

5. ADMINISTRATIVE SETTLEMENTS

Anticipated % of Parcels Affected by Administrative Settlements :	0%
Anticipated Relative Cost Impact of Administrative Settlements :	
Approximate Number of Parcels Affected :	0
<i>Computed Cost of Administrative Settlements :</i>	<i>\$0</i>
Estimator's Total Cost of Administrative Settlements :	

6. CONDEMNATION INCREASES

Anticipated % of Parcels Affected by Condemnation Increases :	0%
Anticipated Relative Cost Impact of Condemnation Increases :	
Approximate Number of Parcels Affected :	0
<i>Computed Cost of Condemnation Increases :</i>	<i>\$0</i>
Estimator's Total Cost of Condemnation Increases :	

7. ADMINISTRATIVE COSTS & INCIDENTAL EXPENSES

Anticipated Relative Cost Impact of Admin. Costs & Incidental Expenses :	
<i>Computed Administrative Costs & Incidental Expenses :</i>	<i>\$0</i>
Estimator's Total Administrative Costs & Incidental Expenses :	

8. DEMOLITION CONTRACTS

Anticipated Relative Cost Impact of Demolition Contracts :	
<i>Computed Costs of Demolition Contracts :</i>	<i>\$0</i>
Estimator's Total Cost of Demolition Contracts :	

9. HAZARDOUS MATERIALS REMOVAL

Anticipated Number of Demolished Buildings Requiring Asbestos Removal :	
Anticipated Relative Cost of Asbestos Removal from Demolished Buildings :	
Anticipated Number of Other Hazardous Materials Removal Sites :	
Anticipated Relative Cost Impact of Other Hazardous Materials Removal :	
<i>Computed Cost of Hazardous Materials Removal :</i>	<i>\$0</i>
Estimator's Total Costs of Hazardous Materials Removal :	

10. PROPERTY MANAGEMENT

Anticipated Relative Cost Impact of Property Management :	
<i>Computed Costs of Property Management :</i>	<i>\$0</i>
Estimator's Total Cost of Property Management :	

TOTAL OTHER ITEMS (Items # 5 - 10) \$0 (Computed Costs)

11. RELOCATION ASSISTANCE**Residential Relocation Costs:**

Anticipated Relative Cost Impact of Residential Relocation Expenses :	
<i>Computed Residential Relocation Costs :</i>	<i>\$0</i>
Estimator's Total Residential Relocation Costs :	

Commercial Relocation Costs:

Note: No Computed Costs Available. Use User Defined Costs Below:

Estimator's Total Comm/Indust Relocation Costs :	\$0
---	------------

Total Displacements: Farms:
 Families: Non-Profit:
 Businesses: Personal Property Only:

TOTAL RELOCATION ASSISTANCE (Item # 11) \$0 (Computed Costs)

12. YEAR OF RIGHT-OF-WAY AUTHORIZATION

2015

SUB-TOTAL RIGHT-OF-WAY COSTS	(Computed Costs)	\$0	Totals
UTILITY COSTS TO RIGHT-OF-WAY PROJECT *		\$0	Include
TOTAL RIGHT-OF-WAY COSTS		\$0	Inflation

* Utility Data display requires completion of Utilities Estimate Worksheet (tab below)

COMMENTS:**RW-238 Data :**

Right-of-Way Estimate Date:

07/28/04

Based on Approved / Unapproved Plans ?

Unapproved Plans

Participating Cost / Non-Participating Cost ?

Today's Date:

11/16/05



Project Cost Estimating System UTILITIES ESTIMATE



A. ELECTRICAL

Transmission

	Computed or User	RW or Const	Type of Pole	No Entry Required	Number of Poles	Rural or Urban	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
A	Computed	RW					100%	\$0	\$0	\$0
B	Computed	RW					100%	\$0	\$0	\$0
C	Computed	RW					100%	\$0	\$0	\$0
D	Computed	RW					100%	\$0	\$0	\$0
								\$0	\$0	\$0

Distribution - Aerial

	Computed or User	RW or Const	Type of Pole	No Entry Required	Number of Poles	Rural or Urban	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
E	Computed	RW					100%	\$0	\$0	\$0
F	Computed	RW	Three Phase		0	Rural	50%	\$0	\$0	\$0
G	Computed	RW					100%	\$0	\$0	\$0
H	Computed	RW	Three Phase		0	Urban	100%	\$0	\$0	\$0
I	Computed	RW					100%	\$0	\$0	\$0
J	Computed	RW					100%	\$0	\$0	\$0
								\$0	\$0	\$0

