



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

April 3, 2017

Contract No.: DL00129
WBS No.: 17BP.12.R.13
Location: SR #2209
County: Gaston

RE: Addendum #1 to Contract DL00129.

To Whom It May Concern:

This letter is to advise all prospective bidders of the following contract addendum. The following changes/additions/deletions have been made:

Contract Special Provisions Added

- Lighting system special provisions (pages ECS-1 thru ECS-4) have been added to clarify the pay item for "Electrical Conduit System at Station 13+40 -L-".

Plan Sheets Added

- Plan sheet ECS-1 has been added to clarify the pay item for "Electrical Conduit System at Station 13+40 -L-".

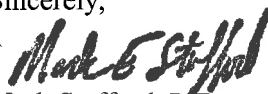
Pre-Bid Meeting Minutes Added

- Meeting minutes have been added to document answers to questions posed at the pre-bid meeting and to list the general topics that were covered in the meeting.

If submitting a paper bid please insert pages ECS-1 thru ECS-4 into the proposal, after page ST-19, prior to submitting your bid. Any bids received not containing these sheets shall be considered irregular and will not be considered for award. The plan sheets and meeting minutes do not have to be submitted as part of the bid package but are hereby made part of the Contract.

If bidding electronically then you must apply the addendum file, which can be found at the Division 12 website at www.ncdot.gov/doh/operations/division12/bids under the April 4, 2017 letting folder, to the original EBS file when placing your bid. To apply the addendum, open the EBS file using Expedite software and select Load Amendment from the File Menu. Expedite will not allow the bid to be submitted unless the addendum is acknowledged. Please contact Greg Brittain at 704-480-9022 with any questions.

Sincerely,


Mark Stafford, P.E.
Division Engineer

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION 12
PO BOX 47
SHELBY, NC 28151-0047

Telephone: (704) 480-9020
Fax: (704) 480-5401
Courier: 06-53-03
Website: www.ncdot.gov

Location:
1710 E. MARION STREET
SHELBY, NC 28152

PROJECT SPECIAL PROVISIONS
ELECTRICAL CONDUIT SYSTEM

3/27/2017

1.0 GENERAL

1.10 DESCRIPTION:

The work covered by this section consists of furnishing and installing an embedded conduit system in the sidewalks, pulling circuit conductors, and installing decorative light standards and luminaires to provide aesthetic lighting on a bridge. Perform all work in accordance with these special provisions, the plans, the National Electrical Code (NEC), and Division 14 of the North Carolina Department of Transportation "Standard Specifications for Roads and Structures." Install decorative light standards according to manufacturer's instruction.

The Contractor actually performing the work described in these special provisions shall have a license of the proper classification from the North Carolina State Board of Examiners of Electrical Contractors.

The licensed Electrical Contractor must be available on the job site when the work is being performed or when requested by the Engineer. The licensed Electrical Contractor shall have a set of plans and special provisions in his possession on the job site, and must maintain accurate "as built" plans.

In addition to the requirements of Division 1400, other specific Sections of the Standard Specifications applicable to the work on this project are listed below.

Section 1409	Electrical Duct
Section 1410	Feeder Circuits
Section 1411	Electrical Junction Boxes

2.00 ELECTRICAL CONDUIT SYSTEM

2.10 DESCRIPTION

The work covered by this section consists of furnishing and installing PVC conduit system embedded in concrete, circuit conductors; and installing decorative lights standards and luminaires to be supplied by the City of McAdenville.

2.20 MATERIALS

Drawings submitted for approval shall show material specifications, dimensions and shall have a certification statement concerning conformance with AASHTO design criteria where required.

Electronically submit catalog cuts and/or drawings for all proposed materials for the Engineer's review and approval. Include the brand name, stock number, description, size, rating, manufacturing specification, and applicable contract item number(s) on each submittal. Allow ten (10) days for submittal review. The Engineer will advise the Contractor of reasons for rejected submittals and will return approved submittals to the Contractor. Do not deliver material to the project prior to submittal approval.

2.21 EMBEDDED CONDUIT IN SIDEWALKS

Conduit shall be non-metallic PVC and sized as noted on the plans.

