



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

December 17, 2018

N.C. Dept. of Environmental Quality
Division of Coastal Management
401 S. Griffin Street
Elizabeth City, NC 27909

Attn: Mr. Greg Daisey
NCDOT Coordinator

Subject: **Request for Letter of Refinement for CAMA Major Development Permit** for the replacement of Bridge No. 19 on eastbound US 158 over the Pasquotank River in Pasquotank and Camden Counties. Federal Aid Project No. STP-0158(31) TIP No. U-4438, WBS Element 35742.1.1.

Reference: CAMA Major Development Permit No. 149-10, issued January 6, 2011

The Department requests authorization to install a junction box at the base of a utility pole and replace the signal cabinet on the existing foundation in the northwest corner of Veteran's Park on North Waters Street in Elizabeth City (see attached plan sheets and study area map). The junction box is part of project U-5942, however this project is within the project limits of U-4438. U-5942 proposes to upgrade and expand existing Elizabeth City closed loop systems into a computerized traffic signal system. The junction box will be installed by digging a hole approximately 28" long and 15" wide at the base of the existing pole. The junction box will be attached to the existing signal cabinet by digging a 36' trench to connect them. No impacts to jurisdictional resources are proposed.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Deanna Riffey at driffey@ncdot.gov or (919) 707-6151.

Sincerely,

for 
Philip S. Harris III, P.E., C.P.M., Unit Head
Environmental Analysis Unit

cc: w/attachment
Mr. Paul Williams, NCDOT Division 1
Ms. Cathy Brittingham, NCDOT

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
NATURAL ENVIRONMENT SECTION
1598 MAIL SERVICE CENTER
RALEIGH, NC 27699-1598

Telephone: (919) 707-6000
Fax: (919) 212-5785
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27699

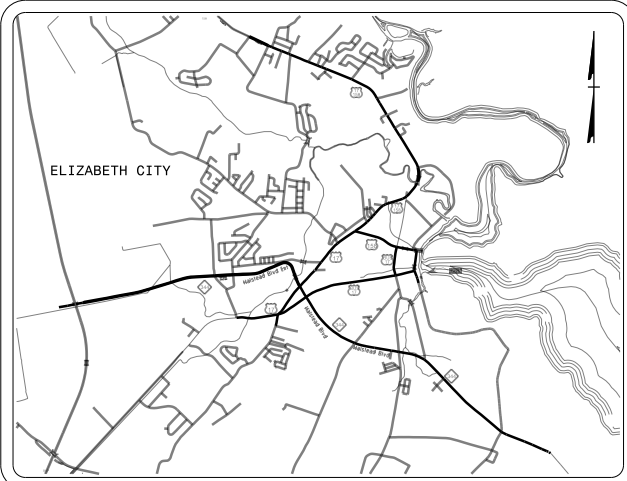
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TIP PROJECT: U-5942

CONTRACT:

