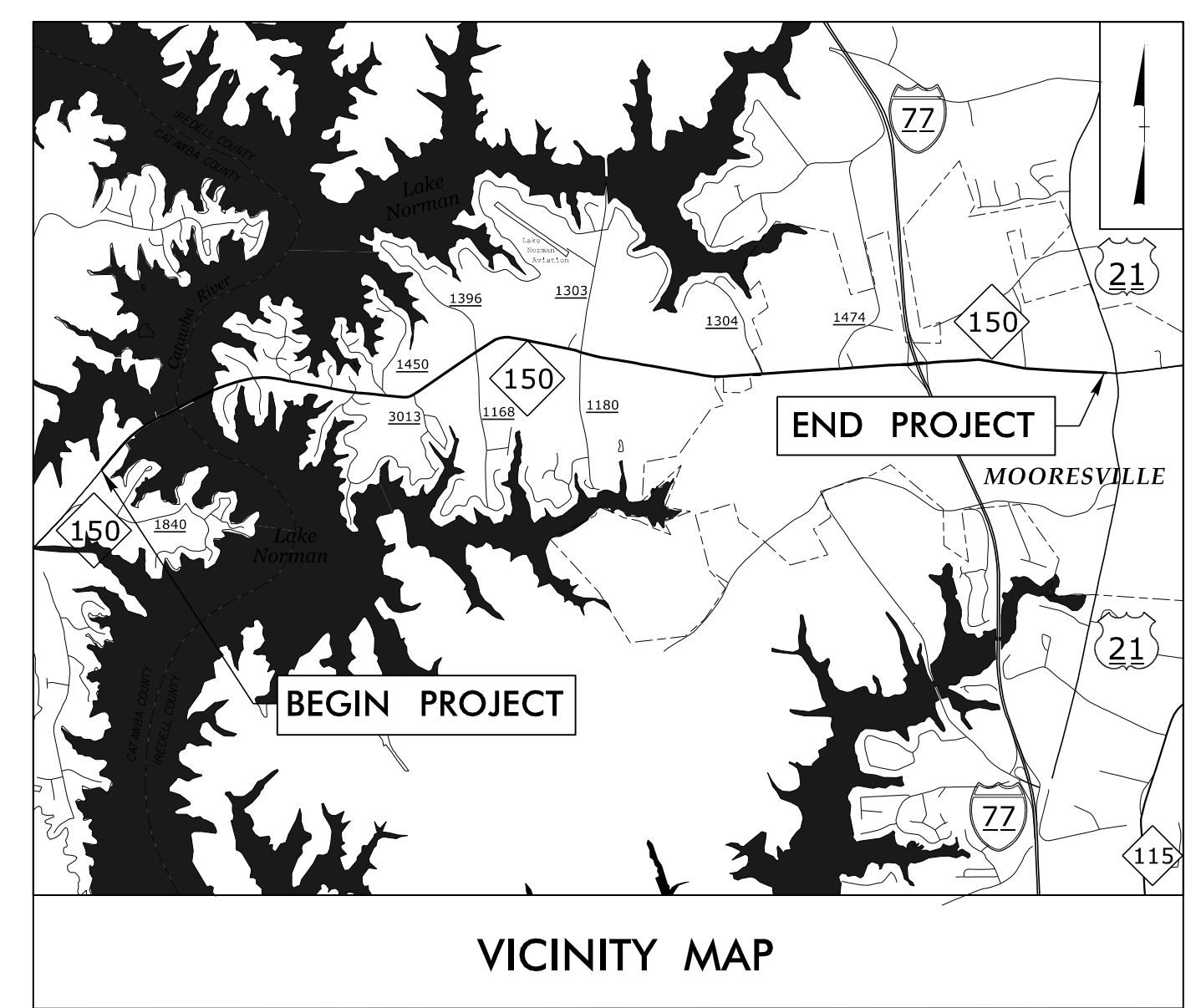


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R-2307B	SCP-1

**TIP PROJECT: R-2307B**

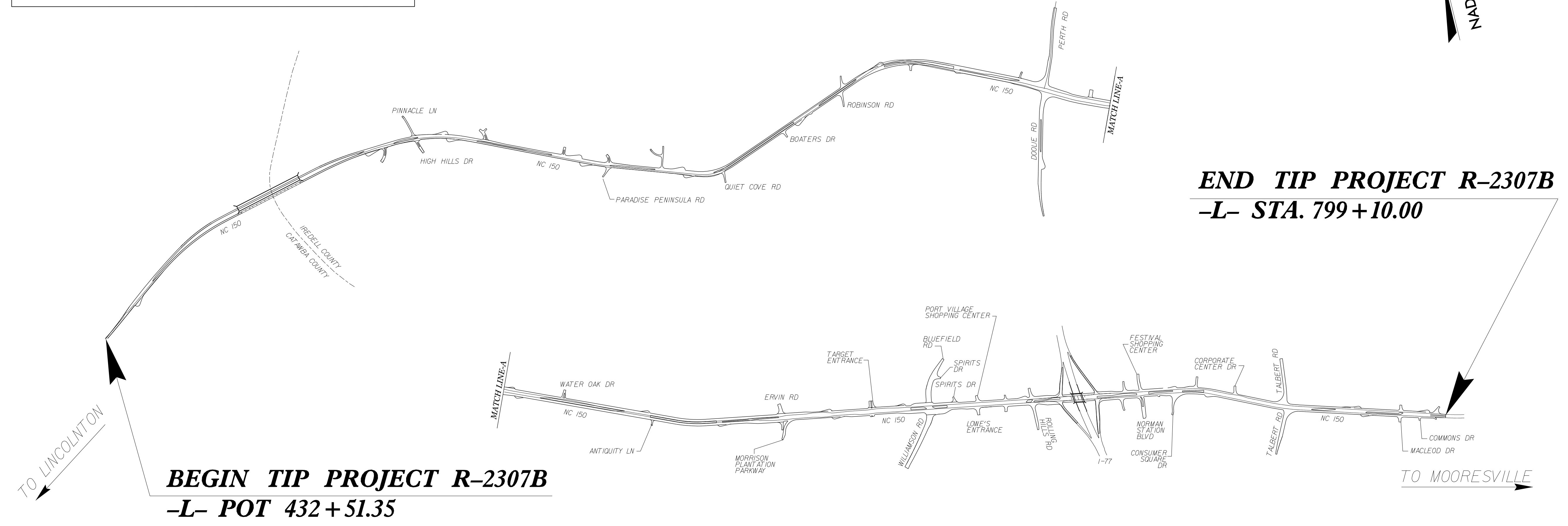
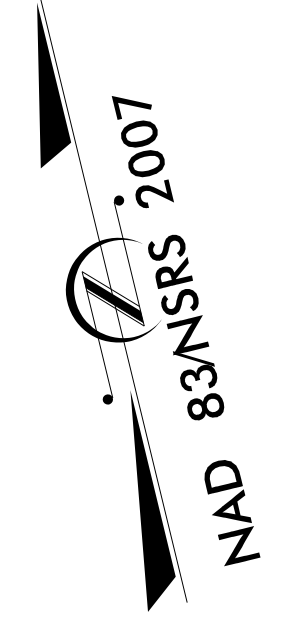
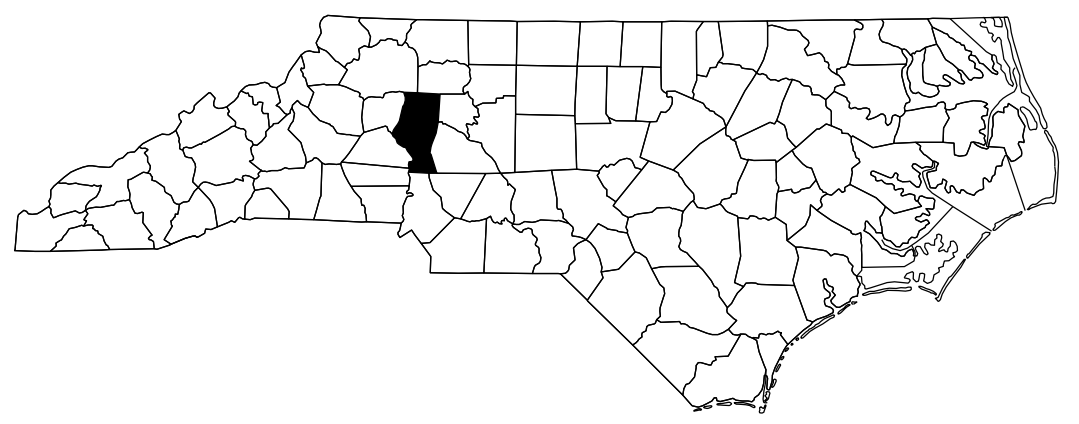


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CATAWBA & IREDELL COUNTIES

**LOCATION: NC 150 FROM SR 1840 (GREENWOOD RD) IN CATAWBA COUNTY TO US 21 IN IREDELL COUNTY**

**TYPE OF WORK: TRAFFIC SIGNAL COMMUNICATIONS SYSTEM DI2-02 MOORESVILLE AND CCTV**



**CONTRACT:**

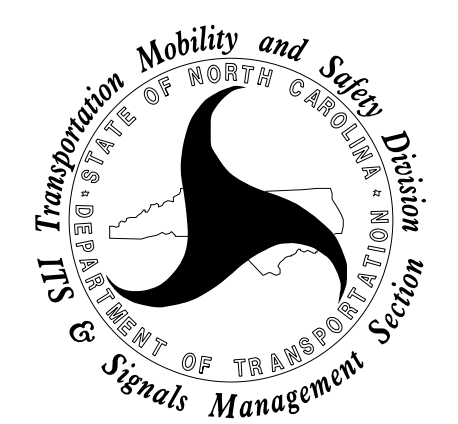
**INDEX OF SHEETS**

SCP-01	TITLE SHEET (PROJECT OVERVIEW)
SCP-02	GENERAL NOTES
SCP-03	CCTV CAMERA INSTALLATION ON MAST ARM POLE
SCP-04	CABLE ROUTING PLAN LAYOUT SHEET
SCP-05	CONSTRUCTION NOTES AND LEGEND
SCP-06 THRU SCP-24	CABLE ROUTING PLANS
SCP-25 THRU SCP-40	FIBER-OPTIC SPLICING DETAILS

**INTELLIGENT TRANSPORTATION SYSTEMS & SIGNALS MANAGEMENT UNIT**

Contacts:  
**Gregory Green**  
Signals Communication Project Engineer  
**Heidi Berggren**  
Project Design Engineer

Plans Prepared For:  
**DIVISION OF HIGHWAYS**  
**TRANSPORTATION MOBILITY AND SAFETY DIVISION**



750 N. Greenfield Pkwy, Garner, NC 27529



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**Larry Overn, PE**  
Senior Associate

**Regina Muncey, PE**  
Senior Transportation Engineer

**Jason Galloway, PE**  
Senior Traffic Engineer

Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.

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### GENERAL NOTES

- THE FIELD LOCATION OF ANY ITEM TO BE INSTALLED AS PART OF THIS PROJECT SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE NCDOT DIVISION 12 TRAFFIC ENGINEER AT 980-552-4214 TO ARRANGE FOR NCDOT 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 DIVISION 12 TRAFFIC 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.
- ITS CELL MODEMS FOR CCTV WILL BE PROVIDED TO CONTRACTOR BY NCDOT. CONTRACTOR MUST CONTACT METROLINA REGIONAL TRANSPORTATION MANAGEMENT CENTER REGIONAL ITS ENGINEER AT 980-287-0001 EIGHT (8) WEEKS PRIOR TO INSTALLATION TO ALLOW LEAD TIME FOR ACQUIRING DEVICES.
- CELL MODEM FOR GATEWAY SIGNAL SYSTEM CABINET WILL BE PROVIDED TO CONTRACTOR BY NCDOT. CONTRACTOR MUST CONTACT NCDOT DIVISION 12 TRAFFIC ENGINEER AT 980-552-4214 EIGHT (8) WEEKS PRIOR TO INSTALLATION TO ALLOW LEAD TIME FOR ACQUIRING DEVICES.
- BURIED UTILITIES AND STRUCTURES: PIPELINES, STORM SEWERS, POWER CABLES, UTILITY CABLES, AND OTHER PUBLICLY AND PRIVATELY OWNED UNDERGROUND/OVERHEAD OBSTRUCTIONS MAY EXIST ADJACENT AND WITHIN THE ROADWAY RIGHT-OF-WAY WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. INVESTIGATE THE LOCATION OF SUCH UTILITIES AND STRUCTURES WITH PUBLIC AND PRIVATE UTILITY OWNERS.
- THE PLAN SHEETS HAVE BEEN DEVELOPED AS CLOSE TO SCALE AS PRACTICAL ACTUAL FIELD CONDITIONS, HOWEVER, FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR APPLYING THE WORK SHOWN.
- THE ROADWAY STANDARD DRAWINGS AND THE SPECIFIC DETAILS PROVIDED IN THIS PLAN SET SHALL 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 SPECIAL DETAILS, THE STANDARD DETAILS, THE ROADWAY STANDARD DRAWINGS, AND THEN THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING THE PROPER DETAILS.
- ANY OF THE CONTRACTOR'S WORK ACTIVITIES WHICH IMPACT ANY UTILITY FACILITY SHALL BE COORDINATED WITH THE OWNER OF ALL AFFECTED UTILITIES. THE CONTRACTOR SHALL FOLLOW ANY AND ALL WORK PROCEDURES THE UTILITY OWNERS MAY REQUIRE.
- TEMPORARY SIGNAL COMMUNICATIONS WILL BE MAINTAINED BY THE INSALLATION OF CELL MODEMS IN ALL SIGNAL CABINETS. PRIOR TO CONSTRUCTION, CONTACT THE DIVISION TRAFFIC ENGINEER TO OBTAIN THE REQUIRED MODEMS. PLEASE ALLOW EIGHT (8) WEEKS FOR THE AQUISITION OF THE MODEMS. INSTALL MODEMS AS NEW CABINETS ARE INSTALLED AND BROUGHT ON-LINE. EXCEPT FOR THE GATEWAY LOCATION (AS DEPICTED IN THE PLANS), REMOVE ALL CELL MODEMS AND RETURN TO THE DIVISION TRAFFIC ENGINEER AS THE NEW FIBER OPTIC COMMUNICATION SYSTEM IS BROUGHT ON-LINE.
- ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY THE CONTRACTOR UNLESS IT IS SPECIFICALLY NOTED THAT THE WORK WILL BE PERFORMED BY OTHERS.
- ALL TRAFFIC SIGNALS INCLUDED IN THIS PLAN ARE PART OF SIGNAL SYSTEM D12-02 MOORESVILLE.

### ABBREVIATIONS

HDPE	HIGH DENSITY POLYETHYLENE
N.T.S.	NOT TO SCALE
CCTV	CLOSE CIRCUIT TELEVISION
COMP	COMPOSITE CABLE



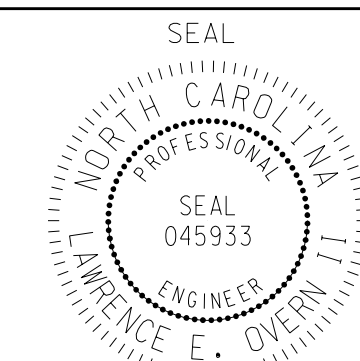
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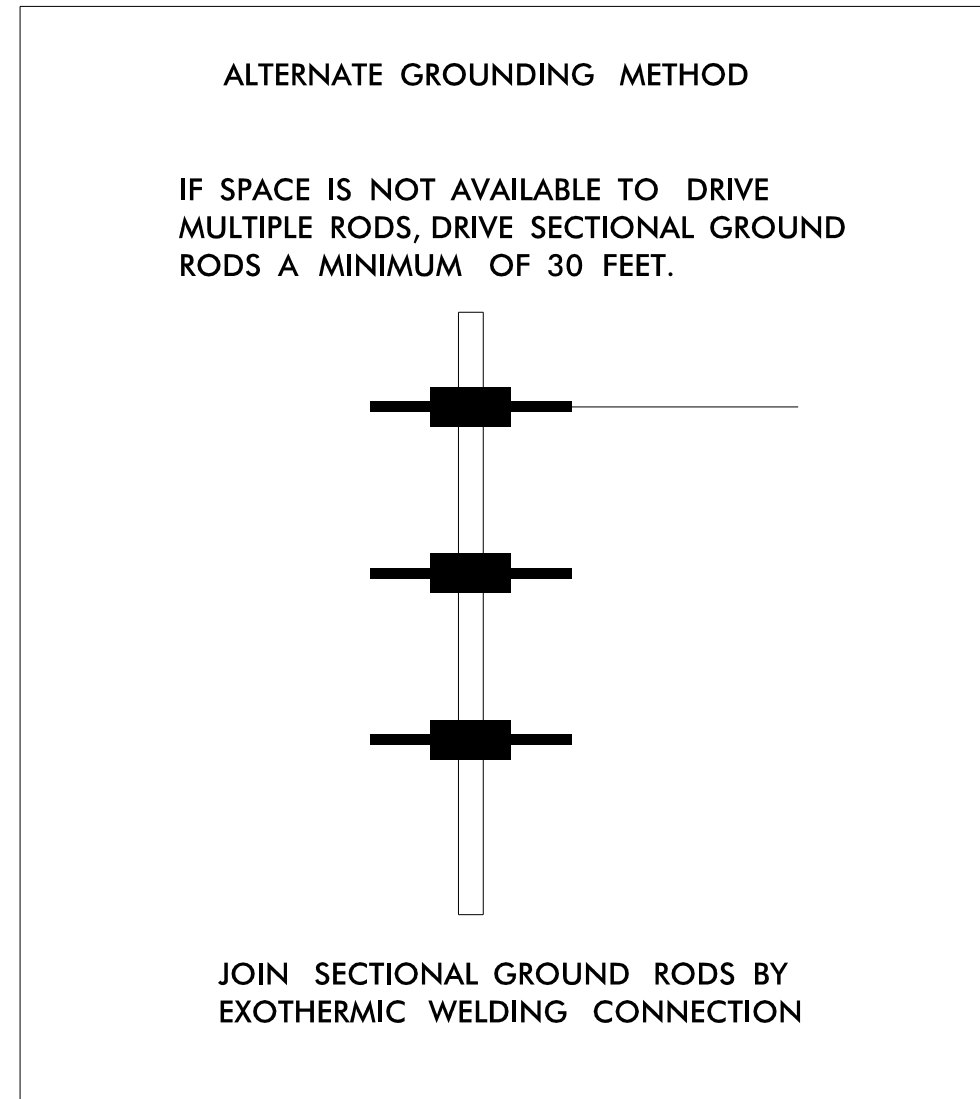
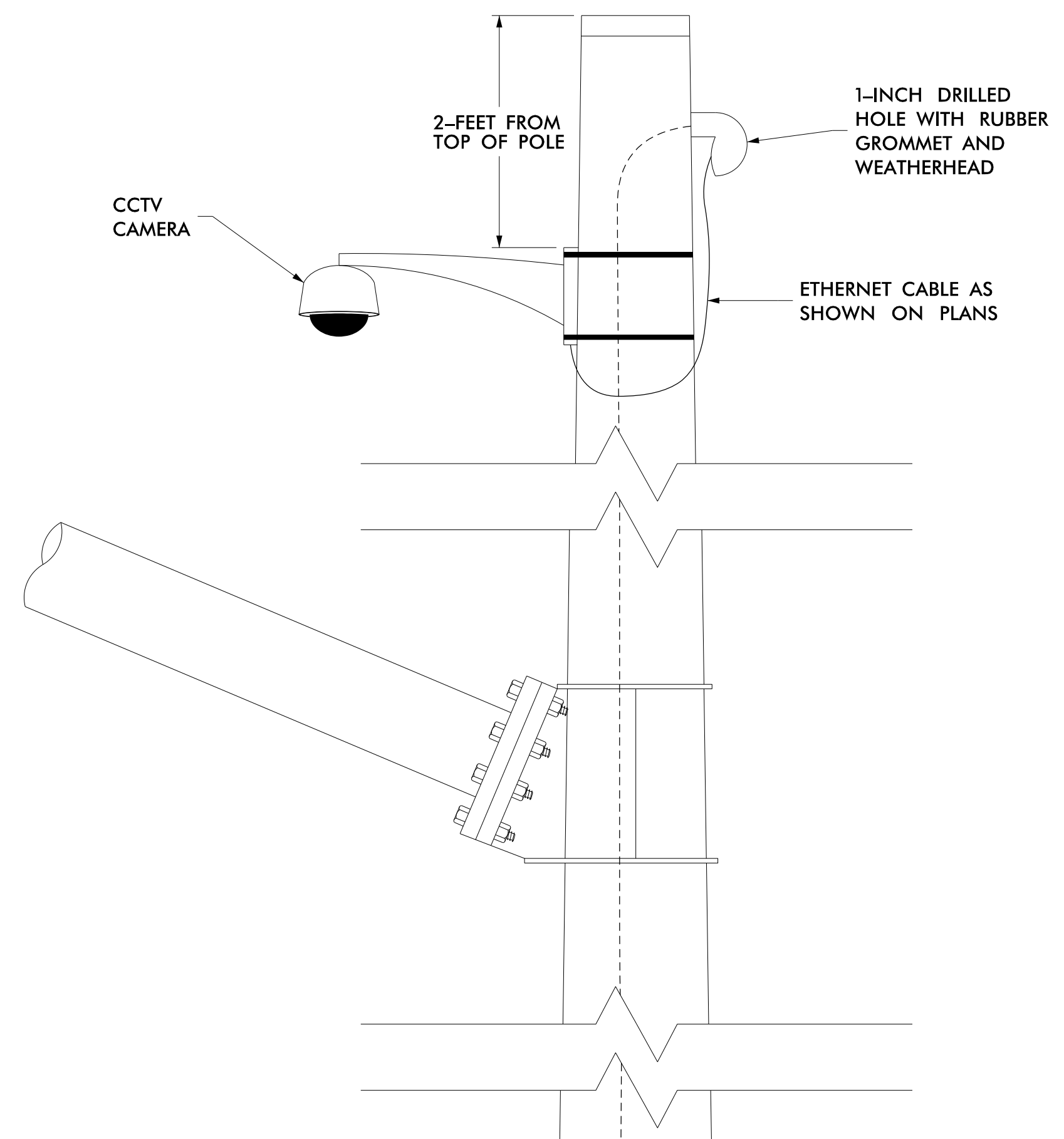
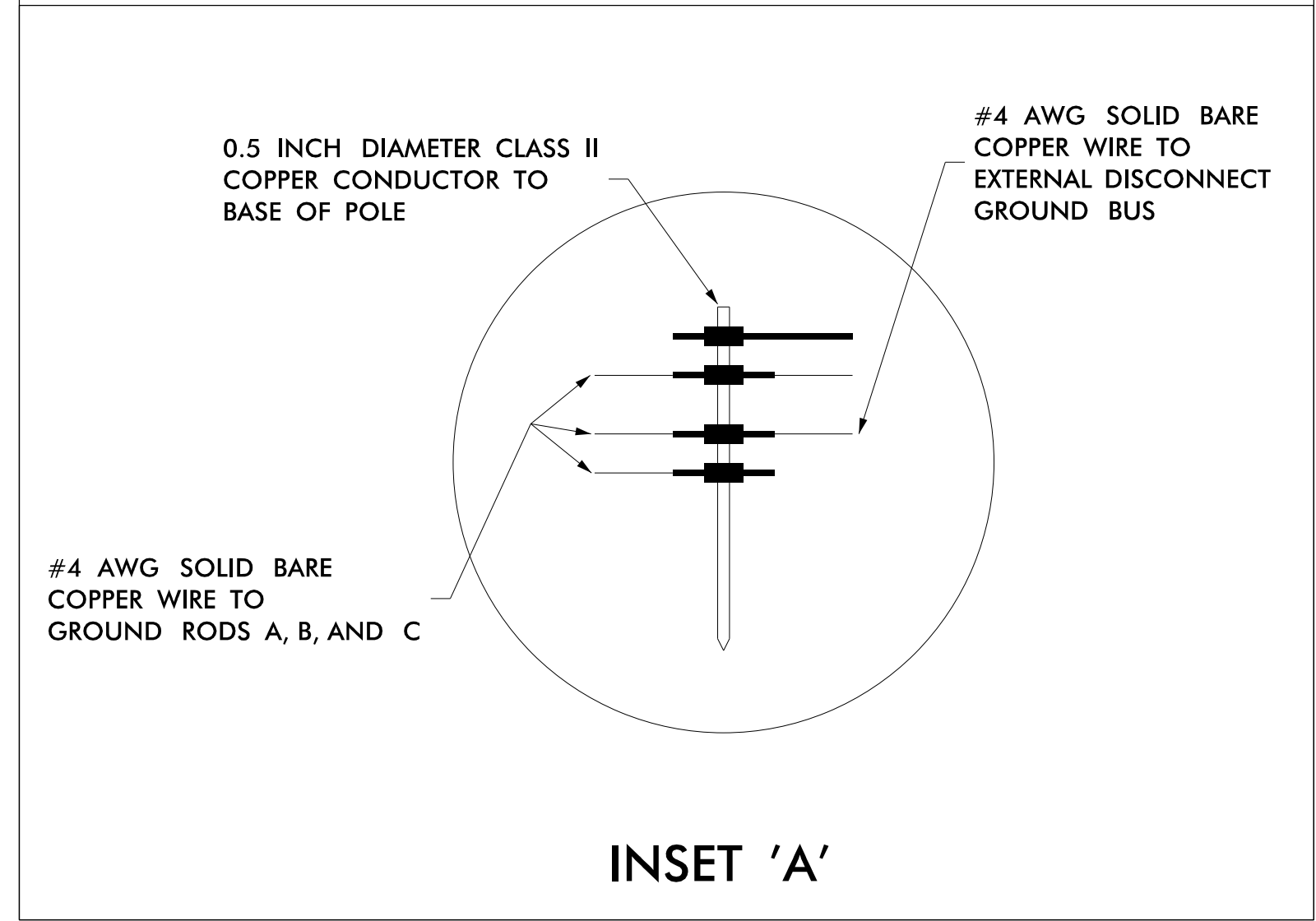
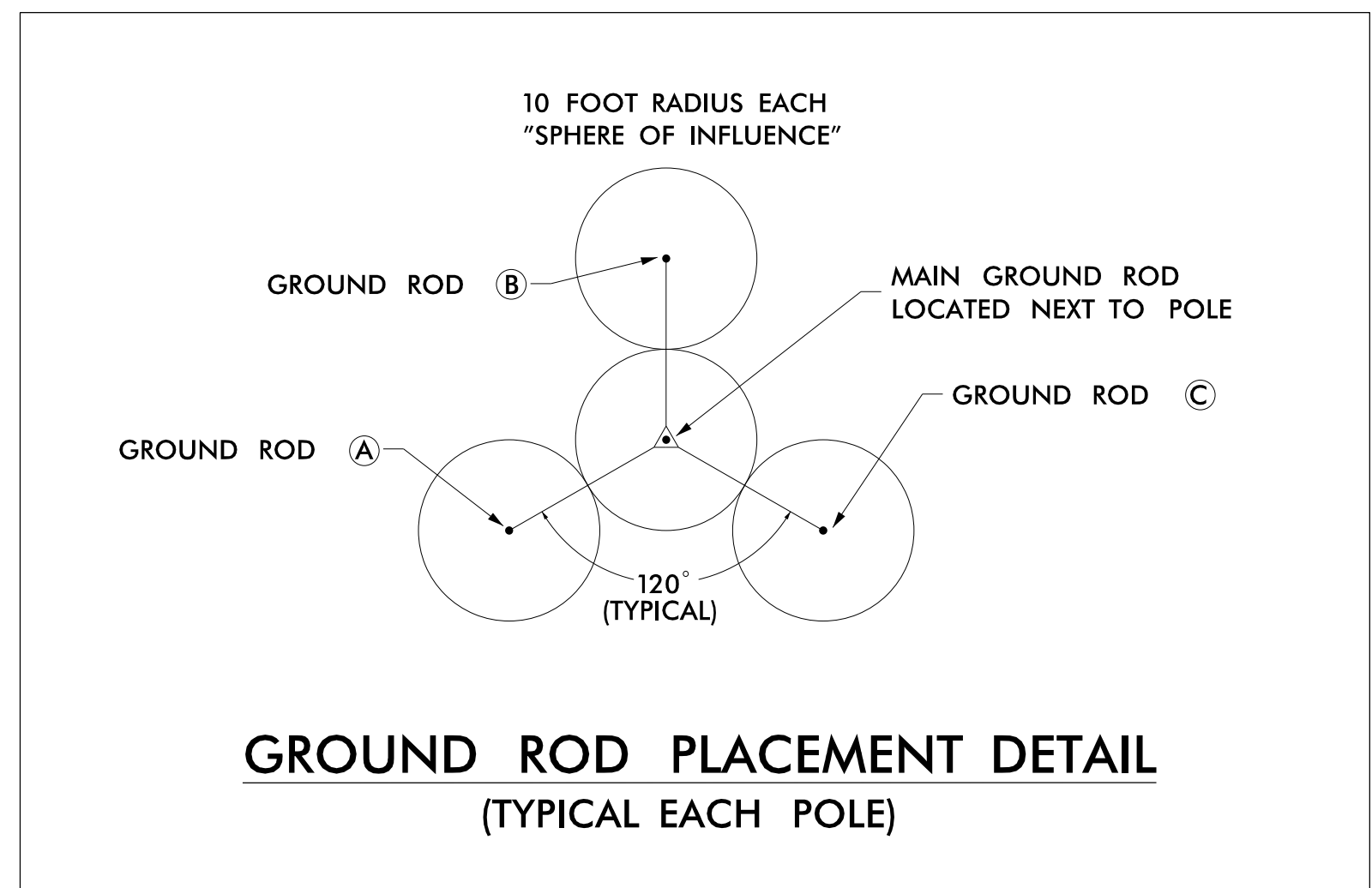
THE FOLLOWING ROADWAY STANDARDS AS THEY APPEAR IN "ROADWAY STANDARD DRAWINGS" PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024, ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE ARE HEREBY CONSIDERED A PART OF THESE PLANS:

