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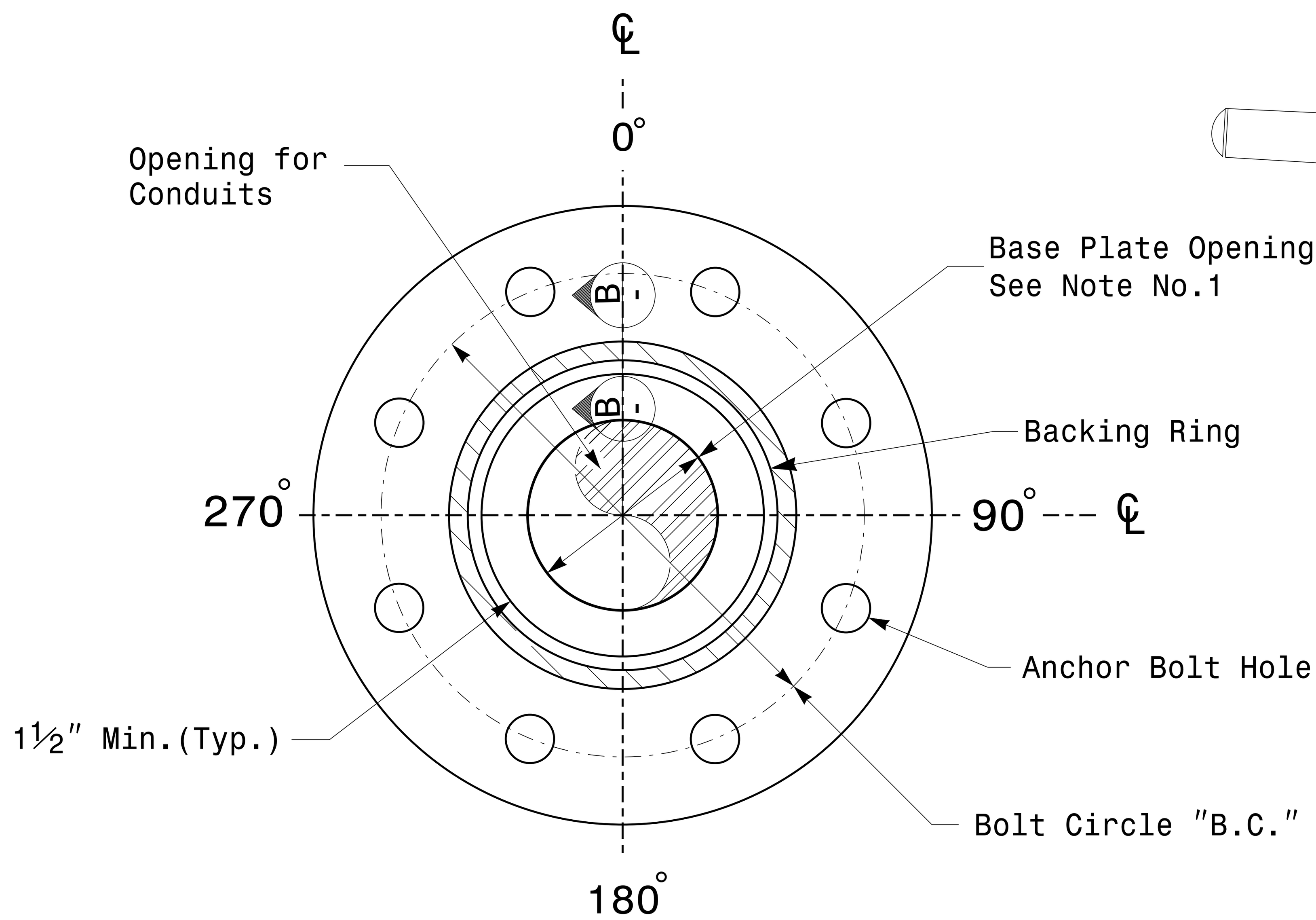
PROJECT ID. NO.	SHEET NO.
U-5798A	Sig.M4

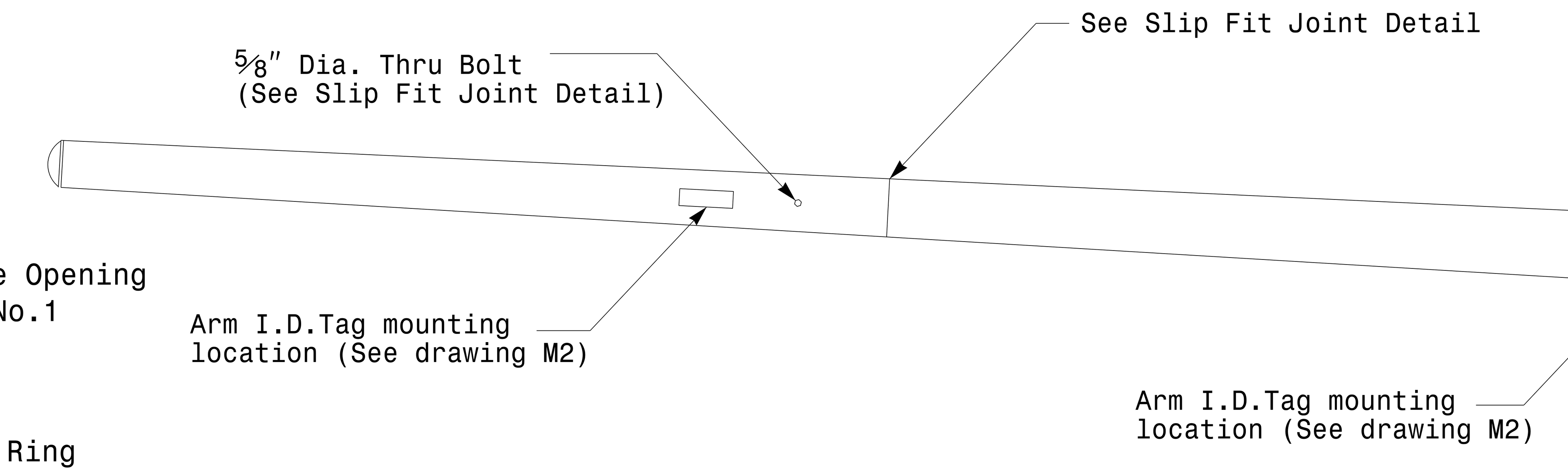
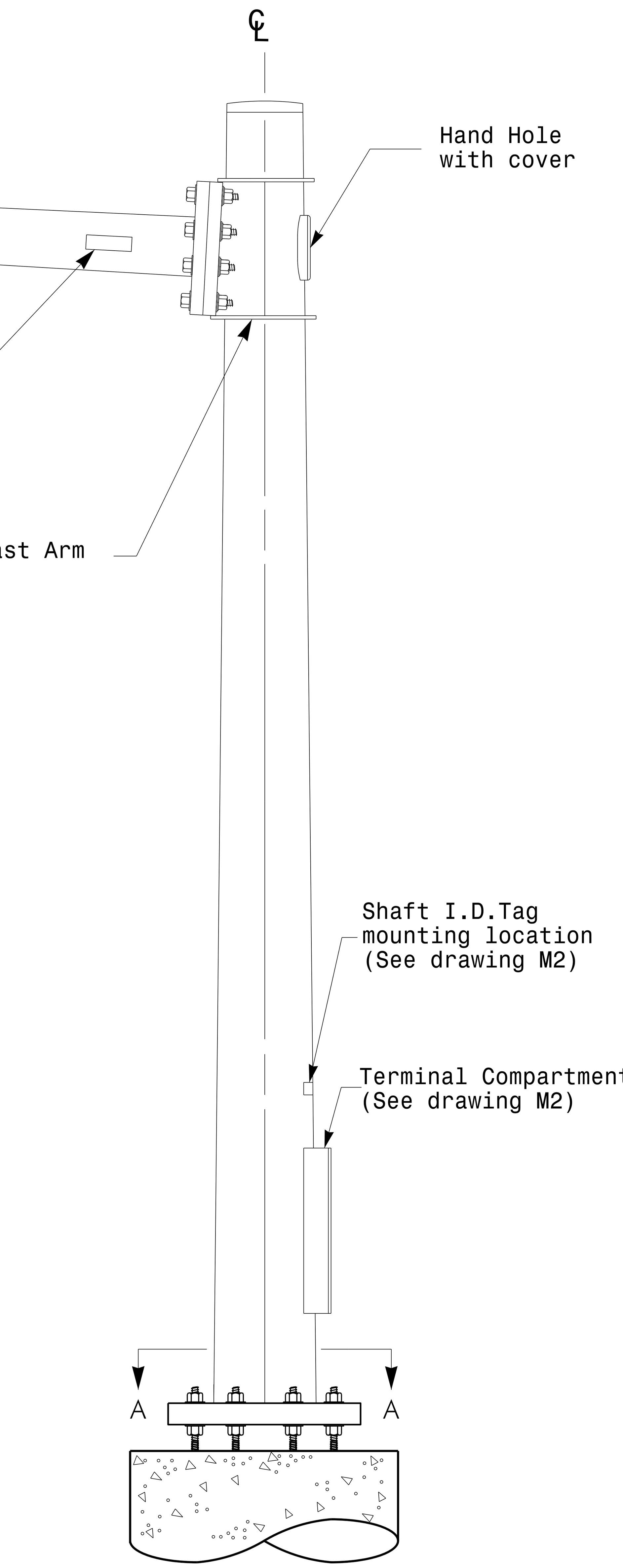
Fabrication Details – Mast Arm Poles

Note:
1. Opening in pole base plate shall be equal to pole base inside diameter minus 3½″ but shall not be less than 8½″.

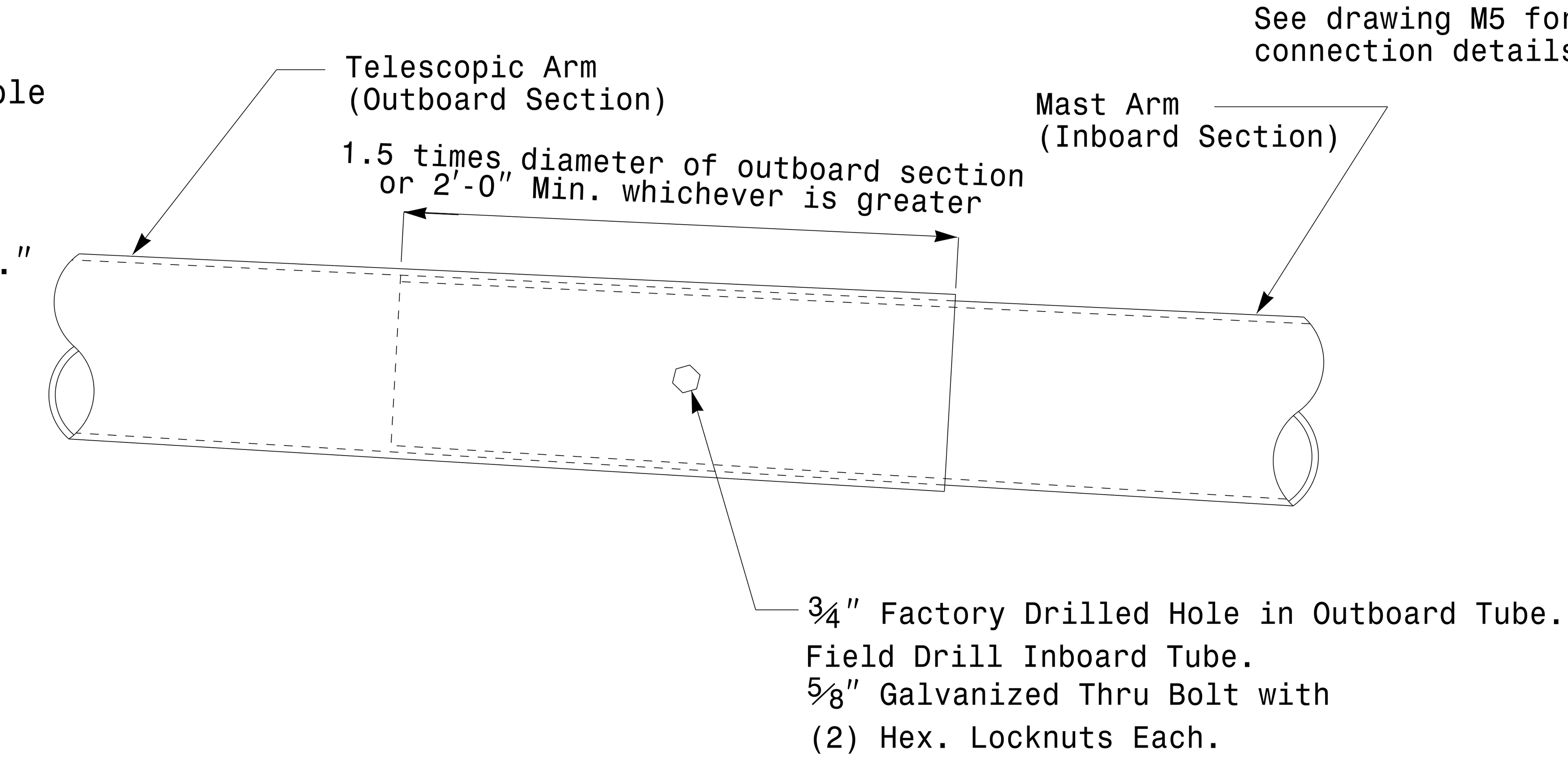


Section A-A

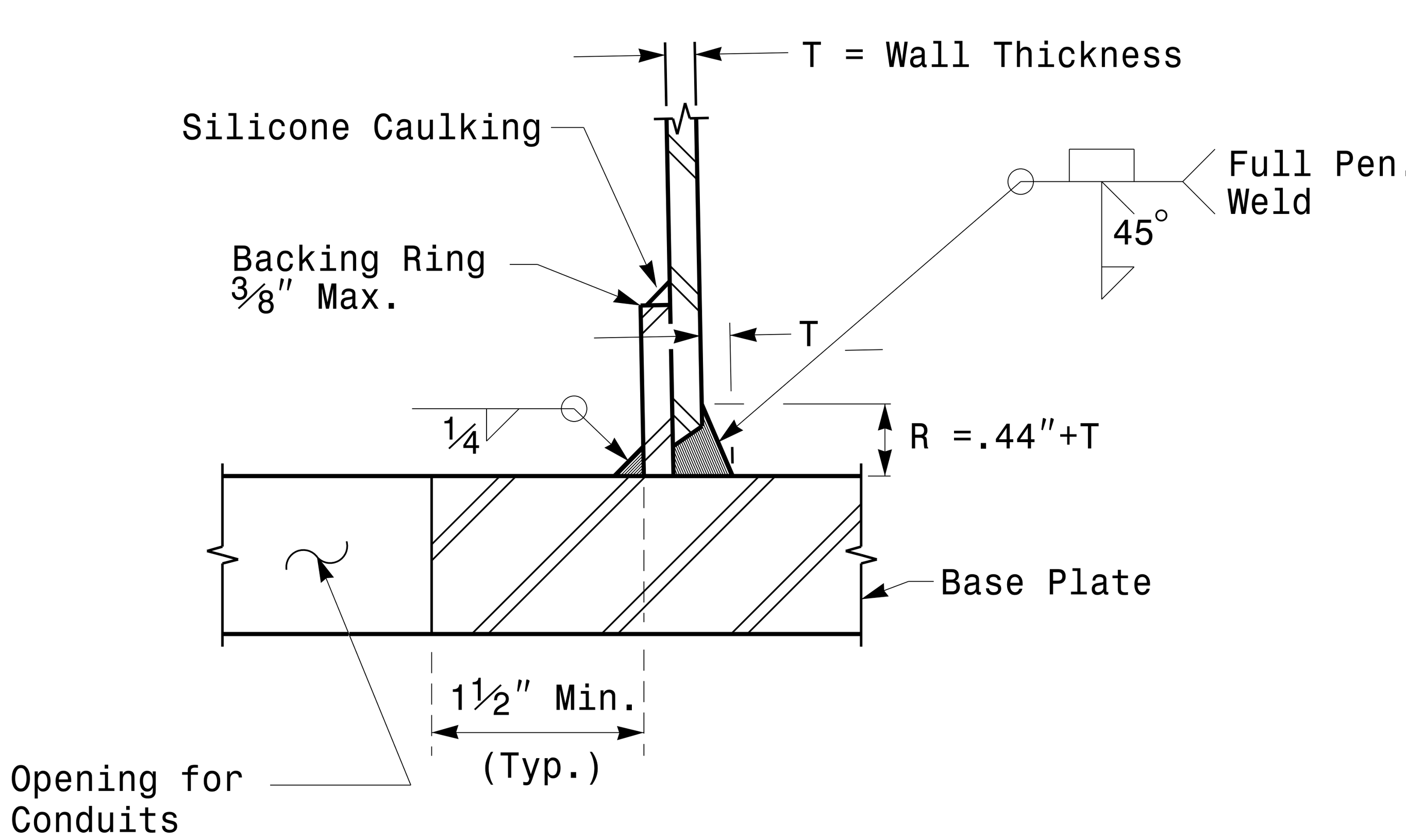
Pole Base Plate Details

Mast Arm Pole



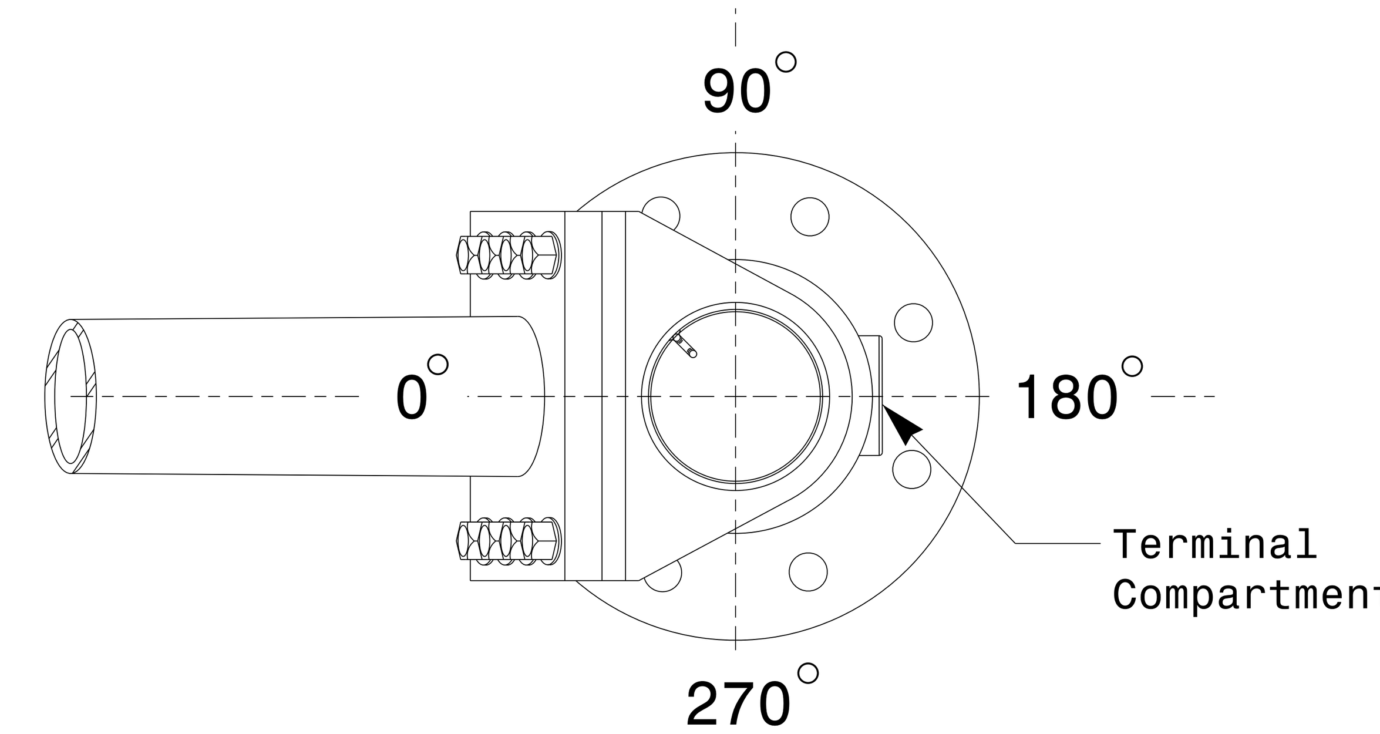
Slip Fit Joint Detail for Mast Arm



Section B-B

(Pole Attachment to Base Plate)

Full-Penetration Groove Weld Detail



Mast Arm Radial Orientation

Prepared in the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

Typical Fabrication Details
For
Mast Arm Poles

PLAN DATE:	OCTOBER 2017	DESIGNED BY:	K.C.DURIGON
PREPARED BY:	N. BITTING	REVIEWED BY:	D.C. SARKAR

REVISIONS	INIT.	DATE

SCALE
0 NA
NONE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 028094 DEBESH C. SARKAR