Distribution - Underground - by Linear Foot

	Computed or User	RW or Const	Type of Service	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project	
K	Computed	RW				100%	\$0	\$0	\$0	
L	Computed	RW	Three Phase		0	50%	\$0	\$0	\$0	
M	Computed	RW				100%	\$0	\$0	\$0	
N	Computed	RW				100%	\$0	\$0	\$0	
								\$0	\$0	\$0

Distribution - Underground - by Pole Equivalent

	Computed or User	RW or Const	Equivalent Type of Pole	No Entry Required	Equiv. # of Poles	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project	
O	Computed	RW				100%	\$0	\$0	\$0	
P	Computed	RW				100%	\$0	\$0	\$0	
Q	Computed	RW				100%	\$0	\$0	\$0	
R	Computed	RW				100%	\$0	\$0	\$0	
								\$0	\$0	\$0

Distribution - Conduit for Underground Electrical

	Computed or User	RW or Const	Type of Service	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project	
S	Computed	RW				0%	\$0	\$0	\$0	
T	Computed	RW				100%	\$0	\$0	\$0	
								\$0	\$0	\$0

Distribution - Underground - Manholes

	Computed or User	RW or Const	Size / Price Range of Manhole	No Entry Required	Number of MH's	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project	
U	Computed	RW				100%	\$0	\$0	\$0	
V	Computed	RW				100%	\$0	\$0	\$0	
W	Computed	RW				100%	\$0	\$0	\$0	
X	Computed	RW				100%	\$0	\$0	\$0	
								\$0	\$0	\$0

Misc. Electrical Costs

Y	Misc. Electrical Costs Charged to RW Project:	<input type="text"/>	<table border="1"> <tr> <td>TOTAL ELECTRICAL</td> <td>Total to RW Proj</td> <td>Total to Const Proj</td> </tr> <tr> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$0</td> </tr> </table>	TOTAL ELECTRICAL	Total to RW Proj	Total to Const Proj	\$0	\$0	\$0
TOTAL ELECTRICAL	Total to RW Proj	Total to Const Proj							
\$0	\$0	\$0							
Z	Misc. Electrical Costs Charged to Const. Project:	<input type="text"/>							

B. TELEPHONE

Aerial - Copper Wire

	Computed or User	RW or Const	Type of Cable (Pair Cable)	No Entry Required	Number of Poles	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
A	Computed	RW				100%	\$0	\$0	\$0
B	Computed	RW	400		0	50%	\$0	\$0	\$0
C	Computed	RW				100%	\$0	\$0	\$0
D	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Aerial - Fiber Optic

	Computed or User	RW or Const	Type of Cable (Optical Fiber)	No Entry Required	Number of Poles	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
E	Computed	RW				100%	\$0	\$0	\$0
F	Computed	RW				100%	\$0	\$0	\$0
G	Computed	RW				100%	\$0	\$0	\$0
H	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Underground - Copper Wire

	Computed or User	RW or Const	Type of Cable (Pair Cable)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
I	Computed	RW				100%	\$0	\$0	\$0
J	Computed	RW				100%	\$0	\$0	\$0
K	Computed	RW				100%	\$0	\$0	\$0
L	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Underground - Fiber Optic

	Computed or User	RW or Const	Type of Cable (Optical Fiber)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
M	Computed	RW				100%	\$0	\$0	\$0
N	Computed	RW				100%	\$0	\$0	\$0
O	Computed	RW				100%	\$0	\$0	\$0
P	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Underground - Copper Wire - In Conduit

	Computed or User	RW or Const	Type of Cable (Pair Cable)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
Q	Computed	RW				100%	\$0	\$0	\$0
R	Computed	RW				100%	\$0	\$0	\$0
S	Computed	RW				100%	\$0	\$0	\$0
T	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Underground - Fiber Optic - In Conduit

	Computed or User	RW or Const	Type of Cable (Optical Fiber)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
U	Computed	RW				100%	\$0	\$0	\$0
V	Computed	RW				100%	\$0	\$0	\$0
W	Computed	RW				100%	\$0	\$0	\$0
X	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Manholes for UG Telephone Service

	Computed or User	RW or Const	Item	No Entry Required	Quantity	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
Y	Computed	RW	Telephone Manhole			100%	\$0	\$0	\$0
Z	Computed	RW	Telephone Manhole			100%	\$0	\$0	\$0

Misc. Telephone Costs

AA	Misc. Telephone Costs Charged to RW Project:	<input type="text"/>
BB	Misc. Telephone Costs Charged to Const. Project:	<input type="text"/>

