

## **PART 2**

### Project Management

#### **Chapter 14**

#### Project Close-out

# Locally Administered Projects (LAP) Manual

September 2019

## **Chapter 14**

### **POST CONSTRUCTION/PROJECT CLOSE-OUT**

- 14.1 [Final Acceptance](#)
- 14.2 [Final Invoicing](#)
- 14.3 [Street Acceptance/Changes to Inventories](#)
- 14.4 [Stormwater Acceptance and Project Certification](#)

## 14.1 FINAL ACCEPTANCE

14.1.1 [Introduction](#)

14.1.2 [Applicability](#)

14.1.3 [Final Inspection Process](#)

14.1.4 [Key Submittals / Requirements](#)

14.1.5 [References](#)

[Final Acceptance Checklist](#)

### 14.1.1 Introduction

This chapter of the Locally Administered Project Manual sets out the processes and responsibilities associated with project closeout. This process includes gaining acceptance of the project from all participating agencies, determination of and agreement on the final value of the contract, and the completion of all remaining contract requirements. This process ultimately leads to the final payment and release of the contractor from further responsibility for the project. This initiates several additional processes including closing the project in VDOT's systems and having the changes reflected in the appropriate inventory system.

This section of the Project Close Out chapter sets out the processes and responsibilities associated with the final inspection for locally administered projects. The expected outcomes include providing for a thorough inspection of the finished product to ensure it complies with the plans and specifications for the project and for a complete final review of project documents.

### 14.1.2 Applicability

<b><i>Final Acceptance</i></b>		
<i>Federal-aid</i>	<i>State-aid / VDOT Maintained</i>	<i>State-aid / LPA Maintained</i>
X	X	--

### 14.1.3 Final Inspection Process

A final project inspection must be made to determine if the project reasonably conforms to the approved plans and specifications. The LPA is responsible for coordinating and performing the final project inspection. Generally, the final inspection with VDOT will only occur after the LPA and their construction contractor have completed all work and “punch-list” items. However, the VDOT CPM may attend a preliminary project close-out inspection with the LPA to develop the initial punch list items for corrective action.

The LPA Project Manager should invite the VDOT CPM, the contractor, and representatives of other agencies, which may have an interest or review authority (e.g. utilities, railroads). During the final inspection, the team will identify the need for any corrective actions or additional work and create a revised punch list detailing this work at the final inspection.

The LPA PM will provide the revised punch list to the contractor along with specified time frame or specified date for completion of the prescribed work. The PM will follow up to assure that the contractor completes the punch list work in a timely manner.



Upon completion of all physical work, including Punch List work, the PM will forward the LPA’s written acceptance and final project certification to the VDOT CPM. This will include the [C-5](#) (reports start and completion date), [M4.01](#) Road Inventory Notification Form, and any additional required project documentation not already submitted, such as materials certifications and documentation (see chapter 13).

Once the project has been accepted, the LPA should proceed to process the final invoice. Further guidance on this is provided in [Section 14.2 \(Final Invoicing\)](#).

#### *VDOT Responsibilities:*

*The CPM is typically the lead VDOT contact for the final inspection and close-out process. The CPM will:*

- Ensure that all final submittals from the LPA PM are included in the files and are distributed to any VDOT staff requiring copies.*
- Coordinate with other VDOT staff and FHWA, when applicable, which may have a need to participate in the final project close-out inspection. The CPM shall attempt to ensure all VDOT review needs are met with the fewest VDOT staff as possible. The FHWA Area Engineer must be invited to participate in any federal oversight project. Federal oversight projects also have specific additional final reporting requirements found in the [VDOT/FHWA Virginia Division Stewardship and Oversight Agreement, November 2012](#) (see references).*

