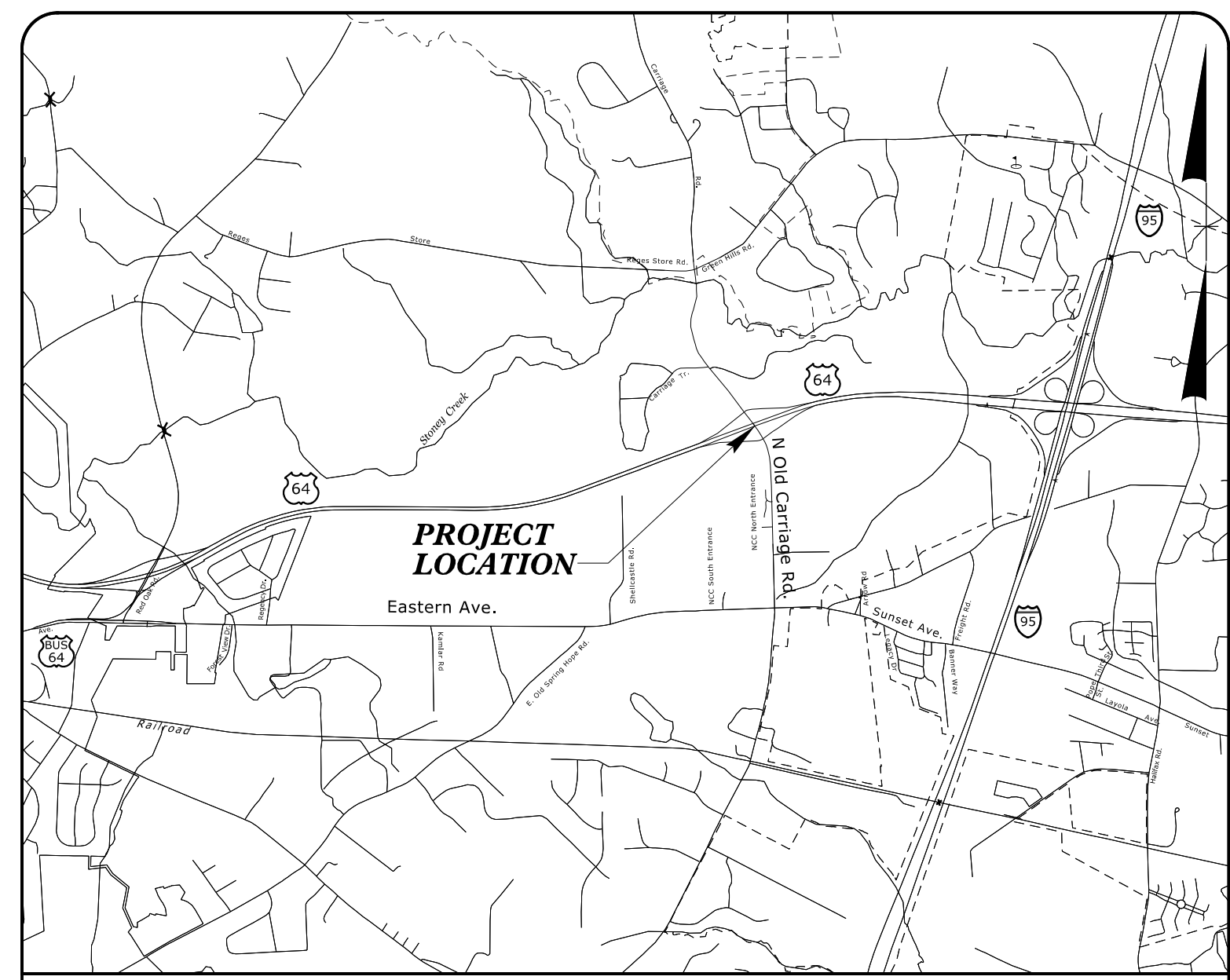


TIP PROJECT: U-5996



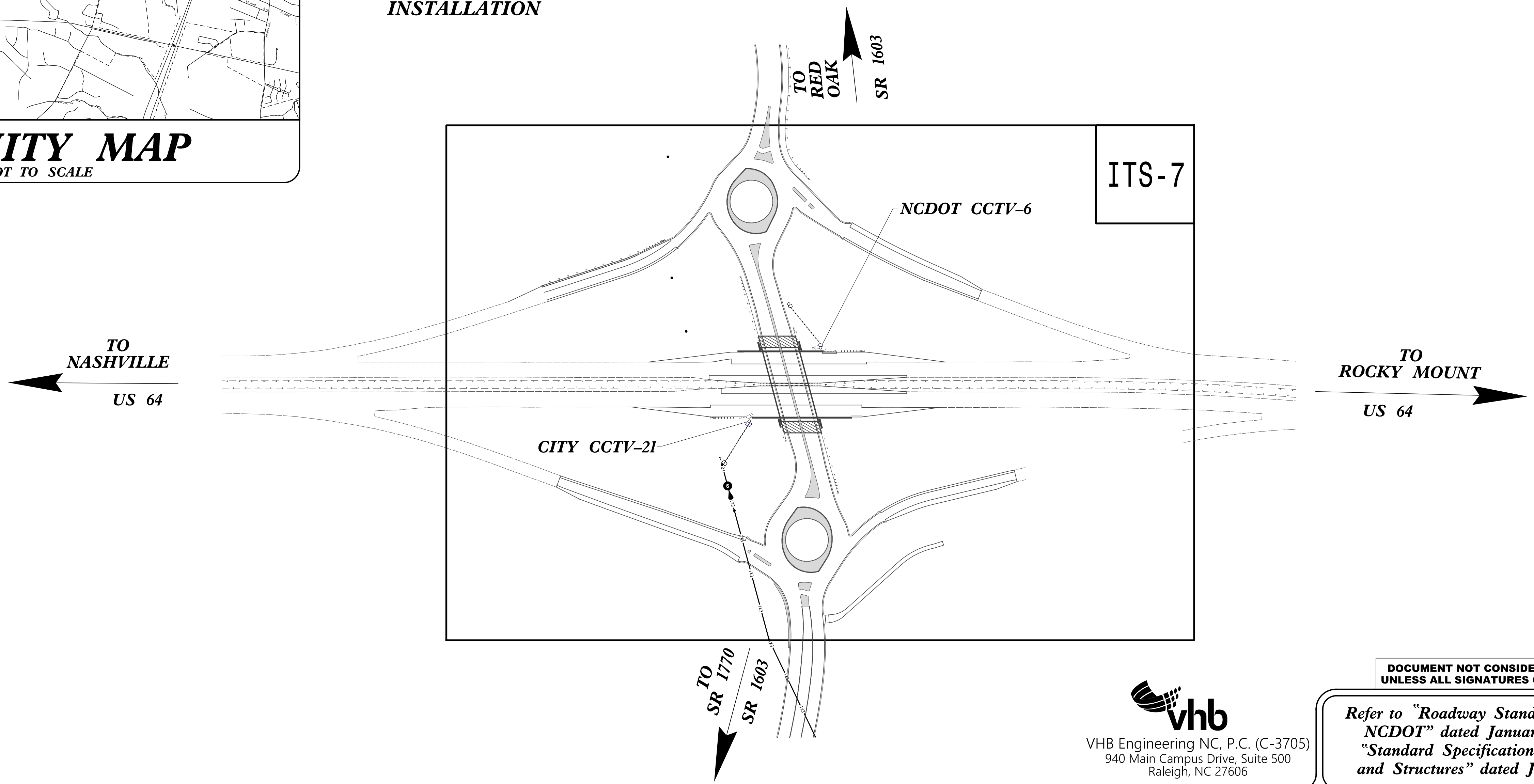
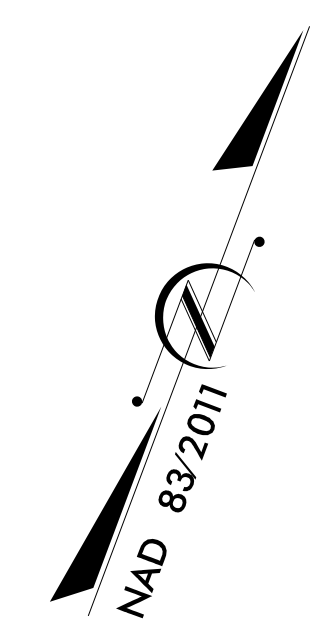
VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NASH COUNTY

**LOCATION: WIDEN SR 1603 (N. OLD CARRIAGE RD.)
FROM NORTH OF SR 1770 (EASTERN AVE./SUNSET AVE.)
TO SR 1601 (REGES STORE RD.)/SR 1609 (GREEN HILLS RD.).**

**TYPE OF WORK: CABLE ROUTING AND CCTV CAMERA
INSTALLATION**



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

Refer to "Roadway Standard Drawings
NCDOT" dated January 2018 and
"Standard Specifications for Roads
and Structures" dated January 2018.

Sheet #	Location/Description
ITS-1	TITLE SHEET
ITS-2	CONSTRUCTION NOTES AND LEGEND
ITS-3-6	COMMUNICATION CABLE AND CONDUIT ROUTING PLAN
ITS-7	ITS PLAN
ITS-8	FIBER OPTIC SPLICING DETAILS
ITS-9	CCTV CAMERA AND CABINET ON WOOD POLE - OVERHEAD SERVICE
ITS-10	CCTV CAMERA AND CABINET ON WOOD POLE - UNDERGROUND SERVICE

**TRANSPORTATION SYSTEMS
MANAGEMENT & OPERATIONS**

Contacts:

Gregg Green - Signal Communications Project Engineer
**Heidi Berggren, EI - Signal Communications Project
Design Engineer**

Prepared for:
DIVISION OF HIGHWAYS
TRANSPORTATION MOBILITY & SAFETY DIVISION

The seal of the North Carolina Department of Transportation, featuring a map of North Carolina and the text 'DEPARTMENT OF TRANSPORTATION' and 'TRANSPORTATION MOBILITY AND SAFETY DIVISION'.

11/3/2021
I:\N\Projects\Design\U5996\its-dsm.dgn

- 1 INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 2 INSTALL COAX CABLE
- 3 INSTALL 3-WIRE COPPER FEEDER CONDUCTORS
- 4 INSTALL SMFO CABLE
- 5 INSTALL MMFO CABLE
- 6 INSTALL FIBER OPTIC DROP CABLE
- 7 INSTALL TRACER WIRE
- 8 TRENCH
- 9 INSTALL PVC CONDUIT
- 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
- 13 INSTALL OUTER-DUCT POLYETHYLENE CONDUIT
- 14 INSTALL POLYETHYLENE CONDUIT
- 15 DIRECTIONAL DRILL CONDUIT
- 16 BORE AND JACK CONDUIT
- 17 INSTALL CABLE(S) IN EXISTING CONDUIT
- 18 INSTALL CABLE(S) IN NEW CONDUIT
- 19 INSTALL CABLE(S) IN EXISTING RISER
- 20 INSTALL CABLE(S) IN NEW RISER
- 21 INSTALL CABLE(S) IN EXISTING CONDUIT STUB-OUTS
- 22 INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
- 23 INSTALL NEW RISER INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
- 24 INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET
- 25 INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET
- 26 MODIFY EXISTING INTERCONNECT CENTER /SPLICE ENCLOSURE
- 27 INSTALL NEW FIBER OPTIC TRANSCEIVER
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS AND FUSION SPLICE CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPLICE ENCLOSURE
- 30 INSTALL AERIAL SPLICE ENCLOSURE
- 30A MODIFY AERIAL SPLICE ENCLOSURE
- 31 INSTALL POLE MOUNTED SPLICE CABINET
- 32 INSTALL BASE MOUNTED SPLICE CABINET
- 33 REMOVE EXISTING SPLICE CABINET

- 34 INSTALL CABINET FOUNDATION
- 35 INSTALL CCTV CAMERA POLE MOUNTED CABINET
- 36 INSTALL CCTV CAMERA ASSEMBLY
- 37 INSTALL CCTV CAMERA WOOD POLE
- 38 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39 INSTALL JUNCTION BOX
- 40A INSTALL OVERSIZED JUNCTION BOX
- 40B INSTALL SPECIAL OVERSIZED JUNCTION BOX (36" x 36" x 24")
- 41 REMOVE EXISTING JUNCTION BOX
- 42 INSTALL WOOD POLE
- 43 REMOVE EXISTING WOOD POLE
- 44 INSTALL AERIAL GUY ASSEMBLY
- 45 INSTALL STANDARD GUY ASSEMBLY
- 46 INSTALL SIDEWALK GUY ASSEMBLY
- 47 INSTALL MESSENGER CABLE
- 48A REMOVE EXISTING COMMUNICATIONS AND MESSENGER CABLE
- 48B REMOVE EXISTING COMMUNICATIONS CABLE
- 48C REMOVE EXISTING MESSENGER CABLE
- 49 BACK PULL EXISTING COMMUNICATIONS CABLE
- 50 INSTALL TELEPHONE SERVICE
- 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
- 52A INSTALL DELINEATOR MARKER
- 52B INSTALL JUNCTION BOX MARKER
- 53 STORE 50 FEET OF COMMUNICATIONS CABLE
- 54 LASH CABLE(S) TO EXISTING COMMUNICATIONS CABLE
- 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 56 LASH CABLE(S) TO NEW MESSENGER CABLE
- 57 MODIFY EXISTING ELECTRICAL SERVICE
- 58 INSTALL NEW ELECTRICAL SERVICE
- 59 INSTALL NEW ETHERNET EDGE SWITCH
- 60 BOND TRACER WIRE TO EQUIPMENT GROUND BUS
DO NOT BOND TRACER WIRE TO EQUIPMENT GROUND BUS
- 61 BOND RISER AND MESSENGER CABLE TO POLE GROUND
- 62 BOND RISER TO POLE GROUND
- 63 BOND MESSENGER CABLE TO POLE GROUND
- 64 BOND MESSENGER CABLE TO POLE GROUND
- 65 INSTALL HEAT SHRINK TUBING RETROFIT KIT
- 66 INSTALL MOLDABLE DUCT SEAL
- 67 SLACK SPAN
- 68 INSTALL NEW EQUIPMENT CABINET DISCONNECT