Non-metallic conduit shall be rigid PVC (Polyvinyl chloride) heavy wall approved for underground use with concrete encasement per UL 651 "Rigid Non-Metallic Conduit". Use terminations designed for PVC conduit, to seal and stub out each PVC conduit, and to provide watertight protection.

Provide water tight Type BR junction boxes that meet the requirements of Section 1411 of the Standard Specifications, titled "Electrical Junction Boxes" and size as shown in the plans.

Use mastic that is a permanent, non-hardening, water sealing compound that adheres to metal, plastic, and concrete.

2.22 DECORATIVE LIGHT STANDARD AND LUMINAIRE

Light standards and luminaires will be provided by NCDOT. See Decorative Concrete Rail and Metal Rail Special Provision for contact information and location where the light poles can be picked up. Anchor bolts and anchor bolts pattern will be furnished along with the documentation supplied by the light standard manufacturer.

2.30 CONSTRUCTION METHODS

2.31 EMBEDDED CONDUIT IN SIDEWALKS

All conduit and boxes installed in the sidewalk shall be securely fastened with ties prior to placing any concrete. After the conduit is encased in concrete, the Contractor shall clean each conduit by snaking with a steel band with an approved tube cleaner equipped with a mandrel of a diameter not less than 85% of the nominal inside diameter of the conduit. To ensure against corrosion in

the areas where hot dipped galvanizing of the junction box has been damaged, cover all raw metal surfaces with a cold galvanized, zinc rich paint.

Install feeder circuit conductors in clean conduit to connect power service stub to each light standard and each luminaire as shown in the plans and as described in these Special Provisions.

Cap the conduit termination stubs with termination kits, of the same material as the conduit, designed specifically for that purpose. Conduit may enter cast iron junction boxes through field drilled holes protected with zinc rich paint before the conduit is inserted. Use threaded adapters and bushings at all cast iron junction box to conduit connections. Coordinate electrical conduit system work with work by others as directed by the Engineer.

Install junction boxes in accordance with Section 1411 of the Standard specifications, titled "Electrical Junction boxes". Junction boxes shall be in flush with the sidewalk surface.

All junction boxes shall be bonded to rebar in accordance with NEC prior to encasement.

All work shall be inspected and approved by the Engineer before concealment.

2.32 DECORATIVE LIGHT STANDARD & LUMINAIRE

Install anchor bolts and conduit in light pedestals as shown in the plans. Anchor bolts shall be installed according to light standard manufacturer's recommendations, and shall be installed prior to concrete forming for pedestal. Protect exposed threaded portion of anchor bolts to guard against damage from concrete installation. Cap conduit stub to prevent concrete intrusion.

Erect and fasten light standards to anchor bolts on pedestals as shown on the plans. Protect the shaft during storage and installation to ensure against scratches or dents. Use proper blocking and protection to prevent warping or discoloration when laid on the ground, and to prevent damage by other construction work.

Install standards vertically plumb, and use connecting bolts, washers and nuts compatible with the standard base as recommended by the light standard manufacturer and which comply with the contract. Provide the required luminaire mounting height which is defined as vertical distance from luminaire to pavement surface of traveled lane.

Securely mount and plumb the luminaire onto the slipfitter of the pole at the required luminaire mounting height.

Provide fuses, fuseholders and branch circuit conductor in the decorative light standard. Fuses and fuseholders shall be as described in Section 1400-2(E) of the Standard Specifications. Branch circuit conductor shall be #12 AWG SO cable and shall be installed in the decorative standard from the fuseholder to the luminaire. Leave sufficient slack in SO cable to allow for luminaire removal.

2.33 ELECTRICAL SERVICE

The City of McAdenville will coordinate with the local utility company and obtain the required electrical service to the bridge lighting at a later date, as stated in section 1400-9 of the Standard Specifications.

The Engineer must inspect and approve all work before concealment.

2.40 MEASUREMENT AND PAYMENT

No direct measurement will be made for the work covered by this section, since it will be paid for on a lump sum basis.

