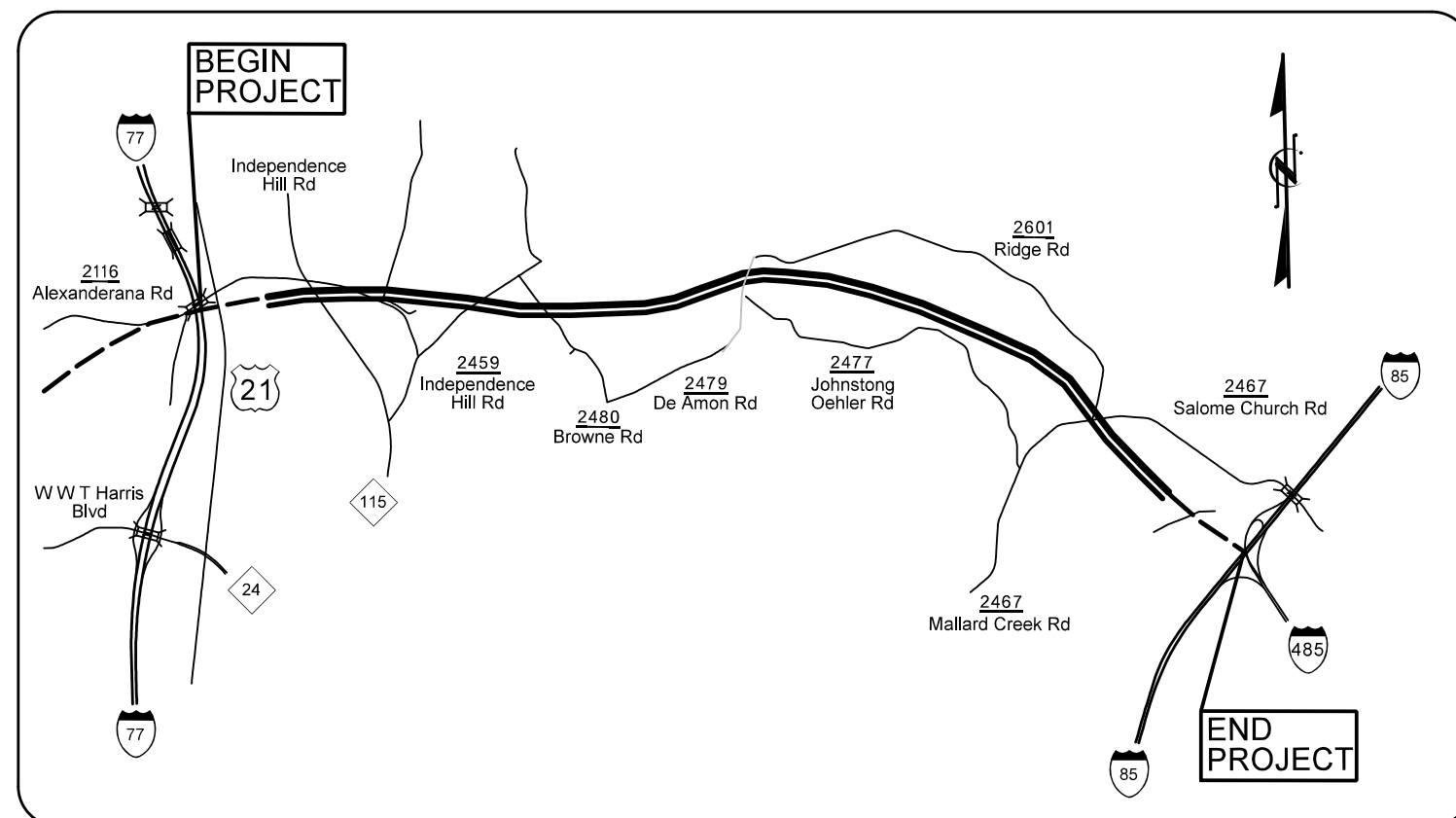


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with their signature on that page.**

**This file or an individual page
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CONTRACT: C203622 TIP PROJECT: R-2248EA



VICINITY MAP

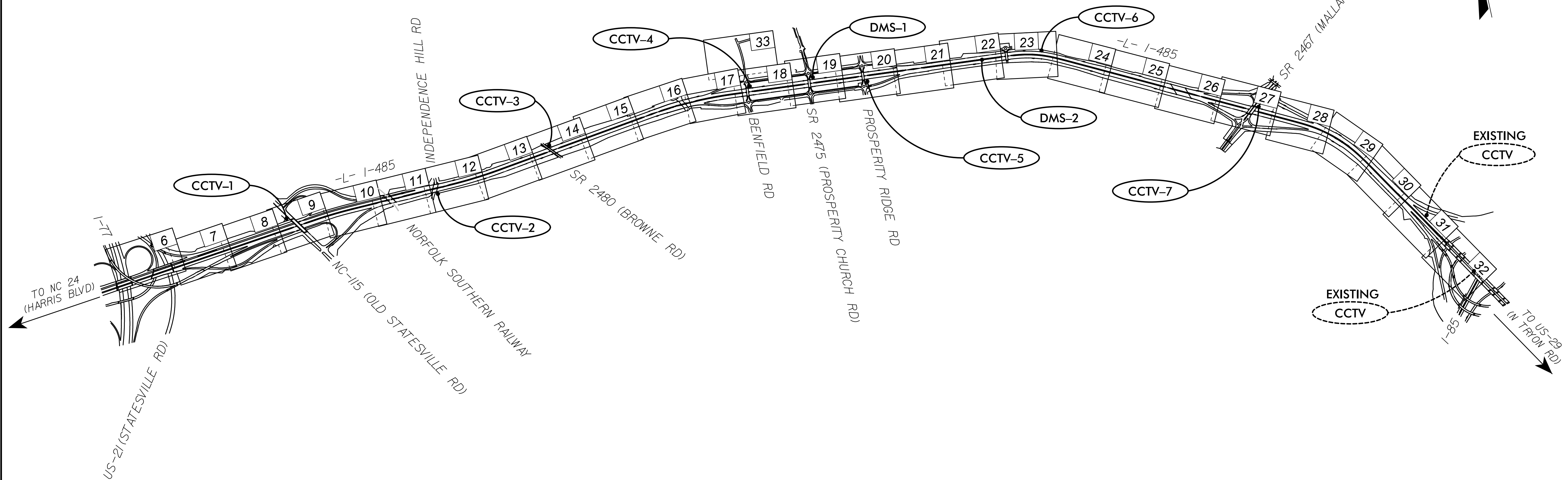
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG COUNTY

LOCATION: I-485 FROM CHARLOTTE WESTERN OUTER LOOP WEST OF I-77 TO I-85 NORTH

TYPE OF WORK: COMMUNICATIONS CABLE AND CONDUIT ROUTING, CCTV CAMERA AND DYNAMIC MESSAGE SIGN INSTALLATION

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R - 2248EA	ITS-1	54
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34410.3.FS31	CMS-0485(36)	CONST.	
34410.1.FS30	CMS-0485(36)	PE	



2012 STANDARD SPECIFICATIONS

PROJECT LENGTH
PROJECT LENGTH = 6.65 MILES

LETTING DATE:
MAY 19, 2015

INDEX OF SHEETS

ITS-1	TITLE SHEET
ITS-2	TRAFFIC CONTROL NOTES
ITS-3-4	SCHEMATICS
ITS-5	CONSTRUCTION NOTES & LEGEND
ITS-6-33	CABLE ROUTING PLANS
ITS-34-35	DMS ELEVATIONS
ITS-36	GUARDRAIL SUMMARY
ITS-37-49	SPLICE DETAILS
ITS-50-51	CCTV METAL POLE SERVICES
ITS-52-53	DMS SERVICE
ITS-54	TYPICAL DETAILS

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" ROADWAY DESIGN UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE	STD. NO.	TITLE
862.01	GUARDRAIL PLACEMENT	1180.01	SKINNY - DRUM
862.02	GUARDRAIL INSTALLATION	1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
865.01	CABLE GUIDERAIL	1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1101.01	WORK ZONE WARNING SIGNS	1262.01	GUARDRAIL END DELINEATION
1101.02	TEMPORARY LANE CLOSURES	1700.01	ELECTRICAL SERVICE OPTIONS
1101.04	TEMPORARY SHOULDER CLOSURES	1700.02	ELECTRICAL SERVICE GROUNDING
1101.11	TRAFFIC CONTROL DESIGN TABLES	1715.01	UNDERGROUND CONDUIT-TRENCHING
1110.02	PORTABLE WORK ZONE SIGNS	1716.01	JUNCTION BOXES
1115.01	FLASHING ARROW BOARDS	1720.01	WOOD POLES
1130.01	DRUMS	1751.01	CONTROLLER AND CABINETS
1135.01	CONES	1751.02	CONTROLLER AND CABINETS
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION		

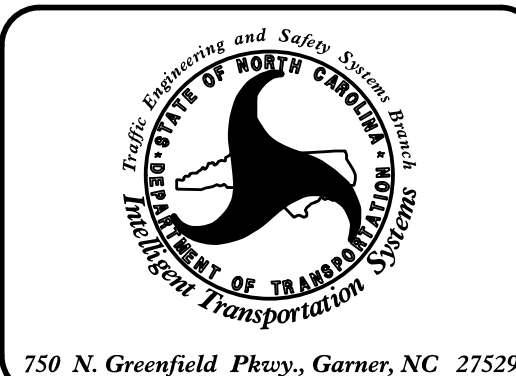
NC DOT CONTACTS:
TRANSPORTATION SAFETY AND MOBILITY
INTELLIGENT TRANSPORTATION SYSTEMS SECTION
THOMAS G. PARKER - ITS PROJECT ENGINEER
SHERRY C. YOW - ITS PROJECT DESIGN ENGINEER

PLANS PREPARED BY:



HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
(919) 546-8997
NC License No: C-1554

HNTB CONTACTS: HARVEY L. WINSTEAD, PE - PROJECT MANAGER
TRACEY R. TERRELL, PROJECT DESIGN TECHNICIAN



DocuSigned by:
H. L. Winstead, Jr. 02-12-2015
DATE

WORK ZONE TRAFFIC CONTROL GENERAL NOTES

MAINTAIN TRAFFIC IN ACCORDANCE WITH DIVISIONS 10 AND 11 OF THE JANUARY 2012 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES & JANUARY 2012 ROADWAY STANDARD DRAWINGS (RSD) AND THE FOLLOWING PROVISIONS:

COORDINATE WITH THE NCDOT RESIDENT ENGINEER IN CHARGE OF ANY PROJECT IN THE VICINITY OF THIS PROJECT FOR ANY WORK THAT MAY AFFECT THE CONSTRUCTION AND THE TRAFFIC CONTROL OF THIS PROJECT.

PERFORM WORK ONLY WHEN WEATHER AND VISIBILITY CONDITIONS ALLOW SAFE OPERATIONS AS DIRECTED BY THE ENGINEER.

PROVIDE APPROPRIATE LIGHTING IN ACCORDANCE WITH SECTION 105-14, STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

OPERATE EQUIPMENT AND CONDUCT OPERATIONS IN THE SAME DIRECTION AS THE FLOW OF TRAFFIC. DO NOT CROSS MEDIANS WITH EQUIPMENT, EXCEPT AT PROPERLY DESIGNATED INTERCHANGES.