#### **14.1.4 Key Submittals / Requirements**

<b><i>Task/Submittal / File Documentation</i></b>	<b><i>Locality Responsibility</i></b>	<b><i>VDOT PC Responsibility</i></b>	<b><i>Submittal Timing / Recordkeeping Requirements</i></b>
Conduct Final Inspection	Locality will schedule final inspection and invite all appropriate participants	Participate in final inspection/coordinate VDOT participation and FHWA participation if federal oversight project.	N/A
Punch List	Locality will develop punch list based on final inspection and a schedule for completion	N/A	N/A
Provide written acceptance and final project certification. This includes submittal of the <a href="#">C-5</a> and <a href="#">M4.01</a> . For federal oversight projects; final acceptance also includes submittal of several other forms required by FHWA identified in the chapter.	After determining that all punch list items have been completed, Locality will provide written acceptance and final project certification. This includes providing signed <a href="#">C-5</a> and completed <a href="#">M4.01</a> reporting R/W inventory changes.	Project Coordinator will review information submitted and notify locality that they can finalize project records for final voucher.  Project Coordinator will circulate <a href="#">C-5</a> , <a href="#">M4.01</a> and other required submittals to all appropriate parties to inform them the project is completed	<a href="#">C-5</a> is the official document VDOT uses to certify project is complete. <a href="#">C-5</a> remains part of project record. The <a href="#">M4.01</a> reports any on R/W changes to the highway inventory
Submittal of electronic plans in pdf format	Locality will submit electronic plans in PDF format at completion of project to Project Coordinator	Project Coordinator will forward plans to plan library	Electronic plans should be provided prior to final invoice

## 14.1.5 References





[VDOT/FHWA Virginia Division Stewardship and Oversight Agreement, November 2012](#) (Page 15) FHWA Inspections and Final Acceptance of FHWA Oversight Projects.

### Final Acceptance Checklist

These checklists can be found in their entirety in the [VDOT on line forms library](#)

CH 14.1 - Final Acceptance
----------------------------

This section outlines the processes and responsibilities associated with project closeout. This process includes gaining acceptance of the project from all participating agencies, determination of and agreement on the final value of the contract, and the completion of all remaining contract requirements.

<i>SUBMIT</i>	<i>COMPL</i>	<i>F</i>	<i>S-V</i>	<i>S-L</i>	<i>T-A</i>	<i>UCI</i>	<i>Requirement</i>	<i>Reference</i> <i>LAP</i> <i>Other</i>	
	<input type="checkbox"/>	x	x	--			Perform final inspection and document deficiencies and corrective actions.	<a href="#">14.1.1</a> <a href="#">14.1.3</a>	
	<input type="checkbox"/>	x	x	--			Submit written acceptance and final project certification	<a href="#">14.1.3</a>	
	<input type="checkbox"/>	x	x	--			Submit signed C-5 signed	<a href="#">14.1.3</a>	
	<input type="checkbox"/>	x	x	--			Submit Materials certifications / documentation (TL-131)	<a href="#">13.2</a>	
	<input type="checkbox"/>	x	x	--			Submit documented design and plan changes (.pdf format)	<a href="#">14.1.4</a>	

## 14.2 FINAL INVOICING

14.2.1 [Applicability](#)

14.2.2 [Summary](#)

14.2.3 [Final Invoicing Process](#)

14.2.4 [Key Submittals / Requirements](#)

[Final Invoicing Checklist](#)

### 14.2.1 Applicability

<b><i>Final Invoicing</i></b>		
<i>Federal-aid</i>	<i>State-aid / VDOT Maintained</i>	<i>State-aid / LPA Maintained</i>
X	X	X

### 14.2.2 Summary

Once the LPA has provided written acceptance and final project certification to the project coordinator, final invoicing will be initiated.

### 14.2.3 Final Invoicing Process

#### Determination of Final Contract Value

A key element of the project closeout is the determination of the final dollar value of the construction project. This is accomplished by determining the final number of units to be paid for each item of the contract and by processing all necessary change orders including a final change order and/or another document noting agreement by all parties to the final contract value.

#### Preparation and Reconciliation of Contract Quantities

The LPA PM is responsible for determining and preparing support documentation for the final quantity to be paid for every item of work contained in the

construction contract. Ideally, this is accomplished progressively as the items are completed during the course of construction of the project. At the end of the project, this will include:

- After all physical work has been completed for the project, the project records are reconciled.
- Upon completion of the reconciliation, a list of approved final quantities is prepared and is forwarded to the contractor for concurrence.
- Once agreement with final quantities has been obtained, a final change order and/or other document is prepared to make any necessary adjustments between the final and original contract quantities and signify agreement by all.

#### Preparing Final Voucher

Once the quantities are finalized, the LPA will prepare the final invoice. The final estimate and voucher should be examined and verified by an independent reviewer or auditor not affiliated with the project and written documentation of the verification should be provided with the final invoice for final payment to the Department. The reviewer may be employed by the locality but should not be directly affiliated with the project. LPA should indicate “Final” on the final invoice, so that project close-out procedures with FHWA, when applicable, may begin.



