

Virginia Department of Transportation



PROJECT DEVELOPMENT PROCESS



CHAPTER 1D - PROJECT DEVELOPMENT

CHAPTER 1D-1 - INTRODUCTION

Projects that are determined to be essential are included in the Virginia Transportation Development Plan (VTDP). The Project Development Process begins after Preliminary Engineering Funds have been authorized. The wide range of road plan types developed by the Department provides significant flexibility in the Project Development Process for the Project Manager who is responsible for the project design, compilation of the plan assembly and meeting the PPMS schedule. The Project Manager decides when to proceed with reviews or submissions. All reviews or submissions may not be applicable for every project and the Project Manager is encouraged to take advantage of opportunities, using sound judgment, to expedite the process by omitting unnecessary reviews or submissions. During the project development process there are many correspondence files and other records, which are important to retain. Guidelines concerning records retention are available in Chapter 2G. Major steps in the Project Development Process are:

LOCATION STAGE

Public Information Meetings
Location Public Hearing

FINAL DESIGN STAGE

Initial Field Review
Preliminary Plan Review (if applicable)
Quality Review for Field Inspection
Field Inspection
Value Engineering Review (if applicable)
Follow-Up Field Inspection (if applicable)
Post Willingness or Public Hearing (Design or Combined L&D) non Federal Aid Projects without Environmental Document required (OPTION 1)
Post Willingness or Public Hearing (Design or Combined L&D) Projects requiring Environmental Documents (OPTION 2)
Utility Field Inspection
R/W and Constructability Quality Review
R/W Submission
Advertisement Quality Review
First Submission to Construction Division
Second Submission to Construction Division

Information on the following pages explain the steps listed above. Also available in this chapter are PROJECT DEVELOPMENT FLOW CHARTS (One and Two Hearing) to illustrate the procedure.

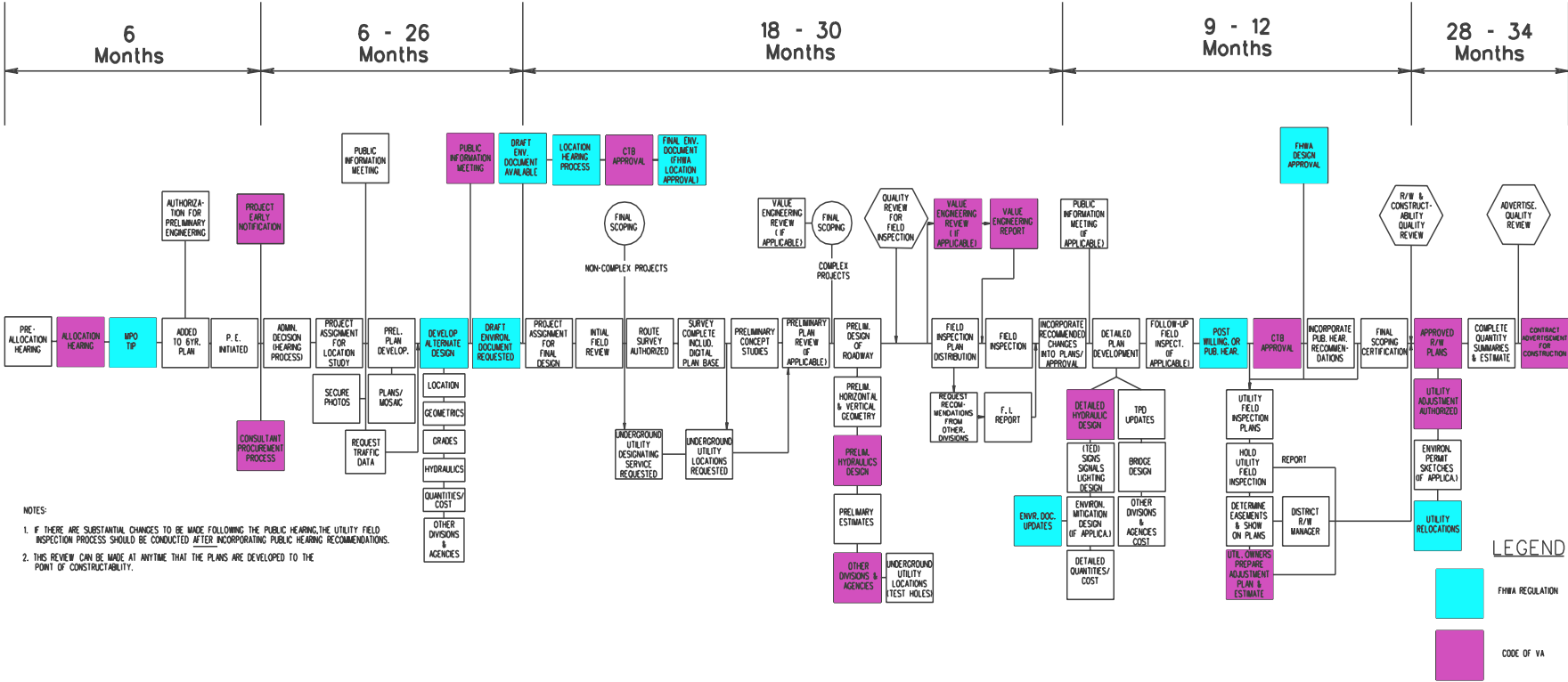
Information in this chapter shall supersede existing information contained in this manual, when there is a conflict.



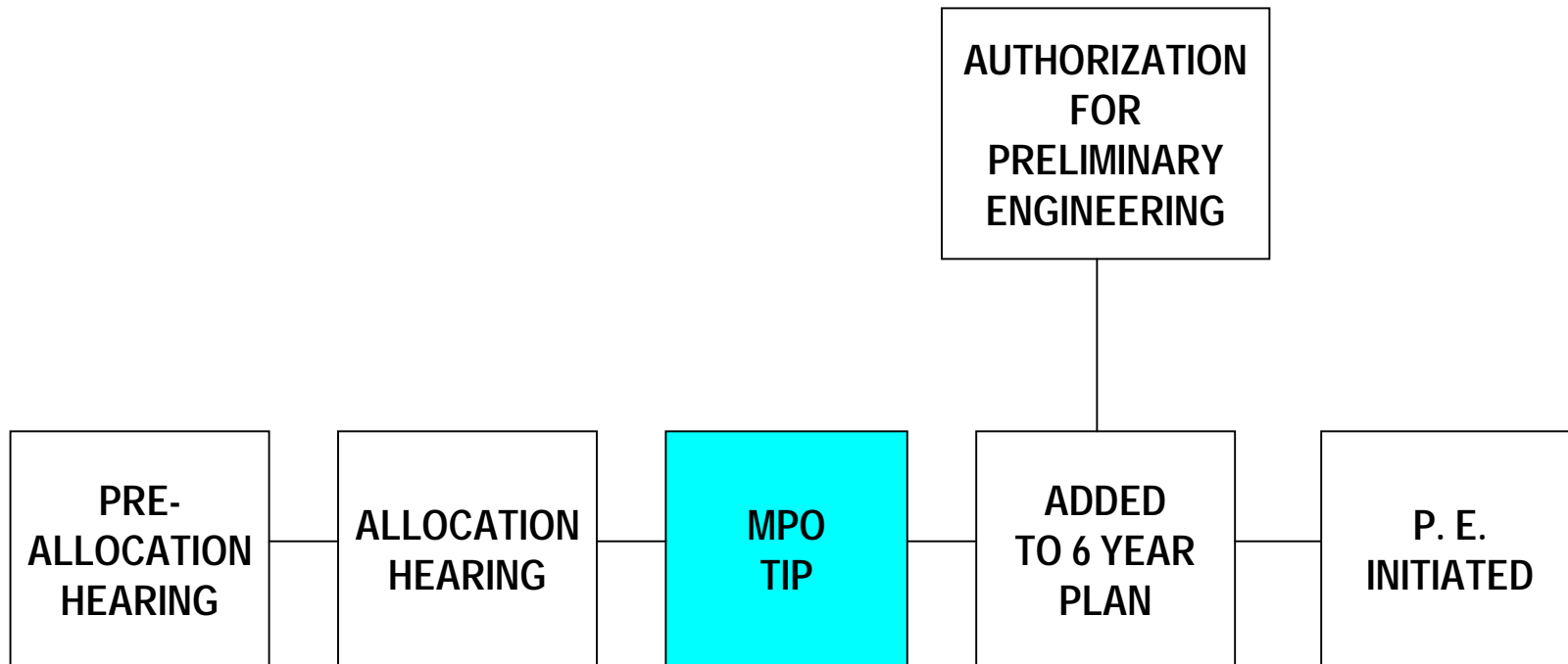
PROJECT DEVELOPMENT TWO-HEARING PROCESS



PROJECT DEVELOPMENT FLOW CHART TWO - HEARING



Project Authorization & Funding Determination Two - Hearing (6 Months)



LEGEND



CODE OF VA



FHWA REGULATION

PROJECT AUTHORIZATION & FUNDING DETERMINATION
(6 MONTHS)
TWO-HEARING PROCESS

PREALLOCATION HEARING – In late March and early April, the Commonwealth Transportation Board conducts a series of preallocation public hearings. Nine hearings are conducted, one in each construction district. They are moderated by the VDOT District Administrator and are attended by the Secretary of Transportation, the Commissioner, and his staff, and by members of the Commonwealth Transportation Board. Speakers include legislators, local officials, representatives of interest groups, and the general public. The purpose for these meetings is to listen to the public input, and provide the Commonwealth Transportation Board a sense of the improvements the local governments and the citizens feel are needed. The nine hearings average a total of 320 speakers and 30 hours of testimony.

ALLOCATION HEARING (FINAL PUBLIC HEARING) –The purpose of this hearing is to solicit input, which the Board will take into account as they conduct their final deliberations. The final public hearing is conducted in early June. The Final Hearing is conducted in two phases. The first is the hearing for the western four districts, in the city of Salem. The second hearing is held in Richmond for the eastern five districts. Both sessions are conducted in one day, with the Salem meeting in the morning and the Richmond one in the afternoon. The record is not closed upon completion of the hearing. Correspondence before, or shortly after, the public hearing will still be considered by the Board in their deliberations.

MPO TIP – Federal planning regulations require the preparation of long range (20 year) transportation improvement plans (TIP) for urbanized areas and a state wide plan for the non-urbanized areas. These plans must be updated every 3-5 years. In order for a project to be included in the TIP, it must be shown in the long-range plan. In short, the long range plan identifies the needs and the improvements that are necessary to meet them and the TIP is the project programming piece.

The portion of the State Transportation Improvement Plan (STIP) in a metropolitan planning area (the metropolitan TIP) is developed in cooperation with the MPO (Metropolitan Planning Organization). To assist in this process, VDOT provides MPOs with estimates of available Federal and State funds which the MPO can utilize in developing the metropolitan TIP. Metropolitan planning area TIPs shall be included without modification in the STIP, directly or by reference, once approved by the MPO and the Governor and after needed conformity findings are made. Metropolitan TIPs in nonattainment and maintenance areas are subject to the FHWA and the FTA conformity findings before their inclusion in the STIP. In nonattainment and maintenance areas outside metropolitan planning areas, Federal findings of conformity must be made prior to placing projects in the STIP. The State shall notify the appropriate MPO, local jurisdictions, Federal land agency, Indian tribal government, etc. when a TIP including projects under the jurisdiction of the agency has been included in the STIP. The Governor shall provide for public involvement in development of the STIP.

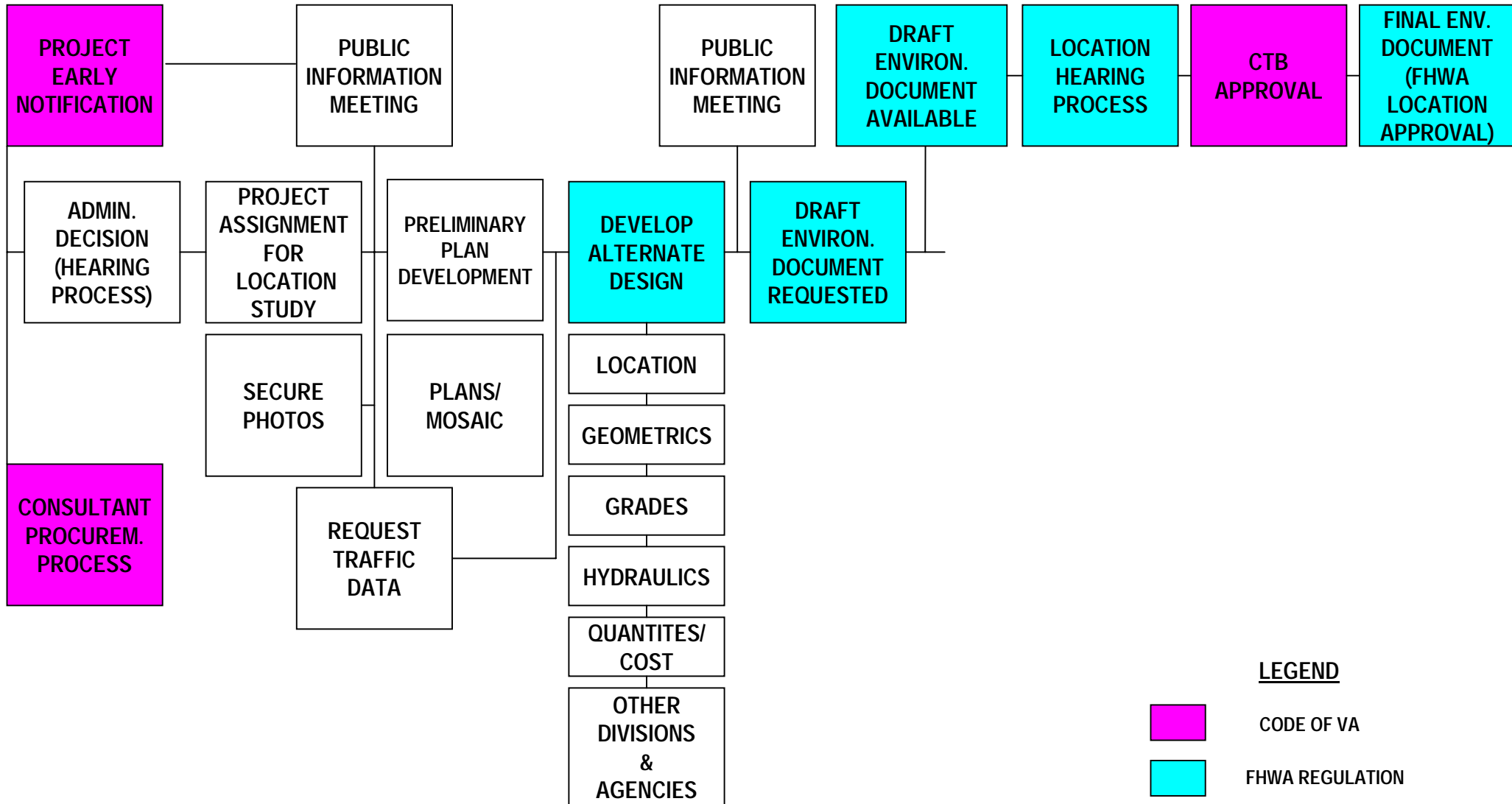
Development of the TIPs includes factors such as the following in the planning process: transportation needs; strategies for incorporating bicycle transportation facilities and pedestrian walkways; access to ports, airports, intermodal transportation facilities, major freight distribution routes; recreational travel and tourism; the overall social, economic, energy, and environmental effects of transportation decisions (including housing and community development effects and effects on the human, natural and manmade environments); methods to reduce traffic congestion; methods to expand and enhance appropriate transit services.

AUTHORIZATION FOR PRELIMINARY ENGINEERING – Projects are initiated and funding requests are submitted according to the system classification. Project numbers are assigned for all projects according to the Functional Classification and financing. Urban Projects are initiated by municipal resolution to the Urban Division stating their desire for VDOT to consider the implementation of a project. The Urban Division authorizes funding for Urban projects. Requests for initiation of projects on the Interstate and Primary Systems originate within VDOT in accordance with established construction schedules, for future planning purposes and in some instances at the request of local governments. The Programming and Scheduling Division authorizes funding for Interstate and Primary Projects. Secondary projects are initiated by the Resident Engineer in conjunction with a master plan and with approval of appropriate boards of supervisors.

