

## Definitions of Project Activities

### **190 Preliminary Engineering Location Corridor Studies**

Involves determination of location corridor, includes determining method of development, alignment and grades, cost, coordination of Environmental, Traffic and Right of Way information with other divisions, and development and presentation of graphic and written materials for Citizen Information Meetings. Activity begins after PE authorization and is complete when VDOT Board approves the corridor. The responsible Project Manager records a complete unit.

### **220 Scope Project/PFR**

Involves initiating preliminary engineering, establishing basic characteristics and limitations, establishing alternatives, determining preliminary development requirements, scheduling and holding preliminary field review, and making recommendations. Activity includes travel time. Activity begins when initial charges are made to the project, after PE authorization, when the designer starts collecting data, ordering photos to determine the alignment, scope of work, etc. Activity ends when approval is received for the proposed method of development. This will be the date the State Location and Design Engineer approves the final project scoping report or preliminary field review. The responsible Project Manager records a complete unit.

### **223 Photogrammetry**

Involves but not limited to the following: Photogrammetric project planning; Flight and target planning; Aerial, terrestrial and oblique photography; Photo processing, editing, numbering and printing; Photo indexing, mosaics and orthophotos; Scanning and analytical triangulation; Planimetric and elevation data capture; Digital terrain post processing; Quality control and photogrammetric data file management. Activity ends when photogrammetric work is completed. The responsible Survey Engineer records a complete unit.

### **260 Prepare/Hold Location Hearing**

Covers determining need for a location public hearing, preparing material for the hearing, conducting the hearing/meeting, and preparing a transcript. Activity begins when the designer begins gathering the hearing material and preparing for the hearing. Activity ends when the Location Public Hearing transcript is submitted for approval to the State Location and Design Engineer. The responsible Project Manager records a complete unit.

**270 Adopt Corridor (Location)**

Covers reviewing the public hearing transcript, determining the most feasible location, and obtaining approval from VDOT Board. Activity begins when the Location Hearing transcript is received by the State Location and Design Engineer. Activity ends when VDOT Board approves the corridor. The responsible Project Manager records a complete unit.

**313 Conduct Location Survey**

Involves property research and preparing property owner letters; establishing alignment, collecting topography, DTM data, or cross sections, CADD survey processing; plan base preparation. Activity begins when the survey is authorized. Activity ends when survey is

completed and all data, including cross sections/DTM's and utilities designations, are transmitted to the L&D project manager. The responsible Survey Engineer records a complete unit.

**360 Plan Design/Field Inspection**

Covers preparing the preliminary design plans, including: horizontal and vertical geometrics, typical section sheets, design features, CADD design processing, title and layout sheets, cross sections and earthwork, proposed R/W limits, maintenance of traffic, permits; conducting the plan-in-hand field inspection, resolving field inspection recommendations from other divisions and incorporating them into the plans. Activity begins after the location survey is completed and data received, or in some instances after the scoping is approved. Activity ends when all the field inspection comments have been resolved and the project is ready for a public hearing or for posting a willingness notice. The responsible Project Manager records a complete unit.

**362 Hydraulic Plan Design/Field Inspection**

Involves furnishing the initial drainage design for the roadway plans. Including culverts, ditches, storm sewers and stormwater management facilities. Participating in the plan-in-hand field inspection, resolving field inspection recommendations from other entities and incorporating them into the plans. Activity begins when the plans and cross sections have been developed to the appropriate stage, a written request is made for drainage design, by the road designer. Activity ends when all the field inspection comments and recommendations have been resolved and the project is ready for a public hearing or for posting a willingness notice. The responsible Hydraulics Engineer records a complete unit.