LEGEND

	NEW FIBER OPTIC COMMUNICATIONS CABLE		NEW CABLE STORAGE RACKS (SNOW SHOES)
	NEW TWISTED PAIR COMMUNICATIONS CABLE		EXISTING CABLE STORAGE RACK (SNOW SHOE)
	EXISTING COMMUNICATIONS CABLE		EXISTING CONTROLLER AND CABINET
	EXISTING COMMUNICATIONS CABLE TO BE REMOVED		EXISTING CCTV CABINET
	NEW AERIAL GUY ASSEMBLY		NEW CCTV CABINET
	NEW CONDUIT		EXISTING SPLICE CABINET
	EXISTING CONDUIT		NEW SPLICE CABINET
	NEW DIRECTIONAL DRILLED CONDUIT		SIGNAL POLE
	NEW BORED AND JACKED CONDUIT		FLAT PANEL ANTENNA (SINGLE)
	NEW JUNCTION BOX		YAGI ANTENNA (DOUBLE) FOR REPEATER OPERATION
	EXISTING JUNCTION BOX		YAGI ANTENNA (SINGLE)
	NEW WOOD POLE		OMNI ANTENNA
	EXISTING WOOD POLE		
	AERIAL SPLICE ENCLOSURE		
	UNDERGROUND SPLICE ENCLOSURE		
	NEW METAL POLE		
	EXISTING METAL POLE		
	EXISTING CCTV ASSEMBLY		
	NEW CCTV ASSEMBLY		
	EXISTING STANDARD GUY ASSEMBLY		
	EXISTING SIDEWALK GUY ASSEMBLY		
	NEW STANDARD GUY ASSEMBLY		
	NEW SIDEWALK GUY ASSEMBLY		
	SIGNAL INVENTORY NUMBER		

CONSTRUCTION NOTE SYMBOLOGY KEY

XX INDICATES NUMBER OF CABLES, LOOPS, ETC.

XX INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

XX INDICATES NUMBER OF RISER(S)/CONDUIT(S)

XX INDICATES DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

ATTACHMENT POINT:

XX"SS YYY DISTANCE ABOVE (IN)/ATTACHMENT POINT REFERENCE POINT

YYY REFERENCE POINT

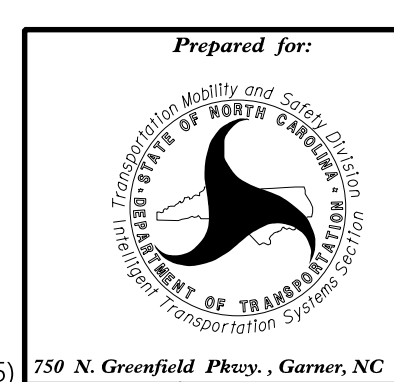
XX"SS DISTANCE BELOW (IN)/ATTACHMENT POINT

"SS" REFERENCE LOCATION

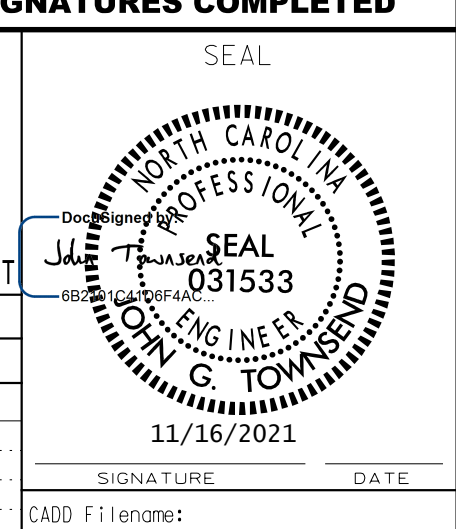
FS = FRONT SIDE OF POLE

BS = BACK SIDE OF POLE

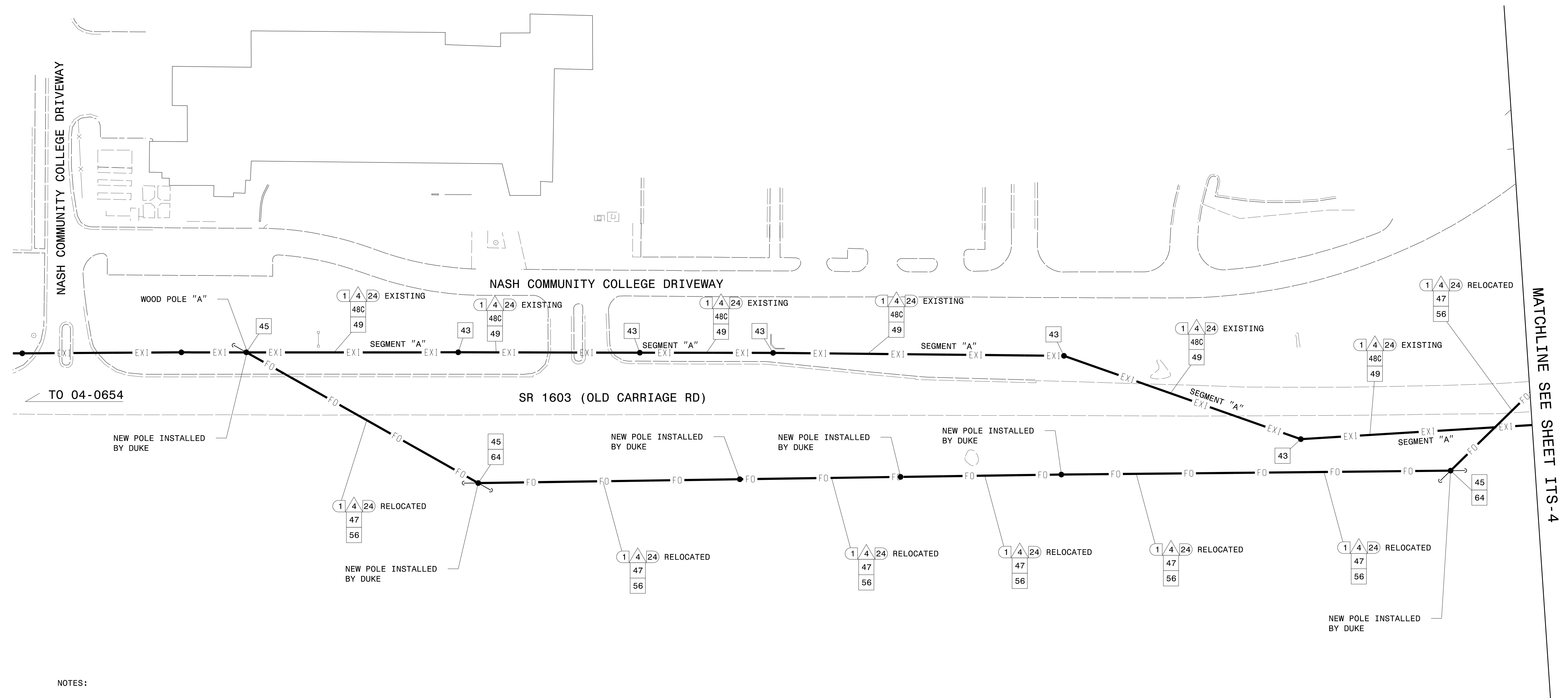
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



CONSTRUCTION NOTES AND LEGEND	
DIVISION 04 NASH CO.	ROCKY MOUNT
PLAN DATE: APRIL 2020	REVIEWED BY:
PREPARED BY: J. TOWNSEND	REVIEWED BY:
REVISIONS	INIT. DATE



CADD Filename:



NOTES:

- A. CONTACT THE DIVISION 4 INCIDENT MANAGEMENT ENGINEER AT (252) 640-6400 AT LEAST TWO WEEKS PRIOR TO THE REMOVAL OF THE EXISTING CAMERA SYSTEM. EXISTING NCDOT CAMERA, CABINET, AND ALL ASSOCIATED EQUIPMENT TO BE REMOVED AND RETURNED TO NCDOT DIVISION 4. EXISTING CELL MODEM TO BE RETURNED TO NCDOT DIVISION 4.
- B. LOCATE EXISTING SPLICE ENCLOSURE 8-1 NEAR INTERSECTION OF OLD CARRIAGE ROAD AND US 64 WB RAMP AND CUT 24 FIBER CABLE INTO SEGMENTS "A" AND "B".
- C. REMOVE/BACKPULL SEGMENT "A" 24 FIBER TO WOOD POLE "A" AND REROUTE TO WOOD POLE "B" AND COIL CABLE FOR FUTURE CCTV INSTALLATION.
- D. REMOVE SEGMENT "B" AND DISCARD. CONTACT THE CITY TRAFFIC SIGNAL SUPERVISOR AT 252-200-6859 FOR THE RETURN OF THE EXISTING SNOW SHOES AND AERIAL SPLICE ENCLOSURES (SE 8-1 AND SE 8-3) TO THE CITY OF ROCKY MOUNT.
- E. REMOVE EXISTING JUNCTION BOX AND BACKFILL WITH APPROVED SUBGRADE MATERIAL.
- F. ALL NCDOT CABLE ATTACHMENT POINTS ARE 40" BELOW POWER AND / OR 12" BELOW LOWEST CABLE, FRONT SIDE OF POLE, UNLESS OTHERWISE NOTED.

TEMPORARY TMP PHASE ONE

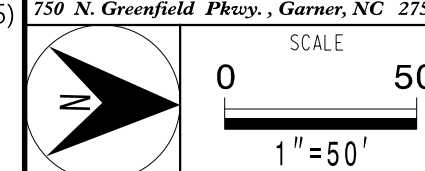
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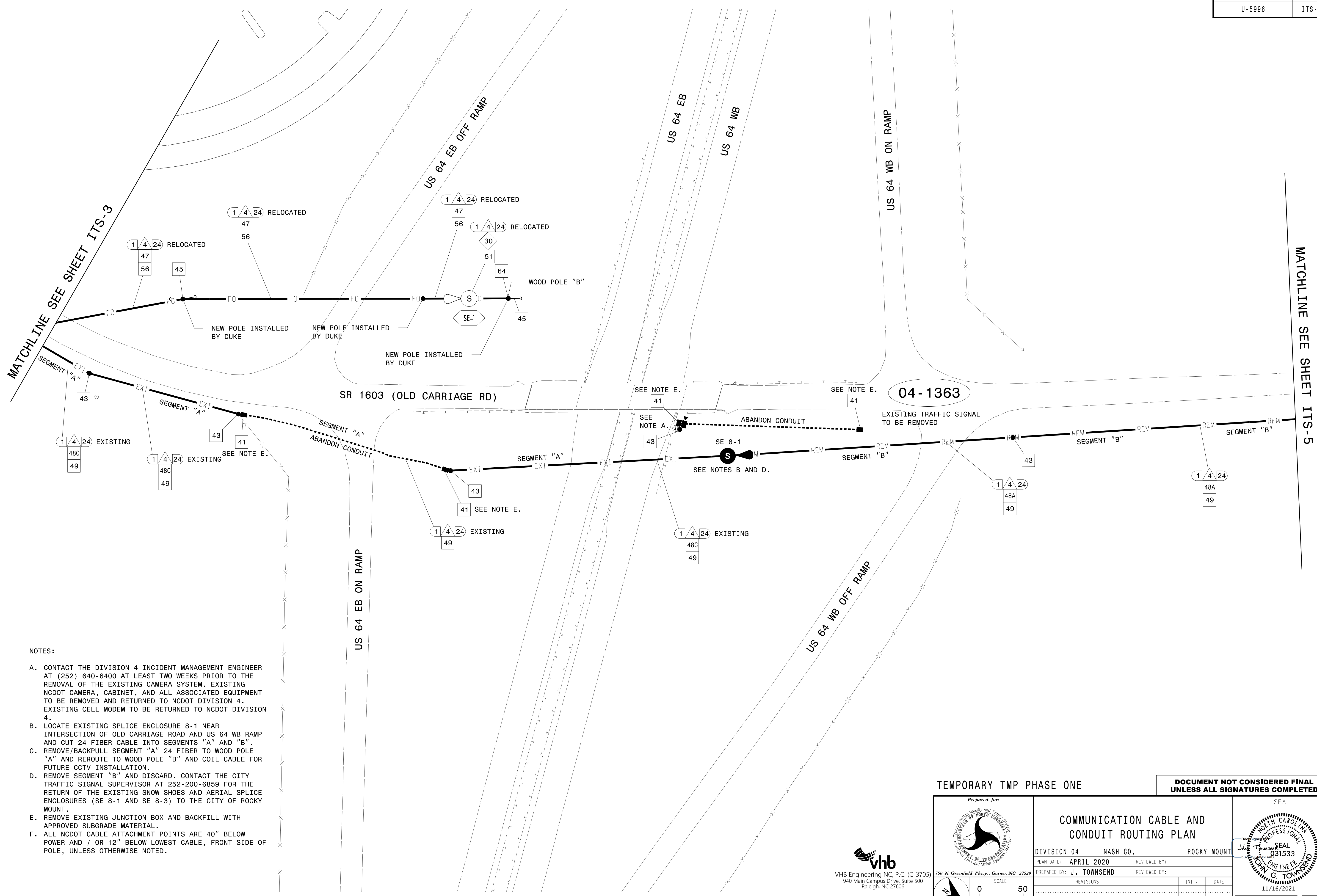
Prepared for:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Division of Transportation Systems Section
 750 N. Greenfield Pkwy., Garner, NC 27529

