PART 1 Program Development

Chapter 9

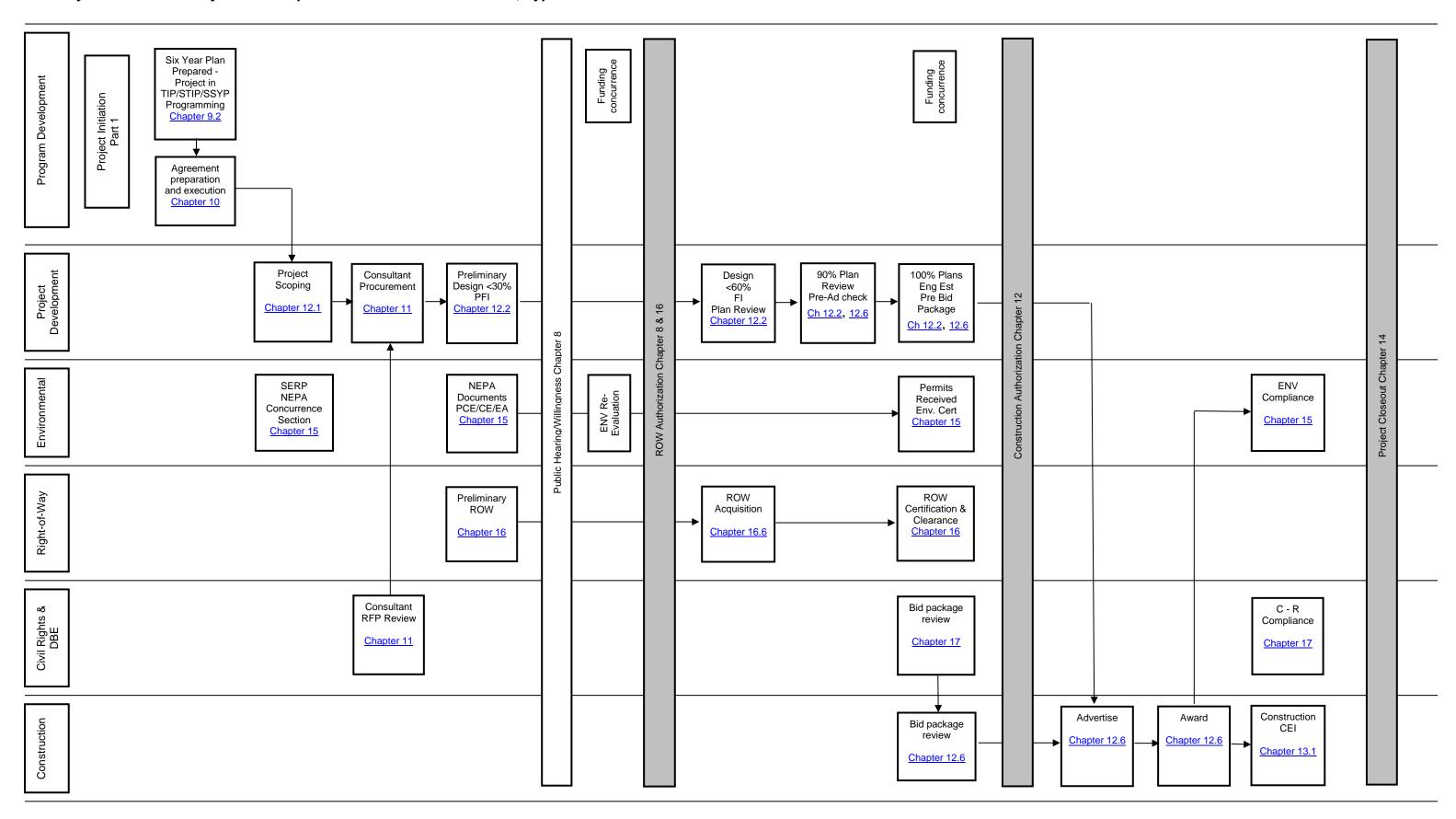
Project Development

Overview / Summary

Locally Administered Projects (LAP) Manual

CHAPTER 9 - PROJECT DEVELOPMENT OVERVIEW/SUMMARY; Figure 9-1

Locally Administered Projects Development Process - Federal Funds, Typical



Chapter 9 PROJECT DEVELOPMENT OVERVIEW / SUMMARY

- 9.1 PROJECT DEVELOPMENT INTRODUCTION
- 9.2 PROJECT AUTHORIZATION
- 9.3 PROJECT DEVELOPMENT PROCESS
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- 9 A Local Government Administered Projects; Oversight Levels
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9.1 PROJECT DEVELOPMENT INTRODUCTION