Payment for this work will be made at the contract lump sum price for "Electrical Conduit System".

Such price and payment for this work will be considered full compensation for all materials, equipment, and labor necessary to complete the work in accordance with the plans and these special provisions.

Payment will be made under:

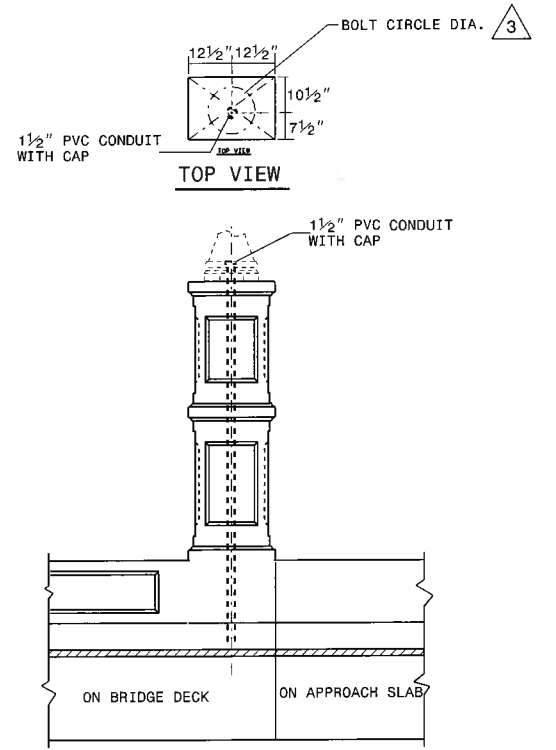
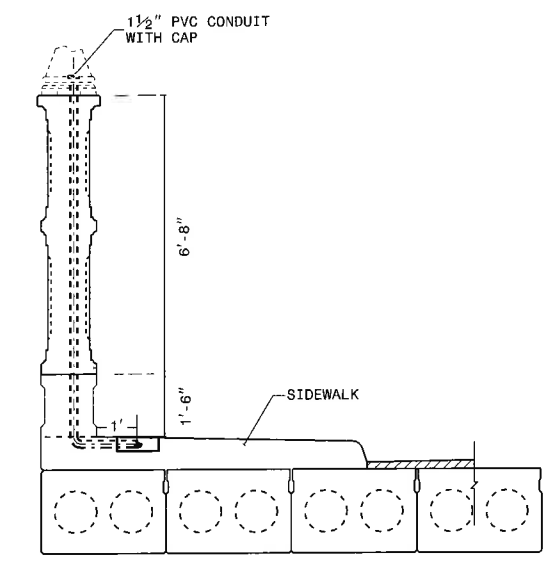
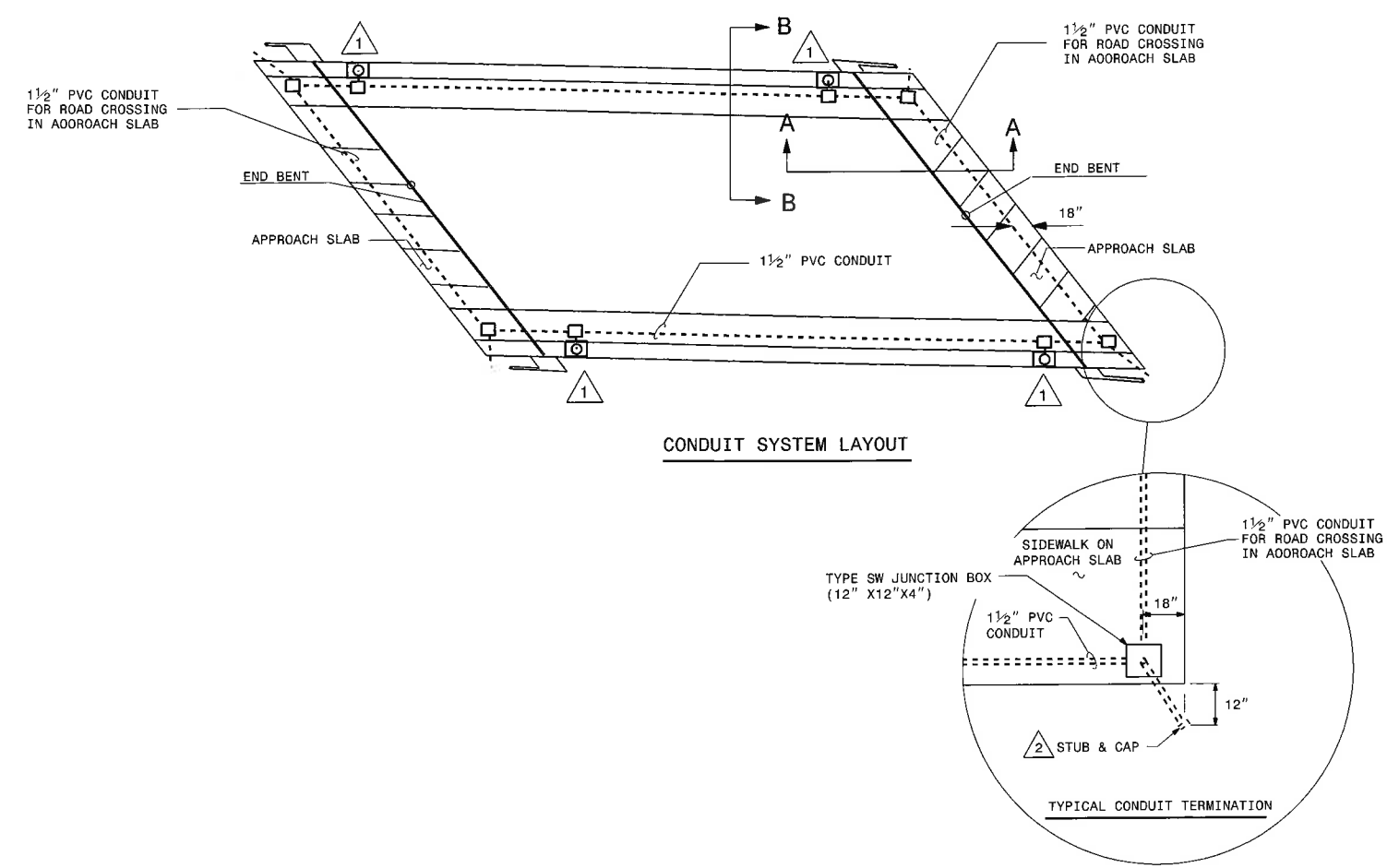
Electrical Conduit System at Sta 13+40.00 -L- Lump Sum



