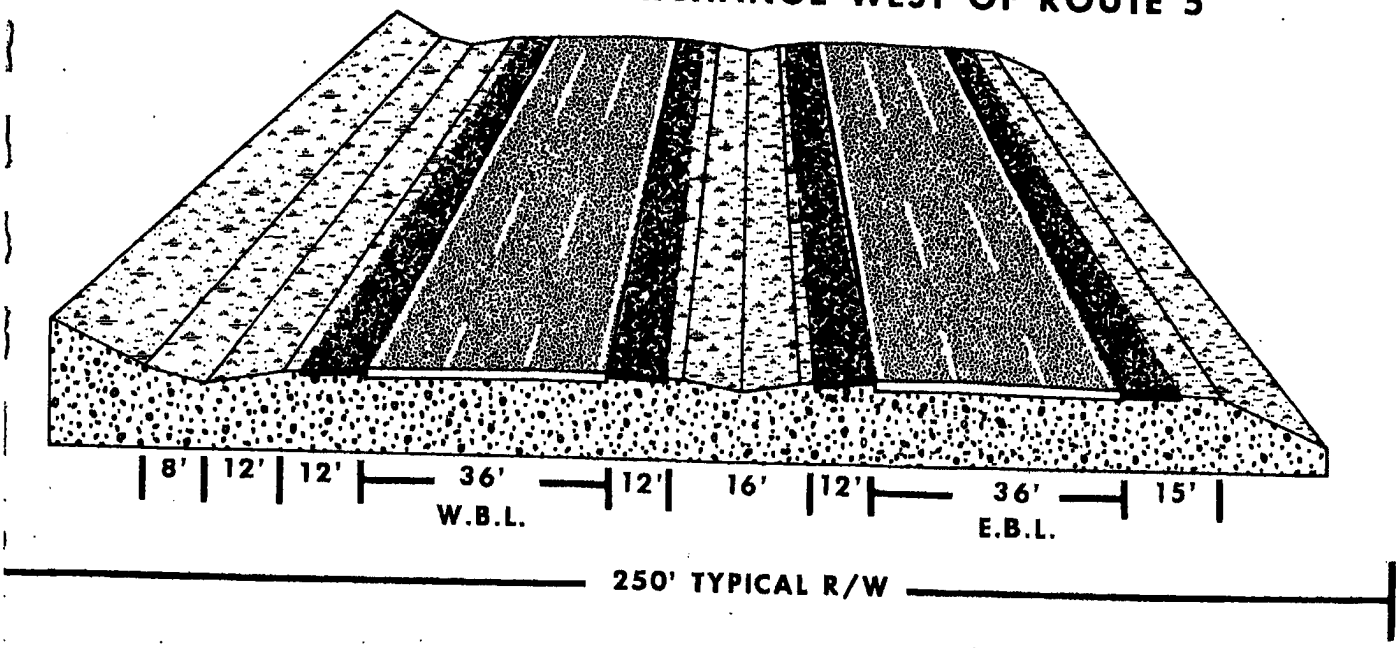
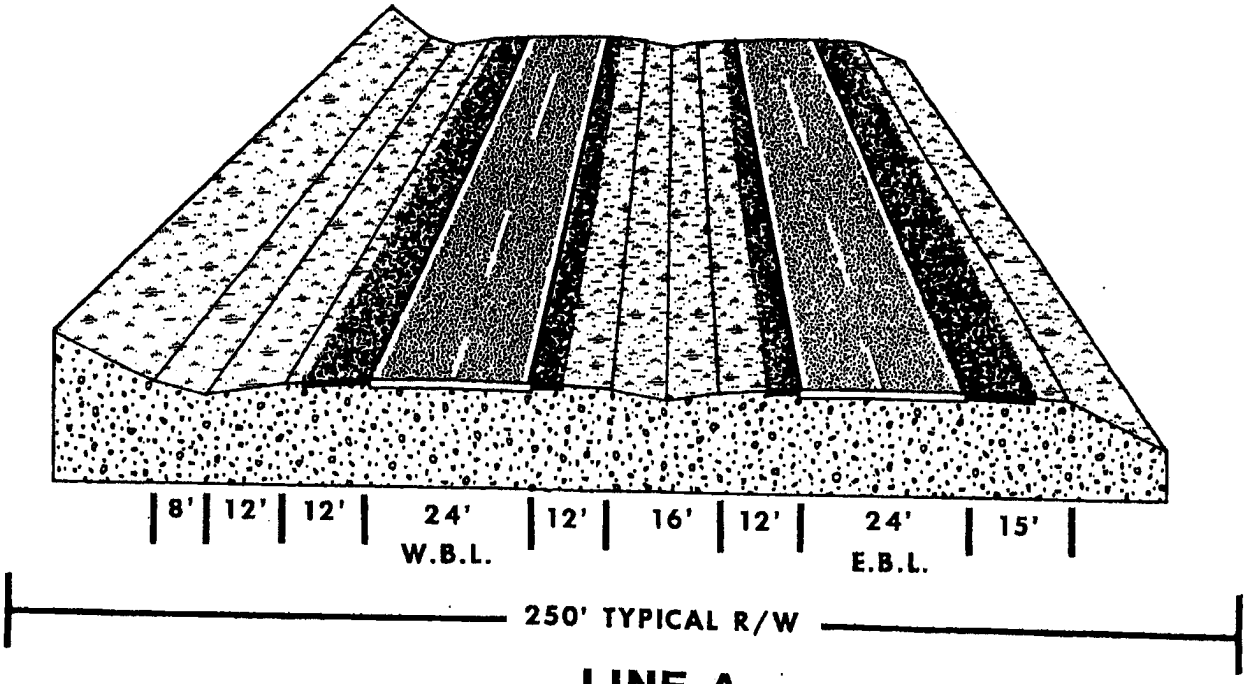
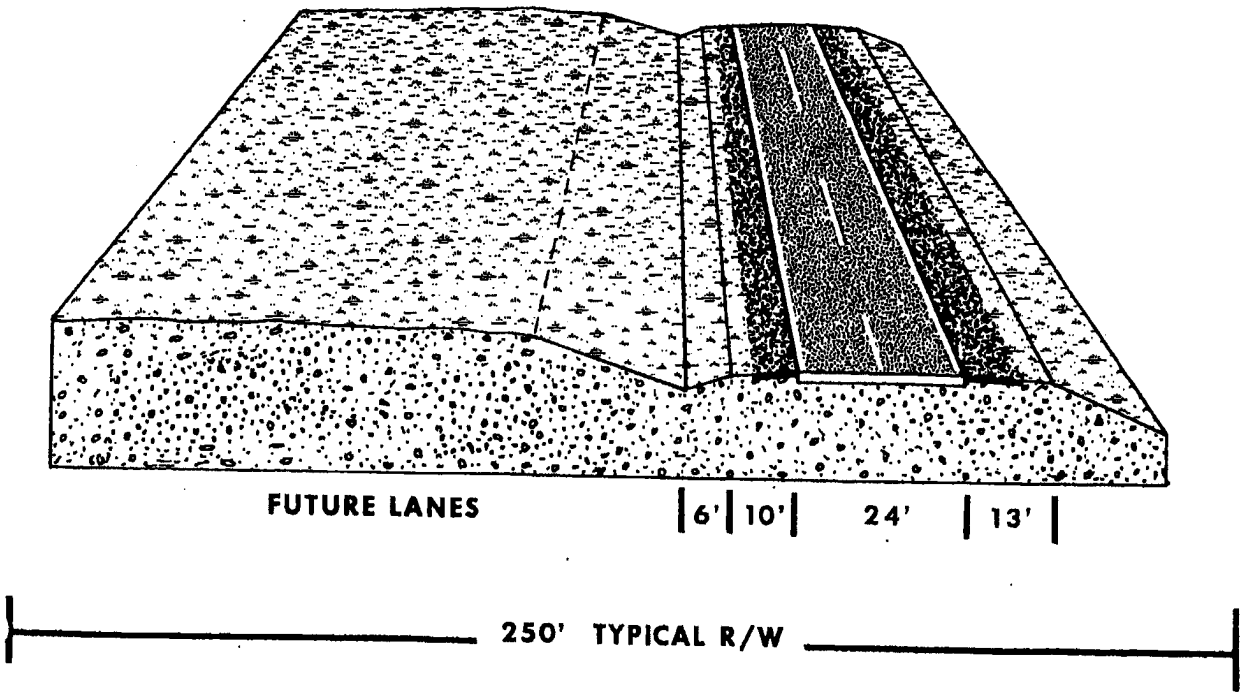


FIGURE 6

LINE A
FROM: PROPOSED INTERCHANGE WEST OF ROUTE 5
TO: EAST OF RELOC. TURNER ROAD



LINE A
PROPOSED CONNECTOR AT CHARLES CITY ROAD
FROM: EAST OF RELOC. TURNER ROAD
TO: CHARLES CITY ROAD



NOTE: THE DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS, AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE.

FIGURE 7

II. ALTERNATIVES

In selecting reasonable alternatives that warranted detailed study, consideration was given to the I-95/85 connector alternatives included in the I-95* EIS, transportation improvements included in the Richmond Area Transportation Plan and the suggestions of local officials and the Richmond Metropolitan Planning Organization (MPO). Additionally, consideration was given to the no-build alternative in conjunction with Traffic System Management (TSM) type improvements, including mass transit improvements.

As a result of this study, Line A (discussed below) is considered the best alternate and is the selected alignment (see Figure 5). This alignment will provide greater traffic relief to the RPT and has received greater support from local jurisdictions than other feasible build alternatives (B or C). Line A also will provide a much needed bridge crossing for interstate and local traffic. With the construction of Line B or C rather than Line A, an urban-type facility crossing the river in the vicinity of Line A, at a cost of $96,000,000, would still be required. (Further discussion of local government comments is given in Section IV-A, page 73.)

Build Alternatives

Line A (selected alternative) begins at the intersection of the Richmond-Petersburg Turnpike and Route 150. This interchange will be modified with necessary ramps and flyovers to accommodate the bridge construction over the James River. The proposed bridge over the James River will be a lift-span structure to provide the necessary vertical clearance with three 12-foot traffic lanes in each direction across the

bridge. Included with the proposed bridge is a 2.17-mile storage lane to handle northbound traffic on the existing RPT that would desire access to the connector. This additional lane would allow for an early divergence of traffic, as well as storage capacity in the event of the opening of the lift-span for river traffic. The proposed storage lane will be constructed within the existing right of way. From the eastern end of the proposed bridge to the proposed interchange connector near Route 5, there will be three 12-foot lanes in each direction separated by a 40-foot graded median (see Figure 6). From this point, continuing in a northeasterly direction to its connection with approved I-95*, two 12-foot lanes in each direction will be built, separated by a 40-foot graded median (see Figure 7).

An interchange and connection will be provided at Laburnum Avenue for local traffic service. Line A is proposed to go under Mill Road (Wilton Road), Osborne Turnpike, Route 5 (New Market Road), Wilson Road, Monahan Road and Britton Road. Line A goes over Darbytown Road. Yarnell Road will be relocated and will connect with Wilson Road. Service roads will be provided where necessary.

Line A will require a typical right of way width of 250 feet and will feature limited access for its entire length. This alternative is 8.8 miles in length and is estimated to cost $158,900,000 (includes storage lane).

The Line A crossing of the James River involved consideration of two bridge structure types: (1) a high-rise bridge, or (2) a movable-span bridge. Either design would have to provide a horizontal clearance of 300 feet. Preliminary studies for a movable-span design favor a lift-span over either a swing-span or a bascule bridge. A preliminary

investigation was made to determine the feasibility of shifting the Line A river crossing either upstream or downstream to obtain a more favorable crossing point. The results of that effort revealed the presence of a number of historic/archaeological sites in the area, together with the floodplain of Cornelius Creek. The Line A alternative minimizes impacts to these sensitive areas. Based upon this information and the western terminus (Route 150/Richmond-Petersburg Turnpike interchange) constraint, the Line A corridor in this Final Environmental Impact Statement (FEIS) was located as shown in Figure 3.

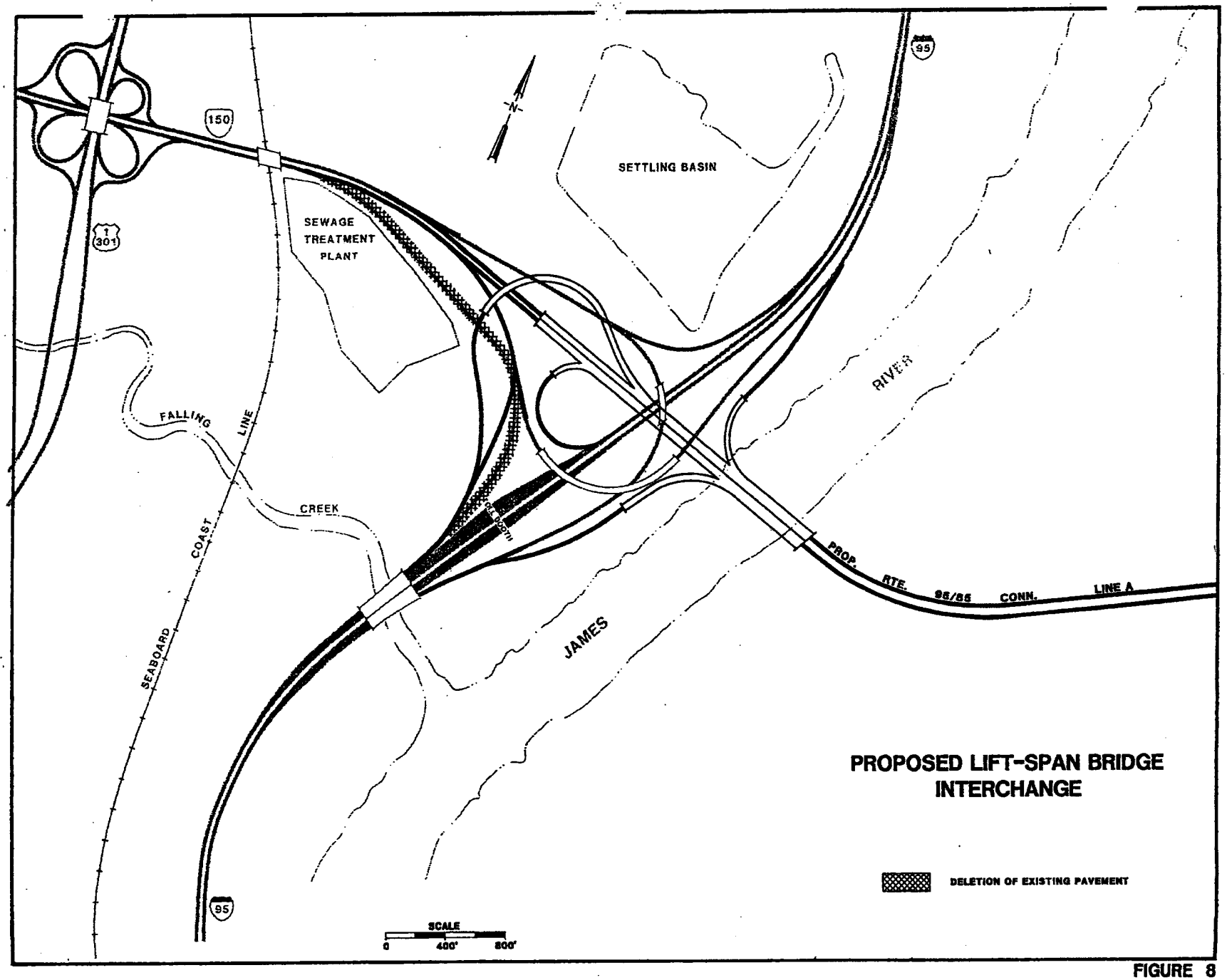
The construction of Line A requires approval of exceptions to FHWA policy governing the design of a movable-span bridge on the interstate facility over the James River.

VDH&T is proposing a lift-span bridge (see Figure 8) and offers the following information:

Lift-Span Design

- Vertical clearance of 58 feet above mean high tide of the James River in lowered position and 145 feet in raised position.
- Minor reconstruction of the Route 150 (Chippenham/RPT) interchange.
- Navigation barrier potential.

A study was done to determine the impacts, if any, a lift-span bridge would have upon river traffic seeking to use Line A and dock at Richmond's Deepwater Terminal from points south. The bridge logs for the Benjamin Harrison Bridge (a lift-span structure at Hopewell) were examined and the destinations and frequency of river passage of vessels on the James River from December 15, 1981, to November 15, 1982.



PROPOSED LIFT-SPAN BRIDGE INTERCHANGE

FIGURE 8

Utilizing this data, the number of vessels that could be expected to traverse the Line A bridge location was determined, as well as the likely date and time of passage.

The results of the study indicated that during the 11-month period, auto traffic on the proposed bridge would have been interrupted on the average of once every two days. Of this number, the interruption would have occurred during peak traffic hour periods (7:00 - 9:00 a.m. and 4:00 - 6:30 p.m.) only on the average of once a week. The average length of an interruption was approximately 8 to 12 minutes.

VDH&T believes these peak traffic hour interruptions can be reduced greatly, if not eliminated, by regulating the time of day which the large ships are allowed through the bridge. The U.S. Coast Guard, as a cooperating agency, has reviewed a copy of the DEIS and has indicated no objections to such restrictions.

The Division of Harbor and the Economic Development Office for the City of Richmond were contacted to determine if any significant increase in the number of ships utilizing the Deepwater Terminal (passing under the proposed bridge) could be expected in the future. It was indicated that over the next five years, the number of container and tobacco ships utilizing the port facility may increase by approximately 30%. These types of ships make up about 72% (131 a year) of the vessels utilizing the Deepwater Terminal. Therefore, it can be expected that the total number of vessels docking at the terminal would increase by approximately 22% (40 a year) over the next five years. This percentage of increase means that in five years the auto traffic on the proposed bridge will be interrupted on the average of 1.2 times every two days.

At present the river cannot be navigated during night hours above the Benjamin Harrison Bridge; therefore, all of these interruptions would occur during daylight hours.

It was also indicated to VDH&T by the Economic Development Office that a consultant is presently being hired to study the feasibility of lighting the river so that ships could navigate the river up to the Deepwater Terminal at night. At present the many curves in the river between the Benjamin Harrison Bridge and the Deepwater Terminal restrict large ship traffic to daylight hours only. If such lighting is installed, it is anticipated that the number of ships utilizing the docking facilities (passing under the bridge) could triple. While this increase in potential lifts of the proposed bridge could occur, it should be noted that much of the increase would occur in the middle of the night when auto traffic is lighter. However, this project is in the very early stages of planning and may or may not be implemented.

There are some vessels which would go under the bridge but would not require a lift. For the most part, these include some tugboats owned and operated by Lone Star Industries. At present approximately two tugboats a day travel the James River past the proposed location of the bridge. In addition to these, there is pleasure-craft usage. However, there are at present no marinas upstream from the proposed bridge location and the number of these craft could not be determined. It is suspected that this type of traffic would not require bridge lifts.

An investigation was made to determine the risk of a large vessel losing control and striking an abutment of the bridge or some part of the bridge which is not movable. Due to the width of the river channel

and design of the bridge, any large vessel would run aground before striking the bridge. Therefore, risk to the bridge from such an accident would be minimal.

VDH&T believes a high-rise bridge is not feasible for this proposed crossing. This is due to the excessive cost, design and construction problems, and environmental impacts.

Two high-rise bridge plans were studied and cost developed. They are as follows:

High-Rise Bridge (Existing Channel)

This plan (see Figure 9) would require extensive reconstruction of the existing Richmond-Petersburg Turnpike, the Chippenham Parkway and the existing interchange. There is approximately 600 feet between the RPT and the James River channel. Therefore, to reach the required vertical clearance of 145 feet, the approach roadways would be elevated (the Richmond-Petersburg Turnpike 1.4 miles and the Chippenham Parkway about ½ mile). Most of this reconstruction would require that about 90% of the roadway be on a structure. This plan would also be in conflict with an existing sewage treatment plant and a settlement basin for a chemical company. Traffic control during construction would be a major consideration with respect to cost and safety.

High-Rise Bridge (Channel Change)

This plan (see Figure 10) would require only minor reconstruction of the Richmond-Petersburg Turnpike/Chippenham Parkway interchange.

A 2-mile channelization of the James River would be required, relocating the navigable channel 2,000 feet eastward. Additional areas of impact associated with a channel change include:

- Congressional authorization to relocate a navigable channel.
- Archaeological sites within the area of the proposed channel change.

- o Floodplains.
- o Changes in current and future sedimentation patterns.

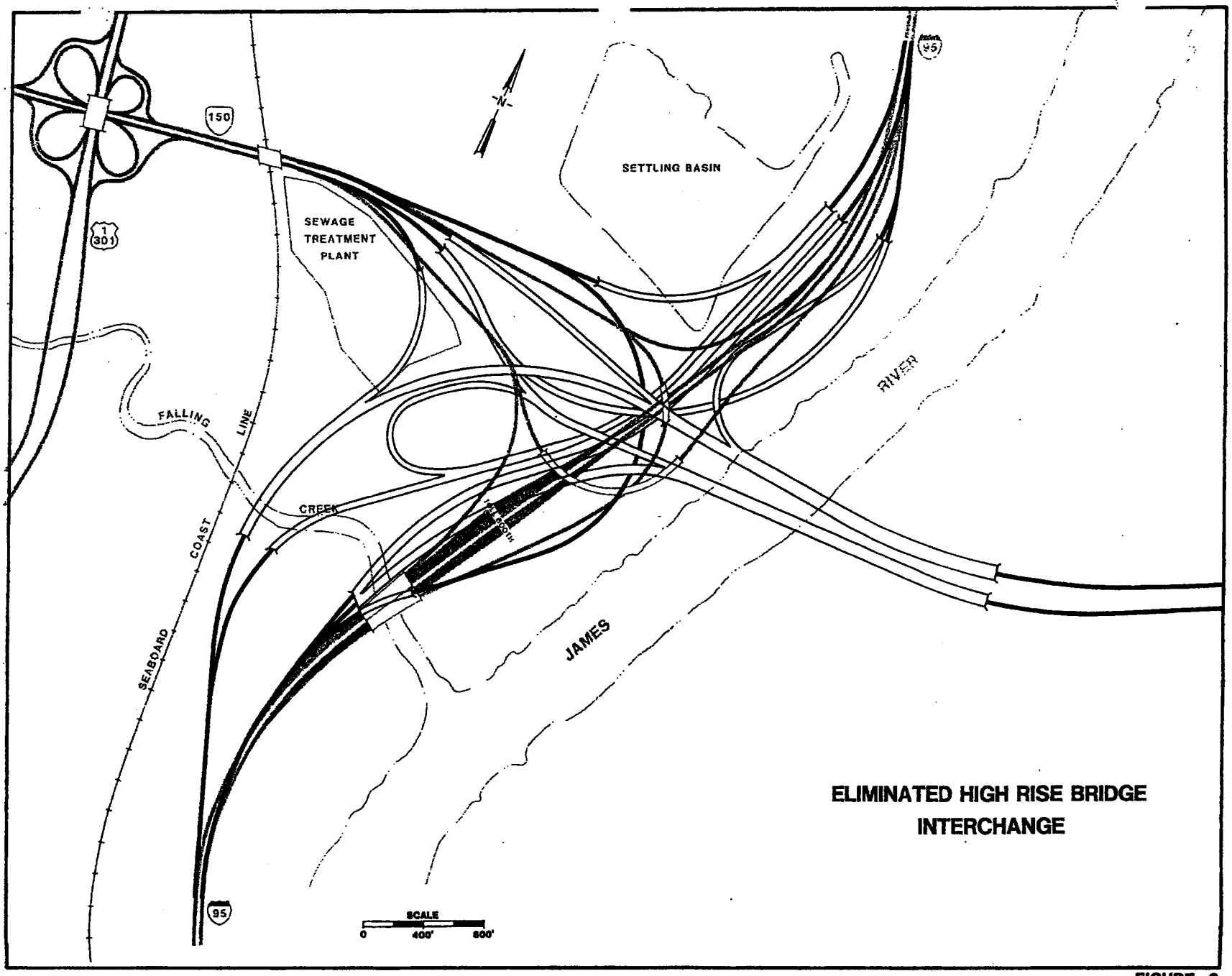
Cost Summary

Cost comparisons for the three bridge plans from the RPT to a common point at Station 110+00 are as shown on Table II.

TABLE II

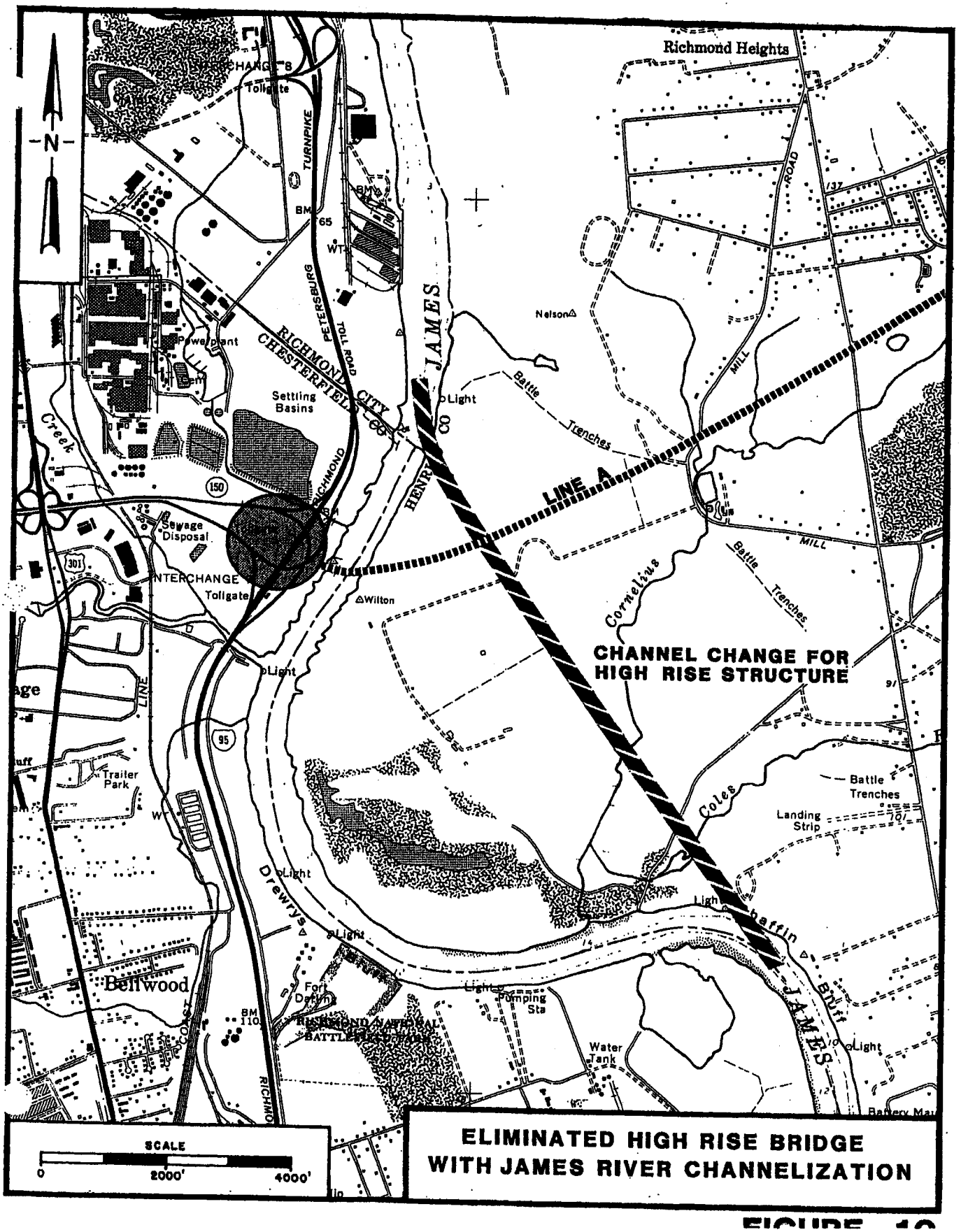
BRIDGE COST COMPARISONS
Line A Alignment - From RPT to Station 110+00

Lift-Span Design		
Roadway	$ 26,969,800	
Structures	95,853,000	
Right of Way, Utilities	308,100	
	$123,130,900	
Additional Storage Lanes	1,500,000	
	$124,630,900	
Operation and Maintenance	5,000,000	(20-yr. design life)
Additional Vehicle Operation Cost	4,520,800	(20-yr. design life)
TOTAL COST	$134,151,700	
High-Rise Bridge (Existing Channel)		
Roadway	$ 33,415,200	
Structure	125,000,000	
Right of Way, Utilities	2,976,400	
	$161,391,600	
Additional Vehicle Operation Cost	1,510,000	(20-yr. design life)
TOTAL COST	$162,901,600	
High-Rise Bridge (Channel Change)		
Roadway	$ 26,969,800	
Structure	95,853,000	
Right of Way, Utilities	308,100	
	$123,130,900	
Channel Change	20,000,000	
	$143,130,900	
Additional Vehicle Operation Cost	1,510,000	(20-yr. design life)
TOTAL COST	$144,640,900	



ELIMINATED HIGH RISE BRIDGE INTERCHANGE

FIGURE 9



ELIMINATED HIGH RISE BRIDGE WITH JAMES RIVER CHANNELIZATION

FIGURE 10

Conclusions

The high-rise bridge design would require either an extensive rebuilding of an existing interchange and 2500 feet of roadway, as well as direct impacts upon several existing facilities or a channelization of the James River with attendant adverse impacts. This design would also result in both a high initial cost and a higher 20-year design life cost.

An additional location was examined for the placement of a high-rise bridge. The only location that would be suitable for a high-rise bridge is east of Fort Darling at Drewrys Bluff. Although the park property could be avoided, the aesthetic impact to this Richmond National Battlefield Park would be tremendous. The bridge would block the view between Fort Darling and the bend in the river where battles were fought during the Civil War.

A crossing here would not have a direct connection to either Chippenham Parkway or to proposed Route 288, thus reducing the effectiveness of traffic service with an overlap of the Richmond-Petersburg Turnpike in either direction.

The lift-span design could be implemented without the need for total rebuilding of an interchange or extensive channelization of the James River. The interruption of automobile traffic due to bridge lifts would not be significant if bridge lifts due to large vessel passage are restricted to off-peak hours. Restricting large vessel passage to off-peak hours will have a relatively insignificant economic impact to these vessels.

Based upon the foregoing, the high-rise bridge design was discarded, and the lift-span design was adopted for Line A.

The advantage of selecting Line A is obvious from the standpoint of providing service to local, as well as interstate, travelers. Line A provides the greatest relief of the Richmond-Petersburg Turnpike. Located closer to the central city, it would benefit not only those who travel long distance on I-85 and I-95, but would also provide the citizens of the immediate area with a facility which would better meet their needs and would be eligible for construction far sooner than if they had to wait until such time as other funds were available for the construction of a crossing of the James River in the vicinity where it is more needed, both now and in the immediate future.

While there are no committed facilities in the vicinity of Lines A, B or C under consideration, the Laburnum-Chippenham Connector is one of the proposed facilities in the approved 1995 Thoroughfare Plan which will provide the only river crossing in the vicinity (see Figure 4). Alternative A, when constructed, will eliminate the need for a separate Laburnum-Chippenham Connector. If Alternative A is not built, the Laburnum-Chippenham facility will ultimately still be needed.

With Line A constructed, year 2007 the traffic conditions shown in Figure 11 are anticipated to occur. The bridge crossing of the James River will operate a level of service D. The portion of the connector from the proposed Laburnum/Route 5 interchange to approved I-95* will operate at level of service C.

The effect of Line A on other transportation facilities in the area can be expected as follows. The Richmond-Petersburg Turnpike immediately

north of Line A will operate a level of service C, and the level of service farther north through downtown Richmond will also be significantly improved.

South of Line A, the RPT will operate at a level of service E to Route 10 and a level of service D south of Route 10. The interchange near Route 5 with Laburnum Avenue is anticipated to operate at a level of service D. I-95* will operate at a level of service E north of Line A, a level of service C to Route 5, and a level of service D from Route 5 to south of Route 10 (refer to Figure 11)[1].

Line B, also a limited access facility, would have begun south of the existing RPT at Route 10, providing movements for northbound RPT to new I-95* and new I-95* to southbound RPT. These would have been the only movements allowed at the directional interchange with the Turnpike. The northbound RPT to eastbound Route 10 movement have been allowed no longer at the existing RPT/Route 10 interchange and would have been replaced by a slip ramp from the proposed Alternative B to Route 10.

---

[1]Listed below are brief definitions of levels of service:

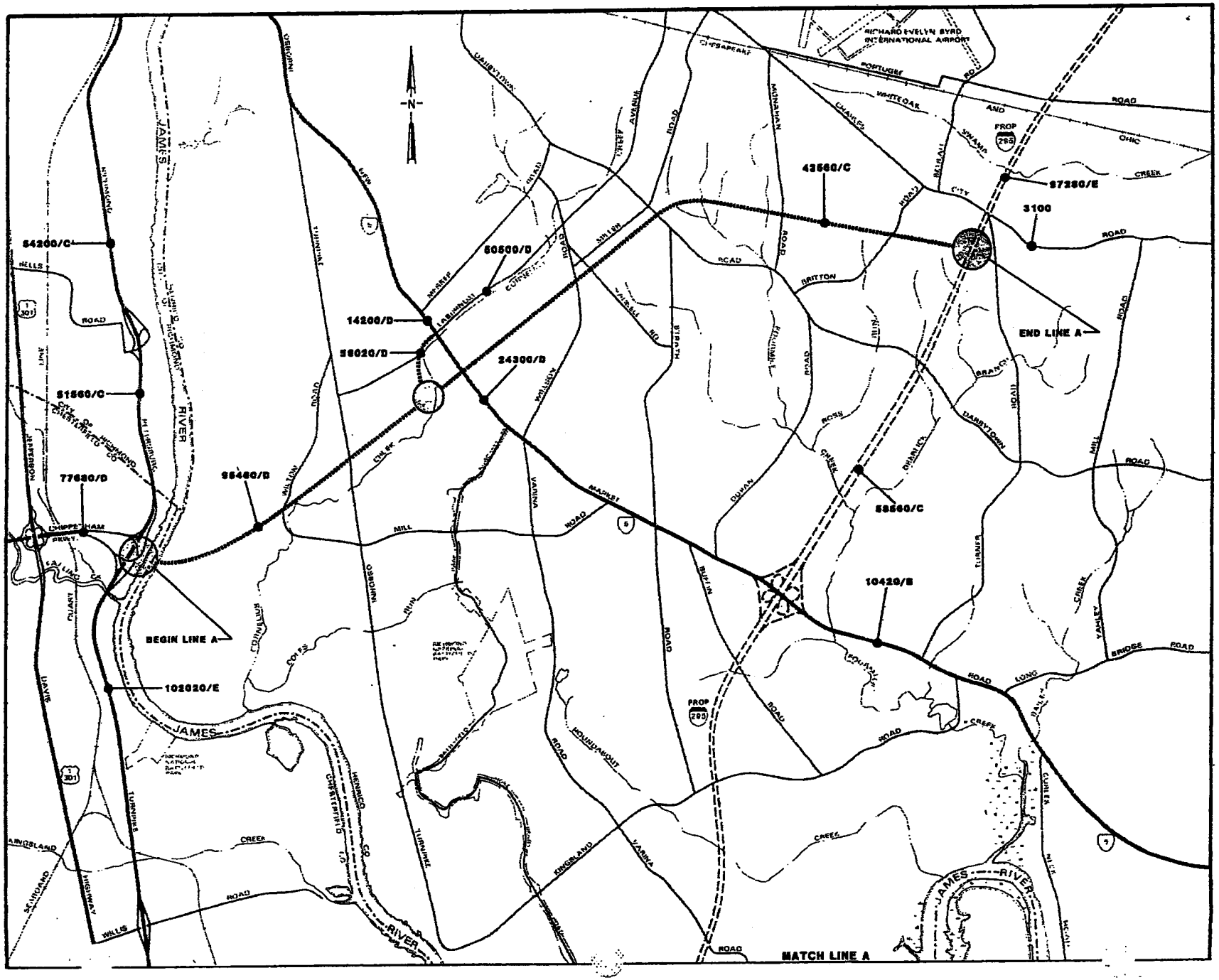
A - describes a condition of free flow with low volumes and high speeds. Little or no restriction in maneuverability. Few delays.

B - describes a zone of stable flow with operating speeds beginning to be restricted by traffic conditions. Reductions in speed are not unreasonable with little chance of traffic flow restriction.

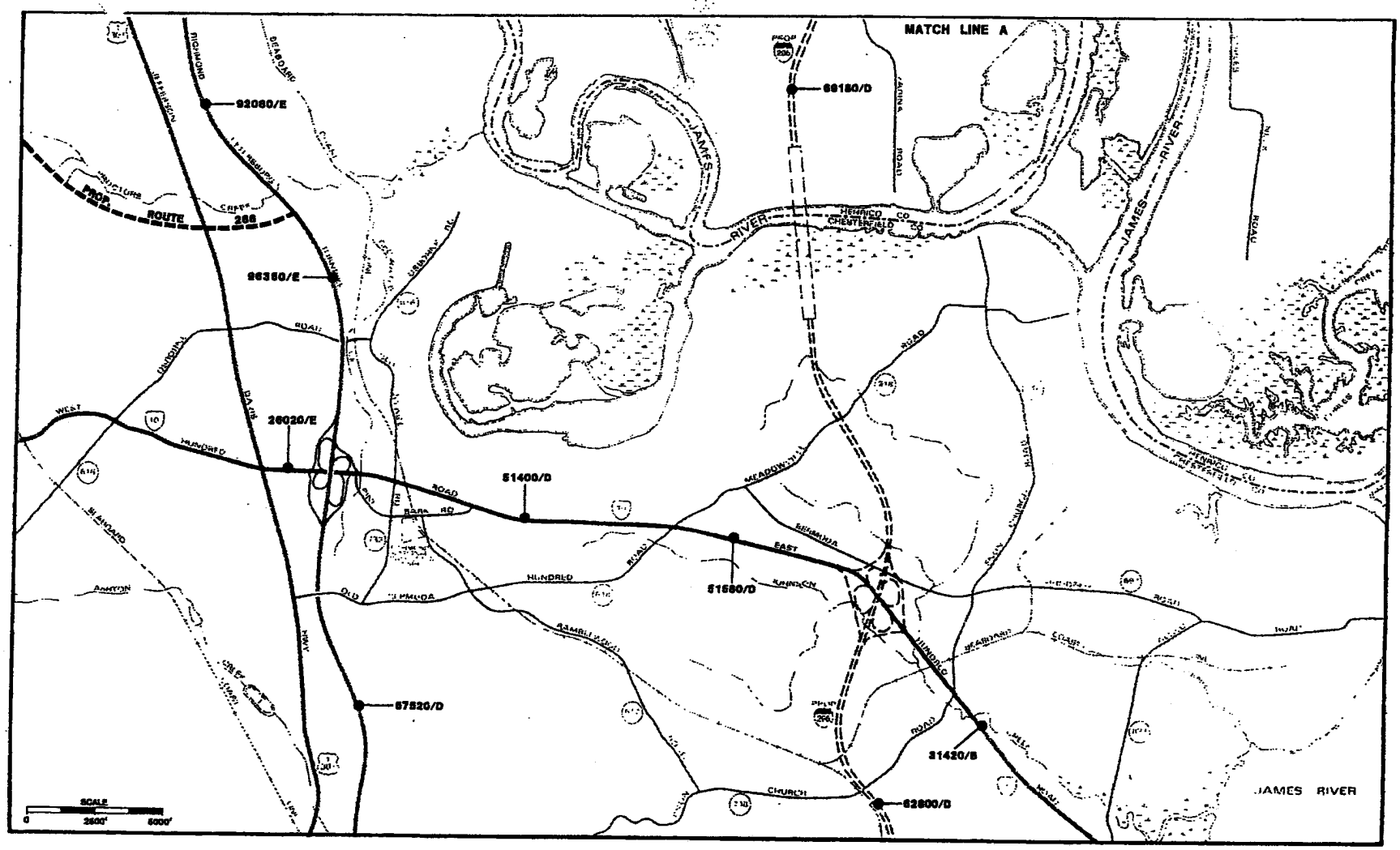
C - describes a zone of stable flow, but speeds and maneuverability are restricted due to higher volumes. Restrictions occur in speed, lane changes and passing.

D - describes a condition approaching unstable traffic flow. Fluctuations in volume and temporary restrictions in flow cause drops in operational speed.

E - describes a zone of fluctuating, very low speeds. Volumes are at or near capacity. Unstable flow and momentary stoppages occur.



RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
-N-
54200/C
51560/C
77680/D
95460/D
14200/D
56020/D
50500/D
24300/D
42560/C
97280/E
3100
END LINE A
58560/C
10420/B
BEGIN LINE A
102020/E
MATCH LINE A
JAMES RIVER
PROP 295



YEAR 2007 TRAFFIC VOLUMES

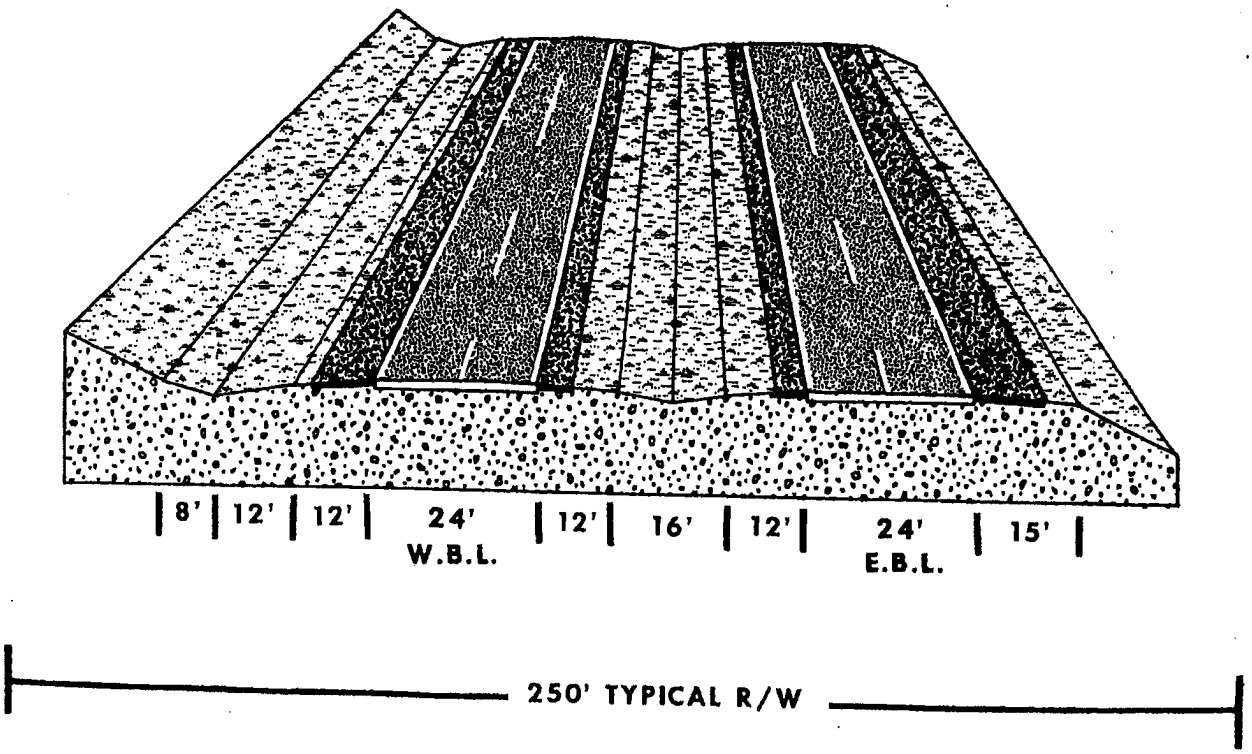
LINE A SELECTED ALT.

0000 AVERAGE DAILY TRAFFIC

A-F LEVEL OF SERVICE

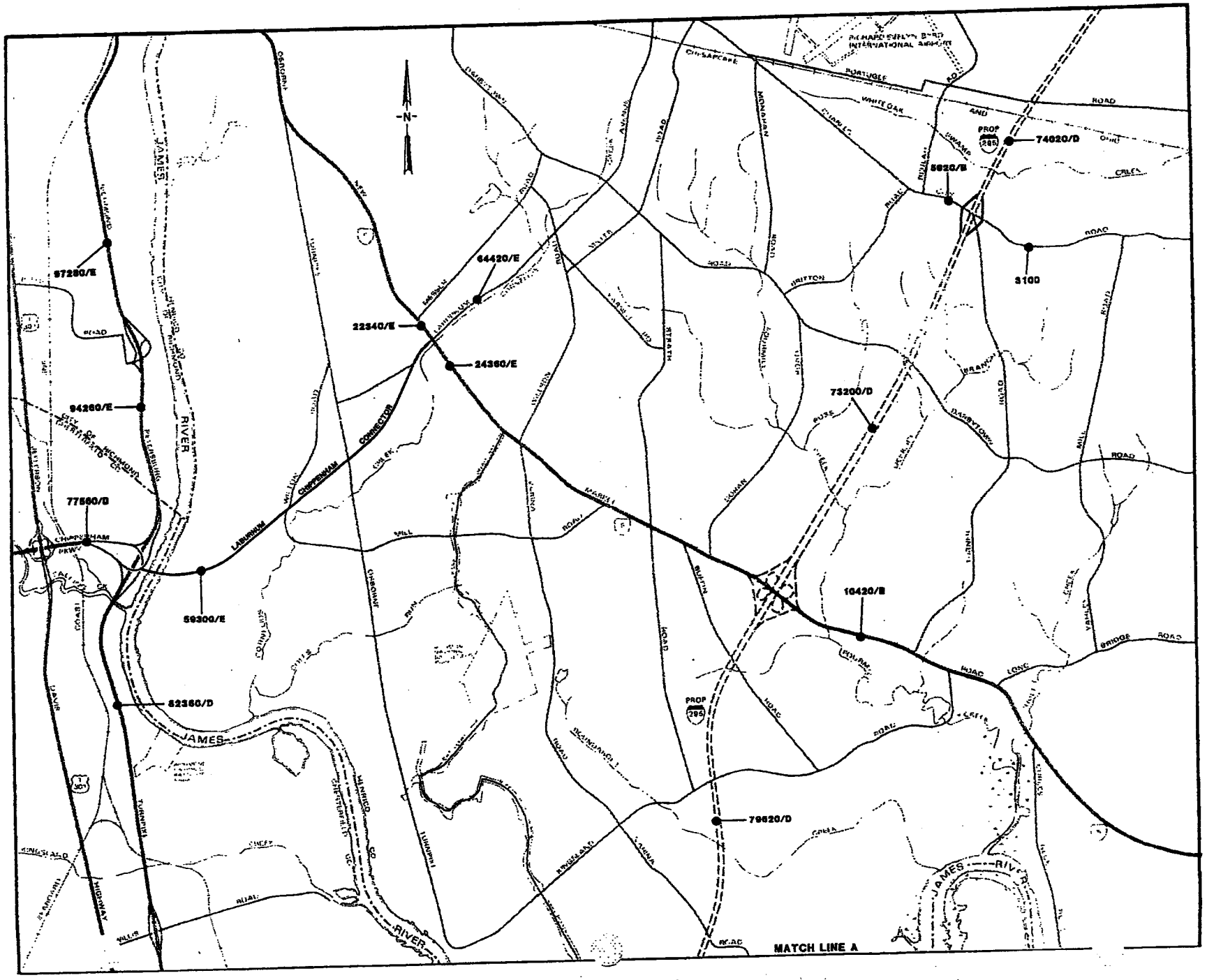
FIGURE 11

LINE B
FROM: RICHMOND-PETERSBURG TURNPIKE
TO: PROPOSED I-95

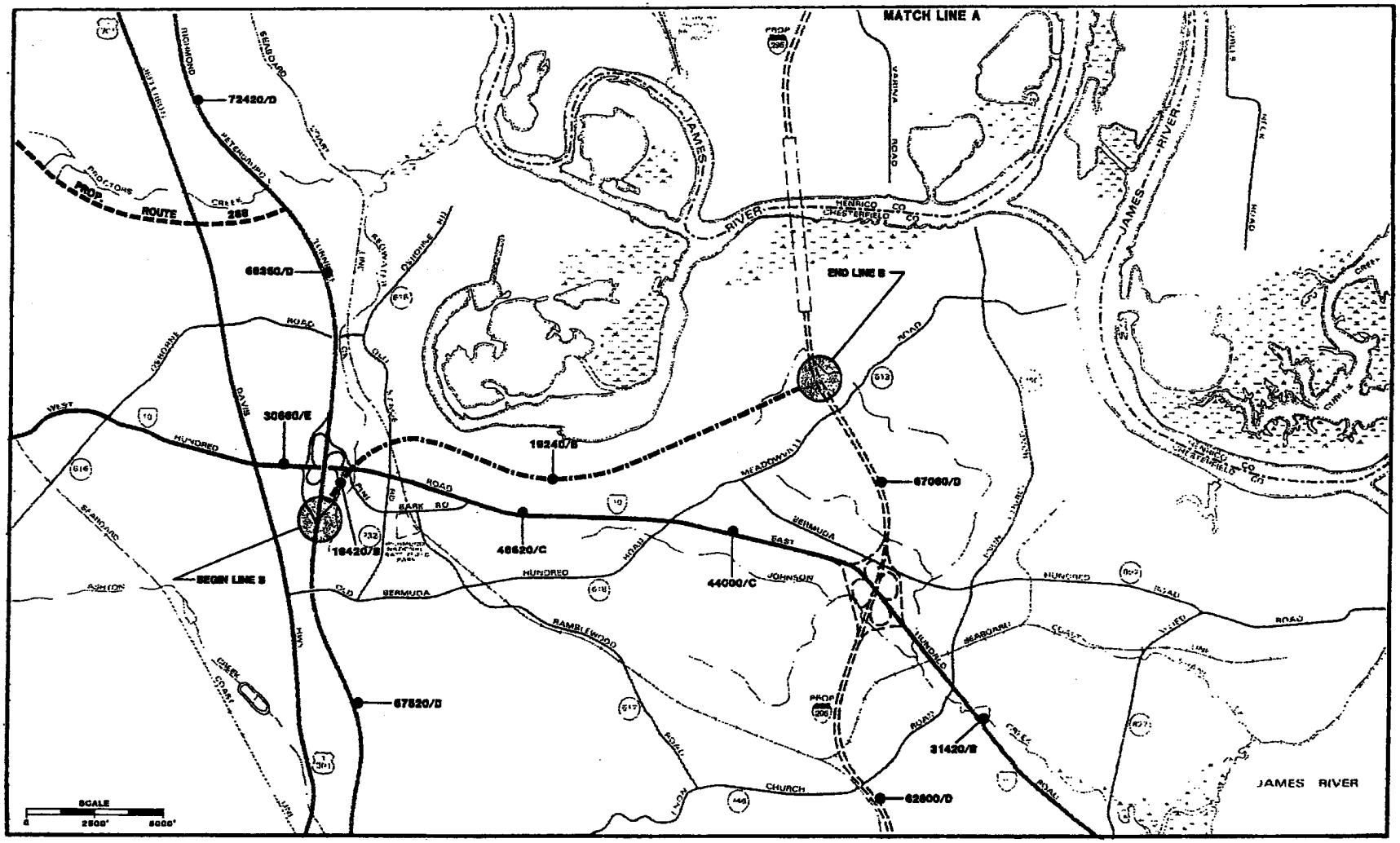


NOTE: THE DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS, AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE.

FIGURE 12



N
97280/E
94260/E
77560/D
59300/E
82360/D
64420/E
22340/E
24360/E
73200/D
10420/B
79620/D
5920/B
3100
74020/D
PROP 295
PROP 295
JAMES RIVER
LABURNUM CHIPPENHAM CONNECTOR
CHIPPENHAM PKWY
MATCH LINE A



YEAR 2007 TRAFFIC VOLUMES

LINE B

0000 AVERAGE DAILY TRAFFIC

A-F LEVEL OF SERVICE

FIGURE 13

Leaving the Turnpike, Line B would have traveled in a northeasterly direction crossing over Route 10 and the Seaboard Railroad System, then turned more easterly and run adjacent to the James River to its junction with proposed Route 95*. This alternative allowed for a trumpet interchange with approved I-95*, to allow movement north and south, with the interchange being located north of the approved I-95*/Route 10 interchange. If this alternative had been chosen, there would be no significant improvements to Route 10, which would continue to be a four-lane facility.

Line B consisted of two 12-foot travel lanes in each direction separated by a 40-foot wide graded median. Right of way width was 300 feet (see Figure 12). Line B was 4.5 miles in length and was estimated to cost $35,700,000.

The year 2007 traffic on Line B between the RPT and approved I-95* was expected to operate at a level of service B (see Figure 13). The RPT north and south of the proposed directional interchange was expected to operate at a level of service D. Route 10 between the RPT and approved I-95* would operate at a level of service C and would operate at level B east of approved I-95*. I-95* from north and south of the Line B interchange would operate at level of service D. Alternative B would not be nearly as effective as Line A in relieving congestion on the critical section of the Richmond-Petersburg Turnpike.

Line C, the final candidate, began at the Richmond-Petersburg Turnpike/Route 10 interchange. This existing full interchange would have been modified by providing flyover ramps to allow for northbound and southbound traffic. No existing movements were planned to be eliminated.

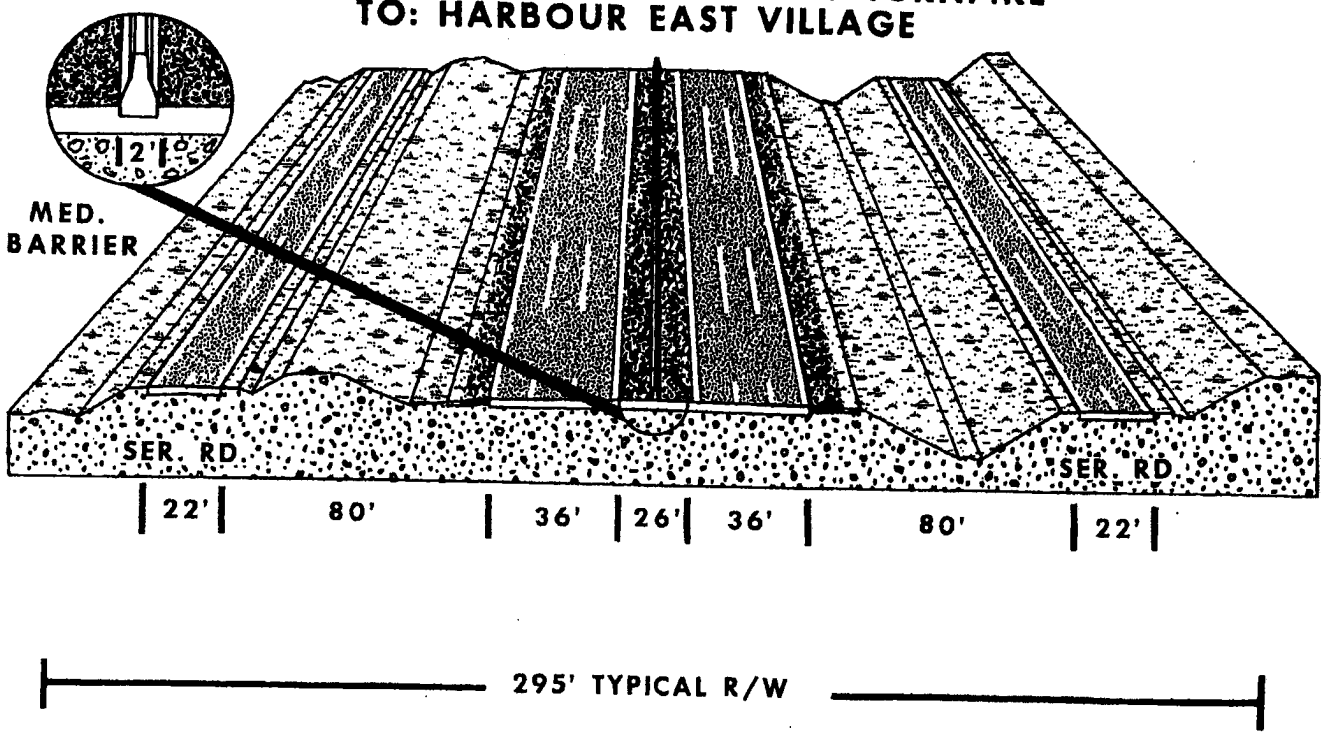
From the interchange area, Line C traveled east following the existing four-lane Route 10 corridor. Proposed construction would consist of three 12-foot lanes in each direction separated by a 26-foot wide median with a 2-foot concrete median barrier (see Figure 14). Shoulders would be 12 feet on the median side. On the outside, shoulders would be 12 feet in cut sections and 15 feet in fill sections.

Continuing east, Line C would have crossed over the Seaboard Railroad System, then continued east to a curve opposite the Safeway Distribution Center. Here the median transitioned from a 2-foot concrete median barrier to a 40-foot graded median. Line C was designed as a limited access facility with proposed right of way ranging from 295 to 354 feet; service roads were proposed on both sides of the facility. At Route 618 a diamond-type interchange was proposed. Access to properties on both sides of Route 10 would have been via this interchange. From Route 618, Line C continued east with the aforementioned typical section until its connection with proposed I-95*. Here the planned I-95* interchange would have been modified to include high-speed ramps to ensure a smooth flow of traffic.

Line C measured 4.5 miles in length with an estimated cost of $46,600,000. Traffic on Line C would operate at level of service C (see Figure 15). Route 10 west of the RPT would operate at level of service E. The RPT would operate at level of service D, both north and south of Route 10. I-95 would operate at level of service D both south and north of Line C. Alternative C would not be any more effective than Line B in relieving Richmond-Petersburg Turnpike congestion.

LINE C

FROM: RICHMOND-PETERSBURG TURNPIKE
TO: HARBOUR EAST VILLAGE



NOTE: THE DIMENSIONS SHOWN ARE FOR THE PURPOSE OF DETERMINING COST ESTIMATES AND ENVIRONMENTAL IMPACTS, AND ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PHASE.

LINE C

FROM: HARBOUR EAST VILLAGE
TO: END OF PROJECT (PROP. I-95)

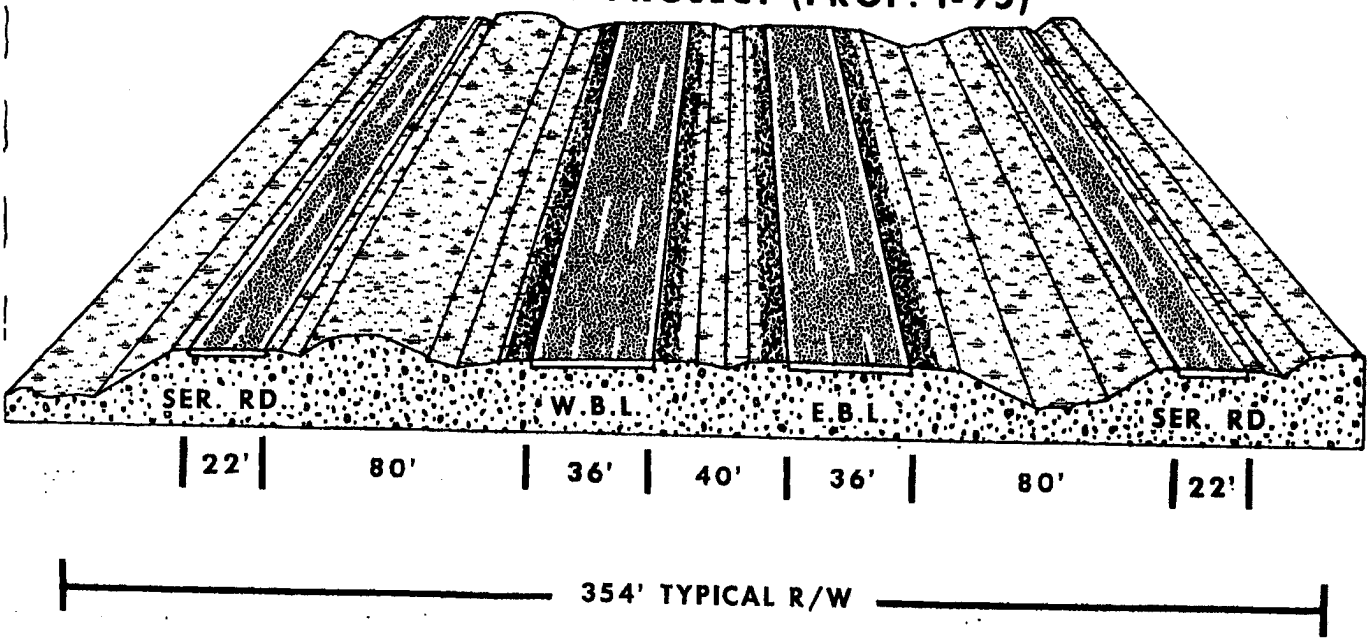
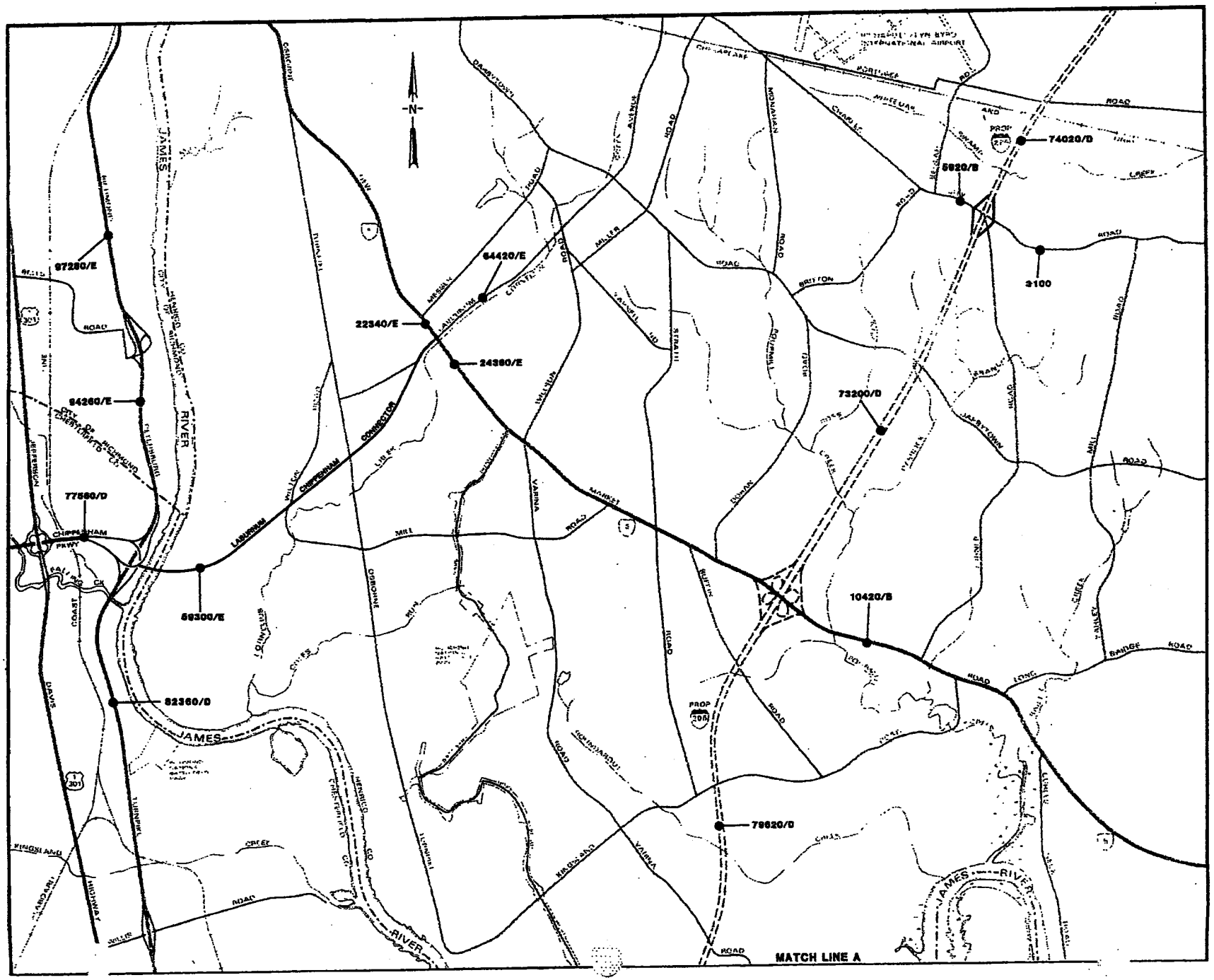
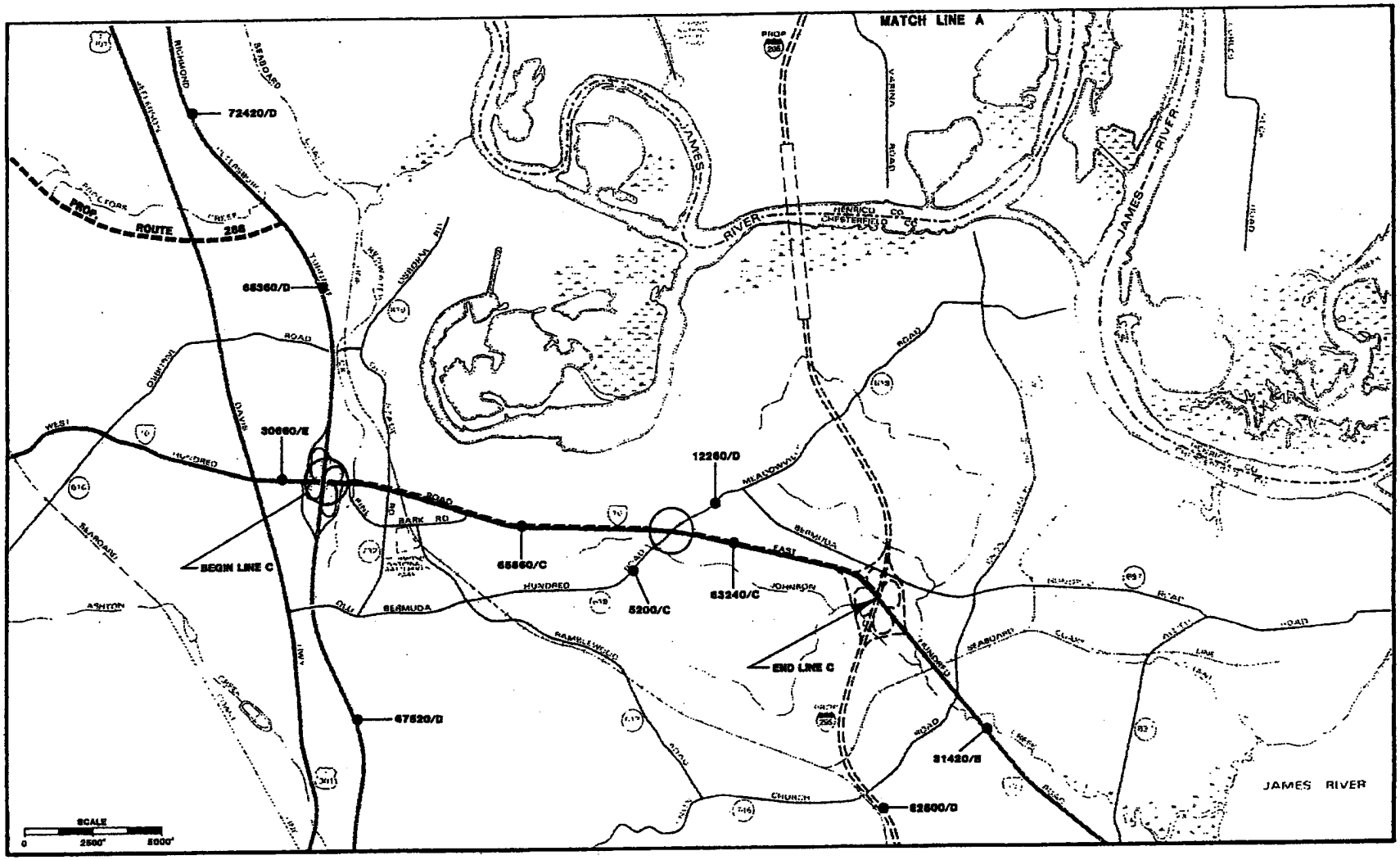


FIGURE 14



-N-
97280/E
94260/E
77560/D
59300/E
82360/D
64420/E
22340/E
24360/E
73200/D
10420/B
79620/D
5920/B
74020/D
3100
JAMES RIVER
LABURNUM CHIPPENHAM CONNECTOR
CHIPPENHAM PKWY
MATCH LINE A



YEAR 2007 TRAFFIC VOLUMES

LINE C

0000 AVERAGE DAILY TRAFFIC

A-F LEVEL OF SERVICE

FIGURE 15

TABLE III

COMPARISON OF BUILD ALTERNATIVES
(Summary of Environmental Impacts)

	Line A	Line B**	Line C**
Length (miles)	8.8	4.5	4.5
Displacements:			
Individuals	27	302	70
Families	12	100	23
Nonprofit Organizations	0	0	1***
Businesses	0	1	12
Relocation Costs	$157,770	$528,855	$387,185
Total Cost (Includes construction, utilities & right of way)	158.9 Million	35.7 Million	46.6 Million
2007 Average Daily Traffic Volumes	43,860-95,460	19,240	63,240-65,860
Level of Service	C-D	B	C
Prime Agricultural Lands (Acres)	145	57	59
Wildlife Habitat (Acres)	160	155	0
Noise Receptors (No. experiencing significant noise level above ambient levels and/or above NAC)	117	114	122
Archaeological Sites	2	5	0
Historic Sites	0	0	0
Stream Relocations	2	1 (Pond drainage)	2
Stream Crossings	6	4	4
Direct Floodplain Crossings	5	3	5
Longitudinal Encroachments	6	0	2
Total Linear Feet of Longitudinal Encroachments	4750	0	2000

**With the construction of Line B or C, there would still be a need to construct the Laburnum-Chippenham Connector, an urban facility, at a cost of $96,000,000.

***Pentecostal Holiness Church located at Route 618.

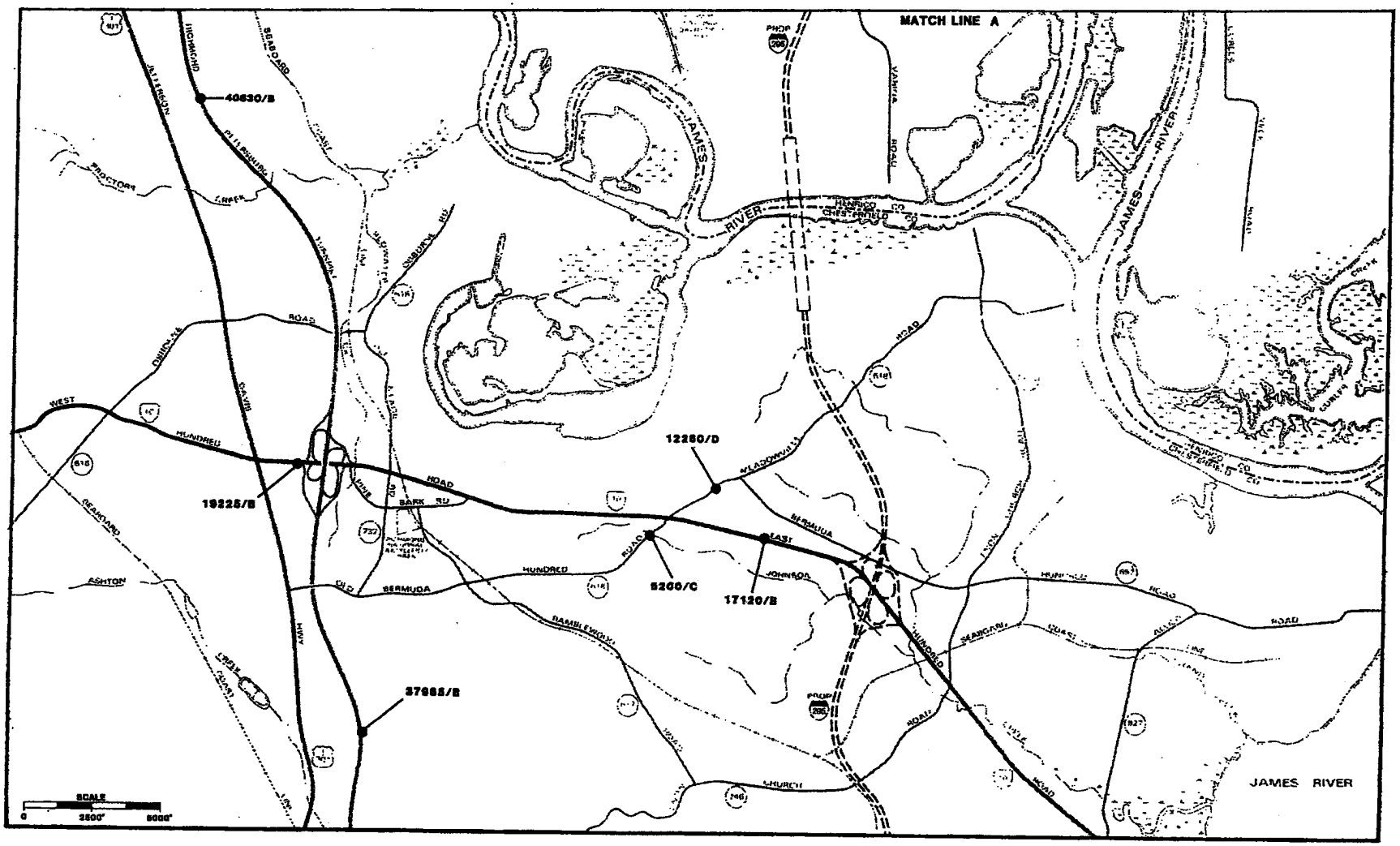
Other Alternatives

No-Build Alternative - This concept considers that no improvements will be made to the particular alternative connections between the RPT (I-95) and I-295 which are identified as Line A, Line B or Line C. Furthermore, no improvements would be made to the RPT. It does however include the long-range plan developed for the region (i.e., the 1995 Richmond Regional Major Thoroughfare Plan). To that end, it was necessary to include the arterial connection between the RPT and New Market Road (Route 5) commonly referred to as the Laburnum-Chippenham Connector as being in place for the No-Build Alternative, as well as when considering forecast volumes for Lines B and C. Under this alternative, the Laburnum-Chippenham Connector, Route 150 to Laburnum Avenue was to be a four-lane facility, traversing 3.56 miles at a cost of approximately 96 million dollars. It included a lift-span crossing. Traffic volumes anticipated on this facility under this alternative for the year 2007 were 49,620 vehicles a day with a level of service E.

Due to the unlikelihood of having two river crossings with the same termini, one being interstate and the other being arterial, the Laburnum-Chippenham Connector was not considered to be in place under the Line A build option.

In the year 2007, with the No-Build Alternative, the following conditions would exist (see Figure 17): the RPT from Willis Road to I-64 (downtown) would operate at a level of service E with volumes ranging from 91,340 to 102,800 vehicles a day; from Willis Road to south of Route 10, the RPT would operate at a level of service D with volumes ranging from 67,040 to 85,260 vehicles a day; and the Laburnum-Chippenham Connector would operate at a level of service E while carrying 49,620 vehicles a day.

RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
N
1730
3140
1849
2430/B
3970/B
3460/B
51610/B
14150/B
42930/B
JAMES RIVER
MATCH LINE A

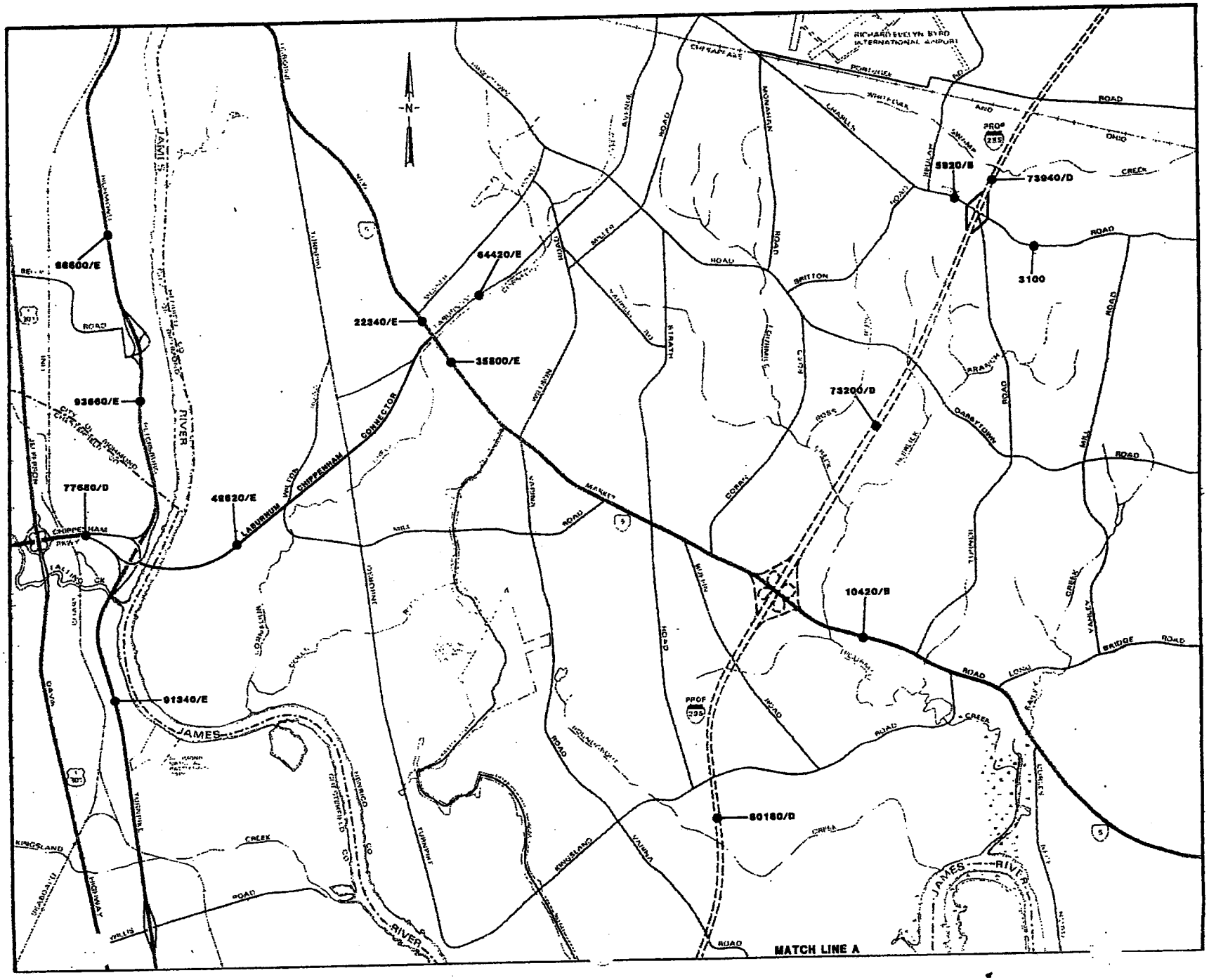


1981 TRAFFIC VOLUMES

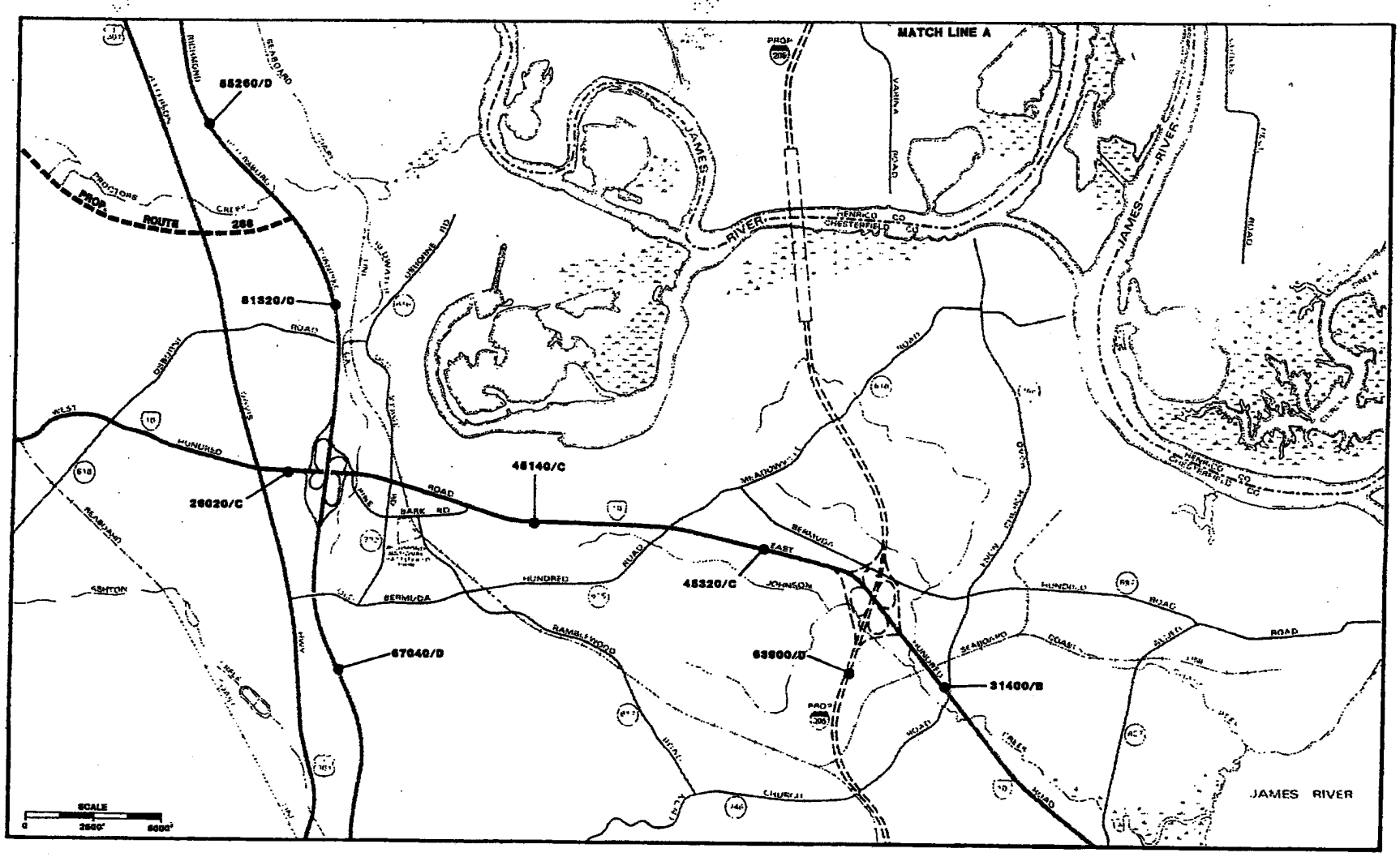
0000 AVERAGE DAILY TRAFFIC

A-F LEVEL OF SERVICE

FIGURE 16



RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
CHESAPEAKE
PORTUGEE
ROAD
WHITEOAK
AND
OHIO
CREEK
PROF
235
5920/B
73940/D
3100
ROAD
BRITTON
ROAD
MONAHAN
ROAD
CHARLES
SWAMP
ROAD
64420/E
22340/E
35800/E
73200/D
BRANCH
OAKBYTOWN
ROAD
MILL
ROAD
MILLER
ROAD
STRATH
CORAN
ROSS
CREEK
MARKET
ROAD
MILL
ROAD
LABURNUM
CHIPPENHAM
CONNECTOR
WILTON
VARINA
NORTON
JAMES
RIVER
96600/E
93660/E
77680/D
49620/E
91340/E
CHIPPENHAM
PKWY
10420/B
BRIDGE
ROAD
LONG
ROAD
CREEK
PROF
235
80180/D
KINGSLAND
CREEK
ROAD
WILLIS
HIGHWAY
TURNPIKE
JAMES
RIVER
JAMES
RIVER
MATCH LINE A



YEAR 2007 TRAFFIC VOLUMES
NO BUILD

0000 AVERAGE DAILY TRAFFIC

A-F LEVEL OF SERVICE

FIGURE 17

The No-Build Alternative would not have any impact on the natural environment and would not cause any relocations or changes in the location of noise impacts. Due to increased congestion, air quality in downtown Richmond would probably be worse with the No-Build Alternative. This alternative would not facilitate planned development in the counties or divert traffic from the Richmond-Petersburg Turnpike and therefore would not have any negative impacts on the City of Richmond in this regard. However, failure to relieve congestion on the RPT could result in a negative economic impact upon the City.

Transportation Systems Management (TSM) - TSM strategies are low cost improvements or changes to existing facilities which improve safety and efficiency. TSM improvements could include:

- Traffic engineering improvements
- Fringe commuter parking facilities

Traffic Engineering Improvements - Changes to an existing roadway and/or traffic signalization can often increase its capacity, as well as improve safety for the motorist. It is noted that Route 10 is the only existing facility on which TSM strategies could be considered as part of an alternative to the 95/85 Connector. Since Route 10 is already a four-lane divided facility, between the Richmond-Petersburg Turnpike and proposed I-95*, there appear to be very few locations where TSM options are warranted.

Fringe Commuter Parking Facilities - Commuter parking facilities are used as a central meeting point for persons to join carpools or van pools. These are usually located near radial routes leading to central city employment areas. Therefore, the most successful lots are located

near I-64; I-95 (RPT); U.S. Route 60; Route 360 east and west of Richmond; and at John Tyler Community College, south of the City, off the RPT. None of the connector alignments lead to extremely high employment areas or to the central areas or Richmond or Petersburg. At the present time, existing fringe commuter parking lots satisfy the need for facilities of this nature (see Section IV-M, page 122).

Preliminary Alternatives

Laburnum Avenue Connector - In the previous I-95* study, a Laburnum Avenue corridor utilizing portions of existing Laburnum Avenue and Darbytown Road was studied and discarded for the following reasons. Existing Laburnum Avenue was proposed to be widened in place, from four lanes to eight or ten lanes to accommodate design year traffic volumes. The overlapping of existing Laburnum Avenue with a limited access highway would have eliminated the local thoroughfare concept (see Figure 5) and resulted in significant adverse impacts to adjacent development in terms of property damage and loss of access.

Route 288 (Hoke Brady Road Crossing) - In 1973 studies were developed by the VDH&T for the I-95* corridor which included connections between I-95* and the RPT at Route 288 (see Figure 5). This proposed connection would cross over Hoke Brady Road, a linear facility within the Richmond National Battlefield Park (RNBP), under the jurisdiction of the National Park Service of the U.S. Department of Interior (DOI). This alternative provided many traffic service and engineering advantages. However, DOI took the position of noncurrence with any proposed I-95* crossing of the RNBP. In 1978, Governor Dalton appealed this position directly to Secretary of Interior Cecil D. Andrews.

Nevertheless, DOI reaffirmed their earlier position and would not concur in a Section 4(f) Statement nor grant an easement for the route to traverse the RNBP. Again in 1982, Secretary James Watt reaffirmed the decision in a letter to a member of the Virginia House of Delegates. Thus, it has been concluded that it would be pointless to consider further an I-95/85 connection which requires the crossing of Hoke Brady Road.

Dorey Park and Four Mile Creek - During the conceptual stages of this study, VDH&T was evaluating two additional parallel corridors of Line A. During coordination with the Henrico Parks and Recreation Department, it was determined that the two variations of Line A would cross through proposed Dorey Park and Four Mile Creek Park. Dorey Park is a proposed 400-acre park located south of Darbytown Road and west of proposed I-95*. Four Mile Creek Park links with Dorey Park at its southeastern tip and covers an area to the west of proposed I-95* and another area on the eastern side of proposed I-95*. The total acreage for Four Mile Creek Park will be approximately 100 acres. Due to the substantial impact that both alternatives would have upon park property, and in view of the availability of prudent and feasible alternatives to avoid those impacts, these two variations of Line A were eliminated from further consideration (see Figure 5).

Tri-Cities MPO - On August 25, 1982, representatives from VDH&T and the Tri-Cities Metropolitan Planning Organization (MPO) met to discuss the scope of the proposed I-95/85 Connector. No adverse comments were received from the committee members on any of the VDH&T proposals.

Richmond MPO Resolution - On September 1, 1982, the scope of the proposed study was presented to the Richmond MPO (i.e., Lines A, B, and C, No-Build Option, Mass Transit, TSM, and HOV). VDH&T requested that the MPO provide comments on the proposals for the I-95/85 Connector Study.

On October 5, 1982, Department representatives presented the proposed project to representatives from the Citizens Transportation Advisory Committee of the Richmond MPO.

At the October 7, 1982, MPO meeting the following action was taken regarding the Department's proposals. "The MPO's action requests that VDH&T consider a Hoke Brady Beltway alignment from the Richmond-Petersburg Turnpike to I-64 east of Byrd Airport, an interstate spur connecting Chippenham Parkway south with Laburnum Avenue, but not connecting I-295 (i.e., I-95) and VDH&T's proposed Line A. Further, the MPO's action requests that VDH&T consider dropping further study for proposed Lines B and C."

The MPO's requests have been evaluated and the following comments address these issues.

VDH&T, in previous studies, has considered the Hoke Brady Road crossing. Current federal regulations and previous decisions made on the I-95* study preclude any consideration of an alternative crossing Hoke Brady Road (see page 45).

The request to construct an interstate spur connecting Chippenham Parkway south with Laburnum Avenue, but not connecting I-295 and Line A, has been evaluated but is not feasible because an option of this nature would not be consistent with the objectives of the proposed action. In addition, traffic studies identify the need for Line A as proposed to

handle design year traffic volumes from the Turnpike to approved I-95* and further to provide an entire connector such as Line A, B or C. The VDH&T considered the elimination of Lines B and C and determined that both of these alignments warranted consideration and discussion in the Draft Environmental Impact Statement. The Draft EIS was signed on February 1, 1983, and circulated for comment. Following the public hearings, on May 19, 1983, the State Highway and Transportation Commission selected Alternative A as the alignment to be constructed.

III. AFFECTED ENVIRONMENT

A. Social Characteristics

Population

The area under evaluation for this study can be approximated for socio-demographic purposes by defining it to include portions of the Counties of Henrico and Chesterfield, roughly east of the Richmond-Petersburg Turnpike, south of Richard Evelyn Byrd International Airport, west of the Henrico/Charles City County Lines, and north of the Appomattox River. This is the area included in Chesterfield County 1980 Census Tracts 1004.03 (portion excluding Bellwood) and 1005.01; and Henrico County Tracts 2015.01, 2015.02, 2016.01, and 2016.02. These tracts are illustrated in Figure 18.

The 1980 Census reveals that the Chesterfield County portion of the study area has a total of 5,203 persons, 51% male and 49% female. Black people comprise 6% of that total. Median age ranges from 29.3 to 29.8 years in this area. There are 24% school-aged persons and 6% are 65 years and older. There are a total of 1,719 households, with the number of persons per household ranging from 2.8 to 3.2.

The 1980 Census shows the Henrico County portion of the study area to have a total of 11,979 persons. Of this total, 48% are male and 52% are female, with median ages ranging from 32.0 to 35.2 years. Black persons comprise 21% of the total. There are 23% school-aged persons, with 10% persons 65 years and older. There are a total of 4,074 households, with the number of persons per

household ranging from 2.8 to 3.2. Population projections, for the year 2000 for this area show a growth of 5,985, to 17,964 persons.[2]

Housing

The study area is primarily suburban in character. Although existing development is relatively low density, growth is occurring at a rapid rate. The Henrico County portion of the study area, according to the 1980 Census, has 4,273 total housing units. Owner-occupied units makeup 61% of this total, while renter-occupied units comprise 18%. The median value of owner-occupied units is approximately $46,000,[3] with 30% of the housing valued in the $50,000 to $79,999 range. Median contract rent ranges from $149 to $163 in the four census tracts. Housing density is generally 0.062 to 1.05 persons per acre, with the number of median rooms per unit at 5.6.[4]

There are numerous residential subdivisions in the Henrico County portion of the study area. It is believed that residents of each subdivision consider themselves to be a neighborhood. Use of public facilities, such as schools and shopping, combine these individual neighborhoods into a larger community. Locations of public facilities are illustrated on Figure 19. It is thought that shopping is done at local small shopping areas (i.e., Eastgate Mall) before shoppers leave the study area for the City of Richmond, Cloverleaf Mall or Regency Square, both west of the City.

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[2]County of Henrico Planning Office, Population Monograph - Draft, June 1980, p. 45.

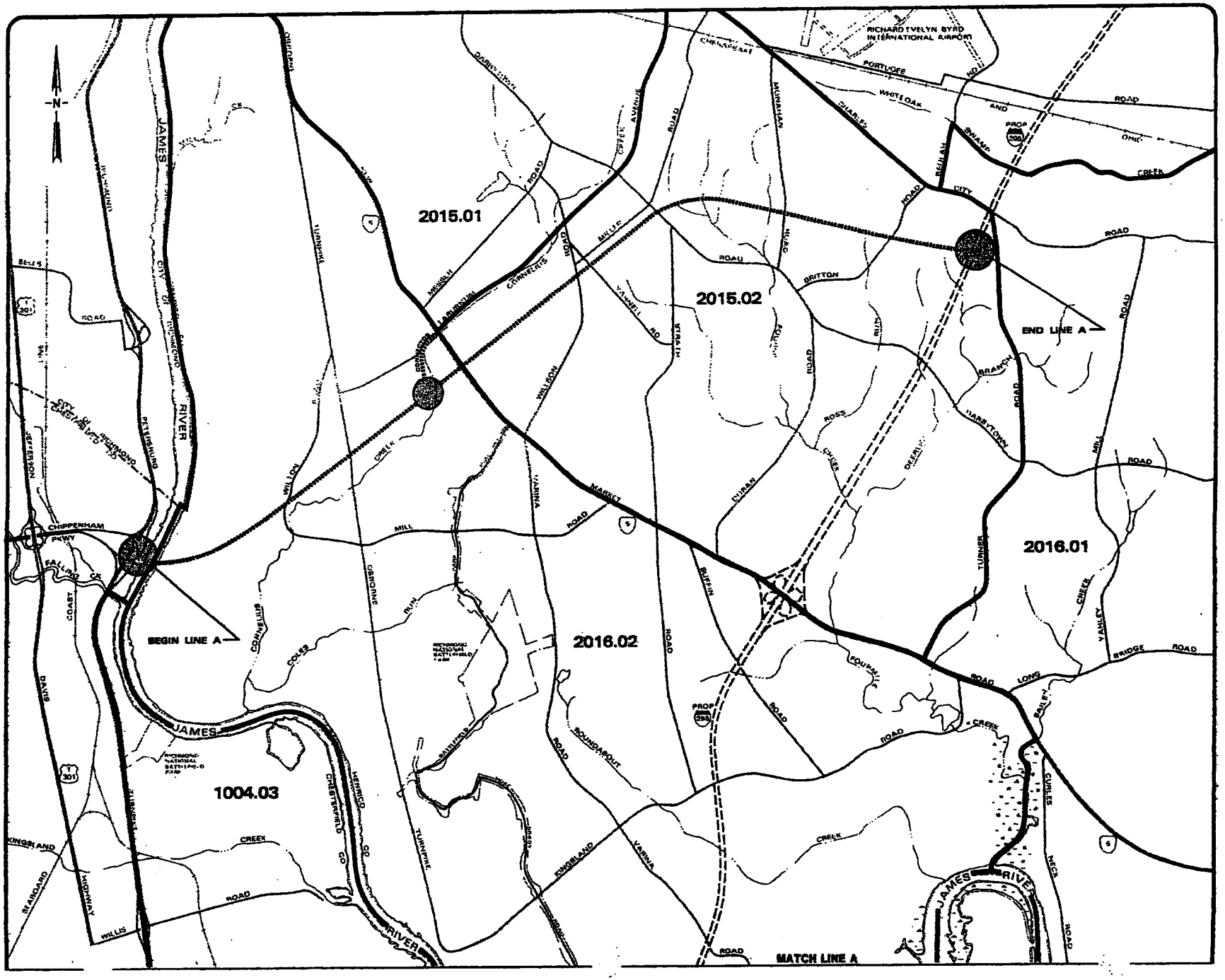
[3]This figure does not include Census Tract 2015.01, for which the median value and the number of median rooms per unit were not available.

[4]Ibid.

Housing in the Chesterfield County portion of the study area is mostly concentrated in the Enon area, south of Route 10. There is also scattered housing throughout the area, with several mobile home developments, north of Route 10. According to the 1980 Census, this portion of the study area has 1,843 total housing units. Owner-occupied units makeup 80% of this total, while renter-occupied units comprise 14%. The median value of owner-occupied units is approximately $46,000, while mean contract rent ranges from $221 to $236 in these two census tracts. Mean number of rooms per unit ranges from 5.4 to 6.2.

There are several mobile home communities in the area, the largest of which is Harbor East Village. This settlement is located just north of Route 10, about 1.5 miles east of the Richmond-Petersburg Turnpike. It is bounded on the north by the bluffs along the south shore of the James River. This ten-year old mobile home subdivision is characterized by wide paved streets and large lots. Many of the units are on permanent foundations, surrounded by lawns in a well-landscaped setting.

The community of Enon is an older residential area, approximately two miles from the City of Hopewell. Although served by an elementary school within the community, the bulk of county services is centralized at Chesterfield Courthouse. Residents of the area find convenient shopping and other services in nearby Hopewell, at Route 1/Route 10 intersection, or even within the Cities of Richmond or Colonial Heights.



RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
2015.01
2015.02
2016.01
2016.02
1004.03
END LINE A
BEGIN LINE A
MATCH LINE A
JAMES RIVER
CHIPPENHAM PKWY
PETERSBURG
CITY OF RICHMOND
CHESTERFIELD CO
HENRICO CO
MARKET
MILL ROAD
BRITTON
WILLSON
CORNELIUS
TURNPIKE
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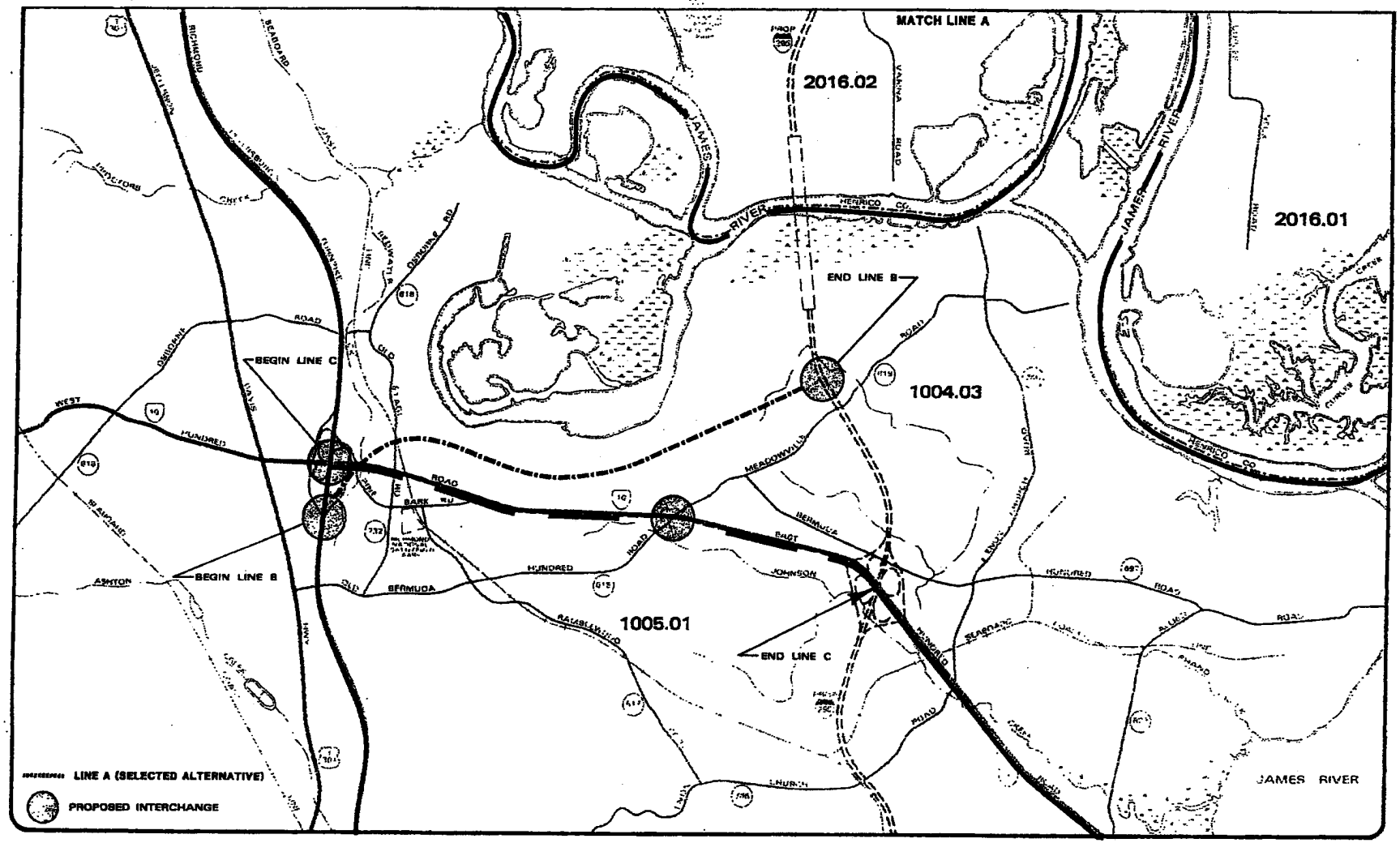
VARINA
BUFFIN
ROAD
CREEK



RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

CENSUS TRACT BOUNDARY

0000.00 CENSUS TRACT NUMBER

CENSUS TRACTS

FIGURE 18

TABLE IV

1980 CENSUS OF POPULATION
CENSUS TRACT DATA

Tract 1004.03

Population:

Total Persons:	1955	Median Age:	29.8
Male:	994	Male:	29.4
Female:	961	Female:	30.2

Group Quarters Population: N/A

Age Distribution:	00-04	05-17	18-64	65+
Total	129	437	1276	113
White	126	417	1205	95
Black	3	18	59	17
American Indian	0	0	0	0
Asian & Pacific	0	0	0	0

Housing

		Value of Specified Owner-occupied Units:	
Total Housing Units:	761		
Owner-occupied Units:	543	$0 - $34,999	93
Median Value:	$46,300	$35 - $49,999	101
Renter-occupied Units:	151	$50 - $79,999	110
Mean Contract Rent:	$236	$80 - $99,999	11
Mean Rooms per Unit:	5.4	$100,000+	14

Households

Total Households:	694
1 Person:	127
2 or more:	567
Total Families:	539
Persons per Household:	2.82

Source: County of Chesterfield, Virginia, 1980 Census Tract and Community Data - An Abstract, County of Chesterfield Planning Department, 1982. (This data was derived by Chesterfield County from the U.S. Census Bureau, 1980 Census of Population and Housing Summary, Tape File 1-B.)

Tract 1005.01

Population:

Total Persons:	3248	Median Age:	29.3
Male:	1679	Male:	28.7
Female:	1569	Female:	29.9

Group Quarters Population: 11

Age Distribution:	00-04	05-17	18-64	65+
Total	230	817	2012	189
White	211	734	1851	166
Black	18	78	142	22
American Indian	0	0	0	0
Asian & Pacific	1	4	12	1

Housing

		Value of Specified Owner-Occupied Units:	
Total Housing Units:	1082		
Owner-occupied Units:	927	$0 - $34,999	184
Median Value:	$46,100	$35 - $49,999	305
Renter-occupied Units:	98	$50 - $79,999	278
Mean Contract Rent:	$221	$80 - $99,999	29
Mean Rooms per Unit:	6.2	$100,000+	18

Households

Total Households:	1025
1 Person:	95
2 or more:	930
Total Families:	920
Persons per Household:	3.16

Source: County of Chesterfield, Virginia, 1980 Census Tract and Community Data - An Abstract, County of Chesterfield Planning Department, 1982. (This data was derived by Chesterfield County from the U.S. Census Bureau, 1980 Census of Population and Housing Summary, Tape File 1-B.)

Tract 2015.01

Population:

Total Persons:	5008	Median Age:	N/A
Male:	2308	Male:	N/A
Female:	2700	Female:	N/A

Group Quarters Population: 0

Age Distribution:	00-04	05-17	18-64	65+
Total	419	1195	2888	506
White	260	767	2113	472
Black	148	412	745	33
American Indian	4	3	9	0
Asian & Pacific	0	0	0	0

Housing:

		Value of Specified Owner-occupied Units:	
Total Housing Units:	1851		
Owner-occupied Units:	1019	$0 - $34,999	365
Median Value:	N/A	$35 - $49,999	412
Renter-occupied Units:	572	$50 - $79,999	230
Mean Contract Rent:	$163	$80 - $99,999	6
Mean Rooms per Unit:	N/A	$100,000+	0

Households:

Total Households:	1782
1 Person:	330
2 or more:	1452
Total Families:	1416
Persons per Household:	2.79

Density:

Acres:	4752
Persons Per Acre	1.05

Source: County of Henrico, Virginia, 1980 Census Tract Data, County of Henrico Planning Department, October 1982. (This data was derived by Henrico County from the U.S. Census Bureau, 1980 Census of Population and Housing Summary, Tape File 1-B.)

Tract 2015.02

Population:

Total Persons:	2518	Median Age:	32.7
Male:	1251	Male:	32.2
Female:	1267	Female:	33.2

Group Quarters Population: 0

Age Distribution:	00-04	05-17	18-64	65+
Total	146	577	1555	240
White	140	538	1462	213
Black	6	37	84	27
American Indian	0	0	0	0
Asian & Pacific	0	0	0	0

Housing:

		Value of Specified Owner-occupied Units:	
Total Housing Units:	868		
Owner-occupied Units:	612	$0 - $34,999	164
Median Value:	$46,800	$35 - $49,999	180
Renter-occupied Units:	76	$50 - $79,999	234
Mean Contract Rent	$176	$80 - $99,999	28
Median Rooms per Unit:	5.60	$100,000+	6

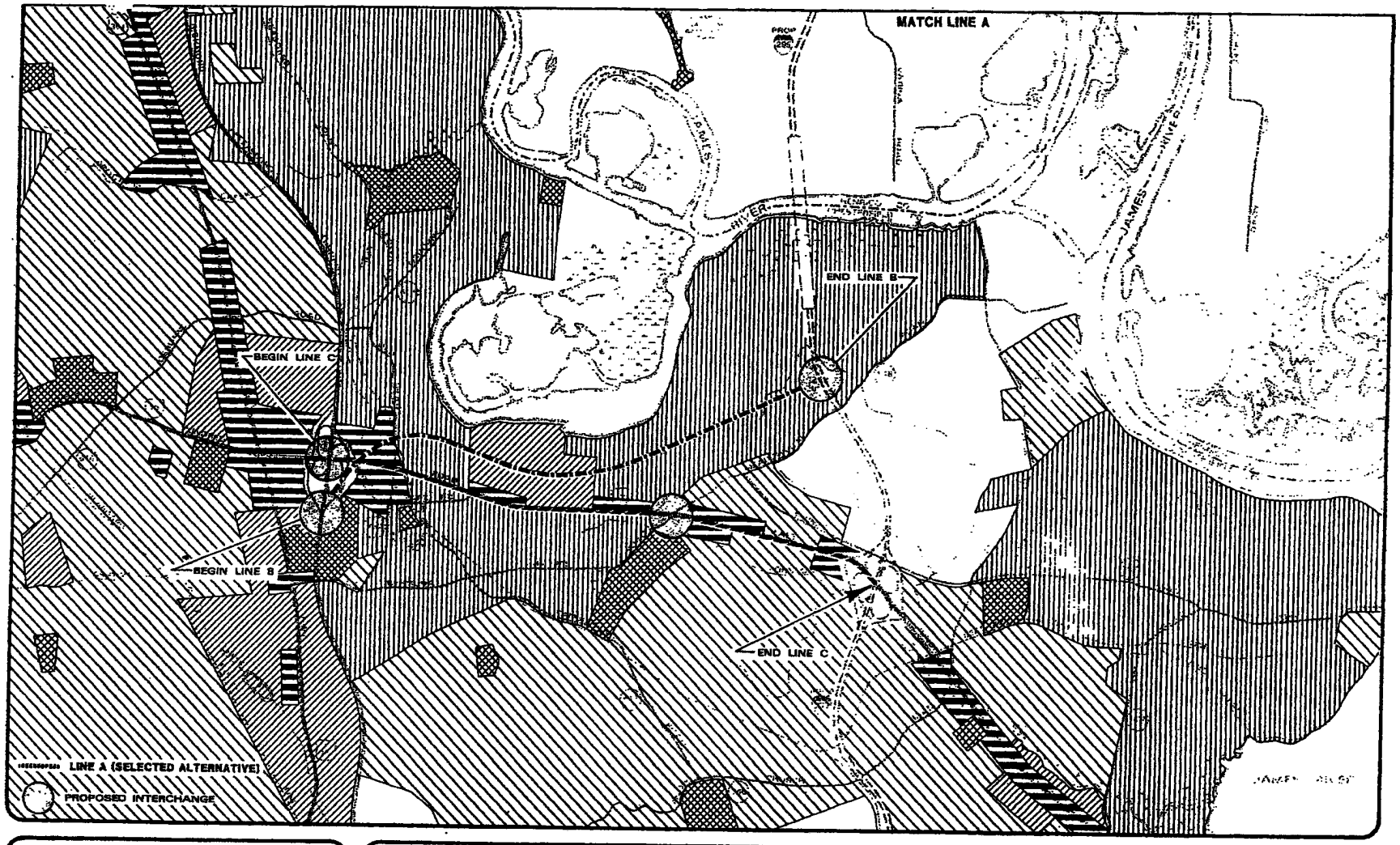
Households:

Total Households:	826
1 Person:	92
2 or more:	734
Total Families:	723
Persons per Household:	3.05

Density:

Acres:	8341
Persons per Acre:	0.30

Source: County of Henrico, Virginia 1980 Census Tract Data, County of Henrico Planning Department, October 1982. (This data was derived by Henrico County from the U.S. Census Bureau, 1980 Census of Population and Housing Summary, Tape File 1-B.)



RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

- UNDEVELOPED/AGRICULTURAL
- MULTI-FAMILY RESIDENTIAL
- SINGLE FAMILY RESIDENTIAL
- PUBLIC/SEMIPUBLIC
- COMMERCIAL
- INDUSTRIAL

FUTURE LAND USE

FIGURE 21

Tract 2016.01

Population:

Total Persons:	1439	Median Age:	32.0
Male:	728	Male:	30.8
Female:	711	Female:	33.2

Group Quarters Population: 0

Age Distribution:	00-04	05-17	18-64	65+
Total	81	347	878	133
White	70	295	690	95
Black	10	48	177	38
American Indian	0	0	0	0
Asian & Pacific	0	0	0	0

Housing:

Total Housing Units:	487	Value of Specified Owner-occupied Units:	
Owner-occupied Units:	259	$0 - $34,999	82
Median Value:	$46,500	$35 - $49,999	62
Renter-occupied Units:	36	$50 - $79,999	77
Mean Contract Rent:	$149	$80 - $99,999	27
Median Rooms per Unit:	5.60	$100,000+	11

Households:

Total Households:	445
1 Person:	57
2 or more:	388
Total Families:	385
Persons per Household:	3.23

Density:

Acres:	23,032
Persons per Acre:	.062

Source: County of Henrico, Virginia 1980 Census Tract Data, County of Henrico Planning Department, October 1982. (This data was derived by Henrico County from the U.S. Census Bureau, 1980 Census of Population and Housing Summary, Tape File 1-B.)

Tract 2016.02

Population:

Total Persons:	3014	Median Age:	35.2
Male:	1470	Male:	33.8
Female:	1544	Female:	36.6

Group Quarters Population: 0

Age Distribution:	00-04	05-17	18-64	65+
Total	175	627	1856	356
White	129	486	1390	258
Black	44	133	445	97
American Indian	0	0	0	0
Asian & Pacific	1	4	12	1

Housing:

		Value of Specified Owner-occupied Units:	
Total Housing Units:	1067		
Owner-occupied Units:	731	$0 - $34,999	210
Median Value:	$46,300	$35 - $49,999	204
Renter-occupied Units:	74	$50 - $79,999	237
Mean Contract Rent :	$158	$80 - $99,999	43
Median Rooms per Unit:	5.60	$100,000	37

Households:

Total Households:	1021
1 Person:	142
2 or more:	879
Total Families:	870
Persons per Household:	2.95

Density:

Acres:	18,904
Persons per Acre:	0.16

Source: County of Henrico, Virginia 1980 Census Tract Data, County of Henrico Planning Department, October 1982. (This data was derived by Henrico County from the U.S. Census Bureau, 1980 Census of Population and Housing Summary, Tape File 1-B.)

Recreation

There are numerous existing publicly-owned recreation and park/open space areas within the study area. The Richmond National Battlefield Park, under the jurisdiction of the U.S. Department of the Interior, was developed along the lines of defense for the Confederate Army during the Union siege of Richmond during the Civil War. This entire park system consists of nine separate units, totalling nearly 800 acres in the City of Richmond and the Counties of Hanover, Henrico, and Chesterfield. The most prominent of these units within the study area is the Fort Harrison Unit of 300+ acres, located along Hoke Brady Road in Henrico County south of Line A. Another unit, the Drewrys Bluff unit of 16 acres, is located in Chesterfield County on the banks of the James River, 1½ miles south of Chippenham Parkway. Both of these facilities provide trails and audio stations for park visitors.

Henrico County has several existing and/or proposed parks within the study area (see Figure 19). The Varina Recreation Area is a neighborhood park located behind Varina Elementary School on New Market Road near Strath Road and serves residents within a one-mile radius.

Proposed Dorey Park is located off Darbytown Road near its intersection with Doran Road. The County has purchased 400± acres for this park, with development scheduled to begin in the spring of 1983. The Park will provide a wide variety of recreational facilities.

Henrico County has purchased 100± acres for proposed Four Mile Creek Park, a passive park facility located near proposed I-95* and New Market Road.

Other proposed Henrico County park facilities in this area include Warwick Park, a County park planned on the James River west of Osborne Turnpike; Deep Bottom Park, a community park planned for an area south of New Market Road, east of Kingsland Road; and two neighborhood parks--Varina Park, off Strath Road, south of New Market Road; and Bickerstaff Park, off Darbytown Road, west of Laburnum Avenue. No property has yet been acquired by the County for construction of these facilities.

Point of Rocks Park in Chesterfield County, south of Enon Church Road, overlooks the Appomattox River. This 182-acre County park offers a full range of recreational facilities. Although the County has not acquired any other land for park development in the study area, future land use plans show a proposed park north of Meadowville Road along the James River.

None of the aforementioned parks and recreational areas will be affected either directly or indirectly by any of the project alternatives.

Public Facilities

Henrico County has five public schools in the study area. There is an elementary school, a middle school, and one high school (Varina High) located along Laburnum Avenue in the vicinity of Darbytown and New Market Roads. There are two elementary schools in the Varina and Strath Road vicinities of New Market Road.

Henrico County maintains a system of branch libraries for its citizens, the branch at Varina being within the study area. Chesterfield County plans a future branch library in the Enon area.

Emergency Services

Police protection is provided from a centralized location outside the area. Henrico County's Eastern District Headquarters is located on Nine Mile Road, at the Dabbs House. Chesterfield County's police services are headquartered in the County Courthouse Complex. Interjurisdictional cooperation exists and the services of the Virginia State Police are available throughout the study area.

Like police protection, fire protection is provided generally by local jurisdictions with some interjurisdictional cooperation. Unlike law enforcement facilities, however, both localities maintain substations through which fire protection is provided to the study area.

Henrico County's Division of Fire has existing facilities located on Strath Road and on Darbytown Road, east of Laburnum Avenue. A proposed facility would be located on Darbytown Road opposite Carters Mill Road. Chesterfield County has a fire station on Route 10, east of Enon Church Road (see Figure 19).

Henrico County's principal rescue squad for the area adjacent to Line A is located near Byrd Airport on Williamsburg Road (Route 60). The closest rescue squad in the vicinity of Lines B and C is on Route 1/301 north of Osborne Road.

B. Economic Characteristics

Existing Land Use

The study area of Henrico County showed marked growth in single family residential and heavy industrial development from

1971 to 1979. The area is 90% undeveloped, of which 13% is conservation vacant. This is because of numerous streams and the expanse of the floodplain of the James River. Historically, this area has been agriculturally-oriented and this use still predominates. The heavy industrial activity is a result of the good employment base, thoroughfare access, and regional airport and railroad facilities located in the eastern portion of the County.[5] By January 1979, over 1600 acres in this portion of the County were devoted to industrial use.[6] These activities are predominately located along Laburnum Avenue, north of Darbytown Road, including such concerns as Nabisco and A. H. Robins.

The study area of Chesterfield County is largely rural/suburban in character. Predominate uses of land are industrial and agricultural, with clusters of single family residential use and commercial use. This portion of the County has water and sewer service and access to transportation facilities, as the land is currently used.

Light and heavy industrial users of land in this portion of the study area involve manufacturing, processing and distribution, and include such companies as Allied Chemical and Philip Morris. These are served by a system of rail lines, as well as highway access along Route 10 to both Hopewell and points north and south on the Richmond-Petersburg Turnpike (see Figure 20).

Commercial users in the area are located along Route 10, affording visibility and accessibility to persons using that road.

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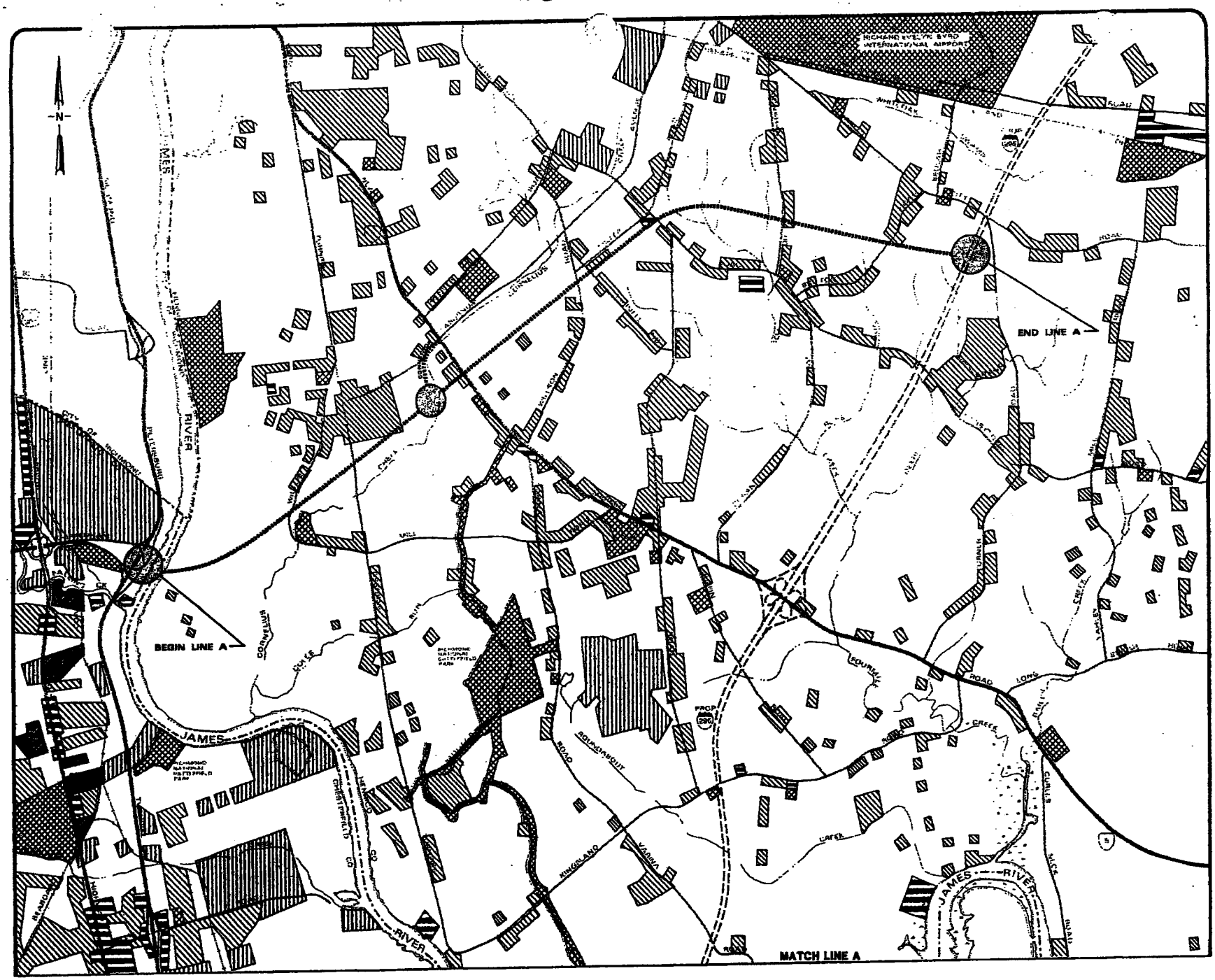
[5]County of Henrico Planning Department, Land Activities Monograph - Draft, August 1980, pp. 5-6.

[6]County of Henrico Planning Department, Economic Monograph - Draft, February 1982, p. 72.



N
RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
END LINE A
BEGIN LINE A
MATCH LINE A
JAMES RIVER
CORNELIUS
ROUNDABOUT
KINGSLAND
VARINA
CHESTERFIELD CO
HENRICO CO
CURLES
CREEK
FOURMILE
ROAD
LONG
PROP

RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

- UNDEVELOPED/AGRICULTURAL
- MULTI-FAMILY RESIDENTIAL
- SINGLE FAMILY RESIDENTIAL
- PUBLIC/SEMIPUBLIC
- COMMERCIAL
- INDUSTRIAL

EXISTING LAND USE

FIGURE 20

Residential development in the area adjacent to the proposed facilities is predominately clustered in the mobile home community of Harbor East Village, with 230 lots. There are other mobile home settlements along Route 10, as well as traditional homes constructed along Route 10 and Bermuda Hundred Road.

A great deal of the land in this portion of the County is devoted to agricultural and forest use. Although County trends show that the number of farms is declining, company and privately-owned forested areas are potential producers for the increasing demand in forest products. The County is attempting to preserve these lands through the "use value tax program." In order to take advantage of this program, property owners must apply to have their agricultural or forested land assessed according to its production potential, and not market value. This land must be held in the declared use for a period of six years, or roll-back tax penalties are imposed.

Future Land Use

Henrico County's proposed land use (Figure 21) for the portion of the study area shows that this sparsely developed area is sandwiched between two of the largest employment centers in the region: the extensive industrial areas in the City of Richmond and Chesterfield County on the south side of the James River, and the rapidly developing industrial areas between Darbytown Road and Williamsburg Road in Henrico County. The proposed bridge crossing connecting Laburnum Avenue and Chippenham Parkway, coupled with other proposed major roadway improvements will greatly increase accessibility

between these major employment and population centers. The lack of utilities has limited intense development.[7]

Chesterfield County's proposed land use (Figure 21) for the study area shows an expansion of industrial and residential use. The heavy industrial use of this area is buffered from the remainder of the County by the Richmond-Petersburg Turnpike. Commercial use continues to be shown along Route 10. Continued expansion of water and sewer services, as well as improvements in transportation access are factors which will stimulate the growth in single family residential use in this area.

Income

According to 1980 Census statistics, within the Henrico County portion of the study area, low income families comprise 29% of total families in this area. There were almost 60% of families in the medium income range, and 13% of families of high income. Data for Henrico County as a whole showed 24%, 57%, and 19%, respectively.[8]

Low income families comprised 25% of the population within the Chesterfield County portion of the study area. Medium income families comprised 58%, while 18% of families earned high income. Figures for Chesterfield County as a whole were 18%, 58%, and 25%, respectively.[9]

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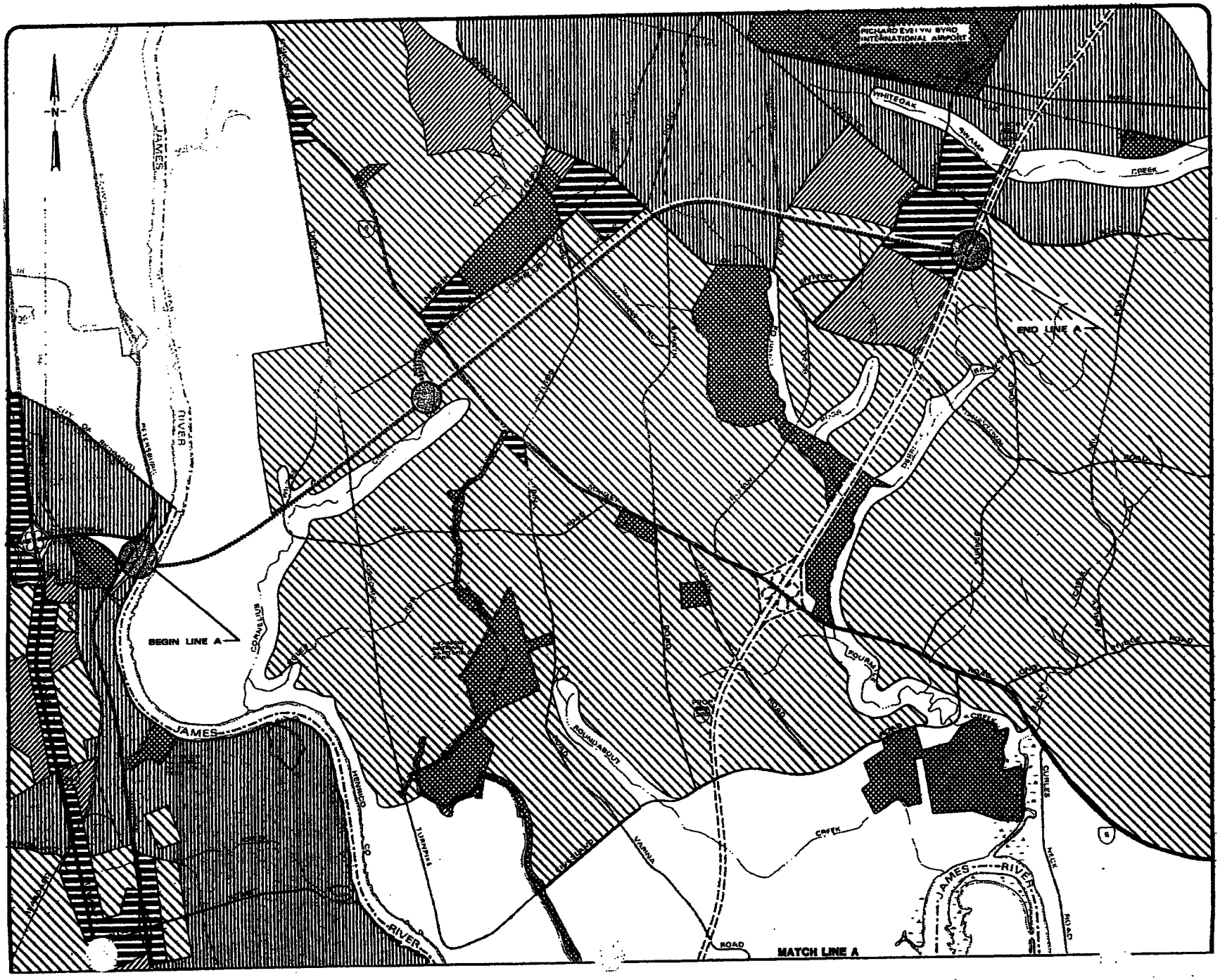
[7] Economic Monograph - Draft, op. cit., p. 114.

[8] Income levels are based on U.S. Bureau of Labor Statistics, Urban Family Budget for Family of Four Persons, updated to 1982.

[9] Ibid.


RICHARD EVELYN BYRD
INTERNATIONAL AIRPORT
WHITEOAK
SWAMP
CREEK
END LINE A
BEGIN LINE A
JAMES
RIVER
CORNELIUS
HENRICO
CO
TURNPIKE
ROUNDABOUT
VARINA
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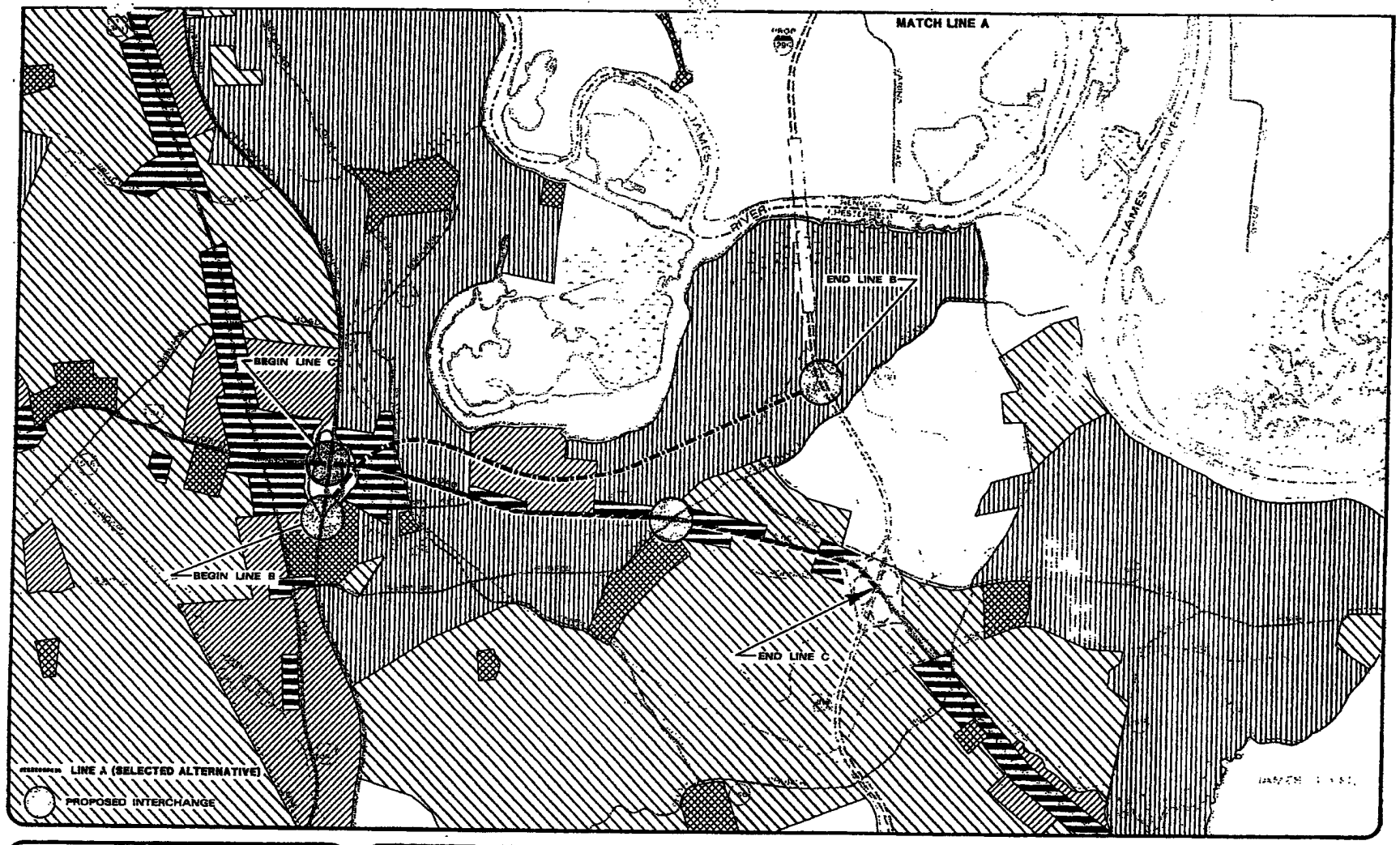

RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

- UNDEVELOPED/AGRICULTURAL
- MULTI-FAMILY RESIDENTIAL
- SINGLE FAMILY RESIDENTIAL
- PUBLIC/SEMIPUBLIC
- COMMERCIAL
- INDUSTRIAL

FUTURE LAND USE

FIGURE 21

Labor Force and Employment

Labor force and employment data from the 1980 Census for census tracts are not yet available, therefore the following discussion is based on countywide data.

The Richmond-Petersburg region is in a strategic location at the crossroads of three major road systems--Interstates 64 and 95, which link the western, southern, and eastern portions of Virginia with Washington, D.C., and the eastern United States. This has played an important role in the development of this area, and its growth in manufacturing, wholesale trade, trucking and warehousing activities, and as a provider of services. The region, as exporter of manufactured goods, is strong in the chemical and tobacco industries. As a provider of services, the region is a center of governmental, financial, and insurance services. The strength and diversity of this role has contributed to the region's relative stability, even during trying economic times.

The number of persons in the 1970 civilian labor force (by place of residence) in the Richmond Standard Metropolitan Statistical Area (SMSA)[10] was 235,144.[11] Of these, 2.2% were unemployed. In 1980 the SMSA civilian labor force was 318,380 persons with 4.1% unemployed.[12] By 1982 the civilian labor force for the Richmond SMSA was 342,010 persons with 6.1% unemployed.[13]

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[10]Richmond SMSA includes the City of Richmond, and the Counties of Henrico, Chesterfield, Hanover, New Kent, Powhatan, Goochland, and Charles City.

[11]U.S. Census Bureau, 1970 Census of Population for Virginia.

[12]Richmond Regional Planning District Commission, 1982.

[13]Virginia Employment Commission, November 1982.

Henrico County's 1970 civilian labor force was 69,993, with 1.6% unemployed.[14] In 1980 there were 96,889 persons in the civilian labor force, with 3% unemployed.[15] By 1982 there were 97,391 civilian workers, with 5.3% unemployed.[16]

Chesterfield County in 1970 had 32,013 civilian workers with 1.6% unemployed.[17] In 1980 there were 71,836 civilian workers, with 3.2% unemployed.[18] By 1982 there were 76,632 civilian workers, with 5.9% unemployed.[19]

In 1980, workers in Henrico County were predominately involved in non-manufacturing employment, with 61,554 persons. Wholesale and retail trade employed the bulk of these workers, with 21,871 persons, a 129% increase over the period since 1970. This tremendous increase is probably due, in part, to the development of several regional shopping centers, such as Regency Square or those along Patterson Avenue. The service industry is the next largest employer in the county, with 12,751 workers. This is an 186% increase over the decade. Services include establishments primarily engaged in providing a wide variety of personal services, such as hotels, repair, health, legal concerns, etc. Government is the third largest employer of workers in Henrico, with 8,738 workers, a 92% increase since 1970. These figures illustrate the orientation of the tremendous growth in "people directed" goods and services that Henrico County has experienced over the decade of the 1970s.

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[14]U.S. Census Bureau, 1970 Census of Population for Virginia.

[15]U.S. Census Bureau, 1980 Census of Population for Virginia.

[16]Virginia Employment Commission, November 1982.

[17]U.S. Census Bureau, 1970 Census of Population for Virginia.

[18]U.S. Census Bureau, 1980 Census of Population for Virginia.

[19]Virginia Employment Commission, November 1982.

TABLE V

EMPLOYMENT DATA BY PLACE OF WORK

	Richmond SMSA			Henrico County			Chesterfield County		
	1970	1980	% Change	1970	1980	% Change	1970	1980	% Change
Total Non-agricultural Employment	256,431	325,926	27%	34,903	71,130	103%	25,013	41,061	64%
Manufacturing	51,213	57,885	13%	4,276	9,576	124%	9,890	10,440	6%
Non-manufacturing	185,833	268,044	44%	25,532	61,554	141%	13,576	30,624	125%
Contract Construction	14,379	19,480	35%	3,788	5,930	56%	983	3,440	250%
Transportation & Public Utilities	17,063	19,314	13%	1,160	4,391	278%	185	1,806	876%
Wholesale & Retail Trade	53,029	75,768	43%	9,542	21,871	129%	1,414	8,309	487%
Finance, Insurance & Real Estate	18,050	26,312	45%	1,768	7,372	317%	193	1,102	470%
Services	34,926	57,312	64%	4,453	12,751	186%	1,571	3,515	123%
Government	45,822	68,590	50%	4,563	8,738	91%	7,758	12,143	56%

Source: Office of Research and Analysis, Virginia Employment Commission.

TABLE VI

EMPLOYMENT DATA BY PLACE OF RESIDENCE

	Civilian Labor Force			Unemployment Rate		
	1970	1980	1982	1970	1980	1982
Richmond SMSA	235,144	318,380	342,010	2.2%	4.1%	6.1%
Henrico County	69,993	96,889	97,391	1.6%	3.0%	5.3%
Chesterfield County	32,013	71,836	76,632	1.6%	3.2%	5.9%

Source: 1970 data from 1970 Census of Population for Virginia, U.S. Census Bureau.
1980 data from Richmond Regional Planning Commission.
1982 data from Virginia Employment Commission.

In Chesterfield County, 1980 figures revealed that workers were primarily involved in nonmanufacturing employment. Expanding county development has increased the demand on government services, contributing to a 56% increase in government workers, the largest employer. Another factor in this government employment is the location of the U.S. Defense General Supply Center in Chesterfield County. Wholesale and retail trade hired 8,309 workers--an increase of over 480% since 1970. Population growth, large-scaled suburbanization, and the tax advantages for businesses locating in the County, all played parts in fostering this tremendous growth. The chemicals industry ranked third in County employers with 6,188 employees. This is no surprise, realizing the location of both Dupont Company and Allied Chemical Corporation in Chesterfield County.

C. Inter-Relationship With Other Federal Activities

The only other known federal activity in the area is a sewerage treatment plant proposed in Henrico County near Route 5.

There are no federal, state or community programs or activities in the area that will be affected by the proposed project.

IV. ENVIRONMENTAL CONSEQUENCES

Based on the procedures for processing Federal-aid projects (23 CFR 771), this highway is classed as a major action because of the potential for significant impacts upon the environment.