USE LANE CLOSURES FOR EITHER RIGHT OR LEFT LANES WITH EITHER ON OR OFF RAMP SIGNING, AS REQUIRED, (REFER TO ROADWAY STANDARD DRAWINGS NO. 1101.02, SHEETS 1, 3, 4, 5, 6, 8, 9 AND 10 OF 15), USE ROLLING ROAD BLOCK OPERATIONS FOR TEMPORARY ROAD CLOSURES (REFER TO ROADWAY STANDARD DRAWINGS NO 1101.03 SHEET 9 OF 9) OR TEMPORARY SHOULDER CLOSURES (REFER TO ROADWAY STANDARD DRAWINGS 1101.04, SHEET 1 OF 1). MAINTAIN THE EXISTING TRAFFIC PATTERN AT ALL TIMES, EXCEPT IN THE IMMEDIATE WORK ZONE WHERE LANE CLOSURES ARE ALLOWED AS DETERMINED BY THE ENGINEER.

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE ROADWAY STANDARD DRAWINGS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRABLE OVERLAPPING OF DEVICES, MODIFICATIONS MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
 6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
 7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
 8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
 9. FOR NASCAR EVENT AT CHARLOTTE MOTOR SPEEDWAY, BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE THE WEEK OF THE EVENT AND 9:00 P.M. THE FOLLOWING MONDAY AFTER THE EVENT.
 10. FOR CAROLINA PANTHERS FOOTBALL GAME IN CHARLOTTE AND ANY GAMES AT THE TIME WARNER ARENA, FROM THREE HOURS BEFORE THE GAME UNTIL THREE HOURS AFTER THE GAME.
 11. FOR ANY EVENT AT THE PNC MUSIC PAVILION, BANK OF AMERICA STADIUM, CHARLOTTE CONVENTION CENTER, TIME WARNER ARENA AND/OR ANY OTHER ARENAS IN CHARLOTTE, FROM THREE HOURS BEFORE THE EVENT UNTIL THREE HOURS AFTER THE EVENT.
- D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE CLOSURE REQUIREMENTS

- E) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAINS WITHIN THE CLOSED TRAVEL LANE.

TRAFFIC PATTERN ALTERATIONS

- I) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- K) WHEN LANE CLOSURES ARE NOT IN EFFECT, SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPENED TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES), AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

MISCELLANEOUS

- L) LAW ENFORCEMENT SHALL BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- M) WHEN WORK IS NOT IN PROGRESS, KEEP ALL PERSONNEL, MACHINERY, TOOLS, CONSTRUCTION DEBRIS AND SUPPLIES AT LEAST 40 FT AWAY FROM ACTIVE TRAVEL LANES. WHEN VEHICLES, EQUIPMENT AND MATERIALS ARE PROTECTED BY CONCRETE BARRIER OR GUARDRAIL, THEY SHALL BE OFFSET AT LEAST 5 FT FROM THE BARRIER OR GUARDRAIL.

TIME RESTRICTIONS

- A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

<u>ROAD NAME</u>	<u>DAY AND TIME RESTRICTIONS</u>
ONE LANE OF I-485	MONDAY THRU FRIDAY 6:00 AM - 9:00 PM SATURDAY 10:00 AM - SUNDAY 9:00 PM
NC 115, SR 2480, BENFIELD RD, SR 2475, PROSPERITY RIDGE RD, AND SR 2467	MONDAY THRU FRIDAY 6:00 AM - 9:00 AM 4:00 PM - 7:00 PM

- B) DO NOT CLOSE OR NARROW SHOULDERS AS FOLLOWS:

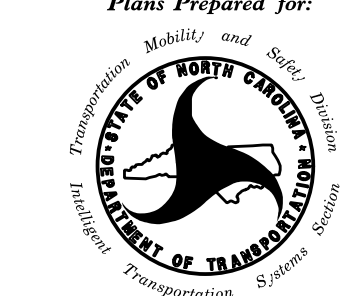

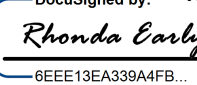
<u>ROAD NAME</u>	<u>DAY AND TIME RESTRICTIONS</u>
I-485 & RAMPS	MONDAY THRU FRIDAY 6:00 AM - 9:00 AM 4:00 PM - 7:00 PM
NC 115, SR 2480, BENFIELD RD, SR 2475, PROSPERITY RIDGE RD, AND SR 2467	MONDAY THRU FRIDAY 6:00 AM - 9:00 AM 4:00 PM - 7:00 PM

- C) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

<u>ROAD NAME</u>
I-485 (INCLUDING RAMPS), NC 115, SR 2480, BENFIELD RD, SR 2475, PROSPERITY RIDGE RD AND SR 2467

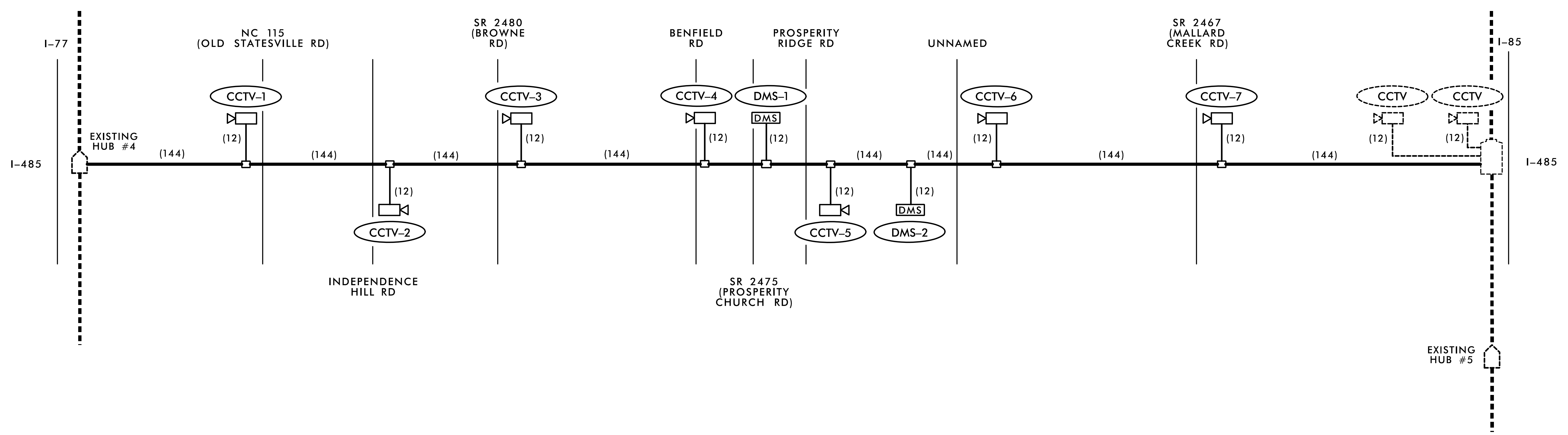
HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.

 <p>Plans Prepared for: Transportation Mobility and Safety Division DEPARTMENT OF TRANSPORTATION 250 N. Greenfield Place, Garner, NC 27529</p>	TRAFFIC CONTROL NOTES		
	DIVISION 10 MECKLENBURG CO. CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: R.B. EARLY PREPARED BY: J.A. PHILLIPS REVIEWED BY: H.L. WINSTEAD		
SCALE NONE	REVISIONS	INIT.	DATE
DocuSigned by:  Rhonda Early 02-04-2015 REVISION SIGNATURE DATE			DATE CADD File Name: R2248EA ITS-02.dgn

LEGEND

- PROPOSED DEVICE AND ID NUMBER
- EXISTING DEVICE AND ID NUMBER
- XX-SINGLE MODE FIBERS
- EXISTING 144 FIBER OPTIC CABLE
- PROPOSED 144 FIBER OPTIC CABLE
- PROPOSED 12 FIBER OPTIC CABLE
- EXISTING 12 FIBER OPTIC CABLE
- PROPOSED SPLICE ENCLOSURE
- PROPOSED CCTV
- EXISTING CCTV
- PROPOSED DMS
- EXISTING HUB BUILDING
- EXISTING SPLICE CABINET
- PROPOSED SPLICE CABINET

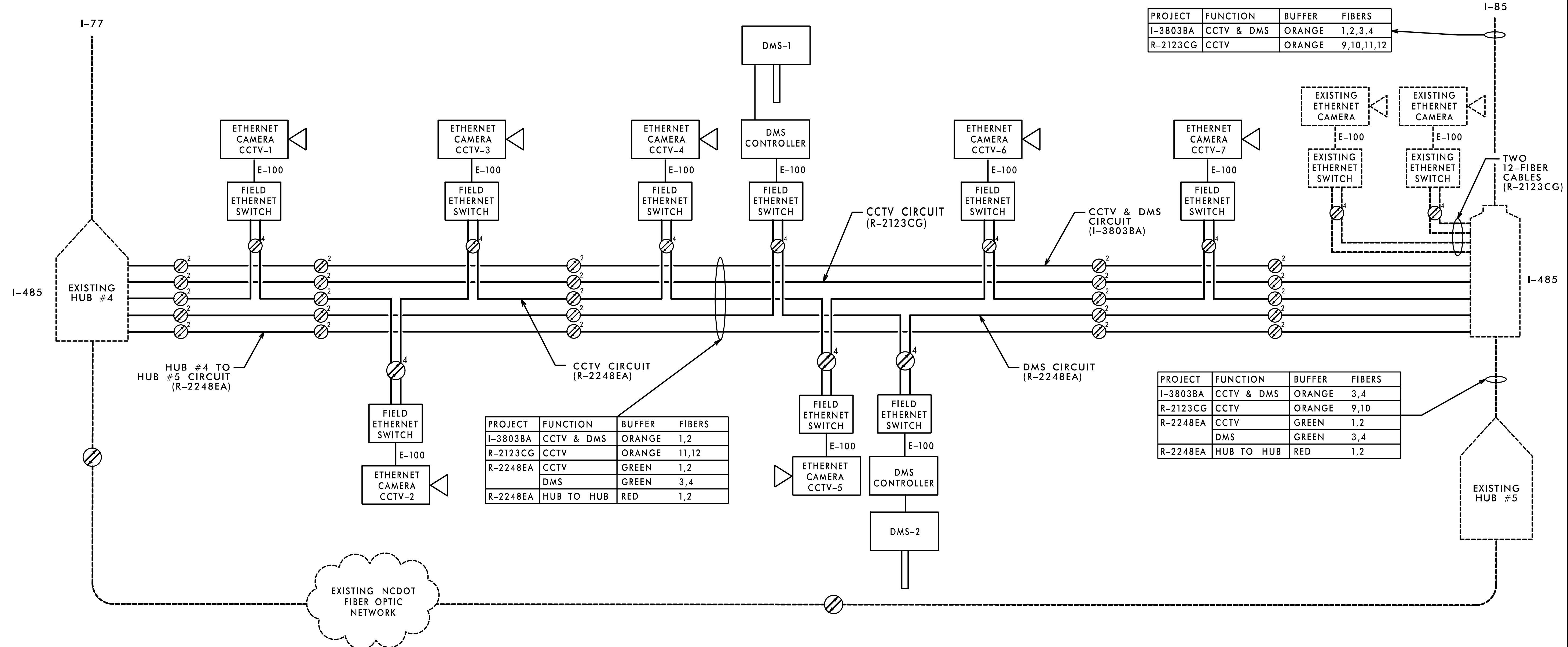


<p>Plans Prepared for: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION</p>	SCHEMATIC DIAGRAM		
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD		
250 N. Greenfield Place, Garner, NC 27529 	SCALE NONE	REVISIONS _____ _____ _____	INIT. DATE _____ _____ _____
HNTB HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554		DocuSigned by: H.L. Winstead, Jr. 02-04-2015 _____ SIGNATURE DATE CADD File Name: R2248EA ITS-03.dgn	