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DATE

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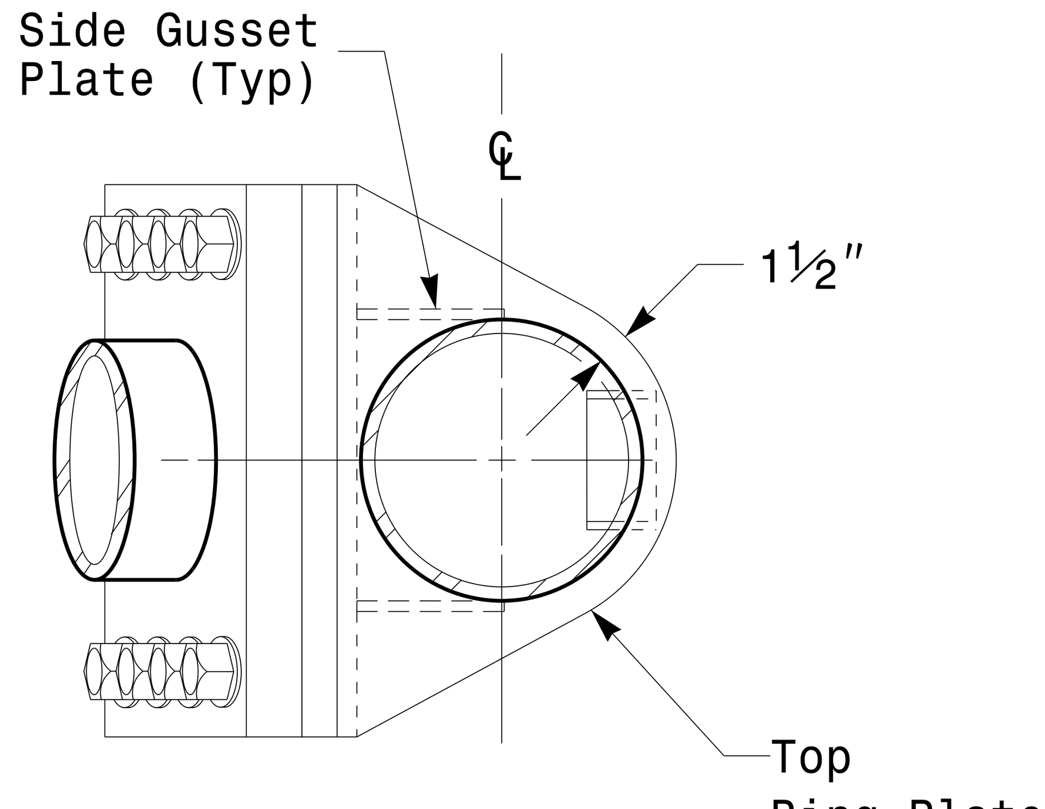
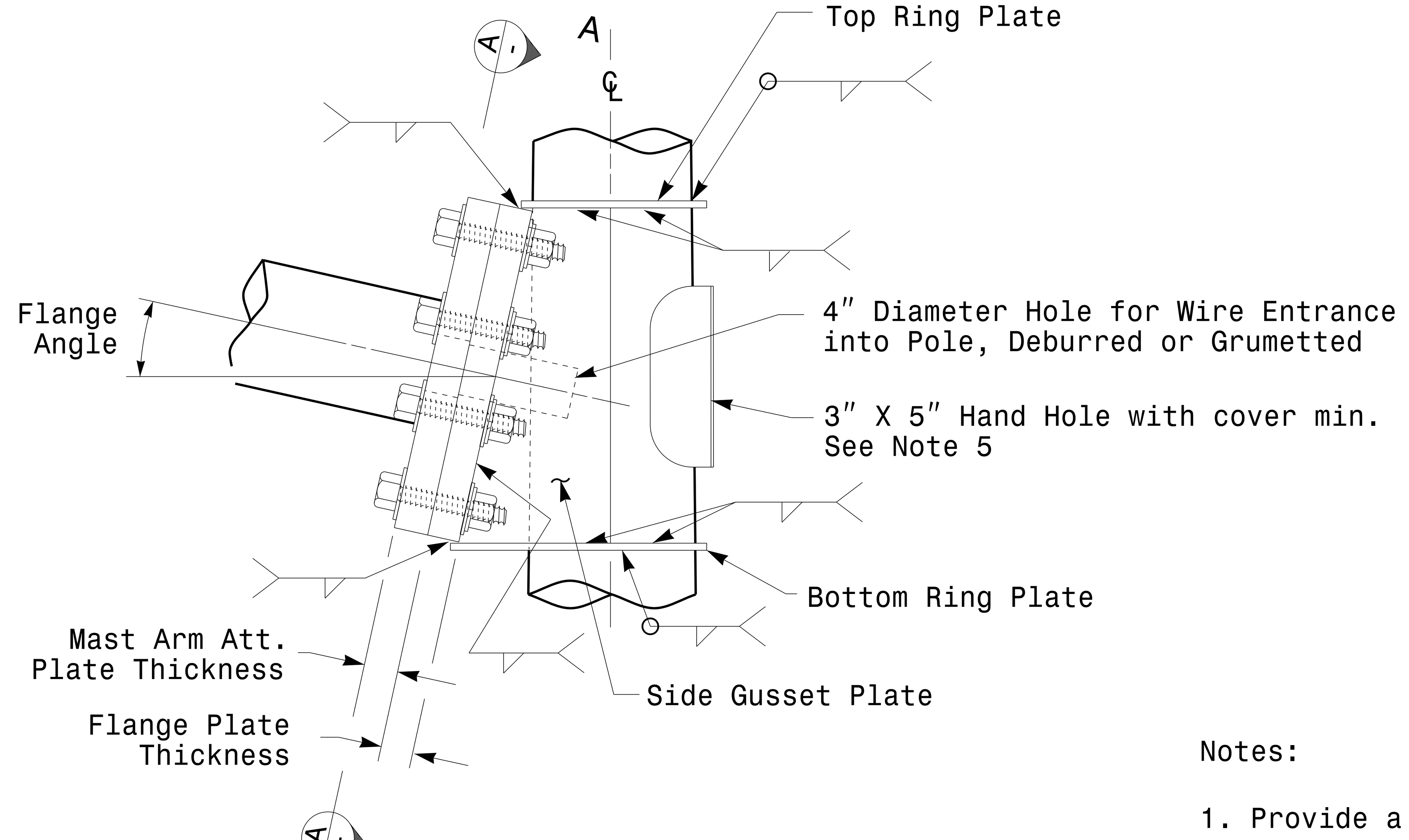
PROJECT ID. NO.	SHEET NO.
U-5798A	Sig.M5

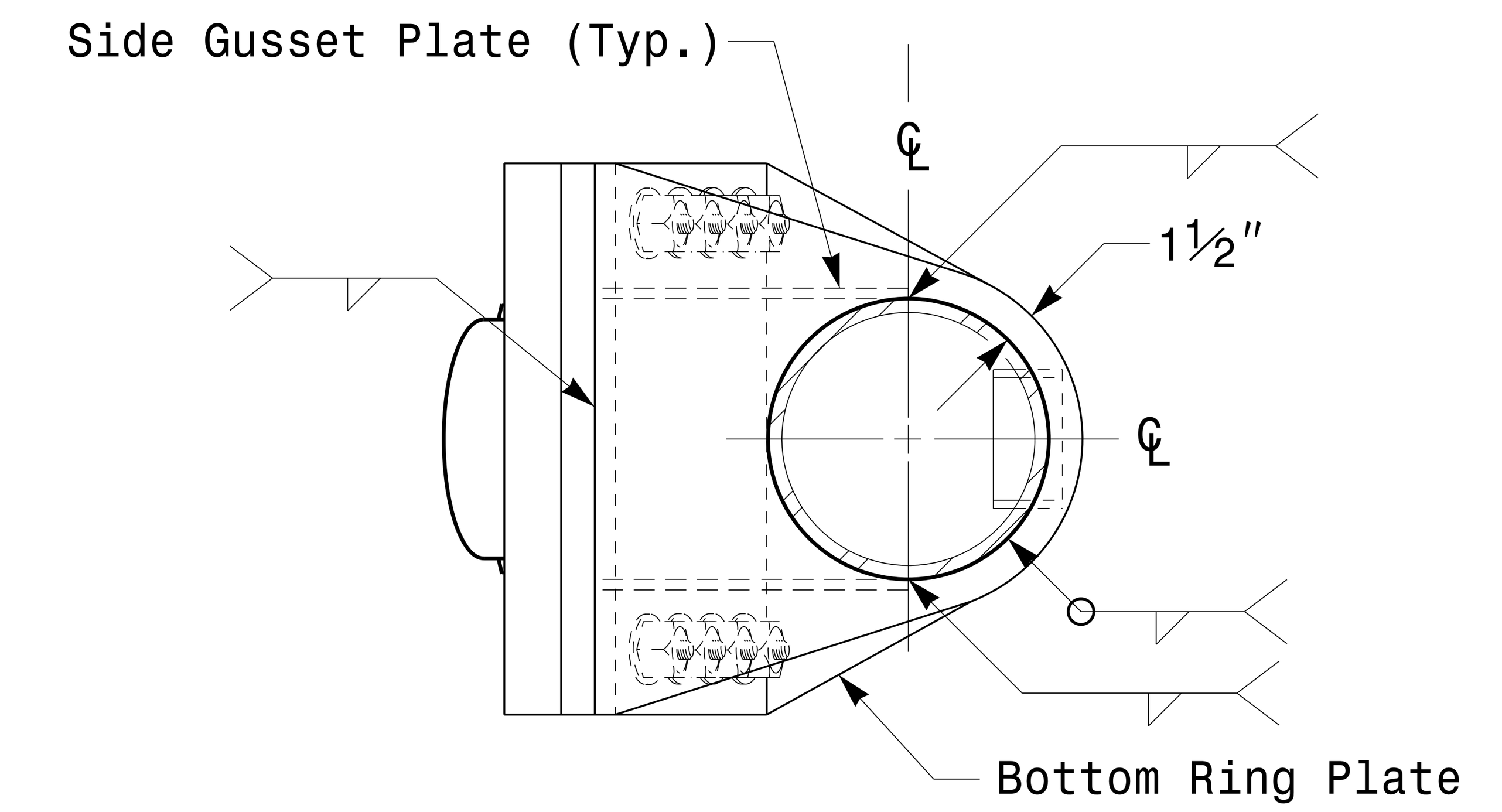
Welded Ring Stiffened Mast Arm Connection



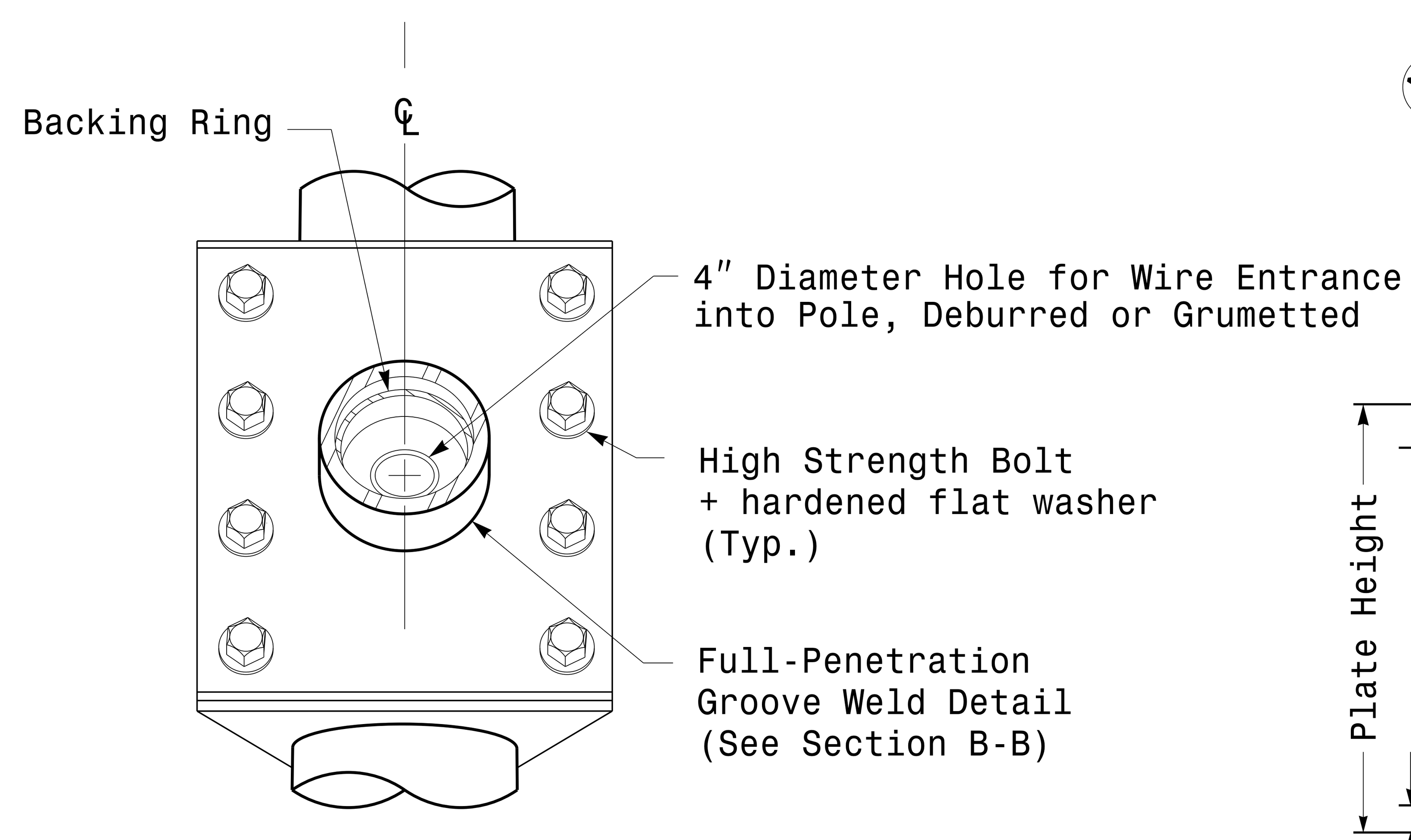
Plan View



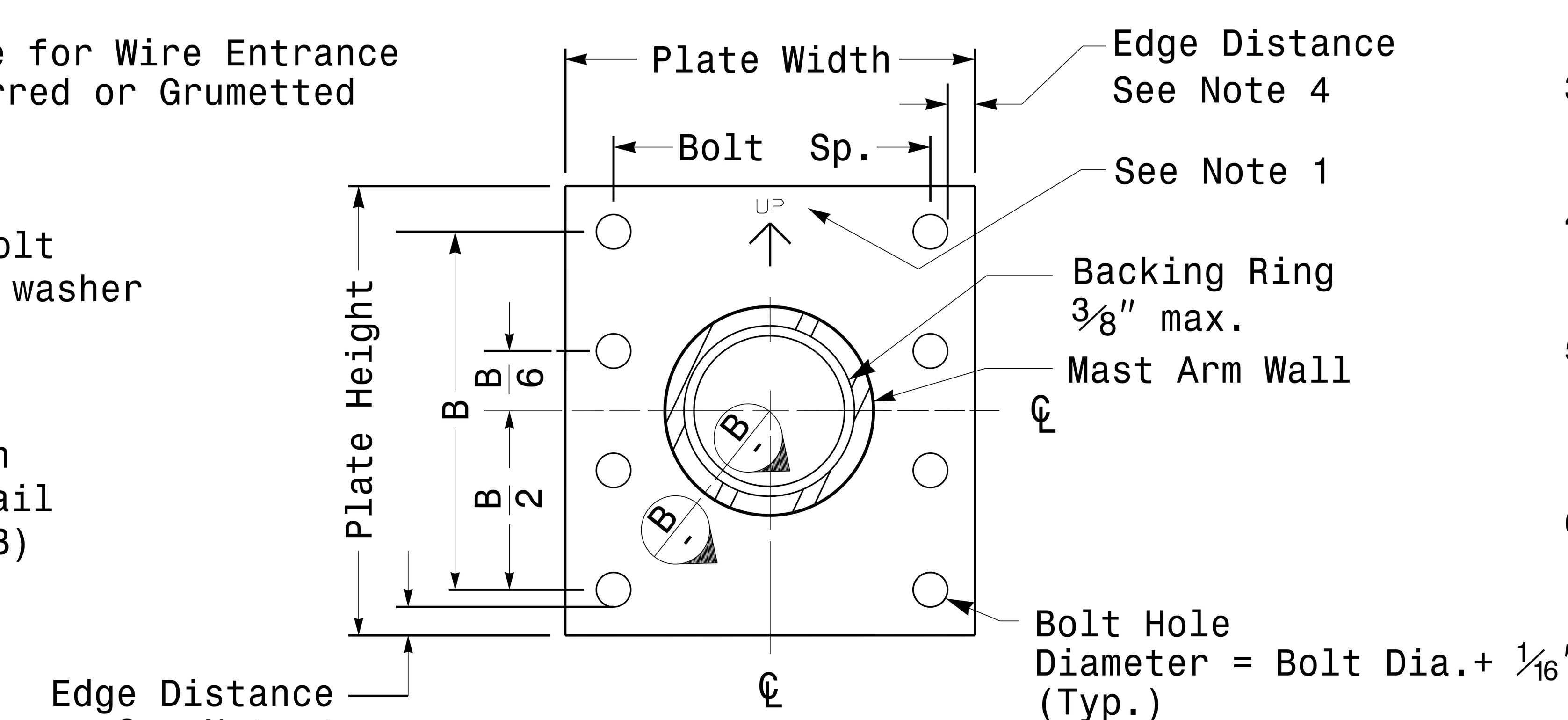
Side Elevation View



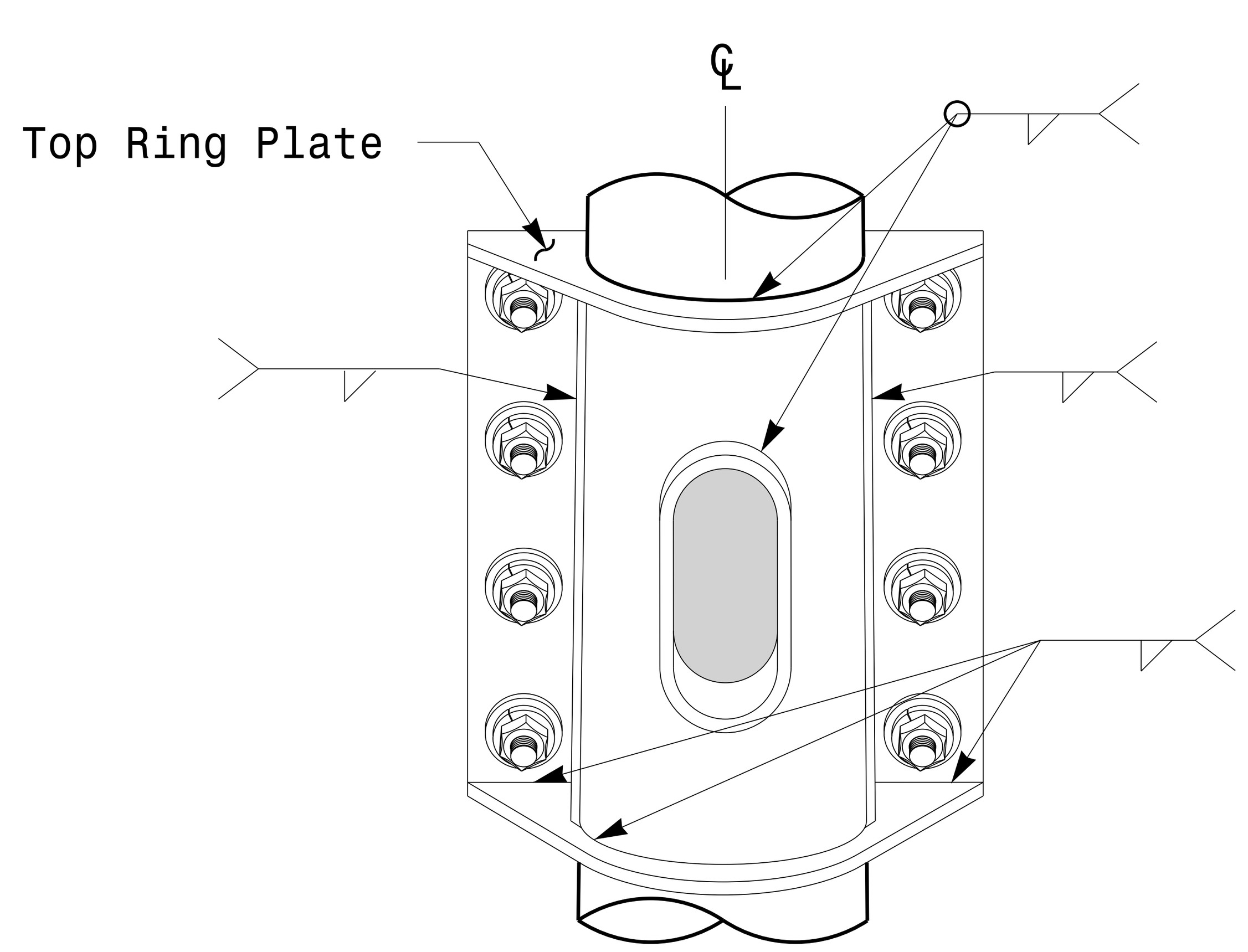
Bottom View



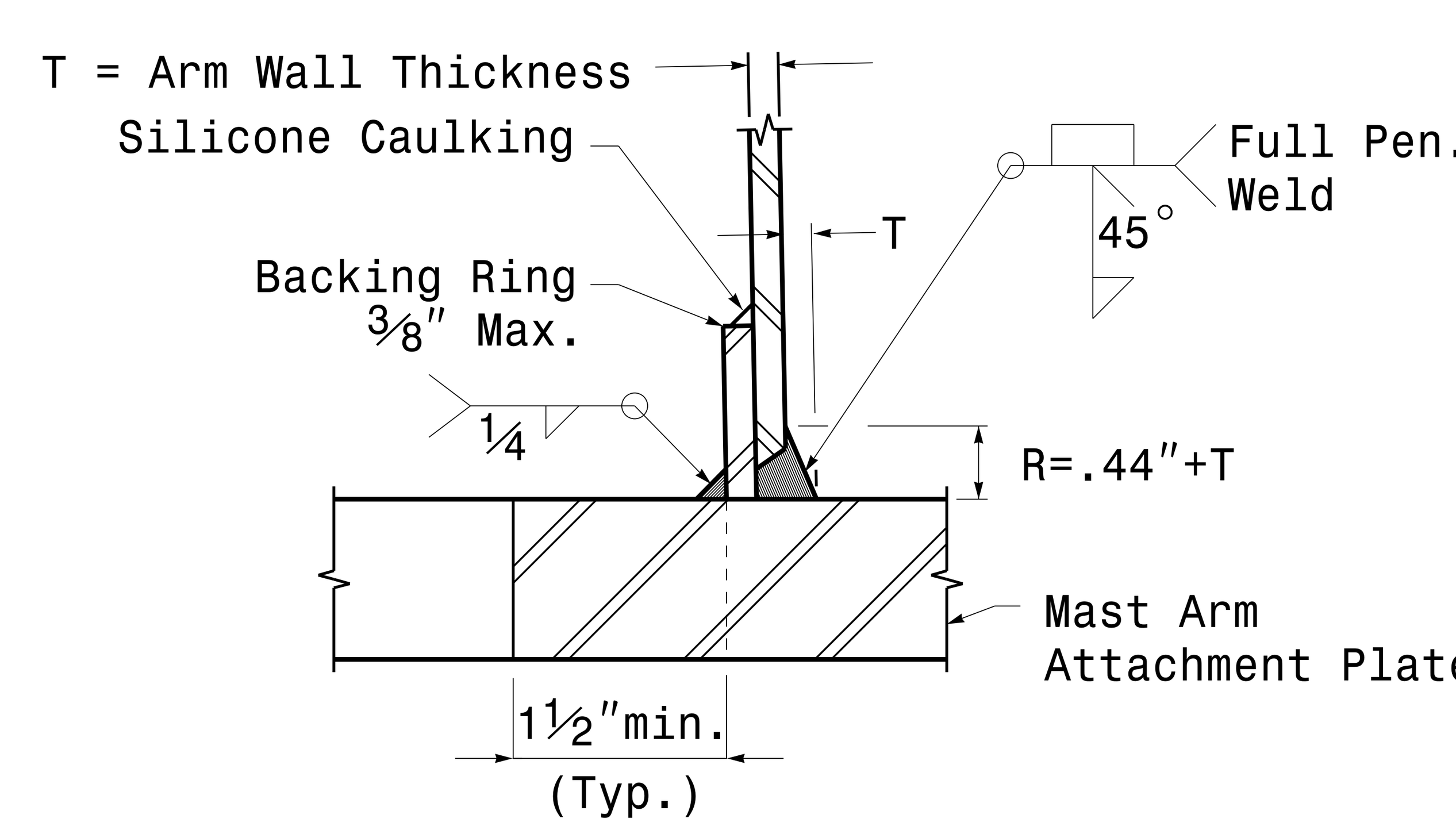
Front Elevation View



Section A-A
Mast Arm Attachment Plate



Back Elevation View



Section B-B
Full-Penetration Groove Weld Detail

Notes:

1. Provide a permanent means of identification above the mast arm to indicate proper attachment orientation of the mast arm.

2. Designer will determine the size of all structural components, plates, fasteners, and welds shown unless they are already specified.

3. Fabricator is responsible for providing appropriate holes at drainage points to drain galvanizing materials.

4. For minimum edge distance follow AISC Table J3.4 and J3.5. For nominal bolt hole size use Table J3.3.

5. Provide upper handhole as necessary when shaft extensions are reguired for luminaire arms or camera. For poles without luminaires/camera, wiring can be done through the top of pole.