ADDED TO 6 YEAR PLAN – The revenue projections on which this program is based include all funds anticipated, both federal and state, to be available for distribution by the Commonwealth Transportation Board as mandated by State statutes for Preliminary Engineering, Right of Way and construction on Interstate, Primary, Urban and Secondary Systems as well as funds anticipated to be available for ports, airports, rail and public transportation.

P. E. INITIATED – This is the approval to proceed with the project design.

Location Corridor Study & CTB Approval Two - Hearing Process (6-26 Months)



LOCATION CORRIDOR STUDY & CTB APPROVAL
(6-26 MONTHS)
TWO-HEARING PROCESS

PROJECT EARLY NOTIFICATION

– Project Early Notification is required as soon as a project has been initiated (PE authorized) in order to provide state environmental resource agencies an opportunity to comment on highway improvements at an early stage of project development. Early Notifications are required on all proposed improvements that disturb previously undisturbed ground. Environmental data identified in this early review process by the resource agencies is returned to the District Environmental Manager within thirty days. The district environmental personnel will utilize this data in their Preliminary Environmental Inventory to determine the significance/non-significance of the project. Agencies involved in this process are the Department of Agricultural and Consumer Services; Department of Conservation and Recreation Resources; Division of Natural Heritage; Division of Soil and Water Conservation; Division of State Parks, Division of Policy, Planning, and Recreation Resources; Department of Environmental Quality - Air Division; Department of Environmental Quality - Waste Division; Department of Environmental Quality - Water Division; Department of Forestry; Department of Health; Department of Historic Resources; Department of Mines, Minerals, and Energy; Virginia Museum of Natural History; Virginia Outdoors Foundation; and the Virginia Marine Resources Commission.

CONSULTANT PROCUREMENT PROCESS

– Each division within VDOT and each District Administrator are responsible for determining the need for the use of the private sector to accomplish their program. This is determined by analyzing the available manpower, time available and required technical skills as they relate to the projected work program. This is normally done on an annual basis once the Six Year Improvement Plan is approved in July by the Commonwealth Transportation Board (CTB). Upon adoption of the program, the Division/District Administrator determines the need for the use of the private sector. The advertisement process, referred to as the Request for Proposal (RFP), is then begun. Projects are advertised throughout the year. Upon acquisition of the Department's RFP for professional services, the firms responding should submit an Expression of Interest (EOI) providing the data specified in the RFP with regard to their ability to perform the specified work. Federal Acquisition Regulations (FAR) audit data must be submitted within 10 days of being notified of selection. After review and negotiations are complete, a formal Memorandum of Agreement is executed and presented to the CTB for approval. If successful negotiations cannot be concluded with the top rated firm, negotiations will be terminated and negotiations will be conducted with the second ranked firm. The period of time normally associated with the RFP process generally takes four to six months from advertisement until the notice to proceed is issued.

ADMINISTRATIVE DECISION (HEARING PROCESS) – The State Location and Design Engineer will review the project with the appropriate officials to determine if a Location Public Hearing will be required, taking into account the general complexity of the project and anticipated public interest. Location Public Hearings are usually held on all projects involving major environmental changes affecting the community. Should it be found desirable to hold a Location Public Hearing, authorization will be given and those involved will be advised as to the scheduling of the hearing, corridors to be presented and other pertinent information. A determination should be made at this time as to whether existing photography is adequate for the preparation of an aerial mosaic. If not, the required coverage should be requested.

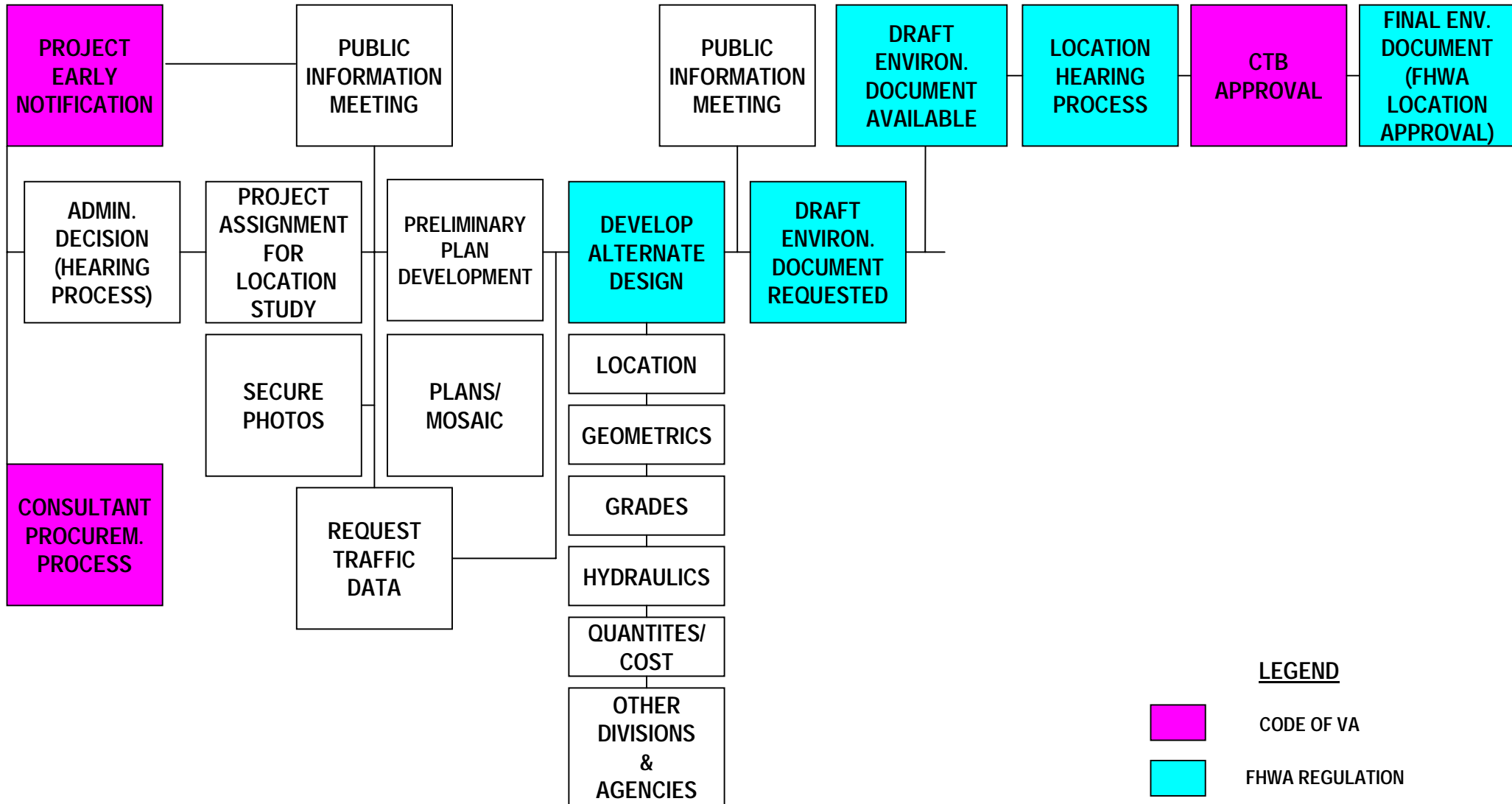
PROJECT ASSIGNMENT FOR LOCATION STUDY – The State Location and Design Engineer or his representative for Location will request that the design unit in either the Central Office or the District to which the project has been assigned prepare the location study.

SECURE PHOTOS – On most new locations, it is desirable to request topographic mapping. A review of available data in most cases allows the Engineer to determine the approximate area to be mapped. In some instances it may be necessary to review the area to be mapped in the field. When the proper ratio (scale) is determined, the Assistant Location and Design Engineer for Location will advise the Photogrammetric Engineer who will proceed in the preparation of the mapping. Immediate action on requests for mapping may not always be possible as the flying time necessary for good aerial photography is limited.

PUBLIC INFORMATION MEETING – Early and continued public involvement in project development is important. A Public Information Meeting is to be held as early as possible to gather information from local governing bodies, citizen groups and individuals. The Project Manager or District Administrator decides on the necessity for one or more Public Information Meetings. Geometric, hydraulic, traffic, right of way and cost considerations for alternative corridors are determined for a Location Public Hearing.

PRELIMINARY PLAN DEVELOPMENT – Preliminary Plan Development is intended to provide the basis for scoping, and the guiding document for the development of Field Inspection plans. It is essential that various alternatives be assessed in sufficient detail in order to preclude major modifications during the latter stages of project development.

Location Corridor Study & CTB Approval Two - Hearing Process (6-26 Months)



PLANS/MOSAIC – As early as possible, at the inception of a project, photographic coverage is essential. The location of the project determines the coverage required. From the photo coverage, a temporary plan base, either in the form of sheets or mosaics, is to be secured. The request should note that the material is to be used as temporary plan base, and photographic screening and/or dodging will be employed to produce a base on which line work will easily be visible. Depending upon the complexity of the project, the use of title sheets, typical section sheets and other drawings may be used for quantities and details of traffic, intersections, etc. The base photo coverage can be placed on a sheet outline and a set of plans produced.

REQUEST TRAFFIC DATA – Traffic data is requested, except for low volume Local Roads and Rural Collectors with a Current ADT (Current ADT being defined as latest available traffic counts) less than 400 VPD. The design year traffic data being requested is to be based on the advertisement date plus 11 years for secondaries and 22 years for all other systems including selected Urban Secondaries.

DEVELOP ALTERNATE DESIGN

– In evaluating alternates at this stage of the project development, it should be kept in mind that this is the initial attempt to define a corridor location and the alignment and grades projected are subject to refinement.

- **LOCATION** –The basic objective at this time is to eliminate the corridors or alignments which are inferior to others considered within the project area. Ideally, one alignment and grade should appear superior to others considered within a given corridor.
- **GEOMETRICS** – In projecting horizontal alignment at this stage of development, all practical considerations should be tested, subject to information obtained from the initial field reconnaissance. The alignment should be governed by the Geometric Design Standards, based on the design speed for the Functional Classification of the highway system that is being considered. In corridor selection, any deviation from these standards is to be noted for consideration.
- **GRADES** – When all horizontal alignments have been selected and shown on the prints, a tentative grade is necessary in order to properly evaluate these alternates. Care must be taken to conform to applicable standards in regard to gradient and to passing and stopping sight distances on both crest and sag vertical curves. Grades should present a smooth appearance and eliminate the "roller coaster" concept whenever possible.
- **HYDRAULICS** – In projecting alternates, consideration must be given to hydrology, hydraulics, and the potential effects a given projection will have on flood prone areas, wetlands, navigable waters and water quality. Consequently, the alternates being considered are to be reviewed by the Hydraulics Section during this stage of project development.
- **QUANTITIES/COST** – Approximate construction quantities are computed at this stage for use in preparing preliminary cost estimates for the corridor(s) remaining under consideration.
- **OTHER DIVISIONS & AGENCIES** – Coordination during this design phase includes other divisions such as the Materials and Environmental Divisions and comments from other agencies such as Historic Landmarks, State Historian, Commission of Game and Inland Fisheries, etc., are to be coordinated through the Environmental Division. Each project has its own individual characteristics and should be reviewed carefully at an early stage to determine if a possible conflict may arise.

PUBLIC INFORMATION MEETING – Early and continued public involvement in project development is important. A **Public Information Meeting** is to be held as early as possible to gather information from local governing bodies, citizen groups and individuals. The Project Manager or District Administrator decides on the necessity for one or more Public Information Meetings. Geometric, hydraulic, traffic, right of way and cost considerations for alternative corridors are determined for a Location Public Hearing.

DRAFT ENVIRONMENTAL DOCUMENT REQUESTED – When preliminary plans are complete, the Environmental Division should be requested to prepare an appropriate environmental document. This is the point at which an official environmental document is requested; however, the Environmental Division is involved in environmental evaluations earlier in the location studies.

DRAFT ENVIRONMENTAL DOCUMENT AVAILABLE

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LOCATION HEARING PROCESS – This public hearing provides an opportunity for public input on several possible alignments for a proposed transportation improvement on new location. Information which should be available for a Location Public Hearing includes informational material, aerial mosaic (if required), or preliminary plans showing alternate alignments being considered; Environmental Document (this document compares the alternate alignments considering factors such as R/W and construction cost, environmental effects, traffic service, etc.); Federally Funded projects require a signed draft document 15 days prior to a Location Public Hearing.

COMMONWEALTH TRANSPORTATION BOARD APPROVAL

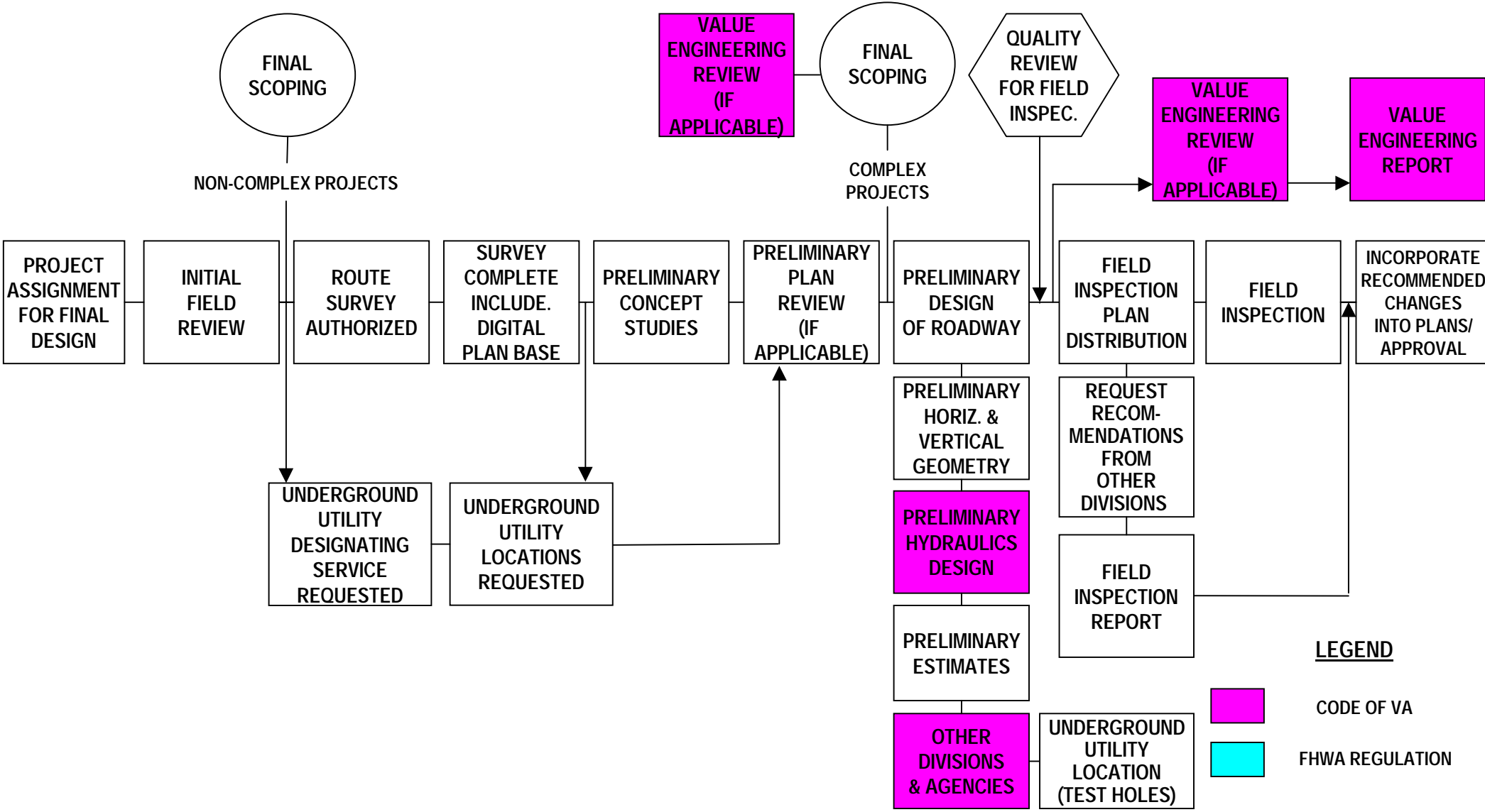
– After the Location Public Hearing the Commonwealth Transportation Board (CTB) adopts a particular alignment for further development.