See Sheet ITS-1.01 For Index of Sheets



VICINITY MAP

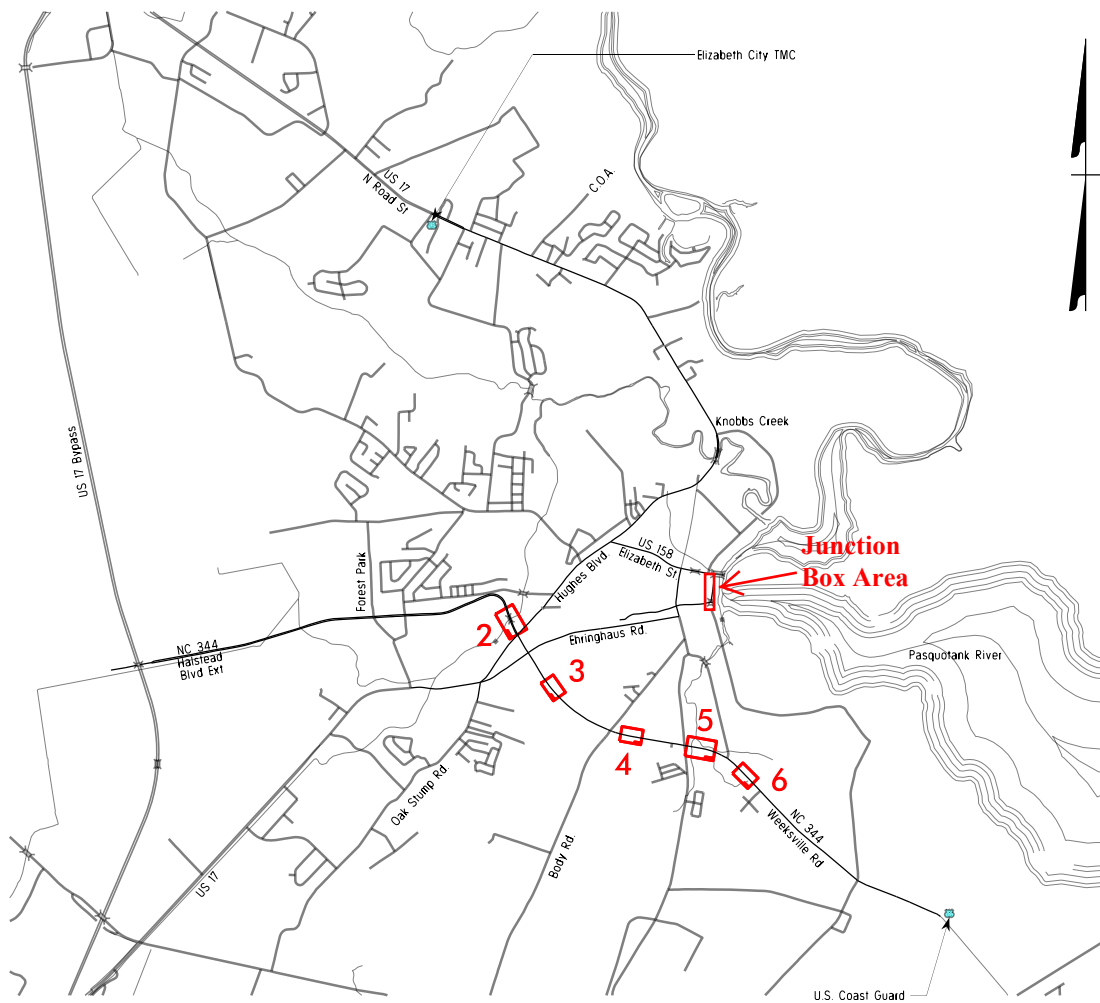
NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED IMPROVEMENTS
ELIZABETH CITY
COMPUTERIZED TRAFFIC SIGNAL SYSTEM

REPLACEMENT OF VARIOUS STANDALONE CLOSED-LOOP TRAFFIC SIGNAL SYSTEMS WITH A NEW COMPUTERIZED TRAFFIC SIGNAL SYSTEM.

RELATED WORK INCLUDES:

UPGRADING LOCAL INTERSECTION CONTROLLERS, CABINETS, AND SYSTEM DETECTORS WITH LIMITED SIGNAL WIRING AND SIGNAL HEAD UPGRADES WHEN NECESSARY; UPGRADE AND EXPANSION OF CCTV MONITORING NETWORK; INSTALLING CENTRAL EQUIPMENT AND CENTRAL SOFTWARE; AND INSTALLATION OF AN ETHERNET COMMUNICATIONS NETWORK COMPRISED OF FIBER-OPTIC CABLE WITH ALL RELATED EQUIPMENT.



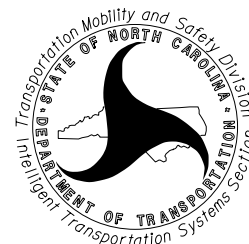
| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | U-5942 | ITS-1.00 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 45861.1.1 | | PE | |
| 45861.X.X | STGB-0111(25) | CONST | |
| | | | |
| | | | |
| | | | |
| | | | |

Utility Drawing
Sheet 1 of 4

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DDON\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

2018 STANDARD SPECIFICATION
LETTING DATE: JANUARY 15, 2019
PROJECT LENGTH = 20 MILES

Prepared for the Offices of:



750 N. Greenfield Pkwy., Garner, NC 27529

NCDOT CONTACTS:
TRANSPORTATION MOBILITY & SAFETY DIVISION
INTELLIGENT TRANSPORTATION SYSTEMS SECTION

JASON GALLOWAY, P.E. - STATE SIGNALS ENGINEER
NEIL AVERY - SIGNAL COMMUNICATION
PROJECT ENGINEER

Plans Prepared By:



DRMP, Inc.
8000 Regency Parkway, Suite 175
Cary, NC 27518
NC License No. C-2213 (919) 650-1038

LM MOON, P.E. - SENIOR PROJECT ENGINEER
AJ DAVIS, P.E. - PROJECT DESIGN ENGINEER
RD LAWTON, EIT - PROJECT ENGINEER
DJ WHITE - PROJECT ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

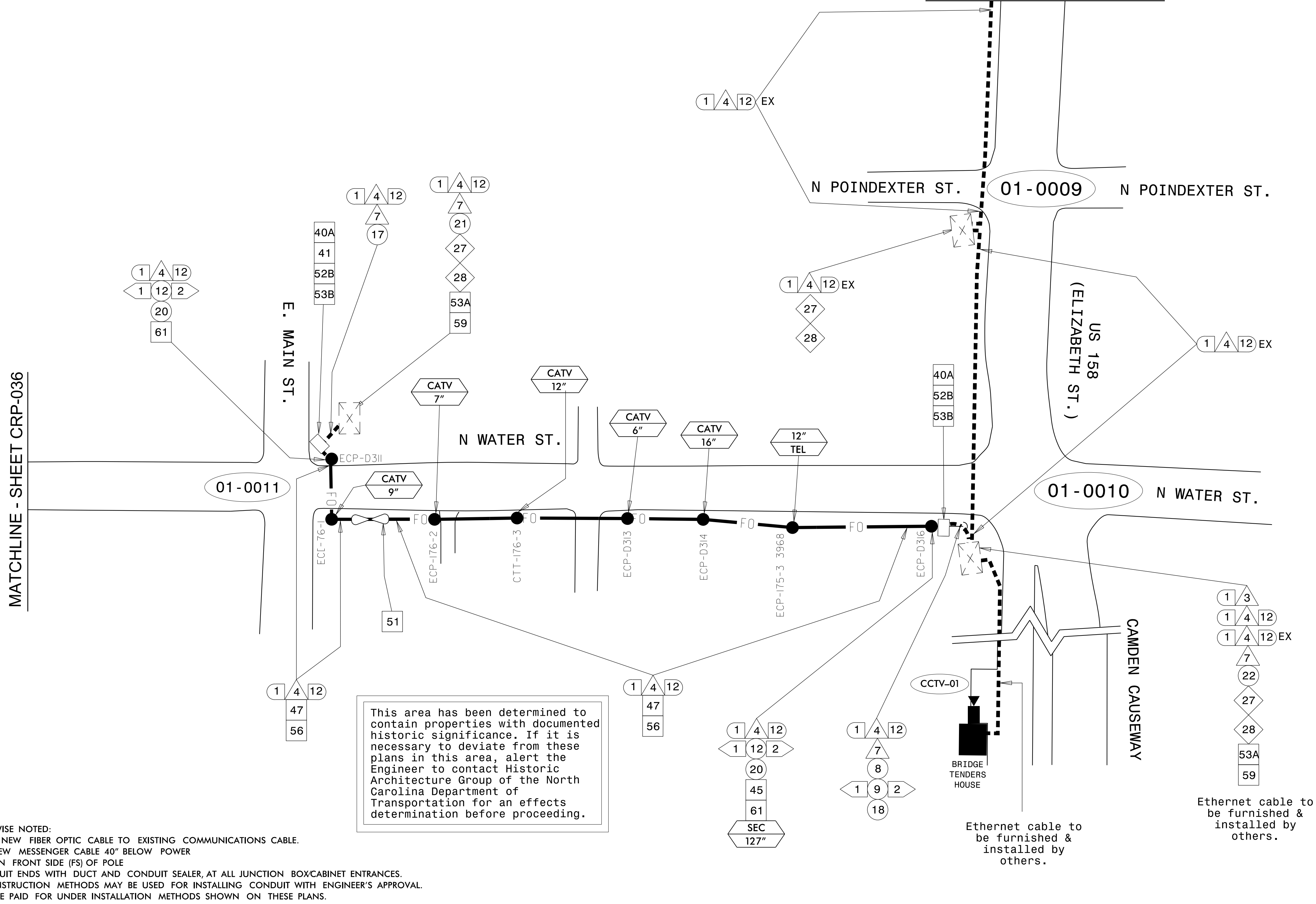
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UNLESS ALL SIGNATURES COMPLETED