COMMUNICATION CABLE AND CONDUIT ROUTING PLAN	
DIVISION 04 NASH CO.	ROCKY MOUNT
PLAN DATE: APRIL 2020	REVIEWED BY:
PREPARED BY: J. TOWNSEND	REVIEWED BY:
REVISIONS	INIT. DATE

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEERS
 J. TOWNSEND
 031533
 11/16/2021
 SIGNATURE DATE
 CADD Filename:



MATCHLINE SEE SHEET ITS-4



- NOTES:
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TEMPORARY TMP PHASE ONE

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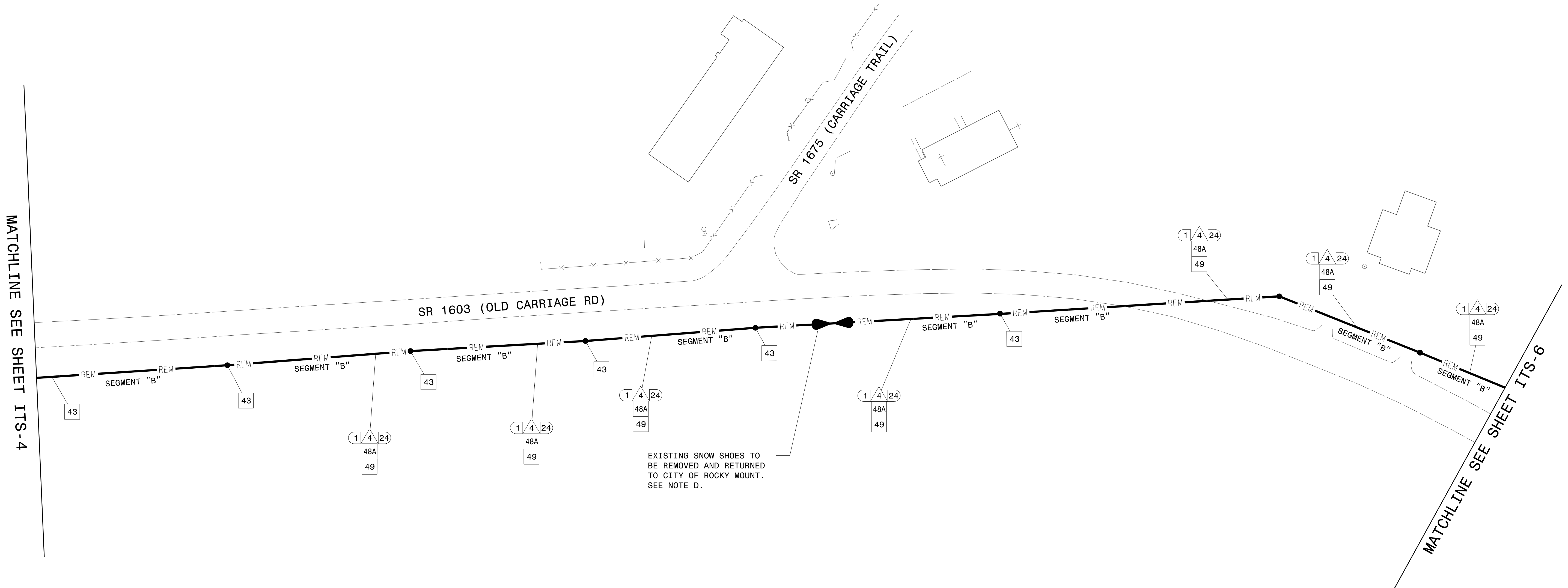
Prepared for:

 750 N. Greenfield Pkwy., Garner, NC 27529
 SCALE 0 50
 1"=50'

COMMUNICATION CABLE AND CONDUIT ROUTING PLAN	
DIVISION 04	NASH CO. ROCKY MOUNT
PLAN DATE: APRIL 2020	REVIEWED BY:
PREPARED BY: J. TOWNSEND	REVIEWED BY:
REVISIONS	INIT. DATE

SEAL

 J. TOWNSEND
 ENGINEER
 11/16/2021
 SIGNATURE DATE
 CADD Filename:



- NOTES:
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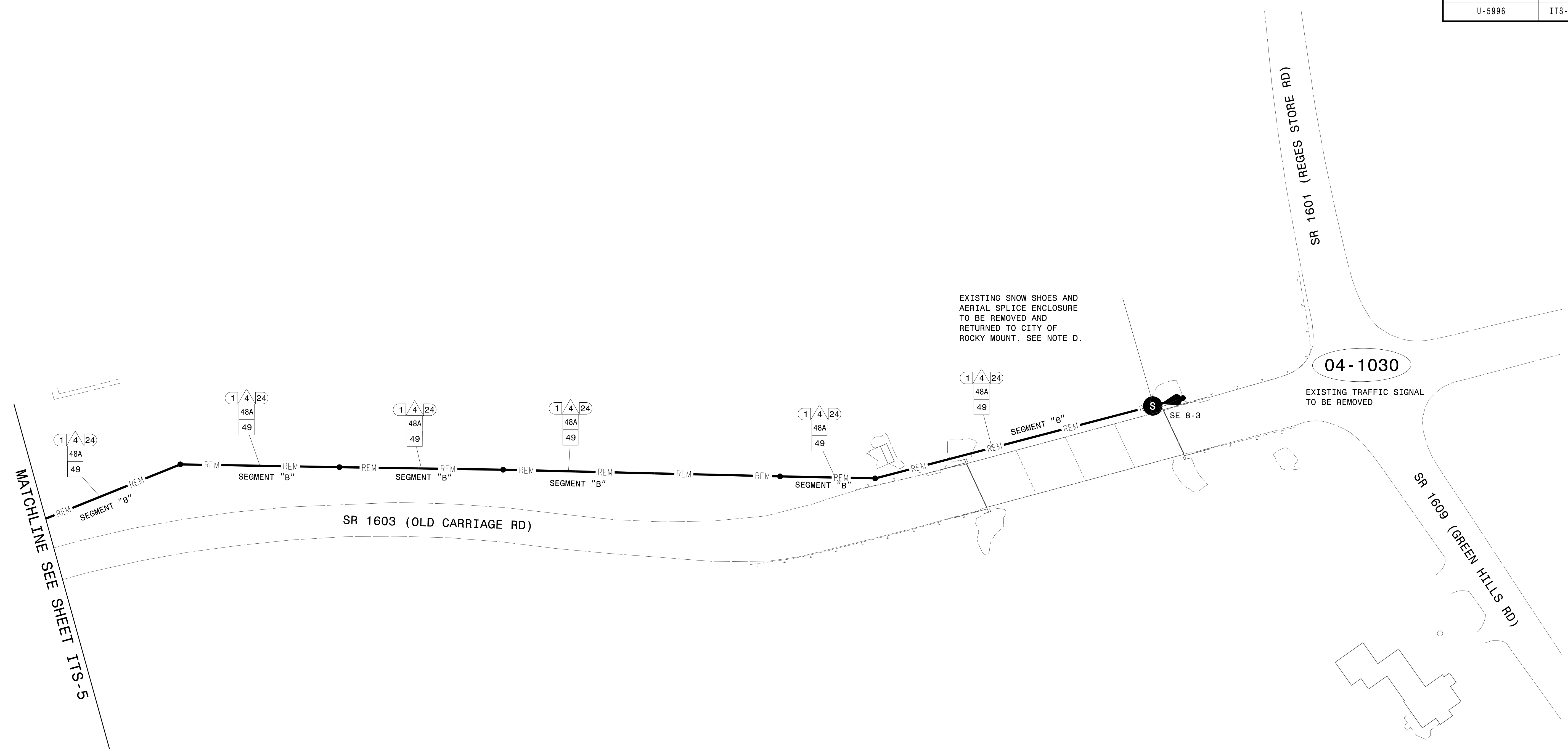
Prepared for:

 750 N. Greenfield Pkwy., Garner, NC 27529
 SCALE: 0 50
 1"=50'

COMMUNICATION CABLE AND CONDUIT ROUTING PLAN	
DIVISION 04	NASH CO. ROCKY MOUNT
PLAN DATE: APRIL 2020	REVIEWED BY:
PREPARED BY: J. TOWNSEND	REVIEWED BY:
REVISIONS	INIT. DATE

SEAL

 J. TOWNSEND
 ENGINEER
 11/16/2021
 SIGNATURE DATE
 CADD Filename:



- NOTES:
- CONTACT THE DIVISION 4 INCIDENT MANAGEMENT ENGINEER AT (252) 640-6400 AT LEAST TWO WEEKS PRIOR TO THE REMOVAL OF THE EXISTING CAMERA SYSTEM. EXISTING NCDOT CAMERA, CABINET, AND ALL ASSOCIATED EQUIPMENT TO BE REMOVED AND RETURNED TO NCDOT DIVISION 4. EXISTING CELL MODEM TO BE RETURNED TO NCDOT DIVISION 4.
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TEMPORARY TMP PHASE ONE

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Prepared for:

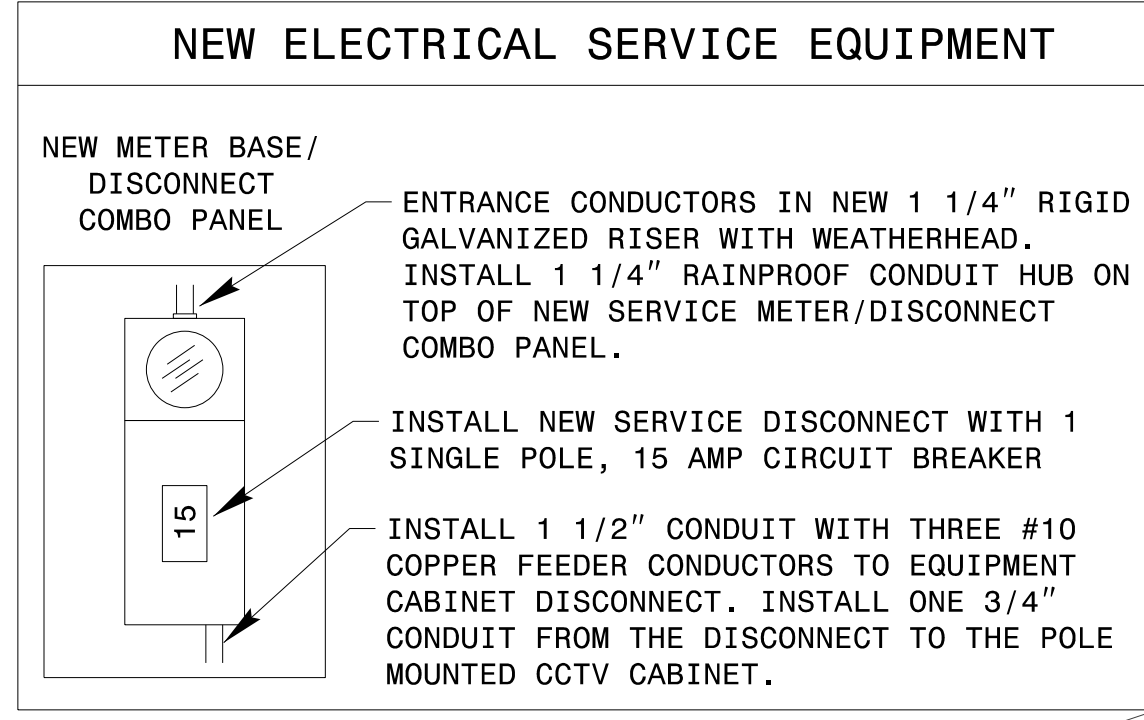
 750 N. Greenfield Pkwy., Garner, NC 27529

 SCALE
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 1"=50'

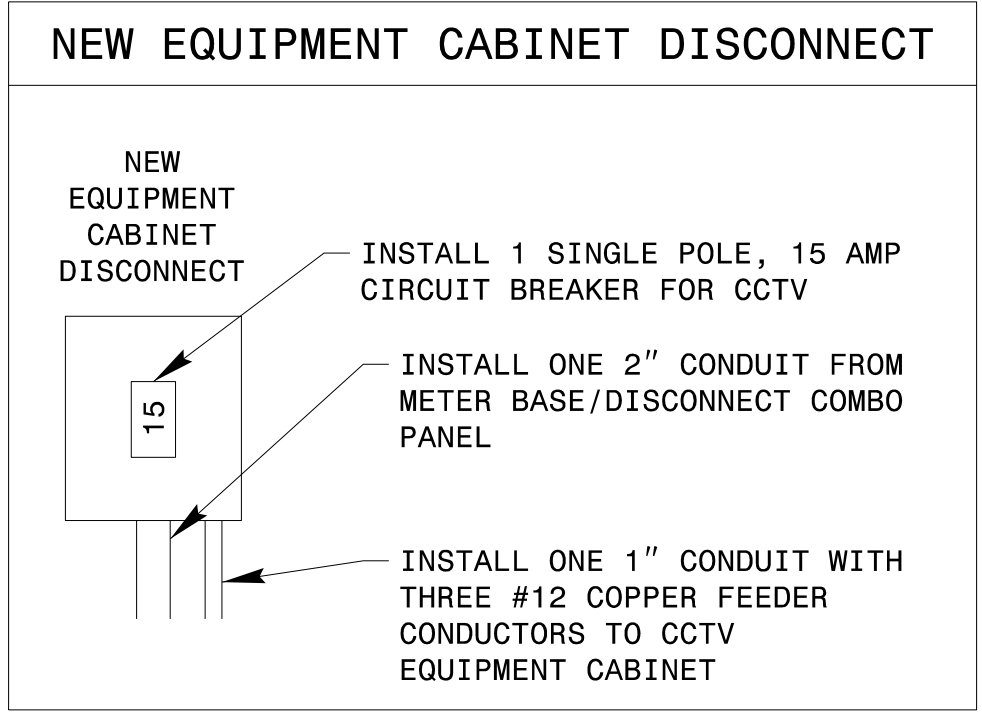
COMMUNICATION CABLE AND CONDUIT ROUTING PLAN	
DIVISION 04	NASH CO. ROCKY MOUNT
PLAN DATE: APRIL 2020	REVIEWED BY:
PREPARED BY: J. TOWNSEND	REVIEWED BY:
REVISIONS	INIT. DATE

