

**Maryland Department of Transportation  
State Highway Administration**

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Approved by: *Sutapa Samanta* Date: 9/4/24  
Chief Engineer

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**SHA Inspection and Documentation Pertaining to Utility Relocations (Prior to Notice to Proceed (NTP) and After NTP, Railroad Company Work, and Utility 3<sup>rd</sup> Party Work)  
Standard Operating Procedure (SOP)**

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**Purpose**

The purpose of this Standard Operating Procedure (SOP) is to provide direction to inspection staff monitoring utility relocation work and the required documentation to verify utility time and material charges invoiced to SHA; and/or reimbursements of the Utility 3<sup>rd</sup> Party Work to the SHA. This SOP will describe the documentation requirements for inspection staff of the three scenarios regarding utility work: Prior To Notice to Proceed (NTP), After NTP (Concurrent Utility Work), and Utility 3<sup>rd</sup> Party Work.

The following procedures are necessary to ensure sufficient and accurate documentation is recorded within the project records for tracking and billing purposes, and to support internal and external audits. These records are vital and are used to substantiate payment to the Utility or reimbursement from the Utility; and must be kept as accurately as possible. The required data to be documented pertains to the following:

- a) Utility Forces (manpower and equipment hours) for protection and/or relocation of facilities;
- b) Materials and items removed by the Utilities;
- c) Disposed – Materials removed and unusable;
- d) Salvage – Items removed and considered reusable by the Utility to be placed back into inventory;
- e) Salvage – Materials removed and to be sold as scrap;
- f) Refer to SHA's Utility Manual, Section 7.07.03 – Salvage for more information;
- g) Approximate measurements and locations of utility installed: above or below ground; and,
- h) Inspection of completed utility installations and completion of a written Utility Relocation Summary of Work.

If any problems or conditions arise that are not covered by the Utility Procedures, the Utility Manual, or this SOP, the Project Engineer/ Inspector will immediately contact the District Utilities Engineer. The problem or conditions and the time of contact will be logged into the Project Diary or the Inspector's Diary, whichever is applicable.

**References**

MDOT 721 Utility Policy  
MDOT 721.2 [SHA Utility Manual](#)  
[SHA Utility Procedures Manual](#)  
[SHA Office of Construction: Construction Guide](#)  
[Standard and Supplemental Specifications for Construction and Materials](#)  
[SHA Utility Permit General Provisions](#)

## **Scope**

This SOP applies to any SHA office and staff and contractors administering utility relocation work and activities. as part of the Contract associated with work described within this SOP. **This SOP is replacing the SHA Construction Directive 07220.800.01 – Inspection and Documentation Pertaining to Utility/Railroad Forces**

## **Definitions**

- A. **After NTP** - The period of time after the NTP has been issued to the SHA contractor to begin work on the SHA Contract (also referred to in this Construction Directive as Concurrent Utility Work).
- B. **Prior to NTP** - The period of time before the Notice to Proceed has been issued to the SHA contractor to begin work on the SHA Contract.
- C. **Utility** - All references to Utility in this SOP shall include and/or apply to Railroads.
- D. **Utility 3<sup>rd</sup> Party Work** - Utility relocation work included in the SHA contract that is performed by the SHA's contractor.
- E. **Railroad Company Work** - Railroad work performed by Railroad Company personnel that is prosecuted in connection with and/or concurrent with the SHA's contract.

## **Responsible Party**

Chief Engineer  
Office of Construction Director

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## **PROCEDURE**

### **A) Prior To NTP**

#### **1. Designation of Inspection Responsibilities**

The District Utility Engineer (DUE) is responsible for the inspection of all Utility work that occurs prior to the NTP date of a SHA contract. The DUE assigns District Utility staff to inspect the utility relocations for the SHA contract.

For certain projects, the DUE/Assistant District Engineer (ADE) of Project Development/ADE of Construction may request an inspector specifically assigned to the relocation with approval from the District Engineer (hereinafter referred to as "District Assigned Construction Inspector"). If the DE does approve, he can assign any district level inspection staff. It is recommended that if a District Construction Inspector is assigned to the project, the same person is also assigned as part of the Construction Project Engineers (CPE) inspection staff to maintain continuity.