12/17/18

Utility Drawing Sheet 2 of 4

MATCHLINE - SHEET CRP-036

MATCHLINE - SHEET CRP-038



- NOTES:
- UNLESS OTHERWISE NOTED:
 - OVERLASH NEW FIBER OPTIC CABLE TO EXISTING COMMUNICATIONS CABLE.
 - ATTACH NEW MESSENGER CABLE 40" BELOW POWER
 - ATTACH ON FRONT SIDE (FS) OF POLE
 - SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER, AT ALL JUNCTION BOX/CABINET ENTRANCES.
 - ALTERNATE CONSTRUCTION METHODS MAY BE USED FOR INSTALLING CONDUIT WITH ENGINEER'S APPROVAL. CONDUIT WILL BE PAID FOR UNDER INSTALLATION METHODS SHOWN ON THESE PLANS.

| | | | | | | | | | |
|-----|---|-----|--|-----|--|-----|---|----|---|
| 1 | NOT USED | 15 | DIRECTIONAL DRILL CONDUIT | 29 | INSTALL UNDERGROUND SPLICE ENCLOSURE | 43 | NOT USED | 55 | LASH CABLE(S) TO EXISTING MESSENGER CABLE |
| 2 | NOT USED | 16 | NOT USED | 30 | INSTALL AERIAL SPLICE ENCLOSURE | 44 | INSTALL AERIAL GUY ASSEMBLY | 56 | LASH CABLE(S) TO NEW MESSENGER CABLE |
| 3 | INSTALL ETHERNET CABLE | 17 | INSTALL CABLE(S) IN EXISTING CONDUIT | 31 | NOT USED | 45 | INSTALL STANDARD GUY ASSEMBLY | 57 | HANDLASH AND INSTALL AERIAL CABLE PROTECTOR |
| 4 | INSTALL SMFO CABLE | 18 | INSTALL CABLE(S) IN NEW CONDUIT | 32 | NOT USED | 46 | INSTALL SIDEWALK GUY ASSEMBLY | 58 | NOT USED |
| 5 | NOT USED | 19 | INSTALL CABLE(S) IN EXISTING RISER | 33 | NOT USED | 47 | INSTALL MESSENGER CABLE | 59 | BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 6 | INSTALL FIBER OPTIC DROP CABLE | 20 | INSTALL CABLE(S) IN NEW RISER | 34 | NOT USED | 48A | REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE | 60 | DO NOT BOND TRACER WIRE TO EQUIPMENT GROUND BUS |
| 7 | INSTALL TRACER WIRE | 21 | INSTALL CABLE(S) IN EXISTING CONDUIT STUBOUTS | 35 | NOT USED | 48B | REMOVE EXISTING COMMUNICATIONS CABLE | 61 | BOND RISER AND MESSENGER CABLE TO POLE GROUND |
| 8 | TRENCH | 22 | INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | 36 | INSTALL CCTV CAMERA ASSEMBLY | 49 | NOT USED | 62 | BOND RISER TO POLE GROUND |
| 9 | INSTALL PVC CONDUIT | 23 | INSTALL NEW RISER INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE) | 37 | INSTALL CCTV CAMERA 50' WOOD POLE | 50 | NOT USED | 63 | BOND MESSENGER CABLE TO POLE GROUND |
| 10 | INSTALL RIGID, GALVANIZED STEEL CONDUIT | 24 | INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET | 38 | NOT USED | 51 | INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF EACH CABLE | 64 | INSTALL MOLDABLE DUCT SEAL |
| 11 | INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD | 25 | INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET | 39 | INSTALL JUNCTION BOX | 52A | INSTALL DELINEATOR MARKER | 65 | SLACK SPAN |
| 12 | INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL | 26A | MODIFY EXISTING INTERCONNECT CENTER / SPLICE ENCLOSURE | 40A | INSTALL OVERSIZED JUNCTION BOX | 52B | INSTALL JUNCTION BOX MARKER | | |
| 13 | INSTALL HEAT SHRINK TUBING RETROFIT KIT | 26B | MODIFY/RELOCATE EXISTING FIBER OPTIC TRANSCEIVER | 40B | INSTALL SPECIAL OVERSIZED JUNCTION BOX (36" x 24" x 24") | 53A | STORE 30 FEET OF COMMUNICATIONS CABLE | | |
| 14A | NOT USED | 27 | INSTALL NEW ETHERNET EDGE SWITCH IN CABINET | 41 | REMOVE EXISTING JUNCTION BOX | 53B | STORE 50 FEET OF EACH COMMUNICATIONS CABLE | | |
| 14B | INSTALL POLYETHYLENE CONDUIT | 28 | INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET | 42 | INSTALL WOOD POLE | 54 | LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE | | |

Plans Prepared By: **DRMP**

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8000 Regency Parkway, Suite 175
Cary, NC 27513
NC License No. C-2213 (919) 650-1038

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:

 Elizabeth City Signal System

Elizabeth City Signal System Cable Routing Plans

Division 1 Pasquotank County Elizabeth City

PLAN DATE: April 2018 REVIEWED BY: LM Moon

PREPARED BY: RD Lawton REVIEWED BY:

REVISIONS: INIT. DATE

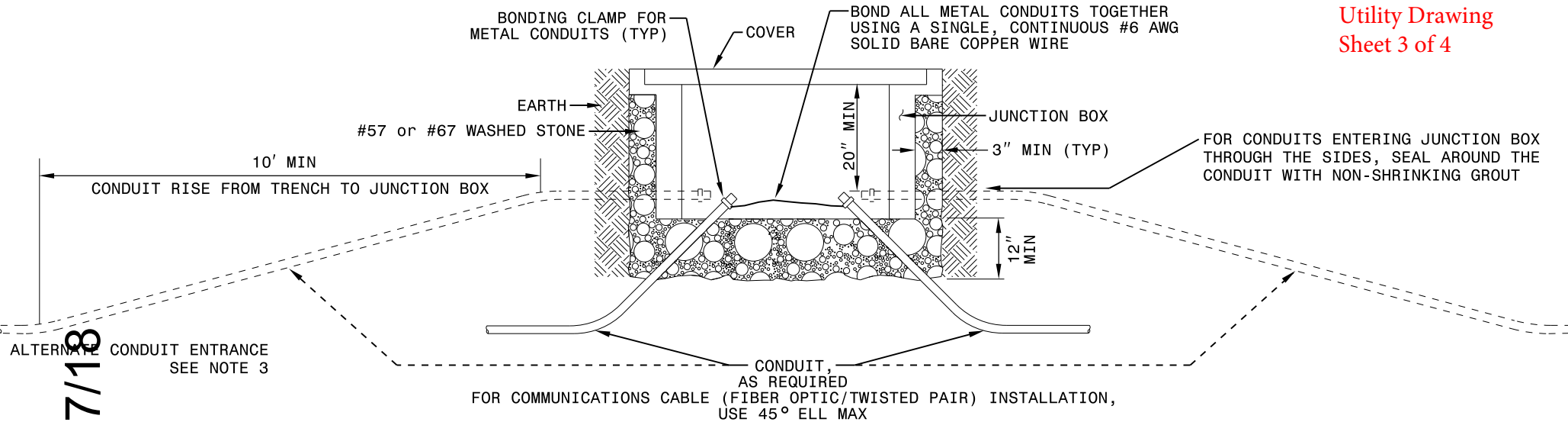
750 N. Greenfield Pkwy., Garner, NC 27529

SCALE: 0 50
1" = 50'