SEAL

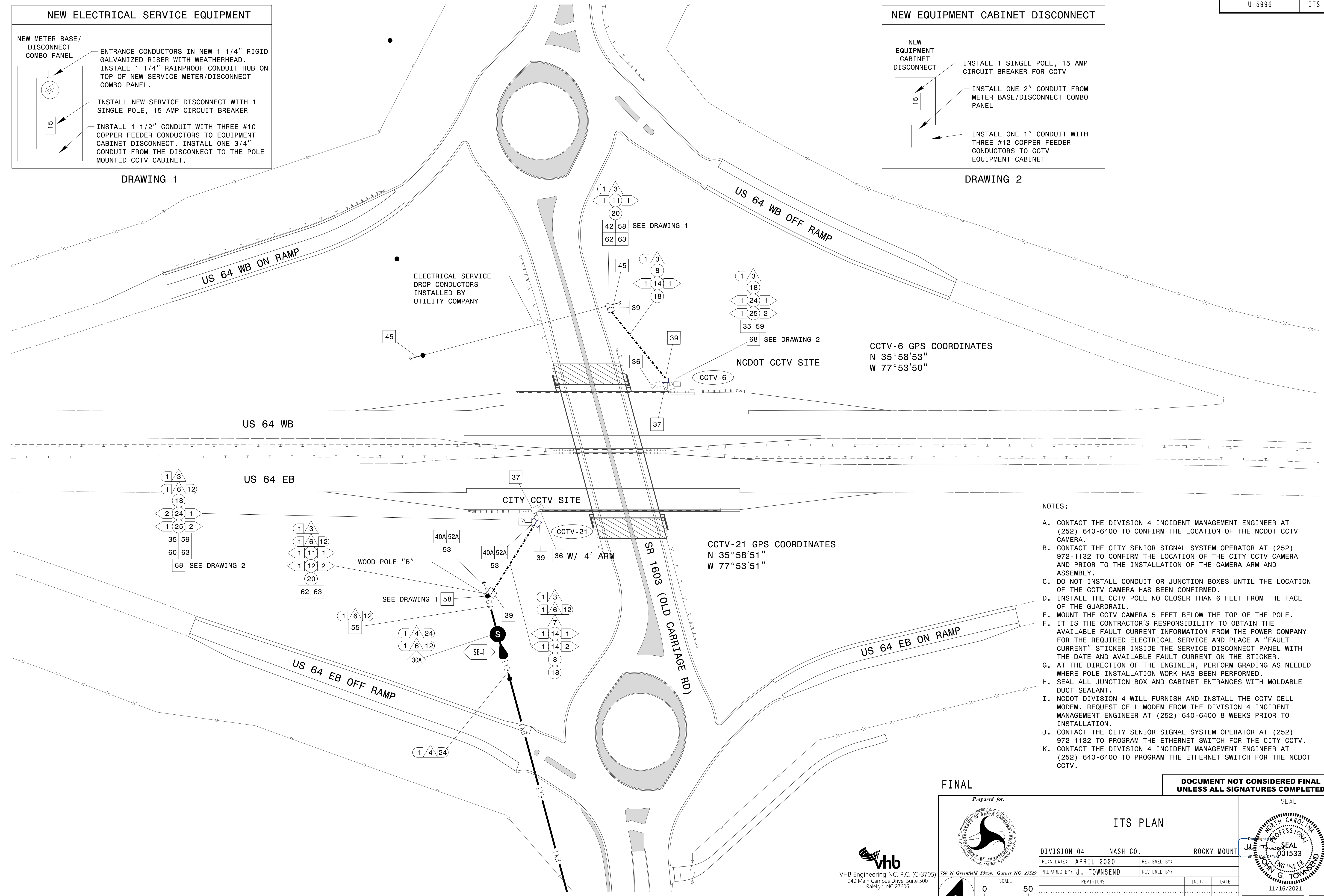
 SIGNATURE: J. TOWNSEND
 DATE: 11/16/2021
 CADD Filename:



DRAWING 1



DRAWING 2



- NOTES:
- CONTACT THE DIVISION 4 INCIDENT MANAGEMENT ENGINEER AT (252) 640-6400 TO CONFIRM THE LOCATION OF THE NCDOT CCTV CAMERA.
 - CONTACT THE CITY SENIOR SIGNAL SYSTEM OPERATOR AT (252) 972-1132 TO CONFIRM THE LOCATION OF THE CITY CCTV CAMERA AND PRIOR TO THE INSTALLATION OF THE CAMERA ARM AND ASSEMBLY.
 - DO NOT INSTALL CONDUIT OR JUNCTION BOXES UNTIL THE LOCATION OF THE CCTV CAMERA HAS BEEN CONFIRMED.
 - INSTALL THE CCTV POLE NO CLOSER THAN 6 FEET FROM THE FACE OF THE GUARDRAIL.
 - MOUNT THE CCTV CAMERA 5 FEET BELOW THE TOP OF THE POLE.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE AVAILABLE FAULT CURRENT INFORMATION FROM THE POWER COMPANY FOR THE REQUIRED ELECTRICAL SERVICE AND PLACE A "FAULT CURRENT" STICKER INSIDE THE SERVICE DISCONNECT PANEL WITH THE DATE AND AVAILABLE FAULT CURRENT ON THE STICKER.
 - AT THE DIRECTION OF THE ENGINEER, PERFORM GRADING AS NEEDED WHERE POLE INSTALLATION WORK HAS BEEN PERFORMED.
 - SEAL ALL JUNCTION BOX AND CABINET ENTRANCES WITH MOLDABLE DUCT SEALANT.
 - NCDOT DIVISION 4 WILL FURNISH AND INSTALL THE CCTV CELL MODEM. REQUEST CELL MODEM FROM THE DIVISION 4 INCIDENT MANAGEMENT ENGINEER AT (252) 640-6400 8 WEEKS PRIOR TO INSTALLATION.
 - CONTACT THE CITY SENIOR SIGNAL SYSTEM OPERATOR AT (252) 972-1132 TO PROGRAM THE ETHERNET SWITCH FOR THE CITY CCTV.
 - CONTACT THE DIVISION 4 INCIDENT MANAGEMENT ENGINEER AT (252) 640-6400 TO PROGRAM THE ETHERNET SWITCH FOR THE NCDOT CCTV.

FINAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for:

ITS PLAN

DIVISION 04 NASH CO. ROCKY MOUNT

PLAN DATE: APRIL 2020 REVIEWED BY:

PREPARED BY: J. TOWNSEND REVIEWED BY:

REVISIONS: INIT. DATE

SCALE: 1"=50'

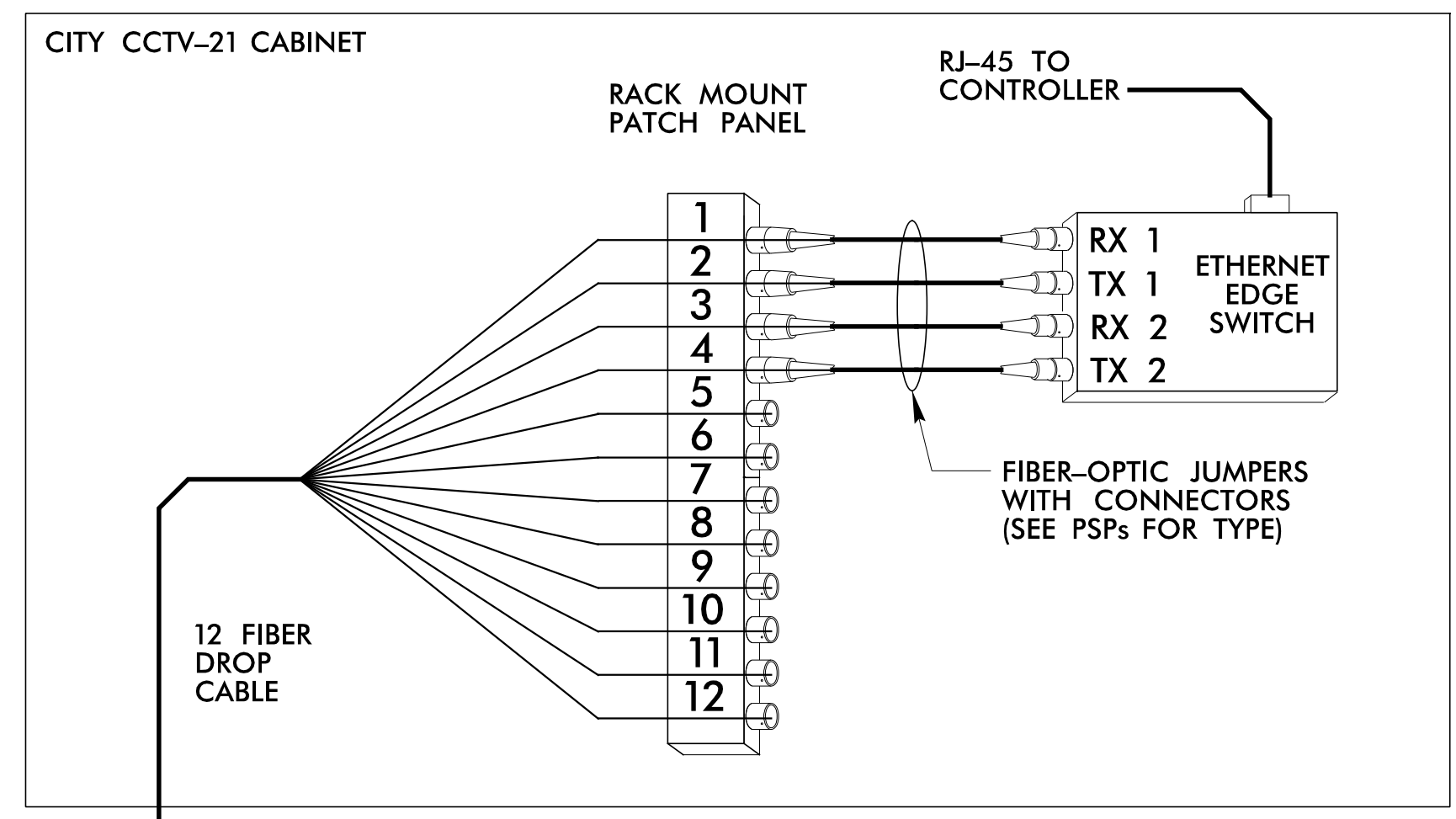
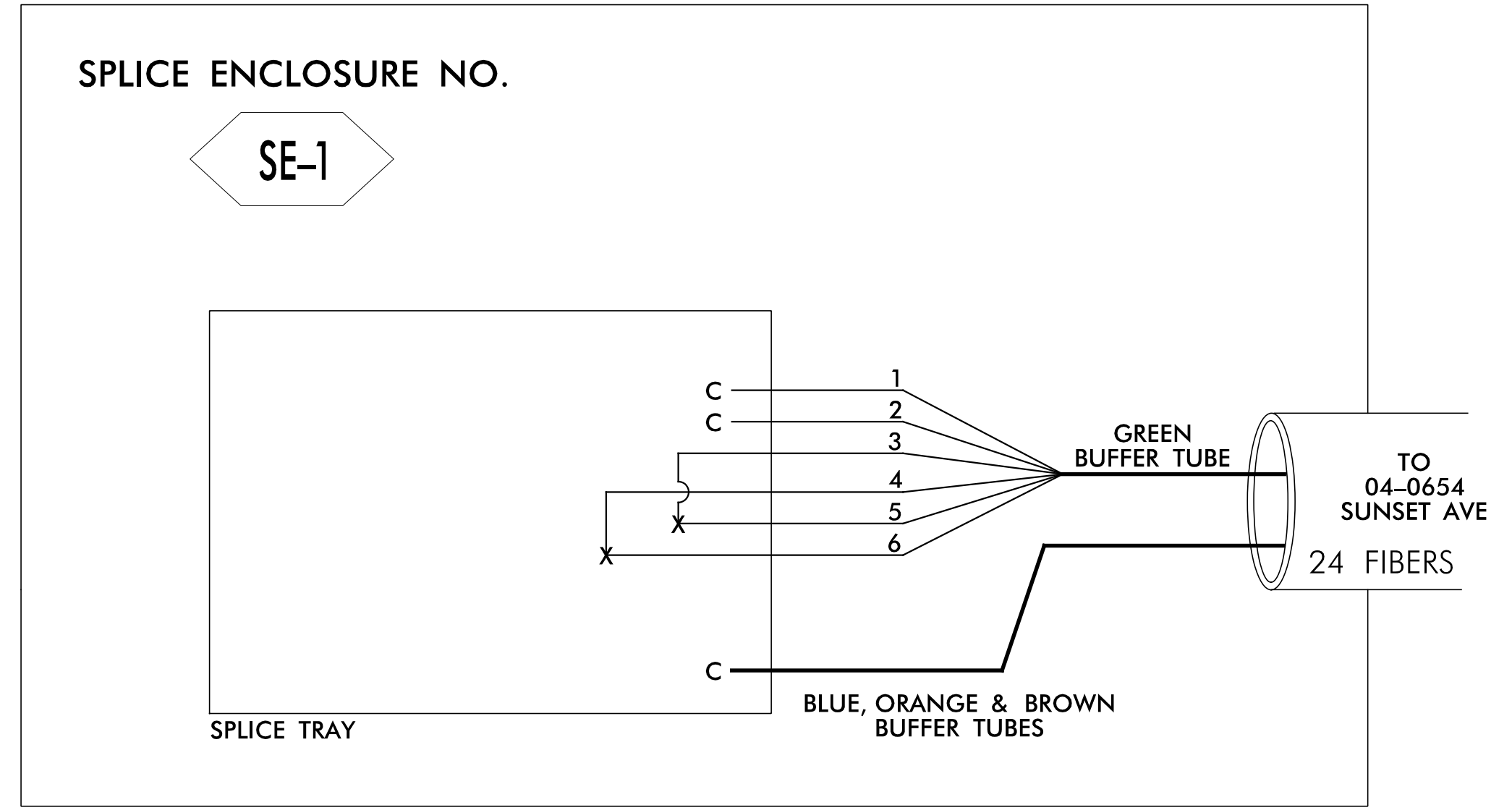
11/16/2021