VDOT, as required by federal law, is responsible for oversight of federal-aid transportation projects in the Commonwealth. Accordingly, VDOT is responsible for and becomes accountable to the FHWA for the proper use of federal-aid highway funds. This responsibility is further emphasized in the VDOT-FHWA 2019
Stewardship and Oversight Agreement.

In order to administer any transportation project funded through VDOT allocations, LPAs must generally enter into a Project Administration Agreement (PAA) with VDOT. Project administration consists of project development and project delivery phases; with project design and right of way acquisition performed during the project development phase; and construction, construction administration, and project close-out performed within the project delivery phase. VDOT's Project Development Process and PDP Flow-chart outline the activities which may take place concurrently from project scoping through construction advertisement. The PDP flow-chart is an excellent reference guide that can be of assistance to LPAs administering projects.

However, the LPA is not required to follow VDOT's PDP process. This Manual identifies minimum activities which must be completed for LPA administered projects.

9.2 PROJECT AUTHORIZATION

Prior to beginning reimbursable work, the project and each project phase (Preliminary Engineering, Right of Way Acquisition, Advertisement, and Award) must be formally authorized (approved) by the FHWA to be eligible for reimbursement. This authorization MUST be received, in writing from the VDOT Project Coordinator, prior to beginning any work to be reimbursed with federal-aid.

State-aid projects which are not developed as eligible for federal-aid will receive a single funding authorization and individual phase authorizations are not necessary.

Requirements to obtain federal authorization approval:

Preliminary Engineering

- Agreement Executed
- Project phase(s) included in the STIP/TIP
- Allocations must be programmed

Right of Way

- Project included in STIP/TIP
- Allocations programmed
- Approved environmental document
- Public involvement process complete
- Right of Way Estimate Provided (see <u>12.3.4.2</u> for guidance)
- Right of Way plans Provided
- Environmental Right of Way Re-Evaluation (EQ-201) complete for CE/EA/EIS
 or Environmental review of project related deliverables complete for the PCE

Construction Advertisement and Award (two authorizations)

- Project included STIP/TIP
- Allocations programmed and funding verified
- An approved environmental NEPA document and all identified environmental commitments have been included into the plans and proposals
- All permits have been obtained
- Environmental PS&E Re-Evaluation (EQ-200) and Environmental Certification/Commitments Checklist (EQ-103) complete
- All design is in accordance with appropriate design criteria
- All Right of Way is clear or will be clear prior to project execution, in accordance with the Uniform Relocation Act
- All Utility and Railroad relocations and certifications have been included appropriately or satisfactory arrangements have been made
- Public Involvement requirements have been met

- All appropriate federal-aid project information, including Minimum Wage
 Rates, EEO provisions, and the federal 1273 form has been included
- Hazardous wastes have been identified where appropriate and provisions are provided within the proposal for their safe disposal

9.3 PROJECT DEVELOPMENT PROCESS

<u>Figure 9-1</u> provides a generalized flowchart for the Locally Administered Project Development Process. It provides links to chapters in this Manual that further describe the processes identified on the flowchart.

<u>Chapter 9 – Checklist</u> contains federal-aid and state-aid Locally Administered Project checklists for determining which primary requirements need to be addressed during project administration. The LPA Project Manager and VDOT's Project Coordinator are required to jointly review and prepare the checklist for federal-aid projects soon after the project administration agreement is executed by VDOT. The federal-aid checklist is required to be completed and kept on file for future review.

The following provides a summary of these processes and emphasizes those necessary for a federal-aid project.