The District Utility Staff shall perform regular visits to Utility Work Sites, scheduling to witness as many major construction milestones as possible.

#### **2. Utility Coordination Documents**

- a) Utility Coordination documents will be available in the DUE's files. These files shall be shared with the assigned District Construction Inspector, should there be one assigned. These should include the following:
  - i. Utility Relocation Plan Set for each impacted utility;
  - ii. Material List for each impacted utility;
  - iii. Copy of the latest Utility Conflict Matrix for each impacted utility;

- iv. Copy of the Utility Project Agreement, if applicable for each impacted utility;
  - v. Copy of the Utility Relocation Permit (Part 1 - Utility Permit General Provisions; and Part 2 Individual Work Order Permit) - for each impacted utility;
  - vi. Copy of the Utility's Notice to Proceed for each impacted utility;
  - vii. Copy of the District Utility Plan Review (Form UC-7A) for each impacted utility;
  - viii. Copy of the OOC Utility Plan Review (Form UC-7B) for each impacted utility; and,
  - ix. Copy of all other pertinent documents indicating the description of work, pay methods, and Representative to contact for each impacted utility.
- b) Refer to the SHA Utility Manual and SHA Utility Procedures for additional information on the aforementioned documents.
- c) All documentation within this section must be retained to be included within the Contract Documents for Project Closeout audit purposes.

### 3. Inspection of Work

#### a) Inspection Requirements

Detailed information about Inspection practices can be found in the SHA Office of Construction: Construction Guide, as well as the SHA Standard and Supplemental Specifications for Construction and Materials found on SHA internet site <https://www.roads.maryland.gov>. Special attention should be given to the following procedures:

- i. All excavation and backfill must follow MOSHA regulations and SHA specifications within the Standard and Supplemental Specifications for Construction and Materials as well as in the approved Utility Plans.
- ii. All Work Zone Traffic Control devices used must be applied according to the SHA Book of Standards for Highway Incidental Structures: Category 1 – Preliminary as well as the MUTCD.
- iii. All work done must be checked for conformity to SHA approved Utility Plans. No deviation from or revisions to these plans is permitted without prior approval of the DUE who will coordinate with the Design Project Manager.
- iv. Collect all utility-provided boring logs and as-builts. Submit to DUE who will provide to Design Project Manager.
- v. The Inspector shall immediately contact the DUE if an issue or condition arises that is not covered by the SHA Utility Procedures or SOPs. The Inspector shall log any delays to the contractor's progress within their Inspector's Daily Report (IDR).

**b) Inspector's Daily Report (IDR)**

All IDR's (Form OOC75) must include the following:

- i. Utility Crew's Labor and Equipment Hours;
- ii. Materials Used (From observations);
- iii. Materials Removed (Best estimates);
- iv. Notes on Subcontractor work (If applicable);
- v. Work Order (WO) Number (A separate IDR shall be completed for each Work Order Number);
- vi. Approximate stations and offsets for all work locations that day;
- vii. Verify Utility work was completed per the approved Utility plan; and,
- viii. Any special notes or comments.

Refer to Construction Directive 07220.100.16 Inspector's Daily Report for more in-depth information on IDRs.

**c) Daily Log**

Logs are for denoting current events, and for future reference. Names, dates, and places to be detailed. It is not to be taken for granted that a reader several years later will recognize brief references and/or unconventional abbreviations.

Daily Logs will be created and maintained by the District Utility Staff or District Assigned Construction Inspector.

This log should be similar to the Daily Log in construction. Refer to Construction Directive 07220.100.07 Daily Logs for more information on Daily Logs.

**d) Inspector's Diary**

The Inspector's Diary is similar to the Project Diary for SHA construction projects. It is a factual narrative summary of activities, observations, and comments regarding the work and the manner in which the work is performed. Generally, the Inspector prepares, signs, and dates the entries in the Inspector's Diary. The Inspector's Diary will also contain a summary of important conversations and discussions relating to the work, in addition to any important matters that are not covered in other reports or records.

Any situation or condition affecting the Utility's production/performance, such as weather, strikes, right-of-way, environmental (permits), delays from other utilities, etc., should be detailed in the Inspector's diary and/or the Daily Log.