DocuSigned by:
Paul Chan
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3/27/2017

USE FOR LIGHTING CONSTRUCTION ONLY



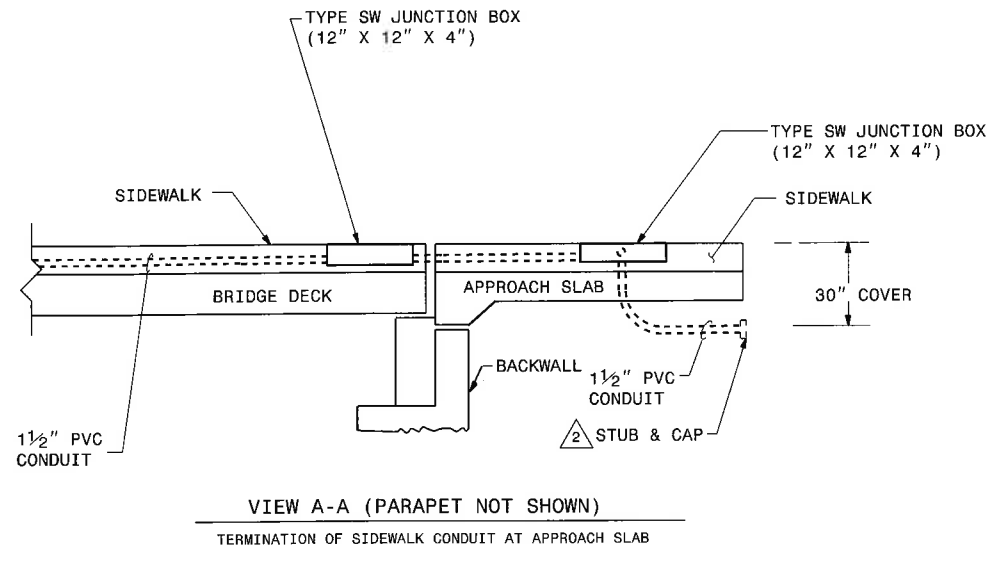
VIEW B-B

ELEVATION OF PEDESTAL

CONDUIT AND JUNCTION BOX INSTALLATION AT LIGHT PEDESTALS

NOTES

- 1 SEE STRUCTURE PLANS FOR LOCATION AND DETAILS FOR LIGHT PEDESTALS.
- 2 THE CITY OF MCADENVILLE WILL COORDINATE WITH LOCAL UTILITY COMPANY TO BRING POWER SERVICE AND MAKE CONNECTION TO ELECTRICAL STUB AT A LATER DATE.
- 3 INSTALL ANCHOR BOLTS ACCORDING TO MANUFACTURER'S RECOMMENDATION.
- 4 INSTALL 2#10 AWG (PHASE) & 1#12 AWG (GND) TYPE USE CONDUCTORS IN THE ELECTRICAL CONDUIT SYSTEM. THIS IS IN ANTICIPATION OF A SINGLE PHASE POWER SERVICE TO THE BRIDGE LIGHTING SYSTEM.
- 5 COORDINATE WITH NCDOT TRAFFIC SERVICES FOR DELIVERY OF THE FOUR DECORATIVE LIGHT POLES. SEE DECORATIVE CONCRETE RAIL AND METAL RAIL SPECIAL PROVISION FOR CONTACT INFORMATION AND LOCATION WHERE THE LIGHT POLES CAN BE PICKED UP.
- 6 ERECT FOUR DECORATIVE LIGHT POLES AND INSTALL 12/2 SO CABLE WITH GROUND INSIDE LIGHT POLE.

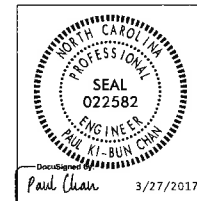


VIEW A-A (PARAPET NOT SHOWN)

TERMINATION OF SIDEWALK CONDUIT AT APPROACH SLAB

ESTIMATED BILL OF MATERIAL ELECTRICAL CONDUIT SYSTEM		
UNIT	ITEMS	QTY
EA.	TYPE SW JN. BOX (12" X 12" X 4")	4
FT	1 1/2" PVC CONDUIT	350
FT	POLYETHYLENE PULL LINE	500
FT	SET OF 2 #10 AND 1 #12 CONDUCTORS	350
FT	12/2 SO CABLE WITH GROUND	80

PROJECT NO. 17BP.12.R.13
 GASTON COUNTY
 STATION: 13+40.00 -L-



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 DESIGN SERVICES LIGHTING & ELECTRICAL
ELECTRICAL CONDUIT SYSTEM
 WESLEYAN DRIVE (SR 2209)

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			
2			4			

SEE PROJECT SPECIAL PROVISIONS TITLED "ELECTRICAL CONDUIT SYSTEM" FOR MATERIALS CONSTRUCTION METHODS AND PAYMENT.

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McAdenville Pre-bid Meeting Notes

Responses for Specific Questions

- ? Are there any decorative requirements for the sewer service line installed on the bridge?
 - No. The town did not request that the line be painted. Once the bridge is complete, the department will consider it under an encroachment agreement with the town.

- ? If heavy rain is encountered what should the top elevation of the shoring be set at?
 - The full pond elevation of the pond is 579 based on the dam elevation downstream. Since this area is basically back water for the pond, the top of the impervious dikes should be set at or above this elevation.

- ? What type of temporary shoring is required for impervious dikes?
 - We left that open to the contractor's preference. Temporary shoring may be best to keep area dewatered but if rock is encountered (or anticipated) then sand bag impervious dikes should also work. A sand bag type wall along the area that the soldier pile wall will be installed may be the best option so it can be removed without damaging soldier pile wall.