FINAL ENVIRONMENTAL DOCUMENT (FHWA LOCATION APPROVAL)

– When Board Approval is given for a corridor, the Public Involvement Section will advise the Environmental Division of the Board action and request the completion of the final environmental document on the approved corridor. Approval of the final environmental document is the FHWA's concurrence with the location of the project. The plans may then be advanced to the route survey stage. Public notice of such approvals shall be published in local newspapers.

Project Scoping, Survey & Preliminary Design Two - Hearing Process (18-30 Months)

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PROJECT SCOPING, SURVEY & PRELIMINARY DESIGN
(18-30 MONTHS)
TWO-HEARING PROCESS

PROJECT ASSIGNMENT FOR FINAL DESIGN – Upon receipt of the survey data, and in accordance with the current schedules, the State Location and Design Engineer, or a representative, will request that the design unit, in either the Central Office or the district to which the project has been assigned, prepare the preliminary design. Assignments will be made on the basis of projected available manpower statewide and expertise in the particular type of design. Generally, secondary projects will be designed in the particular district where the project lies, unless the work load in that district dictates otherwise.

INITIAL FIELD REVIEW – This review is held before any survey or final design is initiated on a project. Its purpose is to establish project intent, scope and criteria before any significant engineering expenditures. Information developed at this meeting is used to establish the limits of survey information to be obtained for the project and to document the **Final Scope Approval** for non-complex projects not requiring a Preliminary Plan Review. The Project Manager will decide whether the project complexity requires a Preliminary Plan Review to establish the Final Scope of Project. Information which should be available at the **Initial Field Review** includes photos, old plans or geodetic mapping; existing or projected traffic information; proposed project schedule; Functional Classification; and preliminary cost.

FINAL SCOPING (NON-COMPLEX PROJECTS)– The recommended design, as a result of the Preliminary Plan Review, is presented to the scoping group and after agreement is reached, the appropriate form will document the decisions reached. Prior to the plans being signed for right of way (or construction when no right of way is needed), the coordinator will certify that the project is within the original scope, or provide documentation as to the deviations.

ROUTE SURVEY AUTHORIZED – There are certain instances in which it is not necessary to hold a Location Public Hearing after the completion of a Location Study. In these instances, route surveys will be authorized upon completion of the scoping report. All route surveys are authorized by the State Location and Design Engineer, or his/her representative, by memorandum to the District Administrator. The Programming and Scheduling Division authorizes funding and notifies the Fiscal Division of this funding. All surveys will be assigned in cooperation with the District Administrator. Assignments are to be made on the basis of available manpower statewide. The Department may secure outside services to perform this work as needed.

UNDERGROUND UTILITY DESIGNATING SERVICE REQUESTED – The Department has contracts statewide with consultants to designate and locate utilities along route survey projects selected by the Department. Utilities are designated by marking the presence of a subsurface utility using a geophysical prospecting technique. The designated utility locations with their corresponding attribute data are returned to the Department where they are incorporated into the digital survey file.

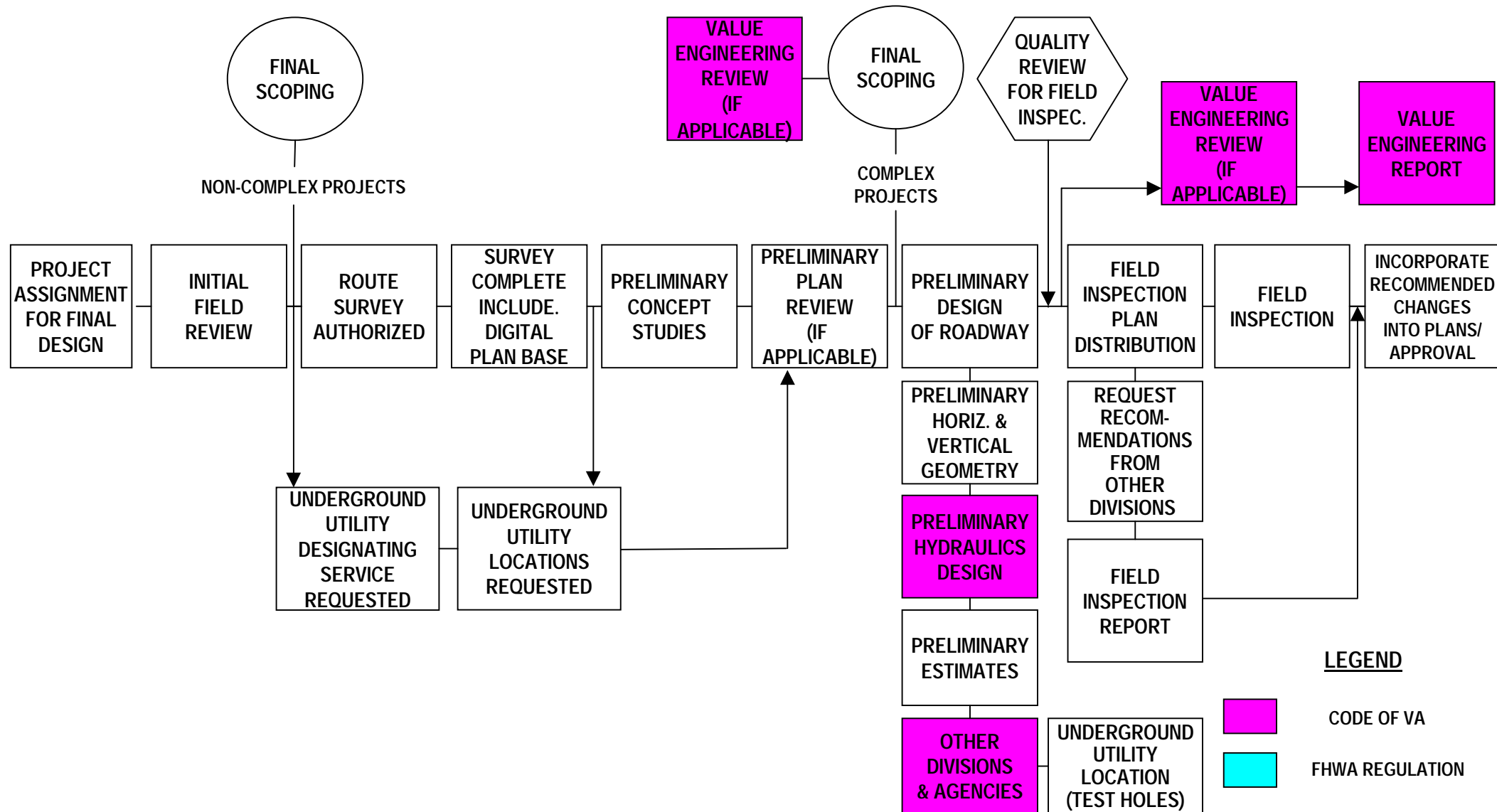
SURVEY COMPLETE INCLUDING DIGITAL PLAN BASE –When the photogrammetric and ground portions of the survey have been completed, the planimetric, topographic, property and utility data is merged into an electronic data file which is used for plotting of horizontal and vertical positional data on plan sheets.

PRELIMINARY CONCEPT STUDIES –Following the receipt of comments, questions and recommendations provided by other disciplines within the Location and Design Division, a review and common solution will be determined and shown as the Division's proposals on the preliminary design of the scheme of development. The Preliminary Plan Review will provide another opportunity to consider all input that could lead to the most feasible scheme of development.

UNDERGROUND UTILITY LOCATIONS REQUESTED – . The horizontal location of existing subsurface utilities will be secured by the consultant and the information returned to the Department in the format requested.

Project Scoping, Survey & Preliminary Design Two - Hearing Process (18-30 Months)

1D-12
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PRELIMINARY PLAN REVIEW (IF APPLICABLE) – This is an optional field review that may be appropriate for complex Interstate, Primary, Secondary or Urban projects where the Project Manager feels it is necessary to obtain consensus from the District, municipalities, other agencies, etc., on the **Final Scope** of the project after survey is obtained and preliminary concept studies have been conducted. The results of this meeting are documented on the Scoping Report. If a Preliminary Plan Review is held, the following information is necessary for review: completed survey; preliminary typical section; plan design concept (edges of pavement, approximate R/W, etc.); alternate methods of development may need to be presented (example - results of widening existing pavement to the left, right or both sides); preliminary grades; projected traffic information; preliminary costs (R/W & construction); traffic maintenance concept during construction; potential environmental problem areas.

FINAL SCOPING (COMPLEX PROJECTS) – The recommended design, as a result of the Preliminary Plan Review, is presented to the scoping group and after agreement is reached, the appropriate form will document the decisions reached. Prior to the plans being signed for right of way (or construction when no right of way is needed), the coordinator will certify that the project is within the original scope, or provide documentation as to the deviations.

PRELIMINARY DESIGN OF ROADWAY –

- **PRELIMINARY HORIZONTAL & VERTICAL GEOMETRY** – Although horizontal alignment is in the proper location at this stage, it must be reviewed for tie-ins with adjoining projects, connection tie-ins, interchange ramp tie-ins, traverse tie-ins, etc. Vertical alignments or grades are to be reviewed and computed for smooth, tie-ins with adjoining projects and existing road elevations. Connections, interchange ramps, etc., are to be computed considering pavement crowns, variable widths, etc.
- **PRELIMINARY HYDRAULICS DESIGN** – Identification of drainage structures, tentative locations of Stormwater Management facilities and a tentative Erosion and Siltation Control plan are required at this stage (hydraulic design is approximately 60% complete in preparation for field inspection).
- **PRELIMINARY ESTIMATES** – Construction cost estimates are received from other divisions and coded into the estimating system to obtain construction costs. Right of Way and Utility Estimates are then added to the construction estimate to complete the estimate of project costs.
- **OTHER DIVISIONS & AGENCIES** – Continue coordination and request tentative designs and from applicable divisions such as the Materials and Environmental Divisions (including other agencies), Structure and Bridge, Traffic Engineering and Right of Way and Utilities.
- **UNDERGROUND UTILITY LOCATIONS (TEST HOLES)** – Requested approximately six months prior to field inspection.

QUALITY REVIEW FOR FIELD INSPECTION – The Project Manager initiates this quality review when the plans depict sufficient design detail to hold a **Field Inspection**. A **Quality Control Checklist** is available to assist in this quality review.

VALUE ENGINEERING REVIEW (IF APPLICABLE) – Projects with an estimated construction cost exceeding \$5,000,000 and other selected projects are reviewed by an independent Value Engineering Team. The same information available at the Field Inspection should be available for the **Value Engineering Review**.

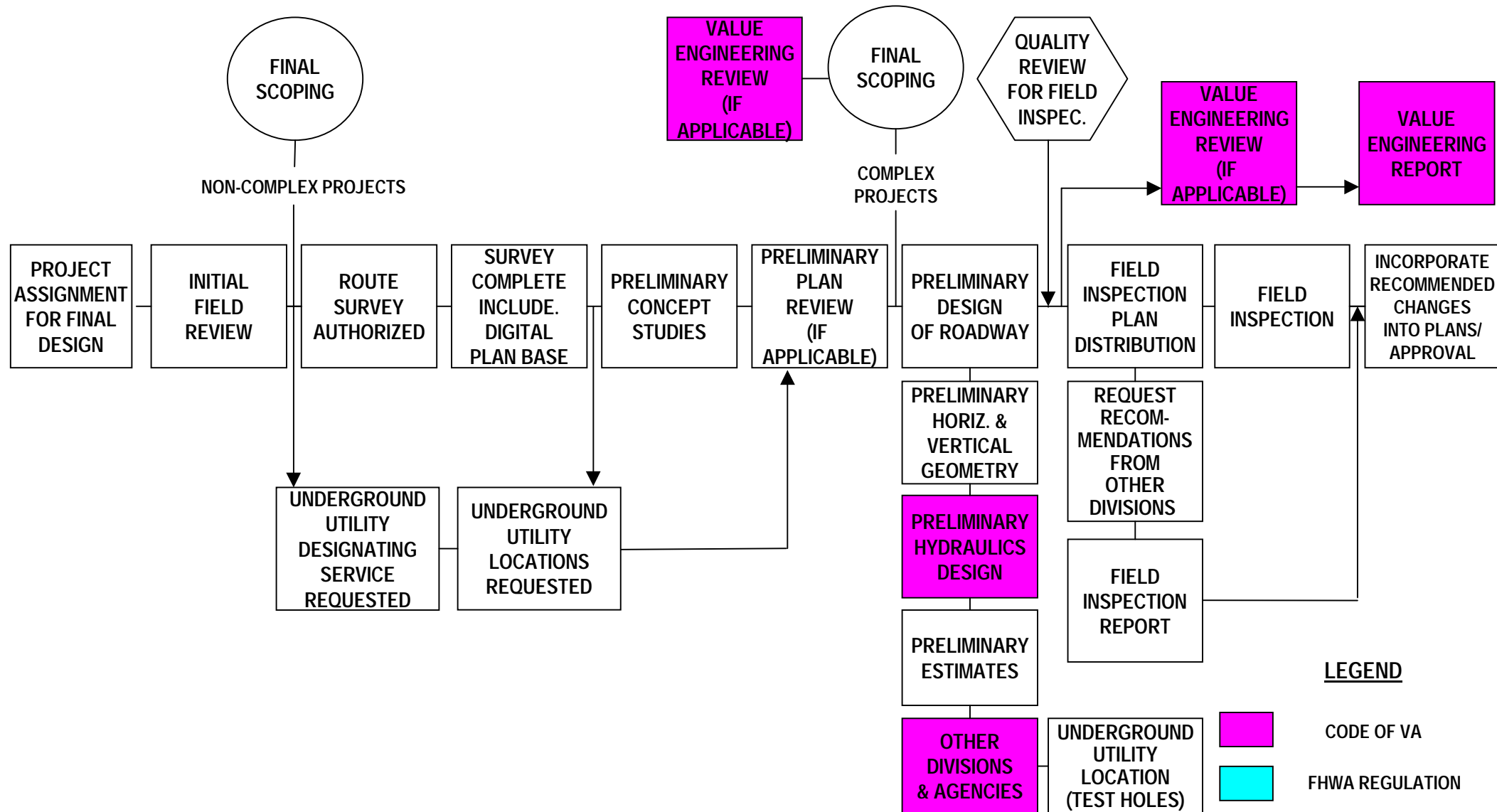
VALUE ENGINEERING REPORT – The Location and Design Engineer will review the VE Team's recommendations along with those from the District Administrator and Division Administrator and determine the implementation potential of the Value Engineering proposals. The Project Manager will verify that accepted VE recommendations have been incorporated into the project by initialing the accepted recommendation on a copy of the Chief Engineer's Response Letter/Project Summary Information Form and forward it to the VE Regional Coordinator.

FIELD INSPECTION PLAN DISTRIBUTION – The Project Manager initiates a field inspection when the plans depict sufficient design detail to allow an effective review by all involved disciplines. All disciplines will review the project on site, not necessarily at the same time. The following information should be available for the Field Inspection: title sheet; right of way data sheet; maintenance of traffic and sequence of construction sheets; typical section sheets; **plan sheets** showing complete survey with proposed alignments, right of way and easements, incidental concrete items, construction limits, guardrail, proposed entrances; preliminary drainage layout, tentative signalization, tentative soundwall locations, tentative landscape design, tentative ITS, and tentative bridge layout (type, size and location) location of piers and size of footers; **profile sheets** including existing and proposed grades including those for entrances; **cross sections** with proposed templates; and the engineering estimate.

REQUEST RECOMMENDATIONS FROM OTHER DIVISIONS – Recommendations are requested from various applicable entities.

FIELD INSPECTION – The **Field Inspection** is scheduled by the District Administrator who will arrange to have the plans reviewed, appropriate staff attend, and reports submitted by the appropriate divisions. Field Inspections on urban projects will be scheduled by the Urban Division in conjunction with the District Office. The Field Inspection is presided over by the District Administrator or his/her representative, usually the District Construction Engineer. Review comments received prior to the Field Inspection are to be addressed at the Field Inspection or in a subsequent report.