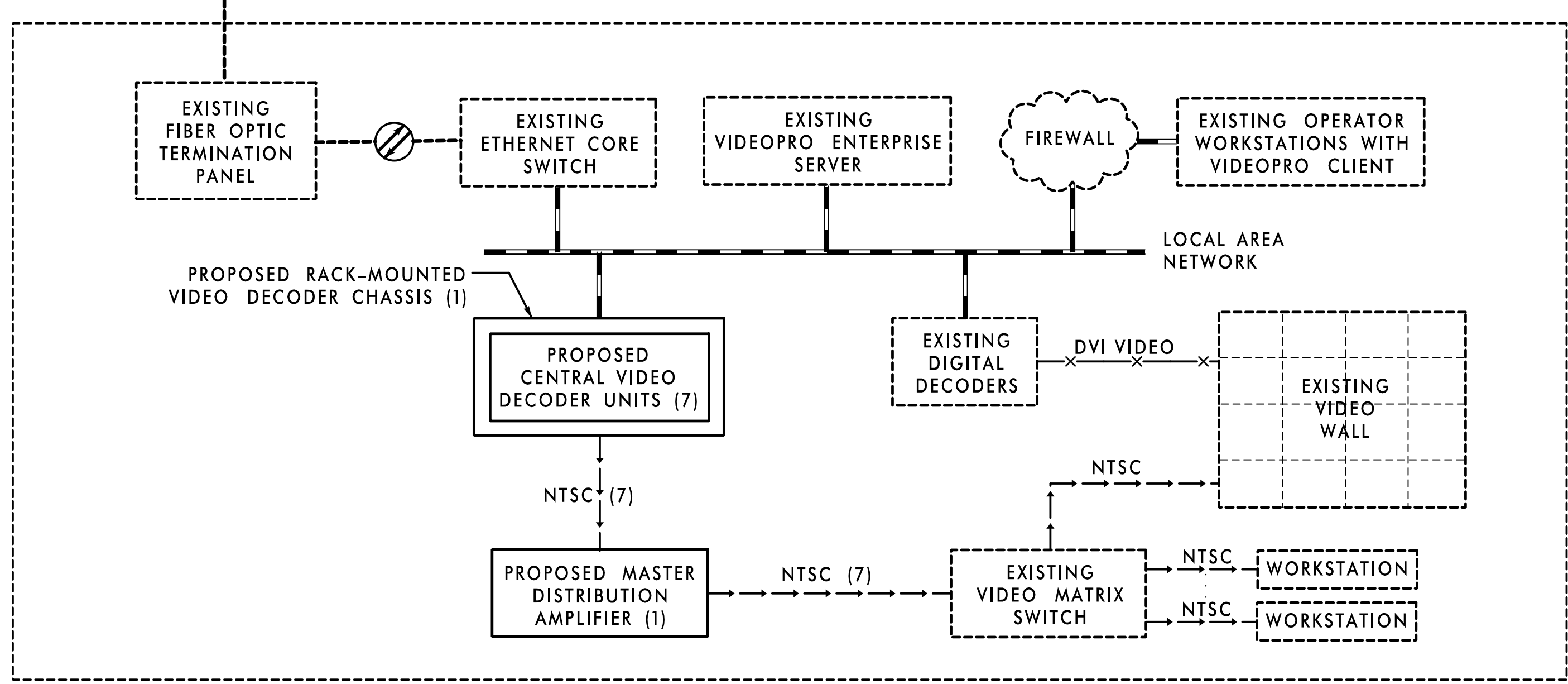
PROJECT	FUNCTION	BUFFER	FIBERS
I-3803BA	CCTV & DMS	ORANGE	1,2,3,4
R-2123CG	CCTV	ORANGE	9,10,11,12

PROJECT	FUNCTION	BUFFER	FIBERS
I-3803BA	CCTV & DMS	ORANGE	3,4
R-2123CG	CCTV	ORANGE	9,10
R-2248EA	CCTV	GREEN	1,2
R-2248EA	DMS	GREEN	3,4
R-2248EA	HUB TO HUB	RED	1,2

PROJECT	FUNCTION	BUFFER	FIBERS
I-3803BA	CCTV & DMS	ORANGE	1,2
R-2123CG	CCTV	ORANGE	11,12
R-2248EA	CCTV	GREEN	1,2
R-2248EA	DMS	GREEN	3,4
R-2248EA	HUB TO HUB	RED	1,2



METROLINA REGIONAL TRANSPORTATION MANAGEMENT CENTER (MRTMC)



LEGEND

- EXISTING FIBER OPTIC CABLE (1000 BASE FX ETHERNET)
- - - PROPOSED FIBER OPTIC CABLE (1000 BASE FX ETHERNET)
- ⊗ FIBER PAIR (XMIT & RCV) X=TOTAL NUMBER OF FIBERS
- 1000 BASE TX ETHERNET
- X— DVI VIDEO
- ANALOG VIDEO
- ⬠ EXISTING HUB BUILDING
- ⬠ EXISTING SPLICE CABINET
- ⬠ PROPOSED DEVICE

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

<p>Plans Prepared for:</p> <p>250 N. Greenfield Place, Garner, NC 27529</p>	<p>NETWORK BLOCK DIAGRAM</p>		<p>SEAL</p>							
	<p>DIVISION 10 MECKLENBURG CO., CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK</p> <p>PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD</p>	<p>SCALE</p> <p>NONE</p>		<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION	INIT.	DATE		
NO.	DESCRIPTION	INIT.	DATE							

DocuSigned by:
 H.L. Winstead, Jr. 02-04-2015
 F02917C3C597429
 SIGNATURE DATE
 CADD File Name: R2248EA ITS-04.dgn

- 1 INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS
- 2 INSTALL 4-WIRE COPPER FEEDER CONDUCTORS
- 3 INSTALL 3-WIRE COPPER FEEDER CONDUCTORS
- 4 INSTALL SMFO CABLE
- 5 INSTALL CAT 5e ETHERNET CABLE
- 6 INSTALL FIBER OPTIC DROP CABLE
- 7 INSTALL TRACER WIRE
- 8 TRENCH
- 9 INSTALL PVC CONDUIT
- 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
- 13 INSTALL POLYETHYLENE CONDUIT IN EXISTING OUTERDUCT
- 14 INSTALL POLYETHYLENE CONDUIT
- 15 DIRECTIONAL DRILL CONDUIT
- 16 BORE AND JACK CONDUIT
- 17 INSTALL CABLE(S) IN EXISTING CONDUIT
- 18 INSTALL CABLE(S) IN NEW CONDUIT
- 19 INSTALL CABLE(S) IN EXISTING RISER
- 20 INSTALL CABLE(S) IN NEW RISER
- 21 INSTALL CABLE(S) IN EXISTING CONDUIT 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 NEW 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 TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPLICE ENCLOSURE
- 30 MODIFY EXISTING UNDERGROUND SPLICE ENCLOSURE
- 31 MODIFY EXISTING BASE 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 METAL POLE WITH LOWERING DEVICE AND FOUNDATION
- 38 INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
- 39 INSTALL STANDARD JUNCTION BOX
- 40 INSTALL OVERSIZED JUNCTION BOX
- 41 INSTALL SPECIAL OVERSIZED JUNCTION BOX
- 42 INSTALL WOOD POLE
- 43 INSTALL 6" x 6" WOOD PEDESTAL
- 44 INSTALL AERIAL GUY ASSEMBLY
- 45 INSTALL STANDARD GUY ASSEMBLY
- 46 INSTALL SIDEWALK GUY ASSEMBLY
- 47 INSTALL MESSENGER CABLE
- 48 REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- 49 REMOVE EXISTING COMMUNICATIONS CABLE
- 50 INSTALL TELEPHONE SERVICE
- 51 INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
- 52 INSTALL DELINEATOR MARKER
- 53 STORE 30 FEET OF COMMUNICATIONS CABLE (EACH CABLE), EXCEPT AS NOTED ON PLANS
- 54 LASH CABLE(S) TO NEW MESSENGER CABLE
- 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 56 INSTALL NEW EQUIPMENT CABINET DISCONNECT
- 57 MODIFY EXISTING ELECTRICAL SERVICE
- 58 INSTALL NEW ELECTRICAL SERVICE
- 59 INSTALL NEW POLE MOUNTED CABINET
- 60 INSTALL FIELD ETHERNET SWITCH
- 61 INSTALL SOLAR POWER ASSEMBLY
- 62 INSTALL DMS ASSEMBLY
- 63 REMOVE EXISTING JUNCTION BOX
- 64 INSTALL ISOLATION TRANSFORMER

LEGEND

	NEW FIBER OPTIC COMMUNICATIONS CABLE
	NEW CONDUIT
	EXISTING CONDUIT
	NEW DIRECTIONAL DRILLED CONDUIT
	NEW GUARDRAIL
	EXISTING GUARDRAIL
	EXISTING CABLE GUIDERAIL
	EXISTING CONCRETE BARRIER /NOISE WALL
	EXISTING RIGHT OF WAY
	NEW JUNCTION BOX
	EXISTING JUNCTION BOX
	NEW SPECIAL OVERSIZED JUNCTION BOX WITH SPLICE ENCLOSURE
	EXISTING SPECIAL OVERSIZED JUNCTION BOX WITH NEW SPLICE ENCLOSURE
	EXISTING SPECIAL OVERSIZED JUNCTION BOX WITHOUT SPLICE ENCLOSURE
	NEW WOOD POLE
	EXISTING WOOD POLE
	NEW SPLICE ENCLOSURE
	EXISTING SPLICE ENCLOSURE
	NEW METAL POLE
	EXISTING METAL POLE
	EXISTING CCTV CAMERA ASSEMBLY
	NEW CCTV CAMERA ASSEMBLY
	EXISTING PEDESTAL-MOUNTED DMS STRUCTURE
	NEW PEDESTAL-MOUNTED DMS STRUCTURE
	NEW STANDARD GUY ASSEMBLY
	EXISTING STANDARD GUY ASSEMBLY
	NEW SIDEWALK GUY ASSEMBLY
	EXISTING SIGNAL CABINET
	NEW FIELD EQUIPMENT CABINET
	EXISTING FIELD EQUIPMENT CABINET
	NEW ELECTRICAL SERVICE
	EXISTING ELECTRICAL SERVICE
	SIGNAL POLE
	NEW ITS DEVICE NUMBER
	EXISTING ITS DEVICE NUMBER