6. Allowable range of flange tilt angle will vary from 0° to as required.

Fabrication Details – Mast Arm Connection

Prepared in the Offices of: Transportation Mobility and Safety Division, Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

Typical Fabrication Details
For
Mast Arm Connection To Pole

PLAN DATE:	OCTOBER 2017	DESIGNED BY:	C.F.ANDREWS
PREPARED BY:	N. BITTING	REVIEWED BY:	D.C. SARKAR

REVISIONS | INIT. | DATE

SCALE
0 NA
NONE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 028094 DEBESH C. SARKAR

DocuSigned by: Debesh C. Sarkar
SIGNATURE
10/11/2017
DATE

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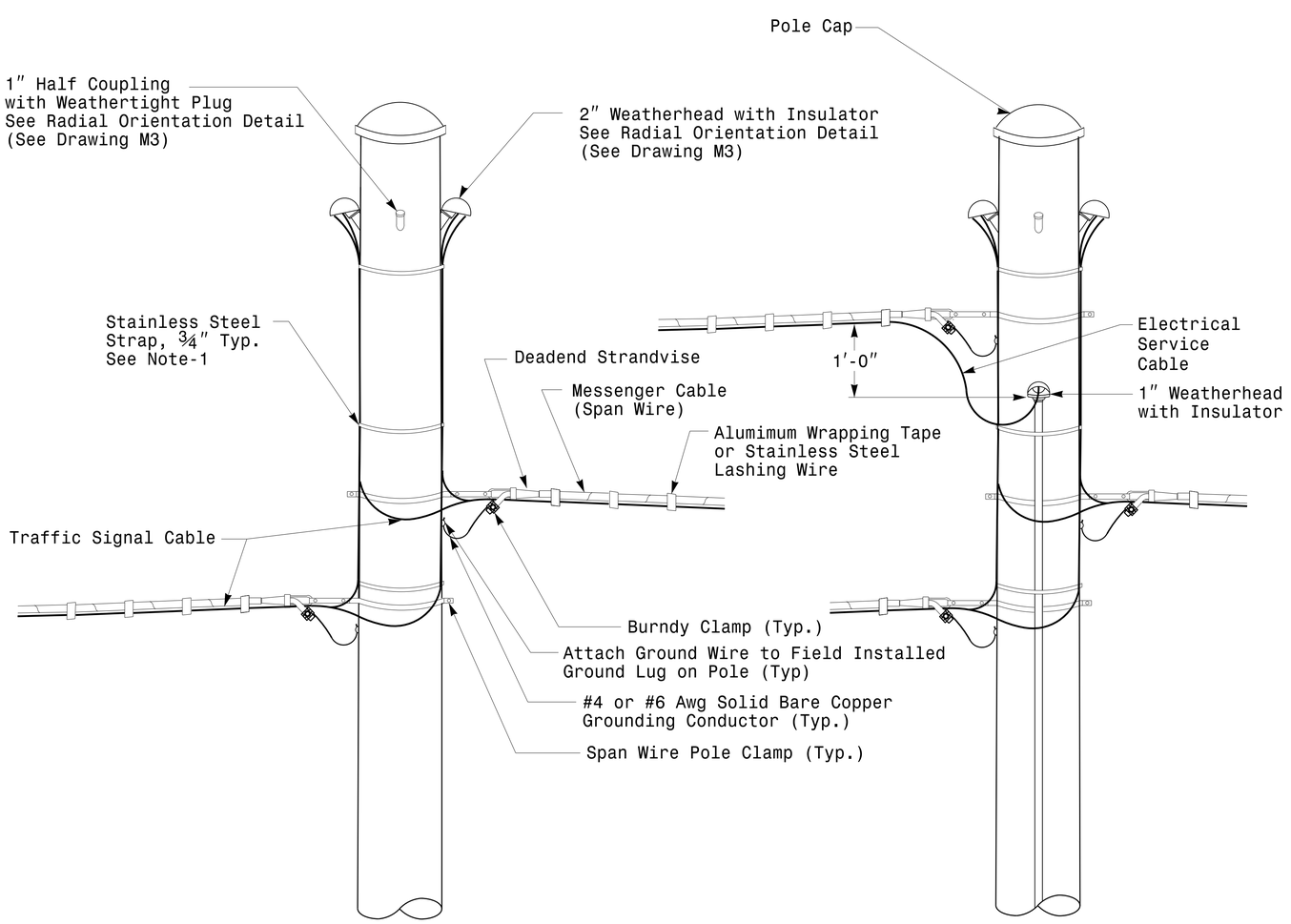
PROJECT ID. NO.	SHEET NO.
U-5798A	Sig.M6

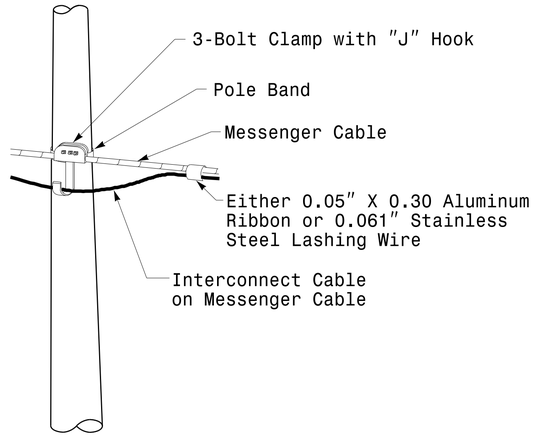
Strain Pole Attachments – Fabrication Details –



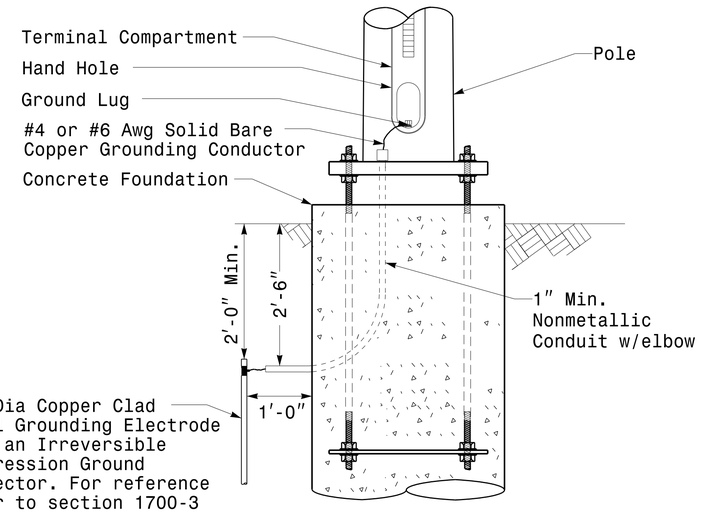
Strain Pole Attachments

NOTE:

1. Strap all signal cables to the side of the pole with ¾″ stainless steel straps when the distance between the spanwire attachment clamp and the weatherheads exceeds 3′-0″.
2. Provide minimum two spanwire pole clamps per pole.
3. It is prohibited to attach two span wires at one pole clamp.
4. For general requirements refer to NCDOT Standard Specifications for Roadway and Structures, January 2018.



Attachment of Cable to Intermediate Metal Pole



Metal Pole Grounding Detail For Strain Pole and Mast Arm

Prepared in the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy.Garner.NC 27529

SCALE
0 NA
NONE

Typical Fabrication Details
For
Strain Pole Attachments

PLAN DATE:	OCTOBER 2017	DESIGNED BY:	C.F.ANDREWS
PREPARED BY:	N. BITTING	REVIEWED BY:	D.C. SARKAR

REVISIONS	INIT.	DATE

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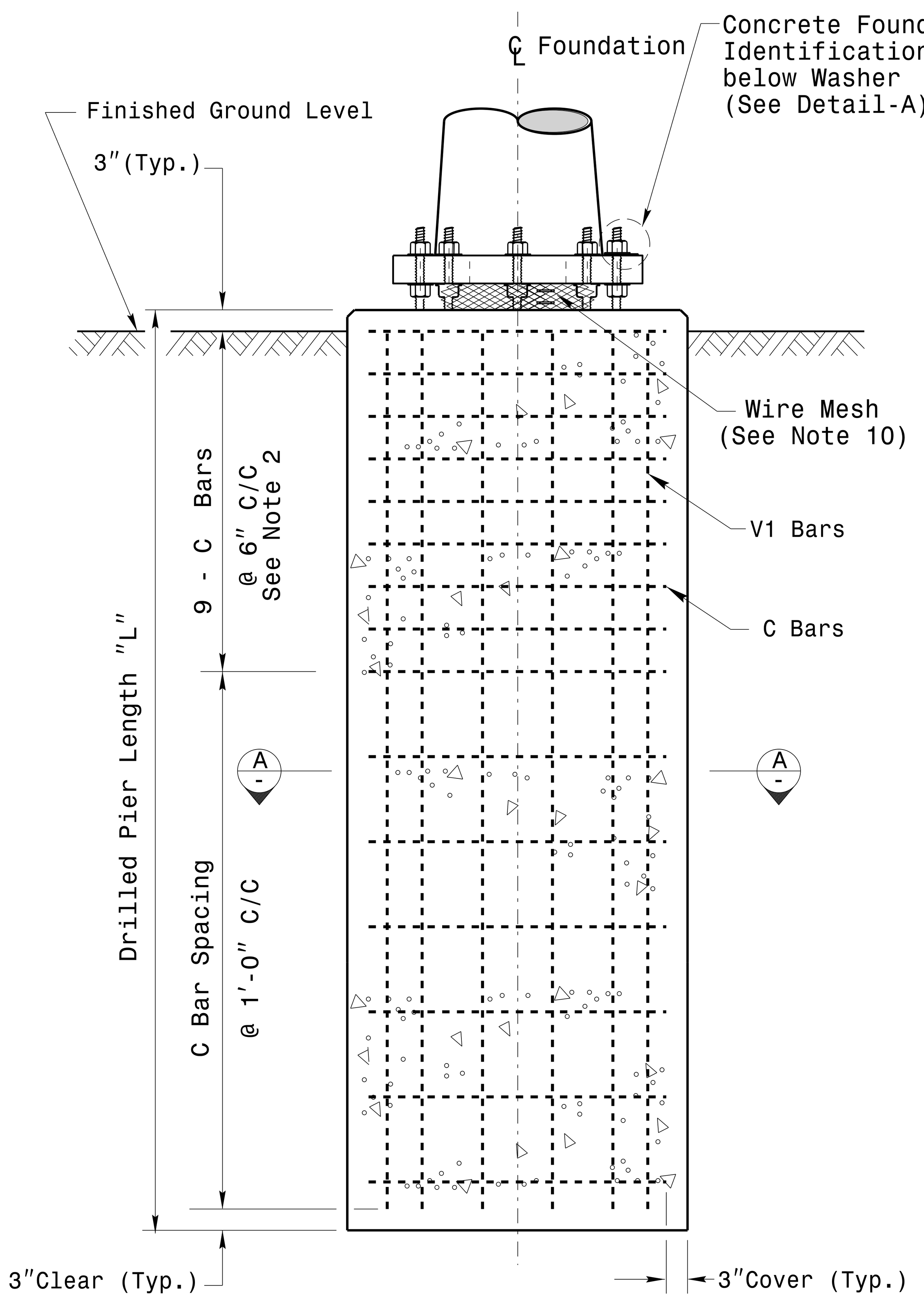
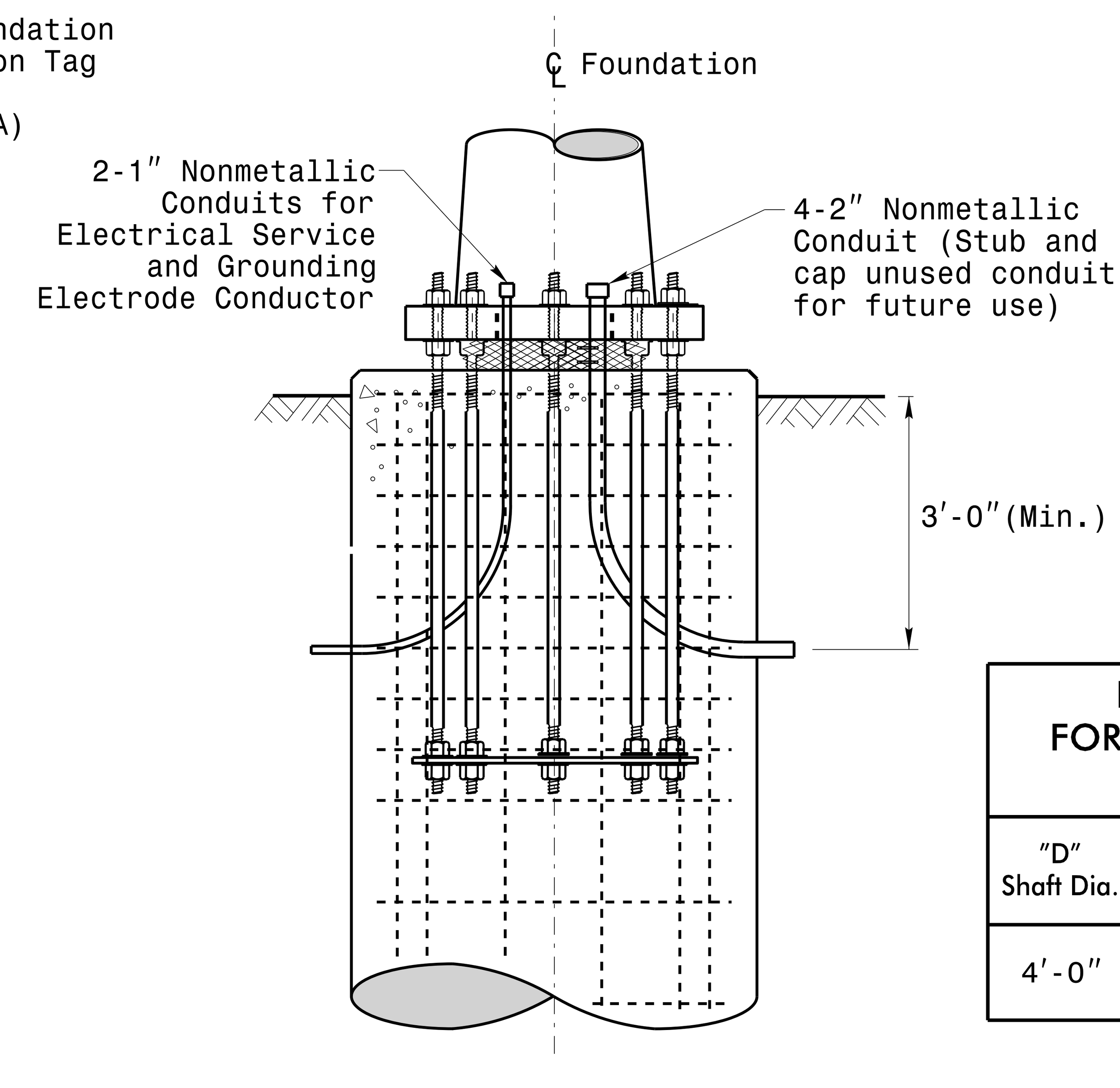
Construction Details – Foundations



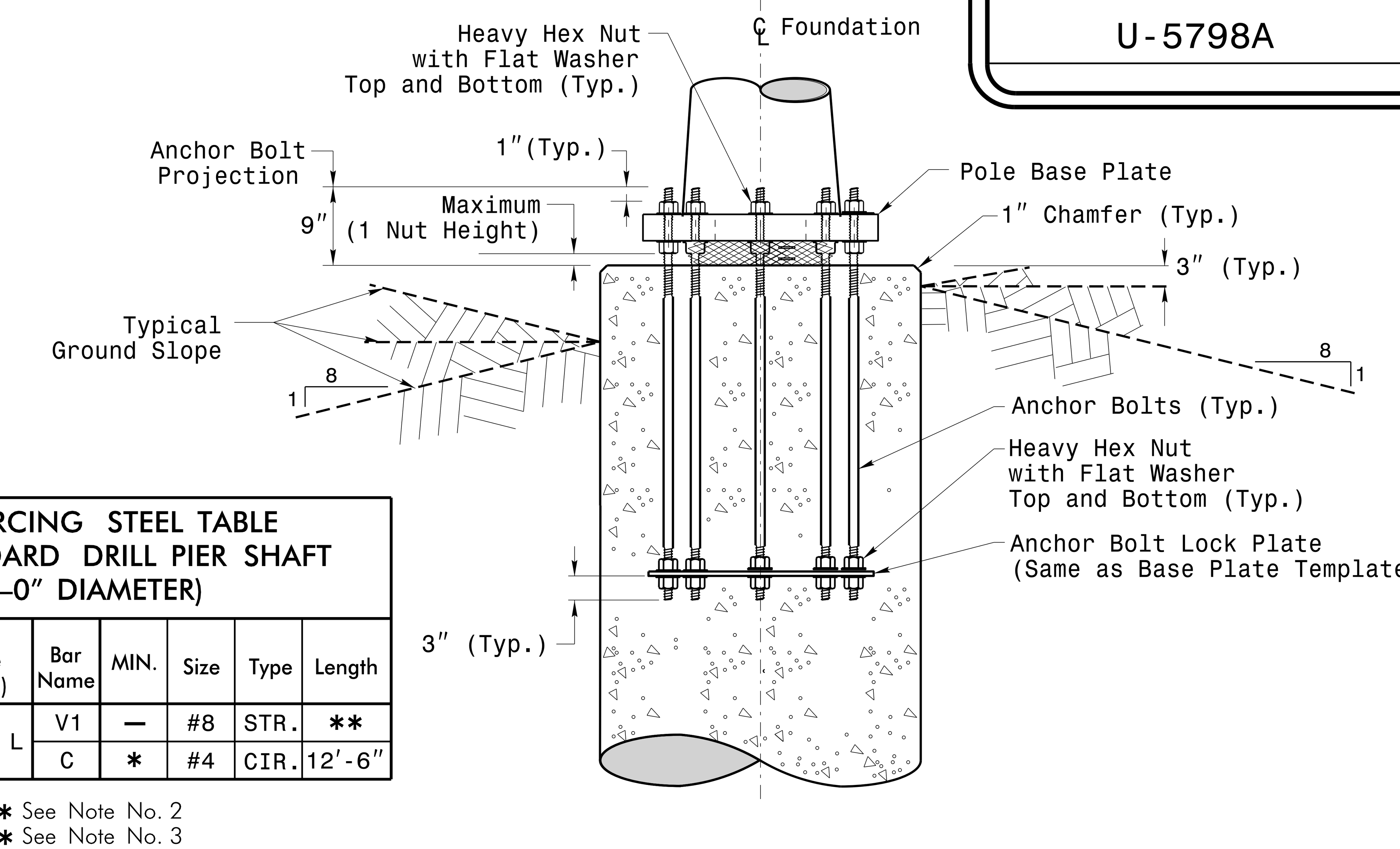
Concrete Shaft Elevation



Typical Foundation Conduit Details

REINFORCING STEEL TABLE FOR STANDARD DRILL PIER SHAFT (4′–0″ DIAMETER)						
"D" Shaft Dia.	Conc. Volume (cu. yds.)	Bar Name	MIN.	Size	Type	Length
4′-0″	.465 x L	V1	—	#8	STR.	**
		C	*	#4	CIR.	12′-6″

* See Note No. 2
** See Note No. 3



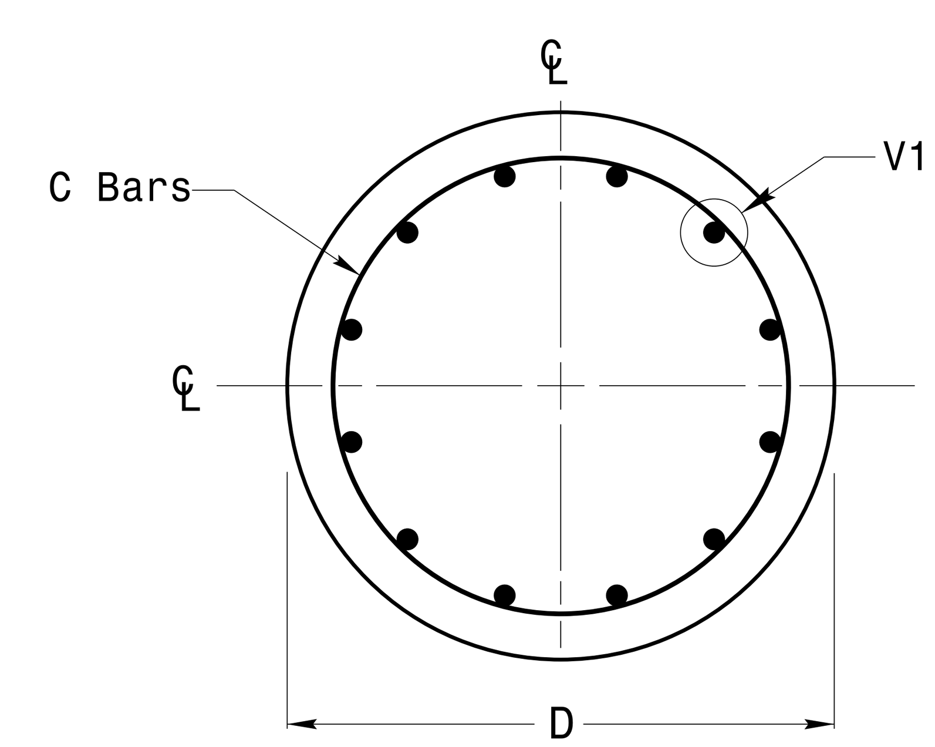
Typical Foundation Anchor Bolt Details

(Reinforcing Cage Not Shown for Clarity)

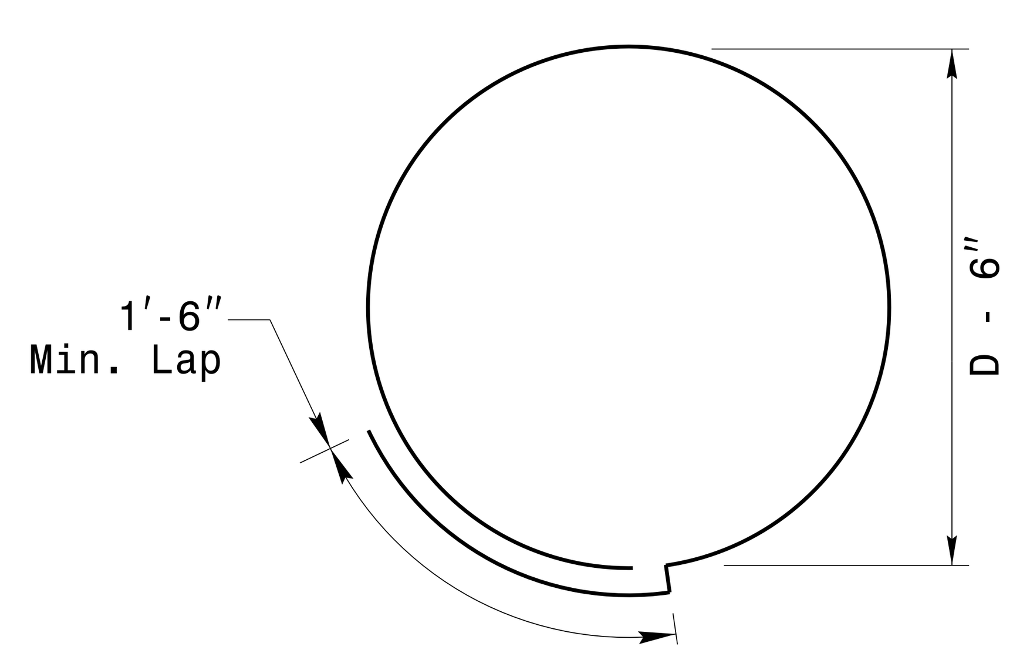
General Notes:

1. If actual subsurface conditions differ significantly from boring data contact the Engineer before excavating or placing concrete.
2. Circular tie reinforcing rings may be vertically adjusted by +/-3″ at a depth between 2′-0″ and 3′-0″ to facilitate the installation of electrical conduit entering in the cage.
3. For standard foundations, see sheet Sig. M8 for details. Vertical reinforcing bars (V1) may be horizontally adjusted by +/-3″ to facilitate the installation of electrical conduit entering into the cage.
4. Provide 2″ to 5″ foundation projection above ground level depending on the ground slope.
5. Unless otherwise shown, foundation designs are based on non-sloping level ground surfaces with slope ratios of 8:1 (H:V) or flatter. If actual ground line slopes are steeper contact the Engineer before excavating or placing concrete.
6. Construct foundations in accordance with NCDOT Standard Provisions SP09 R005- Foundations and Anchor Rod Assemblies for Metal Poles. All applicable 2018 NCDOT Standard Specifications are referenced in this provision. Refer to the NCDOT Resources/Specifications page located on the Connect NCDOT website.