A. Social and Economic Impacts

At the time of the preparation of this document, various types of feedback have been received from the Counties of Henrico and Chesterfield and the City of Richmond. The following input was received from Henrico County:

- The project as described is not ranked in the County Transportation Improvement Plan, however, the Laburnum Avenue river crossing is one of the highest priority items for the County. The provision of this cross access and a river crossing is of definite benefit to the County and would be considered as one of the highest priority items for transportation improvements.

- The proposed project is consistent with the County transportation goal to have a bridge crossing the James River, allowing Laburnum Avenue and Chippenham Parkway traffic to cross the James River to reach employment centers, residential areas, commercial uses. Besides serving interstate through traffic, this crossing would reduce vehicle miles traveled for persons employed on one side of the James River and residing on the other side.

- The project has been discussed with representatives of the Board of Supervisors and has been received favorably as it does provide needed access and insures continued development in the County. On September 22, 1982, the Henrico Board of Supervisors unanimously approved a resolution supporting the Alternate Route A connection of proposed I-95 with the Richmond-Petersburg Turnpike (see Appendix A).

- Henrico County does not have a preferred scheme of development for this project as we realize that it must meet interstate design standards. We would only ask that consideration be given to a depressed roadway facility wherever possible. Such a facility would minimize the aesthetic disruption of a rural portion of Henrico County and would be more pleasing to the residents of the area. In addition, we would request that

consideration be given to allowing the crossing of all roadways in the area so that there is minimum disruption to the travel patterns of the local residents. The proposed interchange with Laburnum Avenue is in keeping with our design, and we do recommend the proposed interchange at that point.

The following information was received from Chesterfield County:

- Chesterfield County is quite concerned that the Virginia Department of Highways and Transportation is considering alternatives for an interstate crossing of the James River that do not include a Hoke Brady Road beltway alignment from the Richmond-Petersburg Turnpike to I-64 east of Byrd Airport. This beltway alignment has been shown on regional and county plans since those plans were first adopted. Chesterfield has never waivered in its view that this beltway alignment is the best alternative for any crossing of the James River between downtown Richmond and the Benjamin Harrison Bridge. The Hoke Brady Road alternative is the County's preferred alternative for any road connection between the Richmond-Petersburg Turnpike in Chesterfield and I-64 in eastern Henrico County. Also, the County's support of this crossing of the James River in no way implies acceptance of the State's plan for an eastern route of I-95 south of the beltway. With the beltway crossing of the James River in place, there is no need for a new Interstate route in the eastern part of the Richmond and Tri-Cities metropolitan areas.

  The three alternatives that your agency has proposed vary in merit from reasonable to marginal. Line A, which is an extended version of the Chippenham-Laburnum Connector currently shown on regional plans, has considerable merit, but pales in significance when compared to the benefits provided by the Hoke Brady beltway crossing of the James River. When commitments have been made for the Hoke Brady beltway crossing, the Chippenham-Laburnum Connector could be supported by Chesterfield County. Alternatives B and C have virtually no merit in that they provide no crossing of the James River where one is needed, and they constitute considerable disruption to existing land uses. (Please refer to page 45 for discussion of reasons for not constructing the Hoke Brady Road crossing.)

The City Manager for Richmond reviewed the project and responded as follows:

> The City of Richmond does not accept the assumption that the proposed bypass route east and south of the City will be built and, therefore, questions the existence of any justification for the proposal to extend Chippenham Parkway to the bypass and to Charles City Road.
>
> Much of the proposed route is sufficiently distant from the center of the City that it will attract retail sales and employment away from the City. Between 1975-76 and 1980-81, retail sales in Richmond grew at an annual rate of 6.66% while regional sales (Richmond, Chesterfield, and Henrico) grew at 10.08%. This trend to suburban shopping can be expected to accelerate if the Varina area of Henrico County was made more accessible.
>
> A connection between Chippenham Parkway and Laburnum Avenue is a needed facility as there are an inadequate number of river crossings in the Richmond area. The employment opportunities created in the county by this facility would be closer and, therefore, more accessible to City residents.
>
> Lines B and C appear to be of questionable benefit as existing Route 10 has adequate capacity for many years to come.
>
> (Also, see City of Richmond letter dated March 28, 1983, page 208 of Section VII.)

The criteria utilized in evaluation of impacts is based on displacement of homes and businesses; barrier and cohesion effects; induced changes in local movement patterns; and impacts affecting the elderly or minority groups. Generalized benefits include improved traffic flow and safety, and better access to community facilities and services. Information on displacements and impacts upon elderly and/or minority groups is discussed in Section IV-C, page 79.

Line A is proposed to lie in an area of Henrico County which is sparsely populated, with homes on parcels instead of subdivisions. This path should minimize the number of homes affected. Whereas

this facility could be viewed as a barrier for residents of the areas north and south of it, there should be no loss to local vehicular access. Every major road will cross the proposed facility. Based on this continued access, there will be no hindrance in the delivery of countywide emergency services. No existing school facilities will be impacted by Line A.

On a larger scale, Line A's intersections with Chippenham Parkway at the Richmond-Petersburg Turnpike, a connector with Laburnum Avenue, and with the proposed I-95, should have the effect of facilitating planned development of the eastern portion of Henrico County, both residential and otherwise.

The proposed 2.17-mile storage lane should have no significant impacts to the terrain adjacent to the RPT because land use associated with this travel lane is presently commercial on both sides of the Turnpike.

Economic Impacts to the Cities of Richmond and Petersburg - The Federal Highway Administration's May 1981 decision not to approve the connector from I-95 to the Richmond-Petersburg Turnpike south of the James River, as well as their decision not to approve certain interchanges, resulted at least in part from concerns expressed by the Cities of Richmond and Petersburg that I-95* would have adverse economic impacts. FHWA indicated that the connector and these interchanges may be approved in the future as conditions warrant, in accordance with normal planning, programming, and project development procedures. FHWA further stipulated that project development procedures must include processing of the applicable environmental document which contains a discussion of

the economic impact of the interchanges on the Cities of Richmond and Petersburg.

A recent study of the effect of beltways on land use and urban development indicates that beltways by themselves have a relatively small effect on land use development, and therefore the resulting negative impact on central cities is also small.[20]

A 1980 study by the Battelle Institute on the impacts of I-95* on the Cities of Richmond and Petersburg indicated that I-95* overall could have a relatively small negative impact on population, employment, retail expenditures, and tax receipts by facilitating planned development in the counties and by diverting through traffic and potential tourists out of the cities. The study noted that significant development is already occurring in the counties and will continue to occur whether or not I-95* is built. Further, provisions for water and sewer were found to be a much more important factor than transportation facilities in enhancing development.

While it is not possible to quantify the probable economic impacts of the connector on Richmond and Petersburg, the results of these studies provide a basis for qualitatively discussing the probable impacts.

Along Line A significant development is already occurring in the Laburnum Avenue area, and most of the remaining area is planned for residential, commercial or industrial development. Alternative A, with interchanges at the Richmond-Petersburg Turnpike and Laburnum

[20] Payne, Maxi Consultants, Blayneg-Dyett Urban & Regional Planners, for DOT and HUD, The Land Use and Urban Development Impacts of Beltways, October 1980.

Avenue near Route 5, will facilitate this planned development. However, since sewer and water service are being extended into the area and the locally endorsed Chippenham-Laburnum arterial will most likely be built, most of this development will probably occur even if Alternative A is not built. Therefore, it is expected that Alternative A would only have a very small adverse economic impact to the City of Richmond by facilitating this development. This impact should be even smaller because the extension to Charles City Road has been eliminated.

In addition to the impact from planned development, there could also be a very small adverse economic impact on motorist/tourist related retail expenditures in the City of Richmond since the connector would divert some through traffic from the City of Richmond.

On the other hand, Line A could have a small positive economic impact on the City of Richmond. By diverting some traffic from the Richmond-Petersburg Turnpike, access to downtown Richmond will be improved and this could facilitate planned redevelopment/expansion in the downtown area.

In summary, although it will probably be negative, the net economic impact of Line A on the City of Richmond is expected to be very small. Also, due to its location, Line A is not expected to have any measurable economic impact on the City of Petersburg.

B. Land Use Impacts and Joint Development

With the construction of any one of the proposed alignments would come development of these relatively sparsely settled areas.

With development in these areas must come costly demands on community services. One important cost would be extensions to water and sewer services. The planned interchanges along any proposed alignment, whether connecting with a major roadway or not, are usually the first areas to develop, based on both high visibility and excellent access.

While Line A does not appear on the Comprehensive Land Use Plan of Henrico County in its entirety, the extension of Laburnum Avenue between Route 5 and the crossing of the James River is shown. This line is through areas primarily zoned for agricultural use, with some residential use. The facility is not anticipated to have a significant adverse effect upon the tax base. Future development in the area should be in harmony with this facility.

According to the County Manager for Henrico County, the proposed project is compatible with the County Land Use Plan and the Major Thoroughfare Plan element for proposed high development in the area because Line A does provide a much needed and vital river crossing to the employment centers and residents of the eastern portion of Henrico County. The bridge and the corridor will provide access and attraction to the developing Laburnum Avenue industrial corridor.

C. Relocation Impacts and Available Replacement Housing

The ethnic background of the area is a mixture of all racial groups. In surveying the area, no elderly or infirm people were observed. There will be no businesses or nonprofit organizations displaced by Line A.

Line A will displace twelve owner-occupant families, an estimated twenty-seven individuals. Four of the twelve families are black. The current value of these twelve homes ranges from $30,000 to $130,000. The majority are within a range of $40,000 to $65,000. The total relocation cost for Line A is $157,700.

A complete survey of the area was made for the availability of comparable housing for the displaced families. There are now twenty homes available within a price range of $30,000-$70,000. The available units are both one and two-story brick and frame, consisting of two to four bedrooms, between ten and twenty years old. It is anticipated that a lead time of eighteen months from the date of receipt of approved right of way plans will be required to accomplish relocation satisfactorily.

The majority of those to be relocated have been in their present locations for a long period of time. It is felt that replacement housing will probably be available at the time displacees vacate. VDH&T does not believe that last resort housing will be required to relocate these families; however, it will be used if necessary (see Appendix D).

The relocation information discussed above was obtained from the "Stage I Conceptual Stage Relocation Estimate," dated November 1982. An explanation of the relocation program is contained in the booklet entitled, "Right of Way," copies of which may be obtained from the Virginia Department of Highways and Transportation.

The objective of the VDH&T is to afford each displacee the opportunity to relocate into an equal or better facility than the

one presently occupied. The replacement dwelling in all cases must meet certain decent, safe, and sanitary standards. This means that the replacement dwelling conforms to State and local building, plumbing, electrical, housing and occupancy codes or ordinances.

No person will be required to vacate unless and until adequate, comparable replacement housing is available or is built.

Line A will be advertised for construction only upon verification that replacement housing has been provided and has been made available to all affected persons. All replacement housing must be fair housing--open to all persons regardless of race, color, religion, sex or national origin. Replacement housing will be offered to all affected persons regardless of race, color, religion, sex or national origin.

D. Air Quality Impacts

Under the Clean Air Act of 1970, the State Air Pollution Control Board (SAPCB) developed a State Implementation Plan to provide for the attainment, maintenance and enforcement of the National Ambient Air Quality Standards (NAAQS). Under these regulations, major pollutants were given a classification rating. (A nonattainment classification indicates the pollutant levels exceed the primary Federal Ambient Air Quality Standards.)

Generally the carbon monoxide (CO) concentrations which occur at any one site are affected by several different emission sources. Ambient concentrations will consist of the components of any local source contributions and background. Background concentrations are attributable to emissions in the general community and CO trans-

ported into the community. In any one area, ambient levels may vary due to specific localized sources, whereas background CO does not. Background can be considered a function of land use, land use density, and transportation related activity.

Carbon monoxide data obtained from a SAPCB monitoring station located at 501 North 9th Street in the City of Richmond was used to represent background levels for the study area. This monitoring station is located approximately six miles from Line A. This downtown Richmond station was used since no station closer to the project area was available. While the project area background levels are better than downtown Richmond, this was considered to be a conservative assumption in the study. Data obtained from "Ambient Air Quality Data Annual Report 1981," published by the SAPCB showed 16.0 and 7.8 parts per million for the one and eight-hour second highest concentrations, respectively. All standards other than annual standards are specified as not to be exceeded more than once per year. Therefore, the second highest CO concentrations were used in this analysis to be consistent with the terminology of the NAAQS.

CO concentrations due to highway vehicles were calculated by using Airpol-4a, a gaussian dispersion model developed by the Virginia Highway and Transportation Research Council.

A "worst case" approach was taken in the study. Conditions must be consistent with the requirement that the National Ambient Air Quality Standards (NAAQS) are not to be exceeded more than once a year. Peak one and eight-hour period traffic volumes were used.

The study sites were selected at locations where the highest concentrations can be expected and the general public has access during the analysis periods (see Figure 22).

Site 1 is a residential dwelling located 140 feet and 216 feet from the westbound lane (WBL) and eastbound lane (EBL) of proposed Line A, respectively. There are no existing major roads in the area of Site 1.

Site 2 is a residential dwelling located 81 feet and 145 feet from the EBL and WBL of proposed Line A, respectively. There are no existing major roads in the area of Site 2.

Site 3 is a building located 81 feet and 145 feet from the WBL and EBL of proposed Line A, respectively. There are no existing major roads in the area.

Table VII shows the peak one and eight-hour CO concentrations under worst case conditions. The levels shown as "Not Including Background" are the results of the Airpol-4a model and represent those levels due to vehicle emissions on adjacent highways. The "Including Background" levels represent ambient concentrations which can be compared against the NAAQS of 35 ppm for one hour and 9 ppm for eight hours.

The analysis shows that the maximum expected average one and eight-hour CO concentrations do not exceed the National Standards of 35 ppm and 9 ppm, respectively, in any build or no-build case. The project is located in a CO attainment area.

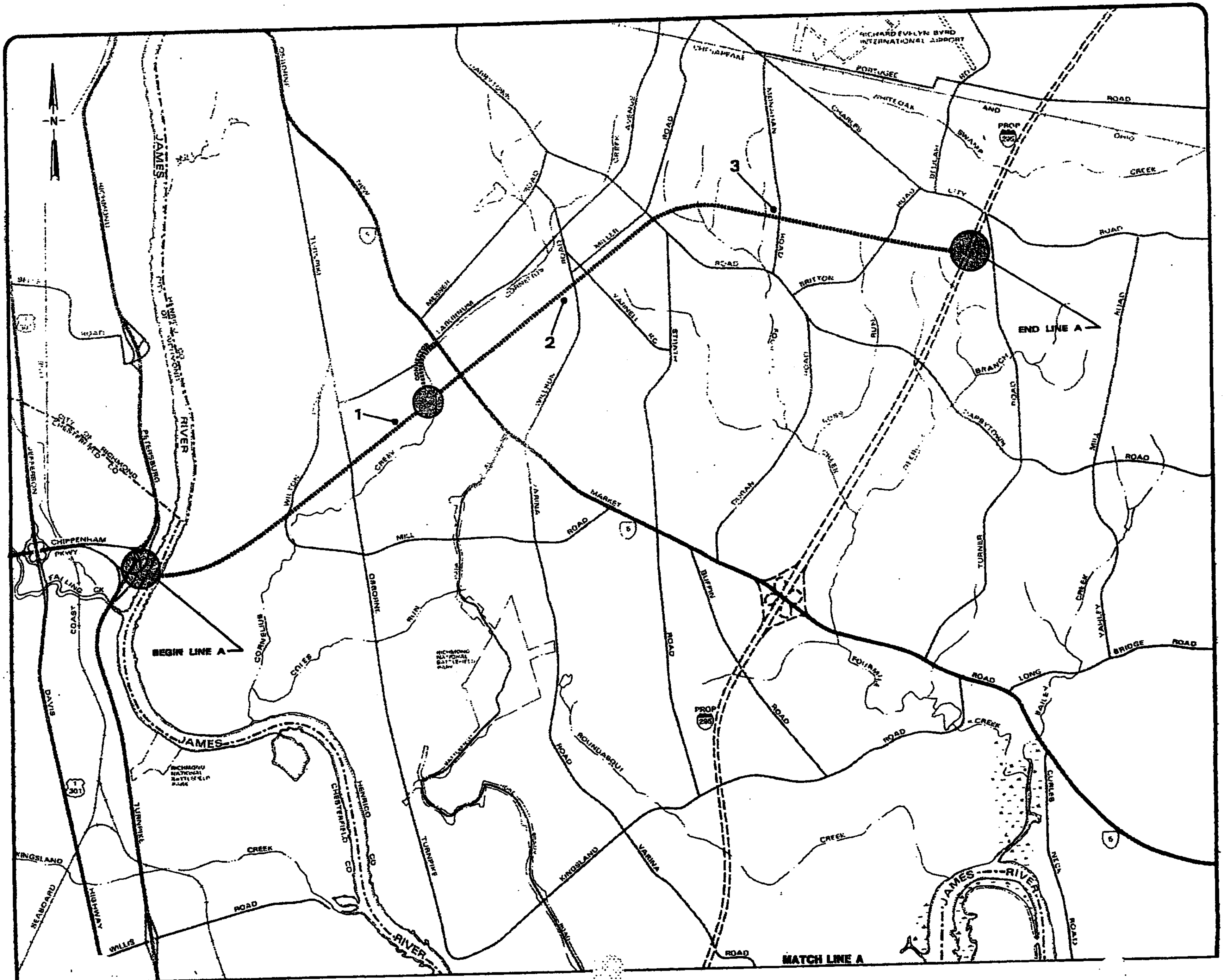
The project area has been designated nonattainment for ozone. However, the project is in an area where the State Implementation

Plan (SIP) does not contain transportation control measures. The SIP indicates that the ozone NAAQS will continue to be maintained as required in the Clean Air Act, without mandated transportation control measures. Therefore, with the exception of the construction procedures, the SIP conformity requirements of 23 CFR 770 do not apply to this project.

Construction activities are to be performed in accordance with VDH&T's Road and Bridge Specifications. The Specifications are approved as conforming with the SIP and require compliance with all local, state and federal regulations.

In conclusion, VDH&T feels the project enhances the overall air quality in the study area by providing a more efficient road system. The project is in conformance with the current State Implementation Plan and is not expected to interfere with the attainment or maintenance of the National Ambient Air Quality Standards.[21]

[21] A copy of the technical air quality analysis is available upon request.



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BEGIN LINE A
END LINE A
MATCH LINE A
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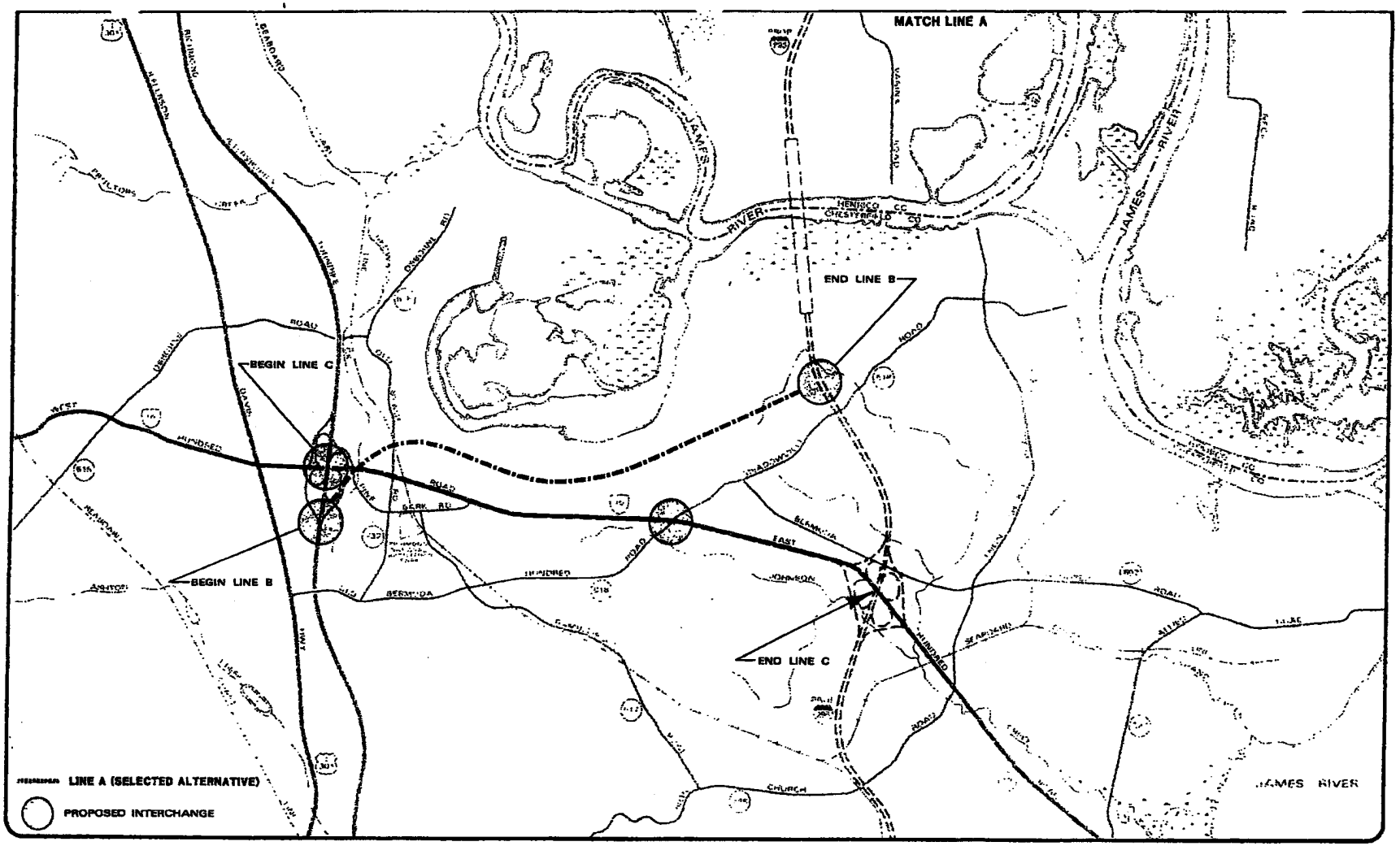
JAMES
RIVER
RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
PROP 295
CHIPPENHAM PKWY
FALLING CK
COAST
DAVIS
HIGHWAY
TURNPIKE
CITY OF RICHMOND
CHESTERFIELD CO
HENRICO CO
KINGSLAND
CREEK
ROAD
MARKET
OSBORNE
TURNPIKE
MILL
VARINA
ROUNDABOUT
TURNER
BUFFIN
LONG
BRIDGE
VALLEY
CURLES
NECK
BRANCH
WHITEOAK
CHARLES
PORTUGEE
SEABOARD
WILLIS
PETERSBURG



RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

• SITE LOCATION

0 SITE NUMBER

AIR QUALITY
RECEPTOR LOCATIONS

FIGURE 22

TABLE VII

PEAK CARBON MONOXIDE CONCENTRATIONS (ppm) UNDER WORST METEOROLOGICAL CONDITIONS

Site	Line	Year	Case	Not Including Background One-Hour	Not Including Background Eight-Hour	Including Background One-Hour	Including Background Eight-Hour
		1981	Base	-	-	16.0	7.8
		1990	No-Build	-	-	9.9	4.8
1	A	1990	Build	1.4	0.6	10.3	4.9
		2007	No-Build	-	-	9.8	4.8
		2007	Build	2.5	1.0	12.2	5.7
		1981	Base	-	-	16.0	7.8
		1990	No-Build	-	-	9.9	4.8
2	A	1990	Build	1.0	0.6	9.9	4.9
		2007	No-Build	-	-	9.8	4.8
		2007	Build	1.7	1.0	11.4	5.7
		1981	Base	-	-	16.0	7.8
		1990	No-Build	-	-	9.9	4.3
3	A	1990	Build	1.0	0.6	9.9	5.3
		2007	No-Build	-	-	9.8	4.8
		2007	Build	1.8	1.0	11.5	5.7

E. Noise Impacts

A noise analysis was performed for this federally funded project in accordance with the guidelines set forth in Volume 7, Chapter 7, Section 3 of the Federal-aid Highway Program Manual (FHPM). To determine the degree of impact of traffic noise on human activity, the criteria established by FHPM are used.

When the predicted design year build noise levels in the project area exceed the Noise Abatement Criteria (NAC - see Table VIII) or are substantially higher than existing levels, the Department must consider measures to reduce the traffic noise. If it is found that such mitigation measures will cause adverse social, economic or environmental effects which outweigh the benefits received, the highway agency may dismiss them from consideration.

Noise levels in the project area were determined for the existing conditions, the design year no-build conditions and the design year build conditions.

Five test sites along Line A were selected for this study, reflecting the worst noise conditions along the project (see Figure 23). On the basis of traffic changes and variations in roadway-receptor configuration, noise sensitive areas along the project were divided into study areas experiencing uniform noise conditions. Each study area is represented by the noise sensitive receptor within that area which is closest to the roadway, and therefore experiences the greatest noise impact. The test sites and the areas along the proposed project that each represents are listed in Table IX.

The FHWA Highway Traffic Noise Prediction Model describes traffic in terms of Leq sound levels measured in dBA units. At Sites 1, 2, 4 and 5 the existing noise levels were ambient with no single dominant source of noise and were measured on-site. An initial review of the project area indicated that traffic on nearby roadways was the primary source of noise at Site 3. Since traffic noise can be determined by the FHWA noise model with an accuracy of ±2 dBA, monitoring of existing noise levels was considered unnecessary at this site.

Since the calculator model could only determine traffic noise, calculation of the design year no-build level could be made only for those sites where traffic noise will dominate the noise climate. At other sites the design year no-build level was assumed to be the same as the measured existing level. Because traffic will be the primary source of noise at all sites if the proposed project is constructed, all design year build levels were calculated using the FHWA model.

In Table X the design year build noise levels, as well as the existing and no-build levels, are listed for each site. Table XI lists the sites where design year build levels will exceed the NAC and also those sites which will experience design year build levels that are substantially higher than existing levels.

When Line A (the selected alternative) is constructed, 117 receptors will experience significant noise level increases, with 55 of these receptors also experiencing noise levels exceeding the NAC.

Various noise abatement measures have been considered for those receptors where the NAC will be exceeded and/or where traffic noise will increase substantially. A line shift would not be practical at Sites 3 and 4 since there are noise sensitive receptors on both sides of the proposed roadway. A line shift from one receptor would only move the roadway closer to another receptor. At Sites 2 and 5 a line shift is not feasible because the proposed roadway must tie-in with other roadways in the vicinity of the affected receptors. A line shift at Site 1 would result in additional impacts on the adjacent Cornelius Creek.

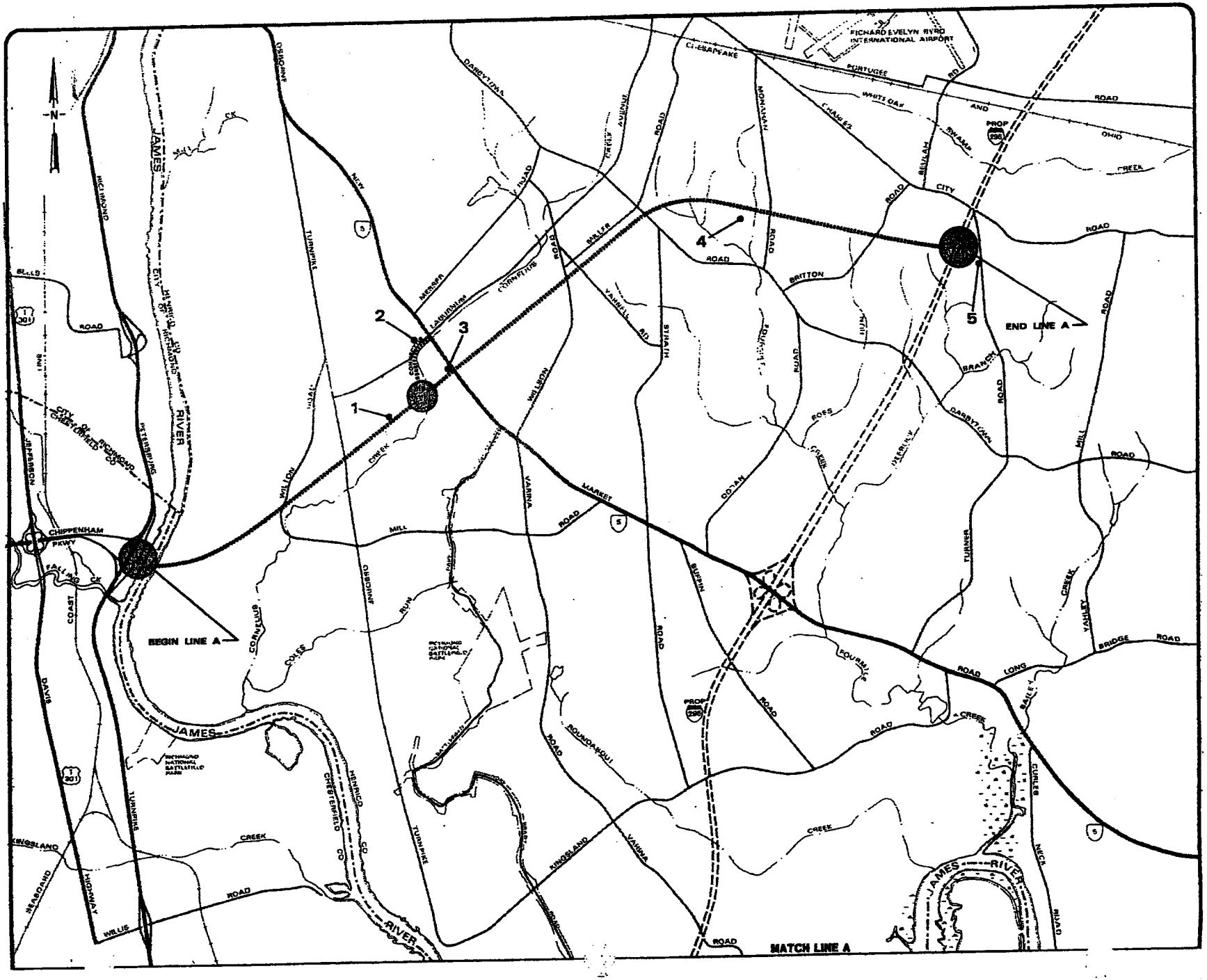
Rerouting through trucks is not a viable alternative because the proposed roadway is a major connector between the Richmond-Petersburg Turnpike and proposed I-95*.

Depressing the roadway as a noise abatement feature will not be applicable because Line A has already been depressed in several areas and cannot be depressed in the remaining areas due to existing roadways.

The construction of sound barriers has been considered as a noise abatement measure at the locations shown on Table XII. All of the barriers except A-3, A-4, and A-8 have been eliminated from further consideration due to excessive costs with respect to the number of receptors protected. Barriers A-3, A-4, and A-8 will receive further consideration and may be constructed. However, this indication of likely abatement measures has been based on preliminary cost and design data. If these conditions change

substantially, the abatement features may not be provided. A final decision will be made upon completion of the project design and public involvement process.[22]

[22] A copy of the technical noise analysis is available upon request.



N
BEGIN LINE A
END LINE A
MATCH LINE A
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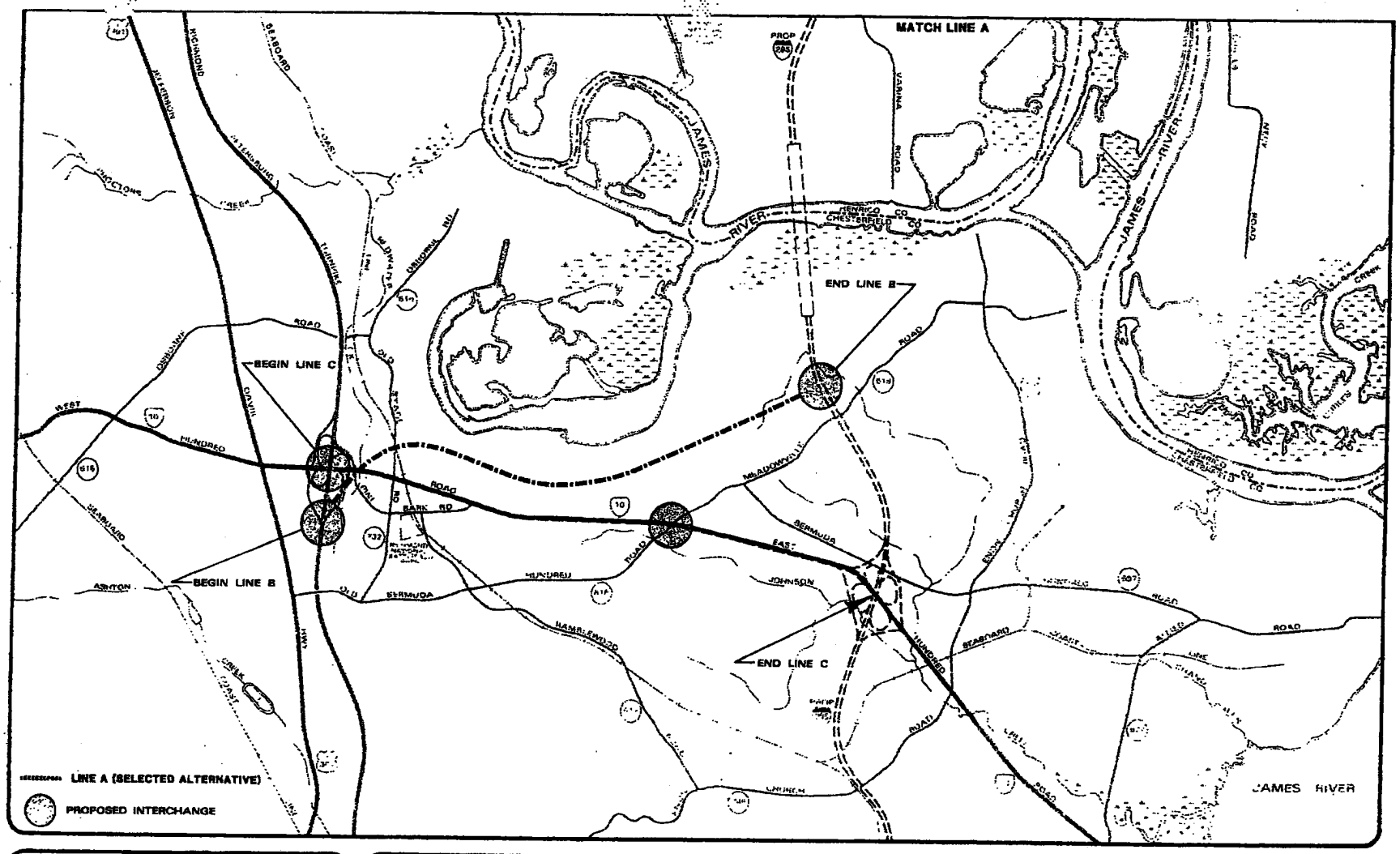
JAMES RIVER
CHIPPENHAM PKWY
RICHMOND NATIONAL BATTLEFIELD PARK
RICHMOND
PETERSBURG
CITY OF RICHMOND
CHESTERFIELD CO
HENRICO CO
CHESAPEAKE
PORTUGEE
WHITE OAK
AND
OHIO
CREEK
CITY
ROAD
BRITTON
BRANCH
DARBYTOWN
MILL
MARKET
WILLSON
VARINA
KINGSLAND
CREEK
TURNPIKE
HIGHWAY
WILLIS
DAVIS
COAST
JEFFERSON
LINE
BELLS
ROAD
CORNELIUS
COLES
RUN
FOURMILE
LONG
BRIDGE
ROAD
YAHLEY
CURLES
NECK
ROAD
BAILEY
ROUNDABOUT
MONAHAN
BEULAH
CHARLES
SWAMP
PROP 295
FICHARD EVELYN BYRD INTERNATIONAL AIRPORT



RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

• SITE LOCATION

0 SITE NUMBER

NOISE ANALYSIS
LOCATIONS

FIGURE 23

TABLE VIII

NOISE ABATEMENT CRITERIA
Hourly A-Weighted Sound Level - Decibels dBA

Activity Category	Leq(h)	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

TABLE IX

SITE AND STUDY AREA LOCATIONS

Site No.	Location	Areas Represented
1	North of Line A	Residential receptors on both sides of Line A from the James River to the Laburnum Connector
2	West of Laburnum Connector	Residential receptors on both sides of the Laburnum Connector from Line A to Route 5
3	North of Line A	Residential receptors in the area of Line A/Route 5 overpass
4	South of Line A	Residential receptors on both sides of Line A from Route 5 to I-95
5	South of Line A	Residential receptors at the southeast quadrant at proposed I-95/ Line A interchange

TABLE X

EXISTING AND DESIGN YEAR NOISE LEVELS

Site No.	Condition	Noise Source	Source-Receptor Distance (Feet)	Noise Level dBA
	Existing	Ambient	N/A	51
1	No-Build	Laburnum-Chippenham	106	74
	Build	Line A	180	77
	Existing	Ambient	N/A	51
2	No-Build	Laburnum-Chippenham	371	68
	Build	Laburnum Connector	180	72
	Existing	Route 5	130	61
3	No-Build	Route 5	130	66
	Build	Route 5	130	67
	Build	Line A	155	73
			Total	74
	Existing	Ambient	N/A	53
4	No-Build	Ambient	N/A	53
	Build	Line A	215	71
	Existing	Ambient	N/A	50
5	No-Build	Prop. I-95*	1100	67
	Build	Prop. I-95*	1100	63
	Build	Loop B	200	68
			Total	69

TABLE XI

COMPARISON OF NOISE LEVELS AND
IDENTIFICATION OF IMPACTS BY SITE

Design Year Build Noise Levels Exceed

Site	Existing Levels By: 0-9 dBA	Existing Levels By: 10-27 dBA**	No-Build Levels By: 0-9 dBA	No-Build Levels By: 10-27 dBA	0 dBA	Noise Abatement Criteria By: 1-4 dBA***	Noise Abatement Criteria By: 5-11 dBA***
1		x	x				x
2		x	x				x
3		x	x				x
4		x		x		x	
5		x	x			x	

TABLE XII

NOISE WALLS CONSIDERED

Site No.	Wall Designation	Description
1	A-1	Protects 1 residence, cost $675,500; extends 2245 ft. along south side of Line A; approximately 25 ft. high
1	A-2	Protects 3 residences & Palisade Lake exterior area, cost $655,200; extends 2100 ft. along south side of Line A; approximately 26 ft. high
1	A-3	Protects 26 residences, cost $1,033,560; extends 3190 ft. along north side of Line A; approximately 27 ft. high
1	A-3-1	Extension of Wall A-3 to protect 1 residence (1030 ft. to the west) and 1 residence (1300 ft. to the east); cost $1,788,480
2	A-4	Protects 14 residences, cost $462,000; extends 1540 ft. along north side of Laburnum Avenue Connector; approximately 25 ft. high
3	A-5	Protects 1 residence, cost $597,000; extends 1990 ft. along south side of Line A; approximately 25 ft. high
3	A-6	Protects 1 residence, cost $420,000; extends 1400 ft. along south side of Line A; approximately 25 ft. high
3	A-7	Protects 1 residence, cost $306,240; extends 1160 ft. along south side of Line A; approximately 22 ft. high
3	A-8	Protects 11 residences, cost $517,440; extends 1960 ft. along south side of Line A; approximately 22 ft. high
3	A-8-1	Extension of Wall A-8 to protect 9 residences (5520 ft. to the west); cost $1,974,720
3	A-9	Protects 6 residences, cost $643,800; extends 1870 ft. along north side of Laburnum Connector Ramp C and Line A; approximately 29 ft. high

Site No.	Wall Designation	Description
3	A-9-1	Extension of Wall A-9 to protect 1 residence to the east of the Laburnum Avenue Connector (2810 ft.) along east side of the Connector; total wall cost $1,621,680
4	A-10	Protects 13 residences, cost $754,800; extends 3145 ft. along north side of Line A; approximately 20 ft. high
4	A-10-1	Extension of Wall A-10 to protect 1 residence (1420 ft. to the west) and 5 residences (1720 ft. to the east); cost $1,508,400
4	A-11	Protects 8 residences, cost $453,312; extends 1574 ft. along north side of Line A; approximately 24 ft. high
4	A-12	Protects 5 residences, cost $729,696; extends 2764 ft. along north side of Line A; approximately 22 ft. high
4	A-13	Protects 8 residences, cost $1,306,800; extends 4950 ft. along north side of Line A; approximately 22 ft. high
4	A-14	Protects 2 residences, cost $186,600; extends 2368 ft. along south side of Line A; approximately 24 ft. high
5	A-15	Protects 4 residences, cost $240,240; extends 910 ft. along Loop B; approximately 22 ft. high

F. Energy Impacts

In recent years, the energy situation in this country and the world has become extremely important. The transportation sector in this country consumes 25% of the total national energy expenditure, and that does not include the 17% consumed for indirect items such as vehicle manufacture, facility construction and maintenance, etc. These figures point to the need for energy conservation in the field of transportation. Achievement of this result requires the careful selection and use of transportation facilities which provide the required service with minimum energy consumption. Thus it is of extreme importance to include energy considerations in environmental impact studies. The Council on Environmental Quality's regulations in Federal Register Volume 43, No. 230, Article 1502.16, call for the discussion of energy impacts in environmental impact statements, effective July 30, 1979.

Conceivably, many energy consumption sources could be significant for a given project. Normally, however, only the energy consumption associated with the construction and maintenance of the facilities and the direct operational energy consumption will be significant. Such is the case with this project.

When VDH&T compared the build alternatives from the standpoint of direct operational energy consumption, Line A (the selected alternative) was found to be the most energy efficient. The energy consumption associated with project construction will be higher for Line A when compared to the other alternatives because the proposed alignment includes a river crossing, and in terms of length will be

twice as long as either eliminated Lines B or C. The energy requirements for the maintenance of the proposed facility will not be significant.

G. Water Quality/Aquatic Habitat Impacts[23]

Climate

The climate of the study area can be described as temperate, with rainfall averaging approximately 45 inches annually and an annual mean temperature of 59 degrees Fahrenheit.

Soils

Soils in much of the study area have been developed from parent materials weathered from old sediments of igneous and metamorphic Piedmont granites and Coastal Plain sedimentary deposits. Many soils of the Coastal Plain are prime agricultural lands and may--with proper management, good rainfall, and long summers--produce excellent crop yields. Most of the soils in the study area have developed under forest vegetation and exhibit light-colored sandy surfaces which are low in organic matter. The climatic conditions of the area, namely abundant rainfall and long, hot summers, have also contributed to the formation of leached soils which have lost a large percentage of the original minerals essential for plant growth.

The soils associations along the proposed roadway are the Kempsville-Atlee-Duplin, Ochrepts and Udults-Norfolk-Caroline, Angie-Pamunkey-Lenoir, and Chewacla-Riverview-Toccoa. These soils

[23]The dimensions shown in this section for drainage structures are approximate and subject to change during final design.

are generally poorly to well-drained and sandy, clay loam or clay. More specifically, the soils series along the streams are composed of the Kinston, Chewacla, and the Chewack-Riverview series consisting of silty loam soils with a slow runoff and slight erosion potential.

Geology

Older crystalline rocks of the Piedmont lie beneath the younger consolidated sediments of the Coastal Plain at progressively greater depths eastward. The project area consists generally of the Cretaceous-Tertiary deposits comprising the Calvert, Aquia, Nanjemoy, and Patuxent formations. The Calvert formation consists of a thin layer of clay (dark gray, olive to buff, sandy, diatomaceous) and sand (fine-grained to buff). The Aquia contains sand (glauconitic, fine to medium-grained), fossiliferous sand (argillaceous, glauconitic), and locally gypsiferous helps to make up the Nanjemoy formation. The Aquia and Nanjemoy formations may be separated by a plastic clay (Malboro Clay). A lower Cretaceous deposit (Patuxent Formation) consisting of sandstone (arkosic), sandstone (gray to buff, crossbedded, interbedded clays), and gravel may also be found in the project area.

The Cretaceous-Tertiary Units are overlain by fluvial-estuarine gravel, sand, and silt ranging from 30 to 50 feet thick. On the eastern side of the James River, Quarternary deposits of gravel, sand, and clay are found consisting of the Charles City, Corapeake, and "Shirley" formations.

Ground Water

Generally, the Piedmont physiographic province consists of low yields of water of good quality. The Coastal Plain province provides moderate to high yields of generally good quality water, but it is more saline toward the coast or at greater depths.

The study area is underlain by unconsolidated sediments of Quaternary, Tertiary, and Cretaceous Age (areas of the James River and tributaries) and a basement rock of Precambrian to Paleozoic Age granite. The Patuxent formation, consisting of fluvial sediments of Cretaceous age (primarily quartz sands), is the principal ground water aquifer for the area and is capable of supplying significant quantities of potable water for domestic, industrial and municipal supplies.

The Tertiary System composes most of the area with streams not directly associated with the James River. The Aquia, Nanjemoy, and Calvert formations of the Tertiary System are crossed by the project.

The Aquia (Mattaponi) formation, a formation of marine sediments of Tertiary Age consisting primarily of glauconitic sands, is also a source of ground water in some areas. This aquifer, however, is of limited importance as a source of domestic and municipal supplies. The basal quartz sands of the Aquia formation are sources of moderate supplies of ground water. Some high yielding wells penetrating the underlying Cretaceous sediments in eastern Henrico County also produce from water-bearing zones within this formation. There are no known productive water-bearing zones that occur within the Nanjemoy formation. The Calvert is not known to be an important aquifer.

Any springs and seeps encountered due to lateral ground water movement will be conveyed through the roadway by the appropriate drainage structures.

No significant impacts are expected on ground water supplies as a result of the proposed roadway.

Surface Water/Ecology

Numerous water resources are located within the study area of the proposed project.

The James River is tidal and approximately 600 feet wide with an approximate depth of 24 feet. The east bank is approximately 50 feet high and vegetated; the western bank is approximately 25 feet high. The drainage area is approximately 6,500 square miles. Two intermittent tributaries to the James River crossed by this project are approximately 1 foot wide and 1 to 2 inches deep with a sandy substrate.

Cornelius Creek is approximately 5 to 15 feet wide and varies from 3 inches to 3 feet deep, with forested banks. The substrate consists of cobbles, sand and mud. The drainage area is 5.6 square miles. The unnamed tributaries to Cornelius Creek and Fourmile Creek are approximately 1 foot wide and 2 to 3 inches deep with forested banks.

Deerlick Branch and Fourmile Creek are approximately 1 to 2 feet wide and 3 to 6 inches deep.

The U.S. Fish and Wildlife Service publication "Classification of Wetlands and Deepwater Habitats of the United States" classifies the James River as a Riverine System, Subsystem-Tidal, Class-Unconsolidated Shore, Subclass-Mud, Water Regime-Tidal, and Water Chemistry-Fresh. Cornelius Creek, Deerlick Branch, and Fourmile Creek are classified as System-Riverine, Subsystem-Lower Perennial, Class-Unconsolidated Bottom, Subclass-Sand and Mud, Water Regime-Nontidal, and Water Chemistry-Fresh. All intermittent streams are classifed as System-Riverine, Subsystem-Intermittent, and Class-Streambed. A shallow 1.5-acre pond is located along the proposed alignment.

The Virginia State Water Control Board (SWCB) classifies the James River crossing as estuarine waters from the Tidal Waters and Coastal Zone to the Fall Line. Cornelius Creek and tributaries to the James River are classified as free-flowing streams from the Coastal Zone to the Piedmont. Deerlick Branch and Fourmile Creek are classified as free-flowing streams within the limits of a public water supply of the City of Hopewell. The Department does not anticipate any significant impacts to this public water supply due to the sixteen mile distance the construction will be from the public water intakes.

The water use in the project area is largely limited to fish and wildlife propagation. Three species of commercially marketed alosids are believed to spawn in some of the tributaries of the James River. Alewife, gizzard shad, threadfin shad, and white perch all have been found in the James River during the months March to June. A fishery survey of Cornelius Creek at two stations

along the creek during peak spawning periods revealed no anadromous fish species present. Although anadromous fish species may be found in the lower portions of these streams, only the James River crossing will involve fish spawning, and instream construction will be avoided during spawning periods of mid-April to the first of June. More permanent residents include shiners, largemouth bass, sunfish, and crappies.

The proposed crossing of the James River is noted for its recreational boating. The James River is navigable by large ships gaining access to Richmond's Deepwater Terminal. Bridge construction should not substantially impede river traffic.

There are no known scenic rivers listed along any of the proposed alignment. The project will not impact any known listed threatened or endangered aquatic species or critical habitat for such species. This project is not located within an area indicated as under a Coastal Zone Management Program. As a result, a consistency review/ determination process is not mandated.

Potential Impacts

The proposed alternatives will have impacts consisting of short-term (during construction) and long-term (during operation) nature.

Short-term impacts will consist of temporary erosion and siltation and the resulting accelerated drift (the increased downstream movement of macrobenthic invertebrates due to siltation and sedimentation), removal of streambank vegetation, and creation of a

more uniform and unstable substrate. There will be a loss in the number of benthic invertebrates available as food sources for higher level organisms. Temporarily, the reduction in habitat and benthos will result in a slightly lower abundance of fish until the stream channels become established, and then the stream community will improve. Inconsequential impacts are expected on the aquatic fauna of the study area. The Department will implement and maintain standard erosion and siltation control measures in accordance with its "Erosion and Siltation Control Manual" and its "Road and Bridge Specifications" to minimize the loss of soil from the construction areas of the proposed roadway.

Long-term impacts will consist of the possible fill into the streams and the modification of stream channels. One of the basic impacts of these stream channelizations on stream life will be the loss of stream and riparian habitat. Habitat will be destroyed by straightening out the natural meanders, disturbing the stream bottom, and removing the streambank vegetation. Although all practicable measures to minimize impacts will be incorporated into the stream channel change, the streambed in the newly created channel will probably be of lower suitability for some time after the new channel is cut. Thus, repopulation of the new stream channel by benthos and other organisms will temporarily be stunted, and there will be a lower diversity of biota, as well as a lower density. Once the new stream channels have become stabilized (streambank vegetation, fixed substrate, etc.) however, the populations should become well-established and their community structure should improvement with respect to density and diversity.

Deicing and abrasive compounds may be used on major roads to maintain roadway utilization during inclement weather. Sodium chloride, calcium chloride, sand and mixed abrasives may be used for snow and ice control. Deicing compounds are used only during emergency conditions when conventional snow removal techniques cannot be used.

Special care will be exercised during application of pesticides and herbicides during and after construction. Application rates will be controlled to the minimum effective levels to minimize the potential for runoff of excess materials into live streams in the area. A number of substances from automobile tires, brake linings, gasoline and motor oil may contribute to the highway surface runoff. Most heavy metals will be associated with particulate matter. Dissolved metal fractions will likely be extremely small and generally below detection limits.

While the amount of these substances cannot be quantified, it is not anticipated that the long-term adverse impact will be significant.

The proposed alignment will cross the James River, Cornelius Creek and two of its unnamed tributaries, four unnamed tributaries to Fourmile Creek, Fourmile Creek, Deerlick Branch, and a small 1.5-acre pond.

A lift-span bridge will be constructed for the crossing of the James River to allow for upstream navigation. The 1.5-acre pond will be filled and appropriate structures will be designed to convey the drainage. The pond is not significant for storm water

retention. Two channel changes of Cornelius Creek (200 and 300 feet in length) are required in the Laburnum Avenue interchange area. The channel changes will incorporate all practicable measures to minimize impacts to the stream habitat. Six linear floodplain encroachments of Cornelius Creek (for a total of 4750 feet) and one direct crossing (of 700 feet) were determined using the preliminary corridor plans and will be necessary in conjunction with the channel modifications (refer to Figure 24 displaying Cornelius Creek and potential impacts if Cornelius Creek were to be shifted farther north). These encroachments do not create significant flooding risk, and a change in the floodplain elevation would not significantly affect fish, wildlife, water quality and other natural and beneficial floodplain values.

To minimize channel modification impacts, certain measures will be considered during project design and construction. The establishment of a pool and riffle sequence similar to that in the abandoned channels should maintain the diversity of ichthyofauna present in Cornelius Creek. These pools are necessary for the continued propagation of pool-dwelling fish species. These fish, in turn, provide a significant part of the diet of sunfish, bluegills, and largemouth bass.

Reestablishment of riparian vegetation is essential to preserve the stability of the adjacent floodplain and the water quality within the stream. All spoil will be removed from the floodplain areas, and siltation control devices will be provided as appropriate to protect the stream. Fill slopes will be stabilized and revegetated as soon as practicable during and after construction.

Relocated stream segments will be constructed in the dry to minimize direct stream contact with construction activities. Substrate mix will be applied in the relocated channel randomly allowing the new channel to redistribute them in a natural manner. Bank vegetation will be established and able to withstand water velocities without eroding before rerouting the stream.

Streambanks and highway fill slopes will be protected with riprap where water velocities in these areas are likely to be high.

The Department will be in full compliance with the Virginia "Erosion and Sediment Control Handbook" and will use the State Water Control Board's "Best Management Practices Handbook for Hydrologic Modifications" as a guideline.

Potential stream impacts are summarized in Table XIII (see page 116).

Coordination

In written correspondence the Virginia Game and Inland Fisheries stated: "We feel that the project will have substantial impact on the aquatic ecosystem. Alternative C is recommended. This connector has less potential for fish and wildlife habitat disruption. It incorporates use of an existing highway corridor, doesn't require any additional crossings of the James River, lies well off the floodplain of the James River and is a shorter distance, overall of construction area. Use of standard erosion control procedures should be implemented."

In September 1982, the Department presented the project before state and federal environmental review agencies. The following comments were made by these agencies:

U.S. Fish and Wildlife Service - Would prefer the alternative with least amount of channel work and requests a field review.

U.S. Environmental Protection Agency - Alternative A - Prefers avoidance of Cornelius Creek channel change. Alternative C - prefers avoidance of Johnson Creek channel change.

National Marine Fisheries - Concerned about anadromous fish and requests a time-of-year restriction for the James River bridge construction.

U.S. Army Corps of Engineers (Norfolk) - Hold comments until final plans are available.

U.S. Coast Guard - A permit is required for the James River crossing.

State Water Control Board - James River crossing will need a time-of-year restriction and perfers Alternative C with B and A in that order of preference.

Commission of Outdoor Recreation - No objections.

Marine Resources Commission - Prefers Alternative C, which has least stream impacts. Would like to see plans and cost-benefit analysis.

Commission of Game and Inland Fisheries - Refer to their letter for comments (see previous page).

Virginia Institute of Marine Science - Concurs with State Water Control Board.

Virginia State Department of Health - No comments.

On November 8, 1982, a field review was conducted and the U.S. Fish and Wildlife Service commented: Alternative C is preferred, Alternative B has the least impact and is second choice, Alternative A is the last choice.

H. Wetlands Impacts

Based upon field reviews and coordination with State and Federal agencies in September 1982, it is concluded that there are no wetlands as defined by Executive Order 11990 associated with Line A. Therefore, a wetlands finding is not applicable to this project.

I. Hydrology and Floodplain Impacts

Based on the President's Executive Order 11988, "Floodplain Management," and other federal regulations, it is the policy of FHWA to prevent uneconomic, hazardous or incompatible use and development of the Nation's floodplains and avoid significant encroachments where practicable. These requirements are implemented by FHWA policy which defines significant encroachment as any action within the limits of the base floodplain (area covered by the flood having a one percent chance of being exceeded in any given year), and which supports development within these limits, that would involve a significant interruption of a necessary emergency transportation facility or a significant flood risk or a significant adverse impact on the natural and beneficial floodplain values. For the purpose of this discussion, a significant flood risk would exist if the water surface elevation of the base flood is increased sufficiently to cause increased property loss and hazard to life.

The proposed project will involve areas of floodplain encroachment. The location of these encroachments was determined through the use of Federal Insurance Administration (FIA) mapping, U.S. Army Corps of Engineering Floodplain information studies, where available; and hydraulic studies performed by VDH&T.

Furthermore, there are no FEMA Floodplain Studies on Cornelius Creek. The proposed project will encroach on floodplains at Cornelius Creek and the James River (see Figure 24).

The selected alternative proposes a perpendicular crossing of the James River and its floodplain and will be designed to have no significant impacts to floods or flooding of the river. This proposal will not cause or support incompatible floodplain development nor impact natural or beneficial floodplain values. There are six locations where the proposed roadway will fall within the base floodplain (4750 feet) of Cornelius Creek. The floodplain is forested or is in light cultivation. Four encroachments into the 100-year floodplain will have no changes in hydraulic performance. In the fifth encroachment there will be a maximum of 0.3-foot increase in the flood level of Cornelius Creek and no significant change in the flood velocities will occur. There will also be a 4% increase in the volume of water carried on the southern side of the floodplain as a result of a constriction by a ramp for the Laburnum Avenue connector. There will be no change in impoundment (retention) characteristics or in the hydraulic structure configuration.

The last encroachment occurs with the proposed Laburnum Avenue connector in the vicinity of its proposed intersection with existing Laburnum Avenue and will have a maximum increase on the base floodplain of 0.5 feet. The average increase over this segment is only 0.2 feet. A 200-foot channel modification (southerly shift) will be needed to allow for the slope of the fill for the proposed roadway. No significant increases in flood velocities will occur.

There will be an increase of 6% in the flow carried on the southern side of the floodplain as a result of adding another lane to Laburnum Avenue. There will be no significant change in the stream impoundment or hydraulic structure configuration.

At a point where the proposed connector crosses Cornelius Creek, there will be a perpendicular encroachment (700 feet) into the base floodplain. Because two bridges will be constructed over the northbound and southbound lanes of the connector and a comparable structure at Ramp C of the Laburnum Avenue interchange, there will be only a 0.4-foot increase in the flood level upstream of Ramp C. As indicated previously, a 300-foot channel modification will be needed for construction of the bridge. There will be only a slight increase in the flood velocities in the process of going through the three bridges and these will be dissipated immediately downstream. The change in flow distribution will only be changed within the area of the bridges. No changes in impoundment characteristics is expected to occur. The changes in hydraulic structure configuration will be from natural conditions to a bridged waterway.

The proposed pier encroachments of the Cornelius Creek crossing and the James River will be designed so that there will not be a significant rise in the base flood backwater surface elevation. Due to the relatively steep terrain at the fringes of the present James River base floodplain, such an increase in water surface elevation would have a negligible effect on the total width of the flood flow. The hydraulic study also indicated that the encroachment would cause a small increase in the flow velocity of the base flood.

The Cornelius Creek natural base floodplain constriction already causes relatively high flow velocity and such an increase would have minimal effect on floodplain values. Compared to conditions prior to the project, such characteristics as flood storage capacity, natural filtering and floodplain vegetation would be virtually unchanged as a result of the proposed construction.

In summary, the proposed roadway--through proper design--should not cause an interruption or termination of a transportation facility needed for emergency vehicles or evacuation and will have no significant adverse effects on natural and beneficial floodplain values. There should be little effect on flooding in the area since the hydrualic capacities of the new drainage structures will equal or exceed those of the existing structures. Completion of the project is not expected to increase any flood-related risks to human safety, health or welfare. There is no alternative to locating portions of this project in floodplains since stream crossings are involved.

The project will create no new access to areas in the vicinity of the James River floodplain; thus no new pressures for incompatible floodplain development are anticipated.

During highway operation and maintenance, impacts on water quality and aquatic habitats resulting from storm water runoff will be minimized through the use of energy dissipators. Bridges will also be designed such that runoff would be discharged in a low energy manner through pipes down various pier stems.

The Department ensures that the roadway will not have a significant encroachment on the base floodplains associated with the project as the roadway will be designed to comply with Executive Order 11988, "Floodplain Management."

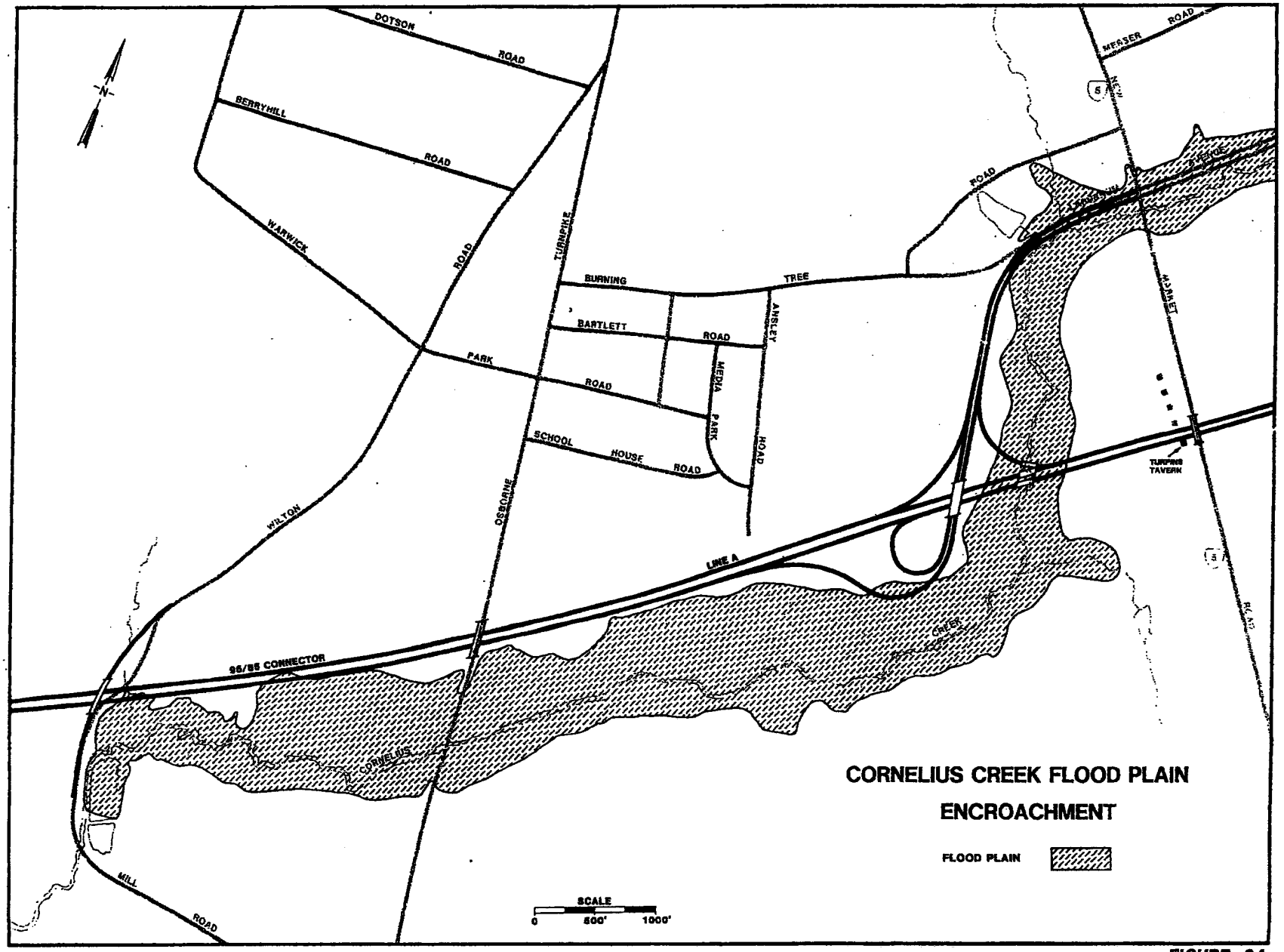

DOTSON ROAD
BERRYHILL ROAD
WARWICK ROAD
WILTON
TURNPIKE
OSBORNE
BURNING TREE
BARTLETT ROAD
ANSLEY
MEDIA PARK ROAD
PARK ROAD
SCHOOL HOUSE ROAD
MERSER ROAD
ROAD
MARKET
TURPIN TAVERN
LINE A
95/95 CONNECTOR
CORNELIUS
CREEK
MILL ROAD
N
SCALE
0 500' 1000'
CORNELIUS CREEK FLOOD PLAIN
ENCROACHMENT
FLOOD PLAIN

FIGURE 24

TABLE XIII

STREAM IMPACTS

Line	Stream Crossing	Proposed Structure	Tentative Permits	Channel Modifications	Floodplain
A	James River	Lift-span	401, 404, SBP & Coast Guard		None anticipated
	1.5-acre pond	Fill pond			
	Two unnamed tributaries to James River	Pipe culvert	SBP (General)		
	Cornelius Creek	Three bridges	401, 404, SBP	200'-Laburnum Connector 300'-area of bridge crossing	Six encroachments - linear (4750') Direct crossing (700')
	Fourmile Creek	Pipe culvert	SBP (General)		
	Deerlick Branch	Pipe culvert	SBP (General)		

J. Wildlife Impacts

The Department's wildlife biologist coordinated the project with biologist of the Commission of Game and Inland Fisheries and reviewed the selected alternative (Line A).

The proposed alignment, due to its length (8.8 miles), would remove 160 acres from habitats now occupied or used by both game and nongame species.

In view of the alterations that have been made to the forest, the variety of wildlife is fairly well balanced. The distribution and abundance of the wildlife species are largely dependent upon the availability of suitable food, cover, and nesting sites.

The avian fauna of Line A are quite diversified. Sparrows, cardinals, crows, doves, chickadees, mockingbirds, vultures, hawks, woodpeckers, meadowlarks, bluejays, juncos, and starlings are the most abundant.

Other game birds present include snipes, mourning doves, bobwhite quail, and wild turkey. Turkey populations are 2-6 per square mile. Most of the duck and geese do not breed in Virginia; however, the wood duck does breed in the forest-bordered freshwater marshes, swamps and creeks along the James River.

Mammals found along the proposed alignment include rabbits, mice, foxes, squirrels, deer, raccoons, and woodchucks. Considering the species of greatest interest to man, deer inhabit mixed brushy woodlands and forest edges. Deer populations along the proposed alignment are estimated at 15-25 per square mile, which is a high

population area in Virginia. Their diet includes leaves, grasses, birds, twigs, nuts, and agricultural grains.

Along the crossing of the James River are furbearing mammals such as mink, muskrat and beaver. Apparently these animals follow the swamps, which offer excellent cover and protection from free-roaming dogs and man.

Little specific information is available on reptiles and amphibians along the proposed corridor. These vertebrates are usually found in a wide variety of habitats, and a broad assortment of species is expected to occur along the diverse habitats.

The ecological impacts associated with the proposed project will result from loss of vegetation and alteration or destruction of wildlife habitat. The most significant of these impacts will occur during construction of the project when a large amount of terrestrial vegetation will be temporarily disturbed within the highway right of way. Some of these impacts will persist only for a short time, and new natural resources will recover in much of the disturbed area.

The proposed project will result in increases in animal road kills and noise levels. It is anticipated that none of these impacts will result in significant adverse effects on the biota of the project area.

Coordination meetings and field trips with the U.S. Fish and Wildlife Service, EPA, Corps of Engineers, and Commission of Game and Inland Fisheries on September 23, 1982, and November 8, 1982,

have indicated there are no known unique breeding or nesting grounds nor are there any rare or endangered mammal, bird or plant species within the project limits.

K. Prime and Unique Agricultural Land and Forest Resources

Agricultural Resources

Agricultural land, for the purpose of this document, includes cropland and pastureland. Farms tend to be on the better drained sites. Cropland areas on this corridor are mainly corn and soybeans.

Information for Line A (the selected alignment) is based upon on-site inspections and contacts with the District Conservationist for Henrico County.

Soils vary from poorly drained to well drained, nearly level to very steep, and usually more than 25 feet to bedrock.

According to the District Conservationist, there will be no detrimental impact on ground water or flooding. There are no existing or proposed Agricultural or Forestal Districts in the area.

Measures such as stage seeding, brush barriers, straw bales, riprap to water line, and silt curtains will be used to minimize erosion. Specific erosion and siltation control measures are cited in Section IV-G and Appendixes B and C.

Prime and important agriculture lands are defined by the soil characteristics and are not necessarily in agriculture usage. There are 145 acres of prime agricultural land lying within the Line A right of way, but only 88 acres are in actual farming operation (cropland). The remaining is in forested areas.

Henrico County has a total prime agricultural acreage of 48,619. The total area traversed by Line A in prime farmland is 145 acres (0.3%).[24]

Future land use projections indicate that much of the agricultural land adjacent to the proposed alternative will eventually be converted to other land uses, such as residential and industrial.

There may be an impact to farming operations in that the project will cut several farms off from easy access to areas of prime farmland on Monahan Road, Britton Road, Turner Road and Charles City Road.

During final design, every effort will be made to minimize impacts to prime agricultural land.

Forestry and Vegetation Resources

Throughout the selected corridor (Line A) are mixed wooded areas with cropland and pastureland intermingled with residential sites. Some of the areas are abandoned cropland and pastureland in various stages of development. Many of these areas are young fields composed largely of grasses, herbs, shrubs, and seedlings. The older, more developed fields have undergone development of pine rather than of hardwoods and may be described as immature forest. In general, the cutting of timber has been selective, softwood pines being the favored lumber tree, and thus the most regularly removed. Both land use practices favor the establishment of pines

[24] Henrico County Important Farmland Map, U.S.D.A. Soil Conservation Service, January 1979.

over hardwoods and, consequently, have influenced the composition of Line A forest. Generally, there is a mixed acreage in hardwood and pines.

Size class and quality of the forest involved varies greatly. The wooded area along the corridor is composed of loblolly and Virginia pine with a scattering of shortleaf pine. The corridor also contains white oak, yellow poplar, red maple, red oak, hickory and sycamore. Size class ranges from saplings to sawtimber.

Input from the Virginia Division of Forestry indicates the long-term productivity will be affected by this corridor. The project will take out a number of productive acres from the forest timberland system in Henrico County. Concern was expressed about limited access affecting forest fire protection.

According to the District Forester, local markets do exist for the disposal of merchantable timber taken by the project. The District Forester has further stated that compared to the 60,000 acres of commercial forest land in Henrico County, the removal of a small portion with direct right of way acquisition is insignificant from a commercial standpoint. At the most, it will remove only 0.32% of the commercial forest land in Henrico County.

The selected alternative (Line A) will not have any effect on historic trees, trees in the National or Virginia Social Register of Big Trees, rare and/or endangered plant species nor areas under the "Natural Area" preservation description.

L. Aesthetic Impacts

Because of the flat terrain and general lack of vistas, there do not appear to be any unique visual opportunities associated with the alternatives, except for the crossing of the James River. The river, its bluffs and surrounding topography, and the presence of river traffic should offer the viewer on the roadway an interesting visual experience. Most likely, the proposed bridge will elicit mixed reactions depending upon the visual preferences of the boaters, bikers, and others in the surrounding vicinity.

The aesthetic impacts of Line A appear to be adverse where the roadway passes within view of the existing home sites and developments. In such cases, care will be taken to minimize these visual impacts. Vegetation will be used to soften these impacts where prudent.

M. Traffic and Transportation Impacts

The selected corridor will present short-term inconveniences while the new roadway is being constructed. Rerouting of traffic if deemed necessary will in all likelihood be the most significant impact. Once the proposed corridor is completed, the prime impact will be the adjustment to changed traffic conditions by those residents adjacent to the road.

The proposed project will not affect public transportation systems. John Tyler Community College has a commuter lot in operation at present. When completed, the new facility could create potential sites for new commuter lots.

N. Construction Impacts/Mitigation

Noise

Land uses that would be sensitive to vehicular noise would also be sensitive to construction noise. A method of limiting construction noise is to establish the maximum level of noise that construction operations can generate. In view of this, the Department has developed, and the FHWA has approved, a special contract provision[25] which establishes construction noise limits. This provision will be included in the construction contract for this project to reduce the impact of construction noise on the surrounding community.

Traffic

Access will be maintained during construction to all businesses and residences throughout the project corridor. Construction of the selected route will improve safety and traffic flow patterns to approved I-95* and the surrounding areas.

The development of this project will provide quicker and more efficient access for all emergency services.

Erosion and Siltation

The greatest adverse effects from erosion and sedimentation occur during the construction of a highway. The Department will require the contractor to exercise every reasonable precaution, including the application of temporary measures throughout the duration of the project to control erosion and prevent or minimize

[25] Virginia Department of Highways and Transportation's "Special Provisions and Supplemental Specifications to 1974 Specifications," 107A.

the siltation of rivers, streams, and impoundments. Such measures shall include--but are not limited to--the use of berms, dikes, dams, sediment basins, fiber mats, brush silt barriers, netting, gravel, crushed gravel or crushed stone, mulch grasses, slope drains, and other methods. Temporary erosion and siltation control measures shall be applied to erodible material exposed by any activity associated with the construction, including local material sources, stockpiles, waste areas, and all haul roads.

O. Historic/Cultural Resources

Historic Resources

A historic resources survey was conducted utilizing the Virginia Historic Landmarks Commission (VHLC) files, historic maps of the area, and a field check of several sites. The results of the survey were also submitted to the State Historic Preservation Officer (SHPO) for review and comment.

The VHLC files indicated seven historic sites in the general proximity of Line A, the selected alignment. Six of these sites are outside the roadway corridor and will not be impacted by construction or related activities. These are: Wilton 43-37, Sordelete Mill 43-192, Auburn 43-54, Laurel Lawn 43-135, Preston Place 43-281, and the Herbert Site 43-395.

Turpins Tavern (43-212), the seventh site, lies directly in the path of Line A (see Figure 25). The line cannot be shifted to avoid the tavern since impacts on the floodplain of Cornelius Creek

to the south must be avoided. If the line were shifted to the north, several homes would be displaced, as opposed to the single structure impacted by Line A.

The VHLC has indicated that the integrity of Turpins Tavern has been severely compromised by the alterations that have taken place over the years. They have further indicated that Turpins Tavern is not eligible for the Virginia or National Register (refer to Appendix A for VHLC's letter of May 17, 1983, regarding eligibility of sites).

Archaeology

An intensive Phase I Archaeological Reconnaissance Survey has been made to locate all archaeological sites within the study corridor. Field surveys were conducted by the VDH&T staff archaeologist. Supplemental information was obtained from the Virginia Historic Landmarks Commission files; from surveys of historic maps; and from archaeological work previously undertaken in the area by the Virginia Research Center for Archaeology, by Virginia Commonwealth University Anthropology Department, and by Soils Systems, Inc. (see Figure 25).

The Phase I survey revealed sixteen archaic and/or historic archaeological sites located in the vicinity of Line A. The survey further revealed that thirteen of the sites were outside the proposed right of way and/or not eligible for the National Register.

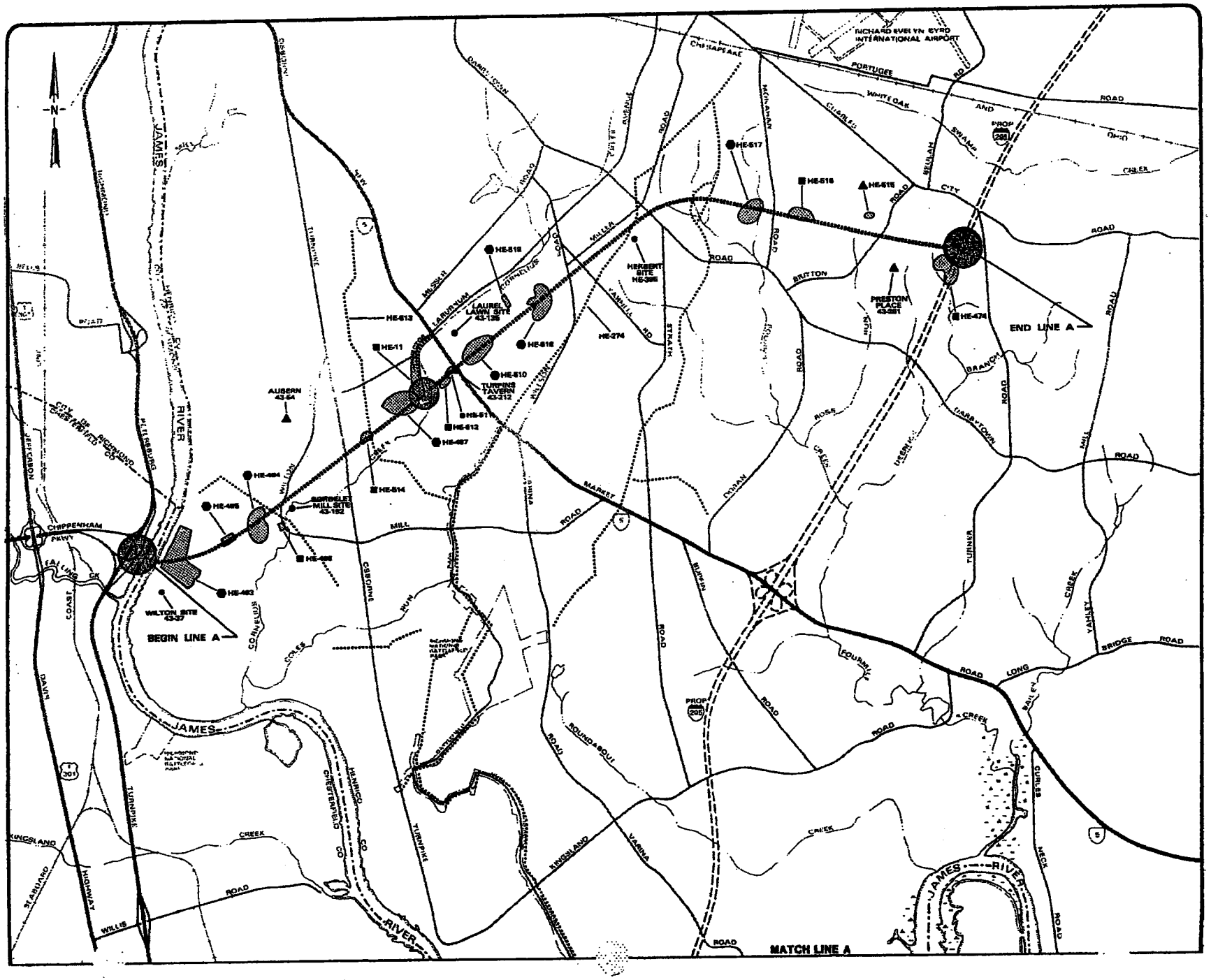
Turpins Tavern (HE-511) - No historic archival or archaeological data was found supporting the site as scientifically important nor historically significant at the local, regional or national level.

Wilton Ferry (HE-493) is both a multiple component prehistoric site dating from the late Archaic through late Woodland period and a support system for the middle 18th-early 19th century Wilton Plantation. The area has subsurface features surviving the plow zone and is considered eligible for the National Register of Historic Places.

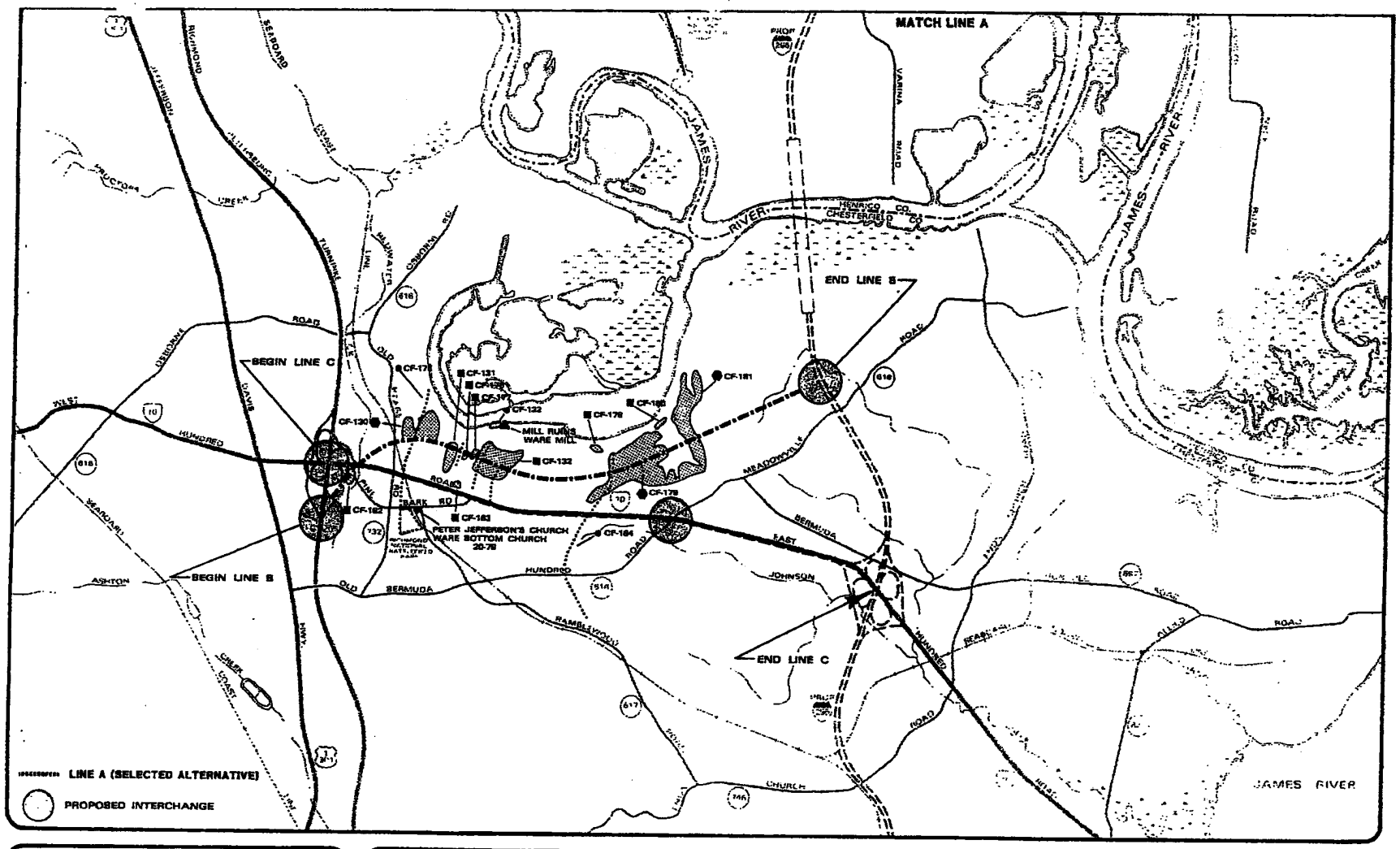
Redwood Field (HE-497) is a multiple component Archaic campsite/ lithic reduction station. It is significant because it is relatively undisturbed and has excellent capability for providing insight into the Archaic culture. This site is considered eligible for the National Register of Historic Places.

At the request of the Virginia Research Center for Archaeology, a survey was made of the bank area of the James River. An underwater survey on August 13 and 14, 1983, of the Line A crossing of the James River by divers using visual, hand and metal-probe examination on both banks (with the exception of the already dredged channel) did not produce evidence of archaeological activity within the project area.

A Finding of No Adverse Effect, in accordance with Section 106 of the National Historic Preservation Act, has been executed for Sites HE-493 and HE-497. A copy is included in Appendix A. Since these sites can be mitigated (data recovered), Section 4(f) requirements are not applicable.



N
RICHARD EVELYN BYRD INTERNATIONAL AIRPORT
PORTUGEE
WHITEOAK
AND
OHIO
CREEK
CHESAPEAKE
CHARLES
SWAMP
BEULAH
CITY
ROAD
PROP 295
HE-517
HE-516
HE-515
HE-519
HERBERT SITE HE-395
LAUREL LAWN SITE 43-135
HE-613
HE-11
HE-518
HE-274
HE-510
TURPINS TAVERN 43-212
HE-511
HE-512
HE-487
AUBERN 43-54
HE-484
HE-485
SORBELET MILL SITE 43-192
HE-514
HE-486
HE-483
WILTON SITE 43-37
BEGIN LINE A
END LINE A
PRESTON PLACE 43-251
HE-474
BRITTON
BRANCH
DARBYTOWN
ROSS
CREEK
DOBAN
MARKET
MILL
ROAD
JAMES
RIVER
CHIPPENHAM
PKWY
FALLING CK
COAST
DAVIS
TURNPIKE
KINGSLAND
CREEK
HIGHWAY
STABLAND
WILLIS
ROAD
CHESTERFIELD CO
HENRICO CO
OSBORNE
RUN
COLES
CORNELIUS
MILLER
STRATH
YARNELL RD
ROUNDABOUT
VARINA
FOURMILE
LONG
BRIDGE
ROAD
YAHLEY
CREEK
CURLES
NECK
ROAD
MATCH LINE A



RTE. 95/85 CONNECTOR
HENRICO AND
CHESTERFIELD COUNTIES

SCALE

0' 2500' 5000' 7500' 10,000'

LEGEND

- ▲ HISTORIC STANDING STRUCTURES
- ● HISTORIC & PREHISTORIC SITES
- ····· CIVIL WAR EARTHWORK
- ■ PREHISTORIC SITES
- HISTORIC SITES

CULTURAL RESOURCES

FIGURE 25

V. LIST OF PREPARERS

VDH&T

Robert H. Blackman Environmental Specialist	10 years experience in environmental planning	Campbell University, 1972, B.A. Sociology
C. Robin Jones Environmental Specialist	5 years experience in environmental planning	Southern Methodist University, 1973, B.A. Economics; University of Virginia, 1976, M.S. Urban Planning
Cary B. Adkins, Jr. Environmental Specialist	8 years experience in transportation, 5 years experience in noise and energy analysis	Virginia Polytechnical Institute, 1968, B.S. Civil Engineering; Georgia Institute of Technology, 1971, M.S. Civil Engineering
Dave L. Roberts Environmental Specialist	4 years experience in noise analysis	University of Richmond, 1978, B.S. Chemistry
Jon L. Moore Environmental Specialist	4 years experience in noise analysis	J. Sargeant Reynolds Community College, 1978, A.A.S. Environmental Engineering Technology
R. E. Gibson Environmental Specialist	8 years experience in air pollution analysis, 4 years experience in highway engineering	VCU, 1970, A.S. Engineering Technology; 1976, B.S. Chemistry
John T. Baranowski Environmental Specialist	6 years experience in environmental biology	Methodist College, 1968, B.S. Biology; VCU, 1974, M.S. Biology (Environmental)
Donald L. West Environmental Planner/ Wildlife Biologist	7 years experience in wildlife management	N.C. State, 1973, B.S. Wildlife Management; Tennessee Tech. University, 1976, M.S. Wildlife Management
Bryan S. McCormick Environmental Specialist	4 years experience in cultural resource management	VPI & SU, 1978, B.A. History

Lyle E. Browning Staff Archaeologist	9 years experience in cultural resources management and archaeological studies	VPI & SU, 1971, B.A. History; University of Bradford, Bradford, West Yorkshire England, 1976, Post-graduate diploma in Scientific Methods in Archaeology
Larry A. Wilkinson Cartographic Draftsman	16 years experience in cartographic drafting	
Susan H. Tinsley Cartographic Draftsman	16 years experience in cartographic drafting	
Jack D. Stuart Engineer	30 years experience in highway engineering and design	
Eric B. Millirons Transportation Planner	14 years experience in transportation planning	University of Virginia, 1968, B.A. Religion
	FHWA	
Harold T. Pettit FHWA Area Engineer	18 years experience in highway engineering	Virginia Polytechnic University, 1964, B.S. Civil Engineering
Robert B. Welton FHWA District Engineer	24 years experience in highway engineering with specialization in environmental areas	Virginia Polytechnic University, 1959, B.S. Civil Engineering

VI. LIST OF AGENCIES, ORGANIZATIONS AND PERSONS TO WHOM COPIES OF THE STATEMENT ARE SENT

The Federal, State and local agencies listed below received copies of the Draft EIS. Those indicated with an asterisk (*) responded and their comments are addressed in Section VII.

Federal

*U.S. Department of the Interior
Office of Environmental Project Review, Washington, D.C.
Regional Director, Fish & Wildlife Service, Boston, Mass.
*U.S. Department of Commerce, Deputy Assistant Secretary for Environmental Affairs, Washington, D.C.
*U.S. Department of the Army, Corps of Engineers, Norfolk, Va.
*Environmental Protection Agency
EIS & Wetlands Review Section, Philadelphia, Pa.
*U.S. Department of Health & Human Services, Washington, D.C.
*U.S. Department of Housing & Urban Development, Philadelphia, Pa.
*U.S. Department of Transportation
Coast Guard, Fifth District, Portsmouth, Va.
Urban Mass Transportation Administration, Philadelphia, Pa.
Office of the Secretary, Washington, D.C.
*Advisory Council on Historic Preservation, Executive Director, Washington, D.C.
*Federal Emergency Management Agency, Regional Director, Philadelphia, Pa.
*U.S. Department of Agriculture, Office of the Secretary, Washington, D.C.

State

*Virginia State Air Pollution Control Board
*Virginia Department of Agriculture & Consumer Services
*Virginia Research Center for Archaeology
*Virginia Commission for the Arts
*Virginia Department of Aviation
*Virginia Department of Conservation & Economic Development
Virginia Council on the Environment
Virginia Office of Emergency & Energy Services
*Virginia Commission of Game and Inland Fisheries
*Virginia Department of Health
Virginia Historic Landmarks Commission
Virginia Marine Resources Commission
*Virginia Institute of Marine Science
*Virginia Department of Mental Health & Mental Retardation
*Virginia Commission of Outdoor Recreation
*Virginia Soil & Water Conservation Commission
Virginia State Water Control Board
Henricopolis Soil & Water Conservation District
James River Soil & Water Conservation District

Local

County Administrator, Chesterfield County
*County Administrator, Henrico County
County Administrator, Hanover County
*City Manager, City of Richmond
*Executive Director, Richmond Regional Planning District Commission
Executive Director, Crater Planning District Commission
*Chairman, Richmond Metropolitan Planning Organization
*Port of Richmond Commission
Richmond Waterfront Terminal
Supervisor of Buildings, Grounds & Security, John Tyler Community College

VII. COMMENTS AND RESPONSES

Two Location Public Hearings was held, at separate sites, for the proposed connector. The first hearing was on March 22, 1983, at Meadowbrook High School and the second was at John Rolfe Middle School on March 24, 1983. Prehearings were conducted at the same locations on March 15 and 17, respectively.

There were 30 citizens in attendance at the first hearing and five persons elected to speak. A total of 139 citizens attended the second hearing and 12 persons spoke. There were seven letters and two petitions received for the record.

One petition favored Line A; the second petition opposed Line A. Nine of the speakers and five of the written statements favored Line A. Opposition to Line A was expressed by six of the speakers and in two of the letters.

The following addresses questions raised at the Location Public Hearings.

- Some of the citizens felt that the project should be extended across the James River as Laburnum Avenue rather than part of the Interstate System. *This possibility has been under consideration for many years but has not been feasible because of the lack of funding.*
- It was suggested that the currently proposed connector (Line A) should follow a portion of Laburnum Avenue. *This option was considered previously and determined to be infeasible due to excessive costs, considerable property damage along Laburnum Avenue, mixing of interstate and local traffic, and a reduction in desirable traffic service.*

- A suggestion was made to relocate the City of Richmond's Deepwater Terminal to eliminate the lift-span or a high level level structure across the James River. *Preliminary investigations indicate that such an option would not be feasible or practical.*
- A request was made that the Department consider an alignment for the connector along existing Laburnum Avenue and Airport Drive. The major reason for this would be to provide more direct access to Byrd Airport by way of a limited access facility. *It is not feasible to use the general alignment of Laburnum Avenue and Airport Drive for the proposed Interstate connector. The need for more direct access to Byrd Airport has been placed in line for further consideration as part of the Department's on-going planning process.*
- A request was made that the Charles City Road connection be dropped from proposed Line A. *This has been done.*
- Several requests were made to construct Lines B and C instead of Line A. *This matter has been taken into consideration in the planning and decision-making process for this study. While Lines B and C are approximately 100 million dollars less to construct than Line A, should Line B or C have been selected as the proposed connector, Chippenham-Laburnum Connector would still need to be constructed to provide the necessary traffic relief both for a river crossing and for local/intra-regional traffic.*
- A statement was made by Chesterfield County and they questioned why the Line A proposal does not include any widening of Chippenham Parkway west of the RPT. *Currently there are two travel lanes in*

each direction; however, these lanes are on 33 feet of pavement and it would require only a very minor effort to have three lanes in each direction. For that reason, traffic calculations were based on said lanes. When the 2005 Plan for the Richmond area is developed, it is entirely possible that this plan will recommend modification of Chippenham Parkway.

- A request was made that further development of this project be closely coordinated with the City of Richmond and the newly created Richmond Port Commission to insure minimizing any potential detrimental effects on shipping. *This request will be adhered to by the Department.*
- Concern was expressed about the environmental impacts that a lift-span bridge versus a high-rise bridge will have on the James River and wildlife in the area. *All necessary requirements, both state and federal, will be adhered to during the construction of the bridge. The results of the wildlife study for proposed Line A show no significant impacts to wildlife species at this location (see Section IV-J of this Final EIS).*
- A statement was made pertaining to the destruction of farmland and property damage to homes adjacent to Line A. *Property owners will be compensated for the loss of their property within the proposed right of way of the project.*
- Concern was expressed that the construction of Line A would destroy an old tavern used as a hospital during the Civil War and several archaeological sites. *The Virginia Historic Landmarks Commission letters of September 10, 1982; March 23, 1983; May 17, 1983, address this concern (see Appendix A).*

- A request was made by a representative of a bicycle organization that plans for bicycle access across the James River be included in the proposed connector. *Since 1974 the Department has shown considerable interest in the development of bicycle facilities in the Commonwealth. In 1981 the Department issued its policy memorandum on the subject, which included the following: "Local governments are encouraged to develop bicycle facilities on a local and regional basis in order to satisfy the demands within each geographic area."*

  However, although the Department is interested in the development of this mode of travel, certain criteria had to be established for the Department to financially participate in such an activity. In regard to this particular facility (i.e., interstate roadway), the following are some of the conditions required that have not been met or are without documentation to prove that it meets the criteria:

  - *The Department will initiate bicycle facility construction only at the request of local governmental agencies. To date we have received no indication from either Henrico or Chesterfield County of any intent to make a request of this nature.*
  - *The facility must be accessible to users and must form a segment located and designed pursuant to an overall plan. In contacts with the two county administrations, there is no bicycle plan for this particular facility which would be part of an overall plan.*

- *It must be reasonably expected that the facility will have sufficient use in relation to cost to justify expenditure of public funds in its construction and maintenance. To date there has been no request to study usage of such a facility nor does VDH&T anticipate such a request from a local governmental agency. Therefore, usage cannot be ascertained.*

  Based on the above, the VDH&T cannot participate in this type of endeavor on this facility.

o Concern was expressed that with the proposed lift-span bridge open, traffic will back up on the Richmond-Petersburg Turnpike. *It is anticipated that river traffic will be encouraged not to travel under the bridge during rush hour traffic, thereby reducing traffic backups on the RPT. Design considerations for the storage of vehicles waiting to cross the structure when it has opened for river traffic are included in this document on page 21.*

As indicated previously, there were seven letters and two petitions submitted to the VDH&T in conjunction with the Location Public Hearings. Five letters supported Line A; two letters opposed Line A. One petition supported Line A; one petition opposed Line A. Two responses have been prepared for those letters in opposition to Line A or expressing concern over Line A.

VDH&T has received other letters from citizens opposed to Line A, due to impact on the Route 5 and Varina area. Since these letters were received after the 10-day limit, they are not included in the Public Hearing Transcript. Nevertheless, the concerns of these citizens have been considered in the selection of Line A.

March 28, 83

Mr. L. E. Brett Jr.
District Engineer

Richmond District Office

Dear Sir:

I am bitter opposed the proposed interstate connector: C Line.

My home is one of the twelve you will destroy, and the one next door is rich in history, it was a hospital during the Civil War. You will also disturb every home and property in this community, you will destroy the Varina area.

Have you stopped and thought about The New Market Road? State Route 5, being the Oldest Road

in America. It was first an "Old Indian Trail" It got its name by travelers coming from Williamsburg to Richmond to the "Market", after the Capital was moved to Richmond, May 1, 1780

I beg you do not destroy history once gone it can never be replaced. And another road in this area is not needed. You have Laburnum use it.

Sincerely
Grace H. Holder

Mrs. William D. Holder Jr.
Route 1, Box 120
New Market Road
Richmond, VA 23231

Line A - $164,212,000 ???
" B. 35,739,000

Mrs. William D. Holder, Jr.

As is often the case in highway construction on new location, there are property owners that are required to relocate due to their home being in the path of the road. The Department's Right of Way Division is required by both State and Federal regulations to assist displacees of highway projects in securing new housing that will meet decent, safe and sanitary standards.

The comment regarding the usage of the house next to this individual's home as a hospital during the Civil War is acknowledged by VDH&T. The Department, in conjunction with the Virginia Historic Landmarks Commission, has thoroughly investigated the background of this structure and has determined that the building has been altered drastically through the years, thereby eliminating any historical value in terms of eligibility to the National Register of Historic Places.

The request to use Laburnum Avenue has been previously studied and has been found infeasible from the standpoint of property damage, excessive cost, and inefficient traffic service.

COLONIAL ACRES FARM
ROUTE 1, BOX 110
RICHMOND, VIRGINIA 23231

804-795-1512

April 3, 1983

Mr. L. N. Brett, Jr.
District Engineer
Va. Dept. of Highways & Transportation
P. O. Box 259
Colonial Heights, Virginia 23834

Dear Sir:

We, the undersigned, would like to express our opposition to the selection of Line A as the corridor for a connector between the Richmond-Petersburg Turnpike and relocated Route I-295 (I-95). The purpose of this connector, as we understand it, is to enable the Richmond-Petersburg Turnpike to efficiently serve the projected traffic approaching the city limits of Richmond from the south.

In a telephone conversation, originating from our Varina Supervisor, on March 16, 1983, asking me (Reginald IV) if there were any problems presented by this road in our community; I informed him that most of the citizens of Varina with whom I am associated were very upset. He quickly informed me that the cost of this road would be minimal as 80% would be Federal funding and that it would be the only way we could hope to get a bridge across the river, connecting Laburnum Avenue to Chesterfield County. He also stated it would open this area up for development. My reply to him was that although he and I both knew that industrial development would be advantageous for Henrico County, it was highly improbable that this would occur. In the past, Varina citizens have preferred bedrooms over industry, and for the most part, their views haven't changed. Bedrooms do not, in any way, help your tax base. Furthermore, the creation of this connector link, with only an interchange off of Laburnum and all traffic having to funnel back through the Route5 and Laburnum Interchange, which is already a dangerous intersection, would necessitate the construction of a cloverleaf and the four-laning of Route 5 to accomodate the traffic. All of this funding would be at the State and Local level.

In this time of economic difficulties when we are asked repeatedly to "bite the bullet", we feel Line B with a total cost of $35,739,000 versus Line A with a $164,212,000 price tag is a wiser decision. The fact that the Federal Government will provide 80% of the funding is of little consequence, as we all know from whence comes the funds for the Federal Government.

It was very interesting to note from the study of proposed Line A that no businesses were displaced. We were under the impression that agriculture, which is the number one industry in Virginia, was a business. It is true that while we are not entirely displaced now, with this road, it would be only a matter of time.

COLONIAL ACRES FARM

ROUTE 1, BOX 110

RICHMOND, VIRGINIA 23231

804-795-1512

We have been told that the residences displaced under Line B are predominately mobile homes. Would it not cause less stress to move these than to upset citizens whose residences have been established for years?

So far as accessibility to Chesterfield County is concerned, one may take the Downtown Expressway-Powhite Parkway and travel from Varina to Cloverleaf Mall in about twenty minutes. Would Line A be so much better that we ask the citizens to provide funds to build Line A costing approximately 4½ times as much as Line B?

We feel that if Line A has to be built that it is essential that interchanges be added at Darbytown Road and Route 5 to minimize the congestion at Laburnum Avenue and Route 5.

Sincerely,

Reginald H. Nelson IV

Reginald H. Nelson, IV

Phyllis G. Nelson

Phyllis G. Nelson

Reginald W. Nelson

Reginald W. Nelson

Reginald H. Nelson Jr.
by R H Nelson IV (POA)

Reginald H. Nelson, Jr.

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1983

141 Richmond District Office

Colonial Acres Farm

While Line B is cheaper than Line A, Line B if built would still require the construction of a facility in the vicinity of Line A to efficiently handle projected traffic volumes. Therefore, the construction of Line A is more economical when compared to the costs of both a Laburnum-Chippenham Connector and Line B.

The Department acknowledges that property at Route 5 is a viable farming operation. However, even after the construction of Line A, farming operations will still be able to function.

At the time of this study, the Department has determined that no further interchanges are necessary to minimize congestion on Laburnum Avenue, Route 5 and Darbytown Road.

MAR 23 1983
Richmond District Office

James J. Bishop
508 W. Hundred Rd.
Chester, Va. 23831
March 23, 1983

Mr. L.E. Brett, Jr.
District Engineer
Va. Dept. of Highways & Transp.
P.O. Box 259 Colonial Heights, Va.

Dear Mr. Brett,
I have written you this letter in regard to the proposed connector link options for I 95 & I 295. I want to go on record as being for the connector link along line A.
(over)

I think this route would serve more people and provide a badly needed bridge across the river.

I have lived on route 10 for twenty five years and would be affected by line C and am highly opposed to a link along line C which would make route 10 a limited access highway. Line B or C won't provide another bridge across the river which is so badly needed. (over)

So I am for line A.
Thank you very much.

Sincerely,
James J. Bishop

COUNTY OF NEW KENT

BOARD OF SUPERVISORS
ROYAL E. BOWYER, WEIR CREEK
EDWARD M. ALLEN, JR., CUMBERLAND
RICHARD E. WILLIAMS, ST. PETERS
BARNEY GROVES, BLACK CREEK

TELEPHONE AREA CODE 804
NEW KENT 966-9861
RICHMOND 730-9550
TOANO 564-3480
WEST POINT 843-3593

Office of County Administrator

March 23, 1983

Mr. L. E. Brett, Jr.
District Engineer
Virginia Department of
Highways and Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Brett:

The County of New Kent has reviewed the information your office has provided to us concerning a proposed interstate connector between the Richmond-Petersburg Turnpike and the proposed Interstate 295. Please be advised that the County of New Kent is in full agreement with the need for a connector between these two rights-of-way. Of the three corridor lines which are under consideration, New Kent is in favor of the corridor extending from Chippenham Parkway to Charles City Road which has been identified as "Line A."

Proposed "Line A" would not only provide a connector between the Richmond-Petersburg Turnpike and proposed 295 but would also provide the opportunity to establish a much needed circumferential route in this section of the Richmond region. "Line A" provides a much needed and much more direct connection between the eastern part of the Richmond region (eastern Henrico, Hanover, New Kent and Charles City) and Chesterfield County than the other proposed corridors.

Please enter this written statement into the public hearing record so that it might be given proper consideration by the Virginia Department of Highways and Transportation during the selection process.

Sincerely,

Royal E. Wood
County Administrator

pmb

Richmond District

P. O. Box 50, New Kent, Virginia 23124

307 Meadowville Road
Chester, Va., 23831
March 25, 1983

Mr. L. E. Brett, Jr.
District Engineer
Va. Dept. Of Highways
P.O. Box 259
Colonial Heights, Va. 23834

Dear Mr. Brett,

I am writing concerning the Proposed Interstate Connector. I was present at the Location Public Hearing March 22nd. and did not sign up to speak. After listening to Mr. J. Royall Robertson I felt that he conveyed my thoughts and concerns so well that I would like your Department to know this and add our voice to your list for those in favor of Line A.

I would like to also compliment you on your staff in your Department at Colonial Heights, especially Mr. W.J. Engels. My husband and I attended your meeting at Enon concerning the proposed 1-295 as well as the meeting March 22nd at Meadowbrook High School. At both meetings we found your employees both helpful and courteous. On several occasions I have called Mr. Engels to ask questions which I did not understand and he also went over the plans at your offices for the proposed interstate connectors and he was most helpful and understanding.

We will be most anxious to know what the final decisions will be concerning all these proposals, as you can well imagine, since we reside on Meadowville Road and seem to be right in the middle of all these plans!

Sincerely,

Alice H. Bowen

Alice H. Bowen (Mrs. Knowles R.)

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MAR 30 1983
Richmond District Office

BOARD OF SUPERVISORS
J. ROYALL ROBERTSON, CHAIRMAN
MATOACA DISTRICT
R. GARLAND DODD, VICE CHAIRMAN
BERMUDA DISTRICT
C.L. BOOKMAN
CLOVER HILL DISTRICT
HARRY G. DANIEL
DALE DISTRICT
JOAN GIRONE
MIDLOTHIAN DISTRICT

CHESTERFIELD COUNTY
P.O. BOX 40
CHESTERFIELD, VIRGINIA 23832

COUNTY ADMINISTRATOR
RICHARD L. HEDRICK

March 22, 1983

Mr. L. E. Britt, Jr.
District Engineer
Department of Highways
and Transportation
1221 East Broad Street
Richmond, VA 23219

Re: Proposed Interstate Connector
Project 0095-020-101, PE-102
0095-043-104, PE-102

Dear Mr. Britt:

We, at the Utilities Department, have reviewed the three (3) alternate routes for the connector between the Richmond/Petersburg Turnpike and proposed Interstate 295.

The routing shown by Line A will require very little or no adjustments to our utilities. Some adjustments will be required if Line B is selected. The routing shown by Line C probably will require extensive relocation of our water line and sewage force main.

We would recommend selection of Line A as the route to follow for the above reasons. If there are any questions, please call me at 748-1401.

Very truly yours,

David H. Welchons
Acting Director of Utilities

DHW/dka

cc: Frank Gee
Raymond Birdsong

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MAR 24 1983
Richmond District Office

SHOCKLEY DEWITT GARDNER, M. D.
ROUTE FIVE - "POSSUM HOLLOW"
R. F. D. 1 - BOX 123
RICHMOND, VIRGINIA 23231

TELEPHONE 795-2016

April 4, 1983

Mr. L. E. Brett, Jr.
District Engineer
Va. Dept. Of Highways & Transp.
P. O. Box 259
Colonial Heights, Va. 23834

Dear Mr. Brett:

I feel sure that time has limited our list of names.

We tried to contact the people affected in the path of connecter A, either directly on indirectly.

Generally thinking, I beleive that the Majority of the people would like Laburnum completed as planned.

In my contacts I find the hardship facts from these people very sad.

Sincerely,

Mrs S. D. Gardner.

Mrs. S. D. Gardner

cc

Petition contained 329 signature

PETITION

We, the undersigned citizens from Varina District in Henrico County, are opposed to the proposed interstate connector: Department of Highways and Transportation Project Numbers #0095-020-101, PE - 102; and #0095-043-104, PE - 102.

Name	Address	Phone
James B. Donati Jr	309 Lee H.S.	737-7027
John G. Ragsdale	Rt 14 Box 198 Rich Va	222-2968
[illegible]	1183 Elm Ave Highland Springs Pa	737-6100
John G. Ragsdale III	Rt 14 Box 198 Rich Va. 23231	222-2968
William H. Ragsdale	4 Fawnwick Dr. Rich Va 23231	795-5168
Lester B. Waldrop	3501 Caliber Dr. " "	795-5445
Bruce Waldrop	" " "	" "
[illegible]	205 [illegible] Hampton 23150	737-7055
Rebecca C. Robinson	Rt. 5, Box 287H Rich, Va 23231	795-5123
Emma B. Ragsdale	Rt 14, Box 198 Richmond Va.	222-296
Richard A. Wilkerson	Rt 5 Box 207C Richmond Va	795-2
Wayne Engelhart	Rt 1 Box 147 C Richmond Va	
Kathy Engelhart	Rt 1 Box 147 Richmond Va.	
[illegible]	Rt 1 Box 154 Richmond Va	
Bruce Wilson	" " "	"
Delia Gennison	Rt. 1 Box 151 A Richmond Va	
[illegible] J. Davis	Rt 1 Bx 156 A. Richmond Va	
James Davis	Rt 1. Bx 156 A Richmond Va.	
[illegible]	Route 157 Richmond	
Shirley Garrett	Rt. 1 Box 155A Richmond Va 23231	795-52
Howard Garrett	Rt. 1 Box 158A Richmond Va 23231	

1 PAGE OF PETITION CONTAINING 329 SIGNATURES

Mr L.T. Brett, Jr.
District Engineer
Va. Dept. of Highways & Transp.
P.O. Box 259
Colonial Heights, Va. 23834

March 1[illegible], 19[illegible]

MAR [illegible] 1958

Richmond District Off.

I Would like to see Line A of proposed interstate route 2[illegible] installed

J. T. Ashworth Bartlett Rd Rt. 14 Box 218A Varina Henrico Va.
A. C. Shuffleberger 444 Cogbill Rd. Richmond Va. 23234
C.R. Gilbert 1919 N Battery Dr Henrico Va 23222
G.R. McCola 8110 Inca Ct Rich 23237
Patsy Hailey 8307 Emerald Ln Richmond Va 23235
Michael A. Ott Rt 5. Box 319-0 RICHMOND 23234
Donald W Hart 916 Lexington Dr Mechanisville VA
John N. Llewellyn Sr 13 Huntsman Rd - Sandston, Va.
Robert L Bowles Rt 2 Box 242H Sandston VA,
Richard N. Wood, Jr. Rt. 14 Box 216C RICHMOND, VA. 23231
Howard R. Dunn Rt 14 Bartlett Rd. Varina
Margaret M. Dunn Rt 14. Bartlett Rd. Varina
Russell E. Wilson 16A Midview Rd VARINA
Michelle H. Wilson 16A Midview Rd VARINA
Joyce J Ashworth Rt 14 Box 218A Varina Bartlett Rd.
Rebecca S. Wood Rt 14 Box 216C Varina Bartlett Rd. 23231
Eva Tomes Rt. 14 Box 215B Varina Ansley Rd. 23231
Lorence Chenault Rt 1 Box 1154 Aylett, VA 23009
Stephen B Stanley Rt 1 Box 125B (Portugal Rd) Sandston Va 23150
Steven R Sayon 500 York Ave Highland Spring VA 23075

PETITION CONTAINED 85 signatures

JAMES E. JACKSON
ROUTE 14 BOX 221-C ANSLEY RD.
RICHMOND, VA. 23231

April 1, 83

Proposed I,295 Interstate connector, across james River

Mr. L, E. Brett, Jr. Distrivt Engineer

Sir I live on the corner of Media Park & Ansley Road, lots 19,& 20, Media Park sub, div. Henrico county,

if you need my lots, ti yours I:ll move, Please stay out of the wet lands as much as possiable,

BUILD THE ROAD, ITS 30 years behind time,

some of the wells in this area are pouluted, (not mine)

the well water has to beBbiled, thats what I heard,so as you can see the land will make a good road bed,

as I can see School House Road is not paved, from Media park Road

No hassle I:ll sell

Thanks

James E. Jacksom

James E Jackson

GO →

the man across frome Said he D

Sell Too no Problem

RECEIVED

[illegible] 1983

[illegible]

The following comments were received from Federal, State, and local agencies and individuals who reviewed the Draft Environmental Impact Statement. Each letter is shown with the appropriate response, when necessary.

United States Department of the Interior
OFFICE OF THE SECRETARY
MID-ATLANTIC REGION
143 South Third Street, Philadelphia, Pennsylvania 19106

March 30, 1983

ER 83/167

Mr. Paul F. Chamberlain
Division Administrator
Federal Highway Administration
400 North Eighth Street
P.O. Box 10045
Richmond, Virginia 23240

Dear Mr. Chamberlain:

This is in response to a request for the Department of the Interior's comments on the draft environmental statement for Route 95/85 Connector (Richmond-Petersburg Turnpike to I-95), Henrico and Chesterfield Counties, Virginia.

GENERAL COMMENTS

We take this opportunity to reiterate our opposition to any connector for I-95, such as the Hoke Brady beltway alignment, which would impact Richmond National Battlefield. The current Route 95/85 Connector proposal avoids the battlefield, therefore, our concerns on this project are restricted to other environmental issues.

ENVIRONMENTAL STATEMENT COMMENTS

Archeological Resources

1.1: We recommend a Phase I underwater archeological survey be done in the James River at the proposed crossing. The possibility is high that Civil War and other shipwrecks are in the project area. Determinations of eligibility to the National Register should be established in accord with 36 CFR 800, as amended, and this information should be included in the final environmental impact statement.

1.2: Additional archeological investigation of the 12 recorded sites in Alternative A should be completed prior to construction activities. Again, the potential eligibility for the National Register should be determined and addressed in the report.

1.3: The Virginia Department of Highways and Transportation should continue coordination with the Virginia Historic Landmarks Commission and incorporate its recommendations into project planning. Documentation of the State Historic Preservation Officer's concurrence on the connector project should be included in the impact statement.

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APR 4 1983
ENVIRONMENTAL QUALITY DIV.

Fish and Wildlife Resources

The draft document lacks sufficient information on fish and wildlife resources. The final statement should include more discussion of existing stream types, fish species inhabiting the streams and ponds, wetlands, water quality, wildlife habitat types, species of birds and mammals inhabiting the study area and any endangered or threatened species or species of special concern. Such discussion should include the potential primary and secondary impacts on these resources.

1.4:

We also recommend that alignment shifts to avoid channel modifications be more thoroughly investigated as part of project planning, with particular regard to Alternative A.

1.5:

The construction of Alternatives A or B would open up to development large areas of undeveloped land at a much faster rate than would occur without the project. The forests, old growth fields and abandoned farms in the alternative corridors are important habitat. We are concerned with how much of a decline in deer and turkey populations would occur from this habitat loss. The final impact statement should address the potential population changes. In addition, turkeys are very susceptible to highway noise disturbance and will avoid an area up to 1/2 mile away from a highway. The final report should address how the highway noise will further restrict the immediate population.

1.6:

Specific Comments

Page 100 - The wetland description omitted mention of palustrine forested wetlands. This is inconsistent with page 121 which refers to "wooded-type swamps along the corridor."

1.7:

Page 101 - Anadromous fish as stated are found in the James River and lower Johnson Creek. It is also possible they are in Cornelius Creek and other tributaries. The final statement should document the presence or absence of anadromous fish at the site of proposed stream crossings and channel modifications. The impacts of the channel modifications, relocations and box culverts on future spawning activity should also be addressed.

1.8:

Page 105 - The length of the channel modification for Alternative B, and reasons for the new drainage for the existing pond need to be stated.

1.9:

Page 112 Wetland Impacts - The statement that no wetlands are associated with the project is incorrect. Wetlands are found in the project area (see comments, pages 100, 122). Palustrine forested wetlands in the Johnson Creek area were described in the I-95 final environmental impact statement and were verified by field review by the Fish and Wildlife Service on November 8, 1982.

1.10:

1.11: Page 116 - If at the Route 618 interchange the new channel design "will not cause any increase in the 1% (base flood or 100 year) flood stage...," it is unclear why the Federal Insurance Administration floodplain study might be subject to revision.

1.12: Page 121 - As stated earlier, the paragraph on wetlands is inconsistent with previous statements (pages 100 and 112) on wetlands.

1.13: Page 122 - Creating habitat should not be considered a positive benefit of highway projects. Generally, some wooded or shrub type habitat is converted to a mowed strip. While this may encourage certain species of birds, the overall diversity usually declines. Further, creating edge habitat draws certain species to the roadside with resultant increases in auto related mortalities and dangers to motorists trying to avoid the animals.

FISH AND WILDLIFE COORDINATION ACT COMMENTS

The statement recognizes the interrelated Federal actions associated with this project, including Coast Guard and U.S. Army Corps of Engineers permits. The Fish and Wildlife Service (FWS) will provide comments pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.), when it reviews the required permit applications. FWS advises it may concur, with or without stipulations, or object to the proposed work, depending upon project effects on fish and wildlife resources which may be identified and evident at that time. Adequate mitigation to offset, reduce or compensate for fish and wildlife losses would be considered in the review of the permit application(s). In addition, FWS advises it will oppose any permits that do not adequately mitigate for wetland losses and channel modifications. In view of these concerns, we recommend you coordinate further with FWS through the Area Manager, Fish and Wildlife Service, 1825B Virginia Street, Annapolis, Maryland 21401 (phone: FTS 922-4197 or commercial 301/269-6324.

We appreciate the opportunity to provide these comments.

Sincerely,

Anita J. Miller

Anita J. Miller
Regional Environmental Officer

cc: Robert L. Hundley
Environmental Engineer
Virginia Department of Highways
and Transportation
1401 East Broad Street
Room 1107
Richmond, Virginia 23219

H. Bryan Mitchell
Executive Director
Virginia Historic Landmarks Commission
221 Governor Street
Richmond, Virginia 23219

U.S. Department of the Interior

Comment 1.1: Input received from the Virginia Research Center for Archaeology dated July 22, 1983, indicates that this portion of the James River has been disturbed and does not require an underwater survey. VRCA did request that the bank areas on both sides of the river be examined. An underwater survey on August 13 and 14, 1983, of the Line A crossing of the James River by divers using visual, hand and metal-probe examination on both banks, with the exception of the already dredged channel, did not produce evidence of archaeological activity within the project area.

Comment 1.2: A Phase I survey was conducted for all sixteen potential archaeological sites. It was determined the thirteen sites discussed in the Draft EIS were either outside of the proposed right of way or were not worthy of further investigation.

Comment 1.3: Refer to the letter dated August 18, 1983, from the VHLC endorsing mitigation of Wilton Ferry and Redwood Field.

Comment 1.4: Refer to the wildlife discussion on page 117 for revisions, and to the water quality analysis on page 99 for revisions.

Comment 1.5: Channel changes in Cornelius Creek have been examined thoroughly and have been designed to minimize impacts as much as possible.

Comment 1.6: Discussion and coordination on the proposed corridor (Line A) with biologists of the Commission of Game and Inland Fisheries indicate a very high deer population in the area (15-25). Turkey populations are 2-6 per square mile. Population of deer and turkey will not decline, but vehicle-animal collisions will probably increase in the Varina area with the new corridor.

Discussion with the Game Commission about noise impacts of the proposed project to turkey populations indicated there would be a minor to adverse impact. Excellent turkey populations are found along Virginia interstate, primary and secondary road systems. Some of the biggest populations are found in military areas with constant heavy artillery fire year-round.

Comment 1.7: The Department acknowledges that palustrine forested wetlands, as defined by the U.S. Fish & Wildlife publication "Wetlands and Deepwater Habitats of the United States," are along Alternatives B and C. These wetlands are not considered significant as defined by Executive Order 11990; therefore, a wetlands finding is not required.

Comment 1.8: The Draft EIS acknowledged anadromous fish in the James River. A fish survey was conducted during the proposed time of year for spawning (mid-March to June) at two locations along Cornelius Creek. No anadromous species were collected during the survey nor have local residents ever observed these fish (shad, herring) in the stream.

Comment 1.9: Alternative B is no longer being considered for the selected alignment.

Comment 1.10: No significant wetlands are associated with the project construction. Palustrine forested wetlands in the Johnson Creek area described in the I-295 Final EIS on Line C would not have been impacted due to a revision in the interchange associated with I-295, if Line C had been selected.

Comment 1.11: Line C and associated Route 618 is no longer being considered for the selected alignment.

Comment 1.12: This paragraph refers to waterfowl marshes and swamps near the corridor.

Comment 1.13: Some wildlife biologists recommend development of nesting cover for birds and other wildlife along highways, but others suggest that cover attractive to deer and other wildlife species should be discouraged. Highway-wildlife relationships are complex and there are many grey areas which can be classified only by well designed, scientific research. Highways are neither all bad nor all good in their impacts on wildlife habitat. The new corridor would increase the rate of auto related mortalities due to high population of deer and small mammals.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Washington, D.C. 20230

OFFICE OF THE ADMINISTRATOR

February 23, 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways
and Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Hundley:

This is in reference to your draft environmental impact statement entitled "Route 95/85 Connector, Henrico and Chesterfield Counties, Virginia." Enclosed are comments from the National Oceanic and Atmospheric Administration.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving two copies of the final environmental impact statement.

Sincerely,

Joyce Wood

Joyce M. Wood
Chief
Ecology and Conservation Division

Enclosure

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

February 23, 1983

TO: PP2 - Joyce M. Wood

FROM: N/MB - Robert B. Rollins *D Summers for*

SUBJECT: DEIS 8302.06 - Route 95/85 Connector, Henrico & Chesterfield Counties, Virginia

The subject statement has been reviewed within the areas of the National Ocean Service's (NOS) responsibility and expertise, and in terms of the impact of the proposed action on NOS activities and projects.

Geodetic control survey monuments may be located in the proposed project area. If there is any planned activity which will disturb or destroy these monuments, NOS requires not less than 90 days' notification in advance of such activity in order to plan for their relocation. NOS recommends that funding for this project includes the cost of any relocation required for NOS monuments. For further information about these monuments, please contact Mr. John Spencer, Director, National Geodetic Information Center (N/CG17) or Mr. Charles Novak, Chief, Network Maintenance Branch (N/CG162), at 6001 Executive Boulevard, Rockville, MD 20852.

2.1:

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10TH ANNIVERSARY 1970-1980
National Oceanic and Atmospheric Administration
A young agency with a historic tradition of service to the Nation

U.S. Department of Commerce

Comment 2.1: The specific location of Geodetic control survey monuments will be pinpointed during final bridge design; and if disturbed, they will be handled during construction of the proposed project.

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
FORT NORFOLK, 803 FRONT STREET
NORFOLK, VIRGINIA 23510

REPLY TO
ATTENTION OF:

March 31, 1983

Permits Section (Multiple Streams-James River)

Mr. R. L. Hundley
Environmental Engineer
Virginia Department of Highways
and Transportation
221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Hundley:

This is in response to your February 1, 1983 letter requesting comments on the Draft Environmental Impact Statement Route 95/85 Connector.

We would prefer either alternative B or C as they would qualify for a Nationwide Permit because the areas are located above the headwaters. However, if
3.1: alternative A is chosen, we would prefer that the stream crossings be spanned or limit the placement of the associated fill. In addition, we would prefer no channel changes. The final EIS should discuss in greater detail why these channel changes are necessary.

Thank you for the opportunity to comment. The point of contact for this project is Mrs. Julie Samuel at telephone (804) 441-3657.

Sincerely,

William H. Poore, Jr.
Chief, Regulatory
Functions Branch

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U.S. Department of the Army

Comment 3.1: Alternative A, the selected alignment, will be designed to span or limit placement of fill where possible in the final design. The channel changes associated with Cornelius Creek are necessary to minimize impacts to housing and to the creek's base floodplain.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
6TH AND WALNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

FEB 28 1983

Mr. R. L. Hundley, Environmental Engineer
Virginia Department of Highways & Transportation
1221 E. Broad Street
Richmond, Virginia 23219

Re: Route 95/85 Connector, Henrico and Chesterfield Counties, Virginia

Dear Mr. Hundley:

We have reviewed the draft Environmental Impact Statement for the above proposed project and have classified it as ER-2 in EPA's Reference Category. We have enclosed a copy of the Definition of Codes for the General Nature of EPA Comments to provide a more detailed description of this rating. Also, in accordance with our responsibilities under Section 309 of the Clean Air Act to inform the public of EPA's views on the potential environmental effects of Federally assisted actions, this rating will be published in the Federal Register.

While the EIS is generally adequate in its discussion of the potential environmental impacts that can be expected to result from construction and operation of the facility, we have several comments concerning noise and water quality issues raised in the document.

Noise

On page 81 of the DEIS, it is stated that all barriers but A-4, B-3, C-1, and C-2 have been eliminated from further consideration due to excessive costs with respect to the number of receptors protected. The Final EIS should indicate at what cost/receptor the barriers cost is considered excessive, and what role the impact at the particular site plays in the decision-making process. For example, Barrier C-1 ($36,054/receptor) and C-2 ($40,581/
4.1: receptor) are still under consideration to protect residences at Site 14, even though increases over ambient or no-build noise levels are minimal. However, at Site 10, Barrier B-1 has been eliminated from further consideration due to a cost of $93,312/receptor, even though the impacts at this site have been shown to be substantial (+ 14 dBA increase and exceeding the DNL). We recognize that at some point the cost of constructing noise abatement must be considered excessive, we just do not understand the guidelines being used in making these decisions. The Final EIS should discuss this issue in greater detail to assist our understanding of the process.

Water Quality

EPA's position concerning stream relocations has been accurately reflected
4.2: in the Draft EIS. While the EIS indicates that appropriate mitigation measures will be incorporated, we continue to recommend that further design efforts be directed at minimizing or eliminating the channel relocations

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associated with Lines A and C. Furthermore, while the necessity for the relocation of Johnson Creek has been discussed in the DEIS, the FEIS should provide a more detailed discussion of why the Cornelius Creek modifications are unavoidable. The inclusion of design drawings in the FEIS might assist in this discussion. EPA looks forward to continued coordination of this project at the regularly scheduled project coordination meetings held in your office. A field review of the project may be deemed appropriate once an alignment is selected for final design.

We hope that these comments assist you in meeting your NEPA responsibilities. If we can be of further assistance, or if you have any questions, please contact Mr. William J. Hoffman of my staff at 215-597-2650.

Sincerely,

Henry P. Brubaker

Henry P. Brubaker
Chief
Planning & Analysis Section

Enclosure

Definition of Codes for the General Nature of EPA Comments

Environmental Impact of the Action

LO—Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement or suggests only minor changes in the proposed action.

ER—Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU—Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1—Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2—Insufficient information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3—Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the draft statement.

If a draft impact statement is assigned a Category 3, ordinarily no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

U.S. Environmental Protection Agency

Comment 4.1: The Department has no fixed cost per receptor figure upon which it bases barrier decisions. Rather, these decisions are based on such factors as the level of noise impact, barrier effectiveness, an evaluation of the site to be protected, and barrier cost. In making final decisions on whether or not to provide noise barriers, the views of the impacted residents are also considered. The level of noise impact at the receptors being protected is only one of several factors upon which noise barrier decisions are based. In accordance with FHPM 7-7-3, a traffic noise impact occurs and abatement measures must be considered when the predicted design year noise levels exceed the Noise Abatement Criteria or are substantially higher than existing levels. At the residences to be protected by barriers C-1 and C-2, even though the predicted noise levels will not be substantially higher than existing levels, the NAC will be exceeded by as much as 5 decibels. (Please note that Line C has been eliminated from further consideration.)

Comment 4.2: Design efforts will be directed to minimize or eliminate the channel relocations associated with the selected alignment. The channel modifications associated with Cornelius Creek are necessary to minimize the impacts to housing and to eliminate substantial longitudinal base floodplain encroachments to the creek.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta GA 30333
(404) 452-4095
March 24, 1983

Mr. Robert L. Hundley
Environmental Engineer
Virginia Department of Highways
and Transportation
1401 East Broad Street, Room 1107
Richmond, Virginia 23219

Dear Mr. Hundley:

We have reviewed the Draft Environmental Impact Statement (EIS) for Route 95/85 Connector, Henrico and Chesterfield Counties, Virginia. We are responding on behalf of the Public Health Service.

The Draft EIS mentions that 13 families will have to be relocated under the preferred alternative (A). While cost estimates for the relocation and a statement,
5.1: "If needed, last resort housing will be provided in accordance with the State Relocation Plan," are provided in the Draft EIS, detailed relocation procedures are not given. These procedures should be addressed in the Final EIS.

Information is provided on existing and anticipated noise levels as a result of project completion. It is noted that 117 receptors will be impacted with noise levels exceeding Noise Abatement Criteria (NAC). Have any land use con-
5.2: trols been considered as a project participation requirement to prevent future development in those areas exceeding NAC?

The Final EIS should address potential mosquito problems that may be created in areas such as borrow pits as a result of roadway construction. If there are
5.3: potential problems, a description should be provided on the control measures that will be employed and who will be responsible for implementing these procedures.

It is noted that some of the land taken for the right-of-way is prime and unique agricultural farmland. The Final EIS should state whether or not the project
5.4: is in compliance with the joint memorandum of August 30, 1976, from the Council on Environmental Quality and the Department of Agriculture concerning prime and unique farmland.

Thank you for the opportunity to review this Draft EIS. Please send us a copy of the final document when it becomes available. If you should have any questions concerning our comments please contact Mr. Lee Tate at FTS 236-6649.

Sincerely yours,

Frank S. Lisella

Frank S. Lisella, Ph.D.
Chief, Environmental Affairs Group
Environmental Health Service Division
Center for Environmental Health

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MAR 1983
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U.S. Department of Health & Human Services

Comment 5.1: Refer to page 80 for addition of information on last resort housing.

Comment 5.2: Zoning and other land use decisions are the responsibility of the local jurisdictions (i.e., Henrico and Chesterfield Counties) and not VDH&T. The Department will encourage the Counties to avoid incompatible land uses such as residential activities in high noise zones. To this end, Henrico or Chesterfield County planning officials will be furnished with design year noise levels at various distances from the highway for both developed and undeveloped lands or properties in the immediate vicinity of the project, in accordance with FHPM 7-7-3.

Comment 5.3: Borrow pits will be constructed to prevent ponding of water for long periods of time.

Comment 5.4: On August 11, 1980, the Council on Environmental Quality supplemented a joint memorandum of August 30, 1976. The Federal Highway Administration further commented in a memorandum of September 15, 1980, from the Director of Environmental Policy, DOT, on the consideration of prime or unique agricultural lands in highway project studies. The memorandum lists three steps to be undertaken to ensure that prime and unique agricultural lands are properly addressed during the development of project-related environmental documents. These procedures were implemented and reflected in the Draft and Final Environmental Impact Statements.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
PHILADELPHIA REGIONAL OFFICE
CURTIS BUILDING, SIXTH AND WALNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

REGION III

IN REPLY REFER TO:

MAR . 1983

Mr. R. L. Hundley
Environmental Engineer
Virginia Department of Highways
and Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Hundley:

We have completed our review of the Draft Environmental Impact Statement for the Route 95/85 Connector in Henrico and Chesterfield Counties and have no comments to offer.

Sincerely,

Harry W. Staller

Harry W. Staller
Acting Regional Administrator, 3S

Letter #6: No response necessary.

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MAR 21 1983

ENVIRONMENTAL
QUALITY DIV.

AREA OFFICES
Baltimore, Maryland - Philadelphia, Pennsylvania - Pittsburgh, Pennsylvania - Richmond, Virginia - Washington, D.C.

HEV-10

Memorandum

U.S. Department of Transportation
Office of the Secretary of Transportation

Subject: Draft EIS: I-95/85 Connector
Chesterfield and Henrico Counties, Virginia
FHWA-VA-EIS-83-01-D

Date: MAR 14 1983

From: Joseph Canny, Deputy Director
for Environment and Policy Review, P-32

Reply to Attn. of:

To: Ali F. Sevin, Director
Office of Environmental Policy, FHWA/HEV-1

We have reviewed the subject EIS and have the following comments:

7.1: We do not find evidence that the east leg (Route 5 to I-95) of the preferred alternative (line A) is consistent with metropolitan transportation planning. We note that the east leg of line A is opposed by the City of Richmond and Chesterfield County.

The west leg of line A (Chippenham-Laburnum/Route 5) appears to have the support of all parties concerned and is an adopted part of the metropolitan transportation plan.

7.2: The west leg of alternative A should be analyzed as a separate alternative and in combination with either alternative B or C.

7.3: The very brief discussion in the EIS of the proposal to build only the west leg of alternative A does not appear adequate, given the local interest in this approach. Further, it appears that the state's objections to that approach could be resolved by combining it with alternative B or C.

7.4: In addition, we note that the discussion of the anticipated land use impacts of the proposed alternative is quite brief. Additional consideration of this issue should be reflected in the final EIS.

We appreciate the opportunity to review this draft EIS.

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U.S. Department of Transportation

Comment 7.1: The Metropolitan Planning Organization has endorsed by resolution the Line A concept, and the 1995 Transportation Plan will be modified at an appropriate time in the future. The east leg of Line A (i.e., Charles City Road Connector) has been eliminated from this project, thereby acknowledging the City of Richmond's concern (see page 208). Chesterfield County supports Line A.

Comment 7.2: Refer to pages 20 through 32 for narrative revisions on Line A.

Comment 7.3: Line A, when constructed, will be built for the entire length to provide the best traffic service. Traffic projections for this study demonstrate that had Lines B or C been selected as the final corridor, that Line would still have been needed to effectively handle traffic projects on major roads in the project area.

Comment 7.4: Future land use projections are portrayed on pages 65 through 66. Anticipated land use data was extracted from the most current census and land use information. Any deviation from these plans would be the responsibility of Henrico County and the U.S. Census Bureau

Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

MAR 23 1983

Mr. R. L. Hundley
Environmental Engineer
Virginia Department of Highways and Transportation
1221 East Broad Street
Richmond, VA 23219

REF: Route 95/85 Connector, Henrico and Chesterfield Counties, Virginia

Dear Mr. Hundley:

We have received and reviewed your Draft Environmental Impact Statement (DEIS) for the referenced project. In accordance with the National Environmental Policy Act, we have the following comments.

We would have no objection to construction of the Line A (preferred) alternative and its associated lift bridge over the James River, provided, of course, that further measures are taken to consider avoidance of the three archeological properties during final design studies. If avoidance does not appear feasible, measures to mitigate the effects of construction on these properties should be the subject of further consultation with the Virginia State Historic Preservation Officer and the Council under Section 106 of the National Historic Preservation Act. Based on final
8.1: evaluations of the properties and the extent of construction effects, archeological data recovery may prove to be the most appropriate mitigation measure.

We would be happy to discuss the potential for avoidance of these properties, as well as appropriate mitigation measures, with members of your staff, and assist you and FHWA to complete the remaining steps in the Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800). Please contact Staff Archeologist Ronald D. Anzalone at 202-254-3974.

Sincerely,

Don L. Klima
Chief, Eastern Division
of Project Review

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Advisory Council on Historic Preservation

Comment 8.1: A detailed Phase I survey was performed and submitted to the appropriate agencies on April 7, 1983. A reply was received from the Virginia Historic Landmarks Commission dated June 20, 1983 (see Appendix A). A Phase II survey was conducted for Turpins Tavern, which revealed no historic archival or archaeological data. The remaining two sites (44 HE-497 and 44 HE-493) are considered eligible for the National Register of Historic Places and will require Phase III mitigation consisting of surface controlled artifact recovery.

Federal Emergency Management Agency
Region III 6th & Walnut Streets Philadelphia, Pennsylvania 19106

February 14, 1983

Mr. R. L. Hundley
Environmental Engineer
Commonwealth of Virginia
Department of Highways
and Transportation
1221 East Broad Street
Richmond, Virginia 23219

RE: Route 95/85 Connector
Henrico & Chesterfield
Counties - Draft E.I.S.

Dear Mr. Hundley:

We have reviewed the above referenced document with particular attention to its treatment of floodplain impacts and implementation of Executive Order 11988.

9.1: We have not found any reason to object to any of the three alternatives considered. However, it is not clear from the draft E.I.S. whether any of the necessary stream encroachments would be in a designated floodway as determined by a FEMA Flood Insurance Study. National Flood Insurance Program (NFIP) regulations, which under E.O. 11988 should be observed as minimum standards by federal agencies, prohibit any encroachment in a floodway that would cause any increase in the 100 year flood elevation.

If the alternative selected should involve a floodway encroachment I would suggest you contact this office for further discussion of the project. Please direct any correspondence or phone calls to Joseph Gavin of this office. He can be reached by phone at (215) 597-1849.

Sincerely yours,

Walter Pierson

Walter P. Pierson
Chief
Natural and Technological
Hazards Division

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Federal Emergency Management Agency

Comment 9.1: Line A will not encroach in any floodway by any FEMA Flood Insurance Studies. Henrico County has established a base flood-plain and the Department will coordinate any encroachment in this area with the County.

Line B involved an FEMA designated floodway. On Line C there was a draft proposed floodway for Johnson Creek. Any construction into this floodway would have required FEMA coordination and revision. However, these two alignments have been eliminated.

Line A construction will abide by the regulations set forth in Executive Order 11988.

United States Department of Agriculture

Soil Conservation Service

P. O. Box 27032
Richmond, VA 23273

March 22, 1983

Route 95/85 Connector
Henrico & Chesterfield Counties
Federal Project I-IG-95-1(44)47
State Project 0095-043-104, PE 102
0095-020-101, PE 102

Mr. R. L. Hundley
Environmental Engineer
Dept. of Highways and Transportation
1221 E. Broad Street
Richmond, VA 23219

Dear Mr. Hundley:

In reference to your letter of February 1, 1983 concerning the above subject, this office submits the following comments:

Soils, page 95, add to paragraph 1;
10.1: Many soils of the Coastal Plain are prime agricultural lands and with proper management, good rainfall, and long summers produce excellent crop yields.

Soils, page 96, third and sixth sentences;
Correct spelling of Chewacla

Soils, page 96, fourth sentence;
Should read poorly to well drained . . .

Soils, page 96, last sentence, first paragraph;
Sloping to steep, Ochrepts and Udults have a severe hazard of erosion . . .

Ecology, page 99, 100 include;
Location of Cornelius Creek, Johnson Creek, and Redwater Creek by County in writeups on each.

The comments above are related only to proposed line A except where general reference was made to all three proposed lines or to the two counties.

If there are questions regarding any of these comments, please feel free to call 747-4642.

Sincerely,

Wallace E. Cummins

Wallace E. Cummins
District Conservationist

WEC/kaj

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The Soil Conservation Service is an agency of the Department of Agriculture

United States
Department of
Agriculture

Soil
Conservation
Service

P. O. Box 10026
Richmond, Virginia 23240

February 18, 1983

Mr. R. L. Hundley
Environmental Engineer
Virginia Department of
Highways and Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Hundley:

We have reviewed the Draft Environmental Impact Statement for the Route 95/85 Connector, Henrico and Chesterfield Counties. Based on this review, we would like to submit the following comments for your consideration.

1. It appears that Alternative C would have the least impact on prime and other farmland since this alternative involves widening of an existing highway in an area that is already largely developed.

10.2:

2. Use of this alternative (Alternative C) would help contain growth to those areas which are already developing, thus allowing the overall region to be planned in a more orderly manner.

We hope you will find these comments helpful. If you have any questions, please let us know.

Sincerely,

Acting

Manly S. Wilder
State Conservationist

cc: J. Michael
G. Bowie
G. Moser

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UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Drawer AG
Chester, Va. 23831
February 14, 1983

Route 95/85 Connector
Henrico and Chesterfield Counties
Federal Project I-IG-95-1(44)47
State Project 0095-043-104,PE 102
0095-020-101,PE 102

Mr. R. L. Hundley
Environmental Engineer
Department of Hwys and Trans.
1221 East Broad Street
Richmond, Va. 23219

Dear Mr. Hundley:

As per your request, I have reviewed the draft Environmental Impact Statement on the above described highway project.