Programming and Funding

- The LPA staff, working with the VDOT Residency and the County Board of Supervisors or City/Town Council, selects projects to be programmed in the SYIP. The SYIP serves as the framework for allocation of Federal-aid funds to projects. The first year of the SSYP serves as the active program year and the subsequent years outline funding that is planned, however all funding is subject to appropriation by the CTB. See Chapter 8 for additional details.
- The SYIP also includes a number of federal fund program areas that are not necessarily programmed at the LPA level or through formula allocations, but could be used for a locally administered project. These program areas include

Highway Safety, Rail Safety, Transportation Alternatives, High Risk Rural Roads, Forest Highway-Regional RSTP, CMAQ, and Public Lands as well as other Federal discretionary funds.

Often local governments identify transportation projects within their own
Capital Improvement Program and will supplement local funding with state
programs intended to support and encourage local participation in the local
highway improvement program. These projects are essentially local projects
and are not necessarily included in the SYIP. State funding programs used to
support this include Coal Severance, Revenue Sharing, and Access
(Economic Development, Airport and Recreational) programs.

Agreement Preparation and Execution

• Before an agreement is prepared, the LPA is required to submit a <u>Request to Administer</u> (<u>RtA</u>) form for most projects. The RtA serves as the LPA's request and VDOT's concurrence for LPA administration of a project. The Project Administration Agreement (PAA) establishes funding and specific obligations unique to a project. Additional information regarding the preparation of the Request to Administer form and project administration agreements is detailed in <u>Chapter 10</u>.

Consultant Procurement

 If the LPA does not have in-house design staff, it will need to acquire design consulting services. These services must be procured in accordance with the Virginia Public Procurement Act and/or applicable federal requirements.
 Consultant procurement requirements are outlined in Chapter 11.

Project Scoping

 LPA staff and VDOT staff participate in a scoping process where major aspects of the project are determined including alignments, structures and bridges, environmental requirements, permits, right of way and utility needs/conflicts. In addition, specific design requirements and project limits are determined. Project scoping documentation is completed and LPA staff and the VDOT Project Coordinator concur with subsequent steps. The project scoping process is further detailed in Chapter 12.

Environmental Review Processes

For most LAPs, the LPA is responsible for preparation and completion of federal environmental documentation, although VDOT is required to accept responsibility for submission to FHWA. The process begins with the LPA working with the District Project Coordinator for conveyance to the District Environmental Manager (or designee) to identify environmental resources potentially affected by the project, determining the appropriate level of NEPA documentation for the project and obtaining FHWA's concurrence on it. The LPA is responsible for the preparation of all required documents, reports and supporting materials in order to comply with NEPA; however, VDOT is responsible for verifying document contents, accepting responsibility, and submitting the document to FHWA for approval. In addition, the LPA is responsible for obtaining any necessary environmental permits and licenses that may be applicable to the project. The environmental review process for federal-aid or federally eligible projects and for state-aid projects are discussed in detail in Chapter 15.

Preliminary Design

• The LPA is responsible for assuring that the project is designed in conformance with local, AASHTO, VDOT and federal design standards, as applicable. For complex projects, the LPA is generally required to submit preliminary design plans at approximately 30 percent, 60 percent and 90 percent design stage. The 30 percent submittal normally takes place concurrently with the Preliminary Field Inspection (PFI) while the 60 percent submittal normally is concurrent with the Field Inspection (FI) and submittal of Right of Way Plans. For less complex projects or for highly experienced LPAs, VDOT's project development oversight can be minimized and fewer design review submittals or project progress meetings may be necessary.
Chapter 12 discusses the design process in detail.

Public Involvement/Public Hearings

 The LPA is responsible for determining the level of public participation required in conformance with State and FHWA laws and regulations, as applicable. At or about the 30 percent design stage, the LPA is required to provide the public an opportunity to review and comment on the design proposal for the project and the environmental document. Chapter 12 discusses Public Involvement requirements.

Right of Way Authorization and Certification

• Prior to the LPA initiating any acquisition of Right of Way for federal-aid projects, federal authorization and VDOT notice to proceed must be obtained. All right of way acquisition and relocation must be accomplished in accordance with the <u>Uniform Relocation Assistance and Real property</u>
Acquisition Act of 1970 and amendments. The VDOT Project Coordinator will coordinate with appropriate VDOT staff to obtain ROW authorization and a subsequent Notice to Proceed. Prior to advertisement for federal-aid projects, the LPA must provide a certification statement for their Right of Way process. Chapter 16 details the Right of Way acquisition process.