CONSTRUCTION NOTE SYMBOLOGY KEY

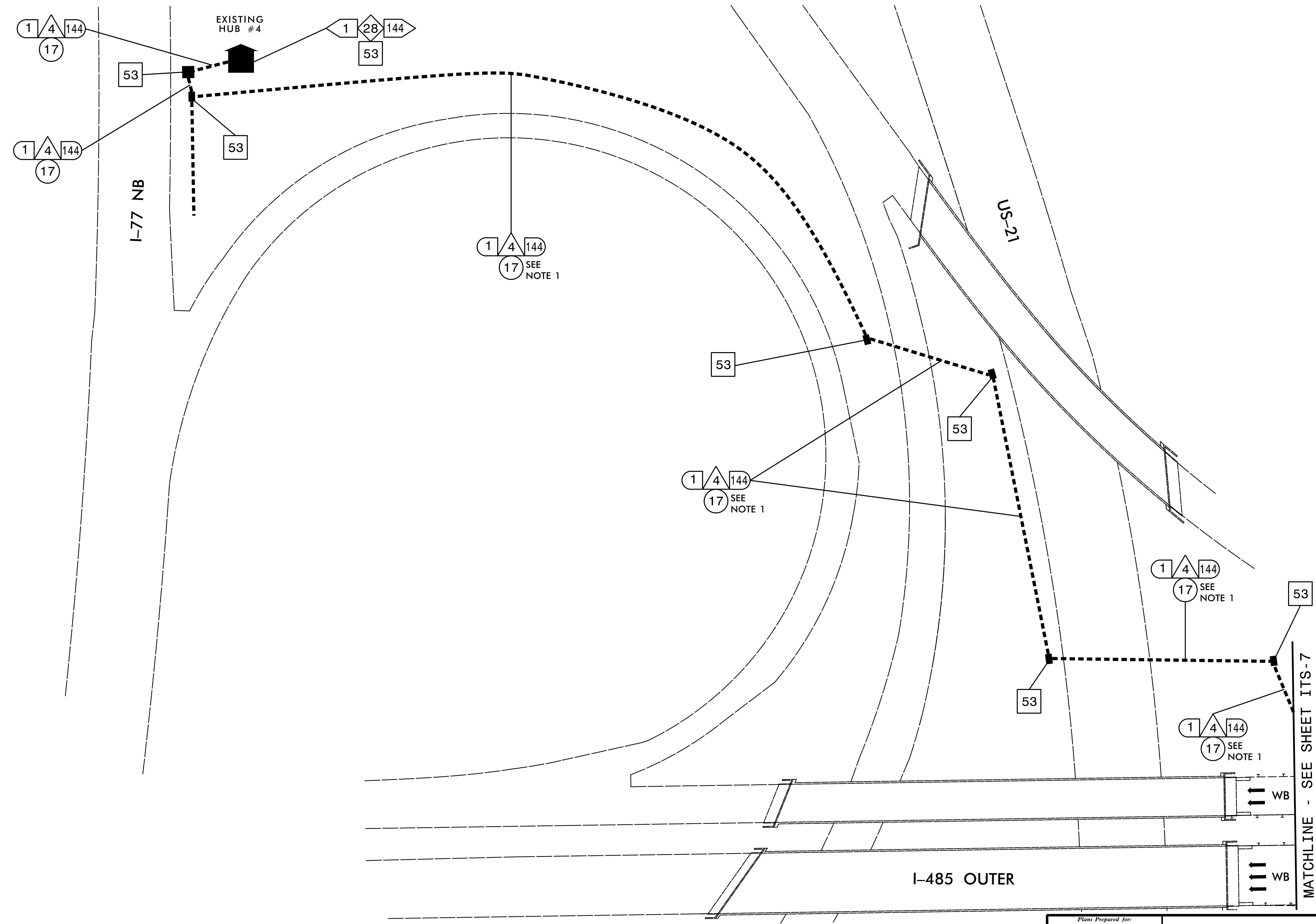
- INDICATES NUMBER OF CABLES, LOOPS, ETC.
- INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
- INDICATES NUMBER OF RISER(S)/CONDUIT(S)
- INDICATES DIAMETER OF RISER(S)/CONDUIT(S) (INCH)

Diagram 1: NUMBER OF CABLE(S) (XX) and NUMBER OF FIBERS / TWISTED PAIRS (XX) pointing to a triangle.

Diagram 2: NUMBER OF RISER(S) / CONDUIT(S) (XX) and DIAMETER OF RISER(S) / CONDUIT(S) (INCH) (XX) pointing to a circle.

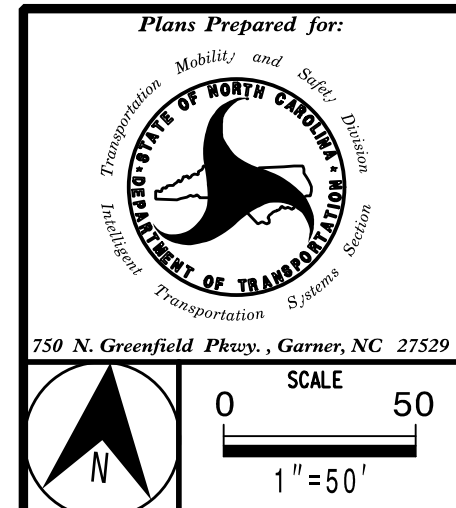
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

	CONSTRUCTION NOTES AND LEGEND	
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD	
SCALE NONE	REVISIONS _____ _____ _____	INIT. DATE _____ _____ _____
DocuSigned by: H. L. Winstead, Jr. 02-04-2015 F82917C3E507429 SIGNATURE DATE		CADD File Name: R2248EA ITS-05.dgn

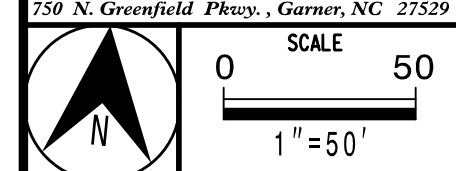
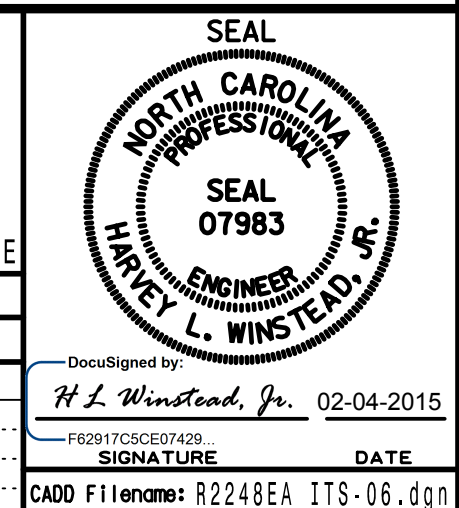


NOTE:
 1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

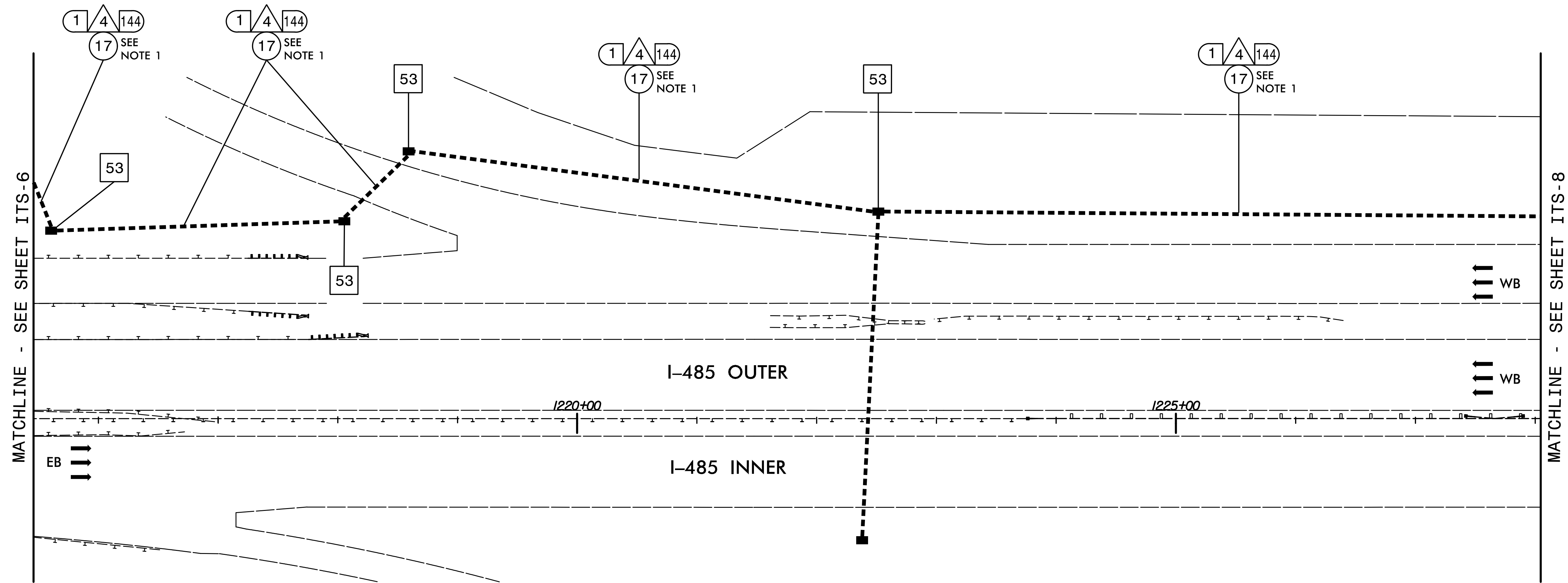
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CABLE ROUTING PLAN			
DIVISION 10 MECKLENBURG CO., CHARLOTTE		REVIEWED BY: A.D. KLINSIEK	
PLAN DATE: FEBRUARY 2015		REVIEWED BY: H.L. WINSTEAD	
PREPARED BY: T.R. TERRELL		REVIEWED BY: H.L. WINSTEAD	
REVISIONS	INIT.	DATE	

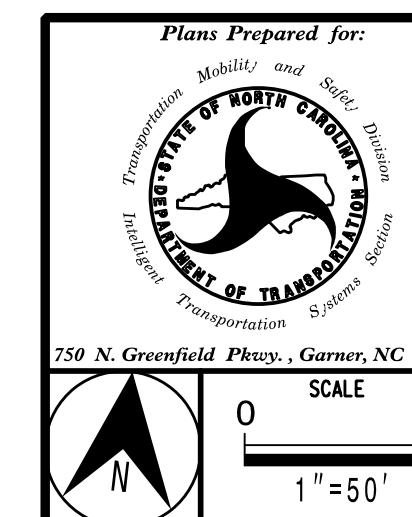


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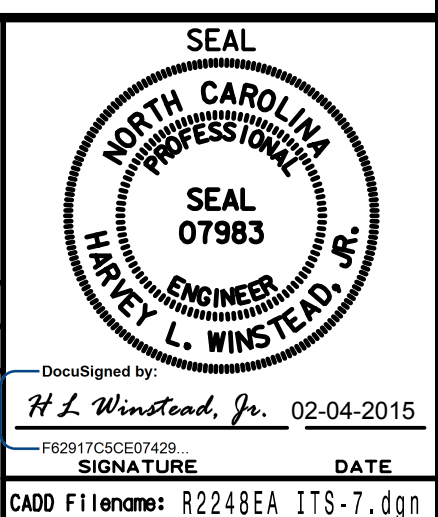


NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

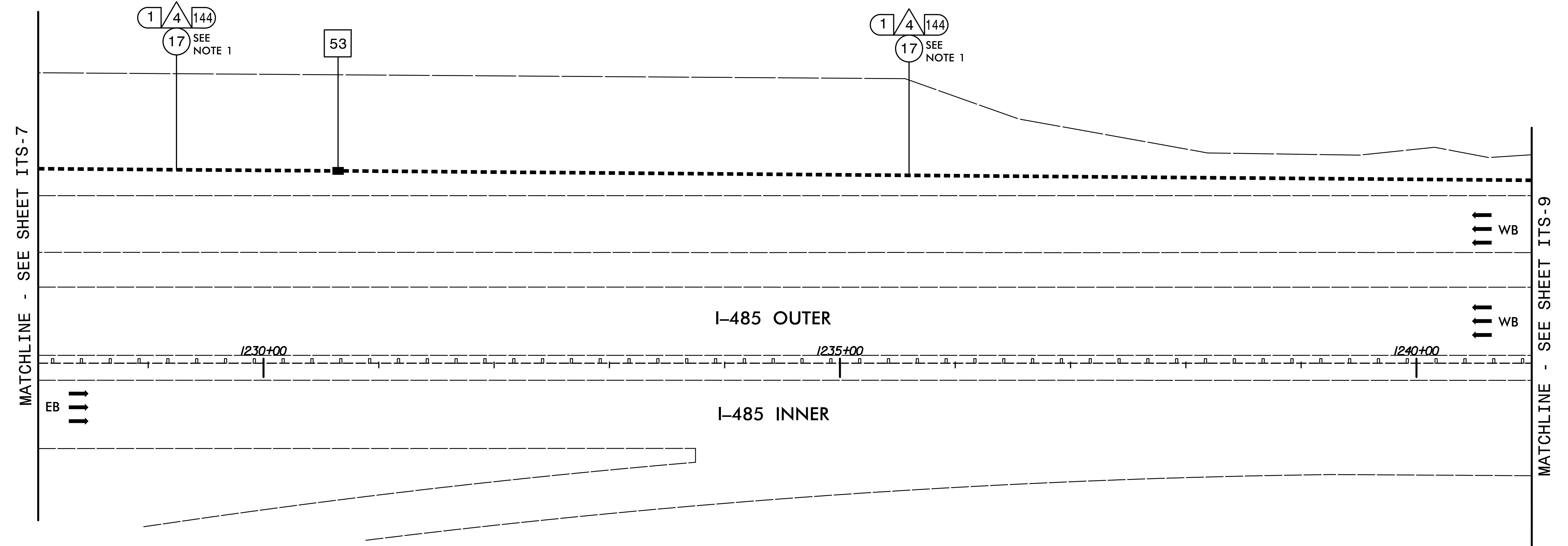
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NC License No: C-1554