I have no comments to make on this report.

Also, Mr. Robert S. Carlon, Chaiman, James River Soil and Water Conservation District, has asked me to inform you that he has no comments on the Draft Statement.

Very truly yours,

G. James Chudoba

G. James Chudoba
District Conservationist

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U.S. Department of Agriculture

Comment 10.1: As suggested, the necessary changes to soil types have been made on pages 99 through 100 of the Final EIS.

Comment 10.2: Line C would have the least impact on farmland due to the widening of existing Route 10; however, Line A was selected based on factors such as overall environmental impacts, traffic service, and cost.

ELIZABETH H. HASKELL, CHAIRMAN
MARTINSVILLE

CARL C. REDINGER, VICE CHAIRMAN
ALEXANDRIA

EDGAR B. BOYNTON
RICHMOND

AXEL T. MATTSON
YORKTOWN

WALLACE E. REED
CHARLOTTESVILLE

COMMONWEALTH of VIRGINIA

State Air Pollution Control Board

ROOM 801, NINTH STREET OFFICE BUILDING
RICHMOND, VIRGINIA 23219
TELEPHONE: (804) 786-2378

W.R. MEYER
EXECUTIVE DIRECTOR

March 11, 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways and
Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear ~~Mr. Hundley~~ BOB:

The staff of the State Air Pollution Control Board has reviewed the DEIS concerning the Route 95/85 Connector in Henrico and Chesterfield Counties.

The dispersion modeling for CO concentrations predicts levels well below the National Ambient Air Quality Standards.

When major roads are constructed, such as those proposed, it is quite difficult to predict how the land in the area will be developed and what impact the development will have on future air quality. Traffic patterns in the area will change however and some benefit to the downtown air quality should result from the reduced traffic through Richmond.

Sincerely,

John

John M. Daniel, Jr., P.E.
Assistant Executive Director

JMDJr/KMM/evb

Letter #11: No response necessary.

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S. MASON CARBAUGH
COMMISSIONER

RAYMOND D. VAUGHAN
DEPUTY COMMISSIONER

COMMONWEALTH of VIRGINIA

DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
P. O. Box 1163, Richmond, Virginia 23209

March 1, 1983

Route 95/85 Connector
Henrico & Chesterfield Counties
Federal Project I-IG-95-1(44)47
State Project 0095-043-104, PE102
0095-020-101, PE102

Mr. R. L. Hundley
Environmental Engineer
Department of Highways
and Transportation
1221 East Broad Street
Richmond, VA 23219

Dear Mr. ~~Hundley~~ Bob:

Thank you for your letter of February 1, 1983, enclosing a copy of the Draft Environmental Impact Statement on the above described highway project.

Members of my staff have reviewed this document and find no significant impact on prime agricultural land for the three alternate routes. According to the County Manager for Henrico County, the proposed project is compatible with the County Land Use Plan.

With kindest regards, I am

Sincerely,

Mason

S. Mason Carbaugh
Commissioner

Letter #12: No response necessary.

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QUALITY DIV.

MEMBERS

MRS. KENNETH R. HIGGINS, CHAIRMAN
MRS. NELLIE WHITE BUNDY, VICE CHAIRMAN
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FRED W. WALKER
MRS. T. EUGENE WORRELL

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COMMONWEALTH of VIRGINIA

Virginia Historic Landmarks Commission

H. BRYAN MITCHELL
EXECUTIVE DIRECTOR

RESEARCH CENTER FOR ARCHAEOLOGY

ROUTE 238, BOX 368
YORKTOWN, VIRGINIA 23690
TELEPHONE: (804) 253-4836

ALAIN C. OUTLAW, Commissioner of Archaeology

31 March 1983

Mr. R. L. Hundley
Virginia Department of Highways
and Transportation
1221 East Broad Street
Richmond, VA 23219

Dear Mr. Hundley:

Thank you for providing the VRCA an opportunity to review the Draft Environmental Impact Statement for the Route 85/95 Connector in Henrico and Chesterfield Counties dated February 1, 1983.

13.1: We have noted on pages 132 and 133 that an intensive Phase I archaeological reconnaissance survey has been completed for the corridor lines discussed. However, we have no record of having received for review a copy of the report summarizing this survey. Therefore, please provide the VRCA a copy of the report so that we may provide the Executive Director of the Virginia Historic Landmarks Commission (Virginia State Historic Preservation Officer) with recommendations on eligibility for inclusion in the National Register of Historic Places for those archaeological sites to be impacted. Only after this is completed may specific mitigative actions, if applicable, be evaluated.

13.2: Related, statements on pages 132 and 133 indicate some archaeological sites have already been determined not eligible for inclusion in the National Register. Have such determinations been made by the U.S. Department of the Interior? If not, we recommend that the Draft EIS be revised to accurately reflect the level of archaeological review for this project that has been completed to date.

13.3: Finally, we could find no mention of possible submerged cultural resources that could be adversely impacted by the James River crossing. This portion of the James River has high potential for the occurrence of submerged cultural resources eligible for inclusion in the National Register. If river bottom disturbances are to occur, we recommend that an underwater archaeological survey be completed. Such work could be combined with recommendations presented in my October 26, 1983 letter to you on the need for underwater archaeological surveys for related portions of this project.

Should you have any questions or need further information on the above comments, please do not hesitate to contact our office. We look forward to continue working with you on archaeological matters related to the various components of the I-85/95 project.

Sincerely yours,

Bruce J. Larson
Review and Compliance Coordinator
VRCA

BJL/jbp

Virginia Research Center for Archaeology

Comment 13.1: A complete Phase I survey report was submitted to the VRCA on April 7, 1983. Refer to Appendix A for their response dated June 20, 1983.

Comment 13.2: Refer to Appendix A for the eligibility determination in Virginia Historic Landmarks Commission's letter dated May 17, 1983.

Comment 13.3: A letter dated June 24, 1983, was submitted to the VRCA explaining why the Department believes that an underwater survey is not necessary. A reply was received from VRCA dated July 22, 1983, and August 24, 1983, concerning the underwater survey.

COMMONWEALTH of VIRGINIA

Commission for the Arts

400 E. GRACE STREET
FIRST FLOOR
RICHMOND, VIRGINIA 23219
TELEPHONE (804) 786-4492

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PEGGY J. BAGGETT
EXECUTIVE DIRECTOR

February 9, 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways and
Transportation
1221 East Broad Street
Richmond, VA 23219

Dear Mr. Hundley:

Thank you for the opportunity to review the draft environmental impact statement of the Route 95/85 Connector, Henrico and Chesterfield Counties.

I have no comments.

Sincerely,

Peggy J. Baggett

Peggy J. Baggett
Executive Director

Letter #14: No response necessary.

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COMMONWEALTH of VIRGINIA

WILLARD G. PLENTL
Director

Department of Aviation
4508 South Laburnum Avenue

P.O. BOX 7716
RICHMOND, VIRGINIA 23231
(804) 786-3685

March 18, 1983

Mr. R. L. Hundley
Environmental Engineer
Virginia Department of Highways
and Transportation
1401 E. Broad Street
Richmond, Virginia 23231

Re: Route 95/85 Connector; Draft Environmental Impact Statement.

Dear Mr. Hundley:

We have taken the opportunity to read and to consider the DEIS and the errata sheet supplement. In the context of your charge to us we have no comment regarding mitigating measures or permitting authority of the Department.

15.1: Generally, it appears that the proposed route under "line A" will enhance the ground access to R. E. Byrd International Airport from Chesterfield County and areas to the south of Richmond. I also believe that a discussion of this, because of the regional and metropolitan significance, would be a valuable addition to the document.

I hope this is responsive to your needs for comment on the statement. Should you have questions on any of this, you have only to call upon us.

Sincerely,

James L. Bland

James L. Bland
Manager
Airport Services Division

JLB/map

cc: W. G. Plentl
A. E. Dowd
W. A. Whittle

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Virginia Department of Aviation

Comment 15.1: The Department agrees that Line A will provide better ground access to Byrd Airport; however, a full discussion of the regional and metropolitan significance to the area is beyond the scope of this project at the present time.

FRED W. WALKER
Director
JERALD F. MOORE
Deputy Director

DIVISIONS
FORESTRY
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MINED LAND RECLAMATION
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SALT WATER SPORT FISHING
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DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT
1100 Washington Building
Capitol Square
Richmond, Virginia 23219
(804) 786-2121

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CLINTON V. TURNER, Richmond

March 28, 1983

(11)

MEMORANDUM

TO: Mr. R. W. Hundley, Environmental Engineer
Va. Department of Highways and Transportation

FROM: Bruce B. Meador, Executive Assistant
(DCED EIS Coordinator)

SUBJECT: Environmental Review - Project Route 95/85 Connector,
Henrico and Chesterfield Counties,
Federal Project I-IG-95-1 (44) 47
State Project 0095-043-104, PE102
0095-020-101, PE102

This project was reviewed by our Divisions of Forestry, Mineral Resources and State Parks.

Comments from these three Divisions are attached. Please let us know if you need our further assistance on this subject.

cd

cc: Mr. Harold Olinger, Division of Forestry
Mr. Eugene Rader, Division of Mineral Resources
Mr. Ronald D. Sutton, Division of State Parks

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FRED W. WALKER
Director
GERALD F. MOORE
Deputy Director

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DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT
DIVISION OF STATE PARKS
1201 Washington Building
Capitol Square
Richmond, Virginia 23219
(804) 786-2132
RONALD D. SUTTON, Commissioner

March 21, 1983

MEMORANDUM

TO: Bruce B. Meador, Executive Assistant

FROM: Ronald D. Sutton Ronald D Sutton

SUBJECT: Environmental Review - Project Route 95/85 Connector, Henrico and Chesterfield Counties, Federal Project I-IG-95-1 (44) 47 State Project 0095-043-104, PE102 & 0095-020-101, PE102

The draft E.I.S. for the subject project has been reviewed by my staff. At this time no impacts were found on State Park resources in the region. I appreciate the opportunity to provide you with this Division's comments.

RGG/ldw

MATCH

MAR 22 '83

FRED W. WALKER
Director
J. RALD F. MOORE
Deputy Director

DIVISIONS
FORESTRY
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DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT
DIVISION OF MINERAL RESOURCES
Natural Resources Building
Alderman & McCormick Roads
Box 3667, Charlottesville, Virginia 22903
(804) 293-5121
ROBERT C. MILICI, Commissioner & State Geologist

FEB 9 '83
DCED

February 7, 1983

MEMORANDUM

TO: Bruce B. Meador, Executive Assistant
DCED/EIS Coordinator

FROM: Eugene K. Rader Eugene K. Rader

SUBJECT: Environmental Review - Project Route 95/85
Connector, Henrico and Chesterfield counties

The brief discussion of the geology (pages 96-97) contains several inaccuracies and does not mention the portion of the geologic column in which most of the roadway would be constructed. Recent mapping by the Division of Mineral Resources, manuscripts of which have been available
16.1: for examination since 1981, show that: 1) the Calvert Formation is either not present or so thin as to be insignificant; 2) the Aquia and Nanjemoy formations are separated by a very plastic clay (Marlboro Clay); 3) the Patuxent Formation is semi-consolidated and deeply weathered; 4) the Cretaceous-Tertiary units are overlain by fluvial-estuarine gravel, sand, and silt ranging from 30- to 50-feet thick; and 5) known geologic faults would be crossed in lines B and C, and a fault may be present in the James River on line A.

The presence of the Marlboro Clay may have an impact on the foundation design for the bridge.

The broad expanse of the gravel, sand and silt unit would have the most impact on the roadway because most of the construction would occur in this material. In general, a clay underlies the basal gravel and effectively blocks downward percolation of groundwater. Lateral groundwater movement is shown by the numerous springs and seeps along valley walls. The water table fluctuates widely in response to rainfall. Cuts in this unit could present stability problems unless properly designed.

The area from Richmond to Hopewell is the primary outcrop recharge area for the Patuxent aquifer.

Faulting, mentioned above for lines B and C, is described in Dischinger, J. B., Jr., 1979, Late Mesozoic and Cenozoic stratigraphic and structural framework near Hopewell, Virginia: M.S. thesis, Univ. of North Carolina, Chapel Hill. The presence of a fault on line A is suggested by a limited number of borings and contact elevations on either side of the James River.

None of the above-mentioned conditions would preclude construction, but each should be thoroughly investigated and considered in the final design.

EKR:sh

FRED W. WALKER
Director
JERALD F. MOORE
Deputy Director

DIVISIONS
FORESTRY
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DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT
DIVISION OF FORESTRY
Natural Resources Building
Alderman & McCormick Roads
Box 3758, Charlottesville, Virginia 22903
(804) 977-6555
WALLACE F. CUSTARD, State Forester

FOREST INFLUENCES
Environmental Review

February 18, 1983

FEB 22 '83
DCED

TO: Bruce B.Meador, DCED/EIS Coordinator

FROM: Harold L. Olinger, VDF/EIS Coordinator Harold

SUBJECT: Environmental Review - Route 95/85 Connector
Henrico & Chesterfield, Federal & State

Reference is made to the above Environmental Review requested by your office on or before March 24, 1983. Below are comments from G. W. Augsburger, District Forester from Sandston, Virginia:

1. Line A will remove approximately 230 acres of commercial forestland from production in Henrico County. All of the land is privately owned. Line A passes in close proximity to current residential and commercial developments. This alternative will provide added access and improve transportation between Chesterfield and Henrico Counties. This will probably increase development presures on the remaining agricultural and forestal lands remaining in this section of Henrico County.

2. Line B will remove approximately 170 acres of commercial forestland from production in Chesterfield County. This alternative lies in close proximity to light and heavy industrial development areas. Meadowville Farm has been heavily cutover in the last ten to twelve years. Portions of this large property received a "residential cut" in contemplation of future commercial/industrial development.

3. Line C will not have any major impact on commercial forestlands, however, it should be pointed out that the relocation of Route 10 may have a detrimental effect on Continental Forest Industries' Super Tree Orchard and Forest Tree Nursery on the south side of Route 10 near I-95.

Prevent Forest Fires—Keep Virginia Green

Virginia Department of Conservation and Economic Development

Comment 16.1: A more detailed discussion on geology has been added on page 100.

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RICHARD T. SPAIN
BOX 47A, WAVERLY 23890

COMMONWEALTH of VIRGINIA

COMMISSION OF GAME AND INLAND FISHERIES
Box 11104, Richmond, 23230-1104

R.H. CROSS, JR., EXECUTIVE DIRECTOR
4010 WEST BROAD STREET
BOX 11104
RICHMOND, 23230

March 22, 1983

Mr. R.L. Hundley
Environmental Engineer
Department of Highways
and Transportation
1221 East Broad Street
Richmond, VA 23219

Dear Mr. Hundley:

Reference is made to your letter of February 1, 1983--
Subject: Route 95-85 Connector.

We see no need to change our original statements included in the Draft Environmental Impact Statement. Alternative C is considered the best, having the least impact upon wildlife populations. Alternative B remains the poorest choice from our point of view.

Sincerely,

R.H. Cross, Jr.
Executive Director

JPR/RHCjr/sk

Letter #17: No response necessary.

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STATE DEPARTMENT OF HEALTH

Richmond, Virginia

Inter-Office Correspondence

To: R. L. Hundley, Environmental Quality Division
Department of Highways and Transportation

Date: June 1, 1983

From: Eric H. Bartsch, P. E., Director
Division of Water Programs

Subject: Route 95/85 Connector
Henrico and Chesterfield Counties
Federal Project I-IG-95-(44)47
State Project 0095-043-104, PE 102
0095-020-101, PE 102

We have reviewed the draft EIS for the subject projects. This is to advise you that the closest water supply intake is located approximately 16 miles downstream and precautions should be taken to prevent contamination of the water supply.

We have no other objections to the projects.

EHB/ecr

Letter #16: No response necessary.

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ENVIRONMENTAL QUALITY DIV.

CHARTERED 1693
COLLEGE OF WILLIAM AND MARY
VIRGINIA INSTITUTE OF MARINE SCIENCE
SCHOOL OF MARINE SCIENCE

Gloucester Point, Virginia 23062

Phone (804) 642-2111

February 25, 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways and Transportation
1221 East Broad Street
Richmond, Virginia 23219

RE: Route 95/85 Connector
Henrico and Chesterfield Counties
Federal Project I-IG-95-1(44)47
State Project 0095-043-104, PE 102
0095-020-101, PE 102

Dear Mr. Hundley:

We have reviewed the above referenced project as described in the draft Environmental Impact Statement dated 1 February 1983. Our review included the three alternative routes presented as well as the Hoke-Brady spur endorsed by Chesterfield County. Our comments are from a marine environmental perspective and address only aquatic resource concerns.

As we stated at your agency's environmental coordination meeting in September of 1982, alternative "C" is preferred from an environmental viewpoint because it involves the least adverse impact to marine resources. Alternatives "B" and "A" are next in preference, in that order. The Hoke-Brady alternative is not significantly different from the "A" alternative from a marine environmental viewpoint.

Since factors other than environmental have dictated alternative "A" as the preferred route, we suggest that any dredging necessary for the James
19.1: River crossing be conducted outside the anadromous fish migrating period which runs mid-March through June. In addition we suggest that, if not already accomplished, the "A" route be examined carefully to ensure that another crossing of the James will not be necessary in the foreseeable future. The cumulative impacts involved are of concern from an environmental viewpoint each time the James is crossed.

Thank you for the opportunity to participate in this review. If I may be of further service, please do not hesitate to contact me.

Sincerely,

Thomas A. Barnard Jr.

Thomas A. Barnard, Jr.
Associate Marine Scientist

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TAB/jh

Virginia Institute of Marine Science

Comment 19.1: Any dredging necessary for construction of the roadway for the James River crossing will be conducted outside the anadromous fish migrating period of mid-March to June 1.

COMMONWEALTH of VIRGINIA

JOSEPH J. BEVILACQUA, Ph. D.
COMMISSIONER

Department of
Mental Health and Mental Retardation

MAILING ADDRESS
P.O. BOX 1797
RICHMOND, VA. 23214

February 9, 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways & Transportation
1221 East Broad Street
Richmond, Virginia 23229

RE: Route 95/85 Connector
Henrico & Chesterfield Counties
Federal Project I-IG-95-1 (44) 47
State Project 0095-0430104, PE102
0095-020-101, PE102

Dear Mr. Hundley:

Thank you for your letter of February 1, 1983 concerning the Draft Environmental Impact Statement for the reference highway project.

In view of the fact that the project has no impact on any of our facilities, I have no comments on the transportation facility.

Sincerely,

Joseph J. Bevilacqua, Ph. D.
Commissioner

JJB/JMMcjr:cb

cc: Mr. Allen E. Wolfe
Mr. James M. McIntosh, Jr.

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Letter #20: No response necessary.

COMMONWEALTH of VIRGINIA

ART BUEHLER
ACTING DIRECTOR
TELEPHONE (804) 225-3030

Commission of Outdoor Recreation

James Monroe Building
101 North 14th Street
Richmond, Virginia 23219-3679

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FRED W WALKER

February 24, 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways & Transportation
1221 East Broad Street
Richmond, Virginia 23219

Reference: Route 95/85 Connector
Henrico and Chesterfield Counties
Project: Federal I-IG-95-1(44)47
State 0095-043-104, PE102
0095-020-101, PE102

Dear Mr. Hundley:

We have completed our review of the Draft Environmental Impact Statement for the proposed Route 95/85 Connector.

Generally, we found that the impact statement adequately addresses any concerns that we have related to recreational resources in the project study area. We concur with the Department's position that the 95/85 Connector will have no adverse impacts on recreational facilities or parks in the corridors. Although that section of the James River does not appear on the federal proposed scenic river list, it is identified as a potential
21.1: component of the state system. This point should be kept in mind when bridge designs are being considered.

We support the Department's preferred alternative (line A) as it appears to be closest to fitting into the long-range transportation plans for Henrico and Chesterfield Counties and the City of Richmond.

Thank you for providing us an opportunity to comment on this Environmental Impact Statement.

Sincerely,

John R. Davy, Jr.
Chief of Planning

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Virginia Commission of Outdoor Recreation

Comment 21.1: The fact that this segment of the James River is not on the federal proposed scenic river list will not hinder the Department from considering the scenic quality of the river during bridge design.

W. C. GARRETT, Chairman
Bowlers Wharf
L. S. GREENE, Vice Chairman
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B. C. LEYNES, JR.
Director
DONALD L. WELLS
Deputy Director

COMMONWEALTH of VIRGINIA

Virginia Soil and Water Conservation Commission
203 GOVERNOR STREET, SUITE 206
RICHMOND, VIRGINIA 23219-2094
(804) 786-2064

February 23, 1983

Mr. R.L. Hundley
Environmental Engineer
Dept. of Highways & Transportation
1221 E. Broad Street
Richmond, Virginia 23219

Re: Route 95/85 Connector
Henrico and Chesterfield Counties
State Project 0095-043-104, PE102
0095-020-101, PE102

Dear Mr. Hundley:

We have completed our review of the draft Environmental Impact Statement for the above referenced project and offer these comments for your consideration. The
22.1: timely installation and maintenance of erosion and sediment control methods, both mechanical and vegetative, are of the utmost importance. We also suggest that our new 1980 Erosion and Sediment Control Handbook be consulted during the design process.

Sincerely,

Bernie Houchins

Bernie Houchins
Conservation Specialist

ced

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Virginia Soil & Water Conservation Commission

Comment 22.1: Strict erosion and sediment controls will be adhered to during the life of the project, as governed by State and Federal requirements. The 1980 Erosion and Sediment Control Handbook will be consulted during the design process.

COMMONWEALTH OF VIRGINIA

COUNTY OF HENRICO

March 14, 1983

FRANK A. FAISON
County Manager

Re: Route 95/85 Connector
Henrico & Chesterfield Counties
Federal Project 1-1G-95-1 (44)47
State Project 0095-043-104, PE102
0095-020-101, PE102

Mr. R. L. Hundley
Environmental Engineer
Virginia Department of Highways & Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Hundley:

The Administrative staff of Henrico County has reviewed the Environmental Impact Statement for the Interstate 95/85 connector. Based upon our evaluation of the information submitted, I would definitely agree that proposed Scheme A provides the best possible connection and meets the needs of the metropolitan area by providing access across the river while distributing interstate traffic.

The majority of data included in the statement is correct and provides a significant justification for the project. Henrico County would request that
23.1: additional clarification be provided in the area of noise evaluation. From reading the information available and looking at the maps, it appears that the noise receptors are improperly numbered in reference to the evaluation.

Based upon the County's review and past action by the Henrico County Board of Supervisors, I would reemphasize the position that Henrico County is in favor of a river crossing in the vicinity of Laburnum Avenue. This item has been included on the Henrico County Major Thoroughfare Plan for over 10 years. Right of way on Laburnum Avenue to provide a 6-lane section is available and awaiting this particular project. We, in Henrico County, have voiced a need for this project

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(804) 747-4206 PARHAM & HUNGARY SPRING ROADS / P. O. BOX 27032 / RICHMOND, VIRGINIA 23273

and do feel that the interstate connector and interstate 95 through eastern Henrico County will benefit Henrico County and the metropolitan area in the years to come.

Sincerely,

Frank A. Faison
County Manager

cc: Associate County Manager
Deputy County Manager for
Planning and Inspections
Director of Public Works
Director of Planning
Executive Director, RRPDC

County of Henrico

Comment 23.1: The noise evaluation has been revised in the Final EIS as a result of Line A's selection and the re-evaluation of noise barriers proposed. The receptors to be protected and listed in the column labeled "Description" do not necessarily include the site listed in the column "Site No." but are in the area represented by that site, as described in Table VI of the Draft EIS.

City of Richmond
Office of the City Manager

900 East Broad Street, Richmond, Virginia 23219
804 • 780-5386

March 28, 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways and
Transportation
1221 East Broad Street
Richmond, VA 23219

Dear Mr. Hundley:

RE: Route 85-95 Connector
Draft Environmental Impact Statement

We appreciate the opportunity to review the Draft Environmental Impact Statement on the proposed Route 85-95 Connector and agree with the conclusion that Line A is the best alternate.

However, we have several concerns with certain items in the draft. These are as follows:

24.1: 1. We are under the impression that RPT is to retain the designation I-95 and that the new facility, to the east, will be designated I-295.

24.2: 2. We believe that the extension to Charles City Road should be eliminated from the project due to its adverse economic impact on the City of Richmond (page 66). The approval of the eastern route was based upon the elimination of an interchange with Charles City Road and this proposal is contrary to the earlier approval.

24.3: 3. The traffic volume data on Figure 5 is confusing as the sequence for listing the data appears to be a reversal of that shown in the legend.

24.4: 4. The concept of using a lift span bridge on the proposed I-95/85 corridor with alignment "A" should be addressed more fully.

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Locations of other structures around the nation and the ADT they carry should be specified. The data may help indicate the concept of a lift span is not unique to this particular river crossing.

24.5: 5. The draft EIS report should also indicate that shipping traffic on the James River may increase due to increased industrial promotion endeavors at the City's Deep Water Terminal facility. Furthermore, it is felt that a minimum vertical clearance of 145' will be required to maintain existing shipping traffic at Deep Water Terminal. Then it should be pointed out that this may create additional delays at the proposed lift span bridge associated with alternate "A".

24.6: 6. The reference to nighttime, off-peak movement of large vessels should be deleted as these vessels cannot navigate the river at night.

24.7: 7. Various types of TSM strategy should be enumerated and their applications to the existing RPT, the I-95/85 connector, and the Chippenham Parkway should be analyzed more thoroughly. For example, if the drawbridge is used in conjunction with alignment "A", it is very important to communicate with motorists via variable message signage or other means and advise them of alternate routes available.

24.8: 8. The highway user cost associated with opening and closing the proposed lift bridge on the I-95/85 corridor should be tabulated for peak and off-peak periods.

24.9: 9. On page 13 of the report the results of the traffic analysis justifying a connection proposed I-95 and the RPT should receive more detail. In this draft EIS the consequences of not building the I-95/85 Connector should be readily identified and the amount of widening and approximate cost to expand the capacity of the Richmond-Petersburg Turnpike should be included. Such a monetary estimate will provide a comparison to the cost to construct the new connector.

24.10: 10. On page 15 (first paragraph) it should be mentioned that a Traffic System's Management (TSM) Study has been mandated by the U.S. Secretary of Transportation for the existing Richmond-Petersburg Turnpike corridor and that the Study has a potential to identify measures which will move people and vehicles more safely and efficiently than the existing corridor.

24.11: 11. As a general comment, travel distances and travel time should be compared between the RPT and Virginia Route 150 (on the south) and the existing I-95 and I-295 (on the north).

24.12: 12. Under the No Action alternative, some mention should be made of the future traffic demands and level of service on I-95 and the I-95/64 connections in downtown Richmond. In addition, vehicular volumes on various portions of the RPT should be shown for the present time and with future conditions.

Contrary to the opinion expressed earlier, we now accept the fact that the by-pass facility east and south of the city will be built. We believe the overall benefits from an additional river crossing close to the city, clearly justify this project in spite of the negative economic impact upon the city. As stated earlier, the negative impact should be reduced by the elimination of the Charles City Road connector.

Sincerely,

Manuel Deese
City Manager

MD/jwb

cc: Director of Public Works
Director of Public Safety
Director of Planning & Community Development
Assistant to the City Manager Talcott

City of Richmond

Comment 24.1: Current events as recent as July 13, 1983, indicate that actual signing of the interstate facility in the area is still under evaluation. Previously in his approval letter, Secretary of Transportation Lewis stipulated that the Richmond-Petersburg Turnpike would retain the I-95 designation and the new facility to the east paralleling the RPT would be designated I-295.

Comment 24.2: The Charles City Road Connector has been eliminated from this study.

Comment 24.3: This has been corrected with the use of different maps for each alternative, with the result being that the information is displayed in a more readily understood manner.

Comments 24.4, 24.5, & 24.6: Contacts were made with the City of Richmond's Deepwater Terminal. Refer to pages 22-26 for revisions to the lift-span bridge discussion.

Comment 24.7: TSM strategies, such as those exemplified by this statement, will be considered in the design stage of the selected alternative. A study to determine what, if any, strategies should be considered for the Richmond-Petersburg Turnpike has been mandated by the I-295 approval and is currently underway.

Comment 24.8: The highway user cost is shown on page 27 of the bridge discussion.

Comment 24.9: A chart displaying the effect of the build and no-build actions has been developed and is on page 15 of the text.

Comment 24.10: Please refer to response 24.7.

Comment 24.11: The total distance between the Route 150 interchange with the Richmond-Petersburg Turnpike (I-95) and I-295 to the north of Richmond via I-95 is 17.8 miles. Travel time on this segment would be approximately 23.7 minutes.

The total distance from the Route 150 interchange with the RPT to the I-95 interchange with I-295 via Line A and I-295 is 22.0 miles. Travel time on these facilities would be approximately 26.4 minutes.

The movement from Route 150/I-95 to I-95/I-295 north of Richmond is not of major consequence to Alternative A.

Comment 24.12: Please refer to responses 24.3 and 24.9.

RICHMOND REGIONAL PLANNING DISTRICT COMMISSION

March 11, 1983

Mr. R. L. Hundley
Environmental Engineer
Virginia Department of Highways
& Transportation
1221 East Broad Street
Richmond, VA 23219

Dear Mr. Hundley:

On Thursday, March 10, 1983, the Richmond Regional Planning District Commission unanimously adopted the attached Resolution in support of the Line A Alternative for a I-95(295)I-85 Connector. The Commission would like to encourage your Department to expedite the planning, design and construction of this badly needed Regional facility, within the funding limitations imposed by the Federal government.

Sincerely,

John P. Kidd
Executive Director

JPK/tb
Attachment
cc: Chief Administrative Officers in PDC 15
Mr. Richard C. Lockwood

RECEIVED
MAR 14 1983
ENVIRONMENTAL QUALITY DIV.

Letter #25: No response required.

6 NORTH SIXTH STREET, SUITE 500, RICHMOND, VIRGINIA 23219 • PHONE (804) 644-8586

RICHMOND REGIONAL PLANNING DISTRICT COMMISSION

RESOLUTION IN SUPPORT OF
ALTERNATIVE A, I-95(295)/I-85 CONNECTOR

WHEREAS, the Virginia Department of Highways and Transportation has requested the participation of the Richmond Regional Planning District Commission as a cooperating agency in the study of the Proposed Route I-95(295)/I-85 Connector Project, and

WHEREAS, the Richmond Regional Planning District Commission took action at its October 14, 1982 meeting to recommend that the Virginia Department of Highways and Transportation consider as part of this study Alternative A, plus two other alternatives, and

WHEREAS, the Virginia Department of Highways and Transportation has prepared a draft Environmental Impact Statement (EIS) for public review and comment, and

WHEREAS, as a result of the draft EIS, the Virginia Department of Highways and Transportation considers Line A (i.e. Chippenham Parkway to Proposed I-95/295) to be the best alternative and the preferred alignment; now

THEREFORE, BE IT RESOLVED, that the Richmond Regional Planning District Commission, this 10th day of March, 1983, recommends that Line A as described in the Route 95(295)/85 Connector Draft EIS be approved by the Virginia Department of Highways and Transportation and the Federal Highway Administration as the best alternative and preferred alignment for the following reasons:

1. Line A provides the best means for improving intra-regional transportation by linking Chippenham Parkway and the Richmond-Petersburg Turnpike with Laburnum Avenue and Interstate Highway 95(295) and providing a vital link for regional circumferential travel;

2. Line A would provide an additional crossing of the James River between downtown Richmond and the proposed southerly river crossing on I-95(295), and would, therefore, improve travel conditions and relieve traffic congestion on the Richmond-Petersburg Turnpike;

6 NORTH SIXTH STREET, SUITE 500, RICHMOND, VIRGINIA 23219 • PHONE (804) 644-8586

3. Line A would provide greatly improved access for the citizens of Chesterfield County and South Richmond to Byrd International Airport; and

4. Line A will help stimulate economic development in eastern Henrico County and provide improved access to job opportunities for the citizens of the City of Richmond and Chesterfield County.

* * * * * * * * * *

This is to certify that the above Resolution was unanimously adopted by the Richmond Regional Planning District Commission at its meeting held on March 10, 1983.

Terry L. Cook
Chairman

John P. Kidd
Executive Director

RICHMOND AREA METROPOLITAN TRANSPORTATION PLANNING ORGANIZATION
c/o RICHMOND REGIONAL PLANNING DISTRICT COMMISSI
6 NORTH 6TH STREET
RICHMOND, VIRGINIA 23219
(804) 644-8586

April 8, 1983

Mr. Robert H. Blackman
Project Coordinator
Virginia Department of Highways
and Transportation
1221 East Broad Street
Richmond, Virginia 23219

RE: MPO Resolution, Route 95/85
Connector Draft EIS

Dear Mr. Blackman:

The Richmond Area Metropolitan Transportation Planning Organization (MPO) took action at its April 7, 1983 meeting to recommend that Line A as described in the Route 95/85 Connector Draft Environmental Impact Statement be approved by VDH&T and FHWA (see attached resolution).

The MPO appreciates VDH&T's consideration of our comments. Should you have any questions or need further information, please call me at 644-8586.

Sincerely,

Daniel N. Lysy
MPO Secretary

DNL/vc

Attachment

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APR 8 1983
ENVIRONMENTAL
QUALITY DIV.

Voting Members:

Chesterfield County
Goochland County
Hanover County
Henrico County
City of Richmond

Capital Region Airport Commission
Greater Richmond Transit Company
Richmond Metropolitan Authority
Richmond Regional Planning District Commission
Virginia Department of Highways & Transportation

RICHMOND AREA METROPOLITAN TRANSPORTATION PLANNING ORGANIZATIO
c/o RICHMOND REGIONAL PLANNING DISTRICT COMMISSIO
6 NORTH 6TH STREE
RICHMOND, VIRGINIA 2321
(804) 644-858

RESOLUTION IN SUPPORT OF
LINE A, I-95/I-85 CONNECTOR

On motion of Anthony Mehfoud, seconded by Angela Moore, the following Resolution was unanimously adopted:

WHEREAS, the Virginia Department of Highways and Transportation has requested the participation of the Richmond Area Metropolitan Transportation Planning Organization (MPO) as a cooperating agency in the study of the Proposed Route I-95(295)/I-85 Connector Project, and

WHEREAS, the Richmond Area MPO took action at its October 7, 1982 meeting to recommend that the Virginia Department of Highways and Transportation consider as part of this study Alternative A, plus two other alternatives, and

WHEREAS, the Virginia Department of Highways and Transportation has prepared a draft Environmental Impact Statement (EIS) for public review and comment, and

WHEREAS, as a result of the draft EIS, the Virginia Department of Highways and Transportation considers Line A (i.e. Chippenham Parkway to Proposed I-95/295) to be the best alternative and the preferred alignment; now

THEREFORE, BE IT RESOLVED, that the Richmond Area MPO, this 7th day of April, 1983, recommends that Line A as described in the Route 95/85 Connector Draft EIS be approved by the Virginia Department of Highways and Transportation and the Federal Highway Administration as the best alternative and preferred alignment for the following reasons:

1. Line A provides the best means for improving intra-regional transportation by linking Chippenham Parkway and the Richmond-Petersburg Turnpike with Laburnum Avenue and Interstate Highway 95(295) and providing a vital link for regional travel;

Voting Members:

Chesterfield County
Goochland County
Hanover County
Henrico County
City of Richmond

Capital Region Airport Commission
Greater Richmond Transit Company
Richmond Metropolitan Authority
Richmond Regional Planning District Commission
Virginia Department of Highways & Transportation

2. Line A would provide an additional crossing of the James River between downtown Richmond and the proposed southerly river crossing on I-95(295), and would, therefore, improve travel conditions and relieve traffic congestion on the Richmond-Petersburg Turnpike;

3. Line A would provide greatly improved access for the citizens of Chesterfield County and South Richmond to Byrd International Airport; and

4. Line A will help stimulate economic development in eastern Henrico County and provide improved access to job opportunities for the citizens of the City of Richmond and Chesterfield County.

* *

This is to certify that the above Resolution was unanimously adopted by the Richmond Area Metropolitan Transportation Planning Organization at its meeting held on April 7, 1983.

ATTEST:

Katherine E. Straub
Administrative Assistant

Daniel N. Lysy
MPO Secretary

RICHMOND AREA METROPOLITAN TRANSPORTATION PLANNING ORGANIZATION
c/o RICHMOND REGIONAL PLANNING DISTRICT COMMISSION
6 NORTH 6TH STREET
RICHMOND, VIRGINIA 23219
(804) 644-8586

March 31, 1983

Mr. Robert H. Blackman
Project Coordinator
Virginia Department of Highways
and Transportation
1221 East Broad Street
Richmond, Virginia 23219

RE: Route 95/85 Connector Draft EIS

Dear Mr. Blackman:

Attached for VDH&T review and information are MPO staff technical comments of the Route 95/85 Connector Draft Environmental Impact Statement (EIS). Please note these are staff comments and have not been acted on by the MPO.

Should you have any questions or need further information, please advise.

Sincerely,

Dan Lysy

Daniel N. Lysy
MPO Staff Coordinator

DNL/vc

Attachments

RECEIVED
APR 4 1983
ENVIRONMENTAL
QUALITY DIV.

Voting Members:

Chesterfield County
Goochland County
Hanover County
Henrico County
City of Richmond

Capital Region Airport Commission
Greater Richmond Transit Company
Richmond Metropolitan Authority
Richmond Regional Planning District Commission
Virginia Department of Highways & Transportation

Route I-95/I-85 Connector
Draft Environmental Impact Statement (EIS) Comments

26.1: 1. The preferred alternative (Line A) is only partially shown on the 1995 Major Thoroughfare Plan. The plan should be amended to show this route location as part of the approved plan.

26.2: 2. Page 16 - Lines 3 and 4 - The term "approved I-95" is used here, however, on various maps the term "proposed I-95" is used (Figures 2, 3, 4, etc.). Page 20, Line 16, the term I-95 is used for the RPT. Given that the RPT will remain as signed I-95, and that new, approved or proposed I-95 may be signed as I-295, it is difficult to follow the draft EIS description of impacts.

26.3: 3. Page 18 - VDH&T states that the bridge logs for the Benjamin Harrison Bridge (a lift span structure) were examined for frequency of river traffic from 12/15/81 to 11/15/82, and that utilizing this data, the number of vessels to be expected to traverse the Line A bridge location could be determined, with the result being that VDH&T feeling the number of interruptions being insignificant (average of once every two days). Does VDH&T project any increases in river traffic based on proposed improvements to the Richmond Deepwater Terminal?

26.4: 4. Page 23 - typo - Line 2 - "built" not "build".

26.5: 5. No discussion or mention is made of the methodology used to determine (model) traffic volume projections/level of service conditions.

26.6: 6. Page 51 - Second Paragraph - The document states that the Richmond-Petersburg region is in a strategic location at the crossroads of I-64 and I-95. It should also state that I-85 is located in this region.

26.7: 7. Page 63 - The draft EIS states that Line B would not sever any communities nor cause any problems of access. However, it appears on the Existing Land Use Map (Figure 14) that Line 13 would go through and sever a multi-family residential area (Harbour East).

26.8: 8. Page 64 - Wording Problem - Third and Forth Lines - The sentence should include "roadway" after "proposal" and change "proposal" to "proposed".

26.9: 9. Page 135 (Revised) - Relocation costs are exactly the same ($387,185) for both Lines B and C. Since the number of individuals, families and business displaced is significantly different for Lines B and C, how can the relocation costs be exactly the same?

Richmond Metropolitan Planning Organization

Comment 26.1: The 1995 Transportation Plan will be modified to reflect selected Line A in its entirety.

Comment 26.2: The text in this document has been revised to eliminate confusion of I-95 and proposed I-295.

Comment 26.3: Based on contacts with the Richmond Deepwater Terminal, they are in the preliminary stages of having a study prepared on the feasibility of lighting the James River. Should this become a reality, there would be a definite increase in river traffic at night.

Comment 26.4: This revision has been made.

Comment 26.5: Projected traffic volumes displayed in this document were developed by the use of federally accepted modeling procedures. Level of service calculations are based on the Highway Capacity Manual.

Comment 26.6: The revision has been made.

Comment 26.7: Please note that at the time of preparation of the Draft EIS, the most accurate information was obtained and utilized for existing land use patterns. Harbor East Village would have been impacted had Line B been selected as the final corridor. However, because this residential area consists of mobile homes, probable relocations back into the same trailer park would have eliminated any true bisection of a community.

Comment 26.8: This revision has been made.

Comment 26.9: Cost revisions have been made in this Final EIS.

City of Richmond
Economic Development Office
Port of Richmond Commission

900 East Broad Street, Richmond, Virginia 23219
(804) 780-8419

March 29, 1983

Mr. R.L. Hundley
Environmental Engineer
Dept. of Highways & Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Hundley:

Thank you for the opportunity to respond to the draft "Environmental Impact Statement" for the Route 95/85 connector dated 1 February 1983.

On behalf of the Port of Richmond, I must emphasize that any obstruction to the free flow of ships on the James River between Hopewell and the Deepwater Terminal would have a significant negative impact on the viable activities and economic function of the Port. Specifically,
27.1: any freespan lower than the Benjamin Harrison bridge or any operating span that would restrict river traffic would be detrimental to the Port and the City of Richmond.

Further, the Port of Richmond would appreciate the opportunity for input as you progress in the design process.

Sincerely,

John Meredith

John Meredith, Chairman
Port of Richmond

JM/sdf

cc: Manuel Deese
Louis Saksen

RECEIVED
MAR 29 1983
ENVIRONMENTAL QUALITY DIV.

Port of Richmond Commission

Comment 27.1: The lift-span bridge will be designed so that river traffic will not be restricted any more than necessary.

APPENDIX A

August 24, 1983

Finding of No Adverse Effect
Archaeological Sites HE 493 & 497
Henrico County, Virginia

Mr. Robert Garvey, Executive Director
Advisory Council on Historic Preservation
1522 K Street, N.W.
Washington, D. C. 20005

Dear Mr. Garvey:

In accordance with the procedures outlined in 36 CFR 800, we are requesting your concurrence in a Finding of No Adverse Effect for two archaeological sites (HE 493 and HE 497) in Henrico County, Virginia.

The Virginia Department of Highways and Transportation, the Virginia Historic Landmarks Commission (SHPO) and the Federal Highway Administration have agreed to a proposed mitigation plan (i.e., data recovery) and that a No Adverse Effect Determination is appropriate. Attached is data supporting this determination.

Sincerely yours,

SGD. [illegible]

FOR Paul F. Chamberlain
Division Administrator

Attachments

MEMORANDUM OF AGREEMENT
FINDING OF NO ADVERSE EFFECT

ROUTE 95-85 CONNECTOR
SITES HE 493 & HE 497

Route 95-85 - Counties of Henrico & Chesterfield
State Project 0095-043-104,PE102
0095-020-101,PE102
Federal Project I-IG-95-1(44)47
From: The Intersection of the Richmond Petersburg Turnpike (R.P.T.)
To: The Intersection of Proposed I-295

A. DESCRIPTION OF PROJECT

The proposed project consists of building an Interstate Connector from the existing Chippenham Parkway Interchange of the R.P.T. across the James River to its connection and termination with proposed I-295, south of Charles City Road in Henrico County. The proposed roadway will consist of a six and four lane limited access facility.

B. DESCRIPTION OF NATIONAL REGISTER PROPERTY

Two Archaeological sites, HE 493 and HE 497 have been determined to be eligible for inclusion in the National Register of Historic Places. These two sites are privately owned.

Site HE 493 (Wilton Ferry): The area is irregular and covers an area of 400 X 150 meters. Document review and survey show multiple component prehistoric activity dating from at least the Late Archaic through the Late Woodland (c. 2000 BC - 1600 AD). The historic component dates from the middle 18th through 19th Century with the possibility that a discrete area outside the impact zone dates to the late 17th - early 18th Century. The site functioned as a support system for the Wilton Plantation of the politically significant Randolph Family. The area has subsurface features surviving below the plowzone which are probably a series of domestic and minor industrial structures associated with the main house and the wharf area on the river.

Site HE 497 (Redwood Field): The area is irregular and covers an area of 400 X 60 meters. The site is a multiple component Archaic campsite/lithic reduction station. It is significant because it is relatively undisturbed, having been plowed once in 80 years. It contains horizontal and vertical integrity below the shallow plowzone and has excellent capability for providing significant insight into the dynamics of Archaic culture.

C. REASONS FOR FINDING OF NO ADVERSE EFFECT

In consultation with the Virginia Research Center for Archaeology and James Madison University, it has been concluded that the disturbance of these archaeological sites can be mitigated through data recovery. This conclusion was based upon application of the criteria outlined in Supplementary Guidance issued by the Advisory Council on Historic Preservation.

Site HE 493 (Wilton Ferry): The areas subject to plowzone disturbance will be stripped of topsoil after a controlled surface collection utilizing a 25 foot grid has been accomplished. The features present will be excavated and recorded in the manner of Joukowski and Barker and submitted for review to the Virginia Historic Landmarks Commission (VHLC). Upon successful review by VHLC, the work will then cease. For the remainder of the site which will not be directly disturbed, a controlled surface collection using a 25 foot grid will be accomplished. With the concurrence of the VHLC after review of the stripped areas, no further work will be required, unless dictated by the needs visible at the time.

Site HE 497 (Redwood Field): As this site is in danger of further plow damage, an agreement will be reached with the farmer whereby shallow plowing will continue. This mitigation plan will be carried out as soon as is practicable. It will consist of a controlled surface collection using a 15 foot interval. Following that, a series of machine cut trenches

at least 6 feet wide across the site with a distance of 20 feet between centers will be cut. All artifacts and features surviving below plowzone will be recorded and excavated in the manner of Joukowski and Barker. With the concurrence of the VHLC after review of the stripped and excavated areas, unless dictated by the needs detailed at the time, no further work will be required.

A detailed report summarizing mitigation activities at both sites will be prepared upon completion of the field work and will be furnished to the VHLC.

D. COMMENTS FROM THE STATE HISTORIC PRESERVATION OFFICER (SHPO)

The SHPO indicated both sites (HE 493 and HE 497) are eligible for inclusion in the National Register of Historic Places.

The SHPO further indicated (by signature) his concurrence with the mitigation plan proposal by James Madison University.

E. ATTACHMENTS

1. "USGS Map"
2. Detailed map for Site HE 493
3. Detailed map for Site HE 497

We have jointly reviewed the plans and data for the described project and agree that it will have no adverse effect upon Archaeological Sites HE 493 and HE 497, which have been identified as eligible for the National Register of Historic Places.

8/23/83
Date

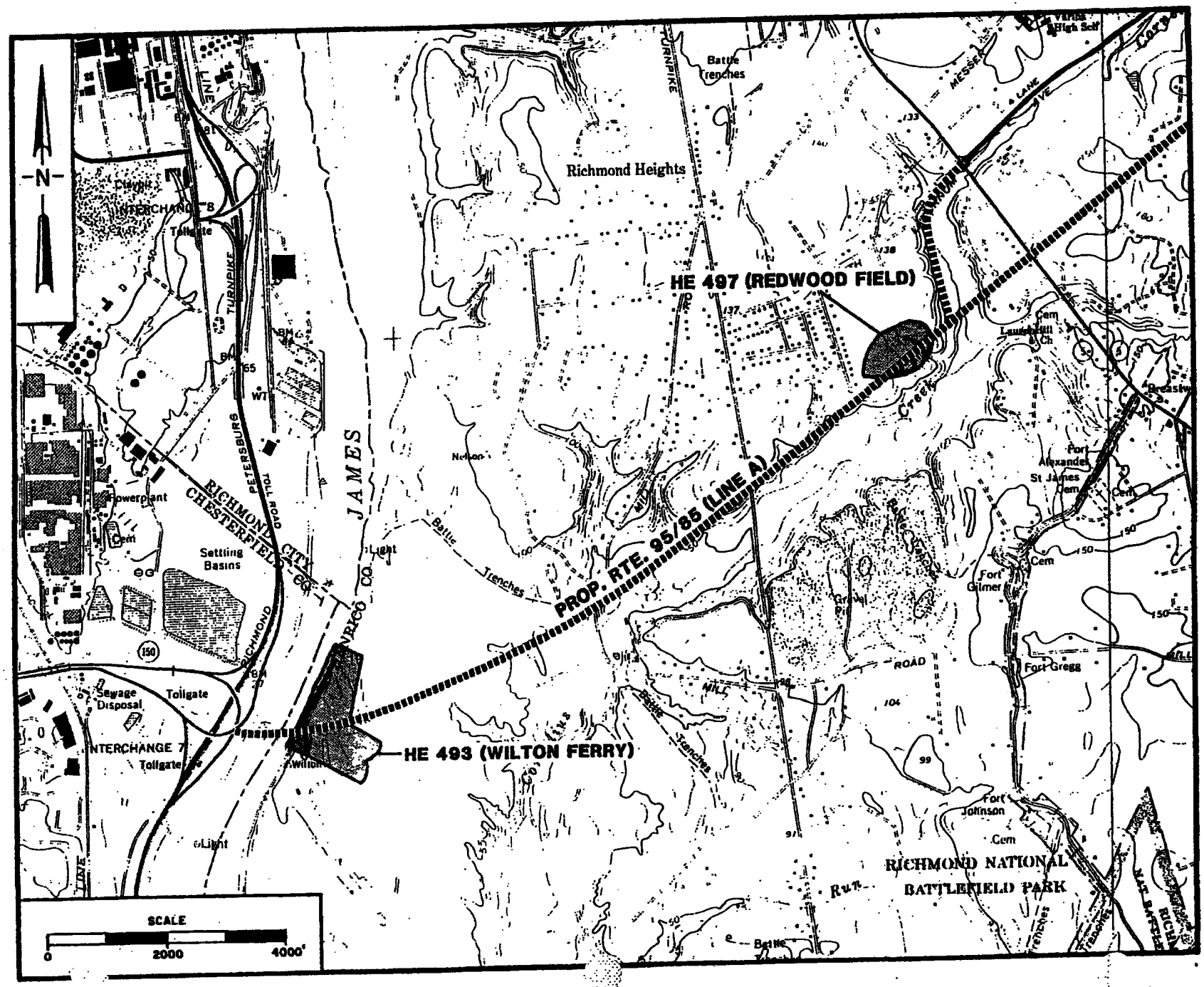
For the Division Administrator
Federal Highway Administration

8/23/83
Date

State Historic Preservation Officer
Virginia Historic Landmarks Commission

Aug 23 1983
Date

Environmental Engineer
Virginia Department of Highways and Transportation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HE 497 (REDWOOD FIELD)
HE 493 (WILTON FERRY)
PROP. RTE. 95/85 (LINE A)
Richmond Heights
Battle Trenches
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PETERSBURG
TOLL ROAD
RICHMOND
CHESTERFIELD
CITY
CO.
JAMES
INTERCHANGE 8
Tollgate
Powerplant
Cem
Settling Basins
Sewage Disposal
INTERCHANGE 7
Wilton
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Nelson
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Fort Gilmer
Fort Gregg
Fort Johnson
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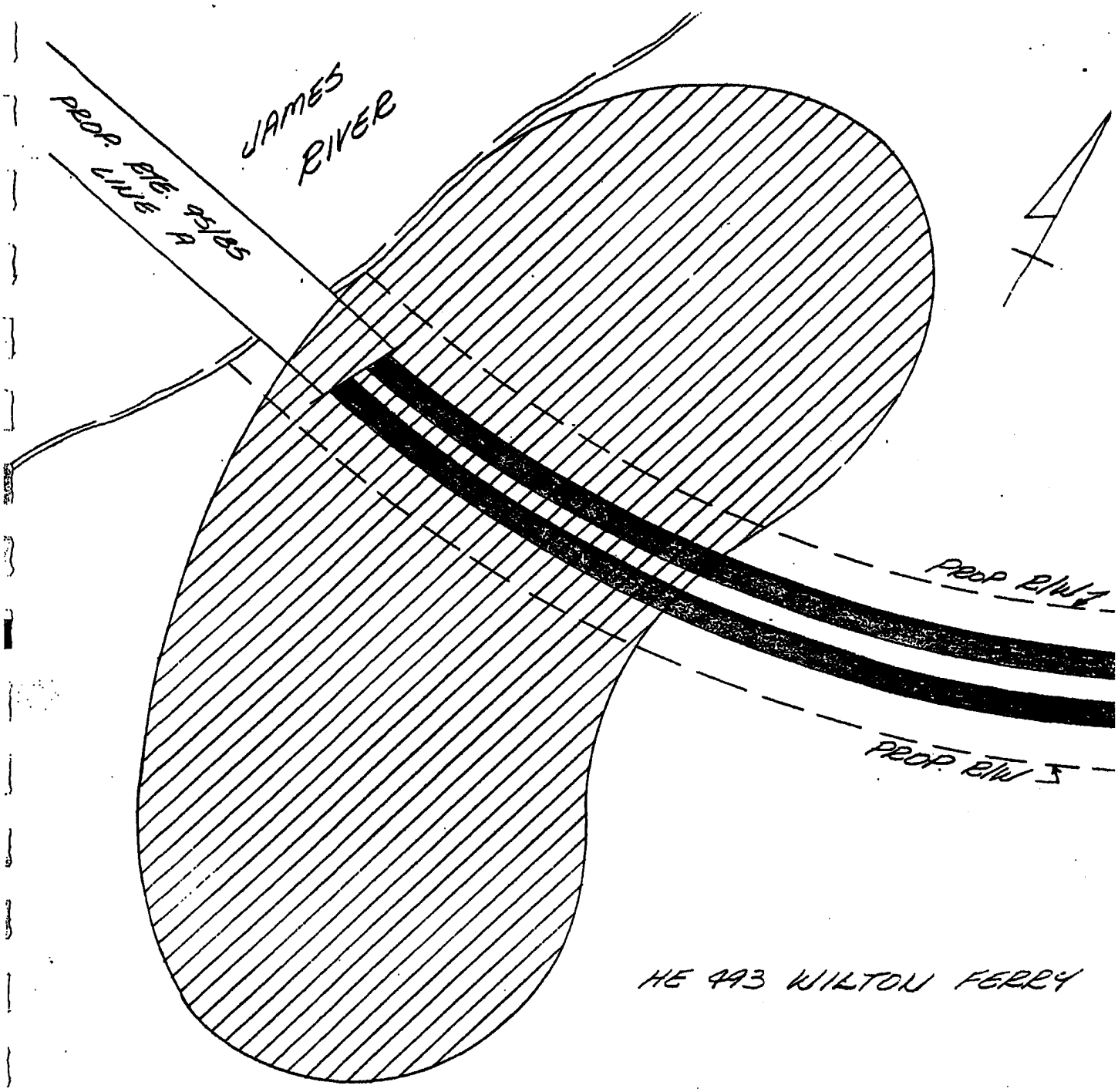
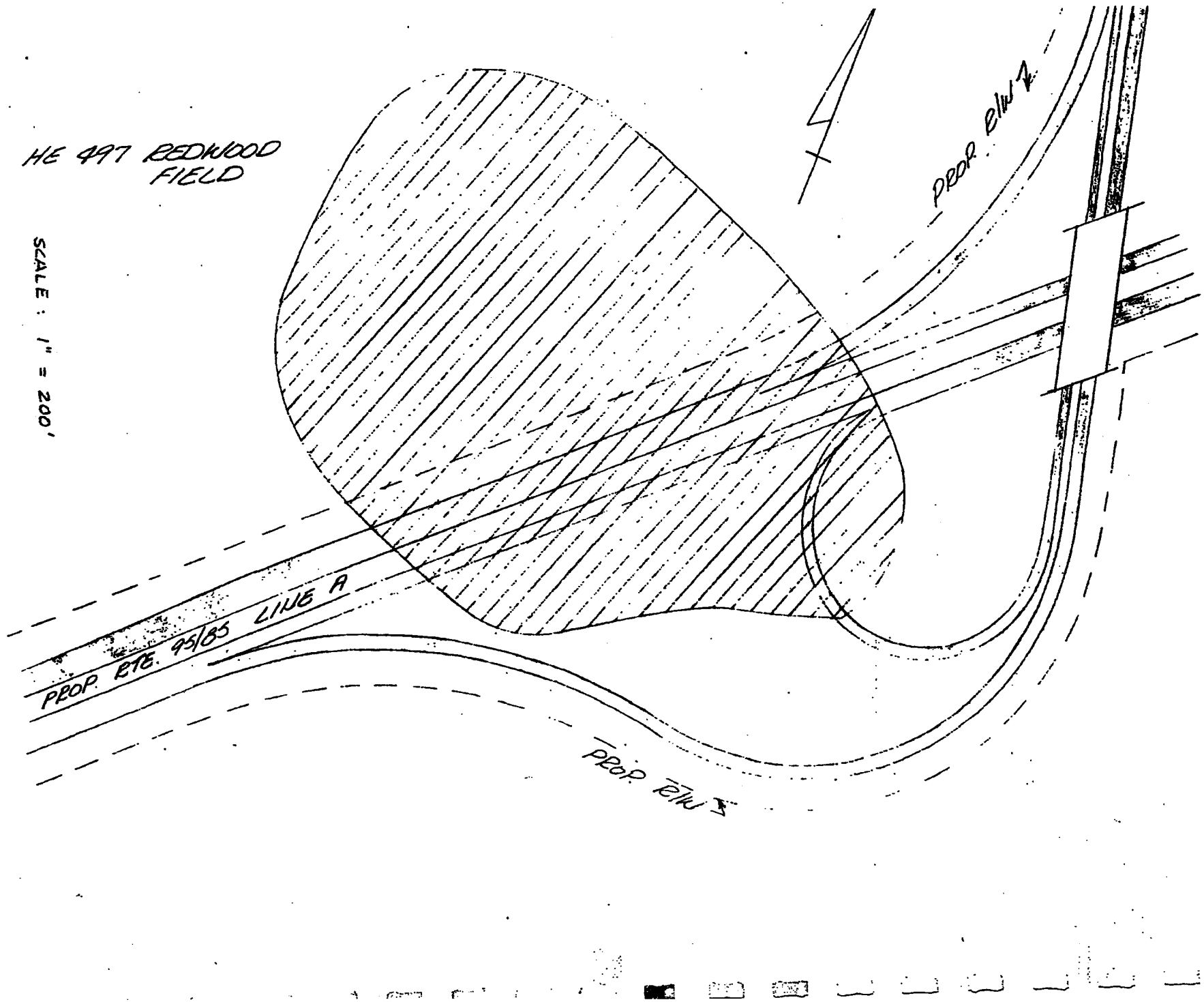
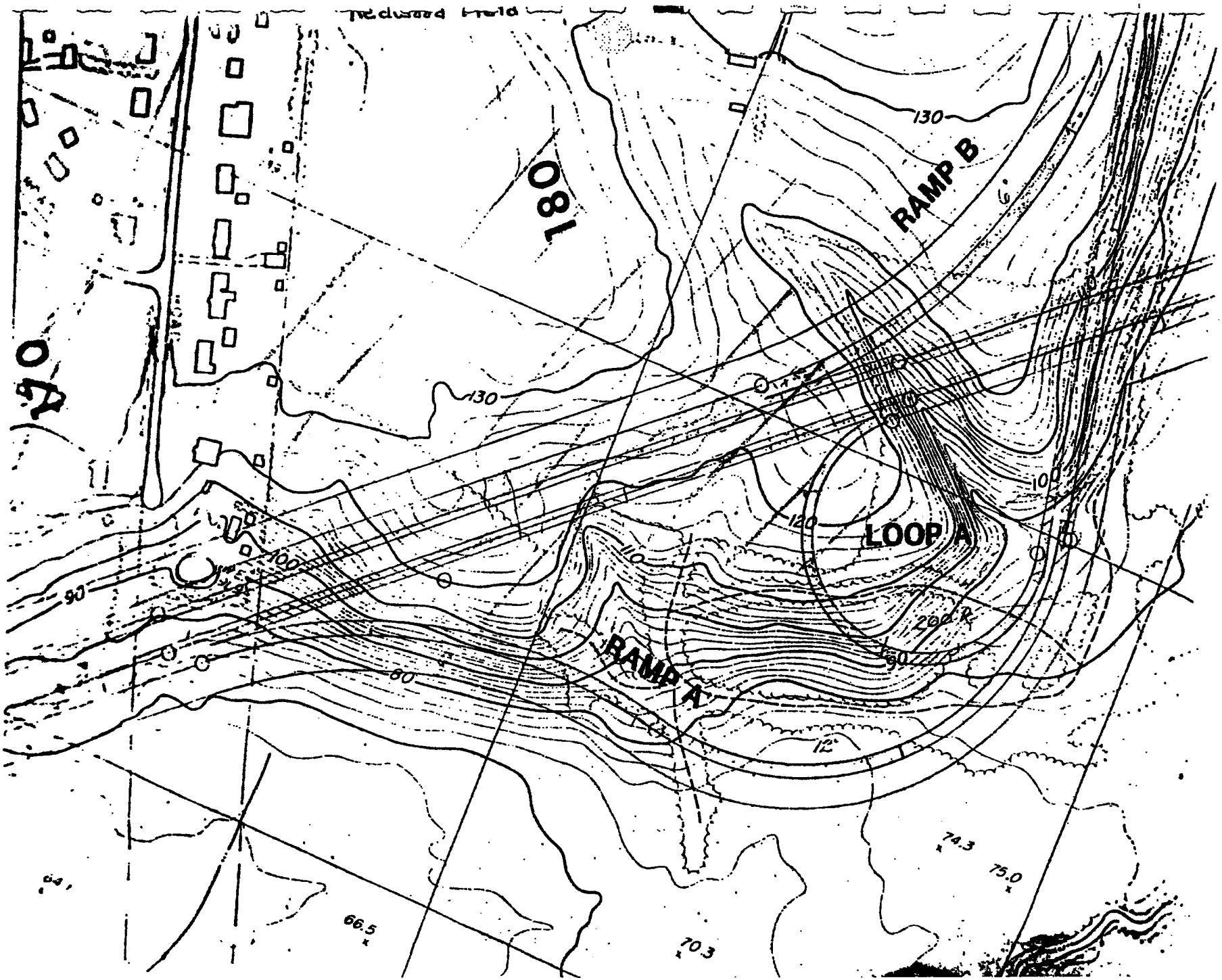


HE 493 WILTON FERRY

SCALE: 1" = 200'


HE 497 REDWOOD FIELD
SCALE : 1" = 200'
PROP. RTE. 95/85 LINE A
PROP. R/W
PROP. R/W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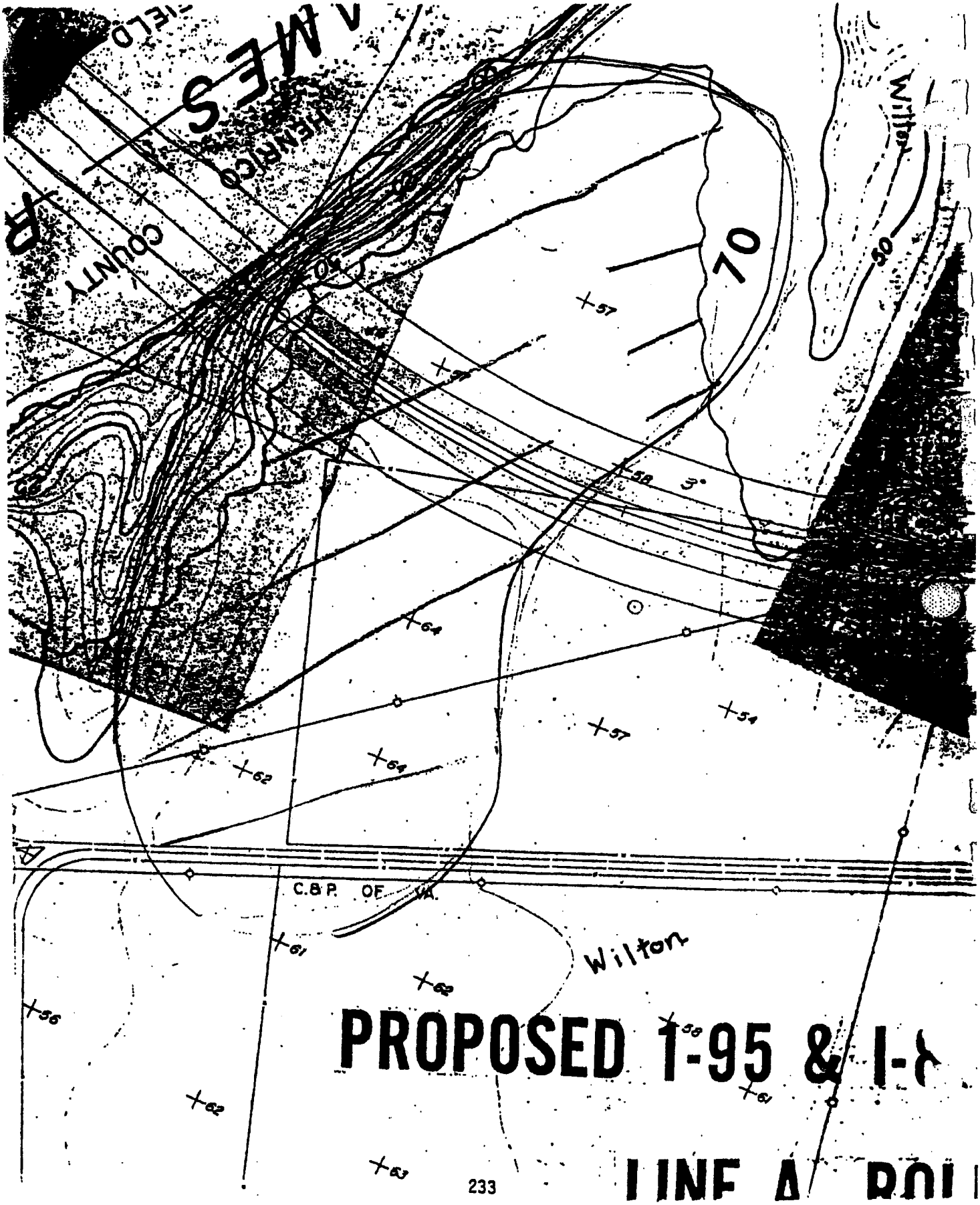
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Wilton
C.&P. OF VA.
Wilton
PROPOSED I-95 &
LINE A

August 18, 1983

Mr. R.L. Hundley
Environmental Engineer
Department of Highways & Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Hundley:

Thank you for providing us for our review and comment a copy of (1) A Phase II Significance Evaluation of the Turpin's Tavern Site (44HE511), Henrico County, Virginia; (2) A Phase II Archaeological Evaluation of the Redwood Field Sitie (44HE497), Henrico County, Virginia; and (3) Mitigation Plan for 44HE493 and 44HE497.

We concur with the recommendations found in the 44HE511 report that this site is not eligible for inclusion in the National Register of Historic Places, thereby not warranting further archaeological investigations. Based upon information in the 44HE497 report, we agree that this site is eligible for inclusion in the National Register. This evaluation is based upon data provided in the report indicating that this Archaic Period site is characterized by an excellent state of preservation. Such a state of preservation for sites dating to this time period is extremely rare in Virginia. We further concur with the report's recommendation that site "A" is not eligible for inclusion in the National Register and have noted that sites "B" and "C" will in no way be affected by construction. Finally, we are in general agreement with the mitigation plan proposed for sites 44HE493 and 44HE497. Due to the brevity of the plan, we do wish, however, to discuss with you in more detail, specific mitigative options prior to their implementation.

We look forward to continuing working with you on archaeological matters concerned with this project.

Sincerely,

H. Bryan Mitchell

H. Bryan Mitchell

cc: Bruce J. Larson, VHLC Research Center for Archaeology

HBM/vmm

As an explanation to the comments made by the Virginia Historic Landmarks Commission, in their letter dated August 18, 1983:

Site C is part of an open field near Line A; however, it lies outside of the roadway construction.

Site B is also part of the open field; however, it also lies outside the proposed construction.

Site A is the Redwood Field site, on which a full-scale archaeological investigation was conducted.

As requested by the VHLC, the Department will work with them on mitigation options.

PLANNING DISTRICT 15

MEMBERS

MRS. KENNETH R. HIGGINS, CHAIRMAN
MRS. NELLIE WHITE SUNDY, VICE CHAIRMAN
DAVID A. HARRISON, III
DONALD HAYNES
W. BROWN MORTON, III
FREDERICK D. NICHOLS
RICHARD M. B. RENNOLDS
FRED W. WALKER
MRS. T. EUGENE WORRELL

COMMONWEALTH of VIRGINIA

Virginia Historic Landmarks Commission

H. BRYAN MITCHELL
EXECUTIVE DIRECTOR

RESEARCH CENTER FOR ARCHAEOLOGY

ROUTE 238, BOX 365
YORKTOWN, VIRGINIA 23690
TELEPHONE: (804) 253-4836

ALAIN C. OUTLAW, Commissioner of Archaeology

MEMORANDUM

24 August 1983

TO: Mr. R. L. Hundley

FROM: Alain C. Outlaw, Commissioner

PROJECT: 0095-043-104,PE102
0095-020-101,PE102
85/95 Connector Phase I Survey For Underwater Archaeological Resources

LOCATION: Henrico & Chesterfield Counties

☐ An archaeological field survey will not be necessary for this project. If, however, archaeological resources are unexpectedly encountered during construction, the VRCA should be notified immediately.

☐ Due to the archaeological potential of this location, as well as the project impacts, a Phase I archaeological field survey is necessary. This survey should locate all archaeological resources which may be impacted by the project as it is presently planned. Please find enclosed a list of persons who have expressed an interest in doing contract archaeological work in Virginia. A copy of the resulting report should be forwarded to the VRCA for comment. All necessary archaeological work must be completed, reviewed and approved by this office prior to the commencement of any construction related activities.

☒ The VRCA has completed its review of the Phase I archaeological survey report on the above project. No further work will be necessary.

COMMENTS:

If you have any questions, please contact Bruce Larson at 804-253-4836

MEMBERS

MRS. KENNETH R. HIGGINS, CHAIRMAN
MRS. NELLIE WHITE BUNDY, VICE CHAIRMAN
DAVID A. HARRISON, III
DONALD HAYNES
W. BROWN MORTON, III
FREDERICK D. NICHOLS
RICHARD M. B. RENNOLDS
FRED W. WALKER
MRS. T. EUGENE WORRELL

COMMONWEALTH of VIRGINIA

Virginia Historic Landmarks Commission

H. BRYAN MITCHELL
EXECUTIVE DIRECTOR

RESEARCH CENTER FOR ARCHAEOLOGY

ROUTE 238, BOX 386
YORKTOWN, VIRGINIA 23690
TELEPHONE: (804) 253-4836

ALAIN C. OUTLAW, Commissioner of Archaeology

22 July 1983

Mr. R. L. Hundley
Environmental Engineer
Department of Highways & Transportation
1221 East Broad Street
Richmond, Virginia 23219

Re: 0095-020-101,PE102
0095-043-104,PE102

Dear Mr. Hundley:

Thank you for your letter of June 23, 1983, regarding the need for an underwater archaeological investigation for the above project.

The VRCA agrees that the areas would be difficult to survey; however, due to the high potential for cultural resources there is a clear need to investigate the bank areas archaeologically. The channel area is heavily disturbed and does not require a survey.

We suggest the use of divers to investigate bank areas on both sides, using probes and visual inspection. We are of the understanding that VDHT divers will be used to complete the field reconnaissance. Therefore, the VDHT archaeologist should coordinate the investigations and supply a completed written report on the field survey to the VRCA for final review and comment.

Should you have any questions on the above comments, please do not hesitate to contact the VRCA.

RECEIVED
JUL 27 19
ENVIRONMEN
QUALITY D

Sincerely,
Signed in his absence,
Bruce J. Larson (jkp)
Bruce J. Larson
Review & Compliance Coordinator
VRCA

MEMBERS
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MRS. T. EUGENE WORRELL

COMMONWEALTH of VIRGINIA

Virginia Historic Landmarks Commission

H. BRYAN MITCHELL
EXECUTIVE DIRECTOR

221 GOVERNOR STREET
RICHMOND, VIRGINIA 23219
TELEPHONE: (804) 786-3143

May 17, 1983

Mr. R.L. Hundley
Environmental Quality Engineer
Virginia Department of Highways &
Transportation
1221 East Broad Street
Richmond, Virginia 23219

RE: ROUTE 95/85 CONNECTOR 0095-043-104,P102 0095-020-101,P102,
Henrico County

Dear Mr. Hundley:

Based upon our review of the plans for the proposed Route 95/85 connector alternatives A, B, and C, the following information is provided:

Nine historic sites have been identified in the general vicinity of the three alternatives.

Six of these sites, the Wilton site (43-37), the Sordelet Mill site (43-192), the Laurel Lawn site (43-135), the Herbert site (43-118), Peter Jefferson's Church (20-79), and the Ware Mill ruins are not standing structures. The affect the proposed construction would have upon these sites should be determined and discussed in the archaeological study of this project.

The other three historic sites are standing structures and their eligibility and the affects the proposed construction will have upon them is discussed below.

AUBURN (43-54) does not meet the criteria for inclusion in the National Register and will not be affected by the construction of any of the alternatives.

TURPINS TAVERN (43-212) will be displaced by Line A but is not eligible for Register nomination. It is not affected by the other two alternatives.

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MAY 18 1983
ENVIRONMENTAL
QUALITY DIV.

The final site, PRESTON PLACE (43-281) is not eligible and will not be affected by any of the alternatives.

If you have any questions about this information please contact me.

Sincerely,

C. Vernon March, III
Environmental Officer

CVM/vmm

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Virginia Historic Landmarks Commission

H. BRYAN MITCHELL
EXECUTIVE DIRECTOR

221 GOVERNOR STREET
RICHMOND, VIRGINIA 23219
TELEPHONE: (804) 786-3143

March 23, 1983

Mr. Robert Blackman
Environmental Quality Division
Department of Highways and Transportation
1221 East Broad Street
Richmond, Virginia 23219

RE: TURPINS TAVERN, Henrico County

Dear Bob:

The staff visited Turpins Tavern last week to examine its architectural significance. The following comments have been based on our review.

The five-bay, 1½-story, frame house known as "Turpins Tavern" may have originally dated to the second quarter of the 19th century. However, the present dwelling has been so heavily renovated that the original form of the house is hardly discernable. Only small sections of the foundation, portions of the structural system, and lath suggest the early date. The present weatherboard dormer, window sash, and the interior plan including the placement of the stair all date to the 20th century. Only two sections of woodwork at interior openings and portions of the baseboard appear to date to the 19th century. In addition, the chimneys have been removed, replaced by a central flue. Therefore, the integrity of the 19th-century structure is gone and a 20th-century building with a few earlier features remains.

In conclusion, the staff has no plans to nominate Turpins Tavern to the Virginia Landmarks Register.

Sincerely,

C. Vernon March, III
Environmental Officer

cc: Bryan McCormick, Dept. of Highways & Transportation
H. Bryan Mitchell, VHLC Executive Director
Calder Loth, Senior Architectural Historian (VHLC)

CVM/vmm

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Virginia Historic Landmarks Commission

H. BRYAN MITCHELL
EXECUTIVE DIRECTOR

221 GOVERNOR STREET
RICHMOND, VIRGINIA 23219
TELEPHONE: (804) 786-3143

September 10, 1982

Mr. Bryan McCormick
Environmental Division
Department of Highways and Transportation
1221 East Broad Street
Richmond, Virginia 23219

RE: ROUTE 95/85 CONNECTOR

Dear Bryan:

The staff feels that the integrity of Turpin Tavern has been severely compromised by the alterations that have taken place over the years. We have no plans to nominate this building to the Virginia or National Register.

The corridors presented in the study of Route 95/85 will have no impact upon Auburn, as the nearest line is miles from the house.

We know of no other significant structure that would be affected by the Department's proposals.

Sincerely,

C. Vernon March, III
Environmental Officer

CVM/vmm

1/6/83: Due to physical alterations of the building, SHPO feels that Turpins Tavern is not eligible for the National Register.

Robert H. Blackman

COMMONWEALTH OF VIRGINIA
County of Henrico
PARHAM AND HUNGARY SPRING ROADS • P.O. BOX 27032
RICHMOND, VIRGINIA 23273

BOARD OF SUPERVISORS
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ANTHONY P. MEHFOUD, Vice Chairman
J. LARRY DIXON
DAVID A. KAECHELE
JOHN A. WALDROP, JR.

September 29, 1982

Mr. Harold C. King
Department of Highways & Transportation
Commonwealth of Virginia
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. King:

At its September 22, 1982, meeting the Henrico Board of Supervisors unanimously approved a resolution supporting the Alternative Route A connection of proposed I-95 with the Richmond-Petersburg Turnpike as recently proposed by the Virginia Department of Highways and Transportation and the Federal Highway Administration. A certified copy of this resolution is enclosed for your information and file.

We in the County of Henrico believe the entire region would benefit from this proposed connection and enthusiastically endorse Alternative Route A.

Sincerely,

L. Ray Shadwell, Jr.

COMMISSIONER'S
OCT 1 1982
OFFICE

COUNTY OF HENRICO, To-wit:

At a regular meeting of the Board of County Supervisors of Henrico County, held in the Board Room, Administration Building, Henrico Government Center, Parham and Hungary Spring Roads, Henrico County, Virginia, on Wednesday, the 22nd day of September, 1982, at the hour of 2:00 o'clock p.m.

PRESENT:

L. Ray Shadwell, Jr., Chairman
Anthony P. Mehfoud, Vice-Chairman
J. Larry Dixon
David A. Kaechele
John A. Waldrop, Jr.

MEMBERS OF THE BOARD

****

437-82 On motion of Anthony P. Mehfoud, seconded by John A. Waldrop, Jr., the following resolution was unanimously adopted:

WHEREAS, The Virginia Department of Highways and Transportation and the Federal Highway Administration, in a joint venture, have initiated the development of a Draft Environmental Statement on the Route 95/85 Connector; and

WHEREAS, There are six options under study by the Environmental Division of the Virginia Department of Highways and Transportation; and

WHEREAS, The Region would benefit from a connection between the existing Richmond-Petersburg Turnpike and the proposed I-95 eastern corridor; and

WHEREAS, The Major Thoroughfare Plan element of the 1995 Land Use Plan for the County includes the extension of Laburnum Avenue across the James River to intersect with I-95 at the Chippenham Parkway (Route 150) interchange; and

WHEREAS, Alternative A would provide the roadway connection of Route 5 with I-95 with a bridge constructed across the James River.

NOW, THEREFORE, BE IT RESOLVED, That the Board of Supervisors of the County of Henrico, Virginia, supports Alternative A connection of proposed I-95 with the Richmond-Petersburg Turnpike.

****

A copy teste:

Margaret G. Baker
Clerk

CHESTERFIELD COUNTY

CHESTERFIELD, VIRGINIA 23832
(804) 748-1211

BOARD OF SUPERVISORS
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BERMUDA DISTRICT

OFFICE OF THE
COUNTY ADMINISTRATOR

September 27, 1982

Mr. Robert H. Blackman
Environmental Quality Division
Virginia Department of Highways
and Transportation
1221 East Broad Street
Richmond, Virginia 23219

Dear Mr. Blackman:

Chesterfield County is quite concerned that the Virginia Department of Highways and Transportation is considering alternatives for an Interstate crossing of the James River that do not include a Hoke-Brady Road beltway alignment from Richmond-Petersburg Turnpike to I-64 east of Byrd Airport. This beltway alignment has been shown on regional and County plans since those plans were first adopted. Chesterfield has never waivered in its view that this beltway alignment is the best alternative for any crossing of the James River between downtown Richmond and the Benjamin Harrison Bridge. The Hoke-Brady Road alternative is the County's preferred alternative for any road connection between the Richmond-Petersburg Turnpike in Chesterfield and I-64 in eastern Henrico County. Also, the County's support of this crossing of the James River in no way implies acceptance of the State's plan for an eastern route of I-95 south of the beltway. With the beltway crossing of the James River in place, there is no need for a new Interstate route in the eastern part of the Richmond and Tri-Cities metropolitan areas.

The three alternatives that your agency has proposed vary in merit from reasonable to marginal. Line A, which is an extended version of the Chippenham-Laburnum connector currently shown on regional plans, has considerable merit, but pales in significance when compared to the benefits provided by the Hoke-Brady beltway crossing of the James River. When commitments have been made for the Hoke-Brady Road beltway crossing, the Chippenham-Laburnum connector could be supported by Chesterfield County. Alternatives B and C have virtually no merit in that they provide no crossing of the James River where one is needed and they constitute considerable disruption to existing land uses.

RECEIVED
SEP 29 1982
ENVIRONMENTAL
QUALITY DIV.

Attached are responses to the questions attached to your letter of August 9, 1982. Please contact Mr. Jeffrey B. Muzzy at 748-1047 for any further comment from Chesterfield County on this matter.

Sincerely,

Richard L. Hedrick
County Administrator

pb

Attachment

Copy to: The Honorable Members, Board of Supervisors
Chesterfield County, VA

Route 95/85
Chesterfield & Henrico Counties
Project 0095-020-101, PE102
0095-043-104, PE102

1. Does the proposed project appear to be compatible with county planning, including transportation plans and proposed highway development in the area? NOT AS PROPOSED BY VDH&T

2. Where is this project ranked in county transportation improvement needs? SEE LETTER.

3. Is the county developing any mass transit options for this corridor? No

4. Is the proposed project consistent with community goals and proposed land use? NOT AS PROPOSED BY VDH&T

5. Will the project disrupt a community or its planned development? ALT. A - No. ALTS B&C - YES.

6. What is the position of the Board of Supervisors toward this project? SEE LETTER

7. Are there any existing or planned recreational sites within the project area? No

8. Will the project affect a public water supply? DESIGN REQUIRED FOR DETERMINATION

9. Will there be adverse effects on local ground water? DESIGN REQUIRED FOR DETERMINATION

10. Is there a possibility that construction will affect local sanitary facilities? ALT. A - YES

11. Will flood conditions in the local area be affected? DESIGN REQUIRED FOR DETERMINATION

12. Does the county have a preferred scheme of development for this project? SEE LETTER.

APPENDIX B

Erosion and Siltation -The contractor shall exercise every reasonable precaution, including the application of temporary measures, throughout the duration of the project to control erosion and prevent or minimize the siltation of rivers, streams and impoundments (lakes, reservoirs, etc.). Such measures shall include, but are not limited to, the use of berms, dikes, dams, sediment basins, fiber mats, brush silt barriers, netting, gravel or crushed stone, mulch, grasses, slope drains and other methods. Temporary erosion and siltation control measures shall be applied to erodible material exposed by any activity associated with the construction including local material sources, stockpiles, waste areas and all haul roads.

Temporary measures shall be coordinated with the construction of permanent drainage facilities and other contract work to the extend practicable to assure economical, effective and continuous erosion and siltation control. The temporary and permanent drainage facilities shall be installed as soon as practicable, particularly the installation of paved ditches in cut sections.

The Contractor shall shape the top of earthwork in such a manner as to permit the runoff of rainwater and shall construct earth berms along the top edges of embankments to intercept runoff water. Temporary slope drains shall be provided to carry runoff from cuts and embankments. The slope drains may be of flexible or rigid construction but shall be capable of being readily shortened or extended as the cut or fill advances. A portable flume shall be provided at the entrance to the temporary slope drains.

Temporary erosion and siltation measures required to correct conditions created due to the Contractor's negligence, carelessness or failure to install permanent controls in accordance with the approved plan and sequence for performance of such work, will not be measured for payment. In the event the Contractor repeatedly fails to satisfactorily control erosion and siltation, the Department reserves the right to employ outside assistance or to use its own forces to provide the corrective measures indicated; the cost of such work, plus engineering costs, will be deducted from monies due the Contractor for other work.

Water Pollution - The Contractor shall exercise every reasonable precaution throughout the duration of the project to prevent pollution of rivers, streams or impoundments. Pollutants such as chemicals, fuels, lubricants, bitumens, raw sewage, paints, and other harmful waste shall not be discharged into or alongside of rivers, streams, impoundments or into natural or manmade channels leading thereto.

Excavation from the roadway, channel changes, cofferdams, and other structures shall not be deposited in or so near to rivers, streams or impoundments that it will be washed away by high water or runoff.

Unless otherwise approved in writing by the Engineer, construction operations in rivers, streams and impoundments shall be restricted to those areas where channel changes are shown on the plans and to those areas which must be entered for the construction of temporary or permanent structures. Rivers, streams and impoundments shall be promptly cleared of all false work, piling, debris, or their obstructions placed therein or caused by the construction operations.

Frequent fording of live streams with construction equipment will not be permitted; therefore, temporary bridges or other structures shall be used wherever an appreciable number of stream crossings will be made.

Air Pollution - Burning shall be done in accordance with applicable local laws and ordinances. The Contractor shall comply with the provisions of Section 107.01 and especially with the State Air Pollution Control Law and Rules of the State Air Pollution Control Board.

Care shall be exercised to see that the burning of materials does not destroy or damage public or private property, or cause excessive air pollution. The Contractor shall not burn rubber tires, asphaltic materials, used crankcase oil, or similar materials which produce dense smoke, either to dispose of such materials or as an ignitor or promoter in the burning of other materials. Burning shall be performed under the constant surveillance of competent watchmen.

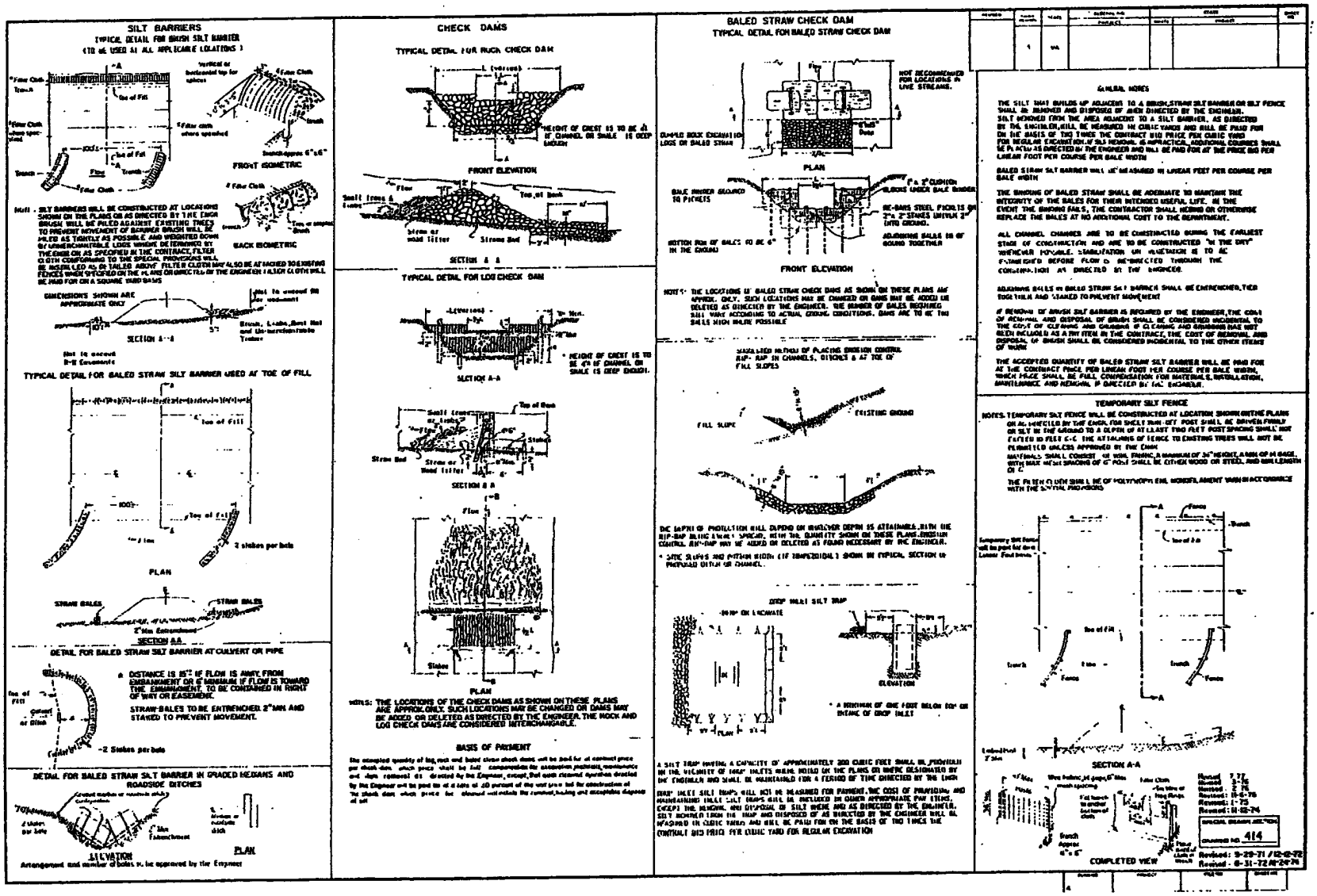
Bituminous mixing plants shall be so designed, equipped, and operated that the amount and quality of air pollutants emitted will conform to the requirements of the Rules of the State Air Pollution Control Board.

Allaying Dust - This work shall consist of such operations as are necessary to apply either moisture, calcium chloride or both materials for the purpose of allaying dust along those sections of the project designated by the Engineer.

The equipment to be furnished for application of water shall include a truck or trucks equipped with a water tank with a minimum capacity of one thousand gallons and pumps for furnishing, loading, and applying water to the roadway when and as directed.

The equipment and the operators shall be available at all times and shall be subject to call at night, on Saturdays, Sundays and holidays, as well as during regular working hours.

APPENDIX C


SILT BARRIERS
TYPICAL DETAIL FOR BRUSH SILT BARRIER
(TO BE USED AT ALL APPLICABLE LOCATIONS)
FRONT ISOMETRIC
BACK ISOMETRIC
SECTION A-A
TYPICAL DETAIL FOR BALED STRAW SILT BARRIER USED AT TOE OF FILL
PLAN
SECTION AA
DETAIL FOR BALED STRAW SILT BARRIER AT CULVERT OR PIPE
DETAIL FOR BALED STRAW SILT BARRIER IN GRADED MEDIANS AND ROADSIDE DITCHES
ELEVATION
PLAN
CHECK DAMS
TYPICAL DETAIL FOR ROCK CHECK DAM
FRONT ELEVATION
SECTION A A
TYPICAL DETAIL FOR LOG CHECK DAM
SECTION A-A
SECTION B B
PLAN
BASIS OF PAYMENT
BALED STRAW CHECK DAM
TYPICAL DETAIL FOR BALED STRAW CHECK DAM
PLAN
FRONT ELEVATION
NOTE: THE LOCATIONS OF BALED STRAW CHECK DAMS AS SHOWN ON THESE PLANS ARE APPROX. ONLY. SUCH LOCATIONS MAY BE CHANGED OR DAMS MAY BE ADDED OR DELETED AS DIRECTED BY THE ENGINEER. THE NUMBER OF BALES REQUIRED WILL VARY ACCORDING TO ACTUAL GROUND CONDITIONS. DAMS ARE TO BE TWO BALES HIGH WHERE POSSIBLE
FILL SLOPE
EXISTING GROUND
DEEP INLET SILT TRAP
ELEVATION
GENERAL NOTES
TEMPORARY SILT FENCE
SECTION A-A
COMPLETED VIEW
414

APPENDIX D

I. Relocation Procedures

A. Relocation Payments - Families and individuals displaced may be eligible for:

1. payment for actual reasonable moving expenses, or

2. a fixed moving expense allowance not to exceed $300 and a dislocation allowance of $200.

B. Replacement Housing Payments - Owner occupants, not to exceed $15,000 or:

1. the difference, if any, between the acquisition payment made by the local agency and the cost of a comparable suitable housing unit,

2. an amount to compensate the displaced home owner for the present worth of any loss of favorable financing, and

3. an amount to compensate the displaced home owner for reasonable closing costs incident to the purchase of a replacement housing unit.

C. Replacement Housing Payments - Tenant occupants; a payment to displaced "Tenants" and certain others which may not exceed $4,000 and which may be either:

1. a payment to the displaced person in making a down-payment toward the purchase of a replacement housing unit, or

2. a payment to assist the displaced person in the rental of a replacement housing unit for a period not to exceed four years.

D. Business Concerns (Including Non-Profit Organizations); business concerns displaced may be eligible for either:

1. payments to cover the following within certain limitations:

a. actual reasonable moving expenses,

b. actual direct loss of tangible personal property, and

c. actual reasonable expenses in searching for a replacement business or:

2. A fixed payment equal to the business concern's average annual net earnings, but not less than $2,500 nor more than $10,000, if it is determined that the business cannot be relocated without a substantial loss of its existing patronage and it is not a part of a chain operation.

No person shall be required to move from his dwelling on or after the effective date of this title, because of any Federal project, unless the Federal agency head is satisfied that replacement housing in accordance with Section 205(c)(3), Public Law 91-646, is available to such person.

No owner shall be required to surrender possession of real property before the head of the acquiring agency concerned pays the agreed purchase price, or deposits with the court in accordance with Section 1 of the Act of February 26, 1931, (46 Stat. 1421, 40, U.S.C. 258a), for the benefit of the owner, an amount not less than the agency's approved appraisal of the fair market value of such property, or the amount of the award of compensation in the condemnation proceeding for such property.

No person lawfully occupying real property shall be required to move from a dwelling, or to move from his business or farm operation, without at least 90 days written notice from the head of the acquiring agency concerned of the date by which such move is required.

II. Standards for Decent, Safe and Sanitary Housing

A. Minimum Requirements - A decent, safe and sanitary dwelling is one which meets all of the following minimum requirements:

1. Conforms to State and Local Housing Codes and Ordinances -

Conforms with all applicable provisions for existing structures that have been established under State or local building, plumbing, electrical, housing and occupancy codes and similar ordinances or regulations.

2. Water -

Has a continuing and adequate supply of safe, potable water.

3. Kitchen Requirements -

Has a kitchen or area set aside for kitchen use which contains a sink in good working condition and connected to hot and cold water and an adequate sewage system. The kitchen area or area set aside for such use must have utility service connections and adequate space for the installation of a stove and refrigerator.

4. Heating System -

Has an adequate heating system in good working order which will maintain a minimum temperature of 70 degrees in the living area. Bedrooms are not included in the living area as referred to in this subparagraph.

5. Bathroom Facilities -

Has a bathroom, well-lighted and ventilated, and affording privacy to a person within it, containing a lavatory basin, bathtub or stall shower properly connected to an adequate supply of hot and cold running water, and a flush closet all in good working order and properly connected to a sewage disposal system.

6. Electrical System -

Has an adequate and safe wiring system for lighting and other electrical services.

7. Structurally Sound -

Is structurally sound, weathertight, in good repair and adequately maintained.

8. Egress -

Each building used for dwelling purposes shall have a safe unobstructed means of egress leading to a safe open space at ground level. In multidwelling buildings of three stories or more, the common corridor on each story must have at least two means of egress (the act of going out or forth).

9. Habitable Floor Space -

Has 150 square feet of habitable floor space for the first occupant in a standard living unit and at least 100 square feet of habitable floor space for each additional occupant. The floor space must be subdivided into sufficient rooms to be adequate for the family. All rooms must be adequately ventilated. "Habitable floor space" is defined as that space used for living, cooking, sleeping, or dining purposes and excludes such enclosed places as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries and unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

B. Rental of Sleeping Rooms - The standards for decent, safe and sanitary housing, as applied to rental of sleeping rooms, shall include the minimum requirements contained in paragraph 3-A* with the following exceptions:

1. Habitable Floor Space -
At least 100 square feet of habitable floor space for the first occupant and 50 square feet of habitable floor space for each additional occupant.

2. Bathroom Facilities -
Lavatory, bath and toilet facilities that provide privacy including a door that can be locked if such facilities are separate from the room.

3. Kitchen Requirements -
Sleeping room need not include a kitchen or area set aside for such use.

C. Mobile Homes - The standard for decent, safe and sanitary housing, as applied to mobile homes, shall include the minimum requirements contained in paragraph 3-A* with the following exceptions:

1. Habitable Floor Space -
At least 150 square feet of habitable floor space for the first occupant and 70 square feet of habitable floor space for each additional occupant.

2. Approval of Local Code -
In those instances where a local code does not meet all of the standards listed in this paragraph but is reasonably comparable, the District providing the relocation assistance may submit such code along with a detailed report of the extenuating circumstances to the Central Office requesting approval of an exception to the usual standard for decent, safe and sanitary housing for the particular area.

3. Exception for Parcels -
In the case of extreme hardship or other similar extenuating circumstances, an exception to the decent, safe and sanitary characteristics of replacement housing may be permitted in a particular case provided written concurrence is obtained from the State Right of Way Engineer. For example, it is recognized that exceptional problems may arise with regard to large families meeting floor space requirements. In instances of this nature, consideration would be given to waiving the square footage requirement on a parcel basis provided there is satisfactory bedroom space based on the age and sex of the occupants.

*Paragraph 3-A, Section 404, Relocation and Assistance Payments Manual.

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION
Region 3

RE-EVALUATION OF FINAL ENVIRONMENTAL IMPACT STATEMENT
Route 895 Connector
Chesterfield/Henrico Counties

State Projects: 0895-020-F01,PE101
0895-043-F01,PE101
(Formerly 0095-020-101,PE102
0095-043-104,PE102)
FHWA-VA-EIS-83-01-F

Federal Project NH-080-1(103)
(Formerly I-IG-95-1(44)47

From: The Intersection of the Richmond/Petersburg Turnpike & Route 150
To: Route I-295
PPMS # 1715 & 1716

This Statement Prepared By
ROBERT H. BLACKMAN
Environmental Specialist Senior-Field

Richmond District Environmental Section
Virginia Department of Transportation
Submitted pursuant to 42.U.S.C.4332(2) (C)

9/30/94
Date

J. S. Hodge, Chief Engineer

9/30/94
Date

Robert B. Welch
For the Division Administrator

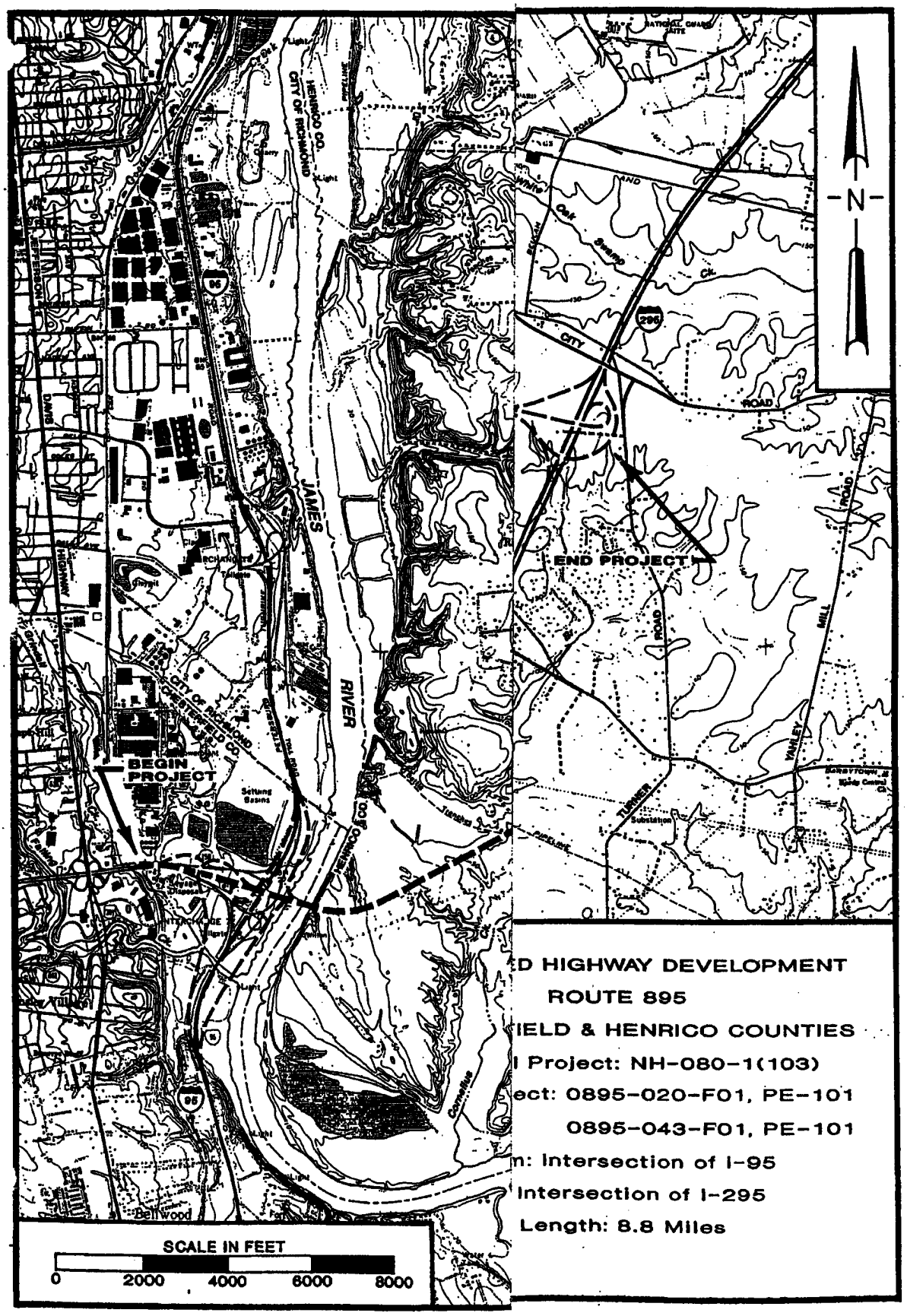
PURPOSE

This re-evaluation is designed to identify any environmental impacts associated with Alternative A which may have changed since approval of the June 1984 Final E.I.S. This report will document new factors that have resulted in either lessening of, or increased impacts adjacent to, the corridor. On April 21, 1993, a field review was held with F.H.W.A. and Department staff. The entire 8.8 miles was driven and discussed relative to potential impacts. Subsequently, the project has been reviewed in the field on December 7, 1993 and August 16, 1994. Representatives from the Environmental Protection Agency, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries, and the Department of Environmental Quality have attended the various meetings and field trips. This re-evaluation is based upon that plan and field work and the respective expertise of those persons who participated in that review.

PROJECT DESCRIPTION

The proposed 895 Connector is located in the southwestern portion of Henrico County primarily, and the central eastern tip of Chesterfield County. The entire project is located on new location with the exception of the current R.P.T. Interchange at Route 150 which will be modified to accommodate the necessary ramps and fly-over as well as a high rise bridge over the James River.

The typical section for the Connector will provide the following roadway: the new bridge consists of three 12-foot thru-lanes in each direction plus one auxiliary lane for weaving purposes. Also a 12-foot shoulder will be provided to the inside and a 13-foot shoulder to the outside. The pavement width from the end of the new bridge to the proposed interchanged connection with Route 5 and Laburnum Avenue will be three 12-foot lanes in each direction, separated by a 40-foot median. From Route 5 to its connection with I-295, two 12-foot lanes in each direction will be built separated by a 40-foot median. By modifying and reducing the 40-foot median to 16 feet will reduce wetland impacts from I-95 to Route 5. This alignment is the corridor adopted by the Transportation Board on May 19, 1993. This project is further included in the approved 2005 Regional Thoroughfare Plan.



D HIGHWAY DEVELOPMENT

ROUTE 895

IELD & HENRICO COUNTIES

l Project: NH-080-1(103)

ect: 0895-020-F01, PE-101

0895-043-F01, PE-101

n: Intersection of I-95

Intersection of I-295

Length: 8.8 Miles

PROJECT IMPACTS

IMPACTS ON HISTORIC/ARCHAEOLOGY SITES - In the approved Final E.I.S. clearance from Section 4(f) Requirements was granted by the Department of Historic Resources on a standing structure known as Turpins Tavern. Since that approval, the structure has been torn down. From an archaeological perspective, a Section 106 Statement with a finding of No Adverse Impact was prepared, approved and documented in the Final E.I.S. on two late archaic Indian sites. The State Historic Preservation Officer, in conjunction with the Federal Highway Administration, determined that these sites were not worthy of preservation in place, and that Section 4(f) Requirements did not apply. Since then, the Department of Historic Resources has reaffirmed their previous 1983 decision by signing the attached letter on March 26, 1994.

LAND USE - Approved Alternate A has been discussed with local officials to determine if any significant changes have transpired since the original E.I.S. was approved. Over the last ten years, some residential development has occurred in the corridor itself and adjacent to it also. Residential development is continuing in the Varina area to subdivisions such as Old Mill Estates, Varina Place, Battery Hills, Varina Chase, Darbytown Estates, Turner Road Estates and Old Colony Estates. Line A is needed to accommodate the existing residential, as well as the proposed development in the project area.

Then a proposed action, the sewage treatment plant on Kingsland Road has been in service for several years to Henrico County. At the present time, the only potential action in terms of land use changes is the possibility of Richmond International Airport extending one of their main runways. Depending on which runway might be extended, could possibly affect Alternative A.

RELOCATION - Through field and plan reviews, the Stage 1 Right-of-Way Report has been updated which now reveals that nineteen families will be displaced compared to twelve families previously.

CONSERVATION - As part of the update for this Re-Evaluation, a Farmland Conversion Impact Rating Form was submitted to the U. S. Soil Conservation Service (04/06/94). Line A will convert 409 acres of land to roadway construction purposes. Of that 409 acres 109 was ranked as Prime or Unique Farmland. This is however, less than 1% of the total prime farmland of 64,244 acres in the county.

TRAFFIC & TRANSPORTATION - Original traffic volumes used in the Final E.I.S. have been checked for accuracy and have been determined to be consistent for the proposed project and clearly continue to demonstrate a need for the project. It should be pointed out that in the year 2007, if Line A is not built, the Richmond/Petersburg Turnpike from Route 150 north will carry traffic volumes in the vicinity of 126,600

vehicles per day and operate at a Level of Service F. The 895 connector will also serve traffic from north of Route 288 and west of I-95 and also traffic from the I-85 corridor that is destined to the eastern portion of Henrico County. Traffic on the R.P.T. from 1981 to 1992 has increased 70 percent in the study window.

AIR QUALITY - The proposed project is not expected to be a major source of air pollution. A simplified computer procedure VACAL3M5, was used to estimate carbon monoxide levels for peak hour traffic volumes. The results of this study show that the maximum one- and eight-hour levels do not exceed the National Ambient Air Standards in either the build or no-build case. The project area has been designated non-attainment for ozone, and is included in the Area Transportation Plan and Transportation Improvement Program for FY 1994-95. The proposed connector also conforms with the State Implementation Plan.

The temporary air quality impacts from construction are not expected to be significant. Construction activities are not expected to be significant, and are to be performed in accordance with the Department's Road and Bridge Specifications.

CONGESTION MANAGEMENT SYSTEM REQUIREMENT

The Virginia Department of Transportation (VDOT) has established a working group, comprised of Department staff and Metropolitan Planning Organization (MPO) representation, to develop procedures for establishing the Congestion Management System (CMS). In the meanwhile, interim ISTEA guidance provides for an appropriate phase-in schedule for the CMS requirement. A currently self-certified planning process in conjunction with the NEPA process can constitute an interim CMS on a project-by-project basis.

The Richmond Area MPO provides for the active participation of the area's public and private transportation service providers. The area's public transit operator, Greater Richmond Transit Company (GRTC), is a voting member of the MPO. The area's public non-profit ridesharing organization, Ridefinders, is a nonvoting member of the MPO.

On December 13, 1990, the MPO adopted a year 2005 Transportation Plan which consists of a 2005 Regional Thoroughfare Plan and a Transit Element, GRTC's Transit Development Program (TDP). Route 895 was included in the 2005 Transportation Plan.

The MPO adopted the FY 1993-1995 Transportation Improvement Program (TIP) at its meeting held on September 10, 1992. The TIP consists of projects by VDOT, the City of Richmond, Henrico County, GRTC, the Capital Region Airport Commission (CRAC), and Ridefinders. It includes preliminary engineering funds for the proposed Route 895 project. Also at the September meeting, the MPO approved the Statement of Certification regarding the Transportation Planning Process: Travel demand reduction and operational management strategies are identified through discussions with local officials and identified strategies are included in the TIP for implementation.

The Richmond area has a car-pooling/van-pooling program provided by Ridefinders. Ridefinders' purpose is to foster increased efficiency of

the transportation system by influencing travel behavior by mode, time, frequency, trip length or route. Funding for Ridefinders' services is provided by Chesterfield County, Henrico County, the City of Richmond, GRTC, VDOT, the Virginia Department of Rail and Public Transportation (VDRPT), and the private sector. The "Virginia Van Plan" is one of the commuting programs supported by and marketed by Ridefinders.

As stated in the Route 895 FEIS, consideration was given to the no-build alternative as well as TSM type improvements, including mass transit improvements. None of these strategies were found to individually satisfy the need for the project. All TSM and operational management strategies identified through the TIP process are being implemented as scheduled and will be used to effectively manage the corridor.

NOISE IMPACTS - The I-895 project was evaluated in accordance with the Federal Highway Administration (F.H.W.A.) guidelines published in the Federal Aid Policy Guide (FAPG 7-7-2) and the Virginia State Noise Abatement Policy. The construction of I-895 demands an assessment of the noise impacts caused by the project on specific sound receptors. Such an assessment was made utilizing five test sites, which collectively represent receptors along the corridor surrounding the entire project. Noise levels were determined for three circumstances: existing conditions; design year build (2007), and design year no-build (2007). When I-895 is constructed 120 receptors will be impacted because of the construction of the proposed road, with 61 of the impacted receptors experiencing noise levels equaling or exceeding the NAC (Noise Abatement Criteria), as set forth in (FAPG) 7-7-2.

In comparing the build levels to the NAC criterion, Sites 2, 4, and 5 will experience noise levels in excess of 67 dB(A) on the order of 1-3 dB(A). Sites land 3 will exceed the NAC by 6 dB(A).

Various noise abatement measures have been considered for those receptors where the NAC be equaled or exceeded and where traffic noise will increase substantially. A line shift is not practical because there are noise sensitive receptors on both sides of the project. Re-routing traffic is not viable because the proposed roadway is a major connector between I-95 and I-295. Depressing the roadway as a noise abatement feature will not be applicable because the proposed roadway has been depressed in several areas and cannot be depressed in the remaining areas due to existing roadways. The construction of sound barriers has been considered as a noise abatement measure. In accordance with the State Noise Abatement Policy, a noise abatement measure is not considered effective if the cost of the measure per protected residence exceeds the $20,000 cost effectiveness criterion. Twenty-two barriers were evaluated for this project. Barriers 2-21 exceed the $20,000 cost effectiveness criterion. In as much as the policy allows VDOT's participation up to $20,000 per protected residence, further consideration of these barriers will depend on the availability of third party funding (Henrico County) for the difference.

The $20,000 only applies to impacted residential receptors, and is not applicable to public use and non-profit facilities. Considering the land use associated with Barrier 1, however, the benefit of sound mitigation does not outweigh the cost of the barrier and, therefore, Barrier 1 will not receive further consideration.

WATER QUALITY - The proposed 895 Connector will cross the James River, Falling Creek, Cornelius Creek, Fourmile Creek, Unnamed tributaries of Cornelius Creek, Ross Run and Deerlick Branch. Wetlands associated with these waterways are described in accordance with the U. S. Fish and Wildlife Service's Classification of Wetlands and Deepwater Habitats of the United States.

To estimate the potential wetland impacts of the proposed construction, the Department has applied guidance contained in the Corps of Engineers Wetlands Delineation Manual (1987). This manual specifies a multi-parameter approach for identifying wetlands regulated under Section 404 of the Clean Water Act.

In accordance with Fish and Wildlife's classification method, there are two major wetland systems in the project area: Riverine and Palustrine. The proposed project will have minimal, if any, effect on aquatic bed or non-persistent, emergent, wetland vegetation contained within the Riverine (channel) portion of the James River or any other stream channel crossed by the new channel.

Preliminary wetland investigations within the project corridor indicate that this construction may adversely affect a total of 49.5 acres of palustrine wetlands. Wetlands could be encountered in a total of 38 sites associated with the confluence of Falling Creek and the James River, Cornelius Creek, Fourmile Creek, Ross Run and Deerlick Branch.

Although several types of forested wetlands will be crossed with bridge structures as opposed to earthen fill, a total of 42.0 acres of palustrine wetlands will be impacted.

In addition, 1.0 acre of scrub shrub and approximately 6.5 acres of emergent wetlands will be displaced by roadway fill material. Future studies of these wetland areas, including extended groundwater monitoring, may result in a significant reduction of impacts to jurisdictional wetlands when compared to the estimates contained in this document.

The construction of the 895 Connector as proposed will not have a significant adverse effect on the functional values of the wetland systems in the project area. The project may impact a total of 39 separate wetland sites. Approximately 30 sites are associated with isolated wetlands or headwater streams and the average wetland acreage which may be affected at each site is 1.3 acres.

The impact of the proposed roadway construction on wetlands in the project area may be mitigated through the restoration of any wetlands which have been harmed by construction inadvertently or by temporary necessity. Such restoration may take the form of removing from wetland area fill material which has escaped from the project due to an unusual storm event or repairing damage due to temporary and unavoidable use of causeways or mats to support construction equipment in a wetland area.

Lastly, the Department will take additional measures to compensate for those wetland areas that are unavoidably and permanently displaced by the roadway. The wetland compensation measures will be contained in the water quality permits necessary for construction. Wetland compensation will, in all likelihood, take the form of restoring a

former wetland, enhancing a degraded wetland, or establishing new wetlands through conversion of existing upland.

Wetland compensation measures will be undertaken as close as practicable to the wetlands lost to this construction. Areas do exist in the project area which would lend themselves to wetland restoration enhancement or establishment or a combination of these compensation measures. The Department has historically compensated for wetland losses on a minimum ratio of 1:1. This compensation will take place during the water quality permit acquisition process. Water quality permits from the U. S. Corps of Engineers and Water Division of the Virginia Department of Environmental Quality will be required due to the involvement of jurisdictional wetlands.

ENDANGERED SPECIES

Coordination with the Department of Game and Inland Fisheries and the Virginia Natural Heritage Division has indicated no state or federal endangered bird, plant, or terrestrial animal species in the corridor. There are no critical breeding or nesting grounds or critical habitat in the project corridor.

HAZARDOUS WASTE IMPACTS

During the April 21, 1993 and December 7, 1993 field reviews, no hazardous material sites were observed. There are not any current open grocery stores or gasoline stations that would have underground storage tanks that would be taken. It should be noted that where Alternative A crosses Darbytown Road, there is a vacant building that is believed to have been a grocery store at one time. There is a possibility of abandoned tanks at this site. Based on current plans, it does not appear that Alternative A will encroach on this site.

SOCIOECONOMIC CONCERNS

The displacement of the aforementioned nineteen families will create a temporary impact in that these individuals will be required to relocate. The Department will work with these displacees to ensure that their new housing meets all state and federal requirements.

In summary, the 895 Connector Project is still felt to be the most prudent and feasible corridor. This alignment was approved previously because it best met the overall NEPA process and reduced impacts to the natural and physical environment.

4012 M

H. Alexander Wise, Jr., Director

COMMONWEALTH of VIRGINIA

Department of Historic Resources

221 Governor Street
Richmond, Virginia 23219

February 4, 1998

Ms. Jacqueline Hernigle Keeney
Department of Transportation
P. O. Box 808
Fredericksburg, VA 22404

Re: Project 0895-020-F01,PE101,Act:605
0895-043-F01,PE101,Act:605
Henrico and Chesterfield Counties
DHR File No. 94-0636-F

Dear Ms. Keeney:

Thank you for your letter of January 8, 1998 enclosing the results of the supplemental identification and evaluation efforts for the referenced project.

The report meets the federal standards entitled Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines (48 FR 44716-44742, September 29, 1983) and our Department's Guidelines for Preparing Identification and Evaluation Reports for Submission Pursuant to Sections 106 and 110, National Historic Preservation Act, Environmental Impact Reports of State Agencies, Virginia Appropriations Act, 1992 Session Amendments (June 1992).

Based on the information provided, we concur that no further work is necessary at the following sites:

44HE494	44HE905	44HE906
44HE907	44HE909	44HE911
44HE912	44HE913	44HE915
44HE916	44HE917	44HE918
44HE920	44HE914	44HE919

The archaeological subcommittee of our Department's National Register Evaluation Team met on February 3, 1998 to consider the results of the evaluations conducted at Sites 44HE496, 44HE908, and 44HE910. The committee concurs that Sites 44HE496 and 44HE910 are not eligible for inclusion in the National Register of Historic Places. We do not find that enough information has been presented to concur that Site 44HE908 is not eligible. We recommend

additional fieldwork at the site to determine whether subsurface features are present. The use of a machine to remove the plowzone in strips across the sitemay provide the best information. The results of this work should be reported in the form of a management summary to be inserted as an addendum to the report. It should be submitted to our department for review and presentation to the archaeological subcommittee of the National Register Evaluation Team.

We look forward to working with you further on this project. Please contact Cara Metz at (804) 786-4517 if you have any questions.

Sincerely,

David H. Dutton
Director, Division of Project Review

c: Mike Rolband, WSSI
DHR Archives

COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
87 DEACON ROAD
FREDERICKSBURG, VA 22405

DAVID R. GEHR
COMMISSIONER

DAVID E. OGLE
DISTRICT ADMINISTRATOR

February 23, 1998

Mr. Michael S. Rolband
Wetland Studies and Solutions
14088-M Sullyfield Circle
Chantilly, VA 20151

RE: VDOT Project: 0895-043-F01, PE101; Supplemental Archaeological Survey
WSSI #: 4015M

Dear Mr. Rolband:

The Virginia State Historic Preservation Officer (VA SHPO; Virginia Department of Historic Resources) concurred with the recommendation that archaeological sites 44HE494, 44HE905, 44HE906, 44HE907, 44HE909, 44HE911, 44HE912, 44HE913, 44HE914, 44HE915, 44HE916, 44HE917, 44HE918, 44HE919, and 44HE920 did not require further work. They also agreed that 44HE496 and 44HE910 were not eligible for listing in the National Register of Historic Places. However, they requested additional information (through mechanical stripping) about 44HE908 before they could render a decision on its eligibility.

At present, the Virginia Department of Transportation (VDSOT) has been unable to gain access for the mechanical stripping at archaeological site 44HE908. The equipment cannot access the site without crossing wetlands (requiring a permit) and private property owners have not been agreeable to allowing access through adjacent properties. Therefore, the VDOT recommends that Wetland Studies and Solutions inform the US Army Corps of Engineers (Corps) of the unresolved eligibility of 44HE908. VDOT will commit, as a condition of the Corps permit, to providing the VA SHPO with the additional information from stripping once the permit is issued and right-of-way negotiations have been initiated. If archaeological site 44HE908 is found eligible, a suitable treatment plan will be developed in consultation with the VA SHPO. The Memorandum of Agreement (MOA) executed in 1983 has concluded the Section 106 process for the remainder of the project.

Should you require any further information, please contact me at 540-899-4140.

Sincerely,

Jacqueline Hemigle Keeney
Cultural Resource Manager

Cc: Tony Opperman; Rick Woody, VDOT
Cara Metz, VA SHPO

U.S. Department of Transportation
United States Coast Guard

Commander
United States Coast Guard
Atlantic Area

431 Crawford Street
Portsmouth, Va. 23704-5004
Staff Symbol: Aowb
Phone: (757)398-6227

16590
April 27, 1998

Mr. William E. Nell, P.E.
Vice President
Wetland Studies & Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

Dear Mr. Nell:

This is in regard to the proposed I-895 bridge crossings of Falling Creek, Cornelius Creek, Fourmile Creek, Ross Run and Deerlick Branch, tributaries of the James River, near Richmond, Virginia.

Since these waterways are subject to tidal influence, they are considered legally navigable for Bridge Administration purposes. They also meet the criteria for advance approval waterways outlined in Title 33, CODE OF FEDERAL REGULATIONS, Section 115.70 at each bridge site. Advance approval waterways are those that are navigable in law, but not actually navigated by other than small boats. The Commandant of the Coast Guard has given his advance approval to the construction of bridges across such waterways, so an individual bridge permit will not be required for the crossing of each waterway.

The fact that a Coast Guard permit is not required does not relieve you of the responsibility for compliance with the requirements of any other Federal, State, or local agency who may have jurisdiction over any aspect of the project.

Sincerely,

ANN B. DEATON
Chief, Bridge Administration Section
By direction of the Commander
Fifth Coast Guard District

DEPARTMENT OF THE ARMY PERMIT

Permittee: FD/MK Limited Liability Company
Permit No.: 97-1216-13
Issuing Office: Norfolk District, Corps of Engineers,
803 Front Street, Norfolk, Virginia 23510

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" and "the Corps" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The applicant proposes to construct Route 895, a limited access toll highway, between State Route 150 in Chesterfield County, Virginia and Interstate 295 in Henrico County, Virginia, via a joint public/private partnership. The project will function as an east-west connector road between Interstate routes 95 and 295 for local, interregional and interstate travel. The project involves the placement of fill material along the 8.26 mile corridor, impacting 30.46 acres of jurisdictional wetlands by construction of the roadway, the development of stormwater management facilities, and the construction of ramps and access roads. In addition, bridges will be constructed to cross the James River, Cornelius Creek and its floodplain, and Falling Creek. The applicant proposes to mitigate the loss of forested wetlands at a 2:1 ratio, scrub shrub wetlands at a ratio of 1.5:1, emergent wetlands at 1:1, and temporary impacts at 1:1 at an off-site mitigation area in eastern Henrico County.

Project Location: The project is located in the James River, Falling Creek, Cornelius Creek and Fourmile Creek, as well as headwaters to Ross Run and Deerlick Branch, tributaries to Fourmile Creek, in Chesterfield and Henrico Counties, Virginia.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on December 31, 2003. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer; you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. This permit is not valid until you have obtained a 401 certificate or a waiver from the Virginia Department of Environmental Quality. Any conditions which are made a part of your Virginia Department of Environmental Quality (DEQ) 401 Certificate will automatically become a part of your Corps authorization.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. PRIOR TO THE COMMENCEMENT OF ANY WORK AUTHORIZED BY THIS PERMIT, YOU SHALL ADVISE THE DISTRICT ENGINEER, IN WRITING, OF THE TIME THE AUTHORIZED ACTIVITY WILL BE COMMENCED AND OF THE NAME, ADDRESS, AND TELEPHONE NUMBER OF ALL CONTRACTORS OR OTHER PERSONS UNDERTAKING THE WORK, AND SHALL FURNISH TO THEM, BEFORE THE COMMENCEMENT OF THE WORK, A COMPLETE COPY OF THIS PERMIT ALONG WITH ALL DRAWINGS AND SPECIAL CONDITIONS.

2. Destruction or alteration of wetlands other than impacts to wetlands authorized under this permit are prohibited. Prior to any land disturbance, the preserved wetland areas in the vicinity of the work areas are to be clearly marked in the field so that the boundaries are visible to equipment operators. For example, you may use orange construction fencing or continuous strands of flagging to mark the boundaries. The extent of authorized wetland fill is shown in the Joint Permit Application, as amended, and on the plans entitled: "Plan and Profile of Proposed State Highway, Henrico County I-895, From: 4.31 km E. of Chesterfield /Henrico County Line To: I-295", prepared by Sverdrup Civil, Inc., Project Number 0895-043-F01, prints dated January 9, 1998, and "Plan and Profile of Proposed State Highway Chesterfield/Henrico Counties From: 150/I-95 To: 4.31 Km East of Chesterfield/Henrico County Line", prepared by Blauvelt Engineers, Inc., Project Numbers 0895-020-F01 and 0895-043-F01, prints dated January 23, 1998.

3. Prior to any work authorized by this permit, the mitigation site identified in the concept plan, a ± 193 acre portion of Henrico County Tax Map 0281-0A-002, shall be purchased, and a performance bond in favor of the United States Army Corps of Engineers, in the amount of $1,500,000.00, secured by irrevocable bank letter of credit or licensed corporate surety conditioned on performance of required compensation and all required monitoring shall be posted. Once the mitigation site is graded and planted, the bond may be reduced to $500,000; once the second growing season is successfully completed, the bond amount may be reduced to $250,000. Once the fifth growing season is successfully completed, the bond may be eliminated. The performance bond must be received by this office prior to the commencement of any work in the permit areas.

4. This permit is further conditioned that, within 45 days after issuance of both the Section 404 permit and the Section 401 Water Quality Certification (Virginia Water Protection Permit), a conceptual mitigation plan will be submitted to this office. Within 90 days of Corps and DEQ approval of the conceptual plan, final construction plans will be submitted. Grading will commence by the latter of the following events:

i) commencement of Route 895 construction, or;

ii) as soon as conditions are dry enough for equipment operation, after approval of the Final Plans by all necessary Federal, State and Local agencies.

Within seven days of reaching final grade, the site will be seeded with an approved wetland seed mix to stabilize the site and to minimize invasion of undesirable species. Additional planting will occur in the dormant season immediately following site grading.

The compensation plan shall include the following:

A. Restrictive covenant: The mitigation area, upland buffers and all jurisdictional waters of the United States that exist on the mitigation site, as well as the ± 57.37 acres located east of Osborne Turnpike to be acquired and preserved, shall be protected from any activity that involves a "discharge of dredged or fill material". Real Estate instruments to this effect, to be pre-approved by the COE, shall be recorded for such lands prior to any transfer of said lands by the Virginia Department of Transportation (VDOT) to a third party. These real estate easements shall be recorded and evidence of their recordation provided to the Norfolk District COE.

B. Performance Criteria: The sites shall meet the following performance criteria:

1. Hydrology: Saturation to the surface of the soil substrate for a duration equal to a minimum of 12.5% of the growing season. For the design, the normal growing season shall be from March 28 to November 10, or a total of 227 days, indicating a minimum saturation to the surface of 28 days during the growing season.

2. Vegetation: The following criteria can be altered based on a rationale submitted by the permittee and accepted by the Corps.

(a) Woody Plants: At least 50% of all woody plants, expressed either by plant stems or canopy coverage shall be facultative (FAC) or wetter (FACW or OBL).

(b) Herbaceous Plants: At least 50% of all herbaceous plants shall be facultative (FAC) or wetter (FACW or OBL).

3. Other: The Corps may, at any time during the monitoring period, require removal, treatment or management of undesirable plant or animal species, including physical removal, use of herbicides, trapping, confining wires or nets, etc.

Should the performance criteria outlined in Condition B not be met at any time during the five-year monitoring period, the permittee must provide the Corps with his proposal detailing corrective actions and/or maintenance actions proposed and an implementation schedule for said actions. Upon review and approval/modification of said corrective measures by the Corps, the permittee shall implement the necessary corrective measures. Upon completion of said action, a written summary of the work shall be supplied to the Corps. The Corps may require additional remedial actions if actions by the permittee do not result in satisfaction of the performance criteria during the next growing season. Should the permittee fail to take corrective action, the Corps will use the performance bond to fund rectification of the site.

C. 5-year Monitoring Plan with reports. The monitoring plan shall include:

1. A site plan depicting actual plant zonation and a narrative documenting reasons for any changes from the approved final design.

2. An as-built survey at 1:500 scale with 0.2 meter elevation contours and invert elevations for all water elevation control structures and spot elevations on berm crests. Said survey shall be prepared by a licensed surveyor and shall be certified to be generally in conformance with the design plans and specifications by a registered professional engineer. This submission shall be required prior to release of the portion of the performance bond allocated to design and excavation costs.

3. Monitoring reports should show that the minimum requirements of the special conditions and project plans have been met. These reports should be received by the Corps no later than October 15 of the monitoring year. Reports shall be required twice during the first year after completion, once during the second year, once during the third year, and once during the fifth year. If all performance criteria have been met during the second and third year, the fifth year monitoring requirement may be deleted, if indicated in writing, by the Corps and DEQ. Each report shall include:

(a) Wetland boundary plotted on site plan based on results of hydrology and vegetation data (see 3c. and 3d. below) and total wetland acreage based on that boundary.

(b) 35mm slides showing a view of the wetland area taken from fixed-point stations from a height of approximately five to six feet from at least one location per acre. Permanent markers shall be established to ensure that the same locations (and view directions) on the site are monitored in each monitoring period.

(c) Hyrdology data using installed piezometers providing continuous or weekly measurements sufficient to demonstrate achievement of the hydrology performance criterion. The well installation plan must be approved by the Corps as part of the mitigation plan.

(d) Surface water depths observed during well monitoring will be reported.

(e) Vegetation data. For woody plants, density counts by species are recommended. Plot size will have a 30-foot radius or be 20 feet by 20 feet square. For herbaceous plants, measurements of percent cover are recommended. Plot size will have an 18-inch radius or be three feet by three feet square.

Sample plots shall be selected randomly at a ratio of 1 per acre of constructed wetland area or more if necessary to adequately characterize each community.

(f) Identify any invasion by undesirable plant species such as common reed, purple loosestrife, cattails, or damage caused by animal species such as geese, deer, and beavers. Quantify extent of invasion of undesirable plants by either stem counts or percent cover, whichever is appropriate. Describe and/or quantify damage done by animal species.

(g) Wildlife observations, recording actual use of wildlife. For casual observations, record the date of observation, number of individuals, presence of juveniles, and use of the site for each animal observation.

5. In order to minimize the adverse effects on spawning anadromous fish populations, no work shall be conducted in the James River or Cornelius Creek between March 1 and June 30 of any year.

6. Prior to conducting any work in the vicinity of archaeological site 44HE908, additional archaeological work (mechanical stripping) must be conducted and the findings submitted to the Virginia Department of Historic Resources (VDHR). If archaeological site 44HE908 is found to be eligible for inclusion in the National Register of Historic Places, a

suitable treatment plan will be developed in consultation with VDHR and COE. The 1983 Memorandum of Agreement between the Virginia Historic Landmarks Commission (now VDHR) and VDOT, stipulating that data recovery be conducted at sites 44HE493 and 44HE497, sites that cannot be avoided during construction, is also a condition of this permit. Furthermore, any additional archaeological work required by VDHR on the mitigation site, as a result of the ongoing Phase I survey, shall be accomplished as a condition of this permit.

7. Before you begin construction in the vicinity of the James River Federal navigation project placement area easement, you must obtain written consent decree to construct the roadway on the Army easement from the Norfolk District Real Estate Division. Once you obtain the consent decree, you may start construction. You may contact Carlo Digiovanni at (757) 441-7735 or Jennifer McCarthy at (757) 441-7792, if you have additional questions.

8. Prior to conducting work in the vicinity of an unnamed tributary of Cornelius Creek, final design plans for the proposed stream relocation and streambank stabilization must be submitted to the Corps of Engineers and approved. Bioengineering methods will be required, in substantial conformance with the conceptual design prepared by Wetlands Studies and Solutions, Inc., titled: "Streambank Stabilization Concept Plan", dated September, 1997.

9. During the bridge construction across the James River, access for navigation will be maintained at all times. Obstruction of navigation during construction is not authorized by this permit. Furthermore, you are not authorized to begin work in navigable waterways until the appropriate Notice to Mariners is promulgated.

10. This permit is not valid unless the Notice of Authorization has been posted conspicuously at the site of the permitted activity. If the notice is not so posted, any activity which would otherwise have been legal under this permit shall be treated as unpermitted and the permit revoked.

11. All dredging and/or filling will be done so as to minimize disturbance of the bottom or turbidity increases in the water which tend to degrade water quality and damage aquatic life.

12. The deposition of dredged or excavated materials on shore, and all earthwork operations on shore will be carried out in such a way as to minimize erosion of the material and preclude its entry into waters of the United States.

13. Upon completion of earthwork operations, all fills on shore, and other areas on shore disturbed during construction will be seeded and stabilized for protection from subsequent soil erosion.

14. You will employ measures to prevent or control spills of fuels or lubricants from entering waters of the United States.

15. Any wetlands temporarily disturbed during construction will be revegetated with species similar to the adjacent wetlands by the applicant and/or contractor.

16. Excess excavated material will be properly disposed of in an upland site.

17. The discharge will be carried out in conformity with the goals and objectives of the EPA Guidelines established pursuant to Section 404(b) of the Clean Water Act and published in 40 CFR Part 230.

18. The discharge will consist of suitable material free from toxic pollutants in toxic amounts.

19. The fill created by the discharge will be properly maintained to prevent erosion and other non-point sources of pollution.

20. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization:

a. This permit does not obviate the need to obtain other Federal, state or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an

administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as a permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(Permittee)

30 May 98
(Date)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Robert H. Reardon, Jr.
Colonel, U.S. Army
District Engineer

15 Jun 1998
(Date)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____
(Transferee)

_____
(Date)

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
FORT NORFOLK, 803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096

RECEIVED
MAY 05 1999

REPLY TO
ATTENTION OF:

April 30, 1999

Southern Virginia Regulatory Section
97-1216-02 (James River)

FD/MK Limited Liability Company
C/o Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151
Attn.: Mr. Mike Rolband

Gentlemen:

In accordance with your request of February 2, 1999, your Department of the Army Permit, issued on May 19, 1998, is hereby modified to allow for the relocation of various overhead and underground utility lines and temporary access areas associated with the construction of the Route 895 project. The project as proposed for modification would result in an additional 1.83 acres of permanent and 2.10 acres of temporary impacts. They are broken down as 0.46 acres of palustrine emergent, 2.78 acres of palustrine forested, 0.61 acres of palustrine scrub shrub, and 0.08 acres of riverine habitat. The design considerations and safety concerns for the Route 895 project require the subject relocations. All additional impacts will be mitigated at a 2:1 ratio at the previously approved wetland mitigation site in eastern Henrico County (per the enclosed drawings). All other conditions of the permit remain unchanged.

Before you begin work, you should obtain all required State and local authorizations or modifications.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

FOR AND ON BEHALF OF THE DISTRICT ENGINEER,
COLONEL A. B. CARROLL, JR.:

Sincerely,

W H Poore Jr

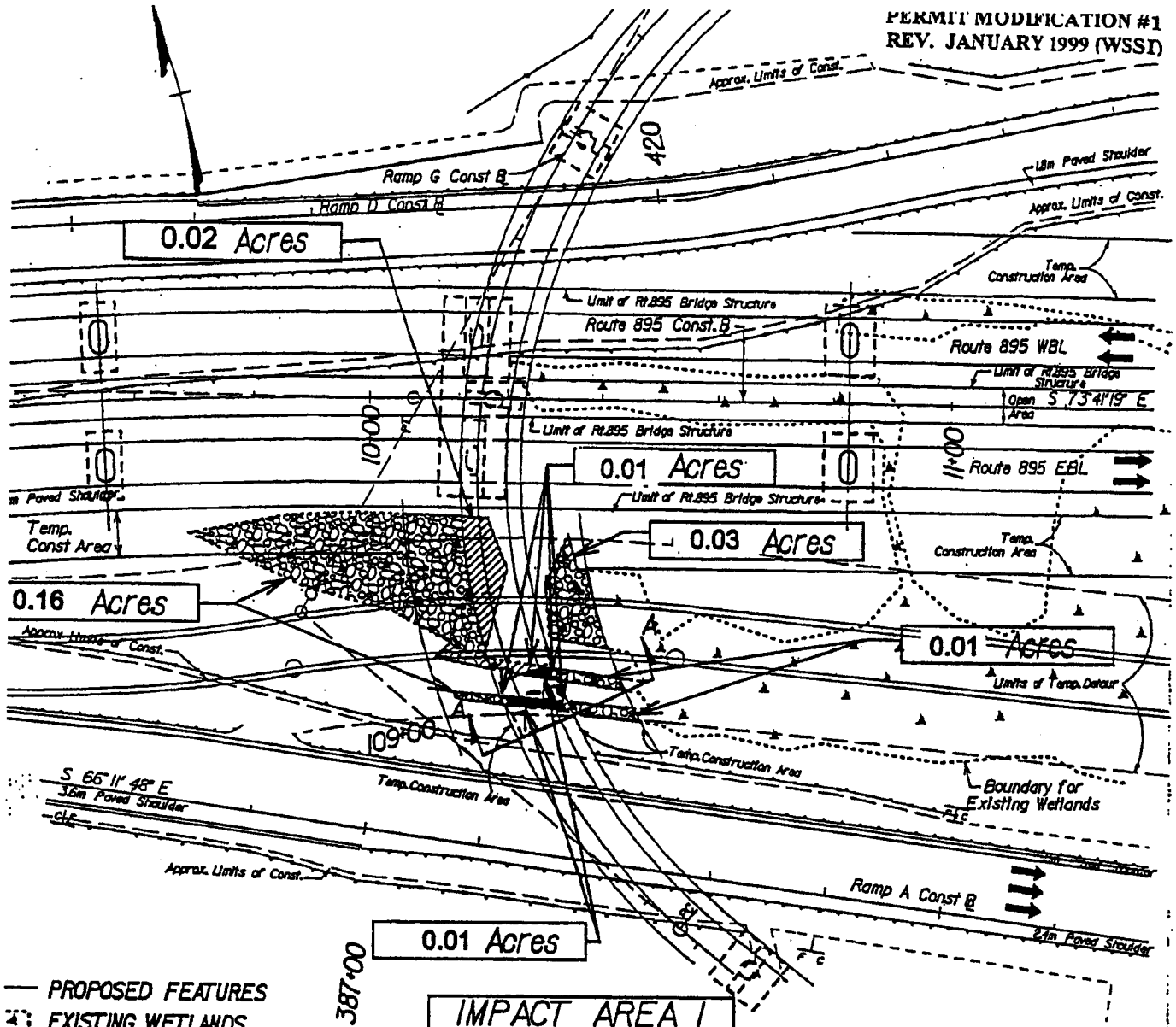
William H. Poore, Jr.
Chief, Regulatory Branch

Enclosure

Copies Furnished (w/encl):

Virginia Marine Resources Commission, Newport News
Virginia Department of Environmental Quality, Water Division, Richmond
Environmental Protection Agency (3ES42), Philadelphia
National Marine Fisheries Service, Oxford
U. S. Fish and Wildlife Service, White Marsh

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES PIER IMPACT (PERMANENT)
DENOTES ADVERSE IMPACT
DENOTES TEMPORARY IMPACT
DENOTES FILL IMPACT
DENOTES PIER AND FOOTING

AREA 0.01 Acres
AREA 0.03 Acres
AREA 0.20 Acres
NO IMPACT

METRIC SCALE
1:1000
0 20 m 40 m

PLAN VIEW

Total Acres of Wetland Disturbance: 0.24 Acres

SITE BLAUVELT ENGINEERS
703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
285-7483

SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: July 1997, Rev. 1/98, Rev. 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: Ramp G
Station 109+10

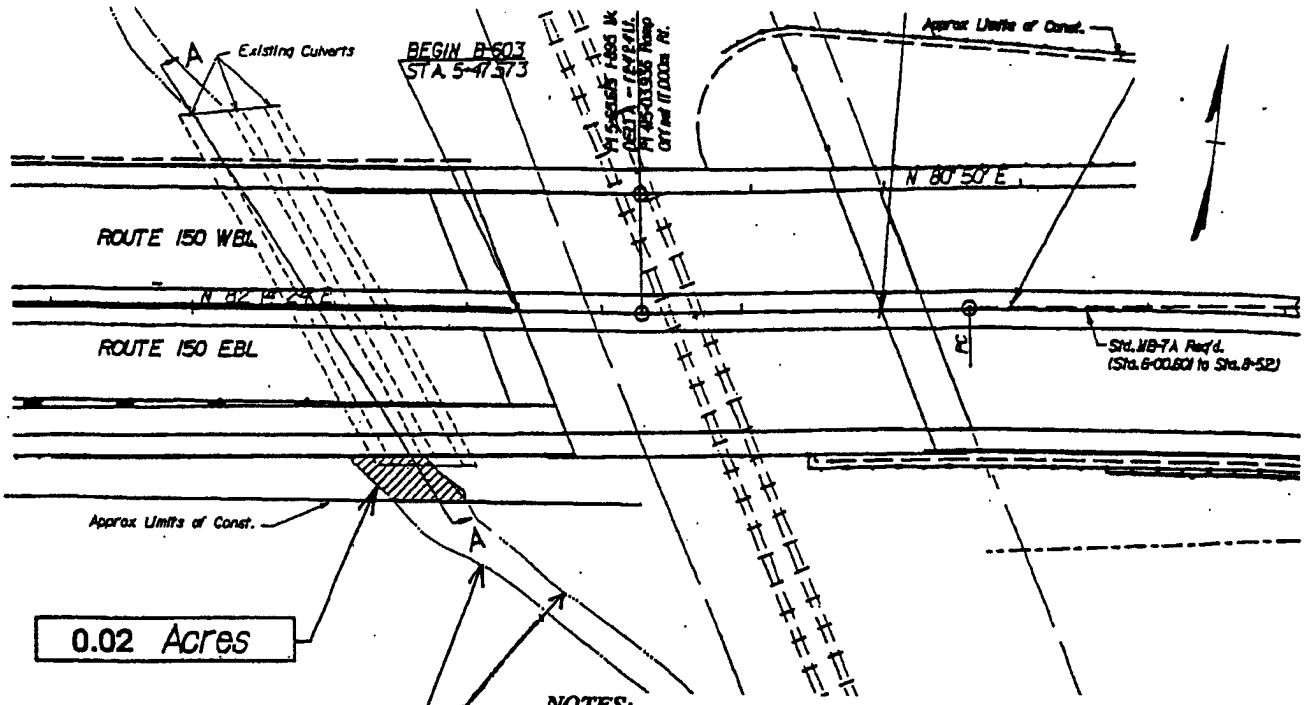
NAME OF WATERWAY: N/A

ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 1 OF 10



0.02 Acres

BOUNDARY OF EX. WETLANDS/ WATERS OF THE U.S

NOTES:

1. UPSTREAM RETAINING WALL TO BE MODIFIED IN PLACE WITHOUT DISTURBANCE TO THE EXISTING STREAM BED.
2. DOWNSTREAM RETAINING WALL TO BE MODIFIED IN PLACE OR REPLACED AS REQUIRED (BASED ON CONDITIONS OBSERVED IN THE FIELD)
3. EROSION CONTROL STONE CLASS I REQUIRED AT DOWNSTREAM OUTFALL OF EXISTING BOX CULVERTS, PROVIDING SMOOTH TRANSITION TO EXISTING STREAMBED.