DocuSigned by: Lisa M. Moon 9/20/2018
SEAL 022516
CADD File name: CRP-037.dgn

INSTALLATION CROSS-SECTION

JUNCTION BOX OVER-SIZED



Utility Drawing
Sheet 3 of 4

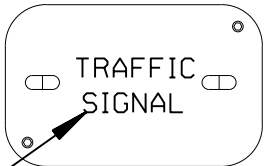
ALTERNATE CONDUIT ENTRANCE
SEE NOTE 3

CONDUIT,
AS REQUIRED
FOR COMMUNICATIONS CABLE (FIBER OPTIC/TWISTED PAIR) INSTALLATION,
USE 45° ELL MAX

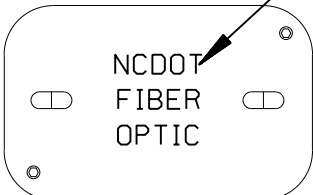
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TOP VIEW OF COVER

STANDARD SIZE
JUNCTION BOX



EMBOSS, IMPRESSED, MOLDED
OR ENGRAVED LETTERS
MIN 1/2" HIGH

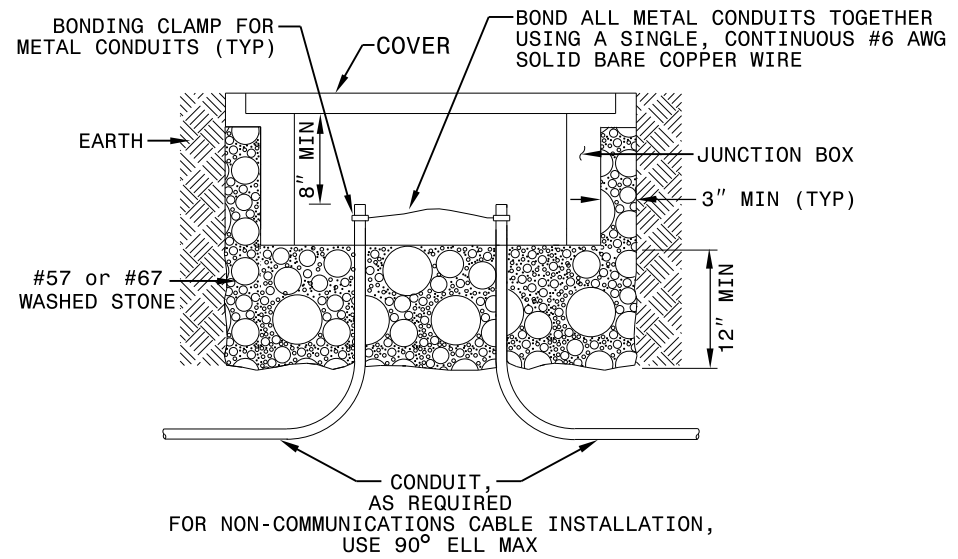


OVER-SIZED
JUNCTION BOX

NOTES

1. OTHER STYLES OF JUNCTION BOXES WILL BE ACCEPTABLE PROVIDED THEY SATISFY REQUIREMENTS OF SECTION 1716 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
2. SECURE COVER WITH TWO HEX BOLTS.
3. INSTALL CONDUIT THROUGH BOTTOM OF JUNCTION BOX. AS AN ALTERNATIVE, CONDUIT MAY ENTER THROUGH "MOUSE HOLE" INTO SIDE OF JUNCTION BOX.
4. FOR CURB AND GUTTER SECTIONS, LOCATE JUNCTION BOXES A MINIMUM OF 6" BEHIND BACK OF CURB AND FOR PAVEMENT SECTIONS A MINIMUM OF 2' FROM PAVEMENT EDGE OR WITHIN RIGHT OF WAY.
5. COIL AND STORE 10' OF TRACER WIRE IN ALL JUNCTION BOXES WITH FIBER OPTIC CABLE.

JUNCTION BOX STANDARD SIZE



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DIVISION OF HIGHWAYS
RALEIGH, N.C.