CABLE ROUTING PLAN		
DIVISION 10 MECKLENBURG CO., CHARLOTTE		
PLAN DATE: FEBRUARY 2015	REVIEWED BY: A.D. KLINKSIEK	
PREPARED BY: T.R. TERRELL	REVIEWED BY: H.L. WINSTEAD	
REVISIONS	INIT.	DATE



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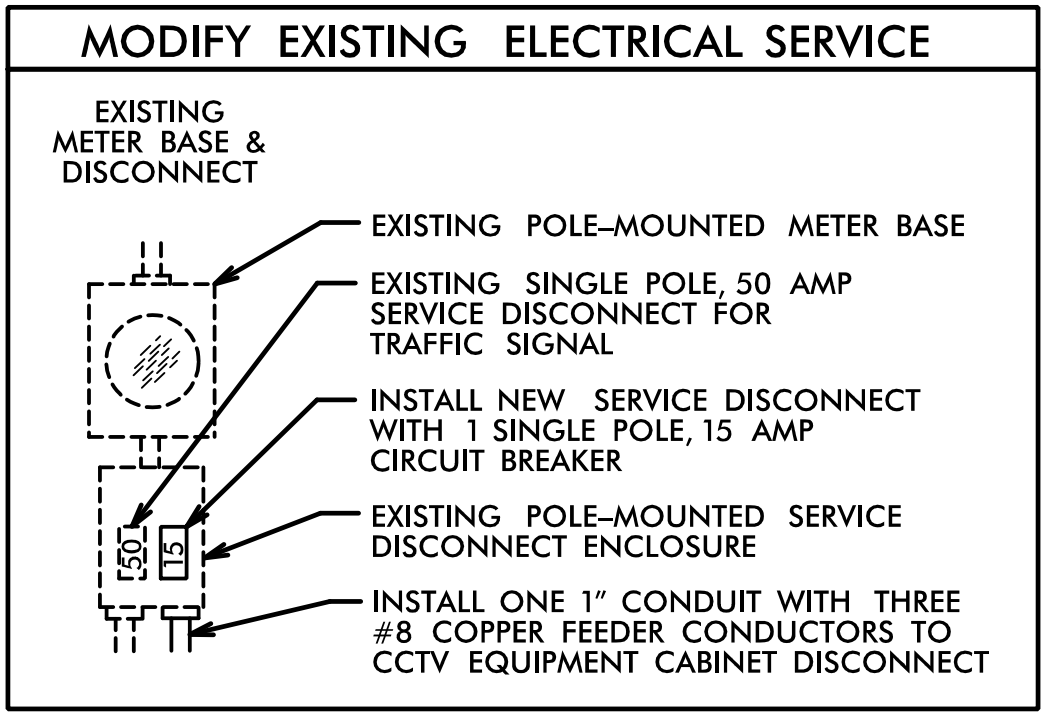


NOTE:
 1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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 Plans Prepared for: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 N. Greenfield Place, Garner, NC 27529	CABLE ROUTING PLAN		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER HARVEY L. WINSTEAD, JR. 07983								
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD										
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REVISIONS	INIT.	DATE									

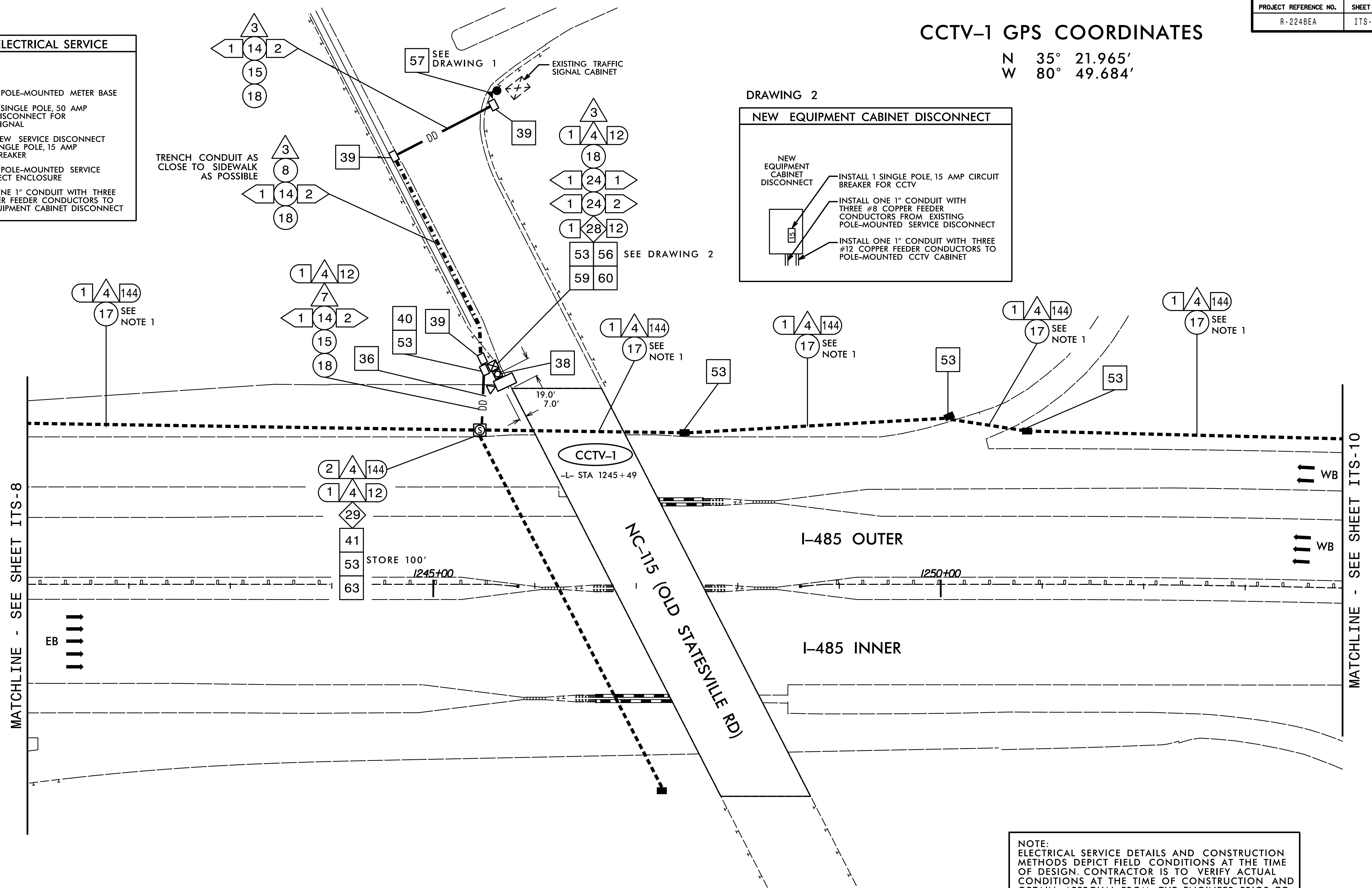
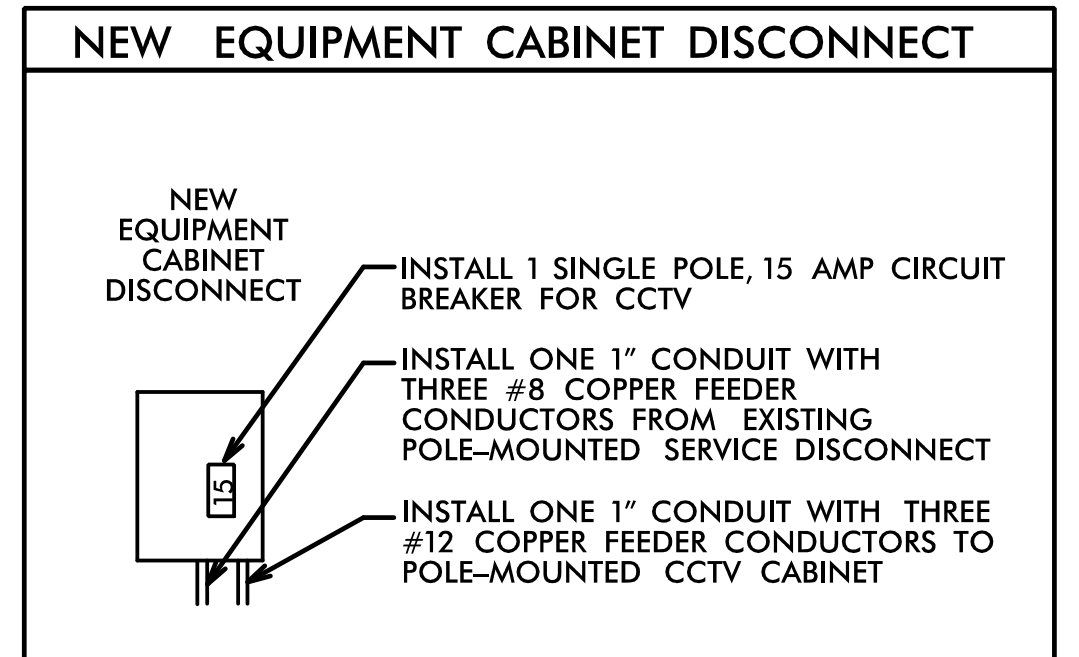
DRAWING 1



CCTV-1 GPS COORDINATES

N 35° 21.965'
W 80° 49.684'

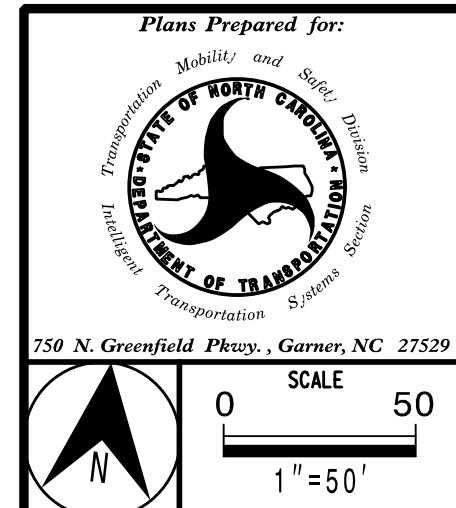
DRAWING 2



- NOTES:**
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
 2. CONTACT THE REGIONAL ITS ENGINEER AT (704) 347-6601 TO CONFIRM THE LOCATION OF THE CCTV.
 3. MOUNT THE CCTV CAMERA 45' ABOVE GRADE.
 4. INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOOR OF THE CCTV EQUIPMENT CABINET. SEE TYPICAL DETAILS SHEET.
 5. CONTACT CHARLES ABEL (CITY OF CHARLOTTE) AT (704) 336-3945 TO COORDINATE ANY TRAFFIC SIGNAL SERVICE MODIFICATIONS.