IMPACT AREA IA

—— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES LIMITS OF WETLANDS/ WATERS OF THE U.S IMPACTED = 0.02 ACRES

METRIC SCALE
1:1000
0 20 m 40 m

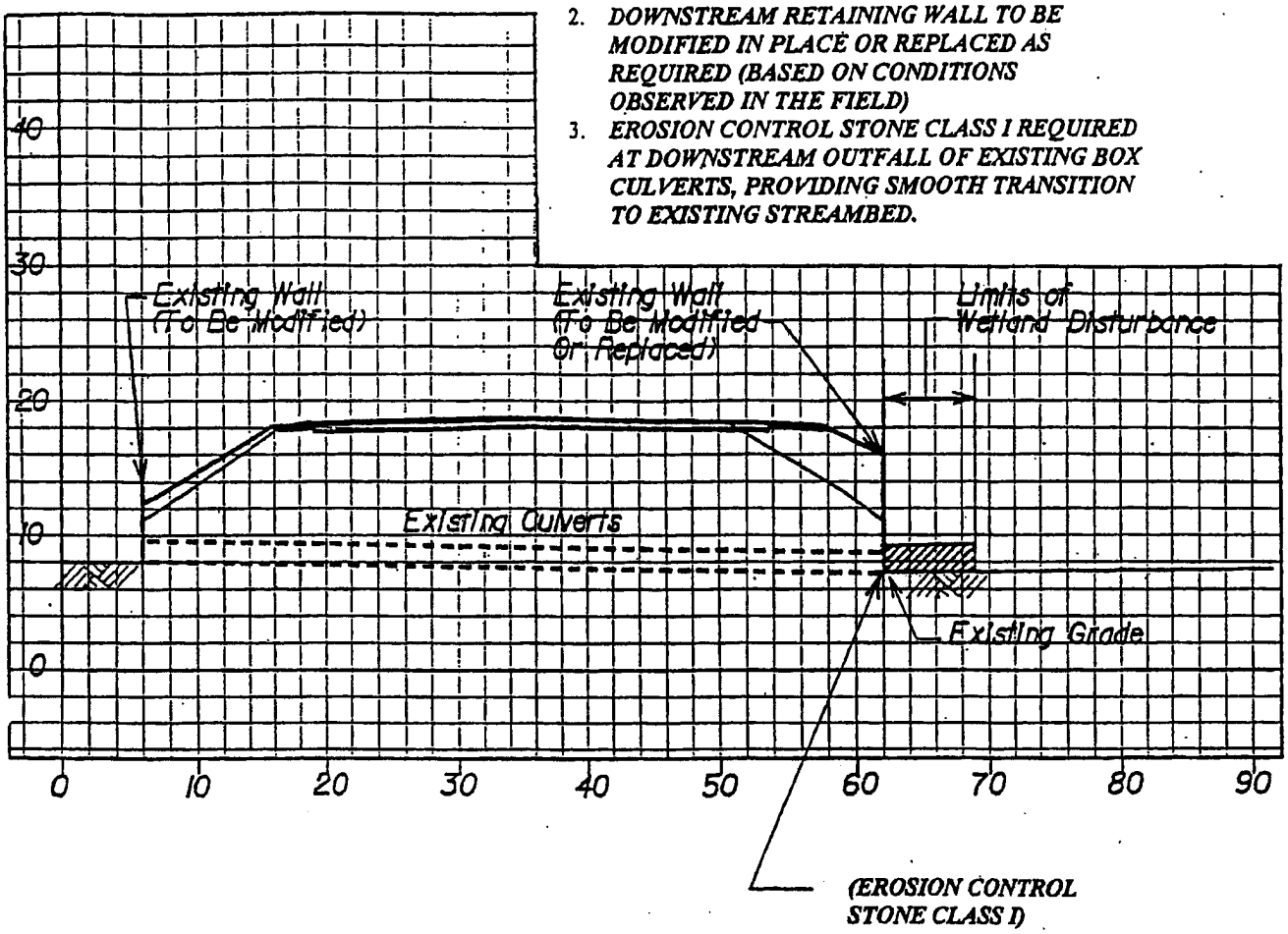
PLAN VIEW

Total Acres of Wetland Disturbance: 0.02 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev. 1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: I-895 Station 5+00	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPA
		PERMIT NAME: I-895 Individual Permit
DATE: Rev. 11/98	NAME OF WATERWAY: Grindall Creek	SHEET 2A OF 110

NOTES:

1. *UPSTREAM RETAINING WALL TO BE MODIFIED IN PLACE WITHOUT DISTURBANCE TO THE EXISTING STREAM BED.*
2. *DOWNSTREAM RETAINING WALL TO BE MODIFIED IN PLACE OR REPLACED AS REQUIRED (BASED ON CONDITIONS OBSERVED IN THE FIELD)*
3. *EROSION CONTROL STONE CLASS I REQUIRED AT DOWNSTREAM OUTFALL OF EXISTING BOX CULVERTS, PROVIDING SMOOTH TRANSITION TO EXISTING STREAMBED.*



SECTION A-A

IMPACT AREA IA

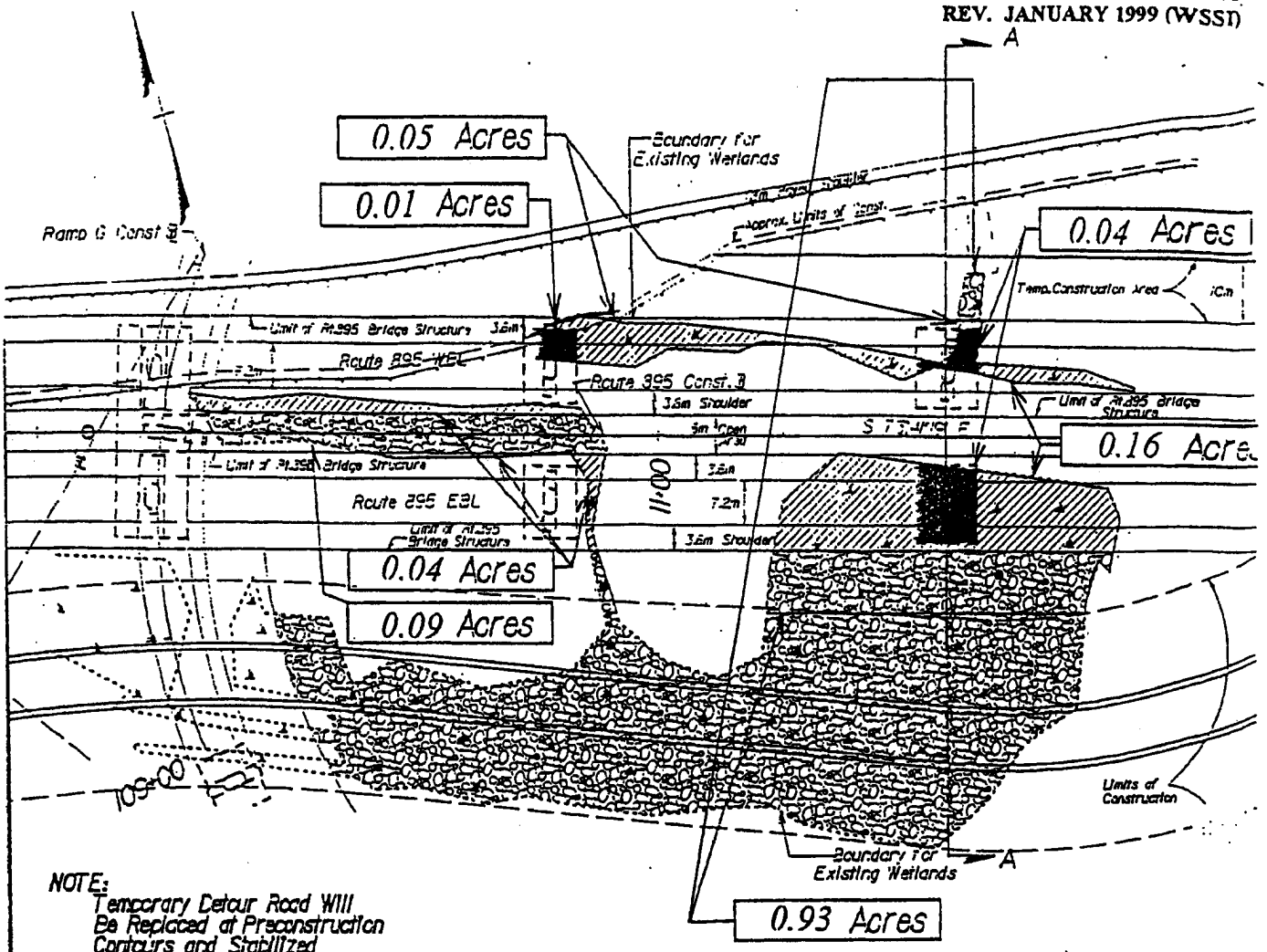
CROSS SECTION VIEW

Prop. Grade
Exist. Grade

METRIC SCALE
1 : 500
0 10 m 20 m

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev. 1/99 DATE: Rev. 11/98	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01 LOCATION: I-895 Station 5+00 NAME OF WATERWAY: Grindall Creek	ADJACENT PROPERTY OWNERS: See Attached Index APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY PERMIT NAME: I-895 Individual Permit SHEET 28 OF 110

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



NOTE:
Temporary Detour Road Will Be Replaced at Preconstruction Contours and Stabilized After Its Utilization

IMPACT AREA 2

PROPOSED FEATURES		
EXISTING WETLANDS		
DENOTES PIER IMPACT (PERMANENT)	AREA	0.05 Acres
DENOTES ADVERSE IMPACT	AREA	0.25 Acres
DENOTES TEMPORARY IMPACT	AREA	1.02 Acres
DENOTES PIER AND FOOTING		

METRIC SCALE
1:1000
0 20 m 40

PLAN VIEW

Total Acres of Wetland Disturbance: 1.32 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483

SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: July 1997, Rev. 1/98, Rev. 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: I-895
Station 10+25 to 11+80

NAME OF WATERWAY: N/A

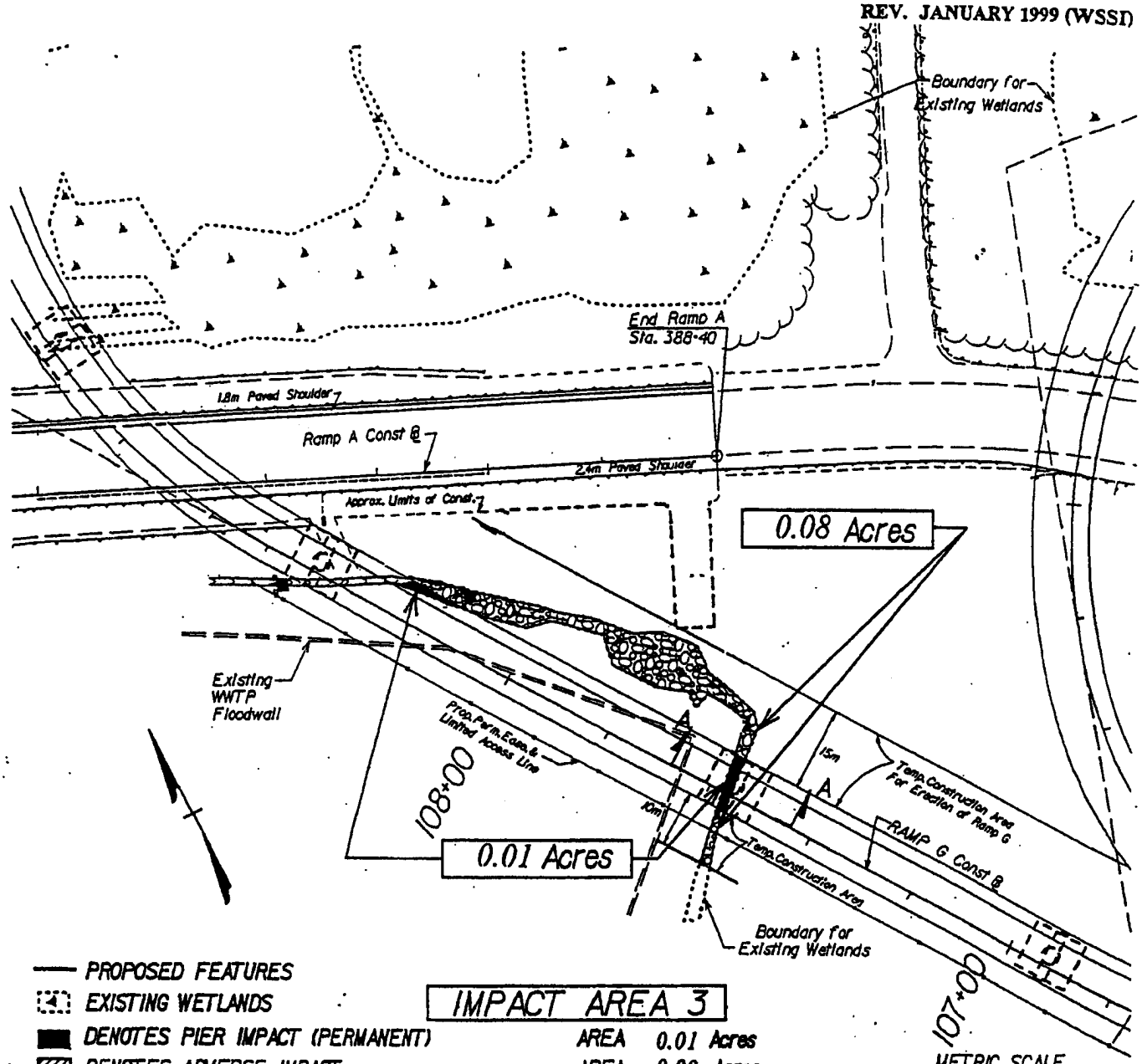
ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 3 OF 10

REV. JANUARY 1999 (WSSI)



— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES PIER IMPACT (PERMANENT)
DENOTES ADVERSE IMPACT
DENOTES TEMPORARY IMPACT
DENOTES PIER AND FOOTING

IMPACT AREA 3	
AREA	0.01 Acres
AREA	0.00 Acres
AREA	0.08 Acres

METRIC SCALE
1:1000

0 20 m 40 m

PLAN VIEW

Total Acres of Wetland Disturbance: 0.09 Acres:

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483

SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: JULY 1997, Rev. 1/98, Rev. 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION:
Ramp G
Station 107+63 to 108+30

NAME OF WATERWAY: N/A

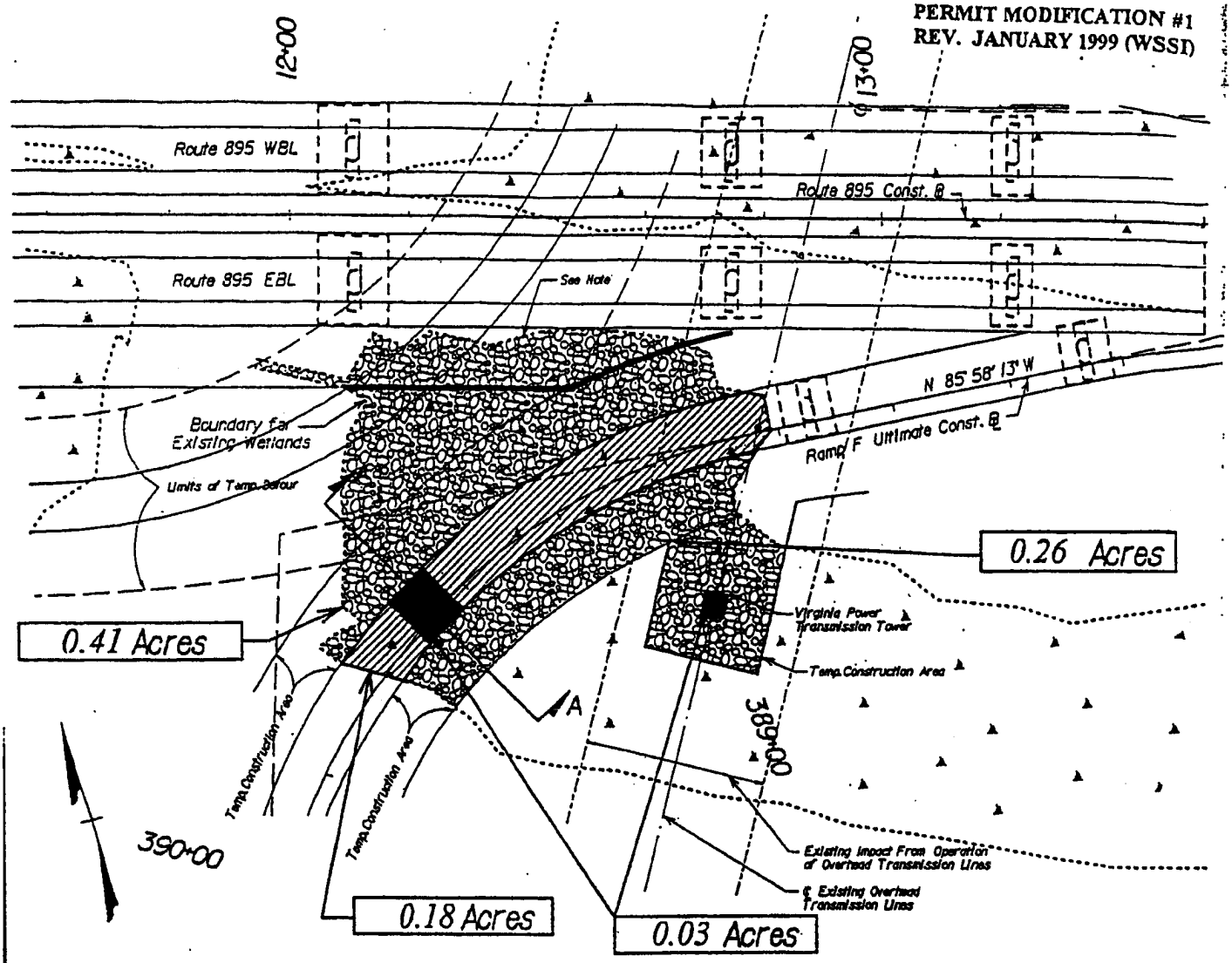
ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 5 OF 110

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



NOTE: Approximately 0.1 Acre of Temporary Impact Area depicted and accounted for in Permit Modification #1 - Impact Area #4 was previously included as part of JPA Amendment #3 - Impact Area #5.

IMPACT AREA 4

— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES PIER AND TOWER IMPACT (PERMANENT) — AREA 0.03 Acres
DENOTES ADVERSE IMPACT — AREA 0.18 Acres
DENOTES TEMPORARY IMPACT — AREA 0.67 Acres
DENOTES PIER AND FOOTING

PLAN VIEW

METRIC SCALE
1:1000
0 — 20 m — 40 m

Total Acres of Wetland Disturbance: 0.88 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483

SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: July 1997 Rev 1/98 Rev 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION:
Ramp F
Station 388+40 to 389+35

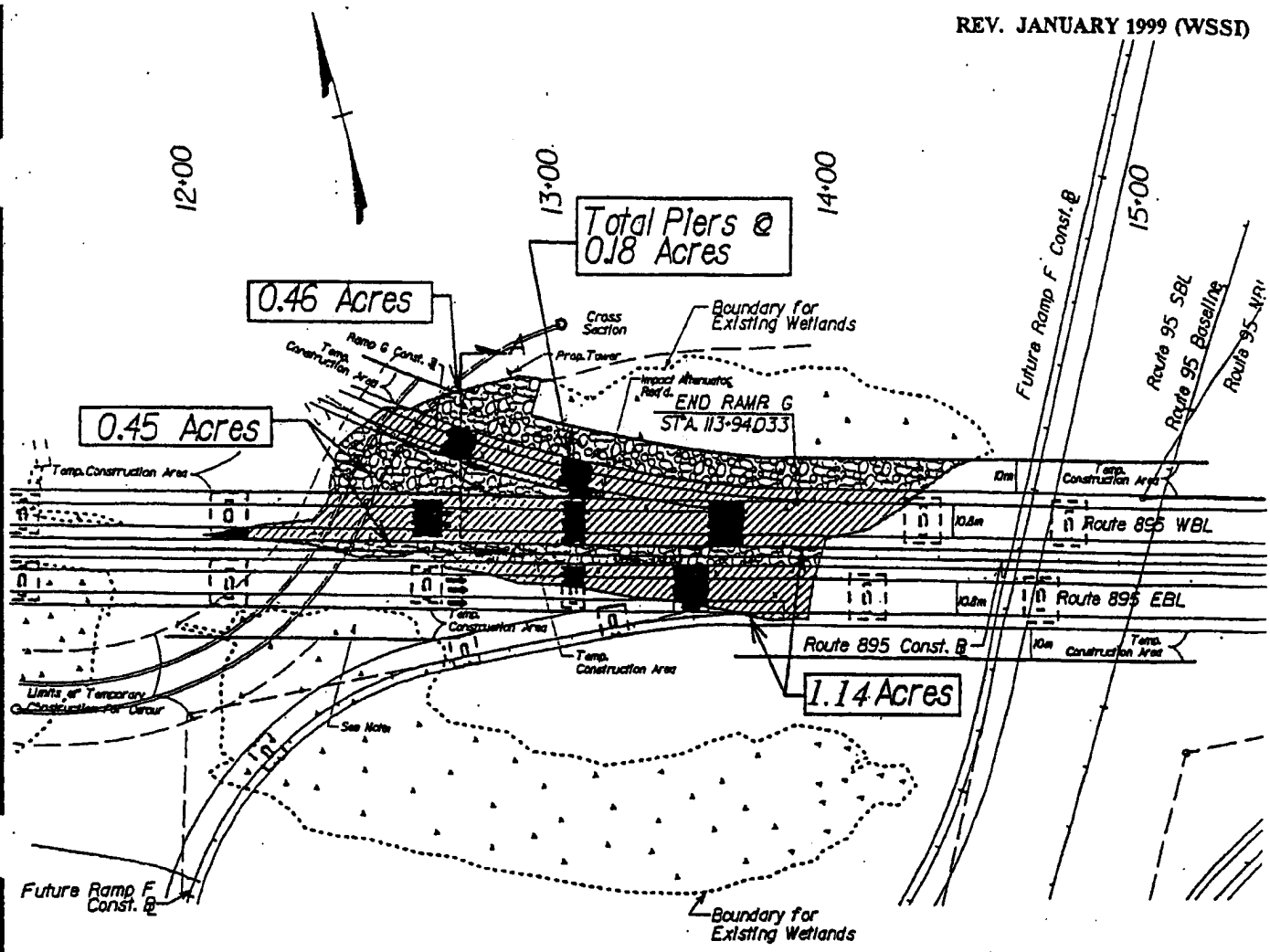
NAME OF WATERWAY: N/A

ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 7 OF 10



NOTE: Approximately 0.1 Acre of Temporary Impact Area previously included as part of JPA Amendment #3 - Impact Area #5 is now depicted and accounted for in Permit Modification #1 - Impact Area 4.

PROPOSED FEATURES
EXISTING WETLANDS
DENOTES PIER IMPACT (PERMANENT)
DENOTES ADVERSE IMPACT
DENOTES TEMPORARY IMPACT
DENOTES PIER AND FOOTING

IMPACT AREA 5

AREA 0.18 Acres
AREA 1.14 Acres
AREA 0.91 Acres

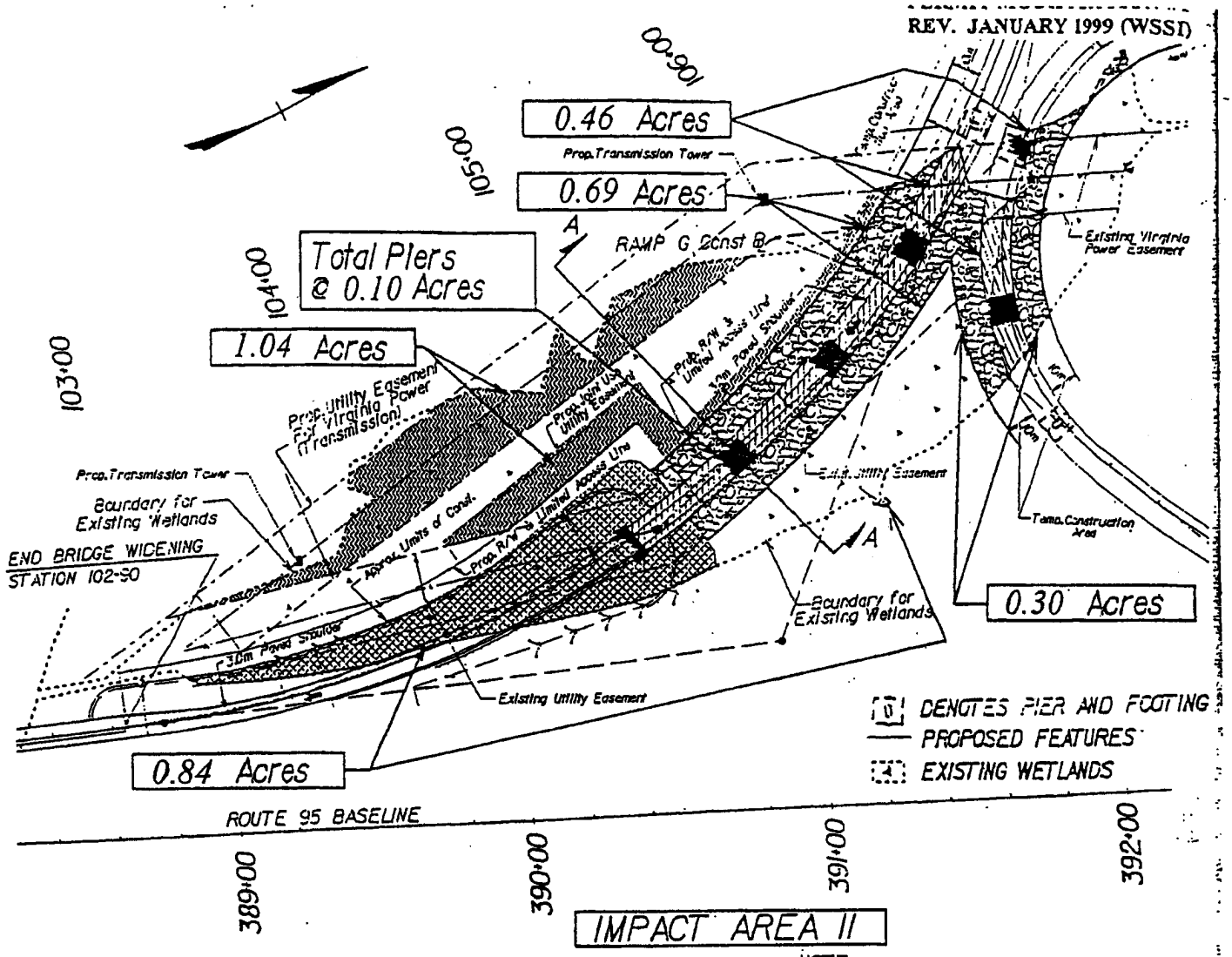
METRIC SCALE 1:2000
0 40 m 80 m

PLAN VIEW

Total Acres of Wetland Disturbance: 2.23 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
SITE BLAUVELT PROJ. # V19502 Rev. 1/99	LOCATION: I-895 Station 12+20 to 14+00	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY
DATE: July 1997, Rev. 1/98, Rev. 11/98	NAME OF WATERWAY: N/A	PERMIT NAME: I-895 Individual Permit SHEET 9 OF 110

REV. JANUARY 1999 (WSSI)



IMPACT AREA II

- DENOTES PERMANENT IMPACT - PIER (0.10 ACRE)
- DENOTES PERMANENT IMPACT - FILL (0.84 ACRE)
- **TOTAL PERMANENT IMPACT AREA = 0.94 ACRE**
- DENOTES ADVERSE IMPACT - SPAN (0.46 ACRE)
- DENOTES ADVERSE IMPACT - UTILITY (1.04 ACRE)
- **TOTAL ADVERSE IMPACT AREA = 1.50 ACRE**
- **DENOTES TEMPORARY IMPACT (TOTAL = 0.99 ACRE**

NOTE:
Utility Impact is for Maintenance of Transmission and Distribution Lines and Underground Communication Lines

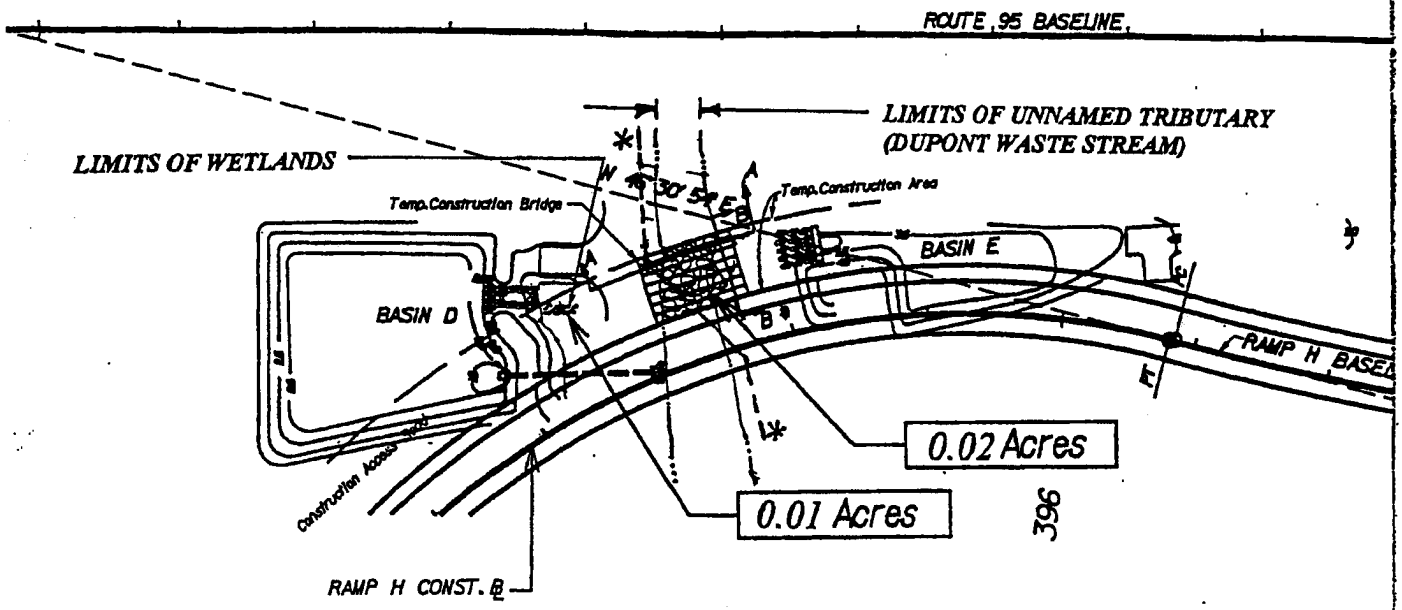
METRIC SCALE
1:2000
0 40 m 80 m

PLAN VIEW

Total Acres of Wetland Disturbance: 3.43 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev. 1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: Ramp G From Falling Creek to Sta. 106+40	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY
		PERMIT NAME: I-895 Individual Permit
DATE: July 1997, Rev. 1/98, Rev. 11/98	NAME OF WATERWAY: N/A	SHEET 21 OF 110

✳ APPROXIMATE LOCATION OF COLONIAL PIPELINE



IMPACT AREA 12A

— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES LIMITS OF WETLANDS DISTURBED AREA = 0.01 Acres
DENOTES TEMPORARY IMPACT AREA = 0.02 Acres

METRIC SCALE
1:1000
0 20 m 40 m

PLAN VIEW

Total Acres of Wetland Disturbance: 0.03 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483

SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: Rev. 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: Ramp H
Station 395+20 to 395+60

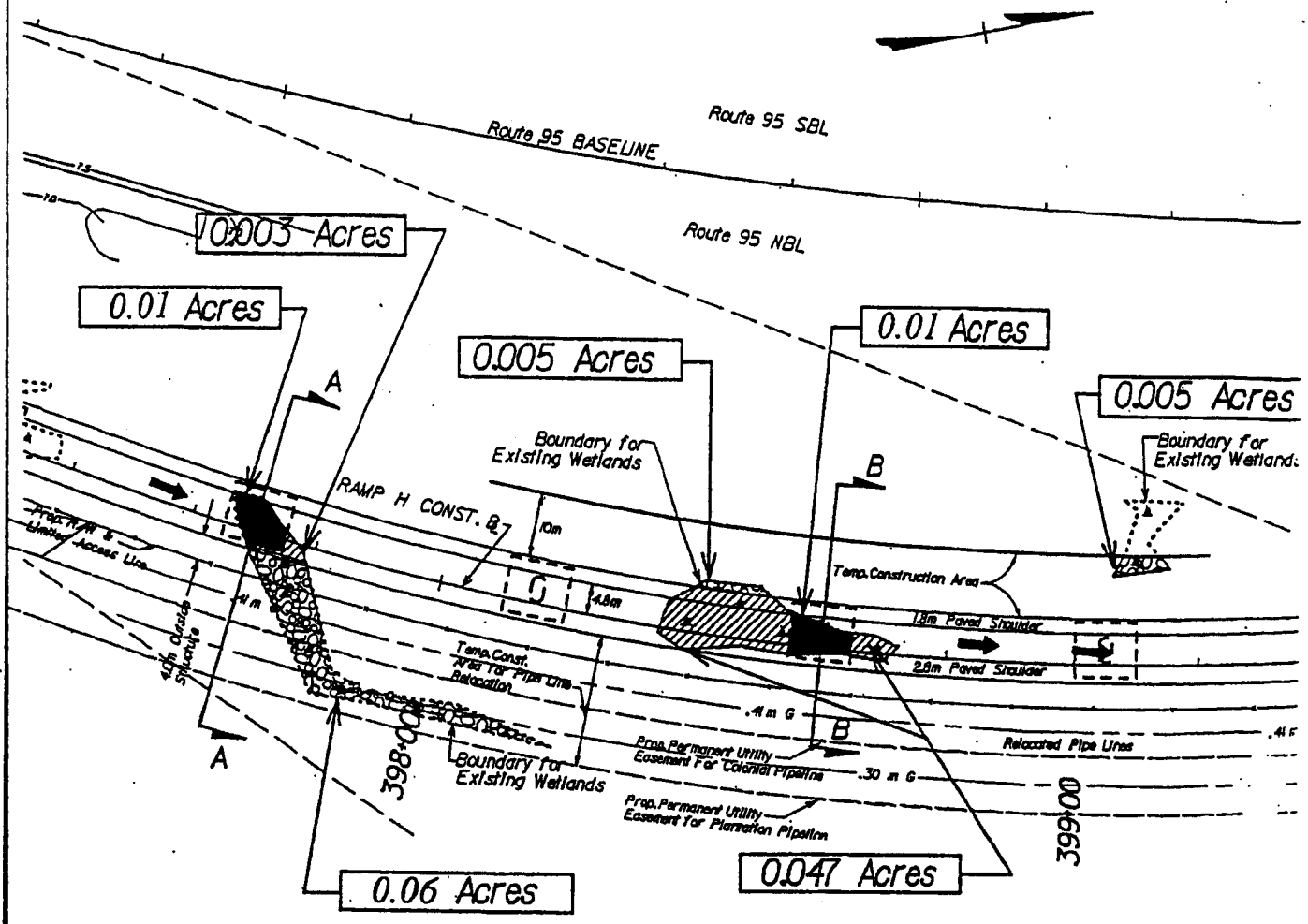
NAME OF WATERWAY: Un-named tributary to the James River

ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 24A OF 110



— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES PIER IMPACT (PERMANENT)
DENOTES ADVERSE IMPACT
DENOTES TEMPORARY IMPACT
DENOTES PIER AND FOOTING

IMPACT AREA 14

AREA	0.02 Acres	
AREA	0.05 Acres	
AREA	0.07 Acres	

PLAN VIEW

METRIC SCALE
1:1000
0 20 m 40 m

Total Acres of Wetland Disturbance: 0.14 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483

SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: July 1997, Rev. 1/98, Rev. 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: Ramp H
Station 397+60 to 399+20

NAME OF WATERWAY: N/A

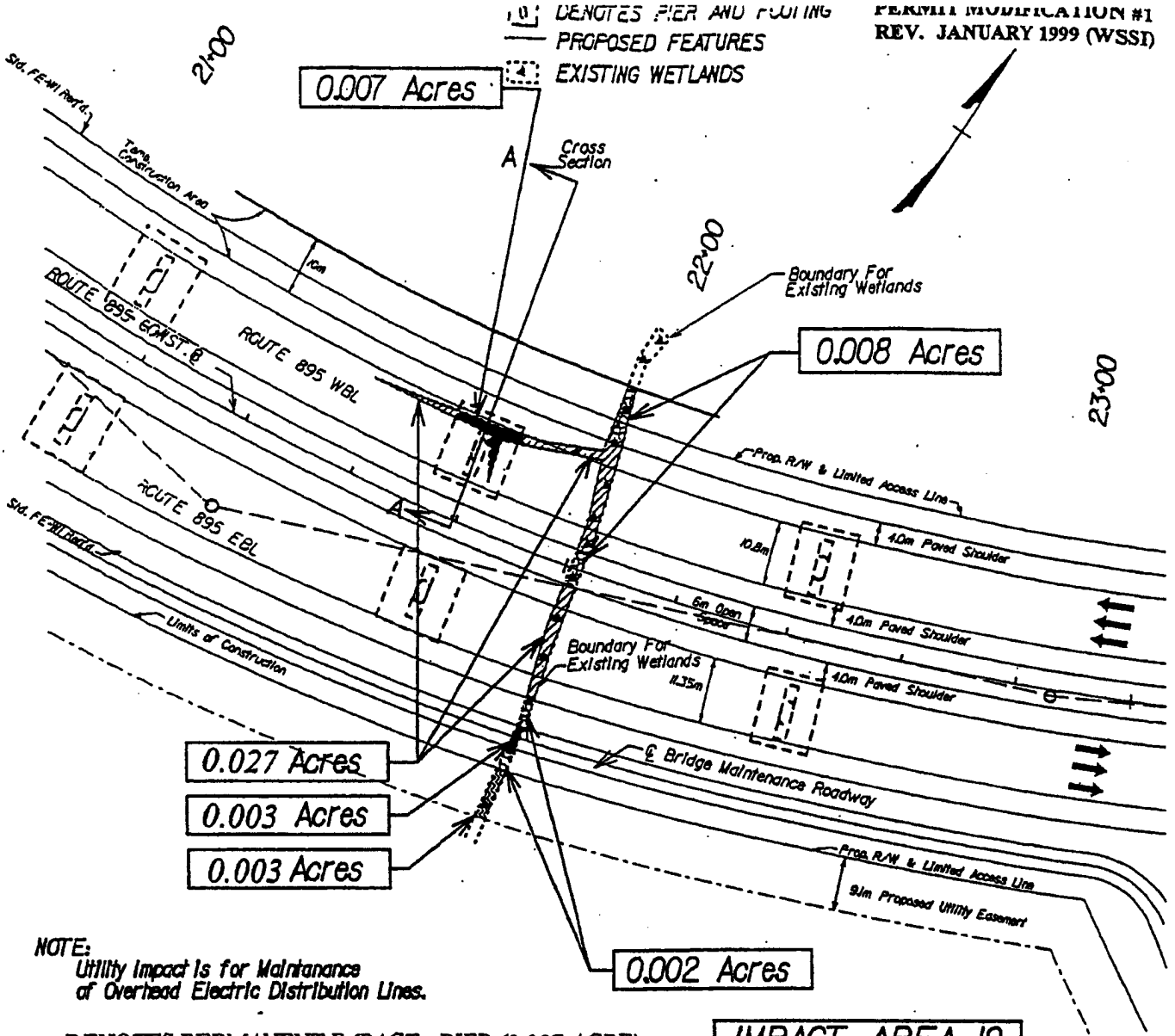
ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 27 OF 110

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



NOTE:
Utility Impact is for Maintenance of Overhead Electric Distribution Lines.

IMPACT AREA 19

PLAN VIEW

METRIC SCALE
1:1000

0 20 m 40 m

DENOTES PERMANENT IMPACT - PIER (0.007 ACRE)
DENOTES PERMANENT IMPACT - FILL (0.003 ACRE)
TOTAL PERMANENT IMPACT AREA = 0.01 ACRE
DENOTES ADVERSE IMPACT - SPAN (0.027 ACRE)
DENOTES ADVERSE IMPACT - UTILITY (0.003 ACRE)
TOTAL ADVERSE IMPACT AREA =0.03 ACRE
DENOTES TEMPORARY IMPACT (TOTAL) = 0.01 ACRE

Total Acres of Wetland Disturbance: 0.05 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483
SITE BLAUVELT PROJ. # V19502

Rev.1/99

DATE: July 1997, Rev 9/97, Rev.1/98, Rev.11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: I-895
Station 21+58 to 22+00

NAME OF WATERWAY: Un-named tributary to Cornelius Creek

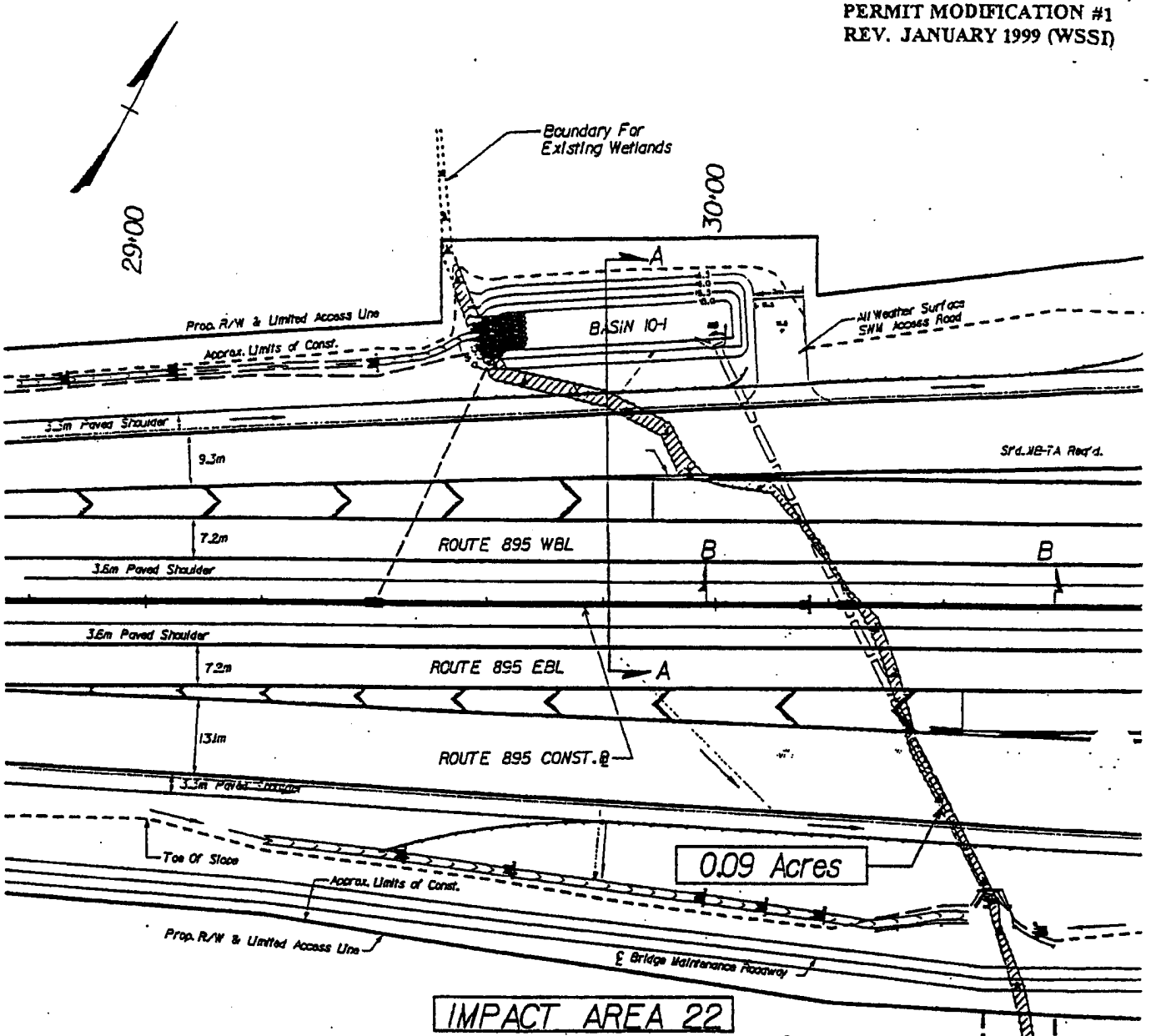
ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 40 OF 110

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



PLAN VIEW

Total Acres of Wetland Disturbance: 0.09 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483
SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: July 1997, Rev. 7/24/97, Rev. 1/98, Rev. 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: I-895 & Basin 10-1
Station 29+60 to 30+45

NAME OF WATERWAY: Un-named tributary to Cornelius Creek

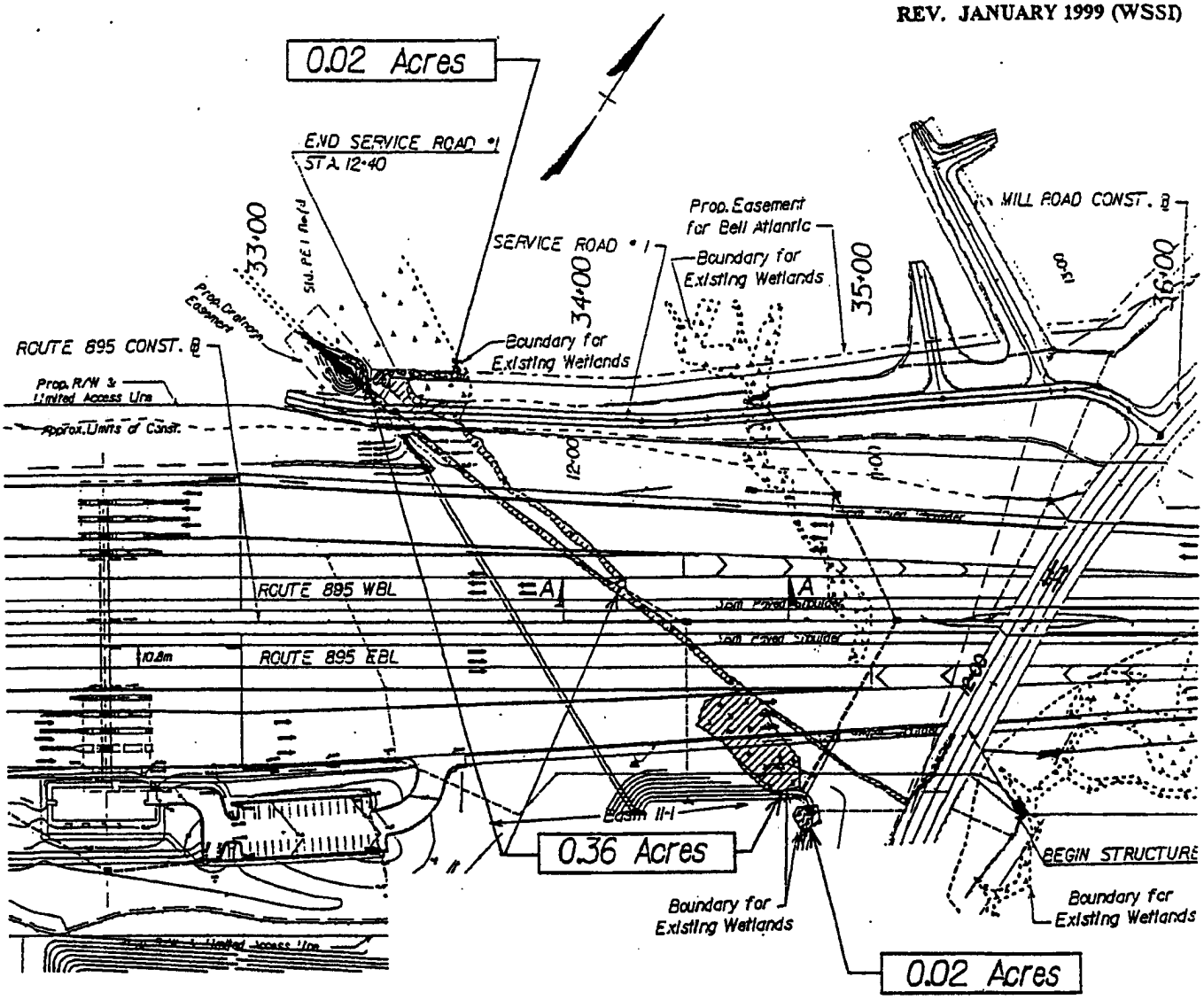
ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 47 OF 110

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



IMPACT AREA 23

DENOTES LIMITS OF WETLAND DISTURBED AREA = 0.38 Acres
DENOTES TEMPORARY IMPACT AREA = 0.02 Acres

PROPOSED FEATURES
EXISTING WETLANDS

METRIC SCALE
1:2000
0 40 m 80

PLAN VIEW

Total Acres of Wetland Disturbance: 0.40 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483
SITE BLAUVELT PROJ. # V19502
Rev. 1/99

DATE: July 1997,
Rev 9/97 Rev. 1/98, Rev. 11/98

I-895
CHESTERFIELD AND HENRICO
COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: I-895 & Service Rd. #1
Station 33+20 to Basin 11-1
& MILL Rd.

NAME OF WATERWAY: Un-named tributary to Cornelius Creek

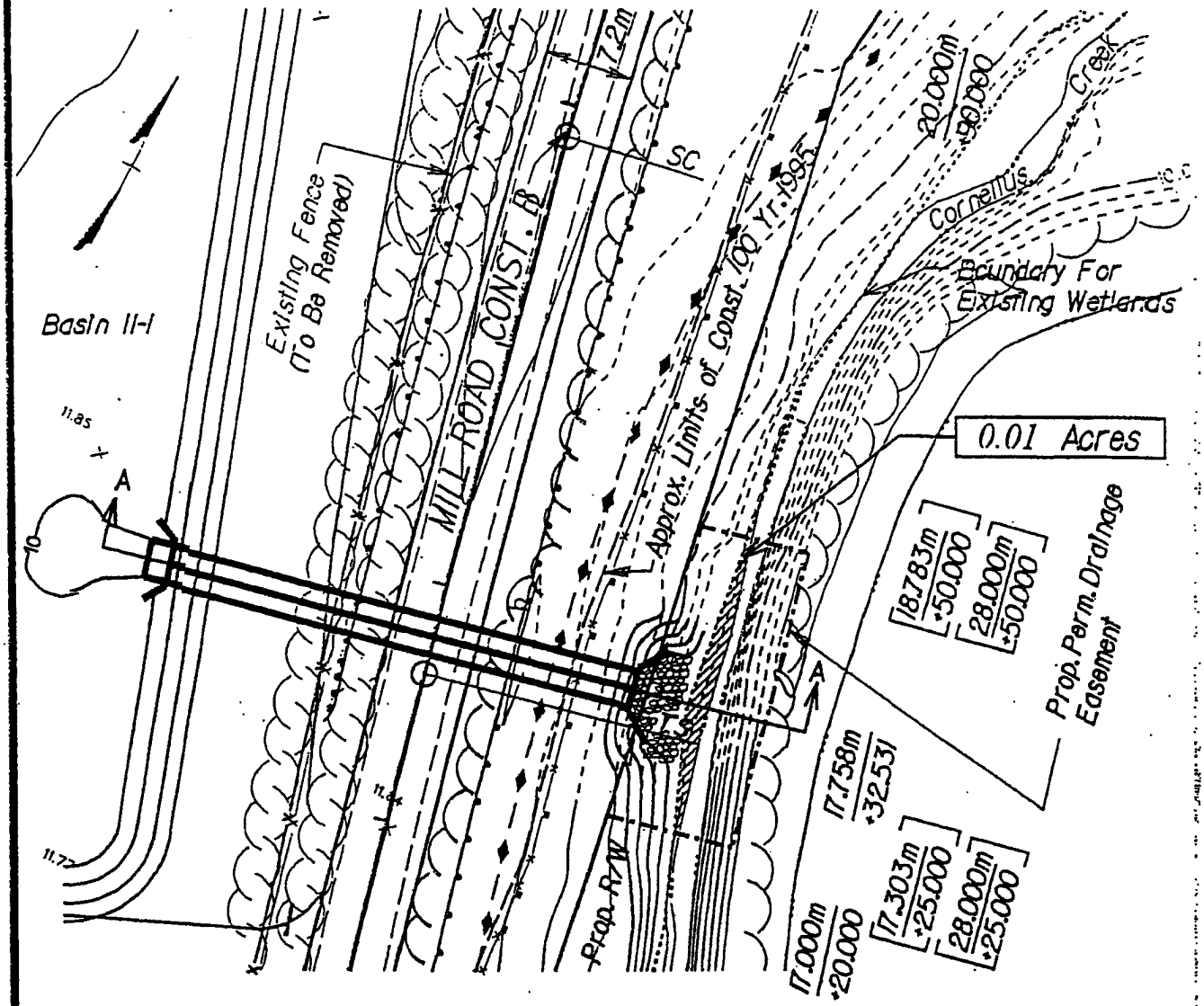
ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK
LIMITED LIABILITY COMPANY

PERMIT NAME: I-895
Individual Permit

SHEET 50 OF 110

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



IMPACT AREA 23A

DENOTES LIMITS OF WETLAND DISTURBED

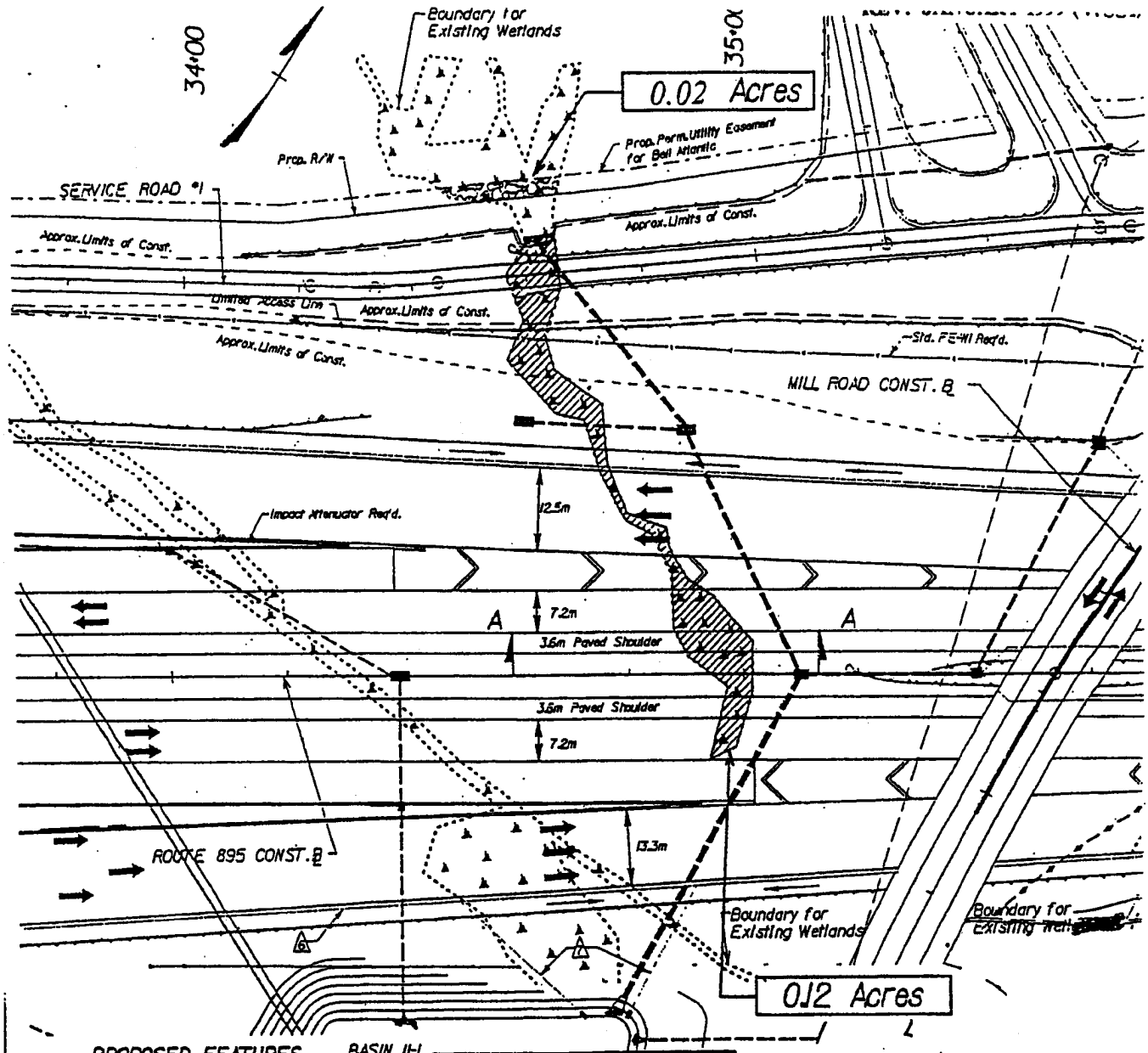
AREA - 0.01 Acres

METRIC SCALE
1:500
0 10 m 20 m

PLAN VIEW

Total Acres of Wetland Disturbance: 0.01 Acres

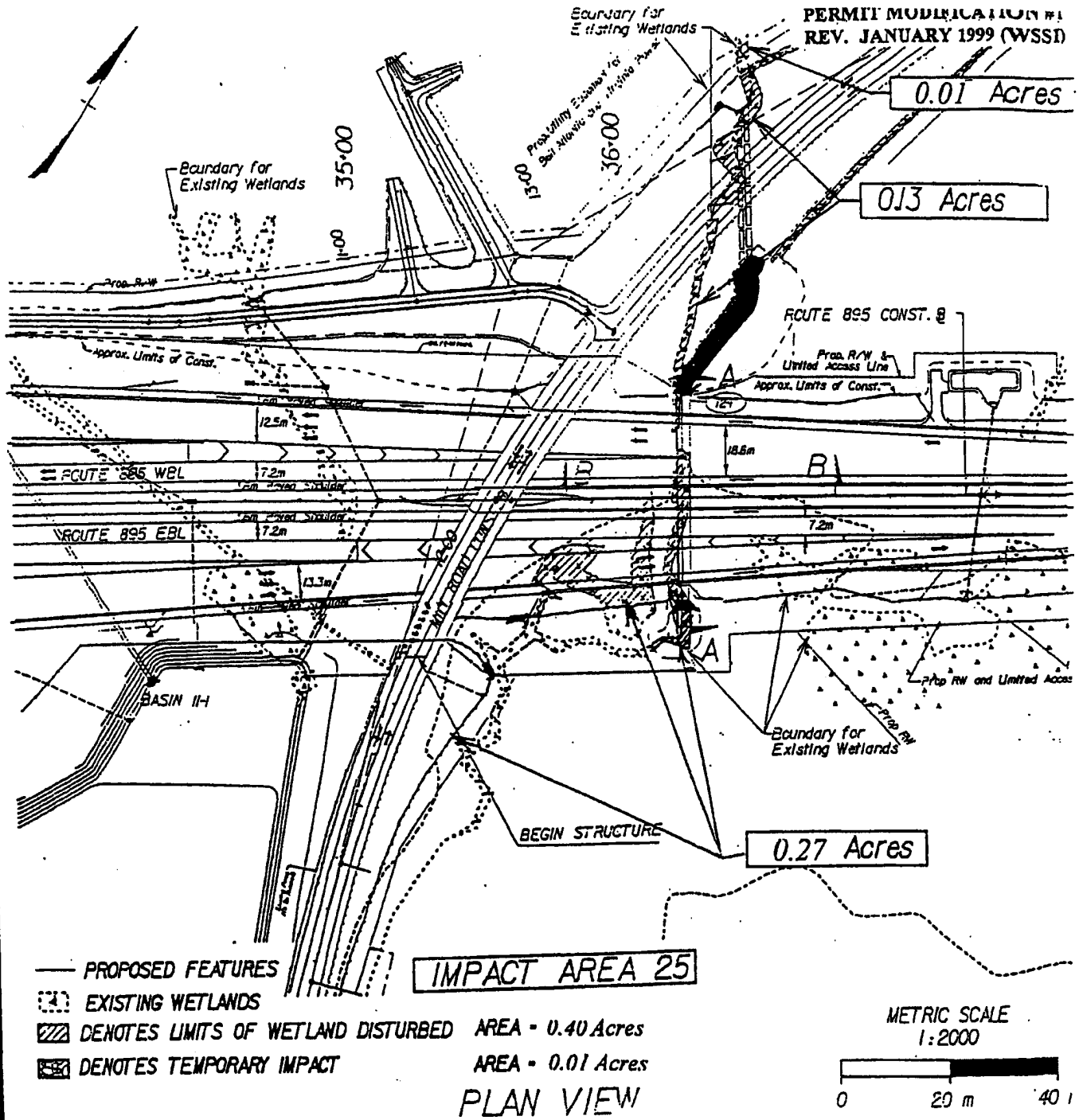
SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 SITE BLAUVELT PROJ. # V19502 Rev. 1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: Basin IH Mill Road Station 10+35	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY
DATE: Rev. 11/98	NAME OF WATERWAY: Cornelius Creek	PERMIT NAME: I-895 Individual Permit
		SHEET 514 OF 110



Total Acres of Wetland Disturbance: 0.14 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev. 1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: I-895 & Service Rd. #1 Station 33+20 to Basin 11-1 & Mill Rd.	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY
DATE: July 1997, Rev. 12/97, Rev. 1/98, Rev. 11/98	NAME OF WATERWAY: Un-named tributary to Cornelius Creek	PERMIT NAME: I-895 Individual Permit SHEET 52 OF 110

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES LIMITS OF WETLAND DISTURBED AREA = 0.40 Acres
DENOTES TEMPORARY IMPACT AREA = 0.01 Acres

PLAN VIEW

METRIC SCALE
1:2000
0 20 m 40

Total Acres of Wetland Disturbance: 0.41 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483
SITE BLAUVELT PROJ. # V19502

Rev. 1/99

DATE: July 1997, Rev 9/97, Rev. 1/98, Rev 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION:
I-895
Station 35+40 to Culvert 12-I @ 36+20

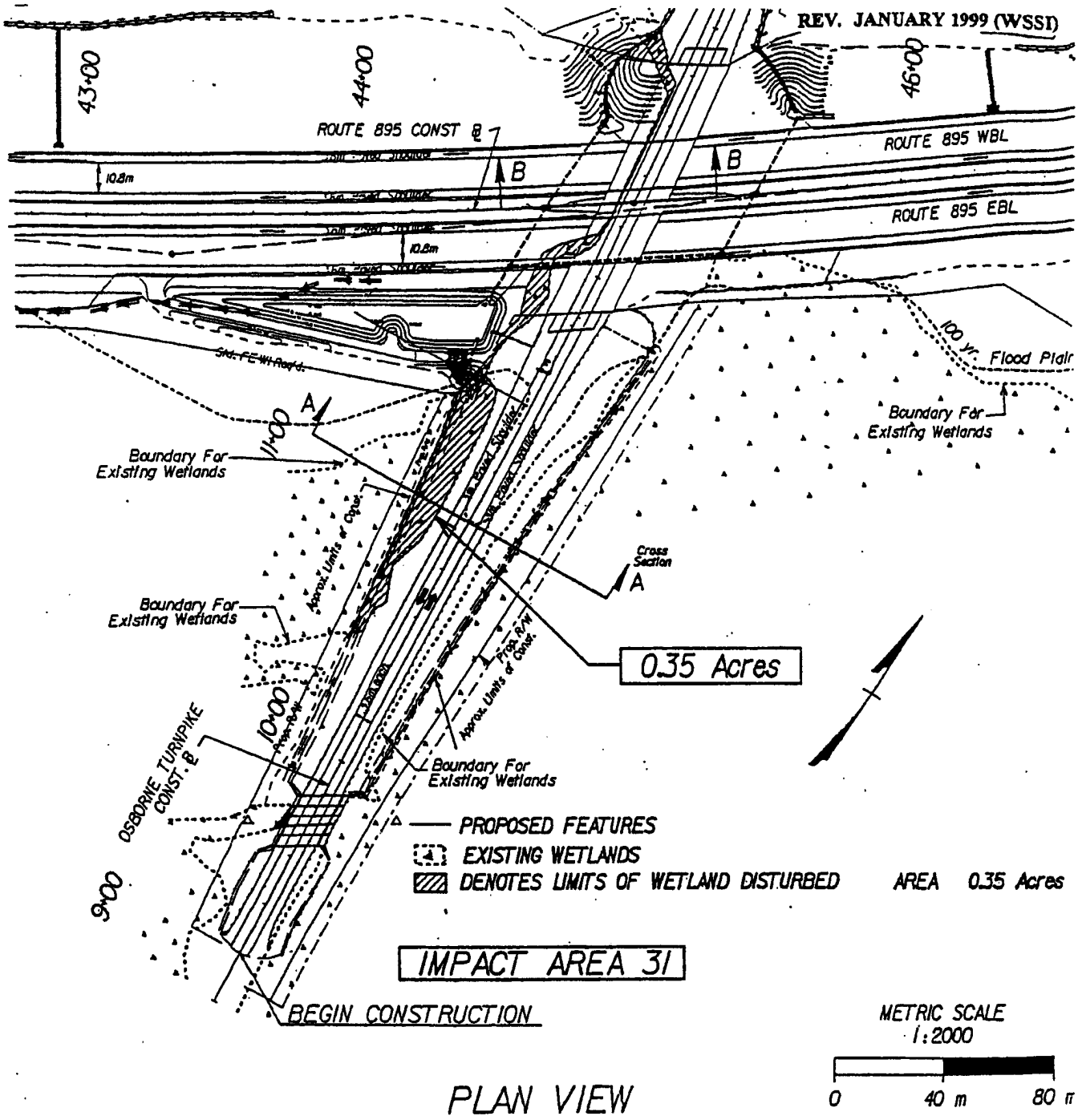
NAME OF WATERWAY: Un-named tributary to Cornelius Creek

ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: FD/MK LIMITED LIABILITY COMP.

PERMIT NAME: I-895 Individual Permit

SHEET 54 OF 110

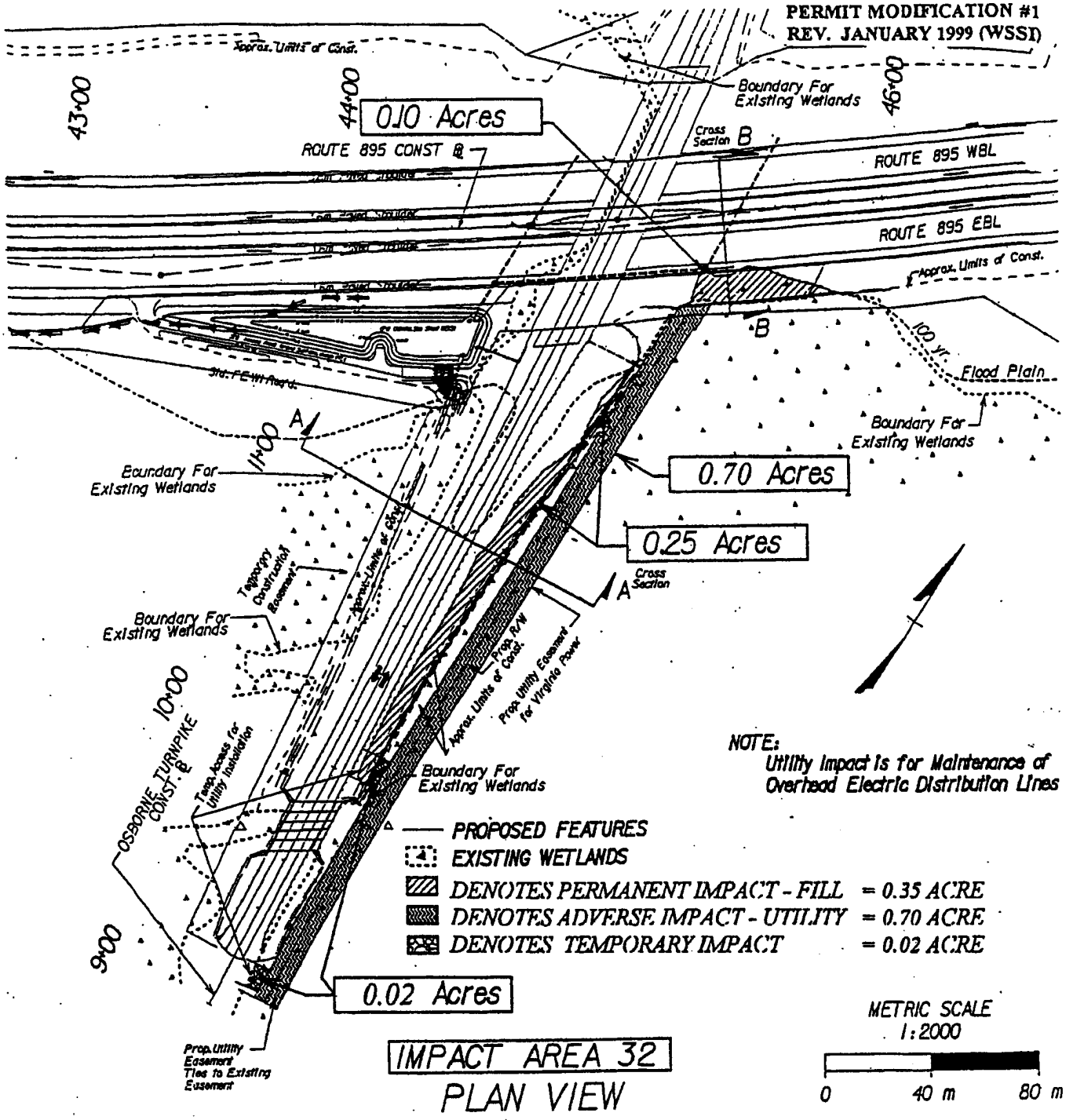


PLAN VIEW

Total Acres of Wetland Disturbance: 0.35 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev.1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: I-895 & Osborne Turnpike	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY
		PERMIT NAME: I-895 Individual Permit
DATE: July 1997, Rev.8/97, Rev.11/97, Rev.1/98, Rev.11/98	NAME OF WATERWAY: N/A	SHEET 69 OF 110

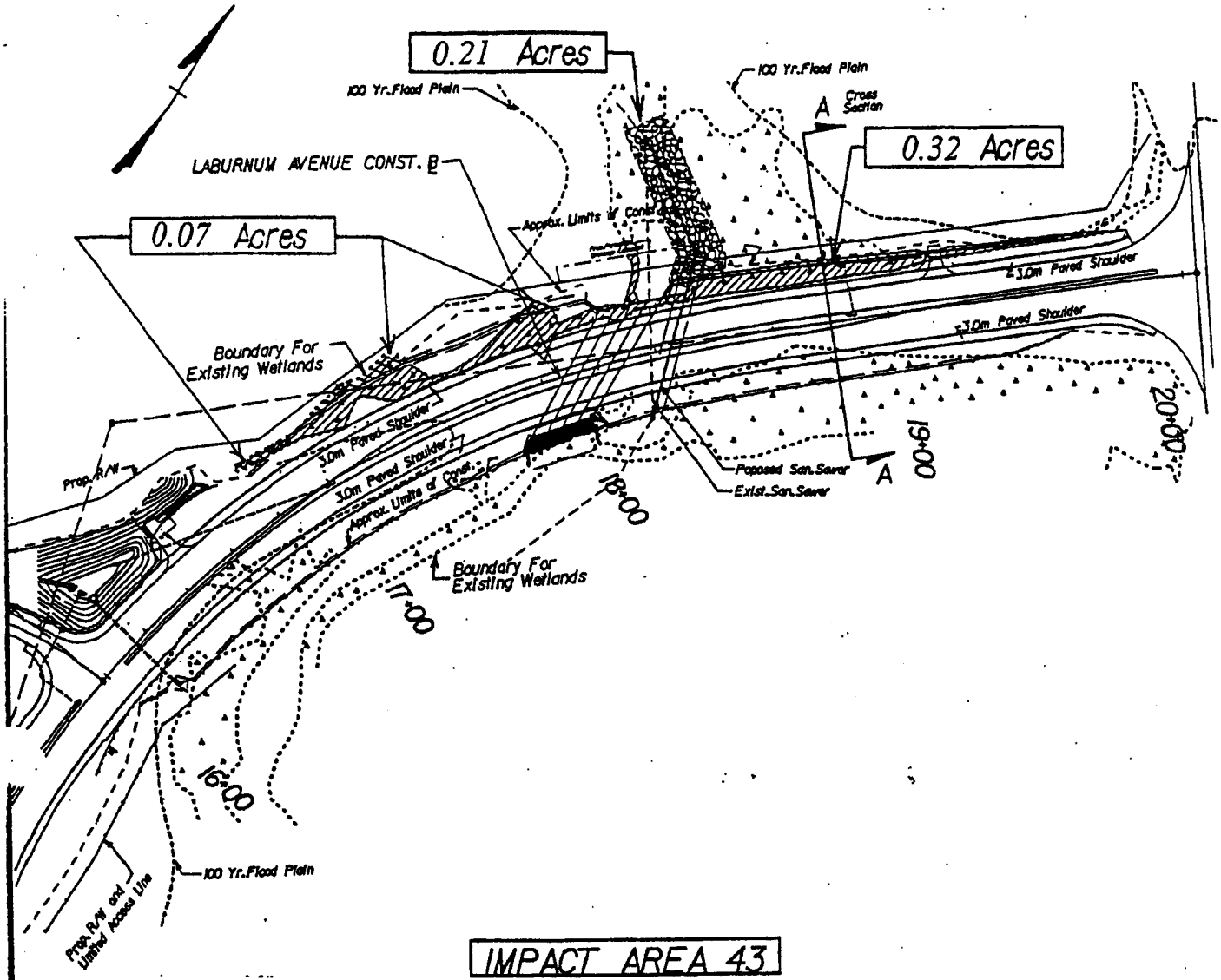
PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)



IMPACT AREA 32
PLAN VIEW

Total Acres of Wetland Disturbance: 1.07 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev. 1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: Osborne Turnpike Station 11+00	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY
		PERMIT NAME: I-895 Individual Permit
DATE: July 1997, Rev 8/97, Rev 9/97,	NAME OF WATERWAY: N/A	SHEET 72 OF 110



IMPACT AREA 43

— PROPOSED FEATURES

EXISTING WETLANDS

DENOTES PERMANENT IMPACT - FILL = 0.32 ACRE

DENOTES ADVERSE IMPACT (FRAGMENTATION) = 0.07 ACRE

DENOTES TEMPORARY (SAN. SEWER) IMPACT = 0.21 ACRE

METRIC SCALE
1:2000

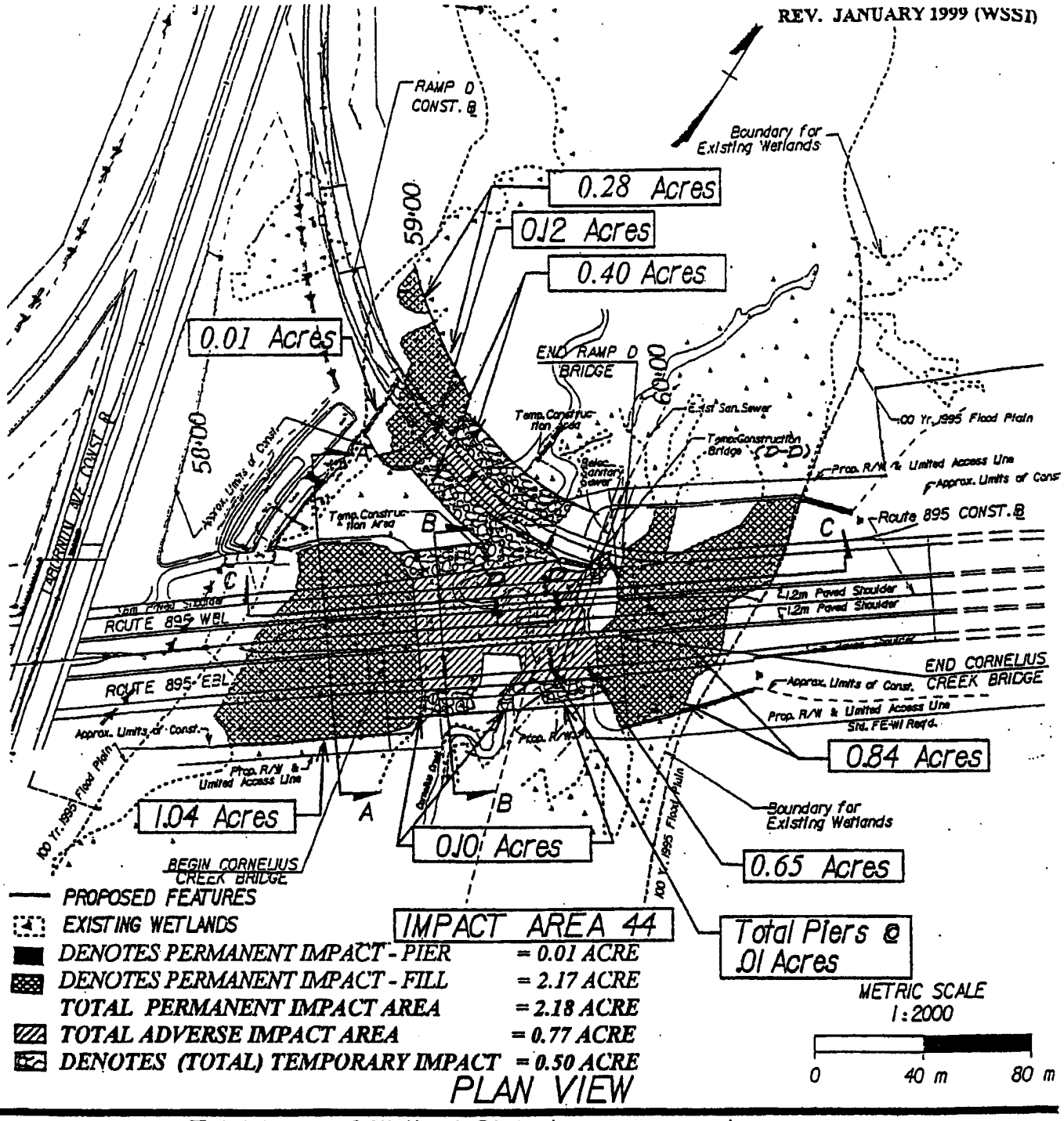
0 40 m 80 m

PLAN VIEW

Total Acres of Wetland Disturbance: 0.60 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev.1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: Laburnum Ave. 17+00 to 19+80	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY
DATE: July 1997, Rev 9/97, Rev.1/98, Rev.11/98	NAME OF WATERWAY: N/A	PERMIT NAME: I-895 Individual Permit SHEET 98 OF 110

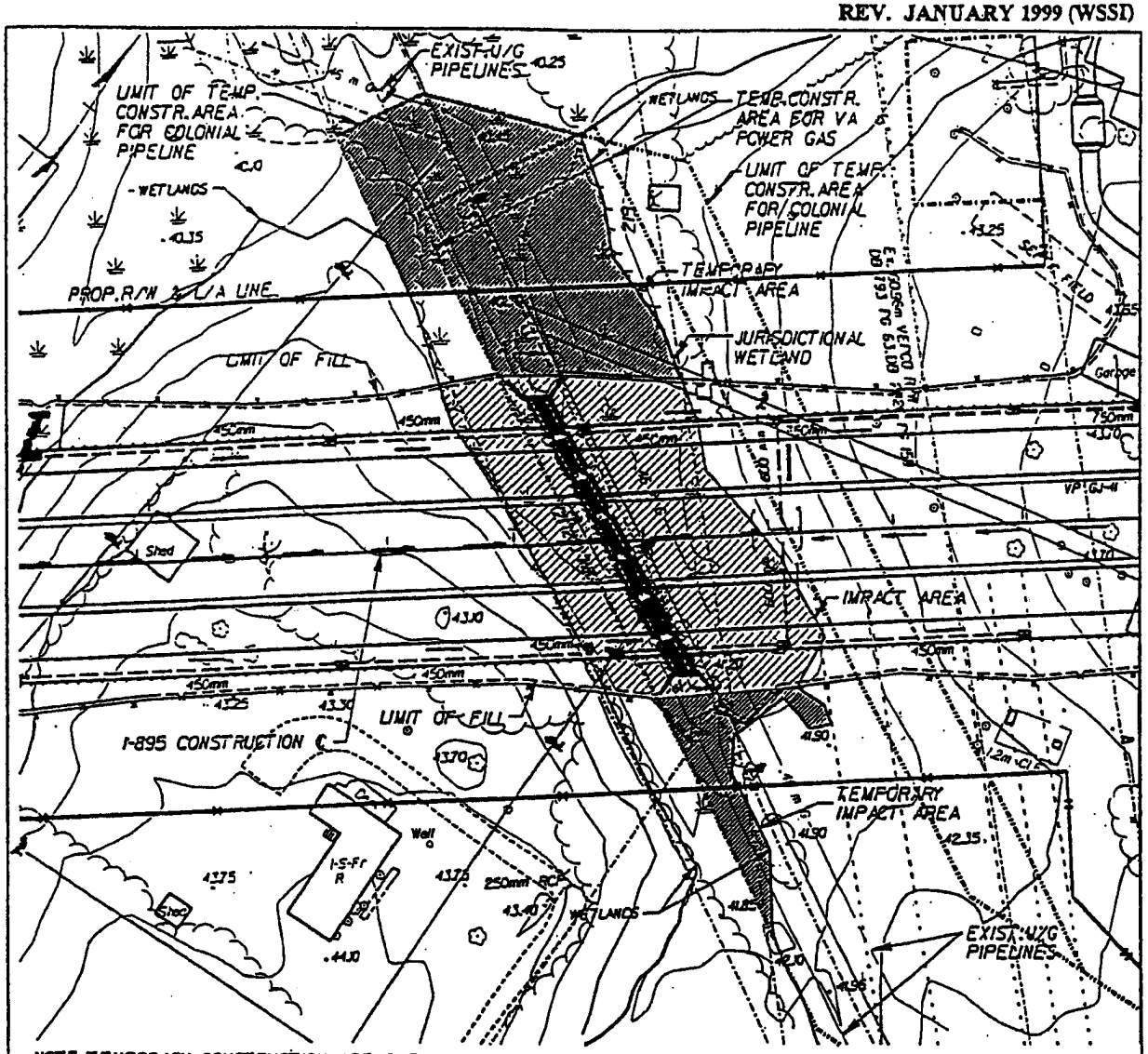
REV. JANUARY 1999 (WSSI)



PLAN VIEW

Total Acres of Wetland Disturbance: 3.45 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev. 1/99	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: Bridge Over Cornelius Creek	APPLICANT NAME: FD/MK LIMITED LIABILITY COMPAN
DATE: July 1997, Rev 9/97, Rev. 1/98, Rev. 11/98	NAME OF WATERWAY: Cornelius Creek	PERMIT NAME: I-895 Individual Permit
		SHEET 100 OF 110



NOTE: TEMPORARY CONSTRUCTION AREAS FOR COLONIAL PIPELINE AND VIRGINIA POWER GAS OVERLAP WITHIN THE TEMPORARY IMPACT AREA.

TOTAL ACRES OF WELAND DISTURBANCE = 0.87 ACRES

METRIC SCALE
1:1000
0 20 m 40 m

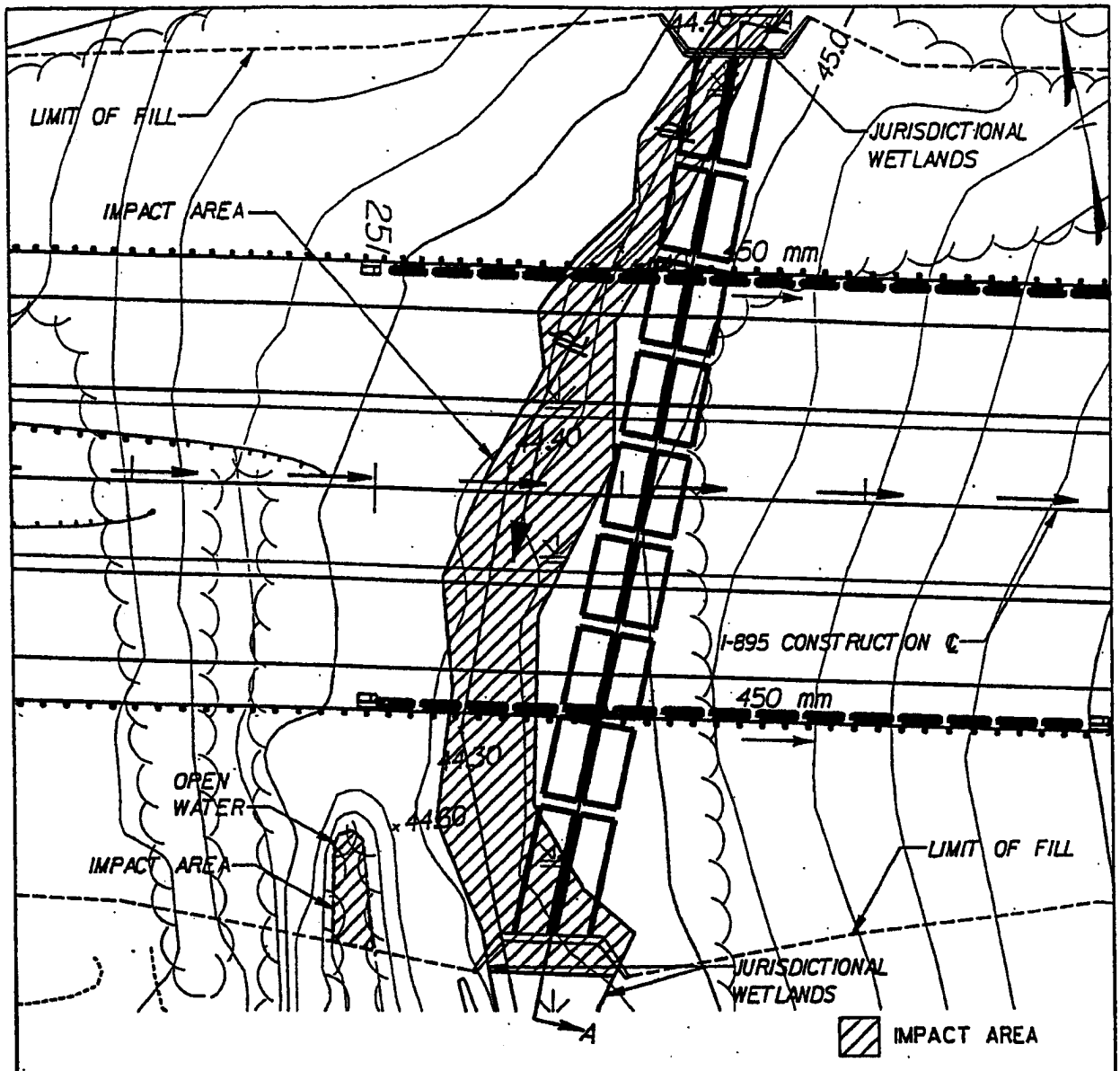
IMPACT AREA NO.102
PLAN VIEW

DENOTES PERMANENT IMPACT = *0.45 ACRE*

DENOTES TEMPORARY IMPACT = *0.42 ACRE*

METRIC

FOR PROPERTY OWNERS SEE SEPARATE APPENDIX	I-895 INDIVIDUAL PERMIT	I-895: STATION 219+00 EAST OF SWM SITE # 3
Sverdrup 7600 Leesburg Pike, Suite 210 East Falls Church, Virginia 22043 Phone (703)790-0040 Fax (703)790-5113	VDOT PROJ. NO.: 0895-043-F01, PE-101, RW201, C501 APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY	COUNTY OF HENRICO Date JAN 1999 file wetp1102r.dgn SHEET # 4 OF 93

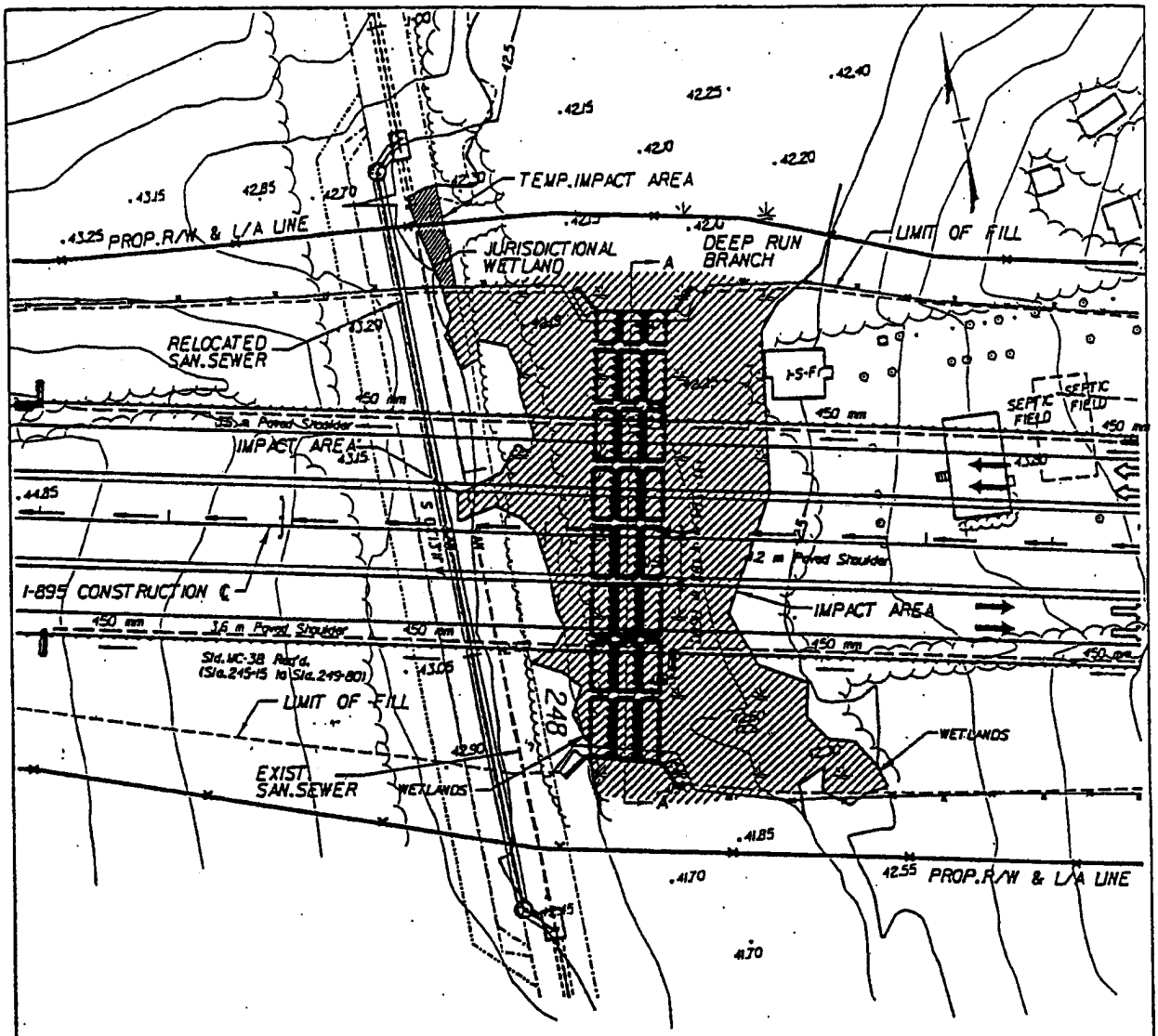


METRIC SCALE
1:500
0 10 m 20 m

IMPACT AREA NO. III
PLAN VIEW

AREA OF WETLANDS DISTURBANCE = 604 SQ M (6500 SQ.FT.)
(0.15 ACRES)

FOR PROPERTY OWNERS SEE SEPARATE APPENDIX	I-895 INDIVIDUAL PERMIT	I-895 STATION 251+22 SHARPS BRANCH COUNTY OF HENRICO
Sverdrup 7600 Leesburg Pike, Suite 210 East Falls Church, Virginia 22043 Phone (703)790-0040 Fax (703)790-5113	VDOT PROJ. NO.: 0895-043-F01, PE-101, RW201, C501 APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY	Date JAN 1999 file wetp1111r.dgn SHEET # 32 OF 93



TOTAL ACRES OF WELAND DISTURBANCE = 0.81 ACRES

METRIC SCALE
1:1000
0 20 m 40 m

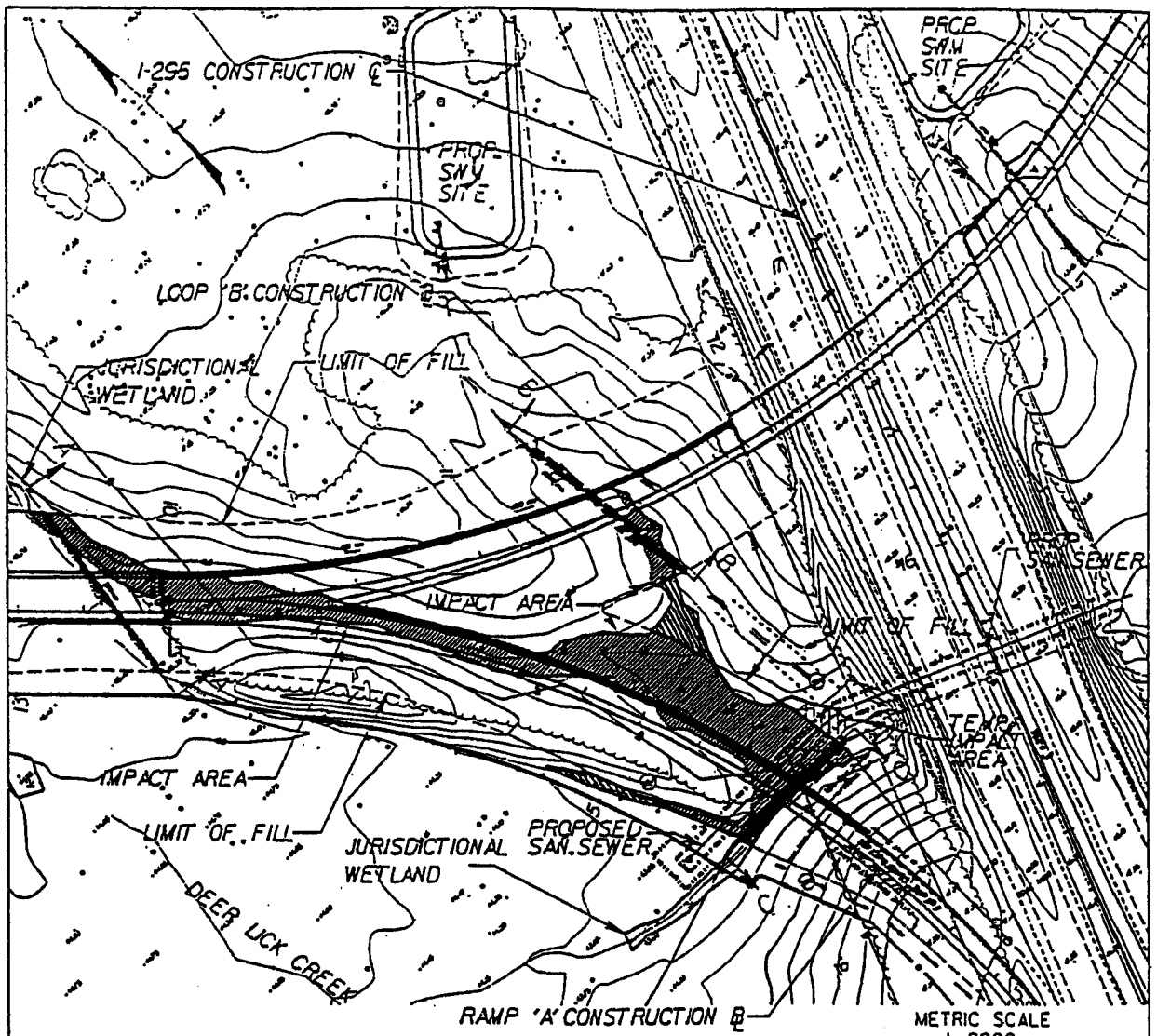
IMPACT AREA NO.112
PLAN VIEW

METRIC

DENOTES PERMANENT IMPACT = *0.80 ACRE*

DENOTES TEMPORARY IMPACT = *0.01 ACRE*

FOR PROPERTY OWNERS SEE SEPARATE APPENDIX	I-895 INDIVIDUAL PERMIT	I-895: STATION 248+00
Sverdrup 7600 Leesburg Pike, Suite 210 East Falls Church, Virginia 22043 Phone (703)790-0040 Fax (703)790-5113	VDOT PROJ. NO.: 0895-043-F01, PE-101, RW201, C501 APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY	COUNTY OF HENRICO Date JAN 1999 file wetpl112r.dgn SHEET # 35 OF 93



NOTE: DEPICTS ULTIMATE INTERCHANGE CONFIGURATION

TOTAL ACRES OF WELAND DISTURBANCE = 1.02 ACRES

IMPACT AREA NO. PLAN VIEW 122

DENOTES PERMANENT IMPACT	= 0.92 ACRE
DENOTES ADVERSE IMPACT (FRAGMENTATION)	= 0.09 ACRE
DENOTES TEMPORARY IMPACT	= 0.01 ACRE

FOR PROPERTY OWNERS
SEE SEPARATE APPENDIX

Sverdrup
7600 Leesburg Pike, Suite 210 East
Falls Church, Virginia 22043
Phone (703)790-0040 Fax (703)790-5113

I-895
INDIVIDUAL PERMIT

VDOT PROJ. NO.: 0895-043-F01, PE-101, RW201, C501

APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

RAMP 'A' STATION 13+30
LOOP 'B' STATION 11+40
RAMP 'A' STATION 15+50
COUNTY OF HENRICO

Date JAN 1999

file wetp1122r.dgn

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
FORT NORFOLK, 803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096

RECEIVED
SEP 21 1999

REPLY TO
ATTENTION OF:

September 22, 1999

Southern Virginia Regulatory Section
97-1216-02 (James River/Cornelius Creek))

Fluor Daniels/MorrisonKnudsen L.L.C.
c/o Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

Gentlemen:

This is in reference to several requests made for modification of Department of the Army permit 97-1216-02 issued for the Route 895 project in Chesterfield and Henrico County, Virginia.

We have reviewed the request to modify the time schedule for the planting of the subject site from November 1 to October 1 and determined that due to the existing site conditions and the higher likelihood of failure of the planting, we will not modify the permit in order to allow the site to be planted one month ahead of the original schedule. You should advise your plant supplier that no work may begin until November 1, provided that the site preparation work is completed.

We have also reviewed the request that the conservation easement requirement be removed from the permit. Since FD/MK is responsible for the easements, the Corps will require that perpetual easement be in place in order the permit to be valid. The easement will also prevent the area from being impacted in the future for this or other projects.

Should you have any further questions, please contact Mr. Ken Kimidy at (757) 441-7832.

Sincerely,

R. Harold Jones
Chief, Southern Virginia
Regulatory Section

cf:

Ms. Tracy Harmon, Virginia Department of Environmental Quality, Central Office, Richmond

U.S. Army Corps of Engineers
Norfolk District, Southern Virginia Regulatory Section
803 Front Street
Norfolk, Virginia 23510

July 19, 2000

ct Number: 97-V1216

Waterway: James River/Cornelius Creek

1. Participant:
Fluor Daniels/Morrison Knudsen Corporation (FD/MK)
ATTN: Rex Osborne

2. Authorized Agent:
Michael S. Rolband
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, VA 20151

3. Address of Job Site:
Widening of existing Route 150 crossing at Grindall Creek

4. Project Description:
placement of fill material for the construction of Route 895, a Public Private partnership for construction of a toll road from Route 95 Richmond to Route 295 in Henrico.

5. Findings

This is in reference to your request to modify the subject Department of the Army permit to increase the impacts associated with the project by 0.037 acres through the extension of the culverts beneath Route 150 in Grindall Creek. As mitigation for the subject impact, you propose to increase the mitigation by 0.074 acres at the approved mitigation site. Upon further review, the above referenced modification is approved subject to the successful mitigation of the impacts. YOU MAY NOT BEGIN WORK UNTIL YOU HAVE OBTAINED A PERMIT FROM THE VIRGINIA MARINE RESOURCES COMMISSION AND/OR THE LOCAL WETLANDS BOARD AND RECEIVED A REVISED VIRGINIA WATER PROTECTION PERMIT FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY.

closed is a "compliance certification" form, which must be signed and returned within 30 days of completion of the project, in ing any required mitigation (see nationwide permit condition number 14). Your signature on this form certifies that you have completed the work in accordance with the nationwide permit terms and conditions.

A site visit to review the mitigation site is also necessary in order for the Corps to confirm that impacts are being properly compensated. Please contact this office and DEQ to establish a mutually acceptable time for this site review.

6. Corps Contact: Ken Kimidy at (757) 441-7832.

R. Harold Jones
Chief, Southern Virginia Regulatory Section

NAO FL 13 REVISED DEC 90

U.S. Army Corps
Of Engineers
Norfolk District

CERTIFICATE OF COMPLIANCE WITH ARMY CORPS OF ENGINEERS PERMIT

Permit Number: 97-V1216-02

Name of Permittee: FD/MK Corporation

Date of Issuance: July 19, 2000

Permit Type: Permit Modification for Culvert extension

Within 30 days of completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

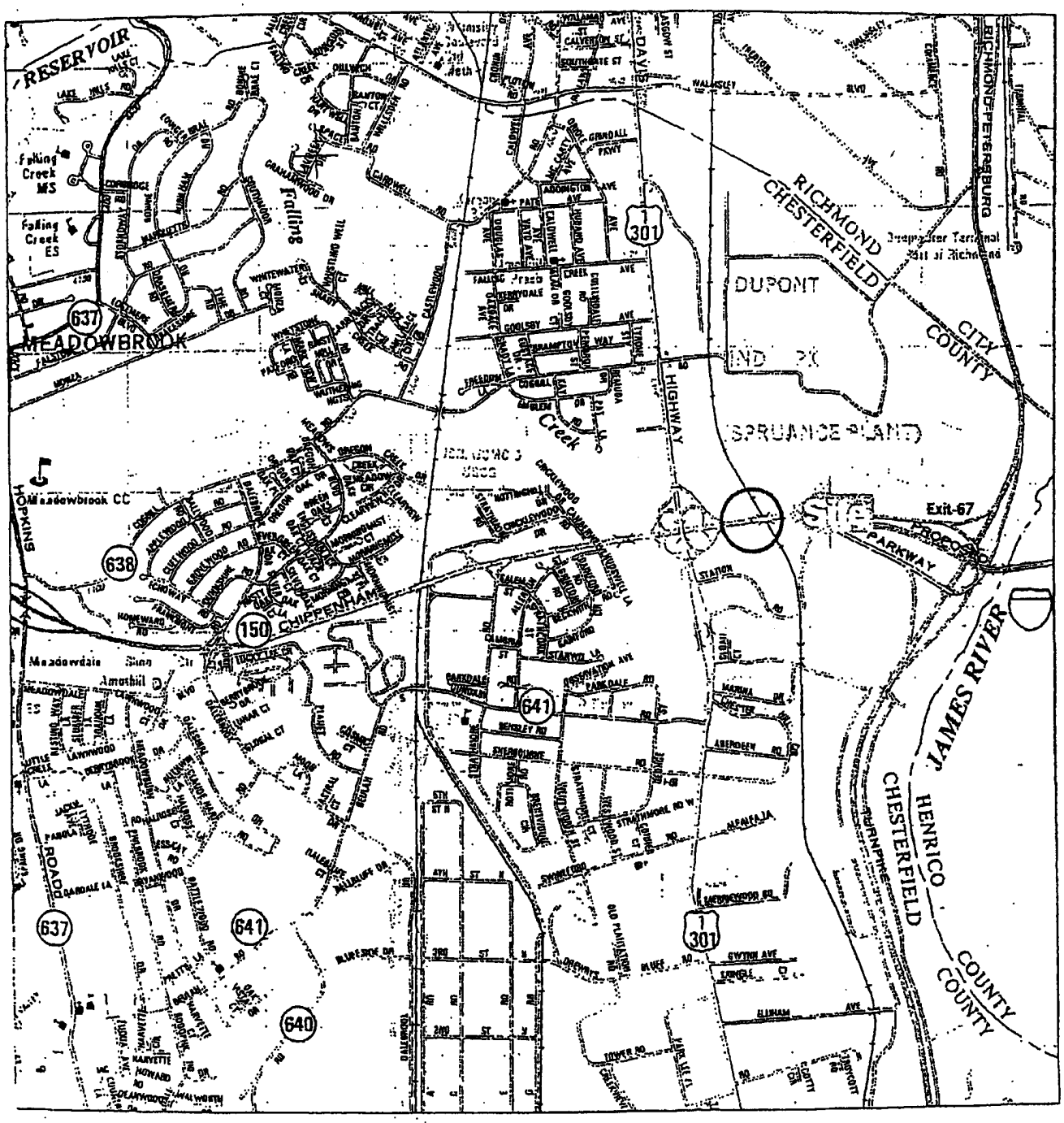
Kenneth Kimidy
c/o Regulatory Branch
Norfolk District Corps of Engineers
803 Front Street
Norfolk, Va. 23510-1096

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation has been completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date



Copyright ADC The Map People
Permitted Use No. 30394258

Vicinity Map

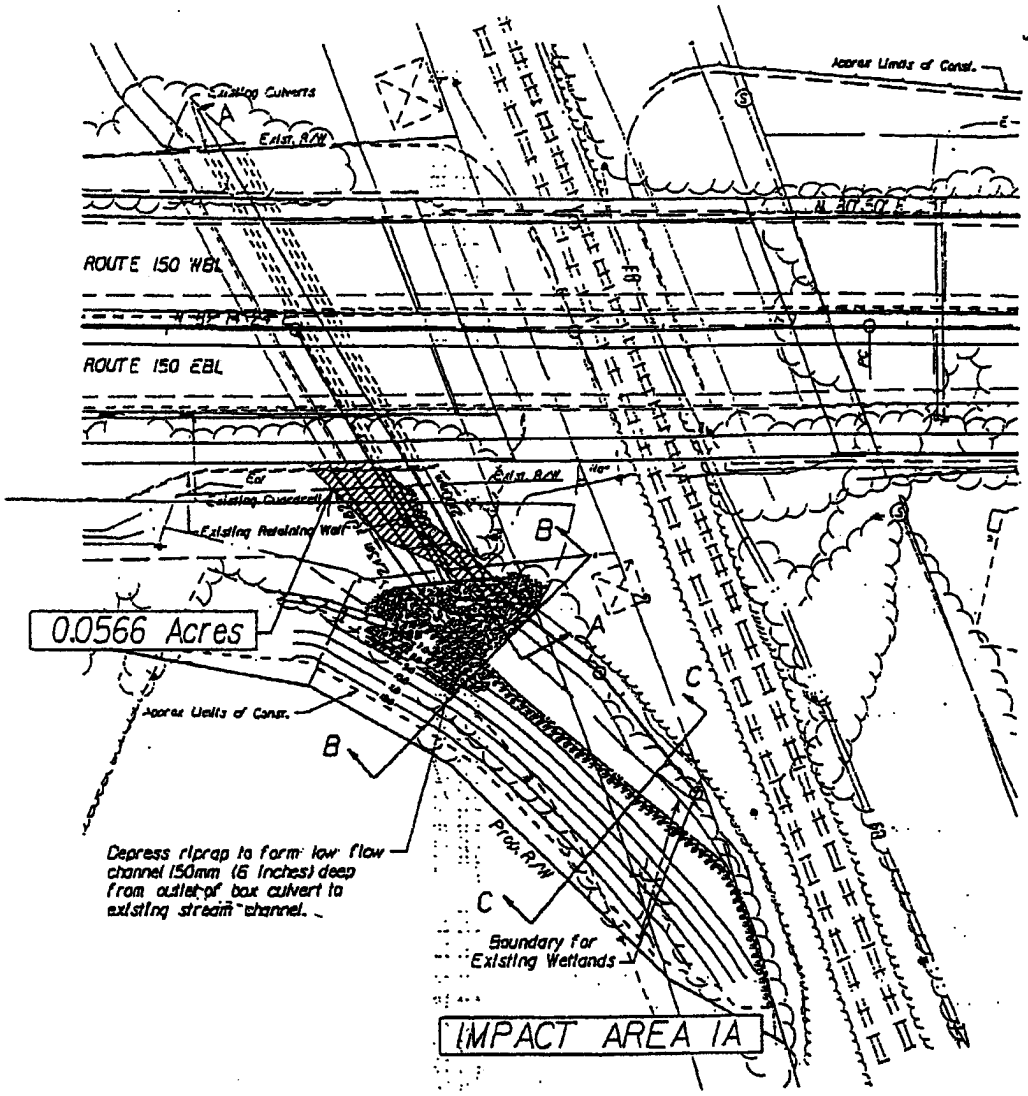
Scale: 1" = 2000'

N

Wetland Studies and Solutions, Inc.

Exhibit 1

JPA Amendment #4



PROPOSED FEATURES
EXISTING WETLANDS
DENOTES ADVERSE IMPACT

PLAN VIEW

AREA .0566 Acres

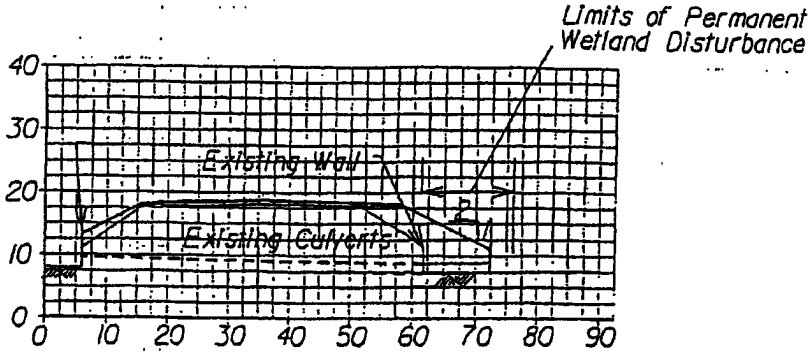
METRIC SCALE
1:1000
0 20 m 40 m

Total Acres of Wetland Disturbance: 0.057 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: I-895 Station 5-00	APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC
SITE BLAUVELT PROJ.# V19502		PERMIT NAME: I-895 Individual Permit
DATE: Rev. 11/98, 11/99, 1/00	NAME OF WATERWAY: Grindall Creek	SHEET 2A OF 110

\895wet\10 11 99\4r_rev.dgn Feb. 02, 2000 16:18:29

JPA Amendment #4



SECTION A-A

IMPACT AREA IA

CROSS SECTION VIEW

Prop. Grade
Exist. Grade

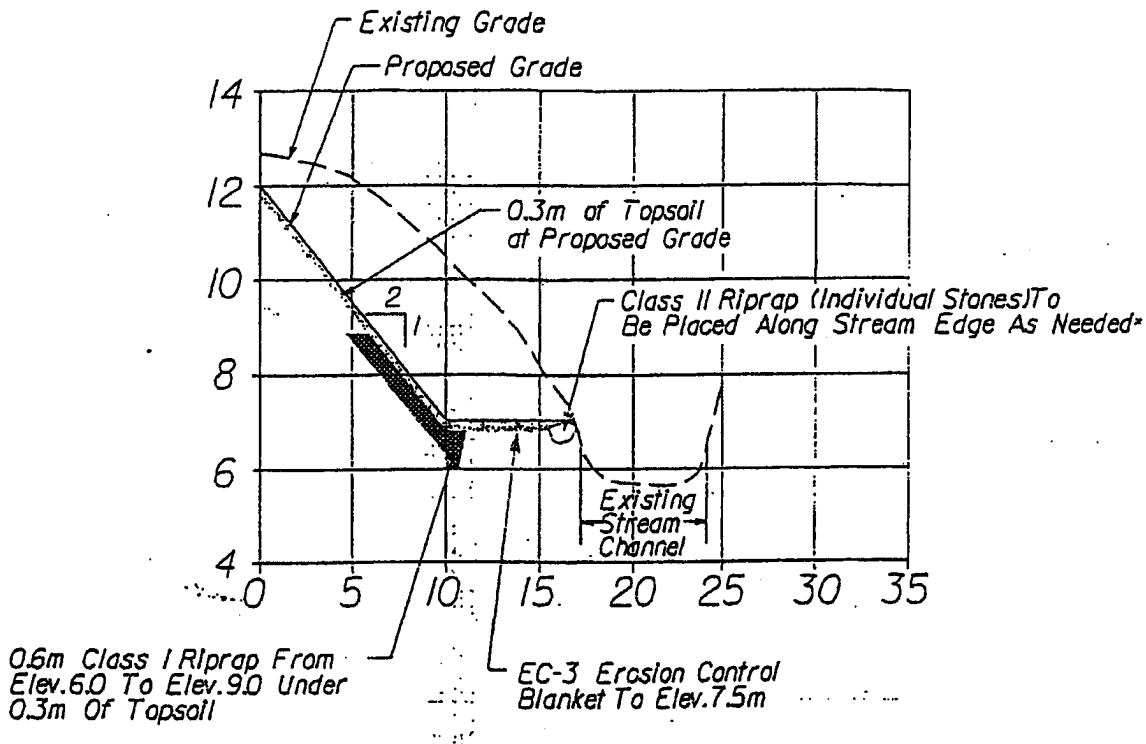
METRIC SCALE
1:1000
0 20 m 40 m

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: I-895 Station 5+00	APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC
SITE BLAUVELT PROJ.# V19502		PERMIT NAME: I-895 Individual Permit
DATE: Rev. 11/98, 11/99, 1/00	NAME OF WATERWAY: Grindall Creek	SHEET 2B OF 110

...\895wet\10 11 99\frx_rev.dgn Feb. 07, 2000 09:04:10

JPA Amendment *4

* - Stream Edge Has Some Stone, But May Need More Stone To Protect Bank. Disturb as Little of Stream as Possible During Construction.



SECTION C-C

IMPACT AREA IA

CROSS SECTION VIEW

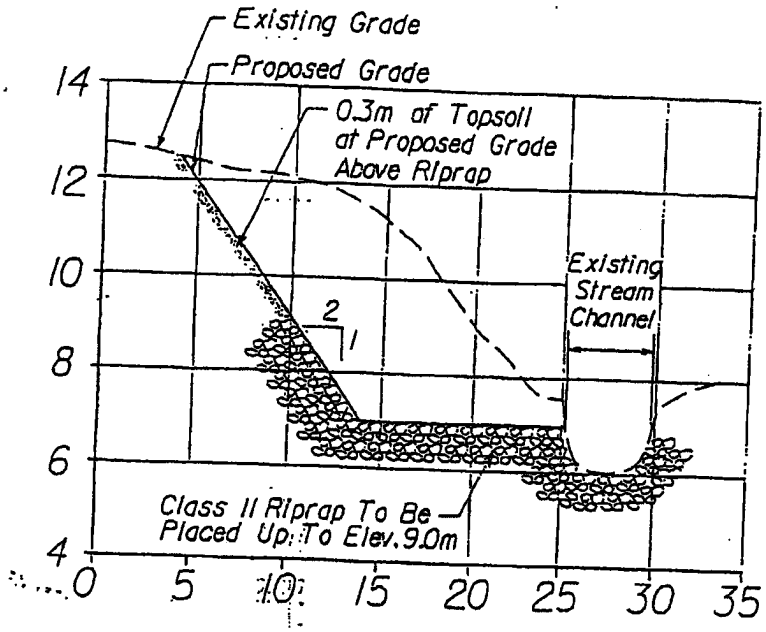
——— Prop.Grade
— — — Exist.Grade

METRIC SCALE
1:200
0 5m 10m

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 1-804-285-7483 SITE BLAUVELT PROJ.* V19502	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: I-895 Station 5+00	APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC
		PERMIT NAME: I-895 Individual Permit
DATE: Rev.1/00	NAME OF WATERWAY: Grindall Creek	SHEET 2C OF 110

\095wel\10 11 99\4rx_rev.dgn Feb. 02, 2000 16:19:49

JPA Amendment #4



SECTION B-B

IMPACT AREA IA

CROSS SECTION VIEW

Prop. Grade
Exist. Grade

METRIC SCALE
1:200
0 5m 10m

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
1-804-285-7483

SITE BLAUVELT PROJ.# V19502

DATE: Rev. 1/00

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
#0895-020-F01
#0895-043-F01

LOCATION: I-895
Station 5-00

NAME OF WATERWAY: Grindall Creek

ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC

PERMIT NAME: I-895 Individual Permit

SHEET 20 OF 110

\0895wet\10 11 99\4rx_rev.dgn Feb. 02, 2000 16:19:56

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT, CORPS OF ENGINEERS
FORT NORFOLK, 803 FRONT STREET
NORFOLK, VIRGINIA 23510-1096

REPLY TO
ATTENTION OF:

May 22,2001

Southern Virginia Regulatory Section
97-1216-02 (James River)

FD/MK Limited Liability Company
C/o Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151
Attn.: Mr. Mike Rolband

Gentlemen:

In accordance with your request of February 26, 2001, your Department of the Army Permit, issued on May 19, 1998, is hereby modified to allow for the temporary impact of a 0.455 acre palustrine forested wetland area to allow access for a 320-ton crawler crane associated with the construction of the Route 895 project. All additional impacts will be mitigated at a 2:1 ratio at the previously approved wetland mitigation site in eastern Henrico County. All other conditions of the permit remain unchanged.

In addition, this office has received no further response from you regarding the unauthorized wetland fill associated with the failure of slope along Loop B (impact area 125) east of Route 295. Please provide this office with a plan to remove the fill from the wetland and restore the area to wetland characteristics within 30 days of this letter or we will need to consider the suspension of the permit until proper restoration has been performed.

Before you begin work, you should obtain all required State and local authorizations or modifications.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

FOR AND ON BEHALF OF THE DISTRICT ENGINEER,
COLONEL A. B. CARROLL, JR.:

Sincerely,

R. Harold Jones
Chief, Southern Virginia
Regulatory Section

U.S. Army Corps of Engineers
Norfolk District, Southern Virginia Regulatory Section
U.S. Army Corps of Engineers
803 Front Street
Norfolk, Virginia 23510

August 6, 2002

..oject Number: 97-V1216

Waterway: James River/Cornelius Creek

AUG - 9 2002
WETLAND STUDIES AND SOLUTIONS, INC.

1. Participant:
FD/MK Limited Liability Company
620 Moorfield Park Drive, Suite 210
Richmond, Virginia 23236
Attn: Herbert W. Morgan, P.E.

2. Authorized Agent:
Michael S. Rolband
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, VA 20151

3. Address of Job Site:
The project site consists of an 8.26-mile corridor that extends from State Route 150 in Chesterfield County, Virginia to Interstate 295 in Henrico County, Virginia.

4. Project Description:
Construction of Route 895, a limited access toll highway, along an 8.26-mile corridor between State Route 150 in Chesterfield County, Virginia and Interstate 295 in Henrico County, Virginia.

5. Findings

This is in response to your August 1, 2002 request for a time extension of your permit to fill ±31 acres of waters and wetlands for the project described above and to compensate for the impacts at an offsite mitigation site in Henrico County. The permit for this project was issued by the Corps on May 19, 1998.

The permit issued for the I-895 airport connector road (01-V1509) extended the monitoring requirement for the entire Turkey Run I-895 mitigation area, which includes the mitigation site for this project, until December 31, 2006. For consistency, therefore, this permit is hereby extended to coincide with the expiration date of the airport connector road permit and of the mitigation monitoring requirements. It now expires on December 31, 2006. If you are unable to complete the authorized activities by that date, you must ..ply for another extension. All other terms and conditions of your permit remain unchanged.

6. Corps Contact: Jennifer McCarthy (757) 441-7375

R. Harold Jones, P.W.S.
Chief, Southern Virginia Regulatory Section

NAO FL 13 REVISED DEC 90

COMMONWEALTH of VIRGINIA

Marine Resources Commission

2600 Washington Avenue
P.O. Box 756
Newport News, Virginia 23607-0756

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

William A. Pruitt
Commissioner

July 10, 1998

Mr. James R. Carroll
FD/MK Limited Liability Company
c/o Mr. Michael S. Rolband, P.E., P.W.S.
Wetland Studies & Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, VA 20151

RE: VMRC #97-1216

Dear Mr. Carroll:

Enclosed is the Marine Resources Commission permit for your proposal to construct bridge crossings over the James River, Falling Creek and Cornelius Creek in association with the construction of Interstate 895 between Interstate 295 in Henrico County and Route 150 (Chippenham Parkway) in Chesterfield County.

A yellow placard is also enclosed. This placard reflects the authorized activities for inspection purposes and <u>must</u> be conspicuously displayed at the work site throughout the construction phase. Failure to properly post the placard in a prominent location will be considered a violation of your permit conditions.

YOU ARE REMINDED THAT ANY DEVIATION FROM THE PERMIT OR ATTACHED DRAWINGS REQUIRES PRIOR AUTHORIZATION FROM THE MARINE RESOURCES COMMISSION. FAILURE TO OBTAIN THE NECESSARY MODIFICATION WILL BE CONSIDERED A VIOLATION AND COULD SUBJECT YOU TO CIVIL CHARGES IN AMOUNTS NOT TO EXCEED $10,000 PER VIOLATION.

The work authorized by this permit is to be completed by June 30, 2001. Please note that in conformance with Special Condition 20 of your permit you are to notify the Commission prior to commencement of your permitted project. The enclosed self-addressed, stamped post card is to be used for this purpose. All other conditions of the permit will remain in effect.

Please be advised that you may also require issuance of a U. S. Army Corps of Engineers permit before you begin work on this project. You may wish to contact them directly to verify any permitting requirements.

Sincerely,

Robert W. Grabb
Chief, Habitat Management

RWG/bac
HM
Enclosure
cc: U. S. Army Corps of Engineers
Applicant

MRC 30-317

VMRC# 97-1216
Applicant: FD/MK Limited Liability Company

COMMONWEALTH OF VIRGINIA
MARINE RESOURCES COMMISSION
PERMIT

The Commonwealth of Virginia, Marine Resources Commission, hereinafter referred to as the Commission, on this 26th day of May 1998, hereby grants unto:

FD/MK Limited Liability Company
c/o Fluor Daniel, Inc.
Attn: Mr. James R. Carroll
100 Fluor Daniel Drive
Greenville, South Carolina 29607-2762

hereinafter referred to as the Permittee, permission to:

_x_ Encroach in, on, or over State-owned subaqueous bottoms pursuant to Chapter 12, Subtitle III, of Title 28.2 of the Code of Virginia.

____ Use or develop tidal wetlands pursuant to Chapter 13, Subtitle III, of Title 28.2 of the Code of Virginia.

Permittee is hereby authorized to construct bridge crossings over the James River, Falling Creek and Cornelius Creek in association with the construction of Interstate 895 between Interstate 295 in Henrico County and Route 150 (Chippenham Parkway) in Chesterfield County. All activities authorized herein shall be accomplished in conformance with plans and drawings dated received July 18, 1997, February 2, 1998, April 28, 1998, and June 3, 1998, which are attached and made a part of this permit.

This permit is granted subject to the following conditions:

(1) The work authorized by this permit shall be completed by June 30, 2001. The Permittee shall notify the Commission when the project is completed. The completion date may be extended by the Commission in its discretion. Any such application for extension of time shall be in writing prior to the above completion date and shall specify the reason for such extension and the expected date of completion of construction. All other conditions remain in effect until revoked by the Commission or the General Assembly.

(2) This permit grants no authority to the Permittee to encroach upon the property rights, including riparian rights, of others.

(3) The duly authorized agents of the Commission shall have the right to enter upon the premises at reasonable times, for the purpose of inspecting the work being done pursuant to this permit.

(4) The Permittee shall comply with the water quality standards as established by the Department of Environmental Quality, Water Division, and all other applicable laws, ordinances, rules and regulations affecting the conduct of the project. The granting of this permit shall not relieve the Permittee of the responsibility of obtaining any and all other permits or authority for the projects.

(5) This permit shall not be transferred without written consent of the Commissioner.

(6) This permit shall not affect or interfere with the right vouchsafed to the people of Virginia concerning fishing, fowling and the catching of and taking of oysters and other shellfish in and from the bottom of acres and waters not included within the terms of this permit.

(7) The Permittee shall, to the greatest extent practicable, minimize the adverse effects of the project upon adjacent properties and wetlands and upon the natural resources of the Commonwealth.

(8) This permit may be revoked at any time by the Commission upon the failure of the Permittee to comply with any of the terms and conditions hereof or at the will of the General Assembly of Virginia.

(9) There is expressly excluded from the permit any portion of the waters within the boundaries of the Baylor Survey.

(10) This permit is subject to any lease of oyster planting ground in effect on the date of this permit. Nothing in this permit shall be construed as allowing the Permittee to encroach on any lease without the consent of the leaseholder. The Permittee shall be liable for any damages to such lease.

(11) The issuance of this permit does not confer upon the Permittee any interest or title to the beds of the waters.

(12) All structures authorized by this permit which are not maintained in good repair shall be completely removed from State-owned bottom within three (3) months after notification by the Commission.

(13) The Permittee agrees to comply with all of the terms and conditions as set forth in this permit and that the project will be accomplished within the boundaries as outlined in the plans attached hereto. Any encroachment beyond the limits of this permit shall constitute a Class 1 misdemeanor.

(14) This permit authorizes no claim to archaeological artifacts which may be encountered during the course of construction. If, however, archaeological remains are encountered, the Permittee agrees to notify the Commission, who will, in turn notify the Department of Historic Resources. The Permittee further agrees to cooperate with agencies of the Commonwealth in the recovery of archaeological remains if deemed necessary.

(15) The Permittee agrees to indemnify and save harmless the Commonwealth of Virginia from any liability arising from the establishment, operation or maintenance of said project.

The following special conditions are imposed on this permit:

(16) Permittee agrees that all culverts shall be countersunk to provide for unrestricted fish passage at the Cornelius Creek crossing.

(17) Permittee agrees that all areas of State-owned bottom and adjacent lands disturbed by this project shall be restored to their original contours and natural conditions within 30 days from the completion of work at any site. All excess materials shall be removed to an upland site and contained in such a manner to prevent its reentry into State waters.

(18) Permittee agrees that at a minimum erosion and sediment control measures shall be in conformance with the 1992 Third edition of the Virginia Erosion and Sediment Control Handbook and shall be employed throughout construction.

(19) The yellow placard accompanying this permit document must be conspicuously displayed at the work site throughout the construction phase of the authorized activity.

(20) Permittee agrees to notify the Commission a minimum of 15 days prior to the start of the construction activities authorized by this permit.

VMRC # 97-1216

A permit issuing fee of: $100.00

and a royalty of: N/A

for a total of **$100.00** This permit consists of 23 sheets.

PERMITTEE

Permittee's signature is affixed hereto as evidence of acceptance of all of the terms and conditions herein.

In cases where the Permittee is a corporation, agency or political jurisdiction, please assure that the individual who signs for the Permittee has proper authorization to bind the organization to the financial and performance obligations which result from activity authorized by this permit.

PERMITTEE

Accepted for FD/MK Limited Liability Company

7th day of July, 1998 By James R. Carroll President

(Name) (Title)

State of South Carolina

City (or County) of Greenville, to-wit:

I, Bonnie W. Crowe a Notary Public in and for said City (or County) and State hereby certify that James R. Carroll, Permittee, whose name is signed to the foregoing, has acknowledged the same before me in my City (or County) and State aforesaid.

Given under my hand this 7th day of July, 1998

My Commission Expires: May 3, 1999

Notary Public Bonnie W. Crowe

COMMISSION

IN WITNESS WHEREOF, the Commonwealth of Virginia, Marine Resources Commission has caused these presents to be executed in its behalf by Robert W. Grabb, Chief, Habitat Management

(Name) (Title) Marine Resources Commission

10th day of July, 1998 by [signature]

State of Virginia

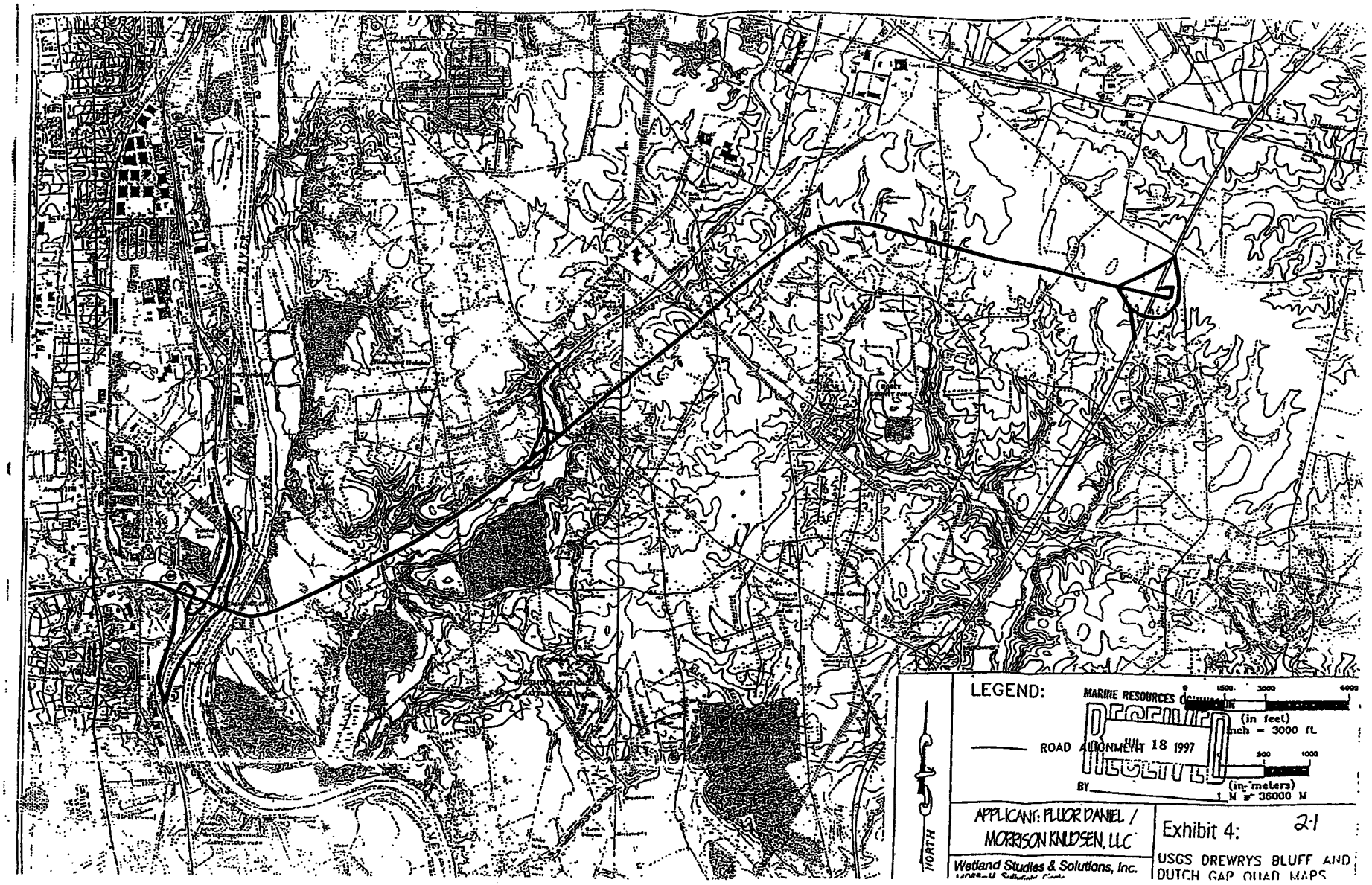
City of Newport News, to wit:

I, Barbara A. Cundiff, a Notary Public within and for said City, State of Virginia, hereby certify that Robert W. Grabb, whose name is signed to the foregoing, bearing the 26th day of May 1998, has acknowledged the same before me in City aforesaid.

