

Rte. 95 – Install ITS Devices

UPC 106938

Mandatory Project Showing

Time: Tuesday, May 3, 2016, 10:00 a.m.

Location: Traffic Engineering Conference Room

Project #: 0095-043-848, M501

Description: Install ITS Devices

Attendees: Teresa Gardner (VDOT), Brian Jarvis (VDOT), David Ludgate (VDOT), Kamal Munawar, P.E. (VDOT), George Humphrey (VDOT), Phil Davis (VDOT), Everrick Bruce (VDOT), Cynthia Crouch (VDOT), Jon Sorenson (Atkins), Alf Badgett (Atkins), Eric Groah (AMT), Andrew Lessner (Venture Electric), Andy Bayer (Bruce & Merrilees), Griffin Mabe (Gannet Fleming), Laura Deely (DSU, LLC), Roni Arven (RWEC), Houston Sutherland (RWEC), David Ludwig (DTS), Joe Monk (Curtis Contracting Inc.) and Anthony Stolar (Midasco, LLC)

Introduction: Teresa Gardner, P.E., Kamal Munawar, P.E.

Teresa Gardner, P.E. is the Area Construction Engineer, Eric Groah, Construction Manager (CM) and Kamal Munawar, P.E. is the Project Manager of Design. This project includes the installation and testing of fiber optic cable, fiber optic communications equipment, conduit, junction boxes and ITS devices along I-95 as well as fiber optic connection and testing of existing ITS devices. The project runs from North Lombardy St. Bridge MM 75.7 to the existing Cell Tower building south of Sliding Hill RD MM 86.8.

This project has approximately 11 miles of conduit and fiber optic cable installation, new CCTVs, a new full sign DMS span structure, connecting, splicing and testing existing and new ITS devices within the project limits.

Bundled Advertisement, Combined UPC's:

There are two sets of plans that have been combined for bundled advertisement. The first two sheets are the combined title and combined summary of quantities sheets. The first plan set, UPC 105076, outlines the installation and testing of conduit, junction boxes, fiber optic cable, fiber optic communications equipment and integration and testing of existing ITS devices. The second plan set, UPC 106938, outlines the installation, integration and testing of the new ITS devices as shown on plans.

Plan sheets in the second set with the letter "A" after the sheet number correspond directly to the sheet of the same number in the first plan set. Any gaps in the sheet numbers on the second plan set are due to there not being an ITS device on that corresponding sheet.

The Critical Infrastructure Information Sensitive Security Information note/designation will be removed from UPC 106938 and the project.

The CPM PROGRESS SCHEDULE FOR CATEGORY III PROJECTS will be changed to a CATEGORY I.

Transportation Management Plan:

This is a change to the bid documents. Temporary single-lane closures and **shoulder closures**, where approved, shall be in accordance with the following time limitations. Multi-lane closures are not allowed at any time.

Sunday	9:30 P.M. to 5:00 A.M.
Monday	9:30 P.M. to 5:00 A.M.
Tuesday	9:30 P.M. to 5:00 A.M.
Wednesday	9:30 P.M. to 5:00 A.M.
Thursday	9:30 P.M. to 5:00 A.M.
Friday	No Lane or Shoulder Closures Allowed
Saturday	No Lane or Shoulder Closures Allowed

Utility & Devices:

The contractor is responsible for utility coordination for any and all work on the project. Utilities may exist within the limited access and throughout the project.

Quantities for power connections are estimated based on field review between Dominion Power and Todd Shank from Central Region Operations. The contractor shall coordinate with Todd Shank through the CM for final locations prior to start of construction. See General Notes for more information.

Device locations with latitude & longitude coordinates are approximate. The final locations should be verified in the field. See General Notes for more information.

Right of Way & Rail Road:

This project shall be built within the existing Right of Way along the I-95 corridor, as mentioned on the cover sheet. There is a CSX railroad crossing north of Lombardy Street that will require coordination with the rail road company.

Bridges over Rte. 95 – David Ludgate, VDOT Bridge

There is to be no trenching beneath the bridges only horizontal directional boring. The contractor may be trenching behind the guardrail as he approaches the bridges. When the contractor switches to HDD and begins boring, he may be boring near the bridges' pier footings. Mr. Ludgate has noted in the sketches the limit (6' from the edge of any bridge foundation) that the contractor is allowed. The sheets presented in the meeting, as well as other red-lined sketches, will be uploaded to Construction Advertisement Bulletin Board (CABB) along with the meeting minutes. The sketches will show the approximate location of the boring and the pier footings and are for informational purposes only. The contractor shall field verify.

Mr. Ludgate discussed drilling into abutment concrete walls for junction box mounting. The contractor shall locate the existing reinforcement utilizing non-destructive methods before they drill and place the anchors in the concrete so as not to impact the reinforcement. This is also noted in the plans. There is to be no drilling into bridge piers.

Because these bridges are in an urban area it is possible that someone could break into the junction boxes and damage the cable. Therefore, where possible, the boxes shall be attached to abutment walls as high as practical. There are several walls that are not very tall; but, where possible, the boxes shall be mounted out of reach.

With regard to vertical clearance, when mounting the hanger assemblies between the bridge beams it is extremely important to be certain that the hanger assembly does not hang below the bottom of the lowest beam. Some of the beams are somewhat shallow but the fit can be done.

Available as-built plans will also be uploaded with minutes.

UPC 105076

Atkins provided a general design overview of conduit routing and devices.

Atkins went over sheet 2O, and provided clarification regarding existing ITS devices and splice location key.

Atkins provided a general overview of the fiber design strategy.