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

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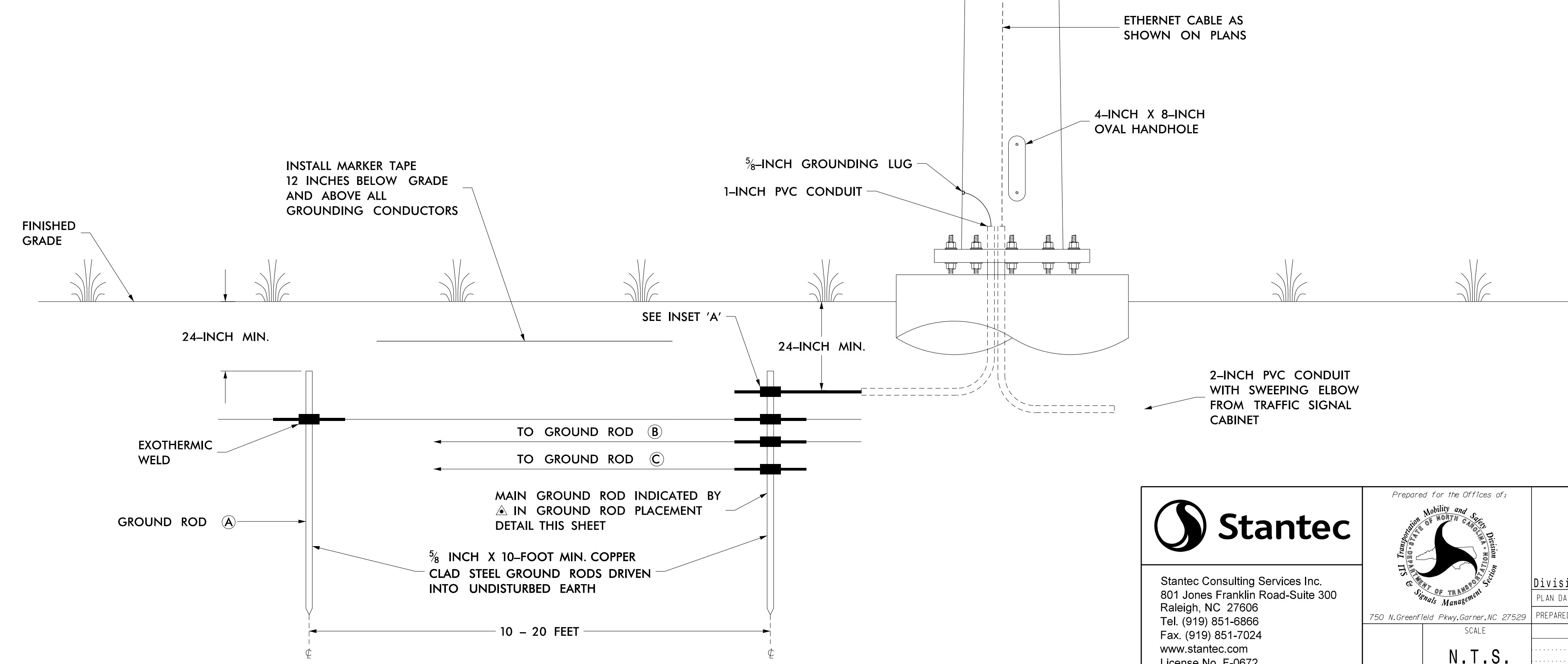
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 Stantec Consulting Services Inc. 801 Jones Franklin Road-Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672	 Prepared for the Offices of: Mobility and Safety Division 750 N. Greenfield Pkwy, Garner, NC 27529	D12-02 Mooresville General Notes		 SEAL 045933 J. GALLOWAY ENGINEER E. O. OVERN
		Division 12 Iredell County Mooresville PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway PREPARED BY: J. Hambright REVIEWED BY: L. Overn	SCALE N. T. S.	



**NOTES**

1. IRREVERSIBLE MECHANICALLY CRIMP ALL CONNECTIONS TO GROUND RODS.
2. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY AN IRREVERSIBLE MECHANICAL METHOD.
3. ENSURE CAMERA HOUSING, CAMERA, AND PAN-TILT UNIT ARE BONDED TO POLE.
4. THE CONTRACTOR MAY, UPON APPROVAL OF THE ENGINEER, INSTALL A 30-FOOT SECTIONAL GROUND ROD WHEN CONDITIONS WILL NOT ALLOW FOR THE INSTALLATION OF THE 3 - RADIAL GROUND RODS.
5. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.



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SCALE: **N.T.S.**

**D12-02 Mooresville  
CCTV Camera Installation  
On Mast Arm Pole**

Division 12 Iredell County Mooresville

PLAN DATE: **NOVEMBER 2023** REVIEWED BY: **J. Galloway**

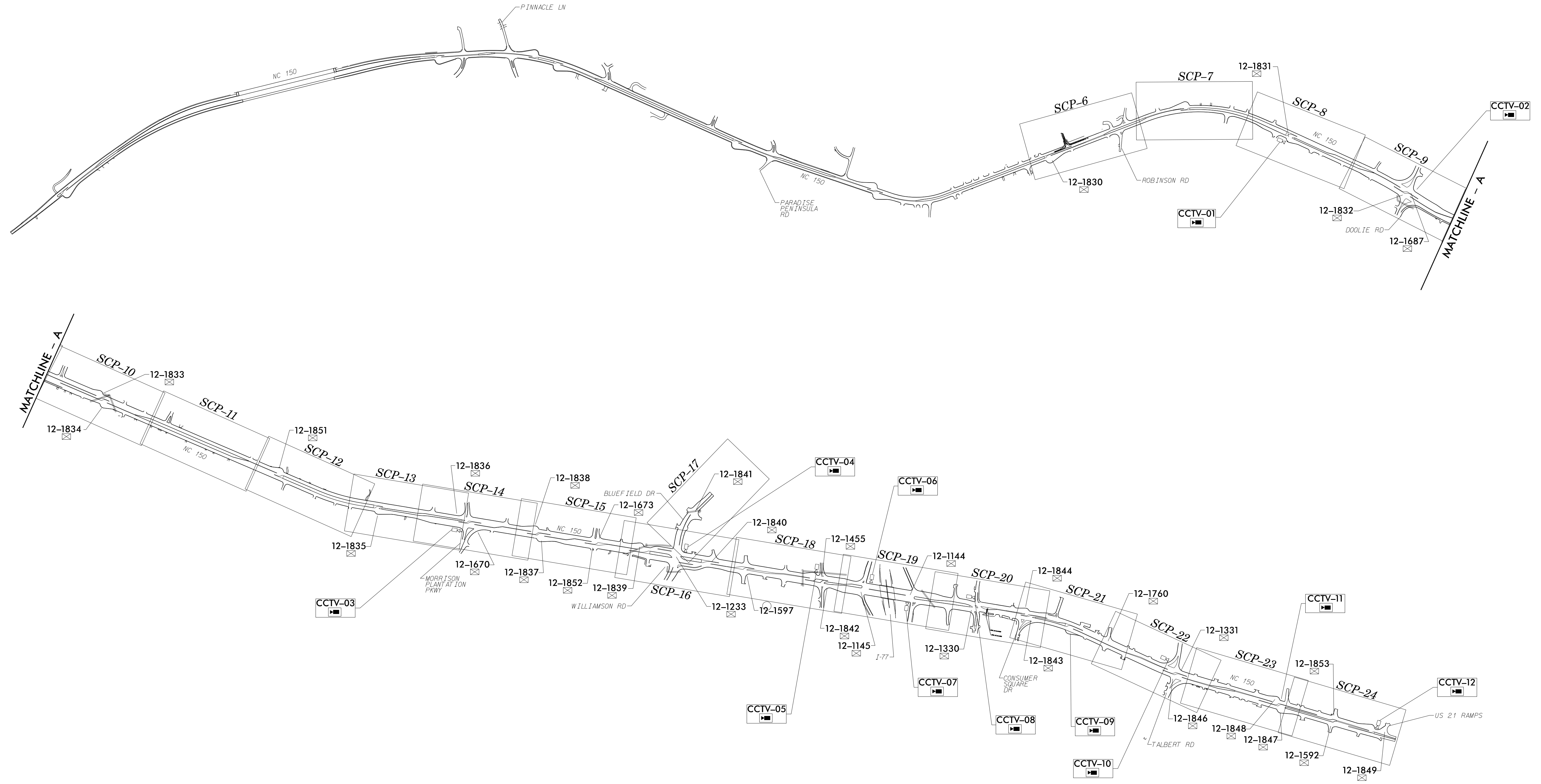
PREPARED BY: **J. Hambricht** REVIEWED BY: **L. Overn**

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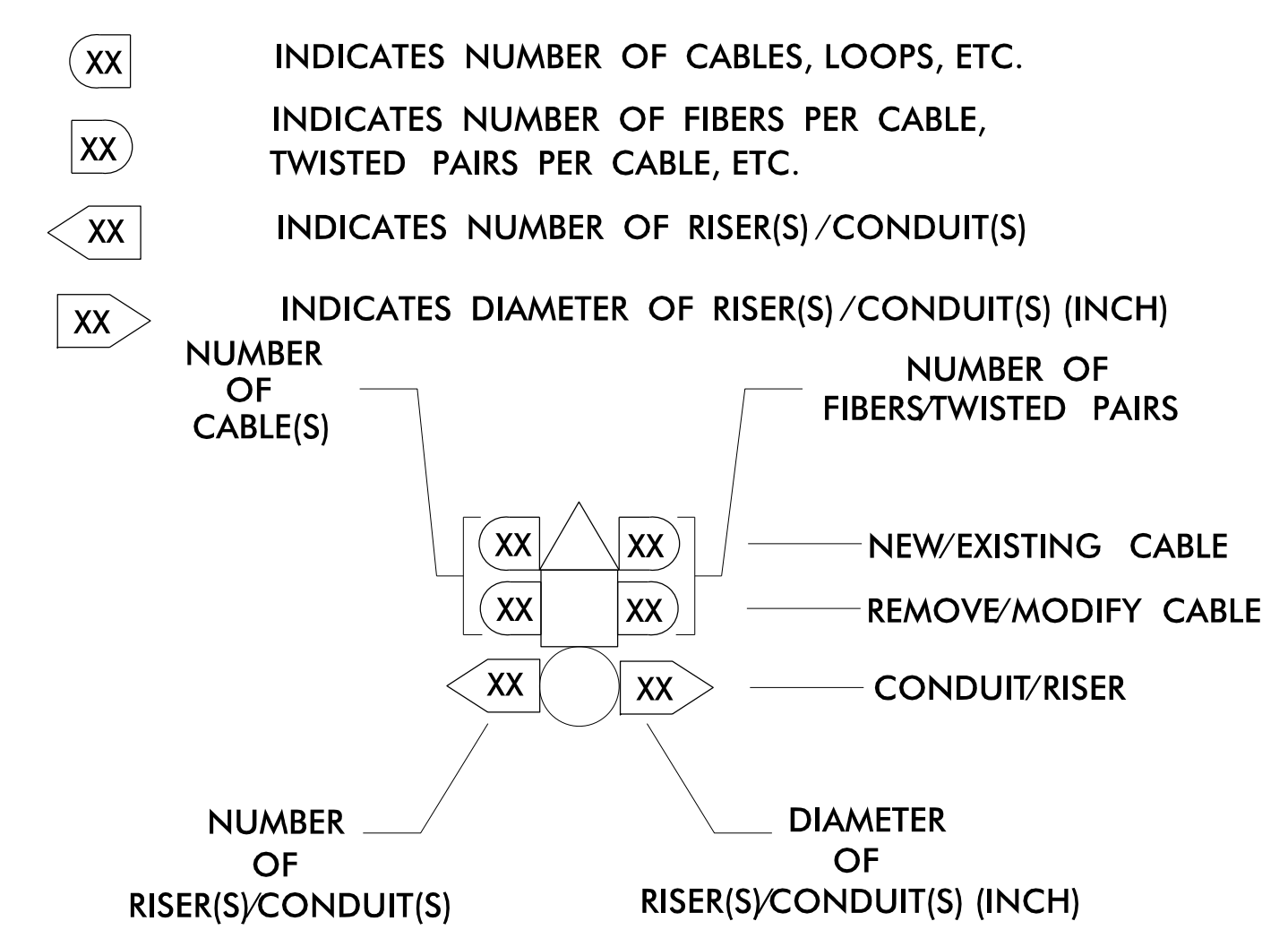
<p>Stantec Consulting Services Inc. 801 Jones Franklin Road-Suite 300 Raleigh, NC 27606 Tel. (919) 851-6866 Fax. (919) 851-7024 www.stantec.com License No. F-0672</p>	<p>Prepared for the Offices of:</p> <p>750 N. Greenfield Pkwy, Garner, NC 27529</p>	<p><b>D12-02 Mooresville Cable Routing Plan Layout</b></p>		<p>SEAL</p>							
		<p>Division 12 Iredell County Mooresville</p> <p>PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway</p> <p>PREPARED BY: J. Hambricht REVIEWED BY: L. Overn</p>	<table border="1"> <thead> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS	INIT.	DATE				
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- 1 INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
- 2 INSTALL COAX CABLE
- 3 INSTALL ETHERNET CABLE
- 4 INSTALL SMFO CABLE
- 5 INSTALL MMFO
- 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(S)
- 20 INSTALL CABLE(S) IN NEW RISER(S)
- 21 INSTALL CABLES 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 INSTALL CCTV POWER INJECTOR AND TVSS SURGE PROTECTOR
- 27 INSTALL ETHERNET EDGE SWITCH IN CABINET
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPLICE ENCLOSURE

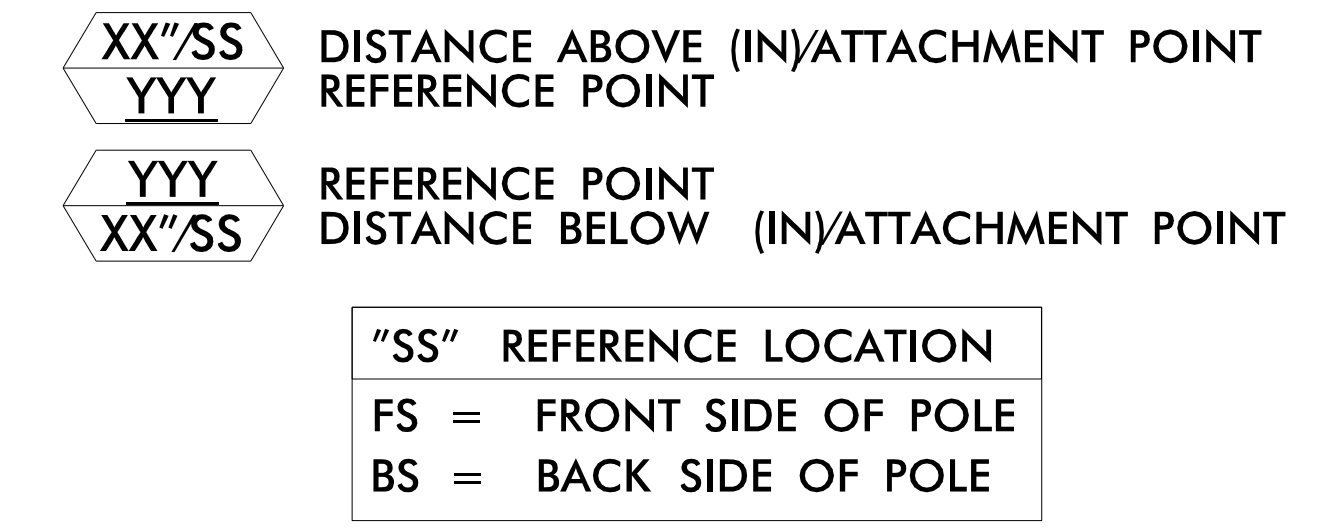
- 30 INSTALL AERIAL SPLICE ENCLOSURE
- 31 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
- 32 INSTALL POLE MOUNTED SPLICE CABINET
- 33 REMOVE EXISTING SPLICE CABINET
- 34 INSTALL CABINET FOUNDATION
- 35 INSTALL CCTV CAMERA POLE MOUNTED CABINET
- 36 INSTALL CCTV CAMERA ASSEMBLY
- 37 INSTALL CCTV CAMERA WOOD POLE
- 38 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39 INSTALL STANDARD 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 MESSENGER AND COMMUNICATIONS CABLE
- 48B REMOVE EXISTING COMMUNICATIONS CABLE
- 48C REMOVE EXISTING MESSENGER CABLE
- 49 REMOVE EXISTING COMMUNICATIONS CABLE MOUNTING HARDWARE FROM WOOD POLE
- 50 INSTALL CELLULAR MODEM AND ANTENNA
- 51 INSTALL CABLE STORAGE RACK(S) [SNOW SHOE(S)] 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 INSTALL NEW POLE MOUNTED DMS CABINET
- 60 MOUNT CCTV CAMERA ASSEMBLY TO MAST ARM WITH EXTENSION POLE
- 61 INSTALL DISCONNECT ON DMS STRUCTURE
- 62 INSTALL PEDESTAL-TYPE SIGN STRUCTURE, FOUNDATION, AND DMS ASSEMBLY
- 63 BOND TRACER WIRE TO EQUIPMENT GROUND BUS
- 64 DO NOT BOND TRACER WIRE TO EQUIPMENT GROUND BUS
- 65 BOND RISER AND MESSENGER CABLE TO POLE GROUND
- 66 BOND RISER TO POLE GROUND
- 67 BOND MESSENGER TO POLE GROUND
- 68 INSTALL HEATSHRINK TUBING RETROFIT KIT
- 69 INSTALL MOLDABLE DUCT SEAL
- 70 SLACK SPAN

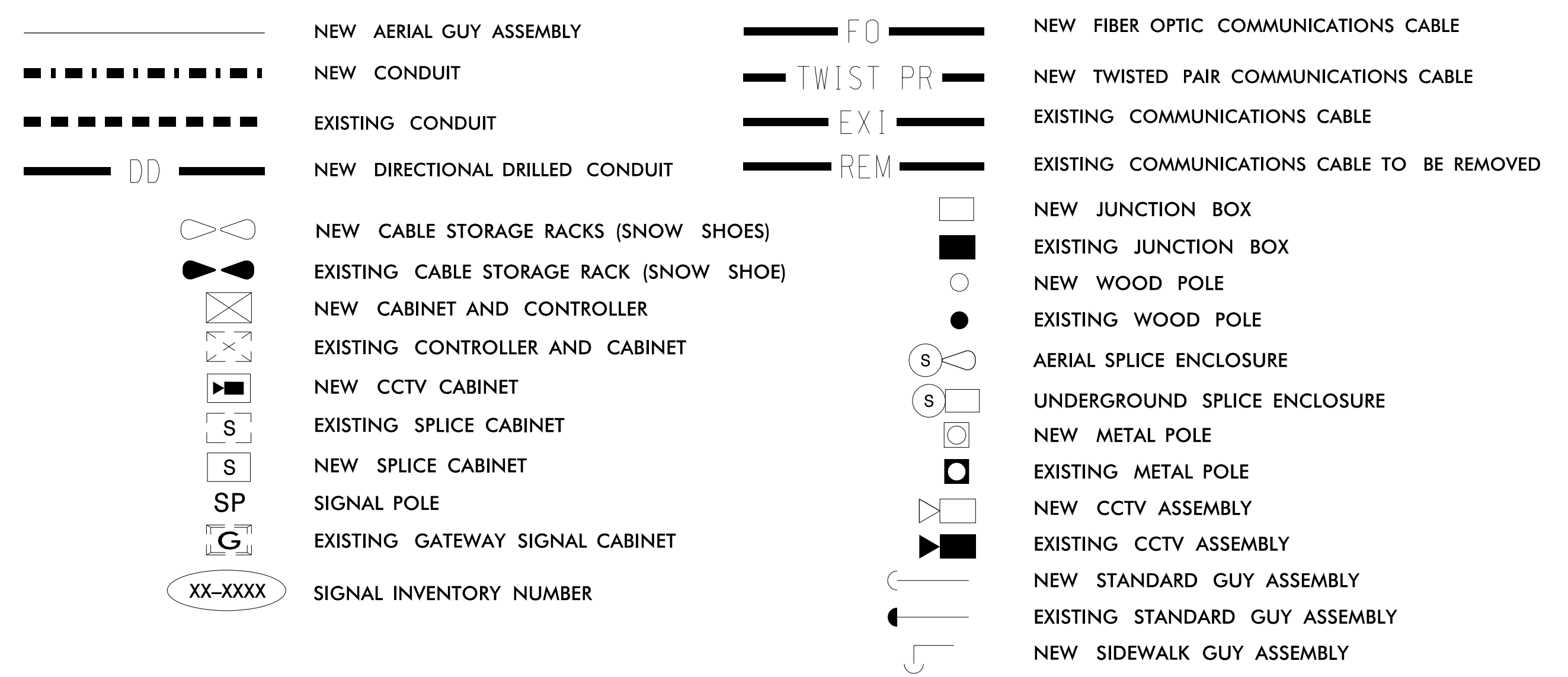
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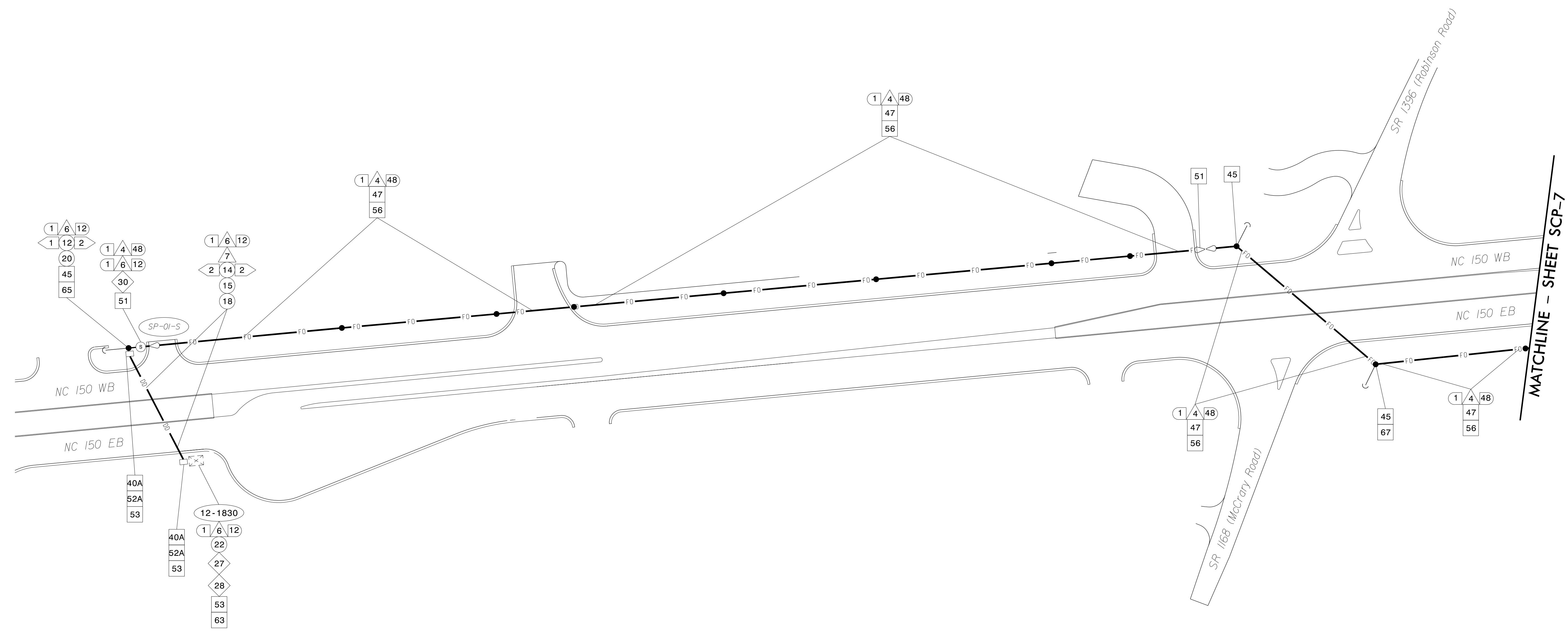