Given under my hand this 10th day of July, 1998

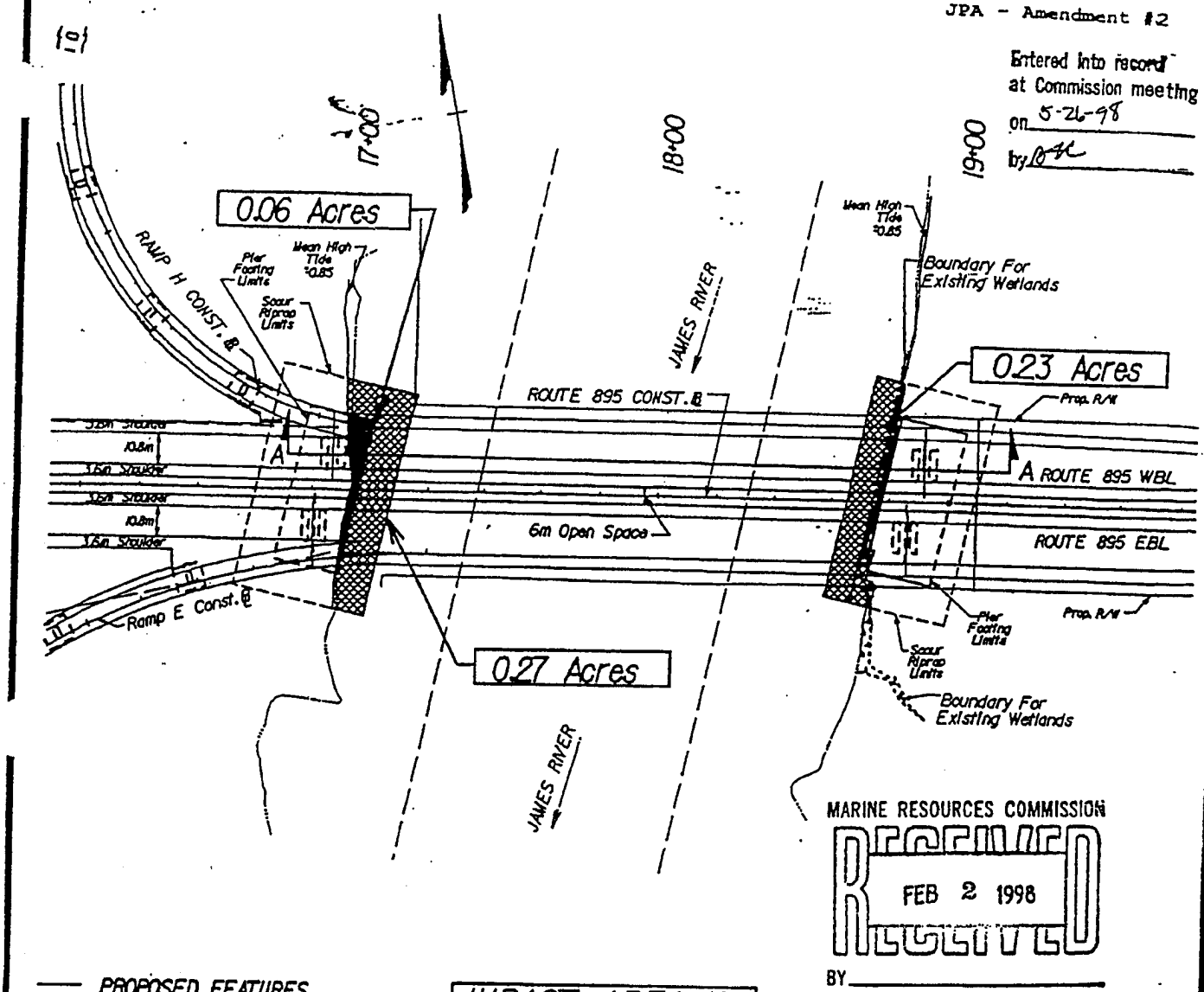
My Commission Expires: April 30, 1999

Notary Public Barbara A. Cundiff


LEGEND:
ROAD ALIGNMENT
MARINE RESOURCES
0 1500 3000 6000
(in feet)
inch = 3000 ft
500 1000
(in meters)
1 M = 36000 M
RECEIVED
JUL 18 1997
BY
NORTH
APPLICANT: FLUOR DANIEL / MORRISON KNUDSEN, LLC
Wetland Studies & Solutions, Inc.
Exhibit 4:
2-1
USGS DREWRYS BLUFF AND DUTCH GAP QUAD MAPS

JPA - Amendment #2

Entered into record at Commission meeting on 5-26-98 by [illegible]



MARINE RESOURCES COMMISSION
RECEIVED
FEB 2 1998
BY _____

— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES PIER IMPACT (PERMANENT)
DENOTES PERMANENT IMPACT FOR SCOUR RIPRAP
DENOTES PIER AND FOOTING

IMPACT AREA 18

AREA 0.06 Acres
AREA 0.50 Acres

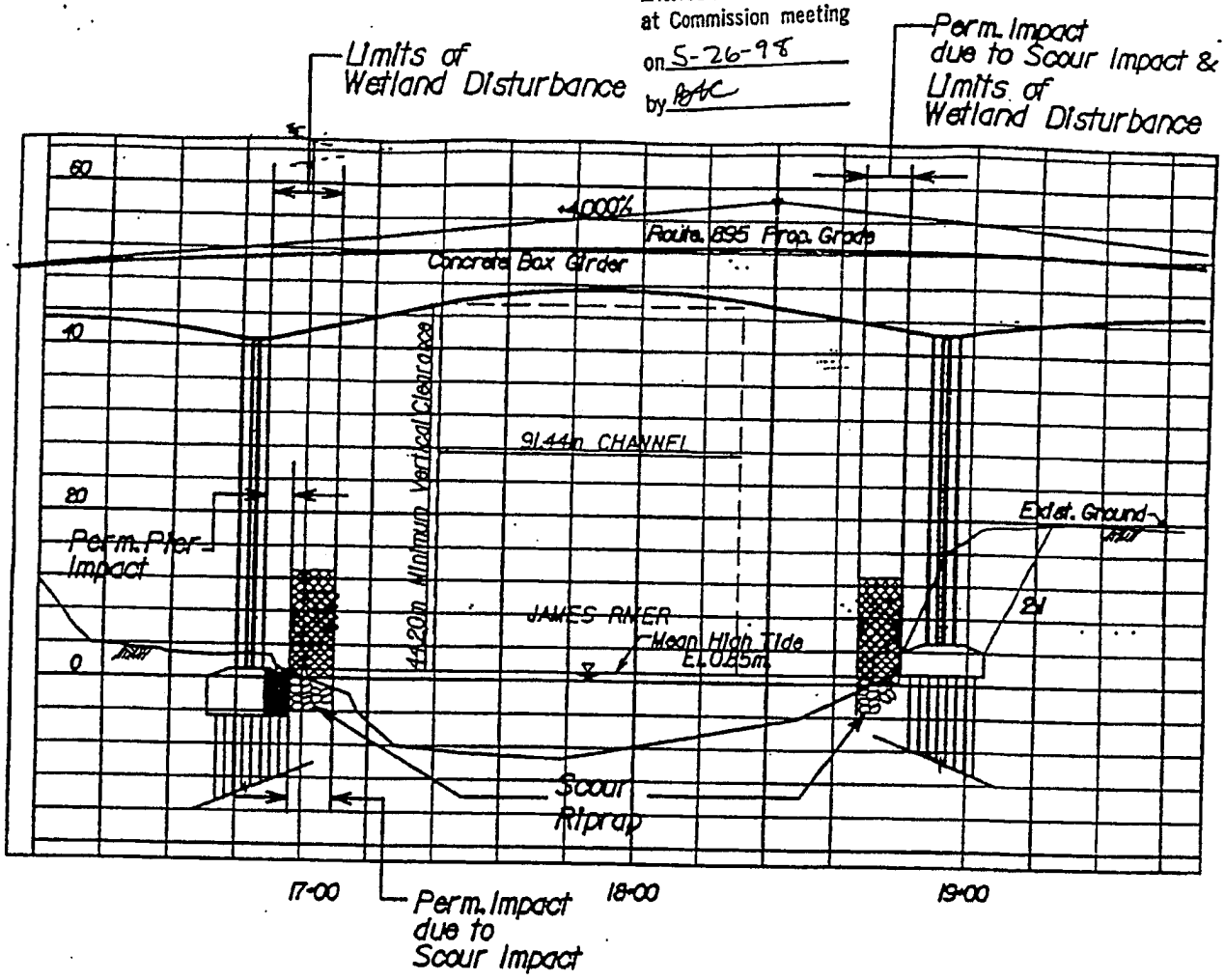
PLAN VIEW

METRIC SCALE
1:2000
0 40 m 80 m

Total Acres of Wetland Disturbance: 0.56 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 804-285-7483 SITE BLAUVELT PROJ.# V19502	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: James River Bridge	APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC
		PERMIT NAME: I-895 Individual Permit
DATE: July 1997, Rev 9/97, Rev. 11/97, Rev. 1/98	NAME OF WATERWAY: James River	SHEET 36 OF 110

Entered into record
at Commission meeting
on 5-26-98
by BAC



MARINE RESOURCES COMMISSION
RECEIVED
FEB 2 1998
BY

ROUTE 895
SECTION A-A

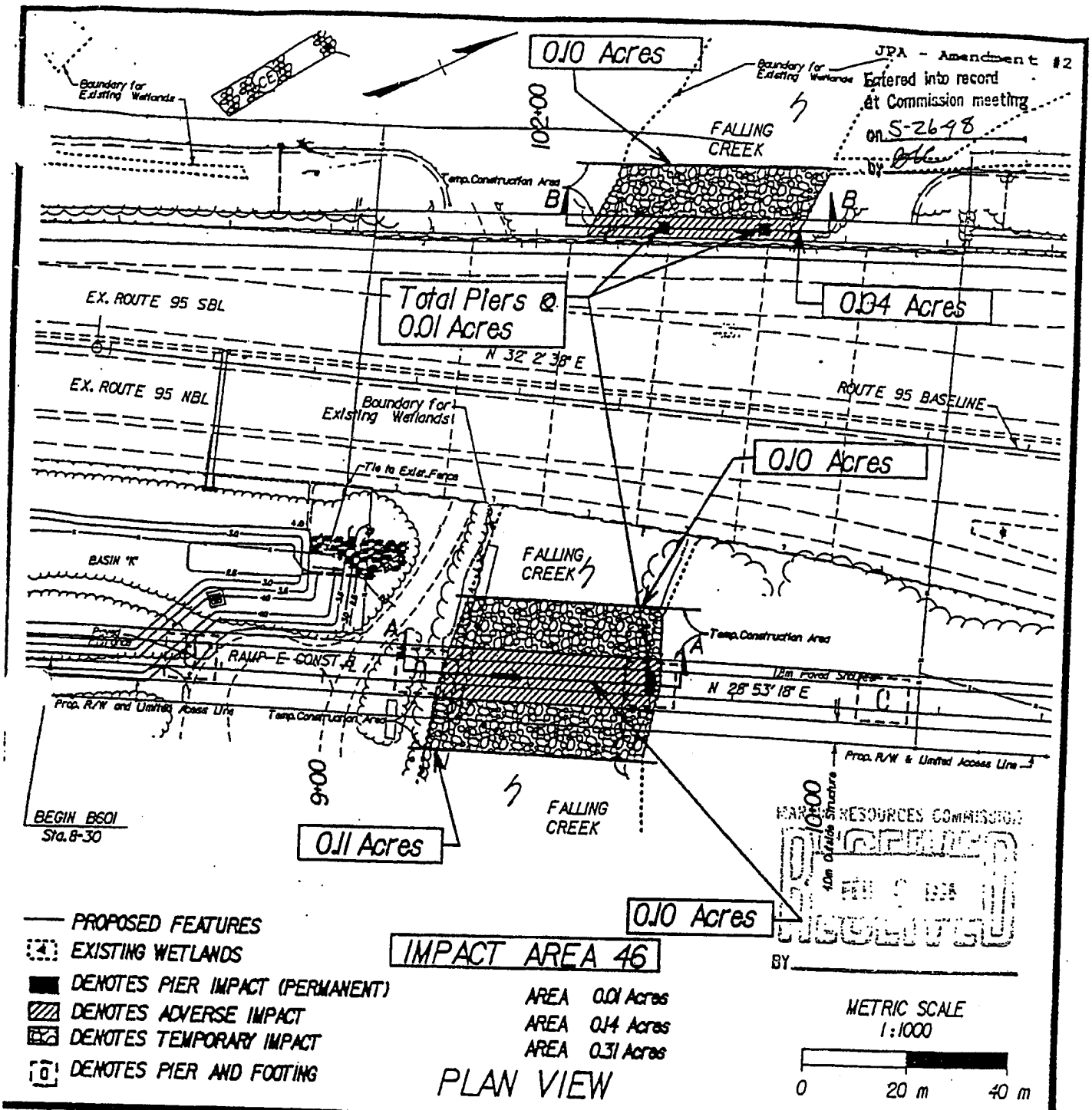
IMPACT AREA 18

PROFILE VIEW

DENOTES PIER IMPACT (PERMANENT)

DENOTES PERMANENT IMPACT FOR SCOUR RIPRAP

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 804-285-7483	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: James River Bridge	APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC
SITE BLAUVELT PROJ.# V19502		PERMIT NAME: I-895 Individual Permit
DATE: July 1997, Rev 9/97, Rev. 11/97	NAME OF WATERWAY: James River	

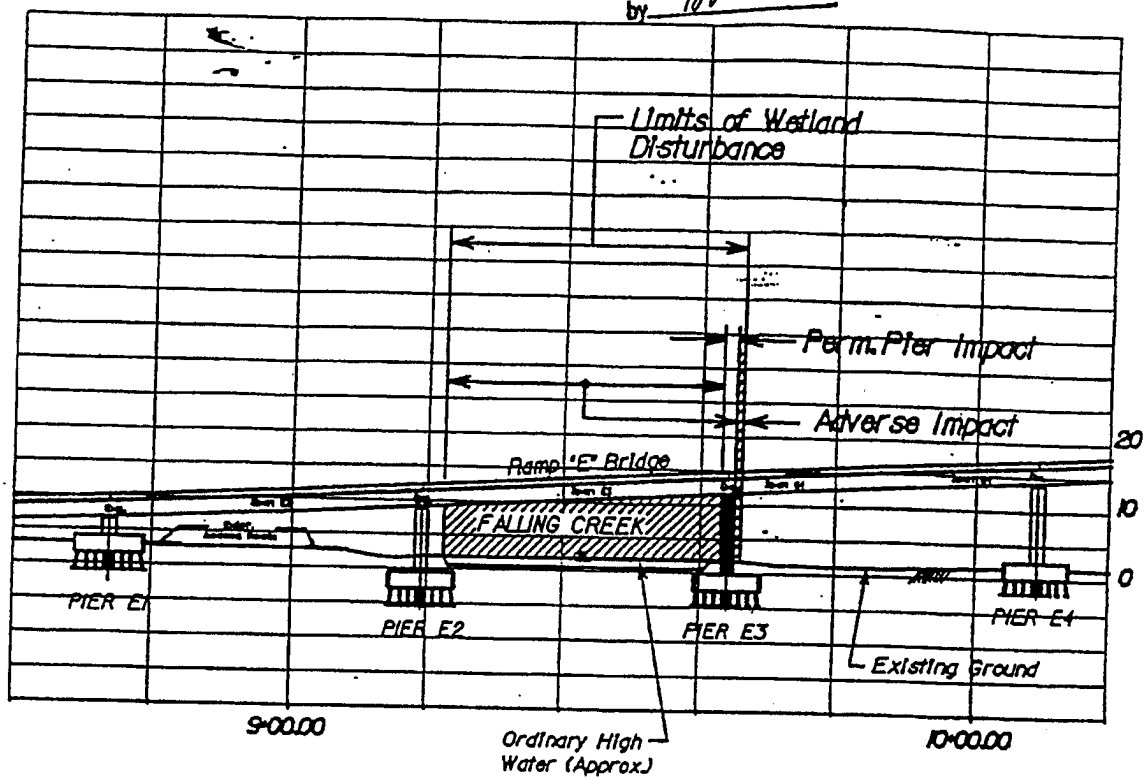


Total Acres of Wetland Disturbance: 0.46 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD MOND, VIRGINIA 23229 -285-7483 SITE BLAUVELT PROJ.# V19502 ATE: 11/97, Rev. 12/97, Rev. 1/98	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01 LOCATION: Ramp E Station 9+00 to 9+50 over Falling Creek NAME OF WATERWAY: Falling Creek	ADJACENT PROPERTY OWNERS: See Attached Index APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC PERMIT NAME: I-895 Individual Permit

Entered into record
at Commission meeting
on 5-26-98
by MAC

JPA - Amendment #2



DENOTES PIER IMPACT (PERMANENT)
DENOTES ADVERSE IMPACT
DENOTES TEMPORARY IMPACT

MARINE RESOURCES COMMISSION
RECEIVED
APR 0 1998
BY

RAMP E
SECTION A-A

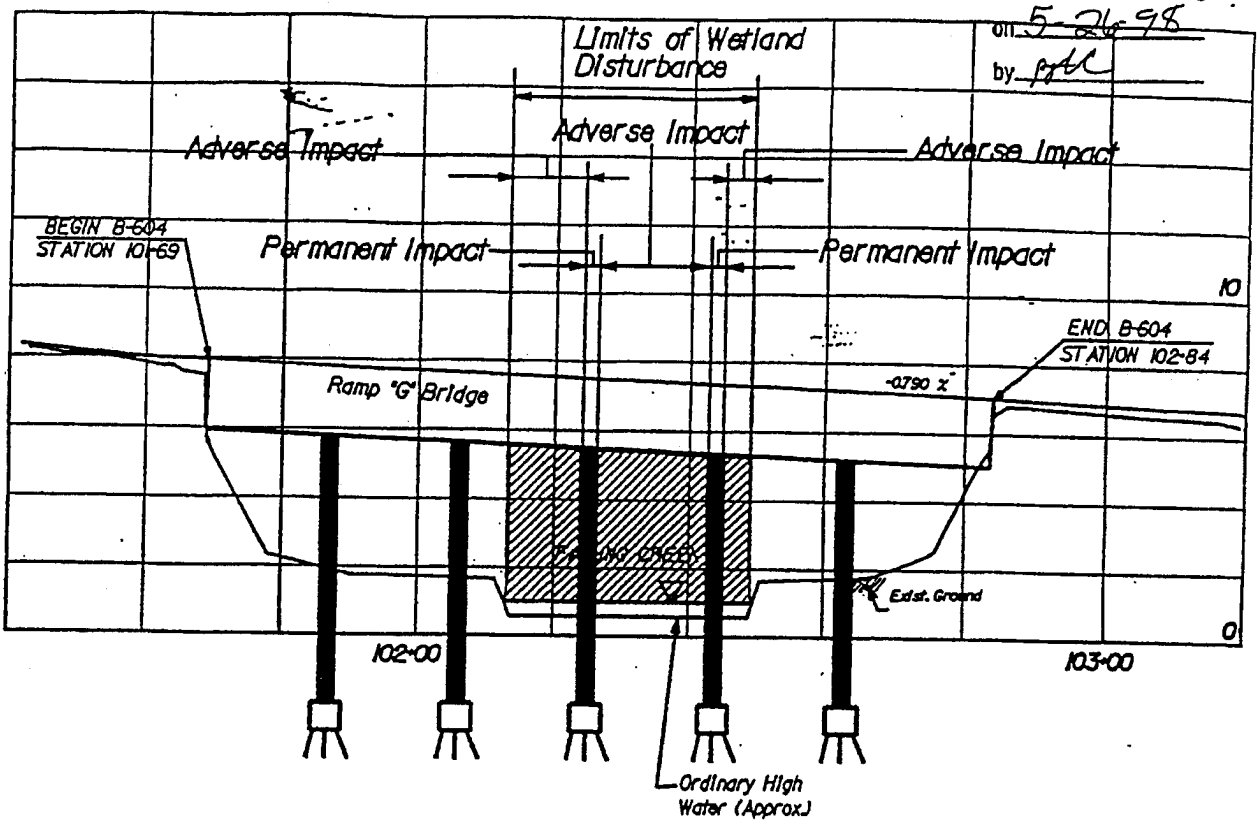
IMPACT AREA 46

PROFILE VIEW

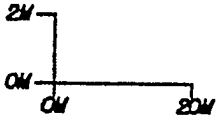
10M
0M
0M
20M

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD MOND, VIRGINIA 23229 4-285-7483 SITE BLAUVELT PROJ.# V19502	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01	ADJACENT PROPERTY OWNERS: See Attached Index
	LOCATION: Ramp G Station 17+63 to 108+30	APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC
	NAME OF WATERWAY: Falling Creek	PERMIT NAME: I-895 Individual Permit

Entered into record
at Commission meeting
on 5-26-98
by [illegible]



DENOTES PIER IMPACT (PERMANENT)
DENOTES ADVERSE IMPACT
DENOTES TEMPORARY IMPACT



95 WIDENING
SECTION B-B

IMPACT AREA 46

PROFILE VIEW

MARINE RESOURCES COMMISSION
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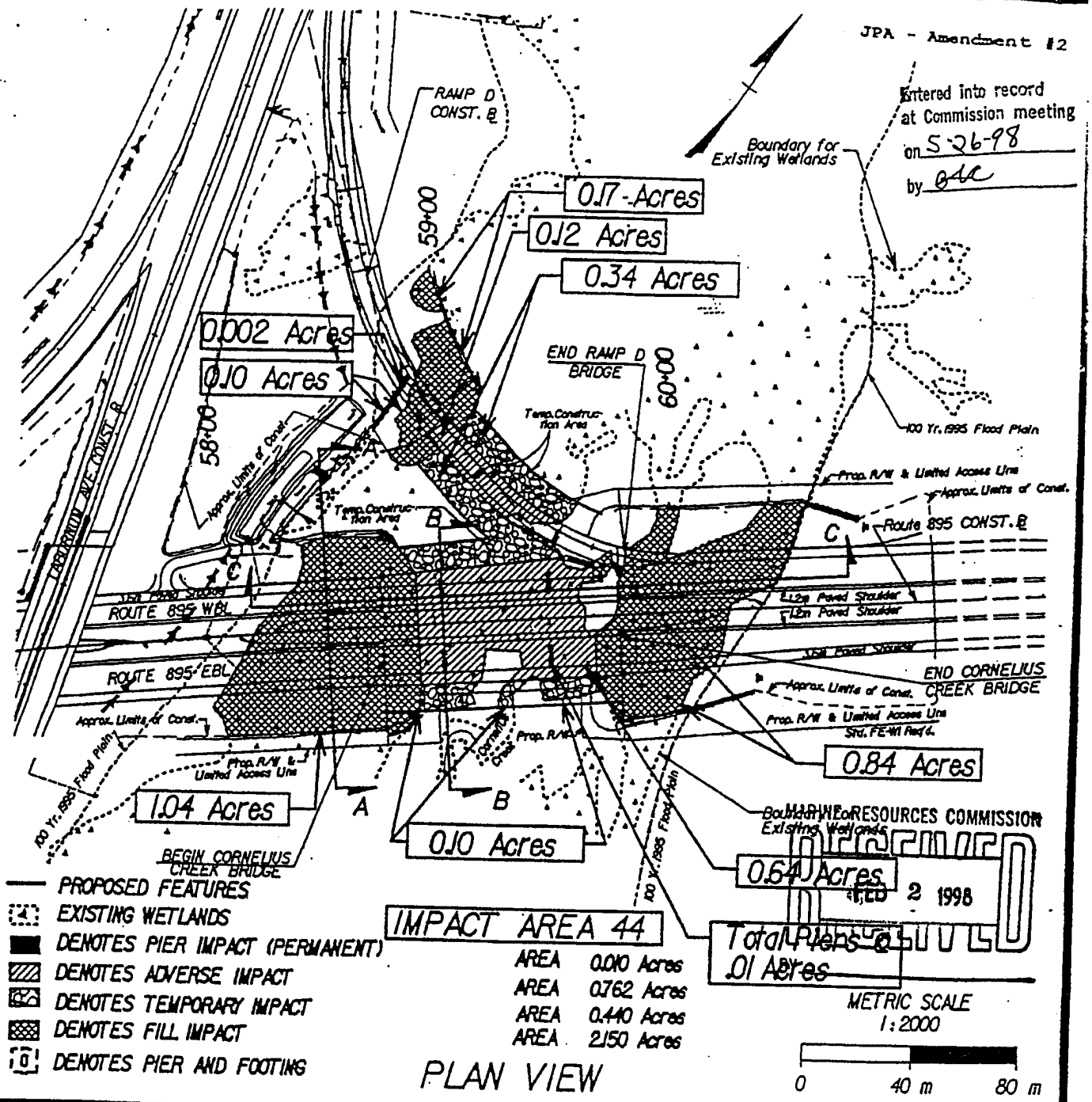
FEB 2 1998
BY

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD HMOND, VIRGINIA 23229 804-285-7483 SITE BLAUVELT PROJ.# V19502	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0695-020-F01 #0695-043-F01 LOCATION: Ramp G 95 Widening NAME OF WATERWAY: Falling Creek	ADJACENT PROPERTY OWNERS: See Attached Index APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC PERMIT NAME: I-895 Individual Permit

JPA - Amendment #2

Entered into record at Commission meeting on 5-26-98 by [illegible]



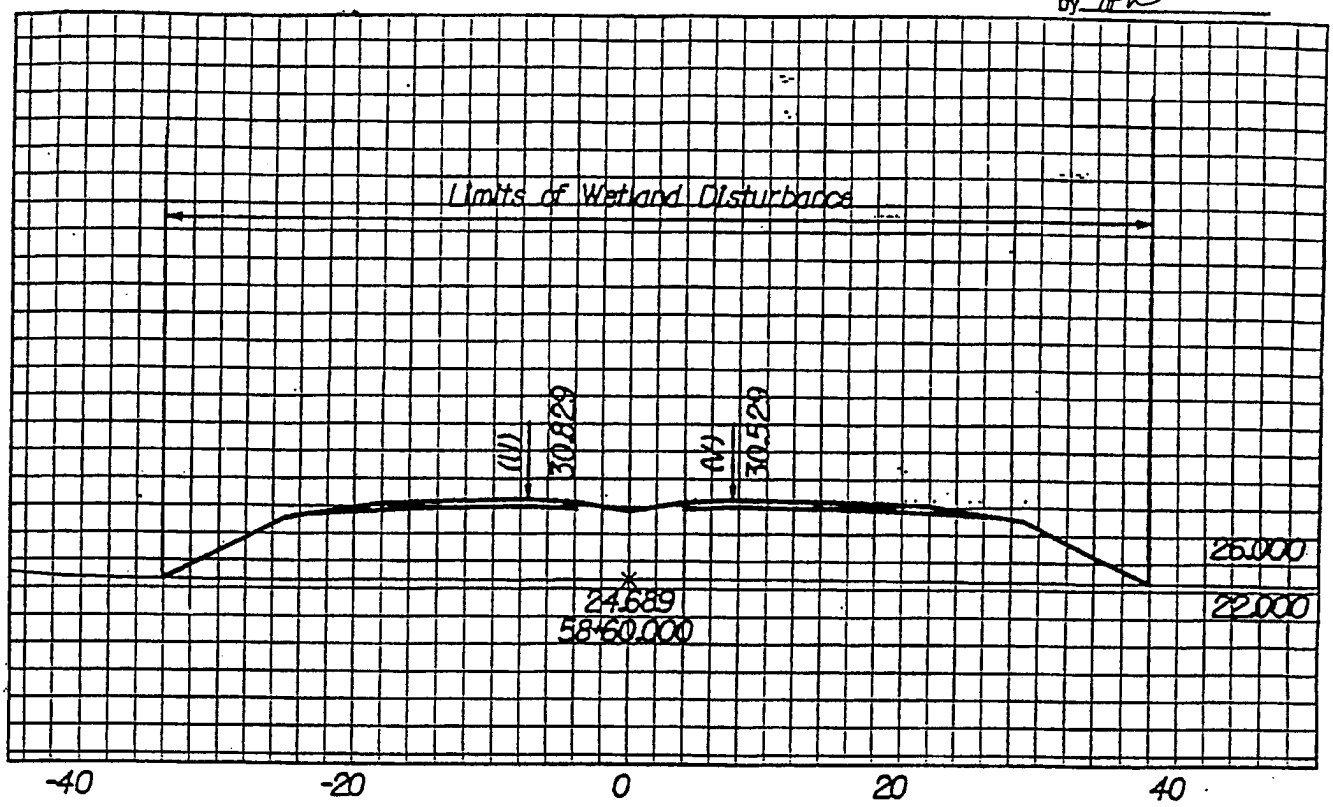
MARINE RESOURCES COMMISSION
RECEIVED
FEB 2 1998

Total Acres of Wetland Disturbance: 3.362 Acres

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 H-285-7483 SITE BLAUVELT PROJ.# V19502 DATE: July 1997, Rev 9/97, Rev. 1/98	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01 LOCATION: Bridge Over Cornelius Creek NAME OF WATERWAY: Cornelius Creek	ADJACENT PROPERTY OWNERS: See Attached Index APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC PERMIT NAME: I-895 Individual Permit

JPA - Amendment #2

Entered into record
at Commission meeting
on 5-26-98
by MK



MARINE RESOURCES COMMISSION
RECEIVED
FEB 2 1998
BY

ROUTE 895
SECTION A-A

IMPACT AREA 44

CROSS SECTION VIEW

Prop. Grade
Exist. Grade

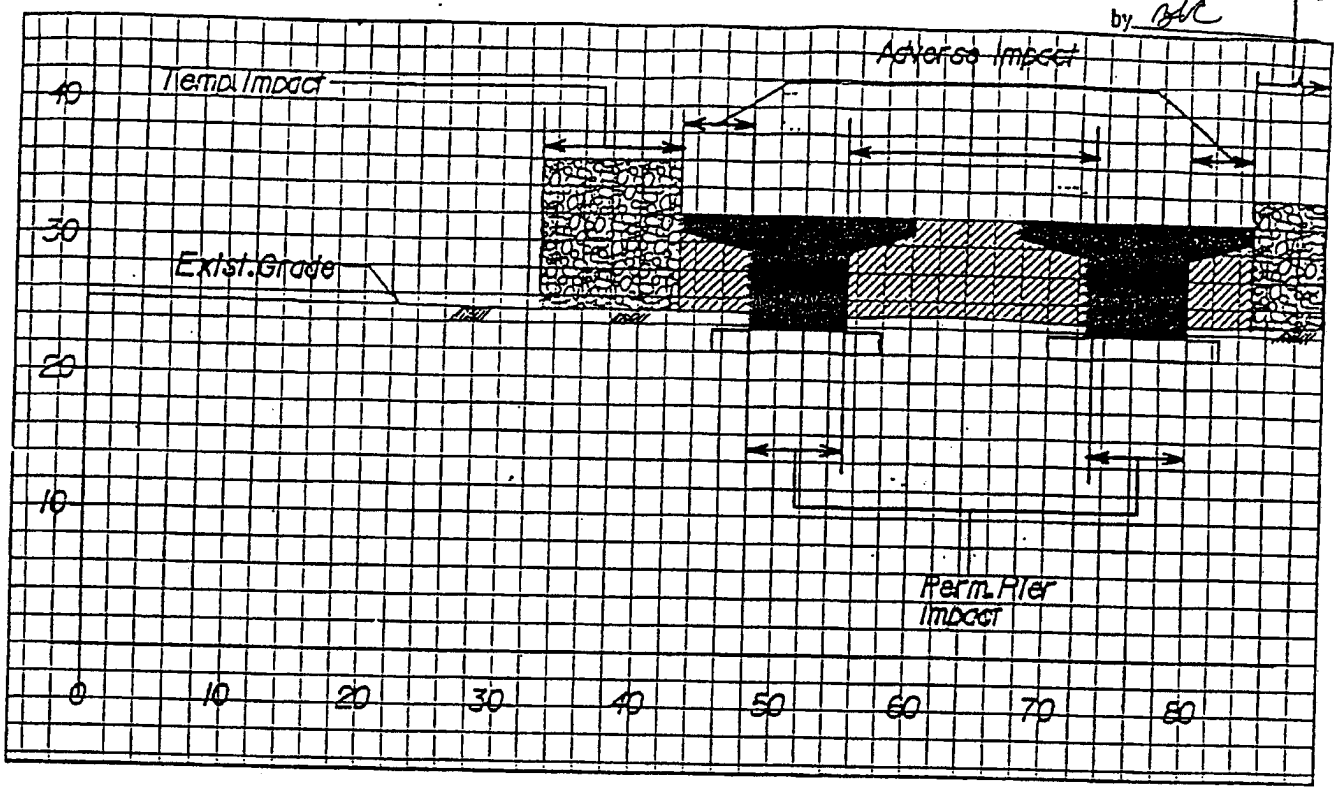
METRIC SCALE
1 : 500
0 10 m 20 m

SITE BLAUVELT ENGINEERS 13 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 804-285-7483 SITE BLAUVELT PROJ.# V19502	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01 LOCATION: Bridge over Cornelius Creek	ADJACENT PROPERTY OWNERS: See Attached Index APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC PERMIT NAME: I-895 Individual Permit

JPA - Amendment #2

Entered into record at Commission meeting on 5-26-98 by [illegible]

(10mT emp. Impact



DENOTES PIER IMPACT (PERMANENT)
DENOTES ADVERSE IMPACT
DENOTES TEMPORARY IMPACT

MARINE RESOURCES COMMISSION
RECEIVED
FEB 2 1998
BY

ROUTE 895
SECTION B-B

IMPACT AREA 44

CROSS SECTION VIEW

Prop. Grade
Exist. Grade

METRIC SCALE
1 : 500
0 10 m 20 m

SITE BLAUVELT ENGINEERS
703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
804-285-7483

SITE BLAUVELT PROJ.# V19502

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
#0895-020-F01
#0895-043-F01

LOCATION:
Bridge over Cornelius Creek

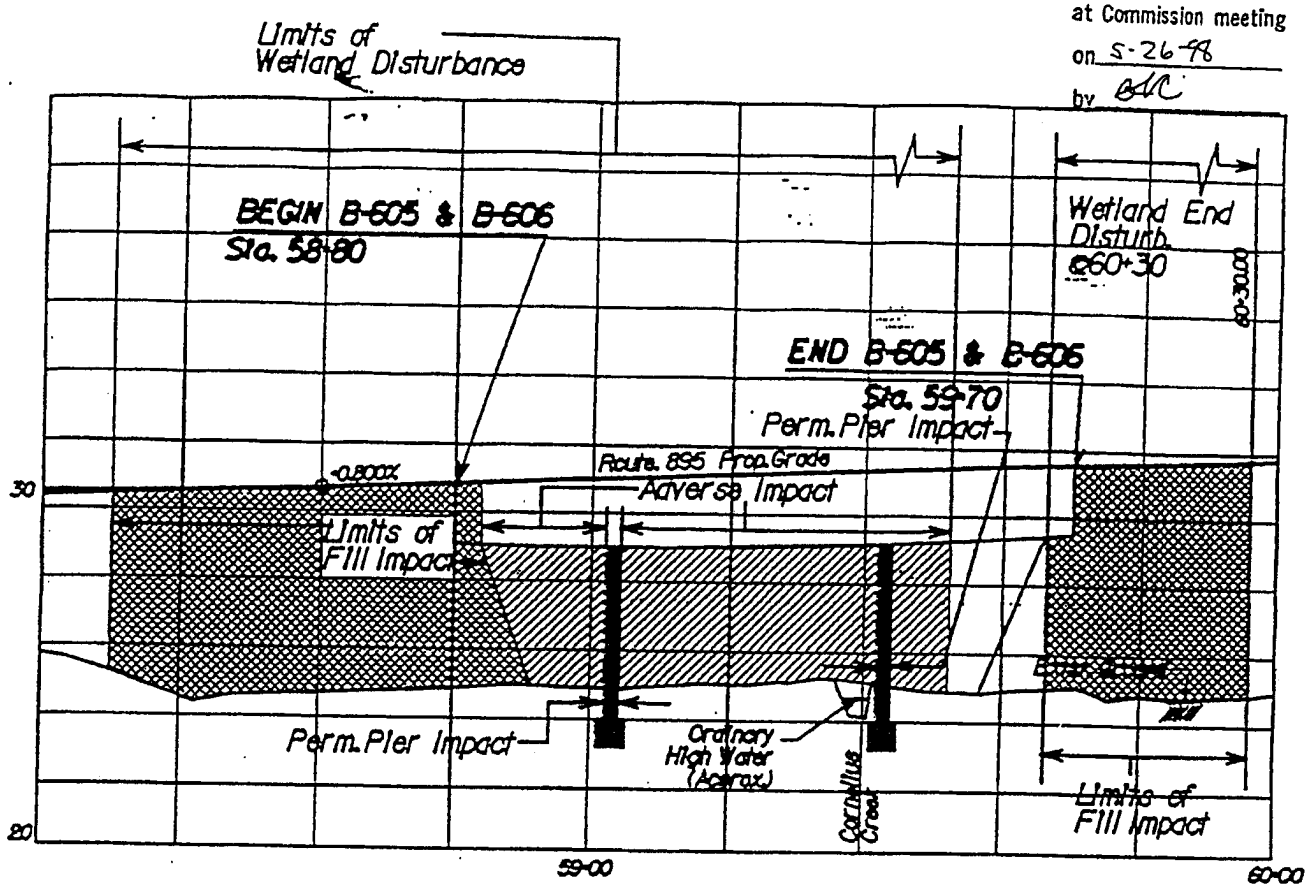
NAME OF WATERWAY:

ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC

PERMIT NAME: I-895 Individual Permit

JPA - Amendment #2
Entered into record
at Commission meeting
on 5-26-98
by BAC



MARINE RESOURCES COMMISSION
RECEIVED
FEB 2 1998
BY

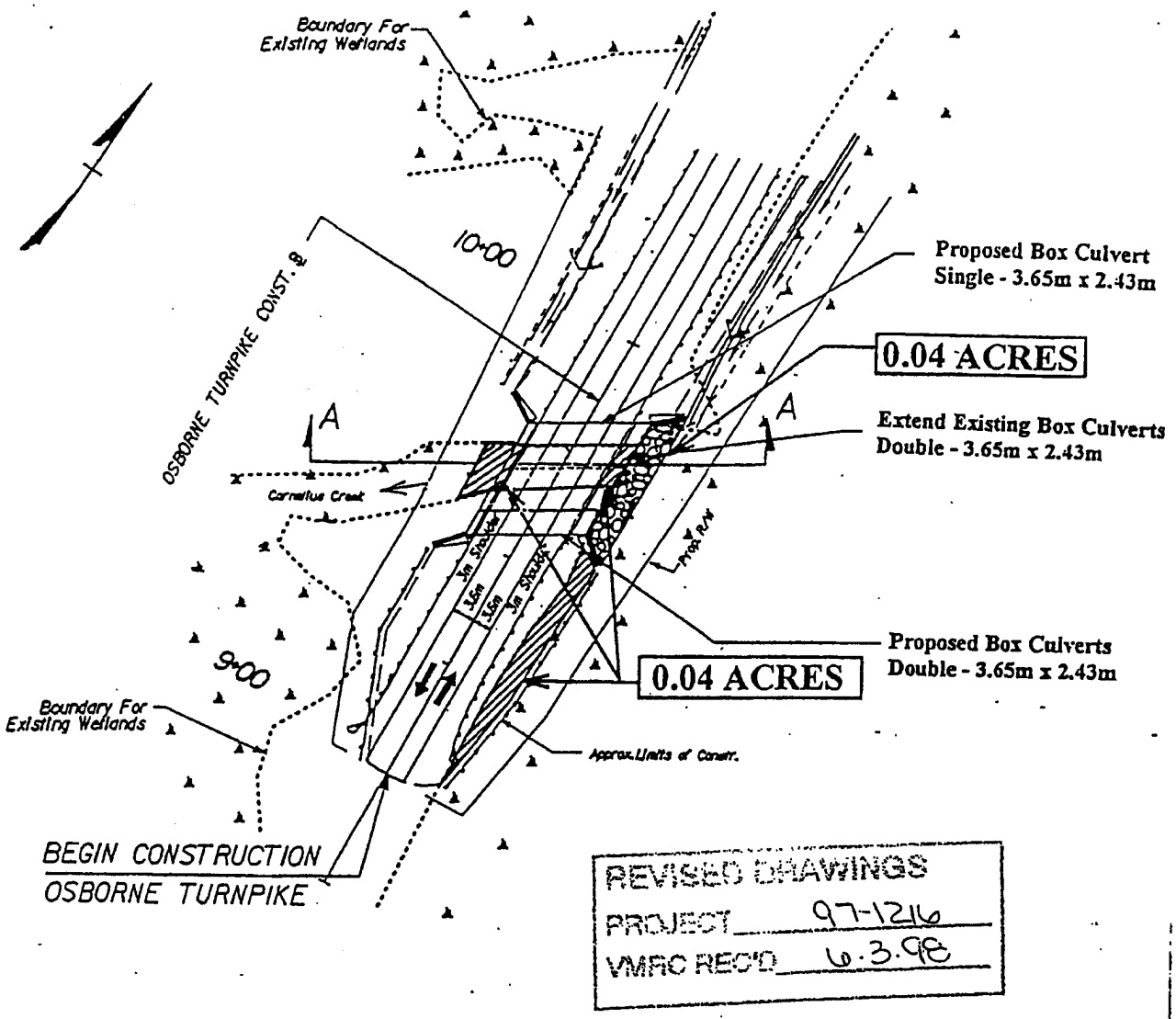
ROUTE 895
SECTION C-C
PROFILE VIEW

IMPACT AREA 44

- DENOTES PIER IMPACT (PERMANENT)
- DENOTES ADVERSE IMPACT
- DENOTES TEMPORARY IMPACT

2M
0M
0M 2M

SITE BLAUVELT ENGINEERS 1713 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 804-285-7483 SITE BLAUVELT PROJ.# V19502	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA #0895-020-F01 #0895-043-F01 LOCATION: Bridge over Cornelius Creek	ADJACENT PROPERTY OWNERS: See Attached Index APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC PERMIT NAME: I-895 Individual Permit
July 1997 Rev 9/97 Rev 11/97	NAME OF WATERWAY: Cornelius Creek	



REVISED DRAWINGS
PROJECT 97-1216
VMRC REC'D 6.3.98

IMPACT AREA 30

— PROPOSED FEATURES
EXISTING WETLANDS
DENOTES LIMITS OF WETLAND DISTURBED
DENOTES TEMPORARY IMPACT

AREA 0.04 ACRES
AREA 0.04 ACRES

METRIC SCALE
1:1000
0 20 m 40 m

PLAN VIEW

Total Acres of Wetland Disturbance: 0.08 ACRES

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
804-285-7483

SITE BLAUVELT PROJ.# V19502

DATE: July 97, Revised 11/97, 1/98, 5/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
#0895-020-F01
#0895-043-F01

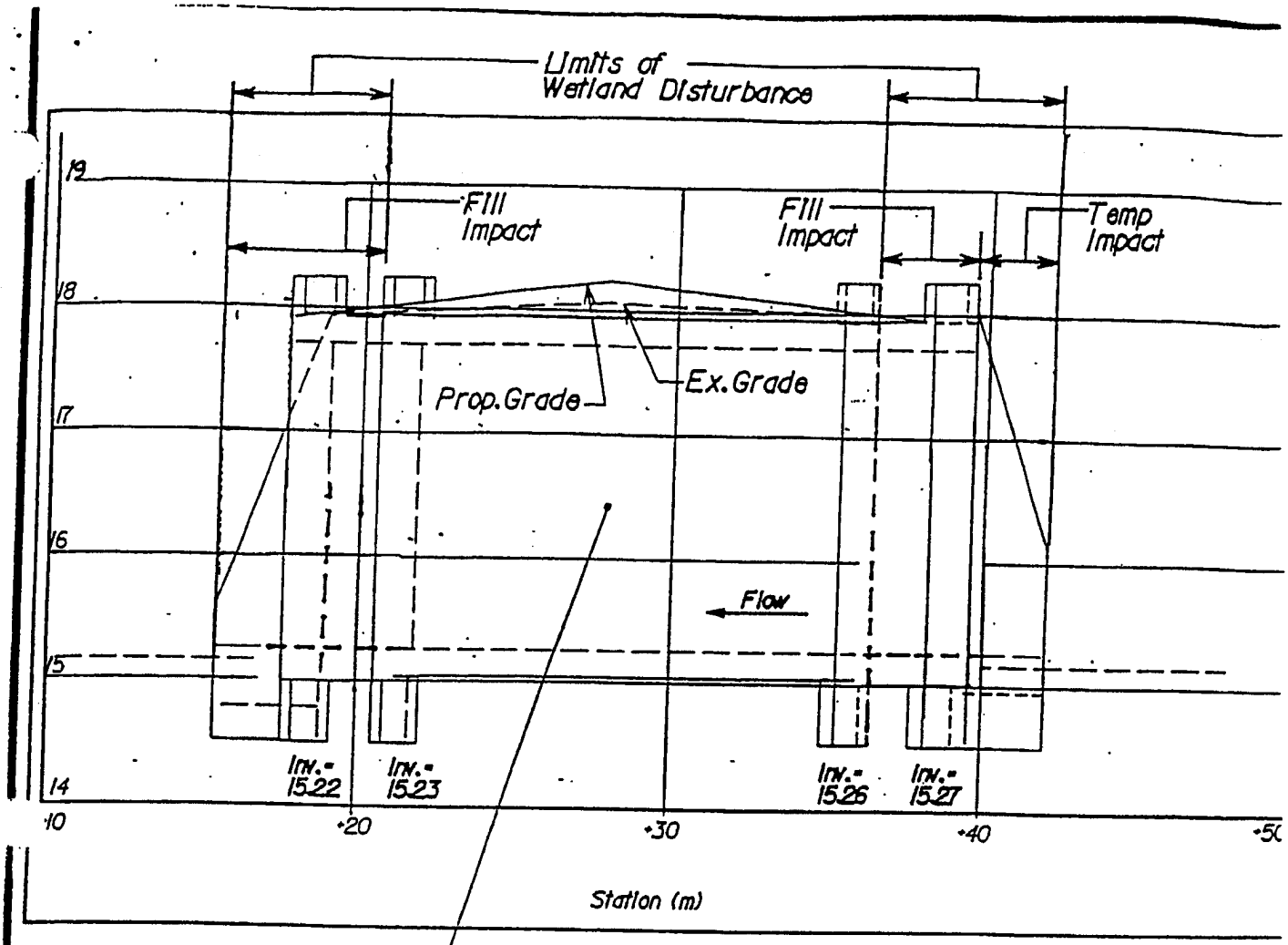
LOCATION: Culvert Extention Under Osborne Turnpike

NAME OF WATERWAY: Cornelius Creek

ADJACENT PROPERTY OWNERS: See Attached Index

APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC

PERMIT NAME: I-895 Individual Permit



Extend Existing Box Culverts
Double - 3.65m x 2.43m

Proposed Box Culverts
Double - 3.65m x 2.43m

Proposed Box Culvert
Single - 3.65m x 2.43m

OSBORNE TURNPIKE
SECTION A-A

IMPACT AREA 30

REVISED DRAWINGS
PROJECT 97-1216
VMRC REC'D 6.3.98

CULVERT PROFILE VIEW

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
804-285-7483

SITE BLAUVELT PROJ.# V19502

DATE July 97

I-895
CHESTERFIELD AND HENRICO
COUNTY, VIRGINIA
#0895-020-F01
#0895-043-F01

LOCATION: Culvert Crossing under Osborne Turnpike

NAME OF WATERWAY:

ADJACENT PROPERTY OWNERS:
See Attached Index

APPLICANT NAME: Fluor Daniel/ Morrison Knudsen LLC

PERMIT NAME: I-895 Individual Permit

ADDITIONAL INFO
REVISED
Entered into record
at Commission meeting
on 5-26-98
by

Response to Virginia Marine Resources Commission 16 April 1998 Questions Regarding I-895 Bridge Construction Techniques

There are two basic types of bridges that will be built during the course of the construction of the Route 895 project. The first type is a segmental concrete box type structure to be used over the James River and on Ramp E crossing Falling Creek. The second is a standard structural steel plate girder bridge common to most interstate overpasses that will be used to cross Cornelius Creek in Henrico County.

MISSION
APR 23 1998

Segmental Concrete Box Bridges

James River Bridge

The following photographs were taken during the construction of the Lee Bridge over the James River at Richmond in 1986. The kind of bridge and the construction techniques used for the Lee Bridge are the same as those proposed for the Route 895 crossing of the James. The fundamental difference being that the Lee Bridge required a central pier in the River, while the Route 895 bridge does not. The photos are provided to illustrate the construction techniques used; note however, that the causeways in the River shown in the photos will not be required during construction of the Route 895 bridge. To further illustrate the techniques to be used, design drawing 94 of 127, River Crossing EB Bridge, is provided and describes the sequencing of the James River Bridge construction.

The structure over the James River will be founded on piers on either shore, both well above mean high water. Sheet piling will be driven between the River and the needed excavation for the drilled caisson foundations. The foundation site will be dewatered and 6 or 8-foot diameter excavations, size dependent on specific design requirements, will be drilled through the surface topsoil and socketed 5 meters into bedrock. Reinforcing steel and concrete will then be placed in the open excavation to create the caisson foundations for the two pairs of piers, one pair on each side of the James.

The stem of the pier will then be built to the correct height and equipment will be hoisted to the top of the piers to begin the construction of the cast-in-place segments. Photo #1 illustrates this step during the construction of the Lee Bridge. The bridge segments will be cast alternating to the left and right from the top of the pier as seen in the photo. Photo #2 shows the cantilevered section out over the River. By keeping the bridge structure balanced on both sides of each pier, no support or lateral bracing in the water will be required. Photos #3 and #4 illustrate the bridge further along in construction with one span completed and the other having the near shore span completed and construction from the top of the intermediate span just starting. Again note that the causeway and construction platform shown in the James during construction of the Lee Bridge will not be required during construction of the Route 895 bridge. Construction will begin on the Route 895 bridge on both piers concurrently and the completed spans will meet in the center of the river, after which the structure will be post tensioned.

The only material placed in the River at any time during construction will be the riprap at the base of each pier for bank erosion protection as shown in the construction drawings previously provided to you.

ADDITIONAL INFO
REVISION

1998
Entered into record at Commission meet on 5-26-98
BY by

Falling Creek Bridge

The crossing of Falling Creek by Ramp E will be the same type construction as the James River Bridge discussed above. As can be seen on design drawing 8 of 69, Plan and Elevation Ramp E Unit I, there will be some amount of temporary impact as footings are placed for the piers on the banks of Falling Creek. The sizes of the footings shown on the drawing, labeled Pier E1 and Pier E2, are merely representative, the actual size, hence the exact amount of subaqueous bed impact, will be known once we complete final design on the bridge. Final design includes the design of each individual pier and foundation. Final design is the point in time where individual foundations are precisely dimensioned.

We believe that the subaqueous bed impact will be minor and temporary. Again, as shown on the drawing, the top of the pile cap will be below ground level enabling us to restore the stream bed as much as is possible to its original condition. We anticipate no permanent impact to the hydraulic characteristics of the stream. A temporary coffer dam (sheet piling) will be placed during construction so that the work area can be dewatered while the pile foundation is driven and the concrete pile cap constructed. We expect the construction of the piers to take about 30 days.

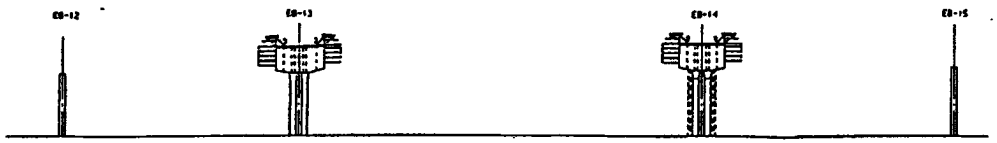
Design drawing 55 of 127, West Approach Erection Schematics, illustrates the erection technique used in construction of Ramp E. Although the drawing provided shows the West Approach on the project, the technique is the same. And, even though the type of structure is the same as for the James River Bridge the erection process is quite different. Prior to constructing the bridge, a temporary steel construction truss will be built and rolled across the top of the bridge section to be built on the piers as shown in the drawing. This construction truss will be used to place individual precast box segments in place. When a span between adjacent piers is completed the section is post tensioned. The construction truss is then moved to the next set of piers and the process repeated. As in the James River Bridge no supports or bracing will be required in the water.

Steel Plate Girder Bridges

Cornelius Creek Bridge

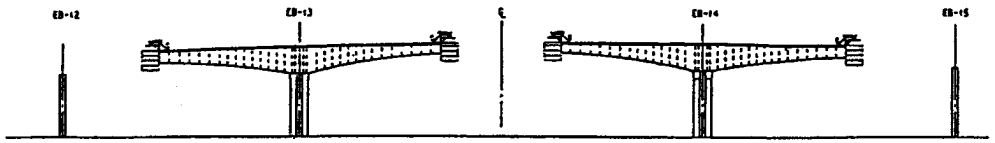
The three structures crossing Cornelius Creek (east bound Route 895, west bound Route 895, and Ramp D as illustrated in the plan views provided) will be standard steel plate girder bridges common to most interstate highways. Prior to beginning construction, cofferdams (driven sheet pile) will be required around each of the pier locations as shown on the provided plan views. Each site will then be dewatered inside the coffer dam and the foundation constructed. The foundations for the bridge abutments and piers will be driven steel H-piles with below grade footings. Pier stems and abutments are then constructed up to the required height and the dewatering system and cofferdams removed. Temporary causeways will be constructed as work platforms down to and in the 100-year flood plain. Steel girders will be placed on the abutments using a heavy lift crane sited on the causeways. Causeways will be removed and the floodplain restored to its original condition. The bridge deck will then be placed to complete the bridge. No construction equipment will be placed in Cornelius Creek. There are no plans for temporary fill or causeways in the Creek to aid in this construction effort.

FHWA REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
3	VA.				0895-020-F01, B601, B602	RC-31



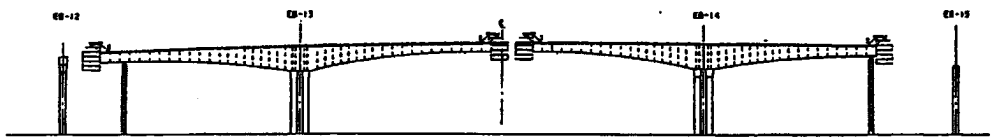
- CONSTRUCT FOUNDATIONS AND COLUMNS FOR PIERS EB-13 AND EB-14.
- CONSTRUCT PIER TABLES ON SHORING SUPPORTED BY FOUNDATIONS
- PLACE TRAVELERS ON PIER TABLES AT PIERS EB-13 AND EB-14.
- CONSTRUCT SEGMENT ON ONE FACE OF PIER TABLE INSTALL AND STRESS POST-TENSIONING LAUNCH FIRST TRAVELER.
- CONSTRUCT SEGMENT ON OPPOSITE SIDE OF PIER TABLE AND STRESS POST-TENSIONING. LAUNCH SECOND TRAVELER.

Entered into record at Commission meeting on 5-26-99 by [illegible]



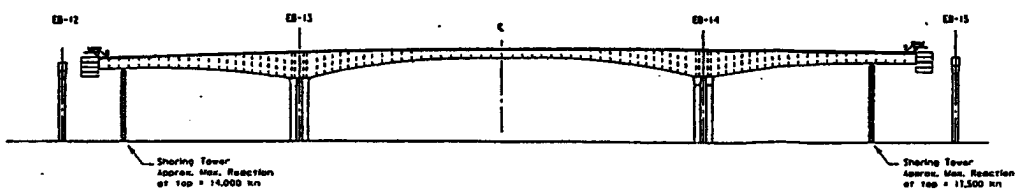
- REPEAT ABOVE CYCLE FOR CANTILEVERS FROM PIERS EB-13 AND EB-14. UNTIL 19 SEGMENTS CAST ON EACH ARM OF CANTILEVER.
- PLACE TEMPORARY SHORING TOWER UNDER SEGMENTS 14-18E AND 13-18W.
- CONTINUE ERECTION UNTIL 21 SEGMENTS CAST ON EACH ARM OF CANTILEVER.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



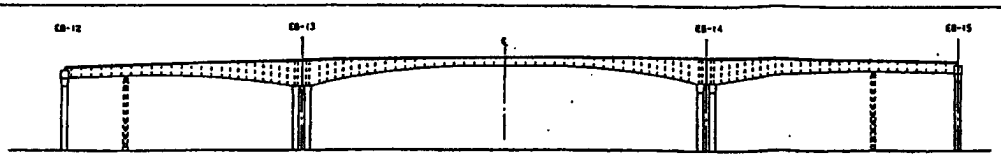
- MOVE ONE TRAVELER TO ALLOW FOR OTHER TO CAST CLOSURE JOINT AT MIDSPAN OF SPAN EB-14.
- CAST CLOSURE JOINT AT MIDSPAN OF SPAN EB-14.
- INSTALL AND STRESS CONTINUITY TENDONS AT MID SPAN OF SPAN EB-14.
- REMOVE TRAVELERS FROM SPAN EB-14.
- CONSTRUCT TEMPORARY SHORING TOWERS AT SPANS EB-13 AND EB-15.

ADDITIONAL INFO REVISION



- CONTINUE CASTING SEGMENTS ON SIDE SPANS UNTIL CASTING COMPLETED ON 22W AND 24E.
- CONSTRUCT EXPANSION JOINT SEGMENTS ON TOP OF PIERS EB-12 AND EB-15.
- CAST CLOSURE SEGMENTS 23W AND 25E.

APR 22 1998



- INSTALL CONTINUITY TENDONS ON SPANS EB-13 AND EB-15.
- REMOVE TEMPORARY SHORING TOWERS.
- REMOVE TRAVELERS.
- PLACE BARRIERS AND SURFACING

PB

EASTBOUND BRIDGE (B602) ERECTION SCHEME

No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

RIVER CROSSING - EB BRIDGE
ERECTION SCHEMATICS
RIVER CROSSING

Designed	Date	Page No.	Sheet No.
Drawn			
Checked	Jan. 1998		94 of 127

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Proj. Alone	State	Federal Aid Route	Federal Aid Project	State Route	State Project	Sheet No.
1	Va.			895	0695-020-F01, PE101, B601, B602	R-1

PVI Sta. 9+00.000
PVC Elev. 4.520
PVC = 240m
-0.500%
+3.515%

Beginning of Bridge
Back of Sidewalk
Sta. 8+26.035
Elev. 7.565

Measured Along Ramp E Construction ℄

Finished Grade — M.S.E. Wall — Exp. — Span E1 — Exp. — Span E2 — Exp. — Span E3 — Exp. — Span E4

Entry Access Roads — FALLING CREEK

Match Line Sta. 7+85.500 Sheet R-2

ABUTMENT E — PIER E1 — PIER E2 — PIER E3

ELEVATION
Scale = 1:300

Entered into record
at Commission meeting
on 5-26-99
by DAR

MARINE RESOURCES COMMISSION
RECEIVED
APR 20 1999
BY

ADDITIONAL INFO
REVISION

Face of Backwall
Abutment E

Six Continuous Segmental Concrete Spans L=270.500

Span E1 — Span E2 — Span E3 — Span E4

Approach Slab — ℄ Pier E1 — ℄ Pier E2 — ℄ Pier E3

H 39° 30' 46" E — Ramp E Const. ℄

M.S.E. Wall — Sta. 8+74.000 — Sta. 9+19.000 — Sta. 9+64.000

Existing Middle Road — Existing Middle Road — Existing Ramp

Match Line Sta. 7+85.500 Sheet R-2

PLAN
Scale = 1:300

Scale = 1:300

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

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SITE BLAUVELT ENGINEERS

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

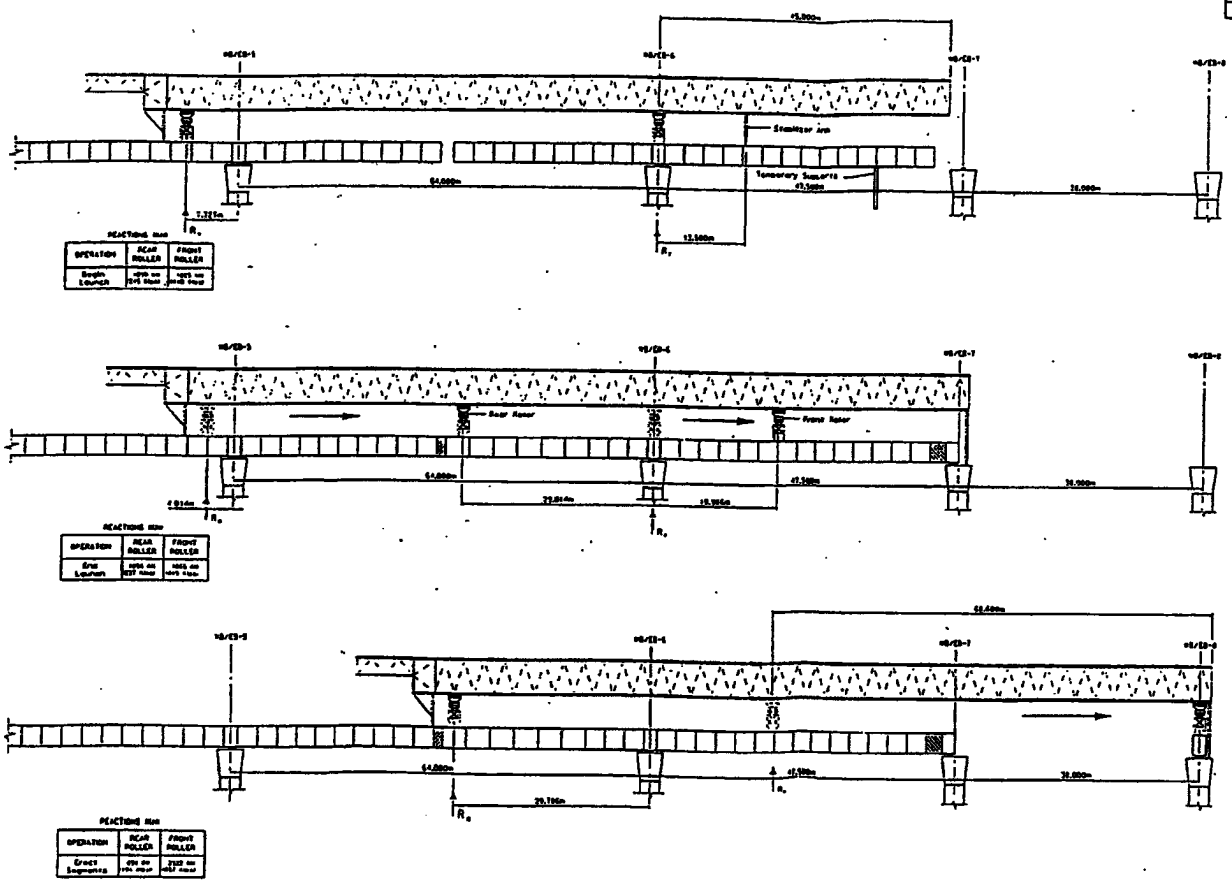
PLAN & ELEVATION
RAMP E UNIT 1 (1 of 2)

No.	Description	Date
	Guidelines	

Designed LFE / Drawn MB / Checked DEH — Date Jan. 1998 — Plan No. 000-00 — Sheet No. 8 of 53

FHWA REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
3	VA.				0895-020-F01, B601, B602	44-24

Entered into record at Commission meeting on 5-26-98 by BAC



REACTIONS MAX

OPERATION	REAR ROLLER	FRONT ROLLER
Begin Launch	[illegible]	[illegible]

REACTIONS MAX

OPERATION	REAR ROLLER	FRONT ROLLER
End Launch	[illegible]	[illegible]

REACTIONS MAX

OPERATION	REAR ROLLER	FRONT ROLLER
Erect Segments	[illegible]	[illegible]

MARINE RESOURCES COMMISSION

APR [illegible]

BY _____

ADDITIONAL INFO REVISION

PB

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

Scale: 1:600 0 30 000

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

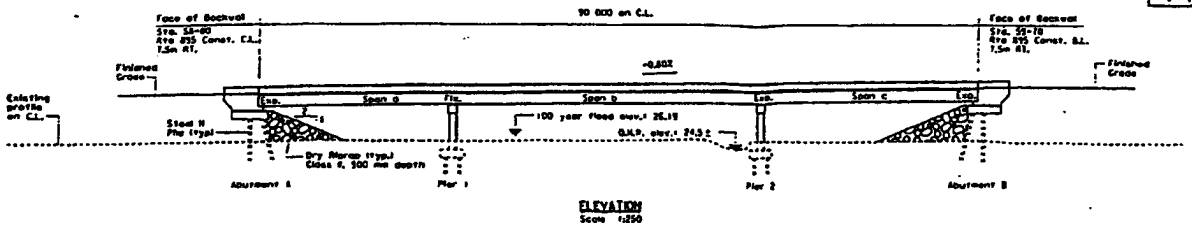
WEST APPROACH
ERECTION SCHEMATICS
(SHEET 4 OF 8)

No.	Description	Date	Designed	Date	Plan No.	Sheet No.
	Revisions		Drawn LAR	Jan. 1998		55 of 127

FHWA REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
3	VA.			895	0895-043-F01, PE101, B605	

X071-77

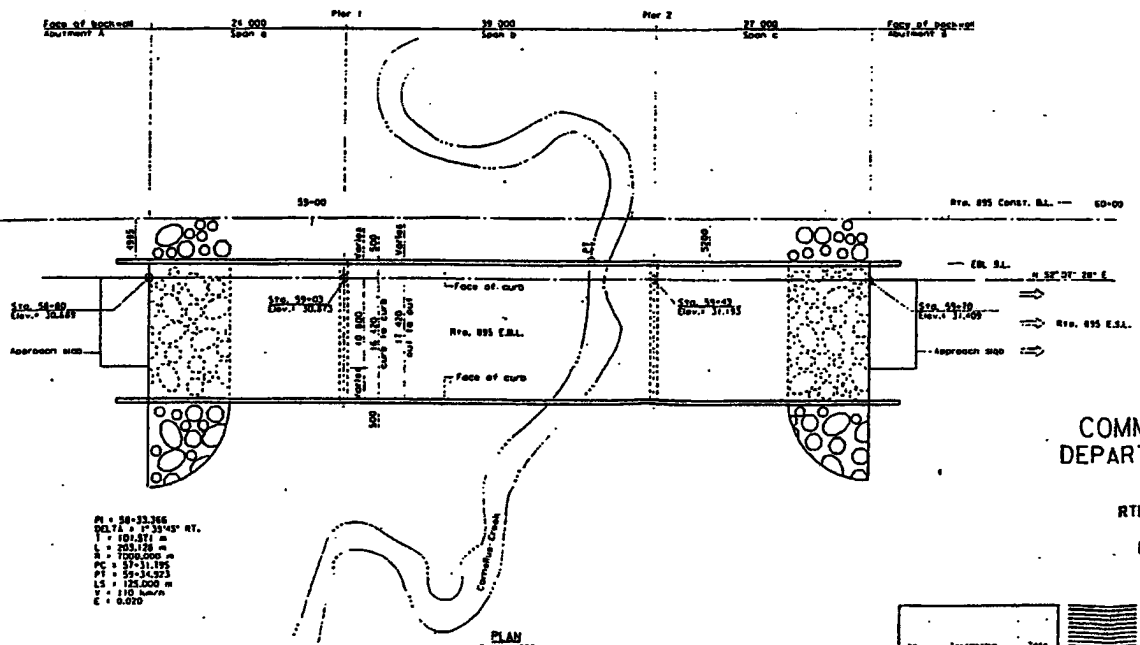
Entered into record at Commission meeting on 5-26-98 by AtC



ELEVATION
Scale 1:250

ADDITIONAL INFO REVISION

MARINE RESOURCES COMMISSION
APR 23 1998
BY



PLAN
Scale 1:250

GENERAL NOTES:

All dimensions are in millimeters, except stationings and elevations which are in meters.

Width: 16 200 face to face of curbs

Span Layout: 24 000 - 39 000 - 27 000 steel plate girder spans.

Capacity: MS18 loading and alternate military loading.

Drainage area: 14.82 square kilometers.

Specifications:

Construction - Virginia Department of Transportation Road and Bridge Specifications, 1997.

Design - AASHTO Standard Specifications for Highway Bridges, 1989; 1990 and 1991 Interim Specifications.

Standards - Virginia Department of Transportation Road and Bridge Standards, 1996.

These plans are incomplete unless accompanied by the supplemental specifications and special provisions included in the contract documents.

Design loading includes 1.0 kN/sq.m. allowance for construction tolerances and construction methods.

All structural steel except in bearings and sole plates shall be ASTM A709M Grade 345, or ASTM A709M Grade 345W and shall be unpainted except as required by section 407 of the specifications. Structural steel in bearings and sole plates shall be ASTM A709M Grade 250 and shall be painted.

H-piles shall have a design capacity of 620 kN per pile.

PRELIMINARY
NOT FOR CONSTRUCTION
January 30, 1998

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE ON
RTE. 895 E.B.L. OVER CORNELIUS CREEK
HENRICO COUNTY
PROJ. 0895-043-F01, PE101, B605

No.	Description	Date
	REVISIONS	

For Table of Revisions, see Sheet 2.

Recommended for approval: State Structure and Bridge Engineer

Approved: Chief Engineer

Date: January 30, 1998 © 1998, Commonwealth of Virginia Sheet 1 of

FMSS REGION	STATE	FEDERAL AID ROUTE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
3	VA.			895	0895-043-F01, PE101, B603	

X071-77

Entered into record at Commission meeting on 5-26-98 by [illegible]

MARINE RESOURCES COMMISSION
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APR 28 1998
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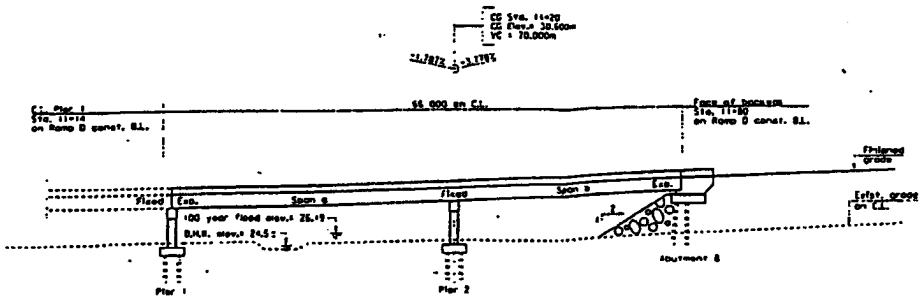
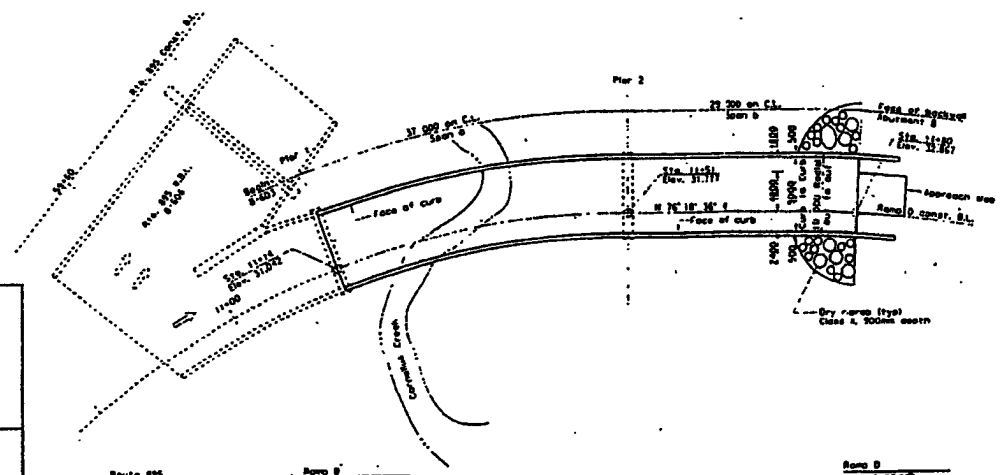
ADDITIONAL INFO REVISION



ELEVATION
Scale 1:250



PLAN
Scale 1:250

GENERAL NOTES:

All dimensions are in millimeters, except stationings and elevations which are in meters.

Width: 9000 face to face of curbs

Span Layout: 37 000 - 29 000 continuous steel curved plate girder spans.

Capacity: MS18 loading and alternate military loading.

Drainage area: 14.82 square kilometers.

Specifications:

Construction - Virginia Department of Transportation Road and Bridge Specifications, 1997.

Design - AASHTO Standard Specifications for Highway Bridges, 1989; 1990 and 1991 Interim Specifications.

Standards - Virginia Department of Transportation Road and Bridge Standards, 1996.

These plans are incomplete unless accompanied by the supplemental specifications and special provisions included in the contract documents.

Design loading includes 1.0 kN/sq.m clearance for construction tolerances and construction methods.

All structural steel except in bearings and sole plates shall be ASTM A709M Grade 345, or ASTM A709M Grade 345W and shall be unpainted except as required by section 407 of the specifications. Structural steel in bearings and sole plates shall be ASTM A709M Grade 250 and shall be painted.

Girders shall be curved by heat curving.

H-piles shall have a design capacity of 620 kN per pile.

PRELIMINARY
NOT FOR CONSTRUCTION
January 30, 1998

VDOT

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE ON
RAMP D OFF RTE 895 OVER CORNELIUS CREEK
HENRICO COUNTY
PROJ. 0895-043-F01, PE101, B603

Route 895
PI = 58+33.366
DELTA = 1° 39' 45" RT.
T = 101.571
L = 203.128
R = 1000.000
PC = 57+31.795
PT = 59+34.923
LS = 125.000
V = 110 km/h
E = 0.020

Ramp D
PI = 11+08.482
DELTA = 51° 33' 56.31" RT.
T = 48.305m
L = 89.999m
R = 100.000m
PC = 10+60.177
PT = 11+50.177
LS = 45m
V = 55 km/h
E = 8.00%

Ramp D
PI = 12+07.267
DELTA = 27° 46' 31.39" RT.
T = 37.133m
L = 72.803m
R = 150.000 m
PC = 11+70.134
PT = 12+42.937
LS = 45 m
V = 60 km/h
E = 7.80%

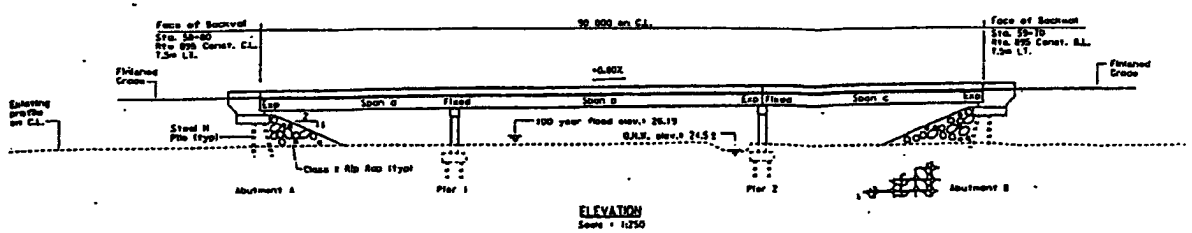
No.	Description	Date
	AC-1046	

For Table of Revisions, see Sheet 2.

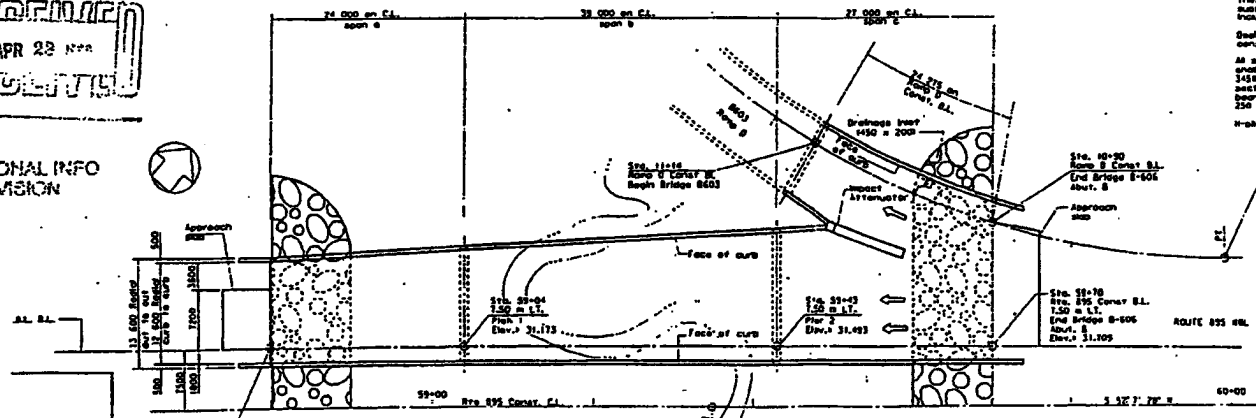
Recommended for Approval: State Structure and Bridge Engineer

Approved: Chief Engineer

Date: January 30, 1998 © 1998 Commonwealth of Virginia Sheet 1 of 12



ELEVATION
Scale = 1:250



PLAN
Scale 1:250

MARINE RESOURCES COMMISSION
RECEIVED
APR 23 1998
BY

ADDITIONAL INFO REVISION

Entered into record at Commission meeting on 5-26-98 by [signature]

GENERAL NOTES:

All dimensions are in millimeters, except stationings and elevations which are in meters.

Width: 12 000 min. face to face of curbs

Span Layout: 24 000 - 39 000 continuous steel plate girder spans, ; and 27 000 simple steel plate girder span.

Capacity: MS18 loading and alternate military loading.

Drainage area: 14.82 square kilometers

Specifications:

Construction - Virginia Department of Transportation Road and Bridge Specifications, 1997.

Design - AASHTO Standard Specifications for Highway Bridges, 1989; 1990 and 1991 Interim Specifications.

Standards - Virginia Department of Transportation Road and Bridge Standards, 1996.

These plans are incomplete unless accompanied by the supplemental specifications and special provisions included in the contract documents.

Design loading includes 1.0 kN/sq.m allowance for construction tolerances and construction methods.

All structural steel except in bearings and sole plates shall be ASTM A709M Grade 345, or ASTM A709M Grade 345R and shall be unpainted except as required by section 407 of the specifications. Structural steel in bearings and sole plates shall be ASTM A709M Grade 250 and shall be painted.

H-piles shall have a design capacity of 620 kN per pile.

PRELIMINARY
NOT FOR CONSTRUCTION
January 30, 1998

VHD

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROPOSED BRIDGE ON
RTE. 895 W.B.L. OVER CORNELIUS CREEK
HENRICO COUNTY
PROJ. 0895-043-F01, PE101, B606

Route 895	Ramp D
PI = 58+33.366	PI = 11+08.482
DELTA = 1° 39' 45" RT.	DELTA = 51° 33'56.3" RT.
T = 101.671 m	T = 48.305 m
L = 203.128 m	L = 89.999 m
R = 7000.000 m	R = 100.000 m
PC = 57+31.795	PC = 10+60.177
PT = 59+34.923	PT = 11+50.177
LS = 125.000 m	LS = 45.000 m
V = 110 km/h	V = 55 km/h
E = 0.020	E = 0.080

Recommended for approval: State Structure and Bridge Engineer

Approved: Chief Engineer

No. | Description | Date
REVISIONS
For Table of Revisions, see Sheet 2.

Date: January 30, 1998 ©1998, Commonwealth of Virginia Sheet 1 of 14

X071-77

Harry S Truman

Virginia Marine Resources Commission
Habitat Management Division
2600 Washington Avenue
Post Office Box 756
Newport News VA 23607-0756

Attention: Tony Watkinson, Deputy Chief, HM
~~Environmental Engineer~~

Sir/Madam:

Please be advised that I will commence work on 97-1216 *(Permit Number)* o

_____ *(Date)* *in* James River, Falling Cr., & Cornelius Cr./Henric C *(Waterway)* *(City/County)*

I expect the work to be completed no later than _____ *(Date)*.

_____
(Name of Permittee)
Fluor Daniel/Morrison Knudsen, L.L

*** Note: Return postage is on the card.*

Permit # 97-1216

Commonwealth of Virginia
Marine Resources Commission
Authorization

A Permit has been issued to: FD/MK Limited Liability Company
c/o Fluor Daniel, Inc.
ATTN: Mr. James R. Carroll
100 Fluor Daniel Drive
Greenville, South Carolina 29607-2762

The Permittee is hereby authorized to: Construct bridge crossings over the James River, Falling Creek and Cornelius Creek in association with the construction of Interstate 895 between Interstate 295 in Henrico County and Route 150 (Chippenham Parkway) in Chesterfield County.

Issuance Date: 5-26-98 Expiration Date: 6-30-2001

Commissioner or Designee

This Notice Must Be Conspicuously Displayed At Site Of Work

COMMONWEALTH of VIRGINIA

Marine Resources Commission

2600 Washington Avenue
P.O. Box 756
Newport News, Virginia 23607-0756

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

William A. Pruitt
Commissioner

July 29, 1998

RECEIVED
JUL 31 1998

FD/MK Limited Liability Company
c/o Mr. Michael S. Rolband, P.E., P.W.S.
Wetland Studies & Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, VA 20151

RE: VMRC #97-1216

Dear Mr. Rolband:

This is to correct an omission in the above-referenced permit sent to you on July 10, 1998.

In addition to the conditions contained in the permit document, the following conditions were specified as part of the Commission's approval, but were inadvertently excluded. These conditions were, however, referenced in our letter of notification of the Commission decision sent to Mr. James R. Carroll on May 28, 1998.

- Permittee agrees that there will be no instream work conducted during the period March 15 through June 30, in order to protect anadromous spawning species.

- Permittee agrees that VMRC and VIMS must concur that appropriate mitigation components are completed as required by the U.S. Army Corps of Engineers and the Department of Environmental Quality before any portion of the mitigation bond can be released.

Please attach this letter to the previously issued permit as evidence of the permit conditions required by the Commission.

July 29, 1998

Should you have any questions regarding this matter, please call Mr. Tony Watkinson of my staff at 757-247-2255.

Sincerely,

Robert W. Grabb
Chief, Habitat Management

RWG/bac
HM
cc: U. S. Army Corps of Engineers
Dept. of Environmental Quality - Piedmont Regional Office

RECEIVED
MAR 15 1999

COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

Marine Resources Commission
2600 Washington Avenue
P.O. Box 756
Newport News, Virginia 23607-0756

William A. Pruitt
Commissioner

March 11, 1999

Mr. Michael S. Rolband, P.E., P.W.S.
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, VA 20151

RE: VMRC #97-1216
Modification

Dear Mr. Rolband:

In accordance with your request, and the revised drawings we received February 3, 1999, I have hereby authorized a modification to the above-referenced permit which was originally issued by the Marine Resources Commission on May 26, 1998. Specifically this modification authorizes the installation of a temporary bridge crossing over Cornelius Creek for construction access. The temporary crossing is to be located within the footprint of the permanent bridge crossing authorized by this permit and will therefore not result in any additional encroachment over State-owned submerged land.

Please attach this letter and the enclosed revised drawings dated received 2/03/99, to your previously issued permit as evidence of the authorization contained herein. All other conditions of your permit remain unchanged.

For your information, the other aspects of your modification outlined in your request, including a combination of final utility relocations, construction techniques, safety, and maintenance of traffic issues, as coordinated with the corresponding utility companies, construction contractors, and VDOT are located in areas outside the jurisdiction of our agency.

March 11, 1999

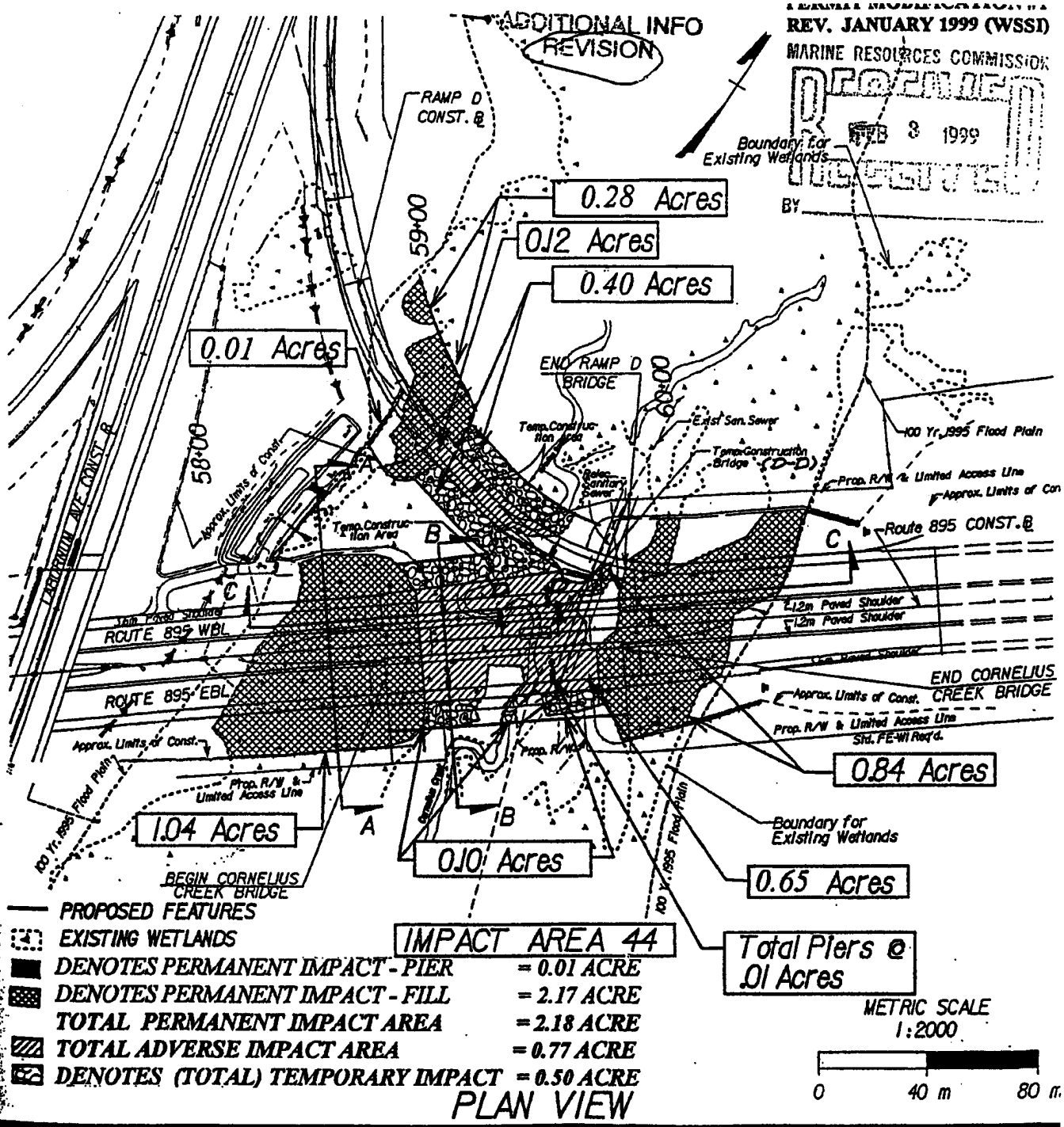
Should you have any questions regarding this matter, please do not hesitate to contact Mr. David Bower of my staff at (757) 247-8063.

Sincerely,

Robert W. Grabb
Chief, Habitat Management

RWG/bac
HM
Enclosure
cc: U. S. Army Corps of Engineers

PERMIT MODIFICATION #1
REV. JANUARY 1999 (WSSI)
MARINE RESOURCES COMMISSION
RECEIVED FEB 8 1999
BY



PLAN VIEW

Total Acres of Wetland Disturbance: 3.45 Acres

SITE BLAUVELT ENGINEERS
1703 NORTH PARHAM ROAD
RICHMOND, VIRGINIA 23229
804-285-7483
SITE BLAUVELT PROJ. # V19502
Rev. 1/99

DATE: July 1997, Rev 9/97, Rev. 1/98, Rev. 11/98

I-895
CHESTERFIELD AND HENRICO COUNTY, VIRGINIA
*0895-020-F01
*0895-043-F01

LOCATION: Bridge Over Cornelius Creek

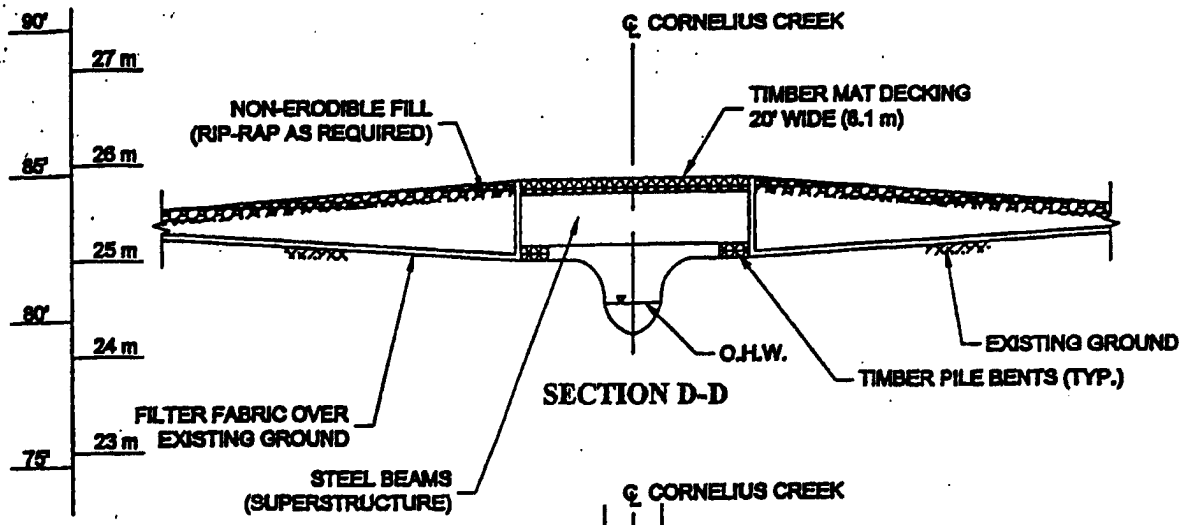
NAME OF WATERWAY: Cornelius Creek

ADJACENT PROPERTY OWNERS: See Attached Index

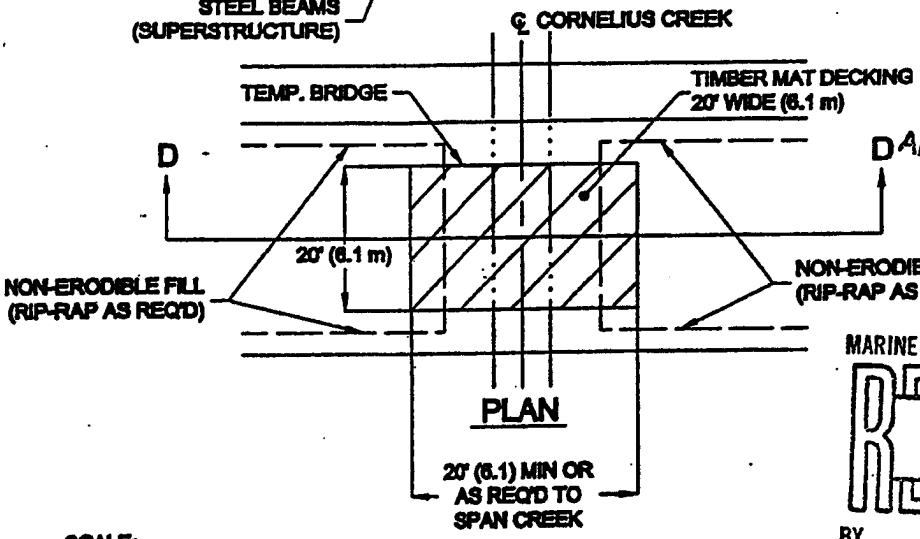
APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY

PERMIT NAME: I-895 Individual Permit

SHEET 100 OF 110



SECTION D-D



PLAN

ADDITIONAL INFO
REVISION

MARINE RESOURCES COMMISSION
RECEIVED
FEB 3 1999
BY

SCALE:
(V) 1"= 6' (1:72)
(H) 1"=20' (1:240)

IMPACT AREA 44

TEMPORARY CROSSING DETAIL

NOTES:

1. TEMPORARY CROSSING TO BE A SINGLE SPAN BRIDGE OF SUFFICIENT LENGTH TO SPAN CORNELIUS CREEK, AND CONSTRUCTED WITHOUT DISTURBANCE TO EXISTING STREAM BED.

2. EXCEPT AT THIS TEMPORARY CROSSING, NO CROSSING OF CORNELIUS CREEK BY CONSTRUCTION TRAFFIC TO BE ALLOWED.

3. UPON COMPLETION, TEMPORARY CROSSING TO BE REMOVED AND OVERBANK CONTOURS TO BE RETURNED TO NATURAL GRADE (AND STABALIZED).

SITE BLAUVELT ENGINEERS 1703 NORTH PARHAM ROAD RICHMOND, VIRGINIA 23229 804-285-7483 SITE BLAUVELT PROJ. # V19502 Rev. 1/99 DATE: Rev. 11/98	I-895 CHESTERFIELD AND HENRICO COUNTY, VIRGINIA *0895-020-F01 *0895-043-F01 LOCATION: Route 895-Sta. 59+40 Temporary Bridge Over Cornelius Creek NAME OF WATERWAY: Cornelius Creek	ADJACENT PROPERTY OWNERS: See Attached Index APPLICANT NAME: FD/MK LIMITED LIABILITY COMPANY PERMIT NAME: I-895 Individual Permit SHEET 103A OF 110

RECEIVED
MAY - 3 2000
WETLAND STUDIES AND SOLUTIONS, INC.

COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

Marine Resources Commission
2600 Washington Avenue
P.O. Box 756
Newport News, Virginia 23607-0756

William A. Pruitt
Commissioner

May 1, 2000

FD/MK Limited Liability Company
c/o Mr. Michael S. Rolband, P.E., P.W.S.
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, VA 20151

RE: VMRC #97-1216

Dear Sir or Madam:

You have inquired regarding a permit to modify the above-referenced permit to include culvert extension and widening of Route 150 over Grindall Creek in Chesterfield County.

Based upon further review of your request and associated documents, your proposed modification does not fall within the jurisdiction of the Marine Resources Commission, therefore, no authorization will be required from this agency.

For your information, however, you may need authorization from the U. S. Army Corps of Engineers, Norfolk District, 803 Front Street, Norfolk, Virginia 23510, prior to commencing your project. Your application is currently being processed by the Corps.

If we may be of further assistance, please do not hesitate to call on us.

Sincerely,

Tony Watkinson
Deputy Chief, Habitat Management

TW/bac
HM
cc: U. S. Army Corps of Engineers
Applicant

COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
http://www.deq.state.va.us

Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

August 27, 1998

Mr. James R. Carroll
FD/MK Limited Liability Company
c/o Fluor Daniel, Inc.
100 Fluor Daniel Drive
Greenville, South Carolina 29607-2762

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: VWP Permit No. 97-1216
Interstate 895

Dear Mr. Carroll:

In accordance with your application, we have enclosed the original and one copy of the Permit for the construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.25 acres of emergent, 3.02 acres of scrub/shrub, and 21.87 acres of forested wetlands, and 3.32 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/ relocation, and stormwater management basins on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch in Chesterfield and Henrico Counties and the City of Richmond, Virginia, pursuant to the Virginia Water Protection Permit Regulations (9 VAC 25-210-10) and Section 401 of the Clean Water Act Amendments of 1977, Public Law 95-217.

The provisions and conditions contained therein according to Section 401(a)(1) of the Clean Water Act requires that:

> "any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge in the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will

originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act."

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period. Refer to Part 2A of the Rules of the Supreme Court of Virginia for additional requirements governing appeals from administrative agencies.

Alternatively, any owner under §§ 62.1-4.16, 62.1-44.17 and 62.1-44.19 of the State Water Control Law aggrieved by any action of the Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board, Said petition must meet the requirements set forth in § 1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

Please retain the copy and forward the original Permit to the Norfolk District, Corps of Engineers, Fort Norfolk, 803 Front Street, Norfolk, Virginia 23510, ATTN: Permits Section.

If you have any questions, please advise us.

Sincerely,

Tracey E. Harmon

Tracey E. Harmon
Office of Water Permit Programs

Enclosures
cc: DEQ - OWPP; VWPP File
VMRC - Environmental Division
U.S. Army Corps of Engineers, Norfolk District
USCG
Michael S. Rolband, P.E., P.W.S., WSSI
Rex N. Osborne, P.E., Morrison Knudsen Corporation

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
OFFICE OF WATER PERMIT SUPPORT
P. O. Box 10009 Richmond, VA 23240-0009

SUBJECT: ISSUANCE OF VIRGINIA WATER PROTECTION PERMIT NO. 97-1216; FD/MK LIMITED LIABILITY COMPANY

TO: Dennis H. Treacy
Director

FROM: Tracey E. Harmon
Environmental Engineer

DATE: August 27, 1998

COPIES: VMRC; COE; Applicant; File

Legal Name, Address: FD/MK Limited Liability Company
c/o Fluor Daniel, Inc.
100 Fluor Daniel Drive
Greenville, SC 29607-2762

Application Submitted by: Michael S. Rolband, P.E., P.W.S.
Wetland Studies & Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

Application Date: Received: July 22, 1997
Complete: April 24, 1998

Type of Project: The permittee proposes the construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.25 acres of emergent, 3.02 acres of scrub/shrub, and 21.87 acres of forested wetlands, and 3.32 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/ relocation, and stormwater management basins on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch in Chesterfield and Henrico Counties and the City of Richmond, Virginia.

Project Location:

Stream: James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch
Basin: James River
Subbasin: Middle James River
Section: 2 and 7 Class: II and III
Special Standards: None

Public Notice:

Public Notice was issued on May 12, 1998. Four responses were received: one in favor of the project and three in opposition. All requested a public hearing. See agency memo regarding Recommendation for Denying A Public Hearing for Issuance of Virginia Water Protection Permit No. 97-1216.

Permit Fees:

The permit application processing fee of $3000 for a VWP Category I project was received on December 1, 1997.

Actions by U.S. Army Corps of Engineers:

The project received a U.S. Army Corps of Engineers individual §404 permit on May 19, 1998.

Staff Comments:

The staff anticipates no adverse effect on water quality provided the applicant adheres to the Permit conditions.

Staff Recommendations:

The staff recommends that the Director:

(1) Approve the attached Virginia Water Protection Permit and conditions.

(2) Direct the staff to issue VWP Permit Number 97-1216.

Approved: Dennis H. Treacy
Director

Date: 8-27-98

COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
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http://www.deq.state.va.us

Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

VWP Permit No. 97-1216
Effective Date: August 26, 1998
Expiration Date: August 26, 2003

VIRGINIA WATER PROTECTION PERMIT
ISSUED PURSUANT TO THE STATE WATER CONTROL LAW
AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Department has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards.

Permittee: FD/MK Limited Liability Company
Address: c/o Fluor Daniel, Inc.
100 Fluor Daniel Drive
Greenville, SC 29607-2762

Activity Location: I-95/Route 150 Interchange (Chippenham Parkway) east to I-295, just south of Charles City Road.

Activity Description: The construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.25 acres of emergent, 3.02 acres of scrub/shrub, and 21.87 acres of forested wetlands and 3.32 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/relocation, and stormwater management basins on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions and Part II - General Conditions.

Director, Department of Environmental Quality

8-27-98
Date

An Agency of the Natural Resources Secretariat

PART I - SPECIAL CONDITIONS

A. Overall Project Conditions:

1. The conditions and limitations specified in the application and the supplemental materials submitted by the owner shall be adhered to.

2. In issuing this permit, the Board has not taken into consideration the structural stability of the proposed structure.

3. Pipes and/or culverts for road crossings on perennial streams shall be countersunk a minimum of six inches to provide for the re-establishment of a natural stream bottom and low flow fish passage.

4. All multiple line crossings shall provide for a low flow channel and a high flow channel to ensure that stream hydrology is not impaired and that fish passage during low flow periods is assured.

5. Each stream affected by a road crossing shall be restored to its original elevation immediately following the construction of the particular road crossing.

6. Untreated stormwater runoff shall be prohibited from directly discharging into any State waters.

7. Wetland limits within non-disturbance areas and limits of wetland disturbance areas within wetlands shall be clearly flagged in the field prior to the start of construction, and contractors shall be made aware of these limits, to ensure that additional impacts to State waters do not occur.

8. Temporary disturbances to wetlands during construction shall be avoided and minimized to the greatest extent possible. All temporarily disturbed wetland areas shall be restored in place, by stripping/stockpiling of the topsoil to be replaced after construction at pre-construction contours, stabilized with an appropriate wetland mix, and allowed to re-establish with wetland vegetation.

9. All work in wetland areas shall be done in such a manner so as to minimize disturbance of wetland soils and vegetation. Excavation and filling in wetland areas shall be performed by machinery located in the upland, whenever possible. Machinery that must be operated within wetland areas shall be placed on mats to prevent tire rutting. The mats shall

be removed as soon as the work is complete, and the area shall be returned to original contours and stabilized.

10. The permittee shall ensure that all temporarily disturbed wetland areas revegetate with wetland vegetation by the second year post-disturbance.

11. All denuded soils associated with this project shall be stabilized within seven days post-construction.

12. Channel relocations shall be performed completely "in-the-dry". This shall be accomplished by leaving a plug at the inlet and outlet ends of the new channel during excavation. Once the new channel has been stabilized, flow shall be routed into the new channel by first removing the downstream plug and then the upstream plug. The new stream channels shall be constructed following the typical sections submitted with the application.

13. All work shall be performed in the dry via the implementation of cofferdams or sheetpiling or other acceptable means.

14. The pouring of wet or uncured concrete directly into State waters shall be strictly prohibited.

15. All dredging and/or filling shall be accomplished so as to minimize disturbance of the bottom and turbidity increases in the water, which tend to degrade water quality and damage aquatic life.

16. Any deposition of dredged or excavated materials onshore, and all earthwork operations shall be carried out in such a manner as to prevent the erosion of the material and preclude its entry into State waters. Upon completion of earthwork operations, all fills onshore and other areas onshore disturbed during construction shall be seeded, riprapped or given some other type of protection from soil erosion.

17. All work shall be done in such a manner as to minimize sedimentation/siltation of State waters in accordance with Virginia Erosion and Sedimentation Regulations (VR 625-02-00). Appropriate erosion and sedimentation controls and practices shall be utilized during construction and until all disturbed areas have been stabilized.

18. All construction and installation associated with the activity shall be accomplished in such a manner that

construction material or waste material is not discharged into State waters.

19. The construction or work authorized by this permit shall be executed in a manner so as to minimize any adverse impact on instream beneficial uses as defined in Title 62.1 - 10(b).

20. The permittee shall employ measures to prevent spills of fuels or lubricants into State waters. The Department of Environmental Quality must be notified if spills do occur (804/527-5020).

21. The permittee shall advise the Department of Environmental Quality in writing when unusual or potentially complex conditions are encountered which require debris removal or involve potentially toxic pollutants, and shall not take measures to remove the obstruction, material, or toxic pollutant, or change the location of any structure until approval by the Department is received.

22. The permittee shall contact the Department of Game and Inland Fisheries and the Virginia Marine Resources Commission to determine whether a time of year restriction is appropriate for any period of dredging or construction in waters containing endangered species or waters critical to the movement and reproduction of anadromous fish. The permittee shall maintain a copy of such time of year restriction as is issued, or notification that no restriction is necessary, for the duration of the construction phase of the project.

23. The Department of Environmental Quality - Water Division's VWPP Program staff shall be notified <u>in writing</u> 10 days prior to operations authorized under this Permit are to begin so that staff inspections of the project can be planned if deemed necessary.

24. Water quality standards for pH, dissolved oxygen and temperature shall not be violated during construction. These standards, from VR680-21-01.5, for Class III waters are as follows: pH (6.0-9.0 pH units); dissolved oxygen, 4.0 mg/l (minimum) and 5.0 mg/l (daily average); and maximum temperature of 32° C, with a rise above ambient temperature of no more than 3° C from an appropriate upstream sampling point.

B. Rt. 150/I-95 to 4.31 km E. of Chesterfield/Henrico Co. Line

1. Approximately 2.59 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Ramp G at Station 109+10 (Wetland Impact Area 1), Station 107+63 to 108+30 (Wetland Impact Area 3), and Station 103+05 to 106+40 (Wetland Impact Area 11).

2. Approximately 0.44 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 10+25 to 11+80 (Wetland Impact Area 2).

3. Approximately 0.93 acres of non-tidal, palustrine emergent and scrub/shrub wetlands impacts shall occur due to the construction of Ramp F at Station 388+40 to 389+35 (Wetland Impact Area 4), Station 396+70 to 397+80 (Wetland Impact Area 12), Station 400+70 to 401+30 (Wetland Impact Area 15), and Station 402+95 to 404+10 (Wetland Impact Area 16).

4. Approximately 1.98 acres of non-tidal, palustrine scrub/shrub wetlands impacts shall occur due to the construction of Interstate 895 at Station 12+20 to 14+00 (Wetland Impact Area 5).

5. Approximately 0.33 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the widening of Interstate 95 at Station 380+80 to 381+60 (Wetland Impact Area 6), Station 385+00 to 387+30 (Wetland Impact Area 45), and Station 414+20 to 414+90 (Wetland Impact Area 17).

6. Approximately 1.07 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp E at Station 3+80 to 4+60 (Wetland Impact Area 7), Station 5+30 to 8+80 (Wetland Impact Area 9), and Station 13+60 to 13+90 (Wetland Impact Area 47).

7. The existing I-95 southbound lane bridge over Falling Creek shall be widened on the upstream end by 16 feet (Station 101+70 to 102+85) to accommodate an additional lane associated with Ramp G, and Span E3 of Ramp E shall be constructed over Falling Creek on new location at Station 9+20 to 9+65 (Impact Area 46). The stream bed shall be restored to its original elevations immediately following completion of bridge widening. Approximately 0.46 acres of impacts to State waters shall occur due to the construction associated with the above-referenced bridges.

8. An existing road crossing consisting of a 220-foot long triple line of 10-feet by 4-feet box culvert over an unnamed tributary to the James River shall be extended by 43 feet on the downstream end at Station 5+00 (Impact Area 8). The stream bed shall be restored to its original elevations immediately following completion of culvert extension.

9. Approximately 0.29 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp H at Station 396+70 to 397+40 (Wetland Impact Area 13) and Station 397+60 to 399+20 (Wetland Impact Area 14).

10. A three-span, 1470-foot long concrete box girder bridge shall be constructed over the James River at Station 18+00 (Impact Area 18). Riprap scour protection shall be placed along the river bank at the base of the pier footers.

11. A 210-foot span shall be constructed (Span EB-20/span WB-19) over an unnamed intermittent tributary to Cornelius Creek at Station 21+58 to 22+00 (Impact Area 19).

12. Approximately 2.29 acres of non-tidal, palustrine emergent, scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 23+80 to 24+50 (Wetland Impact Area 20), Station 33+20 to 35+00 (Wetland Impact Areas 23 and 24), Station 36+45 to 37+10 (Wetland Impact Area 26), Station 37+35 to 38+40 (Wetland Impact Area 27), Station 41+50 to 42+15 (Wetland Impact Area 29), Station 48+40 to 50+30 (Wetland Impact Area 33), Station 50+75 to 51+10 (Wetland Impact Area 34), Station 51+55 to 51+70 (Wetland Impact Area 35), Station 51+80 to 53+00 (Wetland Impact Area 36).

13. A road crossing consisting of a single line of 256-foot long by 42-inch pipe and a single line of 50-foot long by 48-inch pipe over an unnamed intermittent tributary to the James River and an associated stormwater management basin (Basin 9-1) shall be constructed on new location at Station 26+50 (Impact Area 21). The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

14. A road crossing consisting of a single line of 348-foot long by 54-inch pipe over an unnamed intermittent tributary to Cornelius Creek and an associated stormwater management basin (Basin 10-1) shall be constructed on new location at Station 29+60 to 30+45 (Impact Area 22). The stream bed

shall be restored to its original elevations immediately following ocmpletion of pipe placement.

15. A road crossing consisting of a double line of 335-foot long by 72-inch pipe and a 252-foot long single line of 10-foot by 6-foot box culvert over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 13+70 (Mill Road) and 36+25 (I-895), respectively. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    The construction of the road crossing shall require the relocation and channelization of approximately 640 linear feet of the stream channel and shall result in a net loss of approximately 20 linear feet of stream channel.

    Approximately 0.41 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 25).

16. Portions of the relocated unnamed tributary to Cornelius Creek shall be constructed following the biotechnical stabilization concept plan dated April 18, 1998. Final design plans shall be submitted to DEQ for approval prior to any construction related to the relocation of this stream.

17. A road crossing consisting of nineteen lines of 240-foot long by 30-inch reinforced concrete pipe, four lines of 246-foot long by 30-inch reinforced concrete pipe, and one line of 253-foot long by 30-inch reinforced concrete pipe over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 38+10 to 40+30 (Impact Area 28). A modified level spreader shall be constructed at the exvert of the culverts to maintain the unconsolidated sheetflow of the existing wetlands system. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 2.99 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 28).

18. An existing road crossing consisting of a double line of 50-foot long 12-foot by 8-foot box culvert over Cornelius Creek shall be extended by 8 feet on the upstream and downstream ends, and widened with 3 lines of 66-foot long

12-foot by 8-foot box culverts at Station 9+45 to 9+85. The stream bed shall be restored to its original elevations immediately following completion of culvert placement. Approximately 1.04 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Osborne Turnpike over Cornelius Creek and associated wetlands (Wetland Impact Areas 30, 31 and 32).

19. Approximately 0.69 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp A at Station 55+60 to 56+70 (Wetland Impact Area 37) and Station 54+60 to 54+80 (Wetland Impact Area 38).

20. Approximately 0.24 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895, Ramp A, Ramp B, and SWM Basin 17-1 at Station 56+20 to 57+00 and 57+50 to 57+70 (Wetland Impact Area 39).

21. Approximately 0.11 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp D at Station 12+50 to 12+80 and 13+60 to 13+70 (Wetland Impact Area 40).

22. An existing road crossing consisting of a single line of 75-foot long 10-foot by 10-foot box culvert over an unnamed tributary to Cornelius Creek shall be replaced with a quadruple line of 156-foot long 12-foot by 8-foot box culvert at Station 17+80 to 18+20. The stream bed shall be restored to its original elevations immediately following completion of culvert placement.

    Approximately 0.69 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the widening of Laburnum Avenue at Station 16+10 to 16+90 (Wetland Impact Area 41), Station 17+35 to 19+40 (Wetland Impact Area 42) and Station 16+80 to 19+80 (Wetland Impact Area 43).

23. Parallel 295-foot long, three span, steel plate girder bridges shall be constructed over Cornelius Creek on new location at Station 58+80 to 59+70 to accommodate the I-895 mainline. A 217-foot long two-span steel plate girder bridge shall be constructed over Cornelius Creek on new location at Station 11+15 to 11+80 to accommodate Ramp D. The stream bed shall be restored to its original elevations immediately following completion of bridge construction.

    Approximately 3.45 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 and Ramp D (Wetland Impact Area 44).

24. An existing 1.85 acre pond shall be filled as the result of the construction of Interstate 895 and stormwater basin 15-1 at Station 46+80 to 48+00 (Impact Area 10).

C. <u>4.31 km East of Chesterfield/Henrico Co. line to I-295</u>

1. Approximately 3.56 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 218+00 (Wetland Impact Area 101), Station 223+00 (Wetland Impact Area 104), Station 233+20 (Wetland Impact Area 105), Station 230+00 (Wetland Impact Area 106), Station 236+60 to 237+30 (Wetland Impact Area 107), Station 242+40 (Wetland Impact Area 110) and Station 263+40 (Wetland Impact Area 120).

2. A road crossing consisting of a double line of 164-foot long by 48-inch pipe over an unnamed intermittent tributary to Cornelius Creek shall be constructed on new location at Station 219+00. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.45 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Cornelius Creek (Wetland Impact Area 102).

3. A road crossing consisting of a double line of 154-foot long 8-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 241+55. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.06 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 108).

4. A road crossing consisting of a triple line of 246-foot long 10-foot by 6-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 239+65. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.82 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of

K. Permit Modification

The permittee shall notify the Department of Environmental Quality of any modification of this activity and shall demonstrate in a written statement to the Department that said modification will not violate any conditions of this permit. If such demonstration cannot be made, the permittee shall apply for a modification of this permit. This permit may be modified when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of permit conditions that differ from those of the existing permit or are absent from it;

2. When new information becomes available about the operation or discharge covered by the permit which was not available at permit issuance and would have justified the application of different permit conditions at the time of permit issuance;

3. When a change is made in the promulgated standards or regulations on which the permit was based;

4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Clean Water Act;

5. When an effluent standard or prohibition for a toxic pollutant must be incorporated in the permit in accordance with provisions of Section 307(a) of the Clean Water Act;

6. When changes occur which are subject to "reopener clauses" in the permit;

7. When the Department of Environmental Quality determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use, the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to State Water Control Law Sections 62.1-242 through 253, during the term of the permit;

8. When the level of discharge of a pollutant not limited in the permit exceeds the level which can be achieved by available methodology for controlling such discharges;

9. When the permittee begins or expects to begin to cause the discharge of any toxic pollutant not reported in the application; or

10. When other states were not notified of the change in the permit and their waters may be affected by the discharge.

L. Permit Termination

This permit, after public notice and opportunity for a hearing, is subject to termination. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the permit;

2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;

3. The permittee's violation of a special or judicial order;

4. A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by permit modification or termination; or

5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge of dredged and fill material controlled by the permit.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

O. Unauthorized Discharge of Pollutants

Except in compliance with this permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or,

2. Otherwise alter the physical, chemical, or biological properties of such state surface waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.

RECEIVED
OCT 07 1998

COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
http://www.deq.state.va.us

Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

October 5, 1998

Mr. Michael S. Rolband, P.E., P.W.S.
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

RE: Interstate 895 Time of Year Restriction

Dear Mr. Rolband:

As a follow-up to our phone conversation on October 2, 1998, I am writing to clarify the time-of-year restriction required by Virginia Water Protection Permit 97-1216. Condition I.A.22 of the permit states:

> The permittee shall contact the Department of Game and Inland Fisheries and the Virginia Marine Resources Commission to determine whether a time of year restriction is appropriate for any period of dredging or construction in waters containing endangered species or waters critical to the movement and reproduction of anadromous fish. The permittee shall maintain a copy of such time of year restriction as is issued, or notification that no restriction is necessary, for the duration of the construction phase of the project.

As discussed, in a June 25, 1998 letter to DEQ, the Department of Game and Inland Fisheries requested "... an instream work time-of-year restriction from 15 February - 30 June to protect ..." anadramous fish migrating "... through the project site at the James River crossing ...".

Additionally, as you are aware, the Virginia Marine Resources Commission placed a provision in their permit issued May 28, 1998 requiring that for "... those portions of the project that encroach over State-owned submerged lands, there is no instream work conducted during the period March 15 through June 30, in order to protect anadramous spawning species ...".

In accordance with Condition I.A.22, these provisions shall become a requirement of VWPP #97-1216. If you have any further questions, please feel free to contact me at (8904) 698-4105.

Sincerely,

Tracey E. Harmon
Environmental Engineer
Office of Water Permit Programs

cc: U.S. Army Corps of Engineers, Norfolk District
Virginia Marine Resources Commission, Habitat Division
Department of Game and Inland Fisheries
Mr. James R. Carroll, FD/MK, L.L.C.
Mr. Rex N. Osborne, Morrison Knudsen Corporation
File

VU 0141

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
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Dennis H. Treacy
Director

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APR 15 1999

RECEIVED
APR 21 1999
FD/MK

Mr. Herbert Morgan
FD/MK Limited Liability Company
Suite 300
7501 Boulders View Drive
Richmond, Virginia 23225

RE: Joint Permit Application No. 97-1216 (I-895)

Dear Mr. Morgan:

We have received and reviewed your application for a modification of Virginia Water Protection (VWP) Permit Number 97-1216 for the proposed construction of a new electric transmission line tower foundation, temporary detour road, and the relocation of electric transmission lines and utility easements resulting in the permanent and/or temporary impact of 1.63 acres of emergent and forested wetlands in Chesterfield County, Virginia. These impacts are in addition to those impacts previously permitted under VWPP No. 97-1216. These impacts will be mitigated by the creation of an additional 3.26 acres of forested wetlands, to be preserved in perpetuity, at the proposed mitigation site adjacent to Turkey Island Creek in Henrico County.

Based on our review of your application, we have determined that the proposed activity will have minimal impact on the quality of state waters. Therefore, pursuant to Section 4.5 of the Virginia Water Protection Regulation the Department of Environmental Quality waives the requirement for you to obtain a VWP Permit. In accordance with this action the requirement for a Water Quality Certification under Section 401 of the Clean Water Act is also waived. Unless your proposed activity undergoes significant change, modification, or addition, no further communication regarding the VWP permit is required with this agency.

This waiver does not relieve you from the responsibility of conducting the proposed activity in a manner to meet all the laws

10.040.1
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and regulations, including the water quality standards, as may be applicable.

You are advised that the activity you propose may require permits from the Virginia Marine Resources Commission and the U. S. Army Corps of Engineers. If you have any questions regarding the status of your application with those agencies, I suggest you contact them directly.

If you have any questions on this waiver for the VWP Permit please feel free to contact Ms. Tracey Harmon at 804/698-4105.

Sincerely,

for Joseph P. Hassell
Dennis H. Treacy
Director

cc: U. S. Army Corps of Engineers, Norfolk District
Virginia Marine Resources Commission
File

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
OFFICE OF WATER PERMIT SUPPORT
P. O. Box 10009 Richmond, VA 23240-0009

SUBJECT: MODIFICATION OF VIRGINIA WATER PROTECTION PERMIT NO. 97-1216; FD/MK LIMITED LIABILITY COMPANY

TO: Dennis H. Treacy
Director

FROM: for Joseph P. Hassell
Martin G. Ferguson, Jr.
Environmental Quality Assistant Division Director

DATE: MAY 24, 1999

COPIES: VMRC; COE; Applicant; File

Legal Name, Address: FD/MK Limited Liability Company
Suite 300
7501 Boulders View Drive
Richmond, VA 23225

Application Submitted by: Michael S. Rolband, P.E., P.W.S.
Wetland Studies & Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

Application Date: Received: February 3, 1999
Complete: March 22, 1999

Type of Project: The permittee proposes the construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 24.65 acres of forested wetlands, and 3.40 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/ relocation, stormwater management basins, and utility line relocations on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch in Chesterfield and Henrico Counties and the City of Richmond, Virginia.

Project Location:	Stream: James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch Basin: James River Subbasin: Middle James River Section: 2 and 7 Class: II and III Special Standards: None
Public Notice:	Public Notice was issued on April 16, 1999. Two responses were received: one expressing no objections to the project and one in opposition. Neither requested a public hearing.
Permit Fees:	The permit application processing fee of $1500 for a VWP Category I project modification was received on March 18, 1999.
Actions by U.S. Army Corps of Engineers:	The project received a U.S. Army Corps of Engineers individual §404 permit on May 19, 1998. The Corps modified this permit on April 30, 1999.
Staff Comments:	The permittee has applied for a modification for additional impacts associated with the I-895 project. The staff anticipates no adverse effect on water quality provided the applicant adheres to the Permit conditions.

Staff Recommendations:

The staff recommends that the Director:

(1) Approve the attached Virginia Water Protection Permit Modification and conditions.

(2) Direct the staff to modify VWP Permit Number 97-1216.

Approved: Martin A. Ferguson
for Director

Date: May 25, 1999

COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
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Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

VWP Permit No. 97-1216
Effective Date: August 26, 1998
Modification Effective Date: May 25, 1999
Expiration Date: August 26, 2003

VIRGINIA WATER PROTECTION PERMIT
ISSUED PURSUANT TO THE STATE WATER CONTROL LAW
AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Department has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards.

Permittee: FD/MK Limited Liability Company
Address: Suite 300
7501 Boulders View Drive
Richmond, VA 23225

Activity Location: I-95/Rt. 150 Interchange (Chippenham Parkway) east to I-295, just south of Charles City Road.

Activity Description: The construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 24.65 acres of forested wetlands, and 3.40 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/relocation, and stormwater management basins on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions and Part II - General Conditions.

for Director, Department of Environmental Quality

May 25, 1999
Date

An Agency of the Natural Resources Secretariat

PART I - SPECIAL CONDITIONS

A. Overall Project Conditions:

1. The conditions and limitations specified in the application and the supplemental materials submitted by the owner shall be adhered to.

2. In issuing this permit, the Board has not taken into consideration the structural stability of the proposed structure.

3. Pipes and/or culverts for road crossings on perennial streams shall be countersunk a minimum of six inches to provide for the re-establishment of a natural stream bottom and low flow fish passage.

4. All multiple line crossings shall provide for a low flow channel and a high flow channel to ensure that stream hydrology is not impaired and that fish passage during low flow periods is assured.

5. Each stream affected by a road crossing shall be restored to its original elevation immediately following the construction of the particular road crossing.

6. Untreated stormwater runoff shall be prohibited from directly discharging into any State waters.

7. Wetland limits within non-disturbance areas and limits of wetland disturbance areas within wetlands shall be clearly flagged in the field prior to the start of construction, and contractors shall be made aware of these limits, to ensure that additional impacts to State waters do not occur.

8. Temporary disturbances to wetlands during construction shall be avoided and minimized to the greatest extent possible. All temporarily disturbed wetland areas shall be restored in place, by stripping/stockpiling of the topsoil to be replaced after construction at pre-construction contours, stabilized with an appropriate wetland mix, and allowed to re-establish with wetland vegetation.

9. All work in wetland areas shall be done in such a manner so as to minimize disturbance of wetland soils and vegetation. Excavation and filling in wetland areas shall be performed by machinery located in the upland, whenever possible. Machinery that must be operated within wetland areas shall be placed on mats to prevent tire rutting. The mats shall

be removed as soon as the work is complete, and the area shall be returned to original contours and stabilized.

10. The permittee shall ensure that all temporarily disturbed wetland areas revegetate with wetland vegetation by the second year post-disturbance.

11. All denuded soils associated with this project shall be stabilized within seven days post-construction.

12. Channel relocations shall be performed completely "in-the-dry". This shall be accomplished by leaving a plug at the inlet and outlet ends of the new channel during excavation. Once the new channel has been stabilized, flow shall be routed into the new channel by first removing the downstream plug and then the upstream plug. The new stream channels shall be constructed following the typical sections submitted with the application.

13. All work shall be performed in the dry via the implementation of cofferdams or sheetpiling or other acceptable means.

14. The pouring of wet or uncured concrete directly into State waters shall be strictly prohibited.

15. All dredging and/or filling shall be accomplished so as to minimize disturbance of the bottom and turbidity increases in the water, which tend to degrade water quality and damage aquatic life.

16. Any deposition of dredged or excavated materials onshore, and all earthwork operations shall be carried out in such a manner as to prevent the erosion of the material and preclude its entry into State waters. Upon completion of earthwork operations, all fills onshore and other areas onshore disturbed during construction shall be seeded, riprapped or given some other type of protection from soil erosion.

17. All work shall be done in such a manner as to minimize sedimentation/siltation of State waters in accordance with Virginia Erosion and Sedimentation Regulations (VR 625-02-00). Appropriate erosion and sedimentation controls and practices shall be utilized during construction and until all disturbed areas have been stabilized.

18. All construction and installation associated with the activity shall be accomplished in such a manner that

construction material or waste material is not discharged into State waters.

19. The construction or work authorized by this permit shall be executed in a manner so as to minimize any adverse impact on instream beneficial uses as defined in Title 62.1 - 10(b).

20. The permittee shall employ measures to prevent spills of fuels or lubricants into State waters. The Department of Environmental Quality must be notified if spills do occur (804/527-5020).

21. The permittee shall advise the Department of Environmental Quality in writing when unusual or potentially complex conditions are encountered which require debris removal or involve potentially toxic pollutants, and shall not take measures to remove the obstruction, material, or toxic pollutant, or change the location of any structure until approval by the Department is received.

22. The permittee shall contact the Department of Game and Inland Fisheries and the Virginia Marine Resources Commission to determine whether a time of year restriction is appropriate for any period of dredging or construction in waters containing endangered species or waters critical to the movement and reproduction of anadromous fish. The permittee shall maintain a copy of such time of year restriction as is issued, or notification that no restriction is necessary, for the duration of the construction phase of the project.

23. The Department of Environmental Quality - Water Division's VWPP Program staff shall be notified <u>in writing</u> 10 days prior to operations authorized under this Permit are to begin so that staff inspections of the project can be planned if deemed necessary.

24. Water quality standards for pH, dissolved oxygen and temperature shall not be violated during construction. These standards, from VR680-21-01.5, for Class III waters are as follows: pH (6.0-9.0 pH units); dissolved oxygen, 4.0 mg/l (minimum) and 5.0 mg/l (daily average); and maximum temperature of 32° C, with a rise above ambient temperature of no more than 3° C from an appropriate upstream sampling point.

B. Rt. 150/I-95 to 4.31 km E. of Chesterfield/Henrico Co. Line

1. Approximately 3.76 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Ramp G at Station 109+10 (Wetland Impact Area 1), Station 107+63 to 108+30 (Wetland Impact Area 3), and Station 103+05 to 106+40 (Wetland Impact Area 11).

2. Approximately 1.32 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 10+25 to 11+80 (Wetland Impact Area 2).

3. Approximately 1.27 acres of non-tidal, palustrine emergent and scrub/shrub wetlands impacts shall occur due to the construction of Ramp F at Station 388+40 to 389+35 (Wetland Impact Area 4), Station 396+70 to 397+80 (Wetland Impact Area 12), Station 400+70 to 401+30 (Wetland Impact Area 15), and Station 402+95 to 404+10 (Wetland Impact Area 16).

4. Approximately 2.23 acres of non-tidal, palustrine scrub/shrub wetlands impacts shall occur due to the construction of Interstate 895 at Station 12+20 to 14+00 (Wetland Impact Area 5).

5. Approximately 0.33 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the widening of Interstate 95 at Station 380+80 to 381+60 (Wetland Impact Area 6), Station 385+00 to 387+30 (Wetland Impact Area 45), and Station 414+20 to 414+90 (Wetland Impact Area 17).

6. Approximately 1.07 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp E at Station 3+80 to 4+60 (Wetland Impact Area 7), Station 5+30 to 8+80 (Wetland Impact Area 9), and Station 13+60 to 13+90 (Wetland Impact Area 47).

7. The existing I-95 southbound lane bridge over Falling Creek shall be widened on the upstream end by 16 feet (Station 101+70 to 102+85) to accommodate an additional lane associated with Ramp G, and Span E3 of Ramp E shall be constructed over Falling Creek on new location at Station 9+20 to 9+65 (Impact Area 46). The stream bed shall be restored to its original elevations immediately following completion of bridge widening. Approximately 0.46 acres of impacts to State waters shall occur due to the construction associated with the above-referenced bridges.

8. An existing road crossing consisting of a 220-foot long triple line of 10-feet by 4-feet box culvert over an unnamed tributary to the James River shall be extended by 43 feet on the downstream end at Station 5+00 (Impact Area 8). The stream bed shall be restored to its original elevations immediately following completion of culvert extension.

9. Approximately 0.36 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp H at Station 15+35 (Wetland Impact Area 12A), Station 396+70 to 397+40 (Wetland Impact Area 13) and Station 397+60 to 399+20 (Wetland Impact Area 14).

10. A three-span, 1470-foot long concrete box girder bridge shall be constructed over the James River at Station 18+00 (Impact Area 18). Riprap scour protection shall be placed along the river bank at the base of the pier footers.

11. A 210-foot span shall be constructed (Span EB-20/span WB-19) over an unnamed intermittent tributary to Cornelius Creek at Station 21+58 to 22+00 (Impact Area 19).

12. Approximately 2.33 acres of non-tidal, palustrine emergent, scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 23+80 to 24+50 (Wetland Impact Area 20), Station 33+20 to 35+00 (Wetland Impact Areas 23 and 24), Station 36+45 to 37+10 (Wetland Impact Area 26), Station 37+35 to 38+40 (Wetland Impact Area 27), Station 41+50 to 42+15 (Wetland Impact Area 29), Station 48+40 to 50+30 (Wetland Impact Area 33), Station 50+75 to 51+10 (Wetland Impact Area 34), Station 51+55 to 51+70 (Wetland Impact Area 35), Station 51+80 to 53+00 (Wetland Impact Area 36).

13. A road crossing consisting of a single line of 256-foot long by 42-inch pipe and a single line of 50-foot long by 48-inch pipe over an unnamed intermittent tributary to the James River and an associated stormwater management basin (Basin 9-1) shall be constructed on new location at Station 26+50 (Impact Area 21). The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

14. A road crossing consisting of a single line of 348-foot long by 54-inch pipe over an unnamed intermittent tributary to Cornelius Creek and an associated stormwater management basin (Basin 10-1) shall be constructed on new location at Station 29+60 to 30+45 (Impact Area 22). The stream bed

shall be restored to its original elevations immediately following ocmpletion of pipe placement.

15. Approximately 0.01 acres of non-tidal, palustrine scrub/shrub wetlands impacts shall occur due to the construction of a stormwater management pond outfall and associated riprap on Cornelius Creek (Wetland Impact Area 23A).

16. A road crossing consisting of a double line of 335-foot long by 72-inch pipe and a 252-foot long single line of 10-foot by 6-foot box culvert over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 13+70 (Mill Road) and 36+25 (I-895), respectively. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    The construction of the road crossing shall require the relocation and channelization of approximately 640 linear feet of the stream channel and shall result in a net loss of approximately 20 linear feet of stream channel.

    Approximately 0.41 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 25).

17. Portions of the relocated unnamed tributary to Cornelius Creek shall be constructed following the biotechnical stabilization final plan dated February 5, 1999 and received February 8, 1999.

18. A road crossing consisting of nineteen lines of 240-foot long by 30-inch reinforced concrete pipe, four lines of 246-foot long by 30-inch reinforced concrete pipe, and one line of 253-foot long by 30-inch reinforced concrete pipe over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 38+10 to 40+30 (Impact Area 28). A modified level spreader shall be constructed at the exvert of the culverts to maintain the unconsolidated sheetflow of the existing wetlands system. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 2.99 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 28).

19. An existing road crossing consisting of a double line of 50-foot long 12-foot by 8-foot box culvert over Cornelius Creek shall be extended by 8 feet on the upstream and downstream ends, and widened with 3 lines of 66-foot long 12-foot by 8-foot box culverts at Station 9+45 to 9+85. The stream bed shall be restored to its original elevations immediately following completion of culvert placement. Approximately 1.50 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Osborne Turnpike over Cornelius Creek and associated wetlands (Wetland Impact Areas 30, 31 and 32).

20. Approximately 0.69 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp A at Station 55+60 to 56+70 (Wetland Impact Area 37) and Station 54+60 to 54+80 (Wetland Impact Area 38).

21. Approximately 0.24 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895, Ramp A, Ramp B, and SWM Basin 17-1 at Station 56+20 to 57+00 and 57+50 to 57+70 (Wetland Impact Area 39).

22. Approximately 0.11 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp D at Station 12+50 to 12+80 and 13+60 to 13+70 (Wetland Impact Area 40).

23. An existing road crossing consisting of a single line of 75-foot long 10-foot by 10-foot box culvert over an unnamed tributary to Cornelius Creek shall be replaced with a quadruple line of 156-foot long 12-foot by 8-foot box culvert at Station 17+80 to 18+20. The stream bed shall be restored to its original elevations immediately following completion of culvert placement.

    Approximately 0.90 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the widening of Laburnum Avenue at Station 16+10 to 16+90 (Wetland Impact Area 41), Station 17+35 to 19+40 (Wetland Impact Area 42) and Station 16+80 to 19+80 (Wetland Impact Area 43).

24. Parallel 295-foot long, three span, steel plate girder bridges shall be constructed over Cornelius Creek on new location at Station 58+80 to 59+70 to accommodate the I-895 mainline. A 217-foot long two-span steel plate girder bridge shall be constructed over Cornelius Creek on new location at Station 11+15 to 11+80 to accommodate Ramp D. The stream bed shall be restored to its original elevations immediately following completion of bridge construction.

Approximately 3.45 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 and Ramp D (Wetland Impact Area 44).

25. An existing 1.85 acre pond shall be filled as the result of the construction of Interstate 895 and stormwater basin 15-1 at Station 46+80 to 48+00 (Impact Area 10).

C. <u>4.31 km East of Chesterfield/Henrico Co. line to I-295</u>

1. Approximately 3.56 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 218+00 (Wetland Impact Area 101), Station 223+00 (Wetland Impact Area 104), Station 233+20 (Wetland Impact Area 105), Station 230+00 (Wetland Impact Area 106), Station 236+60 to 237+30 (Wetland Impact Area 107), Station 242+40 (Wetland Impact Area 110) and Station 263+40 (Wetland Impact Area 120).

2. A road crossing consisting of a double line of 164-foot long by 48-inch pipe over an unnamed intermittent tributary to Cornelius Creek shall be constructed on new location at Station 219+00. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.87 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Cornelius Creek (Wetland Impact Area 102).

3. A road crossing consisting of a double line of 154-foot long 8-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 241+55. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.06 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 108).

4. A road crossing consisting of a triple line of 246-foot long 10-foot by 6-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 239+65. The stream

bed shall be restored to its original elevations immediately following completion of pipe placement.

Approximately 0.82 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 109).

5. A road crossing consisting of a double line of 217-foot long 9-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 251+15. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.15 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 111).

6. A road crossing consisting of a triple line of 233-foot long 10-foot by 6-foot box culvert over an unnamed tributary to Fourmile Creek shall be constructed on new location at Station 248+15. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.81 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Fourmile Creek (Wetland Impact Area 112).

7. A road crossing consisting of a double line of 30-foot long by 42-inch pipe over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 12+60. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.04 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Service Road E over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 113).

8. A road crossing consisting of a single line of 243-foot long by 42-inch pipe over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 254+10. The stream bed shall be restored to its

original elevations immediately following completion of pipe placement.

Approximately 0.06 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 117).

9. A road crossing consisting of a double line of 161-foot long 8-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 260+90. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.27 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 118).

10. A road crossing consisting of a single line of 144-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 271+20. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 0.11 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 121).

11. Approximately 0.03 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Service Road B at Station 10+70 (Wetland Impact Area 123).

12. Approximately 1.05 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp A at Station 13+30 to 15+50 (Wetland Impact Area 122) and at Station 12+20 (Wetland Impact Area 124).

13. A road crossing consisting of a single line of 85-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 20+00. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 0.12 acres of non-tidal, palustrine forested

wetlands impacts shall occur due to the construction of Loop B over the unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 126).

14. A road crossing consisting of a single line of 75-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 11+47. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 0.08 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop D over the unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 127).

15. Approximately 0.17 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop B at Station 13+10 (Wetland Impact Area 125) and Loop D at Station 10+60 (Wetland Impact Area 128).

16. Approximately 0.12 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of Ramp C and Loop B at Station 268+50 to 269+20 (Wetland Impact Area 129).

D. <u>Mitigation</u>

1. The mitigation site shall be constructed on a tract of land (part of Tax Map 0281-0A-0002) adjacent to Turkey Island Creek in Henrico County off of Route 606 (Carters Mill Road), as depicted in the preliminary mitigation plan dated January 28, 1998.

2. The permittee shall mitigate for the 3.40 acres of open water impacts, 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 24.65 acres of forested wetland impacts resulting from roadway construction by the creation of a mitigation site to be preserved in perpetuity.

3. The mitigation site shall be created, as proposed in the final mitigation plan dated February 22, 1999 (and received February 24, 1999), by grading the site, plugging ditches and planting the site with suitable native wetland plant species. The mitigation site shall provide for a 2:1 replacement to loss ratio for permanent and adverse impacts associated with this project (55.37 acres). Temporary impacts associated with the permit modification (Impact Areas 1, 2, 3, 4, 5, 12A, 14, 23, 24, 25, 32, 43, 102, 112,

and 122) shall be mitigated at a ratio of 2:1 (4.72 acres). The remaining temporary impacts shall be mitigated at a 1:1 ratio for open water impacts (0.32 acres), emergent impacts (0.07 acres), scrub/shrub impacts (1.06 acres), and forested impacts (2.24 acres). Not more than 52.85 acres of the 60.09 acres of required mitigation shall be designed as forested wetlands. The remaining 7.24 acres of mitigation shall be a mixture of emergent wetlands, scrub/shrub wetlands, and open water.

4. In addition to the compensatory mitigation, the permittee shall also acquire and preserve +/- 57.37 acres of land as depicted in the Conservation Easement Plan as submitted in the January 28, 1998 joint permit application Amendment #2. The acquired property shall be protected by a restrictive covenant.

5. Within 30 days of issuance of the Section 404 permit from the ACOE, the issuance of the VWPP, permit issuance or approval by VMRC, and the sale of the bonds financing the project, the permittee shall post a bond in the amount of $1,500,000.00 to ensure that the mitigation requirements (design, construction, monitoring, and maintenance of the mitigation site) are fulfilled.

   Upon (i) completion of each component of the mitigation, (ii) submission of evidence of such completion to the ACOE, and (iii) expiration of a thirty day period after items (i) and (ii) are accomplished to allow for ACOE concurrence of completion, the bonding company shall be allowed to reduce the bond by the appropriate amount based upon the status of the mitigation work, as follows:

Mitigation Stage	Bond Amount
1. 30 days after Permit Issuance	$1,500,000.00
2. Site Acquired	1,500,000.00
3. Site Graded and Planted	500,000.00
4. 2nd Growing Season Successfully Completed	250,000.00
5. 5th Growing Season Successfully Completed	0.00

6. The performance bond shall be emplaced within 30 days after the latter of both (i) issuance of Section 404 and Section 401 Water Quality Certification, and (ii) sale of the bonds financing this project.

7. The mitigation site shall be purchased prior to any construction in jurisdictional areas.

8. There shall be no use of herbicides or algacides in or immediately adjacent to the mitigation site, including the use of herbicides or algacides for the control of aquatic vegetation or algae. All vegetation removal shall be done by mechanical means only, unless previously authorized by the staff of DEQ.

9. The permittee shall establish an instrument which provides for the restriction, protection, or preservation of all mitigation areas in perpetuity. The instrument shall state that the discharge of dredged or fill material shall be prohibited in these areas unless specifically authorized in writing by the DEQ. A final copy of the protective instrument shall be forwarded to the DEQ within 30 days of recordation.

10. The wording for any restrictions, protections, or preservations of wetlands and State waters or any other similar instrument provided as part of the mitigation plan shall state that no activity will be performed on the property in an area designated as an unaffected Waters, including wetlands, or provided as a compensatory mitigation area, which would involve the discharge of dredged or fill material, unless specifically authorized by the DEQ through the issuance of an individual permit or waiver thereof. This is to ensure that additional unauthorized impacts to State waters do not occur.

11. The wording of any restrictions, protections, or preservations of wetlands and State waters, or any other similar instrument shall contain the phrase "discharge of dredged or fill material".

12. The success of the mitigation site shall be based on establishing and maintaining suitable wetland hydrology and the desired wetland plant communities.

    a. Wetland hydrology shall be considered established if:

        (1) Depths to the seasonal high water table in the created wetlands are equal to or less than one foot for at least 12.5% of the growing season (28 days) during most years (taking below-normal rainfall years in consideration);

    b. Wetland plant community shall be considered established if:

        (1) A minimum of 400 stems/acre survival of planted tree

species or equivalent naturally established facultative (FAC) or wetter (FACW or OBL) species for the life of the permit or until canopy cover is thirty percent (30%) or greater.