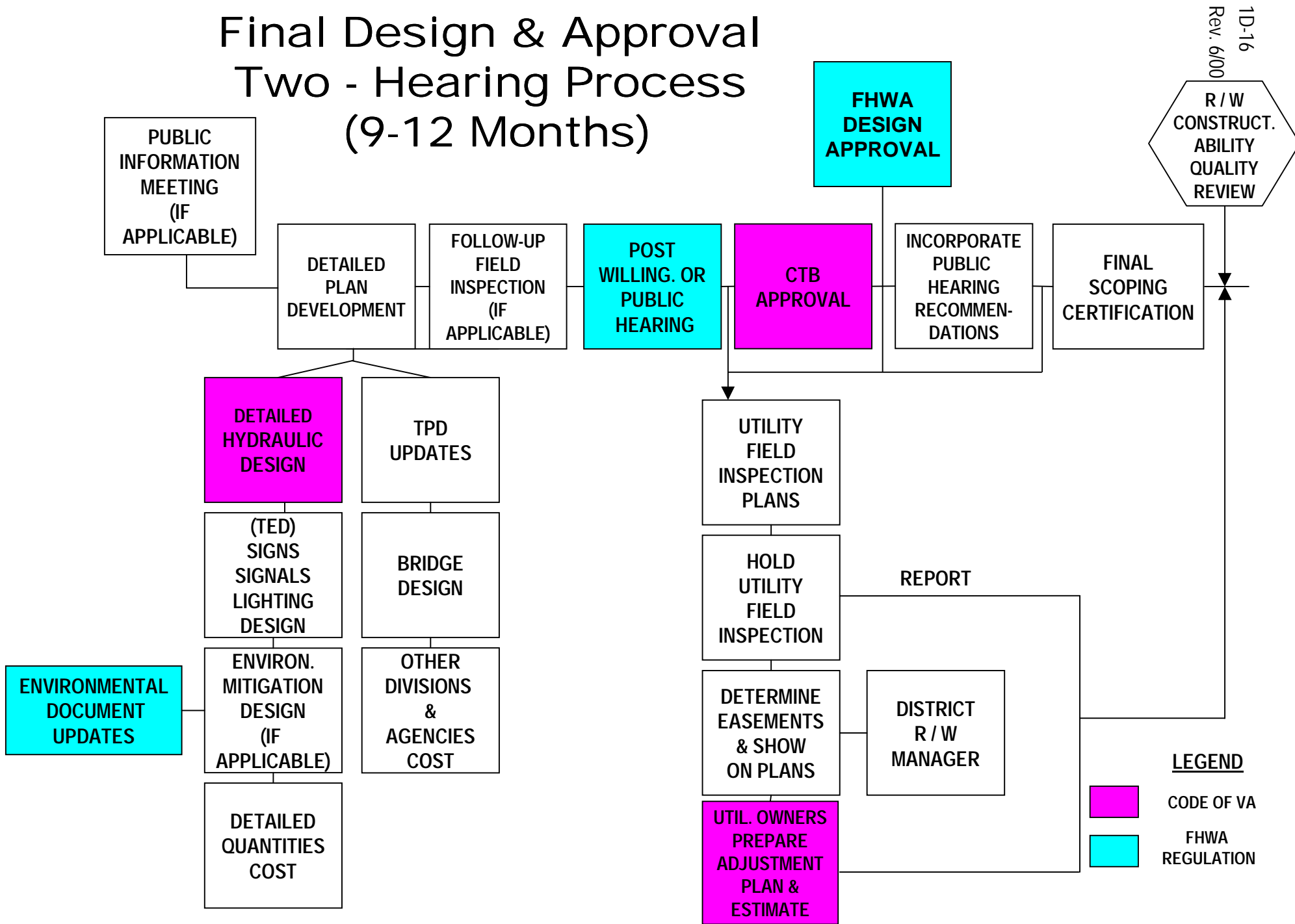
Project Scoping, Survey & Preliminary Design Two - Hearing Process (18-30 Months)



FIELD INSPECTION REPORT – Reports from the District Materials, Traffic Engineering, Right of Way and Utilities and Environmental Divisions, letters from municipalities, etc., are to be submitted to the District Administrator's representative or the State Location and Design Engineer for Central Office projects. The Urban Division submits a report on urban projects to the State Location and Design Engineer.

INCORPORATE RECOMMENDED CHANGES INTO PLANS/APPROVAL – After the various Field Inspection reports are received, all necessary rulings on controversial questions are to be resolved and recommendations incorporated into the plans. The Project Manager will respond to the Urban Division Administrator for Urban Projects and the District Administrator or District Construction Engineer for all other projects with a resolution of all field inspection comments.

Final Design & Approval Two - Hearing Process (9-12 Months)



FINAL DESIGN & APPROVAL
(9-12 MONTHS)
TWO-HEARING PROCESS

PUBLIC INFORMATION MEETING (IF APPLICABLE) – Early and continued public involvement in project development is important. A Public Information Meeting is to be held as early as possible to gather information from local governing bodies, citizen groups and individuals. The Project Manager or District Administrator decides on the necessity for one or more Public Information Meetings.

DETAILED PLAN DEVELOPMENT – The following areas are developed in detail:

- Detailed hydraulic design –
- (TED) signs, signals, lighting design –
- Environmental mitigation design (if applicable) –
- Environmental document updates –
- Detailed quantities/cost –
- Transportation Planning Division updates –
- Bridge design –
- Other divisions & agencies cost –

FOLLOW-UP FIELD INSPECTION (IF APPLICABLE) – Selected projects, due to their nature or complexity, should have another field inspection after the plan design has advanced to a greater degree of completion. The Project Manager decides if the follow-up Field Inspection is necessary. If a second Field Inspection is held, the following information should be available in addition to the information shown on the previously described Field Inspection plans:

- General Note Sheet including specific general notes for project.
- Underground utilities test hole information sheet.
- Label required items on the plan sheets.
- Show required drainage on the plans.
- Show required erosion control items.
- Updated computerized construction estimate.

POST WILLINGNESS OR PUBLIC HEARING – **(OPTION 1)** After all Field Inspection and Value Engineering recommendations have been incorporated into the plans, the Project Manager (after consulting with District Administration) will decide if the project is ready for a Public Hearing. For non-Federal Aid projects that do not require an Environmental Document, the Project Manager can elect to go to Public Hearing when major R/W requirements have been established. Information which should be available at the Public Hearing includes:

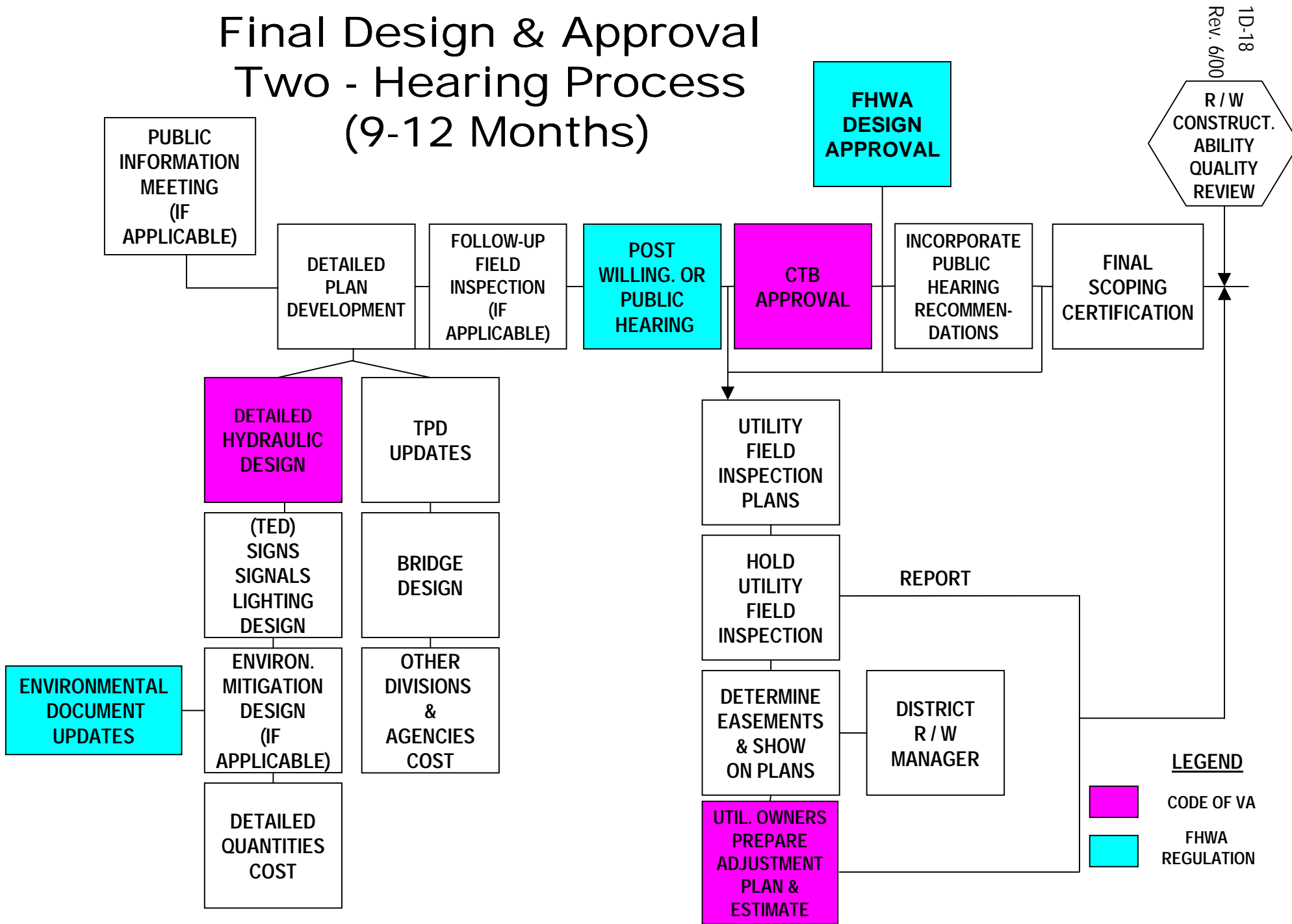
- All plan information necessary for the Field Inspection.
- All proposed R/W and easements (these may not be final because all drainage and utility requirements are not known at this time).
- Estimate - R/W & Construction.

POST WILLINGNESS OR PUBLIC HEARING **(OPTION 2)** For Federal Aid and other projects requiring an Environmental Document, an opportunity for public comment will be provided at a Public Hearing (or posting of a willingness notice) after proposed R/W requirements have been established (including those for final drainage design). The Approved Draft Environmental Document shall be available 15 days prior to the public hearing. The Project Manager will determine when the plans are ready for the public hearing. Information which should be available at this Public Hearing includes:

- All plan information necessary for the Field Inspection and detailed drainage design and erosion control items.
- All proposed R/W and easements.
- Approved Draft Environmental Document.
- Estimate – R/W & Construction.

UTILITY FIELD INSPECTION PLANS – Project Manager will provide plans to the R/W Division when the plans are sufficiently complete for Utility owners to determine their relocation requirements. In addition to data available at the field inspection, the following information shall be available for Utility Field Inspection distribution: plans incorporating field inspection comments, proposed drainage design details, underground utility test hole sheet.

Final Design & Approval Two - Hearing Process (9-12 Months)



HOLD UTILITY FIELD INSPECTION – The Utility Field Inspection is to be scheduled so that it will occur immediately after the Public Hearing or Willingness requirements have been met. If significant issues result from the Public Hearing, the Utility Field Inspection should be rescheduled to follow incorporation of changes into the plans. The test hole data sheet and preliminary plans for bridges, retaining walls, traffic signals, overhead signs, and lighting are to be included. The District Utility Engineer, or a representative, shall conduct the Utility Field Inspection. On complex projects, the designer may be requested to attend in order to provide an explanation of the design requirements.

UFI REPORT – A Utility Field Inspection Report will be prepared with a copy to the Location and Design Engineer. The report will indicate which utility relocations will be placed in the highway contract. Usually a separate set of utility adjustment plans will be prepared and made a part of the project assembly.

DISTRICT RW MANAGER – Recommendations are provided.

DETERMINE EASEMENTS & SHOW ON PLANS – As soon as practicable after the Utility Field Inspection, the District Utility Engineer shall obtain replacement utility easement requirements from the affected utility companies. After review and approval of the utility easements, the District Utility Engineer shall transmit marked prints to the Transportation Engineer in charge of the project for addition to the Right of Way plans.

UTILITY OWNERS PREPARE ADJUSTMENT PLAN & ESTIMATE – Sewer, water or other utility adjustments which are not included in Utility Plans are summarized separately. These plans are to be received approximately two months prior to the scheduled advertisement date (four months if an Advertisement Quality Review is required).

COMMONWEALTH TRANSPORTATION BOARD APPROVAL – A memorandum from the Chief Engineer covering the proceedings of the public hearing and the resolution of questions and recommendations is submitted to the Board requesting inclusion on the Board agenda for appropriate action. Following action by the Board, the District Administrator advises those who spoke at the hearing, or who corresponded with the Department as part of the hearing record, of the action taken, including any changes in the proposal presented at the hearing and appropriate responses to the individual's comments or questions. The District Administrator will also advise all other local officials of the action taken. The State Location and Design Engineer will notify the appropriate mayor and/or chairman of the Board of Supervisors of the Board's action.

FHWA DESIGN APPROVAL – Approval of the Final Environmental Document is the FHWA's concurrence with the project. If this was done at the Location Public Hearing stage and following adoption of the major design features, the project may now be advanced to the Right of Way Acquisition Stage.

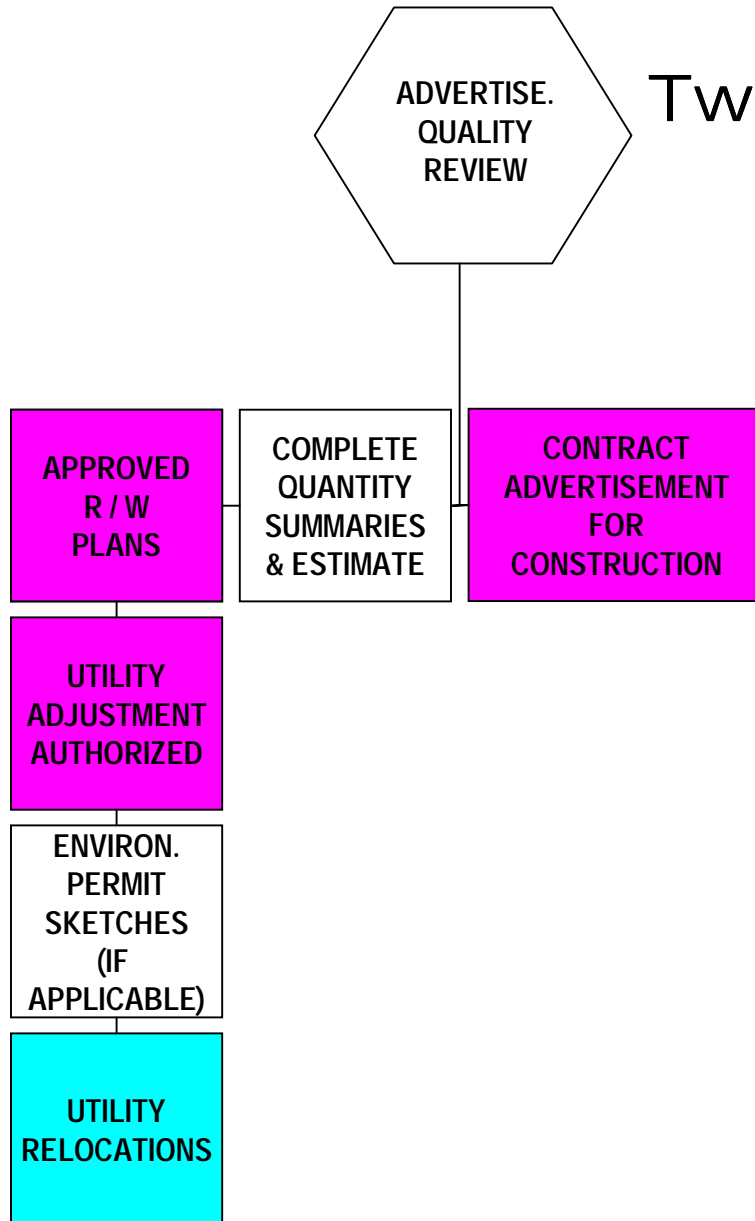
INCORPORATE PUBLIC HEARING RECOMMENDATIONS –

FINAL SCOPING CERTIFICATION – Prior to the plans being signed for right of way (or construction when no right of way is needed), the coordinator fills out a certification form stating the project is within original scope or documentation as to deviations.