- ? Will AT&T overhead lines conflict with driving sheet piles?
 - Telephone lines owned by AT&T will be moved to edge of proposed ROW which crosses over designated wet lands on the small island upstream of the project. Impervious dikes can't be installed in wet land per the permit so there should be enough clearance from the telephone lines to install impervious dikes.

- ? Who is the low bidder for the force sewer main?
 - Sanders is the apparent low bidder but has not been awarded the contract. Additional grants and funding were requested before the contract is officially awarded to Sanders. Construction. This work is currently scheduled to start in June and be completed by June 2018. The Department would prefer that the force main be installed before the work required by ICT #1 is completed. If not, then the bore pits to install the force main may impact the quality of the finished project.

- ? What options are available if the existing metal fence is damaged during removal and can't be reset?
 - We should be removing more fence than we reset but care should be taken during removal to avoid damage. If the rail is damaged during removal, then the Department will coordinate with the owners to purchase replacement sections as needed.

- ? Are the 36" holes for the soldier piles necessary?
 - Yes. The 36" holes were used to minimize the embedment depth of the piles. The smallest diameter hole that can be used without changing the embedment depths per the plans is 30". If a hole smaller than 30" is used, a submittal must be made to revise the soldier pile designs shown in the plans.

- ? If storage areas are needed outside of the existing right of way/easement, who should the contractor contact?
- The contact information for Pharr Yarns is:
George Altice
Pharr Yarns Corporate Engineer
704-828-2397 (Work)
704-813-9320 (Mobile)
- ? Will the fire station remain active?
- Yes. Cramerton Volunteer Firemen are stationed there one or two days per week but are only there to make safety checks on the equipment stored on site and clean up as needed.
- ? Who is responsible for the Asbestos Assessment and the demolition permit for Health Hazards Control Unit (HHCU)?
- An asbestos assessment was completed by the Department and asbestos was found in the fiber glass wrapping on the abandoned water line hanging on the bridge. The Department will have this wrapping removed by a certified Asbestos contractor and abate this material prior to the date of availability. The Department has also contacted HHCU and will submit the notification of demolition with that office. Once the low bidder has been determined and the contract awarded, the Department will notify HHCU with the contractor's information and acquire the demolition permit prior to the date of availability.
- ? Is there any provision for incidental milling to tie the southern end of project to existing pavement?
- No pay items for incidental milling was included as a pay item but there is a pay item for milling asphalt pavement (1.5") that can be used as directed by the resident engineer's inspector.
- ? Are there any exceptions for the completion of work detailed in ICT#1 in order to be eligible for the incentive ?
- No. All work detailed in ICT#1 must be completed on or before the November 1st, 2017 as detailed in this provision. The town has been notified that there will still be some erosion control items and grass that has not been established by this date.

General Topics Reviewed at Pre-Bid meeting

Construction Issues

- Fire Station will remain open but is only used by the Cramerton Fire Department one or two days per week. Cramerton Fire Chief must be notified if any bays are blocked by equipment or materials that can't be moved easily for an emergency.
- Pay item for Handicapped Portable Toilets and Hand Washing stations are part of the agreement with the Gaston County Health Department to maintain the fire station's building occupancy permit. No one stays over night at the facility but since it is a public facility, these facilities must be provided and made available to anyone working or visiting the fire station until the new sewer service line is in service.
- Forms for the proposed decorative concrete columns are available for inspection at the Cleveland County bridge maintenance yard and may be used to construct the columns. Department requests that at least one set of forms be returned in serviceable condition for each column height.
- Powder coating on guardrails must be black to match pedestrian rails on the bridge and railing around the pond. Refer to special provision for powder coating specs.
- No plans for the existing abutment walls are available and field surveys indicate that they extend 10' to 15' below the stream bed. The abutment walls should be removed down to the stream bed elevation.
- The skew and bridge length of the proposed bridge were designed to give as much room between the fire station and foundations as possible. However, the corner of the existing 90 degree abutment walls may clip the proposed curtain walls. The piles for the proposed end bents were spaced to avoid conflicts but one corner of each of the existing abutment walls may need to be removed below the natural stream bed to avoid conflict with the proposed curtain walls.
- Due to the tight time frame for this project, all submittals for this project should be submitted as soon as possible. The department will expedite the reviews to minimize delays in getting materials to the project site. A key submittal that could create delays was noted for the shop drawings for the metal rails proposed for the bridge. Fabrication for this item could create a critical delay in completing the bridge by the conditions of ICT #1.
- All items described in ICT#1 must be completed by November 1st, 2017 before the incentive payment will be approved.
- The soldier pile wall does not have any specific requirements for the facing. Standard concrete facing with no decoration or specific color was listed in the specifications.
- Asbestos Assessment was not included in the contract because this work was completed by the Department prior to awarding the contract. Asbestos was found in the insulation located on the abandoned water line hanging on the bridge. The Department has scheduled this material to be abated on April 12th and it will not be present on the bridge at the date of availability.