Utilities

 The LPA is responsible for identifying and/or relocating utilities that are in conflict with the project. Volume 2 of VDOT's Right of Way and Utilities Manual provides a detailed discussion of the requirements. A copy of the manual can be obtained on VDOT's <u>RW webpage</u>. See <u>Chapter 16</u> for additional details.

Plans, Specifications, and Estimates (PS&E) Review/Approval

 The PS&E package includes all items necessary to obtain federal authorization to advertise for bids. The LPA is responsible for the preparation of all advertisement and bid documents, which includes special provisions, construction plans and the engineer's estimate. The LPA must also submit Right of Way and Environmental clearances prior to advertisement. VDOT is responsible for the review of these documents and providing the LPA with necessary guidance leading to conformance with state and federal requirements. Chapter 12 provides details of PS&E submittal requirements.

Construction Authorization

Federal authorization must first be obtained prior to advertisement. LPAs
must not advertise projects until federal authorization is received. <u>Chapter 12</u>
provides greater detail on the federal construction authorization process.

Civil Rights

 Bid proposals for federal-aid projects are reviewed by the Civil Rights Division for compliance with federal requirements as well as the establishment of DBE goals. <u>Chapter 17</u> provides a broad discussion of VDOT's Civil Rights process and requirements.

Advertisement/Award

The LPA is responsible for the proper advertisement of bids for the project.
 VDOT's Project Coordinator can provide assistance to the LPA in this process; however, it is the LPAs responsibility to meet both Virginia Public Procurement Act requirements and Federal requirements. Chapter 12
 provides an expanded discussion of the advertisement and award process.

Construction

• The LPA is responsible for assuring that the project is built in accordance with the contract documents and specifications as approved by VDOT. Construction administration and CEI can be performed by in-house staff or by contract. However, a Virginia licensed professional engineer must oversee the construction of the project. The LPA must also provide a local government employee to be in responsible charge of the project. These may or may not be the same person. Environmental monitoring of the project to assure that all federal environmental commitments associated with NEPA documentation must be included within the scope of construction activities. Local

governments are solely responsible for regulatory compliance with all environmental laws and permit conditions, regardless of funding source. The LPA is also responsible for assuring contractor compliance with Civil Rights requirements of the project. Construction Administration is further discussed in Chapter 13, while Environmental Monitoring and Civil Rights Compliance are contained in Chapters 15 and 17, respectively.

9.4 VDOT PROJECT OVERSIGHT

- 9.4.1 Communications
- 9.4.2 VDOT Risk and Project Oversight

9.4.1 Communications

The effective delivery of transportation projects requires clear and effective communication between the LPA Project Manager and VDOT's Project Coordinator. A communications plan should be discussed near the beginning of the project. A "formal" plan is not necessary, but there should be a clear understanding regarding the frequency of communication. LPA Project Managers are encouraged to contact VDOT Project Coordinators whenever there is a need for clarification of VDOT expectations or federal-aid requirements. Regular progress meetings should be scheduled and held. It is during the progress meetings that the LPA's staff and VDOT's oversight staff can discuss items of concern that may have been observed and remedies developed. The meetings also serve as an opportunity for VDOT staff to communicate project expectations to the LPA and its representatives. Constant and effective communication reduces the inherent risk that exists with all transportation projects.

Unforeseen issues may come up during the development or construction of a project. The LPA should never hesitate to contact the VDOT Project Coordinator as potential problems are identified. Early coordination can help ensure projects stay on schedule. In many cases similar conflicts may have been previously addressed by VDOT staff and a solution for addressing it may be close at hand.

9.4.2 VDOT Risk and Project Oversight

Soon after the LPA has received concurrence to administer the project, the VDOT PC should determine the level of VDOT oversight which will be required. The level of VDOT involvement and oversight is determined by a range of factors including,

but not limited to, project complexity, highway system, project funding, and LPA experience. Federal-aid increases project risk as there are additional project requirements that an LPA may not necessarily be familiar or experienced with. Additionally, FHWA holds VDOT accountable for project delivery, with the possibility of financial non-participation for significant issues of noncompliance. In contrast, risks to VDOT on state-aid projects, particularly those in localities maintaining their own system, is minimal. VDOT's oversight can be focused on those activities that directly impact VDOT, such as design review and construction administration for roads that will be maintained by VDOT. Principles governing VDOT's oversight expectations are outlined in Appendix 9-A.