RW & CONSTRUCTABILITY QUALITY REVIEW – The Project Manager will determine when the project plans should undergo a detailed quality review for [RW acquisition and constructability](#). Constructability relates to whether the project can be constructed with the information shown in the plans. This will provide the design team with the flexibility to request the review when the plans are ready and will provide the benefit of scheduling the review in time to address issues that may arise in the review. A Quality Control Checklist is available to assist in this quality review. The information which should be available for the review includes: plans as they will be submitted for RW and any other information which would be essential for construction.

Right of Way Acquisition, Utility Relocation & Advertisement

Two - Hearing Process (28-34 Months)



LEGEND



CODE OF VA



FHWA REGULATION

RIGHT OF WAY ACQUISITION, UTILITY RELOCATION & ADVERTISEMENT
(28-34 MONTHS)
TWO-HEARING PROCESS

APPROVED RIGHT OF WAY PLANS

- Plans submitted for RW acquisition should include the information presented at the Public Hearing and any changes resulting from the Public Hearing.

UTILITY ADJUSTMENT AUTHORIZED

- Required utility adjustments will be determined by the Utility Engineer and shown by the designer on the Underground Utility Test Hole Information Sheet.

ENVIRONMENTAL PERMIT SKETCHES (IF APPLICABLE) - The project designer will forward the entire permit assembly to the Environmental Division after the public hearing requirements have been met and approximately one year prior to the project advertisement date.

UTILITY RELOCATIONS

-

COMPLETE QUANTITY SUMMARIES & ESTIMATE - Alignments and grades are well established when the project reaches the right of way stage. Also, all reports affecting the design should have been received by the Location and Design Division. The designer should be able to prepare an accurate estimate of construction quantities.

ADVERTISEMENT QUALITY REVIEW - This [Quality Review](#) of the completed construction plans is conducted 45 days prior to the First Submission to the Construction Division. The plans at this stage should be essentially complete with all Quantity Summaries and plans from other Divisions such as TED, Structure & Bridge, Environmental and utility plans from RW.

CONTRACT ADVERTISEMENT FOR CONSTRUCTION

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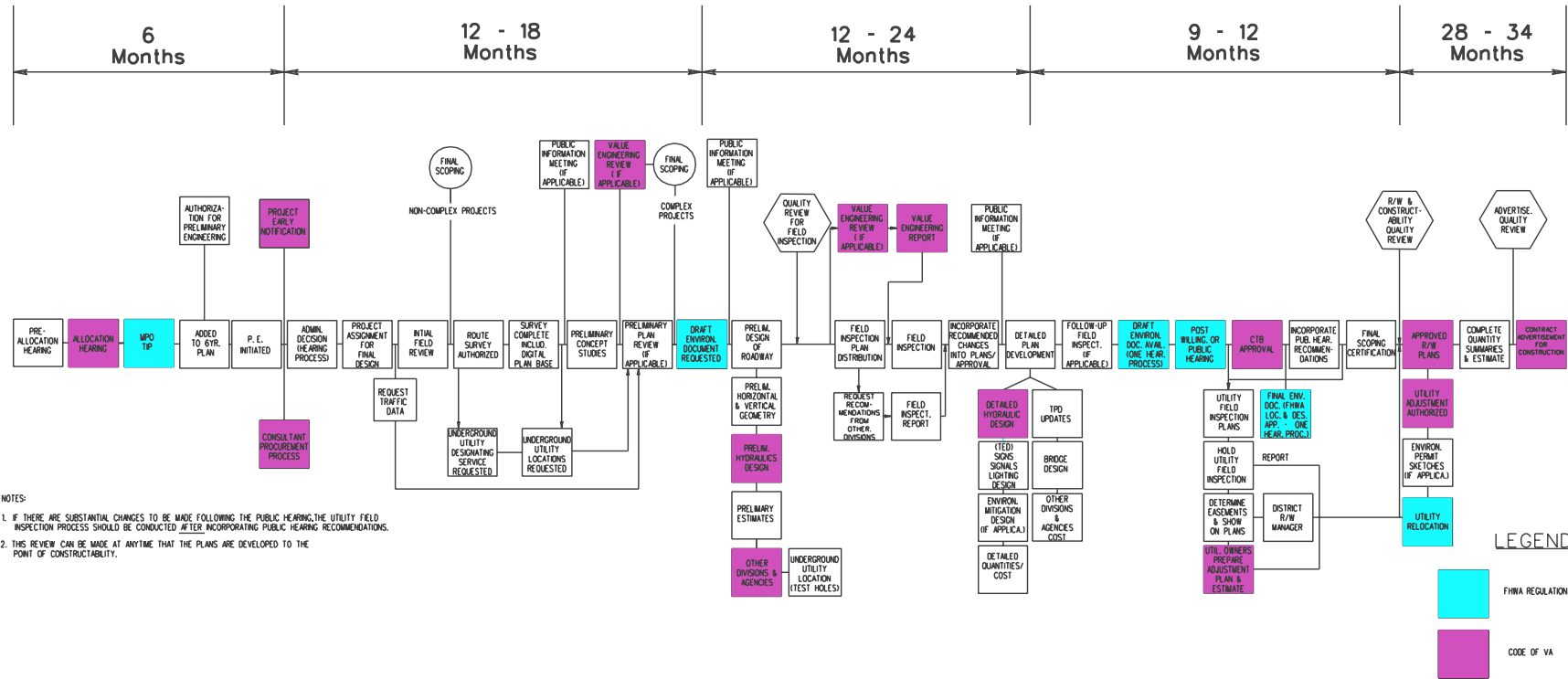
- **FIRST SUBMISSION**: Plans submitted to the Construction Division should be complete with all corrections made as a result of the Advertisement Quality Review. Also necessary is a final engineering estimate and any necessary permits.
- **SECOND SUBMISSION**: Plans are submitted to be printed for Advertisement for Construction. Plans include changes recommended by the Construction Division's review of First Submission Plans.



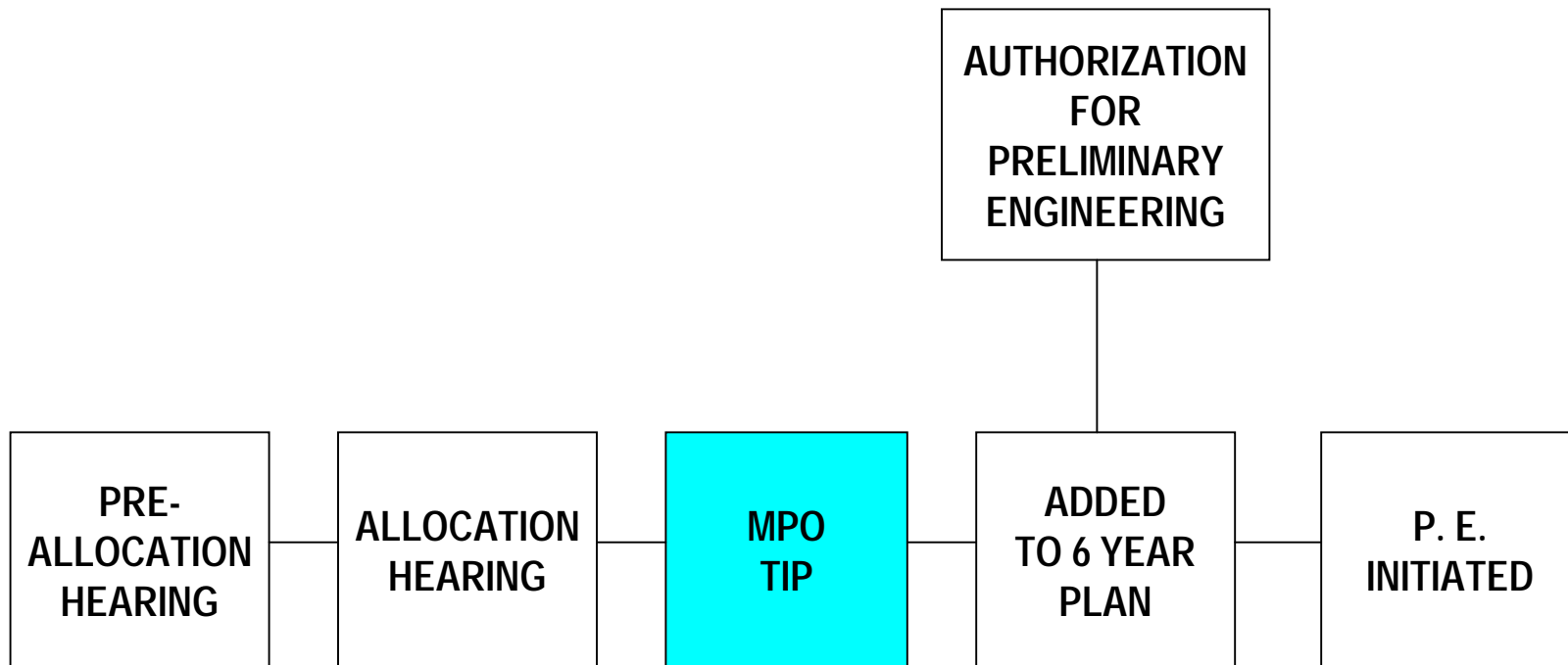
PROJECT DEVELOPMENT ONE-HEARING PROCESS



PROJECT DEVELOPMENT FLOW CHART ONE - HEARING



Project Authorization & Funding Determination One - Hearing Process (6 Months)



LEGEND



CODE OF VA



FHWA REGULATION

PROJECT AUTHORIZATION & FUNDING DETERMINATION
(6 MONTHS)
ONE-HEARING PROCESS

PREALLOCATION HEARING – In late March and early April, the Commonwealth Transportation Board conducts a series of preallocation public hearings. Nine hearings are conducted, one in each construction district. They are moderated by the VDOT District Administrator and are attended by the Secretary of Transportation, the Commissioner, and his staff, and by members of the Commonwealth Transportation Board. Speakers include legislators, local officials, representatives of interest groups, and the general public. The purpose for these meetings is to listen to the public input, and provide the Commonwealth Transportation Board a sense of the improvements the local governments and the citizens feel are needed. The nine hearings average a total of 320 speakers and 30 hours of testimony.

ALLOCATION HEARING (FINAL PUBLIC HEARING) –The purpose of this hearing is to solicit input, which the Board will take into account as they conduct their final deliberations. The final public hearing is conducted in early June. The Final Hearing is conducted in two phases. The first is the hearing for the western four districts, in the city of Salem. The second hearing is held in Richmond for the eastern five districts. Both sessions are conducted in one day, with the Salem meeting in the morning and the Richmond one in the afternoon. The record is not closed upon completion of the hearing. Correspondence before, or shortly after, the public hearing will still be considered by the Board in their deliberations.

MPO TIP – Federal planning regulations require the preparation of long range (20 year) transportation improvement plans (TIP) for urbanized areas and a state wide plan for the non-urbanized areas. These plans must be updated every 3-5 years. In order for a project to be included in the TIP, it must be shown in the long-range plan. In short, the long range plan identifies the needs and the improvements that are necessary to meet them and the TIP is the project programming piece.

The portion of the State Transportation Improvement Plan (STIP) in a metropolitan planning area (the metropolitan TIP) is developed in cooperation with the MPO (Metropolitan Planning Organization). To assist in this process, VDOT provides MPOs with estimates of available Federal and State funds which the MPO can utilize in developing the metropolitan TIP. Metropolitan planning area TIPs shall be included without modification in the STIP, directly or by reference, once approved by the MPO and the Governor and after needed conformity findings are made. Metropolitan TIPs in nonattainment and maintenance areas are subject to the FHWA and the FTA conformity findings before their inclusion in the STIP. In nonattainment and maintenance areas outside metropolitan planning areas, Federal findings of conformity must be made prior to placing projects in the STIP. The State shall notify the appropriate MPO, local jurisdictions, Federal land agency, Indian tribal government, etc. when a TIP including projects under the jurisdiction of the agency has been included in the STIP. The Governor shall provide for public involvement in development of the STIP.

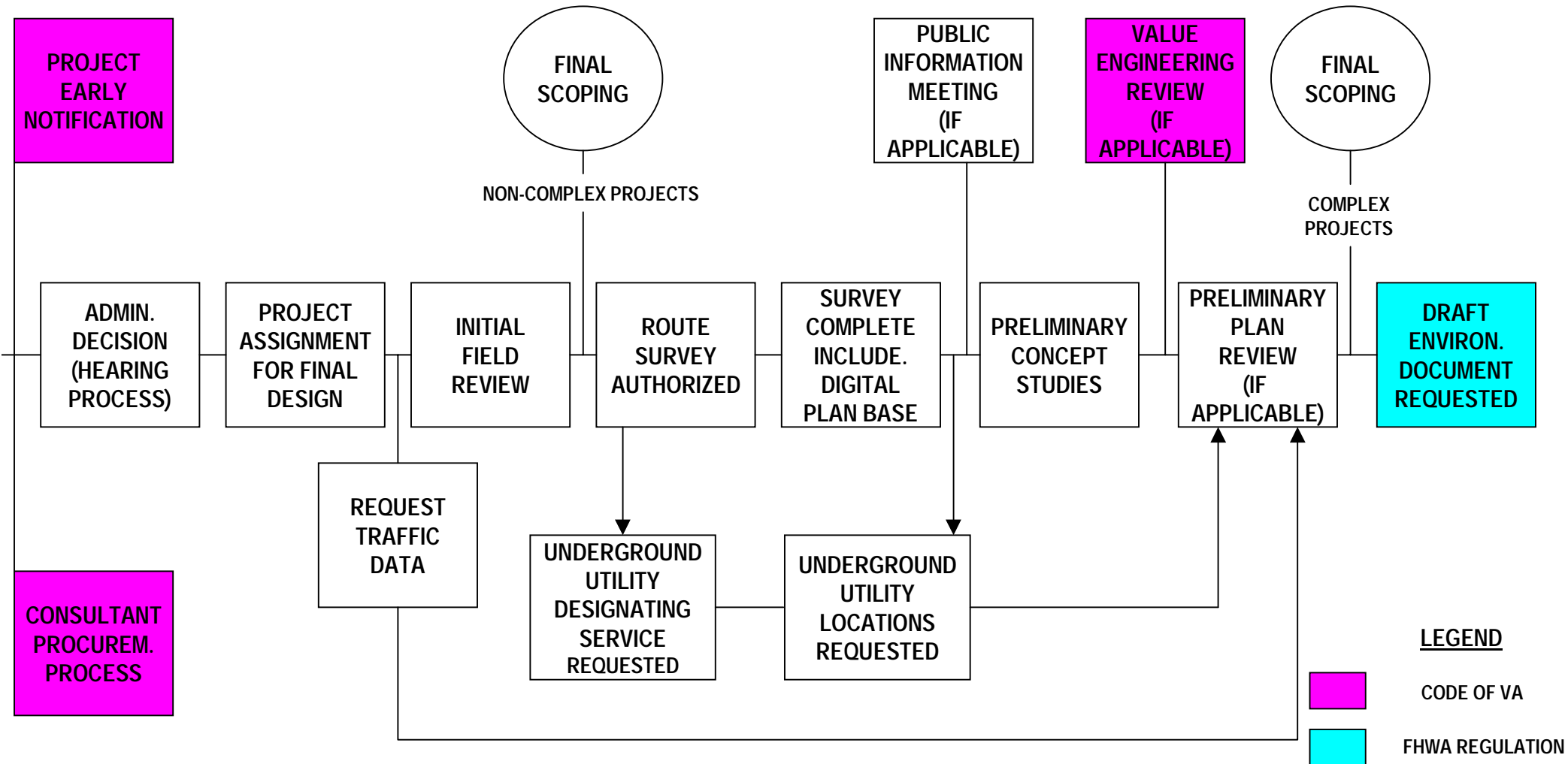
Development of the TIPs includes factors such as the following in the planning process: transportation needs; strategies for incorporating bicycle transportation facilities and pedestrian walkways; access to ports, airports, intermodal transportation facilities, major freight distribution routes; recreational travel and tourism; the overall social, economic, energy, and environmental effects of transportation decisions (including housing and community development effects and effects on the human, natural and manmade environments); methods to reduce traffic congestion; methods to expand and enhance appropriate transit services.