Refer to Construction Project Engineer's Manual for more in-depth information on Project Diaries.

#### **4. Billing**

Utility invoices (progress or final) received by the DUE require verification of charges before they can be processed for payment. The DUE shall request the assigned inspector (District Staff or the sign District Assigned Construction Inspector) to verify the time and material charges on the Utility invoice. The assigned inspector (District Utility Staff or District Assigned Construction Inspector) compares the information from the invoice with the inspector's documentation and replies to the DUE.

Refer to the SHA Utility Procedures Manual for additional information.

If an invoice is received from a Railroad Company, the DUE will forward the invoice to the Office of Structures.

#### **5. Completion of Utility Relocation Work OR Construction Project Engineer (CPE) Hand-Off**

**a)** Upon completion of the work, the assigned inspector (District Utility Staff or District Assigned Construction Inspector) shall submit all inspection documentation to the DUE. The DUE will retain all records in the DUE's Project Files. The inspection documentation will include:

- i. Inspector's Daily Reports;
- ii. As-Constructed Plans are to be completed by the Utility. They shall be completed on a clean set of plans and show all deviations to the original plan set and include any red-lines or modifications. Georeferenced coordinates for location data shall be provided when available. All As-Constructed Plans shall be submitted to the DUE and must be created as per Construction Directive 07220.100.14 "As Built Plans";
- iii. Copy of the section(s) of the Inspector's Diary relating to each utility on the SHA project;
- iv. Copy of the section(s) of the Daily Log relating to each utility on the SHA project;
- v. Summary of Work - A brief written summary from the Utility to attest work was satisfactorily completed in conformance with Utility Documents, and explain any deviations or problems related to work;
- vi. Updated Utility Conflict Matrix (UCM);
- vii. Any Pertinent Correspondence; and,
- viii. Other Supporting Documentation.

**b)** In the event that the utility relocation work is not complete by the time the SHA NTP is issued and will become concurrent utility work, the assigned inspector (District Utility Staff or District Assigned Construction Inspector) shall submit all inspection documentation, with exception of As-Constructed Plans and Summary of Work, to the DUE. The DUE will retain all records in the DUE's Project Files and provide copies of the inspection documentation to the CPE.

## **B) After NTP (Concurrent Utility Work)**

### **1. Designation of Inspection Responsibilities**

All Utility work that occurs after the NTP date of a SHA contract, will be inspected by the CPE and assigned construction inspection staff.

It is recommended that the CPE and the assigned construction inspection staff should meet with the DUE and the inspector(s) assigned to the utility relocation work Prior to NTP to coordinate and hand-off the utility relocation inspection and documentation.

### **2. Utility Coordination Documents**

a) Utility Coordination Documents will be provided by the DUE. The DUE will forward the following documents to the CPE:

- i. Utility Relocation Plan Set for each impacted utility;
- ii. Material List for each impacted utility;
- iii. Copy of the latest Utility Conflict Matrix for each impacted utility;
- iv. Copy of the Utility Project Agreement if applicable for each impacted utility;
- v. Copy of the Utility Permit for each utility for each impacted utility;
- vi. Copy of the Utility's Notice to Proceed for each impacted utility;
- vii. Copy of the District Utility Plan Review (Form UC-7A) for each impacted utility;
- viii. Copy of the OOC Utility Plan Review (Form UC-7B) for each impacted utility;  
and,
- ix. Copy of all other pertinent documents indicating the description of work, pay methods, and Representative to contact for each impacted utility.

b) Refer to the SHA Utility Manual and SHA Utility Procedures for additional information on the aforementioned documents.

c) All documentation within this section must be retained within the Contract Documents for Project Closeout audit purposes.

### **3. Scheduling**

The CPE, Prime Contractor, and Utility Representative must partner to maintain communication and cooperation regarding Utility Start Date, Locations of work, changes to scheduling by either party or any other concerns that may affect either party's progress. The CPE, Prime Contractor, and Utility Representative shall coordinate the progress of work in a manner that allows both parties to complete their work expeditiously and without significant loss of production to either party.

Refer to Section 875 Utility Statement of the contract Invitation for Bid (IFB) to ensure compliance with the SHA contract requirements.