NOTE:
ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.

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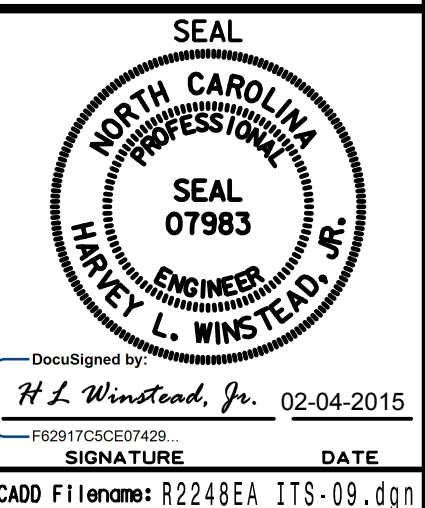
CABLE ROUTING PLAN

DIVISION 10 MECKLENBURG CO. CHARLOTTE

PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK

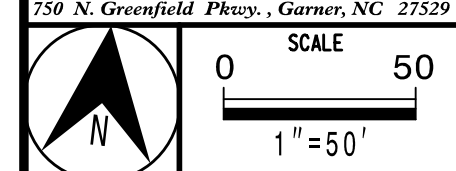
PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD

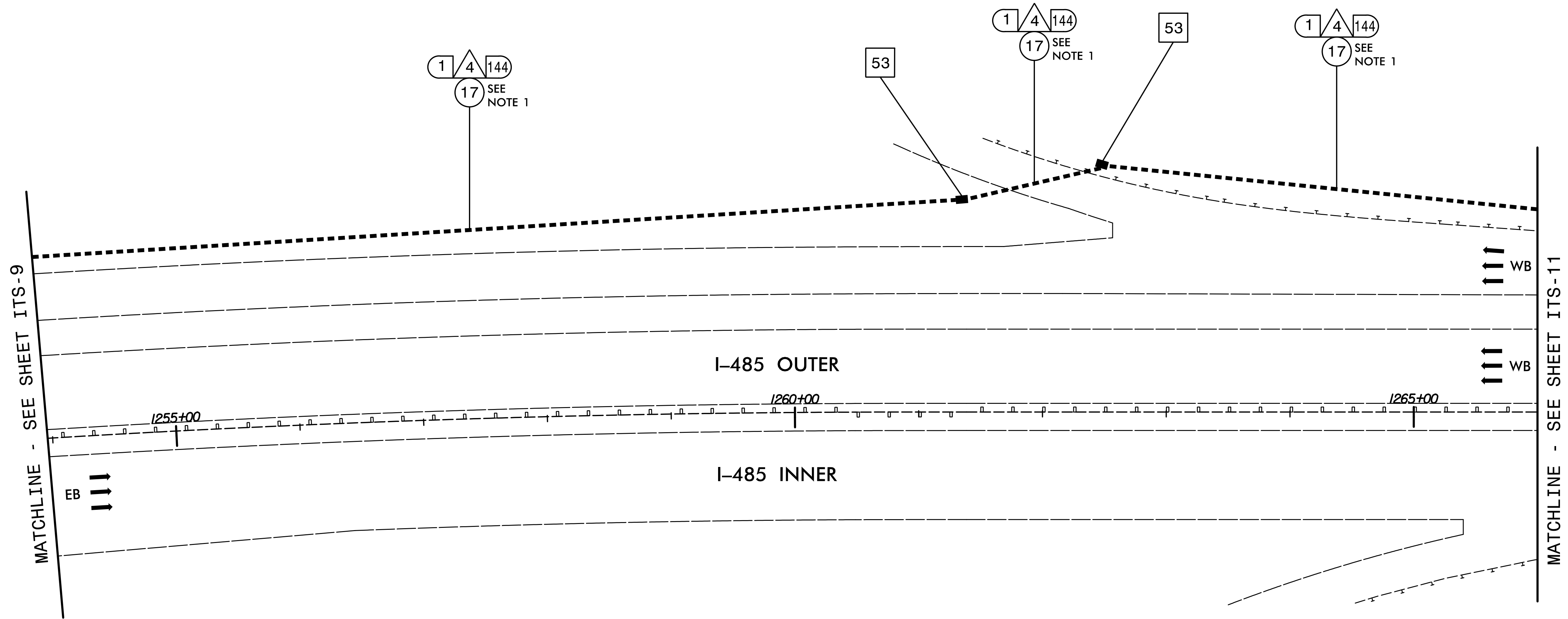
REVISIONS	INIT.	DATE



MATCHLINE - SEE SHEET ITS-10

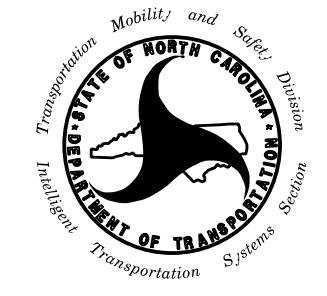


MATCHLINE - SEE SHEET ITS-8

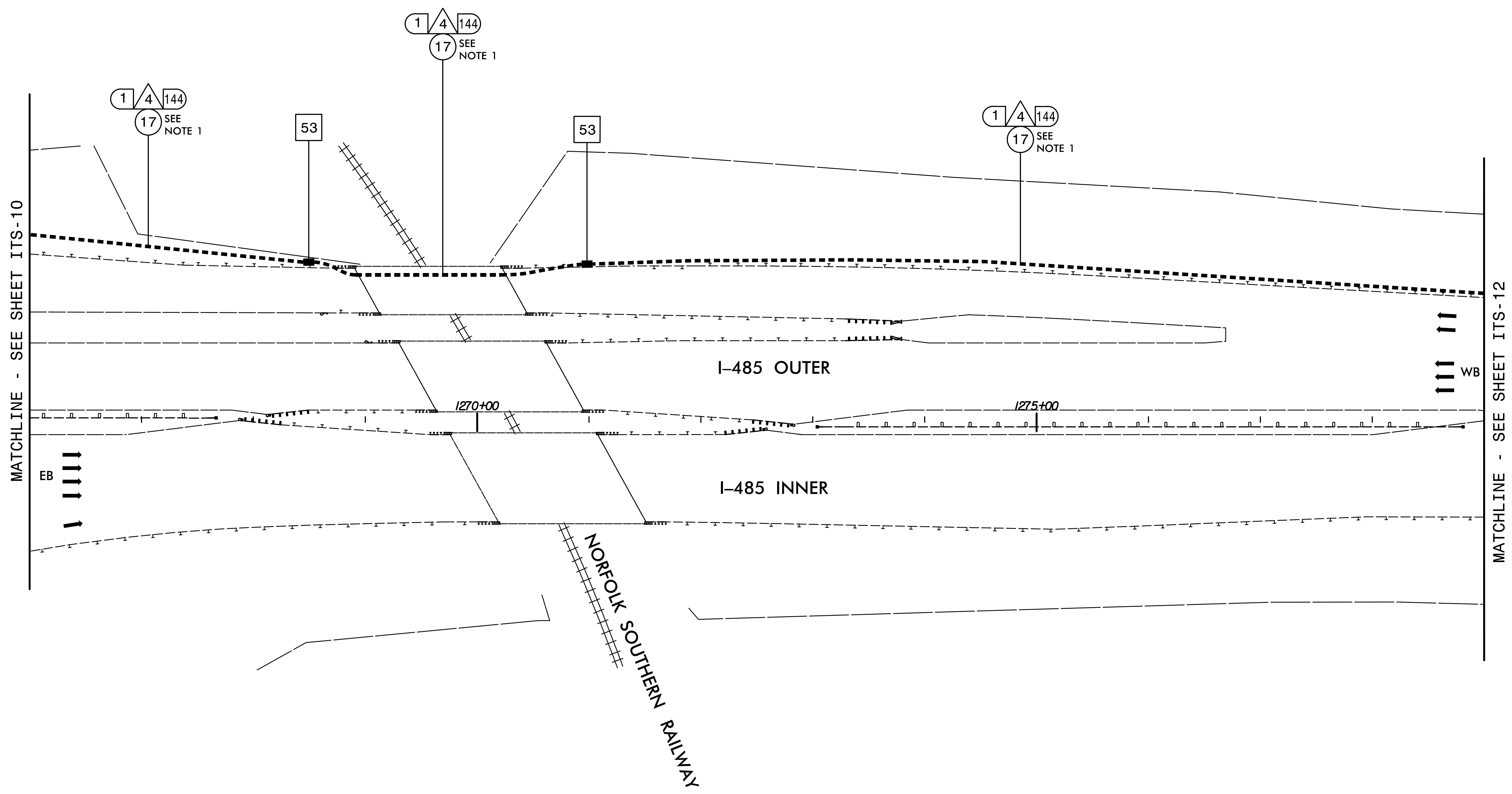




NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

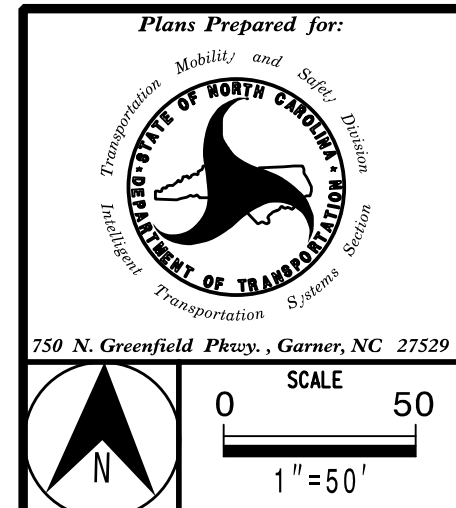
HNTB HNTB NORTH CAROLINA, P.C.
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 Plans Prepared for: Transportation Mobility and Safety Division DEPARTMENT OF TRANSPORTATION 250 N. Greenfield Place, Garner, NC 27529	CABLE ROUTING PLAN		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER H.L. WINSTEAD, JR. 07983									
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD			DocuSigned by: H.L. Winstead, Jr. 02-04-2015 SIGNATURE DATE								
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REVISIONS	INIT.	DATE										



NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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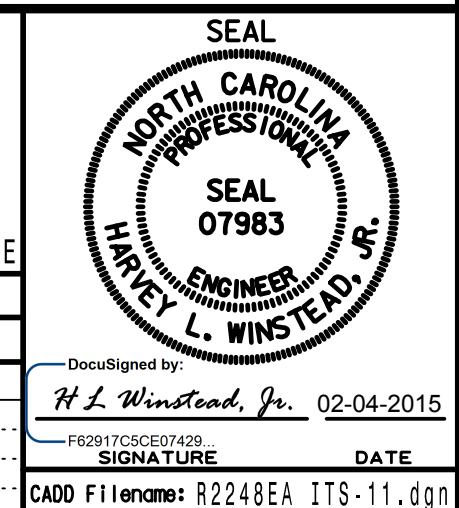