TOTAL TELEPHONE	Total to RW Proj	Total to Const Proj
\$0	\$0	\$0

C. CATV

Aerial CATV

	Computed or User	RW or Const	Type of Service	No Entry Required	Number of Pole Att'mnts	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
A	Computed	RW				100%	\$0	\$0	\$0
B	Computed	RW				100%	\$0	\$0	\$0
C	Computed	RW				100%	\$0	\$0	\$0
D	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Underground CATV

	Computed or User	RW or Const	Type of Service	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
E	Computed	RW				100%	\$0	\$0	\$0
F	Computed	RW	1.00 Coax		0	100%	\$0	\$0	\$0
G	Computed	RW				100%	\$0	\$0	\$0
H	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Power Units

	Computed or User	RW or Const	Item	No Entry Required	Quantity	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
I	Computed	RW	CATV Power Supply			100%	\$0	\$0	\$0
J	Computed	RW	CATV Power Supply			100%	\$0	\$0	\$0

Misc. CATV Costs

Misc. CATV Costs Charged to RW Project:

Misc. CATV Costs Charged to Const. Project:

TOTAL CATV	Total to RW Proj	Total to Const Proj
\$0	\$0	\$0

D. WATER

Water Line

	Computed or User	RW or Const	Diameter of Water Pipe (in)	Loaded \$ per foot	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
A	User	RW				50%	\$0	\$0	\$0
B	Computed	Const	8		0	50%	\$0	\$0	\$0
C	Computed	Const				100%	\$0	\$0	\$0
D	Computed	Const				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Misc. Water Costs

Misc. Water Costs Charged to Const. Project:

Misc. Water Costs Charged to RW Project:

TOTAL WATER	Total to RW Proj	Total to Const Proj
\$0	\$0	\$0

E. SANITARY SEWER

Sewer Line

	Computed or User	RW or Const	Diameter of Sewer Pipe (in)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
A	Computed	Const				100%	\$0	\$0	\$0
B	Computed	Const				100%	\$0	\$0	\$0
C	Computed	Const				100%	\$0	\$0	\$0
D	Computed	Const				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Misc. Sewer Costs

Misc. Sewer Costs Charged to Const. Project:

Misc. Sewer Costs Charged to RW Project:

TOTAL SEWER	Total to RW Proj	Total to Const Proj
\$0	\$0	\$0

F. NATURAL GAS / PROPANE

Distribution

	Computed or User	RW or Const	Diameter of Gas Line (in)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
A	Computed	RW				100%	\$0	\$0	\$0
B	Computed	RW				100%	\$0	\$0	\$0
C	Computed	RW				100%	\$0	\$0	\$0
D	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Transmission

	Computed or User	RW or Const	Diameter of Gas Line (in)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
E	Computed	RW				100%	\$0	\$0	\$0
F	Computed	RW				100%	\$0	\$0	\$0
G	Computed	RW				100%	\$0	\$0	\$0
H	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Misc. Natural Gas / Propane Costs

I	Misc. Gas / Pro Costs Charged to RW Project:	<input type="text"/>	TOTAL GAS / PROPANE	Total to RW Proj	Total to Const Proj
J	Misc. Gas / Pro Costs Charged to Const. Project:	<input type="text"/>			
			\$0	\$0	\$0

G. PETROLEUM

Transmission

	Computed or User	RW or Const	Diameter of Gas Line (in)	No Entry Required	Total Length(ft)	Percent VDOT	Total Cost	\$ to RW Project	\$ to Const Project
A	Computed	RW				100%	\$0	\$0	\$0
B	Computed	RW				100%	\$0	\$0	\$0
C	Computed	RW				100%	\$0	\$0	\$0
D	Computed	RW				100%	\$0	\$0	\$0
							\$0	\$0	\$0

Misc. Petroleum Costs

E	Misc. Petroleum Costs Charged to RW Project:	<input type="text"/>	TOTAL PETROLEUM	Total to RW Proj	Total to Const Proj
F	Misc. Petroleum Costs Charged to Const. Project:	<input type="text"/>			
			\$0	\$0	\$0

H. CELLULAR

Cellular Telephone Costs

A	Total Cellular Costs Charged to RW Project:	<input type="text"/>	TOTAL CELLULAR	Total to RW Proj	Total to Const Proj
B	Total Cellular Costs Charged to Const. Project:	<input type="text"/>			
			\$0	\$0	\$0