#### 4. Inspection of Work

##### a) Inspection Requirements

Detail information about Inspection practices can be found in the SHA Office of Construction: Construction Guide, as well as the SHA Standard and Supplemental Specifications for Construction and Materials found on SHA internet site <https://www.roads.maryland.gov>. Special attention should be given to the following procedures:

- i. All excavation and backfill must follow MOSHA regulations and SHA specifications within the Standard and Supplemental Specifications for Construction and Materials as well as in the approved Utility Plans.
- ii. All Work Zone Traffic Control devices used must be applied according to the SHA Book of Standards for Highway Incidental Structures: Category 1 – Preliminary as well as the MUTCD.
- iii. All work done must be checked for conformity to SHA approved Utility Plans. No deviation from or revisions to these plans is permitted without prior approval of the DUE who will coordinate with the Design Project Manager.
- iv. Collect all utility-provided boring logs and as-builts. Submit to DUE who will provide to the Design Project Manager.
- v. The Inspector shall immediately contact the DUE if an issue or condition arises that is not covered by the SHA Utility Procedures, Directives, or Contract documents. The Inspector shall log any delays to the contractor's progress within their IDR.

##### b) Inspector's Daily Report (IDR)

All IDR's (Form OOC75) must include the following:

- i. Utility Crew's Labor and Equipment Hours;
- ii. Materials Used (From observations);
- iii. Materials Removed (Best estimates);
- iv. Notes on Subcontractor work (If applicable);
- v. Work Order (WO) Number (A separate IDR shall be completed for each Work Order Number);
- vi. Approximate stations and offsets for all work locations that day;
- vii. Verify Utility work was completed per the approved Utility plan; and,
- viii. Any special notes or comments.

Refer to Construction Directive 07220.100.16 Inspector's Daily Report for more in-depth information on IDRs.



**c) Daily Log**

Logs are for denoting current events, and for future reference. Names, dates, and places to be detailed. Daily Logs will be created and maintained by the CPE and their staff.

Refer to Construction Directive 07220.100.07 Daily Logs for more information on Daily Logs.

**d) Project Diary**

The Project Diary is a factual narrative summary of activities, observations, and comments regarding the work and the manner in which the work is performed. Generally, the Inspector prepares, signs, and dates the entries in the Project Diary. The Project Diary will also contain a summary of important conversations and discussions relating to the work, in addition to any important matters that are not covered in other reports or records.

Any situation or condition affecting the Utility's production/performance, such as weather, strikes, right-of-way, environmental (permits), delays from other utilities, etc., should be detailed in the Inspector's diary and/or the Daily Log.

Refer to Construction Project Engineer's Manual for more in-depth information on Project Diaries.

**5. Billing**

Utility invoices (progress or final) received by the DUE require verification of charges before they can be processed for payment. The DUE shall request the CPE to verify the time and material charges on the Utility invoice. The CPE compares the information from the invoice with the inspector's documentation and replies to the DUE.

If the DUE or CPE receives an invoice from a Railroad Company, the DUE or CPE will forward the invoice to the Office of Structures (OOS). The CPE is responsible for verifying the railroad invoice (ex. hours for flaggers) similar to the verification of utility invoices. The CPE compares the information from the railroad invoice with the inspector's documentation and replies to the OOS.

Refer to the SHA Utility Procedures Manual for additional information.

**6. Completion of Utility Relocation Work**

a) Upon completion of the work, the CPE will submit copies of all inspection documentation to the DUE. The DUE will retain all records in the DUE's Project Files. The inspection documentation will include:

- i. Inspector's Daily Reports;
- ii. As-Constructed Plans are to be completed by the Utility. They shall be completed on a clean set of plans and show all deviations to the original plant set and include any red-lines or modifications. Georeferenced coordinates for location data shall be provided when available. All As-Constructed Plans shall be submitted to the DUE and must be created as per Construction Directive 07220.100.14 "As Built Plans";
- iii. Project Diary;
- iv. Daily Log;



- v. Summary of Work - A brief written summary from the Utility to attest work was satisfactorily completed in conformance with Utility Documents, and explain any deviations or problems related to work;
  - vi. Any Pertinent Correspondence; and,
  - vii. Other Supporting Documentation.
- b) The CPE will retain all records in the CPE's Project Files and provide copies of the inspection documentation to the DUE.