Prior to a request for final reimbursement, the LPA will ensure the following forms and documentation have been submitted, as applicable to the project:

- A copy of the Project Acceptance and Certification document
- Approved [C-5](#), reporting the start and completion dates, for all projects
- Electronic plans
- Materials Certifications (see [chapter 13](#))



#### *VDOT Responsibilities:*

- *The CPM, upon receipt of the final voucher, will review all expenditures and allocations on the project (including final verification of VDOT charges). If any updates are needed to the maximum reimbursement amount, the CPM will initiate the appropriate agreement update with the Local Assistance Division and will begin processing the final reimbursement request.*
- *If federal funds are involved, the CPM requests Federal Highway Administration (FHWA) approval.*
- *After receiving approval of the final voucher from the FHWA, VDOT makes the final federal-aid reimbursement and distributes copies of the approved final voucher to the LPA, other VDOT offices as appropriate and the appropriate Metropolitan Planning Organization (MPO) or Regional Planning Agency (RPA) as applicable.*
- *The CPM will notify appropriate VDOT staff to initiate close out procedures in VDOT systems in accordance with project close-out procedures.*

#### **14.2.4 Key Submittals / Requirements**


<b><i>Task/Submittal / File Documentation</i></b>	<b><i>Locality (LPA) Responsibility</i></b>	<b><i>VDOT Project Coordinator Responsibility</i></b>	<b><i>Submittal Timing / Recordkeeping Requirements</i></b>
Submitting Final Invoice	Locality submits final invoice once project has been accepted and all project costs have been finalized	Project Coordinator reviews final invoice and once they concur, begin processing final payment and coordination with FHWA	N/A
Approved Final Voucher	N/A	Project Coordinator provides copy to LPA and other VDOT staff as applicable	Date of Final Invoice initiates retention period for all federal projects

## Final Invoicing Checklist

These checklists can be found in their entirety in the [VDOT on line forms library](#)

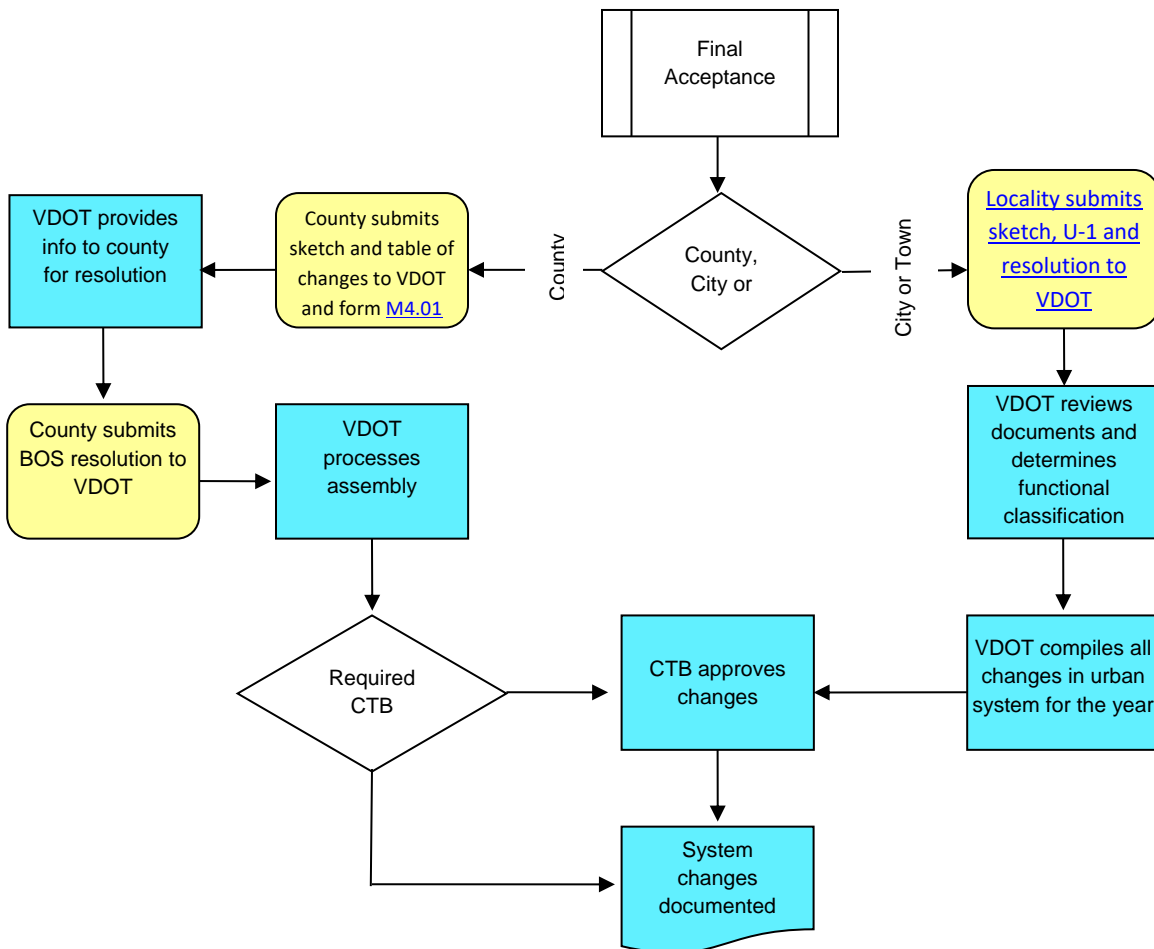
CH 14.2 - Final invoicing
---------------------------