**CABLE ROUTING LEGEND**





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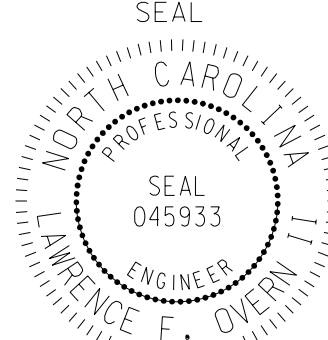
  
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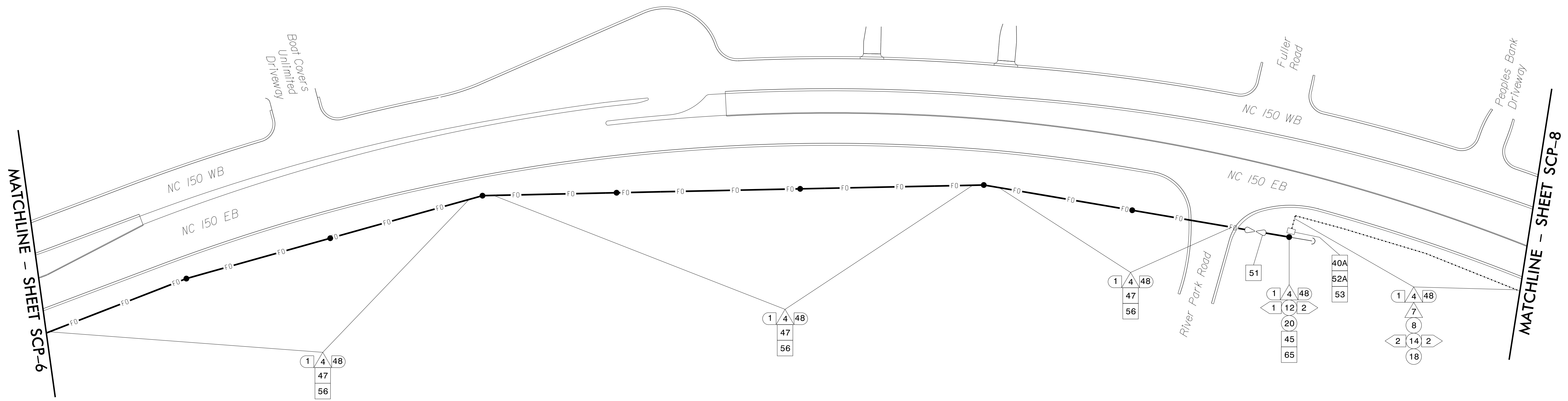
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MOORESVILLE	
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 PROFESSIONAL ENGINEER  
 No. 045933  
 State of North Carolina  
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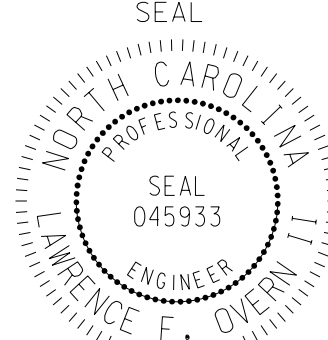
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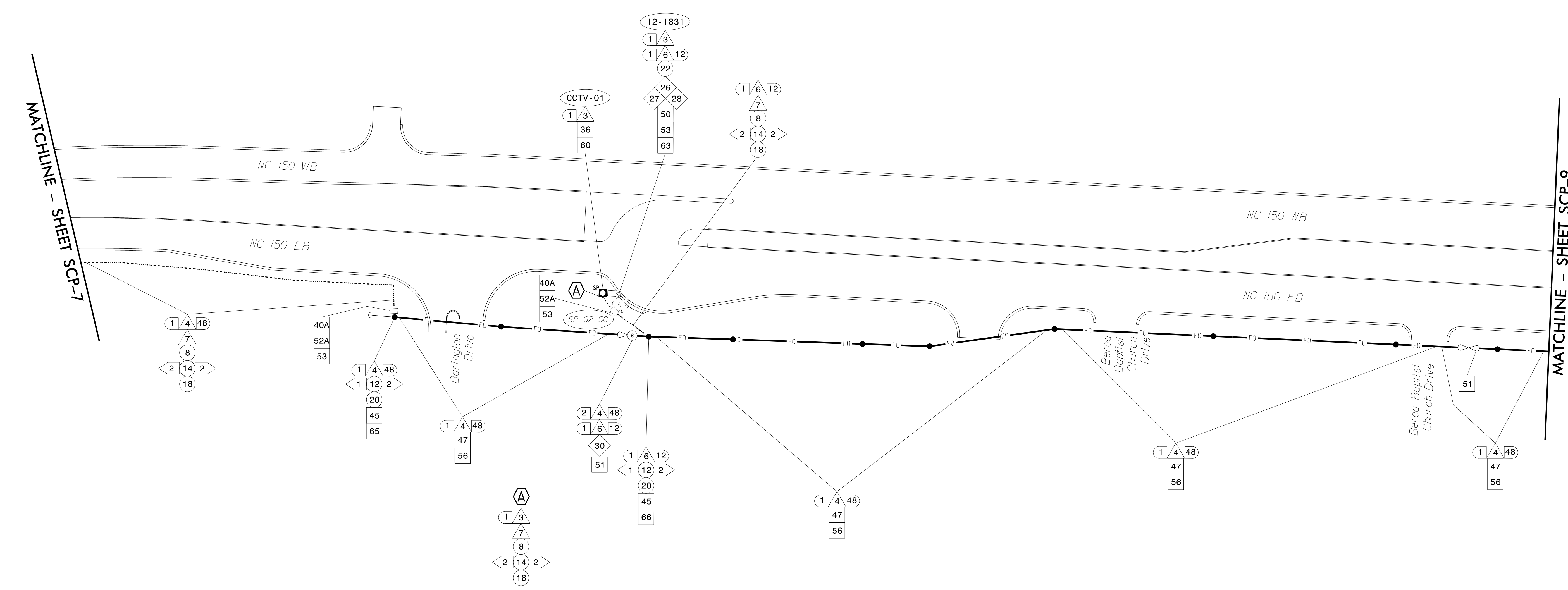

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 Cable Routing Plans**  
 Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
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**D12-02 Mooresville Cable Routing Plans**

Division 12 Iredell County Mooresville

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PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

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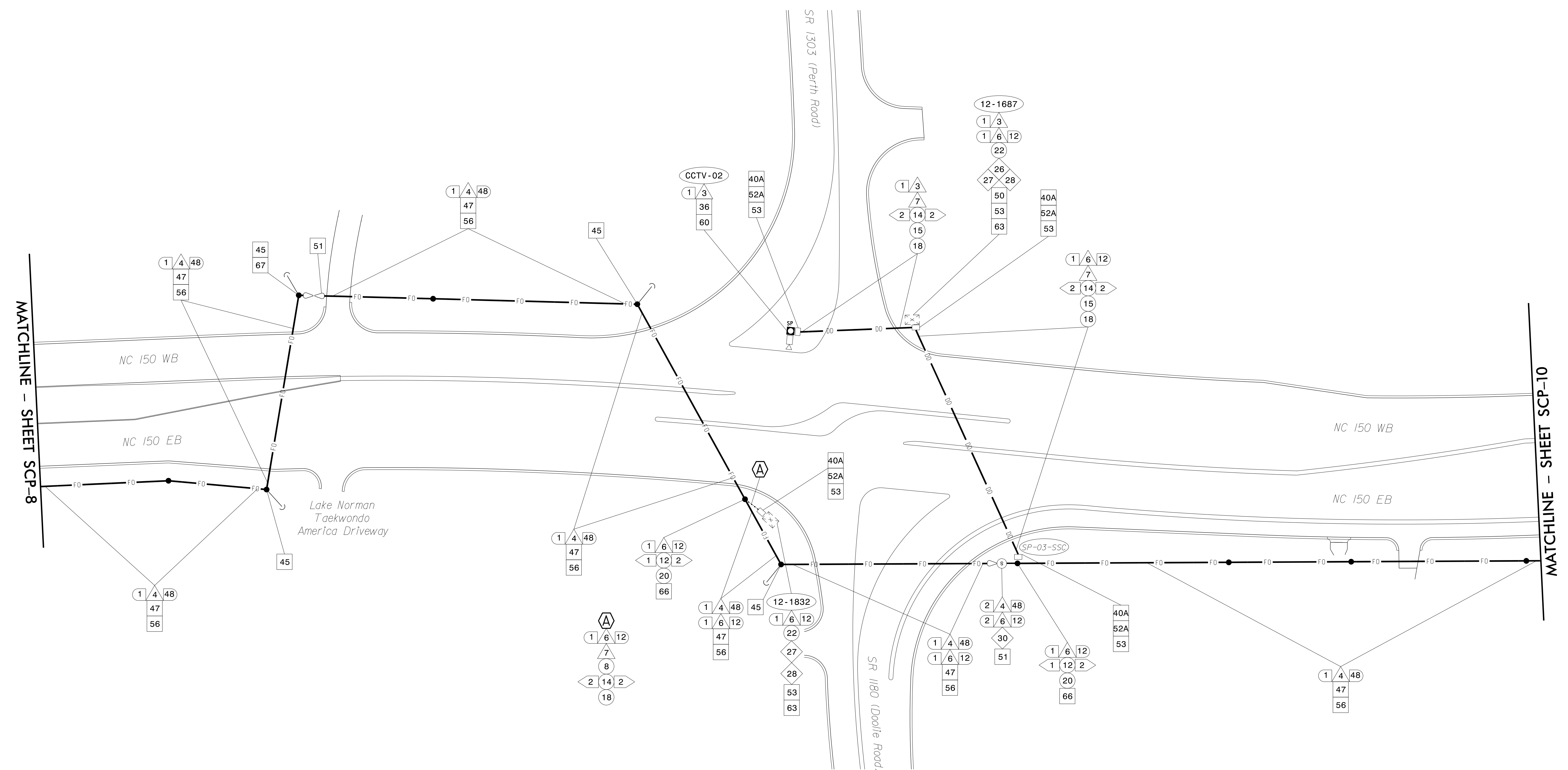
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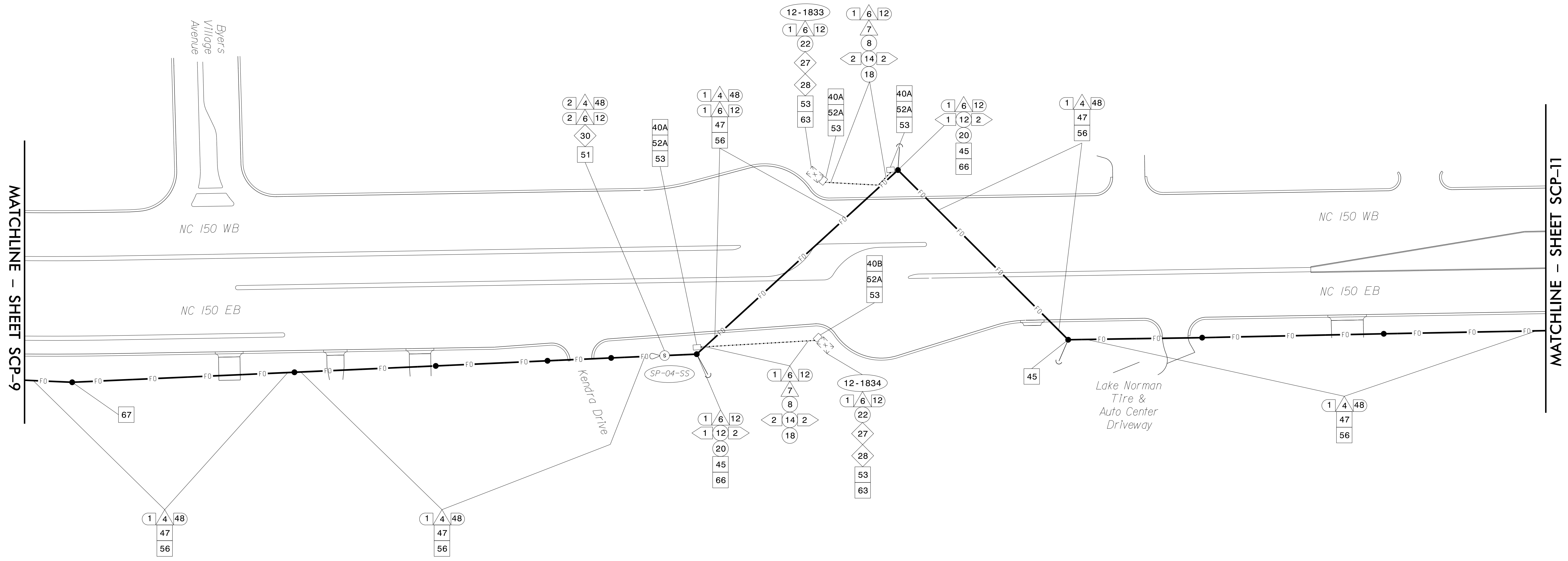
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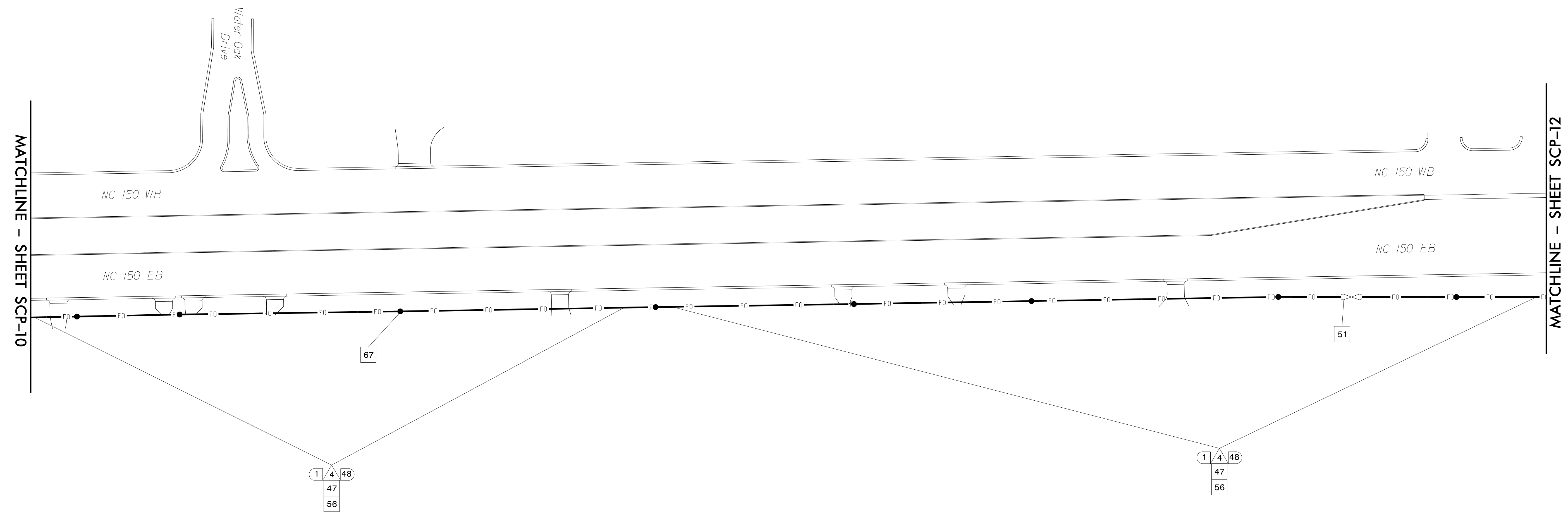
**D12-02 Mooresville Cable Routing Plans**

Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

REVISIONS	INIT.	DATE


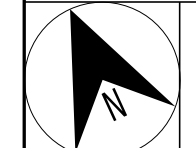
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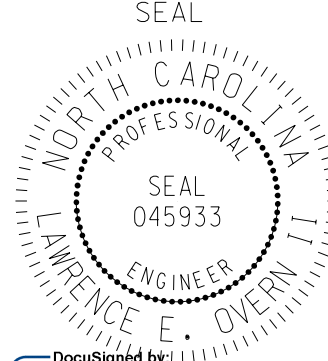
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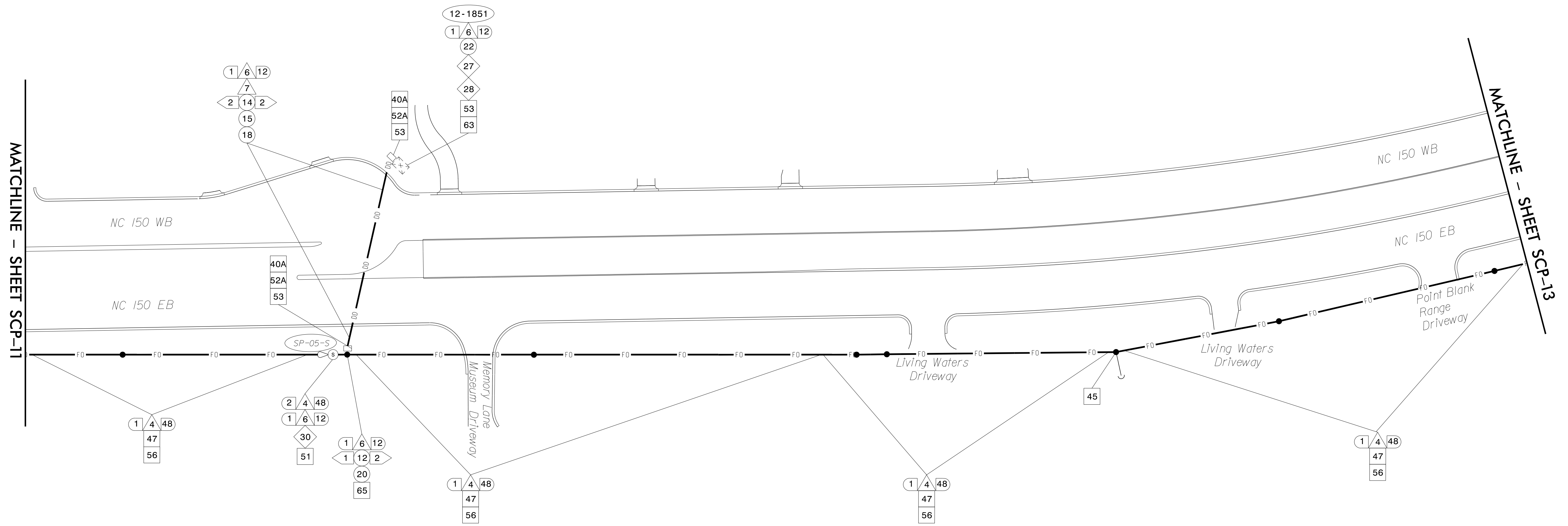

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 Division 12    Iredell County    Mooresville  
 PLAN DATE: NOVEMBER 2023    REVIEWED BY: J. Galloway  
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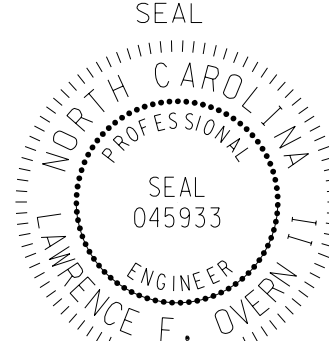
  
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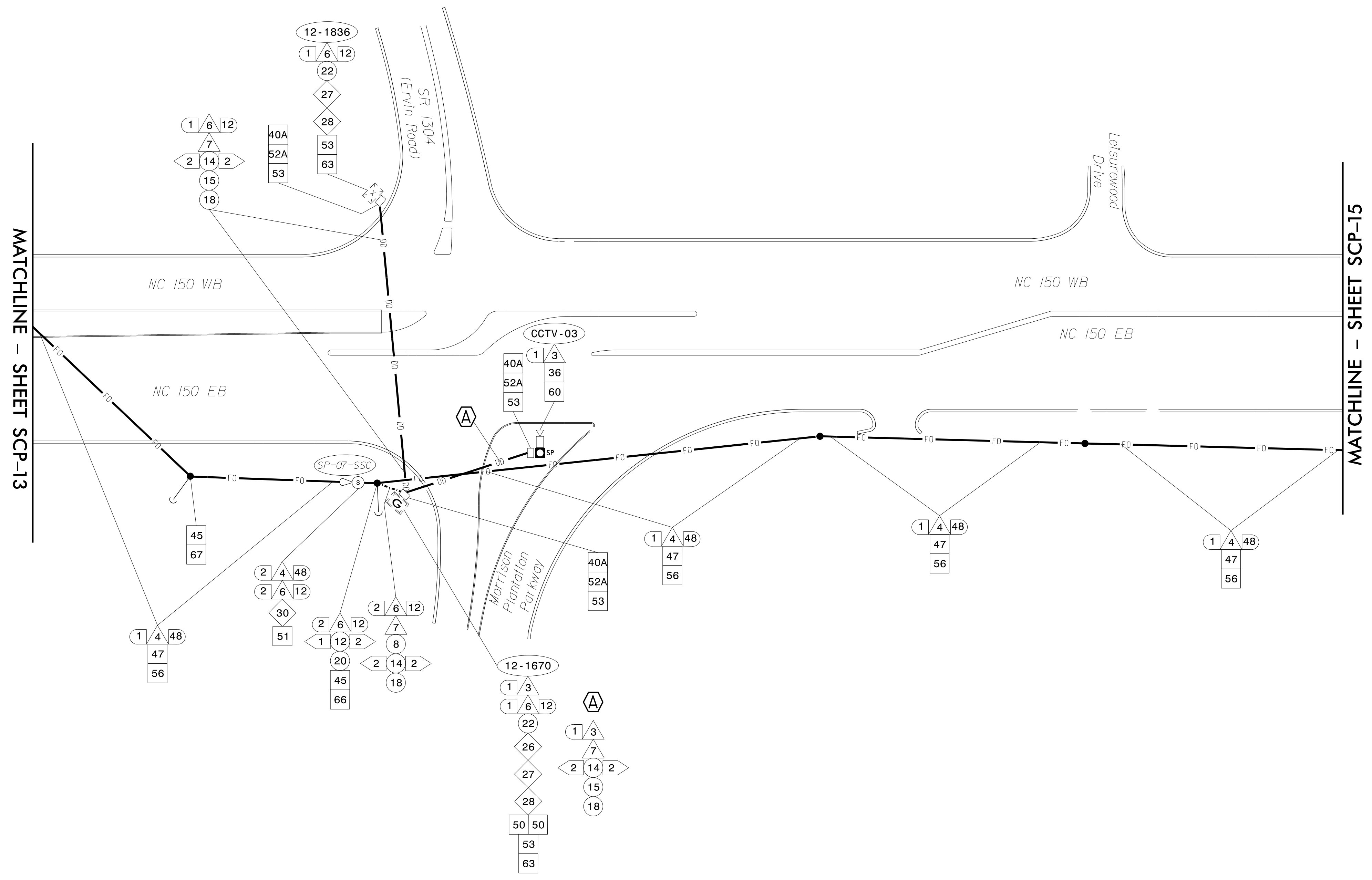
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 Cable Routing Plans**  
 Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
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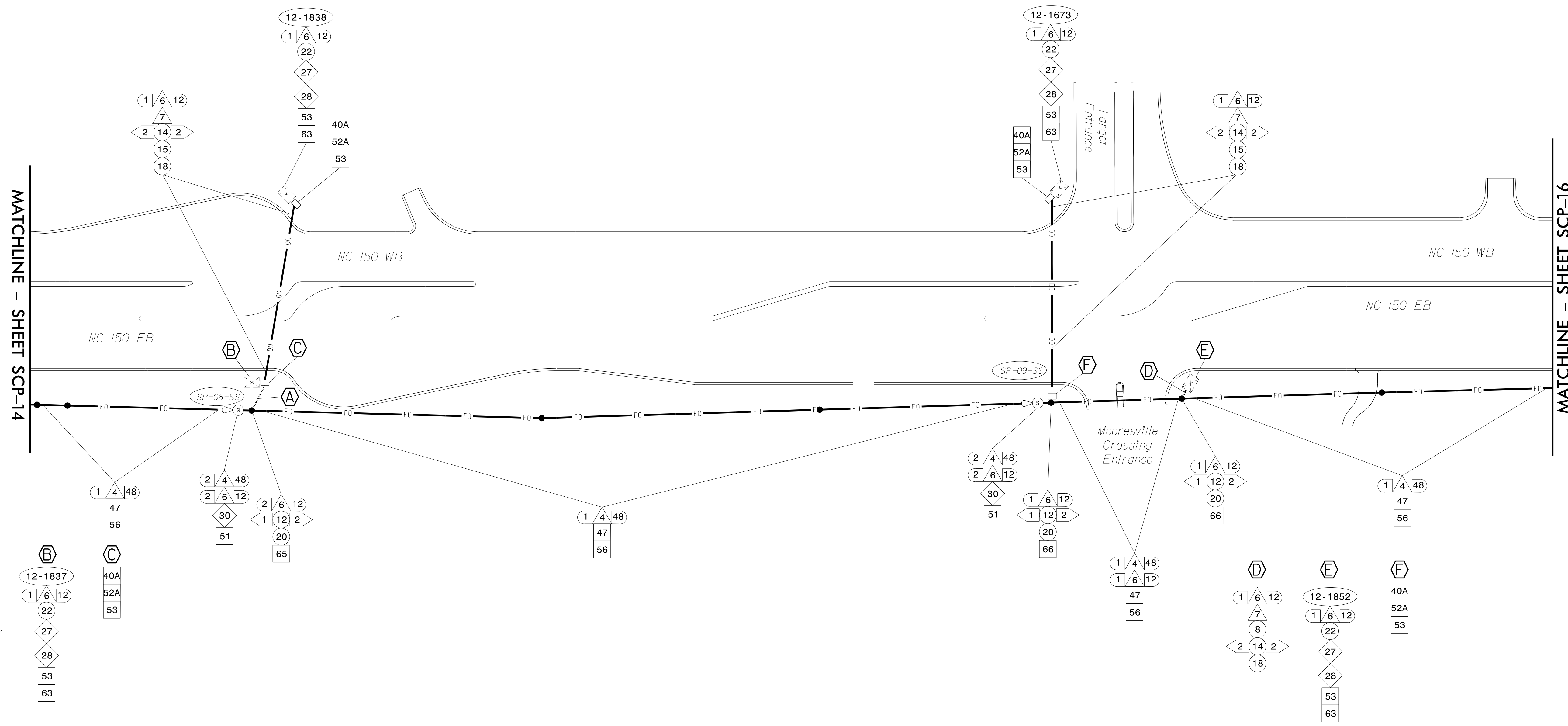
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**D12-02 Mooreville Cable Routing Plans**  
 Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