The exact level of VDOT involvement is determined by the VDOT Project Coordinator in consultation with other VDOT staff and the LPA, and will directly impact VDOT costs to the project. In order to assist in this determination, VDOT has developed a risk assessment method that may be used by the VDOT Project Coordinator to establish an expected level of oversight. Use of this method will result in a score that provides a generalized analysis of project oversight and is described below. This method is described further in Appendix 9-B.

Since non federal-aid projects will be certified by local governments using the <u>State-aid Certification Form</u>, this risk assessment method is primarily applicable to federal-aid projects. However, the risk assessment method provides a foundation for VDOT oversight of plan review and construction oversight of state-aid projects which will be maintained by VDOT. More detailed discussion of project oversight during construction is found in <u>Chapter 13</u>.

VDOT will charge oversight costs to the project. An estimate of VDOT charges, to include general oversight activities necessary, will be provided to the LPA during the preparation of the Project Administration Agreement and will be refined soon after the scoping process. Oversight costs will include, but are not limited to, providing guidance, reviewing plans and documents, attending coordination meetings, providing authorization approvals, and other project associated activities. As a

general rule, oversight costs for federal-aid projects that do not require unique project support by VDOT staff, range between 3 percent and 5 percent of the construction estimate for Project Development (PE and RW phases) and 1 percent to 3 percent of the construction estimate for Project Development (CN phase). These percentages are only guidelines and should be used for preliminary estimating purposes by the LPA and VDOT. VDOT will provide a detailed project billing report upon request by the LPA.

Chapter 9 – Federal-Aid and State-Aid Checklists

Federal-aid Project Checklist

Required	Complete	<u>Task Name</u>	Chapter Reference
		Project Programming and Initiation	
		Project and Funding in STIP and TIP (where applicable)	
		Local Government Resolution (Urban Localities)	
		Request to Administer Form	
		Project Administration Agreement (updated when total	
		reimbursable costs change and prior to Construction)	
		PE Phase Authorized	
		PCES Estimates Updated at project milestones during	
		project development	
		Project Scoping Report Submit Project Definition Form EQ-429 to VDOT PC	
\vdash		Consultant Selection; Pre-Award Audit; DBE-Review	
\vdash		NEPA Concurrence (not required for OTPCE or PCE)	
 		NEPA Concurrence (not required for OTPCE of PCE) NEPA Document and Documentation	
		Bridge "touch-down" points approved (when applicable) 30% Plan Submittal	
		Design Exception/Variance Requests Value Engineering for Projects with a Construction cost	
		over \$15 Million	
	<u> </u>	60% Plan Submittal	
	<u> </u>	Right of Way Plan Review	
	<u> </u>	Public Hearing/Posting of Willingness	
		Design and Public Hearing Resolution	
		NEPA R/W Re-evaluation (EQ-201) or Environmental deliverable review	
		Project RW listed in STIP and estimates are current	
		Right of Way Authorization	
		Submit Final RW Plans, Cost Estimate including breakdown of Utilities, and Title Sheet	
		Complete RW and Utilities Checklist, RW-301	
		LPA performs final QA/QC on plans prior to submittal to VDOT for Advertisement Authorization	
		Water quality permits/finalize coordination with environmental regulatory agencies	
		Environmental Re-evaluation at PS&E (EQ-200); Environmental Certification (EQ-103)	
	Advertisement/Construction Authorization		
		RW Acquisition completed	
		Utility relocation completed	
		Project Construction listed in STIP and estimates are current	
		Final Plan, Specifications and Estimates Submitted for VDOT approval DBE Goals	
		IFB and Contract Documents	
		Publicly Advertise Project/Federal-aid Contracts must use VDOT Pre-qualified vendors	