Signature: _____ Date: _____

CADD Filename: _____

vhb
VHB Engineering NC, P.C. (C-3705)
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

PHASE ONE



NOTES

- 1) FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF ROCKY MOUNT SENIOR SIGNAL SYSTEM OPERATOR AT (252) 972-1132 TO ARRANGE FOR THE CITY TO PROGRAM THE NEW FIELD ETHERNET SWITCHES WITH THE NECESSARY NETWORK CONFIGURATION DATA, INCLUDING BUT NOT LIMITED TO: THE PROJECT IP ADDRESS, DEFAULT GATEWAY, SUBNET MASK AND VLAN ID INFORMATION. NOTIFY THE SENIOR SIGNAL SYSTEM OPERATOR AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS BACK UP AND OPERATIONAL.
- 2) CONTRACTOR TO RECORD EXISTING SPLICE ARRANGEMENT FOR COMPARISON TO THE SUPPLIED SPLICE DETAILS. IF DISCREPANCIES EXIST, CONTACT THE ENGINEER TO DETERMINE HOW TO PROCEED WITH RESPLICING. PROVIDE AS-BUILT PLANS TO THE ENGINEER IF FINAL SPLICE ARRANGEMENT DIFFERS FROM THE SUPPLIED SPLICE DETAILS.
- 3) ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
- 4) INCLUDE ON THE COVER OF EACH SPLICE TRAY THE FOLLOWING:

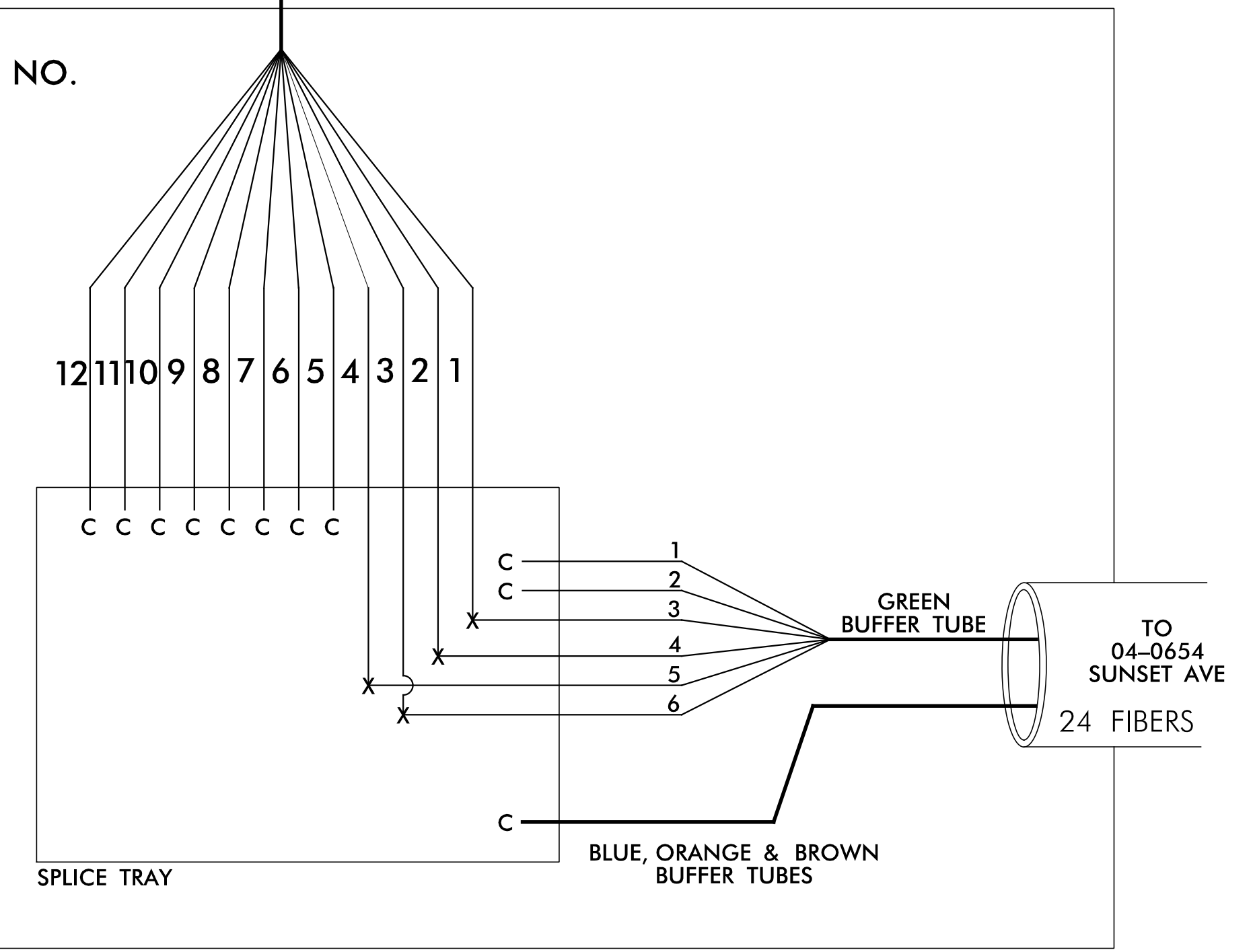
REFERENCE SECTION 1731 "FIBER OPTIC SPLICE ENCLOSURE"

- 1) SPLICE LOCATION
- 2) DATE
- 3) COMPANY NAME
- 4) NAME OF INDIVIDUAL PERFORMING THE SPLICING

PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (1-4) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

SPLICE ENCLOSURE NO.

SE-1

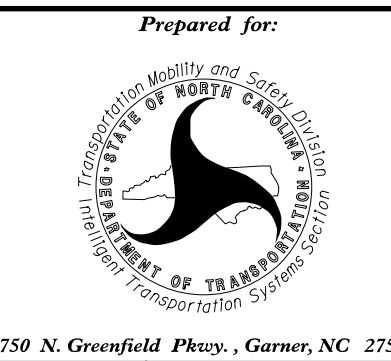


LEGEND

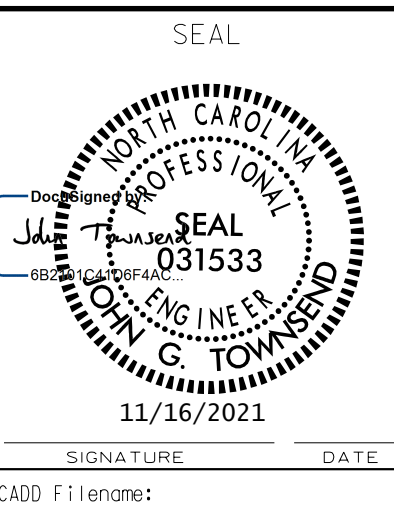
COLOR CODE TIA/EIA 598-A	X = FUSION SPLICE
(1) BLUE	C = CAP IN TRAY
(2) ORANGE	EXPRESS = EXPRESS ENTIRE BUFFER TUBE/FIBERS THROUGH WITHOUT CUTTING
(3) GREEN	
(4) BROWN	
(5) SLATE	
(6) WHITE	
(7) RED	
(8) BLACK	
(9) YELLOW	
(10) VIOLET	
(11) ROSE	
(12) AQUA	