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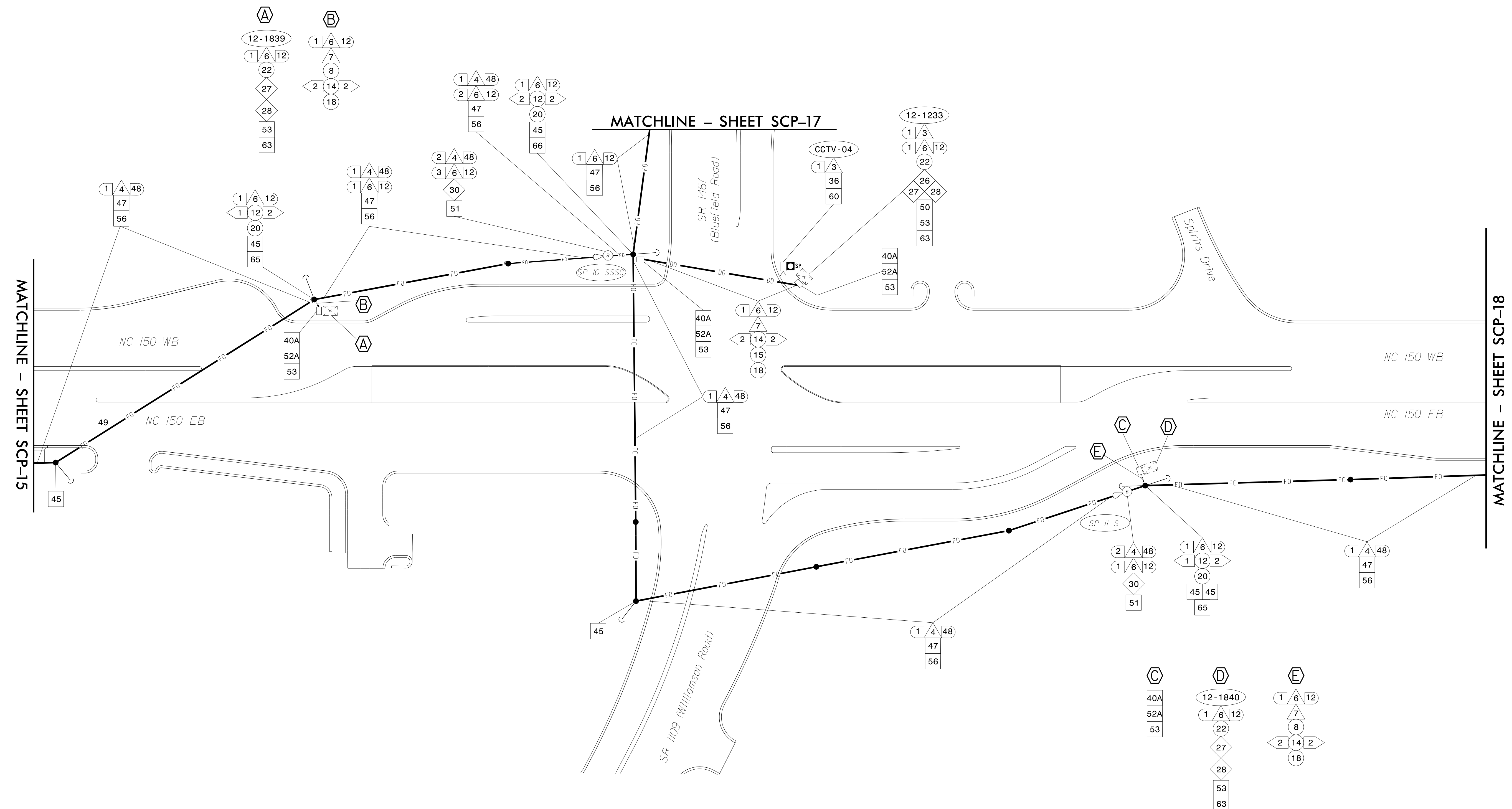
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 Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

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**D12-02 Mooresville Cable Routing Plans**

Division 12 Iredell County Mooresville

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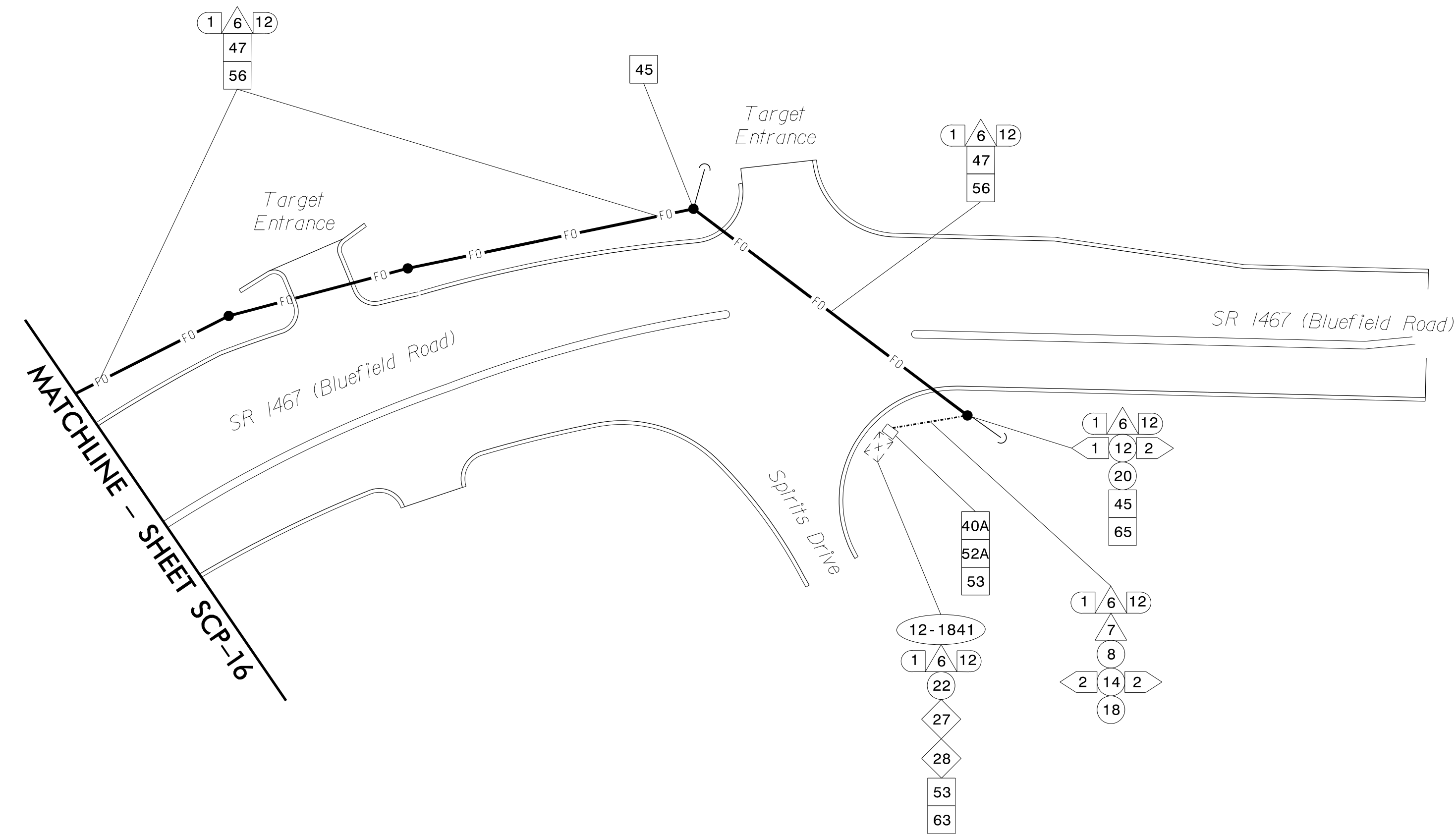
PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

REVISIONS	INIT.	DATE

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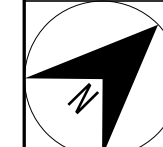
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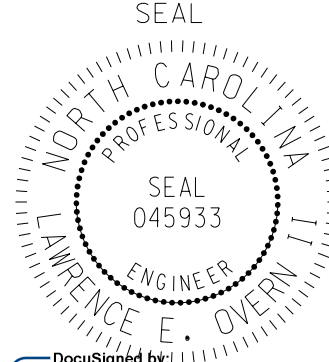

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Division 12	Iredell County Mooresville
PLAN DATE: NOVEMBER 2023	REVIEWED BY: J. Galloway
PREPARED BY: J. Hambricht	REVIEWED BY: L. Overn
REVISIONS	INIT. DATE

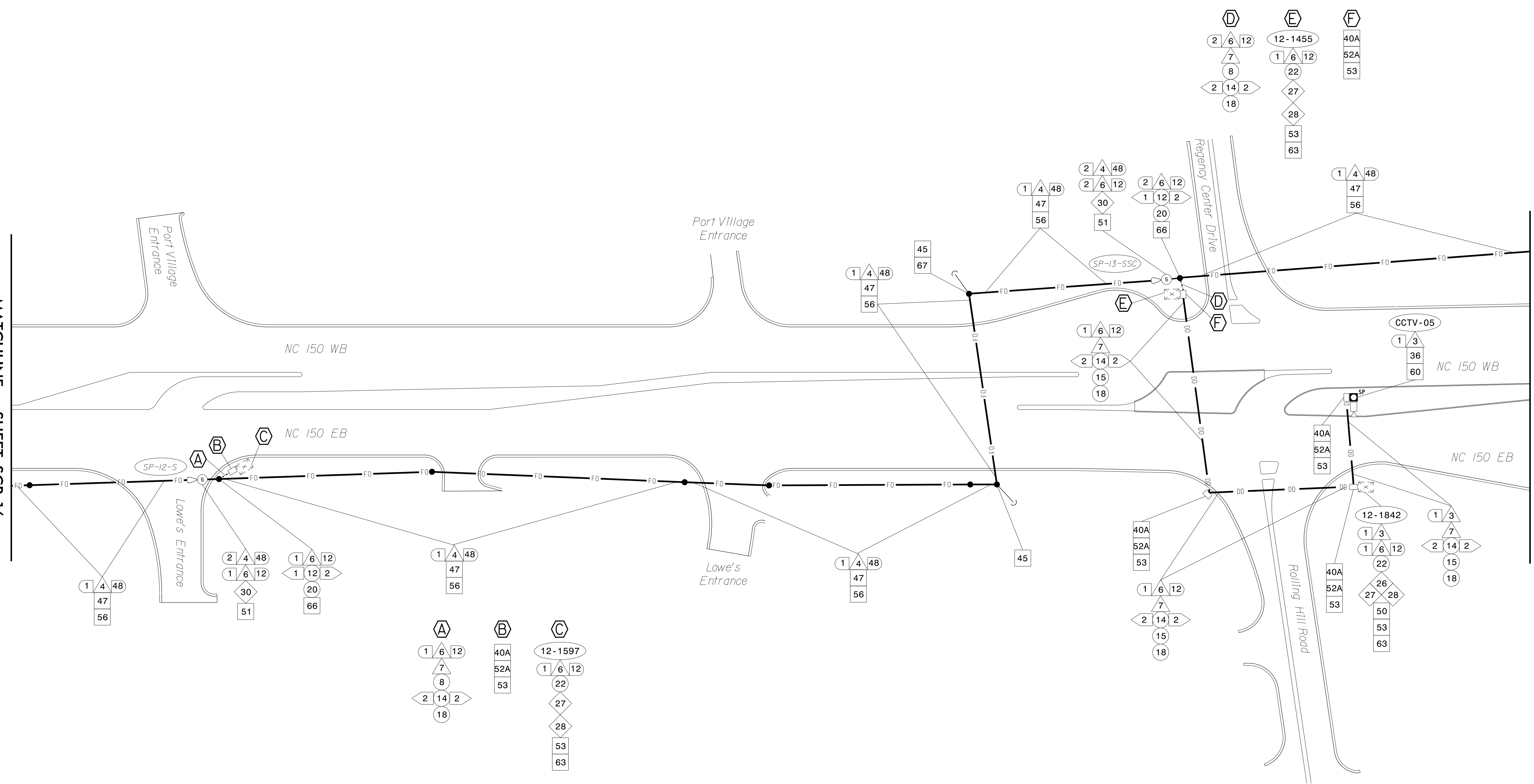
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 PROFESSIONAL ENGINEER  
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 LAWRENCE E. OVERN, II  
 ENGINEER  
 SEAL 11111  
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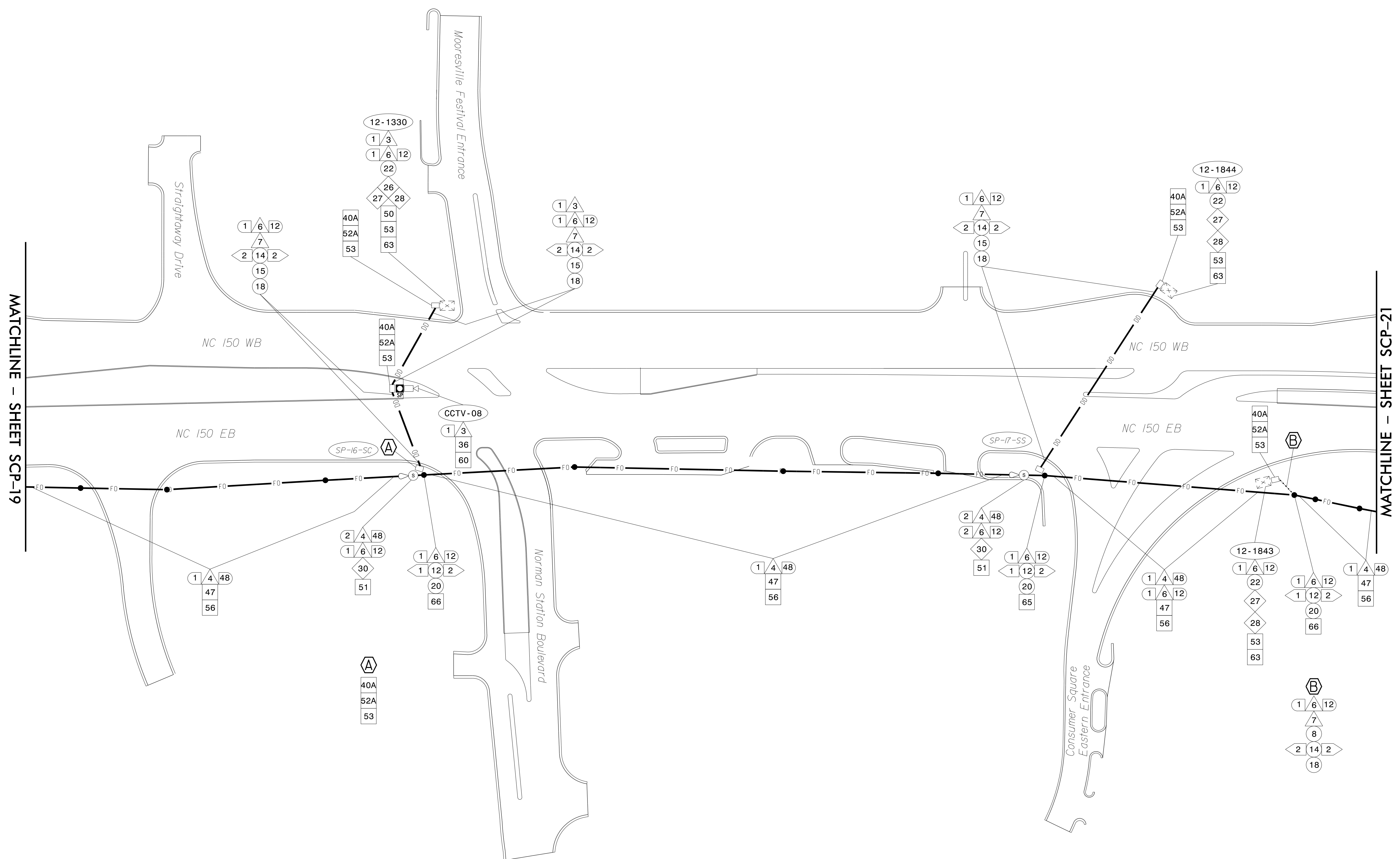
**D12-02 Mooresville Cable Routing Plans**  
 Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

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**D12-02 Mooresville Cable Routing Plans**

Division 12 Iredell County Mooresville

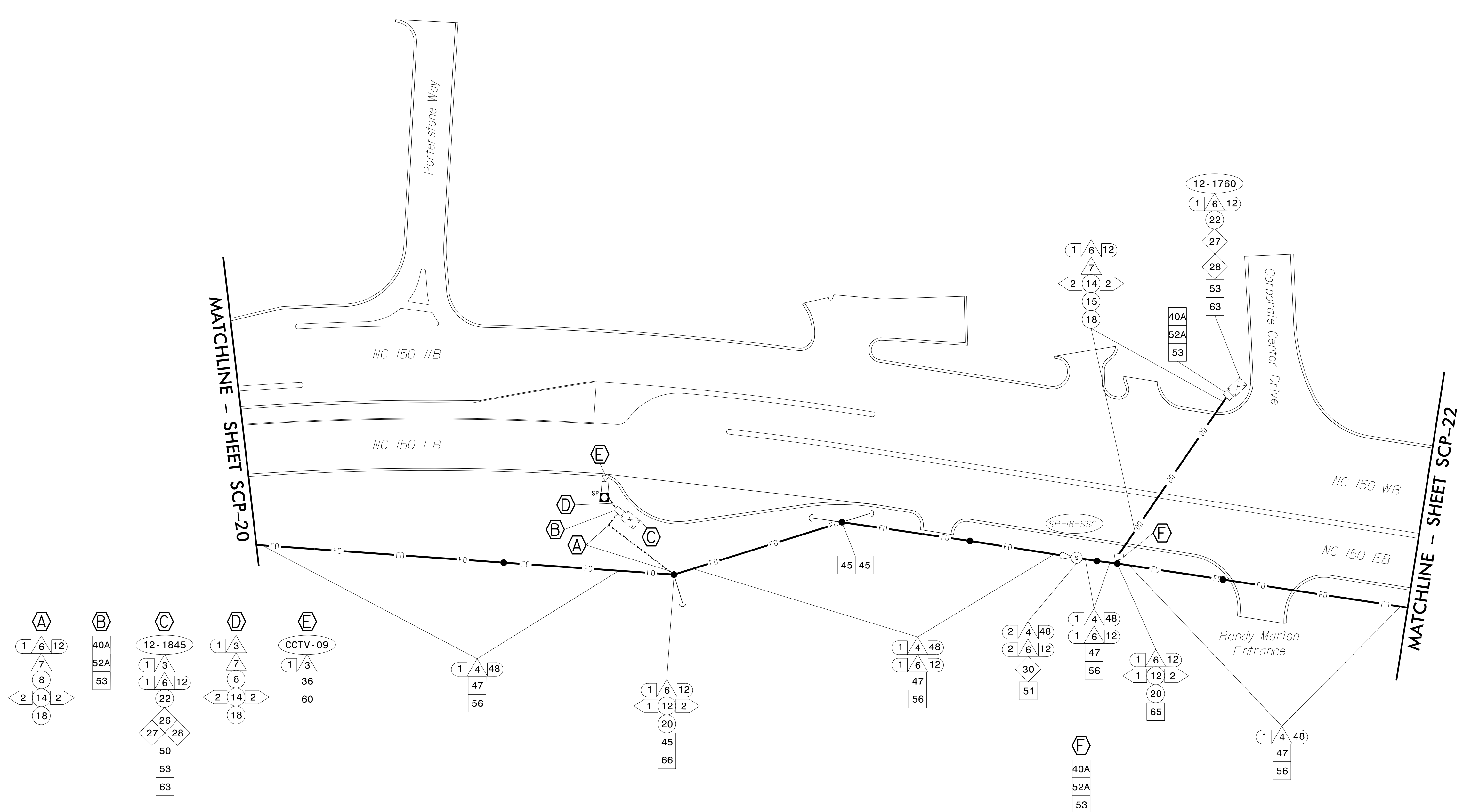
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PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

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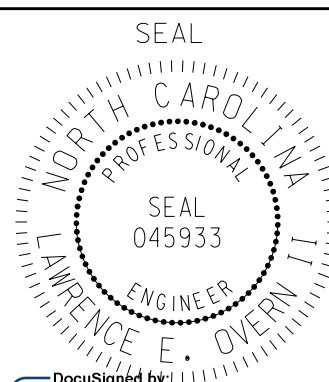


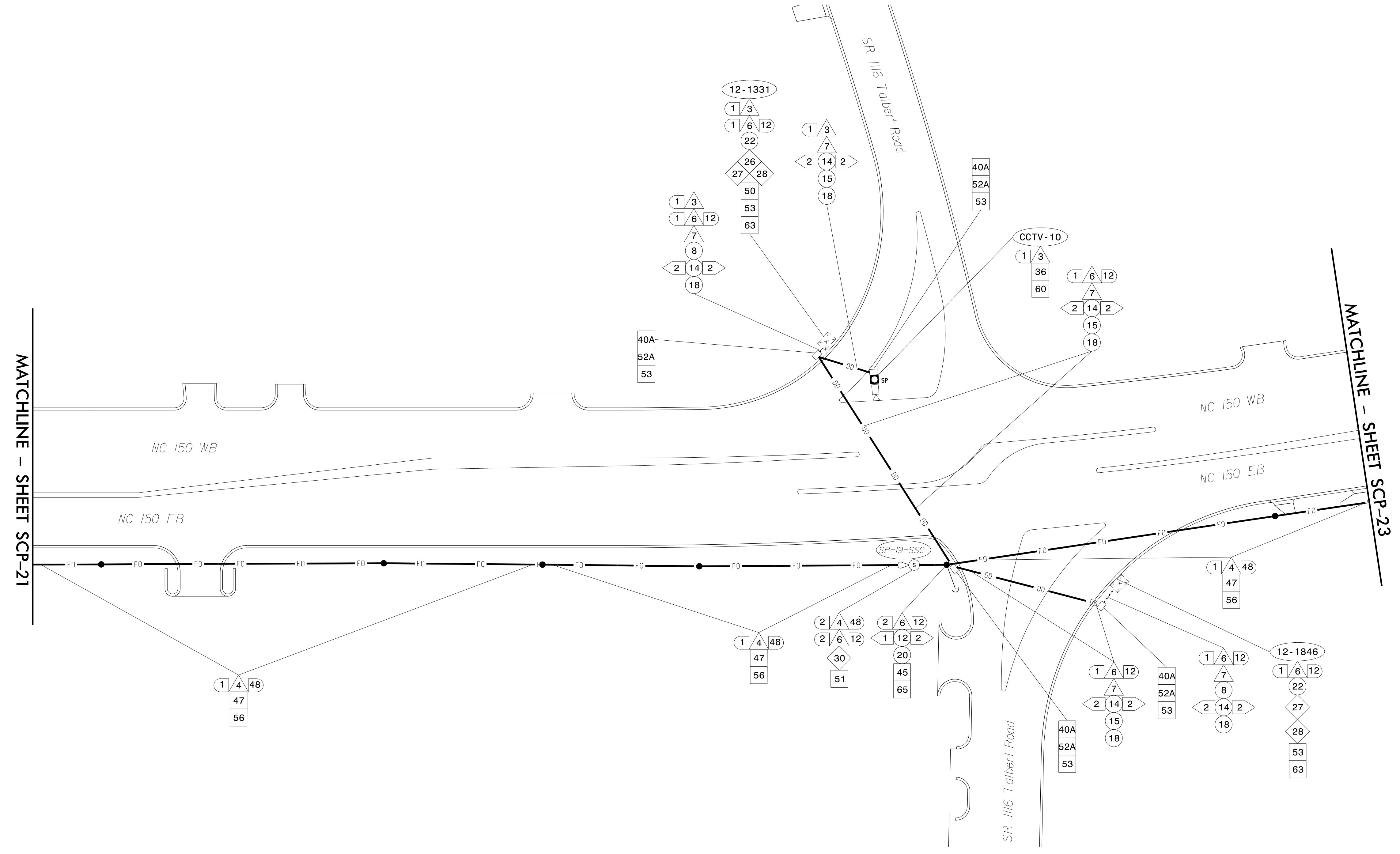
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**D12-02 Mooresville  
 Cable Routing Plans**  
 Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambricht REVIEWED BY: L. Overn  
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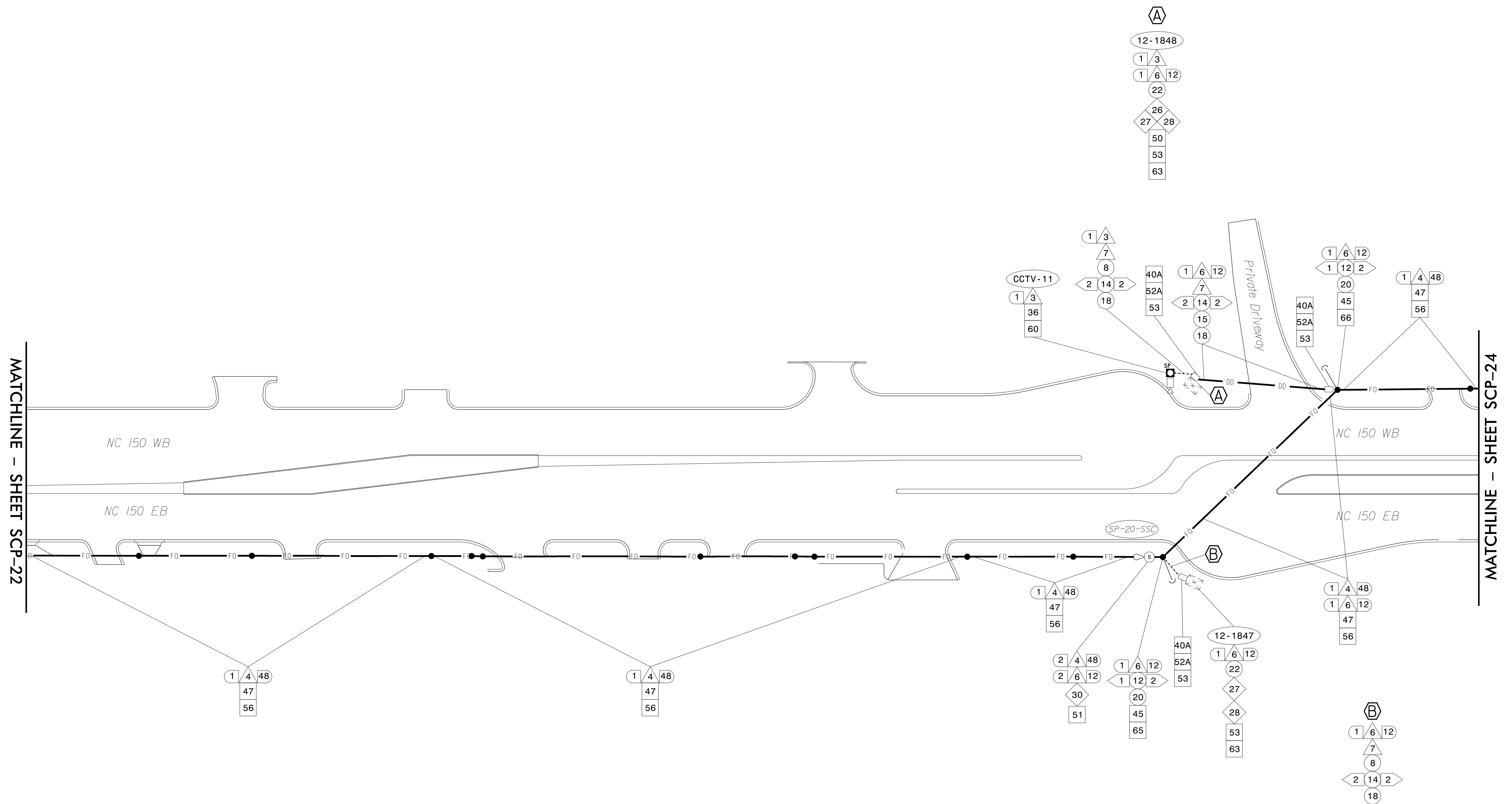
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 Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