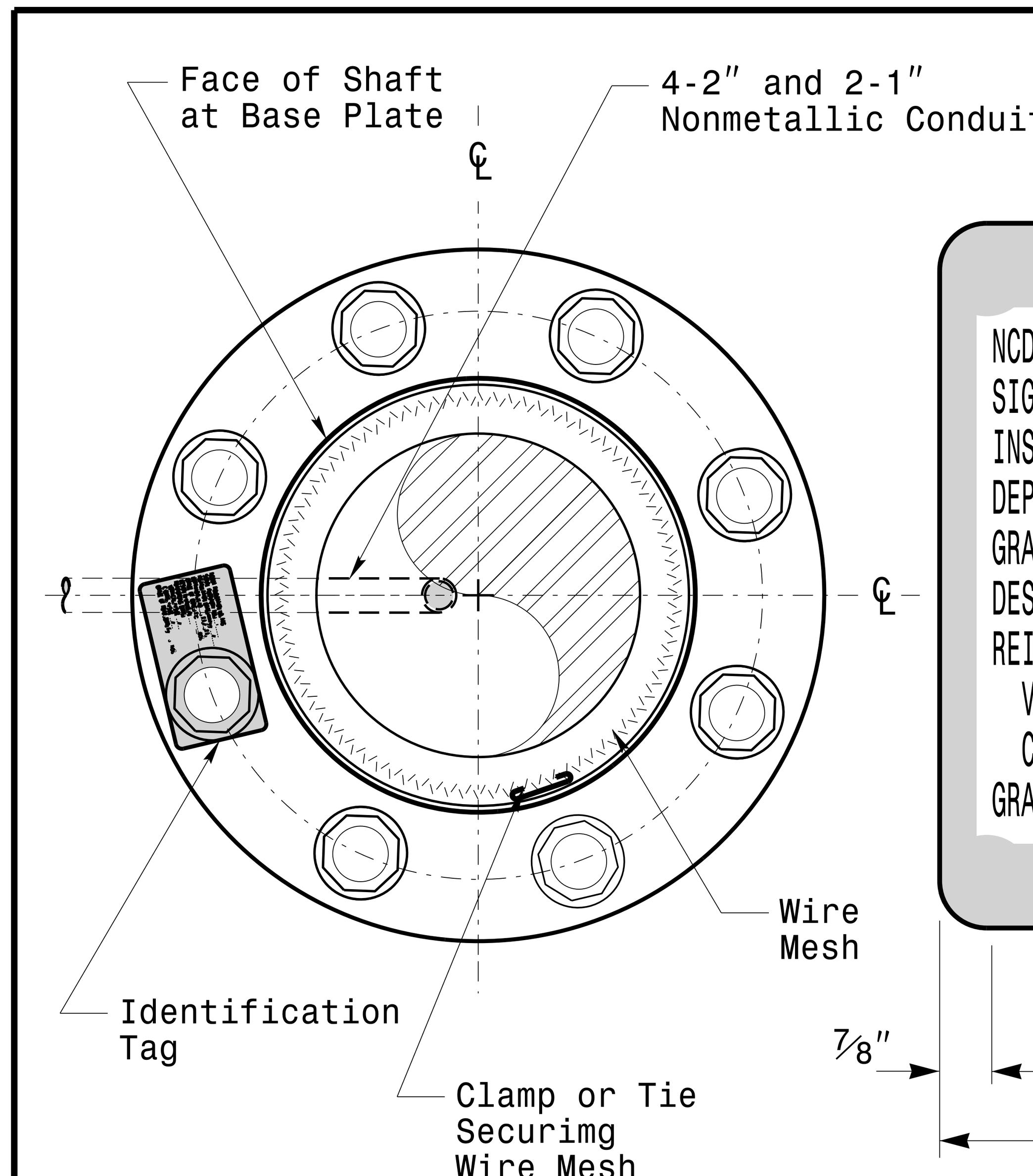
   https://connect.ncdot.gov/resources/Specifications and Special Provisions.aspx
7. Use air entrained AA concrete mix with a compression strength of f′c=4500 psi.(min.) after 28 days.
8. Use ASTM A615 grade 60 deformed bars for all reinforcing steel. Maintain at least 3″ cover on all reinforcement.
9. Locate the Identification Tag on the top of the base plate, directly above the conduit′s entry point.
10. Provide two layers of galvanized welded 23 gauge (0.25) 6″ wide 4 mesh wire around pipes under the base plate and secure it with ties if necessary.
11. Preferred location for the I.D. Tag is as shown in Detail-A; directly above the conduit entering the foundation.



Section A-A

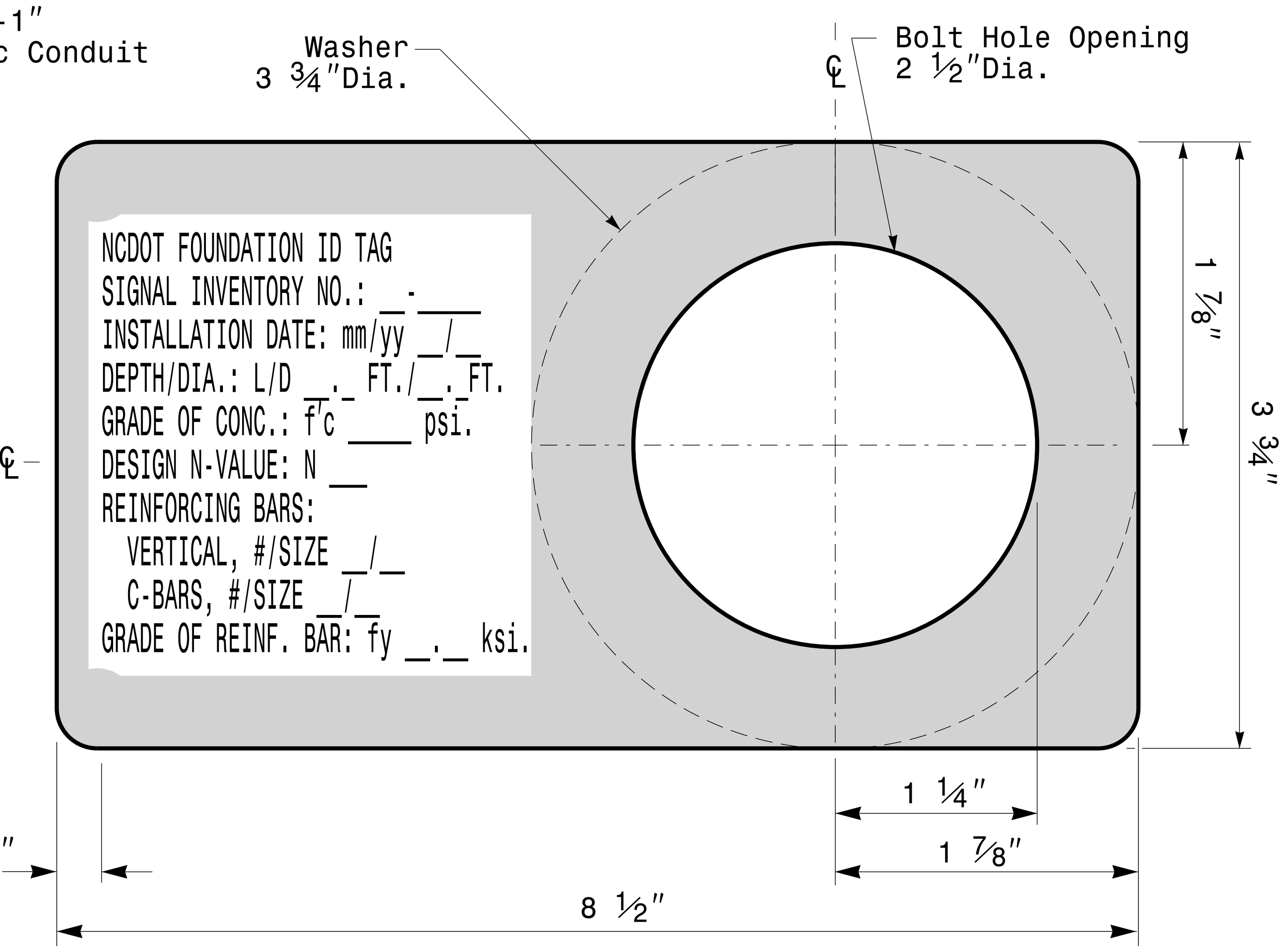


Typical "C" Bar Detail



D = Diameter
L = Length/Depth
mm = Month
yy = Year

Detail-A



Concrete Foundation Identification Tag Details

Prepared In the Offices of: Transportation Mobility and Safety Division, Signal Design Section
750 N.Greenfield Pkwy.Garner,NC 27529

Construction Details For Foundations

PLAN DATE:	OCTOBER 2018	DESIGNED BY:	C.B.COGDELL
PREPARED BY:	N. BITTING	REVIEWED BY:	D.C. SARKAR

SCALE: 0 NA NONE

REV. NO.	COMMENTS	INIT.	DATE
1	Revised Foundation Tag Details	N.B.	5/11/2015

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SIGNATURE 10/11/2017 DATE

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SOIL CONDITION

PROJECT ID. NO.	SHEET NO.
U-5798A	Sig.M8

		STANDARD STRAIN POLES						STANDARD FOUNDATIONS 48″ Diameter Drilled Pier Length (L) – Feet							Reinforcement			
								Clay				Sand			Longitudinal		Stirrups	
		Case No.	Pole Height (Ft.)	Base Plate BC (In.)	Reactions at the Pole Base: Axial (kip)	Shear (kip)	Moment (ft-kip)	Medium N-Value 4–8	Stiff N-Value 9–15	Very Stiff N-Value 16–30	Hard N-Value >30	Loose N-Value 4–10	Medium N-Value 11–30	Dense N-Value >30	Bar Size (#)	Quantity (ea.)	Bar Size (#)	Spacing (in.)
WIND ZONE 1	LIGHT	S26L3	26	25	2	11	270	19	13	10	8	17	14.5	12.5	8	12	4	12
		S30L3	30	25	2	11	300	19.5	13.5	10	8	17.5	15	13	8	14	4	12
		S35L3	35	25	3	11	320	20	13.5	10.5	8	17.5	15	13	8	14	4	12
	HEAVY	S30H3	30	29	3	16	450	24.5	16	12	9	21	17.5	15	8	16	4	6
		S35H3	35	29	4	16	515	26	17	12.5	9.5	22	18.5	16	8	16	4	6
WIND ZONE 2	LIGHT	S26L2	26	23	2	10	245	18	12.5	9.5	8	16.5	14	12	8	12	4	12
		S30L2	30	23	2	10	270	18.5	12.5	10	8	16.5	14	12.5	8	12	4	12
		S35L2	35	23	3	10	300	19.5	13	10	8	17	14.5	13	8	12	4	12
	HEAVY	S30H2	30	29	3	15	415	23	15.5	11.5	9	20	17	14.5	8	16	4	6
		S35H2	35	29	4	15	475	25	16.5	12	9.5	21	17.5	15.5	8	16	4	6
WIND ZONE 3	LIGHT	S26L2	26	23	2	10	245	18	12.5	9.5	8	16.5	14	12	8	12	4	12
		S30L2	30	23	2	10	270	18.5	12.5	10	8	16.5	14	12.5	8	12	4	12
		S35L2	35	23	3	10	300	19.5	13	10	8	17	14.5	13	8	12	4	12
	HEAVY	S30H2	30	29	3	15	415	23	15.5	11.5	9	20	17	14.5	8	16	4	6
		S35H2	35	29	4	15	475	25	16.5	12	9.5	21	17.5	15.5	8	16	4	6
WIND ZONE 4	LIGHT	S26L1	26	22	2	8	190	16	11.5	8.5	8	15	12.5	11	8	12	4	12
		S30L1	30	22	2	8	205	16.5	11.5	9	8	15	13	11.5	8	12	4	12
		S35L1	35	22	3	8	230	17	12	9	8	15.5	13.5	11.5	8	12	4	12
	HEAVY	S30H1	30	25	3	12	320	20.5	13.5	10.5	8	18	15	13.5	8	16	4	6
		S35H1	35	25	4	12	350	21	14	10.5	8.5	18.5	15.5	13.5	8	16	4	6
WIND ZONE 5	LIGHT	S26L2	26	23	2	10	245	18	12.5	9.5	8	16.5	14	12	8	12	4	12
		S30L2	30	23	2	10	270	18.5	12.5	10	8	16.5	14	12.5	8	12	4	12
		S35L2	35	23	3	10	300	19.5	13	10	8	17	14.5	13	8	12	4	12
	HEAVY	S30H2	30	29	3	15	415	23	15.5	11.5	9	20	17	14.5	8	16	4	6
		S35H2	35	29	4	15	475	25	16.5	12	9.5	21	17.5	15.5	8	16	4	6

48″ Dia. Foundations Concrete Volume (cubic yards) = (0.465) x Drilled Pier Length

General Notes:

1. Values shown in the "Reactions at the Pole Base" column represent the minimum acceptable capacity allowed for design using a design CSR of 1.00.
2. Use chairs and spacers to maintain proper clearance.
3. For foundation, always use air-entrain concrete mix.

Foundation Selection:

1. Perform a standard penetration test at each proposed foundation site to determine "N" value.
2. Select the appropriate wind zone from M 1 drawing.
3. Select the soil type (Clay or Sand) that best describes the soil characteristics.
4. Get the appropriate standard pole case number from the plans or from the Engineer.
5. Select the appropriate column under "Standard Foundations" based on soil type and "N" value. Select the appropriate row based on the pole load case.
6. The foundation depth is the value shown in the "Standard Foundations" category where the column and the row intersect.
7. Use Construction Procedures and Design Methods prescribed by FHWA-NHI-10-016 for Reference Drilled Shafts.

Standard Strain Pole Foundation–All Soil Condition

Prepared in the Offices of: Transportation Mobility and Planning Division, Department of Transportation, Signal Design Section
750 N.Greenfield Pkwy.,Garner,NC 27529

SCALE: 0 NA NONE

Standard Strain Pole Foundation for All Soil Conditions

PLAN DATE:	OCTOBER 2017	DESIGNED BY:	C.B. COGDELL
PREPARED BY:	N. BITTING	REVIEWED BY:	D.C. SARKAR

REVISIONS	INIT.	DATE
Changed "Foundation Depth" to "Drilled Pier Length"in Conc. Eqn.	N.B.	7/12/2015

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NORTH CAROLINA PROFESSIONAL SEAL 028094 ENGINEER DEBESH C. SARKAR

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10/11/2017
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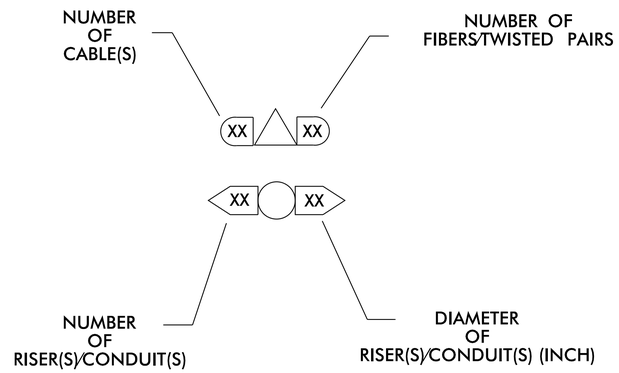
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-1

1. INSTALL CATEGORY 6 CABLE
2. INSTALL REA, PE – 38, (FIGURE – 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
3. INSTALL OUTDOOR RATED ETHERNET CABLE
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 HEAT SHRINK TUBING
13. INSTALL HEAT SHRINK TUBING RETROFIT KIT
14. INSTALL HIGH DENSITY 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(S)
20. INSTALL CABLE(S) IN NEW RISER(S)
21. INSTALL CABLE(S) IN EXISTING CONDUIT STUBOUTS
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. TERMINATE COMMUNICATIONS CABLE ON EXISTING TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
27. INSTALL NEW ETHERNET EDGE SWITCH IN CABINET
28. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
29. INSTALL UNDERGROUND SPLICE ENCLOSURE
30. INSTALL 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. REMOVE EXISTING CABINET FOUNDATION
36. INSTALL CCTV CAMERA ASSEMBLY
37. INSTALL CCTV CAMERA WOOD POLE
38. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
39. INSTALL JUNCTION BOX
40. INSTALL OVERSIZED JUNCTION BOX
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
48. BACKPULL EXISTING COMMUNICATIONS CABLE
49A. REMOVE EXISTING COMMUNICATIONS AND MESSENGER CABLE
49B. REMOVE 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 20 FEET OF COMMUNICATIONS CABLE
54. LASH CABLE(S) TO EXISTING SIGNAL/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. BOND RISER AND MESSENGER TO POLE GROUND
60. BOND TRACER WIRE TO EQUIPMENT GROUND BUS
61. REMOVE CCTV CAMERA ASSEMBLY

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

- XXX / YYY DISTANCE ABOVE (IN) REFERENCE POINT
- YYY / XXX REFERENCE POINT DISTANCE BELOW (IN)

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Prepared for the Offices of:
NC Department of Transportation
750 N.Greenfield Pkwy.Garner,NC 27529

Gillis Hill Road
Widening
Signal System
Construction Notes

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

Steven G. Haynie 1/5/2022
SIGNATURE DATE

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PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-2

LEGEND

Symbol	Description
FO — FO	NEW FIBER OPTIC COMMUNICATIONS CABLE
EXI	EXISTING COMMUNICATIONS CABLE
REM	EXISTING COMMUNICATIONS CABLE TO BE REMOVED
	NEW AND EXISTING AERIAL GUY ASSEMBLY
	NEW CONDUIT
	EXISTING CONDUIT
DD — DD	NEW DIRECTIONAL DRILLED CONDUIT
	NEW WOOD POLE
	EXISTING WOOD POLE
	NEW METAL POLE
	EXISTING METAL POLE
	NEW CCTV CAMERA ASSEMBLY
	NEW CONTROLLER AND CABINET
	EXISTING CONTROLLER AND CABINET
S	NEW AERIAL SPLICE ENCLOSURE
S	EXISTING AERIAL SPLICE ENCLOSURE
	NEW CABLE STORAGE GUIDES (SNOW–SHOES)
	EXISTING CABLE STORAGE GUIDES (SNOW–SHOES)
	NEW STANDARD GUY ASSEMBLY
	EXISTING STANDARD GUY ASSEMBLY
	NEW SIDEWALK GUY ASSEMBLY
	EXISTING SIDEWALK GUY ASSEMBLY
	NEW JUNCTION BOX
	EXISTING JUNCTION BOX
	NEW OVER–SIZED OR SPECIAL–SIZED JUNCTION BOX
	EXISTING OVER–SIZED OR SPECIAL–SIZED JUNCTION BOX
06–XXXX	SIGNAL INVENTORY NUMBER
EOP	EDGE OF PAVEMENT
EOL	EDGE OF LANE
BOC	BACK OF CURB
FOC	FACE OF CURB
	NEW SYSTEM DETECTOR
	EXISTING SYSTEM DETECTOR

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" CONTRACT SERVICES UNIT – N.C. DEPARTMENT OF TRANSPORTATION – RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1715.01	UNDERGROUND CONDUIT – TRENCHING
1716.01	JUNCTION BOXES
1720.01	WOOD POLES
1721.01	GUY ASSEMBLIES
1730.01	FIBER OPTIC CABLE – SPARE CABLE STORAGE
1730.02	FIBER OPTIC CABLE – CONDUIT INSTALLATION
1733.01	DELINEATOR MARKERS
1740.01	METAL POLES

ABBREVIATIONS

AGUY	Aerial Guy
ARLT	Area Light
BS	Backside Attachment
DL	Drip Loop
DRP	Drop
ELEC	Electric
EXI	Existing Communications Cable
FO	Fiber Optic
FS	Front Side Attachment
IMC	Intermediate Metallic Conduit
JUP	Joint Use Pole
LIC	Lead–In Cable (Detector)
LRMEC	Lumbee River Electric Membership Corporation
MSGR	Messenger
NCDOT	North Carolina Department of Transportation
NEUT	Neutral
OH	Overhead
OWS	Open Wire Secondary
PWC	Fayetteville Public Works Commission
PWR	Power
RSR	Riser
SAME	Same Elevation/Attachment Height
SEC	Secondary Power
SGRSR	Signal Riser
SIG	Signal Span
SP	Signal Pole
SO	Standoff
STLT	Streetlight
SVRSR	Service Riser
TEL	Telephone
TFMR	Transformer
TOP	Top of Pole or Top Attachment
TRI	Triplex
UG	Underground
UNK	Unknown
X ANY	Crossing Line, where "Any" is the abbreviation for the overhead line that is crossing existing/proposed cable route

GENERAL NOTES

1. ACTUAL CONDITIONS IN THE FIELD AT THE TIME OF CONSTRUCTION MAY BE DIFFERENT FROM THOSE SHOWN IN THE PLANS.
2. THE FIELD LOCATION OF ANY ITEM TO BE INSTALLED AS PART OF THIS PROJECT SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
3. NEW TRAFFIC SIGNAL CONTROLLER CABINETS ARE SPECIFIED ON THE SIGNAL PLANS.
4. BURIED UTILITIES AND STRUCTURES: PIPELINES, STORM SEWERS, POWER CABLES, UTILITY CABLES, AND OTHER PUBLICLY AND PRIVATELY OWNED UNDERGROUND OBSTRUCTIONS EXIST ADJACENT TO AND WITHIN THE STREET RIGHT–OF–WAY WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. INVESTIGATE THE LOCATION OF SUCH BURIED UTILITIES AND STRUCTURES WITH PUBLIC AND PRIVATE UTILITIES.
5. THE PLAN SHEETS HAVE BEEN DEVELOPED AS CLOSE TO SCALE AS PRACTICAL. HOWEVER, ACTUAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR APPLYING THE WORK SHOWN.
6. THE ROADWAY STANDARD DRAWINGS AND THE DETAILS PROVIDED IN THIS PLAN SHEET SHALL ALL APPLY TO ALL WORK REQUIRED IN THIS PROJECT, WHETHER A PARTICULAR DETAIL IS SPECIFICALLY REFERENCED TO A WORK ITEM OR NOT. IN THE EVENT OF A CONFLICT, THE ORDER OF PRECEDENCE SHALL BE: THE PROJECT SPECIAL PROVISIONS, THE PLAN SET – INCLUDING DETAILS – SUPPLEMENTAL SPECIFICATIONS, THE STANDARD SPECIFICATIONS, AND THEN THE ROADWAY STANDARD DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING THE PROPER DETAILS.
7. ANY OF THE CONTRACTOR'S WORK ACTIVITIES WHICH IMPACT ANY UTILITY FACILITY SHALL BE COORDINATED WITH THE OWNER OF THE AFFECTED UTILITIES. THE CONTRACTOR SHALL FOLLOW ANY AND ALL WORK PROCEDURES THE UTILITY OWNERS MAY REQUIRE.
8. ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED TO BE PERFORMED BY OTHERS.

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Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section
750 N.Greenfield Pkwy.Garner.NC 27529

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Gillis Hill Road Widening Signal System/ General Notes/Abbreviations/Std. Dwgs.