(2) A minimum of sixty percent (60%) cover is established in the herb layer by the end of the first growing season, eighty percent (80%) cover by the end of the second growing season, and remaining at or above 80% for the life of the permit, thereafter;

(3) A minimum of eighty percent (80%) survival of planted tree, shrub, and herbaceous species, or equivalent naturally established facultative (FAC) or wetter (FACW or OBL) species, for the life of the permit;

(4) Species composition reflects the desired indigenous plant community types stated in the mitigation plan by the end of the second growing season and is maintained through the last year of the permit; and

(5) Noxious weeds are identified and controlled as described in the noxious weed control plan, such that the noxious weeds are not dominant species or altering the desired community structure.

c. Replacement of dead plant stock that is FAC or wetter shall occur each spring, as necessary to achieve a **minimum** of 400 stems/acre for the tree species, and eighty (80%) of the original stocking density of the herb and shrub species, unless equivalent naturally recolonized facultative (FAC) or wetter (FACW or OBL) species equal or exceed stocking amounts in respective strata (i.e. tree seedlings in the herb layer can not be counted in the tree or shrub layer).

d. If the wetland criteria are not met, the reasons for this shall be determined and a report stating the causes and a proposed corrective action plan shall be submitted to DEQ for approval in writing. The problems shall be corrected by the permittee. Should significant changes be necessary to establish wetlands, the monitoring plan shall begin again, with year one being the year changes are complete.

13. The permittee shall submit a final grading plan for the

mitigation site to the DEQ prior to any planting and placement of ground water monitoring wells.

14. Grading of the compensatory mitigation site shall commence by the latter of the following: (i) commencement of I-895 construction or (ii) the first July 1 after approval of the Final Plans by all necessary federal, state and local agencies.

15. All construction in jurisdictional areas, as authorized by this permit, shall cease, if mitigation site construction has not commenced within 2 years of the commencement of project construction.

16. DEQ will consider the use of any excess wetland acreage successfully created at the mitigation site for mitigation for other third party permits provided a mitigation banking agreement has been approved for such acreage.

17. This permit may need to be renewed to assure that the mitigation work has been successful. Reapplication must be made no less than 180 days prior to the expiration date of this permit, at which time DEQ will determine if renewal of the permit is necessary.

E. Monitoring

1. Photo stations shall be established to document the various construction aspects of this project within jurisdictional areas. These stations shall be established to document the existing and post construction conditions of the site. These stations shall be photographed prior to construction, during construction, and within one week after the completion of construction.

2. Stream bottom elevations at the road crossings shall be measured and recorded prior to construction and within one week after the completion of construction. This requirement shall only apply to those streams not designated herein as intermittent or those streams not designated herein in association with stream channelization.

3. The establishment of hydrology within the mitigation site shall be indicated by the establishment of monitoring wells within the created wetland and in existing wetlands. A total of 38 wells shall be established within the constructed mitigation site, as depicted in the February 22, 1999 mitigation plan. In addition, two wells shall be

established in the existing adjacent wetlands. Depth to groundwater shall be monitored for a minimum of either 60 days of continuous automated monitoring or 8 consecutive weekly measurements during the growing season (March 28 through November 10) to demonstrate the successful achievement of wetland hydrology on the site.

The permittee may continue to monitor at a level higher than the minimum required frequency, if the minimum required frequency has not established the presence of wetland hydrology and the permittee believes that the initial sampling was poorly timed. After a period of three monitoring years, DEQ may determine that the monitoring for hydrology should be discontinued, providing that adequate hydrology has been established and maintained. Adequate hydrology shall be within twelve inches of the surface for 28 consecutive days during the growing season.

4. Panoramic photos shall be taken from each of the monitoring well stations within the created wetlands during each monitoring effort. Permanent markers shall be established to ensure that the same locations and view directions are monitored in each monitoring period.

5. The establishment of wetland vegetation shall be indicated by percent cover monitored in May and August during the first reportable growing season, and in August during the second and last reportable growing season in the life of the permit. At each monitoring station, the following information shall be collected:

   a. Percent cover for all herbaceous species shall be estimated using randomly placed 3-foot by 3-foot quadrats at a ratio of one plot per acre of constructed wetlands. Percent cover shall be a minimum of 80 percent after the second growing season and remaining at or above this level for the life of the permit. The approximate species composition of the herbaceous vegetation shall be indicated, including non-dominants. The number of stems per square meter for woody species shall be provided. A quantitative measure for noxious species present shall also be provided.

   b. Percent survival of planted woody species, if applicable, shall be estimated within a 20-foot by 20-foot plot. The number of stems of all tree species within each plot and the density of all tree species (number of stems per square meter or acre) shall be provided.

6. The permittee shall implement an invasive species control plan. This control plan shall include procedures to notify the VWPP staff of any invasive species occurrences, methods of removal, and successful control.

7. The permittee shall make provisions to monitor for any spills of petroleum products or other materials during the construction process.

G. Reporting

1. Photographs shall be submitted to the Department of Environmental Quality within 30 days of the completion of the project or monthly if the project takes longer than one week to complete. Photographs are not necessary during periods of no activity within jurisdictional areas.

2. Stream elevation data shall be submitted along with the photographs within 30 days of the completion of the project.

3. An official copy of the instrument of restriction, protection, or preservation of wetlands and State waters provided as part of the mitigation plan shall be submitted to the DEQ within 30 days of recordation as outlined in the mitigation portion of this permit.

4. The mitigation site photographs, hydrology and vegetation monitoring results shall be reported to the DEQ's VWPP staff by October 30 following each monitoring cycle, or for the last year of the permit, no later than 180 days prior to the expiration date of the permit.

5. Reports of invasive species occurrences and control of these occurrences shall be reported immediately upon discovery and resolution.

6. Alterations and maintenance conducted on the created wetland areas shall be reported along with the created wetlands monitoring report, and need only continue as long as wetland monitoring continues.

7. Violations of State water quality standards shall be reported within 24 hours to the Department of Environmental Quality - Water Division.

8. All reporting shall be submitted to: Department of Environmental Quality, OPS-VWPP, P.O. Box 10009, Richmond, Virginia 23240-0009.

PART II - GENERAL CONDITIONS

A. Duty to Comply

The permittee shall comply with all conditions of the permit. Nothing in this permit shall be construed to relieve the permittee of the duty to comply with all applicable Federal and State statutes, regulations and toxic standards and prohibitions. Any permit non-compliance is a violation of the Clean Water Act and State Water Control Law, and is grounds for enforcement action, permit termination, revocation, modification, or denial of a permit renewal application.

B. Mitigation Requirements

The permittee shall take all reasonable steps to:

1. Avoid all adverse environmental impact which could result from the activity;

2. Where avoidance is impractical, minimize the adverse environmental impact; and

3. Where impacts cannot be avoided, provide mitigation of the adverse impact on an in kind basis.

C. Reopener

This permit may be reopened to modify the conditions of the permit to meet new regulatory standards duly adopted by the Board. Causes for reopening permits include, but are not limited to:

1. When State law prohibits conditions in a permit which are more stringent than an applicable effluent limitation guideline;

2. When subsequently promulgated effluent guidelines are modified, and are based on best conventional pollutant control technology; or

3. When the circumstances on which the previous permit was based have materially and substantially changed, or special studies conducted by the Department or the permittee show material and substantial change since the time the permit was issued and thereby constitute cause for permit modification or revocation and reissuance.

D. Change in Management of Pollutants

All discharges and other activities authorized by this permit shall be made in accordance with the terms and conditions of this permit. The permittee shall submit a new application 180 days prior to any proposed modification to their activity which will:

1. Result in a significantly new or substantially increased discharge of dredged or fill material, or a significant change in the nature of the pollutants; or

2. Violate or lead to the violation of the terms and conditions of the permit or the Water Quality Standards of the Commonwealth.

E. Duty to Halt or to Reduce Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

F. Compliance with State and Federal Law

Compliance with this permit constitutes compliance with the Virginia Water Protection Permit requirements of the State Water Control Law. Nothing in this permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other State law or regulation or under the authority preserved by Section 510 of the Clean Water Act.

G. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal property rights, nor any infringement of federal, state or local laws or regulations.

H. Severability

The provisions of this permit are severable.

I. Right of Entry

The permittee shall allow authorized state and federal representatives, upon the presentation of credentials, at reasonable times and under reasonable circumstances:

1. To enter the permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the permit conditions;

2. To inspect any facilities, operations or practices (including monitoring and control equipment) regulated or required under the permit;

3. To sample or monitor any substance, parameter or activity for the purpose of assuring compliance with the conditions of the permit or as otherwise authorized by law.

For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.

J. Transferability of Permits

This permit may be transferred to another person by a permittee if:

1. The current permittee notifies the Department of Environmental Quality 30 days prior to the proposed transfer of the title to the facility or property;

2. The notice of the proposed transfer includes a written agreement between the existing and proposed new permittee containing a specific date of transfer of permit responsibility, coverage and liability between them; and

3. The Department of Environmental Quality does not within the 30 day time period notify the existing permittee of the State Water Control Board's intent to modify or revoke and reissue the permit.

Such a transferred permit shall, as of the date of the transfer, be as fully effective as if it had been issued directly to the new permittee.

K. Permit Modification

The permittee shall notify the Department of Environmental Quality of any modification of this activity and shall demonstrate in a written statement to the Department that said modification will not violate any conditions of this permit. If such demonstration cannot be made, the permittee shall apply for a modification of this permit. This permit may be modified when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of permit conditions that differ from those of the existing permit or are absent from it;

2. When new information becomes available about the operation or discharge covered by the permit which was not available at permit issuance and would have justified the application of different permit conditions at the time of permit issuance;

3. When a change is made in the promulgated standards or regulations on which the permit was based;

4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Clean Water Act;

5. When an effluent standard or prohibition for a toxic pollutant must be incorporated in the permit in accordance with provisions of Section 307(a) of the Clean Water Act;

6. When changes occur which are subject to "reopener clauses" in the permit;

7. When the Department of Environmental Quality determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use, the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to State Water Control Law Sections 62.1-242 through 253, during the term of the permit;

8. When the level of discharge of a pollutant not limited in the permit exceeds the level which can be achieved by available methodology for controlling such discharges;

9. When the permittee begins or expects to begin to cause the discharge of any toxic pollutant not reported in the application; or

10. When other states were not notified of the change in the permit and their waters may be affected by the discharge.

L. Permit Termination

This permit, after public notice and opportunity for a hearing, is subject to termination. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the permit;

2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;

3. The permittee's violation of a special or judicial order;

4. A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by permit modification or termination; or

5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge of dredged and fill material controlled by the permit.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

O. Unauthorized Discharge of Pollutants

Except in compliance with this permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or,

2. Otherwise alter the physical, chemical, or biological properties of such state surface waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.

RECEIVED
OCT 15 1999

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
http://www.deq.state.va.us

Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

October 13, 1999

Mr. Michael S. Rolband, P.E., P.W.S.
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

RE: VWPP #97-1216 (I-895)

Dear Mr. Rolband:

We have reviewed your requests for modification of permit conditions related to the mitigation site for the above-referenced Virginia Water Protection Permit. The requests are related to permit conditions requiring a permanent conservation easement on the mitigation site and the window for planting the site.

Specifically, the first request asks that we review the Virginia Department of Transportation's (VDOT's) letter regarding conservation easements to determine compliance with Part I. D. conditions 7, 12, 13 and 14 of the permit. We do not concur with VDOT's assessment that a conservation easement is not required for this property. Please comply with the permit conditions as written.

The second request asks that we consider allowing the site to be planted beginning on October 1, 1999 as opposed to the October 30, 1999 start date allowed by the permit. We concur with the Corps of Engineers that the existing site conditions and the increased likelihood of failure of the plantings preclude allowing the site to be planted at the earlier date. Again, please comply with the permit conditions as written.

If you have any further questions, please feel free to contact me at (804) 698-4105.

Sincerely,

Tracey E. Harmon

Tracey E. Harmon
Environmental Engineer
Office of Water Permit Programs

cc: Ken Kimidy, ACOE

COMMONWEALTH of VIRGINIA

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Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

VWP Permit No. 97-1216
Effective Date: August 26, 1998
Modification Effective Date: July 14, 2000
Expiration Date: August 26, 2003

VIRGINIA WATER PROTECTION PERMIT
ISSUED PURSUANT TO THE STATE WATER CONTROL LAW
AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Department has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards.

Permittee: FD/MK Limited Liability Company
Address: Suite 210, 620 Moorefield Park, Richmond, VA 23236

Activity Location: I-95/Rt. 150 Interchange (Chippenham Parkway) east to I-295, just south of Charles City Road.

Activity Description: The construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 24.65 acres of forested wetlands, and 3.44 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/relocation, and stormwater management basins on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions and Part II - General Conditions.

Martin D. Ray
for Director, Department of Environmental Quality

July 14, 2000
Date

PART I - SPECIAL CONDITIONS

A. Overall Project Conditions:

1. The conditions and limitations specified in the application and the supplemental materials submitted by the owner shall be adhered to.

2. In issuing this permit, the Board has not taken into consideration the structural stability of the proposed structure.

3. Pipes and/or culverts for road crossings on perennial streams shall be countersunk a minimum of six inches to provide for the re-establishment of a natural stream bottom and low flow fish passage.

4. All multiple line crossings shall provide for a low flow channel and a high flow channel to ensure that stream hydrology is not impaired and that fish passage during low flow periods is assured.

5. Each stream affected by a road crossing shall be restored to its original elevation immediately following the construction of the particular road crossing.

6. Untreated stormwater runoff shall be prohibited from directly discharging into any State waters.

7. Wetland limits within non-disturbance areas and limits of wetland disturbance areas within wetlands shall be clearly flagged in the field prior to the start of construction, and contractors shall be made aware of these limits, to ensure that additional impacts to State waters do not occur.

8. Temporary disturbances to wetlands during construction shall be avoided and minimized to the greatest extent possible. All temporarily disturbed wetland areas shall be restored in place, by stripping/stockpiling of the topsoil to be replaced after construction at pre-construction contours, stabilized with an appropriate wetland mix, and allowed to re-establish with wetland vegetation.

9. All work in wetland areas shall be done in such a manner so as to minimize disturbance of wetland soils and vegetation. Excavation and filling in wetland areas shall be performed by machinery located in the upland, whenever possible. Machinery that must be operated within wetland areas shall

be placed on mats to prevent tire rutting. The mats shall be removed as soon as the work is complete, and the area shall be returned to original contours and stabilized.

10. The permittee shall ensure that all temporarily disturbed wetland areas revegetate with wetland vegetation by the second year post-disturbance.

11. All denuded soils associated with this project shall be stabilized within seven days post-construction.

12. Channel relocations shall be performed completely "in-the-dry". This shall be accomplished by leaving a plug at the inlet and outlet ends of the new channel during excavation. Once the new channel has been stabilized, flow shall be routed into the new channel by first removing the downstream plug and then the upstream plug. The new stream channels shall be constructed following the typical sections submitted with the application.

13. All work shall be performed in the dry via the implementation of cofferdams or sheetpiling or other acceptable means.

14. The pouring of wet or uncured concrete directly into State waters shall be strictly prohibited.

15. All dredging and/or filling shall be accomplished so as to minimize disturbance of the bottom and turbidity increases in the water, which tend to degrade water quality and damage aquatic life.

16. Any deposition of dredged or excavated materials onshore, and all earthwork operations shall be carried out in such a manner as to prevent the erosion of the material and preclude its entry into State waters. Upon completion of earthwork operations, all fills onshore and other areas onshore disturbed during construction shall be seeded, riprapped or given some other type of protection from soil erosion.

17. All work shall be done in such a manner as to minimize sedimentation/siltation of State waters in accordance with Virginia Erosion and Sedimentation Regulations (VR 625-02-00). Appropriate erosion and sedimentation controls and practices shall be utilized during construction and until all disturbed areas have been stabilized.

18. All construction and installation associated with the activity shall be accomplished in such a manner that construction material or waste material is not discharged into State waters.

19. The construction or work authorized by this permit shall be executed in a manner so as to minimize any adverse impact on instream beneficial uses as defined in Title 62.1 - 10(b).

20. The permittee shall employ measures to prevent spills of fuels or lubricants into State waters. The Department of Environmental Quality must be notified if spills do occur (804/527-5020).

21. The permittee shall advise the Department of Environmental Quality in writing when unusual or potentially complex conditions are encountered which require debris removal or involve potentially toxic pollutants, and shall not take measures to remove the obstruction, material, or toxic pollutant, or change the location of any structure until approval by the Department is received.

22. The permittee shall contact the Department of Game and Inland Fisheries and the Virginia Marine Resources Commission to determine whether a time of year restriction is appropriate for any period of dredging or construction in waters containing endangered species or waters critical to the movement and reproduction of anadromous fish. The permittee shall maintain a copy of such time of year restriction as is issued, or notification that no restriction is necessary, for the duration of the construction phase of the project.

23. The Department of Environmental Quality - Water Division's VWPP Program staff shall be notified in writing 10 days prior to operations authorized under this Permit are to begin so that staff inspections of the project can be planned if deemed necessary.

24. Water quality standards for pH, dissolved oxygen and temperature shall not be violated during construction. These standards, from VR680-21-01.5, for Class III waters are as follows: pH (6.0-9.0 pH units); dissolved oxygen, 4.0 mg/l (minimum) and 5.0 mg/l (daily average); and maximum temperature of 32° C, with a rise above ambient temperature of no more than 3° C from an appropriate upstream sampling point.

B. Rt. 150/I-95 to 4.31 km E. of Chesterfield/Henrico Co. Line

1. Approximately 0.06 acres of non-tidal, palustrine open water impacts shall occur due to the widening of Rt. 150 over Grindall Creek (Wetland Impact Area 1A). The widening shall require the extension of an 8-foot by 6-foot box culvert by approximately 76 linear feet, a 60-inch culvert by approximately 72 linear feet, and a 84-inch culvert by approximately 72 linear feet.

   Class II riprap shall be placed at the outlet of the structures to provide scour protection. The riprap shall be placed so that a six inch deep low flow channel shall be constructed from the outlet of the box culvert. Individual Class II riprap stones shall be placed along the downstream stream channel, as necessary for streambank protection.

2. Approximately 3.76 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Ramp G at Station 109+10 (Wetland Impact Area 1), Station 107+63 to 108+30 (Wetland Impact Area 3), and Station 103+05 to 106+40 (Wetland Impact Area 11).

3. Approximately 1.32 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 10+25 to 11+80 (Wetland Impact Area 2).

4. Approximately 1.27 acres of non-tidal, palustrine emergent and scrub/shrub wetlands impacts shall occur due to the construction of Ramp F at Station 388+40 to 389+35 (Wetland Impact Area 4), Station 396+70 to 397+80 (Wetland Impact Area 12), Station 400+70 to 401+30 (Wetland Impact Area 15), and Station 402+95 to 404+10 (Wetland Impact Area 16).

5. Approximately 2.23 acres of non-tidal, palustrine scrub/shrub wetlands impacts shall occur due to the construction of Interstate 895 at Station 12+20 to 14+00 (Wetland Impact Area 5).

6. Approximately 0.33 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the widening of Interstate 95 at Station 380+80 to 381+60 (Wetland Impact Area 6), Station 385+00 to 387+30 (Wetland Impact Area 45), and Station 414+20 to 414+90 (Wetland Impact Area 17).

7. Approximately 1.07 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp E at Station 3+80 to 4+60 (Wetland Impact Area 7), Station 5+30 to 8+80 (Wetland Impact Area 9), and Station 13+60 to 13+90 (Wetland Impact Area 47).

8. The existing I-95 southbound lane bridge over Falling Creek shall be widened on the upstream end by 16 feet (Station 101+70 to 102+85) to accommodate an additional lane associated with Ramp G, and Span E3 of Ramp E shall be constructed over Falling Creek on new location at Station 9+20 to 9+65 (Impact Area 46). The stream bed shall be restored to its original elevations immediately following completion of bridge widening. Approximately 0.46 acres of impacts to State waters shall occur due to the construction associated with the above-referenced bridges.

9. An existing road crossing consisting of a 220-foot long triple line of 10-feet by 4-feet box culvert over an unnamed tributary to the James River shall be extended by 43 feet on the downstream end at Station 5+00 (Impact Area 8). The stream bed shall be restored to its original elevations immediately following completion of culvert extension.

10. Approximately 0.36 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp H at Station 15+35 (Wetland Impact Area 12A), Station 396+70 to 397+40 (Wetland Impact Area 13) and Station 397+60 to 399+20 (Wetland Impact Area 14).

11. A three-span, 1470-foot long concrete box girder bridge shall be constructed over the James River at Station 18+00 (Impact Area 18). Riprap scour protection shall be placed along the river bank at the base of the pier footers.

12. A 210-foot span shall be constructed (Span EB-20/span WB-19) over an unnamed intermittent tributary to Cornelius Creek at Station 21+58 to 22+00 (Impact Area 19).

13. Approximately 2.33 acres of non-tidal, palustrine emergent, scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 23+80 to 24+50 (Wetland Impact Area 20), Station 33+20 to 35+00 (Wetland Impact Areas 23 and 24), Station 36+45 to 37+10 (Wetland Impact Area 26), Station 37+35 to 38+40 (Wetland Impact Area 27), Station 41+50 to 42+15 (Wetland Impact Area 29), Station 48+40 to 50+30 (Wetland Impact Area 33),

Station 50+75 to 51+10 (Wetland Impact Area 34), Station 51+55 to 51+70 (Wetland Impact Area 35), Station 51+80 to 53+00 (Wetland Impact Area 36).

14. A road crossing consisting of a single line of 256-foot long by 42-inch pipe and a single line of 50-foot long by 48-inch pipe over an unnamed intermittent tributary to the James River and an associated stormwater management basin (Basin 9-1) shall be constructed on new location at Station 26+50 (Impact Area 21). The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

15. A road crossing consisting of a single line of 348-foot long by 54-inch pipe over an unnamed intermittent tributary to Cornelius Creek and an associated stormwater management basin (Basin 10-1) shall be constructed on new location at Station 29+60 to 30+45 (Impact Area 22). The stream bed shall be restored to its original elevations immediately following ocmpletion of pipe placement.

16. Approximately 0.01 acres of non-tidal, palustrine scrub/shrub wetlands impacts shall occur due to the construction of a stormwater management pond outfall and associated riprap on Cornelius Creek (Wetland Impact Area 23A).

17. A road crossing consisting of a double line of 335-foot long by 72-inch pipe and a 252-foot long single line of 10-foot by 6-foot box culvert over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 13+70 (Mill Road) and 36+25 (I-895), respectively. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    The construction of the road crossing shall require the relocation and channelization of approximately 640 linear feet of the stream channel and shall result in a net loss of approximately 20 linear feet of stream channel.

    Approximately 0.41 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 25).

18. Portions of the relocated unnamed tributary to Cornelius Creek shall be constructed following the biotechnical stabilization final plan dated February 5, 1999 and received February 8, 1999.

19. A road crossing consisting of nineteen lines of 240-foot long by 30-inch reinforced concrete pipe, four lines of 246-foot long by 30-inch reinforced concrete pipe, and one line of 253-foot long by 30-inch reinforced concrete pipe over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 38+10 to 40+30 (Impact Area 28). A modified level spreader shall be constructed at the exvert of the culverts to maintain the unconsolidated sheetflow of the existing wetlands system. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 2.99 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 28).

20. An existing road crossing consisting of a double line of 50-foot long 12-foot by 8-foot box culvert over Cornelius Creek shall be extended by 8 feet on the upstream and downstream ends, and widened with 3 lines of 66-foot long 12-foot by 8-foot box culverts at Station 9+45 to 9+85. The stream bed shall be restored to its original elevations immediately following completion of culvert placement. Approximately 1.50 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Osborne Turnpike over Cornelius Creek and associated wetlands (Wetland Impact Areas 30, 31 and 32).

21. Approximately 0.69 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp A at Station 55+60 to 56+70 (Wetland Impact Area 37) and Station 54+60 to 54+80 (Wetland Impact Area 38).

22. Approximately 0.24 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895, Ramp A, Ramp B, and SWM Basin 17-1 at Station 56+20 to 57+00 and 57+50 to 57+70 (Wetland Impact Area 39).

23. Approximately 0.11 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp D at Station 12+50 to 12+80 and 13+60 to 13+70 (Wetland Impact Area 40).

24. An existing road crossing consisting of a single line of 75-foot long 10-foot by 10-foot box culvert over an unnamed tributary to Cornelius Creek shall be replaced with a quadruple line of 156-foot long 12-foot by 8-foot box culvert at Station 17+80 to 18+20. The stream bed shall be restored to its original elevations immediately following completion of culvert placement.

    Approximately 0.90 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the widening of Laburnum Avenue at Station 16+10 to 16+90 (Wetland Impact Area 41), Station 17+35 to 19+40 (Wetland Impact Area 42) and Station 16+80 to 19+80 (Wetland Impact Area 43).

25. Parallel 295-foot long, three span, steel plate girder bridges shall be constructed over Cornelius Creek on new location at Station 58+80 to 59+70 to accommodate the I-895 mainline. A 217-foot long two-span steel plate girder bridge shall be constructed over Cornelius Creek on new location at Station 11+15 to 11+80 to accommodate Ramp D. The stream bed shall be restored to its original elevations immediately following completion of bridge construction.

    Approximately 3.45 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 and Ramp D (Wetland Impact Area 44).

26. An existing 1.85 acre pond shall be filled as the result of the construction of Interstate 895 and stormwater basin 15-1 at Station 46+80 to 48+00 (Impact Area 10).

C. <u>4.31 km East of Chesterfield/Henrico Co. line to I-295</u>

1. Approximately 3.56 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 218+00 (Wetland Impact Area 101), Station 223+00 (Wetland Impact Area 104), Station 233+20 (Wetland Impact Area 105), Station 230+00 (Wetland Impact Area 106), Station 236+60 to 237+30 (Wetland Impact Area 107), Station 242+40 (Wetland Impact Area 110) and Station 263+40 (Wetland Impact Area 120).

2. A road crossing consisting of a double line of 164-foot long by 48-inch pipe over an unnamed intermittent tributary to Cornelius Creek shall be constructed on new location at Station 219+00. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

Approximately 0.87 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Cornelius Creek (Wetland Impact Area 102).

3. A road crossing consisting of a double line of 154-foot long 8-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 241+55. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.06 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 108).

4. A road crossing consisting of a triple line of 246-foot long 10-foot by 6-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 239+65. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.82 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 109).

5. A road crossing consisting of a double line of 217-foot long 9-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 251+15. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.15 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 111).

6. A road crossing consisting of a triple line of 233-foot long 10-foot by 6-foot box culvert over an unnamed tributary to Fourmile Creek shall be constructed on new location at Station 248+15. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

Approximately 0.81 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Fourmile Creek (Wetland Impact Area 112).

7. A road crossing consisting of a double line of 30-foot long by 42-inch pipe over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 12+60. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.04 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Service Road E over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 113).

8. A road crossing consisting of a single line of 243-foot long by 42-inch pipe over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 254+10. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.06 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of

   I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 117).

9. A road crossing consisting of a double line of 161-foot long 8-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 260+90. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.27 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 118).

10. A road crossing consisting of a single line of 144-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 271+20. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

Approximately 0.11 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 121).

11. Approximately 0.03 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Service Road B at Station 10+70 (Wetland Impact Area 123).

12. Approximately 1.05 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp A at Station 13+30 to 15+50 (Wetland Impact Area 122) and at Station 12+20 (Wetland Impact Area 124).

13. A road crossing consisting of a single line of 85-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 20+00. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 0.12 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop B over the unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 126).

14. A road crossing consisting of a single line of 75-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at

    Station 11+47. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 0.08 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop D over the unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 127).

15. Approximately 0.17 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop B at Station 13+10 (Wetland Impact Area 125) and Loop D at Station 10+60 (Wetland Impact Area 128).

16. Approximately 0.12 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of Ramp C and Loop B at Station 268+50 to 269+20 (Wetland Impact Area 129).

D. Mitigation

1. The mitigation site shall be constructed on a tract of land (part of Tax Map 0281-0A-0002) adjacent to Turkey Island Creek in Henrico County off of Route 606 (Carters Mill Road), as depicted in the preliminary mitigation plan dated January 28, 1998.

2. The permittee shall mitigate for the 3.44 acres of open water impacts, 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 24.65 acres of forested wetland impacts resulting from roadway construction by the creation of a mitigation site to be preserved in perpetuity.

3. The mitigation site shall be created, as proposed in the final mitigation plan dated February 22, 1999 (and received February 24, 1999), by grading the site, plugging ditches and planting the site with suitable native wetland plant species. The mitigation site shall provide for a 2:1 replacement to loss ratio for permanent and adverse impacts associated with this project (55.44 acres). Temporary impacts associated with the permit modification (Impact Areas 1, 2, 3, 4, 5, 12A, 14, 23, 24, 25, 32, 43, 102, 112, and 122) shall be mitigated at a ratio of 2:1 (4.72 acres). The remaining temporary impacts shall be mitigated at a 1:1 ratio for open water impacts (0.32 acres), emergent impacts (0.07 acres), scrub/shrub impacts (1.06 acres), and forested impacts (2.24 acres). Not more than 52.85 acres of the 60.16 acres of required mitigation shall be designed as forested wetlands. The remaining 7.31 acres of mitigation shall be a mixture of emergent wetlands, scrub/shrub wetlands, and open water.

4. In addition to the compensatory mitigation, the permittee shall also acquire and preserve +/- 57.37 acres of land as depicted in the Conservation Easement Plan as submitted in the January 28, 1998 joint permit application Amendment #2. The acquired property shall be protected by a restrictive covenant.

5. Within 30 days of issuance of the Section 404 permit from the ACOE, the issuance of the VWPP, permit issuance or approval by VMRC, and the sale of the bonds financing the project, the permittee shall post a bond in the amount of $1,500,000.00 to ensure that the mitigation requirements (design, construction, monitoring, and maintenance of the mitigation site) are fulfilled.

Upon (i) completion of each component of the mitigation, (ii) submission of evidence of such completion to the ACOE, and (iii) expiration of a thirty day period after items (i) and (ii) are accomplished to allow for ACOE concurrence of completion, the bonding company shall be allowed to reduce the bond by the appropriate amount based upon the status of the mitigation work, as follows:

Mitigation Stage	Bond Amount
1. 30 days after Permit Issuance	$1,500,000.00
2. Site Acquired	1,500,000.00
3. Site Graded and Planted	500,000.00
4. 2nd Growing Season Successfully Completed	250,000.00
5. 5th Growing Season Successfully Completed	0.00

6. The performance bond shall be emplaced within 30 days after the latter of both (i) issuance of Section 404 and Section 401 Water Quality Certification, and (ii) sale of the bonds financing this project.

7. The mitigation site shall be purchased prior to any construction in jurisdictional areas.

8. There shall be no use of herbicides or algacides in or immediately adjacent to the mitigation site, including the use of herbicides or algacides for the control of aquatic vegetation or algae. All vegetation removal shall be done by mechanical means only, unless previously authorized by the staff of DEQ.

9. The permittee shall establish an instrument which provides for the restriction, protection, or preservation of all mitigation areas in perpetuity. The instrument shall state that the discharge of dredged or fill material shall be prohibited in these areas unless specifically authorized in writing by the DEQ. A final copy of the protective instrument shall be forwarded to the DEQ within 30 days of recordation.

10. The wording for any restrictions, protections, or preservations of wetlands and State waters or any other similar instrument provided as part of the mitigation plan shall state that no activity will be performed on the property in an area designated as an unaffected Waters, including wetlands, or provided as a compensatory mitigation area, which would involve the discharge of dredged or fill material, unless specifically authorized by

the DEQ through the issuance of an individual permit or waiver thereof. This is to ensure that additional unauthorized impacts to State waters do not occur.

11. The wording of any restrictions, protections, or preservations of wetlands and State waters, or any other similar instrument shall contain the phrase "discharge of dredged or fill material".

12. The success of the mitigation site shall be based on establishing and maintaining suitable wetland hydrology and the desired wetland plant communities.

    a. Wetland hydrology shall be considered established if:

        (1) Depths to the seasonal high water table in the created wetlands are equal to or less than one foot for at least 12.5% of the growing season (28 days) during most years (taking below-normal rainfall years in consideration);

    b. Wetland plant community shall be considered established if:

        (1) A minimum of 400 stems/acre survival of planted tree species or equivalent naturally established facultative (FAC) or wetter (FACW or OBL) species for the life of the permit or until canopy cover is thirty percent (30%) or greater.

        (2) A minimum of sixty percent (60%) cover is established in the herb layer by the end of the first growing season, eighty percent (80%) cover by the end of the second growing season, and remaining at or above 80% for the life of the permit, thereafter;

        (3) A minimum of eighty percent (80%) survival of planted tree, shrub, and herbaceous species, or equivalent naturally established facultative (FAC) or wetter (FACW or OBL) species, for the life of the permit;

        (4) Species composition reflects the desired indigenous plant community types stated in the mitigation plan by the end of the second growing season and is maintained through the last year of the permit; and

(5) Noxious weeds are identified and controlled as described in the noxious weed control plan, such that the noxious weeds are not dominant species or altering the desired community structure.

c. Replacement of dead plant stock that is FAC or wetter shall occur each spring, as necessary to achieve a minimum of 400 stems/acre for the tree species, and eighty (80%) of the original stocking density of the herb and shrub species, unless equivalent naturally recolonized facultative (FAC) or wetter (FACW or OBL) species equal or exceed stocking amounts in respective strata (i.e. tree seedlings in the herb layer can not be counted in the tree or shrub layer).

d. If the wetland criteria are not met, the reasons for this shall be determined and a report stating the causes and a proposed corrective action plan shall be submitted to DEQ for approval in writing. The problems shall be corrected by the permittee. Should significant changes be necessary to establish wetlands, the monitoring plan shall begin again, with year one being the year changes are complete.

13. The permittee shall submit a final grading plan for the mitigation site to the DEQ prior to any planting and placement of ground water monitoring wells.

14. Grading of the compensatory mitigation site shall commence by the latter of the following: (i) commencement of I-895 construction or (ii) the first July 1 after approval of the Final Plans by all necessary federal, state and local agencies.

15. All construction in jurisdictional areas, as authorized by this permit, shall cease, if mitigation site construction has not commenced within 2 years of the commencement of project construction.

16. DEQ will consider the use of any excess wetland acreage successfully created at the mitigation site for mitigation for other third party permits provided a mitigation banking agreement has been approved for such acreage.

17. This permit may need to be renewed to assure that the mitigation work has been successful. Reapplication must be

made no less than 180 days prior to the expiration date of this permit, at which time DEQ will determine if renewal of the permit is necessary.

E. Monitoring

1. Photo stations shall be established to document the various construction aspects of this project within jurisdictional areas. These stations shall be established to document the existing and post construction conditions of the site. These stations shall be photographed prior to construction, during construction, and within one week after the completion of construction.

2. Stream bottom elevations at the road crossings shall be measured and recorded prior to construction and within one week after the completion of construction. This requirement shall only apply to those streams not designated herein as intermittent or those streams not designated herein in association with stream channelization.

2. The establishment of hydrology within the mitigation site shall be indicated by the establishment of monitoring wells within the created wetland and in existing wetlands. A total of 38 wells shall be established within the constructed mitigation site, as depicted in the February 22, 1999 mitigation plan. In addition, two wells shall be established in the existing adjacent wetlands. Depth to groundwater shall be monitored for a minimum of either 60 days of continuous automated monitoring or 8 consecutive weekly measurements during the growing season (March 28 through November 10) to demonstrate the successful achievement of wetland hydrology on the site.

   The permittee may continue to monitor at a level higher than the minimum required frequency, if the minimum required frequency has not established the presence of wetland hydrology and the permittee believes that the initial sampling was poorly timed. After a period of three monitoring years, DEQ may determine that the monitoring for hydrology should be discontinued, providing that adequate hydrology has been established and maintained. Adequate hydrology shall be within twelve inches of the surface for 28 consecutive days during the growing season.

4. Panoramic photos shall be taken from each of the monitoring well stations within the created wetlands during each

monitoring effort. Permanent markers shall be established to ensure that the same locations and view directions are monitored in each monitoring period.

5. The establishment of wetland vegetation shall be indicated by percent cover monitored in May and August during the first reportable growing season, and in August during the second and last reportable growing season in the life of the permit. At each monitoring station, the following information shall be collected:

   a. Percent cover for all herbaceous species shall be estimated using randomly placed 3-foot by 3-foot quadrats at a ratio of one plot per acre of constructed wetlands. Percent cover shall be a minimum of 80 percent after the second growing season and remaining at or above this level for the life of the permit. The approximate species composition of the herbaceous vegetation shall be indicated, including non-dominants. The number of stems per square meter for woody species shall be provided. A quantitative measure for noxious species present shall also be provided.

   b. Percent survival of planted woody species, if applicable, shall be estimated within a 20-foot by 20-foot plot. The number of stems of all tree species within each plot and the density of all tree species (number of stems per square meter or acre) shall be provided.

6. The permittee shall implement an invasive species control plan. This control plan shall include procedures to notify the VWPP staff of any invasive species occurrences, methods of removal, and successful control.

7. The permittee shall make provisions to monitor for any spills of petroleum products or other materials during the construction process.

G. <u>Reporting</u>

1. Photographs shall be submitted to the Department of Environmental Quality within 30 days of the completion of the project or monthly if the project takes longer than one week to complete. Photographs are not necessary during periods of no activity within jurisdictional areas.

2. Stream elevation data shall be submitted along with the photographs within 30 days of the completion of the project.

3. An official copy of the instrument of restriction, protection, or preservation of wetlands and State waters provided as part of the mitigation plan shall be submitted to the DEQ within 30 days of recordation as outlined in the mitigation portion of this permit.

4. The mitigation site photographs, hydrology and vegetation monitoring results shall be reported to the DEQ's VWPP staff by October 30 following each monitoring cycle, or for the last year of the permit, no later than 180 days prior to the expiration date of the permit.

5. Reports of invasive species occurrences and control of these occurrences shall be reported immediately upon discovery and resolution.

6. Alterations and maintenance conducted on the created wetland areas shall be reported along with the created wetlands monitoring report, and need only continue as long as wetland monitoring continues.

7. Violations of State water quality standards shall be reported within 24 hours to the Department of Environmental Quality - Water Division.

8. All reporting shall be submitted to: Department of Environmental Quality, OPS-VWPP, P.O. Box 10009, Richmond, Virginia 23240-0009.

PART II - GENERAL CONDITIONS

A. Duty to Comply

The permittee shall comply with all conditions of the permit. Nothing in this permit shall be construed to relieve the permittee of the duty to comply with all applicable Federal and State statutes, regulations and toxic standards and prohibitions. Any permit non-compliance is a violation of the Clean Water Act and State Water Control Law, and is grounds for enforcement action, permit termination, revocation, modification, or denial of a permit renewal application.

B. Mitigation Requirements

The permittee shall take all reasonable steps to:

1. Avoid all adverse environmental impact which could result from the activity;

2. Where avoidance is impractical, minimize the adverse environmental impact; and

3. Where impacts cannot be avoided, provide mitigation of the adverse impact on an in kind basis.

C. Reopener

This permit may be reopened to modify the conditions of the permit to meet new regulatory standards duly adopted by the Board. Causes for reopening permits include, but are not limited to:

1. When State law prohibits conditions in a permit which are more stringent than an applicable effluent limitation guideline;

2. When subsequently promulgated effluent guidelines are modified, and are based on best conventional pollutant control technology; or

3. When the circumstances on which the previous permit was based have materially and substantially changed, or special studies conducted by the Department or the permittee show material and substantial change since the time the permit was issued and thereby constitute cause for permit modification or revocation and reissuance.

D. Change in Management of Pollutants

All discharges and other activities authorized by this permit shall be made in accordance with the terms and conditions of this permit. The permittee shall submit a new application 180 days prior to any proposed modification to their activity which will:

1. Result in a significantly new or substantially increased discharge of dredged or fill material, or a significant change in the nature of the pollutants; or

2. Violate or lead to the violation of the terms and conditions of the permit or the Water Quality Standards of the Commonwealth.

E. Duty to Halt or to Reduce Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

F. Compliance with State and Federal Law

Compliance with this permit constitutes compliance with the Virginia Water Protection Permit requirements of the State Water Control Law. Nothing in this permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other State law or regulation or under the authority preserved by Section 510 of the Clean Water Act.

G. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal property rights, nor any infringement of federal, state or local laws or regulations.

H. Severability

The provisions of this permit are severable.

I. Right of Entry

The permittee shall allow authorized state and federal representatives, upon the presentation of credentials, at reasonable times and under reasonable circumstances:

1. To enter the permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the permit conditions;

2. To inspect any facilities, operations or practices (including monitoring and control equipment) regulated or required under the permit;

3. To sample or monitor any substance, parameter or activity for the purpose of assuring compliance with the conditions of the permit or as otherwise authorized by law.

For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.

J. Transferability of Permits

This permit may be transferred to another person by a permittee if:

1. The current permittee notifies the Department of Environmental Quality 30 days prior to the proposed transfer of the title to the facility or property;

2. The notice of the proposed transfer includes a written agreement between the existing and proposed new permittee containing a specific date of transfer of permit responsibility, coverage and liability between them; and

3. The Department of Environmental Quality does not within the 30 day time period notify the existing permittee of the State Water Control Board's intent to modify or revoke and reissue the permit.

Such a transferred permit shall, as of the date of the transfer, be as fully effective as if it had been issued directly to the new permittee.

K. Permit Modification

The permittee shall notify the Department of Environmental Quality of any modification of this activity and shall demonstrate in a written statement to the Department that said modification will not violate any conditions of this permit. If such demonstration cannot be made, the permittee shall apply for a modification of this permit. This permit may be modified when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of permit conditions that differ from those of the existing permit or are absent from it;

2. When new information becomes available about the operation or discharge covered by the permit which was not available at permit issuance and would have justified the application of different permit conditions at the time of permit issuance;

3. When a change is made in the promulgated standards or regulations on which the permit was based;

4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Clean Water Act;

5. When an effluent standard or prohibition for a toxic pollutant must be incorporated in the permit in accordance with provisions of Section 307(a) of the Clean Water Act;

6. When changes occur which are subject to "reopener clauses" in the permit;

7. When the Department of Environmental Quality determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use, the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to State Water Control Law Sections 62.1-242 through 253, during the term of the permit;

8. When the level of discharge of a pollutant not limited in the permit exceeds the level which can be achieved by available methodology for controlling such discharges;

9. When the permittee begins or expects to begin to cause the discharge of any toxic pollutant not reported in the application; or

10. When other states were not notified of the change in the permit and their waters may be affected by the discharge.

L. Permit Termination

This permit, after public notice and opportunity for a hearing, is subject to termination. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the permit;

2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;

3. The permittee's violation of a special or judicial order;

4. A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by permit modification or termination; or

5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge of dredged and fill material controlled by the permit.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

O. Unauthorized Discharge of Pollutants

Except in compliance with this permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or,

2. Otherwise alter the physical, chemical, or biological properties of such state surface waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
http://www.deq.state.va.us

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

May 17, 2001

Mr. Herbert Morgan
FD/MK Limited Liability Company
Suite 210
620 Moorefield Park Drive
Richmond, Virginia 23236

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: Modification of VWP Permit No. 97-1216
Interstate 895

Dear Mr. Morgan:

In accordance with your application, we have enclosed the original and one copy of the Permit Modification for the construction of 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 24.65 acres of forested wetlands, and 3.44 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/ relocation, and stormwater management basins on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch in Chesterfield and Henrico Counties and the City of Richmond, Virginia, pursuant to the Virginia Water Protection Permit Regulations (9 VAC 25-210-10) and Section 401 of the Clean Water Act Amendments of 1977, Public Law 95-217.

The provisions and conditions contained therein according to Section 401(a)(1) of the Clean Water Act requires that:

> "any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge in the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act."

(Over)

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period. Refer to Part 2A of the Rules of the Supreme Court of Virginia for additional requirements governing appeals from administrative agencies.

Alternatively, any owner under Section 62.1-4.16, 62.1-44.17 and 62.1-44.19 of the State Water Control Law aggrieved by any action of the Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board, Said petition must meet the requirements set forth in Section 1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

Please retain the copy and forward the original Permit Modification to the Norfolk District, Corps of Engineers, Fort Norfolk, 803 Front Street, Norfolk, Virginia 23510, ATTN: Permits Section.

If you have any questions, please advise us.

Sincerely,

Ellen Gilinsky

for Martin G. Ferguson, Jr.
Office of Water Permit Program

Enclosures

cc: Virginia Marine Resources Commission
U.S. Army Corps of Engineers, Norfolk District
Michael S. Rolband, P.E., P.W.S. - WSSI
VWPP File

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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VWP Permit No. 97-1216
Effective Date: August 26, 1998
Modification #1 Effective Date: May 25, 1999
Modification #2 Effective Date: July 14, 2000
Modification #3 Effective Date: May 17, 2001
Expiration Date: August 26, 2003

VIRGINIA WATER PROTECTION PERMIT
ISSUANCE PURSUANT TO THE STATE WATER CONTROL LAW
AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Department has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards.

Permittee: FD/MK Limited Liability Company

Address: Suite 210, 620 Moorefield Park, Richmond, VA 23236

Activity Location: I-95/Rt. 150 Interchange (Chippenham Parkway) east to I-295, just south of Charles City Road.

Activity Description: The construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 25.11 acres of forested wetlands, and 3.44 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/ relocation, stormwater management basins, and utility line relocations on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch in Chesterfield and Henrico Counties and the City of Richmond, Virginia. The proposed modification includes a temporary impact of 0.455 acres of palustrine, forested wetlands to allow access for a 320-ton crawler crane, and compensation for this impact at a ratio of 1:1 at the I-895 Mitigation Site.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions and Part II - General Conditions.

for Director, Department of Environmental Quality

May 17, 2001
Date

PART I - SPECIAL CONDITIONS

A. Overall Project Conditions

1. The conditions and limitations specified in the application and the supplemental materials submitted by the owner shall be adhered to.

2. In issuing this permit, the Board has not taken into consideration the structural stability of the proposed structure.

3. Pipes and/or culverts for road crossings on perennial streams shall be countersunk a minimum of six inches to provide for the re-establishment of a natural stream bottom and low flow fish passage.

4. All multiple line crossings shall provide for a low flow channel and a high flow channel to ensure that stream hydrology is not impaired and that fish passage during low flow periods is assured.

5. Each stream affected by a road crossing shall be restored to its original elevation immediately following the construction of the particular road crossing.

6. Untreated stormwater runoff shall be prohibited from directly discharging into any State waters.

7. Wetland limits within non-disturbance areas and limits of wetland disturbance areas within wetlands shall be clearly flagged in the field prior to the start of construction, and contractors shall be made aware of these limits, to ensure that additional impacts to State waters do not occur.

8. Temporary disturbances to wetlands during construction shall be avoided and minimized to the greatest extent possible. All temporarily disturbed wetland areas shall be restored in place, by stripping/stockpiling of the topsoil to be replaced after construction at pre-construction contours, stabilized with an appropriate wetland mix, and allowed to re-establish with wetland vegetation.

9. All work in wetland areas shall be done in such a manner so as to minimize disturbance of wetland soils and vegetation. Excavation and filling in wetland areas shall be performed by machinery located in the upland, whenever possible. Machinery that must be operated within wetland areas shall be placed on mats to

prevent tire rutting. The mats shall be removed as soon as the work is complete, and the area shall be returned to original contours and stabilized.

10. The permittee shall ensure that all temporarily disturbed wetland areas revegetate with wetland vegetation by the second year post-disturbance.

11. All denuded soils associated with this project shall be stabilized within seven days post-construction.

12. Channel relocations shall be performed completely "in-the-dry". This shall be accomplished by leaving a plug at the inlet and outlet ends of the new channel during excavation. Once the new channel has been stabilized, flow shall be routed into the new channel by first removing the downstream plug and then the upstream plug. The new stream channels shall be constructed following the typical sections submitted with the application.

13. All work shall be performed in the dry via the implementation of cofferdams or sheetpiling or other acceptable means.

14. The pouring of wet or uncured concrete directly into State waters shall be strictly prohibited.

15. All dredging and/or filling shall be accomplished so as to minimize disturbance of the bottom and turbidity increases in the water, which tend to degrade water quality and damage aquatic life.

16. Any deposition of dredged or excavated materials onshore, and all earthwork operations shall be carried out in such a manner as to prevent the erosion of the material and preclude its entry into State waters. Upon completion of earthwork operations, all fills onshore and other areas onshore disturbed during construction shall be seeded, riprapped or given some other type of protection from soil erosion.

17. All work shall be done in such a manner as to minimize sedimentation/siltation of State waters in accordance with Virginia Erosion and Sedimentation Regulations (VR 625-02-00). Appropriate erosion and sedimentation controls and practices shall be utilized during construction and until all disturbed areas have been stabilized.

18. All construction and installation associated with the activity shall be accomplished in such a manner that construction material or waste material is not discharged into State waters.

19. The construction or work authorized by this permit shall be executed in a manner so as to minimize any adverse impact on instream beneficial uses as defined in Title 62.1 - 10(b).

20. The permittee shall employ measures to prevent spills of fuels or lubricants into State waters. The Department of Environmental Quality must be notified if spills do occur (804/527-5020).

21. The permittee shall advise the Department of Environmental Quality in writing when unusual or potentially complex conditions are encountered which require debris removal or involve potentially toxic pollutants, and shall not take measures to remove the obstruction, material, or toxic pollutant, or change the location of any structure until approval by the Department is received.

22. The permittee shall contact the Department of Game and Inland Fisheries and the Virginia Marine Resources Commission to determine whether a time of year restriction is appropriate for any period of dredging or construction in waters containing endangered species or waters critical to the movement and reproduction of anadromous fish. The permittee shall maintain a copy of such time of year restriction as is issued, or notification that no restriction is necessary, for the duration of the construction phase of the project.

23. The Department of Environmental Quality - Water Division's VWPP Program staff shall be notified <u>in writing</u> 10 days prior to operations authorized under this Permit are to begin so that staff inspections of the project can be planned if deemed necessary.

24. Water quality standards for pH, dissolved oxygen and temperature shall not be violated during construction. These standards, from VR680-21-01.5, for Class III waters are as follows: pH (6.0-9.0 pH units); dissolved oxygen, 4.0 mg/l (minimum) and 5.0 mg/l (daily average); and maximum temperature of 32° C, with a rise above ambient temperature of no more than 3° C from an appropriate upstream sampling point.

B. Rt. 150/I-95 to 4.31 km E. of Chesterfield/Henrico Co. Line

1. Approximately 0.06 acres of non-tidal, palustrine open water impacts shall occur due to the widening of Rt. 150 over Grindall Creek (Wetland Impact Area 1A). The widening shall require the extension of an 8-foot by 6-foot box culvert by approximately 76 linear feet, a 60-inch culvert by approximately 72 linear feet, and a 84-inch culvert by approximately 72 linear feet.

   Class II riprap shall be placed at the outlet of the structures to provide scour protection. The riprap shall be placed so that a six-inch deep low flow channel shall be constructed from the outlet of the box culvert. Individual Class II riprap stones shall be placed along the downstream stream channel, as necessary for streambank protection.

2. Approximately 3.76 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Ramp G at Station 109+10 (Wetland Impact Area 1), Station 107+63 to 108+30 (Wetland Impact Area 3), and Station 103+05 to 106+40 (Wetland Impact Area 11).

3. Approximately 1.32 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 10+25 to 11+80 (Wetland Impact Area 2).

4. Approximately 1.27 acres of non-tidal, palustrine emergent and scrub/shrub wetlands impacts shall occur due to the construction of Ramp F at Station 388+40 to 389+35 (Wetland Impact Area 4), Station 396+70 to 397+80 (Wetland Impact Area 12), Station 400+70 to 401+30 (Wetland Impact Area 15), and Station 402+95 to 404+10 (Wetland Impact Area 16).

5. Approximately 2.23 acres of non-tidal, palustrine scrub/shrub wetlands impacts shall occur due to the construction of Interstate 895 at Station 12+20 to 14+00 (Wetland Impact Area 5).

6. Approximately 0.33 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the widening of Interstate 95 at Station 380+80 to 381+60 (Wetland Impact Area 6), Station 385+00 to 387+30 (Wetland Impact Area 45), and Station 414+20 to 414+90 (Wetland Impact Area 17).

7. Approximately 1.07 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp E at Station 3+80 to 4+60 (Wetland Impact Area 7), Station 5+30 to 8+80 (Wetland Impact Area 9), and Station 13+60 to 13+90 (Wetland Impact Area 47).

8. The existing I-95 southbound lane bridge over Falling Creek shall be widened on the upstream end by 16 feet (Station 101+70 to 102+85) to accommodate an additional lane associated with Ramp G, and Span E3 of Ramp E shall be constructed over Falling Creek on new location at Station 9+20 to 9+65 (Impact Area 46). The stream bed shall be restored to its original elevations immediately following completion of bridge widening. Approximately 0.46 acres of impacts to State waters shall occur due to the construction associated with the above-referenced bridges.

9. An existing road crossing consisting of a 220-foot long triple line of 10-feet by 4-feet box culvert over an unnamed tributary to the James River shall be extended by 43 feet on the downstream end at Station 5+00 (Impact Area 8). The stream bed shall be restored to its original elevations immediately following completion of culvert extension.

10. Approximately 0.36 acres of non-tidal, palustrine emergent and forested wetlands impacts shall occur due to the construction of Ramp H at Station 15+35 (Wetland Impact Area 12A), Station 396+70 to 397+40 (Wetland Impact Area 13) and Station 397+60 to 399+20 (Wetland Impact Area 14).

11. A three-span, 1470-foot long concrete box girder bridge shall be constructed over the James River at Station 18+00 (Impact Area 18). Riprap scour protection shall be placed along the river bank at the base of the pier footers.

12. A 210-foot span shall be constructed (Span EB-20/span WB-19) over an unnamed intermittent tributary to Cornelius Creek at Station 21+58 to 22+00 (Impact Area 19).

13. Approximately 2.33 acres of non-tidal, palustrine emergent, scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 23+80 to 24+50 (Wetland Impact Area 20), Station 33+20 to 35+00 (Wetland Impact Areas 23 and 24), Station 36+45 to 37+10 (Wetland Impact Area 26), Station 37+35 to 38+40 (Wetland Impact Area 27), Station 41+50 to 42+15

(Wetland Impact Area 29), Station 48+40 to 50+30 (Wetland Impact Area 33), Station 50+75 to 51+10 (Wetland Impact Area 34), Station 51+55 to 51+70 (Wetland Impact Area 35), Station 51+80 to 53+00 (Wetland Impact Area 36).

14. A road crossing consisting of a single line of 256-foot long by 42-inch pipe and a single line of 50-foot long by 48-inch pipe over an unnamed intermittent tributary to the James River and an associated stormwater management basin (Basin 9-1) shall be constructed on new location at Station 26+50 (Impact Area 21). The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

15. A road crossing consisting of a single line of 348-foot long by 54-inch pipe over an unnamed intermittent tributary to Cornelius Creek and an associated stormwater management basin (Basin 10-1) shall be constructed on new location at Station 29+60 to 30+45 (Impact Area 22). The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

16. Approximately 0.01 acres of non-tidal, palustrine scrub/shrub wetlands impacts shall occur due to the construction of a stormwater management pond outfall and associated riprap on Cornelius Creek (Wetland Impact Area 23A).

17. A road crossing consisting of a double line of 335-foot long by 72-inch pipe and a 252-foot long single line of 10-foot by 6-foot box culvert over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 13+70 (Mill Road) and 36+25 (I-895), respectively. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    The construction of the road crossing shall require the relocation and channelization of approximately 640 linear feet of the stream channel and shall result in a net loss of approximately 20 linear feet of stream channel.

    Approximately 0.41 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 25).

18. Portions of the relocated unnamed tributary to Cornelius Creek shall be constructed following the biotechnical stabilization final plan dated February 5, 1999 and received February 8, 1999.

19. A road crossing consisting of nineteen lines of 240-foot long by 30-inch reinforced concrete pipe, four lines of 246-foot long by 30-inch reinforced concrete pipe, and one line of 253-foot long by 30-inch reinforced concrete pipe over an unnamed tributary to Cornelius Creek shall be constructed on new location at Station 38+10 to 40+30 (Impact Area 28). A modified level spreader shall be constructed at the exvert of the culverts to maintain the unconsolidated sheetflow of the existing wetlands system. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 2.99 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Cornelius Creek (Wetland Impact Area 28).

20. An existing road crossing consisting of a double line of 50-foot long 12-foot by 8-foot box culvert over Cornelius Creek shall be extended by 8 feet on the upstream and downstream ends, and widened with 3 lines of 66-foot long 12-foot by 8-foot box culverts at Station 9+45 to 9+85. The stream bed shall be restored to its original elevations immediately following completion of culvert placement.

    Approximately 1.50 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Osborne Turnpike over Cornelius Creek and associated wetlands (Wetland Impact Areas 30, 31 and 32).

21. Approximately 0.69 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp A at Station 55+60 to 56+70 (Wetland Impact Area 37) and Station 54+60 to 54+80 (Wetland Impact Area 38).

22. Approximately 0.24 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895, Ramp A, Ramp B, and SWM Basin 17-1 at Station 56+20 to 57+00 and 57+50 to 57+70 (Wetland Impact Area 39).

23. Approximately 0.11 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp D at Station 12+50 to 12+80 and 13+60 to 13+70 (Wetland Impact Area 40).

24. An existing road crossing consisting of a single line of 75-foot long 10-foot by 10-foot box culvert over an unnamed tributary to Cornelius Creek shall be replaced with a quadruple line of 156-foot long 12-foot by 8-foot box culvert at

Station 17+80 to 18+20. The stream bed shall be restored to its original elevations immediately following completion of culvert placement.

Approximately 0.90 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the widening of Laburnum Avenue at Station 16+10 to 16+90 (Wetland Impact Area 41), Station 17+35 to 19+40 (Wetland Impact Area 42) and Station 16+80 to 19+80 (Wetland Impact Area 43).

25. Parallel 295-foot long, three span, steel plate girder bridges shall be constructed over Cornelius Creek on new location at Station 58+80 to 59+70 to accommodate the I-895 mainline. A 217-foot long two-span steel plate girder bridge shall be constructed over Cornelius Creek on new location at Station 11+15 to 11+80 to accommodate Ramp D. The stream bed shall be restored to its original elevations immediately following completion of bridge construction.

    Approximately 3.45 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 and Ramp D (Wetland Impact Area 44).

26. An existing 1.85-acre pond shall be filled as the result of the construction of Interstate 895 and stormwater basin 15-1 at Station 46+80 to 48+00 (Impact Area 10).

27. Approximately 0.455 acres of non-tidal, palustrine forested wetlands impacts shall occur due to access needed for a 320-ton crawler crane at the Route 150, I-95, and I985 interchange at Station 13+20 to 14+60. The site shall be restored in place, by stripping/stockpiling of the topsoil to be replaced after construction at pre-construction contours, stabilized with an appropriate wetland mix, and allowed to reestablish with wetland vegetation immediately following completion of construction.

C. 4.31 km East of Chesterfield/Henrico Co. line to I-295

1. Approximately 3.56 acres of non-tidal, palustrine scrub/shrub and forested wetlands impacts shall occur due to the construction of Interstate 895 at Station 218+00 (Wetland Impact Area 101), Station 223+00 (Wetland Impact Area 104), Station 233+20 (Wetland Impact Area 105), Station 230+00 (Wetland Impact Area 106), Station 236+60 to 237+30 (Wetland Impact Area 107), Station 242+40 (Wetland Impact Area 110) and Station 263+40 (Wetland Impact Area 120).

2. A road crossing consisting of a double line of 164-foot long by 48-inch pipe over an unnamed intermittent tributary to Cornelius Creek shall be constructed on new location at Station 219+00. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.87 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Cornelius Creek (Wetland Impact Area 102).

3. A road crossing consisting of a double line of 154-foot long 8-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 241+55. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.06 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 108).

4. A road crossing consisting of a triple line of 246-foot long 10-foot by 6-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 239+65. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.82 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 109).

5. A road crossing consisting of a double line of 217-foot long 9-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 251+15. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.15 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 111).

6. A road crossing consisting of a triple line of 233-foot long 10-foot by 6-foot box culvert over an unnamed tributary to Fourmile Creek shall be constructed on new

location at Station 248+15. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

Approximately 0.81 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed tributary to Fourmile Creek (Wetland Impact Area 112).

7. A road crossing consisting of a double line of 30-foot long by 42-inch pipe over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 12+60. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.04 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Service Road E over an unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 113).

8. A road crossing consisting of a single line of 243-foot long by 42-inch pipe over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 254+10. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.06 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 117).

9. A road crossing consisting of a double line of 161-foot long 8-foot by 4-foot box culvert over an unnamed intermittent tributary to Fourmile Creek shall be constructed on new location at Station 260+90. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

   Approximately 0.27 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over the unnamed intermittent tributary to Fourmile Creek (Wetland Impact Area 118).

10. A road crossing consisting of a single line of 144-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 271+20. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

Approximately 0.11 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of I-895 over an unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 121).

11. Approximately 0.03 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Service Road B at Station 10+70 (Wetland Impact Area 123).

12. Approximately 1.05 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Ramp A at Station 13+30 to 15+50 (Wetland Impact Area 122) and at Station 12+20 (Wetland Impact Area 124).

13. A road crossing consisting of a single line of 85-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 20+00. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 0.12 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop B over the unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 126).

14. A road crossing consisting of a single line of 75-foot long by 36-inch pipe over an unnamed intermittent tributary to Deerlick Branch shall be constructed on new location at Station 11+47. The stream bed shall be restored to its original elevations immediately following completion of pipe placement.

    Approximately 0.08 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop D over the unnamed intermittent tributary to Deerlick Branch (Wetland Impact Area 127).

15. Approximately 0.17 acres of non-tidal, palustrine forested wetlands impacts shall occur due to the construction of Loop B at Station 13+10 (Wetland Impact Area 125) and Loop D at Station 10+60 (Wetland Impact Area 128).

16. Approximately 0.12 acres of non-tidal, palustrine emergent wetlands impacts shall occur due to the construction of Ramp C and Loop B at Station 268+50 to 269+20 (Wetland Impact Area 129).

D. Mitigation

1. The mitigation site shall be constructed on a tract of land (part of Tax Map 0281-0A-0002) adjacent to Turkey Island Creek in Henrico County off of Route 606 (Carters Mill Road), as depicted in the preliminary mitigation plan dated January 28, 1998.

2. The permittee shall mitigate for the 3.44 acres of open water impacts, 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 25.11 acres of forested wetland impacts resulting from roadway construction by the creation of a mitigation site to be preserved in perpetuity.

3. The mitigation site shall be created, as proposed in the final mitigation plan dated February 22, 1999 (and received February 24, 1999), by grading the site, plugging ditches and planting the site with suitable native wetland plant species. The mitigation site shall provide for a 2:1 replacement to loss ratio for permanent and adverse impacts associated with this project (55.44 acres). Temporary impacts associated with the permit modification (Impact Areas 1, 2, 3, 4, 5, 12A, 14, 23, 24, 25, 32, 43, 102, 112, and 122) shall be mitigated at a ratio of 2:1 (4.72 acres). The remaining temporary impacts shall be mitigated at a 1:1 ratio for open water impacts (0.32 acres), emergent impacts (0.07 acres), scrub/shrub impacts (1.06 acres), and forested impacts (2.24 acres). The temporary impact associated with Permit Modification No. 3 shall be mitigated at a 1:1 ratio for forested impacts (0.46 acres). Not more than 57.00 acres of the 64.31 acres of required mitigation shall be designed as forested wetlands. The remaining 7.31 acres of mitigation shall be a mixture of emergent wetlands, scrub/shrub wetlands, and open water.

4. In addition to the compensatory mitigation, the permittee shall also acquire and preserve +/- 57.37 acres of land as depicted in the Conservation Easement Plan as submitted in the January 28, 1998 joint permit application Amendment #2. The acquired property shall be protected by a restrictive covenant.

5. Within 30 days of issuance of the Section 404 permit from the USACE, the issuance of the VWPP, permit issuance or approval by VMRC, and the sale of the bonds financing the project, the permittee shall post a bond in the amount of $1,500,000.00 to ensure that the mitigation requirements (design, construction, monitoring, and maintenance of the mitigation site) are fulfilled.

Upon (i) completion of each component of the mitigation, (ii) submission of evidence of such completion to the USACE, and (iii) expiration of a thirty day period after items (i) and (ii) are accomplished to allow for USACE concurrence of completion, the bonding company shall be allowed to reduce the bond by the appropriate amount based upon the status of the mitigation work, as follows:

Mitigation Stage	Bond Amount
1. 30 days after Permit Issuance	$1,500,000.00
2. Site Acquired	1,500,000.00
3. Site Graded and Planted	500,000.00
4. 2nd Growing Season Successfully Completed	250,000.00
5. 5th Growing Season Successfully Completed	0.00

6. The performance bond shall be emplaced within 30 days after the latter of both (i) issuance of Section 404 and Section 401 Water Quality Certification, and (ii) sale of the bonds financing this project.

7. The mitigation site shall be purchased prior to any construction in jurisdictional areas.

8. There shall be no use of herbicides or algacides in or immediately adjacent to the mitigation site, including the use of herbicides or algacides for the control of aquatic vegetation or algae. All vegetation removal shall be done by mechanical means only, unless previously authorized by the staff of DEQ.

9. The permittee shall establish an instrument which provides for the restriction, protection, or preservation of all mitigation areas in perpetuity. The instrument shall state that the discharge of dredged or fill material shall be prohibited in these areas unless specifically authorized in writing by the DEQ. A final copy of the protective instrument shall be forwarded to the DEQ within 30 days of recordation.

10. The wording for any restrictions, protections, or preservations of wetlands and State waters or any other similar instrument provided as part of the mitigation plan shall state that no activity will be performed on the property in an area designated as an unaffected Waters, including wetlands, or provided as a compensatory mitigation area, which would involve the discharge of dredged or fill material, unless specifically authorized by the DEQ through the issuance of an

individual permit or waiver thereof. This is to ensure that additional unauthorized impacts to State waters do not occur.

11. The wording of any restrictions, protections, or preservations of wetlands and State waters, or any other similar instrument shall contain the phrase "discharge of dredged or fill material".

12. The success of the mitigation site shall be based on establishing and maintaining suitable wetland hydrology and the desired wetland plant communities.

    a. Wetland hydrology shall be considered established if:

        (1) Depths to the seasonal high water table in the created wetlands are equal to or less than one foot for at least 12.5% of the growing season (28 days) during most years (taking below-normal rainfall years in consideration);

    b. Wetland plant community shall be considered established if:

        (1) A minimum of 400 stems/acre survival of planted tree species or equivalent naturally established facultative (FAC) or wetter (FACW or OBL) species for the life of the permit or until canopy cover is thirty percent (30%) or greater.

        (2) A minimum of sixty percent (60%) cover is established in the herb layer by the end of the first growing season, eighty percent (80%) cover by the end of the second growing season, and remaining at or above 80% for the life of the permit, thereafter;

        (3) A minimum of eighty percent (80%) survival of planted tree, shrub, and herbaceous species, or equivalent naturally established facultative (FAC) or wetter (FACW or OBL) species, for the life of the permit;

        (4) Species composition reflects the desired indigenous plant community types stated in the mitigation plan by the end of the second growing season and is maintained through the last year of the permit; and

(5) Noxious weeds are identified and controlled as described in the noxious weed control plan, such that the noxious weeds are not dominant species or altering the desired community structure.

c. Replacement of dead plant stock that is FAC or wetter shall occur each spring, as necessary to achieve a **minimum** of 400 stems/acre for the tree species, and eighty (80%) of the original stocking density of the herb and shrub species, unless equivalent naturally recolonized facultative (FAC) or wetter (FACW or OBL) species equal or exceed stocking amounts in respective strata (i.e. tree seedlings in the herb layer can not be counted in the tree or shrub layer).

d. If the wetland criteria are not met, the reasons for this shall be determined and a report stating the causes and a proposed corrective action plan shall be submitted to DEQ for approval in writing. The problems shall be corrected by the permittee. Should significant changes be necessary to establish wetlands, the monitoring plan shall begin again, with year one being the year changes are complete.

13. The permittee shall submit a final grading plan for the mitigation site to the DEQ prior to any planting and placement of ground water monitoring wells.

14. Grading of the compensatory mitigation site shall commence by the latter of the following: (i) commencement of I-895 construction or (ii) the first July 1 after approval of the Final Plans by all necessary federal, state and local agencies.

15. All construction in jurisdictional areas, as authorized by this permit, shall cease, if mitigation site construction has not commenced within 2 years of the commencement of project construction.

16. DEQ will consider the use of any excess wetland acreage successfully created at the mitigation site for mitigation for other third party permits provided a mitigation banking agreement has been approved for such acreage.

17. This permit may need to be renewed to assure that the mitigation work has been successful. Reapplication must be made no less than 180 days prior to the expiration date of this permit, at which time DEQ will determine if renewal of the permit is necessary.

E. Monitoring

1. Photo stations shall be established to document the various construction aspects of this project within jurisdictional areas. These stations shall be established to document the existing and post construction conditions of the site. These stations shall be photographed prior to construction, during construction, and within one week after the completion of construction.

2. Stream bottom elevations at the road crossings shall be measured and recorded prior to construction and within one week after the completion of construction. This requirement shall only apply to those streams not designated herein as intermittent or those streams not designated herein in association with stream channelization.

3. The establishment of hydrology within the mitigation site shall be indicated by the establishment of monitoring wells within the created wetland and in existing wetlands. A total of 38 wells shall be established within the constructed mitigation site, as depicted in the February 22, 1999 mitigation plan. In addition, two wells shall be established in the existing adjacent wetlands. Depth to groundwater shall be monitored for a minimum of either 60 days of continuous automated monitoring or 8 consecutive weekly measurements during the growing season (March 28 through November 10) to demonstrate the successful achievement of wetland hydrology on the site.

   The permittee may continue to monitor at a level higher than the minimum required frequency, if the minimum required frequency has not established the presence of wetland hydrology and the permittee believes that the initial sampling was poorly timed. After a period of three monitoring years, DEQ may determine that the monitoring for hydrology should be discontinued, providing that adequate hydrology has been established and maintained. Adequate hydrology shall be within twelve inches of the surface for 28 consecutive days during the growing season.

4. Photos shall be taken from each of the monitoring well stations within the created wetlands during each monitoring effort. Permanent markers shall be established to ensure that the same locations and view directions are monitored in each monitoring period.

5. The establishment of wetland vegetation shall be indicated by percent cover monitored in May and August during the first reportable growing season, and in August during the second and last reportable growing season in the life of the permit. At each monitoring station, the following information shall be collected:

   a. Percent cover for all herbaceous species shall be estimated using randomly placed 3-foot by 3-foot quadrats at a ratio of one plot per acre of constructed wetlands. Percent cover shall be a minimum of 80 percent after the second growing season and remaining at or above this level for the life of the permit. The approximate species composition of the herbaceous vegetation shall be indicated, including non-dominants. The number of stems per square meter for woody species shall be provided. A quantitative measure for noxious species present shall also be provided.

   b. Percent survival of planted woody species, if applicable, shall be estimated within a 20-foot by 20-foot plot. The number of stems of all tree species within each plot and the density of all tree species (number of stems per square meter or acre) shall be provided.

6. The permittee shall implement an invasive species control plan. This control plan shall include procedures to notify the VWPP staff of any invasive species occurrences, methods of removal, and successful control.

7. The permittee shall make provisions to monitor for any spills of petroleum products or other materials during the construction process.

F. Reporting

1. Photographs shall be submitted to the Department of Environmental Quality within 30 days of the completion of the project or monthly if the project takes longer than one week to complete. Photographs are not necessary during periods of no activity within jurisdictional areas.

2. Stream elevation data shall be submitted along with the photographs within 30 days of the completion of the project.

3. An official copy of the instrument of restriction, protection, or preservation of wetlands and State waters provided as part of the mitigation plan shall be

submitted to the DEQ within 30 days of recordation as outlined in the mitigation portion of this permit.

4. The mitigation site photographs, hydrology and vegetation monitoring results shall be reported to the DEQ's VWPP staff by October 30 following each monitoring cycle, or for the last year of the permit, no later than 180 days prior to the expiration date of the permit.

5. Reports of invasive species occurrences and control of these occurrences shall be reported immediately upon discovery and resolution.

6. Alterations and maintenance conducted on the created wetland areas shall be reported along with the created wetlands monitoring report, and need only continue as long as wetland monitoring continues.

7. Violations of State water quality standards shall be reported within 24 hours to the Department of Environmental Quality - Water Division.

8. All reporting shall be submitted to: Department of Environmental Quality, OPS-VWPP, P.O. Box 10009, Richmond, Virginia 23240-0009.

PART II - GENERAL CONDITIONS

A. Duty to Comply

The permittee shall comply with all conditions of the permit. Nothing in this permit shall be construed to relieve the permittee of the duty to comply with all applicable Federal and State statutes, regulations and toxic standards and prohibitions. Any permit non-compliance is a violation of the Clean Water Act and State Water Control Law, and is grounds for enforcement action, permit termination, revocation, modification, or denial of a permit renewal application.

B. Mitigation Requirements

The permittee shall take all reasonable steps to:

1. Avoid all adverse environmental impact which could result from the activity;

2. Where avoidance is impractical, minimize the adverse environmental impact; and

3. Where impacts cannot be avoided, provide mitigation of the adverse impact on an in kind basis.

C. Reopener

This permit may be reopened to modify the conditions of the permit to meet new regulatory standards duly adopted by the Board. Causes for reopening permits include, but are not limited to:

1. When State law prohibits conditions in a permit which are more stringent than an applicable effluent limitation guideline;

2. When subsequently promulgated effluent guidelines are modified, and are based on best conventional pollutant control technology; or

3. When the circumstances on which the previous permit was based have materially and substantially changed, or special studies conducted by the Department or the permittee show material and substantial change since the time the permit was issued and thereby constitute cause for permit modification or revocation and reissuance.

D. Change in Management of Pollutants

All discharges and other activities authorized by this permit shall be made in accordance with the terms and conditions of this permit. The permittee shall submit a new application 180 days prior to any proposed modification to their activity which will:

1. Result in a significantly new or substantially increased discharge of dredged or fill material, or a significant change in the nature of the pollutants; or

2. Violate or lead to the violation of the terms and conditions of the permit or the Water Quality Standards of the Commonwealth.

E. Duty to Halt or to Reduce Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

F. Compliance with State and Federal Law

Compliance with this permit constitutes compliance with the Virginia Water Protection Permit requirements of the State Water Control Law. Nothing in this permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other State law or regulation or under the authority preserved by Section 510 of the Clean Water Act.

G. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal property rights, nor any infringement of federal, state or local laws or regulations.

H. Severability

The provisions of this permit are severable.

I. Right of Entry

The permittee shall allow authorized state and federal representatives, upon the presentation of credentials, at reasonable times and under reasonable circumstances:

1. To enter the permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the permit conditions;

2. To inspect any facilities, operations or practices (including monitoring and control equipment) regulated or required under the permit;

3. To sample or monitor any substance, parameter or activity for the purpose of assuring compliance with the conditions of the permit or as otherwise authorized by law.

For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.

J. Transferability of Permits

This permit may be transferred to another person by a permittee if:

1. The current permittee notifies the Department of Environmental Quality 30 days prior to the proposed transfer of the title to the facility or property;

2. The notice of the proposed transfer includes a written agreement between the existing and proposed new permittee containing a specific date of transfer of permit responsibility, coverage and liability between them; and

3. The Department of Environmental Quality does not within the 30 day time period notify the existing permittee of the State Water Control Board's intent to modify or revoke and reissue the permit.

Such a transferred permit shall, as of the date of the transfer, be as fully effective as if it had been issued directly to the new permittee.

K. Permit Modification

The permittee shall notify the Department of Environmental Quality of any modification of this activity and shall
demonstrate in a written statement to the Department that said modification will not violate any conditions of this permit. If such demonstration cannot be made, the permittee shall apply for a modification of this permit. This permit may be modified when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of permit conditions that differ from those of the existing permit or are absent from it;

2. When new information becomes available about the operation or discharge covered by the permit which was not available at permit issuance and would have justified the application of different permit conditions at the time of permit issuance;

3. When a change is made in the promulgated standards or regulations on which the permit was based;

4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Clean Water Act;

5. When an effluent standard or prohibition for a toxic pollutant must be incorporated in the permit in accordance with provisions of Section 307(a) of the Clean Water Act;

6. When changes occur which are subject to "reopener clauses" in the permit;

7. When the Department of Environmental Quality determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use, the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to State Water Control Law Sections 62.1-242 through 253, during the term of the permit;

8. When the level of discharge of a pollutant not limited in the permit exceeds the level which can be achieved by available methodology for controlling such discharges;

9. When the permittee begins or expects to begin to cause the discharge of any toxic pollutant not reported in the application; or

10. When other states were not notified of the change in the permit and their waters may be affected by the discharge.

L. Permit Termination

This permit, after public notice and opportunity for a hearing, is subject to termination. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the permit;

2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;

3. The permittee's violation of a special or judicial order;

4. A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by permit modification or termination; or

5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge of dredged and fill material controlled by the permit.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

O. Unauthorized Discharge of Pollutants

Except in compliance with this permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or,

2. Otherwise alter the physical, chemical, or biological properties of such state surface waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.

AUG 14 2002
WETLAND STUDIES AND SOLUTIONS, INC.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
www.deq.state.va.us

Robert G. Burnley
Director

(804) 698-4000
1-800-592-5482

August 12, 2002

Ms. Ineke Dickman, P.W.S.
Wetland Studies and Solutions, Inc.
14088-M Sullyfield Circle
Chantilly, Virginia 20151

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

RE: VWP Individual Permit Number **97-1216**
Interstate 895 in Henrico and Chesterfield Counties and City of Richmond, Virginia
Notice of Permit Extension Approval Letter

Dear Ms. Dickman:

The Virginia Department of Environmental Quality (DEQ) has received your request to extend the permit term for the Virginia Water Protection (VWP) Individual Permit Number 97-1216. The permit was issued on August 26, 1998 and subsequently modified for the impact of 3.44 acres of open water impacts, 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 25.11 acres of forested wetlands. The required compensatory mitigation consists of the creation of 64.31 acres of wetlands at the 895 Compensation Site in Henrico County. The permit will expire on August 26, 2003.

In your letter dated August 1, 2002, you requested that the permit term be extended two years to ensure compliance with the compensation conditions. It is our understanding that the road construction will be complete by the end of 2002.

In accordance with your request and pursuant to the VWP Permit Program Regulation 9 VAC 25-210-185, DEQ approves the term extension for this permit. The new expiration date is August 26, 2005.

(over)

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 10009, Richmond, Virginia 23240
Fax (804) 698-4500 TDD (804) 698-4021
www.deq.state.va.us

Robert G. Burnley
Director

(804) 698-4000
1-800-592-5482

VWP Permit No. 97-1216
Effective Date: August 26, 1998
Modification #1 Effective Date: May 25, 1999
Modification #2 Effective Date: July 14, 2000
Modification #3 Effective Date: May 17, 2001
Expiration Date: August 26, 2003
Extended Expiration Date: August 26, 2005

VIRGINIA WATER PROTECTION PERMIT
ISSUANCE PURSUANT TO THE STATE WATER CONTROL LAW
AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Department has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards.

Permittee: FD/MK Limited Liability Company

Address: Suite 210, 620 Moorefield Park, Richmond, VA 23236

Activity Location: I-95/Rt. 150 Interchange (Chippenham Parkway) east to I-295, just south of Charles City Road.

Activity Description: The construction of an 8.26 mile 4-lane and 6-lane divided connector highway between I-95 and I-295 on new location (Interstate 895), resulting in the impact of approximately 2.71 acres of emergent, 3.63 acres of scrub/shrub, and 25.11 acres of forested wetlands, and 3.44 acres of open water from the construction or extension of road crossings, associated road fill, stream channelization/ relocation, stormwater management basins, and utility line relocations on the James River, Falling Creek, Cornelius Creek, x-tribs Fourmile Creek, x-tribs Ross Run, and x-tribs Deerlick Branch in Chesterfield and Henrico Counties and the City of Richmond, Virginia. The proposed modification includes a temporary impact of 0.455 acres of palustrine, forested wetlands to allow access for a 320-ton crawler crane, and compensation for this impact at a ratio of 1:1 at the I-895 Mitigation Site.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions and Part II - General Conditions.

for Director, Department of Environmental Quality

August 12, 2002
Date

AON

Certificate

Issued by Aon Risk Services Australia Limited

June 19, 2006

Reference is hereby made to that certain Loan Agreement (the "Loan Agreement") dated as of June 23, 2006, between Transurban (895) US Holdings LLC, a Delaware limited liability company, the several banks and other financial institutions from time to time parties thereto, the Mandated Lead Arrangers, and DEPFA Bank plc, in its capacity as Administrative Agent for the Lenders. All capitalized terms used herein and not otherwise defined shall have the meanings as set forth in Appendix A to the Loan Agreement.

I, Dean Akerley of Aon Risk Services Australia Limited do hereby certify that, as insurance broker to Transurban (895) US Holdings LLC of the date hereof:

1. The policies of insurance coverage required to be in effect under the ARCA and the insurance coverage required to be in effect under the Loan Agreement has been arranged to the insureds named in the ARCA and the Loan Agreement and are effective from June 23, 2006. The coverage complies with the insurance requirements set forth in the ARCA and the Loan Agreement, as applicable; and

2. All premiums due in connection with such policies are to be paid within the agreed premium payment terms;

IN WITNESS WHEREOF, I have hereunto set my hand and executed and delivered this Certificate as of the date first set forth above.

By: Dean Akerley

Dean Akerley
Divisional Manager

Aon has always valued the privacy of personal information. If you would like a copy of our Privacy Policy, you can contact us or access it from our website at www.aon.com.au.

Allianz

Allianz Australia Insurance Limited
ABN 15 000 122 850

CERTIFICATE OF CURRENCY

THIS IS TO CERTIFY THAT

The undemoted **Commercial Liability Insurance Policy** is current for the period specified and is issued in accordance with the terms, conditions, definitions, limitations and exceptions noted therein:-

NAMED INSURED: Transurban Group including Transurban (895) LLC – Permit /Concession holder for Pocahontas Parkway

POLICY NUMBER: 99 0000332 LGR

INTEREST INSURED: Legal liability to pay compensation for claims arising out of the Business for Injury or Damage occurring during the Period of Insurance within the Territorial Limits which are defined as being World Wide.

PERIOD OF INSURANCE: From: December 31 2005 at 4.00 p.m.
To: December 31 2006 at 4.00 p.m.

LIMITS OF LIABILITY:

Public Liability
$ 10,000,000 each occurrence

Products Liability
$ 10,000,000 each occurrence and in the aggregate during any one Period of Insurance

SPECIAL NOTE/CONDITIONS: This Policy covers the liability of the Named Insured for their liability arising out of the use of automobiles which are not owned, hired, leased or supplied by the Named Insured and not required to be insured by the Named Insured by virtue of any legislation governing its use, provided that there shall be no cover for damage to any such automobile.

This Certificate is issued as a matter of information only and confers no rights upon the holder. It does not amend, extend or alter the coverage afforded by the Policy/Policies listed. It is provided as a summary only of the cover provided and is current only at the date of issue.

Signed at Sydney on June 15 2006

For and on behalf of
Allianz Australia Insurance Limited
ABN 15 000 122 850

Allianz Australia Insurance Limited
Allianz
Allianz Global Corporate & Specialty
ABN 15 000 122 850

AON

15 June, 2006

GPO Box 1230, Melbourne VIC 3001
Level 5, Aon House
440 Collins St, MELBOURNE VIC. 3000
DX 139, Melbourne
Telephone 61 (3) 9211 3000
Facsimile 61 (3) 9211 3500
Direct Phone 61 (3) 9211 3252
Direct Fax 61 (3) 9211 3514
Email: Dean.Akerley@aon.com.au

Mr D Lyons
Manager, Risk & Insurance
Transurban Limited
Level 43, Rialto South Tower
525 Collins Street
MELBOURNE VIC 3000

Dear David

Pocahontas Parkway

In accordance with the requirements of the ARCA Clause 13.03 and the Loan Agreement Schedule 6.12, I confirm that insurance coverage for the Pocahontas Parkway has been placed with an effective date of the 23 June 2006.

The programs in place are in accordance with the respective clauses other than in respect to Workers Compensation, Non Owned Aircraft and Builders Risk Insurance.

Property and Business Interruption

Coverage has been arranged to a limit of liability of US$310,000,000 anyone loss or series of losses arising out of anyone event and in the aggregate in respect to Earthquake, Named Windstorm and Flood.

The limit has is based on the maximum foreseeable loss scenario as provided by Arup that being major damage to the James River Bridge and associated loss of revenue estimated at US$220,000,000.

The US$310,000,000 limit allows for the application of sub limits and margin for unseen loss

The coverage has been placed with the existing Transurban Limited property and business interruption insurance panel via US licensed Insurance companies approved in the Commonwealth of Virginia (56.75%) and approved Surplus Lines carriers in the Commonwealth of Virginia (43.25%).

Terrorism

Coverage has been extended to include Terrorism/TRIA for the Property and Business Interruption and General Liability programs.

General Liability

The coverage has been placed on a direct basis with Allianz Global Risks US and National Union Fire Insurance Company of Pittsburgh (AIG) who are both issuing US policies to a total limit of US$50,000,000 anyone occurrence/aggregate.

Both companies are US licensed Insurance companies approved in the Commonwealth of Virginia.

Aon has always valued the privacy of personal information. If you would like a copy of our Privacy Policy, you can contact us or access it from our website at www.aon.com.au

Automobile Liability

Transurban have advised that there is currently no exposure for owned vehicles and coverage is required only for non-owned vehicle liability.

Coverage is provided by Allianz Global Risks under the Transurban Group Combined General Liability program to a limit of US$10,000,000.

Workers Compensation

Cover is not in place

Transurban currently has no employees in the Commonwealth of Virginia.

Workers Compensation insurance will be arranged in respect to the future employment requirements.

Non–Owned Aircraft

Cover is not in place

Transurban currently do not engage in the hiring or use of non-owned aircraft.

Non-Owned Aircraft Liability Insurance will be arranged in respect to the future to any charters etc.

Builders Risk Insurance - Richmond Airport Connector Road and Other Capital Projects

Cover is not in place.

Builders Risk Insurance coverage will be arranged as required for future projects.

Aon Commentary on Programs

Based on our experience in the arrangement of insurance programs for roadway systems and the risks specific to the Pocahontas Parkway it is our opinion that the programs placed provide specific and comprehensive coverage and are applicable for the project.

Yours sincerely

Dean Akerley
Divisional Manager

JARDINE LLOYD THOMPSON CANADA
Inc

Box 3
Suite 800 65 University Avenue
Toronto, Ontario M5J 2H7
Telephone 416 941 9501
Facsimile 416 640 5650
Toll Free 1 877 240 5475

June 28, 2006

DEPFA Bank plc,
as the Administrative Agent
1 Commons Street
Dublin 1
Ireland

Wells Fargo Bank, N.A
as the Collateral Agent
9062 Old Annapolis Road
Columbia, MD 21045

The Lenders and the Mandated Lead Arrangers
Party to the Loan Agreement (as defined below)

Re: Pocahontas Toll Road Financing

Ladies and Gentlemen:

This certificate is being delivered pursuant to Section 4.01(l)(ii) of the Loan Agreement dated as of June 22, 2006 among Transurban (895) US Holdings LLC, the mandated lead arrangers specified in that agreement, the lenders party to that agreement, and DEPFA Bank plc. as administrative agent for such lenders (the 'Loan Agreement") by the undersigned, a duly authorized representative of Jardine Lloyd Thompson of Canada Inc., in its capacity as insurance consultant (the "Insurance Consultant") under the Loan Agreement.

The Insurance Consultant has reviewed the applicable provisions of the Loan Agreement and the ARCA referred to therein and is familiar with the insurance requirements stated therein and in the ARCA.

Attached hereto as Schedule A is a true, correct and complete list of the insurance coverages which have been obtained in connection with the Project referred to in the Loan Agreement. Upon delivery of the original certificates of insurance to Administrative Agent, copies of which are attached to Schedule A, the Borrower will have provided satisfactory evidence of compliance with the provisions of Section 6.12 of the Loan Agreement.

The Insurance Consultant certifies that all insurance policies required to be maintained by the Borrower Partres (as defined in the Loan Agreement) under Section 6.12 of the Loan Agreement are in full force and effect and such policies otherwise conform with the requirements specified on Schedule 6.12 to the Loan Agreement and in the ARCA (including the requirements that such insurance shall not be subject to cancellation without prior notice to the Administrative Agent, that

the Senior Secured Parties be named as additional insureds and that the Collateral Agent has been named as the loss payee).

Yours sincerely,

Jardine Lloyd Thompson of Canada Inc.

By _____
Ken McGillion
Executive Vice President and Branch Manager

June 28, 2006

Schedule A

Pocahontas Insurers Chart

TAB	Insurance Cover	Insurer and Policy No.	Document Received	Certificate of Insurance or Policy Compliant with respect to ARCA and the Loan Agreement
1	Property – Surplus Lines from London (43.25% of USD310,000,000)	Various Policy No.'s WC0505446/7/8/9/50/1/64/3/7 June 23 2006 – December 31 2006	Certificate of Currency from AON Melbourne	Yes, await formal policy documentation
2	Property – US (48% of USD310,000,000)	XL Insurance Company of America Policy No. US00009761PR06A June 23 2006 – December 31 2006	Policy	Yes
3	Property – US (8.75% of USD310,000,000)	Federal Insurance Company (Chubb) Policy No 3583 09 29 June 22 2006 – December 31 2006	Binder from Federal	Yes, await policy documents
4	Liability – Primary USD1,000,000	Allianz Global Risk US Insurance	Binder and Policy	Yes, signed policy

TAB	Insurance Cover	Insurer and Policy No.	Document Received	Certificate of Insurance or Policy Compliant with respect to ARCA and the Loan Agreement
		Company Policy No. CGL 2001699 June 23 2006 – January 1 2007		still required
5	Liability – Umbrella USD30,000,000	Allianz Global Risk US Insurance Company Policy No. ULA 2001700 June 23 2006 – January 1 2007	Binder and Policy	Yes, signed policy still required
6	Liability – Excess USD19,000,000	American International Underwriters Policy No. 8766336 June 23 2006 – December 31 2006	Binder	Yes, await policy (follow form)
7	Liability – Difference in Conditions USD50,000,000	Allianz Australia Insurance Limited Policy No.'s 99 0000332LGR 99 0000333LGR June 23 2006 – December 31 2006 American Home Assurance Company	Policy Endorsements	Yes

TAB	Insurance Cover	Insurer and Policy No.	Document Received	Certificate of Insurance or Policy Compliant with respect to ARCA and the Loan Agreement
		Policy No. 90245 December 31 2005 – December 31 2006		
6	Directors and Officers USD5,000,000	American Home Assurance Company. Chubb Insurance Company of Australia Limited, ACE Insurance Limited and QBE Insurance (Australia) Limited December 31 2005 – December 31 2006	Letter form Willis Australia Ltd. Confirming a robust program is in place in respect to Directors and Officers Liability. AUD $ 100,000,000	Yes

TAB 1

Property –
Surplus Lines From London 43.25%

Surplus Lines

AON

23 June 2006

GPO Box 1233, Melbourne VIC 3001
Level 6 Aon House
440 Collins St MELBOURNE VIC 3000
DX 111 Melbourne
Telephone 61 (3) 9211 3300
Facsimile 61 (3) 9211 3500
Direct Phone 61 (3) 9211 3252
Direct Fax 61 (3) 9211 3516
Email Dean.Akerley@aon.com.au

To Whom It May Concern

Certificate of Currency

In our capacity as Insurance Brokers to Transurban (895) holdings LLC, we hereby certify that the under mentioned insurance policy is current with effect from the 23 June 2006.

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy detailed below, or assume continuity of the policy.

Description of cover

Form:	Fire and Named Perils and Multi Perils Insurance including TRIA coverage.
Insured:	Transurban (895) LLC – Permit / Concession holder entity for Pocahontas Parkway Transurban (895) Holdings Inc. Transurban (895) Finance Inc. Transurban (895) US Holdings LLC. The Virginia Department of Transportation. Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement and Lenders party to the Loan Agreement with Transurban (895) US Holdings LLC, as their interests may appear, subject to the date of the Loan Agreement being endorsed hereon within 28 days and for their respective rights and interests
Addresses:	Respective parties addresses to be advised
Insurers	Various Lloyds and London Insurance Companies.
Policy Numbers:	WC0505445/7/8/9/50/1/64/3/7
Period of Insurance:	23 June 2006 to 4 pm 31 December 2006 LST

Limit of Liability:

Sections 1 and 2 Combined in respect of Pocahontas Parkway only:

US$310,000,000 in respect of any one loss or series of losses arising out of one event except for:

Earth Movement: US$ 310,000,000 in the aggregate during any one period of insurance.

Named Storm: US$ 310,000,000 in the aggregate during any one period of insurance.

Flood: US$ 310,000,000 in the aggregate during any one period of insurance

Sub Limits of Liability:

The liability of the insurers shall be further limited in respect of any one loss or series of losses arising out of any one event as set out hereunder and it is understood and agreed that such Sub Limits shall not increase the liability of the Insurers beyond the Limits of Liability expressed above and also the under-mentioned Deductibles will apply in respect of such Sub Limits but shall not be cumulative

The limits and sub-limits shall apply in excess of the relevant deductibles.

Section 1 - Material Loss Or Damage

Loss, destruction or damage by the following events or relating to the following property.

	US$
Extra Cost of Reinstatement	20,000,000
Additional Extra Cost of Reinstatement	5,000,000
Money – 24 hour cover all premises, including whilst in transit.	500,000
Money whilst at the private residences of persons authorised by the Insured	50,000
Goods belonging to Customers	100,000
Sue and Labour	100,000
Removal of Debris/Cost of Clearing Drains	70,000,000
Accounts Receivable	5,000,000
Professional Fees and Claims Preparation Costs	1,000,000
Additional Increase in Cost of Working	25,000,000

AON

Unproductive Employees &/or Severance Payments	5 000 000
Public Utilities	20 000 000
Section 2 – Business Interruption	
Accounts Receivable	5 000 000
Additional Increase in Cost of Working	25 000 000
Professional Fees and Claims Preparation Costs	1,000 000
Unproductive Employees &/or Severance Payments	5 000 000
Public Utilities	20,000,000
UnspecifiedSuppliers' and/or Customers' Premises Extension	500,000
Prevention of Access	20,000,000
Combined Sections 1 and 2	
Accidental Damage	20 000,000
Acquired Companies	5,000,000

Deductibles:

Section 1- Material Loss or Damage

US$1,500 000 in respect to Earth Movement, Flood and Named Windstorm

US$500,000 in respect to Roads and Bridges and Associated Property

US$100,000 in respect to Buildings/Contents and all other losses

US$500,000 in respect to TRIA

Section 2- BUSINESS INTERRUPTION

US$350,000 each claim

US$350,000 in respect to TRIA

AON

Indemnity Period:	36 months
Situation:	Pocahontas Parkway and Associated Facilities Virginia USA
Automatic Reinstatement:	The limit of liability automatically reinstates other than when loss arises from Earthquake, Named Storm and Flood perils.
Notice of Cancellation:	90 days
Law And Jurisdiction:	Virginia USA
Order:	43.25% of 100%
Payment Terms:	45 days from inception
Applicable Clauses:	
Vitiating Act:	The Insurers shall be entitled to avoid liability to or (as may be appropriate) claim damages from an insured party in circumstances of such insured party committing fraud, misrepresentation, material non-disclosure or breach of any warranty or condition of this Policy referred to in this clause as a "Vitiating Act". However, a Vitiating Act committed by one insured party and allowed by law shall not prejudice the right to indemnity of any other insured party who has an insurable interest and who has not committed by a Vitiating Act
Claims Settlement/Loss Payable:	All losses hereunder shall be paid to Wells Fargo Bank, N.A., in its capacity as such under the Collateral Agency and Account Agreement under account details to be provided within 28 days of the inception of coverage.
Notices:	The Virginia Department of Transportation. and Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement, and Lenders party to the Loan Agreement with Transurban (896) US Holdings LLC, as their interests may appear subject to the date of the Loan Agreement being endorsed hereon within 28 days

AON

Automatic Reinstatement:	The limit of liability automatically reinstates other than when loss arises from Earthquake, Named Storm and Flood perils.
Subrogation Waiver:	The Lenders, the Administration Agent, the Hedging Banks, the Collateral Agent the Borrower parties and their respective officers, directors, agents and employees.
Information:	Confirmation that both ARCA and Schedule 6.12 have being submitted as underwriting back-up documentation.

Subject to the Terms and Conditions of this Policy.

Yours sincerely

Dean Akerley

Dean Akerley
Divisional Manager

[illegible]

TAB 2

Property –
XL Insurance Company of America 48%

US XL Policy
48%

Commercial Property Insurance Declarations

Company: XL Insurance America, Inc.

Policy No.: US00009781PR06A **Issue Date:** June 22 2005

A. Insured/Mailing Address:

Transurban Limited and/or:

Transurban (895) LLC – Permit / Concession holder entity for Pocahontas Parkway

Transurban (895) Holdings Inc.

Transurban (895) Finance Inc.

Transurban (895) US Holdings LLC

The Virginia Department of Transport,

Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement and Lenders party to the Loan Agreement with Transurban (895) US Holdings LLC, as their interests may appear, subject to the date of the Loan Agreement being endorsed hereon.

all for their respective rights and interests.

B. Policy Term

Inception Date: June 23rd 2005 at 12:01 a.m. Standard Time at the location of the property involved in any claim

Expiration Date: December 31st 2005 at 12.01 a.m. Standard Time at the location of the property involved in any claim

C. Territory

As provided in the policy wording to which these Declarations are attached, together with any additional geographic limitations stated in these Declarations

D. Currency

Unless otherwise stated, the currency of any amount described anywhere in this contract is in United States Dollars.

E. Policy Limit and Premium

First premium is payable at policy inception. Subsequent additions to insured property and the corresponding insured values are subject to additional premium as provided in this contract

1. **Company as Quota Share Participant**

In the event the Company participates with other commercial insurers in one or more layers excess of the deductible, the maximum amount the Company shall pay per Occurrence, as defined in the policy wording to which these Declarations are attached, is limited to the following parts of each successive layer shown with the corresponding annual premium for the Company's limit in that layer.

Layer Number Excess of Deductible	Layer Limit Per Occurrence	Company Share(s)	First Premium Payable to Company
1	Primary $ 310,000,000	48%	$ 68,028

The maximum amount the Company shall pay per Occurrence, in all locations combined as defined in the policy wording is limited to $148,800,000.

Any annual premium listed in the chart above is payable by the Insured to the Company at policy inception and is subject to additional premium as provided in this contract for additions to property and interest values during the annual policy period.

2. **Application**

Except where an aggregate limit is stated in Paragraph F. below, or in any endorsement made part of this contract, the Company's payment for one Occurrence shall not reduce the applicable limit or sublimit available for another separate Occurrence

F. Sublimits and Aggregate Limits

The following sublimits apply to any Insured loss. All sublimits fall within the applicable Occurrence limit stated in the Policy Limit section above and do not increase it.

If more than one sublimit applies to an Occurrence, those sublimits are payable cumulatively up to the applicable Occurrence limit. In the event an Occurrence results in liability payable under more than one policy issued to the Insured by the Company, or it's representative companies, the maximum amount payable in the aggregate under all such policies will be the applicable limit(s) of liability indicated in this Policy regardless of the number of coverages, locations or perils involved

All sublimits are per Occurrence unless otherwise noted. As used in this policy "annual aggregate" means liability for all losses in any one policy year. Sublimits shown below represent the entire program amounts (all layers / all participants). The Company's shall be calculated by taking the stated share of each limit

Physical Property and Time Element interest submitted by the Insured for payment of any claim are limited for indemnity to the values most recently reported to the Company by the Insured for that Insured Property or Time Element interest, provided that if the Insured demonstrates that the values increased by ten percent (10%) for the claimed item since the last value report to the Company then the limit is one hundred ten percent (110%) of reported valued. Where the Insured's business requires submission of values by Location and Division and the Company accepts submission on that basis, the limitation shall be applied on that basis to any claim.

$310,000,000 per Occurrence and in the annual aggregate as respects **Earth Movement** all Locations combined, except at the following Locations subject to the following per Occurrence and annual aggregate limits:

$	NIL	Locations in High Hazard Earth Movement Zones.
$	NIL	Newly Acquired Locations.
$	NIL	Unnamed / Unreported Locations.

The above sublimits outlined for Earth Movement are included within the general annual aggregate for Earth Movement and do not increase the limits of liability

$310,000,000 per Occurrence and in the annual aggregate as respects **Flood**, all Locations combined, except at the following Locations subject to the following per Occurrence and annual aggregate limits

$	NIL	Newly Acquired Locations.
$	NIL	Unnamed / Unreported Locations.

The above sublimits outlined for Flood are included within the general annual aggregate for Flood and do not increase the limits of liability.

$310,000,000 per Occurrence and in the annual aggregate, as respects **Named Storm**, all Locations combined, except at the following Locations subject to the following per Occurrence and annual aggregate limits:

$	NIL	**Newly Acquired Locations.**
$	NIL	**Unnamed / Unreported Locations.**

The above sublimits outlined for Named Storm are included within the general annual aggregate for Named Storm and do not increase the limits of liability.

$	NIL	per Occurrence as respects **Newly Acquired Locations** (ninety (90) days reporting) for property damage and Time Element combined.
$	NIL	per Occurrence as respects **Unnamed/Unreported Locations.**
$	10,000	per Occurrence as respects **Transit** (restricted to Transit between Insured's locations only);
$	Nil	per Occurrence as respects **Contractors Interest**
$	50,000	per Occurrence as respects **Fine Arts**;
$	NIL	per Occurrence as respects **Exhibitions**;
$	100,000	per Occurrence as respects **Property of Others** (Care, Custody, Control);

$	10,000	per Occurrence as respects **Officers and Employees**;
$	500,000	per Occurrence as respects **Accounts Receivable**;
$	50,000	per Occurrence as respects **Valuable Papers and Records**;
$	NIL	per Occurrence as respects **Leasehold Interest**;
$	2,000,000	per Occurrence as respects **Off-premises Service Interruption** (property damage and Time Element combined);
$	100,000	per Occurrence as respects **Fire Department Service Charges and Extinguishing Expenses**;
$	100,000	per Occurrence as respects **Expediting Expense**;
$	100,000	per Occurrence as respects electronic data processing **Media** (property damage and Time Element combined);
$	5,000,000	per Occurrence as respects **Debris Removal**;
$	100,000	per Occurrence as respects to **Protection of Property**;
$	10,000	per Occurrence and in the annual aggregate as respects **Pollutant(s) and/or Hazardous Material Clean-Up and Removal (from uninsured property)**;
$	NIL	per Occurrence and in the annual aggregate as respects **Increased Decontamination Costs (from insured property)**;
$	500,000	per Occurrence as respects **Demolition and Increased Cost of Construction (building law)**;
$	NIL	per Occurrence as respects **Time Element (Gross Earnings)**;
$	40,000,000	per Occurrence as respects Time Element **(Gross Profits)**;
	36 months	Indemnity period applicable to **Gross Profits**;
	NIL	Extended period of indemnity applicable to **Gross Earnings**;
$	NIL	per Occurrence **Property in the course of Construction or Erection (Soft Costs)**
$	50,000	per Occurrence as respects **Contingent Business Interruption**.
$	2,500,000	per Occurrence as respects **Extra Expense**;
$	NIL	per Occurrence as respects **Rental Value**;
$	NIL	per Occurrence as respects **Research and Development**;
$	NIL	per Occurrence as respects **Royalties**;

$	1,000,000	per Occurrence and Maximum Contract Value as respects **Property in the Course of Construction or Erection** (property damage and Time Element combined).
$	NIL	per Occurrence as respects **Interruption by Civil or Military Authority** (limited to fourteen (14) consecutive days);
$	500,000	per Occurrence as respects **Ingress/Egress** (limited to fourteen (14) consecutive days);
$	10,000	per Occurrence as respects **Radioactive Contamination on Insured's Premises** (as per exclusion III. Other Identified Cause of Loss H.2.);
$	NIL	per Occurrence as respects **Errors and Omissions** except;
$	NIL	per Occurrence as respects **Boiler and Machinery**;

G **Deductible Clause and Deductible Application**

1. For each Occurrence giving rise to a claim under this policy, the Insured agrees to retain for its own account an initial deductible calculated on the following basis

a.	$	100,000	per Occurrence except as provided below;
b.	$	1,500,000	as respects **Earth Movement, Flood and Named Windstorm**,
c.	$	500,000	as respects **Roads and Bridges and Structures**
d.	$	350,000	as respects **Time Element**

2. If two or more deductible amounts apply to an Occurrence, the total to be deducted shall be the largest applicable deductible, except with respect to Time Element, where the deductible in Paragraph 1.d. above (Actual Plant Value) shall apply in addition to the other largest applicable deductible.

3. If separate Property Damage deductibles and separate Time Element deductibles apply to an Occurrence, then the total to be deducted shall be the sum of: (1) the largest applicable Property Damage deductible, and (2) the largest applicable Time Element deductible.

4. A deductible and any succeeding limit or sublimit that is based on a number of hours or days is the stated hours or days that immediately follow the commencement of any Damage, or if the Insured claims Time Element loss from the damage of property of others that is insured under the contingent Time Element Section below, then immediately following the commencement of that damage.

H. Waiting Period

The Company will not be liable for any loss or damage unless the period of interruption exceeds the specified Waiting Period and then such potential liability will be adjusted per the terms and conditions of the Policy subject to the applicable deductible:

24 hours	Off Premises Service Interruption
24 hours	Ingress/Egress
24 hours	Interruption by Civil or Military Authority

I. Form(s) and endorsement(s) made a part of this policy at time of issuance:

HFP 20 (03-06)	Table of Contents
HFP 21 (03-06)	Global Commercial Property Declarations
HFP 22 (03-06)	Global Commercial Property Policy
Endorsement No. 1	Amendment to Physical Property Section II, Property Not Insured
Endorsement No. 2	Exclusions Applicable to All Sections/ Certain Peril Definitions – Inundation by the Sea
Endorsement No. 3	Amendment to Physical Property Section II, Property Not Insured – Pocahontas Parkway and James River Bridge
Endorsement No. 4	Exclusions Applicable to All Sections/ Types of Damage – Creeping, Heaving and Vibration
Endorsement No. 5	Non-Vitiation Clause
Endorsement No. 6	Loss Payee Clause
Endorsement No. 7	Subrogation
Endorsement No. 8	Certified Act of Terrorism Endorsement

In return for the payment of the premium and subject to all other provisions of this contract, the Company agrees to provide insurance as specified herein to the Insured named in these Declarations

Authorized Representative

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Commercial Property Policy HFP 21 (01-06) and is subject to all definitions in that policy.

Physical Property. Section II. Property Not Insured – Exclusion C. is replaced with the following:

Land, growing standing or drying crops, outdoor plants, shrubs, lawns, trees, timber, mineral rights, mineral reserves, or any property or part thereof this is located below the surface grade of the contiguous land except for structural improvements on or in the land providing such structural improvements are not otherwise excluded within this property.

Physical Property. Section II. Property Not Insured – Exclusion I. – add the following:

Canals and reservoirs.

Signature of Authorized Representative

Endorsement Number:	1
Issued to:	Transurban Limited
Effective Date:	June 23, 2006
Policy Number:	US00009751PR06A
XL Insurance America, Inc.	

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Commercial Property Policy HFP 21 (01-06) and is subject to all definitions in that policy.

Exclusions Applicable to All Sections. I. Types of Damage

The following is added:

I. Inundation From The Sea

Water from or action by the sea, tidal wave or high water, provided that this exclusion shall not apply to loss, destruction or damage caused by or arising out of Earth Movement.

Under IV. Certain Peril Definitions

The Flood Definition is revised as follows:

A temporary condition of partial or complete inundation of normally dry land areas from any of the following:

1. The overflow of inland or tidal waters;
2. The unusual and rapid accumulation or runoff of surface waters from any source
3. Mud slide or mud flow caused by accumulation of water on or under the ground; or
4. The release of impounded water.

Flood does not mean Inundation From the Sea.

Water from or action by the sea, tidal wave or high water, provided that this exclusion shall not apply to loss, destruction or damage caused by or arising out of Earth Movement

Signature of Authorized Representative

Endorsement Number:	2
Issued to:	Transurban Limited
Effective Date:	June 23, 2006
Policy Number:	US00009761PR06A
X: Insurance America, Inc	

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Commercial Property Policy HFP 21 (01-06) and is subject to all definitions in that policy

Physical Property Section II Property Not Insured. Exclusion I. – The exclusion for bridges and tunnels does not apply to the following specified locations:

Pocahontas Parkway: Known as Rte 895 consisting of a 9 mile 4 lane toll road from and including the **James River Bridge** from VA Rte 150 to I-285

James River Bridge: including 6 through lanes with 2 auxiliary lanes including the VA – 150 highway, from east of the mainland toll plaza to the end of the west approach span.

Signature of Authorized Representative

Endorsement Number:	3
Issued to:	Transurban Limited
Effective Date:	June 23, 2006
Policy Number:	US0C009761PR06A
XL Insurance America, Inc.	

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Commercial Property Policy HFP 21 (01-06) and is subject to all definitions in that policy.

Exclusions Applicable to All Sections:

1. Types of Damage. D 4

The following exclusions are added:

Creeping, heaving and vibration.

Signature of Authorized Representative

Endorsement Number:	4
Issued to:	Transurban Limited
Effective Date:	June 23, 2006
Policy Number:	US00009761PR06A
XL Insurance America, Inc.	

General Change Endorsement

This endorsement changes the policy. Please read it carefully

This endorsement modifies Commercial Property Policy HFP 21 (01-06) and is subject to all definitions in that policy.

Non-Vitiation Clause

The Company shall be entitled to avoid liability to or (as may be appropriate) claim damages from an insured party in circumstances of such insured party committing fraud, misrepresentation, material non-disclosure or breach of any warranty or condition of this Policy referred to in this clause as a 'Vitiating Act'. However, a Vitiating Act committed by one insured party shall not prejudice the right to indemnity of any other insured party who has an insurable interest and who has not committed by a Vitiating Act.

Signature of Authorized Representative

Endorsement Number:	5
Issued to:	Transurban Limited
Effective Date:	June 23, 2008
Policy Number:	US00009761PR08A
XL Insurance America, Inc.	

General Change Endorsement

This endorsement changes the policy. Please read it carefully

This endorsement modifies Commercial Property Policy HFP 21 (01-06) and is subject to all definitions in that policy.

Loss Payable Clause

All losses hereunder shall be paid to Wells Fargo Bank N.A. in it's capacity as such under the Collateral Agency and Account Agreement under account details to be provided within 28 days of the inception of this endorsement

Signature of Authorized Representative

Endorsement Number:	6
Issued to:	Transurban Limited
Effective Date:	June 23, 2008
Policy Number:	US00009761PR06A
XL Insurance America, Inc.	

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Commercial Property Policy HFP 21 (01-06) and is subject to all definitions in that policy.

Subrogation

Claims Process Clause G. is the waiver noted to include:
The Lenders, the Administration Agent, the Hedging Banks, the Collateral Agent the Borrower parties and their respective officers, directors, agents and employees

Signature of Authorized Representative

Endorsement Number:	7
Issued to:	Transurban Limited
Effective Date:	June 23, 2006
Policy Number:	US00009761PR06A
XL Insurance America, Inc.	

Terrorism Endorsement

Insured: Transurban Holdings Limited

Term: 06/23/06 – 12/31/06

Quote Expires: July 23, 2006

The Terrorism Risk Insurance Program established by the Terrorism Risk Insurance Act of 2002 has been extended through December 31, 2007. The bill extending the program (S.467) is known as the "Terrorism Risk Insurance Extension Act of 2005" (all hereinafter referred to as "TRIA").

This addendum outlines coverage for "Certified Acts of Terrorism" as defined by TRIA. A summary of the premium and coverage are outlined
below.

Terrorism Premium & Limits					
Layer Excess of Deductibles	Layer Limit per Occurrence		Certified Acts (TRIA) Gross Pro-Rated Premium	Company Share of Layer	Gross Premium Due Company
[illegible]	$310,000,000	xs of	Deductible	$42,245	48.0%	$20,278
Total Program Premium:				$42,245		
The Company's share of the total premium:			P1:	$20,278		$20,278

Terrorism Limit provided by The Company:	
Certified Acts of Terrorism Limit *(L1)*:	$148,800,000

Deductible
For each Occurrence giving rise to a claim, the Insured agrees to retain for its own account an initial deductible calculated on the following basis:

a. $ 500,000 per Occurrence as respects **Property Damage** and

b. $ 350,000 per Occurrence as respects **Time Element**

If the Insured chooses to purchase coverage for Certified Acts of Terrorism (TRIA), the following wording will be attached to the policy by endorsement.

Certified Act(s) of Terrorism Endorsement [Form: HFP 146 (12-05)]

In consideration of an additional premium of [*refer to amount "P1" in table above*], with respect to insured locations in the United States, its territories and possessions and Puerto Rico, this policy is extended to insure Certified Act(s) of Terrorism. All other terms, conditions and exclusions of this

Insurance including applicable limits and deductibles remain unchanged and apply in full force and effect to the coverage provided by this Insurance.

Notwithstanding anything to the contrary in this policy or any of its endorsements, there is no coverage provided for any costs or expenses associated with coverage provisions for sue and labor or protection and preservation of property, including but not limited to costs or expenses incurred for actions to defend, safeguard, preserve, protect or recover any covered property against actual or imminent terrorism or suspected terrorism.

Any loss or damage and resulting business interruption for which the Company is not responsible under the terms of the Terrorism Risk Insurance Act of 2002 including subsequent action of Congress pursuant to the Act (all hereinafter,"TRIA"), are not insured under any circumstance by this coverage extension regardless whether caused by or resulting from an insured peril.

Disclosure of Federal Participation in Payment of Terrorism Loss
The insurance provided by this policy for losses caused by Certified Act(s) of Terrorism is partially reimbursed by the United States Government, Department of Treasury, under a formula established by federal law. Under this formula, the United States Government pays 85% (* 90% for events in 2006, 85% for events in 2007) of covered terrorism losses exceeding the statutorily established deductible paid by the Company. The premium charged for this insurance is provided above and does not include any charges for the portion of loss covered by the U.S. Federal Government as set forth in the federal Terrorism Risk Insurance Program ("Program") established by TRIA. TRIA also provides that the maximum liability of all insurers (as defined therein) and the U.S. Federal Government shall not exceed $100,000,000,000 in any one calendar year.

Definitions
Wherever used in this policy or its endorsements a Certified Act of Terrorism means any act that is certified by the Secretary of the Treasury in concurrence with the Secretary of State and the Attorney General of the United States, to be an act of terrorism pursuant to TRIA

Termination
In the event the Program terminates prior to the expiration of this Policy, insurance provided under this extension for Certified Act(s) of Terrorism shall cease simultaneously.

Sublimit
As respect coverage provided for Certified Act(s) of Terrorism, the Company's liability shall not exceed the following:

[*refer to amount "L1" in table above*] excess of the program Deductibles per occurrence, and shall include loss or damage to covered property by fire that is a part of or directly results from a Certified Act of Terrorism.

Signature of Authorized Representative

Endorsement Number	8
Issued to	Transurban Limited
Effective Date:	June 23, 2006
Policy Number:	US00009761PR06A
XL Insurance America, Inc.	

Commercial Property Insurance Policy – Table of Contents

Beginning on Page

Insuring Agreement 1

Scope 1

Definitions 1

The Company's Undertaking 1

Physical Property Section 1

I. Property Interests Insured 1

- A. Insured's Property 1
- B. Property of Others 1
- C. Officers and Employees 1
- D. Contractor's Interest 2
- E. Transit 2
- F. Exhibitions 2
- G. Newly Acquired Locations 3
- H. Unnamed/Unreported Locations 3
- I. Off-Premises Service Interruption 3

II. Property Not Insured 3

III. Physical Damage Expenses 5

- A. Fire Department Service Charges and Extinguishing Expenses 5
- B. Expediting Expenses 5
- C. Debris Removal 5
- D. Protection of Property 6
- E. Pollutant(s) and/or Hazardous Material Cleanup and Removal (From Uninsured Property) 6
- F. Increased Decontamination Costs (From Insured Property) 6
- G. Demolition and Increased Cost of Construction (Building Law) 6

IV. Physical Property Valuation 7

- A. Buildings, Structures, Furniture, Fixtures, Machinery and Equipment 7
- B. Raw Stock, Merchandise and Supplies 7
- C. Stock in Process 7
- D. Finished Stock 7
- E. Media 8
- F. Improvements and Betterments 8
- G. Control of Damaged Goods 8
- H. Pair, Set or Parts 8
- I. Fine Arts 8
- J. Valuable Papers and Records 9
- K. Accounts Receivable 9
- L. Property in Transit 9

M. Catalysts, Refractory Materials, and Crucibles 10
N. Residual Property 10

Time Element Section 11

I. Direct Time Element Insurance 11

A. Business Interruption 11
B. Extra Expense 12
C. Rental Value 13
D. Leasehold Interest (Excess Rent) 13
E. Research and Development 14

II. Contingent Time Element Insurance 14

A. Contingent Business Interruption 14
B. Royalties 14
C. Off-Premises Services Interruption 14
D. Interruption by Civil or Military Authority 15
E. Ingress/Egress 15

III. Additional Time Element Provisions and Extensions 15

A. Period of Indemnity 15
B. Experience of the Business 16
C. Values 16
D. Resumption of Operations 16
E. Property in the Course of Construction or Erection (Soft Costs) 16
F. Expenses Proven to Reduce Loss 17

IV. Time Element Exclusions 17

A. Finished Stock 17
B. Idle Periods 17
C. Transit 17
D. Leases, Licenses, Contracts, Orders 18
E. Newly Acquired and Unnamed/Unreported Locations 18

Exclusions Applicable to All Sections 19

I. Types of Damage 19

II. Causes of Loss – Insured Control 20

III. Other Identified Causes of Loss 20

A. Asbestos Exclusion 20
B. Computer Acts Exclusion 21
C. Construction Design/Build Exclusion 21
D. Electronic Data Processing Exclusion 22
E. Law and Interference Exclusion 22
F. Molten Materials Exclusion 22
G. Nuclear and Radioactivity Exclusion 22
H Biological and Chemical Exclusion 23
I. Pollutant(s) and/or Hazardous Material Exclusion 23
J. Terrorism and Intentional Acts Exclusion 24

K. War Risk Exclusion 24

Terms and Conditions Applicable to All Sections 26

I. Undertakings 26

A. Abandonment 26
B. Assignment/Identity of interests 26
C. Cancellation 26
D. Certificates of Insurance 26
E. Concealment, Misrepresentation, Omission or Fraud 27
F. Difference in Conditions/Difference in Limits/Maintenance of Underlying.. 27
G. Errors and Omissions 27
H. Excess Insurance 28
I. Inspection of Property and Operations 28
J. No Control 28
K. Other Insurance 28
L. Pro Rata Liability 28
M. Report of Values Requirement 28
N. Suspension of Insurance 29
O. Titles of Paragraphs 29
P. Underlying Insurance 29

II. Calculations 29

A. Currency 29

III. Claims Process 29

A. Appraisal 29
B. Claims Adjustment Assignment 30
C. Suit and Choice of Law 30
D. Insured's Duties in the Event of Damage 30
E. Interim Payments 31
F. Mortgagee Interests and Obligations 31
G. Subrogation 31
H. Submissions to the Company for Claims 32
I. When and To Whom Loss Payable 32

Definitions Section 33

I. General Application 33

A. Actual Cash Value 33
B. Company 33
C. Computer Virus 33
D. Damage 33
E. Date Processing 33
F. Declarations 33
G. Electronic Data 33
H. High Hazard Earth Movement Zones 34
I. High Hazard Flood Zones 34
J. High Hazard Wind Zones 34
K. Insured 35
L. Insured Cause of Loss 35
M. Insured Liability 35

N. Insured Premises 35
O. Insured Property 35
P. Location(s) 35
Q. New Madrid Seismic Zone 36
R. Occurrence 36
S. Pacific Northwest Seismic Zone 37
T. Policy Term 37
U. Pollutant(s) and/or Hazardous Material 37
V. Replacement Cost 38
W. Territory 38
X. Time Element 38
Y. Unnamed/Unreported Locations 38

II. Physical Property and Time Element Terms 38

A. Accounts Receivable 38
B. Fine Arts 39
C. Finished Stock 39
D. Improvements and Betterments 39
E. Media 39
F. Merchandise 39
G. Month 39
H. Refractory Material 39
I. Stock in Process 39
J. Transmission and Distribution Lines 40
K. Valuable Papers and Records 40

III. Additional Time Element Terms 40

A. Actual Plant Value 40
B. Contingent Damage 40
C. Dependent Properties 40
D. Fixed Charges 40
E. Gross Earnings 41
F. Gross Profit 41
G. Indemnity Period 41
H. Leasehold Interest 41
I. Net Leasehold Interest 41
J. Net Profit 41
K. Normal 42
L. Rate of Gross Profit 42
M. Raw Stock 42
N. Sales 42
O. Standard Sales 42

IV. Certain Peril Definitions 42

A. Earth Movement 42
B. Flood 42
C. Named Storm 42
D. Sinkhole 43
E. Specified Perils 43
F. Windstorm 43
G. Boiler and Machinery 43

1. Accident 44
2. Object 44
3. Ammonia 44
4. Expediting Expenses 44
5. Substance Declared Hazardous 45
6. Spoilage 45
7. Water Damage 45

Commercial Property Insurance Policy

Insuring Agreement

Scope

This commercial insurance is for direct physical loss of, or direct physical damage to, first-party property and directly resulting effect on income and expense, as more specifically provided for in the sections below. All requirements of this Insuring Agreement, as well as those in the ensuing sections, must be satisfied by the Insured before any coverage exists under this policy.

Definitions

The first letter of each defined word or phrase in this policy is capitalized. For ease of reference, all definitions are collected in the last section of this policy. Except in the **Definitions Section**, the capitalization of paragraph titles does not denote defined words or phrases.

The Company's Undertaking

Upon satisfaction of all requirements and subject to all deductibles and limits the Company will pay the Insured for Damage during the Policy Term to Insured Property at Insured Premises directly and proximately caused by an Insured Cause of Loss.

Physical Property Section

I. **Property Interests Insured**

Subject to all other provisions this policy insures:

A. **Insured's Property**

Damage to real property in which the Insured has an insurable interest and personal property owned by the Insured

By way of illustration and not limitation, this property includes the Insured's use interest in Improvements and Betterments to buildings and structures, Accounts Receivable, Valuable Papers, and Boiler and Machinery, as those terms are defined in the **Definitions Section** and as valued in Physical Property Valuation paragraphs below.

B. **Property of Others**

The Insured's interest in real and personal property of others that sustains Damage of a type insured against while that property is in the care, custody or control of the Insured. This includes the Insured's Liability to the owner for the amount of the Damage to that property. The Company's payment for Damage to personal property of others will only be for the account of the owner of that property.

C. **Officers and Employees**

Damage to personal property of officers and employees of the Insured while on the Insured Premises

D. **Contractor's Interest**

The Insured's Liability for Damage to contractor's interest in buildings and structures covered by this policy while under construction, alteration, or repair, or when completed

E. **Transit**

1. With respect to personal property included within Insured Property, this policy insures Damage while in transit within the Territory, including the navigable inland fresh waterways therein, by any means of conveyance from the time the property is moved for the purpose of loading and continuously thereafter while awaiting and during loading and unloading and in temporary storage, including temporary storage on any conveyance intended for use for any outbound or used for inbound shipment, including during deviation and delay, until safely delivered and accepted at place of final destination

2. This transit insurance includes personal property:

   (a) Shipped by or to the Insured at the Insured's risk, while such property is in the due course of transit within the political subdivisions of a country within the Territory; and

   (b) Sold and shipped by the Insured under terms of F.O.B. point of origin or other terms usually regarded as terminating the shipper's responsibility short of points of delivery.

3. The Insured may waive right(s) of recovery against private, contract and common carriers and accept bills of lading or receipts from carriers, bailee, warehousemen, or processors limiting or releasing their liability but this transit insurance shall not inure to the benefit of any carrier bailee, warehouseman or processor.

   With respect to shipments described under Subparagraphs 2(a) and 2(b) this Company agrees to waive its rights of subrogation against shippers and consignees at the option of the Insured.

4. This insurance shall not be prejudiced by any agreements exempting lightermen from liability.

5. Seaworthiness of any vessel or watercraft and airworthiness of any aircraft used in transit hereunder are admitted between this Company and the Insured.

F. **Exhibitions**

Personal property of the Insured situated on the premises of any exhibition, exposition, fair or trade show unless such property is more specifically insured under another policy.

G. **Newly Acquired Locations**

Any Location rented or purchased after the inception date of this policy is automatically insured against Damage as a newly acquired Location, subject to the sublimit stated in the Declarations, for the first ninety (90) days after the date of acquisition. During that period, the Insured shall submit to the Company full Replacement Cost and Time Element Values for the Location. If the Company does not receive and accept that report within ninety (90) days, the Location shall be insured for the Unnamed/Unreported Locations sublimit for the remainder of the Policy Term.

Property newly constructed by the Insured during the Policy Term does not qualify under this paragraph unless built at a Location insured at policy inception.

Upon notification to and acceptance by the Company of any newly acquired Location, the same policy limits will apply as though the Location had been acquired and disclosed prior to policy inception. The Insured's report shall consist of a written submission to the Company stating the Location, occupancy, values and other insurance in force at that Location. The Company shall be permitted but not obligated to inspect the newly acquired Location. The Company shall be entitled to an additional premium payable from the date of acquisition.

H. **Unnamed/Unreported Locations**

Insured Property at an Unnamed/Unreported Location within the Territory up to the sublimit in any one occurrence. Any Location added to this category under the Newly Acquired Locations provision above shall be reported in the next supplemental submission.

I. **Off-Premises Service Interruption**

In the event a cause of loss of the type insured hereunder directly causes damage to off-premises utility and power stations, substations, transformer or switching or pumping stations (including off-premises poles, towers, and Transmission and Distribution Lines), then this policy insures Damage to Insured Property at Insured Premises directly resulting from interruption of electricity, steam, water, natural gas or refrigeration. As respects Transmission and Distribution Lines this insurance is limited to such lines within one thousand (1,000) feet of the property line of the Insured Premises.

The applicable deductible stated in the Declarations shall apply after the waiting period stated in the Declaration has been fully applied as measured from the time of resulting Damage to Insured Property to the time when, with due diligence the interrupted service would be restored.

II. **Property Not Insured**

This policy does not insure the following types of property or any Damage to them:

A. Contractors' and subcontractors' machinery, tools and equipment used in erection of Insured Property unless the total capital value of such property is directly and specifically charged to the job,

B. Money, bills, currency, notes, bonds or securities;

C. Land, growing, standing or drying crops, outdoor plants, shrubs, lawns, trees, timber, mineral rights, mineral reserves, or any property or part thereof that is located below the

surface grade of the contiguous land unless expressly presented to and accepted by the Company before becoming insured hereunder

D. Water of any kind, except the quantity of water at the time of Damage that is contained within any insured tank, piping system or equipment being used in the ordinary course of the Insured's business

E. Underground mines, shafts, caverns or any property contained therein,

F. Docks, piers, wharves and property located thereon;

G. Aircraft, railroad rolling stock, spacecraft or watercraft and contents thereof;

H. Vehicles licensed for highway use;

I. Bridges, tunnels, dams or dikes;

J. Platforms, rigs, structures or other property located offshore or in or on salt water;

K. Wells and pipelines, except pipelines on Insured Premises that are used by the Insured in active business operations during the Policy Term

L. Satellites, Transmission and Distribution Lines (except as expressly provided in Off-Premises Service Interruption provisions);

M. Animals, birds or fish;

N. Furs, jewelry, or precious stones or metals;

O. Deeds, evidences of debt or title,

P. Intangible property, including, without limitation, goodwill and intellectual property of any kind.

Q. Property sold under conditional sales, trust agreement, installment agreement or other deferred payment plan or that has been delivered to a customer or distributor, or that otherwise has left the Insured's possession for sale except as insured hereunder for due course of transit;

R. Any conveyance used as the mode of transportation for property in transit;

S. Property located at facilities where operations have ceased or which are vacant or unoccupied, unless fire protection, watch and alarm services are maintained, and written notification is given to and accepted by the Company prior to the sixtieth (60th) consecutive day of cessation of operations, vacancy or unoccupancy. The premises are considered vacant or unoccupied when they do not contain enough Insured Property to conduct customary business operations. Buildings under construction or renovation are not considered vacant.

T. Property in transit

1. Insured under any marine import or export ocean cargo insurance from the following time periods.

Any export shipment once the earlier of the following occurs:

(a) The shipment is placed on the export conveyance; or

(b) Coverage under an ocean marine or other insurance policy covering the shipment begins

Any import shipment until the later of the following occurs.

(a) The shipment is unloaded from the importing vessel or conveyance; or

(b) Coverage under an ocean marine or other insurance policy covering the shipment ends;

2. Shipped by mail from the time it passes into the custody of the United States Postal Service, or any other governmental postal service;

3. Waterborne or while conveyed on or over salt water, but not limiting coverage for conveyance for that part of transit while on the navigable inland waterways of any country within the Territory;

4. Airborne shipments unless by regularly scheduled passenger airlines or air freight carriers;

5. Personal property of others if such property is being transported by the Insured in or on vehicles owned, operated, leased or otherwise contracted by the Insured when the Insured is acting as a common or contract carrier; or

6. Goods for sale while in the care, custody or control of the Insured's salespersons or sales representative.

III. Physical Damage Expenses

In the event of Damage to Insured Property by an Insured Cause of Loss, the Company will pay within the relevant limitations, the following expenses:

A. Fire Department Service Charges and Extinguishing Expenses

The regular agreed fire department service (or brigade) charges at the Insured Premises where Damage takes place, and the necessary related extinguishing expenses (or those imposed by law for extinguishing) that are incurred because of fire or explosion on or exposing that Location. 100 K

B. Expediting Expenses

The necessary and reasonable expenses for temporary repairs or, if less, for expediting the permanent repairs of Insured Property. Expediting expenses include overtime wages and the cost of express or other rapid means of transportation. Expediting expenses do not include any expenses for temporary rentals, permanent replacement, or any interest insured elsewhere in this policy 100 K

C. Debris Removal

The necessary and reasonable expenses actually incurred by the Insured to remove from Insured Premises debris of Insured Property remaining after any Damage by an Insured Cause of Loss. The Company will pay these expenses only if the existence and amount of debris removal is reported to the Company within one hundred eighty (180) days of the 5,000 K

Damage. Debris removal does not include any expense for removal of Pollutant(s) and/or Hazardous Material under any circumstance.

D. **Protection of Property**

$100K

In the event of actual or imminent Damage by an Insured Cause of Loss during the Policy Term, the necessary and reasonable expenses incurred by the Insured in temporarily recovering or safeguarding Insured Property from additional damage. The expenses so incurred shall be borne by the Insured and the Company proportionately to the extent of their respective interest. The Company's portion of such expenses shall be limited to the extent such expenses reduce Damage which would otherwise have been payable under this policy. The expenses are subject to the deductible provisions and insurance limits on the same basis as a covered claim amount for insured Damage.

E. **Pollutant(s) and/or Hazardous Material Cleanup and Removal (From Uninsured Property)**

$10K

The necessary and reasonable expenses actually incurred by the Insured to clean up Pollutant(s) and/or Hazardous Material from land or water on Insured Premises, but only where the following requirements are met: (i) one of the Specified Perils occurs during the Policy Term causing Damage to Insured Property; (ii) that Damage directly results in the discharge, dispersal, seepage, migration, release or escape of Pollutant(s) and/or Hazardous Material on to the Insured Premises during the Policy Term; and (iii) the Insured reports the expenses to the Company within one hundred eighty (180) days of the date of Damage.

Insured expenses hereunder include the necessary and reasonable amounts incurred by the Insured to test for, monitor or assess the existence, concentration or effects of Pollutant(s) and/or Hazardous Material, following the Damage, but only for those expenses incurred prior to or during the physical cleanup and removal of the Pollutant(s) and/or Hazardous Material from Insured Premises. Insured expenses do not include any costs, fines or penalties excluded by the second paragraph of **Exclusions Applicable to All Sections**, Section III.I below.

F. **Increased Decontamination Costs (From Insured Property)**

$ N/

The increase in the necessary and reasonable expenses beyond the cost to repair or replace Insured Property in order to satisfy any law or ordinance in force at the time of Damage that requires decontamination or removal of Pollutant(s) and/or Hazardous Material from Insured Property. The expenses insured hereunder do not include costs required for removing uninsured property or any Pollutant(s) and/or Hazardous Material therein or thereon, whether or not arising from or relating to an Insured Cause of Loss.

G. **Demolition and Increased Cost of Construction (Building Law)**

The additional reasonable and necessary amounts required by the enforcement of any law or ordinance in force at the time of Damage regulating the construction, repair, replacement, use or demolition of building(s) or structure(s), but limited to:

$500K

1. Cost of demolishing and value of any undamaged portion(s) of the building(s) or structure(s) to comply with such law or ordinance, with the value of those portion(s) determined on the same basis as the damaged portions less any allowance for enforcement hereunder;

2. The added cost, if any, in rebuilding or replacing both the damaged and demolished portions on the same Insured Premises, with like height, floor area

and style and for like occupancy to comply with the minimum requirements of such law or ordinance;

3. The increase in Time Element arising out of additional time required to comply with such law and ordinance

Amounts insured hereunder do not include those for machinery, equipment or any property other than building(s) or structure(s). This section does not apply to any amount (i) associated with the enforcement of any law or ordinance concerning Pollutants and/or Hazardous Material; (ii) which requires the Insured or others to test for, monitor, cleanup remove, contain, treat, detoxify or neutralize, or in any way respond to, assess or modify the effects of Pollutants and/or Hazardous Material; or (iii) which relates to work place safety or other environmental regulations of any kind.

IV. Physical Property Valuation

Unless another basis of valuation is specified in this section for a type of property, the Insured shall report to the Company the values of property to be insured under this policy at the current cost to replace it in full. If another basis is specified, the Insured shall report to the Company the values of the property on that basis. In the event of any Damage to Insured Property from an Insured Cause of Loss, the Insured's claim shall be valued (at the time and place of Damage) as follows:

A. Buildings, Structures, Furniture, Fixtures, Machinery and Equipment

If repaired, rebuilt or replaced within two (2) years from the date of Damage, at the same or at another site (within the same country), the amount of the claim shall be calculated at Replacement Cost.

If the damaged property is not fully repaired, rebuilt or replaced within two (2) years from the date of Damage, the amount of recovery shall not exceed the Actual Cash Value of the damaged property.

If Damage involves any Insured Property that is obsolete or no longer useful for its intended purpose, recovery shall be limited to the Actual Cash Value of the damaged property.

B. Raw Stock, Merchandise and Supplies

The amount of the claim shall be calculated at the Replacement Cost

C. Stock in Process

The amount of the claim shall be calculated at the value of Raw Stock and labor expended, plus the proper allocated proportion of manufacturing overhead charges

D. Finished Stock

The amount of the claim shall be calculated at the regular cash selling price, less all discounts and charges to which such Finished Stock would have been subject had no Damage occurred.

For purposes of Gross Profit calculations in Time Element, Finished Stock means the value of Raw Stock and labor expended, plus the proper proportion of manufacturing overhead charges.

E. **Media**

The amount of the claim shall be calculated at the cost of such Media blank plus the lesser of (i) the cost of reproducing the data thereon from duplicates or from originals of the previous generation, or (ii) the actual costs incurred to reproduce such data, including the costs to gather or assemble information or data for such reproduction.

F. **Improvements and Betterments**

If repaired, rebuilt or replaced within two (2) years from the date of Damage, at the same or at another site (within the same country), the amount of the claim shall be calculated at Replacement Cost.

If the Insured Property sustaining Damage is not fully repaired, rebuilt or replaced within two (2) years from the date of Damage, the amount of recovery shall not exceed that proportion of the original cost at time of installation of the lost or damaged Improvements and Betterments which the unexpired term of the lease at the time of loss bears to the period(s) from the date(s) such Improvements and Betterments were made to the expiration date of the lease;

If the Insured Property sustaining Damage is repaired, rebuilt or replaced at the expense of others or, where insured, by other insurers, for the use of the Insured, there shall be no liability hereunder

G. **Control of Damaged Goods**

In the event of Damage to Insured Property, the Insured has the right to possession and control of all insured goods and/or products that are damaged bearing labels or permanent markings identifying the Insured as the manufacturer thereof. The Company shall be allowed a reasonable opportunity to determine the salvage value thereof. The value of damaged goods and/or products shall be established by the provisions of this policy.

The Insured, exercising a reasonable discretion, shall be the judge of whether the damaged goods or products are suitable for marketing, and no goods or products deemed by the Insured to be unfit for marketing shall be sold or otherwise disposed of except by the Insured or with the Insured's consent, but the Insured shall allow the Company any salvage which could be or which could have been obtained on any sale or other disposition of such goods or products through established insurance salvage practices. The Insured's determination hereunder shall have no effect on the determination whether the goods and/or products were damaged or sustained Damage under this policy.

The Insured may, at the Insured's own expense, stamp "salvage" on the goods or products or may remove or obliterate the labels or permanent markings, if such stamp, removal or obliteration will not physically damage or otherwise reduce the value of the goods or products, but the Insured shall re-label the goods or products in compliance with the requirements of law.

H. **Pair, Set or Parts**

The amount of claim for any article or articles which are a part of a pair or set shall be calculated at a reasonable and fair proportion of the total value of the pair or set, giving consideration to the importance of said article or articles, but in no event shall Damage to a part constitute total loss of the pair or set

The amount of claim for any part of Insured Property consisting, when complete for use, of several parts shall be calculated at the value of the part which is lost or damaged

I. **Fine Arts**

The amount of claim shall be calculated at the cost to repair or replace, or the stated appraisal value, whichever is smaller. If the Fine Arts item cannot be repaired or replaced and an appraisal cannot reasonably be obtained in the circumstances, the valuation shall be market value based on prevailing conditions at the time of Damage.

J. **Valuable Papers and Records**

The amount of claim shall be calculated at the cost to replace or repair or restore the Valuable Papers and Records, whichever is smallest.