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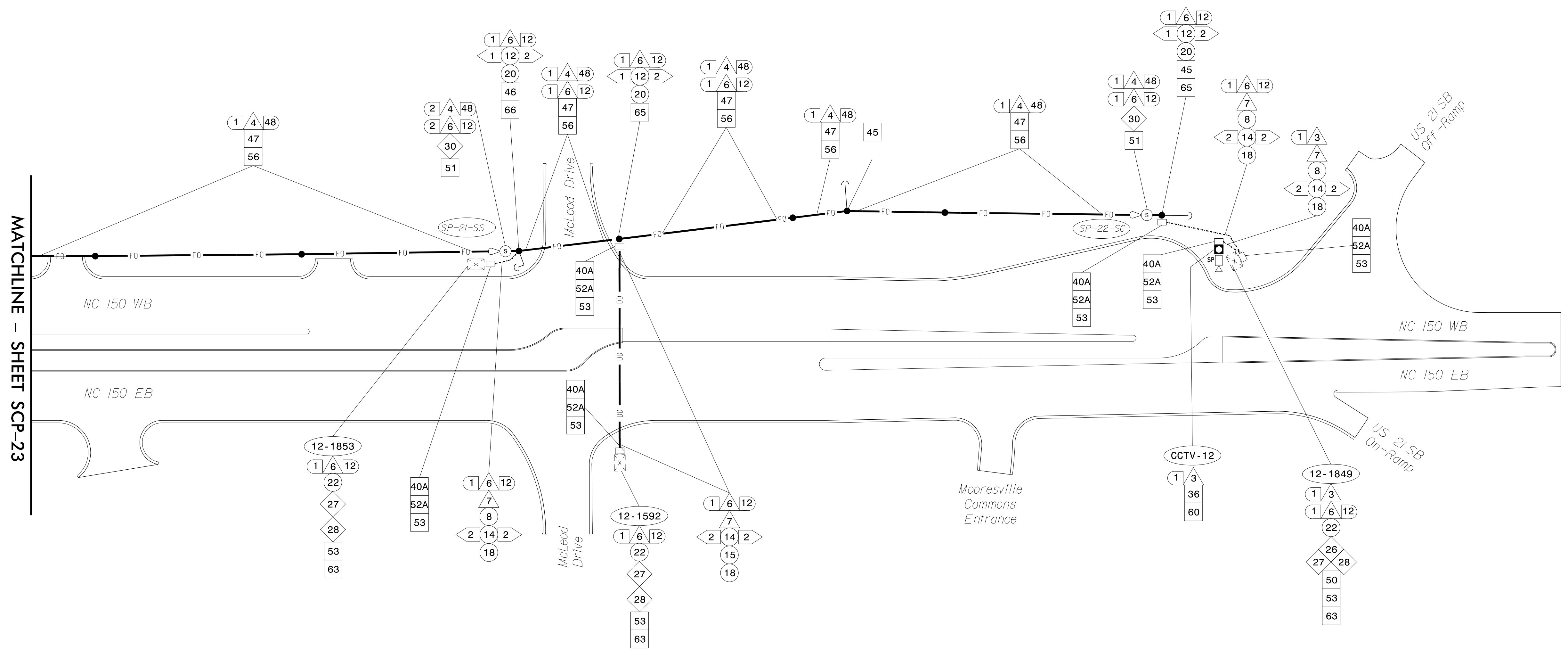
**D12-02 Mooresville  
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Division 12 Iredell County Mooresville  
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REVISIONS	INIT.	DATE

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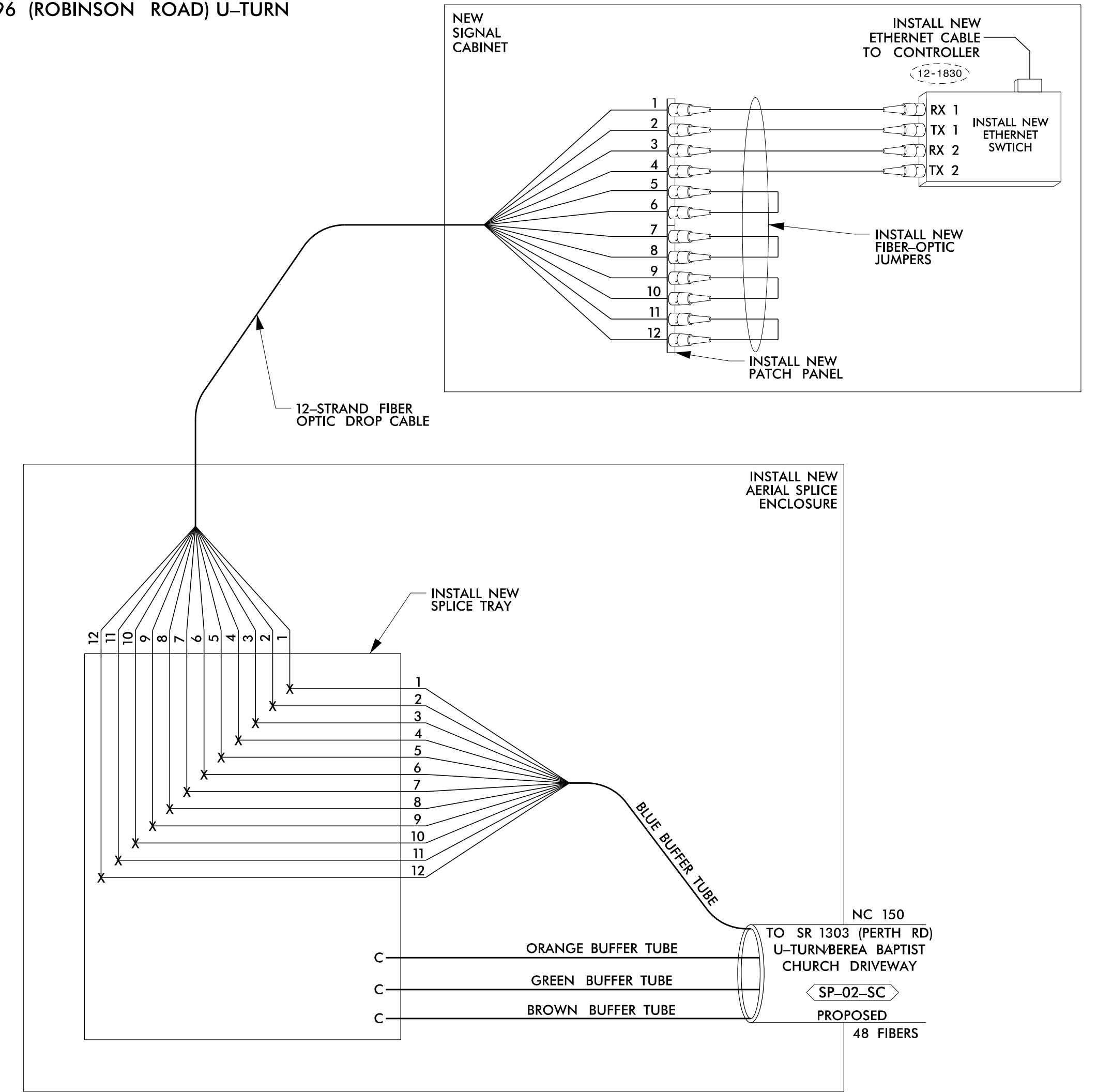
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 PROFESSIONAL ENGINEER  
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12-1830

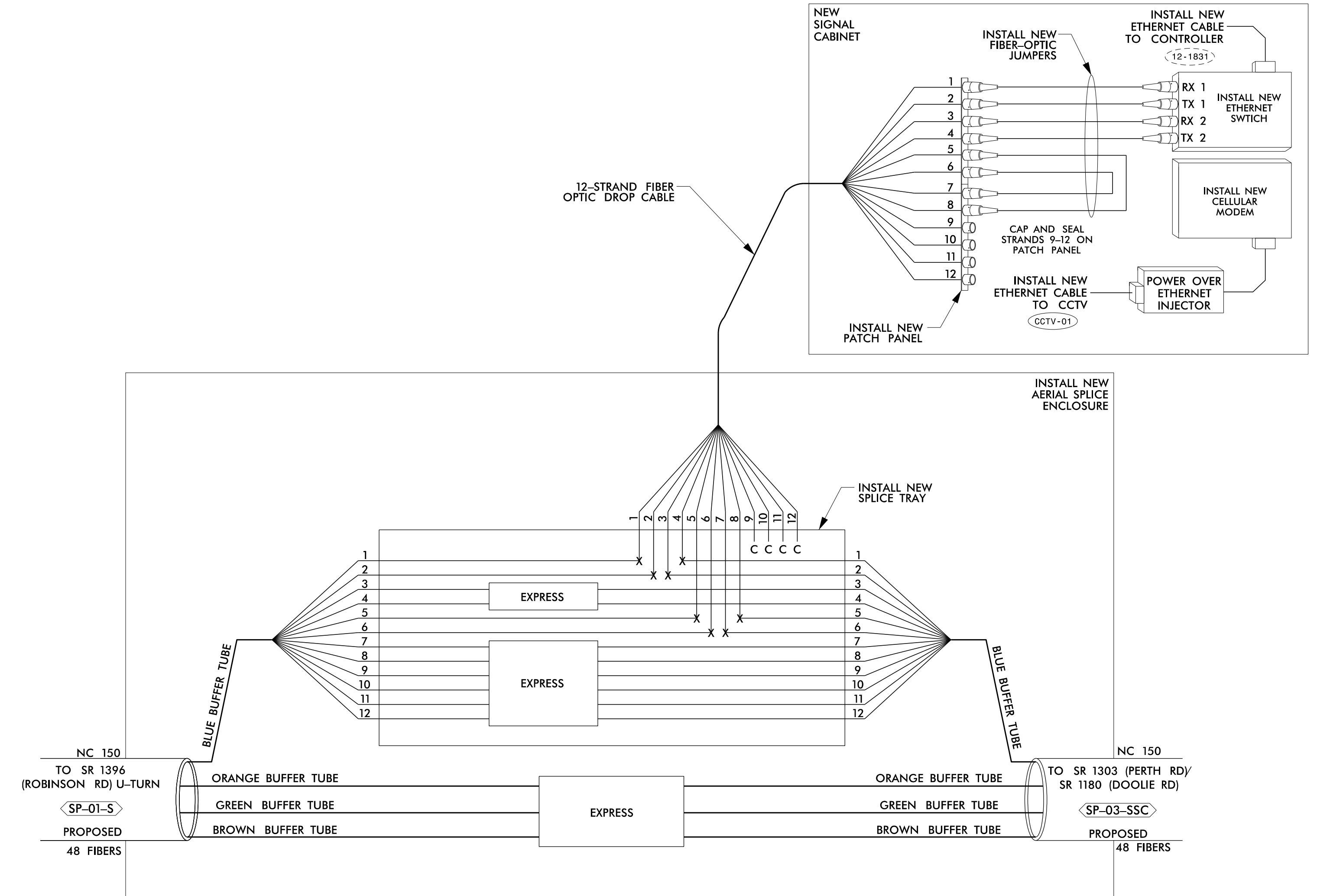
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12-1831 CCTV-01

PROPOSED AERIAL SPLICE ENCLOSURE:  
NC 150 EASTBOUND AT  
SR 1303 (PERTH ROAD) U-TURN/  
BEREA BAPTIST CHURCH DRIVEWAY



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**LEGEND**

<b>COLOR CODE TIA/EIA 598-B</b>		
(1) BLUE	(7) RED	E = EXISTING FUSION SPLICE INDIVIDUAL FIBER TO REMAIN
(2) ORANGE	(8) BLACK	X = FUSION SPLICE INDIVIDUAL FIBER
(3) GREEN	(9) YELLOW	C = CAP AND SEAL
(4) BROWN	(10) VIOLET	EXPRESS = EXPRESS ENTIRE BUFFER TUBE/FIBERS THROUGH WITHOUT CUTTING
(5) SLATE	(11) ROSE	BUFFER SPLICE = SPLICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR
(6) WHITE	(12) AQUA	SM FIBER PATCH CORD WITH CONNECTORS
13-XXXX = PROPOSED DEVICE		
13-XXXX = EXISTING DEVICE		

**NOTES:**

- UNUSED FIBERS AND/OR BUFFER TUBES LEFT COILED AND STORED IN SPLICE TRAY.
  - ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING/ENSURING THE PROPER TERMINATIONS.
  - FIVE (5) DAYS PRIOR TO BEGINNING WORK ON THE SIGNAL SYSTEM, CONTACT THE NCDOT DIVISION 12 TRAFFIC ENGINEER AT 980-552-4214 TO ARRANGE FOR NCDOT 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 NCDOT DIVISION 12 TRAFFIC ENGINEER AFTER ALL WORK IS PERFORMED TO ENSURE THAT ALL FIBER CIRCUITS ARE FUNCTIONING PROPERLY. WORK IS NOT COMPLETE UNTIL THE SIGNAL SYSTEM IS UP AND OPERATIONAL.
  - INCLUDE ON THE COVER OF SPLICE TRAY THE FOLLOWING INFORMATION (REFERENCE STANDARD SPECIFICATIONS SECTION 1731):  
A. SPLICE LOCATION  
B. DATE  
C. COMPANY NAME  
D. NAME OF INDIVIDUAL PERFORMING THE SPLICE
- PRIOR TO INSTALLING THE COVER ON THE SPLICE TRAY, TAKE A DIGITAL PHOTOGRAPH SHOWING THE SPLICE TRAY AND INFORMATION SHOWN ABOVE (ITEMS A-D) AND SUBMIT PHOTOGRAPH ALONG WITH OTDR TEST RESULTS.

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Prepared for the Offices of:  
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Division of Signal Management  
750 N. Greenfield Pkwy, Garner, NC 27529

**D12-02 Mooresville  
Fiber Optic Splice Details**

Division 12 Iredell County Mooresville  
PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

REVISIONS	INIT.	DATE

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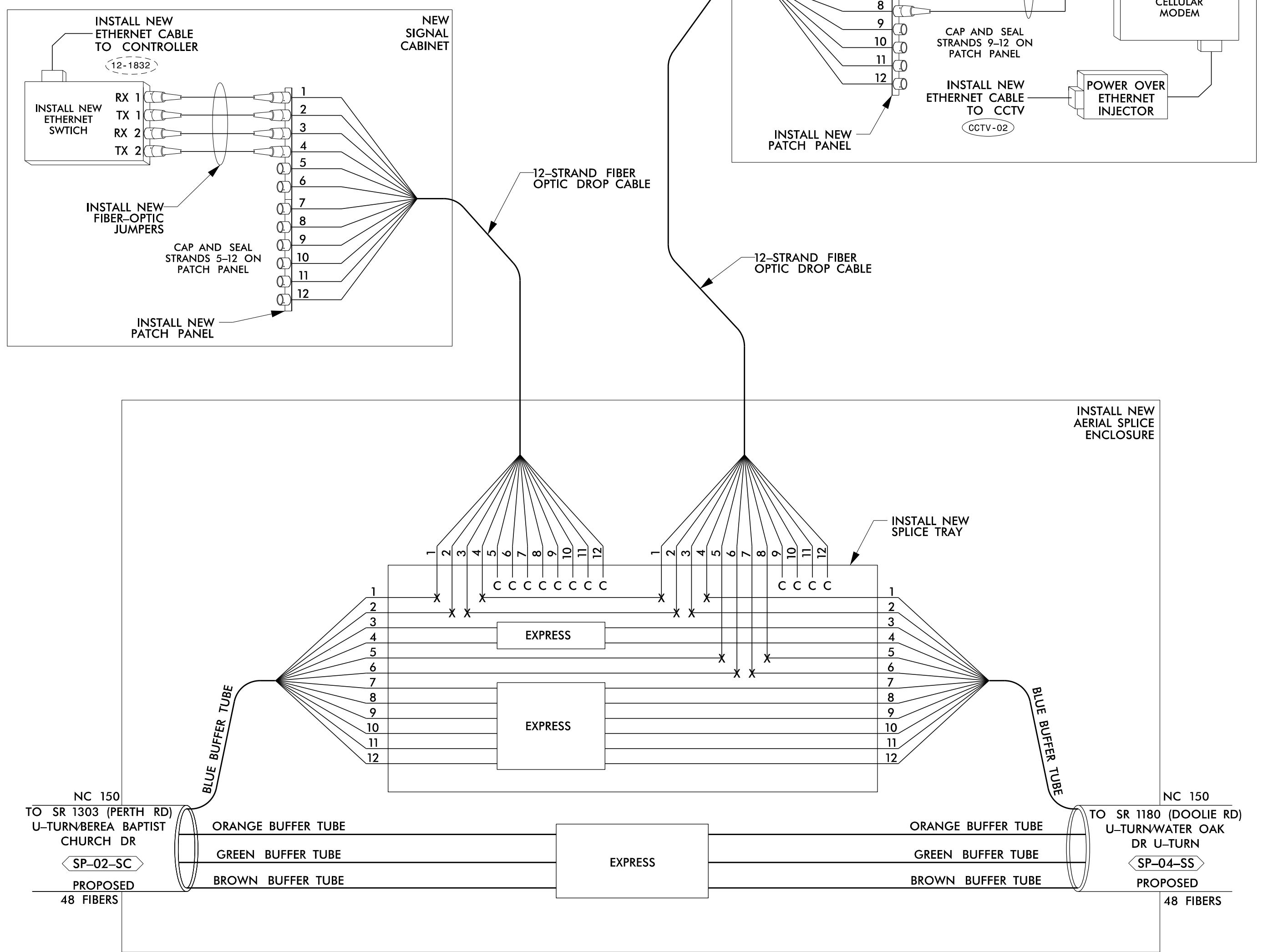
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PROFESSIONAL ENGINEER  
LAWRENCE E. OVERN  
045933  
5/15/2024  
DATE  
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### SPLICE NUMBER:

**SP-03-SSC**

12-1832 12-1687 CCTV-02

PROPOSED AERIAL SPLICE ENCLOSURE:  
NC 150 AT SR 1303 (PERTH ROAD)  
SR 1180 (DOOLIE ROAD)

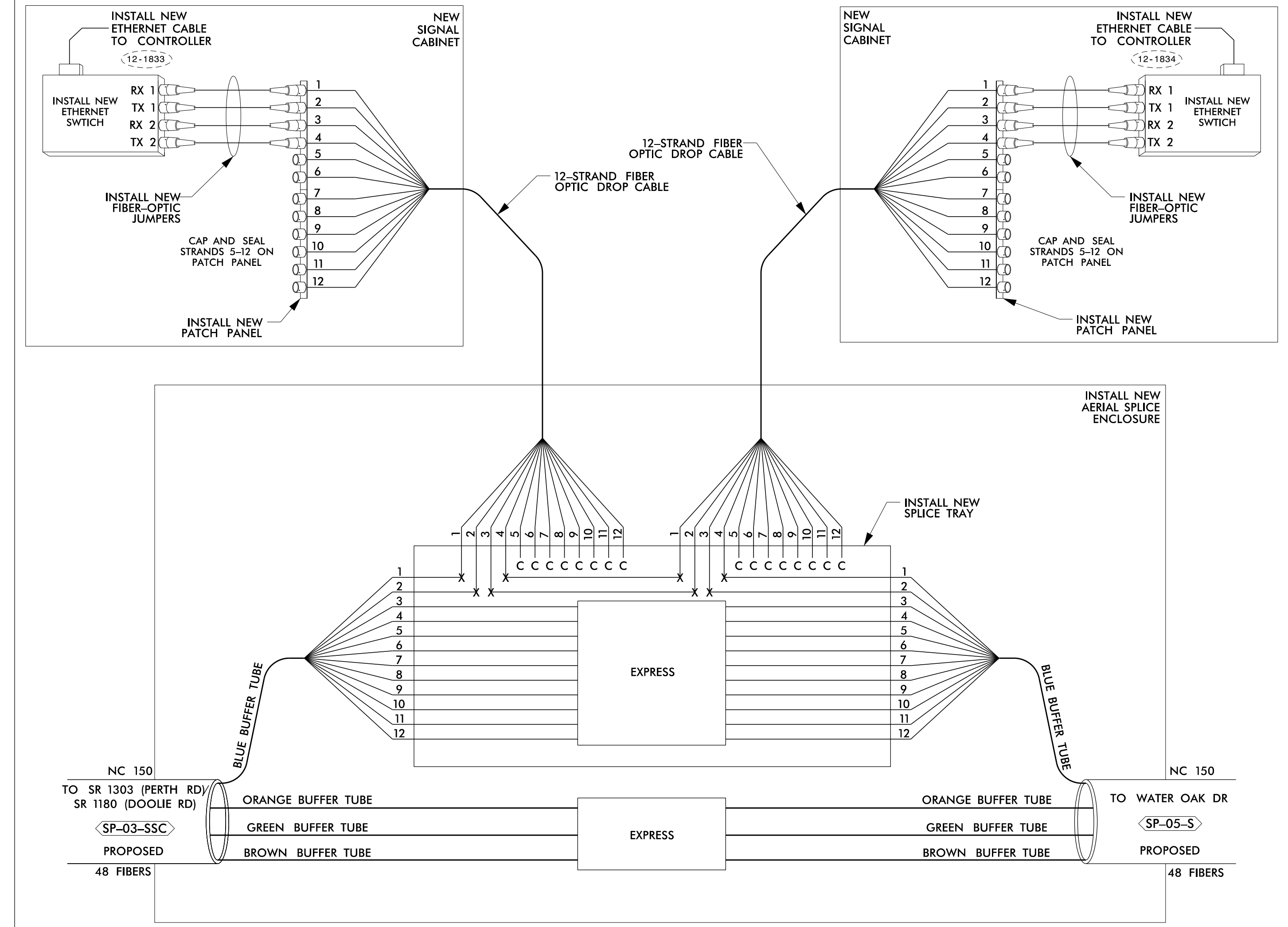


### SPLICE NUMBER:

**SP-04-SS**

12-1833 12-1834

PROPOSED AERIAL SPLICE ENCLOSURE:  
NC 150 AT SR 1180 (DOOLIE ROAD) U-TURN/  
WATER OAK DRIVE U-TURN



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#### LEGEND

COLOR CODE TIA/EIA 598-B		E =	EXISTING FUSION SPLICE INDIVIDUAL FIBER TO REMAIN
(1) BLUE	(7) RED	X =	FUSION SPLICE INDIVIDUAL FIBER
(2) ORANGE	(8) BLACK	C =	CAP AND SEAL
(3) GREEN	(9) YELLOW	EXPRESS	EXPRESS ENTIRE BUFFER TUBE/FIBERS THROUGH WITHOUT CUTTING
(4) BROWN	(10) VIOLET	BUFFER SPLICE	SPLICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR
(5) SLATE	(11) ROSE	SM FIBER PATCH CORD WITH CONNECTORS	
(6) WHITE	(12) AQUA		
13-XXXX = PROPOSED DEVICE			
13-XXXX = EXISTING DEVICE			