Division 6 | Cumberland County | Fayetteville

PLAN DATE: January 2022	REVIEWED BY: S.G. Haynie
PREPARED BY: O. Drobny	REVIEWED BY: V. Kaiser

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

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1/5/2022 — DATE

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PROJECT REFERENCE NO.	SHEET NO.
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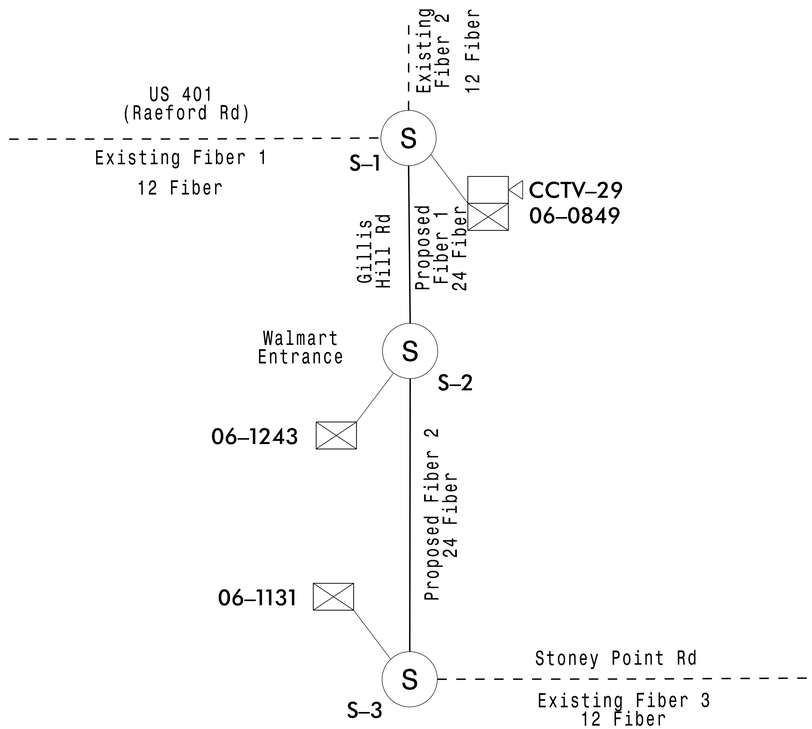
FIBER–OPTIC SCHEMATIC



LEGEND

S	CABLE–TO–CABLE SPLICE
S	12 FIBER DROP SPLICE TO SIGNAL CABINET
S	12 FIBER DROP SPLICE TO SIGNAL CABINET/CCTV
————	NEW FIBER–OPTIC CABLE
– – – – –	EXISTING FIBER–OPTIC CABLE
S–###	SPLICE NUMBER
06–####	STATE SIGNAL INVENTORY NUMBER

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Intelligent Transportation Systems Section
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Gillis Hill Road
Widening
Fiber-Optic Schematic

Division 6 Cumberland County Fayetteville

PLAN DATE: January 2022 REVIEWED BY: S.G. Haynie
PREPARED BY: O. Drobny REVIEWED BY: V. Kaiser

SCALE: N/A

REVISIONS	INIT.	DATE

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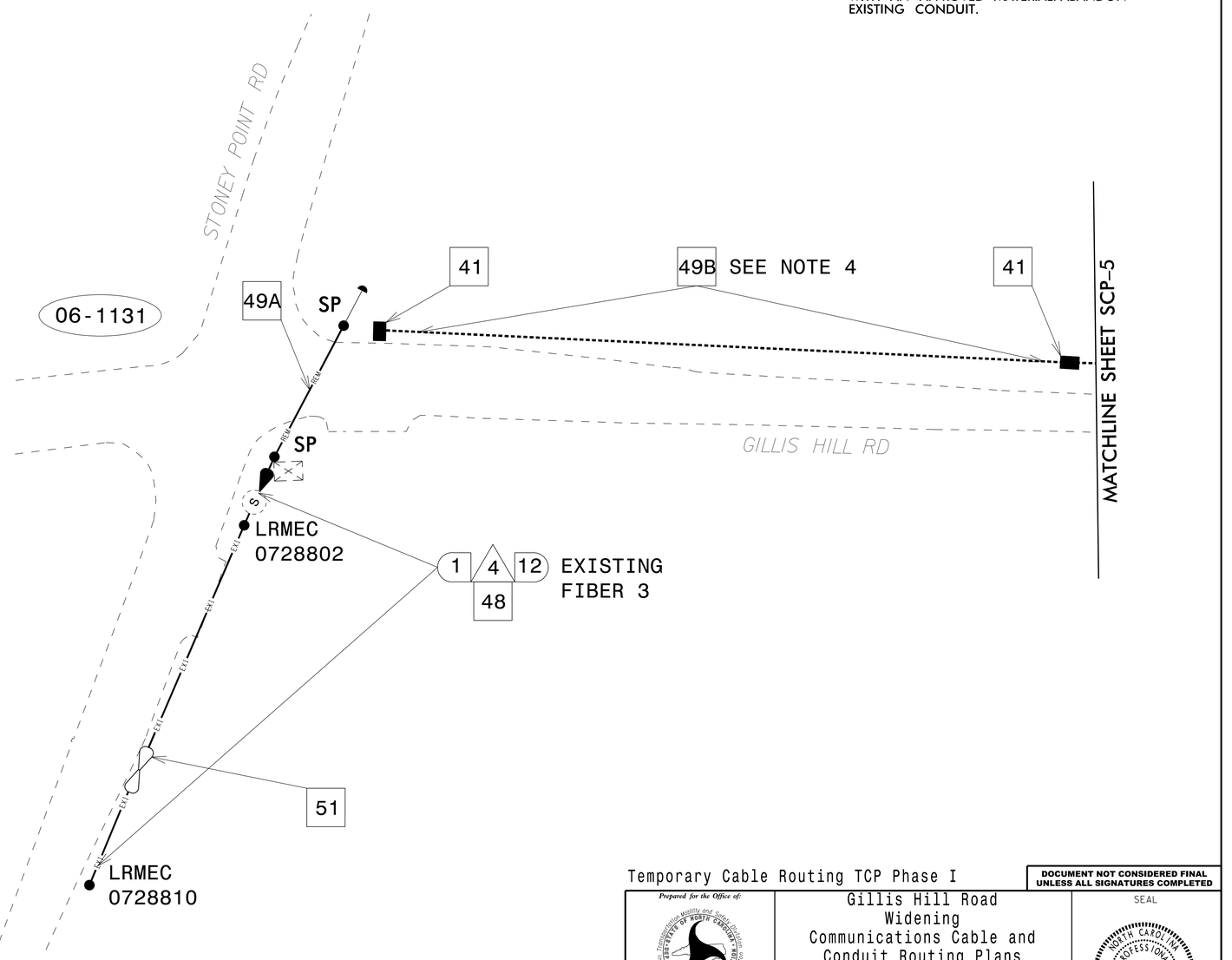
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-4

NOTES

1. 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.
2. REMOVE EXISTING FIBER 3 FROM THE EXISTING SPLICE ENCLOSURE.
3. CAP EXISTING FIBER 3 AND BACKPULL TO, AND STORE ON, NEW FIBER STORAGE RACKS.
4. AFTER REMOVAL OF JUNCTION BOXES, BACKFILL WITH AN APPROVED MATERIAL. ABANDON EXISTING CONDUIT.



Temporary Cable Routing TCP Phase I

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Integrated Mobility Division
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SCALE 0 50 1"=50'

Gillis Hill Road
Widening
Communications Cable and
Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

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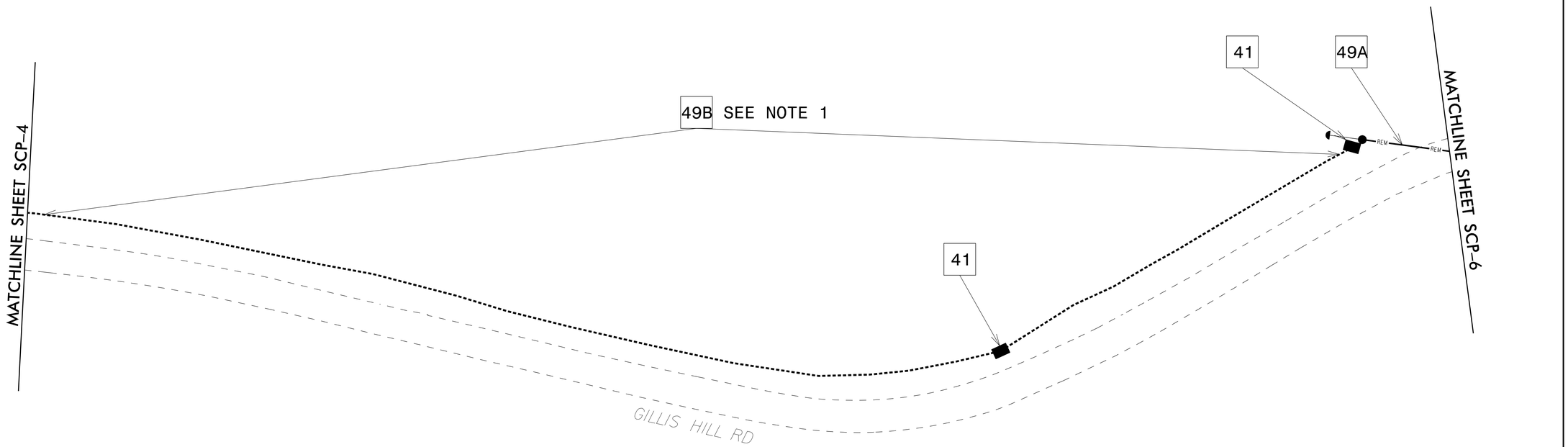
NOTES

1. AFTER REMOVAL OF JUNCTION BOXES, BACKFILL WITH AN APPROVED MATERIAL. ABANDON EXISTING CONDUIT.



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Integrated Mobility and Safety Division
Intelligent Transportation Systems Section
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Gillis Hill Road Widening Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Hoynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

REVISIONS	INIT.	DATE

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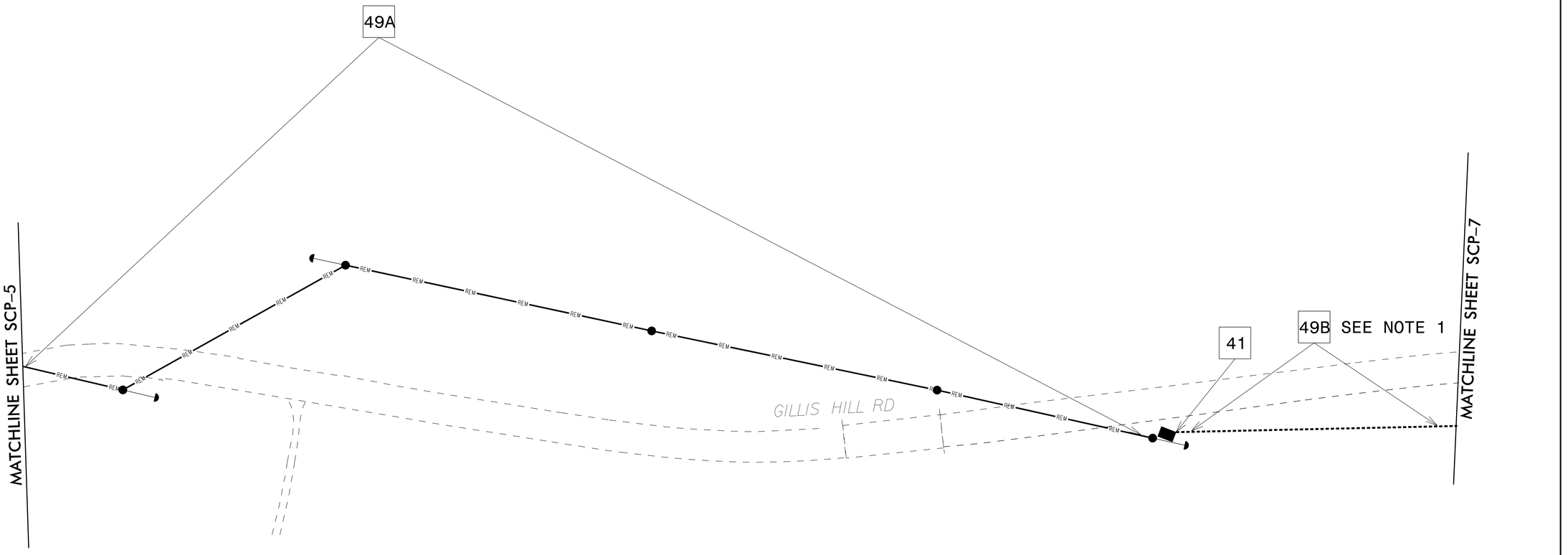
U-5798A	SCP-6

NOTES

1. AFTER REMOVAL OF JUNCTION BOXES, BACKFILL WITH AN APPROVED MATERIAL. ABANDON EXISTING CONDUIT.



Temporary Cable Routing TCP Phase I

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Gillis Hill Road Widening Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

SCALE: 0 50 — 1"=50'

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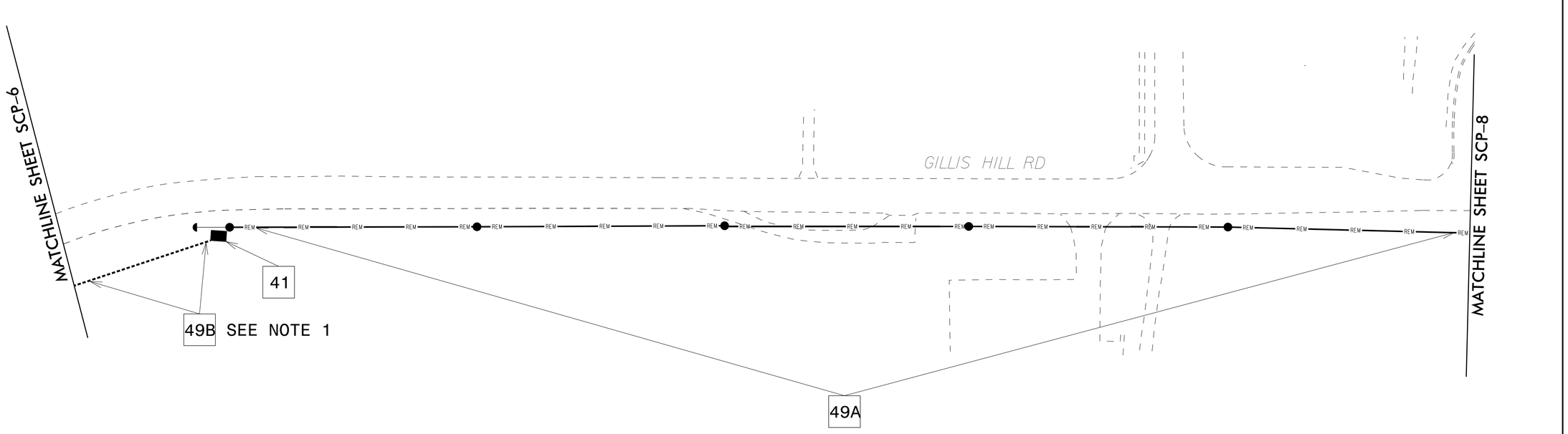
NOTES

1. AFTER REMOVAL OF JUNCTION BOXES, BACKFILL WITH AN APPROVED MATERIAL. ABANDON EXISTING CONDUIT.



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Gillis Hill Road Widening
Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

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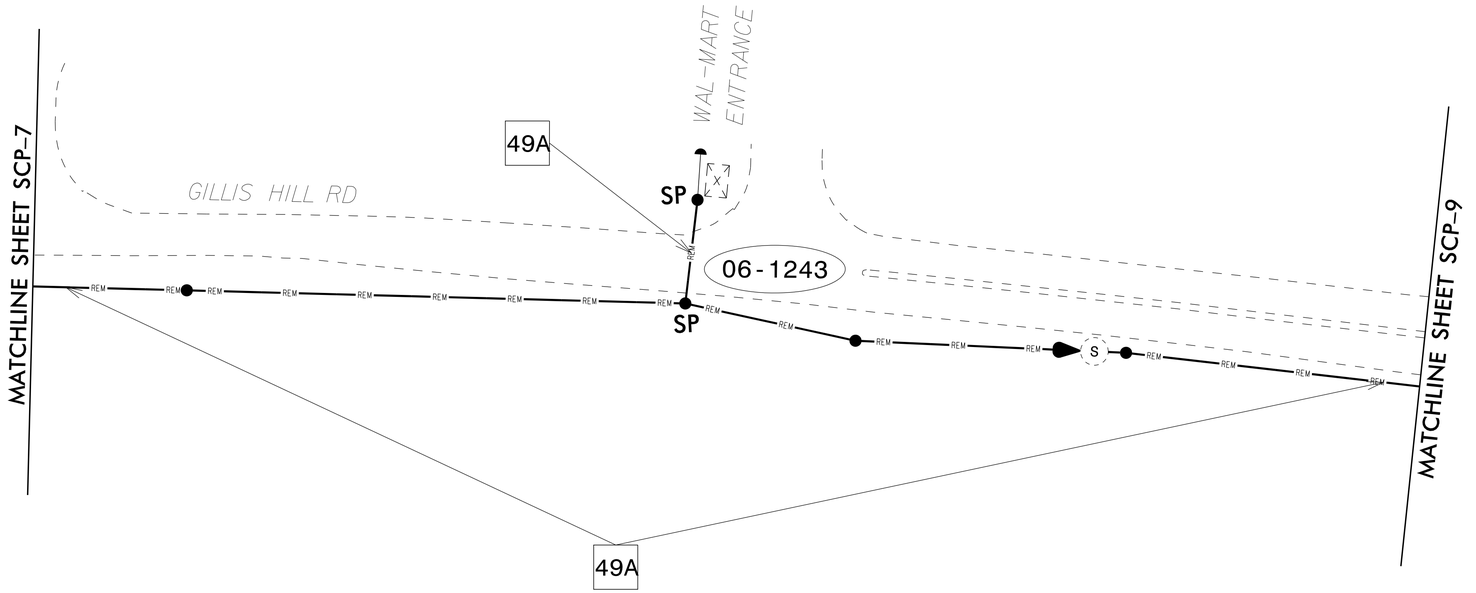

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0 50
1"=50'

Gillis Hill Road Widening Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

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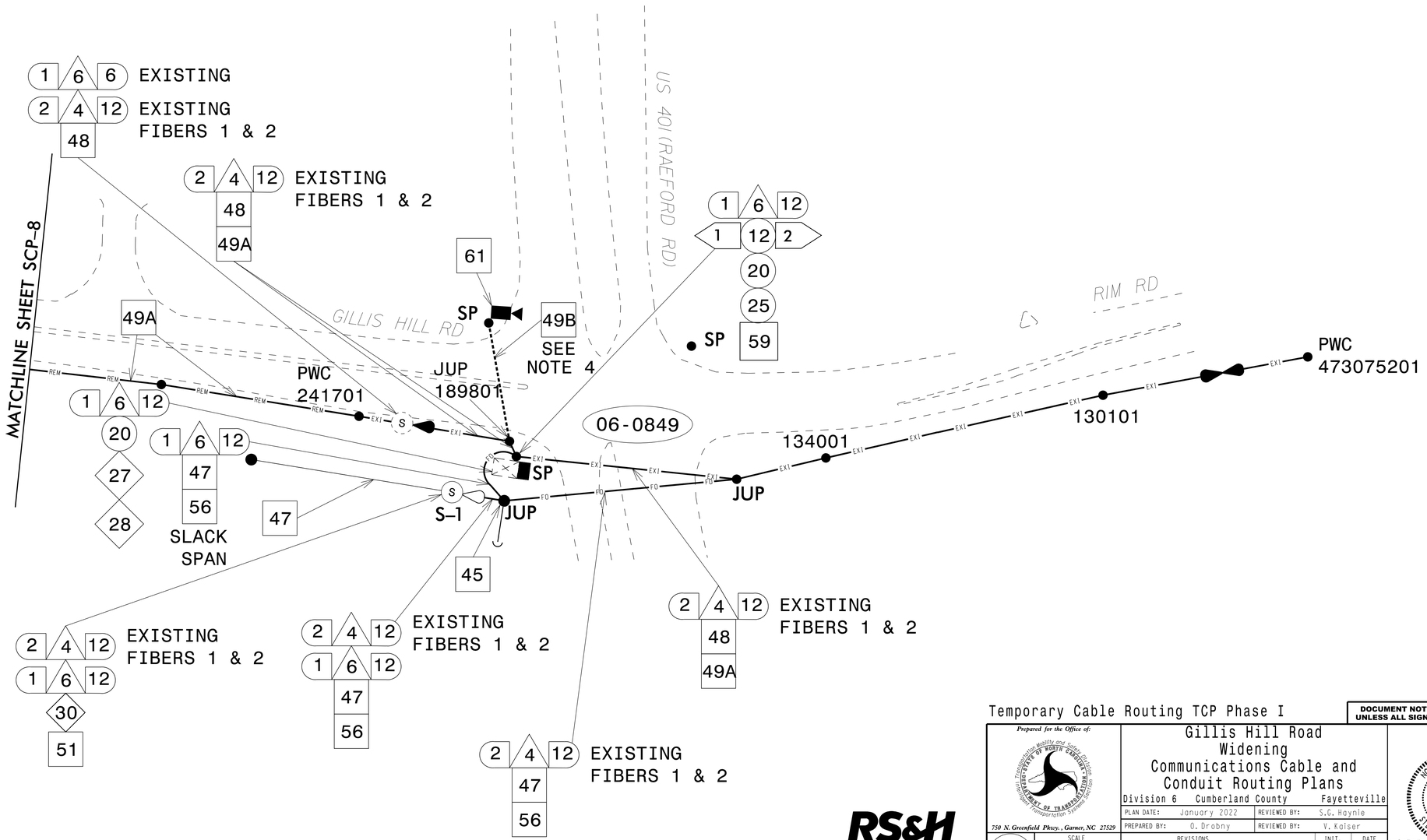
NOTES

1. 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.
2. BACK PULL EXISTING FIBERS 1 AND 2 ACROSS US 401 TO THE NORTHEAST CORNER OF THE INTERSECTION. REINSTALL FIBERS 1 AND 2 ACROSS US 401 AND SPLICE AS INDICATED ON SCP-17.
3. REMOVE CCTV CAMERA ASSEMBLY ON EXISTING SOUTHWEST SIGNAL POLE. RETURN TO DIVISION 6 TRAFFIC SERVICES OFFICE.
4. ABANDON EXISTING CONDUIT.