AUTHORIZATION FOR PRELIMINARY ENGINEERING – Projects are initiated and funding requests are submitted according to the system classification. Project numbers are assigned for all projects according to the Functional Classification and financing. Urban Projects are initiated by municipal resolution to the Urban Division stating their desire for VDOT to consider the implementation of a project. The Urban Division authorizes funding for Urban projects. Requests for initiation of projects on the Interstate and Primary Systems originate within VDOT in accordance with established construction schedules, for future planning purposes and in some instances at the request of local governments. The Programming and Scheduling Division authorizes funding for Interstate and Primary Projects. Secondary projects are initiated by the Resident Engineer in conjunction with a master plan and with approval of appropriate boards of supervisors.

ADDED TO 6 YEAR PLAN – The revenue projections on which this program is based include all funds anticipated, both federal and state, to be available for distribution by the Commonwealth Transportation Board as mandated by State statutes for Preliminary Engineering, Right of Way and construction on Interstate, Primary, Urban and Secondary Systems as well as funds anticipated to be available for ports, airports, rail and public transportation.

P. E. INITIATED – This is the approval to proceed with the project design.

Project Scoping & Survey One - Hearing Process (12-18 Months)



PROJECT SCOPING & SURVEY
(12-18 MONTHS)
ONE-HEARING PROCESS

PROJECT EARLY NOTIFICATION – Project Early Notification is required as soon as a project has been initiated (PE authorized) in order to provide state environmental resource agencies an opportunity to comment on highway improvements at an early stage of project development. Early Notifications are required on all proposed improvements that disturb previously undisturbed ground. Environmental data identified in this early review process by the resource agencies is returned to the District Environmental Manager within thirty days. The district environmental personnel will utilize this data in their Preliminary Environmental Inventory to determine the significance/non-significance of the project. Agencies involved in this process are the Department of Agricultural and Consumer Services; Department of Conservation and Recreation Resources; Division of Natural Heritage; Division of Soil and Water Conservation; Division of State Parks, Division of Policy, Planning, and Recreation Resources; Department of Environmental Quality - Air Division; Department of Environmental Quality - Waste Division; Department of Environmental Quality - Water Division; Department of Forestry; Department of Health; Department of Historic Resources; Department of Mines, Minerals, and Energy; Virginia Museum of Natural History; Virginia Outdoors Foundation; and the Virginia Marine Resources Commission.

CONSULTANT PROCUREMENT PROCESS – Each division within VDOT and each District Administrator are responsible for determining the need for the use of the private sector to accomplish their program. This is determined by analyzing the available manpower, time available and required technical skills as they relate to the projected work program. This is normally done on an annual basis once the Six Year Improvement Plan is approved in July by the Commonwealth Transportation Board (CTB). Upon adoption of the program, the Division/District Administrator determines the need for the use of the private sector. The advertisement process, referred to as the Request for Proposal (RFP), is then begun. Projects are advertised throughout the year. Upon acquisition of the Department's RFP for professional services, the firms responding should submit an Expression of Interest (EOI) providing the data specified in the RFP with regard to their ability to perform the specified work. Federal Acquisition Regulations (FAR) audit data must be submitted within 10 days of being notified of selection. After review and negotiations are complete, a formal Memorandum of Agreement is executed and presented to the CTB for approval. If successful negotiations cannot be concluded with the top rated firm, negotiations will be terminated and negotiations will be conducted with the second ranked firm. The period of time normally associated with the RFP process generally takes four to six months from advertisement until the notice to proceed is issued.

ADMINISTRATIVE DECISION (HEARING PROCESS) – The State Location and Design Engineer will review the project with the appropriate officials to determine if a Location Public Hearing will be required, taking into account the general complexity of the project and anticipated public interest. Location Public Hearings are usually held on all projects involving major environmental changes affecting the community. Should it be found desirable to hold a Location Public Hearing, authorization will be given and those involved will be advised as to the scheduling of the hearing, corridors to be presented and other pertinent information. A determination should be made at this time as to whether existing photography is adequate for the preparation of an aerial mosaic. If not, the required coverage should be requested.

PROJECT ASSIGNMENT FOR FINAL DESIGN – The State Location and Design Engineer or his representative for Location will request that the design unit in either the Central Office or the District to which the project has been assigned prepare a preliminary study, if one is warranted. Should a study not be needed, survey will be authorized. The Preliminary Engineering Section will participate in any special studies and analyses that may be required by management.

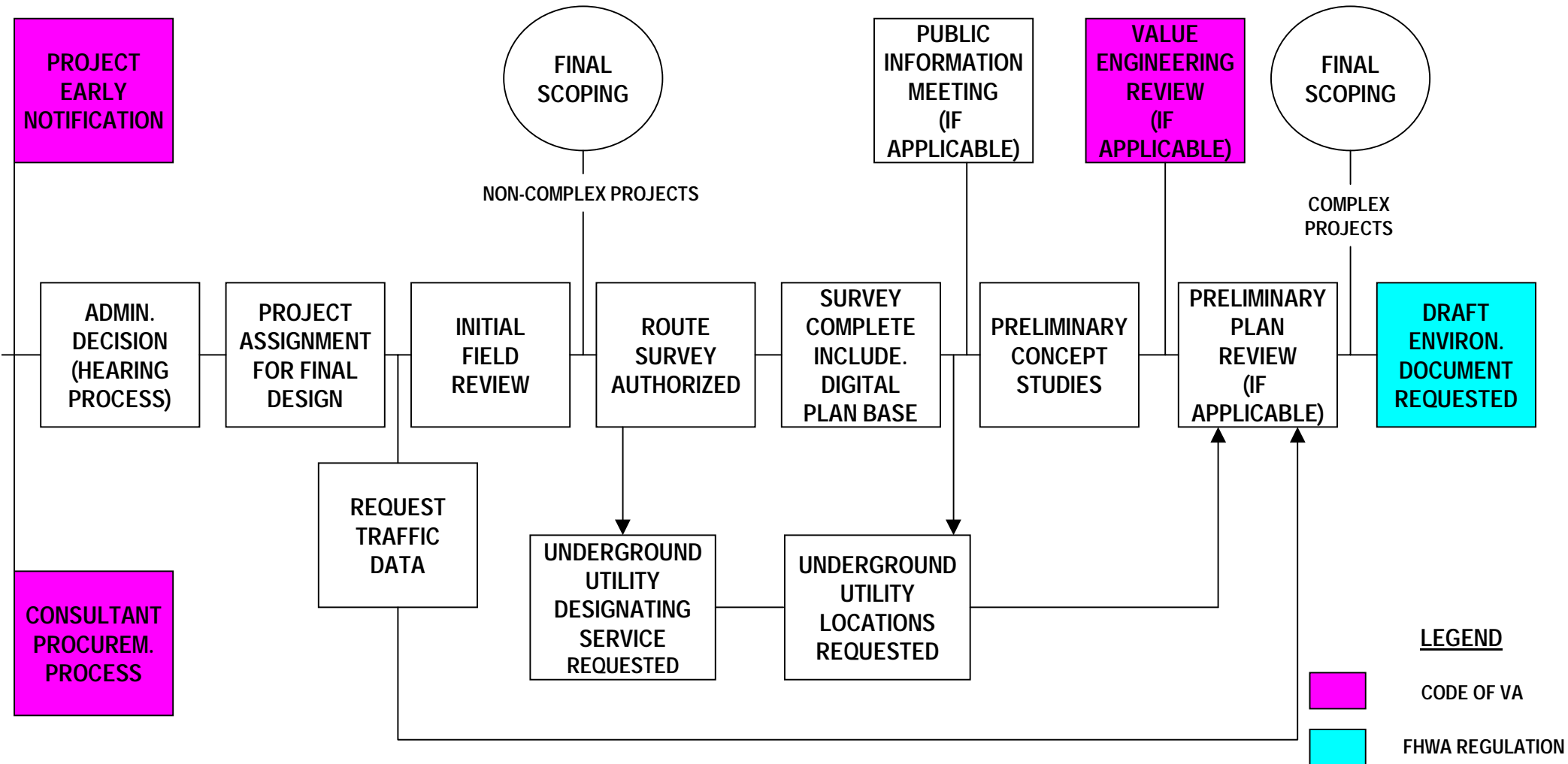
REQUEST TRAFFIC DATA – Traffic data is requested, *except* for low volume Local Roads and Rural Collectors with a Current ADT (Current ADT being defined as latest available traffic counts) less than 400 VPD. The design year traffic data being requested is to be based on the advertisement date plus 11 years for secondaries and 22 years for all other systems including selected Urban Secondaries.

INITIAL FIELD REVIEW – This review is held before any survey or final design is initiated on a project. Its purpose is to establish project intent, scope and criteria before any significant engineering expenditures. Information developed at this meeting is used to establish the limits of survey information to be obtained for the project and to document the Final Scope Approval for non-complex projects not requiring a Preliminary Plan Review. The Project Manager will decide whether the project complexity requires a Preliminary Plan Review to establish the Final Scope of Project. Information which should be available at the Initial Field Review includes photos, old plans or geodetic mapping; existing or projected traffic information; proposed project schedule; Functional Classification and preliminary cost.

FINAL SCOPING (NON-COMPLEX PROJECTS) – The recommended design, as a result of the Preliminary Plan Review, is presented to the scoping group and after agreement is reached, the appropriate form will document the decisions reached. Prior to the plans being signed for right of way (or construction when no right of way is needed), the coordinator will certify that the project is within the original scope, or provide documentation as to the deviations.

ROUTE SURVEY AUTHORIZED – There are certain instances in which it is not necessary to hold a Location Public Hearing after the completion of a Location Study. In these instances, route surveys will be authorized upon completion of the scoping report. All route surveys are authorized by the State Location and Design Engineer, or his/her representative, by memorandum to the District Administrator. The Programming and Scheduling Division authorizes funding and notifies the Fiscal Division of this funding. All surveys will be assigned in cooperation with the District Administrator. Assignments are to be made on the basis of available manpower statewide. The Department may secure outside services to perform this work as needed.

Project Scoping & Survey One - Hearing Process (12-18 Months)



UNDERGROUND UTILITY DESIGNATING SERVICE REQUIRED – The Department has contracts statewide with consultants to designate and locate utilities along route survey projects selected by the Department. Utilities are designated by marking the presence of a subsurface utility using a geophysical prospecting technique. The designated utility locations with their corresponding attribute data are returned to the Department where they are incorporated into the digital survey file.

SURVEY COMPLETE INCLUDING DIGITAL PLAN BASE – When the photogrammetric and ground portions of the survey have been completed, the planimetric, topographic, property and utility data is merged into an electronic data file which is used for plotting of horizontal and vertical positional data on plan sheets.

PUBLIC INFORMATION MEETING (IF APPLICABLE) – Early and continued public involvement in project development is important. A Public Information Meeting is to be held as early as possible to gather information from local governing bodies, citizen groups and individuals. The Project Manager or District Administrator decides on the necessity for one or more Public Information Meetings.

PRELIMINARY CONCEPT STUDIES – Following the receipt of comments, questions and recommendations provided by other disciplines within the Location and Design Division, a review and common solution will be determined and shown as the Division's proposals on the preliminary design of the scheme of development. The Preliminary Plan Review will provide another opportunity to consider all input that could lead to the most feasible scheme of development.

UNDERGROUND UTILITY LOCATIONS REQUESTED – . The horizontal location of existing subsurface utilities will be secured by the consultant and the information returned to the Department in the format requested.

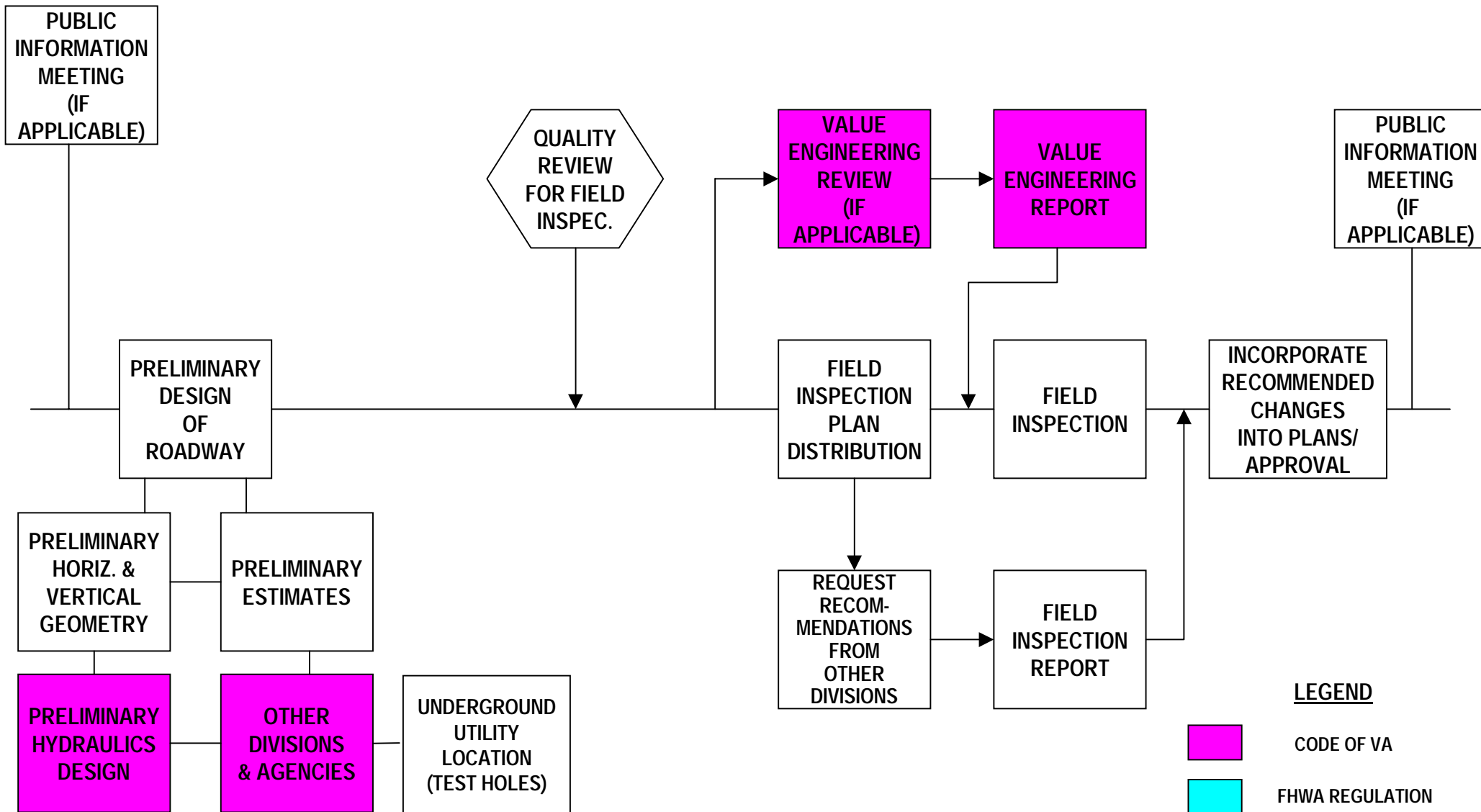
VALUE ENGINEERING REVIEW (IF APPLICABLE) – Projects with an estimated construction cost exceeding \$2,000,000 and other selected projects are reviewed by an independent Value Engineering Team. The same information available at the Field Inspection should be available for the Value Engineering Review.

PRELIMINARY PLAN REVIEW (IF APPLICABLE) – This is an optional field review that may be appropriate for complex Interstate, Primary, Secondary or Urban projects where the Project Manager feels it is necessary to obtain consensus from the District, municipalities, other agencies, etc., on the Final Scope of the project after survey is obtained and preliminary concept studies have been conducted. The results of this meeting are documented on the Scoping Report. If a Preliminary Plan Review is held, the following information is necessary for review: completed survey; preliminary typical section; plan design concept (edges of pavement, approximate R/W, etc.); alternate methods of development may need to be presented (example - results of widening existing pavement to the left, right or both sides); preliminary grades; projected traffic information; preliminary costs (R/W & construction); traffic maintenance concept during construction; potential environmental problem areas.