The LPA is responsible for determining the final value of the construction project and preparing and submitting a final voucher to the Department accompanied with all required project documentation

<i>SUBMIT</i>	<i>COMPL</i>	<i>F</i>	<i>S-V</i>	<i>S-L</i>	<i>T-A</i>	<i>UCI</i>	<i>Requirement</i>	<i>Reference</i> <i>LAP      Other</i>	
	<input type="checkbox"/>	X	X	X			Reconciliation of final quantities	<a href="#">14.2.3</a>	
	<input type="checkbox"/>	X	X	X			Final Voucher Prepared / Submitted identify as "Final Bill" identify any overpayments	<a href="#">14.2.3</a>	
	<input type="checkbox"/>	X	X	X			Final Voucher Approved - The CPM will notify appropriate VDOT staff to initiate close out procedures	<a href="#">14.2.3</a>	

## 14.3 STREET ACCEPTANCE / CHANGES TO INVENTORIES

### Flowchart for Processing Street Changes Due to Construction



## **14.3 STREET ACCEPTANCE / CHANGES TO INVENTORIES**

14.3.1 [Introduction](#)

14.3.2 [Applicability](#)

14.3.3 [Summary](#)

14.3.4 [Process for Updating Inventory Due to Construction](#)

14.3.5 [Key Submittals / Requirements](#)

14.3.6 [Regulatory References](#)

14.3.7 [Miscellaneous References](#)

[Street Acceptance/Changes to Inventory Checklist](#)

### 14.3.1 Introduction

This section sets out the processes and responsibilities associated with recording changes to the highway systems as a result of construction projects. The final outcome of this process should be that all changes to roadways resulting from locally administered construction projects are accurately documented and reported to ensure accurate and up to date highway system mileage and inventory data.

### 14.3.2 Applicability

<i>Street Acceptance</i>		
<i>Federal-aid</i>	<i>State-aid / VDOT Maintained</i>	<i>State-aid / LPA Maintained</i>
X	X	X

### 14.3.3 Summary

Construction projects frequently relocate or adjust the alignment of portions of existing roads sufficient to require the abandonment or discontinuance of the old alignment and corresponding additions of the new alignment. Such actions adjust the mileage of the Department's highway inventory or the appropriate local system inventory. Construction of a road on a new location also requires the mileage of the road to be added to the appropriate inventory.

At the completion of a construction project, any changes to the roadway length and/or location must be documented and reported and receive appropriate governing body action. Processes to report the changes vary by the highway system. Changes to the primary system, including frontage or service roads, are made by the Commonwealth Transportation Board. In such cases, the concurrence of the local governing body is desirable.