I. ADDITIONAL COSTS

	Additional Utility Costs to <u>Right-of-Way Project</u> :	<input type="text"/>	\$0
Comments:	<input type="text"/>		
	Additional Utility Costs to <u>Construction Project</u> :	<input type="text"/>	\$0
Comments:	<input type="text"/>		
	Additional Utility Costs to <u>Utility Owners/Others</u> :	<input type="text"/>	\$0
Comments:	<input type="text"/>		

TOTAL UTILITY COST - <u>RIGHT-OF-WAY PROJECT</u>	<input type="text"/>	\$0
TOTAL UTILITY COST - <u>CONSTRUCTION PROJECT</u>	<input type="text"/>	\$0
TOTAL UTILITY COST - <u>UTILITY OWNER / OTHERS</u>	<input type="text"/>	\$0
GRAND TOTAL UTILITY COSTS	<input type="text"/>	\$0

 Project Cost Estimating System COMMENTS 		
General / Miscellaneous Comments from CONST, RW, & UTILITY Worksheets:	Team Member and Section:	Date Entered:
1 Spreadsheet used for I-81 NEPA Document per lane mile	VHB/Gannett Fleming	07/04/04
2 Spreadsheet Title Revised to reflect the number of lanes	Gannett Fleming	08/06/04
3 2005 Ad Date	Gannett Fleming	05/26/05
4 New Spreadsheet created for 6lane situation	Gannett Fleming	08/10/05
5		
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Project Cost Estimating System

SUMMARY PAGE

DISTRICT **Bristol, Salem & Staunton**

PROJECT NUMBER **I-81Study(2SepTrk,2InBr.)**

PPMS NUMBER **n/a** AD DATE **2005**

PROJECT MANAGER / DESIGNER **Chris Collins/VHB**

Data Source for Construction Estimate: **CES**

Data Source for Right-of-Way Estimate: **CES**

Data Source for Utilities Estimate: **CES**

DATE **11/17/2005**

THE FOLLOWING DATA WILL BE PROVIDED UPON COMPLETION OF THE REMAINDER OF THE WORKBOOK, WHICH IS ACCESSED BY SELECTING THE **CONST, RW, & UTIL** TABS BELOW

CONSTRUCTION ESTIMATE **\$1,498,000**

PRELIMINARY ENGINEERING ESTIMATE **\$100,000**

RIGHT-OF-WAY & UTILITIES ESTIMATE **\$0**

TOTAL PROJECT ESTIMATE **\$1,598,000**



Project Cost Estimating System CONSTRUCTION / BRIDGE / PE



Project / PPMS #

Interstate Project ?

Route Number

Geometric Standard

Ad Date

Design Year ADT

Box Must Be Empty

Enter Design Speed (MPH) (Enter 60 or 70)

Box Must Be Empty

Box Must Be Empty

Project Length (mi.)

Total Length - Adding or Building Two Lanes (mi.)

Total Length - Adding or Building Four Lanes (mi.)

Total Length - Building Ramps and Loops (mi.)

Box Must Be Empty

Number of Right Turn Lanes - Left PLUS Right Side

Box Must Be Empty

Number of New Traffic Signals Required

Number of Traffic Signals Requiring Adjustment

Cost of Large Drainage Structures (\$)

In-Plan Utility Costs

Adjustment for Unusual Construction Costs (\$)

Examples - Add \$'s for: Bicycle Facilities, Landscaping, Retaining Walls, Lighting, Wetlands Mitigation Sites, etc.

Interstate Highway

* Principal Arterial - Freeway

Design Year = 2027

* Project Terrain

Approx. DHV = 4,500
Minimum

* Design Speed = 70 MPH

Number of Additional Lanes:	Length of Add'l. Lanes (mi.):
--------------------------------	----------------------------------

*

*

*

Normal Lane Width (ft.)

Total Alignment Miles Computed
(Required for LD-430 Scoping Report)

Base Estimate

Constr. Engr.

Const. Est. (Today)

**Construction Estimate in
Mid- 2005**

Continued on Next Page

Continued from Previous Page

Additional (or Unusual) P. E. Costs (\$)

Select % of PE to be performed by Consultants

Preliminary Engineering Cost

Note: Do Not Include Bridge P. E. Costs Here

Roadway P. E. \$ / Roadway Const. \$ = 0.0%

BRIDGE TOTALS

BRIDGE COUNT: 1

Bridge Estimate (Today)

Total Bridge Estimate in Mid- 2005

Total Bridge P. E. Costs

CONSTRUCTION & PE TOTALS

Total Construction Estimate
(Roadway plus Bridge)

Total Preliminary Engineering Estimate
(Roadway plus Bridge)