K. **Accounts Receivable**

When there is proof that a loss to accounts receivable has occurred, but the Insured cannot accurately establish the total amount of accounts receivable outstanding as of the date of Damage, the amount of claim shall be calculated based on the Insured's monthly statements and shall be computed as follows:

1. Determine the amount of all outstanding accounts receivable at the end of the same fiscal Month in the year immediately preceding the year in which the Damage occurs

2. Calculate the percentage of increase or decrease in the average monthly total of accounts receivable for the twelve (12) months immediately preceding the Month in which the Damage occurs, or such part thereof for which the Insured has furnished monthly statements to the Company, as compared with such average for the same months of the preceding year;

3. The amount determined under **1.** above, increased or decreased by the percentage calculated under **2.** above, shall be the agreed total amount of accounts receivable as of the last day of the fiscal Month in which Damage occurs; and

4. The amount determined under **3.** above shall be increased or decreased in conformity with the Normal fluctuations in the amount of accounts receivable during the fiscal Month involved, due consideration being given to the experience of the business since the last day of the last fiscal Month for which statement has been rendered

   There shall be deducted from the total amount of accounts receivable, however established the amount of such accounts evidenced by records not lost or damaged, or otherwise established or collected by the Insured, and an amount to allow for probable bad debts which would normally have been uncollectible by the Insured. All unearned interest and service charges shall be deducted.

L. **Property in Transit**

The amount of claim shall be calculated at the value stated on the invoice, including prepaid or advanced freight, if any, plus the profit or commission of the Insured as selling agent, and such other costs and charges as may have accrued and become legally due thereon since shipment. In the absence of an invoice, the measure of loss shall be Actual Cash Value at the point of shipment.

M. Catalysts, Refractory Materials, and Crucibles

For catalyst(s), Refractory Materials, and crucibles, the amount of recovery shall be the Replacement Cost times the remaining useful life factor. The factor is determined by the ratio of "the normal useful life of the catalyst (or Refractory) in months" less "the number of months the catalyst (or Refractory) had been in use" divided by "the normal useful life of the catalyst (or Refractory)

N. Residual Property

For any other Insured Property not specifically addressed or qualifying under one of the foregoing valuation paragraphs, the amount of claim shall be calculated at the Actual Cash Value.

Time Element Section

I. Direct Time Element Insurance

If (and only if) there is Damage to Insured Property caused by an Insured Cause of Loss during the Policy Term, and subject to Company's acceptance of coverage for that Damage, then this policy also insures the following types of Time Element resulting directly from that Damage:

A. Business Interruption

The necessary interruption of the Insured's business based on the method by which business interruption values were reported by the Insured and accepted by the Company for the specific Insured Premises where the insured Damage took place. The following agreements apply to the selection of method for calculating business interruption

1. If the underwriting records establish to the Company's satisfaction that the Insured submitted values for business interruption at the specific Insured Premises based on Gross Earnings or Gross Profit then business interruption shall be calculated on the basis established by those records.

2. If the underwriting records do not establish to the Company's satisfaction that the Insured submitted values for business interruption at the specific Insured Premises based on Gross Earnings or Gross Profit, then the method producing the lesser business interruption claim shall be used in the calculation.

3. If the claim involves a specific Insured Premises for which the Insured permissibly did not submit values at that Location for business interruption then the Gross Earnings or Gross Profit method producing the lesser business interruption claim shall be used in the calculation.

4. Any business interruption claim must be on a Gross Earnings or Gross Profit basis. Any claim seeking recovery for both calculations or for any other method of calculation is invalid and will not be paid by the Company

5. Consistent with these agreements, any claim shall be calculated on one of the following methods:

   (a) **Gross Earnings Method**

   The actual loss sustained by the Insured directly resulting from such interruption of business, but not exceeding the reduction in Gross Earnings less charges and expenses which do not necessarily continue during the interruption of business.

   Due consideration shall be given to the continuation of Normal charges and expenses, including payroll expenses as reported by the Insured in its most recent pre-Damage statement of values to the Company, to the extent necessary to resume operations of the Insured with the same quality of service which existed immediately preceding the Damage

(b) **Gross Profits Method**

The actual loss sustained by the Insured due to the loss of Gross Profit resulting from (i) reduction in Sales and (ii) increase in cost of doing business. The amount payable as indemnity hereunder shall be as follows:

(1) The reduction of Sales shall be the sum produced by applying the Rate of Gross Profit to the amount by which the Sales during the Indemnity Period shall fall short of the Standard Sales and

(2) The increase in cost of doing business shall be the additional expenditure necessarily and reasonably incurred for the sole purpose of avoiding or diminishing the reduction in Sales which, but for that expenditure, would have taken place during the Indemnity Period, but not exceeding the sum produced by applying the Rate of Gross Profit to the amount of the reduction thereby avoided.

all less any sum saved during the Indemnity Period with respect to such of the Insured Fixed Charges as may cease or be reduced because of such interruption of business

In calculating Gross Profits:

(1) If any Fixed Charges of the business are not insured under this policy then, in computing the amount of recovery hereunder as increase in cost of doing business, that proportion only of the additional expenditure shall be recoverable hereunder which the sum of the Net Profit and the Insured Fixed Charges bears to the sum of the Net Profit and all the fixed charges

(2) If during the Indemnity Period goods shall be sold or services shall be rendered elsewhere than at the Insured Premises where Damage occurred for the benefit of the business, either by the Insured or by others on the Insured's behalf, the money paid or payable in respect of such Sales or services shall be included in arriving at the amount of Sales during the Indemnity Period The Insured agrees to use any suitable property or service owned or controlled by the Insured or obtainable from other sources in order to continue Sales and reduce the loss of Gross Profits under this policy.

B. Extra Expense

Extra expense incurred by the Insured after Damage to the extent necessary to continue as nearly as practicable the Normal operation of the Insured's business at the Insured Premises where the Damage took place.

Extra expense shall be the reasonable and necessary excess (if any) of the total cost incurred as a result of Damage during the period of indemnity chargeable to the operation of the Insured's business over and above the total cost that would normally have been incurred to conduct the business during the same period had no Damage occurred. Any salvage value of property obtained for temporary use during the period of indemnity which remains after the resumption of Normal operations shall be taken into consideration in the adjustment of any extra expense claim.

Extra expense does not include any:

1. Loss of income;

2. Cost of repairing or replacing any real or personal property, or the cost of research or other expense necessary to replace or restore books of account, abstracts, drawings, card index systems or other records (including film, tape, disc, drum, cell or other magnetic recording or storage Media for electronic data processing) that have been damaged, except cost in excess of the Normal cost of such repair, replacement or restoration necessarily incurred for the purpose of reducing claim for extra expense; or

3. Any expense insured elsewhere, including under any other provision of this policy.

C. **Rental Value**

The Insured's loss of rent for Insured Property at an Insured Premises to the extent that Damage renders such real property untenable.

The loss of rents shall be calculated based on the actual loss sustained by the Insured resulting directly from necessary untenantability, caused by the Damage (whether rented at the time of Damage or not), but not exceeding the resulting reduction in fair market rental value of the Insured Property less charges and expenses which do not necessarily continue during the period of indemnity.

If the Insured is the lessor rental value shall be calculated as the sum of the following.

1. The total anticipated gross rental income from tenant occupancy of the Insured Premises during the period of indemnity as furnished and equipped by the Insured;

2. The amount of all occupancy charges which were the legal obligation of the tenant(s) but which, during the period of indemnity, are now the obligations of the Insured; and

3. The fair rental value of any portion of said property which was occupied by the Insured but which cannot now be occupied during the period of indemnity.

If the insured is the lessee of Insured Premises and is not entitled to cancel the lease following Damage, rental value shall be extended to pay the amount of rent for untenable real property that the Insured is obligated to pay to the lessor during the period of indemnity including incidental tenant charges the Insured must continue to pay, less any charges and expenses which do not necessarily continue.

D. **Leasehold Interest (Excess Rent)**

If the Insured holds a lease that is canceled by the lessor following Damage the Insured's excess rent as Leasehold Interest for the first three (3) months following that Damage, and the Insured's Net Leasehold Interest for the remaining unexpired term of the lease up to a maximum of twelve (12) months.

E. **Research and Development**

The necessary interruption of research and development at any Location where those activities were conducted at the time of Damage. This insurance only applies to the extent the research and development did not itself produce income to the Insured. The correct amount of any claim shall be the actual loss sustained by the Insured for continuing fixed charges and ordinary payroll directly attributable to the interruption of these activities.

II. **Contingent Time Element Insurance**

If (and only if) there is damage to the property of third parties that qualifies under the requirements below, then this policy also insures that the following types of Time Element directly resulting therefrom:

A. **Contingent Business Interruption**

Necessary interruption of the Insured's business in the event that:

1. Dependent Properties owned or occupied by third parties sustain direct physical loss of, or direct physical damage to, real or personal property caused by an event during the Policy Term;

2. The type of property, cause of loss or damage, and physical effect would have been insured under this policy if the event had taken place on Insured Premises; and

3. The direct effect of the event at Dependent Properties is the necessary interruption of the Insured's business at Insured Premises.

Any contingent business interruption claim by the Insured shall be calculated on the same basis as a direct business interruption claim under Section I.A. above.

B. **Royalties**

Income to the Insured for any royalty, licensing fee or commission agreement that cannot be earned solely because of Contingent Damage but limited to the actual loss directly sustained by the Insured. The amount of the claim to be set against the applicable deductible and sublimit shall be the amount the Insured would have earned during the period of restoration had no Contingent Damage occurred.

C. **Off-Premises Services Interruption**

Necessary interruption of the Insured's business directly resulting during the Policy Term from Contingent Damage to off-premises utility and power stations, substations, transformer or switching or pumping stations, including off-premises poles, towers, and Transmission or Distribution Lines furnishing communication, electricity, steam, water, natural gas or refrigeration to Insured Premises. As respects Transmission and Distribution Lines, this coverage only shall apply to damage within one thousand (1,000) feet of the property line as defined in Insured Premises.

It is a precondition that the waiting period shown in the Declarations shall first apply and be measured from the time when an interruption of specific services to the Insured occurs until the time when, with due diligence and dispatch, the service could be wholly restored

This policy does not cover loss resulting from any interruption of business as a result of interruptions involving:

1. Satellites;

2. Internet and/or intranet access; or

3. Any form of wireless communication.

D. **Interruption by Civil or Military Authority**

If, as a direct result of Contingent Damage within one (1) statute mile of Insured Premises, any civil or military authority specifically prohibits by order access to any Insured Premises, the actual loss sustained by the Insured at that premises is insured during the length of time not exceeding fourteen (14) consecutive days after that order is issued.

E. **Ingress/Egress**

If, as a direct result of Contingent Damage within one (1) statute mile of Insured Premises, the Insured is physically prevented or materially hindered in the use of its premises, then the necessary interruption of business is insured for a period not exceeding fourteen (14) consecutive days after the Insured's use is first prevented or hindered.

III. **Additional Time Element Provisions and Extensions**

A. **Period of Indemnity**

Any Time Element coverage is limited to the length of time as would be required with the exercise of due diligence and dispatch to rebuild, repair or replace such part of the property as has been damaged. The period commences with the date of Damage, or as applied to contingent Time Element, (i) the date of Damage to Dependent Properties or (ii) for the remaining paragraphs, the date of Contingent Damage. A period commencing during the Policy Term continues during the period of due diligence and dispatch which may extend beyond the Policy Term. Except for Gross Profits or for any extended period of indemnity provided in the Declarations, this period of time does not include (i) any additional time required for making any change(s) to such property for any reason except as insured under the building law provision set forth in Paragraph III.G. of the **Physical Property Section** of this policy, or (ii) any additional time due to the Insured's inability to resume operations regardless of the reason.

If (and only if) the Declarations provide more than zero (0) days for an extended period of indemnity, then this insurance is extended for the stated number of days in which, with the exercise of due diligence and dispatch, the Insured may restore the Insured's business to the condition that would have existed had there been no Occurrence. This extended period begins with the later of the following dates:

1. The date on which the Company determines that the period of indemnity provided above has ended; or

2. The date on which the Insured has replaced, repaired or rebuilt that part of damaged property that caused the Time Element loss (excepting Finished Goods) and is now in a position to resume Normal operations.

This period of time does not include any additional time required for making any change(s) to property for any reason except as provided in Paragraph **III.G.** of the **Physical Damage Section** of the policy.

This extended period of indemnity is not provided for any Time Element claim involving the Gross Profit method of valuation and calculation.

B. Experience of the Business

In determining the amount of Time Element loss as insured against by this policy, the experience of the business shall be considered before the loss and the probable experience thereafter had no such loss occurred.

C. Values

The Insured shall report to the Company full and accurate Time Element values at the time it reports physical property values.

D. Resumption of Operations

If the Insured could reduce the Time Element claim by any of the following:

1. Complete or partial resumption of operation of business, whether at the Insured Premises where Damage occurred or elsewhere; or

2. Making use of any material (Raw Stock, Stock in Process, or Finished Stock) or Merchandise; or

3. Making use of any available Dependent Properties or other facilities capable of reducing the Time Element claim,

then such reduction shall be applied and taken fully into account in arriving at the correct amount of claim hereunder.

If the claim involves extra expense, the Insured shall resume Normal operation of the business as soon as practicable and end such extra expense.

E. Property in the Course of Construction or Erection (Soft Costs)

If Insured Property is under construction or erection at the time of Damage and, as a direct result, there is a delay in the most recent planned project completion date, the necessary and reasonable expenses in the following categories only are insured to the extent they were (i) incurred solely because of the Damage; and (ii) were actually sustained between that planned project completion date and the actual project completion date:

1. Additional interest expense

2. Developer overhead

3. Real estate taxes

4. Legal/professional fees

5. Marketing expenses

6. Advertising expenses

7. Debt service payments

8. Insurance premiums

9. Refinancing charges

10. Bond interest

11. Finders fees refunds

The amount of any Time Element loss resulting from such a delay shall be calculated based on the insured business interruption at that Location that was sustained during the additional length of time required by the Insured with due diligence and dispatch to complete the project to achieve the level of business operations that would have been reasonably achieved, giving due regard to experience, after construction and start-up had no Damage occurred.

F. **Expenses Proven to Reduce Loss**

To the extent not specifically provided for elsewhere in Time Element, if the Insured incurs expenses proven to reduce the amount of any covered claim otherwise recoverable under this policy, then the amount of those expenses are insured:

1. Where necessarily incurred for the purpose and effect of reducing Time Element loss under this policy, and

2. Where incurred, in excess of Normal, for the purpose and effect of replacing any Finished Stock that was used to reduce Time Element loss under this policy;

but in no event shall the aggregate of such expenses exceed the amount by which the Time Element loss otherwise payable under this policy actually was reduced

IV. **Time Element Exclusions**

This policy does not insure.

A. **Finished Stock**

Time Element resulting from Damage to Finished Stock nor for the time required to reproduce Finished Stock, except for the treatment of Finished Goods as specially defined for Gross Profit Calculation.

B. **Idle Periods**

Time Element for any period during which business would not or could not have been conducted for any reason other than Damage.

C. **Transit**

Time Element involving transit.

D. **Leases, Licenses, Contracts, Orders**

Any increase of Time Element loss resulting from the suspension, lapse or cancellation of any lease, license, contract or order unless such suspension, lapse or cancellation results directly from the insured interruption of business caused by Damage, and then there shall be insurance for only such Time Element loss as affects the Insured's earnings (excluding imposed fines, penalties or other damages at law) during and limited to, the period of indemnity insured under this policy

E. **Newly Acquired and Unnamed/Unreported Locations**

Time Element for newly acquired Locations or at any Unnamed/Unreported Locations unless an amount is specifically stated for that property in Section F. of the Declarations and unless the Insured has satisfied all requirements in this contract with respect to that property

F. **Fine Arts**

Time Element involving Fine Arts.

Exclusions Applicable to All Sections

I. **Types of Damage**

The following types of damage (including but not limited to Damage and Contingent Damage) and resulting Time Element are not insured under any circumstance regardless whether caused by or resulting from an Insured Cause of Loss:

A. 1. Indirect or remote damage;

2. Delay or loss of market; loss of bonuses or penalties for noncompletion of (or delay in completion of) any contract or for noncompliance with any contract conditions; fines, penalties or legal damages, or any costs incurred to eliminate or reduce any of the foregoing.

B. The cost of correcting or making good:

1. Faulty workmanship and/or faulty processing, material, construction or design; or

2. Inherent or latent defect

C. Unexplained or mysterious disappearance of any property or shortage disclosed by audit or upon taking inventory.

D. 1. Wear and tear, deterioration, depletion, erosion, rust or corrosion;

2. The presence or effect of any radioactive, chemical or biological material in, on or around property in a concentration harmful to human health that limits access to or use of that property (except to the extent specifically provided for in Physical Property Section III.E. and III.F or the exception to Exclusion III.G below).

3. Wet or dry rot;

4. Settling, cracking, shrinkage, bulging or expansion of pavements, foundations, walls, floors, roofs or ceilings;

5. Shrinkage, evaporation, leakage of contents, change in flavor or texture or finish, decay or other spoilage (except as provided elsewhere in this policy); or

6. Cumulative effects of smog, smoke, vapor, liquid or dust.

E. Earth Movement for Errors and Omissions, Newly Acquired Locations and Unnamed/Unreported Locations in High Hazard Earth Movement Zones

F. Flood for Errors and Omissions, Newly Acquired Locations and Unnamed/Unreported Locations in High Hazard Flood Zones

G. Microorganism Exclusion

This policy does not insure any loss, damage, claim, cost, expense or other sum directly or indirectly arising out of or relating to:

Mold, mildew, fungus, mushroom, spores or other microorganism of any type, nature, or description including but not limited to any substance whose presence poses an actual or potential threat to human health.

This exclusion applies regardless whether there is (i) any physical loss or damage to insured property; (ii) any insured peril or cause, whether or not contributing concurrently or in any sequence; (iii) any loss of use, occupancy, or functionality; or (iv) any action required, including but not limited to repair, replacement, removal, cleanup, abatement, disposal, relocation, or steps taken to address medical or legal concerns.

H. Named Storm for Errors and Omissions, Newly Acquired Locations and Unnamed/Unreported Locations in High Hazard Wind Zones

II. Causes of Loss – Insured Control

The following causes of loss and any Damage and Time Element arising directly or indirectly therefrom are not insured, regardless whether any other cause or event contributed concurrently or in any other sequence:

A. Fraudulent or dishonest act or any act intended to result in the financial gain of the Insured or of any associate, proprietor, partner, director, trustee, officer, employee or carrier for hire or bailee of any Insured

B. Increase in hazard by any means within the control or knowledge of any Insured, unless endorsed hereto

C. Stock in Process, Finished Stock or Merchandise when Damage is caused by or results from manufacturing, processing, testing or other work by the Insured or by anyone for the Insured.

D. Animals, vermin or insects.

E. Dampness or dryness of atmosphere, or extremes or changes of temperature causing Damage to Insured Property that the Insured could have controlled with due diligence.

III. Other Identified Causes of Loss

The following identified causes of loss and, except as expressly provided in the individual sections below, any damage (including but not limited to Damage and Contingent Damage) and Time Element arising directly or indirectly therefrom are not insured, regardless whether any other cause or event contributed concurrently or in any other sequence:

A. Asbestos Exclusion

1. Asbestos material defects, treatment, abatements or removal, unless the asbestos itself is damaged by the peril of fire, lightning, or explosion and then only as to the physical portion of asbestos material damaged or impact by that peril;

2. Regardless of cause, any sum relating to (i) health hazard from asbestos; (ii) treatment, abatement or repair of asbestos material that has become friable; or (iii) demolition, increased cost of reconstruction, removal or any type of cost or loss arising from the enforcement of or compliance with any law or ordinance regulating asbestos material; or

3. Any governmental requirement relating to asbestos material present in or part of any portion of Insured Property that was not damaged by fire, lightening or explosion during the Policy Term and cannot any longer be used where installed.

B. **Computer Acts Exclusion**

Crime(s), vandalism or malicious act(s) using computer equipment, codes or media, including but not limited to:

1. Harmful or corrupting codes, instruction or messages;

2. Electronic attack directed to the Insured's equipment or systems; or

3. Hacking or any other form of electronic intrusion.

C. **Computer Virus Exclusion**

Notwithstanding any provision(s) to the contrary within this policy or any endorsement(s) attached thereto, it is agreed as follows:

This policy does not insure any loss of, damage to, destruction, distortion, interruption, erasure, corruption or alteration of Electronic Data caused by Computer Virus, nor any resulting business interruption or other time element loss. In the event that Computer Virus causes ensuing loss of or direct damage to insured property, then this policy, subject to all of its terms, conditions and exclusions, shall cover only such resulting damage.

Electronic Data means facts, concepts, code or any other information converted to a form useable for communication, interpretation or processing by computers or other electronic or electromechanical data processing or electronically controlled equipment, and includes programs, software and other coded instructions for the processing or manipulation of other data or the direction and manipulation of any equipment.

Computer Virus means any corrupting, harmful or otherwise disruptive instructions or code including any unauthorized instructions or code, programmatic or otherwise, that propagate through any computer or computer system(s), network(s) or groups of whatsoever nature. Computer Virus includes, but is not limited to "Trojan horses", "Worms" and "time or logic bombs".

D. **Construction Design/Build Exclusion**

If any excluded cause of loss contributes in any way to Damage, then this policy does not insure Damage caused by any act, error or omission (whether by the Insured or others) with respect to:

1. Planning, zoning, surveying, siting or developing property.

2. Establishing or enforcing building codes or standards for construction or materials;

3. Designing, establishing the specifications, furnishing work, materials, parts or equipment, or constructing or maintaining the following property or facilities:

   (a) Buildings or structures;

   (b) Improvements or changes in or additions to land or other property; or

(c) Roads water mains, sewers drainage ditches, levees dams or other facilities

regardless whether such property or facilities are insured under this policy and wherever they may be located.

E. **Electronic Date Processing Exclusion**

1. Any loss, Damage, cost, claim, expense or other sum directly or indirectly arising out of or relating to Date Processing. This exclusion applies regardless of the form, ownership or location of property

2. If circumstances excluded in Paragraph **1.** directly produce an Insured Cause of Loss, then the policy shall cover the ensuing Damage to Insured Property and Time Element loss that directly results therefrom. All claims qualifying for coverage under this paragraph are part of the same occurrence, and all payments therefore are subject to a single aggregate occurrence limit.

3. Under no circumstance (including those in Paragraph **2.** shall this policy cover any cost, expense or other sum, whether preventative, remedial, or otherwise, to examine, repair, replace, upgrade, alter or otherwise assess or correct Date Processing

F. **Law and Interference Exclusion**

Except as expressly provided in the **Physical Property Section**, any sum beyond the cost of actual physical repair or replacement that is attributable directly or indirectly to:

1. Enforcement of any law, ordinance regulation or rule regulating or restricting the construction, installation, repair, replacement, demolition occupancy operation or other use of property on Insured Premises, or which requires process improvements or process modifications to property, when either is required or performed to comply on the Insured Premises with either OSHA regulations or other similar work place safety regulations; or

2. Interference at Insured Premises, by strikers or other persons, with rebuilding repairing or replacing property or with the continuation or resumption of business

G. **Molten Materials Exclusion**

Spill, release or discharge of any material liquified by heat or in a state of fusion. This exclusion applies without limitation to (i) repairing any fault or flaw associated in any way with such spill, release, or discharge; (ii) any cost of removing or recovering the material, and (iii) any claim that such material constitutes Pollutant(s) or Hazardous Material.

H. **Nuclear and Radioactivity Exclusion**

Nuclear reaction, or nuclear radiation, or radioactive contamination, all whether controlled or uncontrolled and wherever occurring. However, two forms of ensuing loss are not excluded:

1. If nuclear reaction, nuclear radiation, or radioactive contamination directly causes a fire, the Damage and Time Element caused solely by that fire is insured hereunder. This exception does not provide or permit insurance for the nuclear reaction, nuclear radiation or radioactive contamination or for any sum relating to them.

2. If there is an abrupt, sudden and accidental event on Insured Premises that immediately results in radioactive contamination, then Damage to Insured Property would be insured to the extent that the following requirements are met:

   (a) The radioactive contamination arises out of material on Insured Premises which is known to be radioactive;

   (b) The radioactive material is kept on Insured Premises for the purpose of the Insured's operations;

   (c) At the time of Damage the Insured Premises do not include (i) a nuclear reactor capable of sustaining nuclear fission in a self-supporting chain reaction, or (ii) any nuclear fuel that is intended for or which has been used in a nuclear reactor; and

   (d) The event did not involve the act of any person(s) or group(s) intending to create, cause or use radioactive contamination to harm others or their property.

I. **Chemical, Biological & Radiological Exposures Exclusion**

1. This policy does not insure against any loss, damage, cost or expense caused by or resulting from any of the following, regardless of any other cause or event contributing concurrently or in any other sequence thereto:

   (a) The unlawful possession, use, release, discharge, dispersal or disposal of any **chemical, bacteriological, viral, radioactive or similar agents or matter** regardless of who is responsible for the act and whether war has been declared or not, and regardless of any other cause or event contributing concurrently or in any other sequence thereto.

   (b) The unlawful possession, use, release, discharge, detonation, dispersal or disposal of any device or material capable of producing a **nuclear reaction or the spread of radioactivity**, regardless of who is responsible for the act and whether war has been declared or not, and regardless of any other cause or event contributing concurrently or in any other sequence thereto

2. In any action, suit or other proceeding where the Company alleges that, by reason of either of the provisions above, some or all loss or damage is not insured by this policy, the burden of proving that such loss or damage is not excluded shall be upon the Insured

J. **Pollutant(s) and/or Hazardous Material Exclusion**

Except as expressly provided in the **Physical Property Section** or the radioactive contamination exception in III.G. above, any Damage due to the discharge, dispersal, seepage, migration, release or escape of Pollutant(s) and/or Hazardous Material

Regardless of cause, this policy does not insure expenses, fines, penalties or costs incurred or sustained by any Insured or imposed on any Insured at the order of any government agency, court or other authority in connection with any kind or description of environmental impairment, including seepage or pollution or contamination from any cause.

K. **Terrorism Exclusion**

Notwithstanding any provision to the contrary within this insurance or any endorsement thereto it is agreed that this insurance excludes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any act of terrorism regardless of any other cause or event contributing concurrently or in any other sequence to the loss, except as provided by the Certified Act(s) of Terrorism Endorsement and/or Non-Certified Act(s) of Terrorism Endorsement provided that said endorsement(s) are attached to this policy.

This policy excludes loss or damage caused by fire that is part of or arises directly from terrorism. However, with respect to insured locations in the United States, its territories and possessions and Puerto Rico, in the event that the law of the jurisdiction where the Insured Property sustaining loss or damage requires damage caused by fire to be covered, then this policy covers such loss or damage only for the physical loss or damage, with adjustment being at the lesser of actual cash value, the cost to repair or the cost to replace, all as of the date of the loss at the location of the loss, for no more than the interest of the Insured and without allowance for upgrades to comply with codes or building laws. This coverage exception for such resulting fire loss or damage does not apply to any time element coverages, including but not limited to business interruption, loss of earnings, extra expense, contingent coverage(s), leasehold interest or rental insurance, nor for any fire legal liability.

For the purpose of this insurance an act of terrorism means the intentional conduct by any person(s) or group(s) causing loss or damage and/or the threat thereof, in order to induce fear, submission or otherwise influence people or government(s), or to promote, publicize or advance any ideological, religious, social or political cause.

This policy also excludes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any action taken in controlling preventing, suppressing or in any way relating to any act of terrorism.

If the Company alleges that by reason of this exclusion, any loss, damage, cost or expense is not covered by this policy the burden of proving the contrary shall be upon the Insured.

In the event any portion of this exclusion is found to be invalid or unenforceable, the remainder shall continue in full force and effect.

K. **War Risk Exclusion**

1. Hostile or warlike action in time of peace or war, including action in hindering combating or defending against an actual, impending or expected attack or invasion by any of the following:

   (a) Any government or sovereign power (de jure or de facto), or by any authority maintaining or using military, naval or air forces;

   (b) Military, naval or air forces, or

   (c) An agent of any such government, power, authority or forces.

   Any discharge, explosion or use of any weapon or non-commercial device employing nuclear fission or fusion is conclusively presumed to be excluded as a hostile or warlike action by a government, power, authority or force.

2. War, invasion, act of foreign enemy, hostilities or warlike operations (whether war to be declared or not), civil war, mutiny, insurrection, rebellion, revolution, military or usurped power, civil commotion seeking to promote a popular or military uprising, or any act of any person acting on behalf of or in connection with any organization with activities directed toward the overthrow by force of a government de jure or de facto or action taken by governmental authority in hindering, combating or defending against such action; or

3. Seizure, confiscation, nationalization or destruction by order of public authority unless necessary to prevent the spread of a fire from an Insured Cause of Loss

Terms and Conditions Applicable to All Sections

I. Undertakings

A. Abandonment

Neither the Insured nor any loss payee shall abandon to the Company any property, except with the consent of the Company.

B. Assignment/Identity of Interests

Assignment of the policy shall not be valid except with the express written consent of the Company. If the Named Insured is comprised of more than one legal entity, the Company's obligation for Damage and Time Element shall not exceed the amount that would be due had all interests comprised a single legal entity.

C. Cancellation

This policy may be canceled at any time by the Insured by surrender thereof to the Company or to a duly authorized agent or by mailing to the Company written notice stating when thereafter such cancellation shall be effective.

This policy may be canceled by the Company by mailing to the Insured at the address shown in this policy or last known address written notice stating when, not less than sixty (60) days thereafter, such cancellation shall be effective. The mailing shall be sufficient proof of notice.

If the Insured fails to pay premium when due, this policy may be canceled by the Company by giving the Insured not less than ten (10) days written notice.

The date of the Insured's surrender or the effective date of the Company's cancellation stated in the notice shall become the new expiration date of the Policy Term. Delivery of such written notice either by the Insured or by the Company shall be equivalent to mailing.

The Named Insured listed in the Declarations is the sole agent for all Insured's in tendering and receiving cancellation notices.

Premium adjustment may be made at the time cancellation is effected and, if not then made, shall be made as soon as practicable after cancellation becomes effective. If the Company cancels, earned premiums shall be computed pro rata for any period when the policy was in effect. If the Insured cancels, the premium retained by (or due to) the Company shall be computed using the short rate applicable. The Company's check or the check of their representative mailed or delivered as aforesaid shall be a sufficient tender of any refund of premium due to the Insured.

D. Certificates of Insurance

The Company grants permission to the producer of the Insured's account to issue certificates of insurance to mortgagees, loss payees and for evidence only provided that each certificate (i) is fully subject to the entire policy; (ii) does not increase the financial exposure or obligation of the Company; (iii) is not issued to any mortgagee that is also an additional insured hereunder; and (iv) is filed with the Company within fourteen (14) days after issuance. Any breach of the requirements for a certificate automatically renders that certificate void for all purposes.

E. **Concealment, Misrepresentation, Omission or Fraud**

This policy is void where there is fraud by the Insured at any time. This policy also is void if the Insured at any time intentionally conceals or misrepresents or omits a material fact it knew or should have known concerning:

1. Values, loss history, business protections, or contingent exposures;

2. Placement or application of the policy;

3. The Insured Property or Dependent Properties; or

4. Any claim hereunder

F. **Difference in Conditions/Difference in Limits/Maintenance of Underlying**

If this policy is placed excess of a primary insurance policy with a narrower scope of insurance, this policy shall still provide insurance as written provided that the Insured shall account in full for the amount of the primary limit and the limit or sublimit(s) provided by the Company shall be reduced by that amount

Any primary or other underlying policy in force at the inception of this policy will be maintained by the Insured during the Policy Term, and any renewals or replacements of such policies will not be more restrictive than the current insurance. Under no circumstance shall the Company drop down or step down to become primary or underlying insurance and the Company shall always be excess in any Occurrence of the amounts shown in the Declarations for deductible(s) primary, and underlying insurance Where there is an underlying aggregate limit, the Company shall pay only where the records presented establish to its satisfaction that the full underlying limit has been properly exhausted by insurance payments for covered Occurrences during the Policy Term.

G. **Errors and Omissions**

It is a material requirement of this contract that the Insured accurately report the values of the property for which it seeks insurance at the Locations within the Territory where that Property is located. Subject to this requirement, the Company will not preclude coverage for Damage at a particular Location where the Insured or its producer made an error or unintentional omission:

1. In the description or location of item(s) of property in the most recent statement of values or documentation submitted to and accepted by the Company, provided that the item is the type insured under the policy and the error or omission is not greater than ten percent (10%) of the values at that Location.

2. In the listing of Locations so that the report omitted a Location owned or occupied by the Insured at the inception date or that became a Newly Acquired Location during the Policy Term, provided that the Location was not among the top ten (10) Locations in values and was not omitted from more than one report.

Any such error or unintentional omission shall be reported promptly on discovery and additional premium paid from policy inception. The maximum amount of indemnity any claim involving an error or omission is the sublimit for Unnamed/Unreported Locations or, if greater, the errors and omissions sublimit shown in the Declarations

H. **Excess Insurance**

Permission is granted to the Insured to place excess insurance over the limit(s) set forth in the Declarations without prejudice to this policy and the existence of such insurance, if any, shall not reduce any amount otherwise payable under this policy.

I. **Inspection of Property and Operations**

The Company shall be permitted but not obligated to inspect the Insured's property and operations at any reasonable time. Neither (i) the right to make inspections; (ii) the making thereof, (iii) any risk analysis for any hazard or peril or (iv) any advice or report resulting therefrom shall imply any responsibility or constitute an undertaking of any kind to determine or warrant that such property or operations are proper, safe, or are in compliance with any law, rule or regulation.

J. **No Control**

This insurance shall not be affected by failure of the Insured to comply with any requirements of this policy concerning the safeguarding or rebuilding of any portion of the premises of others over which the Insured has no control with respect to such matters prior to or at the time Damage occurs.

K. **Other Insurance**

If, at the time of Damage, there is any other valid or collectible insurance for Damage or Time Element that was not placed excess of this insurance then this insurance shall apply only as excess and in no event as contributing insurance and then only after all other insurance has been exhausted.

L. **Pro Rata Liability**

The Company shall not pay for a greater proportion of any covered claim than the amount hereunder insured shall bear to the whole insurance covering the Insured Property, whether collectible or not. Where the Insured retains part of a layer for its own account, it shall be treated as a commercial insurer for all aspects of that share, including but not limited to pro rata liability and other insurance obligations.

M. **Report of Values Requirement**

On or before thirty (30) days before the policy inception date, and annually thereafter during the Policy Term the Insured shall file with the Company an accurate report of current values for physical property and Time Element values for Insured Property at each separate Location insured by this policy. The Company shall have a reasonable opportunity to review and accept the reports and the Insured warrants that the Company may rely on the accuracy of these report(s).

The report of physical property values shall coincide with the valuation provisions of this policy. The report of Time Element values shall include the estimated values for the twelve (12) consecutive months immediately following the date of the report as well as the actual Time Element values for the twelve (12) consecutive months immediately preceding the date of the report.

N. **Suspension of Insurance**

The Insured shall advise the Company in writing immediately upon discovery of a dangerous condition with respect to any boiler, fired or unfired vessel, refrigerating or air conditioning system, piping and its accessory equipment and any mechanical or electrical machine or apparatus used for the generation, transmission or utilization of mechanical or electrical power, which may result in Damage if not corrected.

Upon receipt of that advice or discovery of the condition through other means, the Company may, at its discretion, immediately suspend the insurance with respect to Damage to such property by written notice mailed or delivered to the Insured at the address of the Insured, or at the location of the property, or as otherwise specified in this policy. Insurance so suspended may be reinstated by the Company but only by a duly authorized written endorsement issued to form a part hereof. The Insured shall be allowed the unearned portion of the premium paid for such suspended insurance, pro rata for the period of suspension.

O. **Titles of Paragraphs**

The titles of the various paragraphs of this policy wording (and of endorsements and supplemental contracts, if any, now or hereafter attached to this policy) are inserted solely for convenience of reference and shall not be deemed in any way to limit or affect the provisions to which they relate

P. **Underlying Insurance**

The Insured may purchase insurance on all or any part of the deductibles of this policy, and the existence of such underlying insurance shall not prejudice any recovery otherwise payable under this policy. The existence or absence of such underlying insurance shall not in any way reduce the Company's right to deduct from any covered claim the full amount(s) of the deductibles as shown in the Commercial Property Insurance Declarations. If the limits of such underlying insurance exceed the deductible which would apply under this policy, then the insurance provided by this policy shall apply only as excess after payment of that portion which exceeds such deductible has been exhausted.

II. **Calculations**

A. **Currency**

Premium and any covered claim(s) shall be payable in United States dollars

III. **Claims Process**

A. **Appraisal**

In case the Insured and the Company fail to agree as to correct adjusted amount of any covered claim under this policy then, on the written demand of either, the Insured and the Company each shall select a competent and disinterested appraiser and notify the other of the person selected within thirty (30) days of such demand. The appraiser shall first select a competent and disinterested umpire, and failing for fifteen (15) days after consulting to agree upon such umpire, then, on request of the Insured or the Company, such umpire shall be selected by a judge of a court of record in the state in which the Insured Property sustaining Damage is located. The originally appointed appraisers shall then appraise the loss stating separately the amount of Actual Cash Value and all other amounts potentially due hereunder for each item of Insured Property, and, failing to

agree, shall submit their differences, only, to the umpire. An award in writing, so itemized, of any two (2) appraisers when filed with the Company shall conclusively, without right of appeal, determine all amounts submitted to appraisal. Each appraiser shall be paid by the party selecting him and the expenses of appraisal and umpire shall be paid by the Insured and the Company equally.

B. **Claims Adjustment Assignment**

In the event of Damage, the Insured shall promptly provide the Company's claims personnel with all information necessary to investigate, document, evaluate and adjust the claim. In the event that the Company elects to retain independent adjusters, engineers, accountants, consultants and other experts to assist in the claims adjustment, other insurers subscribing to or following this policy wording shall share those expenses.

The Company appoints to act as its loss adjuster to investigate and evaluate claims on its behalf.

C. **Suit and Choice of Law**

In the event that any disagreement arises between the Insured and the Company requiring judicial resolution, the Insured and the Company each agree that any suit shall be brought and heard in a court of competent jurisdiction within the State of New York. The Insured and the Company further agree to comply voluntarily with all the requirements necessary to give such court jurisdiction. Any suit shall be barred (i) if commenced before the Insured has given notice and permitted the Company reasonable opportunity for adjustment; or (ii) if commenced more than twenty-four (24) months after the inception of Damage unless the Company agrees in writing after Damage to extend that suit limitation period.

The Insured and the Company further agree that New York law shall control the interpretation, application and meaning of this contract, whether in suit or otherwise.

D. **Insured's Duties in the Event of Damage**

The Insured shall do the following in the event of Damage to Insured Property:

1. Notify the police if a law may have been broken;

2. Give the Company prompt written notice of the Damage, including a description of the item(s) of property damaged, the cause of the damage and the time it occurred;

3. Promptly provide the Company with documentation, reports, and records bearing on how, when and where the Damage occurred;

4. Take all reasonable steps to protect Insured Property from further Damage by any Insured Cause of Loss, including without limitation these steps (i) to set damaged property aside where possible; (ii) keep the property in the best possible order for examination; and (iii) record all expenses for emergency and temporary repairs for consideration in the settlement of the claim;

5. At the Company's request, provide complete inventories of the damaged and undamaged property that demonstrate to the Company's satisfaction the quantities, costs, values and amount of loss claimed;

6. Permit the Company to inspect the property and records and to take samples relating to the Damage and any Time Element loss;

7. At the Company's request, permit the Company to question under oath the Insured and its agents, and to obtain verified answers under oath at such times as may be reasonably required, concerning any matter relating to this insurance or the Insured's claim including, without limitation the Insured's books and records;

8. Within sixty (60) days after the Company's request, submit a signed, sworn statement of loss containing the information requested by the Company in the format specified by the Company.

9. Cooperate with the Company in the investigation or settlement, or other resolution of the claim.

The foregoing duties of the Insured are part of its contractual agreement in consideration of the amount premium. All sums incurred by the Insured to discharge these duties or otherwise to prepare and verify its claim are for its own account and are not insured under this policy.

E. Interim Payments

In the event the Company determines that Damage to Insured Property was caused by an Insured Cause of Loss and that the claim presented by the Insured is covered, in whole or in part, by this policy, then the Company agrees to consider interim payment(s) subject to policy provisions. To obtain such interim payment(s), the Insured must submit proof of loss accepted by the Company. The Insured's claim must be in accordance with the valuation provisions contained in this policy, and the applicable policy deductible must be satisfied before any said interim payment will be considered or allowed.

F. Mortgagee Interests and Obligations

If any payment due hereunder is claimed to be payable, in whole or in part, to a designated mortgagee or other creditor of the Insured not named herein as the Insured, such interest in this policy may be canceled by giving to such mortgagee or creditor a thirty (30) days written notice of cancellation.

If the Insured fails to render proof of loss, such mortgagee or creditor, upon notice, shall render proof of loss in the form herein specified within sixty (60) days thereafter and shall be subject to the provisions hereof relating to appraisal and time of payment and of bringing suit. If the Company shall claim that no liability existed as to the mortgagor or owner or debtor, it shall, to the extent of payment hereunder to the mortgagee, be subrogated to all mortgagee's or creditor's rights of recovery, but without impairing mortgagee's or creditor's right to sue, or the Company may pay off the mortgage debt and require an assignment thereof and of the mortgage. Other provisions relating to the interest and obligations of such mortgagee or creditor may be added hereto by agreement in writing.

G. Subrogation

At the Company's request, the Insured shall provide an assignment of all right of recovery against any party to the extent that payment therefor is made by the Company. Prior to Damage, the Insured may waive by express written agreement with a third party its right to recover against that party for Damage, and this insurance shall not be invalidated by such a waiver. After Damage, the Insured shall do nothing to prejudice the subrogation

rights of the Company. Regardless of the time of Damage, the Company expressly waives subrogation rights against any parent or subsidiary company of the Insured and/or corporation engaged in a joint venture with the Insured that also is insured under this policy.

In the event of a subrogation recovery, the net amount after deducting subrogation fees and expenses shall be divided between each party instituting such proceedings in the same proportion as each such party has borne the agreed Damage and Time Element loss.

H. Submissions to the Company for Claims

Unless otherwise specified in writing by the Company, all claims-related submissions to the Company should be sent to:

Address XL Insurance
99 Park Avenue
New York, NY 10016

Attention: Claims Supervisor

Phone: 212-231-1305/ Fax: 212-694-9242

I. When and To Whom Loss Payable

The amount for which the Company has become obligated to pay shall be payable sixty (60) days after signed proof of loss, as herein provided, is received and accepted by the Company, and after ascertainment of the amount due is made by written agreement accepted between the Insured and the Company or by the filing with the Company of a duly awarded appraisal decision or a final court judgment.

Regardless of mortgagee, loss payee, or other interests, the Company may, at its sole discretion, make payments to the entity first named as the Insured in the Declarations, and that payment shall be effective, binding and final as to all insured interests in that payment.

Definitions Section

Wherever used in the Declarations, policy wordings or endorsements, the listed words and terms shall have the meanings set forth below. For ease of reference, the first letter of these words and terms is capitalized where used in the contract.

I. General Application

A. Actual Cash Value

The amount it would cost to replace, repair or rebuild (whichever is less) the Insured Property at the site on the date of Damage (without allowance for contingencies or soft costs) with material of like kind and quality, less the adjusted deduction for deterioration, depreciation, obsolescence, and depletion. If the foregoing calculation produces a number greater than the fair market value of the Insured Property on the date of Damage, then the Actual Cash Value shall be limited to the fair market value.

B. Company

The Company stated in the Declarations providing this insurance.

C. Computer Virus

Computer Virus means any corrupting, harmful or otherwise disruptive instructions or code including any unauthorized instructions or code, programmatic or otherwise, that propagate through any computer or computer system(s), network(s) or groups of whatsoever nature. Computer Virus includes, but is not limited to "Trojan Horses", "worms" and "time or logic bombs".

D. Damage

Direct physical loss of, or direct physical damage to, Insured Property arising from an Occurrence that takes place during the Policy Term.

E. Date Processing

The recognition, acceptance, differentiation, application, distribution or other processing of information involving one or more dates of any kind by any (i) computer system, hardware, program, software, or data therein; (ii) microchip, microprocessor, or integrated circuit; or (iii) other device of any description.

F. Declarations

The statement forming part of this contract that contains essential contract information such as the identity of the Insured, the Policy Term and premium, the limits and sublimits and the deductibles.

G. Electronic Data

Electronic Data means facts, concepts, code or any other information converted to a form useable for communication, interpretation or processing by computers or other electronic or electromechanical data processing or electronically controlled equipment, and includes programs, software and other coded instructions for the processing or manipulation of other data or the direction and manipulation of any equipment.

H. **High Hazard Earth Movement Zones** are defined as follows:

State/Country	Counties / Areas
California	Entire State
Alaska	Entire State
Hawaii	Entire State
Oregon	Entire State
Washington	Entire State

I. **High Hazard Flood Zones** are defined as follows

All Locations within a 100-year floodplain or a Special Flood Hazard Area as designated on a Flood Insurance Rate Map by the Federal Emergency Management Agency. Special Flood Hazard Areas shall mean the areas of a flood insurance rate map identified as zones A, AO, AH, A1-A30, AE, A99, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V, V1-V30 and VE.

J. **High Hazard Wind Zones** are defined as follows

State/Country	Counties / Areas
Alabama	Baldwin and Mobile
Florida	All counties
Georgia	Brantley, Bryan, Camden, Chatham, Charlton, Effingham, Glynn, Liberty, Long, McIntosh, Pierce and Wayne
Hawaii	Entire state
Louisiana	Parishes of: Acadia, Assension, Assumption, Cameron, Calcasieu, East Baton Rouge, East Feliciana, Iberia, Iberville, Jefferson, Jefferson Davis, Lafayette, Lafourche, Livingston, Orleans, Plaquemines, Pointe Coupee, St. Bernard, St. Charles, St. James, St. John the Baptist, Saint Helena, St. Martin (northern part), St. Mary, St. Tammany, St. Martin (southern part), Tangipahoa, Terrebonne, Vermilion, Washington, West Baton Rouge and West Feliciana
Mexico	The States of Baja California Sur, Campeche, Colima, Guerrero, Jalisco, Michoacan, Nayarit, Quintana Roo, Sinaloa, Tabasco, Tampaulipas, Veracruz and Yucatan
Mississippi	George, Hancock, Harrison, Jackson, Pearl River and Stone
North Carolina	Beaufort, Bertie, Bladen, Brunswick, Camden, Carteret, Chowan, Columbus, Craven, Currituck, Dare, Duplin, Gates, Greene, Hertford, Hyde, Jones, Lenoir, Martin, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Pitt, Tyrrell, Wake, Washington and Wayne
South Carolina	Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Hampton, Horry, Jasper and Williamsburg

State/Country	Counties / Areas
Texas	Aransas, Bee, Brazoria, Brooks Calhoun, Cameron, Chambers, Fort Bend Galveston, Goliad Hardin, Harris, Hidalgo Jackson, Jasper, Jefferson, Jim Wells, Kenedy, Kleberg, Liberty, Live Oak, Matagorda Newton Nueces, Orange, Refugio, San Patricio, Victoria, Wharton and Willacy

K. Insured

The entity identified in the Declarations as paying premium to the Company in exchange for the insurance provided by this policy.

L. Insured Cause of Loss

The fortuitous physical event during the Policy Term that directly and proximately causes during that period Damage of the type insured by this policy. Insured Cause of Loss does not include events or causes that commenced before the Policy Term, that are not fortuitous or known to the Insured, or that are excluded by the policy wording or any endorsement thereto.

M. Insured's Liability

The amount that the Insured must pay to the owner to repair or replace physical property that sustains Insured Damage when in the Insured's care, custody or control, provided that this obligation to pay arises because that property was:

1. Accepted by the Insured by law as lessee or as bailee of equipment, or

2. Assumed by the Insured by specific written agreement prior to loss for Damage resulting from an Insured Cause of Loss

N. Insured Premises

Facilities where Insured Property is located as described by the Insured in its most recent statement of values filed with and accepted by the Company. Insured Premises include newly acquired Locations and Unnamed/Unreported Locations qualifying for insurance hereunder.

O. Insured Property

Real or personal property located in the Territory and of the type presented by the Insured to the Company for insurance and not excluded under this policy wording or any endorsement thereto.

P. Location(s)

Insured Premises made up of an insured building or group of buildings situated at a common place, including machinery and equipment, related structures and the contents of such buildings or structures or on land within one thousand (1000) feet thereof.

Q. New Madrid Seismic Zone

State	Counties
Arkansas	Arkansas, Ashley, Chicot, Clay, Craighead, Crittenden, Cross, Desha, Drew, Fulton, Grant, Greene, Independence, Izard, Jackson, Jefferson, Lawrence, Lee, Lincoln, Lonoke, Mississippi, Monroe, Phillips, Poinsett, Prairie, Pulaski, Randolph, Saline, Sharp, St Francis, White, Woodruff
Illinois	Alexander, Bond, Calhoun, Christian, Clark, Clay, Clinton, Coles, Crawford, Cumberland, Edwards, Effingham, Franklin, Gallatin, Greene, Hamilton, Hardin, Jackson, Jasper, Jefferson, Jersey, Johnson, Lawrence, Macoupin, Madison, Marion, Massac, Monroe, Montgomery, Morgan, Perry, Pike, Pope, Pulaski, Randolph, Richland, Saint Clair, Saline, Sangamon, Scott, Shelby, Union, Wabash, Washington, Wayne, White, Williamson
Indiana	Crawford, Daviess, Dubois, Gibson, Greene, Knox, Lawrence, Martin, Orange, Perry, Pike, Posey, Spencer, Sullivan, Union, Vanderburgh, Warrick
Kentucky	Ballard, Breckenridge, Butler, Caldwell, Calloway, Carlisle, Christian, Crittenden, Daviess, Fulton, Graves, Hancock, Henderson, Hickman, Hopkins, Livingston, Logan, Lyon, Marshall, McCracken, McLean, Muhlenberg, Ohio, Simpson, Todd, Trigg, Union, Warren, Webster
Mississippi	Alcorn, Benton, Bolivar, Calhoun, Carroll, Chickasaw, Choctaw, Clay, Coahoma, De Soto, Grenada, Holmes, Humphreys, Issaquena, Itawamba, Lafayette, Lee, Leflore, Lowndes, Marshall, Monroe, Montgomery, Oktibbeha, Panola, Pontotoc, Prentiss, Quitman, Sharkey, Sunflower, Tallahatchie, Tate, Tippah, Tishomingo, Tunica, Union, Warren, Washington, Webster, Yalobusha, Yazoo
Missouri	Audrain, Bollinger, Butler, Callaway, Cape Girardeau, Carter, Cole, Crawford, Dent, Dunklin, Franklin, Gasconade, Howell, Iron, Jefferson, Lincoln, Madison, Maries, Marion, Miller, Mississippi, Montgomery, New Madrid, Oregon, Osage, Pemiscot, Perry, Phelps, Pike, Pulaski, Ralls, Reynolds, Ripley, St Charles, St. Francois, Ste. Genevieve, St. Louis, St. Louis City, Scott, Shannon, Stoddard, Texas, Warren, Washington, Wayne
Tennessee	Benton, Carroll, Cheatham, Chester, Crockett, Decatur, Dickson, Dyer, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Hickman, Houston, Humphreys, Lake, Lauderdale, Lawrence, Lewis, Madison, McNairy, Montgomery, Obion, Perry, Robertson, Shelby, Smith, Stewart, Tipton, Wayne, Weakley

R. Occurrence

The physical source of Damage to Insured Property, regardless whether it creates more than one Insured Cause of Loss. One occurrence is the aggregate amount of all fully adjusted claims covered under this policy that arise from that physical source. In establishing the amount of the deductible, limit or sublimit to be applied for an Occurrence, the following shall apply:

1. An Occurrence for Earth Movement means the sum total of all Damage and Time Element Losses insured hereunder during any period of seventy-two (72) hours by reason of Earth Movement

2. An Occurrence for Flood is the sum total of all Damage and Time Element Loss insured hereunder sustained during any period of seventy-two (72) hours by reason of flood;

3. An Occurrence for Named Storm or Windstorm is the sum total of all Damage and Time Element loss insured hereunder arising out of or caused by the same atmospheric disturbance during any period of seventy-two (72) consecutive hours.

4. An Occurrence for any other Insured Cause of Loss involving progressive damage to a building is the sum total of all Damage and Time Element loss insured hereunder sustained during any period of seventy-two (72) consecutive hours;

5. An Occurrence for any other Insured Cause of Loss involving a defect in construction in more than one building is the sum total of all Damage and Time Element loss insured hereunder with respect to each building

6. An Occurrence for any other Insured Cause of Loss arising from the plan or acts of any person is the sum total of all Damage and Time Element Loss insured hereunder sustained during any period of seventy-two (72) consecutive hours.

Should any time period referred to in Subparagraphs **1. – 6.** above commence prior to the expiration date or cancelation date of this policy, this Company shall pay all Damage and Time Element loss occurring during such period as if such period fell entirely within the Policy Term. Nothing in this undertaking alters the fact that this policy does not insure any Damage commencing before the effective date and time, or commencing after the expiration date and time of this policy.

S. Pacific Northwest Seismic Zone

The states of Oregon and Washington

T. Policy Term

The period stated in the Declarations from inception date to expiration date, including any change in expiration date made by written endorsement attached hereto or by cancellation as provided herein. The Policy Term for any property newly acquired by the Insured after inception date shall begin with the date of its addition to Insured Property under this policy.

U. Pollutant(s) and/or Hazardous Material

Any solid, liquid, gaseous or thermal irritant, or contaminant or material posing a hazard to human health, including but not limited to vapor, soot, fumes, acids, alkalis, chemicals lead (or lead products) and waste. Waste includes materials to be recycled, reconditioned or reclaimed. Pollutants and/or Hazardous Materials do not include asbestos or radioactive contamination, which are separately addressed in this policy wording

V. **Replacement Cost**

The lesser of:

1. The cost to repair, rebuild or replace (whichever is smallest) on the same site with new materials of like kind and quality or

2. The actual expenditure incurred in repairing, rebuilding or replacing (whichever is smallest) on the same or another site.

Subject always to these limits, if the damaged property is rebuilt or replaced, the valuation shall give due allowance for equivalent space (measured either in square or cubic footage as applicable) and equivalent production capacity or functional utility for the Insured's business.

W. **Territory**

The fifty (50) states of the United States of America and the District of Columbia.

X. **Time Element**

The Insured's financial loss in earnings or profits as provided herein resulting directly (i) from Damage insured under the policy or (ii) under the contingent provisions of the Time **Element Section**, from damage at Dependent Properties from Contingent Damage hereunder.

Y. **Unnamed/Unreported Locations**

Insured Property at any Location where the Insured has not submitted to the Company full Replacement Cost and Time Element values for its interests at that Location, but has chosen, with the Company's acceptance, to include in an accurate report of values for all such Locations. Unnamed/Unreported Locations do not include any property in transit, at any exhibition, exposition, fair or trade show, or any property excluded under this policy or insured under any other contract.

II. **Physical Property and Time Element Terms**

A. **Accounts Receivable**

Personal property of the Insured that constitutes records of debts owed to the Insured and that deprives the Insured of the ability to collect those debts, provided that this inability does not result from an error in bookkeeping, accounting or billing and is reported to the Company within ninety (90) days of the Damage. The insured interest includes:

1. The amount(s) due the Insured from customer(s), provided the Insured is unable to effect collection thereof as the direct result of Damage to records of accounts receivable;

2. Interest charges on any loan taken by the Insured during the period of adjustment hereunder made uncollectible by such Damage;

3. Additional collection expense that would not have been incurred but for the Damage and

4. Expenses reasonably incurred by the Insured in recreating physical records of accounts receivable following such Damage.

For the purpose of this definition only, credit card company charge records shall be deemed to represent sums due the Insured from customers, provided that such charge records had not been delivered to the credit card company at the time of Damage.

B. Fine Arts

Paintings, etchings, pictures, tapestries, art glass windows, valuable rugs, statuary, marbles, bronzes, antique furniture and silver, rare books, manuscripts, porcelains, rare glass and bric-a-brac, curios, and other similar property, all of which have the quality of rarity, historical value, or artistic merit.

C. Finished Stock

Stock manufactured by the Insured which in the ordinary course of the Insured's business is ready for packing, shipment or sale. For purpose of Gross Profit calculations, Finished Stock means the value of Raw Stock and labor expended, plus the proper proportion of manufacturing overhead charges.

D. Improvements and Betterments

Fixtures, alterations, installations or additions comprising part of a building occupied but not owned by the Insured and acquired or made a part thereof at the expense of the Insured, which the Insured cannot legally remove.

E. Media

Tape recordings, exposed film, programming records pertaining to electronic and electromechanical data processing or electronically controlled equipment or other similar records.

F. Merchandise

Goods kept for sale by the Insured which are not Raw Stock, Stock in Progress or Finished Stock.

G. Month

Thirty (30) consecutive days

H. Refractory Material

Primary materials used:

a. in the internal linings of furnaces, ovens or kilns;
b. in vessels for holding and transporting heated materials;
c. in flues and stacks through which hot gases are conducted.

I. Stock in Process

Raw Stock which has undergone any aging, seasoning, mechanical or other process of manufacture at Insured Premises but which has not become Finished Stock.

J. **Transmission and Distribution Lines**

Wires, cables, poles, pylons, standards, towers or other supporting structures relating to the conveyance or transfer of power, electricity or communications.

K. **Valuable Papers and Records**

Written, printed or otherwise inscribed documents and records, including books, maps, films, drawings, abstracts, deeds, mortgages and manuscripts, but Valuable Papers and Records does not mean Media or any item identified as property not insured under **II. B.** or **II.O.** of the **Physical Property Section.**

III. Additional Time Element Terms

A. **Actual Plant Value**

The Actual Plant Value shall be the total one hundred percent (100%) Time Element value for the period of indemnity divided by the number of working days in such period. The one hundred percent (100%) Time Element value shall be the total amount exposed and not the amount of loss actually sustained during the period of interruption.

B. **Contingent Damage**

Direct physical loss of, or direct physical damage to, property of any third party that results directly from a cause of loss of the type insured under this contract. Contingent Damage is not itself insured under this contract and is relevant only to the extent it directly causes a contingent Time Element loss to the Insured that is accepted by the Company for coverage.

C. **Dependent Properties**

Real or personal property of the type insured under this policy that are located within the Territory and are owned or operated by third-parties doing business directly with the Insured in one of the following respects:

1. Directly supplying material or services to the Insured for use in its business, except that such services do not include any utility or other services such as water, communication, power, electricity, steam or gas;

2. Directly accepting the Insured's products or services as customers of the Insured, or

3. Manufacturing products under contract with the Insured for delivery directly to the Insured's customers under contract of sale.

Dependent Properties do not include the property of the entities with whom the Insured's supplier, customers, or contract manufacturers do business.

D. **Fixed Charges**

All fixed charges of the business property sustaining Time Element Loss from Damage that necessarily continue, except as excluded in this contract.

E. **Gross Earnings**

The sum of the following:

1. Total net Sales value of production through the use of the Insured Property;

2. Total net Sales of Merchandise.

3. Other earnings derived from the operation of business

less the cost of the following:

4. Raw Stock from which production is derived;

5. Supplies consisting of materials consumed directly in the conversion of such Raw Stock into Finished Stock or in supplying the service(s) sold by the Insured.

6. Merchandise sold, including packaging materials thereof, and

7. Service(s) purchased from third parties (not employees of the Insured) for resale which do not necessarily continue under contract.

No other costs shall be deducted in determining Gross Earnings.

F. **Gross Profit**

The amount produced by adding to the Net Profit the amount of the Fixed Charges, or if there be no Net Profit, the amount of the Fixed Charges less that proportion of any loss from business operations as the amount of the Fixed Charges bears to all fixed charges.

G. **Indemnity Period**

The period beginning with the date of the Damage to Insured Property and not ending later than thirty six (36) months thereafter (or the accepted reported period of months on file with the Company) during which period the results of the business shall be directly affected in consequence of the Damage

H. **Leasehold Interest**

The amount of rent excess of the original rent and other charges that would have been payable under the canceled lease that must be paid by the Insured following Damage for similar replacement property. The Insured's Leasehold Interest includes bonuses or advance rent the Insured must pay (including any maintenance, operating charges or taxes) for each Month during the indemnity period insured under this policy

I. **Net Leasehold Interest**

The present value of the amount, which placed at six percent (6%) annual interest would equal the Leasehold Interest (less any amounts otherwise payable hereunder)

J. **Net Profit**

The net operating profit (exclusive of all capital receipts and accruals and all outlay property chargeable to capital) resulting from the business of the Insured at Insured Premises after due provision has been made for all fixed Charges and other expenses (including depreciation) but before deduction of any taxes on profits

K. **Normal**

The condition that would have existed had no Damage and Time Element Loss occurred

L. **Rate of Gross Profit**

The Rate of Gross Profit earned on the Sales during the twelve (12) full calendar months immediately before the date of the Damage.

M. **Raw Stock**

Material in the state in which the Insured receives it for conversion by the Insured into Stock in Progress or Finished Stock

N. **Sales**

The money paid or payable to the Insured for goods sold and delivered and for services rendered in the ordinary and usual conduct of the business at Insured Premises

O. **Standard Sales**

The Sales during that period in the twelve (12) months immediately before the date of the Damage to the Insured Property which corresponds with the Indemnity Period.

IV. **Certain Peril Definitions**

The following terms wherever used in this policy shall have the following definitions:

A. **Earth Movement**

Earthquake, landslide, subsidence, volcanic eruption or any other Earth Movement (all whether or not naturally occurring), but not including mud slide, mud flow or Sinkhole. For purposes of all limits and deductibles in this contract, Earth Movement includes all release or escape of water from sprinklers or other systems arising from or relating to the Occurrence.

B. **Flood**

A temporary condition of partial or complete inundation of normally dry land areas from any of the following.

1. The overflow of inland or tidal waters

2. The unusual and rapid accumulation or runoff of surface waters from any source.

3. Mud slide or mud flow caused by accumulation of water on or under the ground or

4. Wave action, tsunami, Named Storm or the release of impounded water

C. **Named Storm**

Named Storm is defined as a storm or weather condition that has been declared as a hurricane, typhoon, tropical storm or cyclone by the U.S. National Weather Service, World Meteorological Organization, or a similar weather organization.

For the purpose of applying any Limit of Liability or Deductible in this Policy, insured loss or damage caused by a Named Storm shall include:

a. the force or action of wind caused by or resulting from a Named Storm;

b. any material, object or debris that is carried, propelled or in any manner moved by a Named Storm

c. any tornado(es) that are a result of actions or effects of a Named Storm

d. hail that is a result of actions or effects of a Named Storm

e. lightning that is a result of actions or effects of a Named Storm;

f. rain or water, whether the rain or water is driven by wind or not, that enters the covered building or structure through an opening(s) created by the force of wind or water from a Named Storm; or

g. Flood, to the extent covered by this Policy, that results from the actions or effects of a Named Storm.

If the Named Storm involves insured loss or damage under any sublimited coverage or by any sublimited peril (including but not limited to Flood), the maximum amount payable is the sublimit stated for that coverage or peril.

D. **Sinkhole**

The sudden sinking or collapse of the land into underground empty spaces created by action of water on limestone or other underlying rock formations.

E. **Specified Perils**

Fire; lightning; explosion; Windstorm, smoke, aircraft or vehicles; riot or civil commotion; vandalism, leakage from fire extinguishing equipment, Sinkhole; volcanic action, falling objects, or weight of snow, ice or sleet.

F. **Windstorm**

The direct action of wind, or the direct action of hail (regardless whether hail is accompanied by wind), but any such direct action does not include:

1. Damage caused directly or indirectly by ice (other than hail), snow, sleet or dust, whether driven by wind or not;

2. Unless Windstorm first damages the exterior of an insured building and exposes it to further damage from the elements, any Damage to the interior of Insured Property caused directly or indirectly by rain, snow, sleet, sand or dust, whether driven by wind or not, or containing the property covered shall first sustain an actual Damage by the direct action of wind or hail; or

3. Damage resulting when the weight of snow, rainwater, ice or sleet is a contributing factor to the fall or collapse of a building or structure or any part thereof.

G. **Boiler and Machinery**

Damage involving an Accident to an Object, as those terms are defined below

The terms used herein apply only to Boiler and Machinery and expressly limit the scope of that insurance. The terms do not define or otherwise limit perils or coverage for any Insured Property other than an Object

1. **Accident**

(a) A sudden and accidental Occurrence within boilers or fired or unfired vessels owned by, operated by, or under the control of the Insured and subject to pressure or vacuum including piping or apparatus attached to and forming a part thereof, except that the words "sudden and accidental Occurrence" shall not include explosion, other than explosion of the parts of a steam boiler containing steam or water, steam piping, steam turbines, or steam engines,

(b) Mechanical breakdown of any machine or apparatus arising out of any condition or Occurrence within such machine or apparatus; or

(c) Electrical injury or disturbance to electrical appliances, devices, fixtures wiring, or other electrical or electronic equipment caused by electrical currents artificially generated.

2. **Object**

Any boiler, fired or unfired vessel subject to pressure or vacuum including piping or apparatus attached thereto and forming a part thereof, and any mechanical or electrical machine or apparatus used for the generation, transmission or utilization of mechanical or electrical power

Object shall not include any electrical apparatus forming a part of the electrical connection between the secondary terminal of any arc or induction furnace transformer and the furnace which it supplies nor shall it include any electrical equipment forming a part of the furnace.

3. **Ammonia**

The loss to Insured Property, including salvage expense, with respect to Damage by ammonia contacting or permeating property under refrigeration or in process requiring refrigeration, as a result of any one Accident to one Object or, as appropriate, to more than one Object.

4. **Expediting Expenses**

The reasonable extra cost of temporary repair and of expediting the repair of the Object, including overtime and express freight or other rapid means of transportation when an Accident causes Damage to that Insured Object.

5. **Substance Declared Hazardous**

The additional expense incurred for cleanup, repair or replacement or disposal of Insured Property which, as the direct result of an Accident to an Object, has been damaged, contaminated or polluted by a Pollutant(s) or Hazardous Material declared hazardous by an authorized governmental agency.

6. **Spoilage**

Damage to Insured Property directly caused by change in temperature or humidity resulting from an Accident to an Object that first causes Damage to an apparatus for refrigeration, cooling, humidifying, dehumidifying, air conditioning, heating, generating or converting power.

7. **Water Damage**

Damage by water to air conditioning and refrigeration systems and water piping used for humidifying, cooling or space heating purposes (including any salvage expense) directly resulting from an Accident to an Object.

TAB 3

Property –
Federal Insurance Company 8.75%

Insurance Binder

Company: Federal Insurance Company
15 Mountain View Road
Warren, New Jersey 07059

Policy No.: 9583 06 29 **Issue Date:** 06/22/2006

A. Insured

Transurban Limited and/or:

Transurban (895) LLC – Permit / Concession holder entity for Pocahontas Parkway
Transurban (895) Holdings Inc.
Transurban (895) Finance Inc.
Transurban (895) US Holdings LLC
The Virginia Department of Transportation,
Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement, and Lenders party to the Loan Agreement with Transurban (895) US Holdings LLC, as their interests may appear, all for their respective rights and interests.

B. Address

Level 43, The Chrysler Building
405 Lexington Avenue
New York, NY 10174

C. Policy Term

Inception Date: June 23rd 2006 at 12:01am Standard Time at the location of the property involved in any claim

Expiration Date: December 31st 2006 at 12:01am Standard Time at the location of the property involved in any claim

D. Territory

The United States of America (including its territories and possessions) Puerto Rico and Canada.

E. Location

As per schedule of locations on file with the Company

F. Currency

United States Dollars

G. Limits

1. **Company as Quota Share Participant**

In the event the Company participates with other commercial insurers in one or more layers excess of the deductible, the maximum amount the Company shall pay per Occurrence in all locations and coverages combined as defined in the policy wording is limited to $27,125,000 part of $310,000,000.

Layer Number Excess of Deductible	Total Layer Limit Per Occurrence	Federal Insurance Company Share(s)	Pro Rata Gross Premium Payable to Company Federal Insurance Company 8.75%	Pro Rata TRIA Premium Payable to Federal Insurance Company	Total Premium Payable to the Federal Insurance Company 8.75%
2	Primary $310,000,000	8.75%	$ 22,750.	$3,696.	US$ 26,446.00

Any annual premium listed in the chart above is payable by the Insured to the Company at policy inception and is subject to additional premium as provided in this contract for additions to property and interest values during the annual policy period.

2. **Application**

Except where an aggregate limit is stated below, or in any endorsement made part of this contract, the Company's payment for one Occurrence shall not reduce the applicable limit or sub limit available for another separate Occurrence.

H. **Sub limits and Aggregate Limit**

The following sub limits apply to any Insured loss. All sub limits fall within the applicable Occurrence limit stated in the Policy Limit section above and do not increase it.

If more than one sub limit applies to an Occurrence, those sub limits are payable cumulatively up to the applicable Occurrence limit. In the event an Occurrence results in liability payable under more than one policy issued to the Insured by the Company, or it's representative companies, the maximum amount payable in the aggregate under all such policies will be the applicable limit(s) of liability indicated in the Policy regardless of the number of coverages, locations or parts involved.

All sub limits are per Occurrence unless otherwise noted. As used in this policy "annual aggregate" means liability for all losses in any one policy year. Sub limits shown below represent the entire program amounts (all layers / all participants). The Company's liability shall be calculated by taking the stated share of each limit. In no event does any of the foregoing provisions increase the Layer Limit Per Occurrence primary limit of $310,000,000.

Physical Property and Time Element interest submitted by the Insured for payment of any claim are limited for indemnity to the values most recently reported to the Company by the Insured for that Insured Property or Time Element interest, provided that if the Insured demonstrates that the values increased by ten percent (10%) for the claimed item since the last value report to the Company, then the limit is one hundred ten percent (110%) of reported valued. Where the

Insured's business requires submission of values by Location and Division and the Company accepts submission on that basis. The limitation shall be applied on that basis to any claim.

$310,000,000 per Occurrence and in the annual aggregate as respects **Earth Movement**, all Locations combined., except at the following Locations subject to the following per Occurrence and annual aggregate limits:

$	NIL	Locations in High Hazard Earth Movement Zones.
$	NIL	Newly Acquired Locations.
$	NIL	Unnamed / Unreported Locations.

The above sub limits outlined for Earth Movement are included within the general annual aggregate for Earth Movement and do not increase the limits of liability.

$310,000,000 per Occurrence and in the annual aggregate as respects **Flood**, a. Locations combined, except at the following Locations subject to the following per Occurrence and annual aggregate limits.

$	NIL	Newly Acquired Locations.
$	NIL	Unnamed / Unreported Locations

The above sub limits outlined for Flood are included within the general annual aggregate for Flood and do not increase the limits of liability.

$310,000,000 per Occurrence and in the annual aggregate, as respects **Named Storm**, all Locations combined, except at the following Locations subject to the following per Occurrence and annual aggregate limits:

$	NIL	Newly Acquired.
$	NIL	Unnamed / Unreported Locations.

The above sub limits outlined for Named Storm are included within the general annual aggregate for Named Storm and do not increase the limits of liability

$	NIL	per Occurrence as respects **Newly Acquired Locations** (ninety (90) days reporting) for property damage and Time Element combined.
$	NIL	per Occurrence as respects **Unnamed/Unreported Locations**.
$	10,000	per Occurrence as respects **Transit** (restricted to Transit between Insured's locations only);
$	Nil	per Occurrence as respects **Contractors Interest**
$	50,000	per Occurrence as respects **Fine Arts**;

$	NIL	per Occurrence as respects **Exhibitions**;
$	100,000	per Occurrence as respects **Property of Others** (Care, Custody, Control);
$	10,000	per Occurrence as respects **Officers and Employees**;
$	500,000	per Occurrence as respects **Accounts Receivable**;
$	50,000	per Occurrence as respects **Valuable Papers and Records**;
$	NIL	per Occurrence as respects **Leasehold Interest**;
$	2,000,000	per Occurrence as respects **Off-premises Service Interruption** (property damage and Time Element combined);
$	100,000	per Occurrence as respects **Fire Department Service Charges and Extinguishing Expenses**;
$	100,000	per Occurrence as respects **Expediting Expense**;
$	100,000	per Occurrence as respects electronic data processing **Media** (property damage and Time Element combined);
$	5,000,000	per Occurrence as respects **Debris Removal**;
$	100,000	per Occurrence as respects to **Protection of Property**;
$	10,000	per Occurrence and in the annual aggregate as respects **Pollutant(s) and/or Hazardous Material Clean-Up and Removal (from uninsured property)**;
$	Nil	per Occurrence and in the annual aggregate as respects **Increased Decontamination Costs (from insured property)**;
$	500,000	per Occurrence as respects **Demolition and Increased Cost of Construction (building law)**;
$	NIL	per Occurrence as respects **Time Element (Gross Earnings)**;
$	40,000,000	per Occurrence as respects **Time Element (Gross Profits)**,
	36 months	Indemnity period applicable to **Gross Profits**;
	NIL	Extended period of indemnity applicable to **Gross Earnings**;
$	Nil	per Occurrence **Property in the course of Construction or Erection (Soft Costs)**
$	50,000	per Occurrence as respects **Contingent Business Interruption**,
$	2,500,000	per Occurrence as respects **Extra Expense**;
$	NIL	per Occurrence as respects **Rental Value**;

$	NIL	per Occurrence as respects **Research and Development**;
$	NIL	per Occurrence as respects **Royalties**;
$	1,000,000*	per Occurrence and Maximum Contract Value as respects **Property in the Course of Construction or Erection** (property damage and Time Element combined)
$	NIL	per Occurrence as respects **Interruption by Civil or Military Authority** (limited to fourteen (14) consecutive days);
$	500,000	per Occurrence as respects **Ingress/Egress** (limited to fourteen (14) consecutive days);
$	10,000	per Occurrence as respects **Radioactive Contamination on Insured's Premises** (as per exclusion III. Other Identified Cause of Loss, H.2.);
$	NIL	per Occurrence as respects **Errors and Omissions** except:
$	NIL	per Occurrence as respects **Boiler and Machinery**;

These sub limits do not increase this policy's total limit of liability in any one occurrence.

The word "occurrence" means an accident, incident or a series of accidents or incidents arising out of a single event or originating cause and includes all resultant or concomitant insured losses

I. **Deductible Clause and Deductible Application**

1. For each Occurrence giving rise to a claim under this policy, the Insured agrees to retain for its own account an initial deductible calculated on the following basis:

   a. $ 100,000 per Occurrence except as provided below;

   b. $ 1,500,000 as respects **Earth Movement, Flood and Named Windstorm**,

   c. $ 500,000 as respects **Roads and Bridges and Structures**

   d. $ 350,000 as respects **Time Element**

2. If two or more deductible amounts apply to an Occurrence, the total to be deducted shall be the largest applicable deductible, except with respect to Time Element where the deductible in Paragraph 1.d. above shall apply in addition to the other largest applicable deductible.

3. If separate Property Damage deductibles and separate Time Element deductibles apply to an Occurrence, then the total to be deducted shall be the sum of: (1) the largest applicable Property Damage deductible, and (2) the largest applicable Time Element deductible.

4. A deductible and any succeeding limit or sub limit that is based on a number of hours or days is the stated hours or days that immediately follow the commencement of any

Damage, or if the Insured claims Time Element loss from the damage of property of others that is insured under the contingent Time Element Section below, then immediately following the commencement of that damage.

J. Waiting Period

The Company will not be liable for any loss or damage unless the period of interruption exceeds the specified Waiting Period and then such potential liability will be adjusted per the terms and conditions of the Policy subject to the applicable deductible:

24 hours	Off Premises Service Interruption
24 hours	Ingress/Egress
24 hours	Interruption by Civil or Military Authority

This insurance is subject to the terms, conditions and limitations of the policy(ies) in current use by the company. This binder may be canceled by the insured or by the company in accordance with the policy conditions.

Producer:	Laura Rusao Aon Risk Services 199 Water Street New York, NY 10038	By: Graham Turnock On behalf of Federal Insurance Company 15 Mountain View Road Warren, New Jersey 07059

Terrorism Endorsement

Insured: Transurban Limited and/or:

Transurban (895) LLC – Permit / Concession holder entity for Pocahontas Parkway
Transurban (895) Holdings Inc.
Transurban (895) Finance Inc.
Transurban (895) US Holdings LLC
The Virginia Department of Transportation,
Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement, and Lenders party to the Loan Agreement with Transurban (895) US Holdings LLC, as their interests may appear.
all for their respective rights and interests.

Term: 06/23/06 – 12/31/06

The Terrorism Risk Insurance Program established by the Terrorism Risk Insurance Act of 2002 has been extended through December 31, 2007. The bill extending the program (S.467) is known as the "Terrorism Risk Insurance Extension Act of 2005" (all hereinafter referred to as "TRIA").

This addendum outlines coverage for "Certified Acts of Terrorism" as defined by TRIA. A summary of the premium and coverage are outlined below:

Deductible

For each Occurrence giving rise to a claim, the Insured agrees to retain for its own account an initial deductible calculated on the following basis:

a. $ 500,000 per Occurrence as respects **Property Damage** and

b. $ 350,000 per Occurrence as respects **Time Element**

If the insured chooses to purchase coverage for Certified Acts of Terrorism (TRIA), the following wording will be attached to the policy by endorsement.

Certified Act(s) of Terrorism Endorsement (Form: HFP 146 (12 05))

In consideration of an additional premium of $3,696, with respect to insured locations in the United States, its territories and possessions and Puerto Rico, this policy is extended to insure Certified Act(s) of Terrorism. All other terms, conditions and exclusions of this Insurance including applicable limits and deductibles remain unchanged and apply in full force and effect to the coverage provided by this Insurance.

Notwithstanding anything to the contrary in this policy or any of its endorsements, there is no coverage provided for any costs or expenses associated with coverage provisions for sue and labor or protection and preservation of property, including but not limited to costs or expenses incurred for actions to defend, safeguard, preserve, protect or recover any covered property against actual or imminent terrorism or suspected terrorism.

Any loss or damage and resulting business interruption for which the Company is not responsible under the terms of the Terrorism Risk Insurance Act of 2002, including subsequent action of Congress pursuant to the Act (all hereinafter "TRIA"), are not insured under any circumstance by this coverage extension regardless whether caused by or resulting from an insured peril.

Disclosure of Federal Participation in Payment of Terrorism Loss

The insurance provided by this policy for losses caused by Certified Act(s) of Terrorism is partially reimbursed by the United States Government, Department of Treasury, under a formula established by federal law. Under this formula, the United States Government pays 85% (* 90% for events in 2006; 85% for events in 2007) of covered terrorism losses exceeding the statutorily established deductible paid by the Company. The premium charged for this insurance is provided above and does not include any charges for the portion of loss covered by the U.S. Federal Government as set forth in the federal Terrorism Risk Insurance Program ("Program") established by TRIA. TRIA also provides that the maximum liability of all insurers (as defined therein) and the U.S. Federal Government shall not exceed $100,000,000,000 in any one calendar year.

Definitions

Wherever used in this policy or its endorsements a Certified Act of Terrorism means any act that is certified by the Secretary of the Treasury, in concurrence with the Secretary of State and the Attorney General of the United States, to be an act of terrorism pursuant to TRIA.

Termination

In the event the Program terminates prior to the expiration of this Policy, insurance provided under this extension for Certified Act(s) of Terrorism shall cease simultaneously.

Sub limit

As respect coverage provided for Certified Act(s) of Terrorism, the Company's liability shall not exceed the following:

$27,125,000 part of $310,000,000 excess of the program Deductibles per occurrence, and shall include loss or damage to covered property by fire that is a part of or directly results from a Certified Act of Terrorism.

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3583 09 29 and is subject all definitions in that policy.

Physical Property, Section II, Property not Insured – Exclusion C. is replaced with the following:

Land, growing, standing or drying crops, outdoor plants, lawns trees, timber, mineral rights, mineral reserves, or any property or part thereof this is located below the surface grade of the contiguous land except for structural improvements on or in the land providing such structural improvements are not otherwise excluded within this property.

Physical Property Section II. Property Not Insured - Exclusion 1. add the following:

Canal's and reservoirs.

Signature of Authorized Representative

Endorsement Number 1

Issued to: Transurban Limited Transurban (895) LLC

Effective Date: June 23,2006

Policy number: 3583 09 29

Federal Insurance Company

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3583 09 29 and is subject all definitions in that policy.

Exclusions Applicable to All Sections, I.Types of Damage

The following is added:

1. Inundation From The Sea

Water from or action by the sea , tidal waveor high water , provided that this exclusionshall not apply to loss, destruction or damagecaused by or arising out of Earth Movement.

Under IV.Certain Peril Definitions

The Flood Definition is revised as follows:

A temporary condition of partial or complete inundation of normally dry land areas from any of the following:

1. The overflow of inland or tidal waters;
2. The unusual and rapid accumulation or runoff of surface waters from any source;
3. Mud slide or mud flow caused by accumulation of water on or under the ground; or
4. The release of impounded water.

Flood does not mean Inundation From the Sea

Water from or action by the sea, tidal wave or high water, provided that this exclusion shall not apply to loss, destruction or damage caused by or arising out of Earth Movement.

Signature of Authorized Representative

Endorsement Number: 2

Issued to: Transurban Limited Transurban (595) LLC

Effective Date: June 23,2006

Policy number: 3583 09 29

Federal Insurance Company

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3593 09 29 and is subject all definitions in that policy.

Physical Property Section II. Property Not Insured, Exclusion f. – The exclusion for bridges and tunnels does not apply to the following specified locations:

Pocahontas Parkway: Known as Rte 895 consisting of a 9 mile 4 lane toll road from and including the **James River Bridge** from VA Rte 150 to I-295.

James River Bridge: Including 6 through lanes with 2 auxiliary lanes including the VA – 150 highway, from east of the mainland toll plaza to the end of the west approach span.

Signature of Authorized Representative

Endorsement Number: 2

Issued to: Transurban Limited Transurban (895) LLC

Effective Date. June 23,2006

Policy number. 3593 09 29

Federal Insurance Company

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3583 09 29 and is subject all definitions in that policy

Exclusions Applicable to All Sections:

1. Types of Damage, D. 4.

The following exclusions are added:

Creeping, heaving and vibration.

Signature of Authorized Representative

Endorsement Number: 4

Issued to: Transurban Limited Transurban (895) LLC

Effective Date: June 23,2006

Policy number: 3583 09 29

Federal Insurance Company

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3583 09 29 and is subject to definitions in that policy.

Non Vitiation Clause

The Company shall be entitled to avoid liability to or (as may be appropriate) claim damages from an insured party in circumstances of such insured party committing fraud, misrepresentation, material non-disclosure or breach of any warranty or condition of the Policy referred to in this clause as a "Vitiating Act". However, a Vitiating Act committed by one insured party shall not prejudice the right to indemnity of any other insured party who has an insurable interest and who has not committed a Vitiating Act.

Signature of Authorized Representative

Endorsement Number: 5

Issued to: Transurban Limited Transurban (695) LLC

Effective Date: June 23,2006

Policy number: 3583 09 29

Federal Insurance Company

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3583 09 29 and is subject all definitions in that policy.

Loss Payable Clause

All losses hereunder shall be paid to Wells Fargo Bank, N.A. in its capacity as such under the Collateral Agency and Account Agreement under account details to be provided within 28 days of the inception of this endorsement.

Signature of Authorized Representative

Endorsement Number: 6

Issued to: Transurban Limited Transurban (895) LLC

Effective Date: June 23,2006

Policy number: 3583 09 29

Federal Insurance Company

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3583 09 29 and is subject all definitions in that policy.

Subrogation

Claims Process Clause G. is the waiver noted to include:

The Lenders, the Administration Agent, the Hedging Banks, the Collateral Agent the Borrower parties and their respective officers, directors agents and employees.

Signature of Authorized Representative

Endorsement Number: 7

Issued to: Transurban Limited Transurban (695) LLC

Effective Date: June 23 2006

Policy number: 3583 09 29

Federal Insurance Company

General Change Endorsement

This endorsement changes the policy. Please read it carefully.

This endorsement modifies Policy No 3583 09 29 and is subject a l definitions in that policy.

Suit and Choice of Law

Wherever the State of New York is mentioned it shall be replaced by Commonwealth of Virginia.

Signature of Authorized Representative

Endorsement Number: 8

Issued to: Transurban Limited Transurban (895) LLC

Effective Date: June 23,2006

Policy number: 3583 09 29

Federal Insurance Company

TAB 4

Primary Liability – USD1,000,000
Allianz 100%

[redacted]

$1,000,000

US GL Primary

CGL 2001699

23 Jun 06

01 Jan 07

Allianz

Global Risks

Allianz Global Risks US Insurance Company
2350 Empire Avenue, Burbank, CA 91504

COMMERCIAL LINES POLICY

THIS POLICY CONSISTS OF:

- DECLARATIONS
- ONE OR MORE COVERAGE PARTS.

A COVERAGE PART CONSISTS OF:

- ONE OR MORE COVERAGE FORMS
- APPLICABLE FORMS AND ENDORSEMENTS

In Witness Whereof, we have caused this policy to be executed and attested, and if required by state law, this policy shall not be valid unless countersigned by our authorized representative

Secretary

President

Allianz Global Risks US Insurance Company

FOLICY NUMBER. CGL 2001699

COMMERCIAL GENERAL LIABILITY
AGR-GL 1001 (11/03)

COMMERCIAL GENERAL LIABILITY DECLARATIONS

Allianz Global Risks US Insurance Company
2350 Empire Avenue
Burbank, CA 91504-3350
68 Los Angeles Office

Acr. Risk Services Inc of New York 0030376
55 East 52nd St 37th Floor
New York, NY 10055

NAMED INSURED: Transurban (895) LLC - Permit/Concession holder for Pocahontas Parkway
MAILING ADDRESS: 405 Lexington Avenue, 43rd Floor
New York, NY 10017

POLICY PERIOD FROM June 23, 2006 TO January 01, 2007 AT 12:01 A.M. TIME AT YOUR MAILING ADDRESS SHOWN ABOVE

IN RETURN FOR THE PAYMENT OF PREMIUM, AND SUBJECT TO ALL THE TERMS OF THIS POLICY, WE AGREE WITH YOU TO PROVIDE THE INSURANCE AS STATED IN THIS POLICY.

LIMITS OF INSURANCE

EACH OCCURRENCE LIMIT	$	1,000,000	
DAMAGE TO PREMISES RENTED TO YOU LIMIT	$	100,000	Any one premises
MEDICAL EXPENSE LIMIT	$	10,000	Any one person
PERSONAL & ADVERTISING INJURY LIMIT	$	1,000,000	Any one person or organization
GENERAL AGGREGATE LIMIT		$	2,000,000
PRODUCTS/COMPLETED OPERATIONS AGGREGATE LIMIT		$	1,000,000

RETROACTIVE DATE (CG 00 02 ONLY)

THIS INSURANCE DOES NOT APPLY TO "BODILY INJURY", "PROPERTY DAMAGE" OR "PERSONAL AND ADVERTISING INJURY" WHICH OCCURS BEFORE THE RETROACTIVE DATE, IF ANY, SHOWN BELOW.

RETROACTIVE DATE: NONE

(ENTER DATE OR "NONE" IF NO RETROACTIVE DATE APPLIES)

DESCRIPTION OF BUSINESS

FORM OF BUSINESS:

- ☐ INDIVIDUAL
- ☐ PARTNERSHIP
- ☐ JOINT VENTURE
- ☐ LIMITED LIABILITY COMPANY
- ☑ ORGANIZATION, INCLUDING A CORPORATION (BUT NOT INCLUDING A PARTNERSHIP, JOINT VENTURE OR LIMITED LIABILITY COMPANY)

BUSINESS DESCRIPTION: TBD

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Allianz Global Risks US Insurance Company

ALL PREMISES YOU OWN, RENT OR OCCUPY

LOCATION NUMBER	ADDRESS OF ALL PREMISES YOU OWN, RENT OR OCCUPY
	Per Schedule on file with Company

CLASSIFICATION AND PREMIUM

LOCATION NUMBER	CLASSIFICATION	CODE NO.	PREMIUM BASE	RATE Prem/ Ops	RATE Prod/Comp Ops	ADVANCE PREMIUM Prem/ Ops	ADVANCE PREMIUM Prod/Comp Ops
Schedule on file with Company	All Operations of the Named Insured	20050	Flat	Flat	Flat	Incl.	$52,600.
	Certified Terrorism	20050	Flat	Flat	Flat	Inc.	$ 2,387.

	STATE TAX OR OTHER (if applicable)	$ No: Applicable
	TOTAL PREMIUM (SUBJECT TO AUDIT)	$
PREMIUM SHOWN IS PAYABLE:	AT INCEPTION	$ 554,987.
	AT EACH ANNIVERSARY	$
	(IF POLICY PERIOD IS MORE THAN ONE YEAR AND PREMIUM IS PAID IN ANNUAL INSTALLMENTS)	

AUDIT PERIOD (IF APPLICABLE): ☐ ANNUALLY ☐ SEMI-ANNUALLY ☐ QUARTERLY ☐ MONTHLY

ENDORSEMENTS

ENDORSEMENTS ATTACHED TO THIS POLICY:

Per Forms and Endorsement List

THESE DECLARATIONS, TOGETHER WITH THE COMMON POLICY CONDITIONS AND COVERAGE FORM(S) AND ANY ENDORSEMENT(S), COMPLETE THE ABOVE NUMBER POLICY.

Countersigned: _____ (Date)

By _____ (Authorized Representative)

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Allianz Global Risks US Insurance Company

FORMS AND ENDORSEMENT LIST

NAMED INSURED: Transurban (895) LLC - Perm Concession holder for Pocahontas Parkway
POLICY NUMBER: CGL 2001689
EFFECTIVE DATE: 5/23/2005

The following policy forms and endorsements have been attached to and made a part of the policy at inception.

FORM NAME	FORM NUMBER	EDITION DATE
Commercial General Liability Coverage Form	CG 00 01 12 04	12/2004
Common Policy Conditions	IL 00 17 11 98	11/1998
Exclusion - Asbestos Liability	AGR-GL 6002 (11-03)	11/2003
War Liability Exclusion	CG 00 62 12 07	12/2007
Exclusion - Violation of Statutes That Govern E-Mails, Fax, Phone Calls or Other Methods of Sending Material or Information	CG 00 67 03 05	03/2005
Employment-Related Practices Exclusion	CG 21 47 07 98	07/1998
Exclusion - Designated Ongoing Operations	CG 21 53 01 96	01/1996
Fungi or Bacteria Exclusion	CG 21 67 04 02	04/2002
Conditional Exclusion of Terrorism (Relating to Disposition of Federal Terrorism Risk Insurance Act of 2002)	CG 21 87 05 04	05/2004
Silica or Silica-Related Dust Exclusion	CG 21 96 03 05	03/2005
Exclusion - Law Enforcement Activities	CG 22 57 07 98	07/1998
Nuclear Energy Liability Exclusion Endorsement (Broad Form)	IL 00 21 07 02	01/2002
Deductible Liability Insurance (Per Occurrence)	AGR-GL 3009 (11-04)	11/2004
Amendment - Supplementary Payments Within Limits Of Insurance	AGR-GL 3010 (05-05)	05/2005
Amendment - When We Do Not Renew	AGR-GL 4535 (11-03)	11/2003
Additional Insured - Vicarious Liability	AGR-GL 6001 (11-04)	11/2004
Exception to Terrorism Exclusion for Certified Acts of Terrorism: Certain Losses From Certified Acts of Terrorism	CG 21 77 11 02	11/2002
Named Insured Endorsement	AGR-IL W001 (11-03)	11/2003
Service of Suit	AGR-IL W001 (11-03)	11/2003
New York Changes - Premium Audit	CG 01 04 12 07	12/2001
New York Changes Commercial General Liability Coverage Form	CG 01 58 09 99	09/1999
New York Changes - Transfer Of Duties When A Limit Of Insurance Is Used Up	CG 25 21 10 01	10/1997
New York Changes - Cancellation and Nonrenewal	IL 02 68 11 05	11/2005

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

Various provisions in this policy restrict coverage. Read the entire policy carefully to determine rights, duties and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the Named Insured shown in the Declarations, and any other person or organization qualifying as a Named Insured under this policy. The words "we", "us" and "our" refer to the company providing this insurance.

The word "insured" means any person or organization qualifying as such under Section II – Who Is An Insured.

Other words and phrases that appear in quotation marks have special meaning. Refer to Section V – Definitions.

SECTION I – COVERAGES

COVERAGE A BODILY INJURY AND PROPERTY DAMAGE LIABILITY

1. **Insuring Agreement**

   a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:

      (1) The amount we will pay for damages is limited as described in Section III – Limits Of Insurance; and

      (2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages A or B or medical expenses under Coverage C.

   No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments – Coverages A and B.

   b. This insurance applies to "bodily injury" and "property damage" only if:

      (1) The "bodily injury" or "property damage" is caused by an "occurrence" that takes place in the "coverage territory";

      (2) The "bodily injury" or "property damage" occurs during the policy period; and

      (3) Prior to the policy period, no insured listed under Paragraph 1. of Section II – Who Is An Insured and no "employee" authorized by you to give or receive notice of an "occurrence" or claim, knew that the "bodily injury" or "property damage" had occurred, in whole or in part. If such a listed insured or authorized "employee" knew, prior to the policy period, that the "bodily injury" or "property damage" occurred, then any continuation, change or resumption of such "bodily injury" or "property damage" during or after the policy period will be deemed to have been known prior to the policy period.

   c. "Bodily injury" or "property damage" which occurs during the policy period and was not prior to the policy period, known to have occurred by any insured listed under Paragraph 1. of Section II – Who Is An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim, includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the policy period.

   d. "Bodily injury" or "property damage" will be deemed to have been known to have occurred at the earliest time when any insured listed under Paragraph 1. of Section II – Who Is An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim:

      (1) Reports all, or any part of the "bodily injury" or "property damage" to us or any other insurer;

      (2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage"; or

      (3) Becomes aware by any other means that "bodily injury" or "property damage" has occurred or has begun to occur.

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e. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

2. **Exclusions**

This insurance does not apply to:

a. **Expected Or Intended Injury**

"Bodily injury" or "property damage" expected or intended from the standpoint of the insured. This exclusion does not apply to "bodily injury" resulting from the use of reasonable force to protect persons or property.

b. **Contractual Liability**

"Bodily injury" or "property damage" for which the insured is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages:

(1) That the insured would have in the absence of the contract or agreement; or

(2) Assumed in a contract or agreement that is an "insured contract", provided the "bodily injury" or "property damage" occurs subsequent to the execution of the contract or agreement. Solely for the purposes of liability assumed in an "insured contract", reasonable attorney fees and necessary litigation expenses incurred by or for a party other than an insured are deemed to be damages because of "bodily injury" or "property damage", provided:

(a) Liability to such party for, or for the cost of, that party's defense has also been assumed in the same "insured contract"; and

(b) Such attorney fees and litigation expenses are for defense of that party against a civil or alternative dispute resolution proceeding in which damages to which this insurance applies are alleged.

c. **Liquor Liability**

"Bodily injury" or "property damage" for which any insured may be held liable by reason of:

(1) Causing or contributing to the intoxication of any person;

(2) The furnishing of alcoholic beverages to a person under the legal drinking age or under the influence of alcohol; or

(3) Any statute, ordinance or regulation relating to the sale, gift, distribution or use of alcoholic beverages.

This exclusion applies only if you are in the business of manufacturing, distributing, selling, serving or furnishing alcoholic beverages.

d. **Workers' Compensation And Similar Laws**

Any obligation of the insured under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

e. **Employer's Liability**

"Bodily injury" to:

(1) An "employee" of the insured arising out of and in the course of:

(a) Employment by the insured; or

(b) Performing duties related to the conduct of the insured's business; or

(2) The spouse, child, parent, brother or sister of that "employee" as a consequence of Paragraph (1) above.

This exclusion applies:

(1) Whether the insured may be liable as an employer or in any other capacity; and

(2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to liability assumed by the insured under an "insured contract".

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f. Pollution

(1) "Bodily injury" or "property damage" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants":

(a) At or from any premises, site or location which is or was at any time owned or occupied by, or rented or loaned to, any insured. However, this subparagraph does not apply to:

(i) "Bodily injury" if sustained within a building and caused by smoke, fumes, vapor or soot produced by or originating from equipment that is used to heat, cool or dehumidify the building, or equipment that is used to heat water for personal use, by the building's occupants or their guests;

(ii) "Bodily injury" or "property damage" for which you may be held liable, if you are a contractor and the owner or lessee of such premises, site or location has been added to your policy as an additional insured with respect to your ongoing operations performed for that additional insured at that premises, site or location and such premises, site or location is not and never was owned or occupied by, or rented or loaned to, any insured, other than that additional insured; or

(iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire";

(b) At or from any premises, site or location which is or was at any time used by or for any insured or others for the handling, storage, disposal, processing or treatment of waste;

(c) Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for:

(i) Any insured; or

(ii) Any person or organization for whom you may be legally responsible; or

(d) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the "pollutants" are brought on or to the premises, site or location in connection with such operations by such insured, contractor or subcontractor. However, this subparagraph does not apply to:

(i) "Bodily injury" or "property damage" arising out of the escape of fuels, lubricants or other operating fluids which are needed to perform the normal electrical, hydraulic or mechanical functions necessary for the operation of "mobile equipment" or its parts, if such fuels, lubricants or other operating fluids escape from a vehicle part designed to hold, store or receive them. This exception does not apply if the "bodily injury" or "property damage" arises out of the intentional discharge, dispersal or release of the fuels, lubricants or other operating fluids, or if such fuels, lubricants or other operating fluids are brought on or to the premises, site or location with the intent that they be discharged, dispersed or released as part of the operations being performed by such insured, contractor or subcontractor;

(ii) "Bodily injury" or "property damage" sustained within a building and caused by the release of gases, fumes or vapors from materials brought into that building in connection with operations being performed by you or on your behalf by a contractor or subcontractor; or

(iii) "Bodily injury" or "property damage" arising out of heat, smoke or fumes from a "hostile fire".

(e) At or from any premises, site or location on which any insured or any contractors or subcontractors working directly or indirectly on any insured's behalf are performing operations if the operations are to test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants".

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(2) Any loss, cost or expense arising out of any:

(a) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or

(b) Claim or "suit" by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

However, this paragraph does not apply to liability for damages because of "property damage" that the insured would have in the absence of such request, demand, order or statutory or regulatory requirement, or such claim or "suit" by or on behalf of a governmental authority.

g. Aircraft, Auto Or Watercraft

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft owned or operated by or rented or loaned to any insured. Use includes operation and "loading or unloading".

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft that is owned or operated by or rented or loaned to any insured.

This exclusion does not apply to:

(1) A watercraft while ashore on premises you own or rent;

(2) A watercraft you do not own that is:

(a) Less than 26 feet long; and

(b) Not being used to carry persons or property for a charge;

(3) Parking an "auto" on, or on the ways next to, premises you own or rent, provided the "auto" is not owned by or rented or loaned to you or the insured;

(4) Liability assumed under any "insured contract" for the ownership, maintenance or use of aircraft or watercraft; or

(5) "Bodily injury" or "property damage" arising out of:

(a) The operation of machinery or equipment that is attached to, or part of, a land vehicle that would qualify under the definition of "mobile equipment" if it were not subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged; or

(b) The operation of any of the machinery or equipment listed in Paragraph f.(2) or f.(3) of the definition of "mobile equipment".

h. Mobile Equipment

"Bodily injury" or "property damage" arising out of:

(1) The transportation of "mobile equipment" by an "auto" owned or operated by or rented or loaned to any insured; or

(2) The use of "mobile equipment" in, or while in practice for, or while being prepared for, any prearranged racing, speed, demolition, or stunting activity.

i. War

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

(1) War, including undeclared or civil war;

(2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

(3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

j. Damage To Property

"Property damage" to:

(1) Property you own, rent, or occupy, including any costs or expenses incurred by you or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;

(2) Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises;

(3) Property loaned to you;

(4) Personal property in the care, custody or control of the insured;

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(5) That particular part of real property on which you or any contractors or subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations, or

(6) That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraphs (1), (3) and (4) of this exclusion do not apply to "property damage" (other than damage by fire) to premises, including the contents of such premises, rented to you for a period of 7 or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in Section III – Limits Of Insurance.

Paragraph (2) of this exclusion does not apply if the premises are "your work" and were never occupied, rented or held for rental by you.

Paragraphs (3), (4), (5) and (6) of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph (6) of this exclusion does not apply to "property damage" included in the "products-completed operations hazard".

k. Damage To Your Product

"Property damage" to "your product" arising out of it or any part of it.

l. Damage To Your Work

"Property damage" to "your work" arising out of it or any part of it and included in the "products-completed operations hazard".

This exclusion does not apply if the damaged work or the work out of which the damage arises was performed on your behalf by a subcontractor.

m. Damage To Impaired Property Or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

(1) A defect, deficiency, inadequacy or dangerous condition in "your product" or "your work"; or

(2) A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "your product" or "your work" after it has been put to its intended use.

n. Recall Of Products, Work Or Impaired Property

Damages claimed for any loss, cost or expense incurred by you or others for the loss of use, withdrawal, recall, inspection, repair, replacement, adjustment, removal or disposal of:

(1) "Your product";

(2) "Your work"; or

(3) "Impaired property";

if such product, work, or property is withdrawn or recalled from the market or from use by any person or organization because of a known or suspected defect, deficiency, inadequacy or dangerous condition in it.

o. Personal And Advertising Injury

"Bodily injury" arising out of "personal and advertising injury".

p. Electronic Data

Damages arising out of the loss of, loss of use of, damage to, corruption of, inability to access, or inability to manipulate electronic data.

As used in this exclusion, electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

Exclusions c. through n. do not apply to damage by fire to premises while rented to you or temporarily occupied by you with permission of the owner. A separate limit of insurance applies to this coverage as described in Section III – Limits Of Insurance.

COVERAGE B PERSONAL AND ADVERTISING INJURY LIABILITY

1. **Insuring Agreement**

a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "personal and advertising injury" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages. However, we will have no duty to defend the insured against any "suit" seeking damages for "personal and advertising injury" to which this insurance does not apply. We may, at our discretion, investigate any offense and settle any claim or "suit" that may result. But:

(1) The amount we will pay for damages is limited as described in Section III – Limits Of Insurance; and

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(2) Our right and duty to defend end when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages A or B or medical expenses under Coverage C.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments – Coverages A and B.

b. This insurance applies to "personal and advertising injury" caused by an offense arising out of your business but only if the offense was committed in the "coverage territory" during the policy period.

2. **Exclusions**

This insurance does not apply to:

a. **Knowing Violation Of Rights Of Another**

"Personal and advertising injury" caused by or at the direction of the insured with the knowledge that the act would violate the rights of another and would inflict "personal and advertising injury".

b. **Material Published With Knowledge Of Falsity**

"Personal and advertising injury" arising out of oral or written publication of material, if done by or at the direction of the insured with knowledge of its falsity.

c. **Material Published Prior To Policy Period**

"Personal and advertising injury" arising out of oral or written publication of material whose first publication took place before the beginning of the policy period.

d. **Criminal Acts**

"Personal and advertising injury" arising out of a criminal act committed by or at the direction of the insured.

e. **Contractual Liability**

"Personal and advertising injury" for which the insured has assumed liability in a contract or agreement. This exclusion does not apply to liability for damages that the insured would have in the absence of the contract or agreement.

f. **Breach Of Contract**

"Personal and advertising injury" arising out of a breach of contract, except an implied contract to use another's advertising idea in your "advertisement".

g. **Quality Or Performance Of Goods – Failure To Conform To Statements**

"Personal and advertising injury" arising out of the failure of goods, products or services to conform with any statement of quality or performance made in your "advertisement".

h. **Wrong Description Of Prices**

"Personal and advertising injury" arising out of the wrong description of the price of goods, products or services stated in your "advertisement".

i. **Infringement Of Copyright, Patent, Trademark Or Trade Secret**

"Personal and advertising injury" arising out of the infringement of copyright, patent, trademark, trade secret or other intellectual property rights.

However, this exclusion does not apply to infringement, in your "advertisement", of copyright, trade dress or slogan.

j. **Insureds In Media And Internet Type Businesses**

"Personal and advertising injury" committed by an insured whose business is:

(1) Advertising, broadcasting, publishing or telecasting;

(2) Designing or determining content of websites for others; or

(3) An Internet search, access, content or service provider.

However, this exclusion does not apply to Paragraphs 14.a., b. and c. of "personal and advertising injury" under the Definitions Section.

For the purposes of this exclusion, the placing of frames, borders or links, or advertising, for you or others anywhere on the Internet, is not by itself, considered the business of advertising, broadcasting, publishing or telecasting.

k. **Electronic Chatrooms Or Bulletin Boards**

"Personal and advertising injury" arising out of an electronic chatroom or bulletin board the insured hosts, owns, or over which the insured exercises control.

l. **Unauthorized Use Of Another's Name Or Product**

"Personal and advertising injury" arising out of the unauthorized use of another's name or product in your e-mail address, domain name or metatag, or any other similar tactics to mislead another's potential customers.

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m. **Pollution**

"Personal and advertising injury" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of "pollutants" at any time.

n. **Pollution-Related**

Any loss, cost or expense arising out of any

(1) Request, demand, order or statutory or regulatory requirement that any insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of, "pollutants"; or

(2) Claim or suit by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, "pollutants".

o. **War**

"Personal and advertising injury", however caused, arising directly or indirectly, out of:

(1) War, including undeclared or civil war;

(2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

(3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

COVERAGE C MEDICAL PAYMENTS

1. **Insuring Agreement**

a. We will pay medical expenses as described below for "bodily injury" caused by an accident:

(1) On premises you own or rent;

(2) On ways next to premises you own or rent; or

(3) Because of your operations;

provided that:

(1) The accident takes place in the "coverage territory" and during the policy period;

(2) The expenses are incurred and reported to us within one year of the date of the accident; and

(3) The injured person submits to examination, at our expense, by physicians of our choice as often as we reasonably require.

b. We will make these payments regardless of fault. These payments will not exceed the applicable limit of insurance. We will pay reasonable expenses for:

(1) First aid administered at the time of an accident;

(2) Necessary medical, surgical, x-ray and dental services, including prosthetic devices; and

(3) Necessary ambulance, hospital, professional nursing and funeral services.

2. **Exclusions**

We will not pay expenses for "bodily injury":

a. **Any Insured**

To any insured, except 'volunteer workers'.

b. **Hired Person**

To a person hired to do work for or on behalf of any insured or a tenant of any insured.

c. **Injury On Normally Occupied Premises**

To a person injured on that part of premises you own or rent that the person normally occupies.

d. **Workers Compensation And Similar Laws**

To a person, whether or not an "employee" of any insured, if benefits for the "bodily injury" are payable or must be provided under a workers' compensation or disability benefits law or a similar law.

e. **Athletics Activities**

To a person injured while practicing, instructing or participating in any physical exercises or games, sports, or athletic contests.

f. **Products-Completed Operations Hazard**

Included within the "products-completed operations hazard".

g. **Coverage A Exclusions**

Excluded under Coverage A.

SUPPLEMENTARY PAYMENTS – COVERAGES A AND B

1. We will pay, with respect to any claim we investigate or settle, or any "suit" against an insured we defend:

a. All expenses we incur.

b. Up to $250 for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.

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c. The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.

d. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to $250 a day because of time off from work.

e. All costs taxed against the insured in the "suit".

f. Prejudgment interest awarded against the insured on that part of the judgment we pay. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.

g. All interest on the full amount of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

These payments will not reduce the limits of insurance.

2. If we defend an insured against a "suit" and an indemnitee of the insured is also named as a party to the "suit", we will defend that indemnitee if all of the following conditions are met:

a. The "suit" against the indemnitee seeks damages for which the insured has assumed the liability of the indemnitee in a contract or agreement that is an "insured contract";

b. This insurance applies to such liability assumed by the insured;

c. The obligation to defend, or the cost of the defense of, that indemnitee, has also been assumed by the insured in the same "insured contract";

d. The allegations in the "suit" and the information we know about the "occurrence" are such that no conflict appears to exist between the interests of the insured and the interests of the indemnitee;

e. The indemnitee and the insured ask us to conduct and control the defense of that indemnitee against such "suit" and agree that we can assign the same counsel to defend the insured and the indemnitee; and

f. The indemnitee:

(1) Agrees in writing to:

(a) Cooperate with us in the investigation, settlement or defense of the "suit";

(b) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the "suit";

(c) Notify any other insurer whose coverage is available to the indemnitee; and

(d) Cooperate with us with respect to coordinating other applicable insurance available to the indemnitee; and

(2) Provides us with written authorization to:

(a) Obtain records and other information related to the "suit"; and

(b) Conduct and control the defense of the indemnitee in such "suit".

So long as the above conditions are met, attorneys' fees incurred by us in the defense of that indemnitee, necessary litigation expenses incurred by us and necessary litigation expenses incurred by the indemnitee at our request will be paid as Supplementary Payments. Notwithstanding the provisions of Paragraph 2.b.(2) of Section I – Coverage A – Bodily Injury And Property Damage Liability such payments will not be deemed to be damages for "bodily injury" and "property damage" and will not reduce the limits of insurance.

Our obligation to defend an insured's indemnitee and to pay for attorneys' fees and necessary litigation expenses as Supplementary Payments ends when:

a. We have used up the applicable limit of insurance in the payment of judgments or settlements; or

b. The conditions set forth above, or the terms of the agreement described in Paragraph f. above, are no longer met.

SECTION II – WHO IS AN INSURED

1. If you are designated in the Declarations as:

a. An individual, you and your spouse are insureds but only with respect to the conduct of a business of which you are the sole owner.

b. A partnership or joint venture, you are an insured. Your members, your partners, and their spouses are also insureds, but only with respect to the conduct of your business.

c. A limited liability company, you are an insured. Your members are also insureds, but only with respect to the conduct of your business. Your managers are insureds, but only with respect to their duties as your managers.

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d. An organization other than a partnership, joint venture or limited liability company, you are an insured. Your "executive officers" and directors are insureds, but only with respect to their duties as your officers or directors. Your stockholders are also insureds, but only with respect to their liability as stockholders.

e. A trust, you are an insured. Your trustees are also insureds, but only with respect to their duties as trustees.

2. Each of the following is also an insured:

a. Your "volunteer workers" only while performing duties related to the conduct of your business, or your "employees", other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company), but only for acts within the scope of their employment by you or while performing duties related to the conduct of your business. However, none of these "employees" or "volunteer workers" are insureds for:

(1) "Bodily injury" or "personal and advertising injury":

(a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited liability company), to a co-"employee" while in the course of his or her employment or performing duties related to the conduct of your business, or to your other "volunteer workers" while performing duties related to the conduct of your business;

(b) To the spouse, child, parent, brother or sister of that co-"employee" or "volunteer worker" as a consequence of Paragraph (1)(a) above;

(c) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraphs (1)(a) or (b) above; or

(d) Arising out of his or her providing or failing to provide professional health care services.

(2) "Property damage" to property:

(a) Owned, occupied or used by

(b) Rented to, in the care, custody or control of, or over which physical control is being exercised for any purpose by

you, any of your "employees", "volunteer workers", any partner or member (if you are a partnership or joint venture), or any member (if you are a limited liability company).

b. Any person (other than your "employee" or "volunteer worker"), or any organization while acting as your real estate manager.

c. Any person or organization having proper temporary custody of your property if you die, but only:

(1) With respect to liability arising out of the maintenance or use of that property; and

(2) Until your legal representative has been appointed.

d. Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this Coverage Part.

3. Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company, and over which you maintain ownership or majority interest will qualify as a Named Insured if there is no other similar insurance available to that organization. However:

a. Coverage under this provision is afforded only until the 90th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

b. Coverage A does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization; and

c. Coverage B does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

No person or organization is an insured with respect to the conduct of any current or past partnership, joint venture or limited liability company that is not shown as a Named Insured in the Declarations.

SECTION III – LIMITS OF INSURANCE

1. The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of:

a. Insureds;

b. Claims made or "suits" brought; or

c. Persons or organizations making claims or bringing "suits".

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2. The General Aggregate Limit is the most we will pay for the sum of:

   a. Medical expenses under Coverage C;

   b. Damages under Coverage A, except damages because of "bodily injury" or "property damage" included in the "products-completed operations hazard", and

   c. Damages under Coverage B.

3. The Products-Completed Operations Aggregate Limit is the most we will pay under Coverage A for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".

4. Subject to 2. above, the Personal and Advertising Injury Limit is the most we will pay under Coverage B for the sum of all damages because of all "personal and advertising injury" sustained by any one person or organization.

5. Subject to 2. or 3. above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of:

   a. Damages under Coverage A; and

   b. Medical expenses under Coverage C

   because of all "bodily injury" and "property damage" arising out of any one "occurrence".

6. Subject to 5. above, the Damage To Premises Rented To You Limit is the most we will pay under Coverage A for damages because of "property damage" to any one premises, while rented to you, or in the case of damage by fire, while rented to you or temporarily occupied by you with permission of the owner.

7. Subject to 5. above, the Medical Expense Limit is the most we will pay under Coverage C for all medical expenses because of "bodily injury" sustained by any one person.

The Limits of Insurance of this Coverage Part apply separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations, unless the policy period is extended after issuance for an additional period of less than 12 months. In that case, the additional period will be deemed part of the last preceding period for purposes of determining the Limits of Insurance.

SECTION IV – COMMERCIAL GENERAL LIABILITY CONDITIONS

1. **Bankruptcy**

   Bankruptcy or insolvency of the insured or of the insured's estate will not relieve us of our obligations under this Coverage Part.

2. **Duties In The Event Of Occurrence, Offense, Claim Or Suit**

   a. You must see to it that we are notified as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, notice should include:

      (1) How, when and where the "occurrence" or offense took place;

      (2) The names and addresses of any injured persons and witnesses; and

      (3) The nature and location of any injury or damage arising out of the "occurrence" or offense.

   b. If a claim is made or "suit" is brought against any insured, you must:

      (1) Immediately record the specifics of the claim or "suit" and the date received; and

      (2) Notify us as soon as practicable.

      You must see to it that we receive written notice of the claim or "suit" as soon as practicable.

   c. You and any other involved insured must:

      (1) Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";

      (2) Authorize us to obtain records and other information;

      (3) Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and

      (4) Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the insured because of injury or damage to which this insurance may also apply.

   d. No insured will, except at that insured's own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

3. **Legal Action Against Us**

   No person or organization has a right under this Coverage Part:

   a. To join us as a party or otherwise bring us into a "suit" asking for damages from an insured; or

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b. To sue us on this Coverage Part unless all of its terms have been fully complied with.

A person or organization may sue us to recover on an agreed settlement or on a final judgment against an insured; but we will not be liable for damages that are not payable under the terms of this Coverage Part or that are in excess of the applicable limit of insurance. An agreed settlement means a settlement and release of liability signed by us, the insured and the claimant or the claimant's legal representative.

4. **Other Insurance**

If other valid and collectible insurance is available to the insured for a loss we cover under Coverages A or B of this Coverage Part, our obligations are limited as follows:

a. **Primary Insurance**

This insurance is primary except when b. below applies. If this insurance is primary, our obligations are not affected unless any of the other insurance is also primary. Then, we will share with all that other insurance by the method described in c. below.

b. **Excess Insurance**

This insurance is excess over:

(1) Any of the other insurance, whether primary, excess, contingent or on any other basis:

(a) That is Fire, Extended Coverage, Builder's Risk, Installation Risk or similar coverage for "your work";

(b) That is Fire insurance for premises rented to you or temporarily occupied by you with permission of the owner;

(c) That is insurance purchased by you to cover your liability as a tenant for "property damage" to premises rented to you or temporarily occupied by you with permission of the owner; or

(d) If the loss arises out of the maintenance or use of aircraft, "autos" or watercraft to the extent not subject to Exclusion g. of Section I – Coverage A – Bodily Injury And Property Damage Liability.

(2) Any other primary insurance available to you covering liability for damages arising out of the premises or operations, or the products and completed operations, for which you have been added as an additional insured by attachment of an endorsement.

When this insurance is excess, we will have no duty under Coverages A or B to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

(1) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and

(2) The total of all deductible and self-insured amounts under all that other insurance.

We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this Coverage Part.

c. **Method Of Sharing**

If all of the other insurance permits contribution by equal shares, we will follow this method also. Under this approach each insurer contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the other insurance does not permit contribution by equal shares, we will contribute by limits. Under this method, each insurer's share is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all insurers.

5. **Premium Audit**

a. We will compute all premiums for this Coverage Part in accordance with our rules and rates.

b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the First Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. If the sum of the advance and audit premiums paid for the policy period is greater than the earned premium, we will return the excess to the First Named Insured.

c. The First Named Insured must keep records of the information we need for premium computation, and send us copies at such times as we may request.

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6. **Representations**

By accepting this policy, you agree:

a. The statements in the Declarations are accurate and complete;

b. Those statements are based upon representations you made to us; and

c. We have issued this policy in reliance upon your representations.

7. **Separation Of Insureds**

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this Coverage Part to the first Named Insured, this insurance applies:

a. As if each Named Insured were the only Named Insured; and

b. Separately to each insured against whom claim is made or "suit" is brought.

8. **Transfer Of Rights Of Recovery Against Others To Us**

If the insured has rights to recover all or part of any payment we have made under this Coverage Part, those rights are transferred to us. The insured must do nothing after loss to impair them. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce them.

9. **When We Do Not Renew**

If we decide not to renew this Coverage Part, we will mail or deliver to the first Named Insured shown in the Declarations written notice of the nonrenewal not less than 30 days before the expiration date.

If notice is mailed, proof of mailing will be sufficient proof of notice.

SECTION V – DEFINITIONS

1. "Advertisement" means a notice that is broadcast or published to the general public or specific market segments about your goods, products or services for the purpose of attracting customers or supporters. For the purposes of this definition:

a. Notices that are published include material placed on the Internet or on similar electronic means of communication; and

b. Regarding web-sites, only that part of a web-site that is about your goods, products or services for the purposes of attracting customers or supporters is considered an advertisement.

2. "Auto" means:

a. A land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment; or

b. Any other land vehicle that is subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged.

However, "auto" does not include "mobile equipment".

3. "Bodily injury" means bodily injury, sickness or disease sustained by a person including death resulting from any of these at any time.

4. "Coverage territory" means:

a. The United States of America (including its territories and possessions), Puerto Rico and Canada;

b. International waters or airspace, but only if the injury or damage occurs in the course of travel or transportation between any places included in a. above; or

c. All other parts of the world if the injury or damage arises out of:

(1) Goods or products made or sold by you in the territory described in a. above;

(2) The activities of a person whose home is in the territory described in a. above, but is away for a short time on your business; or

(3) "Personal and advertising injury" offenses that take place through the Internet or similar electronic means of communication;

provided the insured's responsibility to pay damages is determined in a "suit" on the merits, in the territory described in a. above or in a settlement we agree to.

5. "Employee" includes a "leased worker". "Employee" does not include a "temporary worker".

6. "Executive officer" means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document.

7. "Hostile fire" means one which becomes uncontrollable or breaks out from where it was intended to be.

8. "Impaired property" means tangible property, other than "your product" or "your work", that cannot be used or is less useful because:

a. It incorporates "your product" or "your work" that is known or thought to be defective, deficient, inadequate or dangerous; or

b. You have failed to fulfill the terms of a contract or agreement;

if such property can be restored to use by:

a. The repair, replacement, adjustment or removal of "your product" or "your work"; or

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b. Your fulfilling the terms of the contract or agreement

9. "Insured contract" means:

a. A contract for a lease of premises. However that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract".

b. A sidetrack agreement;

c. Any easement or license agreement, except in connection with construction or demolition operations on or within 50 feet of a railroad;

d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;

e. An elevator maintenance agreement;

f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury" or "property damage" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph f. does not include that part of any contract or agreement:

(1) That indemnifies a railroad for "bodily injury" or "property damage" arising out of construction or demolition operations, within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road-beds, tunnel, underpass or crossing;

(2) That indemnifies an architect, engineer or surveyor for injury or damage arising out of:

(a) Preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage; or

(3) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in (2) above and supervisory, inspection, architectural or engineering activities.

10. "Leased worker" means a person leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business. "Leased worker" does not include a "temporary worker".

11. "Loading or unloading" means the handling of property:

a. After it is moved from the place where it is accepted for movement into or onto an aircraft, watercraft or "auto";

b. While it is in or on an aircraft, watercraft or "auto"; or

c. While it is being moved from an aircraft, watercraft or "auto" to the place where it is finally delivered;

but "loading or unloading" does not include the movement of property by means of a mechanical device, other than a hand truck, that is not attached to the aircraft, watercraft or "auto".

12. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:

a. Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;

b. Vehicles maintained for use solely on or next to premises you own or rent;

c. Vehicles that travel on crawler treads;

d. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:

(1) Power cranes, shovels, loaders, diggers or drills; or

(2) Road construction or resurfacing equipment such as graders, scrapers or rollers;

e. Vehicles not described in a., b., c. or d. above that are not self-propelled and are maintained primarily to provide mobility to permanently attached equipment of the following types:

(1) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or

(2) Cherry pickers and similar devices used to raise or lower workers;

f. Vehicles not described in a., b., c. or d. above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

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(1) Equipment designed primarily for

(a) Snow removal;

(b) Road maintenance, but not construction or resurfacing; or

(c) Street cleaning;

(2) Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and

(3) Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

However, "mobile equipment" does not include any land vehicles that are subject to a compulsory or financial responsibility law or other motor vehicle insurance law in the state where it is licensed or principally garaged. Land vehicles subject to a compulsory or financial responsibility law or other motor vehicle insurance law are considered "autos".

13. "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions.

14. "Personal and advertising injury" means injury, including consequential "bodily injury", arising out of one or more of the following offenses:

a. False arrest, detention or imprisonment;

b. Malicious prosecution;

c. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, committed by or on behalf of its owner, landlord or lessor;

d. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;

e. Oral or written publication, in any manner, of material that violates a person's right of privacy;

f. The use of another's advertising idea in your "advertisement"; or

g. Infringing upon another's copyright, trade dress or slogan in your "advertisement".

15. "Pollutants" mean any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

16. "Products-completed operations hazard":

a. Includes all "bodily injury" and "property damage" occurring away from premises you own or rent and arising out of "your product" or "your work" except:

(1) Products that are still in your physical possession; or

(2) Work that has not yet been completed or abandoned. However, "your work" will be deemed completed at the earliest of the following times:

(a) When all of the work called for in your contract has been completed.

(b) When all of the work to be done at the job site has been completed if your contract calls for work at more than one job site.

(c) When that part of the work done at a job site has been put to its intended use by any person or organization other than another contractor or subcontractor working on the same project.

Work that may need service, maintenance, correction, repair or replacement, but which is otherwise complete, will be treated as completed.

b. Does not include "bodily injury" or "property damage" arising out of:

(1) The transportation of property, unless the injury or damage arises out of a condition in or on a vehicle not owned or operated by you, and that condition was created by the "loading or unloading" of that vehicle by any insured;

(2) The existence of tools, uninstalled equipment or abandoned or unused materials; or

(3) Products or operations for which the classification, listed in the Declarations or in a policy schedule, states that products-completed operations are subject to the General Aggregate Limit.

17. "Property damage" means:

a. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or

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b. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, electronic data is not tangible property.

As used in this definition, electronic data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

18. "Suit" means a civil proceeding in which damages because of "bodily injury", "property damage" or "personal and advertising injury" to which this insurance applies are alleged. "Suit" includes:

a. An arbitration proceeding in which such damages are claimed and to which the insured must submit or does submit with our consent; or

b. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the insured submits with our consent.

19. "Temporary worker" means a person who is furnished to you to substitute for a permanent "employee" on leave or to meet seasonal or short-term workload conditions.

20. "Volunteer worker" means a person who is not your "employee", and who donates his or her work and acts at the direction of and within the scope of duties determined by you, and is not paid a fee, salary or other compensation by you or anyone else for their work performed for you.

21. "Your product":

a. Means:

(1) Any goods or products, other than real property, manufactured, sold, handled, distributed or disposed of by:

(a) You;

(b) Others trading under your name; or

(c) A person or organization whose business or assets you have acquired; and

(2) Containers (other than vehicles), materials, parts or equipment furnished in connection with such goods or products.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your product"; and

(2) The providing of or failure to provide warnings or instructions.

c. Does not include vending machines or other property rented to or located for the use of others but not sold.

22. "Your work":

a. Means:

(1) Work or operations performed by you or on your behalf; and

(2) Materials, parts or equipment furnished in connection with such work or operations.

b. Includes:

(1) Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your work", and

(2) The providing of or failure to provide warnings or instructions.

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COMMON POLICY CONDITIONS

All Coverage Parts included in this policy are subject to the following conditions.

A. Cancellation

1. The first Named Insured shown in the Declarations may cancel this policy by mailing or delivering to us advance written notice of cancellation.
2. We may cancel this policy by mailing or delivering to the first Named Insured written notice of cancellation at least:
   a. 10 days before the effective date of cancellation if we cancel for nonpayment of premium; or
   b. 30 days before the effective date of cancellation if we cancel for any other reason.
3. We will mail or deliver our notice to the first Named Insured's last mailing address known to us.
4. Notice of cancellation will state the effective date of cancellation. The policy period will end on that date.
5. If this policy is cancelled, we will send the first Named Insured any premium refund due. If we cancel, the refund will be pro rata. If the first Named Insured cancels, the refund may be less than pro rata. The cancellation will be effective even if we have not made or offered a refund.
6. If notice is mailed, proof of mailing will be sufficient proof of notice.

B. Changes

This policy contains all the agreements between you and us concerning the insurance afforded. The first Named Insured shown in the Declarations is authorized to make changes in the terms of this policy with our consent. This policy's terms can be amended or waived only by endorsement issued by us and made a part of this policy.

C. Examination Of Your Books And Records

We may examine and audit your books and records as they relate to this policy at any time during the policy period and up to three years afterward.

D. Inspections And Surveys

1. We have the right to:
   a. Make inspections and surveys at any time;
   b. Give you reports on the conditions we find; and
   c. Recommend changes.
2. We are not obligated to make any inspections, surveys, reports or recommendations and any such actions we do undertake relate only to insurability and the premiums to be charged. We do not make safety inspections. We do not undertake to perform the duty of any person or organization to provide for the health or safety of workers or the public. And we do not warrant that conditions:
   a. Are safe or healthful; or
   b. Comply with laws, regulations, codes or standards.
3. Paragraphs 1. and 2. of this condition apply not only to us, but also to any rating, advisory, rate service or similar organization which makes insurance inspections, surveys, reports or recommendations.
4. Paragraph 2. of this condition does not apply to any inspections, surveys, reports or recommendations we may make relative to certification, under state or municipal statutes, ordinances or regulations, of boilers, pressure vessels or elevators.

E. Premiums

The first Named Insured shown in the Declarations:

1. Is responsible for the payment of all premiums; and
2. Will be the payee for any return premiums we pay.

F. Transfer Of Your Rights And Duties Under This Policy

Your rights and duties under this policy may not be transferred without our written consent except in the case of death of an individual named insured.

If you die, your rights and duties will be transferred to your legal representative but only while acting within the scope of duties as your legal representative. Until your legal representative is appointed, anyone having proper temporary custody of your property will have your rights and duties but only with respect to that property.

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EXCLUSION – ASBESTOS LIABILITY

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

IT IS AGREED THAT THIS POLICY DOES NOT APPLY TO:

1. **BODILY INJURY, PROPERTY DAMAGE** OR **PERSONAL INJURY** ARISING OUT OF THE MANUFACTURE OF, MINING OF, USE OF, SALE OF, INSTALLATION OF, REMOVAL OF, DISTRIBUTION OF OR EXPOSURE TO ASBESTOS, ASBESTOS PRODUCTS, ASBESTOS FIBERS OR ASBESTOS DUST

2. ANY OBLIGATION OF THE **INSURED** TO INDEMNIFY ANY PARTY BECAUSE OF DAMAGES ARISING OUT OF SUCH **BODILY INJURY, PROPERTY DAMAGE** OR **PERSONAL INJURY** AS A RESULT OF THE MANUFACTURE OF, MINING OF, USE OF, SALE OF, INSTALLATION OF, REMOVAL OF, DISTRIBUTION OF OR EXPOSURE TO ASBESTOS, ASBESTOS PRODUCTS, ASBESTOS FIBERS OR ASBESTOS DUST; OR

3. ANY OBLIGATION TO DEFEND ANY **SUIT** OR CLAIM AGAINST THE **INSURED** ALLEGING **BODILY INJURY, PROPERTY DAMAGE** OR **PERSONAL INJURY** AND SEEKING DAMAGES, IF SUCH **SUIT** OR CLAIM ARISES FROM **BODILY INJURY, PROPERTY DAMAGE** OR **PERSONAL INJURY** AS A RESULT OF THE MANUFACTURE OF, MINING OF, USE OF, SALE OF, INSTALLATION OF, REMOVAL OF, DISTRIBUTION OF OR EXPOSURE TO ASBESTOS, ASBESTOS PRODUCTS, ASBESTOS FIBERS OR ASBESTOS DUST.

All other terms and conditions remain unchanged.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAR LIABILITY EXCLUSION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Exclusion i. under Paragraph **2., Exclusions** of **Section I – Coverage A – Bodily Injury And Property Damage Liability** is replaced by the following:

2. **Exclusions**

This insurance does not apply to:

i. **War**

"Bodily injury" or "property damage", however caused, arising, directly or indirectly, out of:

(1) War, including undeclared or civil war; or

(2) Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

(3) Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

B. The following exclusion is added to Paragraph **2., Exclusions of Section I – Coverage B – Personal And Advertising Injury Liability:**

2. **Exclusions**

This insurance does not apply to

WAR

"Personal and advertising injury", however caused, arising, directly or indirectly, out of:

a. War, including undeclared or civil war; or

b. Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or

c. Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

C. Exclusion **h.** under Paragraph **2., Exclusions** of **Section I – Coverage C – Medical Payments** does not apply. Medical payments due to war are now subject to Exclusion **g.** of Paragraph **2., Exclusions of Section I – Coverage C – Medical Payments** since "bodily injury" arising out of war is now excluded under Coverage **A.**

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION – VIOLATION OF STATUTES THAT GOVERN E-MAILS, FAX, PHONE CALLS OR OTHER METHODS OF SENDING MATERIAL OR INFORMATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. The following exclusion is added to Paragraph 2., **Exclusions** of **Section I – Coverage A – Bodily Injury And Property Damage Liability:**

2. **Exclusions**

This insurance does not apply to:

DISTRIBUTION OF MATERIAL IN VIOLATION OF STATUTES

"Bodily injury" or "property damage" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or

b. The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or

c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

B. The following exclusion is added to Paragraph 2., **Exclusions** of **Section I – Coverage B – Personal And Advertising Injury Liability:**

2. **Exclusions**

This insurance does not apply to:

DISTRIBUTION OF MATERIAL IN VIOLATION OF STATUTES

"Personal and advertising injury" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

a. The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or

b. The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or

c. Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003 that prohibits or limits the sending, transmitting, communicating or distribution of material or information

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EMPLOYMENT-RELATED PRACTICES EXCLUSION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. The following exclusion is added to Paragraph 2., **Exclusions of Section I – Coverage A – Bodily Injury And Property Damage Liability:**

This insurance does not apply to:

"Bodily injury" to:

(1) A person arising out of any:

(a) Refusal to employ that person;

(b) Termination of that person's employment; or

(c) Employment-related practices, policies, acts or omissions, such as coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or

(2) The spouse, child, parent, brother or sister of that person as a consequence of "bodily injury" to that person at whom any of the employment-related practices described in Paragraphs (a), (b), or (c) above is directed.

This exclusion applies:

(1) Whether the insured may be liable as an employer or in any other capacity; and

(2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

B. The following exclusion is added to Paragraph 2., **Exclusions of Section I – Coverage B – Personal And Advertising Injury Liability:**

This insurance does not apply to:

"Personal and advertising injury" to:

(1) A person arising out of any:

(a) Refusal to employ that person;

(b) Termination of that person's employment; or

(c) Employment-related practices, policies, acts or omissions, such as coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or

(2) The spouse, child, parent, brother or sister of that person as a consequence of "personal and advertising injury" to that person at whom any of the employment-related practices described in Paragraphs (a), (b), or (c) above is directed.

This exclusion applies:

(1) Whether the insured may be liable as an employer or in any other capacity; and

(2) To any obligation to share damages with or repay someone else who must pay damages because of the injury.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCLUSION – DESIGNATED ONGOING OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Description of Designated Ongoing Operation(s):

Construction of the Airport Feeder Road

Specified Location (If Applicable):

Richmond Airport Connector, Virginia

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

The following exclusion is added to paragraph 2., Exclusions of COVERAGE A – BODILY INJURY AND PROPERTY DAMAGE LIABILITY (Section I – Coverages):

This insurance does not apply to "bodily injury" or "property damage" arising out of the ongoing operations described in the Schedule of this endorsement, regardless of whether such operations are conducted by you or on your behalf or whether the operations are conducted for yourself or for others.

Unless a "location" is specified in the Schedule, this exclusion applies regardless of where such operations are conducted by you or on your behalf. If a specific "location" is designated in the Schedule of this endorsement, this exclusion applies only to the described ongoing operations conducted at that "location".

For the purpose of this endorsement "location" means premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

FUNGI OR BACTERIA EXCLUSION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. The following exclusion is added to Paragraph 2., Exclusions of **Section I – Coverage A – Bodily Injury And Property Damage Liability:**

2. **Exclusions**

This insurance does not apply to:

Fungi or Bacteria

a. "Bodily injury" or "property damage" which would not have occurred, in whole or in part, but for the actual, alleged or threatened inhalation of, ingestion of, contact with, exposure to, existence of, or presence of, any "fungi" or bacteria on or within a building or structure, including its contents, regardless of whether any other cause, event, material or product contributed concurrently or in any sequence to such injury or damage.

b. Any loss, cost or expenses arising out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to, or assessing the effects of, "fungi" or bacteria, by any insured or by any other person or entity.

This exclusion does not apply to any "fungi" or bacteria that are, are on, or are contained in, a good or product intended for consumption.

B. The following exclusion is added to Paragraph 2., Exclusions of **Section I – Coverage B – Personal And Advertising Injury Liability:**

2. **Exclusions**

This insurance does not apply to:

Fungi or Bacteria

a. "Personal and advertising injury" which would not have taken place, in whole or in part, but for the actual, alleged or threatened inhalation of, ingestion of, contact with, exposure to, existence of, or presence of any "fungi" or bacteria on or within a building or structure, including its contents, regardless of whether any other cause, event, material or product contributed concurrently or in any sequence to such injury.

b. Any loss, cost or expense arising out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to, or assessing the effects of, "fungi" or bacteria, by any insured or by any other person or entity.

C. The following definition is added to the **Definitions** Section:

"Fungi" means any type or form of fungus, including mold or mildew and any mycotoxins, spores, scents or byproducts produced or released by fungi.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CONDITIONAL EXCLUSION OF TERRORISM (RELATING TO DISPOSITION OF FEDERAL TERRORISM RISK INSURANCE ACT OF 2002)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

A. Applicability Of The Provisions Of This Endorsement

1. The provisions of this endorsement will become applicable commencing on the date when any one or more of the following first occurs:

   a. The federal Terrorism Risk Insurance Program ("Program"), established by the Terrorism Risk Insurance Act of 2002, has terminated with respect to the type of insurance provided under this Coverage Part or Policy; or

   b. A renewal, extension or continuation of the Program has become effective without a requirement to make terrorism coverage available to you and with revisions that:

      (1) Increase our statutory percentage deductible under the Program for terrorism losses. [That deductible determines the amount of all certified terrorism losses we must pay in a calendar year, before the federal government shares in subsequent payment of certified terrorism losses.]; or

      (2) Decrease the federal government's statutory percentage share in potential terrorism losses above such deductible; or

      (3) Redefine terrorism or make insurance coverage for terrorism subject to provisions or requirements that differ from those that apply to other types of events or occurrences under this policy.

   The Program is scheduled to terminate at the end of December 31, 2005 unless renewed, extended or otherwise continued by the federal government.

2. If the provisions of this endorsement become applicable, such provisions:

   a. Supersede any terrorism endorsement already endorsed to this policy that addresses "certified acts of terrorism" and/or "other acts of terrorism", but only with respect to an incident(s) of terrorism (however defined) which results in injury or damage that occurs on or after the date when the provisions of this endorsement become applicable (for claims made policies, such an endorsement is superseded only with respect to an incident of terrorism (however defined) that results in a claim for injury or damage first being made on or after the date when the provisions of this endorsement become applicable); and

   b. Remain applicable unless we notify you of changes in these provisions, in response to federal law.

3. If the provisions of this endorsement do NOT become applicable, any terrorism endorsement already endorsed to this policy, that addresses "certified acts of terrorism" and/or "other acts of terrorism", will continue in effect unless we notify you of changes to that endorsement in response to federal law.

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B. The following definitions are added and apply under this endorsement wherever the term terrorism, or the phrase any injury or damage, are enclosed in quotation marks:

1. "Terrorism" means activities against persons, organizations or property of any nature:

   a. That involve the following or preparation for the following:

      (1) Use or threat of force or violence, or

      (2) Commission or threat of a dangerous act; or

      (3) Commission or threat of an act that interferes with or disrupts an electronic, communication, information, or mechanical system; and

   b. When one or both of the following applies:

      (1) The effect is to intimidate or coerce a government or the civilian population or any segment thereof, or to disrupt any segment of the economy; or

      (2) It appears that the intent is to intimidate or coerce a government, or to further political, ideological, religious, social or economic objectives or to express (or express opposition to) a philosophy or ideology.

2. "Any injury or damage" means any injury or damage covered under any Coverage Part or Policy to which this endorsement is applicable, and includes but is not limited to "bodily injury", "property damage", "personal and advertising injury", "injury" or "environmental damage" as may be defined in any applicable Coverage Part or Policy.