**C) Utility 3<sup>rd</sup> Party Work**

**1. Designation of Inspection Responsibilities**

The CPE and their assigned staff shall inspect all Utility work that is incorporated within SHA contract documents. The Construction Area Engineer and the DUE shall be kept informed of any changes to the contract. Any modifications to the Utility work require a revised UC-10 to be completed by the DUE. The CPE and the Utility company's inspector shall come to an agreement on quantities of line items installed each day. Refer to Construction Directive 07220.100.23 Change Order Authorization for Construction Contracts for more information on Change Orders.

**2. Utility Coordination Documents**

- a) Some Utility Coordination Documents for inspections of the Utility 3<sup>rd</sup> Party work are part of the SHA contract and some are provided by the DUE. The following should be included in the SHA contract:
- i. Signed Utility Relocation Plan Set;
  - ii. Estimate with Items and Quantities for Materials;
  - iii. Utility Statement – Section 875 of the IFB;
  - iv. Utility Specifications – Section(s) 876 thru 881 of the IFB, as applicable; and,
  - v. All other pertinent documents indicating the description of work, pay methods and Representative to contact for each utility in the SHA contract.
- b) The following are the rest of the Utility Coordination Documents and will be provided by the DUE:
- i. Copy of the Utility Project Agreement, if applicable, for each utility in the SHA contract;
  - ii. Prior rights Report (RW-57) for each Utility 3<sup>rd</sup>;
  - iii. UC-10 – Cost Responsibility Summary of Quantity Estimates;
  - iv. UC-11 – Cost Responsibility (UC-10) Cover Letter; and,
  - v. Copy of all other pertinent documents indicating the description of work, pay methods, and Representative to contact for each utility in the SHA contract.

Refer to the SHA Utility Manual and SHA Utility Procedures for additional information on the aforementioned documents.

All documentation within this section must be retained to be included within the Contract Documents for Project Closeout audit purposes.

### 3. Scheduling

All 3<sup>rd</sup> party work will be included in the Construction Project Documents and shall appear on the Prime Contractor's schedule, for review and acceptance.

Refer to Section 875 Utility Statement Section(s) 876 thru 881 of the IFB, as applicable, of the contract IFB for additional information on the SHA contract requirements.

### 4. Inspection of Work

#### a) Inspection Requirements

Detail information about Inspection practices can be found in the SHA Office of Construction: Construction Guide, as well as the SHA Standard and Supplemental Specifications for Construction and Materials found on the SHA internet site <https://www.roads.maryland.gov>. Special attention should be given to the following procedures:

- i. All excavation and backfill must follow MOSHA regulations and SHA specifications within the Standard and Supplemental Specifications for Construction and Materials as well as in the approved Utility Plans;
- ii. All Work Zone Traffic Control devices used must be applied according to the SHA Book of Standards for Highway Incidental Structures: Category 1 – Preliminary as well as the MUTCD;
- iii. All work done must be checked for conformity to SHA-approved Utility Plans. No deviation from or revisions to these plans is permitted without prior approval of the DUE who will coordinate with the Design Project Manager;
- iv. Collect all utility provided boring logs and as-builts. Submit to DUE who will provide to Design Project Manager; and,
- v. The Inspector shall immediately contact the DUE if an issue or condition arises that is not covered by the SHA Utility Procedures, Directives, or Contract documents. The Inspector shall log any delays to the contractor's progress within their IDR.

#### b) Inspector's Daily Report (IDR)

All IDR's (Form OOC75) must include the following:

- i. Utility Crew's Labor and Equipment Hours;
- ii. Materials Used;
- iii. Materials Removed (Best estimates);
- iv. Pay Quantities;
- v. Notes on Subcontractor work (If applicable);

- vi. Exact stations and offsets for all work locations that day;
- vii. Verify Utility work was completed per the approved Utility plan; and,
- viii. Any special notes or comments.

Refer to Construction Directive 07220.100.16 Inspector's Daily Report for more in-depth information on IDRs.

**c) Daily Log**

Logs are for denoting current events, and for future reference. Names, dates, and places to be detailed. Pay quantities for utility items shall be included. Daily Logs will be created and maintained by the CPE and their staff.