FINAL

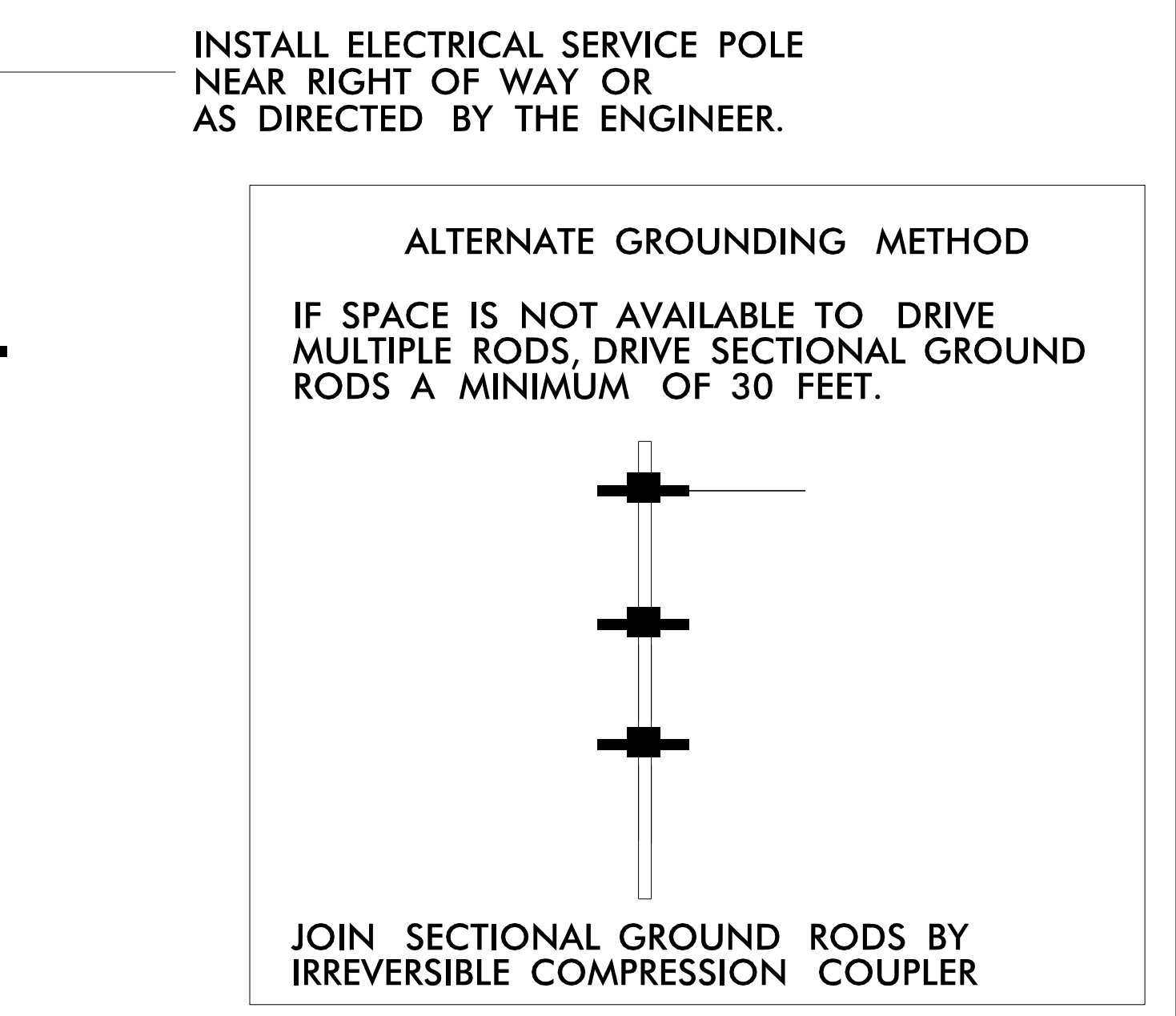
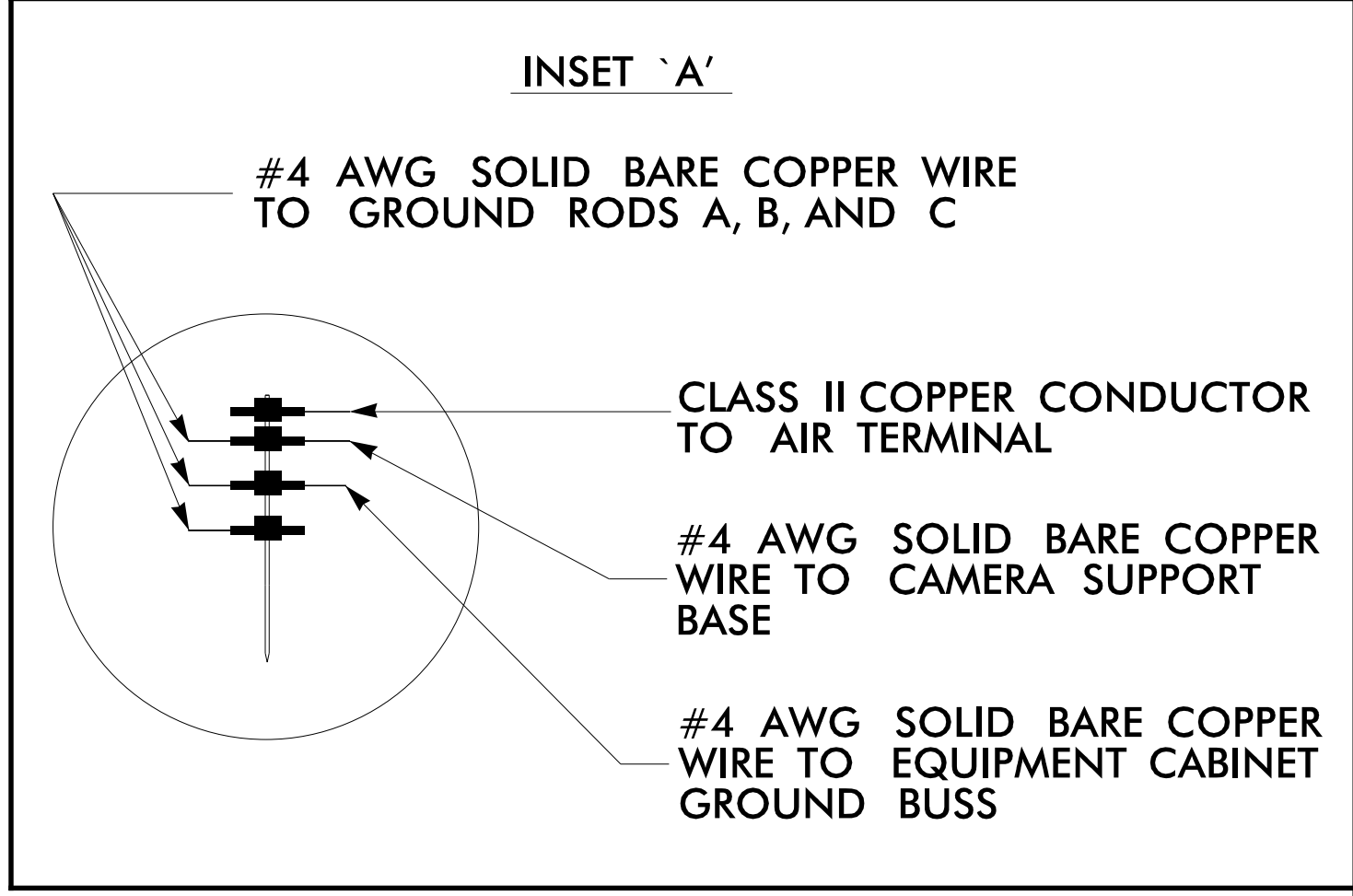
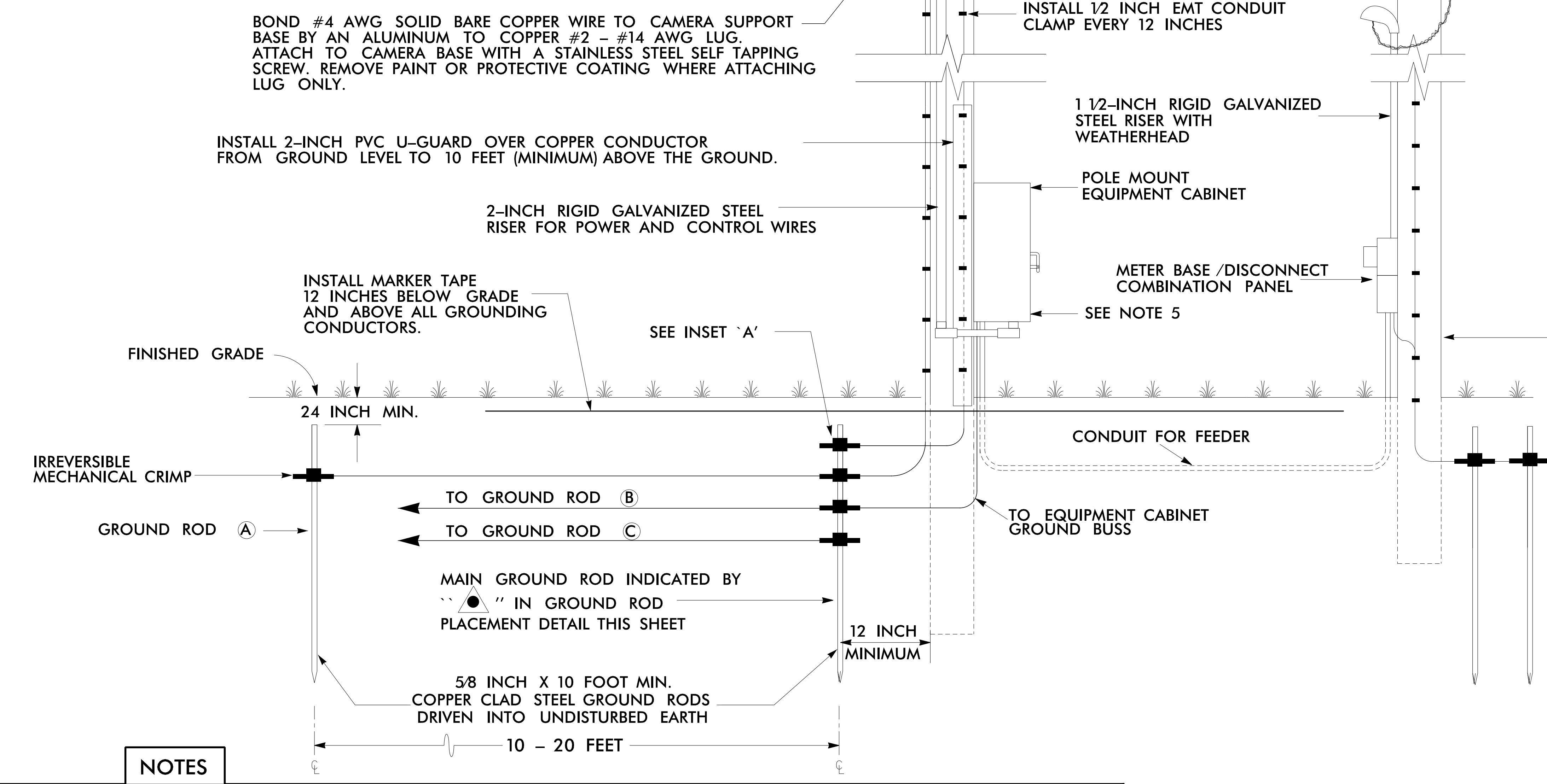
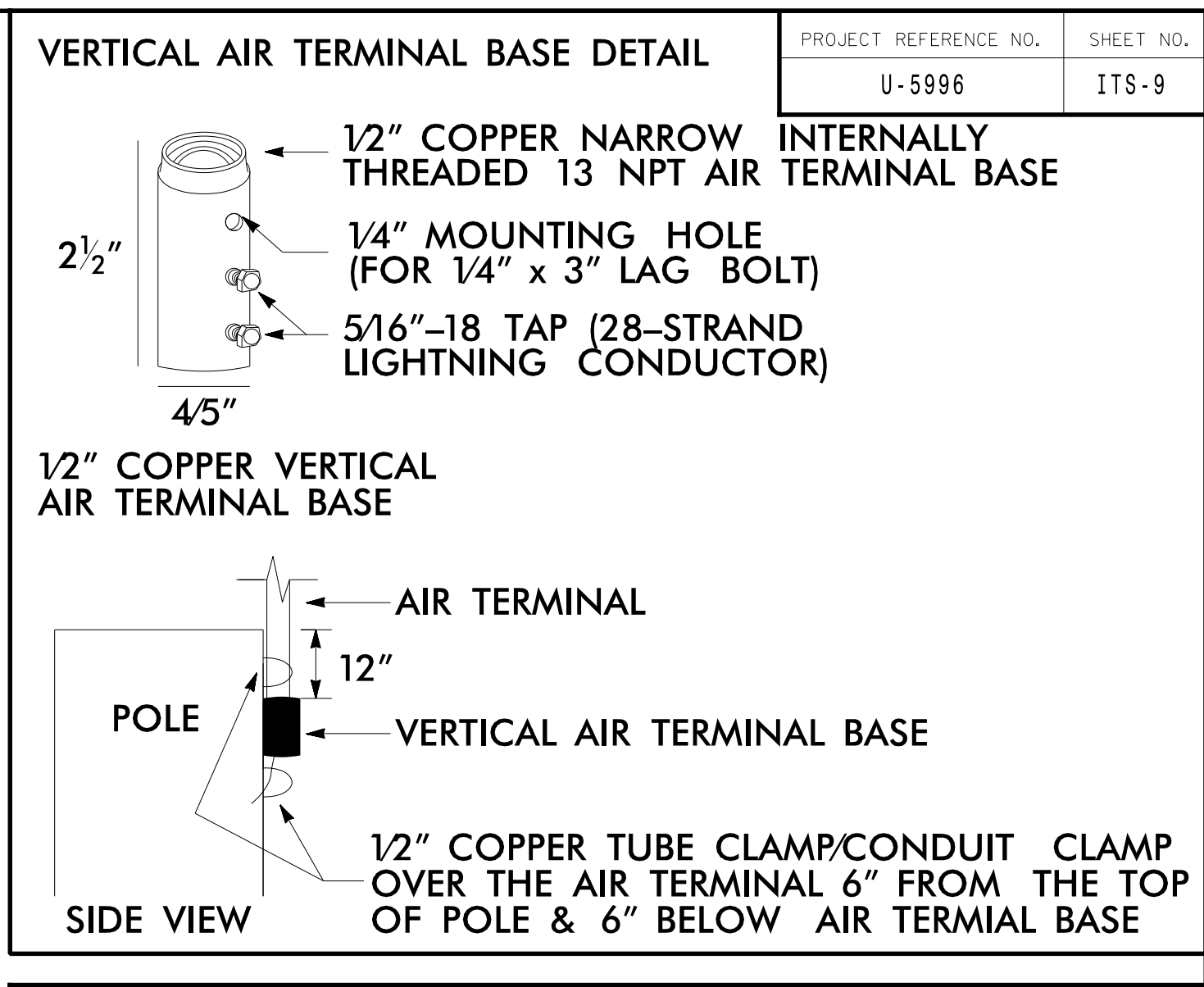
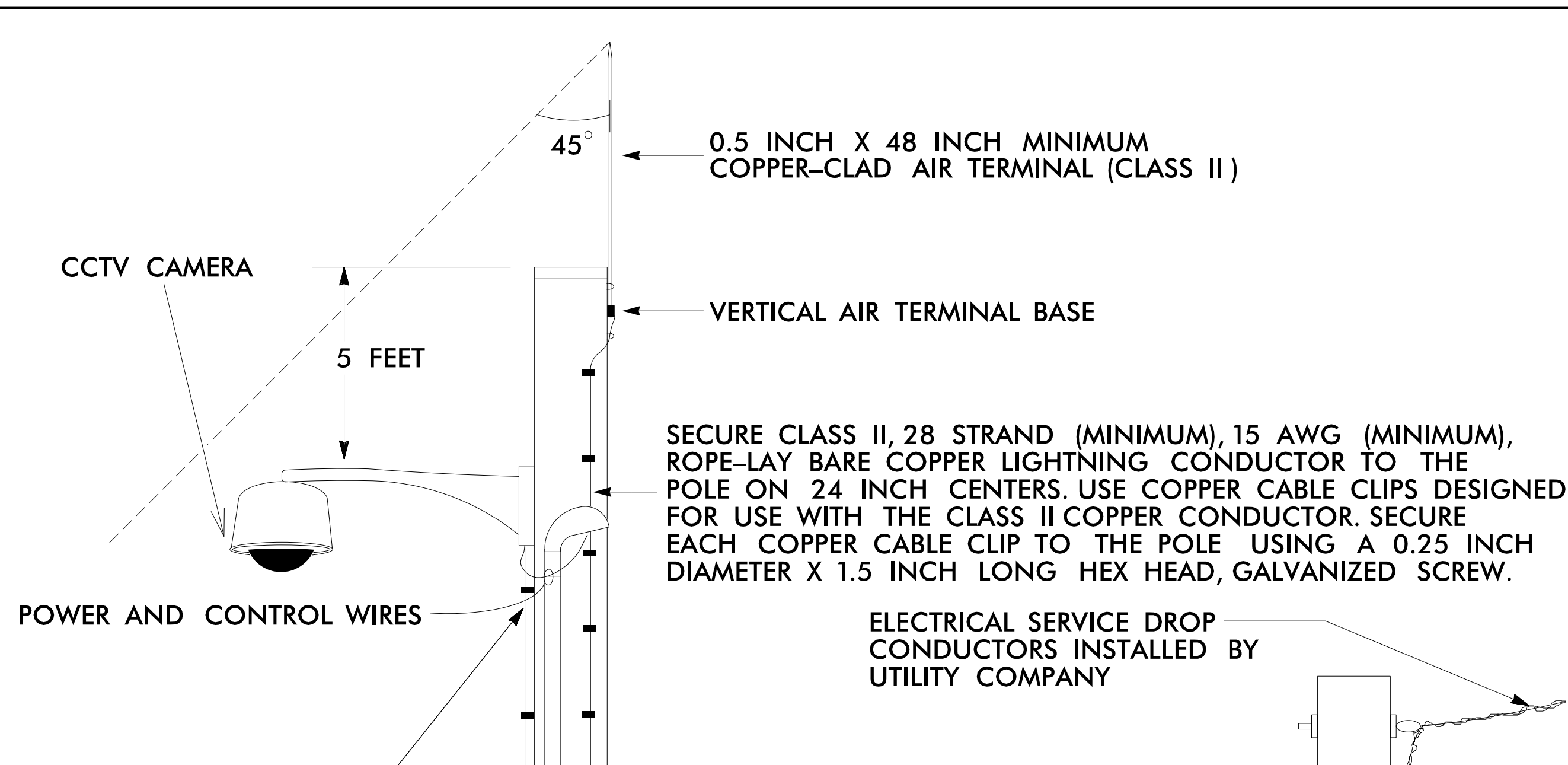