Temporary Cable Routing TCP Phase I

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Gillis Hill Road Widening
Communications Cable and Conduit Routing Plans
Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

SCALE 0 50 1"=50'

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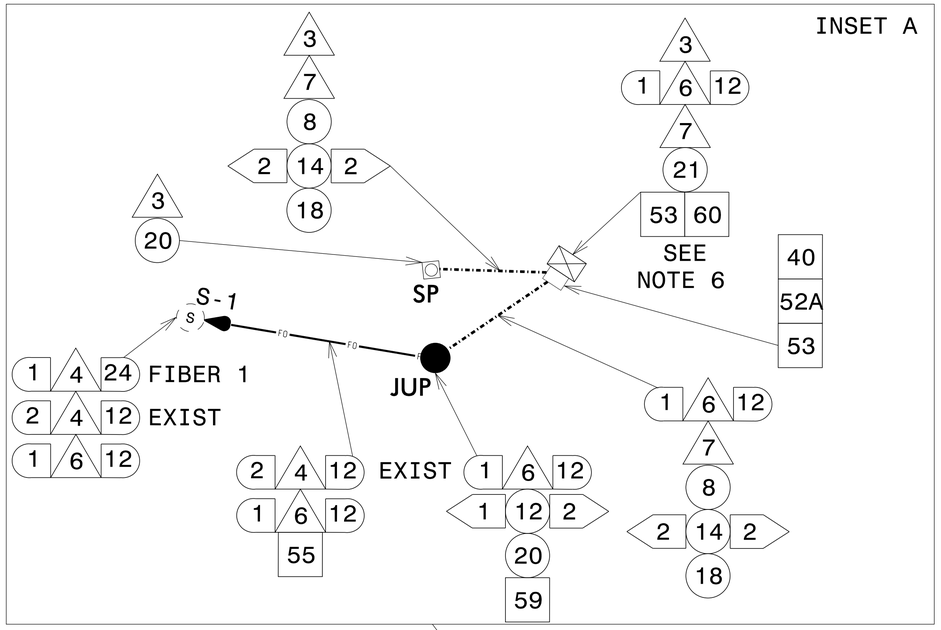

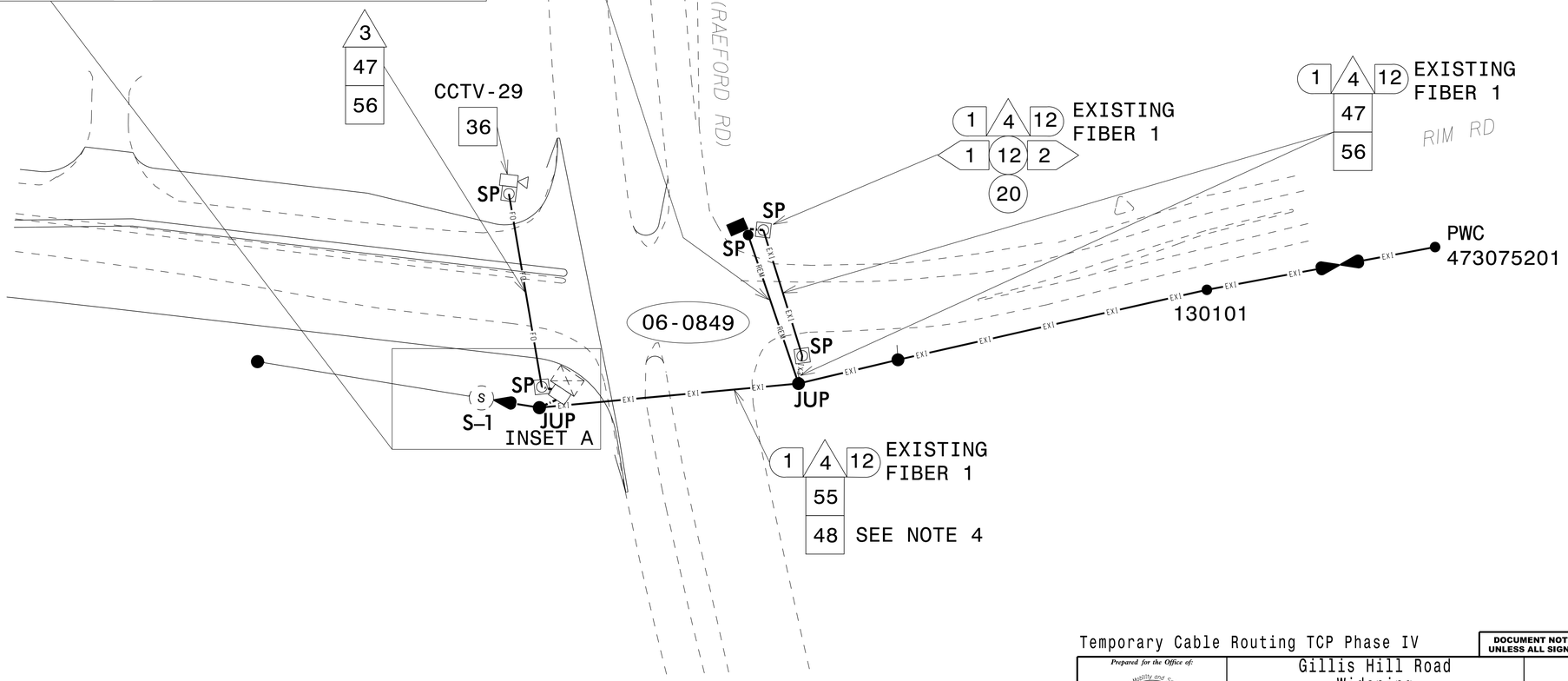

NOTES

1. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433–1660 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 ENGINEER 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. ALL NCDOT ATTACHMENT POINTS ARE 40" BELOW POWER, FRONT SIDE OF POLE, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL COMPLY WITH NESC GUIDELINES FOR INSTALLING NCDOT CABLES ON JOINT–USE POLES.
4. BACK PULL EXISTING FIBER 1 ACROSS US 401 AND RIM ROAD TO NORTHWEST CORNER, DOWN RISER ON WOOD SIGNAL POLE TO EXISTING OVERSIZED PULL BOX. REINSTALL EXISTING FIBER 1 FROM EXISTING OVERSIZED PULL BOX TO EXISTING SPLICE ENCLOSURE S–1 AND SPLICE AS INDICATED ON SCP–18.
5. LOCATE 4" GAS LINE IN SOUTHEAST CORNER BEFORE INSTALLING CONDUIT. HAND DIG IN VICINITY OF GAS LINE.
6. TRANSFER EXISTING INTERCONNECT CENTER AND ETHERNET SWITCH INSTALLED IN TCP PHASE I TO FINAL CABINET LOCATION IN TCP PHASE IV.

Temporary Cable Routing TCP Phase IV

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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility and Safety Division
Intelligent Transportation Systems Section
750 N. Greenfield Pkwy., Garner, NC 27529

Gillis Hill Road Widening
Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

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Steven G. Haynie 1/5/2022
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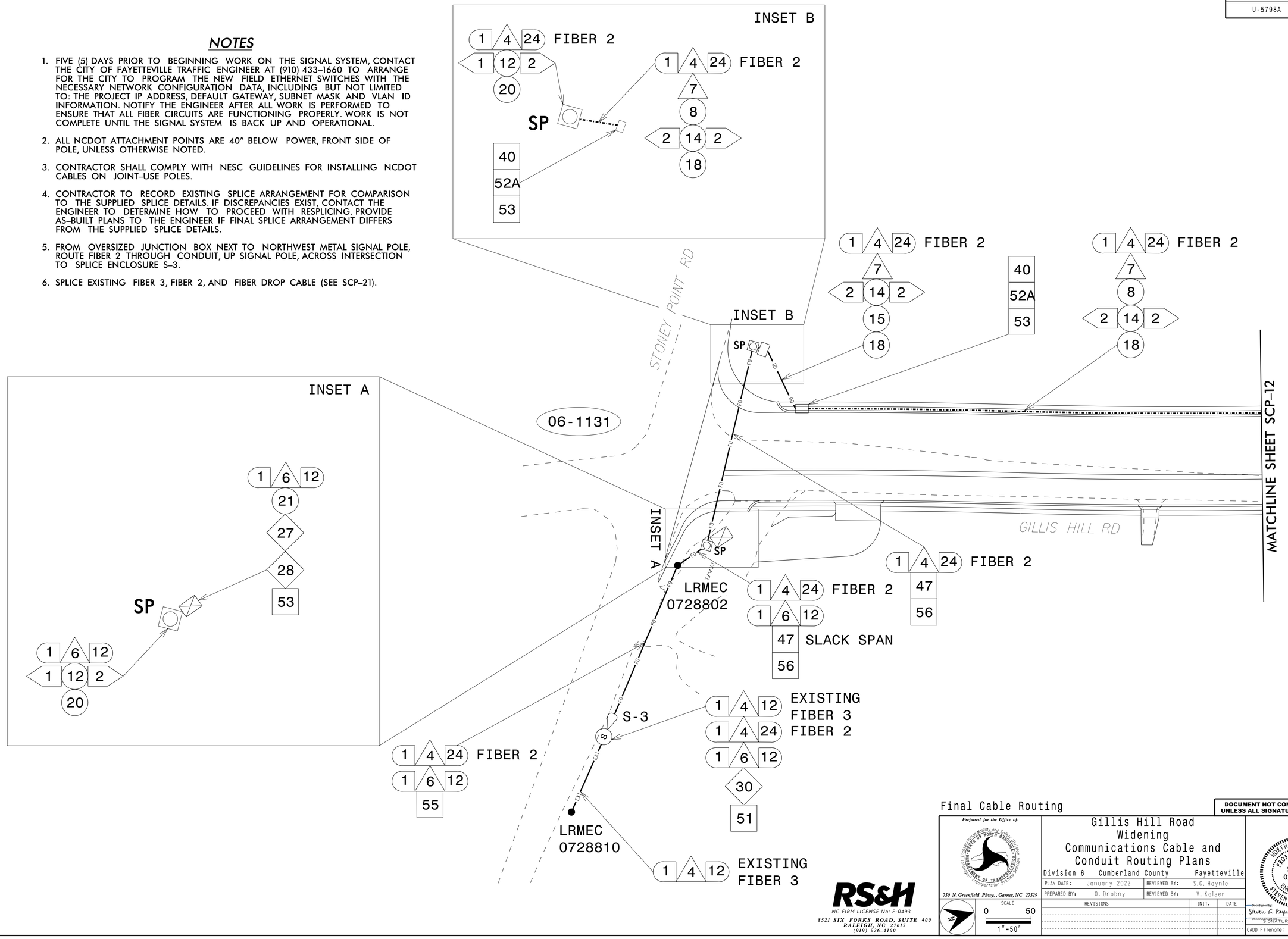
U-5798A	SCP-11

NOTES

1. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433-1660 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 ENGINEER 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. ALL NCDOT ATTACHMENT POINTS ARE 40" BELOW POWER, FRONT SIDE OF POLE, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL COMPLY WITH NESC GUIDELINES FOR INSTALLING NCDOT CABLES ON JOINT-USE POLES.
4. 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.
5. FROM OVERSIZED JUNCTION BOX NEXT TO NORTHWEST METAL SIGNAL POLE, ROUTE FIBER 2 THROUGH CONDUIT, UP SIGNAL POLE, ACROSS INTERSECTION TO SPLICE ENCLOSURE S-3.
6. SPLICE EXISTING FIBER 3, FIBER 2, AND FIBER DROP CABLE (SEE SCP-21).



Final Cable Routing

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Office of:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION — Transportation Mobility and Safety Division

750 N. Greenfield Pkwy., Garner, NC 27529

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

Gillis Hill Road Widening
Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

SCALE: 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

Designed by Steven G. Haynie 1/5/2022
SIGNATURE DATE

CADD Filename: U5798A_sig_scp_11.dgn

1/5/2022
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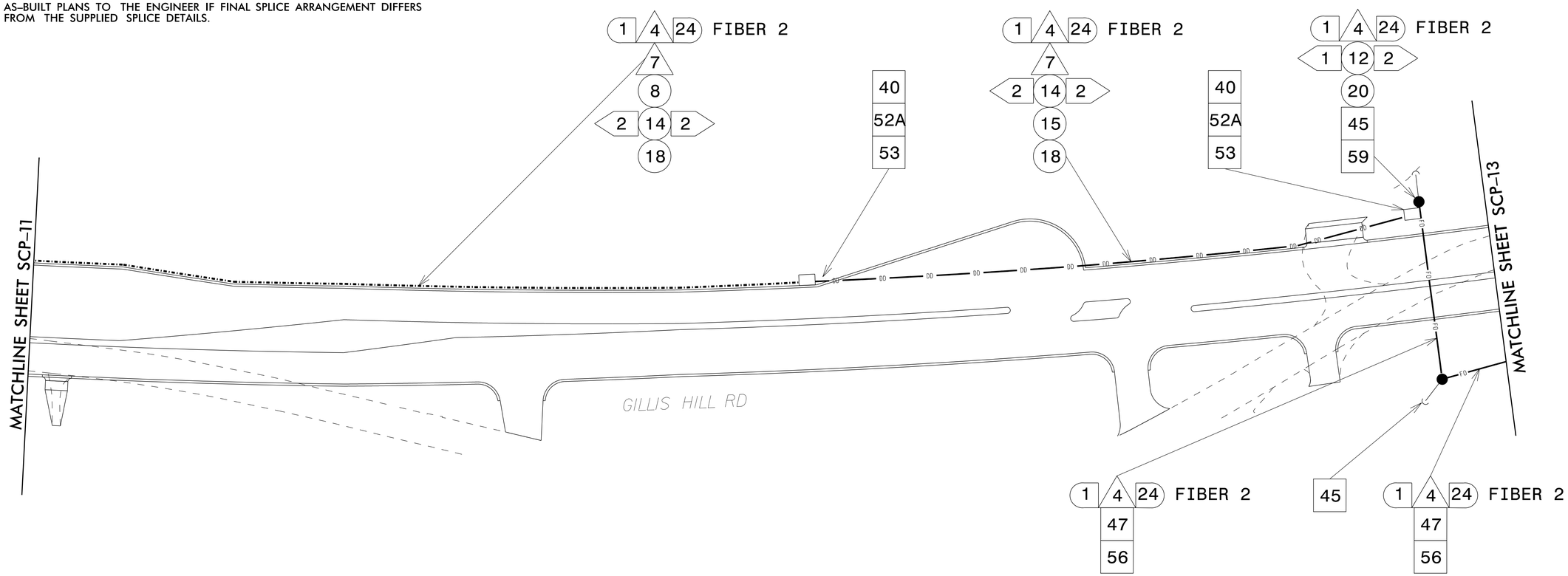
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-12

NOTES

1. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433-1660 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 ENGINEER 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. ALL NCDOT ATTACHMENT POINTS ARE 40" BELOW POWER, FRONT SIDE OF POLE, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL COMPLY WITH NESC GUIDELINES FOR INSTALLING NCDOT CABLES ON JOINT-USE POLES.
4. 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.



Final Cable Routing

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Office of:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

750 N. Greenfield Pkwy., Garner, NC 27529

Gillis Hill Road Widening Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

SCALE: 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G HAYNIE

Docusigned by: Steven G. Haynie 1/5/2022

DocuSigned by: SIGNATURE DATE

CADD Filename: U5798A_sig_scp_12.dgn

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

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PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-13

NOTES

1. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433–1660 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 ENGINEER 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.
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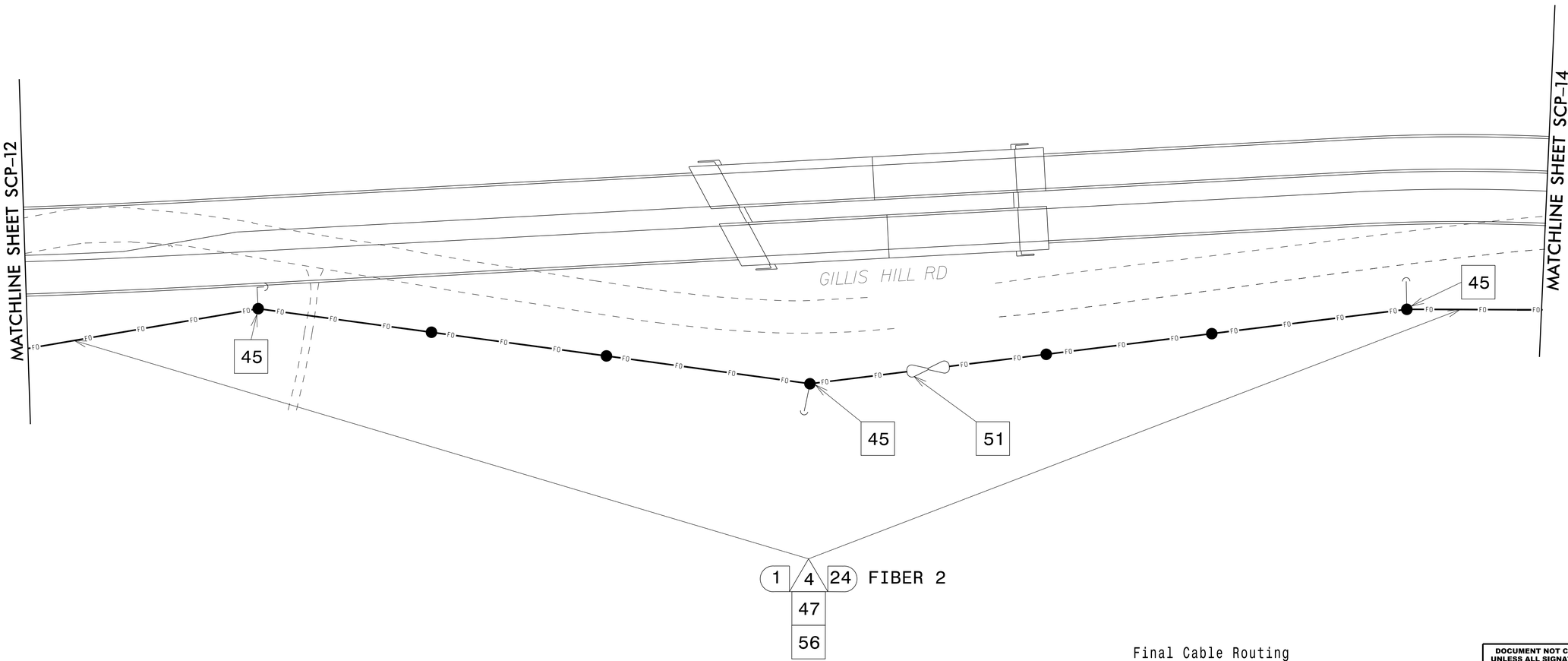

Final Cable Routing

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Office of:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION — Integrated Mobility and Safety Division — Intelligent Transportation Systems Section

750 N. Greenfield Pkwy., Garner, NC 27529

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

Gillis Hill Road Widening Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

SCALE: 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

Designed by Steven G. Haynie 1/5/2022
SIGNATURE DATE

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PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-14

NOTES

1. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433–1660 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 ENGINEER 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.
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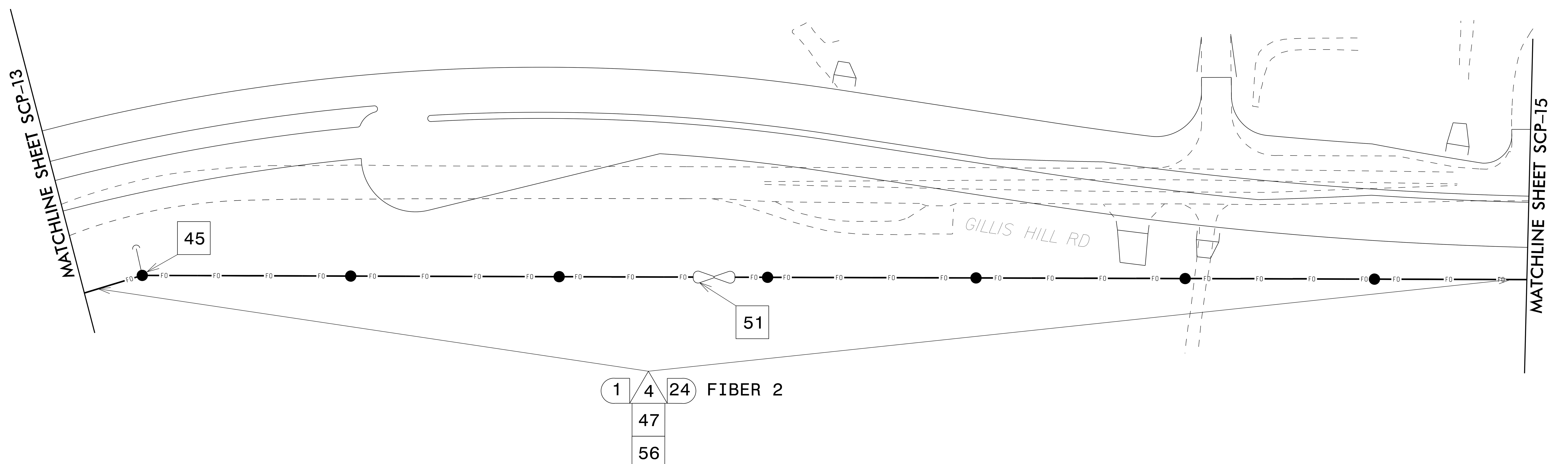

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Final Cable Routing

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Office of:
Transportation Mobility and Safety Division – State of North Carolina – Department of Transportation – Intelligent Transportation Systems Section
750 N. Greenfield Pkwy., Garner, NC 27529

Gillis Hill Road
Widening
Communications Cable and
Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

REVISIONS	INIT.	DATE

SCALE 0 50 1″=50′

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

DocuSigned by: Steven G. Haynie 1/5/2022
SIGNATURE DATE

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NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

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NOTES

1. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433-1660 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 ENGINEER 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.
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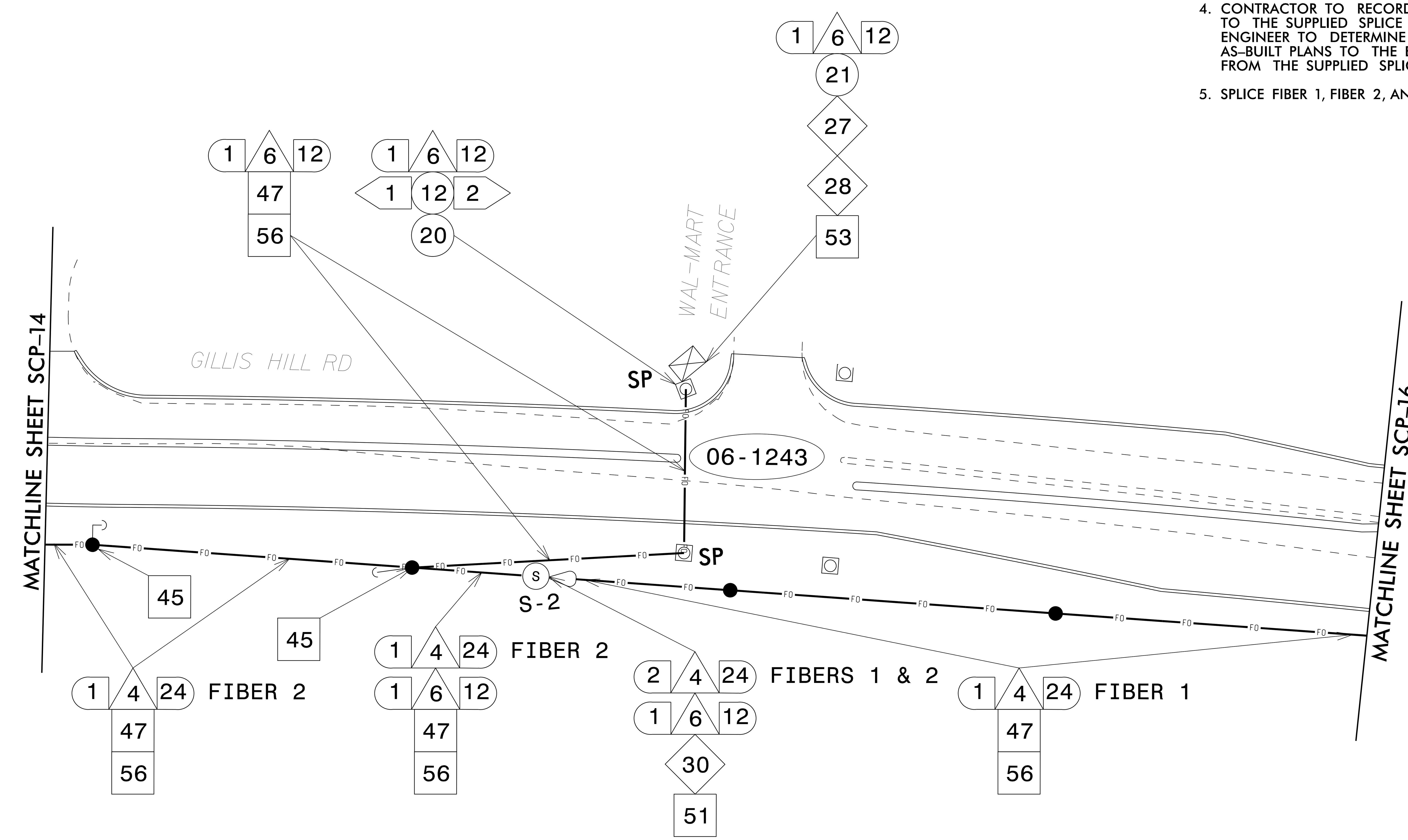
5. SPLICE FIBER 1, FIBER 2, AND FIBER DROP CABLE (SEE SCP-20).