		Public Opening of Bid/Bid Tabulations/Evaluation of DBE Goals (good faith efforts)	
		Federal Criteria for Award Certification (see Appx 12.6B)	
		Contract Award Information submitted to VDOT for concurrence to award	
		Concurrence to award by CTB or Commissioner	
		Award Authorization	
		City/State Agreement or Modification of Project Agreement	
		Include Project in Dashboard	
		Preconstruction conference	
		Materials Certifications /Project Records	
		DBE/OJT Documentation	
		Change Orders submitted for approval	
		Final Inspection Reports	
		Notification of Project Completion	
		Final Acceptance Inspection	
		LAP C-5 submitted/Project Closed	
		Final Invoice	
VDOT Projec	t Coordinator	:	
Signa		Date	
Signa	Signature Date		

Once the checklist has been completed a copy shall be filed with the Project File

State-aid Project Checklist

Required	Complete	Task Name	<u>Chapter</u> Reference
		Local Government Resolution (Urban Localities)	
		Request to Administer Form	
		Project Administration Agreement (updated when total	
		reimbursable costs change and prior to Construction)	
		Project State Authorization	
		EQ 429 / State Environmental Review Process (SERP):	
Ш		State funded projects, where the total project cost (PE, RW, CN) is \$500,000 or more.	
		Plan Submittals for VDOT maintained highways	
		Design Exception Requests	
		Value Engineering for Projects with a Construction cost over \$15 Million	
		Right of Way Plan Review for sufficient R/W for VDOT	
		maintained highways	
Ц		RW Acquisition completed	
		Utility relocation completed	
		Submission of Project State-aid Certification Form	
		Contract Award Information submitted to VDOT for concurrence to award	
		Concurrence to award by CTB or Commissioner	
		Award Authorization	
		City/State Agreement or Modification of Project Agreement	
		Include Project in Dashboard - SYIP / SSYP Projects	
		Materials Certifications /Project Records – VDOT maintained projects	
		Final Inspection Reports, VDOT Maintained	
		Notification of Project Completion	
П	П	Final Acceptance Inspection, VDOT Maintained	
		LAP C-5 submitted / Project Closed	
		Final Invoice	
	oject Coordina	ator: Date	
Si	ignature	Date	

Appendix 9-A

Local Government Administered Projects; Oversight Levels

Principles governing requirements/expectations for Local Governments

1. Federal - Aid (NHS/FO)

- Relatively rare with LPAs.
- All VDOT-approved documents/procedures must be met.

2. Federal - Aid (non-NHS)

- VDOT ensures compliance with federal requirements (e.g. Civil Rights, Buy America, ADA, Environmental, NEPA, etc.) throughout project.
- Flexibilities available, but those flexibilities must be documented and approved by VDOT.
- FHWA will review/approve the revised Manual for LAPs.
- Post-project compliance reviews supplement oversight during project development.

3. State - Aid/VDOT maintained

- VDOT provides oversight to ensure a safe and quality project is completed and focuses efforts on long-term liabilities to VDOT.
- LPA is responsible for all phases of project development/delivery, with minimal oversight from VDOT.
- The responsibility of other activities lies with the Local Government and receives minimal oversight from VDOT.
- Local Governments will certify their compliance with all applicable laws/regulations.
- VDOT will conduct random post-project compliance reviews.
- Provides for focused oversight and optimal resource management on those activities most impacting VDOT.

4. State - Aid/Locally maintained

- VDOT has a responsibility to ensure the funds are used for their intended purpose and oversight during project development/delivery is limited.
- LPA is solely responsible for all phases of project development/delivery.
- Local Governments have vested interest in their own highway system and are accountable to their constituents.
- Local Governments will be provided maximum flexibility to administer projects in manner that best fits their needs.
- Local Governments are already required to meet federal and state laws and regulations and are responsible to regulatory agencies.
- VDOT oversight/support limited to technical support, financial reporting, and performance measures.
- Local Governments will certify their compliance with all applicable laws/regulations.
- VDOT will conduct random post-project compliance reviews.
- Provides for focused oversight and optimal resource management on those activities most impacting VDOT.