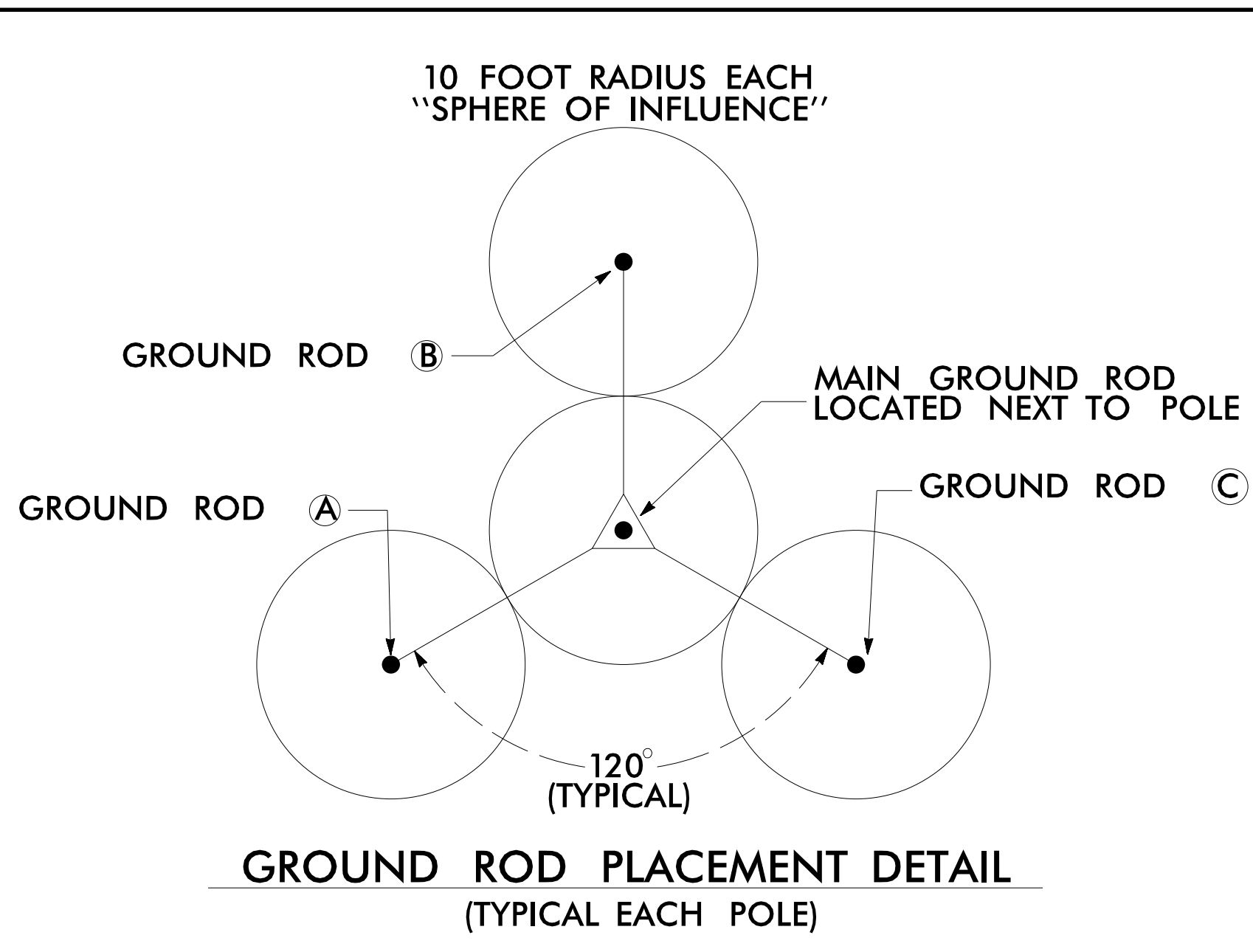
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FIBER OPTIC SPLICING DETAILS			
DIVISION 04		NASH CO.	
PLAN DATE: APRIL 2020		ROCKY MOUNT	
PREPARED BY: J. TOWNSEND		REVIEWED BY:	
REVISIONS	INIT.	DATE	