C. The following exclusion is added:

EXCLUSION OF TERRORISM

We will not pay for "any injury or damage" caused directly or indirectly by "terrorism", including action in hindering or defending against an actual or expected incident of "terrorism". "Any injury or damage" is excluded regardless of any other cause or event that contributes concurrently or in any sequence to such injury or damage. **But this exclusion applies only when one or more of the following are attributed to an incident of "terrorism":**

1. The "terrorism" is carried out by means of the dispersal or application of radioactive material, or through the use of a nuclear weapon or device that involves or produces a nuclear reaction, nuclear radiation or radioactive contamination; or

2. Radioactive material is released, and it appears that one purpose of the "terrorism" was to release such material; or

3. The "terrorism" is carried out by means of the dispersal or application of pathogenic or poisonous biological or chemical materials; or

4. Pathogenic or poisonous biological or chemical materials are released, and it appears that one purpose of the "terrorism" was to release such materials; or

5. The total of insured damage to all types of property exceeds $25,000,000. In determining whether the $25,000,000 threshold is exceeded, we will include all insured damage sustained by property of all persons and entities affected by the "terrorism" and business interruption losses sustained by owners or occupants of the damaged property. For the purpose of this provision, insured damage means damage that is covered by any insurance plus damage that would be covered by any insurance but for the application of any terrorism exclusions; or

6. Fifty or more persons sustain death or serious physical injury. For the purposes of this provision, serious physical injury means:

   a. Physical injury that involves a substantial risk of death; or

   b. Protracted and obvious physical disfigurement; or

   c. Protracted loss of or impairment of the function of a bodily member or organ.

Multiple incidents of "terrorism" which occur within a 72-hour period and appear to be carried out in concert or to have a related purpose or common leadership will be deemed to be one incident, for the purpose of determining whether the thresholds in Paragraphs **C.5.** or **C.6.** are exceeded.

With respect to this Exclusion, Paragraphs **C.5.** and **C.6.** describe the threshold used to measure the magnitude of an incident of "terrorism" and the circumstances in which the threshold will apply, for the purpose of determining whether this Exclusion will apply to that incident. When the Exclusion applies to an incident of "terrorism", there is no coverage under this Coverage Part or Policy.

In the event of any incident of "terrorism" that is not subject to this Exclusion, coverage does not apply to "any injury or damage" that is otherwise excluded under this Coverage Part or Policy.

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SILICA OR SILICA-RELATED DUST EXCLUSION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. The following exclusion is added to Paragraph 2., **Exclusions** of **Section I – Coverage A – Bodily Injury And Property Damage Liability**:

2. **Exclusions**

This insurance does not apply to:

Silica Or Silica-Related Dust

a. "Bodily injury" arising, in whole or in part, out of the actual, alleged, threatened or suspected inhalation of, or ingestion of, "silica" or "silica-related dust".

b. "Property damage" arising, in whole or in part, out of the actual, alleged, threatened or suspected contact with, exposure to, existence of, or presence of "silica" or "silica-related dust".

c. Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "silica" or "silica-related dust", by any insured or by any other person or entity.

B. The following exclusion is added to Paragraph 2., **Exclusions** of **Section I – Coverage B – Personal And Advertising Injury Liability**:

2. **Exclusions**

This insurance does not apply to:

Silica Or Silica-Related Dust

a. "Personal and advertising injury" arising, in whole or in part, out of the actual, alleged, threatened or suspected inhalation of, ingestion of, contact with, exposure to, existence of, or presence of, "silica" or "silica-related dust".

b. Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "silica" or "silica-related dust", by any insured or by any other person or entity.

C. The following definitions are added to the **Definitions Section**:

1. "Silica" means silicon dioxide (occurring in crystalline, amorphous and impure forms), silica particles, silica dust or silica compounds.

2. "Silica-related dust" means a mixture or combination of silica and other dust or particles.

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EXCLUSION – LAW ENFORCEMENT ACTIVITIES

This endorsement modifies insurance provided under the following

COMMERCIAL GENERAL LIABILITY COVERAGE PART

The following exclusion is added to Paragraph 2., **Exclusions of Section I – Coverage A – Bodily Injury And Property Damage Liability** and Paragraph 2., **Exclusions of Section I – Coverage B – Personal And Advertising Injury Liability:**

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of any act or omission resulting from law enforcement activities of your police department or any of your other law enforcement agencies, including their agents or "employees".

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

NUCLEAR ENERGY LIABILITY EXCLUSION ENDORSEMENT

(Broad Form)

This endorsement modifies insurance provided under the following:

COMMERCIAL AUTOMOBILE COVERAGE PART
COMMERCIAL GENERAL LIABILITY COVERAGE PART
FARM COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
PROFESSIONAL LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

1. The insurance does not apply:

   A. Under any Liability Coverage, to "bodily injury" or "property damage":

      (1) With respect to which an "insured" under the policy is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada or any of their successors, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or

      (2) Resulting from the "hazardous properties" of "nuclear material" and with respect to which (a) any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or (b) the "insured" is, or had this policy not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.

   B. Under any Medical Payments coverage, to expenses incurred with respect to "bodily injury" resulting from the "hazardous properties" of "nuclear material" and arising out of the operation of a "nuclear facility" by any person or organization.

   C. Under any Liability Coverage, to "bodily injury" or "property damage" resulting from "hazardous properties" of "nuclear material", if:

      (1) The "nuclear material" (a) is at any "nuclear facility" owned by, or operated by or on behalf of, an "insured" or (b) has been discharged or dispersed therefrom;

      (2) The "nuclear material" is contained in "spent fuel" or "waste" at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an "insured"; or

      (3) The "bodily injury" or "property damage" arises out of the furnishing by an "insured" of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any "nuclear facility", but if such facility is located within the United States of America, its territories or possessions or Canada, this exclusion (3) applies only to "property damage" to such "nuclear facility" and any property thereat.

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2. As used in this endorsement:

"Hazardous properties" includes radioactive, toxic or explosive properties.

"Nuclear material" means "source material", "Special nuclear material" or "by-product material".

"Source material", "special nuclear material", and "by-product material" have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.

"Spent fuel" means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a "nuclear reactor".

"Waste" means any waste material (a) containing "by-product material" other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its "source material" content, and (b) resulting from the operation by any person or organization of any "nuclear facility" included under the first two paragraphs of the definition of "nuclear facility".

"Nuclear facility" means:

(a) Any "nuclear reactor";

(b) Any equipment or device designed or used for (1) separating the isotopes of uranium or plutonium, (2) processing or utilizing "spent fuel", or (3) handling, processing or packaging "waste";

(c) Any equipment or device used for the processing, fabricating or alloying of "special nuclear material" if at any time the total amount of such material in the custody of the "insured" at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;

(d) Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of "waste";

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

"Nuclear reactor" means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material.

"Property damage" includes all forms of radioactive contamination of property.

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DEDUCTIBLE LIABILITY INSURANCE
(Per Occurrence)

This endorsement modifies insurance provided under the following

PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

1 (A) THE COMPANY'S OBLIGATION TO PAY DAMAGES AND EXPENSES ON BEHALF OF THE INSURED UNDER THE POLICY TO WHICH THIS ENDORSEMENT IS ATTACHED APPLIES ONLY TO DAMAGES AND EXPENSES IN EXCESS OF A DEDUCTIBLE AMOUNT OF **$ 100,000 PER OCCURRENCE**. IT IS THE OBLIGATION OF THE INSURED TO PAY DAMAGES AND EXPENSES CONTAINED WITHIN THE DEDUCTIBLE; HOWEVER

(B) THE COMPANY MAY PAY ANY PART OF, OR ALL OF THE DEDUCTIBLE AMOUNT TO EFFECT SETTLEMENT OF ANY CLAIM OR SUIT; AND, UPON NOTIFICATION OF THE ACTION TAKEN, THE INSURED SHALL PROMPTLY REIMBURSE THE COMPANY FOR THAT PART OF THE DEDUCTIBLE AMOUNT WHICH HAS BEEN PAID BY THE COMPANY

(C) THE TERMS OF THE POLICY, INCLUDING THOSE WITH RESPECT TO (a) THE COMPANY'S RIGHTS AND DUTIES WITH RESPECT TO THE DEFENSE OF SUITS AND (b) THE INSURED'S DUTIES IN THE EVENT OF AN OCCURRENCE APPLY IRRESPECTIVE OF THE APPLICATION OF THE DEDUCTIBLE AMOUNT.

(D) THE DEDUCTIBLE AMOUNT APPLIES TO ALL DAMAGES AND EXPENSES BECAUSE OF ALL INJURY RESULTING FROM ONE OCCURRENCE, REGARDLESS OF THE NUMBER OF PERSONS OR ORGANIZATIONS WHO SUSTAIN INJURY BECAUSE OF THAT OCCURRENCE.

2. THE TERM DAMAGES WHEREVER USED IN THIS ENDORSEMENT SHALL MEAN ALL SUMS, OTHER THAN EXPENSE, WHICH THE INSURED IS LEGALLY OBLIGATED TO PAY AS THE RESULT OF AN OCCURRENCE TO WHICH THIS INSURANCE APPLIES.

3 THE TERM EXPENSES WHEREVER USED IN THIS ENDORSEMENT SHALL MEAN, SUPPLEMENTARY PAYMENTS AS DEFINED IN SECTION I - COVERAGES - OF THE PRODUCTS/COMPLETED LIABILITY COVERAGE FORM.

4. THE LIMITS OF LIABILITY APPLICABLE TO "EACH OCCURRENCE" SHOWN IN THE DECLARATIONS OF THE POLICY TO WHICH THIS ENDORSEMENT IS ATTACHED, AND AS AMENDED OR SUPPLEMENTED BY ANY APPLICABLE COVERAGE PARTS OR ENDORSEMENTS, INCLUDE THE DEDUCTIBLE AMOUNT.

FURTHER THE LIMITS OF LIABILITY SHOWN IN THIS POLICY AS BEING APPLICABLE TO "EACH OCCURRENCE" FOR SUCH COVERAGES SHALL BE REDUCED BY THE TOTAL AMOUNT OF DAMAGES APPLICABLE TO EACH OCCURRENCE WHICH DAMAGES WOULD BE CONTAINED IN THE DEDUCTIBLE PER OCCURRENCE AMOUNT HAD EXPENSES NOT BEEN INCLUDED IN THE DEDUCTIBLE.

5. THE LIMITS OF LIABILITY APPLICABLE TO AN "AGGREGATE" AS SHOWN IN THE DECLARATIONS OF THE POLICY TO WHICH THIS ENDORSEMENT IS ATTACHED AND AS AMENDED OR SUPPLEMENTED BY ANY APPLICABLE COVERAGE PARTS OR ENDORSEMENTS SHALL BE REDUCED ONLY BY THE AMOUNT OF DAMAGES CONTAINED WITHIN THE PER OCCURRENCE POLICY LIMITS APPLICABLE TO EACH OCCURRENCE WHICH DAMAGES WOULD BE EXCESS OF THE DEDUCTIBLE PER OCCURRENCE AMOUNT HAD EXPENSES NOT BEEN INCLUDED IN THE DEDUCTIBLE.

6. ANY EXPENSES INCURRED AS THE RESULT OF ANY OCCURRENCE TO WHICH THIS INSURANCE APPLIES SHALL BE APPORTIONED BETWEEN THE INSURED AND THE COMPANY AS FOLLOWS:

   (A) IF THE AMOUNT OF THE JUDGMENT OR SETTLEMENT DOES NOT EXCEED THE DEDUCTIBLE AMOUNT, THE EXPENSE PORTION OF THE TOTAL JUDGMENT OR SETTLEMENT INCURRED IN CONNECTION WITH THE OCCURRENCE SHALL BE ADDED TO THE DAMAGES AMOUNT OF THE JUDGMENT OR SETTLEMENT UNTIL THE DEDUCTIBLE AMOUNT IS EQUALED.

   (B) IF A CLAIM OR SUIT IS SETTLED WITHOUT PAYMENT OF DAMAGES THE EXPENSES INCURRED IN CONNECTION THEREWITH SHALL BE BORNE SOLELY BY THE INSURED, UP TO THE DEDUCTIBLE AMOUNT.

All other terms and conditions remain unchanged.

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AMENDMENT-SUPPLEMENTARY PAYMENTS WITHIN LIMITS OF INSURANCE

This endorsement modifies insurance provided under the following:

PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE FORM

A. Paragraph 1. a. (2) of SECTION I – COVERAGES is deleted and replaced by the following:

(2) Our right and duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments, settlements, or Supplementary Payments.

B. The last sentence of SUPPLEMENTARY PAYMENTS 1. f. is deleted and replaced by the following:

These payments reduce the limits of insurance.

C. The last two paragraphs of SUPPLEMENTARY PAYMENTS are deleted and replaced by the following

So long as the above conditions are met, attorney's fees incurred by us in the defense of that indemnitee, necessary litigation expenses incurred by us and necessary litigation expenses incurred by the indemnitee at our request will be paid as Supplementary Payments.

Our obligation to defend an insured's indemnitee and to pay for attorney's fees and necessary litigation expenses as Supplementary Payments ends when we have used up the applicable limit of insurance in the payment of judgments, settlements or Supplementary Payments, or the conditions set forth above, or the terms of the agreement described in Paragraph f. above, are no longer met

D. Paragraphs 2. and 3. of SECTION III – LIMITS OF INSURANCE are deleted and replaced by the following

2. The Aggregate Limit is the most we will pay for Supplementary Payments and for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".

3. Subject to 2. above, the Each Occurrence Limit is the most we will pay for Supplementary Payments and for damages because of "bodily injury" and "property damage" arising out of any one "occurrence".

All other terms and conditions remain unchanged

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Policy Number: CGL 2001699

Effective Date: June 23, 2006

AMENDMENT - WHEN WE DO NOT RENEW

This endorsement modifies insurance provided under the following.

COMMERCIAL GENERAL LIABILITY COVERAGE PART

UNDER SECTION IV **COMMERCIAL GENERAL LIABILITY CONDITIONS**, PARAGRAPH 9 IS REPLACED BY THE FOLLOWING:

WHEN WE DO NOT RENEW:

IF WE DECIDE NOT TO RENEW THIS POLICY, WE WILL MAIL OR DELIVER WRITTEN NOTICE OF NONRENEWAL, STATING THE SPECIFIC REASONS FOR NONRENEWAL, TO THE FIRST NAMED INSURED AT THE ADDRESS SHOWN IN THE DECLARATIONS AT LEAST 90 (NINETY) DAYS BEFORE THE EXPIRATION DATE. PROOF OF MAILING WILL BE SUFFICIENT PROOF OF NOTICE.

THE ABOVE CONDITION SUPERSEDES STATE ENDORSEMENTS TO THE CONTRARY TO THE EXTENT THE ABOVE CONDITION IS MORE LIBERAL. OTHERWISE THE STATE ENDORSEMENTS IN THIS REGARD SHALL APPLY.

All other terms and conditions remain unchanged.

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Policy Number: CGL 2001699

Effective Date: June 23, 2006

ADDITIONAL INSURED - VICARIOUS LIABILITY

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

NAME OF PERSON(S) AND/OR ORGANIZATION(S):

(1) Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement, and Lenders party to the Loan Agreement with Transurban (895) JS Holdings LLC, as their interests may appear subject to the date of the Loan Agreement being endorsed hereon within 28 days all for their respective rights and interests.

(2) The Virginia Department of Transportation

SECTION II - **WHO IS AN INSURED** IS AMENDED TO INCLUDE AS AN INSURED THE PERSON(S) AND/OR ORGANIZATION(S) SHOWN IN THE SCHEDULE, BUT ONLY WITH RESPECT TO THEIR VICARIOUS LIABILITY ARISING OUT OF YOUR ACTIVITIES OR OMISSIONS; BUT, SUCH INSURANCE AS AFFORDED BY THIS ENDORSEMENT DOES NOT APPLY TO ANY PAYMENT OF DAMAGES AND SUPPLEMENTARY PAYMENTS EXCEPT THOSE EXPENSES WHICH WE INCUR IN DEFENSE OF THE PERSON(S) AND/OR ORGANIZATION(S), SHOWN IN THE SCHEDULE

All other terms and conditions remain unchanged.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

EXCEPTION TO TERRORISM EXCLUSION FOR CERTIFIED ACTS OF TERRORISM; CAP ON LOSSES FROM CERTIFIED ACTS OF TERRORISM

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE PART
POLLUTION LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART
RAILROAD PROTECTIVE LIABILITY COVERAGE PART
UNDERGROUND STORAGE TANK POLICY

A. With respect to any exclusion of terrorism in this Coverage Part or attached to this Coverage Part by endorsement, such exclusion does not apply to a "certified act of terrorism".

That exclusion also does not apply to an act which meets the criteria set forth in Paragraph C. of the definition of "certified act of terrorism", when such act resulted in aggregate losses of $5 million or less.

B. With respect to any one or more "certified acts of terrorism", we will not pay any amounts for which we are not responsible under the terms of the federal Terrorism Risk Insurance Act of 2002 (including subsequent acts of Congress pursuant to the Act) due to the application of any clause which results in a cap on our liability for payments for terrorism losses.

C. "Certified act of terrorism" means an act that is certified by the Secretary of the Treasury, in concurrence with the Secretary of State and the Attorney General of the United States, to be an act of terrorism pursuant to the federal Terrorism Risk Insurance Act of 2002. The federal Terrorism Risk Insurance Act of 2002 sets forth the following criteria for a "certified act of terrorism":

1. The act resulted in aggregate losses in excess of $5 million; and
2. The act is a violent act or an act that is dangerous to human life, property or infrastructure and is committed by an individual or individuals acting on behalf of any foreign person or foreign interest, as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

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Policy Number: CGL 2001699
Effective Date: June 23, 2006

NAMED INSURED ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE

It is agreed that the Named Insured shown on the Declarations Page is amended to read:

Transurban (895) LLC – Permit / Concession holder entity for Pocahontas Parkway
Transurban (895) Holdings Inc.
Transurban (895) Finance Inc.
Transurban (895) US Holdings LLC.
The Virginia Department of Transportation.
Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement, and Lenders party to the Loan Agreement with Transurban (895) US Holdings LLC, as their interests may appear, subject to the date of the Loan Agreement being endorsed hereon within 28 days
all for their respective rights and interests.

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Policy Number: CGL 2001699
Effective Date: June 23, 2006

SERVICE OF SUIT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY

It is agreed that in the event of the failure of the company to pay any amount claimed to be due hereunder, the company, at the request of the insured, will submit to the jurisdiction of any court of competent jurisdiction within the united states and will comply with all the requirements necessary to give such court jurisdiction, and all matters arising hereunder shall be determined in accordance with the law and practice of such court. It is further agreed that serivce of process in such suit against the company may be made upon Allianz Global Risks US Insurance Company or

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And that in any suit instituted against it upon this policy, the company will abide the final decision of such court, or of any appellate court in the event of an appeal. In this connection, each of the foregoing corporations is hereby authorized to accept service of process on behalf of the company in any such suit, or, upon request of the insured prior to the institution of any suit, to give a written underlaking to the insured that it will enter a general appearance in the company's behalf in the event such suit should be instituted.

Further, pursuant to any statue of any state, territory or district of the united states which makes provision therefor, the company hereby designates the superintendent, commissioner or director of insurance or other officer specified for that purpose in the statue, or his successor or successors in office, as its true and lawful attorney upon whom may be served any lawful process in any action, suit or proceeding instituted by or on behalf of the insured or any beneficiary hereunder arising out of this policy and hereby designates each of the above named corporations as a person to whom said officer is authorized to mail such process or a true copy thereof.

All other terms and conditions remain unchanged.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

NEW YORK CHANGES – PREMIUM AUDIT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

A. Paragraph b. of the **Premium Audit** Condition (**Section IV**) is replaced by the following:

5. **Premium Audit**

b. Premium shown in this Coverage Part as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the first Named Insured. The due date for audit and retrospective premiums is the date shown as the due date on the bill. An audit to determine the final premium due or to be refunded will be completed within 180 days after the expiration date of the policy. But the audit may be waived if the total annual premium attributable to the auditable exposure base is not reasonably expected to exceed $1500. If the sum of the advance and audit premiums paid for the policy term is greater than the earned premium, we will return the excess to the first Named Insured.

B. Except as provided in Paragraph **A.** above the **Examination Of Your Books And Records** Common Policy Condition continues to apply.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

NEW YORK CHANGES
COMMERCIAL GENERAL LIABILITY COVERAGE FORM

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Paragraph **1. Insuring Agreement** of **Section I – Coverage A – Bodily Injury And Property Damage Liability** is replaced by the following:

1. **Insuring Agreement**

a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages even if the allegations of the "suit" are groundless, false or fraudulent. However, we will have no duty to defend the insured against any "suit" seeking damages for "bodily injury" or "property damage" to which this insurance does not apply. We may, at our discretion, investigate any "occurrence" and settle any claim or "suit" that may result. But:

(1) The amount we will pay for damages is limited as described in Section III – Limits Of Insurance; and

(2) Our right and duty to defend end when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages A or B or medical expenses under Coverage C.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments – Coverages A and B.

b. This insurance applies to "bodily injury" and "property damage" only if:

(1) The "bodily injury" or "property damage" is caused by an "occurrence" that takes place in the "coverage territory";

(2) The "bodily injury" or "property damage" occurs during the policy period; and

(3) Prior to the policy period, no insured listed under Paragraph 1. of Section II – Who Is An Insured and no "employee" authorized by you to give or receive notice of an "occurrence" or claim, knew that the "bodily injury" or "property damage" had occurred, in whole or in part. If such a listed insured or authorized "employee" knew, prior to the policy period, that the "bodily injury" or "property damage" occurred, then any continuation, change or resumption of such "bodily injury" or "property damage" during or after the policy period will be deemed to have been known prior to the policy period.

c. "Bodily injury" or "property damage" which occurs during the policy period and was not, prior to the policy period, known to have occurred by any insured listed under Paragraph 1. of Section II – Who Is An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim, includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the policy period.

d. "Bodily injury" or "property damage" will be deemed to have been known to have occurred at the earliest time when any insured listed under Paragraph 1. of Section II – Who Is An Insured or any "employee" authorized by you to give or receive notice of an "occurrence" or claim:

(1) Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;

(2) Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage"; or

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(3) Becomes aware by any other means that "bodily injury" or "property damage" has occurred or has begun to occur.

e. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

B. Paragraph 1.a. of **Section I – Coverage B – Personal And Advertising Injury Liability** is replaced by the following:

1. **Insuring Agreement**

a. We will pay those sums that the insured becomes legally obligated to pay as damages because of "personal and advertising injury" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damages even if the allegations of the "suit" are groundless, false or fraudulent. However, we will have no duty to defend the insured against any "suit" seeking damages for "personal and advertising injury" to which this insurance does not apply. We may, at our discretion, investigate any offense and settle any claim or "suit" that may result. But:

(1) The amount we will pay for damages is limited as described in Section III – Limits Of Insurance; and

(2) Our right and duty to defend end when we have used up the applicable limit of insurance in the payment of judgments or settlements under Coverages A and B or medical expenses under Coverage C.

No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Supplementary Payments – Coverages A and B.

C. The following is added as Paragraph e. to the **Duties In The Event Of Occurrence, Offense, Claim Or Suit** Condition (Paragraph 2. of **Section IV – Commercial General Liability Conditions**):

2. **Duties In The Event Of Occurrence, Offense, Claim Or Suit**

e. Notice given by or on behalf of the insured, or written notice by or on behalf of the injured person or any other claimant, to any agent of ours in New York State with particulars sufficient to identify the insured, shall be considered to be notice to us.

D. The definition of "loading or unloading" in the **Definitions** Section does not apply.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

NEW YORK CHANGES – TRANSFER OF DUTIES WHEN A LIMIT OF INSURANCE IS USED UP

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

The following Condition is added to COMMERCIAL GENERAL LIABILITY CONDITIONS (Section IV):

Transfer of Duties When a Limit of Insurance Is Used Up.

a. If we conclude that, based on "occurrences," offenses, claims or "suits" which have been reported to us and to which this insurance may apply, the:

(1) General Aggregate Limit (other than the Products/Completed Operations Aggregate Limit);

(2) Products/Completed Operations Aggregate Limit;

(3) Personal and Advertising Injury Limit;

(4) Each Occurrence Limit; or

(5) Fire Damage Limit

is likely to be used up in the payment of judgments or settlements, we will notify the first Named Insured, in writing, to that effect.

b. When a limit of insurance described in paragraph a. above has actually been used up in the payment of judgments or settlements:

(1) We will notify the first Named Insured, in writing, as soon as practicable, that:

(a) Such a limit has actually been used up; and

(b) Our duty to defend "suits" seeking damages subject to that limit has also ended.

(2) We will initiate, and cooperate in the transfer of control, to any appropriate insured, of all claims and "suits" seeking damages which are subject to that limit and which are reported to us before that limit is used up. That insured must cooperate in the transfer of control of said claims and "suits".

We agree to take such steps, as we deem appropriate, to avoid a default in, or continue the defense of, such "suits" until such transfer is completed, provided the appropriate insured is cooperating in completing such transfer.

We will take no action whatsoever with respect to any claim or "suit" seeking damages that would have been subject to that limit, had it not been used up, if the claim or "suit" is reported to us after that limit of insurance has been used up.

(3) The first Named Insured, and any other insured involved in a "suit" seeking damages subject to that limit, must arrange for the defense of such "suit" within such time period as agreed to between the appropriate insured and us. Absent any such agreement, arrangements for the defense of such "suit" must be made as soon as practicable.

c. The first Named Insured will reimburse us for expenses we incur in taking those steps we deem appropriate in accordance with paragraph b.(2) above.

The duty of the first Named Insured to reimburse us will begin on:

(1) The date on which the applicable limit of insurance is used up, if we sent notice in accordance with paragraph a. above; or

(2) The date on which we sent notice in accordance with paragraph b.(1) above, if we did not send notice in accordance with paragraph a. above.

d. The exhaustion of any limit of insurance by the payments of judgments or settlements, and the resulting end of our duty to defend, will not be affected by our failure to comply with any of the provisions of this Condition.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

NEW YORK CHANGES – CANCELLATION AND NONRENEWAL

This endorsement modifies insurance provided under the following:

BOILER AND MACHINERY COVERAGE PART
CAPITAL ASSETS PROGRAM (OUTPUT POLICY) COVERAGE PART
COMMERCIAL GENERAL LIABILITY COVERAGE PART
COMMERCIAL INLAND MARINE COVERAGE PART
COMMERCIAL PROPERTY COVERAGE PART
CRIME AND FIDELITY COVERAGE PART
EMPLOYMENT-RELATED PRACTICES LIABILITY COVERAGE PART
FARM COVERAGE PART
LIQUOR LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

A. Paragraphs **1., 2., 3.** and **5.** of the **Cancellation** Common Policy Condition are replaced by the following:

1. The first Named Insured shown in the Declarations may cancel this entire policy by mailing or delivering to us advance written notice of cancellation.

2. **Cancellation Of Policies In Effect**

   a. **60 Days Or Less**

   We may cancel this policy by mailing or delivering to the first Named Insured written notice of cancellation at least:

   (1) 30 days before the effective date of cancellation if we cancel for any reason not included in Paragraph **A.2.a.(2)** below

   (2) 15 days before the effective date of cancellation if we cancel for any of the following reasons:

   (a) Nonpayment of premium, provided however, that a notice of cancellation on this ground shall inform the first Named Insured of the amount due

   (b) Conviction of a crime arising out of acts increasing the hazard insured against.

   (c) Discovery of fraud or material misrepresentation in the obtaining of the policy or in the presentation of a claim

   (d) After issuance of the policy or after the last renewal date, discovery of an act or omission, or a violation of any policy condition, that substantially and materially increases the hazard insured against, and that occurred subsequent to inception of the current policy period,

   (e) Material physical change in the property insured, occurring after issuance or last annual renewal anniversary date of the policy, that results in the property becoming uninsurable in accordance with our objective, uniformly applied underwriting standards in effect at the time the policy was issued or last renewed or material change in the nature or extent of the risk, occurring after issuance or last annual renewal anniversary date of the policy, that causes the risk of loss to be substantially and materially increased beyond that contemplated at the time the policy was issued or last renewed,

   (f) Required pursuant to a determination by the Superintendent that continuation of our present premium volume would jeopardize our solvency or be hazardous to the interest of our policyholders, our creditors or the public.

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(g) A determination by the Superintendent that the continuation of the policy would violate, or would place us in violation of, any provision of the Insurance Code; or

(h) Where we have reason to believe, in good faith and with sufficient cause, that there is a probable risk of danger that the insured will destroy, or permit to be destroyed, the insured property for the purpose of collecting the insurance proceeds. If we cancel for this reason you may make a written request to the Insurance Department, within 10 days of receipt of this notice, to review our cancellation decision. Also, we will simultaneously send a copy of this cancellation notice to the Insurance Department

b. For More Than 60 Days

If this policy has been in effect for more than 60 days, or if this policy is a renewal or continuation of a policy we issued, we may cancel only for any of the reasons listed in Paragraph **A.2.a.(2)** above, provided:

(1) We mail the first Named Insured written notice at least 15 days before the effective date of cancellation; and

(2) If we cancel for nonpayment of premium, our notice of cancellation informs the first Named Insured of the amount due.

3. We will mail or deliver our notice including the reason for cancellation, to the first Named Insured at the address shown in the policy and to the authorized agent or broker.

6. If this policy is cancelled, we will send the first Named Insured any premium refund due. If we cancel the refund will be pro rata. If the first Named Insured cancels, the refund may be less than pro rata

However, when the premium is advanced under a premium finance agreement, the cancellation refund will be pro rata. Under such financed policies, we will be entitled to retain a minimum earned premium of 10% of the total policy premium or $50, whichever is greater. The cancellation will be effective even if we have not made or offered a refund.

B. The following is added to the **Cancellation** Common Policy Condition:

7. If one of the reasons for cancellation in Paragraph **A.2.a.(2)** or **D.2.b.(2)** exists, we may cancel this entire policy, even if the reason for cancellation pertains only to a new coverage or endorsement initially effective subsequent to the original issuance of this policy.

C. The following conditions are added:

1. **Nonrenewal**

If we decide not to renew this policy we will send notice as provided in Paragraph **C.3.** below.

2. **Conditional Renewal**

If we conditionally renew this policy subject to a

a. Change of limits;

b. Change in type of coverage;

c. Reduction of coverage;

d. Increased deductible,

e. Addition of exclusion; or

f. Increased premiums in excess of 10%, exclusive of any premium increase due to and commensurate with insured value added or increased exposure units; or as a result of experience rating, loss rating retrospective rating or audit.

we will send notice as provided in Paragraph **C.3.** below.

3. **Notices Of Nonrenewal And Conditional Renewal**

a. If we decide not to renew this policy or to conditionally renew this policy as provided in Paragraphs **C.1.** and **C.2.** above, we will mail or deliver written notice to the first Named Insured shown in the Declarations at least 60 but not more than 120 days before

(1) The expiration date; or

(2) The anniversary date if this is a continuous policy.

b. Notice will be mailed or delivered to the first Named Insured at the address shown in the policy and to the authorized agent or broker. If notice is mailed, proof of mailing will be sufficient proof of notice

c. Notice will include the specific reason(s) for nonrenewal or conditional renewal, including the amount of any premium increase for conditional renewal and description of any other changes.

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d. If we violate any of the provisions of Paragraph C.3.a., b. or c. above by sending the first Named Insured an incomplete or late conditional renewal notice or a late nonrenewal notice:

(1) Coverage will remain in effect at the same terms and conditions of this policy at the lower of the current rates or the prior period's rates until 60 days after such notice is mailed or delivered, unless the first Named Insured, during this 60 day period, has replaced the coverage or elects to cancel;

(2) On or after the expiration date of this policy, coverage will remain in effect at the same terms and conditions of this policy for another policy period, at the lower of the current rates or the prior period's rates, unless the first Named Insured, during this additional policy period, has replaced the coverage or elects to cancel.

e. If you elect to renew on the basis of a late conditional renewal notice, the terms, conditions and rates set forth in such notice shall apply

(1) Upon expiration of the 60 day period, or

(2) Notwithstanding the provisions in Paragraphs d.(1) and d.(2), as of the renewal date of the policy if we send the first Named Insured the conditional renewal notice at least 30 days prior to the expiration or anniversary date of the policy.

f. We will not send you notice of nonrenewal or conditional renewal if you, your authorized agent or broker or another insurer of yours mails or delivers notice that the policy has been replaced or is no longer desired.

D. The following provisions apply when the Commercial Property Coverage Part, the Farm Coverage Part or the Capital Assets Program (Output Policy) Coverage Part is made a part of this policy:

1. Items D.2. and D.3. apply if this policy meets the following conditions:

a. The policy is issued or issued for delivery in New York State covering property located in this state, and

b. The policy insures:

(1) For loss of or damage to structures, other than hotels or motels used predominantly for residential purposes and consisting of no more than four dwelling units; or

(2) For loss of or damage to personal property other than farm personal property or business property; or

(3) Against damages arising from liability for loss of damage to or injury to persons or property, except liability arising from business or farming; and

c. The portion of the annual premium attributable to the property and contingencies described in 1.b. exceeds the portion applicable to other property and contingencies.

2. Paragraph 2. of the Cancellation Common Policy Condition is replaced by the following:

2. Procedure And Reasons For Cancellation

a. We may cancel this entire policy by mailing or delivering to the first Named Insured written notice of cancellation at least:

(1) 15 days before the effective date of cancellation if we cancel for nonpayment of premium provided however, that a notice of cancellation on this ground shall inform the first Named Insured of the amount due; or

(2) 30 days before the effective date of cancellation if we cancel for any other reason

b. But if this policy:

(1) Has been in effect for more than 60 days; or

(2) Is a renewal of a policy we issued:

we may cancel this policy only for one or more of the following reasons:

(1) Nonpayment of premium, provided however, that a notice of cancellation on this ground shall inform the first Named Insured of the amount due;

(2) Conviction of a crime arising out of acts increasing the risk of loss

(3) Discovery of fraud or material misrepresentation in obtaining the policy or in making a claim;

(4) Discovery of willful or reckless acts or omissions increasing the risk of loss;

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(5) Physical changes in the covered property that make that property uninsurable in accordance with our objective and uniformly applied underwriting standards in effect when we:

(a) Issued the policy; or

(b) Last voluntarily renewed the policy.

(6) The Superintendent of Insurance's determination that continuing the policy would violate Chapter 28 of the Insurance Law; or

(7) Required pursuant to a determination by the Superintendent of Insurance that the continuation of our present premium volume would be hazardous to the interests of our policyholders, our creditors or the public.

3. The following are added:

a. **Conditional Continuation**

Instead of cancelling this policy, we may continue it on the condition that

(1) The policy limits be changed; or

(2) Any coverage not required by law be eliminated

If this policy is conditionally continued, we will mail or deliver to the first Named Insured written notice at least 20 days before the effective date of the change or elimination. We will mail or deliver our notice to the first Named Insured's last mailing address known to us. If notice is mailed, proof of mailing will be sufficient proof of notice. Delivery of the notice will be the same as mailing.

b. **Nonrenewal**

If, as allowed by the laws of New York State we

(1) Do not renew this policy; or

(2) Condition policy renewal upon:

(a) Change of limits; or

(b) Elimination of coverage;

we will mail or deliver written notice of nonrenewal or conditional renewal:

(a) At least 45 days, but

(b) Not more than 60 days;

before the expiration date of the policy. We will mail or deliver our notice to the first Named Insured's last mailing address known to us. If notice is mailed, proof of mailing will be sufficient proof of notice. Delivery of the notice will be the same as mailing.

E. The following is added to the Farm Property – Other Farm Provisions Form – Additional Coverages, Conditions, Definitions, the Commercial Property Coverage Part and the Capital Assets Program (Output Policy) Coverage Part

When the property is subject to the Anti-Arson Application in accordance with New York Insurance Department Regulation No. 96 the following provisions are added

If you fail to return the completed, signed and affirmed anti-arson application to us:

1. Or our broker or agent within 45 days of the effective date of a new policy, we will cancel the entire policy by giving 20 days' written notice to you and to the mortgageholder shown in the Declarations

2. Before the expiration date of any policy, we will cancel the policy by giving written notice to you and to the mortgageholder shown in the Declarations at least 15 days before the effective date of cancellation.

The cancellation provisions set forth in E.1. and E.2. above supersede any contrary provisions in this policy including this endorsement.

If the notice in E.1. or E.2. above is mailed, proof of mailing will be sufficient proof of notice. Delivery of the notice will be the same as mailing

F. The following applies to the Commercial Property Coverage Part the Farm Coverage Part and the Capital Assets Program (Output Policy) Coverage Part:

Paragraphs f. and g. of the **Mortgageholders** Condition are replaced by the following:

f. **Cancellation**

(1) If we cancel this policy, we will give written notice to the mortgageholder at least:

(a) 10 days before the effective date of cancellation if we cancel for your nonpayment of premium; or

(b) 30 days before the effective date of cancellation if we cancel for any other reason.

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(2) If you cancel this policy, we will give written notice to the mortgageholder. With respect to the mortgageholder's interest only, cancellation will become effective on the later of:

(a) The effective date of cancellation of the insured's coverage; or

(b) 10 days after we give notice to the mortgageholder

g. Nonrenewal

(1) If we elect not to renew this policy, we will give written notice to the mortgageholder at least 10 days before the expiration date of this policy.

(2) If you elect not to renew this policy, we will give written notice to the mortgageholder. With respect to the mortgageholder's interest only, nonrenewal will become effective on the later of

(a) The expiration date of the policy; or

(b) 10 days after we give notice to the mortgageholder.

G. The following provisions apply when the following are made a part of this policy:

Commercial General Liability Coverage Part
Employment-Related Practices Liability Coverage Part
Farm Liability Coverage Form
Liquor Liability Coverage Part
Products/Completed Operations Liability Coverage Part

1. The aggregate limits of this policy as shown in the Declarations will be increased in proportion to any policy extension provided in accordance with Paragraph C.3.d. above

2. The last sentence of Limits Of Insurance does not apply when the policy period is extended because we sent the First Named Insured an incomplete or late conditional renewal notice or a late nonrenewal notice.

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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

SERVICE OF SUIT

It is agreed that in the event of the failure of the company to pay any amount claimed to be due hereunder, the company, at the request of the insured, will submit to the jurisdiction of any court of competent jurisdiction within the united states and will comply with all the requirements necessary to give such court jurisdiction, and all matters arising hereunder shall be determined in accordance with the law and practice of such court. It is further agreed that serivce of process in such suit against the company may be made upon Allianz Global Risks US Insurance Company or

2350 EMPIRE AVENUE, BURBANK, CALIFORNIA 91504-3350

And that in any suit instituted against it upon this policy, the company will abide the final decision of such court, or of any appellate court in the event of an appeal. In this connection, each of the foregoing corporations is hereby authorized to accept service of process on behalf of the company in any such suit, or, upon request of the insured prior to the institution of any suit, to give a written undertaking to the insured that it will enter a general appearance in the company's behalf in the event such suit should be instituted.

Further, pursuant to any statue of any state, territory or district of the united states which makes provision therefor, the company hereby designates the superintendent, commissioner or director of insurance or other officer specified for that purpose in the statue, or his successor or successors in office, as its true and lawful attorney upon whom may be served any lawful process in any action, suit or proceeding instituted by or on behalf of the insured or any beneficiary hereunder arising out of this policy and hereby designates each of the above named corporations as a person to whom said officer is authorized to mail such process or a true copy thereof.

All other terms and conditions remain unchanged.

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Policy Number: CGL 2001699

Effective Date: 6/23/2006

ADDITIONAL INSURED - VICARIOUS LIABILITY

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

NAME OF PERSON(S) AND/OR ORGANIZATION(S):

(1) Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement, and Lenders party to the Loan Agreement with Transurban (695) US Holdings LLC, as their interests may appear, subject to the date of the Loan Agreement being endorsed hereon within 28 days all for their respective rights and interests.

(2) The Virginia Department of Transportation

SECTION II - **WHO IS AN INSURED** IS AMENDED TO INCLUDE AS AN INSURED THE PERSON(S) AND/OR ORGANIZATION(S) SHOWN IN THE SCHEDULE. BUT ONLY WITH RESPECT TO THEIR VICARIOUS LIABILITY ARISING OUT OF YOUR ACTIVITIES OR OMISSIONS; BUT, SUCH INSURANCE AS AFFORDED BY THIS ENDORSEMENT DOES NOT APPLY TO ANY PAYMENT OF DAMAGES AND SUPPLEMENTARY PAYMENTS EXCEPT THOSE EXPENSES WHICH WE INCUR IN DEFENSE OF THE PERSON(S) AND/OR ORGANIZATION(S) SHOWN IN THE SCHEDULE.

All other terms and conditions remain unchanged.

TAB 5

Umbrella Liability – USD30,000,000
Allianz

[redacted]

$ 30,000,000

US Umbrella Policy
#UCA 2001700
23 Jun 06
01 Jun 07

Allianz
Global Risks

Allianz Global Risks US Insurance Company
2350 Empire Avenue, Burbank, CA 91504

COMMERCIAL LINES POLICY

THIS POLICY CONSISTS OF:
- DECLARATIONS
- ONE OR MORE COVERAGE PARTS.

A COVERAGE PART CONSISTS OF:
- ONE OR MORE COVERAGE FORMS
- APPLICABLE FORMS AND ENDORSEMENTS

In Witness Whereof, we have caused this policy to be executed and attested, and if required by state law this policy shall not be valid unless countersigned by our authorized representative.

Secretary

President

Allianz Global Risks US Insurance Company

(Hereinafter called the Company)
2350 Empire Avenue
Burbank, CA 91504-3350

Commercial Umbrella Liability Declarations

Policy NO. UCA 2001700

Item 1. NAMED INSURED AND MAILING ADDRESS

Transurban (895) LLC Permit/Concession Holder for Pocahontas Parkway
405 Lexington Avenue, 43rd Floor
New York, NY 10017

Producer

Aon Risk Services Inc of New York
56 East 52nd St 37th Floor
New York, NY 10065

Item 2. Policy Period From June 23, 2006 to January 01, 2007 At 12:01 A.M. Standard Time at the Address of the Named Insured shown above.

Item 3. Limits of Insurance
The Limits of Insurance, subject to all the terms of this policy, are

A. $ 30,000,000 Each Occurrence

B. $ 60,000,000 General Aggregate (in accordance with Section III Limits of Insurance.)

C. $ Included in the General Aggregate Products Completed Operations Aggregate (in accordance with Section III, Limits of Insurance.)

D. $ 100,000. Self Insured Retention

Item 4. Premium Computation

Estimated Exposure	Rate/ Per	Advance Premium	Minimum Premium
Not Applicable	Flat	$102,570.	$102,570
Certified Terrorism	Flat	$ 8,285	$ 8,285.

Item 5. Endorsements: Forms and Endorsements applying to this coverage and made a part of this policy at time of issue.
Per Forms and Endorsement List

Countersigned by:

Authorized Representative

Date

AGR-CU 1001 (11/03)

INSURED

Allianz Global Risks US Insurance Company

FORMS AND ENDORSEMENT LIST

NAMED INSURED: [illegible] LLC - Permit/Concession holder for Pocahontas Parkway
POLICY NUMBER: USA [illegible]
EFFECTIVE DATE: 6/23/2005

The following policy forms and endorsements have been attached to and made a part of the policy at inception.

FORM NAME	FORM NUMBER	EDITION DATE
Allianz Global Risks US Insurance Company Commercial Lines Policy Jacket	AGR-DS 1001	[illegible]2004
Commercial Umbrella Liability Policy	AGR-CU 7001 (01-04)	01/2004
Exclusion - Aircraft or Watercraft Liability	AGR-CU 5015 (01-04)	01/2004
Limited Terrorism Exclusion (Other Than Certified Acts of Terrorism): Coverage Excludes Certified Acts of Terrorism	AGR-CU 5030 (01-04)	01/2004
Exclusion - Fungi or Bacteria	AGR-CU 5031 (01-04)	01/2004
Conditional Exclusion of Terrorism (Relating To Disclosure Of Federal Terrorism Risk Insurance Act Of 2002)	AGR-CU 5034 (12-05)	12/2005
Exclusion - Violation of Statutes That Govern E-Mails, Fax, Phone Calls Or Other Methods Of Sending Material or Information	AGR-CU 5037 (03-05)	03/2005
Silica or Silica-Related Dust Exclusion	AGR-CU 5038 (05-05)	06/2005
Schedule of Underlying Insurance	AGR-CU 1501 (01-04)	01/2004
Limits Inclusive of Settlement Costs	AGR-CU 5501 (01-04)	01/2004
Limits of Liability - Amendatory Endorsement	AGR-CU 5504 (01-04)	01/2004
Excess Provision - Business Interruption Losses	AGR-IL M001 (11-03)	11/2003
Exclusion - Construction of Airport Feeder Road	AGR-IL M001 (11-03)	11/2003
Exclusion - Law Enforcement Activities	AGR-IL M001 (11-03)	11/2003
Named Insured Endorsement	AGR-IL M001 (11-03)	11/2003

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COMMERCIAL UMBRELLA LIABILITY POLICY

Various provisions in this policy restrict coverage. Read the entire policy carefully to determine rights, duties and what is and is not covered.

Throughout this policy the words "you" and "your" refer to the "named insured" shown in the Declarations, and any other person or organization qualifying as a "named insured" under this policy. The words "we", "us" and "our" refer to the company providing this insurance.

Other words and phrases that appear in quotation marks have special meaning. Refer to Section IV – Definitions.

In consideration of the payment of the premium, and subject to all the terms of this policy, we agree with you to provide the insurance as stated in this policy.

SECTION I – COVERAGE

A. We will pay on behalf of the "insured" those sums in excess of the Retained Limit that the "insured" becomes legally obligated to pay as damages by reason of liability imposed by law or assumed by the "insured" under an "insured contract" because of "bodily injury", "property damage", "personal injury" or "advertising injury" to which this insurance applies, caused by an "occurrence" that takes place during the policy period anywhere in the world. Retained Limit is defined in Section III – Limits of Insurance.

   If we are prevented by law, or otherwise, from paying such sums on the "insured's" behalf, we will reimburse the "insured" for such sums.

   However:

   1. The amount we will pay for damages is limited as described in Section III – Limits of Insurance; and
   2. No other obligation or liability to pay sums or perform acts or services is covered unless explicitly provided for under Section II, Defense.

B. This insurance applies to "bodily injury" and "property damage" only if: prior to the policy period, no "insured" listed under Paragraph 1.a. of the definition of "insured" and no "employee" authorized by you to give or receive notice of an "occurrence" or claim, knew that the "bodily injury" or "property damage" had occurred, in whole or in part. If such a listed "insured" or authorized "employee" knew, prior to the policy period, that the "bodily injury" or "property damage" occurred, then any continuation, change or resumption of such "bodily injury" or "property damage" during or after the policy period will be deemed to have been known prior to the policy period.

C. "Bodily injury" or "property damage" which occurs during the policy period and was not, prior to the policy period, known to have occurred by any "insured" listed under Paragraph 1.a. of the definition of "insured" or any "employee" authorized by you to give or receive notice of an "occurrence" or claim, includes any continuation, change or resumption of that "bodily injury" or "property damage" after the end of the policy period.

D. "Bodily injury" or "property damage" will be deemed to have been known to have occurred at the earliest time when any "insured" listed under Paragraph 1.a. of the definition of "insured" or any "employee" authorized by you to give or receive notice of an "occurrence" or claim:

   1. Reports all, or any part, of the "bodily injury" or "property damage" to us or any other insurer;
   2. Receives a written or verbal demand or claim for damages because of the "bodily injury" or "property damage"; or
   3. Becomes aware by any other means that "bodily injury" or "property damage" has occurred or has begun to occur.

E. Damages because of "bodily injury" include damages claimed by any person or organization for care, loss of services or death resulting at any time from the "bodily injury".

SECTION II – DEFENSE

A. 1. We will have the right and duty to defend the "insured" against any "suit" seeking damages to which this insurance applies when

a. All applicable limits of insurance under all "underlying insurance" have been exhausted by payments for "occurrences" to which this insurance applies; or

b. Damages are sought for "bodily injury", "property damage", "personal injury" or "advertising injury" that are covered by this policy but are not covered by any "underlying insurance".

2. When we have the duty to defend we will have the right to investigate the "occurrence" and settle any resultant claim or "suit".

3. When we have no duty to defend, we will have the right to participate in the defense of the "insured" against any "suit" seeking damages to which this insurance may apply.

However:

1. We will have no duty to defend the "insured" against any "suit" seeking damages for injury or damage to which this insurance does not apply;

2. We will have no duty to defend the "insured" against any "suit" if any other insurer has a duty to defend the "insured" against that "suit";

3. Our duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments or settlements; and

4. In the event of bankruptcy or insolvency of an insurer of the "underlying insurance", our defense obligations will apply as if such insurance were in full effect.

B. **Supplementary Payments**

1. We will pay, with respect to any claim we investigate or settle, or any "suit" against an "insured" we defend, when the duty to defend exists:

a. All expenses we incur.

b. The cost of bonds to release attachments, but only for bond amounts within the applicable limit of insurance. We do not have to furnish these bonds.

c. All reasonable expenses incurred by the "insured" at our request to assist us in the investigation or defense of the claim or "suit".

d. All costs taxed against the "insured" in the "suit".

e. Prejudgment interest awarded against the "insured" on that part of the judgment we pay. If we make an offer to pay the applicable limit of insurance, we will not pay any prejudgment interest based on that period of time after the offer.

f. All interest on our portion of any judgment that accrues after entry of the judgment and before we have paid, offered to pay, or deposited in court the part of the judgment that is within the applicable limit of insurance.

However, we will not contribute to the expenses of an insurer of the "underlying insurance".

These payments will not reduce the limits of insurance.

2. When we have no duty to defend the "insured" but elect to participate in the defense, we will pay our own expenses. However, we will not contribute to the expenses of the "insured" or an insurer of the "underlying insurance".

SECTION III – LIMITS OF INSURANCE

A. The Limits of Insurance shown in the Declarations and the rules below fix the most we will pay regardless of the number of

1. "Insureds";
2. Claims made, "suits" brought, or number of vehicles involved; or
3. Persons or organizations making claims or bringing "suits".

B. The General Aggregate Limit is the most we will pay for the sum of all damages to which this insurance applies except:

1. Damages because of "bodily injury" or "property damage",
   a. Included in the "products-completed operations hazard", or
   b. Arising out of the ownership, maintenance or use of a "covered auto"; or
2. Damages covered by valid "scheduled underlying insurance" to which no aggregate limit of insurance applies; or
3. Damages that would have been covered with no aggregate limit of insurance by "scheduled underlying insurance" but for the exhaustion of applicable limits of insurance

C. The Products-Completed Operations Aggregate Limit is the most we will pay for damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard".

D. Subject to B. or C. above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of all damages under this insurance because of all "bodily injury", "property damage", "personal injury" and "advertising injury" arising out of any one "occurrence".

E. The Aggregate Limits, as described in Paragraphs B. and C. above, apply separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations, unless the policy period is extended after issuance for an additional period of less than 12 months. In that case, the additional period will be deemed part of the last preceding period for purposes of determining the Limits of Insurance.

F. If the applicable limits of insurance of the "scheduled underlying insurance" are reduced or exhausted by payments for "occurrences" to which this insurance applies, we will:

1. In the event of reduction, pay in excess of the reduced underlying limits of insurance; or
2. In the event of exhaustion, continue in force as the applicable policy of "scheduled underlying insurance", subject to the terms and conditions of this policy.

G. **Retained Limit**

We will be liable only for that portion of damages in excess of the Retained Limit, which is defined as either:

1. The sum of all applicable limits of insurance under all "underlying insurance"; or
2. The dollar amount listed in the Declarations as Self-Insured Retention, which applies separately to each "occurrence" not covered by any "underlying insurance".

SECTION IV – DEFINITIONS

A. 'Advertisement' means a notice that is broadcast or published to the general public or specific market segments about your goods, products or services for the purpose of attracting customers or supporters. For the purposes of this definition:

1. Notices that are published include material placed on the Internet or on similar electronic means of communication, and
2. Regarding web-sites, only that part of a web-site that is about your goods, products or services for the purposes of attracting customers or supporters is considered an advertisement.

B. 'Advertising injury' means injury, other than 'bodily injury' or 'personal injury', arising solely out of your advertising activities as a result of one or more of the following offenses:

1. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;
2. Oral or written publication, in any manner, of material that violates a person's right of privacy;
3. The use of another's advertising idea in your 'advertisement'; or
4. Infringing upon another's copyright, trade dress or slogan in your 'advertisement'.

C. 'Auto' means a land motor vehicle, trailer or semitrailer designed for travel on public roads, including any attached machinery or equipment. But 'auto' does not include 'mobile equipment'.

D. 'Bodily injury' means bodily injury, sickness, disability or disease sustained by a person, including death resulting from any of those at any time.

'Bodily injury' includes humiliation, shock, mental anguish or other mental injury resulting from 'bodily injury'.

E. 'Covered auto' means only those 'autos' to which 'scheduled underlying insurance' applies.

F. 'Employee' includes a 'Leased Worker'. 'Employee' does not include a 'Temporary Worker'.

For the purposes of this insurance:

1. A 'Leased Worker' is a person, other than a 'Temporary Worker', leased to you by a labor leasing firm under an agreement between you and the labor leasing firm, to perform duties related to the conduct of your business; and
2. A 'Temporary Worker' is a person who is furnished to you to substitute for a permanent 'employee' on leave or to meet seasonal or short-term workload conditions.

G. 'Executive officer' means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document.

H. 'Impaired property' means tangible property, other than 'your product' or 'your work', that cannot be used or is less useful because:

1. it incorporates 'your product' or 'your work' that is known or thought to be defective, deficient, inadequate or dangerous; or
2. you have failed to fulfill the terms of a contract or agreement;

if such property can be restored to use by the repair, replacement, adjustment or removal of 'your product' or 'your work', or your fulfilling the terms of the contract or agreement.

I. 'Insured'

1. Except for liability arising out of the ownership, maintenance or use of 'covered autos':
   a. If you are:
      (1) An individual, you and your spouse are 'insureds', but only with respect to the conduct of a business of which you are the sole owner.

(2) A partnership or joint venture, you are an "insured". Your members, your partners, and their spouses are also "insureds", but only with respect to the conduct of your business.

(3) A limited liability company, you are an "insured". Your members are also "insureds" but only with respect to the conduct of your business. Your managers are "insureds", but only with respect to their duties as your managers.

(4) An organization other than a partnership, joint venture or limited liability company, you are an "insured". Your "executive officers" and directors are "insureds", but only with respect to their duties as your officers or directors. Your stockholders are also "insureds", but only with respect to their liability as stockholders.

(5) A trust, you are an "insured". Your trustees are also "insureds", but only with respect to their duties as trustees.

b. Each of the following is also an "insured":

(1) (a) Your "volunteer workers", but only while performing duties related to the conduct of your business; and

(b) Your "employees", other than either your "executive officers" (if you are an organization other than a partnership, joint venture or limited liability company) or your managers (if you are a limited liability company), but only for acts within the scope of their employment by you or while performing duties related to the conduct of your business.

However, none of these "volunteer workers" or "employees" are "insureds" for "bodily injury" or "personal injury":

(a) To you, to your partners or members (if you are a partnership or joint venture) or to your members (if you are a limited liability company); or

(b) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraph (a) immediately preceding.

(2) Any person (other than your "employee" or "volunteer worker"), or any organization while acting as your real estate manager.

(3) Any person or organization having proper temporary custody of your property if you die, but only:

(a) With respect to liability arising out of the maintenance or use of that property; and

(b) Until your legal representative has been appointed.

(4) Your legal representative if you die, but only with respect to duties as such. That representative will have all your rights and duties under this policy.

c. With respect to "mobile equipment" registered in your name under any motor vehicle registration law, any person is an "insured" while driving such equipment along a public highway with your permission. Any other person or organization responsible for the conduct of such persons is also an "insured", but only with respect to liability arising out of the operation of the equipment, and only if no other insurance of any kind is available to that person or organization for this liability.

2. Only with respect to liability arising out of the ownership, maintenance or use of "covered autos":

a. You are an "insured".

b. Anyone else while using with your permission a "covered auto" you own, hire, or borrow is also an "insured", but only to the extent that such person or organization is an insured for the ownership, maintenance or use of the "covered auto" under valid "scheduled underlying insurance".

c. Anyone liable for the conduct of an "insured" described above is also an "insured", but only to the extent of that liability.

3. Any additional insured under any policy of "scheduled underlying insurance" will automatically be an "insured" under this insurance.

However,

a. Additional insured coverage provided by this insurance will not be broader than coverage provided by the "scheduled underlying insurance"; and

b. If coverage provided to the additional insured is required by a contract or agreement

(1) Additional insured coverage provided by this insurance applies only to:

(a) Liability arising out of operations conducted by you or on your behalf; or

(b) Facilities owned or used by you; and

(2) The most we will pay on behalf of the additional insured is, subject to Section III – Limits of Insurance, the amount of insurance required by the contract, less any amounts payable by any "underlying insurance".

4. No person or organization is an "insured" with respect to the conduct of any current or past partnership joint venture or limited liability company that is not shown as a "named insured" in the Declarations.

J. "Insured Contract" means that part of any contract or agreement under which you assume the tort liability of another party to pay for "bodily injury", "property damage", "personal injury" or "advertising injury" to a third person or organization, provided the contract or agreement:

1. Pertains to your business; and

2. Is executed prior to the "occurrence" causing the injury or damage.

Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

K. "Mobile equipment" means any of the following types of land vehicles, including any attached machinery or equipment:

1. Bulldozers, farm machinery, forklifts and other vehicles designed for use principally off public roads;

2. Vehicles maintained for use solely on or next to premises you own or rent;

3. Vehicles that travel on crawler treads;

4. Vehicles, whether self-propelled or not, maintained primarily to provide mobility to permanently mounted:

a. Power cranes, shovels, loaders, diggers or drills; or

b. Road construction or resurfacing equipment such as graders, scrapers or rollers.

5. Vehicles not described in 1., 2., 3. or 4. above that are not self-propelled and are maintained primarily to provide mobility to permanently attached equipment of the following types:

a. Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment; or

b. Cherry pickers and similar devices used to raise or lower workers;

6. Vehicles not described in 1., 2., 3. or 4. above maintained primarily for purposes other than the transportation of persons or cargo.

However, self-propelled vehicles with the following types of permanently attached equipment are not "mobile equipment" but will be considered "autos":

a. Equipment designed primarily for:

(1) Snow removal;

(2) Road maintenance, but not construction or resurfacing; or

(3) Street cleaning;

b. Cherry pickers and similar devices mounted on automobile or truck chassis and used to raise or lower workers; and

c. Air compressors, pumps and generators, including spraying, welding, building cleaning, geophysical exploration, lighting and well servicing equipment.

L. "Named insured" means:

1. The first person or organization listed in Item 1. of the Declarations (the "first named insured");

2. Any other person or organization listed in Item 1. of the Declarations; and

3. Each of the following with respect to any person or organization listed in Item 1. of the Declarations:

a. Any organization that is a subsidiary as of the effective date of this policy;

b. Any organization over which ownership or majority interest is maintained as of the effective date of this policy; and

c. Any organization that is newly acquired or formed during the policy period, other than a partnership, joint venture or limited liability company, and over which ownership or majority interest is maintained. However,

(1) Coverage is afforded under this provision c. only if:

(a) Such organization is a named insured under valid "scheduled underlying insurance" or would have been a named insured but for the exhaustion of applicable limits of insurance; and

(b) There is no other similar insurance available to that organization.

(2) This insurance does not apply to "bodily injury", "property damage", "personal injury" or "advertising injury" that occurred before the organization was acquired or formed;

(3) The "first named insured" agrees to give us prompt notice that the organization has been acquired or formed, and

(4) We may charge an additional premium for insuring the organization.

M. "Occurrence":

1. With respect to "bodily injury" and "property damage", "occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions. All such exposure to substantially the same general conditions shall be considered as arising out of one "occurrence".

2. With respect to "personal injury", "occurrence" means an offense that arises out of your business. All injury that arises from the same or related material or offense shall be considered as arising out of one "occurrence", regardless of the frequency or repetition thereof, the number and kind of media used and the number of claimants.

3. With respect to "advertising injury", "occurrence" means an offense committed in the course of advertising your goods, products or services. All injury that arises from the same or related material or offense shall be considered as arising out of one "occurrence", regardless of the frequency or repetition thereof, the number and kind of media used and the number of claimants.

N. "Personal injury" means injury, other than "advertising injury" or "bodily injury", arising out of one or more of the following offenses:

1. False arrest, detention or imprisonment;

2. Malicious prosecution;

3. The wrongful eviction from, wrongful entry into, or invasion of the right of private occupancy of a room, dwelling or premises that a person occupies, committed by or on behalf of its owner, landlord or lessor;

4. Oral or written publication, in any manner, of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or services;

5. Oral or written publication, in any manner, of material that violates a person's right of privacy.

O. "Products-completed operations hazard":

1. Includes all "bodily injury" and "property damage" occurring away from premises you own or rent and arising out of "your product" or "your work" except:

a. Products that are still in your physical possession; or

b. Work that has not yet been completed or abandoned. However, "your work" will be deemed completed at the earliest of the following times:

(1) When all of the work called for in your contract has been completed.

(2) When all of the work to be done at the job site has been completed if your contract calls for work at more than one job site.

(3) When that part of the work done at a job site has been put to its intended use by any person or organization other than another contractor or subcontractor working on the same project.

Work that may need service, maintenance, correction, repair or replacement, but which is otherwise complete, will be treated as completed.

2. Does not include "bodily injury" or "property damage" arising out of:

a. The transportation of property, unless the injury or damage arises out of a condition in or on a vehicle not owned or operated by you, and that condition was created by the loading or unloading of that vehicle by any "insured"; or

b. The existence of tools, uninstalled equipment or abandoned or unused materials.

P. "Property damage" means:

1. Physical injury to tangible property, including all resulting loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or

2. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the "occurrence" that caused it.

For the purposes of this insurance, Electronic Data is not tangible property.

As used in this definition, Electronic Data means information, facts or programs stored as or on, created or used on, or transmitted to or from computer software, including systems and applications software, hard or floppy disks, CD-ROMS, tapes, drives, cells, data processing devices or any other media which are used with electronically controlled equipment.

Q. "Scheduled underlying insurance" means the insurance policies listed in the Declarations under the Schedule of Underlying Insurance, including any renewals or replacements thereof.

R. "Suit" means a civil proceeding in which damages because of "bodily injury", "property damage", "personal injury" or "advertising injury" to which this insurance applies are alleged. "Suit" includes:

1. An arbitration proceeding in which such damages are claimed and to which the "insured" must submit or does submit with our consent; or

2. Any other alternative dispute resolution proceeding in which such damages are claimed and to which the "insured" submits with our consent.

S. "Underlying insurance" means:

1. The insurance policies listed in the Declarations under the Schedule of Underlying Insurance, including any renewals or replacements thereof; and

2. Any other insurance available to the "insured" covering injury or damage to which this insurance applies, other than insurance specifically written as excess over this policy.

T. "Volunteer worker" means a person who:

1. Is not your "employee";

2. Donates his or her work;

3. Acts at the direction of and within the scope of duties determined by you; and

4. Is not paid a fee, salary or other compensation by you or anyone else for his or her work performed for you.

U. "Your product":

1. Means:

a. Any goods or products, other than real property, manufactured, sold, handled, distributed or disposed of by:

(1) You;

(2) Others trading under your name; or

(3) A person or organization whose business or assets you have acquired; and

b. Containers (other than vehicles), materials, parts or equipment furnished in connection with such goods or products.

2. Includes:

a. Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your product"; and

b. The providing of or failure to provide warnings or instructions.

3. Does not include vending machines or other property rented to or located for the use of others but not sold.

V. "Your work":

1. Means:

a. Work or operations performed by you or on your behalf; and

b. Materials, parts or equipment furnished in connection with such work or operations.

2. Includes:

a. Warranties or representations made at any time with respect to the fitness, quality, durability, performance or use of "your work"; and

b. The providing of or failure to provide warnings or instructions.

SECTION V – EXCLUSIONS

This insurance does not apply to:

A. Workers' Compensation and Similar Laws

Any obligation of the "insured" under a workers' compensation, disability benefits or unemployment compensation law or any similar law.

B. E.R.I.S.A.

Any obligation of the "insured" under the Employees' Retirement Income Security Act (E.R.I.S.A.), and any amendments thereto or any similar law.

C. Auto Coverages

1. "Bodily injury" or "property damage" arising out of the ownership, maintenance or use of any "auto" that is not a "covered auto"; or

2. Any loss, cost or expense payable under or resulting from any first party physical damage coverage, no-fault law; personal injury protection or auto medical payments coverage; uninsured or underinsured motorist law, or any similar law.

D. Damage to Property

"Property damage" to:

1. Property you own, rent, or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;

2. Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises;

3. Property loaned to you;

4. Personal property in the care, custody or control of the "insured";

5. That particular part of real property on which you or any contractors or subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations; or

6. That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraph 6. of this exclusion does not apply to "property damage" included in the "products-completed operations hazard".

E. Damage to Impaired Property or Property Not Physically Injured

"Property damage" to "impaired property" or property that has not been physically injured, arising out of:

1. A defect, deficiency, inadequacy or dangerous condition in "your product" or "your work"; or
2. A delay or failure by you or anyone acting on your behalf to perform a contract or agreement in accordance with its terms.

This exclusion does not apply to the loss of use of other property arising out of sudden and accidental physical injury to "your product" or "your work" after it has been put to its intended use.

F. Damage To Your Product

"Property damage" to "your product" arising out of it or any part of it.

G. Damage to Your Work

"Property damage" to "your work" arising out of it or any part of it and included in the "products-completed operations hazard".

This exclusion does not apply if the damaged work or the work out of which the damage arises was performed on your behalf by a subcontractor.

H. Recall of Products, Work or Impaired Property

Damages claimed for any loss, cost or expense incurred by you or others for the loss of use, withdrawal, recall, inspection, repair, replacement, adjustment, removal or disposal of:

1. "Your product";
2. "Your work"; or
3. "Impaired property";

if such product, work, or property is withdrawn or recalled from the market or from use by any person or organization because of a known or suspected defect, deficiency, inadequacy or dangerous condition in it.

I. Liability of Employees and Volunteer Workers

Liability of:

1. Any of your "employees" with respect to "bodily injury" or "personal injury" to
   a. A co-"employee" while in the course of his or her employment; or
   b. A co-"employee" or any of your "volunteer workers" while performing duties related to the conduct of your business;
2. Any of your "volunteer workers" with respect to "bodily injury" or "personal injury" to:
   a. Any of your "employees" while in the course of his or her employment; or
   b. Any of your "employees" or other "volunteer workers" while performing duties related to the conduct of your business.

This exclusion applies to:

1. "Bodily injury" or "personal injury" to the spouse, child, parent, brother or sister of that "employee" or "volunteer worker" as a consequence of Paragraphs I.1. or I.2. above; and

2. Any obligation to share damages with or repay someone else who must pay damages because of the injury.

This exclusion does not apply to the extent that valid "scheduled underlying insurance" for the employee and volunteer workers liability risks described above exists or would have existed but for the exhaustion of applicable limits of insurance.

J. **Aircraft or Watercraft**

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft or watercraft owned or operated by or rented or loaned to any "insured". Use includes operation and loading or unloading.

This exclusion applies even if the claims against any "insured" allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that "insured", if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any watercraft or any aircraft that is owned or operated by or rented or loaned to any "insured".

This exclusion does not apply:

1. To any aircraft that is chartered by, loaned to, or hired by you with a crew; and
2. To the extent that valid "scheduled underlying insurance" for the aircraft or watercraft liability risks described above exists or would have existed but for the exhaustion of applicable limits of insurance

K. **Knowing Violation; Falsity; Prior Publication; Criminal Acts; Assumed Liability**

"Personal injury" or "advertising injury":

1. Caused by or at the direction of the "insured" with the knowledge that the act would violate the rights of another and would infict "personal injury" or "advertising injury";
2. Arising out of oral or written publication of material if done by or at the direction of the "insured" with knowledge of its falsity
3. Arising out of oral or written publication of material whose first publication took place before the beginning of the policy period;
4. Arising out of a criminal act committed by or at the direction of the "insured"; or
5. For which the "insured" has assumed liability in a contract or agreement.

Paragraph 5. of this exclusion does not apply to liability for damages that the "insured" would have in the absence of the contract or agreement.

L. **Electronic Chatrooms or Bulletin Boards; Unauthorized Use of Another's Name or Product; Infringement of Copyright, Patent, Trademark or Trade Secret**

"Personal injury" or "advertising injury" arising out of:

1. An electronic chatroom or bulletin board the "insured" hosts, owns, or over which the "insured" exercises control;
2. The unauthorized use of another's name or product in your email address, domain name or metatag, or any other similar tactics to mislead another's potential customers; or
3. The infringement of copyright, patent, trademark, trade secret or other intellectual property rights.

Paragraph 3. of this exclusion does not apply to infringement, in your "advertisement", of copyright, trade dress or slogan

M. **Insureds in Media and Internet Type Businesses**

"Personal injury" or "advertising injury" committed by an "insured" whose business is:

1. Advertising, broadcasting, publishing or telecasting;
2. Designing or determining content of web-sites for others, or

3. An internet search, access content or service provider.

This exclusion does not apply to Paragraphs 1., 2. and 3. of the definition of "personal injury".

For the purposes of this exclusion, the placing of frames, borders or links, or advertising, for you or others anywhere on the internet, is not by itself, considered the business of advertising, broadcasting, publishing or telecasting.

N. Breach of Contract; Quality or Performance of Goods; Wrong Description of Prices

"Advertising injury" arising out of:

1. A breach of contract, except an implied contract to use another's advertising idea in your "advertisement";
2. The failure of goods, products or services to conform with any statement of quality or performance made in your "advertisement"; or
3. The wrong description of the price of goods, products or services stated in your "advertisement".

O. Pollution

1. "Bodily injury", "property damage" or "personal injury" arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of Pollutants at any time anywhere in the world.
2. Any loss, cost or expense arising out of any request, demand, order or statutory or regulatory requirement that any "insured" or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of Pollutants; or
3. Any loss, cost or expense arising out of any claim or "suit" by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to, or assessing the effects of, Pollutants.

This exclusion does not apply to "bodily injury", "property damage" or "personal injury":

1. Arising out of heat, smoke or fumes from a "Hostile Fire";
2. Arising out of the upset, overturn or collision of "mobile equipment" or a "covered auto"; or
3. Included in the "products-completed operations hazard"

to the extent that valid "scheduled underlying insurance" for the pollution liability risks described above exists or would have existed but for the exhaustion of applicable limits of insurance.

As used in this exclusion:

1. A Hostile Fire means one which becomes uncontrollable or breaks out from where it was intended to be; and
2. Pollutants means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and Waste. Waste includes materials to be recycled, reconditioned or reclaimed.

P. War

"Bodily injury", "property damage", "personal injury" or "advertising injury", however caused, arising, directly or indirectly, out of:

1. War, including undeclared or civil war; or
2. Warlike action by a military force, including action in hindering or defending against an actual or expected attack, by any government, sovereign or other authority using military personnel or other agents; or
3. Insurrection, rebellion, revolution, usurped power, or action taken by governmental authority in hindering or defending against any of these.

Q. **Expected or Intended Injury or Damage**

"Bodily injury" or "property damage" expected or intended from the standpoint of the "insured". This exclusion does not apply to "bodily injury" or "property damage" resulting from the use of reasonable force to protect persons or property.

R. **Asbestos**

1. "Bodily injury", "property damage", "personal injury" or "advertising injury" arising out of the manufacture of, mining of, use of, sale of, installation of, removal of, distribution of or exposure to asbestos, asbestos products, asbestos fibers or asbestos dust;

2. Any obligation of the "insured" to indemnify any party because of damages arising out of such "bodily injury", "property damage", "personal injury" or "advertising injury" as a result of the manufacture of, mining of, use of, sale of, installation of, removal of, distribution of or exposure to asbestos, asbestos products, asbestos fibers or asbestos dust; or

3. Any obligation to defend any "suit" or claim against the "insured" alleging "bodily injury", "property damage", "personal injury" or "advertising injury" and seeking damages, if such "suit" or claim arises from "bodily injury", "property damage", "personal injury" or "advertising injury" as a result of the manufacture of, mining of, use of, sale of, installation of, removal of, distribution of or exposure to asbestos, asbestos products, asbestos fibers or asbestos dust.

S. **Employment-Related Practices**

"Bodily injury" or "personal injury" to:

1. A person arising out of any:
   a. Refusal to employ that person;
   b. Termination of that person's employment; or
   c. Employment-related practices, policies, acts or omissions, such as coercion, demotion, evaluation, reassignment, discipline, defamation, harassment, humiliation or discrimination directed at that person; or

2. The spouse, child, parent, brother or sister of that person as a consequence of injury to that person at whom any of the employment-related practices described in Paragraphs (a), (b), or (c) above is directed.

This exclusion applies whether the "insured" may be liable as an employer or in any other capacity, and to any obligation to share damages with or repay someone else who must pay damages because of the injury.

T. **Financial Services**

"Bodily injury", "property damage", "personal injury" or "advertising injury" arising out of or by reason of:

1. The purchase, sale, offer of sale, or solicitation of any security, debt, insurance policy, bank deposit or financial interest or instrument;

2. Any representations made at any time in relation to the price or value of any security, debt, insurance policy, bank deposit or financial interest or instrument; or

3. Any depreciation or decline in price or value of any security, debt, insurance policy, bank deposit or financial interest or instrument.

U. **Liquor Liability**

"Bodily injury" or "property damage" for which any "insured" may be held liable by reason of:

1. Causing or contributing to the intoxication of any person;

2. The furnishing of alcoholic beverages to a person under the legal drinking age or under the influence of alcohol; or

3. Any statute, ordinance or regulation relating to the sale, gift, distribution or use of alcoholic beverages.

This exclusion does not apply to the extent that valid "scheduled underlying insurance" for the liquor liability risks described above exists or would have existed but for the exhaustion of applicable limits of insurance

V. **Aircraft Products and Grounding**

"Bodily injury" or "property damage" arising out of Aircraft Products or Grounding.

As used in this exclusion:

1. Aircraft Products means any aircraft (including missiles, spacecraft, satellites and any ground control or support equipment intended for use in connection therewith) and any other goods, products or services specifically intended for use in the manufacture, repair, service, operation or maintenance of any aircraft; and

2. Grounding means the withdrawal of any aircraft from service or the imposition of any restrictions on the use of any aircraft arising out of Aircraft Products.

W. **Nuclear Energy Liability**

1. "Bodily injury" or "property damage":

   a. With respect to which an "insured" under the policy is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters, Nuclear Insurance Association of Canada or any of their successors, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or

   b. Resulting from the Hazardous Properties of Nuclear Material and with respect to which (1) any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or (2) the "insured" is, or had this policy not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization

2. "Bodily injury" or "property damage" resulting from Hazardous Properties of Nuclear Material, if

   a. The Nuclear Material (1) is at any Nuclear Facility owned by, or operated by or on behalf of, an "insured" or (2) has been discharged or dispersed therefrom;

   b. The Nuclear Material is contained in Spent Fuel or Waste at any time possessed, handled, used, processed, stored, transported or disposed of, by or on behalf of an "insured"; or

   c. The "bodily injury" or "property damage" arises out of the furnishing by an "insured" of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any Nuclear Facility, but if such facility is located within the United States of America, its territories or possessions or Canada, this Exclusion (c) applies only to "property damage" to such Nuclear Facility and any property thereat.

3. As used in this exclusion:

   a. Hazardous Properties includes radioactive, toxic or explosive properties.

   b. Nuclear Material means Source Material, Special Nuclear Material or By-Product Material.

   c. Source Material, Special Nuclear Material, and By-Product Material have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.

   d. Spent Fuel means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a Nuclear Reactor.

   e. Waste means any waste material (1) containing By-Product Material other than the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its Source Material content, and (2) resulting from the operation by any person or organization of any Nuclear Facility included under the first two paragraphs of the definition of Nuclear Facility.

   f. Nuclear Facility means:

      (1) Any Nuclear Reactor;

(2) Any equipment or device designed or used for (a) separating the isotopes of uranium or plutonium, (b) processing or utilizing Spent Fuel, or (c) handling, processing or packaging Waste.

(3) Any equipment or device used for the processing, fabricating or alloying of Special Nuclear Material if at any time the total amount of such material in the custody of the "insured" at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235;

(4) Any structure, basin, excavation, premises or place prepared or used for the storage or disposal of Waste;

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations.

g. Nuclear Reactor means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material.

h. "Property damage" includes all forms of radioactive contamination of property.

SECTION VI - CONDITIONS

A. Appeals

If the "insured" or the "insured's" insurer elects not to appeal a judgment in excess of the Retained Limit, as defined in Section III – Limits of Insurance, we may do so at our own expense. We will be liable for taxable costs, pre-judgment and post-judgment interest and disbursements.

B. Bankruptcy

1. **Bankruptcy or Insolvency of Insured**

   Bankruptcy or insolvency of the "insured" or of the "insured's" estate will not relieve us of our obligations under this policy.

2. **Bankruptcy or Insolvency of Insurers**

   Bankruptcy or insolvency of any insurer will not relieve us of our obligations under this policy.

   However this insurance will not replace any "underlying insurance" in the event of bankruptcy or insolvency of the insurer. This insurance will apply as if the "underlying insurance" were in full effect.

C. Cancellation

1. The "first named insured" may cancel this policy by mailing or delivering to us advance written notice of cancellation.

2. We may cancel this policy by mailing or delivering to the "first named insured" written notice of cancellation at least:

   a. 10 days before the effective date of cancellation if we cancel for nonpayment of premium; or

   b. 90 days before the effective date of cancellation if we cancel for any other reason.

3. We will mail or deliver our notice to the "first named insured's" last mailing address known to us.

4. Notice of cancellation will state the effective date of cancellation. The policy period will end on that date.

5. If this policy is cancelled, we will send the "first named insured" any premium refund due. If we cancel, the refund will be pro rata. If the "first named insured" cancels, the refund may be less than pro rata. The cancellation will be effective even if we have not made or offered a refund.

6. If notice is mailed, proof of mailing will be sufficient proof of notice.

7. This condition is amended, where necessary, to comply with the applicable state law regarding Cancellation.

D. **Changes**

This policy contains all the agreements between you and us concerning the insurance afforded. The "first named insured" is authorized to make changes in the terms of this policy with our consent. This policy's terms can be amended or waived only by endorsement issued by us and made a part of this policy.

E. **Duties in the Event of Occurrence, Claim or Suit**

1. You must see to it that we are notified as soon as practicable of an "occurrence", regardless of the amount, which may result in a claim under this policy. To the extent possible, notice should include:
   a. How, when and where the "occurrence" took place
   b. The names and addresses of any injured persons and witnesses; and
   c. The nature and location of any injury or damage arising out of the "occurrence".
2. If a claim is made or "suit" is brought against any "insured" that is reasonably likely to involve this policy, you must:
   a. Record the specifics of the claim or "suit" and the date received; and
   b. See to it that we receive written notice of the claim or "suit" as soon as practicable, including other materials and information in your possession pertinent and relevant to the claim or "suit".
3. You and any other involved "insured" must:
   a. Immediately send us copies of any demands, notices, summonses or legal papers received in connection with the claim or "suit";
   b. Authorize us to obtain records and other information
   c. Cooperate with us in the investigation or settlement of the claim or defense against the "suit"; and
   d. Assist us, upon our request, in the enforcement of any right against any person or organization which may be liable to the "insured" because of injury or damage to which this insurance may also apply.
4. No "insured" will, except at that "insured's" own cost, voluntarily make a payment, assume any obligation, or incur any expense, other than for first aid, without our consent.

F. **Examination of Your Books and Records**

We may examine and audit your books and records as they relate to this policy at any time during the policy period and up to three years afterward.

G. **Headings**

The descriptions in the headings of this policy are solely for convenience and form no part of the terms and conditions of insurance.

H. **Inspections and Surveys**

1. We have the right to:
   a. Make inspections and surveys at any time;
   b. Give you reports on the conditions we find; and
   c. Recommend changes.
2. We are not obligated to make any inspections, surveys, reports or recommendations, and any such actions we do undertake relate only to insurability and the premiums to be charged. We do not make safety inspections. We do not undertake to perform the duty of any person or organization to provide for the health or safety of workers or the public. And we do not warrant that conditions:
   a. Are safe or healthful; or
   b. Comply with laws, regulations, codes or standards.
3. Paragraphs 1. and 2. of this condition apply not only to us, but also to any rating, advisory, rate service or similar organization which makes insurance inspections, surveys, reports or recommendations.

I. **Legal Action Against Us**

No person or organization has a right under this policy:

1. To join us as a party or otherwise bring us into a "suit" asking for damages from an "insured"; or
2. To sue us on this policy unless all of its terms have been fully complied with.

J. **Loss Payable**

1. Liability under this policy shall not apply unless and until the "insured" or the "insured's" insurer has become obligated to pay the Retained Limit, as defined in Section III – Limits of Insurance.
2. When the amount of damages has been finally determined, we will promptly pay the amount of damages falling within the terms of this policy.
3. We may pay part or all of any applicable Self-Insured Retention to effect settlement of any claim or "suit" and upon notification of the action taken, you shall promptly reimburse us for such part of the Self-Insured Retention as has been paid by us.

K. **Maintenance of Underlying Insurance**

1. During the period of this policy, you agree that:
   a. The "scheduled underlying insurance" will be maintained in full effect except for any renewal or replacement policies that provide equivalent coverage;
   b. The terms and conditions of the "scheduled underlying insurance" will not materially change; and
   c. The limits of insurance of the "scheduled underlying insurance" will not change except for any reduction or exhaustion of aggregate limits due to payments for "occurrences" to which this insurance applies.

   Failure to comply with these requirements will not invalidate this insurance. However, this insurance will apply to the same extent it would have applied had there been full compliance with these requirements.
2. You agree to notify us as soon as practicable when:
   a. Any insurance policy listed in the Schedule of Underlying Insurance is no longer in effect; or
   b. The terms of any such policy change.

L. **Other Insurance**

1. This insurance is excess over, and shall not contribute with any other insurance, whether primary, excess, contingent or on any other basis. This condition will not apply to insurance specifically written as excess over this policy.
2. When this insurance is excess over other insurance, we will pay only our share of the amount of loss that exceeds the sum of:
   a. The total amount that all such other insurance would pay for the loss in the absence of this insurance; and
   b. The total of all deductible and self-insured amounts under all that other insurance.

M. **Premiums and Audit**

1. The "first named insured":
   a. Is responsible for the payment of all premiums; and
   b. Will be the payee for any return premiums we pay.
2. We will compute all premiums for this policy in accordance with our rules and rates.
3. Premium shown in this policy as advance premium is a deposit premium only. At the close of each audit period we will compute the earned premium for that period and send notice to the "first named insured". The due date for audit premiums is the date shown as the due date on the bill. If the sum of the advance and audit premiums paid for the policy period is greater than the earned premium, we will return the excess to the "first named insured", subject to any applicable minimum premium.

4. The "first named insured" must keep records of the information we need for premium computation, and send us copies at such times as we may request.

N. Prior Insurance

If a loss covered by this policy is also covered in whole or in part under any other policy issued to the "insured" prior to the effective date of this policy, our Limits of Insurance as stated in Item 3. of the Declarations will be reduced by any amounts due the "insured" under such prior insurance.

O. Representations or Fraud

By accepting this policy, you agree:

1. The statements in the Declarations are accurate and complete;
2. Those statements are based upon representations you made to us;
3. We have issued this policy in reliance upon your representations; and
4. This policy is void in any case of fraud by you as it relates to this policy or any claim under this policy.

P. Separation of Insureds

Except with respect to the Limits of Insurance, and any rights or duties specifically assigned in this policy to the "first named insured", this insurance applies:

1. As if each "named insured" were the only "named insured"; and
2. Separately to each "insured" against whom claim is made or "suit" is brought.

Q. Transfer of Rights of Recovery Against Others to Us

If the "insured" has rights to recover all or part of any payment we have made under this policy, those rights are transferred to us. The "insured" must do nothing after loss to impair them. At our request the "insured" will bring "suit" or transfer those rights to us and help us enforce them.

We will be entitled to any amounts recovered through subrogation or otherwise to the extent of our payments under this policy, including all expenses we incur in any such recovery.

R. Transfer of Your Rights and Duties Under This policy

Your rights and duties under this policy may not be transferred without our written consent except in the case of death of an individual "named insured".

If you die, your rights and duties will be transferred to your legal representative but only while acting within the scope of duties as your legal representative. Until your legal representative is appointed, anyone having proper temporary custody of your property will have your rights and duties but only with respect to that property.

S. When We Do Not Renew

If we decide not to renew this policy, we will mail or deliver to the "first named insured" written notice of the nonrenewal not less than 30 days before the expiration date. If notice is mailed, proof of mailing will be sufficient proof of notice.

This condition is amended, where necessary, to comply with the applicable state law regarding nonrenewal.

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EXCLUSION - AIRCRAFT OR WATERCRAFT LIABILITY

Exclusion V.J. **Aircraft or Watercraft** is replaced by the following.

This insurance does not apply to:

J. **Aircraft or Watercraft**

1. **Watercraft**

"Bodily injury", "property damage", "personal injury" or "advertising injury" arising out of the ownership, maintenance, use or entrustment to others of any watercraft owned or operated by or rented or loaned to any "insured". Use includes operation and loading or unloading.

This exclusion applies even if the claims against any "insured" allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that "insured", if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any watercraft that is owned or operated by or rented or loaned to any "insured".

This exclusion does not apply to watercraft less than 75 feet long to the extent that valid "scheduled underlying insurance" for the watercraft liability risks described above exists or would have existed but for the exhaustion of applicable limits of insurance.

2. **Aircraft**

This insurance does not apply to "bodily injury", "property damage", "personal injury" or "advertising injury" arising out of the ownership, maintenance, use or entrustment to others of any aircraft. Use includes operation and loading or unloading.

This exclusion applies even if the claims against any "insured" allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that "insured", if the "occurrence" which caused the "bodily injury" or "property damage" involved the ownership, maintenance, use or entrustment to others of any aircraft.

This exclusion does not apply to "bodily injury" or "property damage" arising out of your use of "industrial aid aircraft". However, the Retained Limit with respect to "bodily injury" or "property damage" arising out of "industrial aid aircraft" will be the greater of:

a. The sum of all applicable limits of insurance under all "underlying insurance"; or

b. (1) $50,000,000 each "occurrence" if the "occurrence" involves an "industrial aid aircraft" that is owned by you; or

(2) $25,000,000 each "occurrence" if the "occurrence" involves an "industrial aid aircraft" that is not owned by you.

For the purposes of this exclusion, "industrial aid aircraft" means an aircraft that:

a. Is used principally for the transportation of your "executive officers", employees, "temporary workers" and invited guests; and

b. Has a seating capacity (exclusive of cockpit crew but inclusive of cabin crew) of no more than 20 persons (whether or not all such seats are occupied).

"Industrial aid aircraft" does not include any aircraft that is:

a. Used by an "insured" for any commercial or charter passenger or cargo air line service, any flight school or aviation training business, or any other operations for which an "insured" receives compensation (other than cost reimbursement);

b. Held for sale, lease, charter or delivery by an "insured" in the business of manufacture, sale, lease or charter of aircraft;

c. Used for product testing or demonstration purposes;

d. Temporarily in the care, custody or control of an "insured" in the business of servicing, maintaining, fueling, testing or storing aircraft

All other terms and conditions remain unchanged.

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LIMITED TERRORISM EXCLUSION
(OTHER THAN CERTIFIED ACTS OF TERRORISM)
CAP ON LOSSES FROM CERTIFIED ACTS OF TERRORISM

1 The following exclusion is added:

This insurance does not apply to "any injury or damage" arising, directly or indirectly, out of an "other act of terrorism". However, this exclusion applies only when one or more of the following are attributed to such act.

a The total of insured damage to all types of property exceeds $25,000,000. In determining whether the $25,000,000 threshold is exceeded, we will include all insured damage sustained by property of all persons and entities affected by the terrorism and business interruption losses sustained by owners or occupants of the damaged property. For the purpose of this provision, insured damage means damage that is covered by any insurance plus damage that would be covered by any insurance but for the application of any terrorism exclusions; or

b Fifty or more persons sustain death or serious physical injury. For the purposes of this provision, serious physical injury means:

(1) Physical injury that involves a substantial risk of death; or

(2) Protracted and obvious physical disfigurement; or

(3) Protracted loss of or impairment of the function of a bodily member or organ; or

c The terrorism involves the use, release or escape of nuclear materials, or directly or indirectly results in nuclear reaction or radiation or radioactive contamination; or

d The terrorism is carried out by means of the dispersal or application of pathogenic or poisonous biological or chemical materials; or

e Pathogenic or poisonous biological or chemical materials are released, and it appears that one purpose of the terrorism was to release such materials

With respect to this exclusion, Paragraphs a. and b. describe the thresholds used to measure the magnitude of an incident of an "other act of terrorism" and the circumstances in which the threshold will apply for the purpose of determining whether this exclusion will apply to that incident

2 The following definitions are added:

a. For the purposes of this endorsement, "any injury or damage" means any injury or damage covered under this policy or any underlying insurance to which this endorsement is applicable, and includes but is not limited to "bodily injury", "property damage", "personal and advertising injury", "injury" or "environmental damage" as may be defined in any applicable underlying insurance.

b. "Certified act of terrorism" means an act that is certified by the Secretary of the Treasury, in concurrence with the Secretary of State and the Attorney General of the United States, to be an act of terrorism pursuant to the federal Terrorism Risk Insurance Act of 2002. The federal Terrorism Risk Insurance Act of 2002 sets forth the following criteria for a "certified act of terrorism":

(1) The act resulted in aggregate losses in excess of $5 million; and

(2) The act is a violent act or an act that is dangerous to human life, property or infrastructure and is committed by an individual or individuals acting on behalf of any foreign person or foreign interest, as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion.

c. "Other act of terrorism" means a violent act or an act that is dangerous to human life, property or infrastructure that is committed by an individual or individuals and that appears to be part of an effort to coerce a civilian population or to influence the policy or affect the conduct of any government by coercion and the act is not certified as a terrorist act pursuant to the federal Terrorism Risk Insurance Act of 2002. However, "other act of terrorism" does not include an act which meets the criteria set forth in Paragraph b. of the definition of "certified act of terrorism" when such act resulted in aggregate losses of $5 million or less. Multiple incidents of an "other act of terrorism" which occur within a seventy-two hour period and appear to be carried out in concert or to have a related purpose or common leadership shall be considered to be one incident.

3. In the event of an "other act of terrorism" that is not subject to this exclusion, coverage does not apply to any loss or damage that is otherwise excluded under this policy.

4. With respect to any one or more "certified acts of terrorism", we will not pay any amounts for which we are not responsible under the terms of the federal Terrorism Risk Insurance Act of 2002 (including subsequent acts of Congress pursuant to the Act) due to the application of any clause which results in a cap on our liability for payments for terrorism losses.

All other terms and conditions remain unchanged.

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EXCLUSION – FUNGI OR BACTERIA

This insurance does not apply to:

1. "Bodily injury" or "property damage" which would not have occurred, in whole or in part, but for the actual, alleged or threatened inhalation of, ingestion of, contact with, exposure to, existence of, or presence of, any "fungi" or bacteria on or within a building or structure, including its contents, regardless of whether any other cause, event, material or product contributed concurrently or in any sequence to such injury or damage;

2. "Personal injury" which would not have taken place, in whole or in part, but for the actual, alleged or threatened inhalation of, ingestion of, contact with, exposure to, existence of, or presence of any "fungi" or bacteria on or within a building or structure, including its contents, regardless of whether any other cause, event, material or product contributed concurrently or in any sequence to such injury; or

3. Any loss, cost or expense arising out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to, or assessing the effects of, "fungi" or bacteria, by any insured or by any other person or entity.

Paragraph 1. of this exclusion does not apply to any "fungi" or bacteria that are, are on, or are contained in, a good or product intended for consumption.

For the purposes of this exclusion, "fungi" means any type or form of fungus, including mold or mildew and any mycotoxins, spores, scents or byproducts produced or released by fungi.

All other terms and conditions remain unchanged.

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CONDITIONAL EXCLUSION OF TERRORISM (RELATING TO DISPOSITION OF FEDERAL TERRORISM RISK INSURANCE ACT OF 2002)

This endorsement modifies insurance provided under the following:

COMMERCIAL UMBRELLA LIABILITY POLICY

A. Applicability Of The Provisions Of This Endorsement:

1. The provisions of this endorsement will become applicable commencing on the date when any one or more of the following first occurs:

   a. The federal Terrorism Risk Insurance Program ("Program"), established by the Terrorism Risk Insurance Act of 2002, has terminated with respect to the type of insurance provided under this Coverage Part; or

   b. A renewal, extension or continuation of the Program has become effective without a requirement to make terrorism coverage available to you and with revisions that:

      (1) Increase our statutory percentage deductible under the Program for terrorism losses. (That deductible determines the amount of all certified terrorism losses we must pay in a calendar year, before the federal government shares in subsequent payment of certified terrorism losses.); or

      (2) Decrease the federal government's statutory percentage share in potential terrorism losses above such deductible; or

      (3) Redefine terrorism or make insurance coverage for terrorism subject to provisions or requirements that differ from those that apply to other types of events or occurrences under this policy.

   The Program is scheduled to terminate at the end of December 31, 2007 unless renewed, extended or otherwise continued by the federal government.

2. If the provisions of this endorsement become applicable, such provisions:

   a. Supersede any terrorism endorsement already endorsed to this policy that addresses "certified acts of terrorism" and/or "other acts of terrorism", but only with respect to an incident(s) of terrorism (however defined) which results in injury or damage that occurs on or after the date when the provisions of this endorsement become applicable (for claims made policies, such an endorsement is superseded only with respect to an incident of terrorism (however defined) that results in a claim for injury or damage first being made on or after the date when the provisions of this endorsement become applicable); and

   b. Remain applicable unless we notify you of changes in these provisions, in response to federal law.

3. If the provisions of this endorsement do NOT become applicable, any terrorism endorsement already endorsed to this policy, that addresses "certified acts of terrorism" and/or "other acts of terrorism", will continue in effect unless we notify you of changes to that endorsement in response to federal law.

B. The following definitions are added and apply under this endorsement wherever the term terrorism, or the phrase any injury or damage, are enclosed in quotation marks:

1. "Terrorism" means activities against persons, organizations or property of any nature:

   a. That involve the following or preparation for the following:

      (1) Use or threat of force or violence; or

      (2) Commission or threat of a dangerous act; or

      (3) Commission or threat of an act that interferes with or disrupts an electronic, communication, information, or mechanical system; and

b. When one or both of the following applies:

(1) The effect is to intimidate or coerce a government or the civilian population or any segment thereof, or to disrupt any segment of the economy, or

(2) It appears that the intent is to intimidate or coerce a government, or to further political, ideological, religious, social or economic objectives or to express (or express opposition to) a philosophy or ideology.

2. "Any injury or damage" means any injury or damage covered under any Coverage Part or underlying insurance to which this endorsement is applicable, and includes but is not limited to "bodily injury", "property damage", "personal and advertising injury", "injury" or "environmental damage" as may be defined in any applicable Coverage Part or underlying insurance.

C. The following exclusion is added:

EXCLUSION OF TERRORISM

We will not pay for "any injury or damage" caused directly or indirectly by "terrorism", including action in hindering or defending against an actual or expected incident of "terrorism". "Any injury or damage" is excluded regardless of any other cause or event that contributes concurrently or in any sequence to such injury or damage. **But this exclusion applies only when one or more of the following are attributed to an incident of "terrorism":**

1. The "terrorism" is carried out by means of the dispersal or application of radioactive material, or through the use of a nuclear weapon or device that involves or produces a nuclear reaction, nuclear radiation or radioactive contamination; or

2. Radioactive material is released, and it appears that one purpose of the "terrorism" was to release such material; or

3. The "terrorism" is carried out by means of the dispersal or application of pathogenic or poisonous biological or chemical materials; or

4. Pathogenic or poisonous biological or chemical materials are released, and it appears that one purpose of the "terrorism" was to release such materials; or

5. The total of insured damage to all types of property exceeds $25,000,000. In determining whether the $25,000,000 threshold is exceeded we will include all insured damage sustained by property of all persons and entities affected by the "terrorism" and business interruption losses sustained by owners or occupants of the damaged property. For the purpose of this provision, insured damage means damage that is covered by any insurance plus damage that would be covered by any insurance but for the application of any terrorism exclusions; or

6. Fifty or more persons sustain death or serious physical injury. For the purposes of this provision, serious physical injury means:

   a. Physical injury that involves a substantial risk of death; or

   b. Protracted and obvious physical disfigurement; or

   c. Protracted loss of or impairment of the function of a bodily member or organ.

Multiple incidents of "terrorism" which occur within a 72 hour period and appear to be carried out in concert or to have a related purpose or common leadership will be deemed to be one incident, for the purpose of determining whether the thresholds in Paragraphs **C.5.** or **C.6.** are exceeded.

With respect to this Exclusion, Paragraphs **C.5.** and **C.6.** describe the threshold used to measure the magnitude of an incident of "terrorism" and the circumstances in which the threshold will apply, for the purpose of determining whether this Exclusion will apply to that incident. When the Exclusion applies to an incident of "terrorism", there is no coverage under this Coverage Part.

In the event of any incident of "terrorism" that is not subject to this Exclusion, coverage does not apply to "any injury or damage" that is otherwise excluded under this Coverage Part.

Allianz
Global Risks

EXCLUSION – VIOLATION OF STATUTES THAT GOVERN E-MAILS, FAX, PHONE CALLS OR OTHER METHODS OF SENDING MATERIAL OR INFORMATION

The following exclusion is added to SECTION V – EXCLUSIONS:

DISTRIBUTION OF MATERIAL IN VIOLATION OF STATUTES

This insurance does not apply to "bodily injury", "property damage", "personal injury" or "advertising injury" arising directly or indirectly out of any action or omission that violates or is alleged to violate:

(a) The Telephone Consumer Protection Act (TCPA), including any amendment of or addition to such law; or

(b) The CAN-SPAM Act of 2003, including any amendment of or addition to such law; or

(c) Any statute, ordinance or regulation, other than the TCPA or CAN-SPAM Act of 2003, that prohibits or limits the sending, transmitting, communicating or distribution of material or information.

All other terms and conditions remain unchanged.

Allianz
Global Risks

SILICA OR SILICA-RELATED DUST EXCLUSION

A. The following exclusion is added to the **Exclusions** Section

This insurance does not apply to:

Silica or Silica-Related Dust

a. "Bodily injury", "property damage", "personal injury", or "advertising injury" arising, in whole or in part, out of the actual, alleged, threatened or suspected inhalation of, ingestion of, contact with, exposure to, existence of, or presence of, "silica" or "silica-related dust".

b. Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "silica" or "silica-related dust", by any insured or by any other person or entity.

B. The following definitions are added to the **Definitions** Section:

1. "Silica" means silicon dioxide (occurring in crystalline, amorphous and impure forms), silica particles, silica dust or silica compounds.

2. "Silica-related dust" means a mixture or combination of silica and other dust or particles

All other terms and conditions remain unchanged.

Allianz
Global Risks

SCHEDULE OF UNDERLYING INSURANCE

It is agreed that this policy is excess over all underlying policies and any renewal or replacements thereof, as per schedule on file with the company. All Underlying Coverages and Limits are as listed below.

Insurer, Policy Number, Policy Period	Coverages	Limits
A. Allianz Global Risks US Insurance Company Policy No. CGL 2001699 Term 06/23/2006 to 01/01/2007	Commercial General Liability including Products-Completed Operations	General Aggregate Limit (Other than Products-Completed Operations): $2,000,000 Products-Completed Operations Aggregate Limit $1,000,000 Each Occurrence Limit: $1,000,000

Allianz
Global Risks

LIMITS INCLUSIVE OF SETTLEMENT COSTS ENDORSEMENT

THE LIMITS OF INSURANCE OF THIS POLICY ARE REDUCED BY THE PAYMENT OF "SETTLEMENT COSTS"
PLEASE READ THE ENTIRE ENDORSEMENT CAREFULLY

1. **Duty to Defend**

   Paragraph **A.** of Section **II – Defense** is amended as follows:

   Our duty to defend ends when we have used up the applicable limit of insurance in the payment of judgments, settlements or "settlement costs".

2. **Supplementary Payments**

   The last sentence of Paragraph 1. of Section **II.B. Supplementary Payments** is replaced by the following:

   Any payments we make are "settlement costs" and will reduce the applicable limits of insurance.

3. **Limits of Insurance**

   Paragraphs B., C. and D. of Section **III – Limits of Insurance** are replaced by the following:

   B. The General Aggregate Limit is the most we will pay for the sum of:

   1. All damages to which this insurance applies; and
   2. All "settlement costs" related to such damages.

   However, the General Aggregate Limit does not apply to:

   1. Damages and related "settlement costs" because of "bodily injury" or "property damage"
      a. Included in the "products-completed operations hazard"; or
      b. Arising out of the ownership, maintenance or use of a "covered auto"; or
   2. Damages covered by valid "scheduled underlying insurance" to which no aggregate limit of insurance applies; or
   3. Damages that would have been covered with no aggregate limit of insurance by "scheduled underlying insurance" but for the exhaustion of applicable limits of insurance.

   C. The Products-Completed Operations Aggregate Limit is the most we will pay for damages and related "settlement costs" because of "bodily injury" and "property damage" included in the "products-completed operations hazard".

   D. Subject to B. or C. above, whichever applies, the Each Occurrence Limit is the most we will pay for the sum of all damages and related "settlement costs" under this insurance because of all "bodily injury", "property damage", "personal injury" and "advertising injury" arising out of any one "occurrence".

4. **Additional Definition**

   The following is added to **Section IV – Definitions:**

   "Settlement costs" means all costs, expenses and interest we pay with respect to:

   1. The investigation or settlement of any claim made against an "insured"; or
   2. The defense of any "suit" brought against an "insured"; or
   3. The appeal of any judgment against an "insured".

All other terms and conditions remain unchanged.

Allianz
Global Risks

LIMITS OF LIABILITY AMENDATORY ENDORSEMENT

Paragraphs B., C., D. and E. of Section III – Limits of Insurance are replaced by the following:

B. The General Aggregate Limit is the most we will pay for the sum of all damages to which this insurance applies except:

1. Damages because of "bodily injury" or "property damage" arising out of the ownership, maintenance or use of a "covered auto"; or
2. Damages covered by valid "scheduled underlying insurance" to which no aggregate limit of insurance applies; or
3. Damages that would have been covered with no aggregate limit of insurance by "scheduled underlying insurance" but for the exhaustion of applicable limits of insurance.

C. The Products-Completed Operations Aggregate Limit does not apply, and all damages because of "bodily injury" and "property damage" included in the "products-completed operations hazard" are subject to the General Aggregate Limit described in Paragraph B. above.

D. Subject to B. above, the Each Occurrence Limit is the most we will pay for the sum of all damages under this insurance because of all "bodily injury", "property damage", "personal injury" and "advertising injury" arising out of any one "occurrence".

E. The General Aggregate Limit described in Paragraphs B. above applies separately to each consecutive annual period and to any remaining period of less than 12 months, starting with the beginning of the policy period shown in the Declarations, unless the policy period is extended after issuance for an additional period of less than 12 months. In that case, the additional period will be deemed part of the last preceding period for purposes of determining the Limits of Insurance.

All other terms and conditions remain unchanged.

Allianz
Global Risks

Policy Number: ULA 2001700
Effective Date: June 23, 2006

EXCLUSION - DESIGNATED ONGOING OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL UMBRELLA LIABILITY POLICY

It is hereby agreed that this policy does not afford coverage for bodily injury, property damage, advertising injury or personal injury arising out of the construction or construction management of the Richmond Airport Connector (RAC) also known as the Airport Feeder Road.

All other terms and conditions remain unchanged.

Allianz
Global Risks

Policy Number: ULA 2001700
Effective Date: June 23, 2006

EXCLUSION - LAW ENFORCEMENT ACTIVITIES

This endorsement modifies insurance provided under the following:

COMMERCIAL UMBRELLA LIABILITY POLICY

This insurance does not apply to "bodily injury", "property damage" or "personal and advertising injury" arising out of or caused by any act or omission resulting from law enforcement activities of a police department or any other law enforcement agencies including their agents or "employees".

All other terms and conditions remain unchanged.

Allianz
Global Risks

Policy Number: ULA 2001700
Effective Date: June 23, 2006

NAMED INSURED ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL UMBRELLA LIABILITY POLICY

It is agreed that the Named Insured shown on the Declarations Page is amended to read

Transurban (890) LLC -- Permit / Concession holder entity for Pocahontas Parkway
Transurban (895) Holdings Inc
Transurban (895) Finance Inc
Transurban (895) US Holdings LLC

TAB 6

Excess Liability – USD19,000,000
AIG

AMERICAN INTERNATIONAL UNDERWRITERS
175 Water Street, New York, NY 10038

DATE: June 22, 2006

Attention: Laura Russo:
Senior Client Specialist
GSU ARS, Inc of Maryland
199 Water Street, New York, NY 10038
laura_russo@ars.aon.com
Phone: 212 479 3807

Re: **EXCESS FOLLOW FORM OCCURRENCE REVISED BINDER**

Dear Laura :

We are pleased to offer our proposal for the captioned account:

Insured's Name:	Transurban (USA) Inc
Insured's Address:	405 Lexington Avenue, 43rd Floor, New York NY, 10017
Policy Period:	June 23, 2006 to December, 31 2006
Carrier:	**NATIONAL UNION FIRE INSURANCE COMPANY OF PITTSBURGH, PA.**
Policy Form:	60225 (10/04) and attachments
Policy Number:	**8788336**
Limits:	US$19,000,000 Each Occurrence US$19,000,000 Annual Aggregate (as defined in First Underlying Insurance Policy)
Excess of:	US$30,000,000 Each Occurrence US$30,000,000 Annual Aggregate which, in turn, is excess of primaries
Additional Comments:	In the event of reduction or exhaustion of scheduled underlying insurance and any applicable other insurance by the payment of loss to which this policy applies, we will pay excess of the remaining applicable limits of scheduled underlying insurance and any applicable other insurance or excess of a US$2,000,000 Each and Every Occurrence Indemnity Only Self Insured Retention, whichever is greater.
Policy Premium:	US$39,770
Commission:	NIL
Taxes / Surcharges / Fees:	If any state taxes or surcharges are applicable, they will be in addition to the quoted premium.
Audit:	Exposure Base: Flat Rated Estimated Annual Exposure: Flat Rated Rate Basis: Flat Rated Rate: Flat Rated

Terms and Conditions:

1. Premium payment is due within thirty (30) days of binding.
2. Underlying Carrier(s) must be rated A- VII or better by Best.
3. **Quotations are subject to confirmation that no layer above ours has an equal or greater premium per million than this layer.**
4. **This quotation is subject to best market terms, conditions and pricing. AIG is to be no broader than any underlying layer.**
5. The coverage afforded includes a premium charge for Terrorism of $3,182 that is included in the total premium above.

Subjectivities:

1. **This quotation is subject to receipt, review and acceptance of all intervening layers prior to binding.**

Scheduled Underlying Insurance:

First Underlying Insurance Policy	Term	Applicable Limits
Allianz, Policy # CGL 2001699	06/23/2006 to 12/31/2006	US$1,000,000 Each Occurrence US$2,000,000 General Aggregate US$1,000,000 Products / Completed Operations Aggregate
Other Underlying Insurance	**Term**	**Applicable Limits**
Allianz, Policy # UMA 2001700	06/23/2006 to 12/31/2006	US$30,000,000 Each Occurrence US$60,000,000 Annual Aggregate, which is excess of the above described Layer

For a complete description of coverage, please review the Policy's Terms, Restrictions & Limitations. Please note that the Policy is amended by the following Attachments.

Attachments:

- EXCESS LIAB. DEC., Form # 60226 (10/04)
- EXCESS LIAB. POLICY FORM, # 60225 (10/04)
- NEW YORK STATE AMENDATORY ENDORSEMENT, Form # 68793 (10/97)
- CHANGES IN FOLLOWED POLICY ENDMT, Form # 86383 (08/04)
- AMENDMENT OF CANCELLATION ENDT. (90 Days), MNSCPT
- ACT OF TERRORISM RETAINED LIMIT ENDORSEMENT, MNSCPT
- ECONOMIC OR TRADE SANCTIONS CONDITION ENDORSEMENT, Form # 87070 (11/04)
  VIOLATION OF COMM. OR INFORMATION LAW EXCL. END., Form # 89057 (04/05)
- CROSS SUITS EXCLUSION, Form # 60441 (5/94)
- ADDITIONAL NAMED INSUREDS ENDORSEMENT, Form # 87156 (12/04)
  - Transurban (USA) Development Inc
  - Transurban (USA) Holdings Inc
  - Transurban (895) LLC – Permit / Concession holder entity for Pocahontas Parkway
  - Transurban (895) Holdings Inc.
  - Transurban (895) Finance Inc.
  - Transurban (895) US Holdings LLC

  ADDITIONAL INSURED ENDORSEMENT, Form # 57699 (6/93)
  - The Virginia Department of Transportation
  - Wells Fargo in its capacity as Collateral Agent under the Collateral Agency Agreement
  - Lenders party to the Loan Agreement with Transurban (895) US Holdings LLC

  All for their respective interests.

- DESIGNATED OPERATIONS COVERAGE LIMITATION ENDORSEMENT, MNSCPT
  - Concession for the Pocahontas Parkway, Virginia, USA

  DESIGNATED WORK EXCLUSION ENDORSEMENT, MNSCPT
  - Construction of Richmond Airport Feeder Road
- SELF-INSURED RETENTION APPLICABLE AFTER UNDERLYING LIMITS ARE REDUCED OR EXHAUSTED ENDORSEMENT (US$2,000,000 Each and Every Occurrence – Indemnity Only), MNSCPT
- SPECIFIC COVERAGE EXCLUSION, MNSCPT – "It is understood and agreed that coverage as provided by this policy does not apply to Business Interruption. It is further understood and agreed that this policy does not recognize depletion or exhaustion of underlying limits as a result of payment of losses that are not covered by this policy. All other terms and conditions of this policy remain unchanged".

Terrorism Disclosure statement:

You are hereby notified that under the federal Terrorism Risk Insurance Act of 2002 (the "Act") effective November 26, 2002, you now have a right to purchase insurance coverage for losses arising out of an Act of Terrorism, which is defined in the Act as an act certified by the Secretary of the Treasury (i) to be an act of terrorism, (ii) to be a violent act or an act that is dangerous to (A) human life; (B) property or (C) infrastructure, (iii) to have resulted in damage within the United States, or outside of the United States in case of an air carrier or vessel or the premises of a U.S. mission and (iv) to have been committed by an individual or individuals acting on behalf of any foreign person or foreign interest, as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States Government by coercion. You should read the Act for a complete description of its coverage. The Secretary's decision to certify or not to certify an event as an Act of Terrorism and thus covered by this law is final and not subject to review. There is a $100 billion dollar annual cap on all losses resulting from Acts of Terrorism above which no coverage will be provided under this policy and under the Act unless Congress makes some other determination.

For your information, coverage provided under this proposal or binder for losses caused by an Act of Terrorism may be partially reimbursed by the United States under a formula established by the Act. Under this formula the United States pays 90% of terrorism losses covered by this law exceeding a statutorily established deductible that must be met by the insurer, and which deductible is based on a percentage of the insurer's direct earned premiums for the year preceding the Act of Terrorism.

This binder letter is predicated upon the understanding that the submitted information is accurate, the loss information includes total incurred losses ground up and that the losses have not been capped. The terms & conditions of this acceptance of risk of Umbrella or Excess coverage may be attended should there be discovery of a material change to the submitted information.

This binder contains only a general description of the coverages provided. For a detailed description of the terms of a policy, you must refer to the policy itself.

****IMPORTANT POLICY ISSUANCE VERIFICATION****

Our policy will be issued based upon the information displayed in this document. We ask that you thoroughly review this information (including the Name Insured and Address) to ensure it is correct. Your careful review and timely advice if correction is needed will help us to provide you with an accurate policy at the time of issuance.

This binder includes certain information regarding the terms and conditions of the policy. If there is any conflict between the terms and conditions stated in this binder and the terms and conditions of the policy when issued, the terms and conditions of the policy shall govern.

Thank you for selecting A.I.G. as a market for your business. Please call with any questions you may have.

Regards.

Nicolas Berg, ARM, AU
Senior Underwriter
AIU Excess Casualty
Tel: 212-458-2731

TAB 7

DIC Liability – USD50,000,000
Allianz and AIG

It is hereby declared and agreed that with effect [illegible]
Policy No 99 00003[illegible]

TERRITORIAL [illegible]

Underlying local policies have been issued to the Insured [illegible]
Clause, which shall constitute part of this Programme

a. Except as listed in Exclusions herein, should any underlying local policy [illegible] of cover or definitions [illegible] or part the Company will [illegible] Policy subject to its terms [illegible] provided by the underlying local policy [illegible] policy had the same terms conditions limitation [illegible]

b. The Company will indemnify the Insured to the extent that the [illegible] Policy exceeds the limit of indemnity under any underlying local policy [illegible]

i. where the limit of indemnity under the underlying local [illegible] expenses the Limit of Indemnity hereunder shall be [illegible] compensation claimants costs and expenses [illegible]

ii. the indemnity provided by the Company for [illegible] and expenses shall be limited to that proportion [illegible] Policy excluding [illegible] underlying local policy [illegible]

Provided that

A. the underlying local policies issued in the territories listed in Schedule [illegible] be maintained in force without reduction or restriction [illegible]

B. all payments made under this Policy [illegible] Clause constituting part of this Programme [illegible] Indemnity specified in the Policy Schedule

C. notwithstanding the number of [illegible] aggregate liability of the Company under this Policy [illegible] Limit of Indemnity specified in the Policy Schedule

D. where the Company is by law or circumstance outside its control [illegible] the Insured locally all claims for which the Company [illegible] be paid in Australia

E. where any amounts paid by the Company under any local policy as specified [illegible] the Clause constituting part of this Programme [illegible] amounts shall be recoverable from the Insured.

The territories over which [illegible] as follows.

Schedule A Policies issued in these territories [illegible] Group of Companies constitute part of this Programme

Territory

United States of America

Endorsements

Non-accumulation

In the event of a claim or series of claims arising out of the [illegible] originating cause in respect of which the Insured is entitled to indemnity under the policy (ies) shown below or any other policy issued by [illegible] behalf of companies within the Alliance Group [illegible] policies are in existence the maximum liability of the Company under all such policies shall be the highest limit of liability under any of the said policies. In no event shall the limit of liability under such policies be cumulative.

1. Combined General Liability Policy COL 2021699 issued to Transurban (295) LLC – Permit/Concession [illegible] Parkway
2. Umbrella Liability Policy ULA 2001700 issued to Transurban (295) LLC – Permit/Concession [illegible] for Pocahontas [illegible]
3. Commercial Liability Policy 99 [illegible] issued to Transurban Group.
4. Commercial Umbrella Liability Insurance Policy [illegible] issued to Transurban Group

Exclusions

United States of America

1. Difference in Condition [illegible] indemnity
2. Differences in Deductible or Self Insured Retention
3. Employers' Liability
4. Workers' Compensation
5. Employment Related Practices
6. Non owned automobile liability for parties other than [illegible] (295) LLC – Permit/Concession [illegible]
7. Fungi or bacteria
8. Law enforcement activities
9. Silica or silica dust related claims
10. Business interruption losses caused in excess of [illegible] Interruption Policy Nos US [illegible] AU00231405PROSA/[illegible] and [illegible]
11. Construction of Airport Feeder Road
12. TRIA and or any other terrorism, protection

Special Clause

It is noted that in respect of Pocahontas Parkway, the indemnity limit afforded by this policy for Difference in Conditions coverage only shall be US$1,000,000 each Occurrence and US$2,000,000 in the aggregate.

In all other respects the Policy remains unaltered.

Alliance Australia Insurance Limited [illegible]

Dated 27/04/98

It is hereby declared and agreed that with effect December 31 2001 the [illegible] Policy No 89 [illegible]

TERRITORIAL DIFFERENCE [illegible]

Underlying local policies have been issued to the Insured in the territories [illegible] Clause, which shall constitute part of this Programme

a. Except as listed in Exclusions herein, should any underlying local policy by [illegible] of cover or definitions or conditions or limits of liability [illegible] or part the Company will [illegible] Policy subject to its terms conditions and limitations [illegible] provided by the underlying local policy but which would [illegible] policy had the same terms conditions limitations and exclusions as this Policy

b. The Company will indemnify the Insured to the extent that the Limit of Indemnity under the Policy exceeds the limit of indemnity under any [illegible]

i. where the limit of indemnity under the underlying [illegible] expenses the Limit of [illegible] compensation claimants costs and expenses and other [illegible] expenses

or

ii. the indemnity provided by the Company for [illegible] and expenses shall be limited to that proportion [illegible] Policy excluding all such costs and expenses [illegible] underlying local policy and this Policy [illegible]

Provided that:

A. the underlying local policies issued in the territories listed in Schedule A of this Clause [illegible] be maintained in force without reduction or restriction in cover

B. all payments made under this Policy and under local policies specified in [illegible] Clause constituting part of this Program [illegible] indemnity specified in the Policy Schedule

C. notwithstanding the number of separate insurance under all underlying [illegible] aggregate liability of the Company under this Policy to the [illegible] Limit of Indemnity specified in the Policy Schedule

D. where the Company is by law or circumstance [illegible] the Insured [illegible] be paid in Australia

E. where any amounts paid by the Company under any other policy [illegible] this Clause constituting part of this Program [illegible] amounts shall be recoverable from the Insured

The territories over which this Difference [illegible] as follows

Schedule A. Policies issued in these territories [illegible] Group of Companies constitute part of this Programme

Territory

United States of America

Endorsements

Non-accumulation.

In the event of a claim or series of claims arising out of the [illegible] source or originating cause in respect of which the Insurer is entitled to [illegible] under the policy (ies) shown below or any other policy [illegible] behalf of companies within the Allianz Group, notwithstanding that separate policies are in existence the maximum liability of the Company under all such policies shall be the highest limit of liability under any of the said policies. In no event shall the limit of liability under [illegible] be cumulative.

1. Combined General Liability Policy CGL [illegible] issued to Transurban (895) LLC – Permit/Concession Holder for [illegible] Parkway
2. Umbrella Liability Policy ULA 2007[illegible] issued to Transurban (895) LLC – Permit/Concession Holder for Pocahontas Parkway
3. Commercial Liability Policy [illegible] Group
4. Commercial Umbrella Liability Insurance Policy [illegible] issued to Transurban Group

Exclusions

United States of America

1. Difference in conditions indemnity in excess of aggregate limit of indemnity.
2. Differences in Deductible or Self Insured Retention
3. Employers' Liability
4. Workers' Compensation
5. Employment Related Practices
6. Non owned automobile liability for [illegible] (895) LLC – Permit/Concession holder for Pocahontas Parkway
7. Fungi or bacteria
8. Law enforcement activities
9. Silica or silica dust related claims
10. Business interruption losses unless [illegible] Interruption Policy Nos [illegible] AU[illegible]
11. Construction of Airport Feeder Road
12. TRIA and/or any other terrorism protection

Special Clause

It is noted that in respect of Permanent [illegible] afforded by this policy for Difference in Conditions coverage only shall be US$[illegible],000,000 each Occurrence and US$[illegible],000,000 in the aggregate.

In all other respects the policy [illegible] as [illegible]

Allianz Australia Insurance Limited [illegible]

Dated 27/06/[illegible]

American Home Assurance Company
ABN 87 007 483 267
(Incorporated with Limited Liability in USA)
A Member Insurance Company of American International Group

549 St Kilda Road
Melbourne,
Victoria, 3004.
Telephone (03) 9522 4000
Facsimile (03) 9522 4014

SCHEDULE INCORPORATED IN POLICY NO: 90245

INSURED : (a) TRANSURBAN GROUP, WHICH CONSISTS OF:
TRANSURBAN HOLDINGS LIMITED (ABN 86 098 43 429)
TRANSURBAN INFRASTRUCTURE MANAGEMENT LIMITED (ABN 27 098 147 678) (AS RESPONSIBLE ENTITY OF TRANSURBAN HOLDING TRUST) (ABN 30 169 362 255
TRANSURBAN LIMITED (FORMALLY TRANSURBAN INFRASTRUCTURE DEVELOPMENTS LIMITED) (ABN 96 098 143 410)
AND ALL SUBSIDIARY COMPANIES APPEARING NOW OR HEREAFTER ACQUIRED THROUGHOUT THE PERIOD OF INSURANCE.

(b) THE CROWN IN THE RIGHT OF STATE OF VICTORIA; VICTORIAN GOVERNMENT AGENCIES

(c) ROADS AND TRAFFIC AUTHORITY OF NEW SOUTH WALES (ONLY IN RESPECT TO DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE OF THE M2 HILLS MOTORWAY)

(d) TRANSLINK OPERATIONS PTY LTD – IN RESPECT TO OPERATIONS OF CITYLINK

TRANSFIELD SERVICE (AUSTRALIA) PTY LTD – IN RESPECT TO MAINTENANCE OF CITY LINK.

ADDRESS : C/- BROKER

BUSINESS : PRINCIPALLY,
(a) OWNERS AND OPERATORS OF THE MELBOURNE CITY LINK PROJECT AND EXHIBITION STREET PROJECT;
(b) OWNERS, LESSORS, LICENSEES AND OPERATORS OF THE M2 HILLS MOTORWAY;
(c) ANY ACTIVITY WHERE THE INSURED IS DEEMED TO BE THE MANUFACTURE OF ANY PRODUCT;
(d) DEVELOPERS AND SUPPLIERS OF TOLLING TECHNOLOGY (ROAM); AND
(e) ALL ACTIVITIES ASSOCIATED THEREWITH AND ANY OTHER ACTIVITY INCIDENTAL THERETO.

PERIOD OF INSURANCE : From: 31st DECEMBER, 2005
To: 31st DECEMBER, 2006 At 4.00pm Local Standard Time

LIMIT OF INDEMNITY : **PUBLIC LIABILITY**
$100,000,000 EXCESS OF $40,000,000
ANY ONE OCCURRENCE

PRODUCTS LIABILITY
$100,000,000 EXCESS OF $40,000,000
IN THE AGGREGATE ANY ONE PERIOD OF INSURANCE

PREMIUM:	$130,000.00
STAMP DUTY:	$ 13,913.00
TOTAL (EXCLUDING GST)	$143,913.00
GST:	$ 13,000.00
TOTAL	$156,913.00

SCHEDULE OF PRIMARY

UMBRELLA INSURANCE: ALLIANZ AUSTRALIA INSURANCE LIMITED
COMMERCIAL UMBRELLA LIABILITY POLICY
POLICY NO: 99 C000333 LGR
LIMIT OF LIABILITY: $30,000,000 EXCESS OF UNDERLYING LIMIT OF POLICIES DESCRIBED IN THE ALLIANZ SCHEDULE OF UNDERLYING INSURANCE

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ENDORSEMENT NO. 1

This endorsement, effective from 31st December 2005 at 4.00 PM,
forms a part of Policy No. 90745
Issued to TRANSURBAN GROUP
By AMERICAN INTERNATIONAL GROUP

It is hereby noted and agreed that the following additional exclusions are added to this policy:

This policy shall not apply:

(1) To liability directly or indirectly occasioned by, happening through or in consequence of war, invasion, acts of foreign enemies, hostilities (whether war be declared or not), civil war, civil commotion, factional civil commotion, rebellion, revolution, insurrection, military or usurped power or confiscation, nationalisation, requisition, destruction of or damage to property by or under the order of any government or public or local authority.

(2) To Property Damage, Personal Injury or Advertising Liability arising directly or indirectly as a result of or in connection with Terrorism including, but not limited to, any contemporaneous or ensuing Property Damage, Personal Injury or Advertising Liability caused by fire, looting or theft.

Terrorism means the use or threatened use of force or violence against person or property, or commission of an act dangerous to human life or property, or commission of an act that interferes with or disrupts an electronic or communication system, undertaken by any person or group, whether or not acting on behalf of or in connection with any organisation, government, power, authority or military force, when the effect is to intimidate or coerce a government, the civilian population or any segment thereof, or to disrupt any segment of the economy.

Terrorism shall also include any act which is verified or recognised by the government of any country in which the insured operates or exports products into, as an act of terrorism.

(3) To liability for mesothelioma, asbestosis or to any disease, loss of use of property, damage to property (including consequential loss) arising directly or indirectly out of or in connection with or in consequence of

1. Inhaling, ingesting or physical exposure to asbestos or goods or products containing asbestos; or
2. The use of asbestos in constructing or manufacturing any goods, product or structure; or
3. The removal of asbestos from any goods, product or structure; or
4. The manufacture, sale, transportation, storage or disposal of asbestos or goods or products containing asbestos.
5. The presence of asbestos in any building.

The coverage afforded by this policy does not apply to payment for the investigation or defence of any loss, injury or damage or any cost, fine or penalty or for any expense or claim or suit related to any of the above.

(4) To any liability directly or indirectly caused by or alleged to be caused by or contributed to, in whole or in part, by or arising out of the presence, ingestion, inhalation or absorption of or exposure to silica products, silica fibers, silica dust or silica in any form, or to any obligation of the insured to indemnify any party because of Personal Injury or Property Damage arising out of the presence, ingestion, inhalation or absorption of or exposure to silica products, silica fibers, silica dust or silica in any form.

All other terms and conditions of this policy remain the same.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ENDORSEMENT NO. 2

This endorsement, effective from 31st December 2005 at 4.00 PM,
forms a part of Policy No. 90245
Issued to TRANSURBAN GROUP
By AMERICAN INTERNATIONAL GROUP

It is hereby noted and agreed that the following additional exclusion is added to this policy:

This policy shall not apply:

(1) To liability arising out of the rendering of or failure to render professional advice or service by the Insured or any error or omission connected therewith, but this exclusion 2 (1) does not apply to:
(a) Personal Injury or Property Damage arising therefrom, or
(b) the rendering of or failure to render professional medical advice by Medical Persons employed by the Insured to provide first aid and other medical services on the Insured's premises.

(2) To liability arising solely out of the provisions of Allianz Australia Limited Commercial Umbrella Liability policy Endorsement Number Two – Additional Policy Condition.

All other terms and conditions of this policy remain the same.

American Home Assurance Company
ABN 67 007 483 267
(Incorporated with Limited Liability in USA)
A Member Insurance Company of American International Group
549 St Kilda Road, Melbourne Victoria, 3004.
Tel: (613) 9522 4000 Fax: (613) 9522 4014

EXCESS LIABILITY POLICY

A. **WHEREAS**, the Primary Umbrella Insurers have issued to the Insured named herein, a policy or policies of Liability Insurance (hereinafter called the "Primary Umbrella Insurance") copy/ies of which has/have been lodged with the Company.

B. **NOW, THE AMERICAN HOME ASSURANCE COMPANY** (referred to herein as "the Company") agrees to indemnify the Insured, in accordance with the terms, conditions and exclusions of the Primary Umbrella Insurance except where amended by this Policy or by endorsement hereto.

C. **PROVIDED** that the Company shall only be liable after the exhaustion of the limit of liability under the applicable Primary Umbrella Insurance and then only up to the Limit of Indemnity specified in the Schedule.

D. Notwithstanding anything in this Policy or in the Primary Umbrella Insurance to the contrary, the Company shall not be obligated to assume charge of the settlement or defence of any claim or suit brought or proceeding instituted against the Insured, but the Company shall have the right and be given the opportunity to associate with the Insured in the defence or control of any claim, suit or proceeding which appears reasonably likely to involve the Company, in which event the Insured and the Company shall co-operate in all things, in the defence or control of such claim, suit or proceeding, but no obligation shall be incurred on behalf of the company without its consent being first obtained, however in the event that the amount of the excess loss becomes certain either through trial, court judgement or agreement between the Insured, the claimant and the Company, then the Insured may pay the amount of excess loss to the claimant to effect settlement and, upon submission of due proof thereof, the Company will indemnify the Insured for such payment, or the Company will upon request of the Insured, pay such amount to the claimant on behalf of the Insured.

E. The insurance afforded by this Policy shall not apply to any expenses for which insurance is provided in the Primary Umbrella Insurance.

F. It is a condition of this Policy that the Primary Umbrella Insurance shall be maintained in full effect during the currency of this Policy except for any reduction of the limits contained therein by payment of claim or claims.

G. This Policy may be cancelled at any time at the request of the Insured in which case the Company will retain premium calculated at the Company's short period rate for the time the Policy has been in force. The Company may cancel the Policy in accordance with the Insurance Contracts Act 1984 (as amended).

IN WITNESS WHEREOF, this Policy has been signed on behalf of the Company on the date stated herein.

AMERICAN HOME ASSURANCE COMPANY

DATED: [illegible]

ENDORSEMENT ATTACHING TO POLICY NO. 90245 FOR TRANSURBAN GROUP AND TRANSURBAN HOLDINGS LIMITED AND OTHERS AS PER THE POLICY SCHEDULE.

Effective date of this endorsement is June 23rd, 2006

Notwithstanding anything to the contrary contained herein this policy applies in respect to the premises and operations of the Named Insured and/or any subsidiary companies which are subject to any judgment, award or settlement made within the legal jurisdiction of the United States of America and/or Canada, but shall not apply to:-

Liability for:

1. any Personal Injury, Property Damage or Advertising Liability arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of Pollutants anywhere at any time;

2. Any loss, cost or expense arising out of any request, demand, order or statutory or regulatory requirement that the Insured or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to, or assess the effects of Pollutants; or

3. Any loss, cost or expense arising out of any claim by or on behalf of a governmental authority for damages because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing or in any way responding to, or assessing the effects of Pollutants.

This exclusion does not apply if such discharge, dispersal, release or escape meets all four of the following conditions:

1. the discharge, dispersal, release or escape must be neither expected nor intended by the Insured, and

2. the beginning of the discharge, dispersal, release or escape must take place during the policy period, and

3. the discharge, dispersal, release or escape must be physically evident to the Insured or other parties within seventy two (72) hours of the beginning of the discharge, dispersal, release or escape, and

4. the initial Personal Injury, Property Damage or Advertising Liability caused by the discharge, dispersal, release or escape must ensue within seventy two (72) hours of the beginning of the discharge, dispersal, release or escape.

The term release includes, but is not limited to any of the following: spilling, leaking, pumping, pouring, emitting, emptying, injection, dumping or disposing.

If the Insured and the company should disagree with regard to when a discharge, dispersal, release or escape begins or becomes evident, the burden of proving that all four (4) enumerated conditions are met rests with the Insured, at the Insured's own expense. Until such proof is accepted by the company, the company may, but is not obligated to, defend any claim.

It is further agreed that in respect of any judgement, award or settlement made within the legal jurisdiction of the United States of America and/or Canada:-

(i) that the Limits of Liability are inclusive of and not in addition to all defence, investigation, negotiation, expense and other Supplementary Payments covered under this policy.

(ii) that should any dispute arise between the Insured and the Company over the application of this policy, such dispute shall be determined in accordance with the law and practice of the Commonwealth of Australia.

For the purposes of this endorsement, Pollutants means any solid, liquid, gaseous or thermal irritant or contaminant including smoke, vapour, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.

Subject otherwise to the terms, conditions and exclusions of the Policy.

AUTHORISED SIGNATORY

TERRITORIAL DIFFERENCE IN CONDITIONS CLAUSE

Underlying local policies have been issued to the Insured in the territories listed in Schedule A of this Clause, which shall constitute part of this Programme

a. Except as listed in Exclusions herein, should any underlying local policy by virtue of its scope of cover or definitions or conditions or limits of liability not indemnify the Insured in whole or part the Company will indemnify the Insured against legal liability as defined in this Policy subject to its terms conditions and limitations to the extent that such indemnity is not provided by the underlying local policy but which would have been provided had such local policy had the same terms conditions limitations and exclusions as this Policy.

b. The Company will indemnify the Insured to the extent that the Limit of Indemnity under this Policy does not exceed US$19,000,000 any one occurrence and in the aggregate provided that

   i. where the limit of indemnity under the underlying local policy includes legal costs and expenses the Limit of Indemnity hereunder shall be inclusive of the amount of all compensation claimants costs and expenses and other costs and expenses.
   and
   ii. the indemnity provided by the Company for claimants costs and expenses and other costs and expenses shall be limited to that proportion which the amount payable under this Policy excluding all such costs and expenses bears to the total sum payable under the underlying local policy and this Policy excluding all such costs and expenses

Provided that

A. the underlying local policies issued in the territories listed in Schedule A of this Clause shall be maintained in force without reduction or restriction in cover

B. all payments made under this Policy and under local policies specified in Schedule A of this Clause constituting part of this Programme shall be counted in diminution of the Limit of Indemnity specified in the Policy Schedule

C. notwithstanding the number of separate insureds under all underlying local policies the aggregate liability of the Company under this Policy to the Insured shall not exceed US$19,000,000 any one occurrence and in the aggregate as detailed in b. above

D. where the Company is by law or circumstance outside its control prevented from indemnifying the Insured locally all claims for which the Company accepts liability under this Clause will be paid in Australia

E. where any amounts paid by the Company under any local policy as specified in Schedule A of this Clause constituting part of this Programme exceed the Limit of Indemnity, all such excess amounts shall be recoverable from the Insured.

The territories over which this Difference in Conditions Clause shall operate are as follows:

Schedule A Policies issued in these territories by or on behalf of the Company or the American Home Assurance Company Group constitute part of this Programme

Territory	Effective Date
United States of American	June 23 2006

The National Union Fire Insurance Company of Pittsburgh US$19,000,000 any one occurrence and in the aggregate which is in excess of an Umbrella Liability Policy issued by the Allianz Group of Companies for a Limit of Liability of US$30,000,000 any one occurrence and US$60,000,000 in the aggregate which is in excess of a Primary Policy issued by Allianz Group of Companies for a Limit of Liability of US$1,000,000 any one occurrence and in the aggregate.

Endorsements

Non-accumulation.
In the event of a claim or series of claims arising out of the one source or originating cause in respect of which the Insured is entitled to indemnity under the policy (ies) shown below or any other policy issued by or on behalf of companies within the American Home Assurance Company Group, notwithstanding that separate policies are in existence the maximum liability of the Company under all such policies shall be the highest limit of liability under any of the said policies. In no event shall the limit of liability under such policies be cumulative.

1. Excess Umbrella Liability Policy 8766336 issued by The National Union Fire Insurance Company of Pittsburgh issued to Transurban (895) LLC – Permit/Concession holder for Pocahontas Parkway.

2. Excess Umbrella Liability Insurance Policy 90245 issued by American Home assurance Company to Transurban Group.

Exclusions

United States of America

1. Difference in conditions indemnity in excess of aggregate limits of indemnity.
2. Differences in Deductible or Self Insured Retention.
3. Employers' Liability
4. Workers' Compensation
5. Employment Related Practices
6. Non-owned automobile liability for parties other than Transurban (895) LLC – Permit/Concession holder for Pocahontas Parkway
7. Fungi or bacteria
8. Law enforcement activities
9. Silica or silica dust related claims
10. Construction of Airport Feeder Road
11. TRIA and or any other terrorism protection
12. Maintenance Deductible US$2,000,000 each and every claim only to apply where the Policy acts as primary insurance after exhaustion of any underlying limits

AIG

AUTHORISED SIGNATORY

TAB 8
Directors and Officers Liability – USD5,000,000
Various Insurers (Letter from Willis)

Willis

15 June 2006

Telephone: +61 3 8635 2600
Fax: +61 3 8635 2679
Website: www.willis.com

Direct Line: 03 8635 2614
Direct Fax: 03 8635 2679
Email: sisong@willis.com

David Lyons
Transurban Limited
Level 43
Rialto South Tower
525 Collins Street
MELBOURNE VIC 3000

Dear David,

Directors & Officers Liability Insurance
Transurban Limited

This letter confirms that Willis Australia Limited are the appointed Insurance Broker and Risk Adviser to Transurban Limited and its Subsidiary Companies in respect to the Directors & Officers Liability Insurance.

As such, we ensure the adequacy of their insurance programme in accordance to our client's requirements and instructions. Specifically, we confirm that cover is afforded in the United States of America with respect to the acquisition of Pocahontas Parkway on 23 June 2006.

In this regard, we confirm the following with respect to the above insurance.

Policy Holder:	Transurban Limited Transurban Holdings Limited Transurban Infrastructure Management Limited And all subsidiaries and controlled entities
US Subsidiaries covered:	Transurban (895) LLC Transurban (895) Holdings Inc Transurban (895) Finance Inc Transurban (895) US Holdings LLC
Policy Limit:	AUD $100,000,000 any one claim and in the aggregate
Period of Insurance:	31 December 2005 to 31 December 2006 at 4.00pm
Territorial/Jurisdictional Limits:	Worldwide
Insurers:	American Home Assurance Company Chubb Insurance Company of Australia Limited ACE Insurance Limited QBE Insurance (Australia) Limited

Willis Australia Ltd
A Willis Company - ACN 409 321 237
Level 15, 575 Bourke Street
MELBOURNE VIC 3000
GPO Box 958C Melbourne VIC 3001

Policy Coverage:

A) Executive Liability	- Covered
B) i) Organisation Liability	- Covered
a) Securities claim	With regard to the US Risk, cover is provided with respect to the senior bank debt raising for the Pocahontas Parkway acquisition on 23 June 2005 only
b) Oppressive Conduct	- Not covered
c) Pollution Claim	- Pollution Exclusion applies; however, Defence Costs are payable up to AUD $30 000 000 in the aggregate
ii) Indemnification of an Insured Person	- Covered
C) Outside Entity Executive Liability	No USA Outside Entity listed on the current cover
D) Crisis Fund Insurance	- Covered up to AUD $50,000 in the aggregate

This confirmation of insurance is used as a matter of information only for the purpose of the Lender's requirements in respect of the Pocahontas Parkway debt finance. This confirmation of insurance does not amend, extend or alter the coverage afforded by the policies listed.

Yours sincerely,

Grace Sison
Account Manager
Professional Risks Practice