Final Cable Routing

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Prepared for the Office of:

750 N. Greenfield Pkwy., Garner, NC 27529

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

SCALE 0 50
1"=50'

Gillis Hill Road Widening
Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

Steven G. Haynie 1/5/2022
SIGNATURE DATE

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PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-16

NOTES

1. FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433–1660 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 ENGINEER 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.
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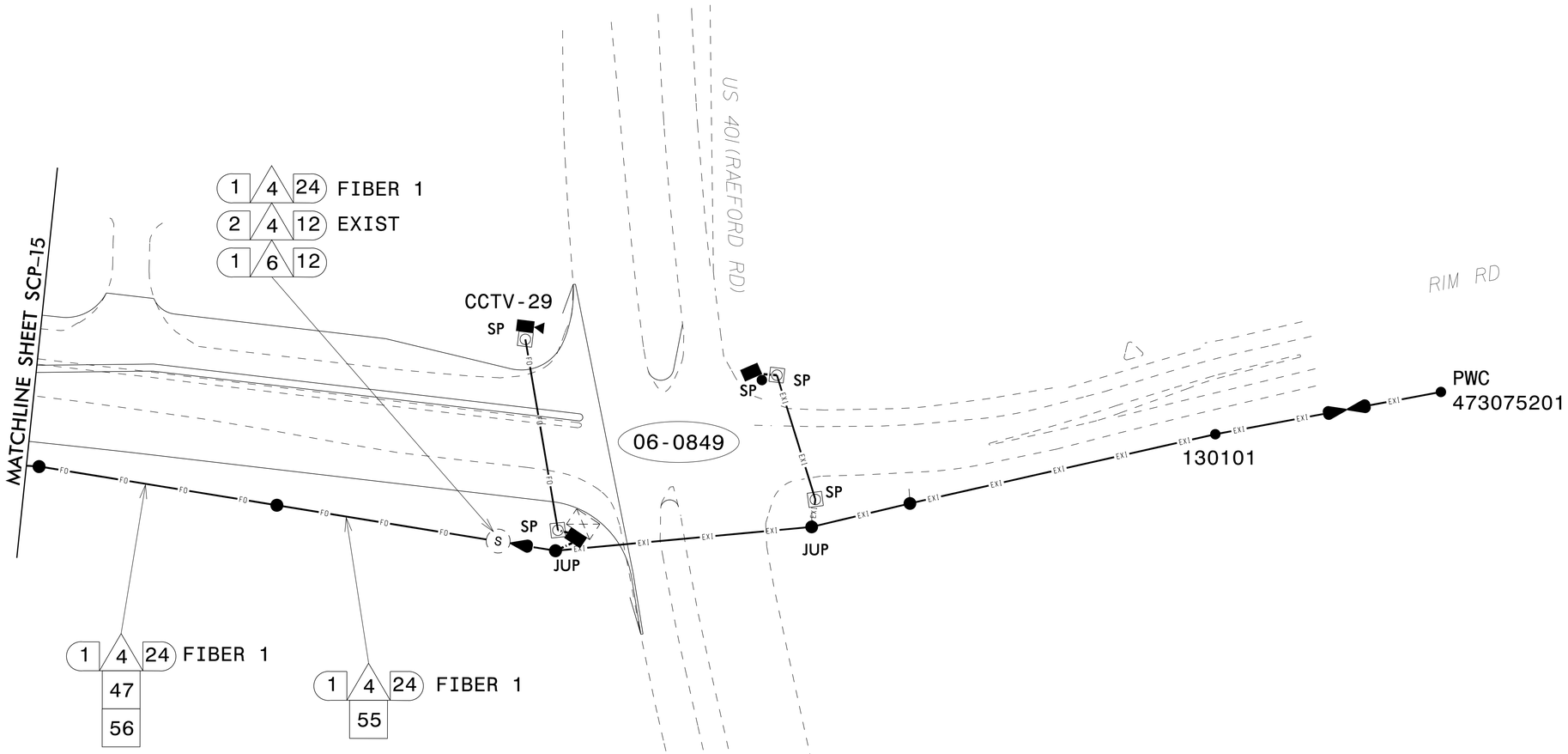
3. CONTRACTOR SHALL COMPLY WITH NESC GUIDELINES FOR INSTALLING NCDOT CABLES ON JOINT–USE POLES.
4. INSTALL FIBER 1 TO EXISTING SPLICE ENCLOSURE S–1 AND SPLICE AS INDICATED ON SCP–19.



Final Cable Routing

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Prepared for the Office of:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION — Transportation Mobility and Safety Division — Intelligent Transportation Systems Section

750 N. Greenfield Pkwy., Garner, NC 27529

Gillis Hill Road Widening Communications Cable and Conduit Routing Plans

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	S.G. Haynie
PREPARED BY:	O. Drobny	REVIEWED BY:	V. Kaiser

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

Designed by Steven G. Haynie 1/5/2022

SIGNATURE DATE

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NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

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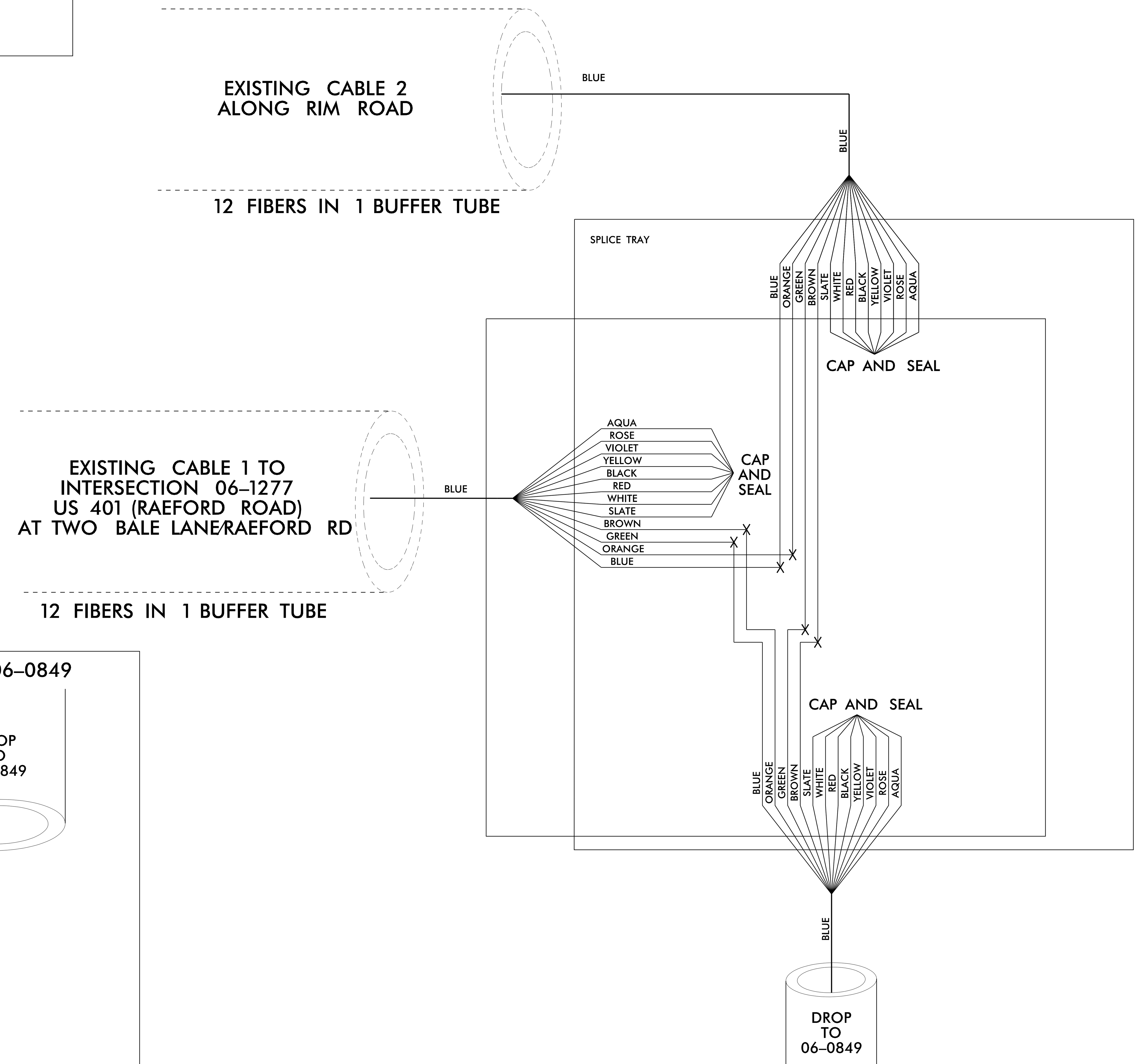
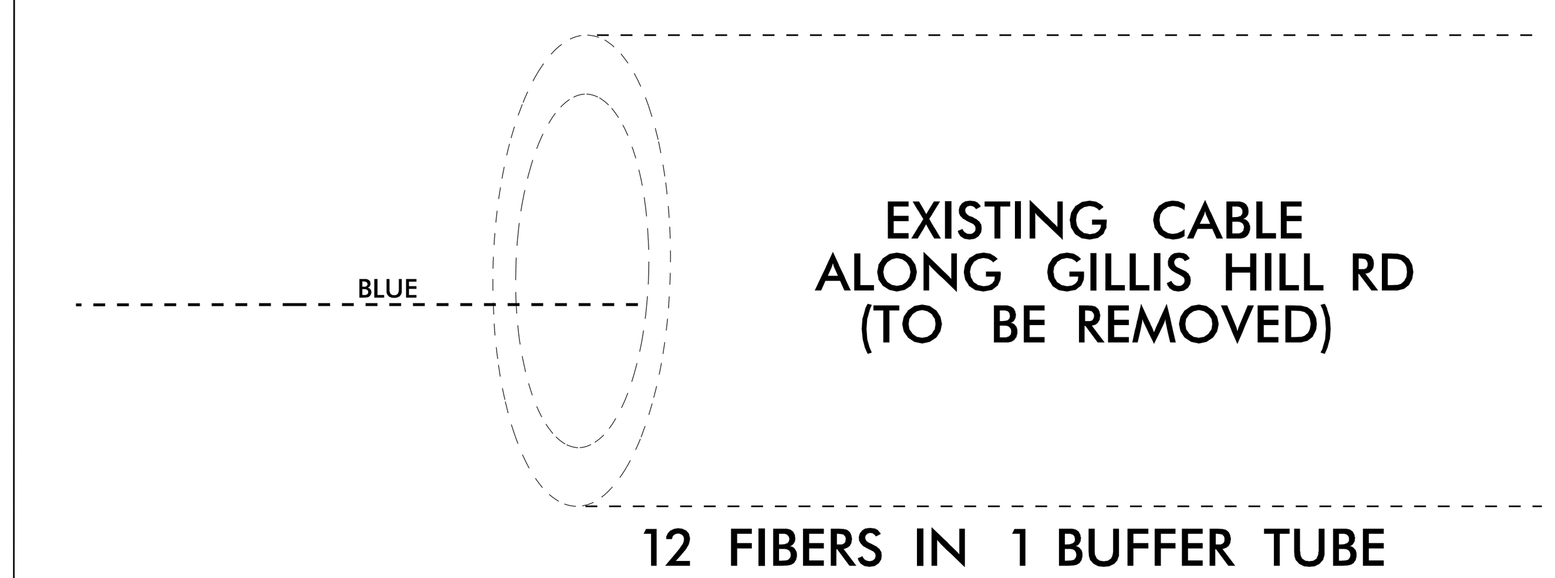
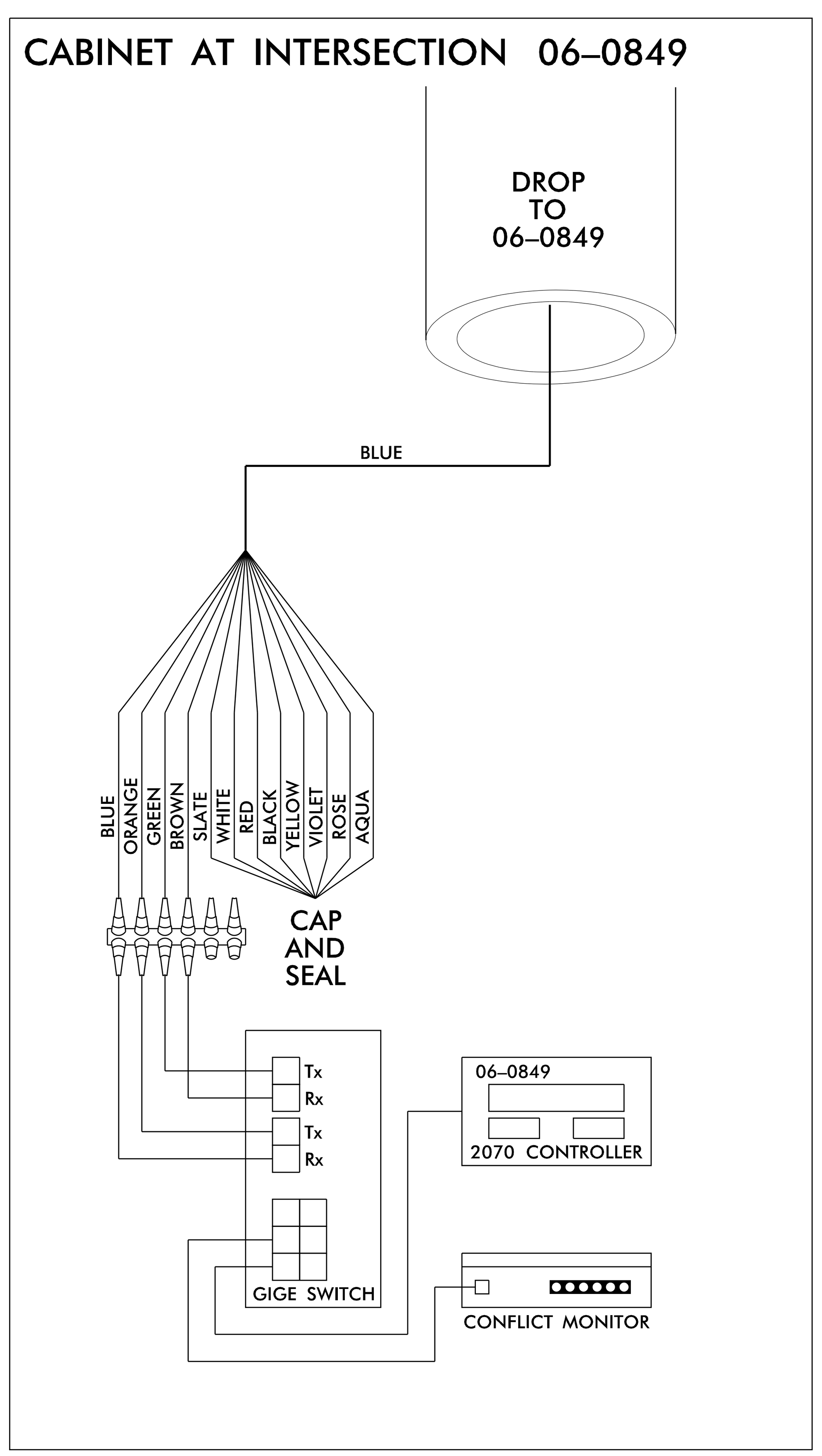
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-17

Fayetteville Signal System
Splice Enclosure S–1
US 401 (Raeford Rd) at
SR 1102 (Gillis Hill Rd)
Sig ID 06–0849







LEGEND

COLOR CODE
TIA/EIA 598–C

(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA

X – FUSION SPLICE
O – EXISTING SPLICE
☐ – EXPRESS INDIVIDUAL FIBER
EXPRESS — EXPRESS ENTIRE BUFFER TUBE
SPLICE — SPLICE ENTIRE BUFFER TUBE OR MAINTAIN IF EXISTING EXPRESSED

NOTES:

1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY – ACTUAL EQUIPMENT FORM MAY VARY.

2. NOTIFY THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433–1660 FIVE (5) DAYS PRIOR TO BEGINNING WORK ON SIGNAL SYSTEMS COMMUNICATIONS CABLE. NOTIFY THE ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. ALL WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS BACK UP AND OPERATIONAL.

3. 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.

4. TRANSCEIVER ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.

5. 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.

Temporary Splicing - TCP Phase I

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

Prepared for the Office of:
Transportation Mobility and Safety Division — State of North Carolina Department of Transportation — Intelligent Transportation Systems Section
750 N. Greenfield Pkwy., Garner, NC 27529

Gillis Hill Road
Widening
Fiber-Optic Splicing Details

Division 6 Cumberland County Fayetteville

PLAN DATE: January 2022	REVIEWED BY: V. Kaiser
PREPARED BY: S.G. Haynie	REVIEWED BY: ____________

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

DocuSigned by:
Steven G. Haynie 1/5/2022
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SIGNATURE DATE

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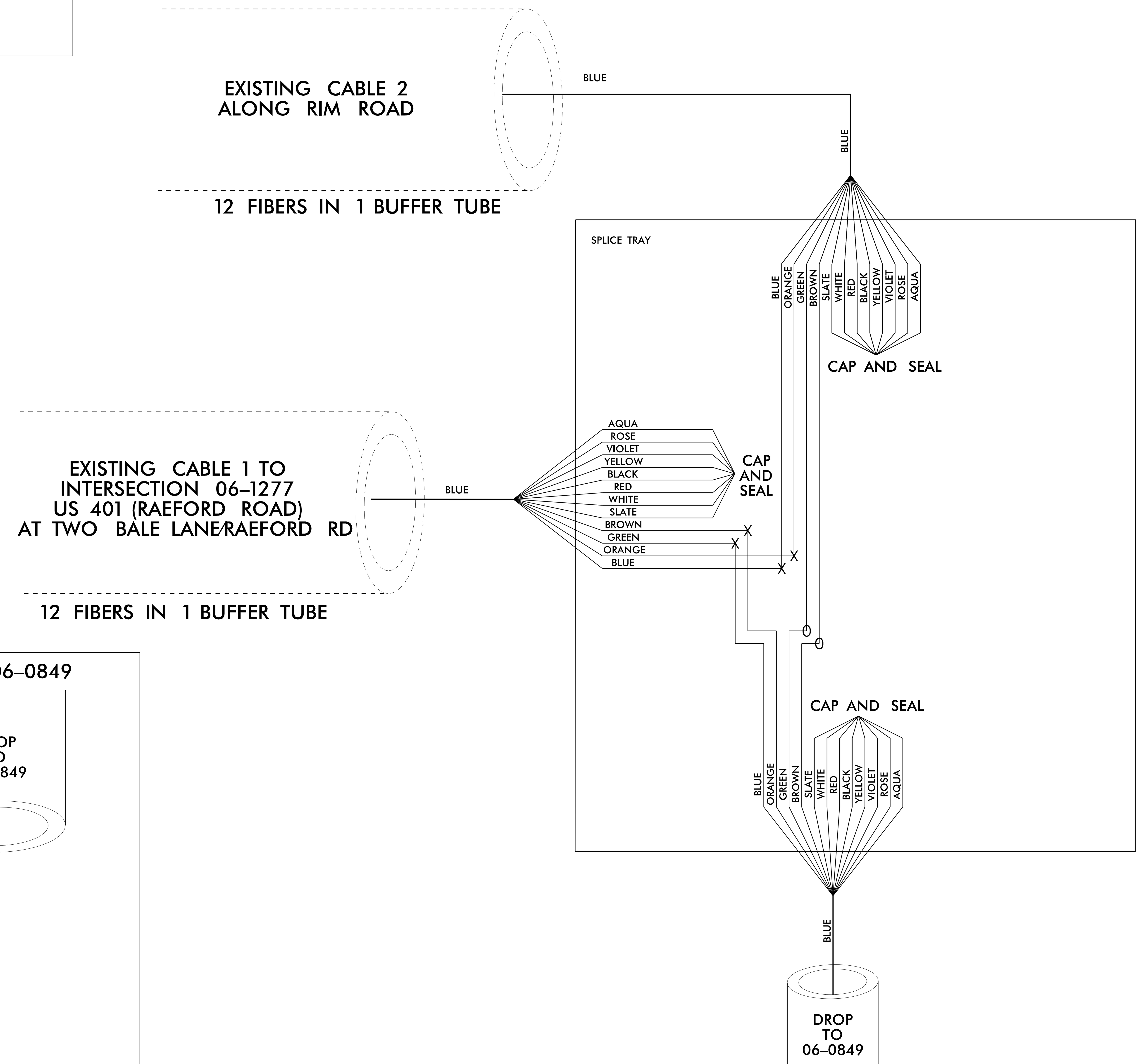
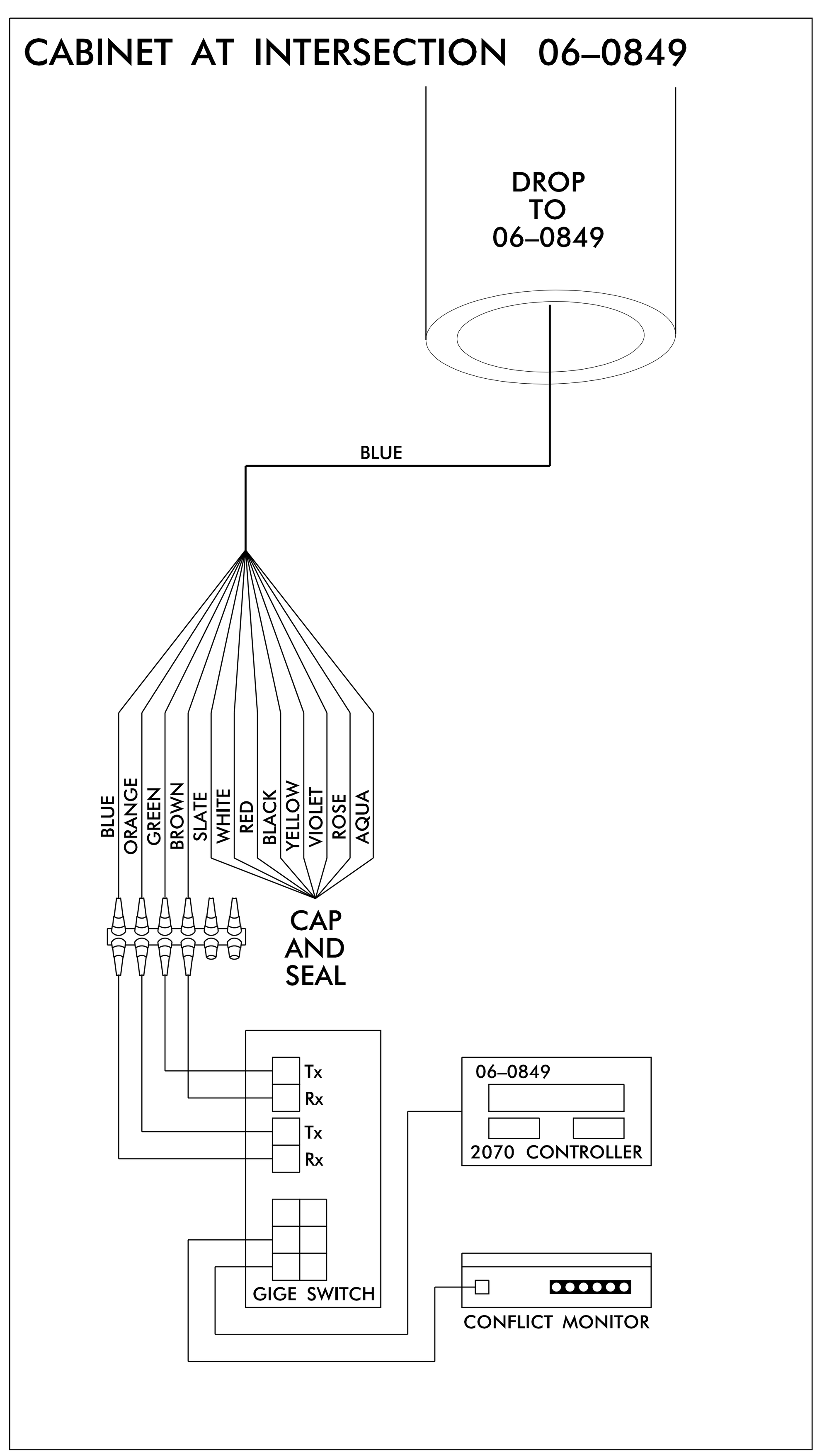
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-18