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NOTES

1. BOND CLASS II, 28 STRAND (MINIMUM), 15 AWG (MINIMUM) ROPE-LAY BARE COPPER CONDUCTOR TO THE MAIN GROUND ROD BY AN IRREVERSIBLE MECHANICAL CRIMP. MAINTAIN MAXIMUM HORIZONTAL SEPARATION BETWEEN COPPER CONDUCTOR AND RISER.
2. ALL CONNECTIONS TO GROUND RODS SHOULD BE MADE WITH AN IRREVERSIBLE MECHANICAL CRIMP METHOD.
3. REFER TO STANDARD DRAWING 1700-2 FOR ALTERNATE GROUND ROD INSTALLATION METHOD AS APPROVED BY THE ENGINEER.
4. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.
5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUSS AND NEUTRAL BUSS.



Prepared for: **CCTV CAMERA INSTALLATION FOR WOOD POLES WITH AERIAL ELECTRICAL SERVICE TYPICAL DETAIL**

Division 04 NASH CO. ROCKY MOUNT

PLAN DATE: APRIL 2020 REVIEWED BY:

PREPARED BY: J. TOWNSEND REVIEWED BY:

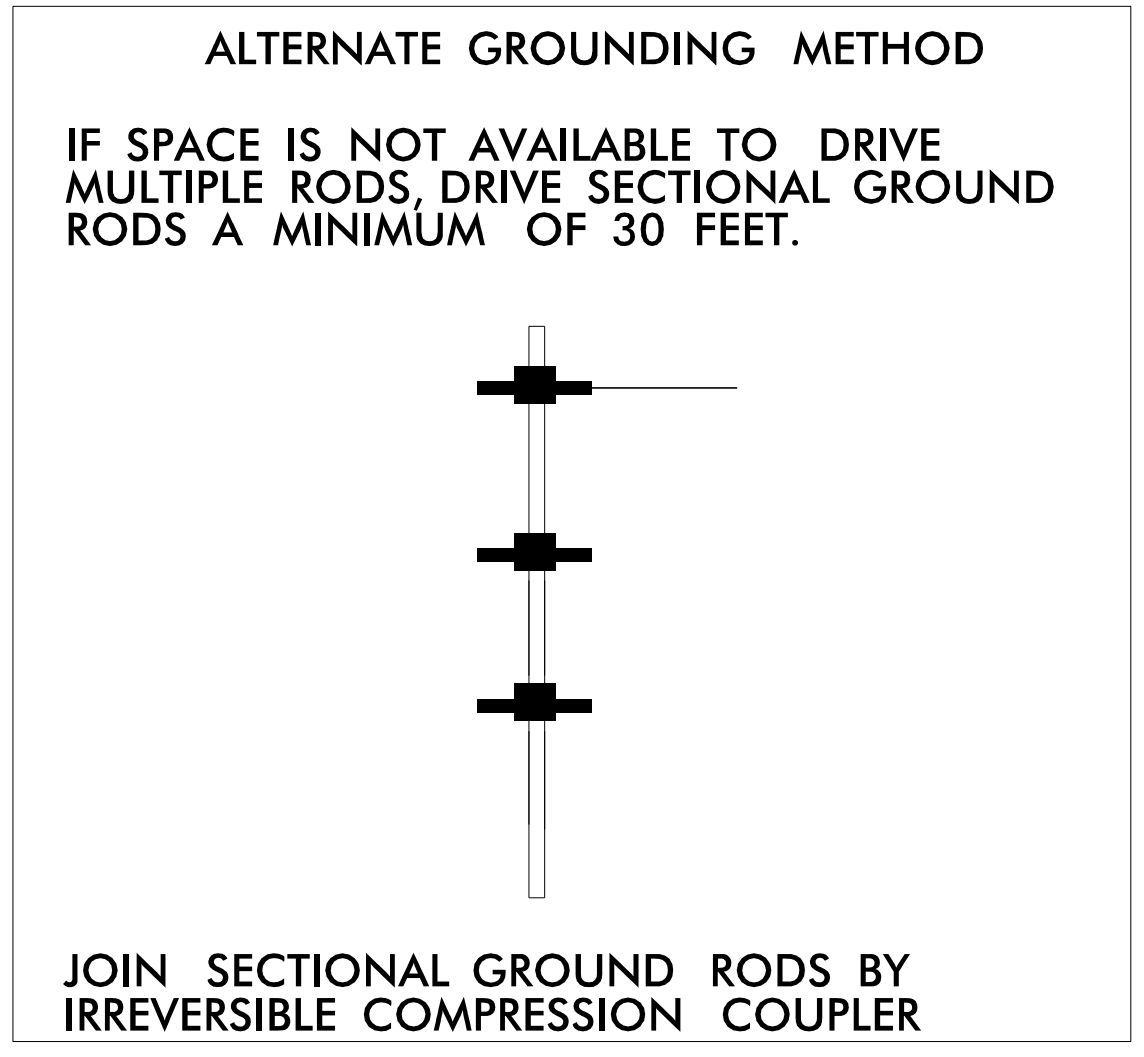
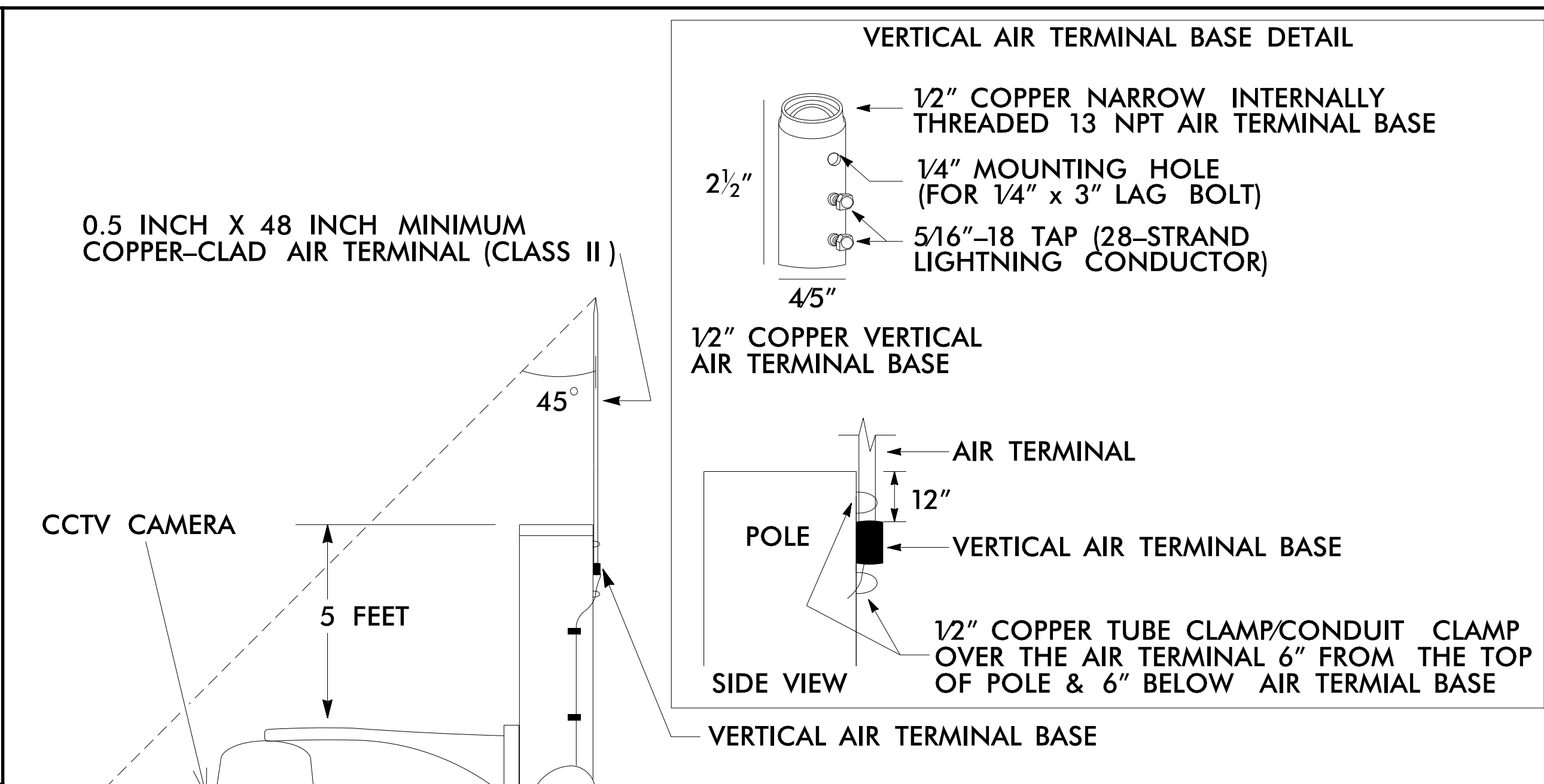
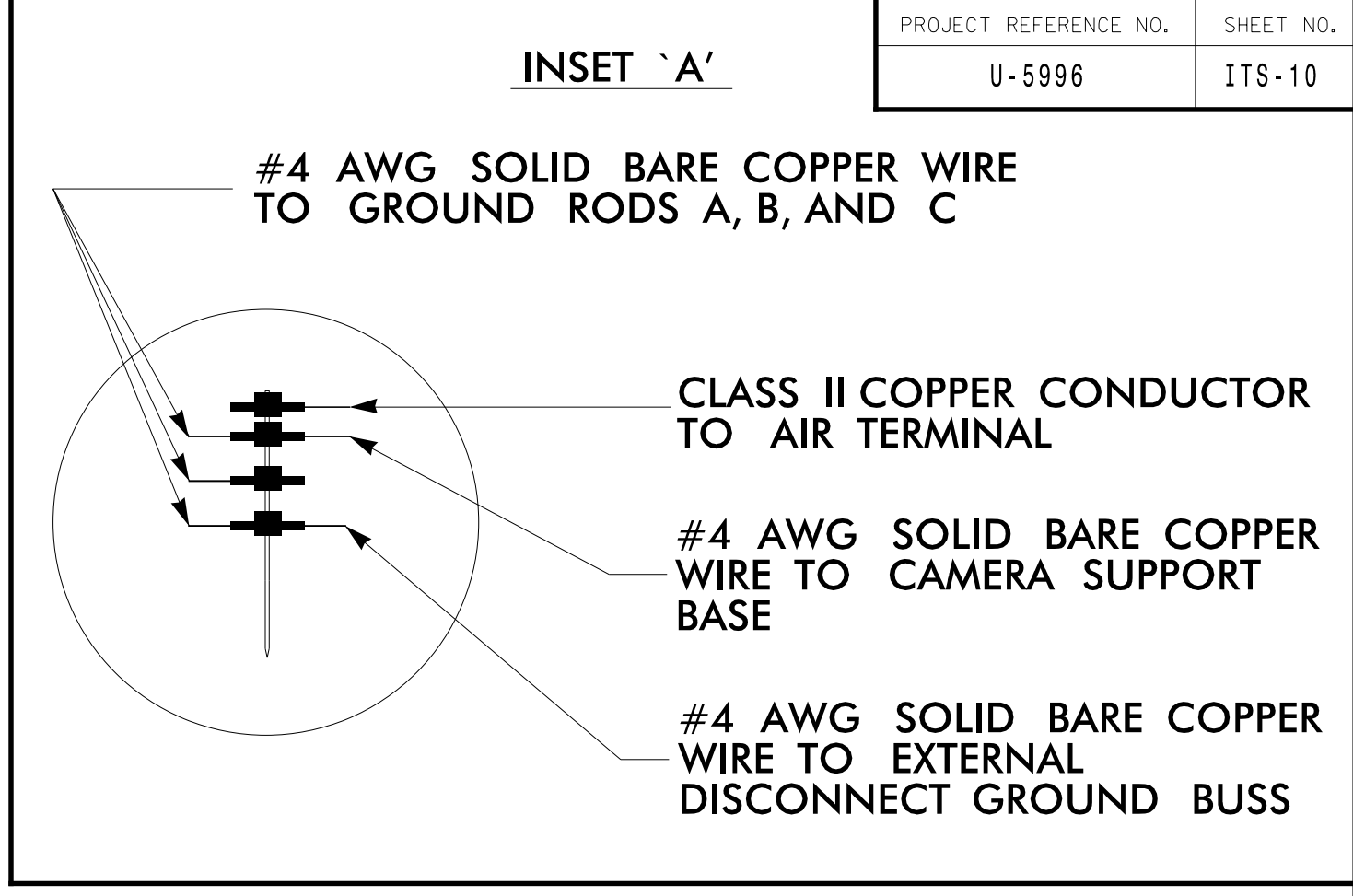
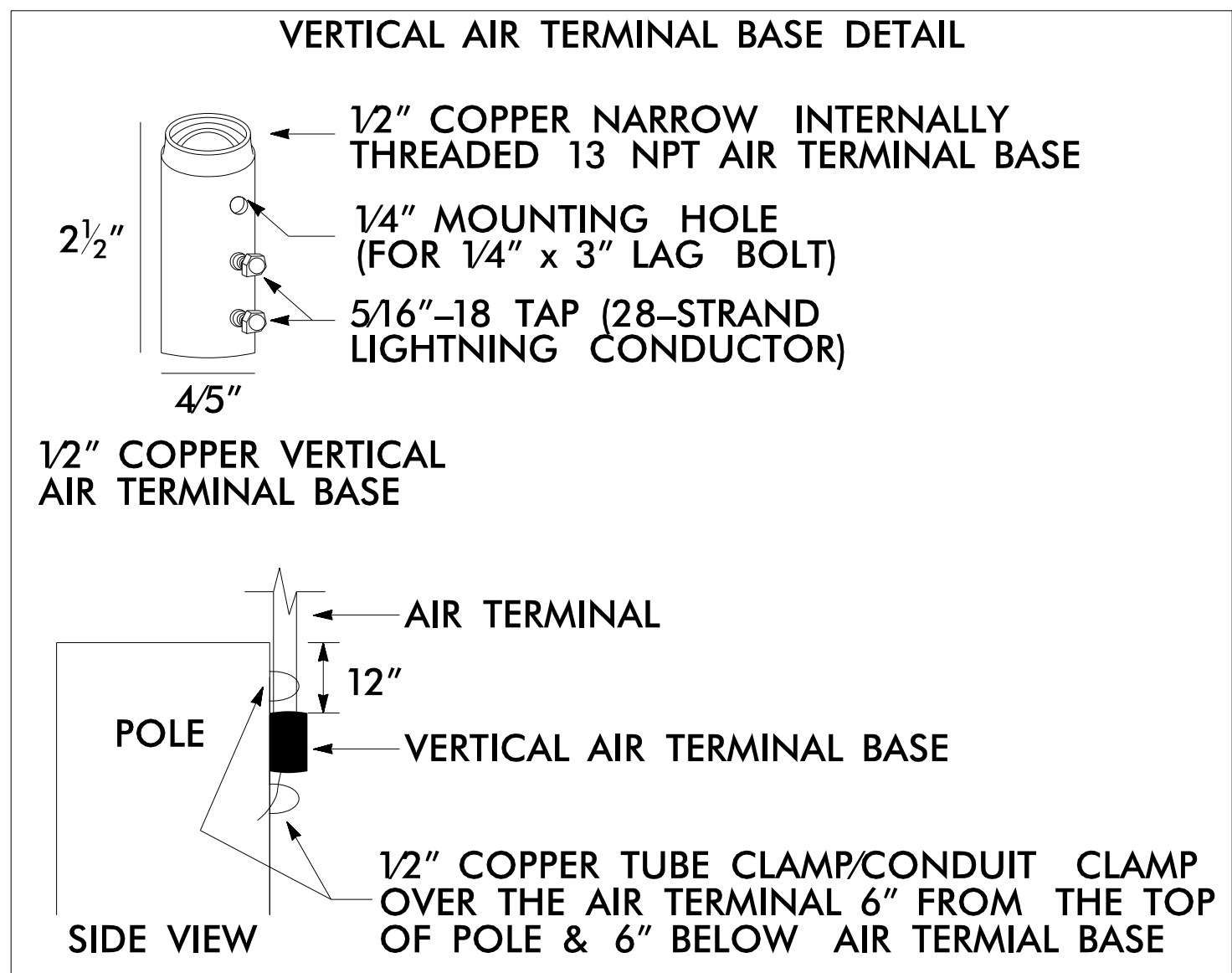
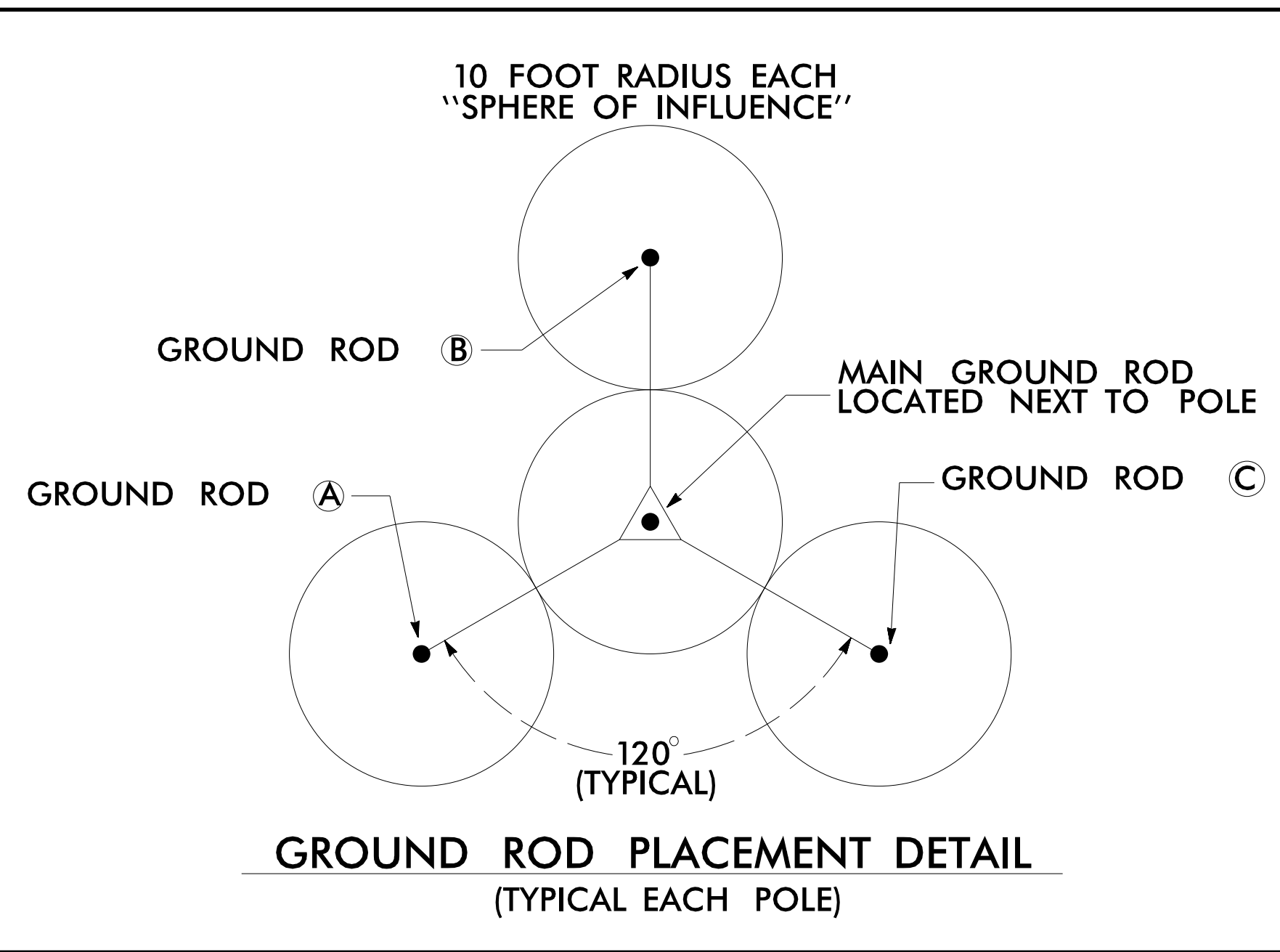
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Professional Engineer Seal: J. Townsend, License No. 031533, State of North Carolina

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BOND #4 AWG SOLID BARE COPPER WIRE TO CAMERA SUPPORT BASE BY AN ALUMINUM TO COPPER #2 - #14 AWG LUG. ATTACH TO CAMERA BASE WITH A STAINLESS STEEL SELF TAPPING SCREW. REMOVE PAINT OR PROTECTIVE COATING WHERE ATTACHING LUG ONLY.

INSTALL 2-INCH PVC U-GUARD OVER COPPER CONDUCTOR FROM GROUND LEVEL TO 10 FEET (MINIMUM) ABOVE THE GROUND.

2-INCH RIGID GALVANIZED STEEL RISER FOR POWER AND CONTROL WIRES

POLE MOUNT EQUIPMENT CABINET

SEE NOTE 5

METER BASE /DISCONNECT COMBINATION PANEL

1-INCH RIGID GALVANIZED STEEL CONDUIT FOR POWER

INSTALL MARKER TAPE 12 INCHES BELOW GRADE AND ABOVE ALL GROUNDING CONDUCTORS.

FINISHED GRADE

24 INCH MIN.

IRREVERSIBLE MECHANICAL CRIMP

GROUND ROD (A)

TO GROUND ROD (B)

TO GROUND ROD (C)

TO EXTERNAL DISCONNECT GROUND BUSS

UNDERGROUND SERVICE LATERAL CONDUCTORS INSTALLED BY UTILITY COMPANY

12 INCH MINIMUM

5/8 INCH X 10 FOOT MIN. COPPER CLAD STEEL GROUND RODS DRIVEN INTO UNDISTURBED EARTH

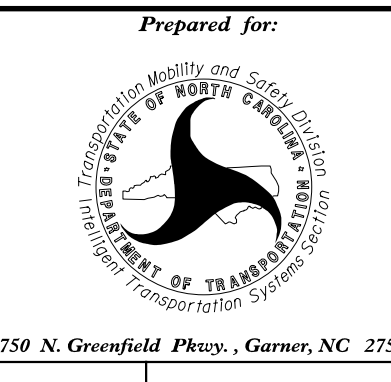
10 - 20 FEET

SECURE CLASS II, 28 STRAND (MINIMUM), 15 AWG (MINIMUM), ROPE-LAY BARE COPPER LIGHTNING CONDUCTOR TO THE POLE ON 24 INCH CENTERS. USE COPPER CABLE CLIPS DESIGNED FOR USE WITH THE CLASS II COPPER CONDUCTOR. SECURE EACH COPPER CABLE CLIP TO THE POLE USING A 0.25 INCH DIAMETER X 1.5 INCH LONG HEX HEAD, GALVANIZED SCREW.

NOTES

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CCTV CAMERA INSTALLATION FOR WOOD POLES WITH UNDERGROUND ELECTRICAL SERVICE TYPICAL DETAIL

DIVISION 04 NASH CO. ROCKY MOUNT

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