FINAL SCOPING (COMPLEX PROJECTS) – The recommended design, as a result of the Preliminary Plan Review, is presented to the scoping group and after agreement is reached, the appropriate form will document the decisions reached. Prior to the plans being signed for right of way (or construction when no right of way is needed), the coordinator will certify that the project is within the original scope, or provide documentation as to the deviations.

DRAFT ENVIRONMENTAL DOCUMENT REQUESTED – When preliminary plans are complete, the Environmental Division should be requested to prepare an appropriate environmental document. This is the point at which an official environmental document is requested; however, the Environmental Division is involved in environmental evaluations earlier in the location studies.

Preliminary Design One - Hearing Process (12-24 Months)



PRELIMINARY DESIGN
(12-24 MONTHS)
ONE-HEARING PROCESS

PUBLIC INFORMATION MEETING (IF APPLICABLE) – Early and continued public involvement in project development is important. A Public Information Meeting is to be held as early as possible to gather information from local governing bodies, citizen groups and individuals. The Project Manager or District Administrator decides on the necessity for one or more Public Information Meetings.

PRELIMINARY DESIGN OF ROADWAY –

- **PRELIMINARY HORIZONTAL & VERTICAL GEOMETRY** – Although horizontal alignment is in the proper location at this stage, it must be reviewed for tie-ins with adjoining projects, connection tie-ins, interchange ramp tie-ins, traverse tie-ins, etc. Vertical alignments or grades are to be reviewed and computed for smooth, tie-ins with adjoining projects and existing road elevations. Connections, interchange ramps, etc., are to be computed considering pavement crowns, variable widths, etc.
- **PRELIMINARY HYDRAULICS DESIGN** – Identification of drainage structures, tentative locations of Stormwater Management facilities and a tentative Erosion and Siltation Control plan are required at this stage (hydraulic design is approximately 60% complete in preparation for field inspection).
- **PRELIMINARY ESTIMATES** – Construction cost estimates are received from other divisions and coded into the estimating system to obtain construction costs. Right of Way and Utility Estimates are then added to the construction estimate to complete the estimate of project costs.
- **OTHER DIVISIONS & AGENCIES** – Continue coordination and request tentative designs and from applicable divisions such as the Materials and Environmental Divisions(including other agencies), Structure and Bridge, Traffic Engineering and Right of Way and Utilities.
- **UNDERGROUND UTILITY LOCATIONS (TEST HOLES)** –Requested approximately six months prior to field inspection.

QUALITY REVIEW FOR FIELD INSPECTION –The Project Manager initiates this quality review when the plans depict sufficient design detail to hold a Field Inspection. A Quality Control Checklist is available to assist in this quality review.

VALUE ENGINEERING REVIEW (IF APPLICABLE) – Projects with an estimated construction cost exceeding \$2,000,000 and other selected projects are reviewed by an independent Value Engineering Team. The same information available at the Field Inspection should be available for the Value Engineering Review.

FIELD INSPECTION PLAN DISTRIBUTION – The Project Manager initiates a field inspection when the plans depict sufficient design detail to allow an effective review by all involved disciplines. All disciplines will review the project on site, not necessarily at the same time. The following information should be available for the Field Inspection: title sheet; right of way data sheet; maintenance of traffic and sequence of construction sheets; typical section sheets; plan sheets showing complete survey with proposed alignments, right of way and easements, incidental concrete items, construction limits, guardrail, proposed entrances, preliminary drainage layout, tentative signalization, tentative soundwall locations, tentative landscape design, tentative ITS, and tentative bridge layout (type, size and location) location of piers and size of footers; profile sheets including existing and proposed grades including those for entrances; cross sections with proposed templates; and the engineering estimate

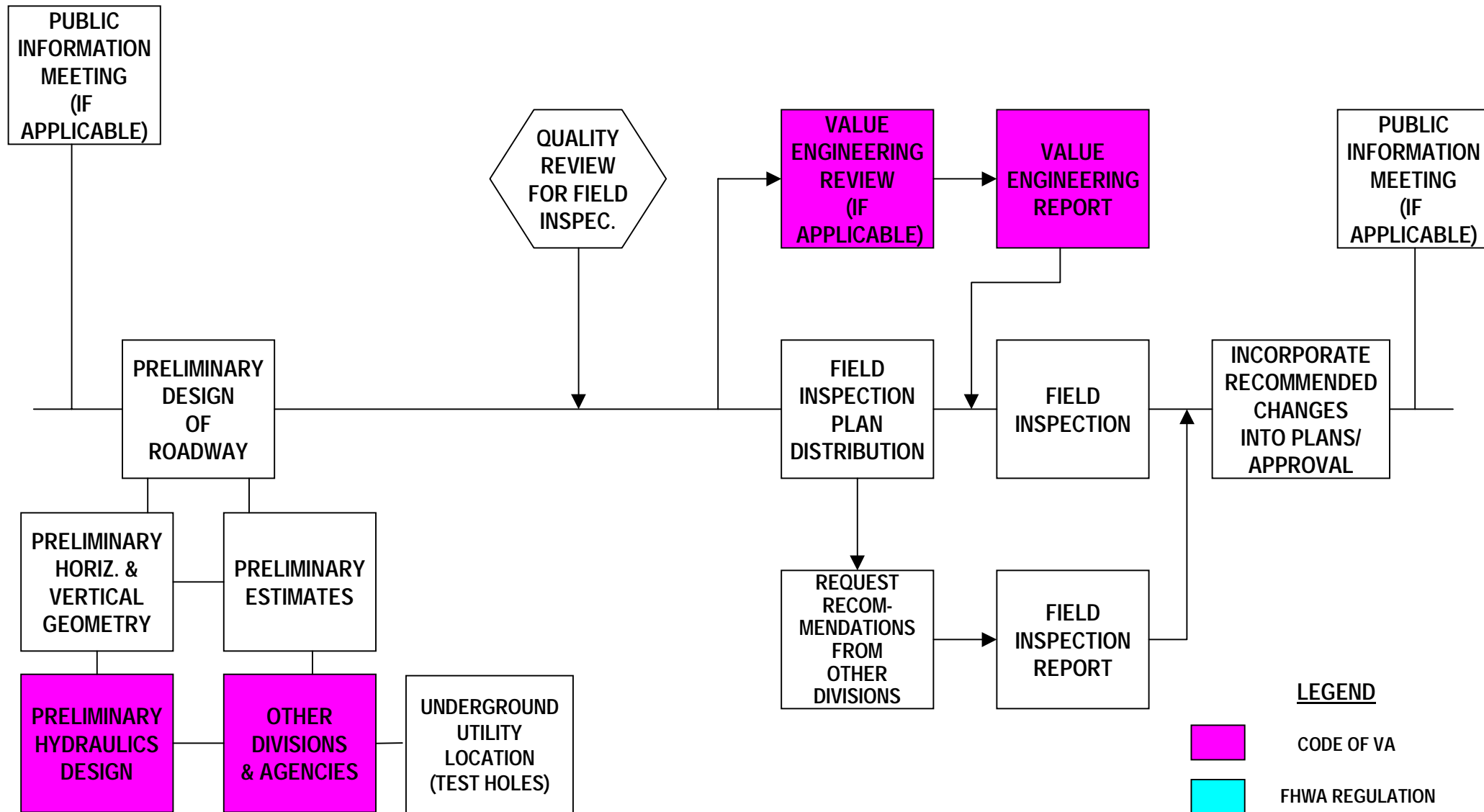
REQUEST RECOMMENDATIONS FROM OTHER DIVISIONS –Recommendations are requested from various applicable entities.

VALUE ENGINEERING REPORT – The Location and Design Engineer will review the VE Team's recommendations along with those from the District Administrator and Division Administrator and determine the implementation potential of the Value Engineering proposals. The Project Manager will verify that accepted VE recommendations have been incorporated into the project by initialing the accepted recommendation on a copy of the Chief Engineer's Response Letter/Project Summary Information Form and forward it to the VE Regional Coordinator.

FIELD INSPECTION – The Field Inspection is scheduled by the District Administrator who will arrange to have the plans reviewed, appropriate staff attend, and reports submitted by the appropriate divisions. Field Inspections on urban projects will be scheduled by the Urban Division in conjunction with the District Office. The Field Inspection is presided over by the District Administrator or his/her representative, usually the District Construction Engineer. Review comments received prior to the Field Inspection are to be addressed at the Field Inspection or in a subsequent report

FIELD INSPECTION REPORT – Reports from the District Materials, Traffic Engineering, Right of Way and Utilities and Environmental Divisions, letters from municipalities, etc., are to be submitted to the District Administrator's representative or the State Location and Design Engineer for Central Office projects. The Urban Division submits a report on urban projects to the State Location and Design Engineer.

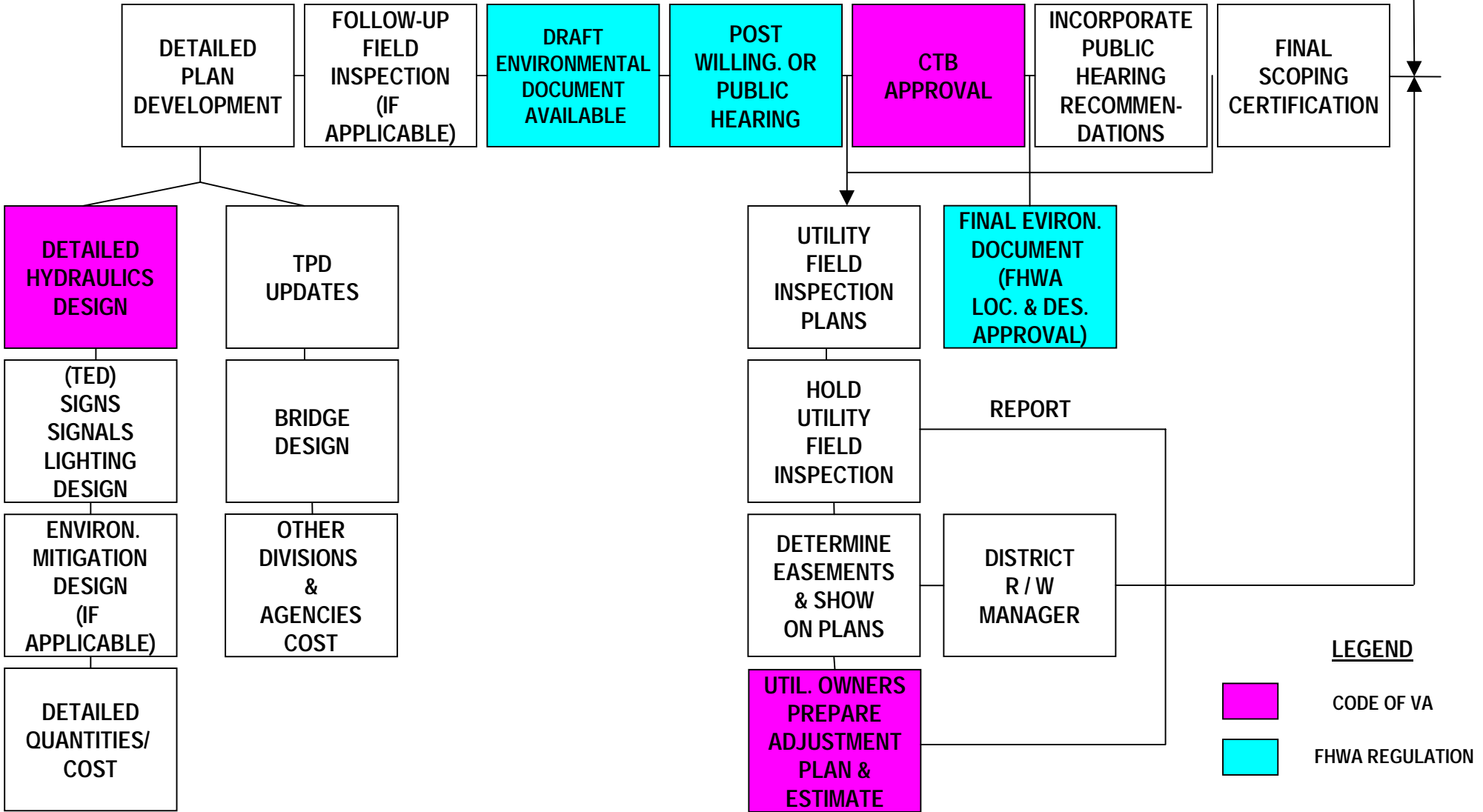
Preliminary Design One - Hearing Process (12-24 Months)



INCORPORATE RECOMMENDED CHANGES INTO PLANS/APPROVAL – After the various Field Inspection reports are received, all necessary rulings on controversial questions are to be resolved and recommendations incorporated into the plans. The Project Manager will respond to the Urban Division Administrator for Urban Projects and the District Administrator or District Construction Engineer for all other projects with a resolution of all field inspection comments.

PUBLIC INFORMATION MEETING (IF APPLICABLE) – Early and continued public involvement in project development is important. A Public Information Meeting is to be held as early as possible to gather information from local governing bodies, citizen groups and individuals. The Project Manager or District Administrator decides on the necessity for one or more Public Information Meetings.

Final Design & CTB Approval One - Hearing Process (9-12 Months)



FINAL DESIGN & CTB APPROVAL
(9-12 MONTHS)
ONE-HEARING PROCESS

DETAILED PLAN DEVELOPMENT – The following areas are developed in detail:

- Detailed hvdraulic desian –
- (TED) signs, signals, lighting design –
- Environmental mitigation design (if applicable) –
- Detailed quantities/cost –
- Transportation Planning Division updates –
- Bridge design –
- Other divisions & agencies cost –

FOLLOW-UP FIELD INSPECTION (IF APPLICABLE) – Selected projects, due to their nature or complexity, should have another field inspection after the plan design has advanced to a greater degree of completion. The Project Manager decides if the follow-up Field Inspection is necessary. If a second Field Inspection is held, the following information should be available in addition to the information shown on the previously described Field Inspection plans:

- General Note Sheet including specific general notes for project.
- Underground utilities test hole information sheet.
- Label required items on the plan sheets.
- Show required drainage on the plans.
- Show required erosion control items.
- Updated computerized construction estimate.

DRAFT ENVIRONMENTAL DOCUMENT AVAILABLE –

POST WILLINGNESS OR PUBLIC HEARING – **(OPTION 1)** After all Field Inspection and Value Engineering recommendations have been incorporated into the plans, the Project Manager (after consulting with District Administration) will decide if the project is ready for a Public Hearing. For non-Federal Aid projects that do not require an Environmental Document, the Project Manager can elect to go to Public Hearing when major R/W requirements have been established. Information which should be available at the Public Hearing includes:

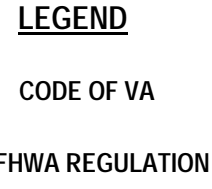
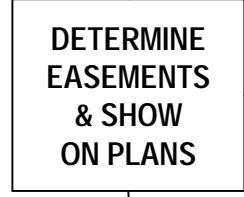
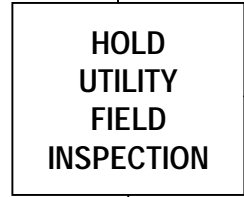
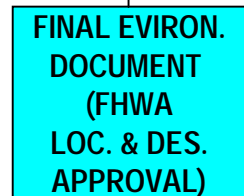
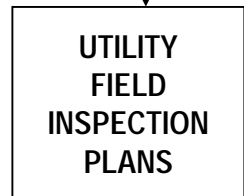
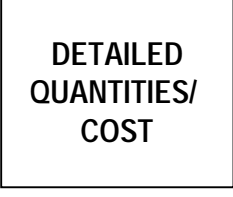
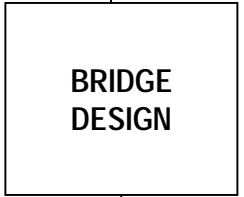
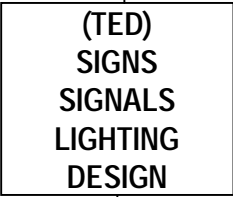
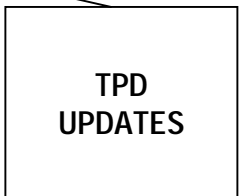
- All plan information necessary for the Field Inspection.
- All proposed R/W and easements (these may not be final because all drainage and utility requirements are not known at this time).
- Estimate - R/W & Construction.