Refer to Construction Directive 07220.100.07 Daily Logs for more information on Daily Logs.

**d) Project Diary**

The Project Diary is a factual narrative summary of activities, observations, and comments regarding the work and the manner in which the work is performed. Generally, the Inspector prepares, signs, and dates the entries in the Project Diary. The Project Diary will also contain a summary of important conversations and discussions relating to the work, in addition to any important matters that are not covered in other reports or records.

Any situation or condition affecting the Utility's production/performance, such as weather, strikes, right-of-way, environmental (permits), delays from other utilities, etc., should be detailed in the Inspector's diary and/or the Daily Log.

Refer to Construction Project Engineer's Manual for more in-depth information on Project Diaries.

**5. Billing**

All billing will be completed according to the Construction Project Documents and paid through monthly estimates generated and approved by the CPE. The CPE is responsible for billing to the correct item number along with the correct section and fund number. The CPE and the Utility shall have agreed to all quantities included in monthly estimates. At the completion of all Utility work Final Measured Quantities shall be agreed upon by the CPE, the Utility, and the Contractor.

Some Utility Companies require a separate Utility Estimate completed for the work performed for the monthly SHA's Contractor's Estimate for billing purposes. For those certain Utility Companies, the CPE is to prepare and have the utility representative sign the Utility Estimate. The CPE is to send the original signed Utility Estimate with the monthly SHA's Contractor's Estimate to OOC's Contracts Payments Division. The CPE is to give a copy of the signed Utility Estimate to the utility representative.

If the DUE or CPE receives an invoice from a Railroad Company, the DUE or CPE will forward the invoice to the Office of Structures (OOS). The CPE is responsible for verifying the railroad invoice (ex. hours for flaggers) similar to the verification of utility invoices. The CPE compares the information from the railroad invoice with the inspector's documentation and replies to the OOS.

## 6. Completion of Utility 3<sup>rd</sup> Party Work

- a) Upon completion of the Utility 3rd Party Work, the CPE will submit copies of all inspection documentation to the DUE. The DUE will retain the copies in the DUE's Project Files. The inspection documentation will include:
  - i. Inspector's Daily Reports;
  - ii. As-Constructed Plans are to be completed by the CPE. They shall be completed on a clean set of plans and show all deviations to the original plan set and include any red-lines or modifications. Georeferenced coordinates for location data shall be included when available. All As-Constructed Plans shall be created as per Construction Directive 07220.100.14 "As Built Plans";
  - iii. Project Diary;
  - iv. Daily Log;
  - v. Summary of Work - A brief written summary from the CPE to attest work was satisfactorily completed in conformance with Utility Documents, and explain any deviations or problems related to work. A letter of "Acceptance for Maintenance" from the Utility company is preferred in place of the Summary of Work from the CPE;
  - vi. Any Pertinent Correspondence; and,
  - vii. Other Supporting Documentation.

The CPE will retain all records in the CPE's Project Files.

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### ADDITIONAL AUTHORIZED DOCUMENTS

[Utility Conflict Matrix](#)  
[IFB Section 875 – Utility Statement](#)  
[IFB Section\(s\) 876 thru 881](#); as applicable  
[UC-6 – District Utility Coordination Certification](#)  
[UC-7A – District Utility Plan Review](#)  
[UC-7B – OOC Utility Plan Review](#)  
[Utility Permit General Provisions – Part 1 of the Utility Relocation Permit](#)  
[Individual Work Order Permit – Part 2 of the Utility Relocation Permit](#) (for each impacted utility)  
[UC-8 – District Utility Progress Bill Review](#)  
[UC-10 Cost Responsibility Summary of Quantities Estimate](#)  
[UC-11 Cost Responsibility \(UC-10\) Cover Letter](#)  
[OOC75– Inspector Daily Report; or eMCMS equivalent](#)  
[UC-9A – District Final Bill Review](#)  
[UC-9B – OOC Final Bill Review](#)  
[UC-12 Summary of Billing](#)

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## ADDITIONAL INFORMATION

### Other Divisions Impacted

Any department or district that is administering a contract that has related Utility or Railroad work being performed as the result of or within the contract.

### Contact Information

Office of Construction Director  
443-572-5200 or 1-866-926-8503