Additions and abandonments to the secondary system require action of the County Board of Supervisors, by resolution. Discontinuances of secondary roads are approved by the Commonwealth Transportation Board and concurrence by the County Board is desired. The resolution from the Board of Supervisors will authorize additions and abandonments and concur with any discontinuance. These actions are appropriately addressed simultaneously by a County Board within a single resolution and in the following specific order:

- 1) Orders of abandonments;
- 2) Requests for VDOT's acceptance of maintenance; and
- 3) Concurrence of any proposed discontinuances of State services.

Changes in route numbers is an administrative function of the Department and requires no formal request of the local government.

Changes to the urban system for streets that meet the criteria specified in [Section 33.2-319](#) of the Code are noted in the annual update of the locality's road inventory. Changes to the local system in counties maintaining their local streets are also noted in the annual update of the locality's road inventory.

#### **14.3.4 Process for Updating Inventory Due to Construction**

**For Primary and/or Secondary System Projects,** the locality will provide a sketch illustrating the entire project and segments of roadway to be added, discontinued or abandoned. A table of changes will also be submitted. The table will show the type of change of each segment and include the length for that segment. For street additions, pavement width and shoulder width must also be included on the summary.

The sketch should show the centerline alignments of the affected roads before the project and after the project is complete. The sketch will then be used to show any

construction related revisions and report the final disposition of each roadway segment within the project for the entire length of the project. The sketch should identify each roadway segment within the project with the end points defined by a unique alpha or alpha-numeric designation assigned to the end points of the segment, allowing each segment to be uniquely named by its end point designations (e.g. AB, BC, K1-K2, etc.).

The sketch should reference datum points external to the project sufficient to allow termini descriptions (e.g. 0.45 miles from Rte 654) for any segment end point within the project and facilitate the point to be located on the ground without survey crew assistance. Datum points are typically intersecting VDOT or locality maintained roads, railroad crossings, and state-county-city-town jurisdictional boundary lines. The actions of addition, discontinuance, and abandonment, apply to the full width of right of way between termini measured along the alignment centerline. Any changes due to on R/W construction projects are also reported on form [M4.01](#), Road Inventory Notification Form.

The general process for secondary projects is as follows:

- The locality submits the sketch and table to the Residency Administrator.
- The Residency Administrator will ensure the information is entered in VDOT's DACHS (Database for Administering Changes in VDOT Highway Systems) application.
- DACHS will produce information that will assist in preparing the Board of Supervisors resolution authorizing the additions and abandonments and supporting the discontinuance of maintenance. The Residency Administrator will provide the necessary information or draft resolution to the county.
- Once the Board of Supervisors has passed the resolution, the locality submits the resolution to the Residency Administrator who submits the package to the Central Office Maintenance Division.
- The Maintenance Division will prepare the documents necessary for actions to be taken by the Commonwealth Transportation Board and will process all requests for

inventory changes, including the addition of new streets.

- Once all actions have been completed, the maintenance division will notify the Locality and Residency.

For local street changes in Arlington and Henrico Counties, the annual inventory update process will address changes due to construction.

**For Urban System Projects**, the locality will prepare a U-1 form (completing all except for the last column) showing the changes in the system. The City or Town Council will pass a resolution concurring with all changes in the system.

- The Locality will submit the map, [U-1](#) and resolution to the Residency Administrator.
- The Residency Administrator will review the information for accuracy, inspect proposed street(s), approve Form [U-1](#) and forward these to the Local Assistance Division.
- Local Assistance Division will forward the information to Transportation and Mobility Planning Division (TMPD) for functional classification determination.
- TMPD will advise Local Assistance of the functional classification and Local Assistance will update the Urban Maintenance Inventory System
- Annually, Local Assistance will present all changes to the Urban System to the Commonwealth Transportation Board for its approval.

#### 14.3.5 Key Submittals / Requirements

<b><i>Task/Submittal / File Documentation</i></b>	<b><i>Locality Responsibility</i></b>	<b><i>VDOT Responsibility</i></b>	<b><i>Submittal Timing / Recordkeeping Requirements</i></b>
<b>For Secondary or Primary system projects</b>			
Prepare sketch showing changes and a summary of changes	Prepare and submit sketch and summary to Residency Administrator	Residency Administrator reviews package and initiates processing including draft resolution	Should be submitted to VDOT Residency Administrator within 60 days of project acceptance



Locality Resolution supporting action	Submit locality supporting resolution to Residency Administrator	Residency Administrator will review forward package to Maintenance Division for final processing	Approved resolution should be submitted within 4 months after final acceptance
CTB resolution	N/A	Residency Administrator will submit information to Maintenance Division to draft resolution	CTB approval for individual projects is only required for changes to the Primary system and discontinuances.
<b>For projects on Urban system and county maintained local streets</b>			
Follow normal process for annual street inventory updates	Prepare and submit map, resolution and U-1 to Residency Administrator	Residency Administrator reviews package and initiates processing	Should be submitted to VDOT Residency Administrator prior to the deadline for new addition- usually Feb 1 <sup>st</sup> .