Fayetteville Signal System
Splice Enclosure S–1
US 401 (Raeford Rd) at
SR 1102 (Gillis Hill Rd)
Sig ID 06–0849





LEGEND

COLOR CODE
TIA/EIA 598–C

(1) BLUE
(2) ORANGE
(3) GREEN
(4) BROWN
(5) SLATE
(6) WHITE
(7) RED
(8) BLACK
(9) YELLOW
(10) VIOLET
(11) ROSE
(12) AQUA

X – FUSION SPLICE
O – EXISTING SPLICE
☐ – EXPRESS INDIVIDUAL FIBER
EXPRESS — EXPRESS ENTIRE BUFFER TUBE
SPLICE — SPLICE ENTIRE BUFFER TUBE OR MAINTAIN IF EXISTING EXPRESSED

NOTES:

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

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Temporary Splicing - TCP Phase IV

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NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

Prepared for the Office of:
750 N. Greenfield Pkwy., Garner, NC 27529

Gillis Hill Road Widening
Fiber-Optic Splicing Details

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	V. Kaiser
PREPARED BY:	S.G. Haynie	REVIEWED BY:	____________

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE

DocuSigned by: Steven G. Haynie 1/5/2022
SIGNATURE DATE

CADD Filename: U5798A_sig_scp_18.dgn

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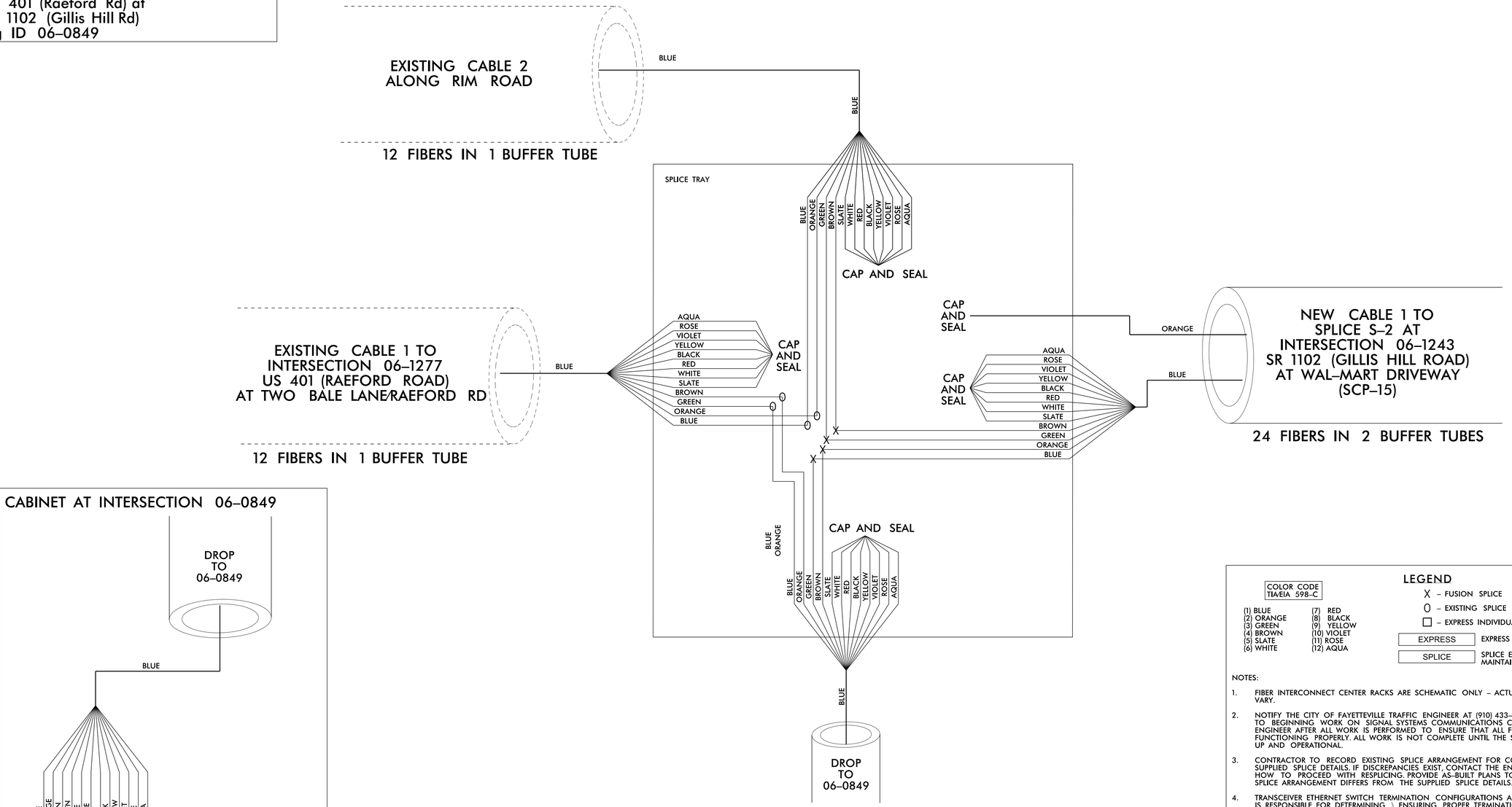
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-19

Fayetteville Signal System
Splice Enclosure S–1
US 401 (Raeford Rd) at
SR 1102 (Gillis Hill Rd)
Sig ID 06–0849



LEGEND

COLOR CODE TIA/EIA 598–C

(1) BLUE (7) RED
(2) ORANGE (8) BLACK
(3) GREEN (9) YELLOW
(4) BROWN (10) VIOLET
(5) SLATE (11) ROSE
(6) WHITE (12) AQUA

X – FUSION SPLICE
O – EXISTING SPLICE
☐ – EXPRESS INDIVIDUAL FIBER

EXPRESS – EXPRESS ENTIRE BUFFER TUBE
SPLICE – SPLICE ENTIRE BUFFER TUBE OR MAINTAIN IF EXISTING EXPRESSED

NOTES:

1. FIBER INTERCONNECT CENTER RACKS ARE SCHEMATIC ONLY – ACTUAL EQUIPMENT FORM MAY VARY.
2. NOTIFY THE CITY OF FAYETTEVILLE TRAFFIC ENGINEER AT (910) 433–1660 FIVE (5) DAYS PRIOR TO BEGINNING WORK ON SIGNAL SYSTEMS COMMUNICATIONS CABLE. NOTIFY THE ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. ALL WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS BACK UP AND OPERATIONAL.
3. 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.
4. TRANSCEIVER ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING \ ENSURING PROPER TERMINATIONS.
5. 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.

Final Phase

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RS&H
NC FIRM LICENSE No: F-0493
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
(919) 926-4100

Prepared for the Office of:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Mobility and Safety Division
Intelligent Transportation Systems Section
750 N. Greenfield Pkwy., Garner, NC 27529

Gillis Hill Road
Widening
Fiber-Optic Splicing Details

Division 6 Cumberland County Fayetteville

PLAN DATE:	January 2022	REVIEWED BY:	V. Kaiser
PREPARED BY:	S.G. Haynie	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 029531 ENGINEER STEVEN G. HAYNIE
Docusigned by: Steven G. Haynie 1/5/2022
SIGNATURE DATE

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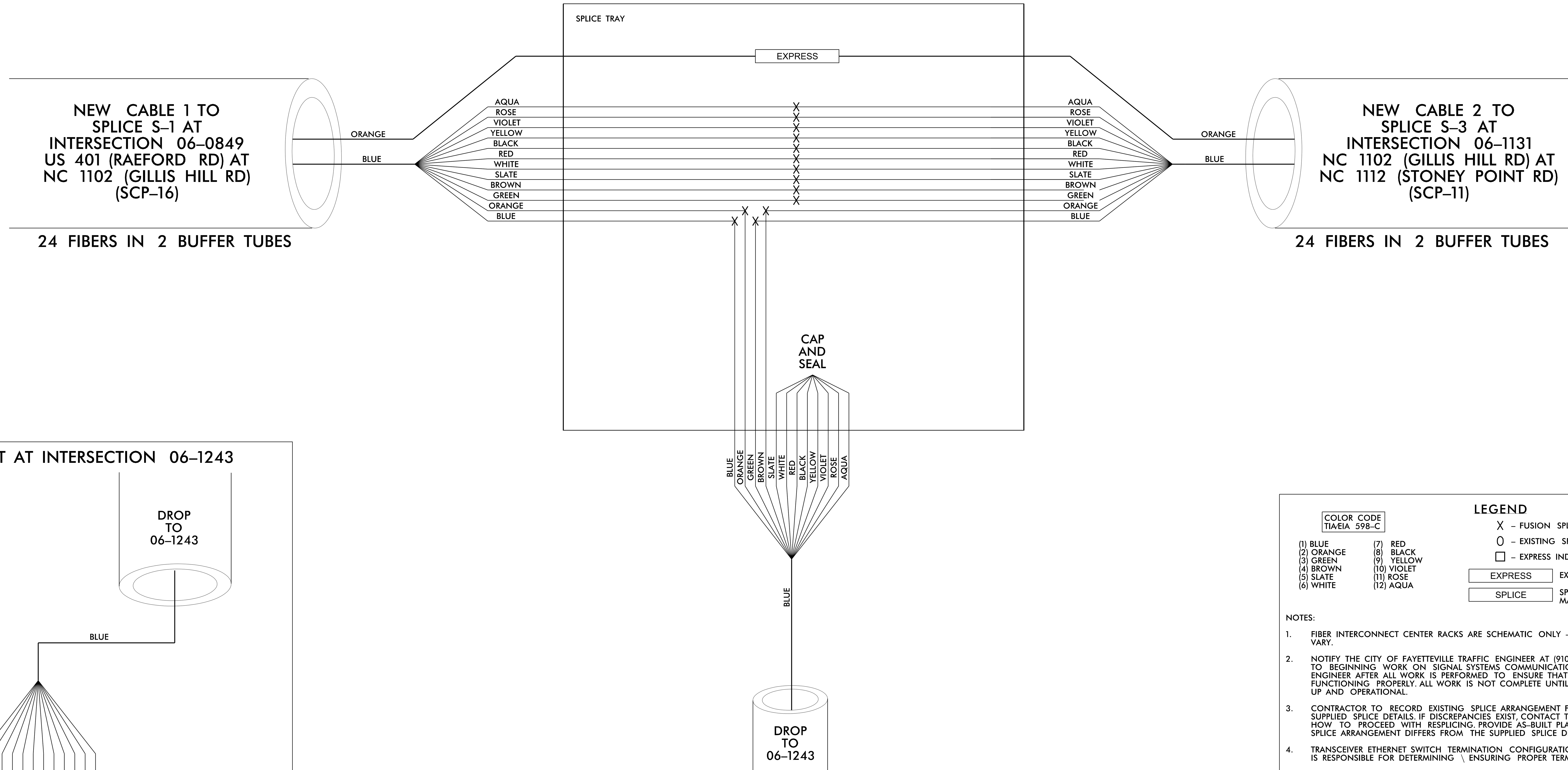
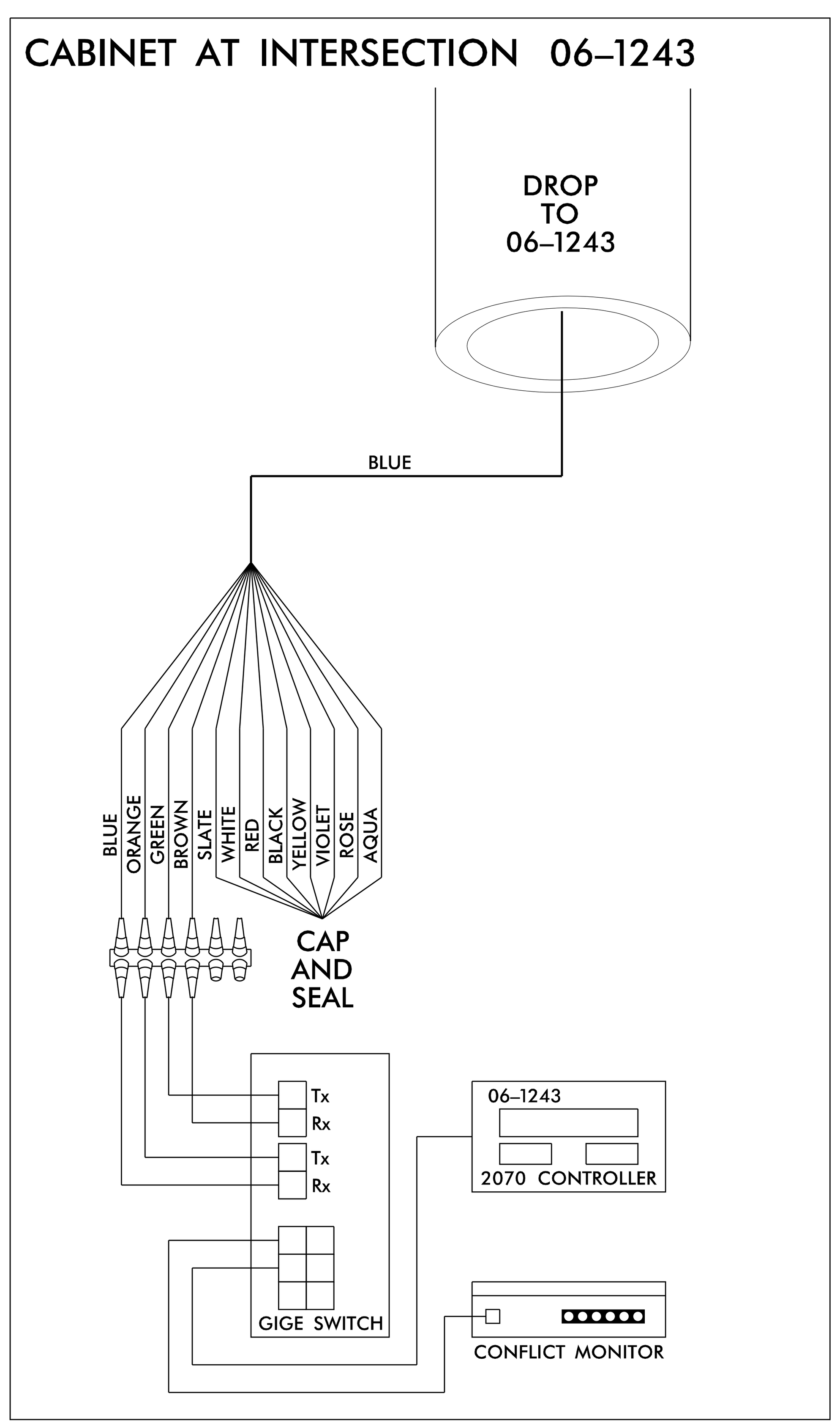
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-20

Fayetteville Signal System
Splice Enclosure S–2
SR 1102 (Gillis Hill Rd) at
Wal–Mart Driveway
Sig ID 06–1243





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Gillis Hill Road Widening
Fiber-Optic Splicing Details

Division 6 Cumberland County Fayetteville

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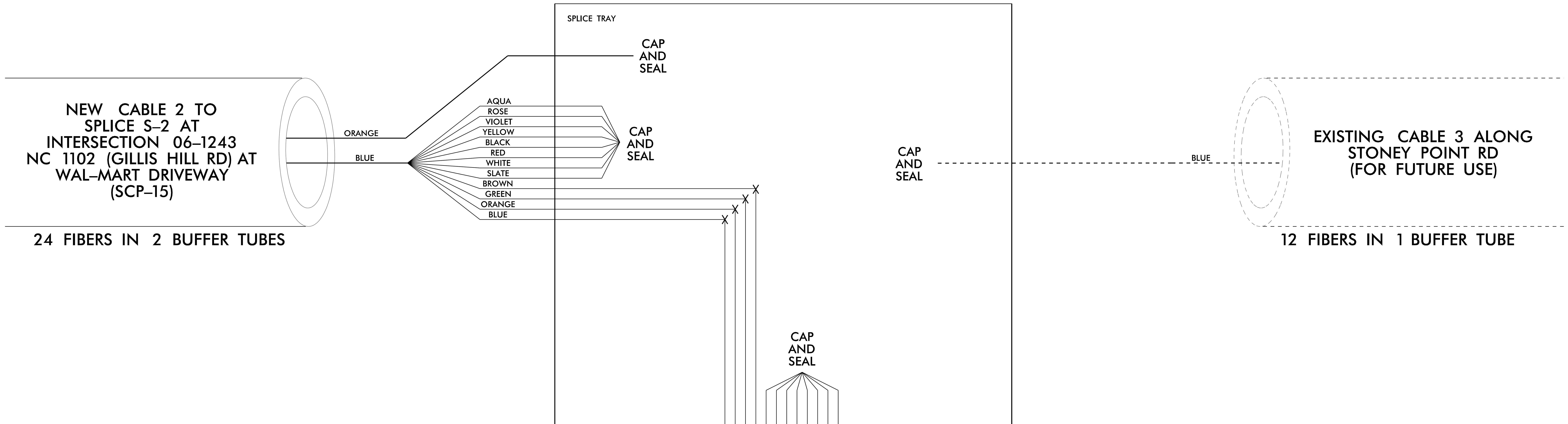
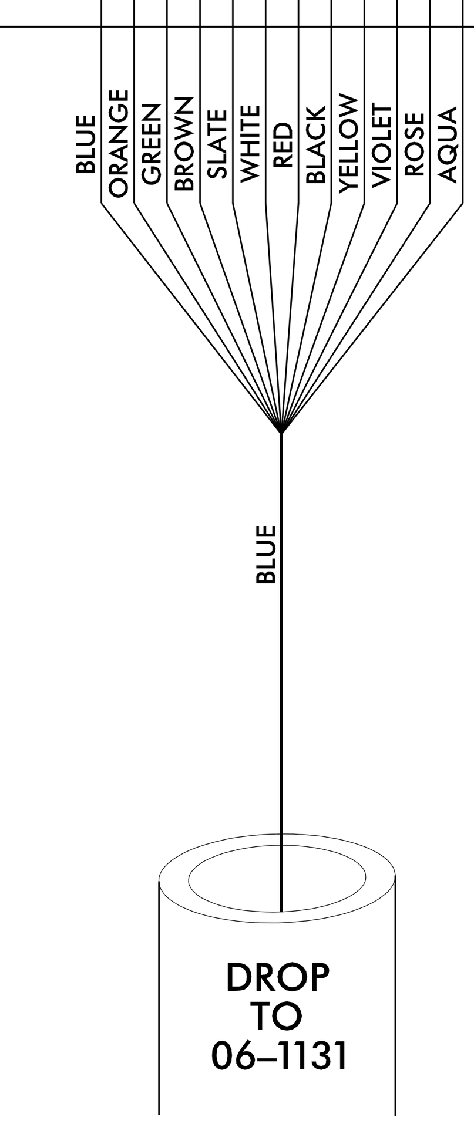
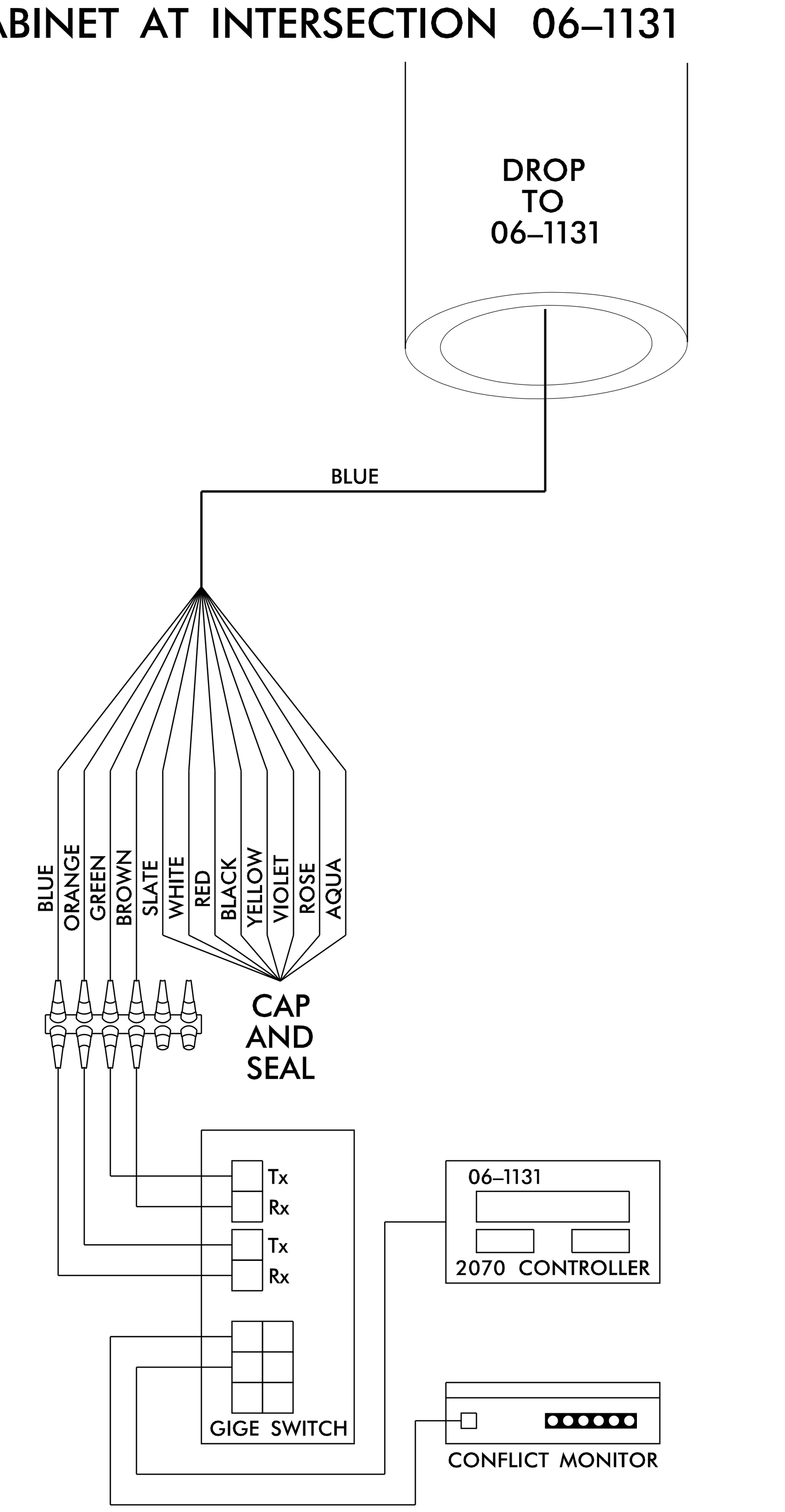
PROJECT REFERENCE NO.	SHEET NO.
U-5798A	SCP-21

Fayetteville Signal System
Splice Enclosure S–3
SR 1102 (Gillis Hill Rd) at
SR 1112 (Stoney Point Rd)
Sig ID 06–1131





CABINET AT INTERSECTION 06–1131



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