#### NOTES:

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Stantec Consulting Services Inc.  
801 Jones Franklin Road-Suite 300  
Raleigh, NC 27606  
Tel. (919) 851-6866  
Fax. (919) 851-7024  
www.stantec.com  
License No. F-0672

Prepared for the Offices of:  

 State of North Carolina  
 Department of Transportation  
 Office of Signal Management  
 750 N. Greenfield Pkwy, Garner, NC 27529

**D12-02 Mooresville  
Fiber Optic Splice Details**

Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambright REVIEWED BY: L. Overn

REVISIONS	INIT.	DATE

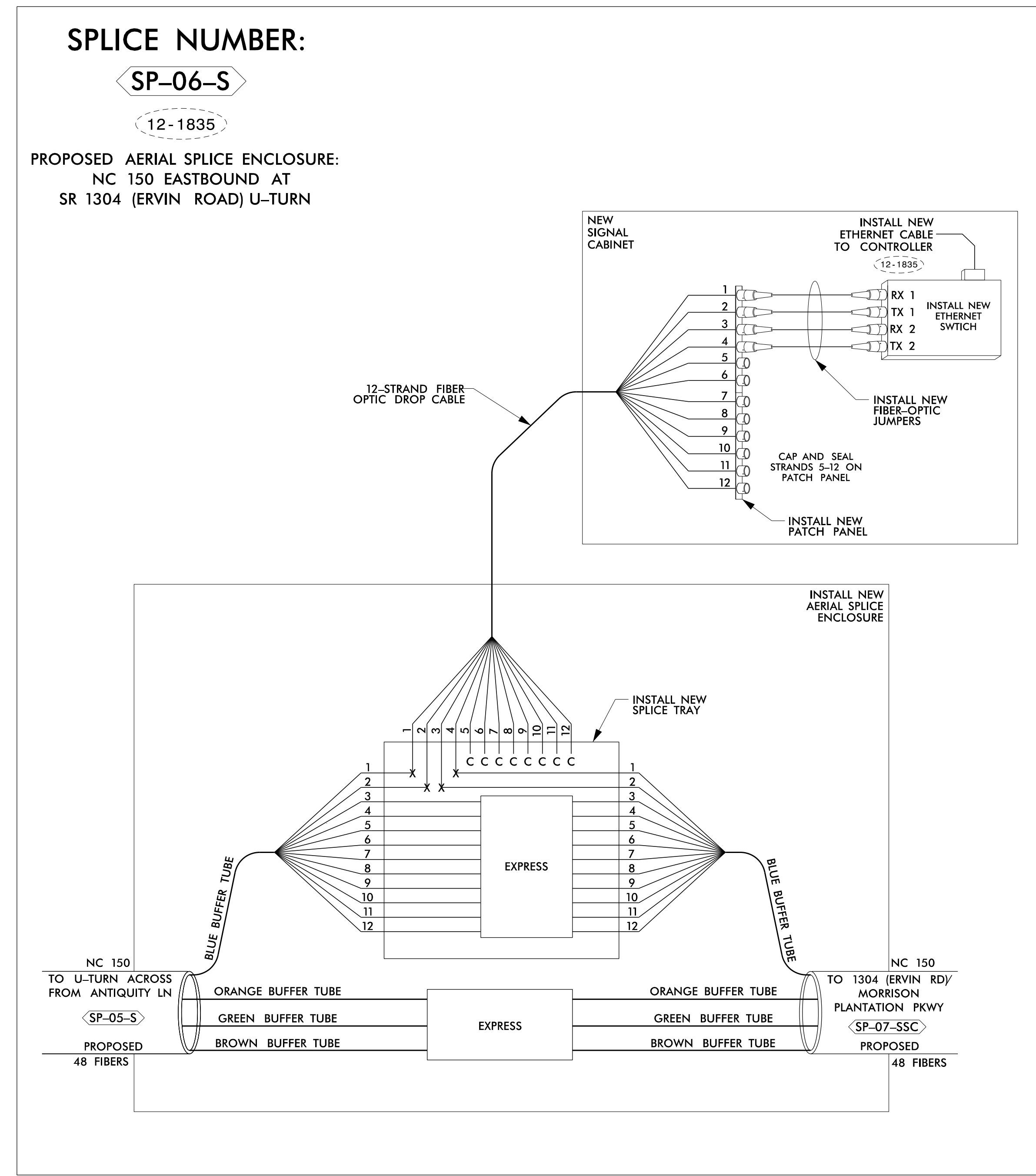
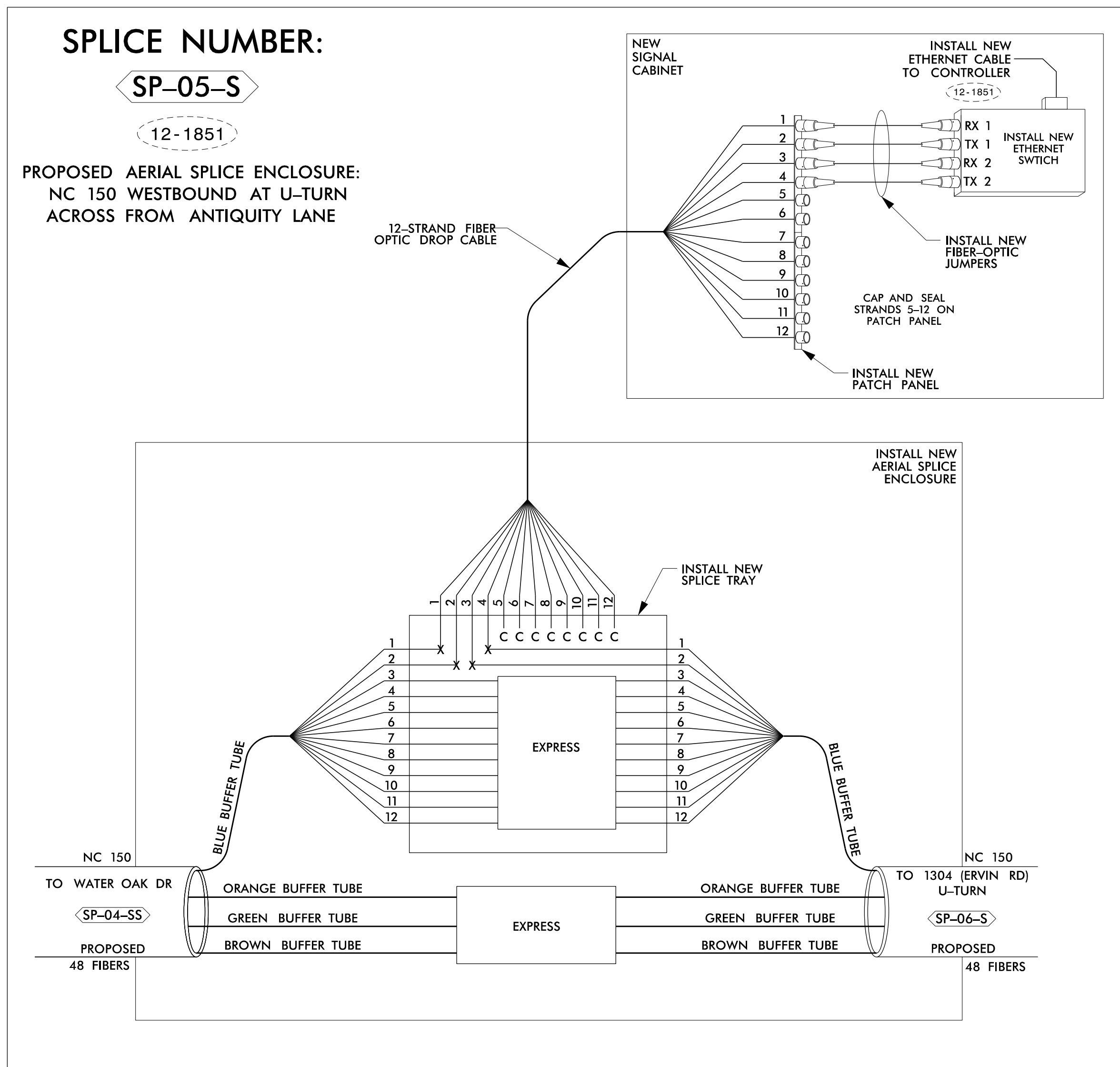
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SEAL  

 J. Galloway  
 PROFESSIONAL ENGINEER  
 STATE OF NORTH CAROLINA  
 License No. 045933

5/15/2024  
DATE



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#### LEGEND

<b>COLOR CODE TIA/EIA 598-B</b>		
(1) BLUE	(7) RED	E = EXISTING FUSION SPLICE INDIVIDUAL FIBER TO REMAIN
(2) ORANGE	(8) BLACK	X = FUSION SPLICE INDIVIDUAL FIBER
(3) GREEN	(9) YELLOW	C = CAP AND SEAL
(4) BROWN	(10) VIOLET	EXPRESS = EXPRESS ENTIRE BUFFER TUBE/FIBERS THROUGH WITHOUT CUTTING
(5) SLATE	(11) ROSE	BUFFER SPLICE = SPLICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR
(6) WHITE	(12) AQUA	SM FIBER PATCH CORD WITH CONNECTORS
13-XXXX = PROPOSED DEVICE		
13-XXXX = EXISTING DEVICE		

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N.T.S.

### D12-02 Mooresville Fiber Optic Splice Details

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PREPARED BY: J. Hambricht	REVIEWED BY: L. Overn	

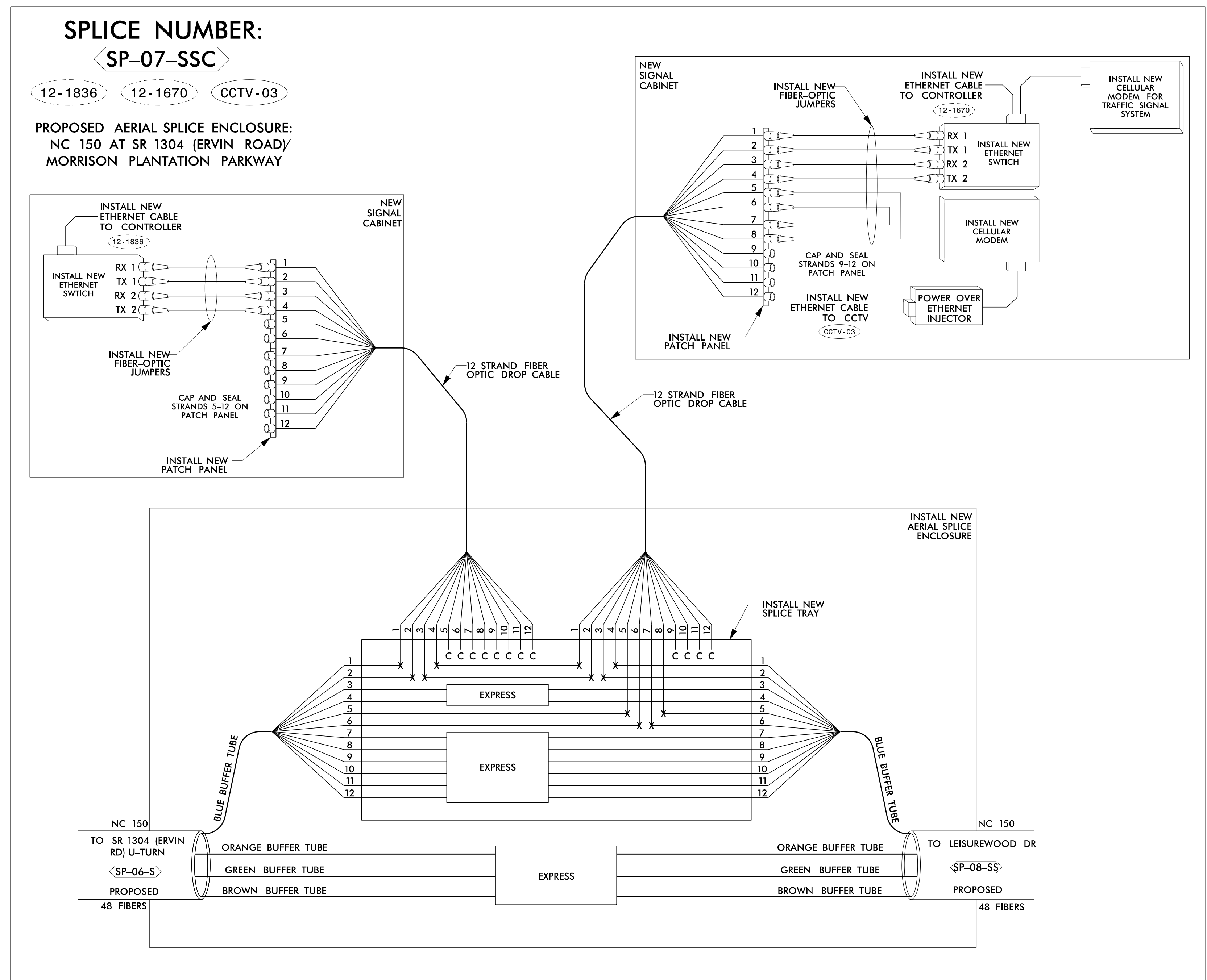
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**LEGEND**

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**N.T.S.**

**D12-02 Mooresville  
Fiber Optic Splice Details**

Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
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REVISIONS	INIT.	DATE

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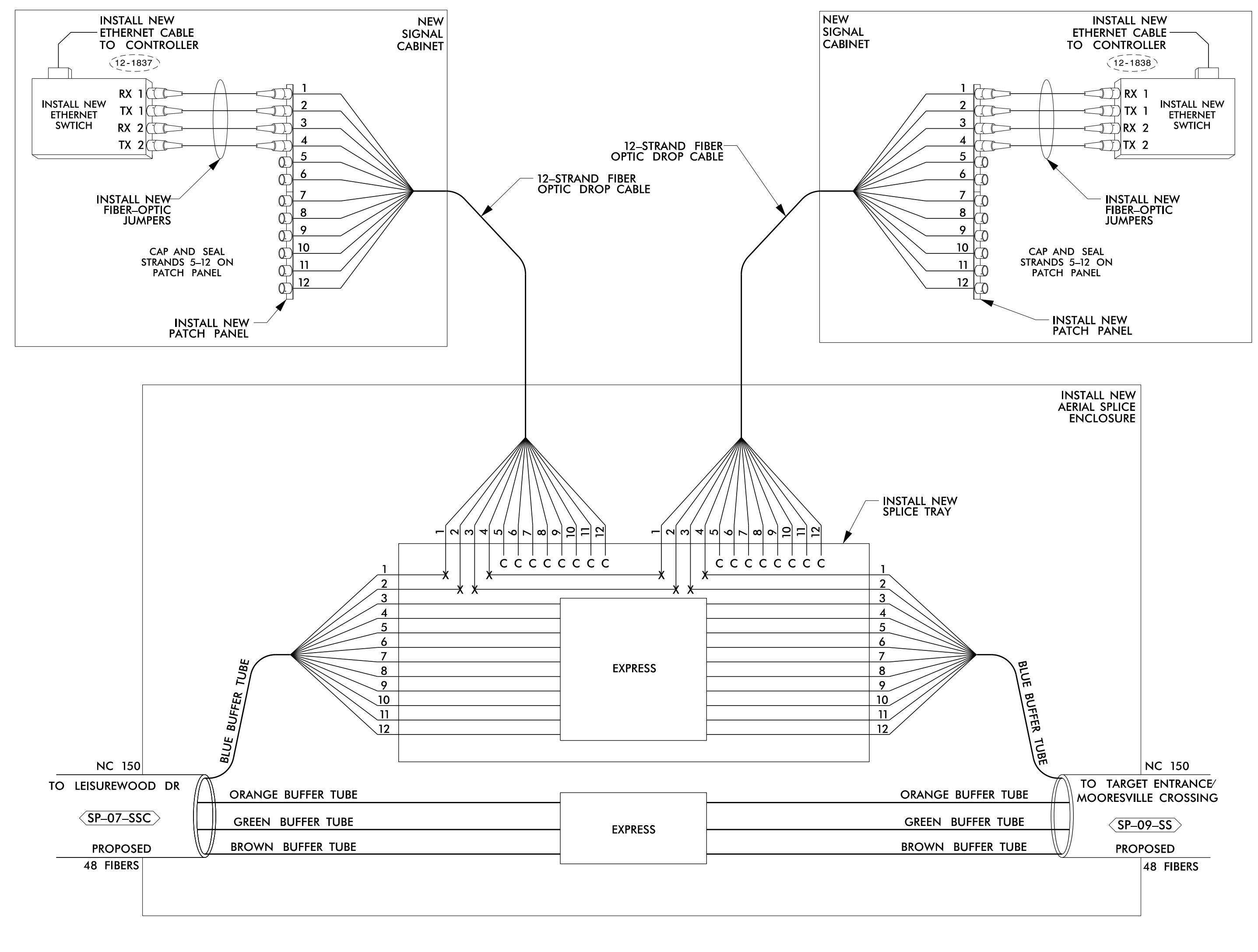
SEAL  
NORTH CAROLINA PROFESSIONAL ENGINEERS  
SEAL 045933  
LAWRENCE E. OVERN  
DATE 5/15/2024  
CADD Filename: \_\_\_\_\_

### SPLICE NUMBER:

**SP-08-SS**

12-1837 12-1838

PROPOSED AERIAL SPLICE ENCLOSURE:  
NC 150 AT TARGET U-TURN/MORRISON  
PLANTATION PARKWAY U-TURN



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**LEGEND**

<b>COLOR CODE TIA/EIA 598-B</b>		
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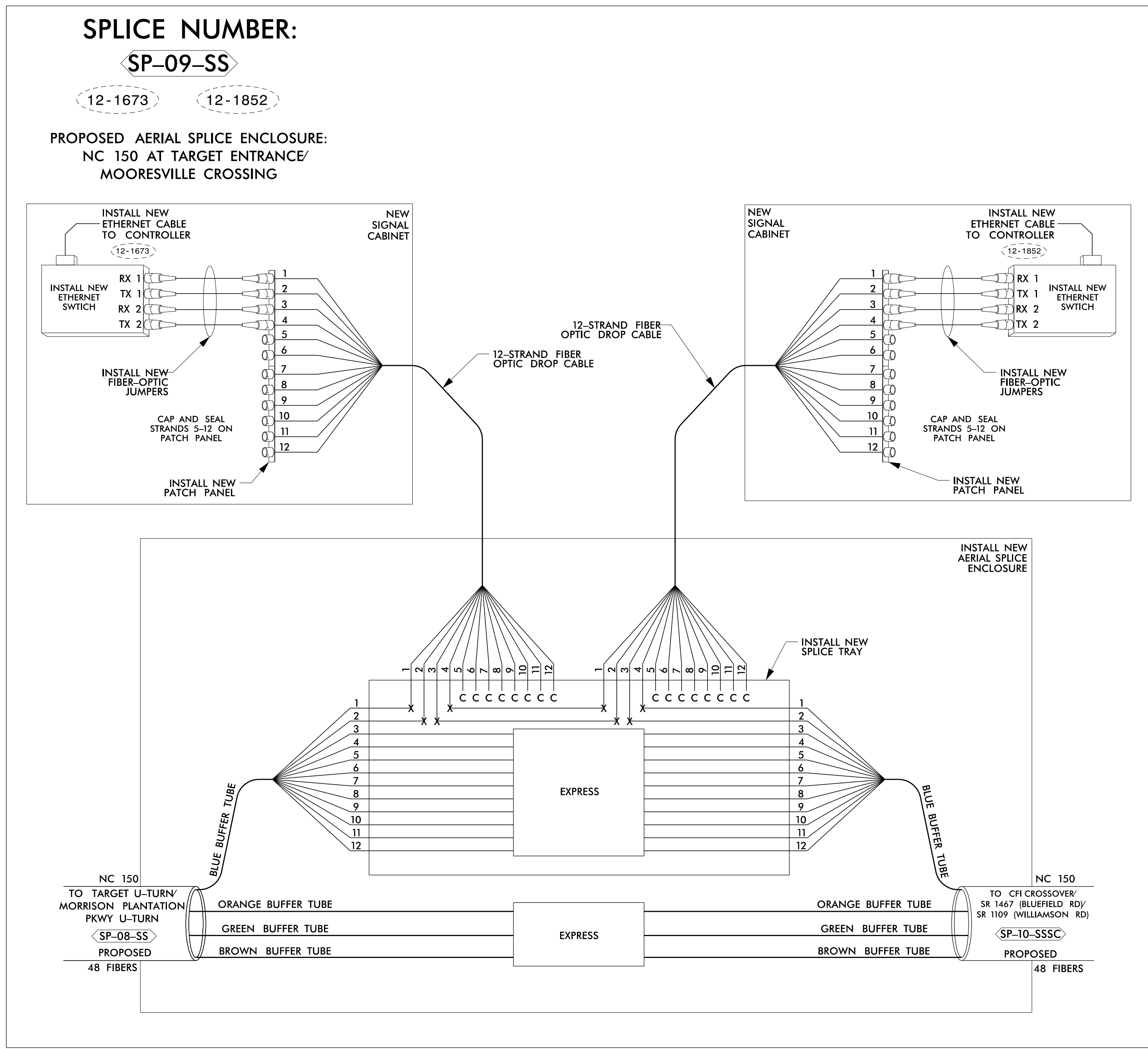
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SEAL  

 SEAL  
 045933  
 J. Galloway  
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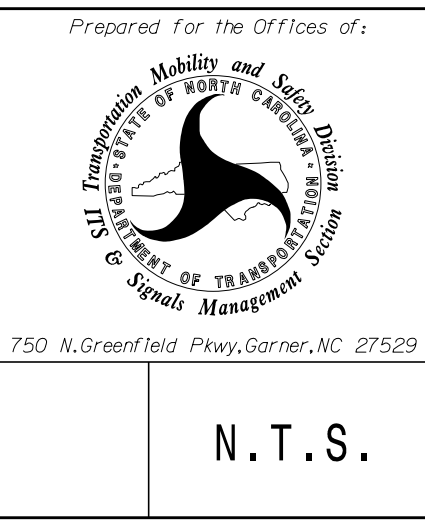
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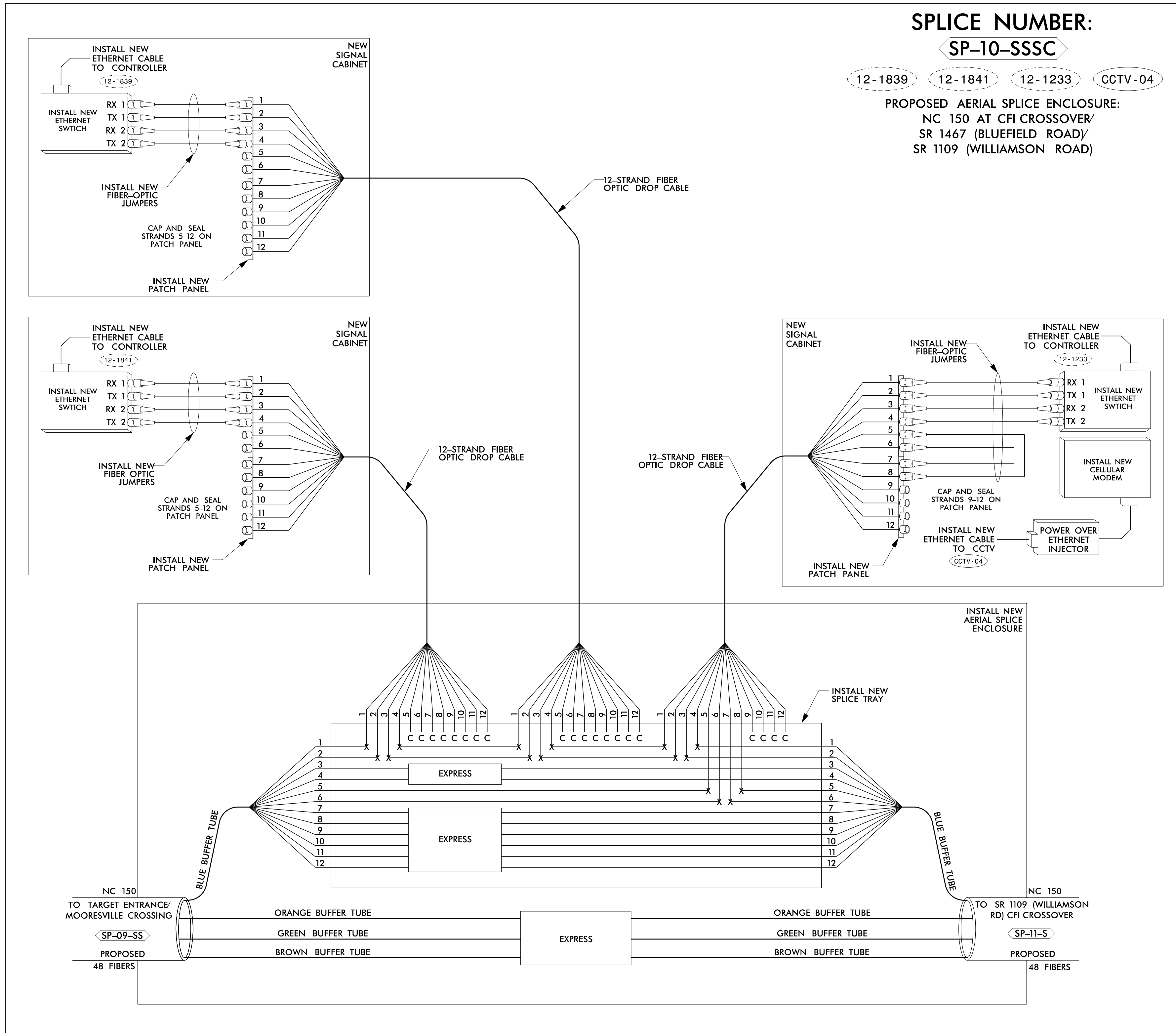


**D12-02 Mooresville  
Fiber Optic Splice Details**

Division 12	Iredell County	Mooresville
PLAN DATE: NOVEMBER 2023	REVIEWED BY: J. Galloway	
PREPARED BY: J. Hambricht	REVIEWED BY: L. Overn	
REVISIONS	INIT.	DATE