Utility Issues

- Existing gas lines have been capped outside the project limits and will be abandoned. Service can be provided to surrounding neighborhoods without reconnecting the line.
- AT&T is in process of moving their telephone lines to the back of the right of way on parcels 1 and 3.
- The power poles on parcel 5 are owned by Pharr Yarn with Duke Power lines attached to them. Poles will be reset prior to availability date.
- Proposed Force Main Sewer line that crosses the northern bridge approach (Station 14+50) is under contract with Two Rivers. The Department would prefer that this work be coordinated prior to the construction of sidewalks, final asphalt layer and curb and gutter work to avoid having any rework of any pay items.
- All electrical and sewer work must be completed by a licensed contractor.
- Stub outs for the proposed electrical conduit system shall be located on the North West corner of the project (parcel 3). The electrical conduit plans contain standard details only and do not specify which corner the stub outs are to be located.
- According to the lighting unit with DOT, no expansion joints are required between the sidewalks on the bridge and the approach slabs but we have asked for a revised plan sheet or details for an expansion fitting to be used at these locations. All work for this pay item is lump sum and shall be considered full compensation for all electrical conduit, fittings, and wiring used for this work.
- Upon completion of ICT#1, the lighting on the bridge shall be ready for the town to connect power to the stub outs without any additional work to the electrical system on the bridge.
- Contractor shall be aware that the town has many trees wired with Christmas lights and have run underground conduit. There should not be any conduit within the project limits but care should be taken around the trees to minimize the risk of uncovering any of these facilities.
- An electrical conduit is hanging under the bridge but according to the Pharr Yarn representatives has been abandoned and is not connected to any power source.
- The existing water line hanging on the existing bridge has been abandoned. The water line may be removed and sealed off as needed

Miscellaneous Issues

- The town will host a 5k run the day after Thanksgiving. The Department has recommended that they look for an alternate route in case the bridge is not open to traffic. The November 1st date in ICT #1 was set so that we will have a couple of weeks prior to this event to allow the town and the Department to address any impacts of this project with that event.

Permit Issues

- Bypass pump should be set to maintain normal water level (Water Elevation – 579) and not drain wetland area. If we have a period of time that we are in a drought, document the site conditions.
- Turbidity Curtains are included in contract pay items so they can be used if turbidity becomes an issue for the permits. On an average day the water is stagnant and turbidity should not be an issue.
- Any additional impacts to the project not noted on the plans or during the pre-bid discussions may require modifications to the permit. Notify Trish Beam (704-480-9044) asap for any additional work that is needed.
- Safety fence is included in contract to be used as needed around upstream sites that are designated “Do not disturb”. Flagging these sites will also be allowed and is preferred to minimize impacts.

Traffic Issues

- ICT #2 is to be used to accommodate traffic along Popular Street as needed. There are several access points along NC 7 Popular Street. Inspector may require this provision to be used to limit traffic in project site. Access to all parking lots shall be left open to local traffic.
- Detour has a “No Thru Truck” sign and may be covered by the Department during construction. The sign was installed by the Department but does not have an approved ordinance.