- 372 River Mechanics Project Studies**  
Involves performing a hydrologic and hydraulic analysis for a proposed highway embankment or other encroachment into the floodplain of a major waterway and/or where a flood insurance study or other officially designated or delineated floodplain is concerned.  
Activity begins whenever the State Hydraulics Engineer District River Mechanics Engineer is either requested to perform the work or it is otherwise determined that this level of hydrologic and hydraulic analysis is required to satisfy site conditions. Activity ends when the River Mechanics Engineer who has actually performed the work furnishes the formal H&HA to the Transportation Engineer responsible for the design of the project on which the highway embankment or other encroachment is located. The responsible Hydraulics Engineer records a complete unit.
- 373 Major Structure/Bridge Survey**  
Involves establishing alignment, collecting topography, DTM data or contours, cross-section; plan base preparation. Activity begins as established during scoping or as requested by bridge engineer. Activity ends when all data has been collected and transmitted to appropriate Bridge Engineer. The responsible Survey Engineer records a complete unit.
- 400 Minor Structure Data**  
Involves preparing data on minor drainage structure and furnishing same to Materials Division with request to do a minor structure report. Activity begins after field inspection stage of project development, when designer determines need for minor structure data. Activity ends approximately 10 days later, when data and request are furnished to the Materials Division. The responsible Project Manager records a complete unit.
- 432 Hydraulic Plan Design/Right of Way**  
Involves revising any drainage design, stormwater management facilities or doing drainage design for any roadway revisions or additions due to approved public hearing recommendations. Finalizing any drainage design that will have any affect on the Right of Way Plan. Activity begins when approved Public Hearing recommendations are received by the drainage designer. Activity ends when approved Right of Way plans are distributed. The responsible Hydraulics Engineer records a complete unit.

**462 Hydrologic & Hydraulic Analysis - Bridges and Major Structures**

Involves performing a hydrologic and hydraulic analysis for a bridge or other major structure over a major waterway and/or where a flood insurance study or other officially designated or delineated floodplain is concerned. For work associated with bridges, the activity begins when the State Hydraulics Engineer (or District River Mechanics Engineer in the case of district bridges) receives a request for a hydraulic analysis from the State Structure and Bridge Engineer (or District S&B Engineer in the case of district bridges). For work associated with other major drainage structures, activity begins whenever the State Hydraulics Engineer or District River Mechanics Engineer is either requested to perform the work or it is otherwise determined that this level of hydrologic and hydraulic analysis is required to satisfy site conditions. For work associated with bridges, activity ends when the River Mechanics Engineer who has actually performed the work furnishes the formal H&HA to the appropriate S&B Engineer and that engineer accepts same. For work associated with other major structures, activity ends when the River Mechanics Engineer who has actually performed the work furnishes the formal H&HA and/or the size and nature of the hydraulic structure to the Transportation Engineer responsible for the design of the project on which the structure is located. The responsible Hydraulics Engineer records a complete unit.

**470 Approve Willingness**

Involves determination, and securing design approval. In case of projects where willingness is involved, involves preparing sketch map, publishing of public hearing notice, processing non-hearing waived, this activity involves securing design approval after the environmental documentation is completed. Activity begins after all the field inspection recommendations have been incorporated into the plans. Activity ends when the willingness is approved by Secondary Roads, Urban Engineer, or by the State Location and Design Engineer. The responsible Project Manager records a complete unit.

- 480 Conduct Location/Design Public Hearing**  
Involves preparing exhibits and conducting the public hearing or public information meeting, and preparing transcript. Activity begins after all the field inspection recommendations have been resolved and incorporated into the plans, when work begins on setting up the hearing, etc. When a willingness notice is posted and a public hearing required as a result, this activity will begin after the decision is made to hold a hearing. Activity ends when the public hearing transcript is submitted to the State Location and Design Engineer. The project responsible Project Manager records a complete unit.
- 510 Furnish Approved Right of Way Plans**  
Covers incorporating any approved public hearing recommendations, preparing and furnishing roadway plans to Right of Way Division showing the proposed right of way lines and parcel data for R/W acquisition. Activity begins with approval of the willingness or public hearing. Activity ends when approved right of way plans are distributed by district or central office. The Project Manager records a complete unit.
- 512 Hydraulic Review for Construction**  
Involves review of drainage design for Construction Plans. Includes any revisions, redesign, or design brought about by plan changes. Activity begins approximately 6 weeks prior to “1st Submission” of the roadway plans to Construction Division. Activity ends when “2nd Submission” of the roadway plans is made to the Construction Division. The responsible Hydraulics Engineer records a complete unit.
- 650 Complete Roadway Plans**  
Involves preparing the final roadway plans and quantity summaries; assembling and checking plans; incorporating bridge, landscape, and traffic control device plans; and updating the estimates. Activity begins when approved right of way plans are distributed by the district or central office. Activity ends when the Location and Design Plan Coordination Section makes “1st Submission” of complete roadway plans to the Construction Division. The responsible Project Manager records a complete unit.