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SEAL  
NORTH CAROLINA  
PROFESSIONAL ENGINEER  
J. GALLOWAY  
045933  
5/15/2024  
DATE



SPlice NUMBER:  
**SP-10-SSSC**

12-1839 12-1841 12-1233 CCTV-04

PROPOSED AERIAL SPlice ENCLOSURE:  
NC 150 AT CFI CROSSOVER/  
SR 1467 (BLUEFIELD ROAD)/  
SR 1109 (WILLIAMSON ROAD)

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**LEGEND**

<b>COLOR CODE TIA/EIA 598-B</b>		<b>EXPRESS</b>	EXPRESS ENTIRE BUFFER TUBE/FIBERS THROUGH WITHOUT CUTTING
(1) BLUE	(7) RED	<b>BUFFER SPICE</b>	SPlice ALL FIBERS IN BUFFER TUBE COLOR TO COLOR
(2) ORANGE	(8) BLACK		SM FIBER PATCH CORD WITH CONNECTORS
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Prepared for the Offices of:  
  
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**D12-02 Mooresville Fiber Optic Splice Details**

Division 12 Iredell County Mooresville

PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway

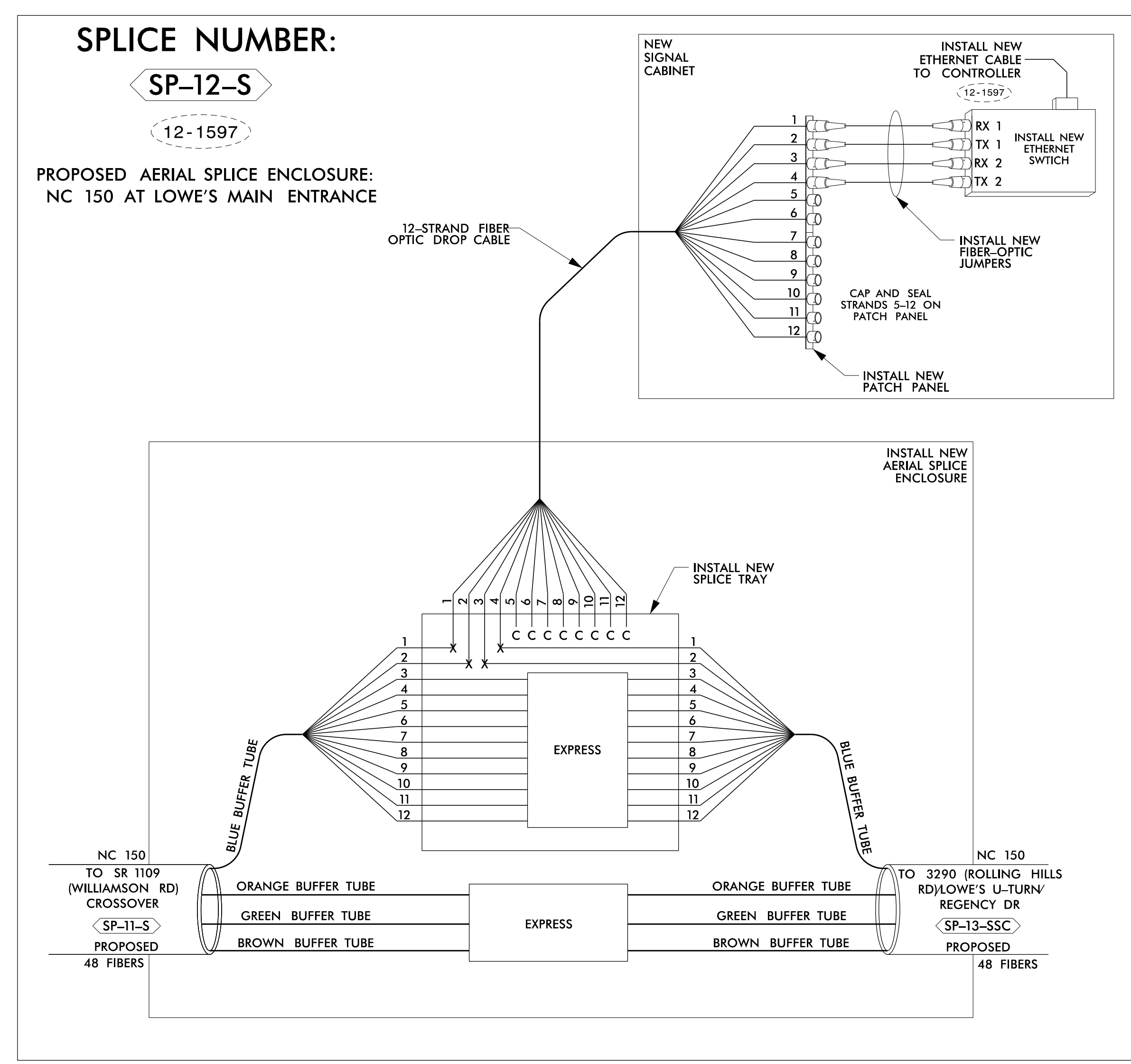
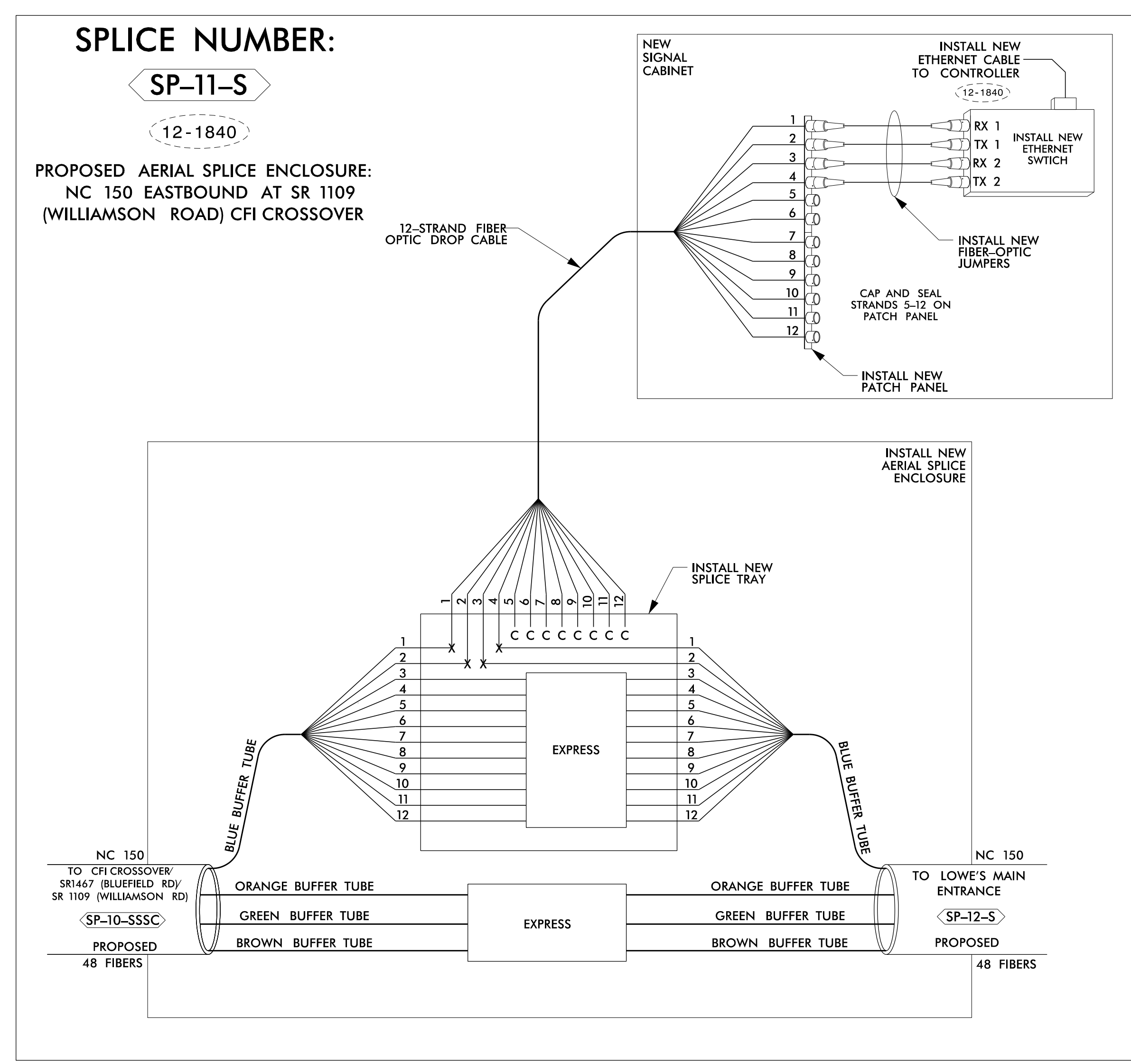
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 PROFESSIONAL ENGINEER  
 SEAL 045933  
 DATE 5/15/2024  
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#### LEGEND

<p><b>COLOR CODE TABLE 598-B</b></p> <table border="0"> <tr><td>(1) BLUE</td><td>(7) RED</td></tr> <tr><td>(2) ORANGE</td><td>(8) BLACK</td></tr> <tr><td>(3) GREEN</td><td>(9) YELLOW</td></tr> <tr><td>(4) BROWN</td><td>(10) VIOLET</td></tr> <tr><td>(5) SLATE</td><td>(11) ROSE</td></tr> <tr><td>(6) WHITE</td><td>(12) AQUA</td></tr> </table>		(1) BLUE	(7) RED	(2) ORANGE	(8) BLACK	(3) GREEN	(9) YELLOW	(4) BROWN	(10) VIOLET	(5) SLATE	(11) ROSE	(6) WHITE	(12) AQUA	<p>E = EXISTING FUSION SPLICE INDIVIDUAL FIBER TO REMAIN</p> <p>X = FUSION SPLICE INDIVIDUAL FIBER</p> <p>C = CAP AND SEAL</p> <p>EXPRESS = EXPRESS ENTIRE BUFFER TUBE/FIBERS THROUGH WITHOUT CUTTING</p> <p>BUFFER SPLICE = SPLICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR</p> <p>SM FIBER PATCH CORD WITH CONNECTORS</p>
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### D12-02 Mooresville Fiber Optic Splice Details

Division 12    Iredell County    Mooresville

PLAN DATE: **NOVEMBER 2023**    REVIEWED BY: **J. Galloway**

PREPARED BY: **J. Hambricht**    REVIEWED BY: **L. Overn**

REVISIONS	INIT.	DATE

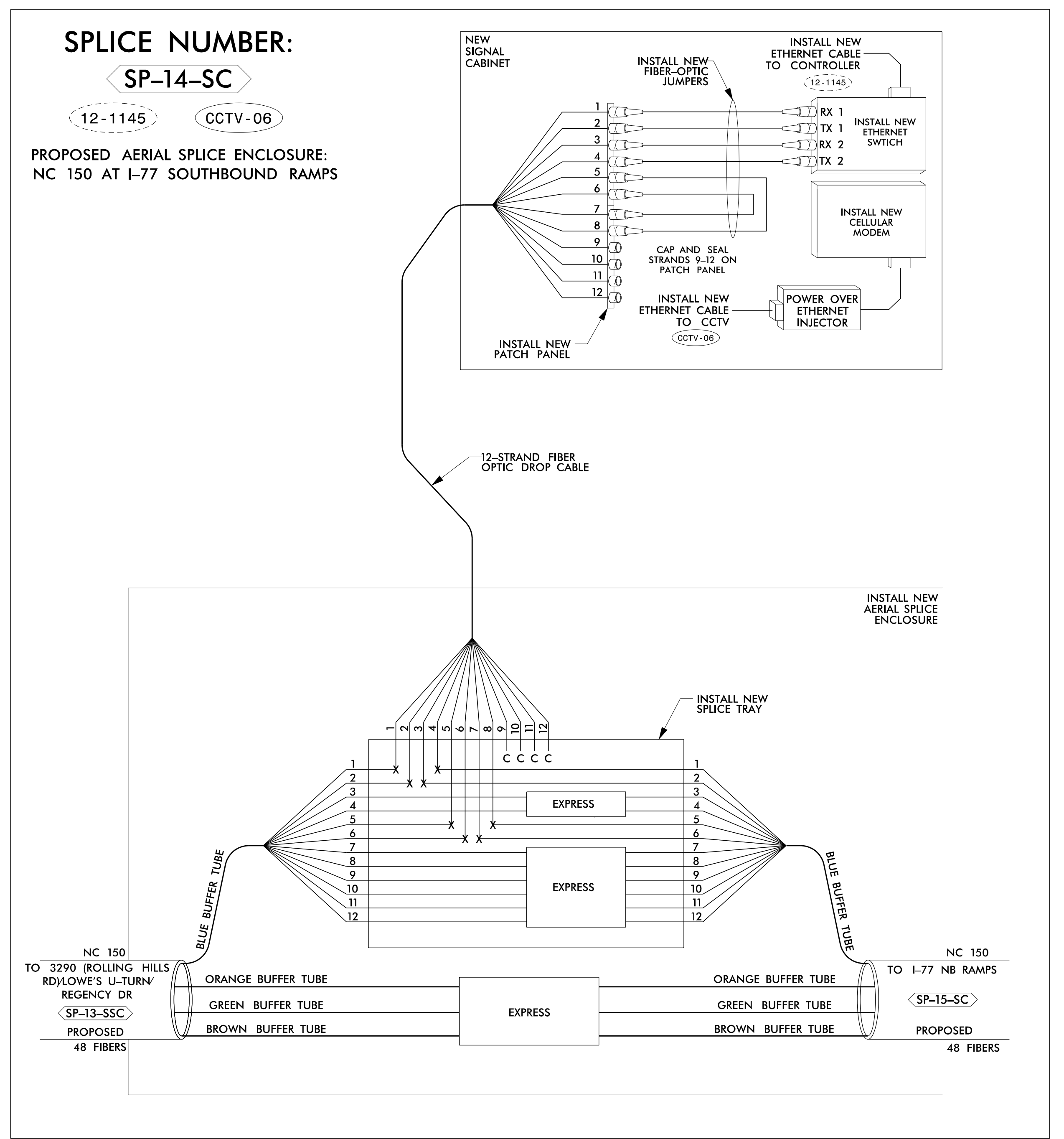
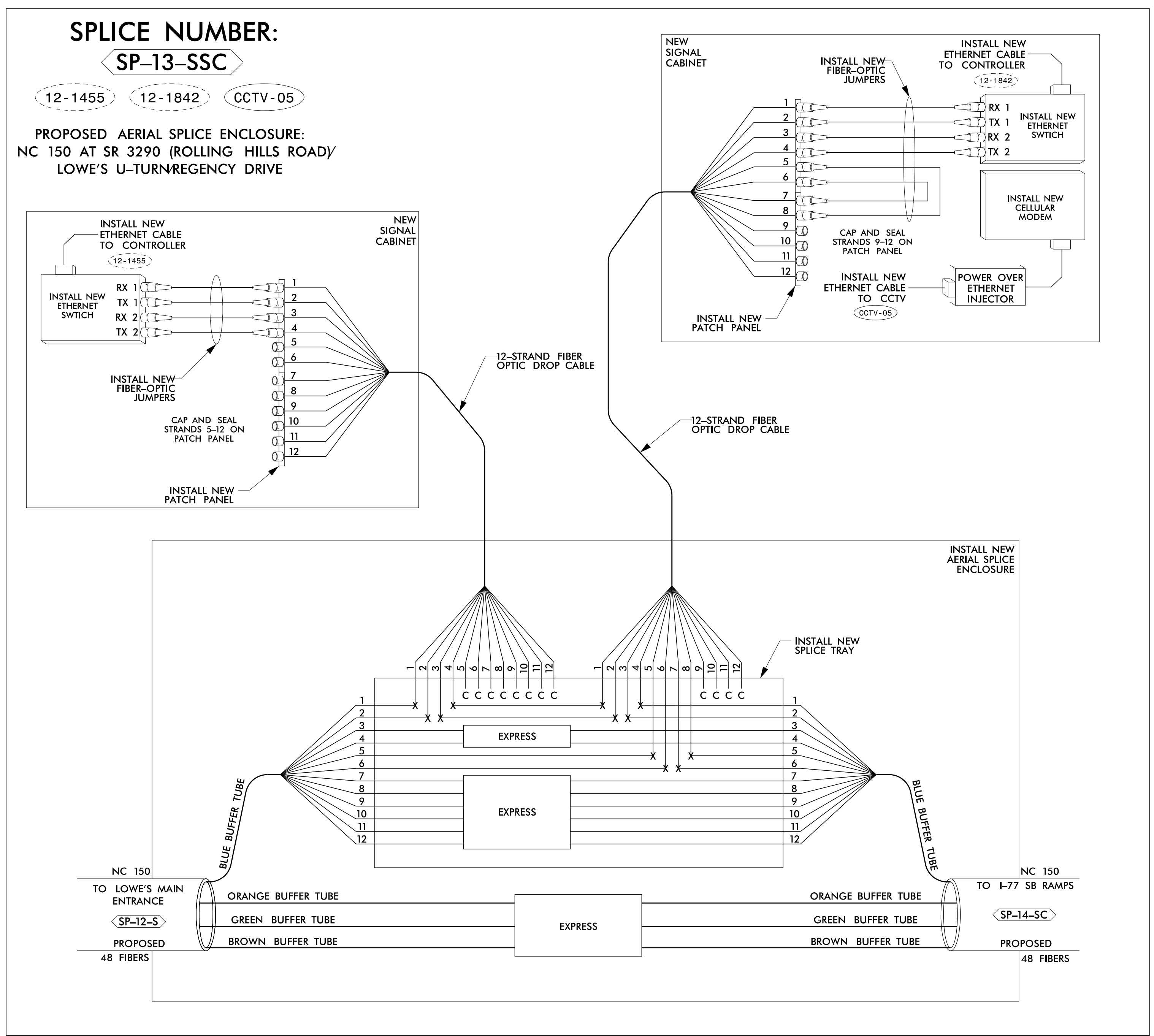
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#### LEGEND

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Stantec Consulting Services Inc.  
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Tel. (919) 851-6866  
Fax. (919) 851-7024  
www.stantec.com  
License No. F-0672

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

N.T.S.

### D12-02 Mooresville Fiber Optic Splice Details

Division 12 Iredell County Mooresville

PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway

PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

REVISIONS	INIT.	DATE

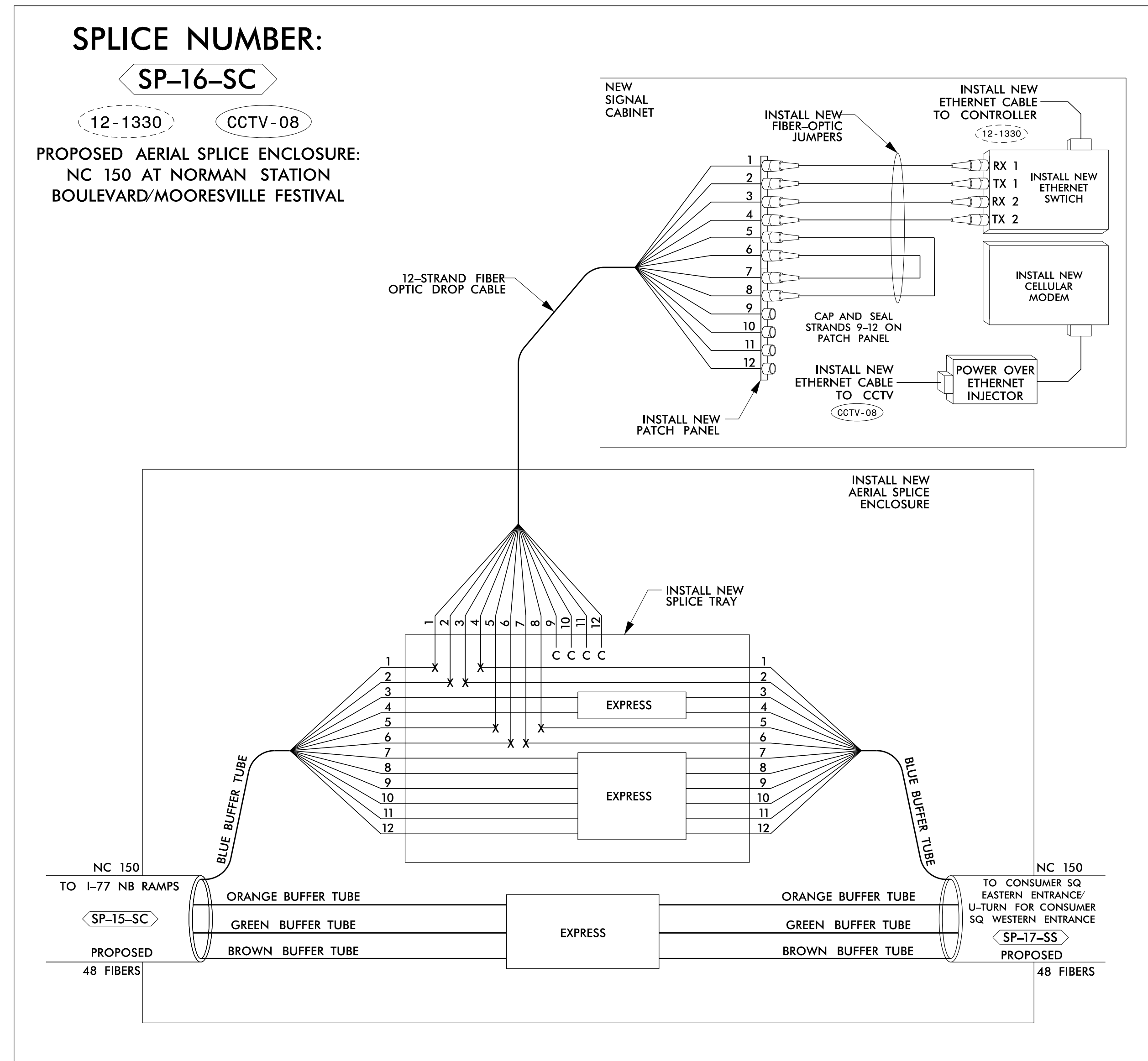
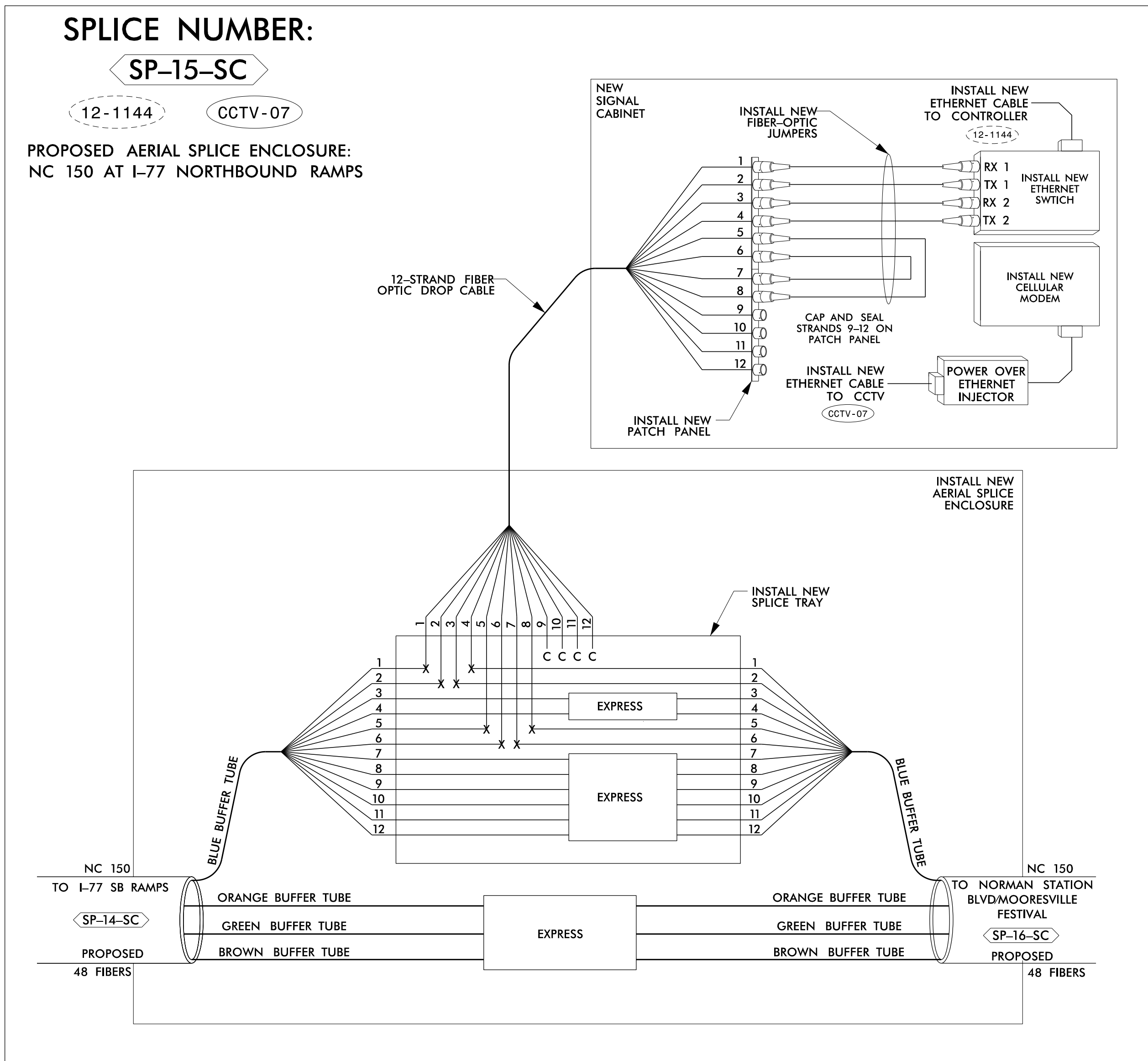
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SEAL

J. Galloway  
Professional Engineer  
License No. 045933

5/15/2024  
DATE

CADD File name: \_\_\_\_\_



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LEGEND	
<b>COLOR CODE TIA/EIA 598-B</b>	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA
(13-XXXX) = PROPOSED DEVICE	EXPRESS = EXPRESS ENTIRE BUFFER TUBE/FIBERS THROUGH WITHOUT CUTTING
(13-XXXX) = EXISTING DEVICE	BUFFER SPICE = SPICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR
	SM FIBER PATCH CORD WITH CONNECTORS