### 14.3.6 Regulatory References

[Code of Virginia, § 33.2-319](#)  
[Code of Virginia, § 33.2-705](#)

[Code of Virginia, § 33.2-908](#)  
[Code of Virginia, § 33.2-912](#)

### 14.3.7 Miscellaneous References

#### **Guide to Additions, Abandonments, and Discontinuances**

The guidance in this chapter is based on VDOT's Guide to Additions, Abandonments, and Discontinuances which outlines the processes and sample resolutions for changes on the secondary system. More detailed information is available in [VDOT's guide to additions, abandonments and discontinuances](#).

## **The Urban Manual**

The guidance in this chapter is based on VDOT's Urban Manual **which** outlines the processes and sample resolutions for changes on the urban system. More detailed information is available in this document.

[Urban Construction and Maintenance Program Manual](#)

## **Attachments – Appendices**





[Form U-1](#)

## Street Acceptance/Changes to Inventory Checklist

These checklists can be found in their entirety in the [VDOT on line forms library](#)

CH 14.3 - Street Acceptance / Changes to Inventory
--

At the completion of a construction project, any changes to the roadway length and/or location must be documented and reported and receive appropriate governing body action in order for acceptance to be accomplished.

<i>SUBMIT</i>	<i>COMPL</i>	<i>F</i>	<i>S-V</i>	<i>S-L</i>	<i>T-A</i>	<i>UCI</i>	<i>Requirement</i>	<i>Reference LAP</i>	<i>Other</i>
	<input type="checkbox"/>	X	X	X			Submit sketch / map, table of changes / U-1 (Urban System)	<a href="#">14.3.5</a>	
	<input type="checkbox"/>	X	X	X			Submit locality resolution	<a href="#">14.3.5</a>	
	<input type="checkbox"/>	X	X	--			Submit sketch, map, table of changes and M4.01 for Primary or Secondary Routes to be maintained by the Department	<a href="#">14.3.5</a>	
	<input type="checkbox"/>	X	X	X			Include with annual inventory update - Urban System - County maintained Local Streets	<a href="#">14.3.5</a>	

#### 14.4 STORMWATER ACCEPTANCE AND PROJECT CERTIFICATION

As discussed in Chapter 12, VDOT has a need to ensure proper inventory and accounting of stormwater compliance and outfall inventory management to aid in satisfying permit obligations. Prior to acceptance, the *LPA Design Package – VDOT MS4/SWM Program Checklist*, which was completed with the design submittal, must be updated if changes to the project occur which affect the overall stormwater system and compliance. Any updates should be accompanied by applicable updates to originally submitted supporting information (plan sheets, stormwater computations, etc.). In addition, the *Outfall Inventory Field Sheet(s)* (See IIM LD-258), which were initiated and submitted with the design package, must be updated and completed after construction and submitted to VDOT.

Furthermore, the LPA must submit the ***LPA Project Certification – VDOT MS4/SWM Program Checklist*** to the LAP Project Manager prior to project acceptance and final payment. It should be noted, for all stormwater facilities to be maintained by VDOT, that required inspections by VDOT personnel must be conducted prior to project acceptance (See IIM LD-258 and IIM LD-195).

For any permanent post-construction facilities for which VDOT will assume long-term operation and maintenance responsibilities, the LPA shall also furnish to the LAP Project Manager a copy of the record drawing that is required by the acting VSMP Authority, and a copy of the professional certification that the BMP was constructed in accordance with the plans. The LAP Project Manager will upload copies of plans, nutrient credit documentation (consistent with IIM-LD-251), construction record drawings and reports to FALCON for long-term documentation. VDOT reserves the right to require a record drawing using its latest version of the special provision entitled “*Construction Record Documentation of Permanent Stormwater Management Facilities*.” Failure to provide completed certifications and documentation may delay payment.