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ROADWAY STANDARD DRAWING FOR
JUNCTION BOXES

SHEET 1 OF 1

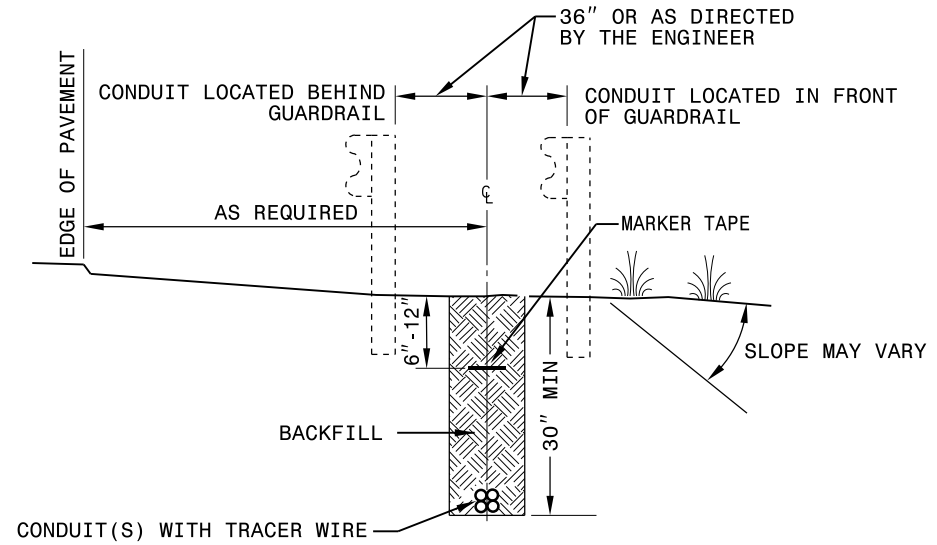
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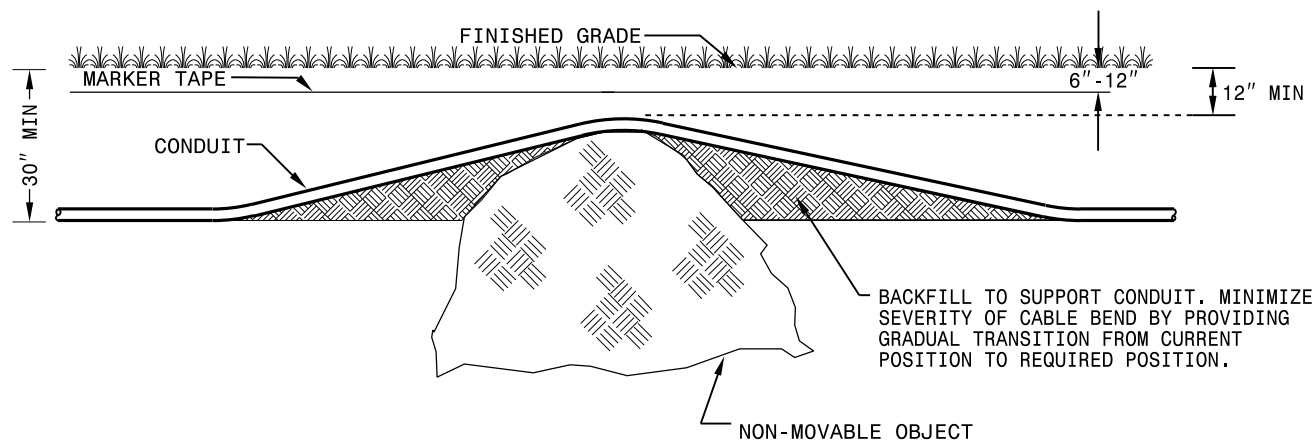
NOTE

THE CONTRACTOR, WITH APPROVAL FROM THE ENGINEER, MAY ADJUST FINAL BURIAL DEPTH OF CONDUIT(S) IN ORDER TO TRAVERSE NON-MOVABLE OBJECTS.

CONDUIT TRENCHING



CONDUIT TRENCHING AROUND NON-MOVABLE OBJECT



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ROADWAY STANDARD DRAWING FOR
UNDERGROUND CONDUIT - TRENCHING