POST WILLINGNESS OR PUBLIC HEARING – **(OPTION 2)** For Federal Aid and other projects requiring an Environmental Document, an opportunity for public comment will be provided at a Public Hearing (or posting of a willingness notice) after proposed R/W requirements have been established (including those for final drainage design). The Approved Draft Environmental Document shall be available 15 days prior to the public hearing. The Project Manager will determine when the plans are ready for the public hearing. Information which should be available at this Public Hearing includes:

- All plan information necessary for the Field Inspection and detailed drainage design and erosion control items.
- All proposed R/W and easements.
- Approved Draft Environmental Document.
- Estimate - R/W & Construction.

Final Design & CTB Approval One - Hearing Process (9-12 Months)

1D-36
Rev. 6/00



UTILITY FIELD INSPECTION PLANS – Project Manager will provide plans to the RW Division when the plans are sufficiently complete for Utility owners to determine their relocation requirements. In addition to data available at the field inspection, the following information shall be available for Utility Field Inspection distribution: plans incorporating field inspection comments, proposed drainage design details, underground utility test hole sheet.

HOLD UTILITY FIELD INSPECTION – The Utility Field Inspection is to be scheduled so that it will occur immediately after the Public Hearing or Willingness requirements have been met. If significant issues result from the Public Hearing, the Utility Field Inspection should be rescheduled to follow incorporation of changes into the plans. The test hole data sheet and preliminary plans for bridges, retaining walls, traffic signals, overhead signs, and lighting are to be included. The District Utility Engineer, or a representative, shall conduct the Utility Field Inspection. On complex projects, the designer may be requested to attend in order to provide an explanation of the design requirements.

UFI REPORT – A Utility Field Inspection Report will be prepared with a copy to the Location and Design Engineer. The report will indicate which utility relocations will be placed in the highway contract. Usually a separate set of utility adjustment plans will be prepared and made a part of the project assembly.

DISTRICT RW MANAGER – Recommendations are provided.

DETERMINE EASEMENTS & SHOW ON PLANS – As soon as practicable after the Utility Field Inspection, the District Utility Engineer shall obtain replacement utility easement requirements from the affected utility companies. After review and approval of the utility easements, the District Utility Engineer shall transmit marked prints to the Transportation Engineer in charge of the project for addition to the Right of Way plans.

UTILITY OWNERS PREPARE ADJUSTMENT PLAN & ESTIMATE – Sewer, water or other utility adjustments which are not included in Utility Plans are summarized separately. These plans are to be received approximately two months prior to the scheduled advertisement date (four months if an Advertisement Quality Review is required).

COMMONWEALTH TRANSPORTATION BOARD APPROVAL – A memorandum from the Chief Engineer covering the proceedings of the public hearing and the resolution of questions and recommendations is submitted to the Board requesting inclusion on the Board agenda for appropriate action. Following action by the Board, the District Administrator advises those who spoke at the hearing, or who corresponded with the Department as part of the hearing record, of the action taken, including any changes in the proposal presented at the hearing and appropriate responses to the individual's comments or questions. The District Administrator will also advise all other local officials of the action taken. The State Location and Design Engineer will notify the appropriate mayor and/or chairman of the Board of Supervisors of the Board's action.

FINAL ENVIRONMENTAL DOCUMENT (FHWA LOCATION & DESIGN APPROVAL) – Approval of the Final Environmental Document is the FHWA's concurrence with the project.

INCORPORATE PUBLIC HEARING RECOMMENDATIONS –

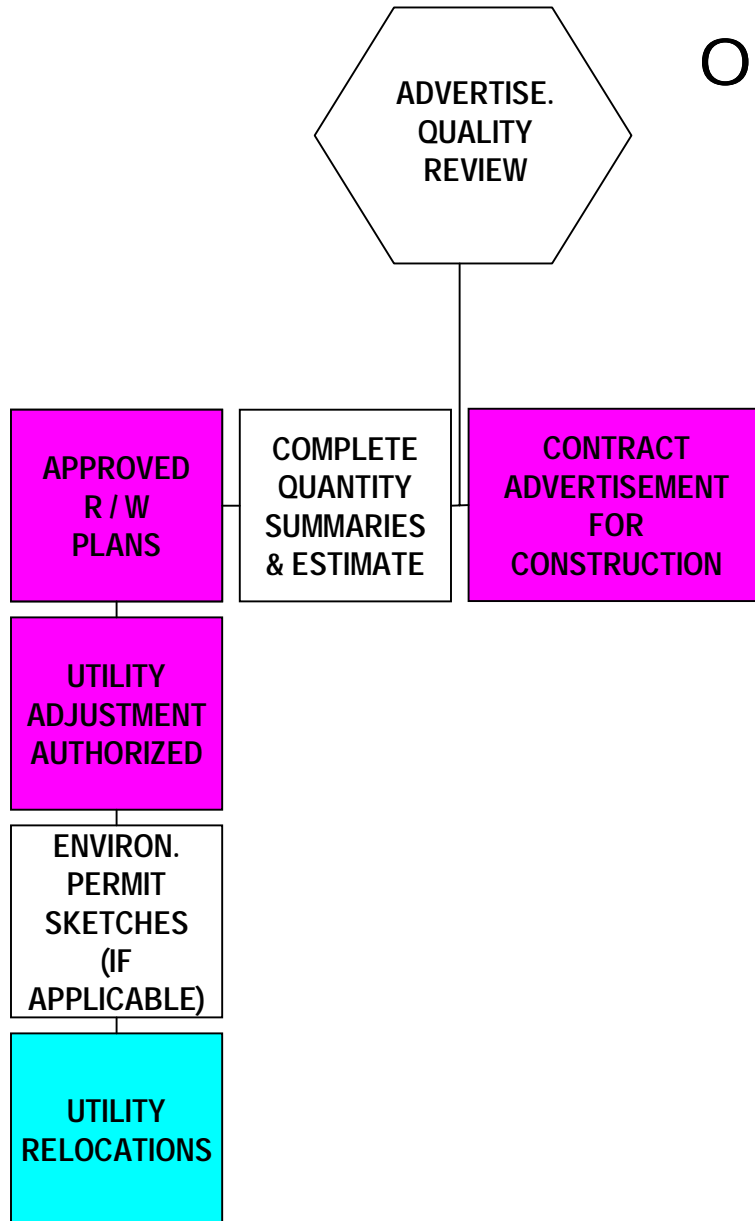
FINAL SCOPING CERTIFICATION – Prior to the plans being signed for right of way (or construction when no right of way is needed), the coordinator fills out a certification form stating the project is within original scope or documentation as to deviations.

RW & CONSTRUCTABILITY QUALITY REVIEW – The Project Manager will determine when the project plans should undergo a detailed quality review for RW acquisition and constructability. Constructability relates to whether the project can be constructed with the information shown in the plans. This will provide the design team with the flexibility to request the review when the plans are ready and will provide the benefit of scheduling the review in time to address issues that may arise in the review. A Quality Control Checklist is available to assist in this quality review. The information which should be available for the review includes: plans as they will be submitted for RW and any other information which would be essential for construction.

Right of Way Acquisition, Utility Relocation & Advertisement

One - Hearing Process (28-34 Months)

1D-38
Rev. 6/00



LEGEND



CODE OF VA



FHWA REGULATION

RIGHT OF WAY ACQUISITION, UTILITY RELOCATION & ADVERTISEMENT
(28-34 MONTHS)
ONE-HEARING PROCESS

APPROVED RIGHT OF WAY PLANS

– Plans submitted for R/W acquisition should include the information presented at the Public Hearing and any changes resulting from the Public Hearing.

UTILITY ADJUSTMENT AUTHORIZED

– Required utility adjustments will be determined by the Utility Engineer and shown by the designer on the Underground Utility Test Hole Information Sheet.

ENVIRONMENTAL PERMIT SKETCHES (IF APPLICABLE) – The project designer will forward the entire permit assembly to the Environmental Division after the public hearing requirements have been met and approximately one year prior to the project advertisement date.

UTILITY RELOCATIONS

–

COMPLETE QUANTITY SUMMARIES & ESTIMATE – Alignments and grades are well established when the project reaches the right of way stage. Also, all reports affecting the design should have been received by the Location and Design Division. The designer should be able to prepare an accurate estimate of construction quantities.

ADVERTISEMENT QUALITY REVIEW – This Quality Review of the completed construction plans is conducted 45 days prior to the First Submission to the Construction Division. The plans at this stage should be essentially complete with all Quantity Summaries and plans from other Divisions such as TED, Structure & Bridge, Environmental and utility plans from R/W.

CONTRACT ADVERTISEMENT FOR CONSTRUCTION –

- **FIRST SUBMISSION:** Plans submitted to the Construction Division should be complete with all corrections made as a result of the Advertisement Quality Review. Also necessary is a final engineering estimate and any necessary permits.
- **SECOND SUBMISSION:** Plans are submitted to be printed for Advertisement for Construction. Plans include changes recommended by the Construction Division's review of First Submission Plans.

Current Project Development Process

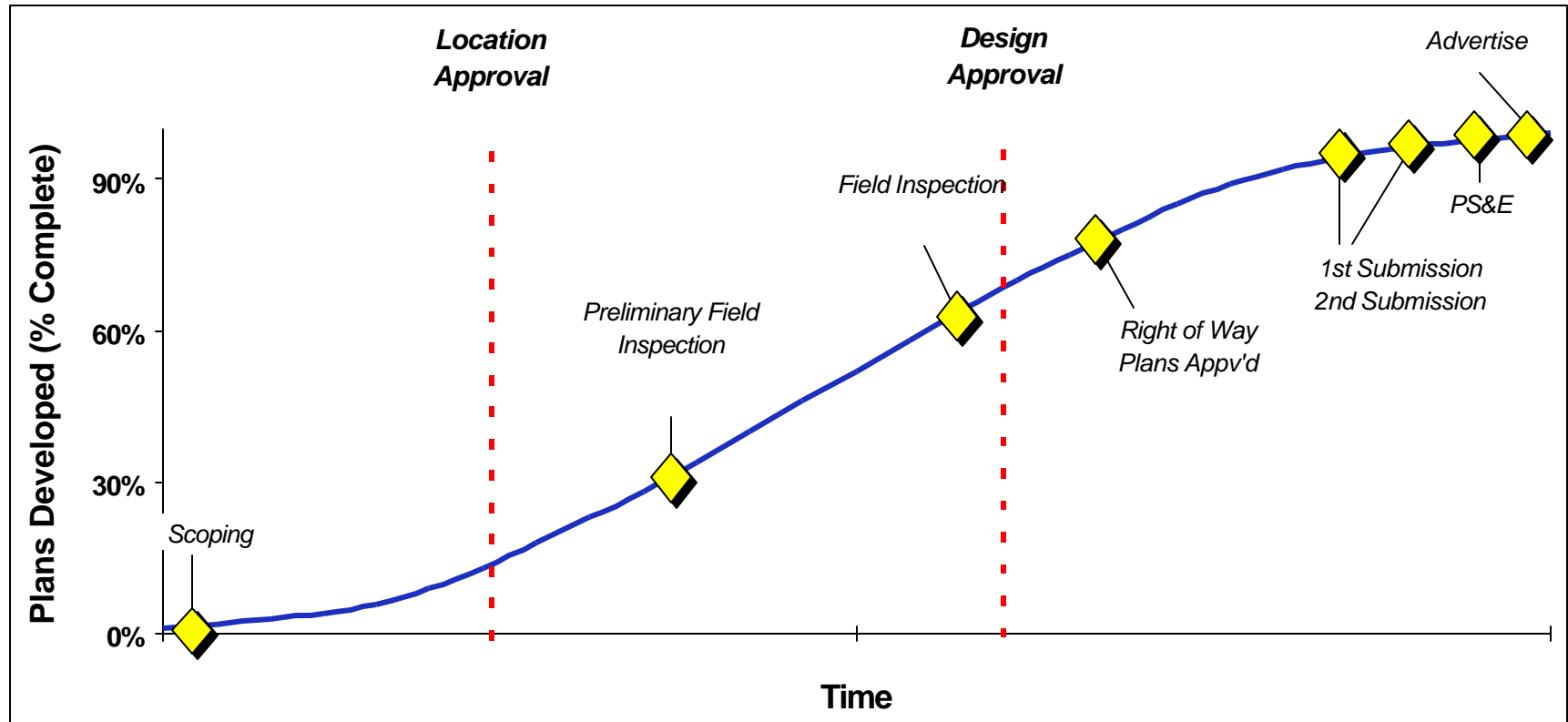
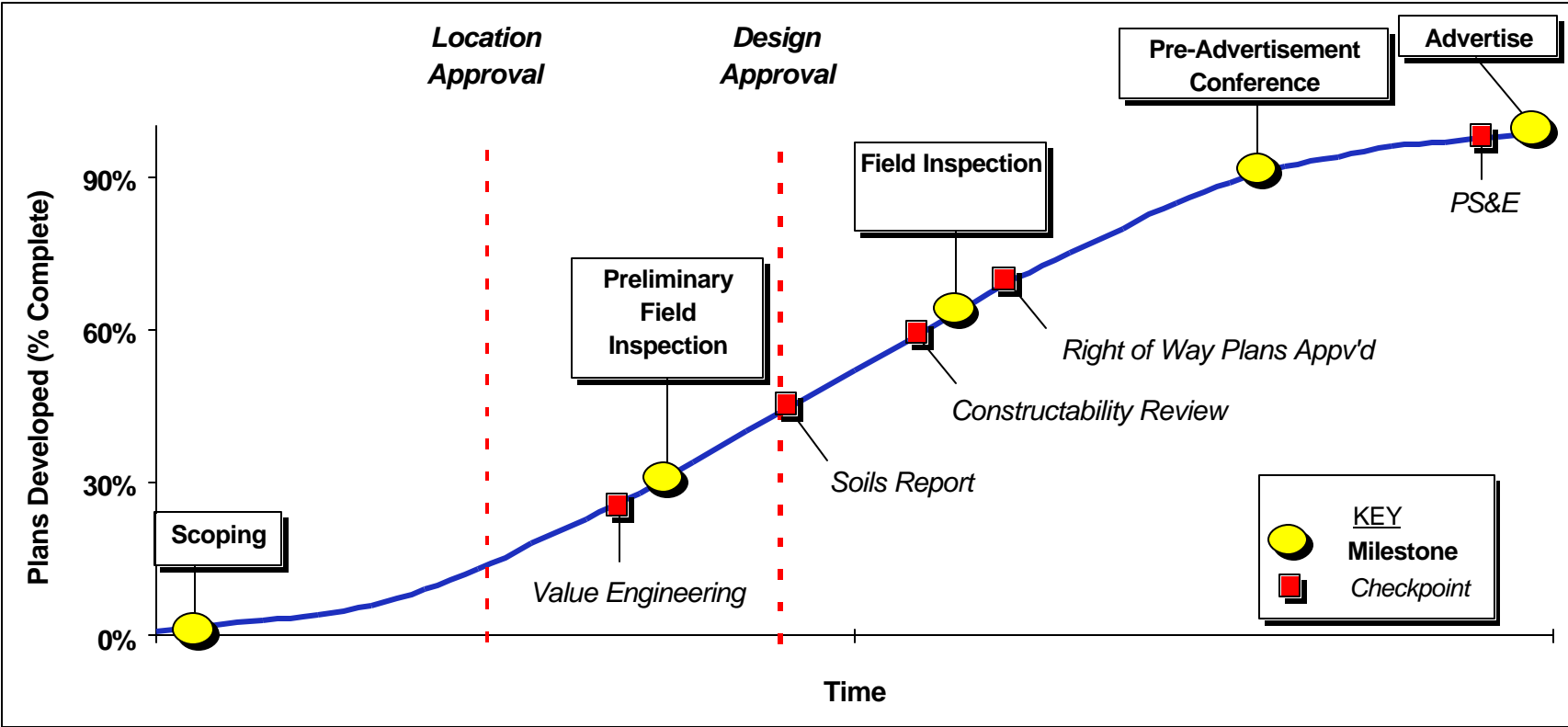


FIGURE 1D-1

Revised Project Development Process



Effective Date July 19, 2000

FIGURE 1D-2