Atkins provided a general overview of the design intentions for sheet 2L.

Contractor shall obtain permits for any work within City of Richmond Right Of Way.

Atkins showed several photos of the inside and outside of the Sliding Hill Hub building. The photos provided a visual of the access to the hub building and additional insight as to the internal existing conditions. (Photos included in PowerPoint Presentation)

Key Dates:

Completion Date: July 19, 2018

Provisional Completion Incentive/Disincentive: April 18, 2018 – refer to contract documents.

QUESTIONS:

1. Question: George Humphrey (VDOT) Is there a note in the plans for the hand digging inside the fence at the Sliding Hill Hub?
Answer: Kamal Munawar (VDOT) and Houston Sutherland (RWEC) *Yes, there is a note on the plans.*
2. Question: David Ludwig (DTS) Connection to existing devices, what does that consist of for the successful contractor?
Answer: Alf Badgett (Atkins): *The plans call for inclusion of edge switch and proper jumpers to the device in the plan and quantities are included in the plans.*
Answer: Phil Davis (VDOT) *Existing ITS Devices are in production. Migration from copper to fiber will need to be coordinated with TOC through the Construction Manager.*
3. Question: Teresa Gardner (VDOT) Talk about tying into the existing fiber on the Southern end of the project.
Answer: Phil Davis (VDOT) *Existing Fiber currently terminates at MM 76 at the camera that is served by fiber. We will tie in there and continue north to the Sliding Hill Hub. It will terminate in the cabinets just as all of the rest of the existing ITS devices do.*
4. Question: Teresa Gardner (VDOT) Will all Splice work be handled by the successful contractor or will some be handled by VDOT or their contractors?
Answer Phil Davis (VDOT) *Splicing to the existing fiber network will have to be handled by VDOT's contractor that has the on-call contract for migration. All other splices such as installation of fiber on this project, cutting in for existing and new devices, will be handled by the successful contractor on this project.*

With no other discussions or comments, Mandatory Showing was adjourned at 10:23 A.M.

COMMONWEALTH OF VIRGINIA
 DEPARTMENT OF TRANSPORTATION
 PROJECT SHOWING ATTENDANCE SHEET

CONTRACT ID. NO.: C0000106938T PROJ. NO.: (NFO) 0095-043-848, M501 AREA CONSTRUCTION ENGINEER: Teresa Gardner, P.E.
 ROUTE: I-95 COUNTY: Henrico DATE: May 3, 2016
 DISTRICT: RICHMOND CONSTRUCTION AREA: CRO TIME: 10:00 A.M.

REPRESENTATIVE	COMPANY	COMPANY ADDRESS	EMAIL ADDRESS	PHONE NUMBER
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(Continued)



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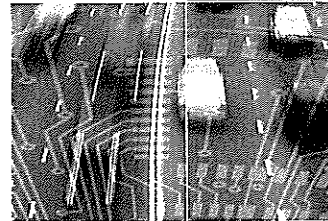
D S U

DESIGN - INSTALLATION - MAINTENANCE



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MANDATORY SHOWING
RTE 95 - INSTALL ITS DEVICES
UPC 106938

Please sign attendance sheet

RTE 95 - INSTALL ITS DEVICES

- Introductions
- Bundled Advertisement, Combined UPC's
- Transportation Management Plans
- Utility & Devices
- Right of Way & Railroad
- Bridges

UPC 105076 Discussion

- General Design Overview
 - Conduit routing
 - Devices
- Existing ITS Devices & Splice Location Key – Overview (Sheet 20)
- Fiber design strategy – Overview
- Hub integration

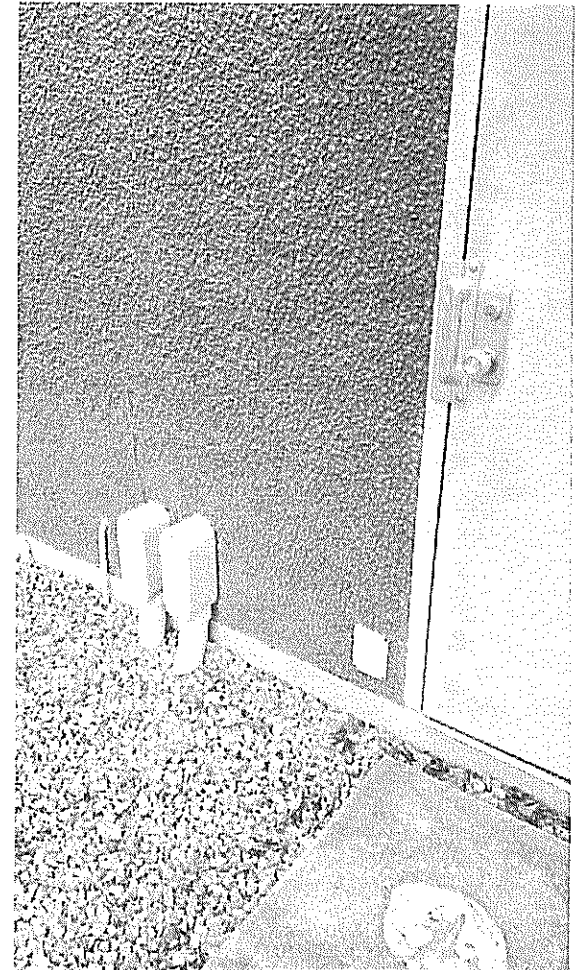
Hub Building

Sliding Hill



Hub Building

Sliding Hill



RTE 95 - INSTALL ITS DEVICES

- Key Dates
- Other Discussion
- Questions