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Prepared for the Offices of:  

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**D12-02 Mooresville  
Fiber Optic Splice Details**

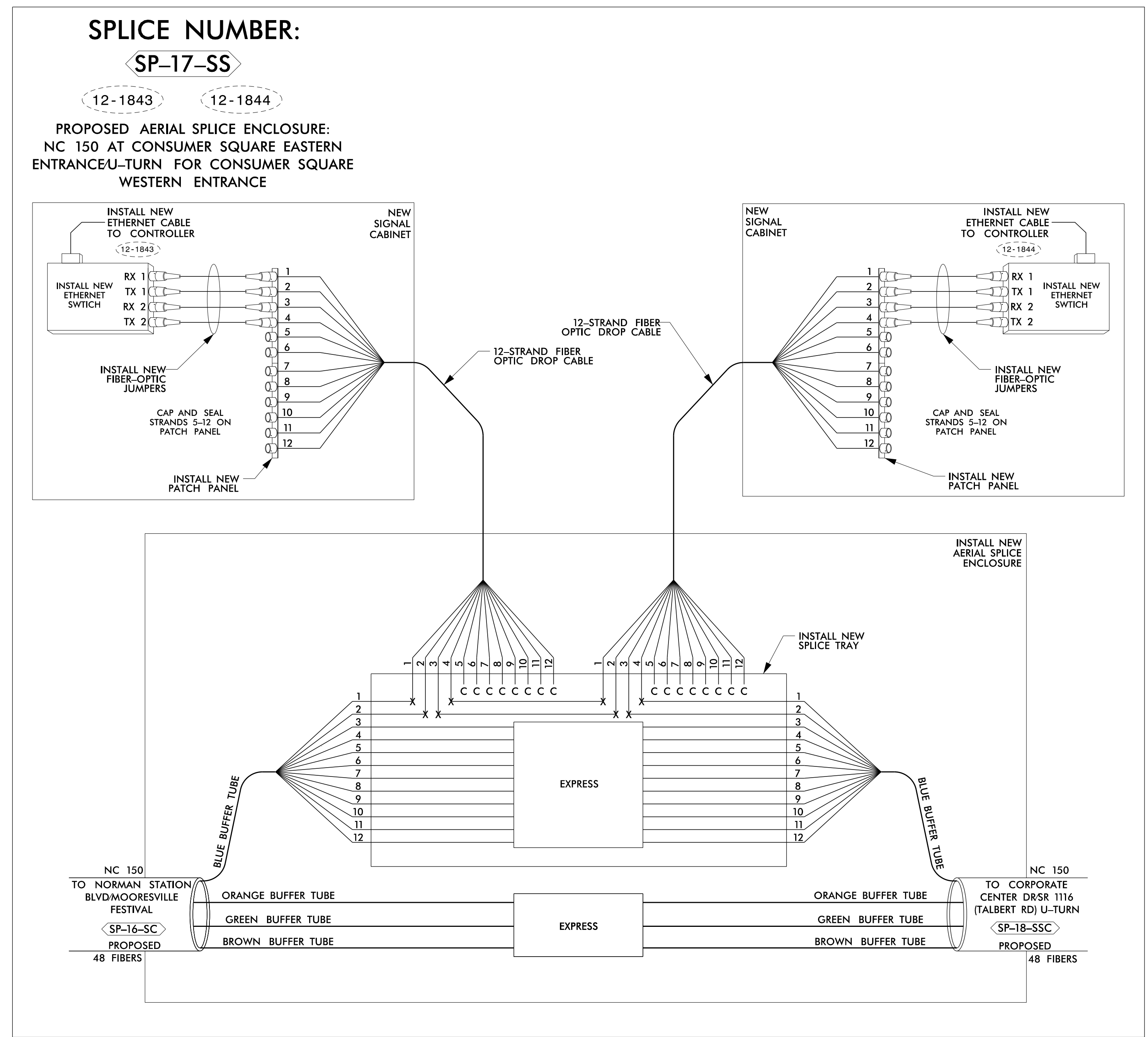
Division 12 Iredell County Mooresville  
 PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway  
 PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

REVISIONS	INIT.	DATE

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SEAL  

 SEAL 045933  
 J. Galloway  
 5/15/2024  
 DATE



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**LEGEND**

<b>COLOR CODE TIA/EIA 598-B</b>		
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Prepared for the Offices of:  
  
 Statewide Mobility and Safety Division  
 Office of Traffic and Signal Management  
 750 N. Greenfield Pkwy, Garner, NC 27529

**N.T.S.**

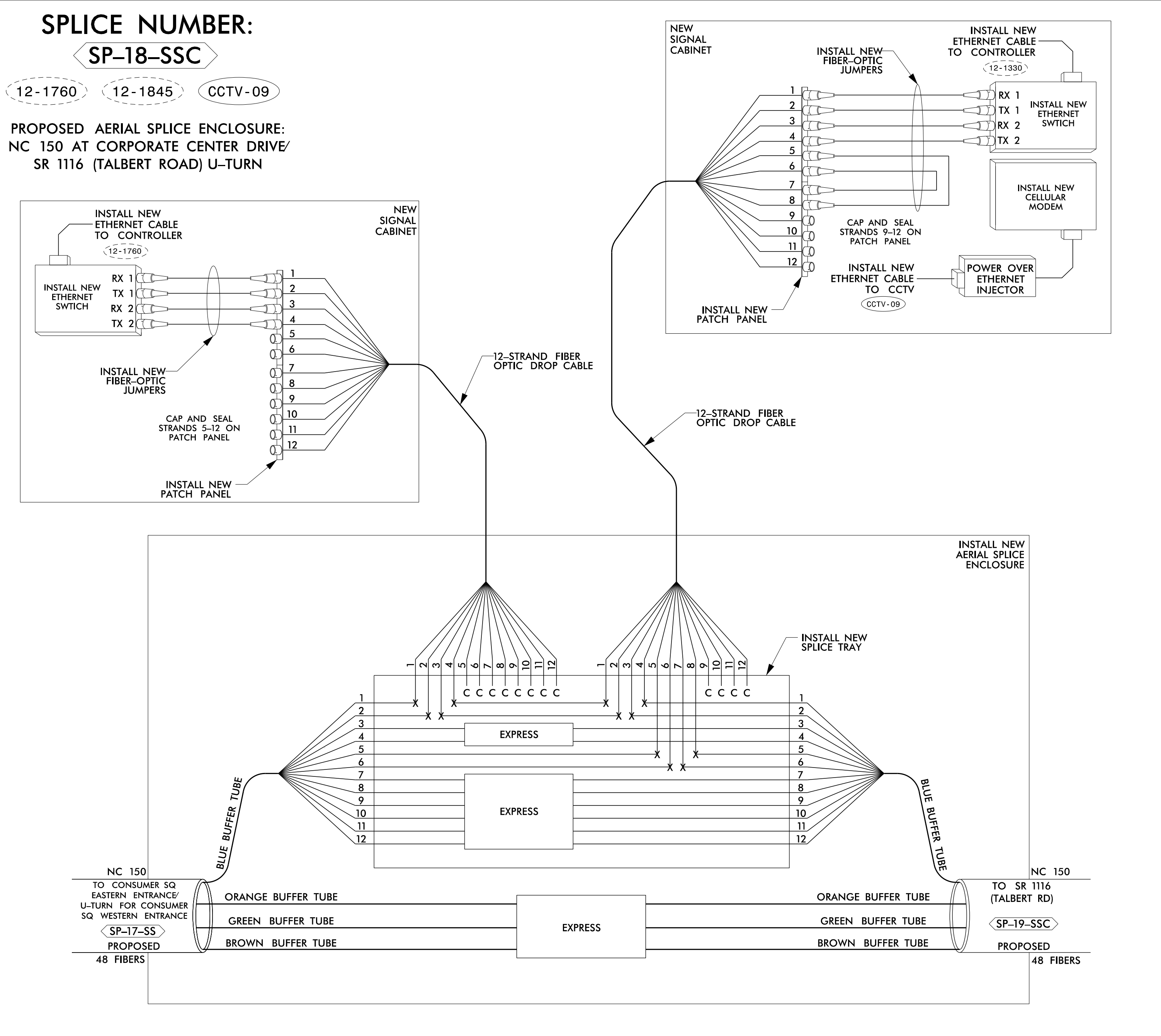
**D12-02 Mooresville  
Fiber Optic Splice Details**

Division 12	Iredell County	Mooresville
PLAN DATE: NOVEMBER 2023	REVIEWED BY: J. Galloway	
PREPARED BY: J. Hambricht	REVIEWED BY: L. Overn	
REVISIONS	INIT.	DATE

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SEAL  
NORTH CAROLINA PROFESSIONAL ENGINEER  
LAWRENCE E. OVERN  
045933  
5/15/2024  
DATE

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**LEGEND**

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 License No. F-0672

Prepared for the Offices of:

750 N. Greenfield Pkwy, Garner, NC 27529

**N.T.S.**

**D12-02 Mooresville Fiber Optic Splice Details**

Division 12	Iredell County	Mooresville
PLAN DATE: NOVEMBER 2023	REVIEWED BY: J. Galloway	
PREPARED BY: J. Hambright	REVIEWED BY: L. Overn	
REVISIONS	INIT.	DATE

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SEAL

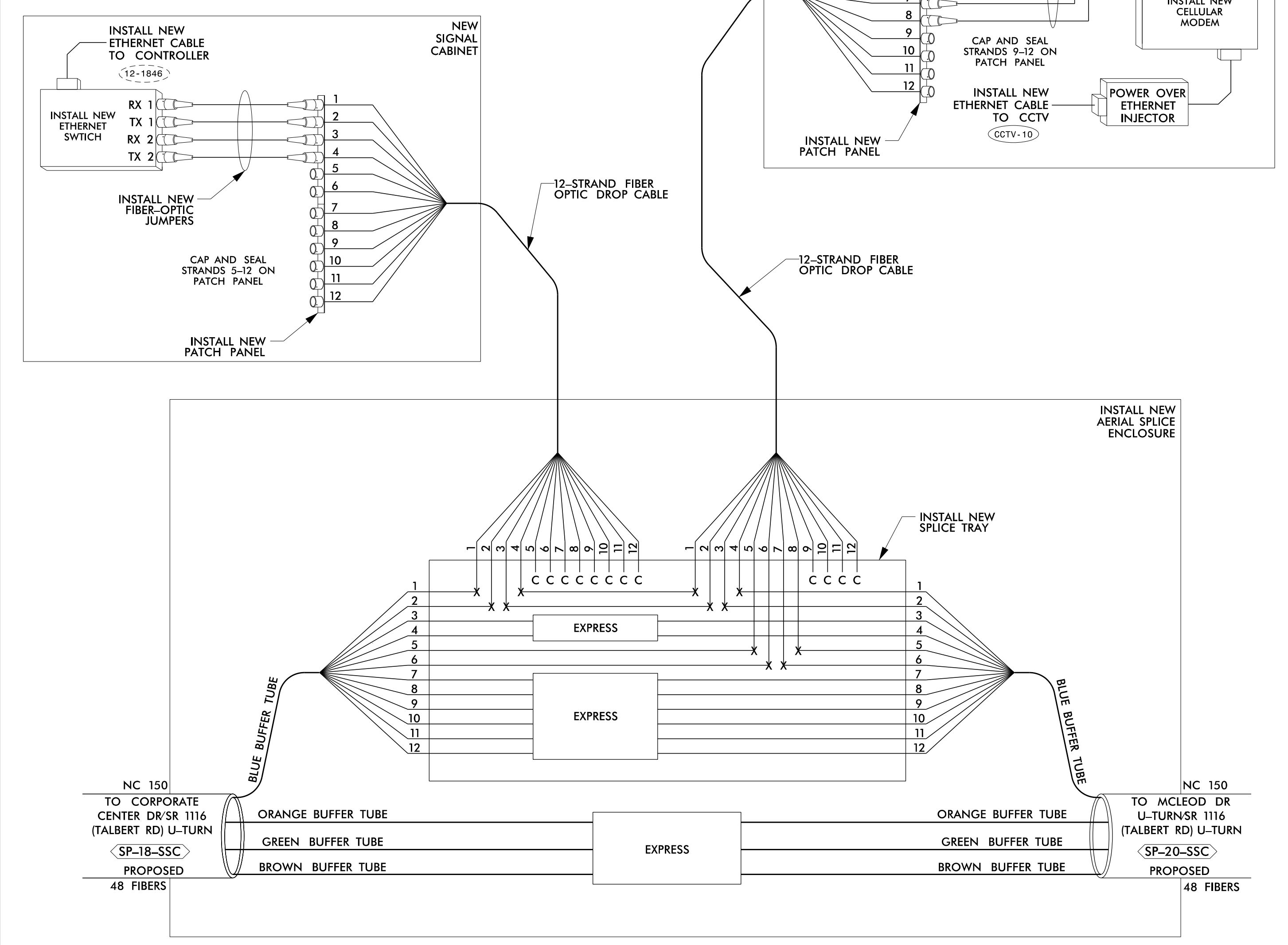
5/15/2024

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### SPLICE NUMBER: SP-19-SSC

12-1846 12-1331 CCTV-10

PROPOSED AERIAL SPLICE ENCLOSURE:  
NC 150 AT SR 1116 (TALBERT ROAD)



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**LEGEND**

<b>COLOR CODE TIA/EIA 598-B</b>		
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**D12-02 Mooresville  
Fiber Optic Splice Details**

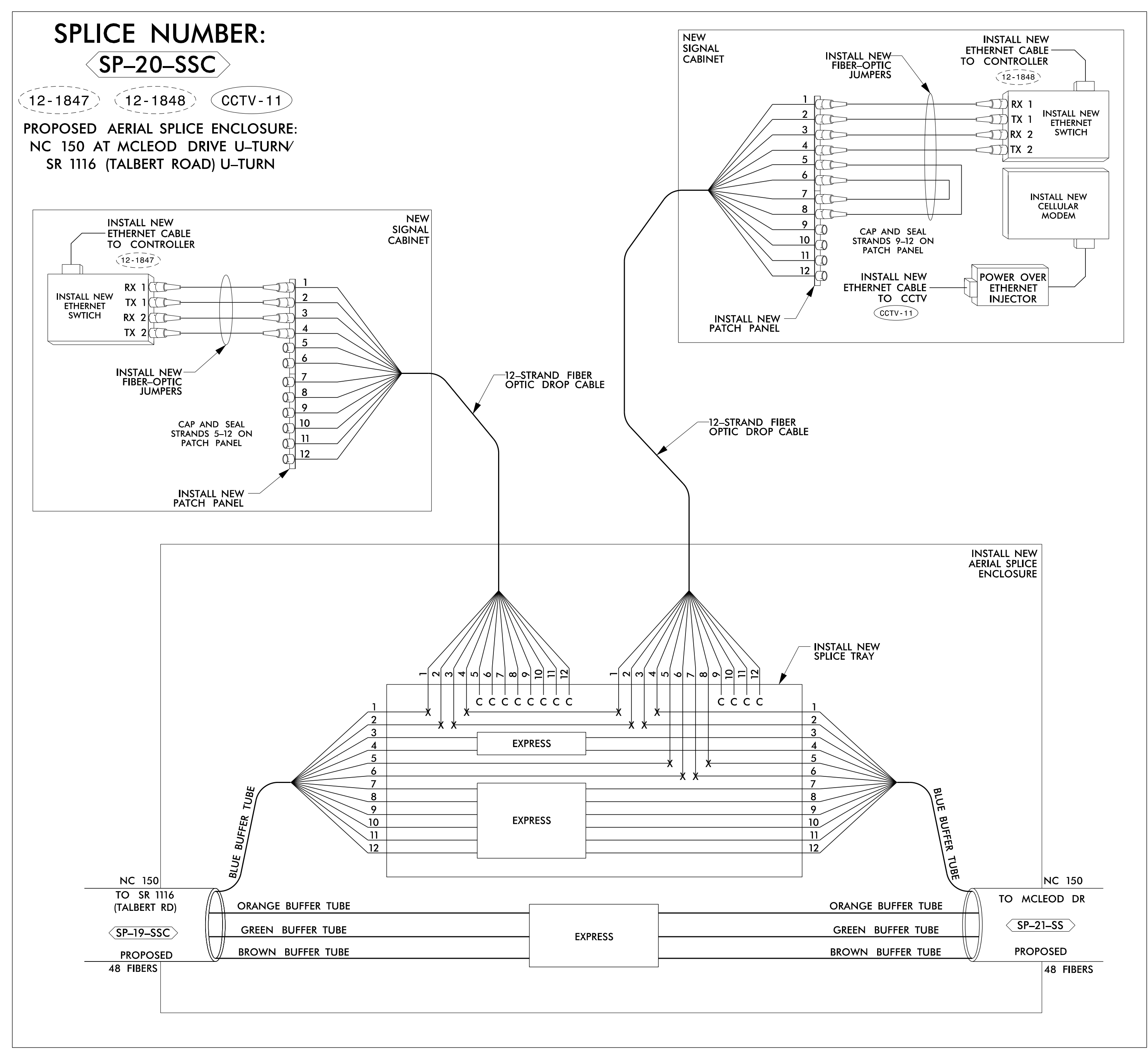
Division 12	Iredell County	Mooresville
PLAN DATE: NOVEMBER 2023	REVIEWED BY: J. Galloway	
PREPARED BY: J. Hambright	REVIEWED BY: L. Overn	
REVISIONS	INIT.	DATE

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#### LEGEND

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### D12-02 Mooresville Fiber Optic Splice Details

Division 12		Iredell County		Mooresville	
PLAN DATE:	NOVEMBER 2023	REVIEWED BY:	J. Galloway	PREPARED BY:	J. Hambricht
REVISIONS		INIT.		DATE	

DOCUMENT NOT CONSIDERED  
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SEAL  
045933  
J. Galloway  
ENGINEER  
STATE OF NORTH CAROLINA

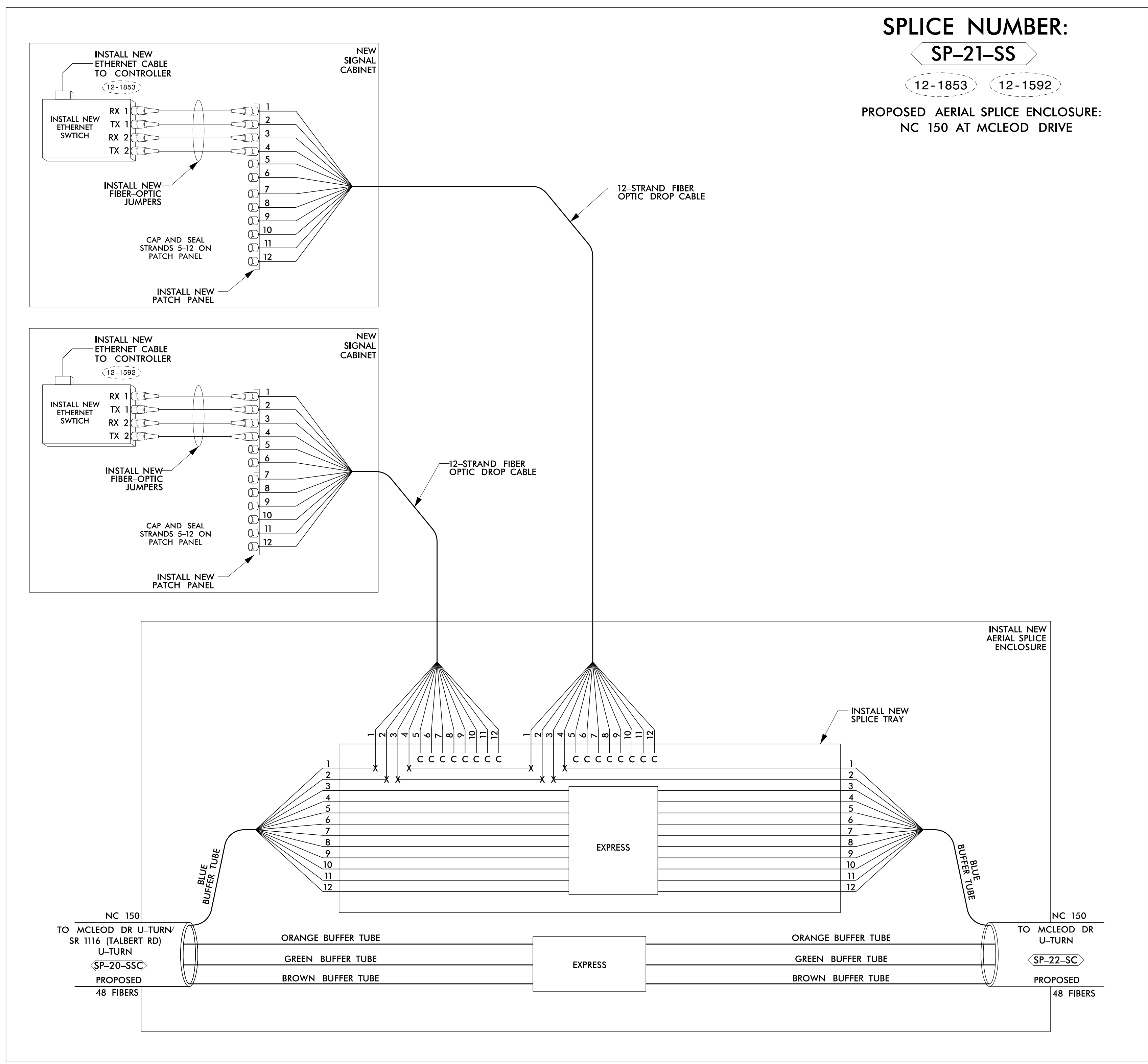
5/15/2024  
DATE

CADD Filename: \_\_\_\_\_

SPLICE NUMBER: SP-21-SS

12-1853 12-1592

PROPOSED AERIAL SPLICE ENCLOSURE: NC 150 AT MCLEOD DRIVE



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**LEGEND**

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**D12-02 Mooresville Fiber Optic Splice Details**

Division 12 Iredell County Mooresville

PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway

PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

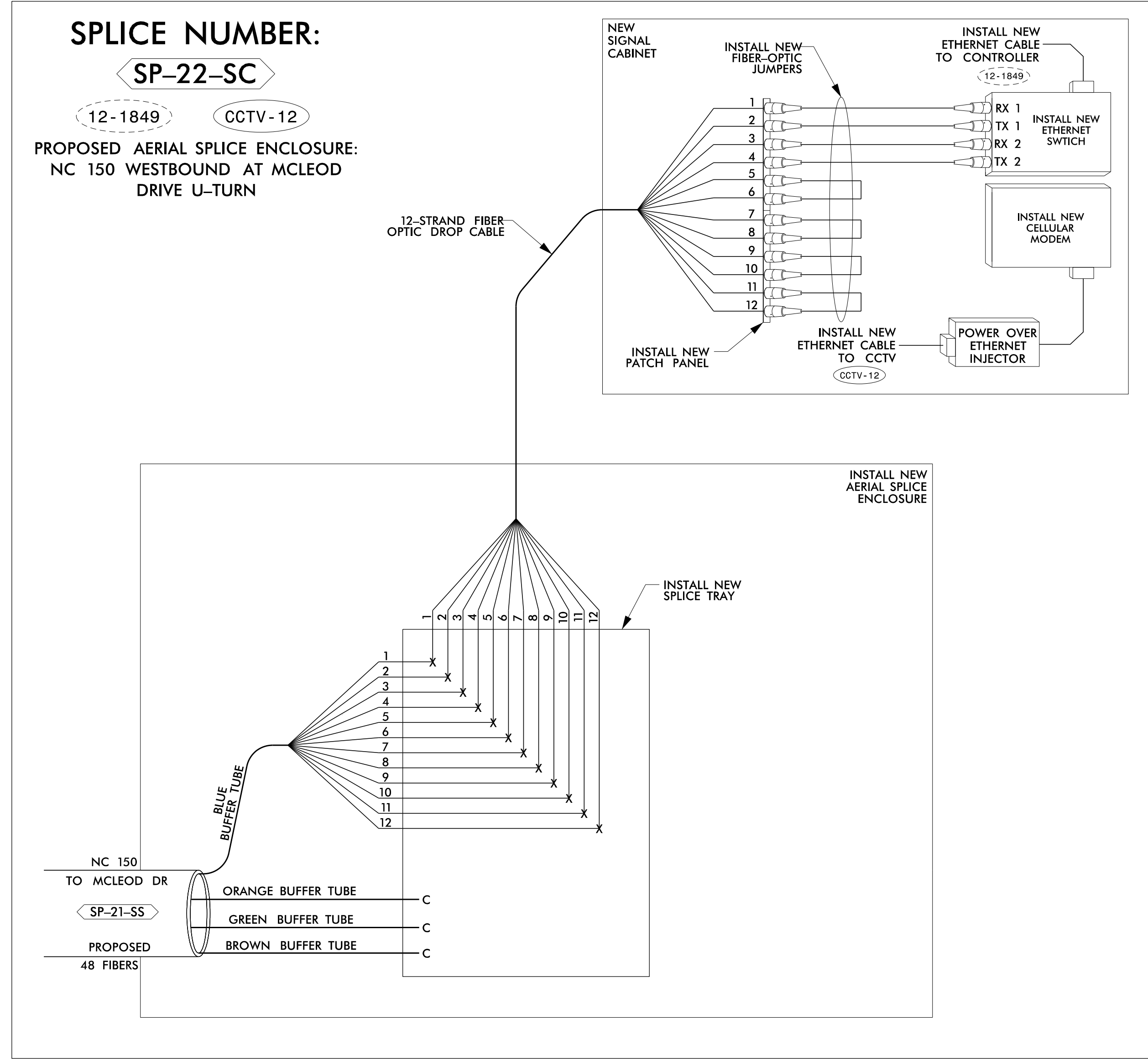
REVISIONS	INIT.	DATE

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5/15/2024

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PLAN DATE: NOVEMBER 2023 REVIEWED BY: J. Galloway

PREPARED BY: J. Hambricht REVIEWED BY: L. Overn

REVISIONS	INIT.	DATE

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SEAL  
 NORTH CAROLINA PROFESSIONAL ENGINEER  
 SEAL 045933  
 LAWRENCE E. OVERN  
 5/15/2024  
 DATE