Appendix 9-B

Project Risk and VDOT Oversight Evaluation

VDOT's project risk and oversight assessment method requires the VDOT Project Coordinator to identify applicable project elements from Table 1 – Project Risk Assessment, below, which affect the level of risk. By summing the weighted values for each selected element, a risk factor is determined. That risk factor correlates to an anticipated level of oversight found in Table 2 – Oversight Assessment.

Table 1 – Project Risk Assessment

* See VDOT Construction Oversight Guide, Appendix A, for Category Definitions

g same, pp		Check	Total
	Value		
Element	Value	Elements	Factor
	(factor)	That	per
		Apply	Element
Federal Oversight	20		
National Highway System	20		
Design-Build/PPTA	20		
Funding			
Federal Funded (non-Transportation			
Alternatives)	15		
State Funded	10		
Federal Transportation Alternatives			
(Impacts R/W)	7		
Federal Transportation Alternatives			
(Off R/W)	1		
Completed Project Maintenance			
State Maintained Project	10		
LPA Maintained Project	2		
Project Category *			
Category I	2		
Category II	5		
Category III, IV, V	10		
LPA Experience Administering Project			
Low Level	15		
Intermediate Level	10		
High Level	5		
Factor Total			

^{*} See the VDOT <u>Post Award Scheduling Guide</u>, Section I, Item #5 (page 13) for project category descriptions

^{*} Also see same Project Oversight Risk Assessment Scoring found in 13.1-B of the LAP Manual.

Table 2 – Oversight Assessment

Level of Oversight		Range of Factor Total
High (H)	> 45	
Moderate (M)	25-55	
Low (L)	< 35	

In general terms, the following table illustrates the characteristics of projects at the three levels of oversight.

Oversight Level	Impact/Probability
High (H)	Significant impact on infrastructure due to non-compliance - Significant effects to quality of construction, cost and schedule; High risk of non-compliance resulting in loss of funding or regulatory agency action
Moderate (M)	Moderate impact on infrastructure due to non-compliance - Moderate effects to quality of construction, cost and schedule; Moderate probability of non-compliance
Low (L)	Minimal impact on infrastructure due to non-compliance - Minimal effects to quality of construction, cost and schedule; Low probability of non-compliance

Actual activities associated with each oversight level vary with the unique characteristics of each project. These can include such considerations as unusually complex project features; sensitive environmental or socio-economic issues; and the LPA project manager's experience with similar transportation projects.

The following table is an example of oversight activities for federal-aid projects; many of these may not be applicable to State-aid projects. The VDOT Project Coordinator and the LPAs Project manager should develop more specific oversight activities and their frequency based on specific project needs and conditions.

Oversight Level	Minimum Oversight Activities		
	Kickoff (scoping) meeting attendance		
	 Plan development coordination meeting 		
Low	Final plan review		
LOW	 Pre-construction meeting attendance 		
	 Random site visits during construction 		
	Final acceptance inspection		
	 Kickoff (scoping) meeting attendance 		
	 Plan development coordination meeting 		
	30 percent plan review		
	 Public hearing attendance 		
Moderate	Final plan review		
	 Pre-advertisement contract review 		
	Pre-award bid review		
	 Monthly to quarterly site visits during construction 		
	Final acceptance inspection		
	 Kickoff (scoping) meeting attendance 		
	 Monitor consultant procurement process 		
	 Environmental coordination meeting 		
	 Plan development coordination meeting 		
	 Right-of Way coordination meeting 		
	30 percent plan review		
	 Public hearing attendance 		
High	60 percent plan review		
	90 percent plan review		
	Bid document review		
	Pre-award bid review		
	Pre-construction meeting attendance		
	Weekly to monthly to quarterly site visits during		
	construction		
	 Final acceptance inspection 		

The LPA and VDOT's Project Coordinator may increase or decrease the level of oversight for a particular project based upon the LPAs performance on previous projects and results of VDOT compliance reviews. As VDOT's confidence in the LPAs ability to administer projects increases, the level of oversight may be reduced. However, oversight may be increased due to any number of factors including the LPA assuming responsibility for more complex projects. LPA experience becomes an important factor in oversight and risk - the more experience the LPA gains, VDOT will typically reduce its level of oversight.

Additional discussion regarding project oversight and monitoring during construction is found in the Construction Administration chapter.