CABLE ROUTING PLAN

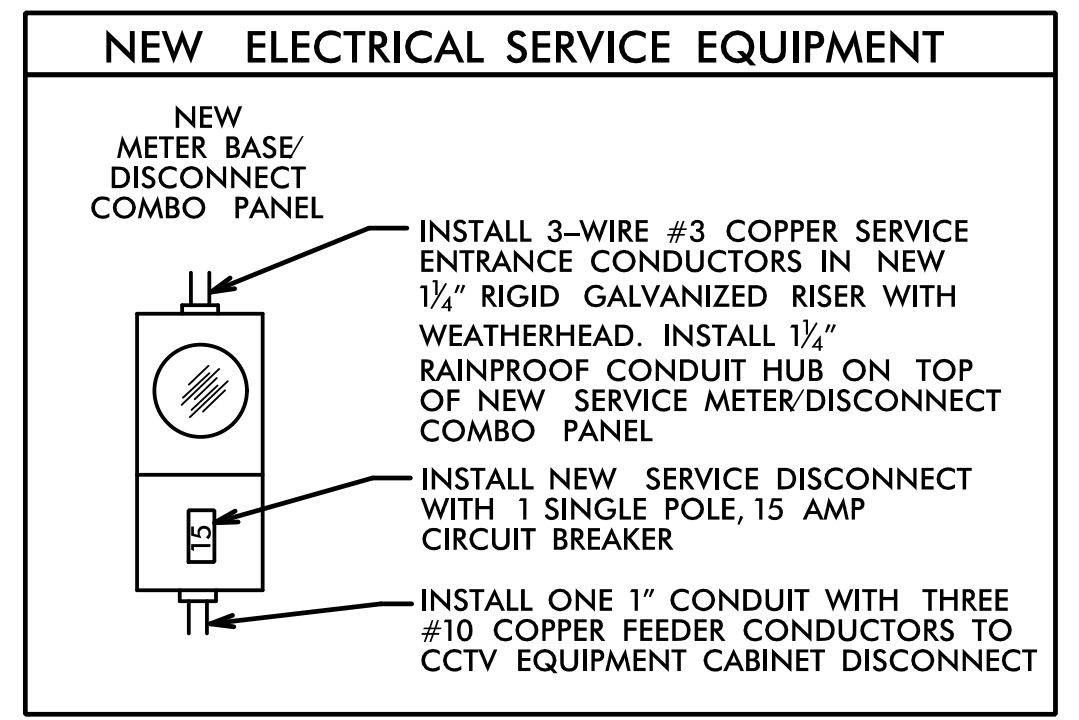
DIVISION 10 MECKLENBURG CO., CHARLOTTE

PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK
 PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD

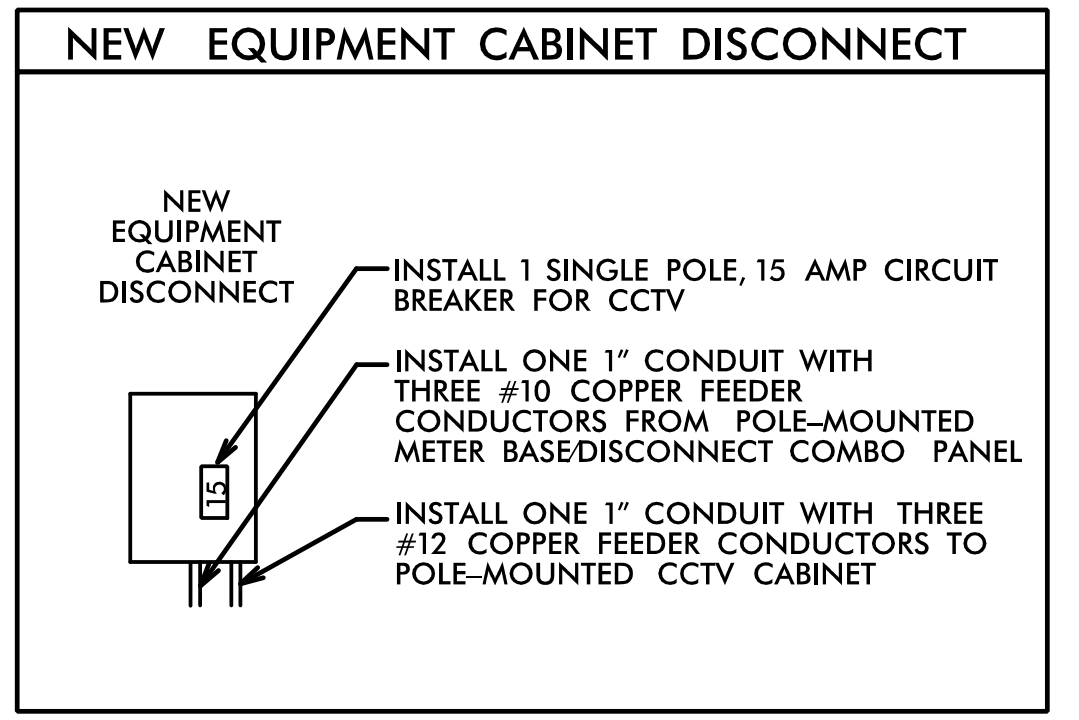
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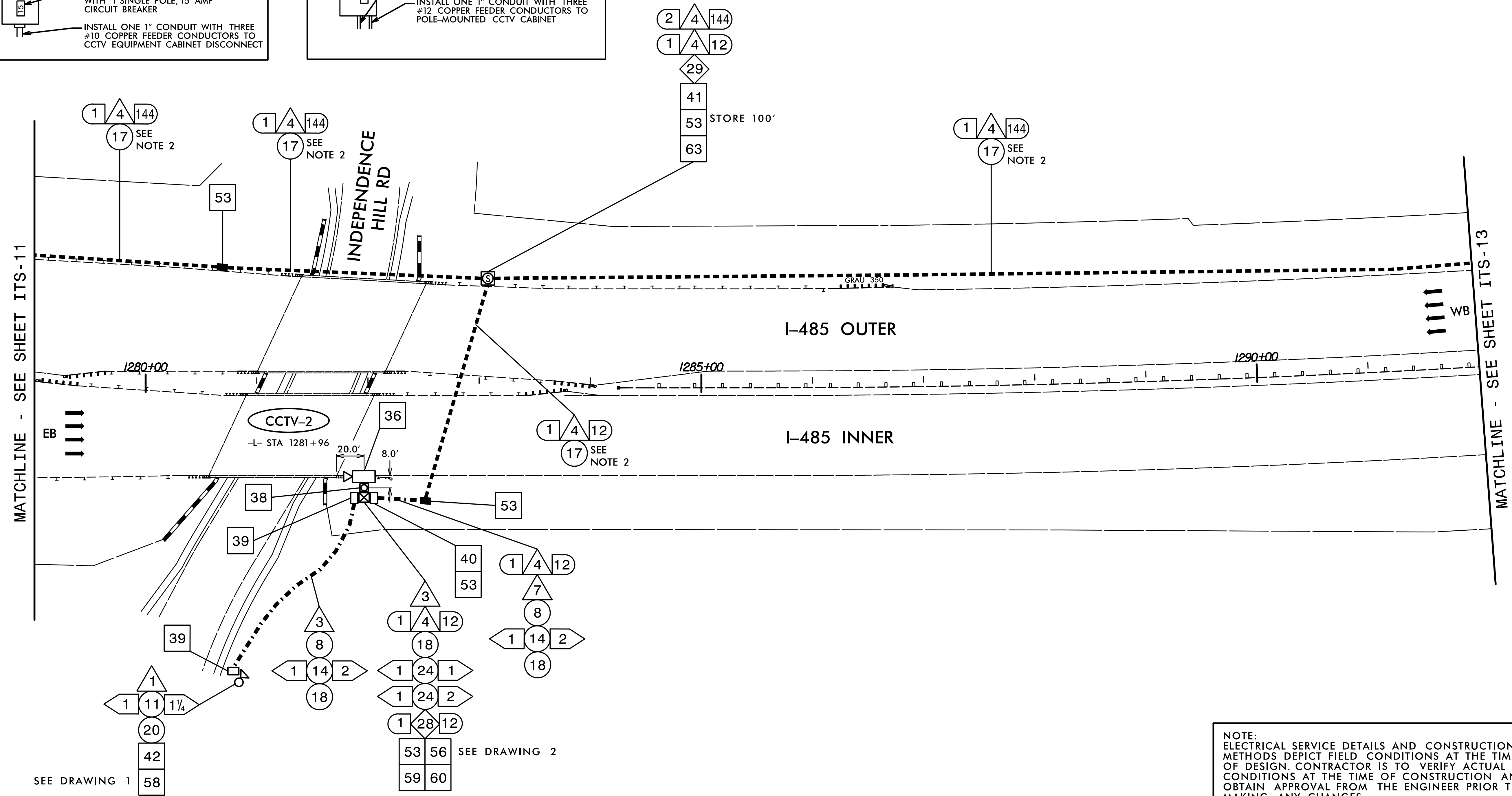


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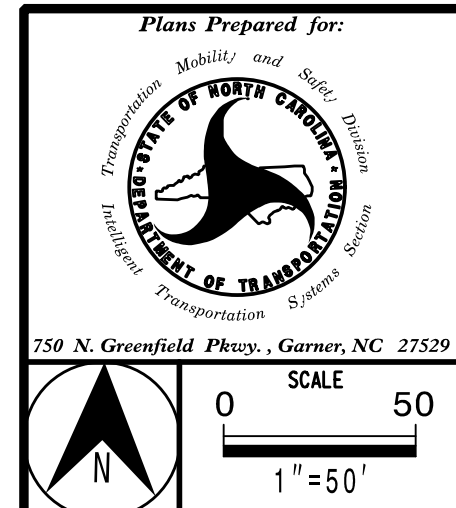
CCTV-2 GPS COORDINATES

N 35° 21.970'
W 80° 48.948'



- NOTES:**
1. MAINTAIN A MINIMUM OF SIX (6) FEET FROM THE EDGE OF PAVEMENT WHEN TRENCHING PARALLEL TO THE ROADWAY.
 2. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
 3. CONTACT THE REGIONAL ITS ENGINEER AT (704) 347-6601 TO CONFIRM THE LOCATION OF THE CCTV.
 4. MOUNT THE CCTV CAMERA 45' ABOVE GRADE.
 5. INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOOR OF THE CCTV EQUIPMENT CABINET. SEE TYPICAL DETAILS SHEET.
 6. CONTACT TOM EDELEN (DUKE ENERGY) AT (704) 582-8070 TO OBTAIN POWER TO ELECTRICAL SERVICE.

NOTE: ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.



CABLE ROUTING PLAN

DIVISION 10 MECKLENBURG CO. CHARLOTTE

PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK

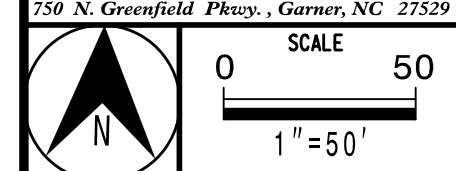
PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD

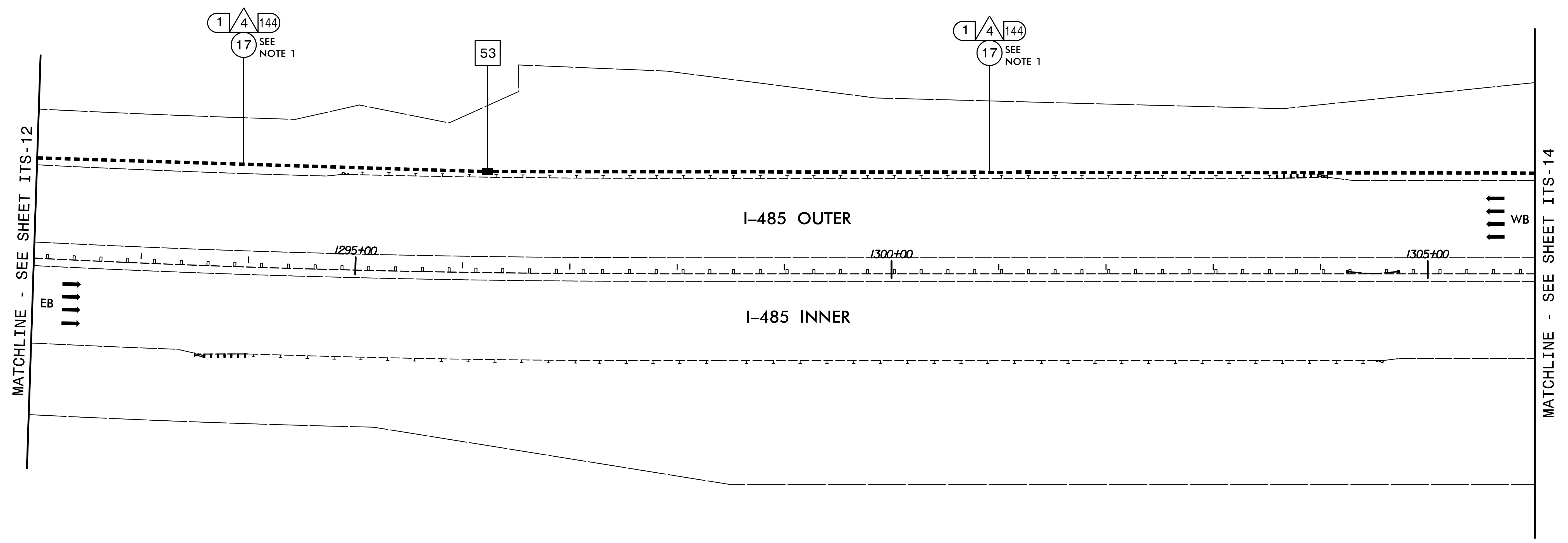
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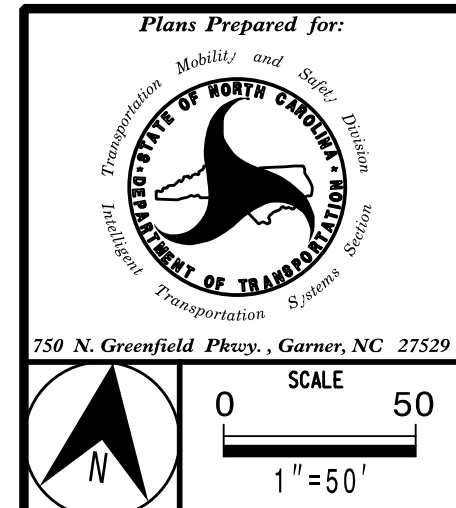
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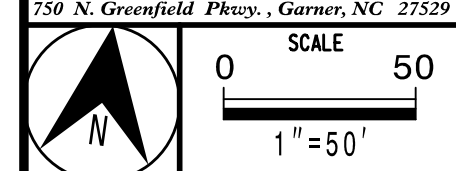
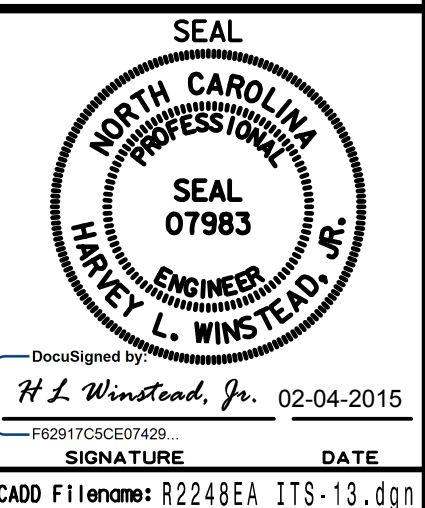


NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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Plans Prepared for: 	
CABLE ROUTING PLAN	
DIVISION 10 MECKLENBURG CO., CHARLOTTE	
PLAN DATE: FEBRUARY 2015	REVIEWED BY: A.D. KLINSIEK
PREPARED BY: T.R. TERRELL	REVIEWED BY: H.L. WINSTEAD
REVISIONS	INIT. DATE
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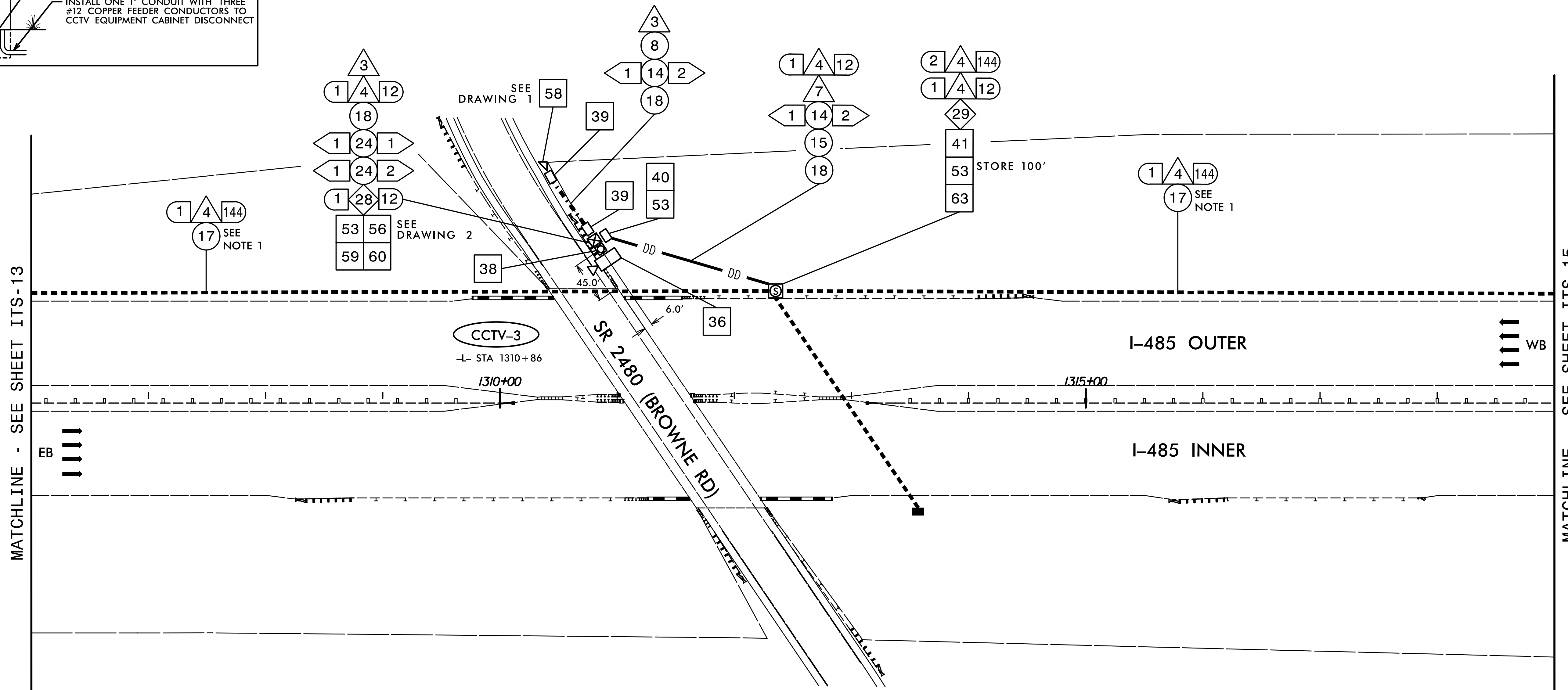
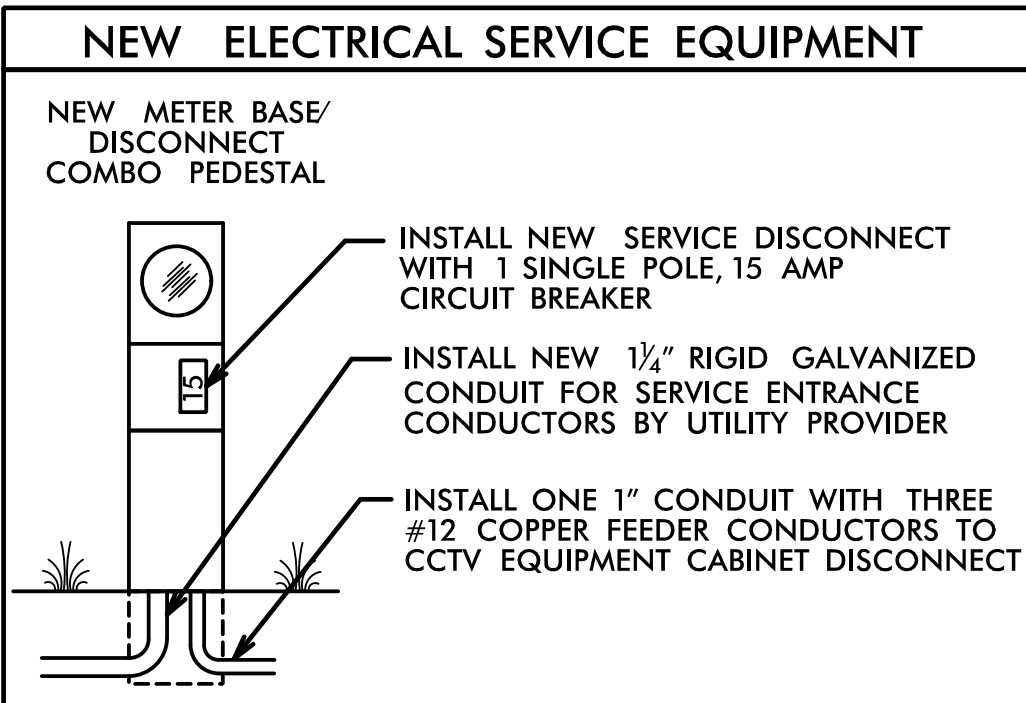


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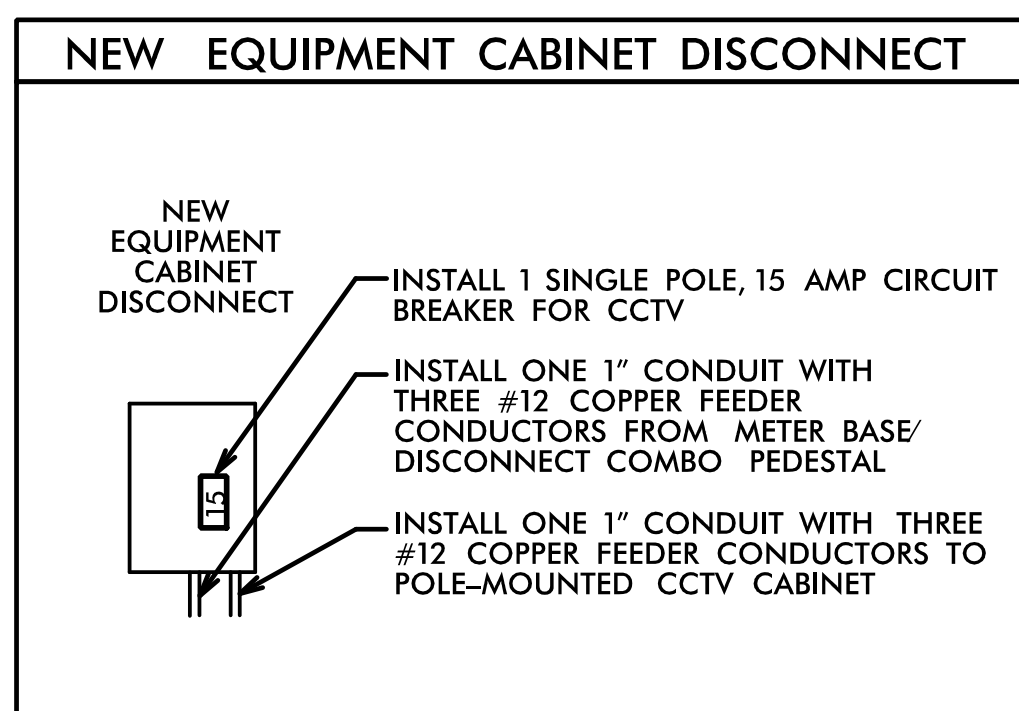
DRAWING 1

CCTV-3 GPS COORDINATES

N 35° 22.072'
W 80° 48.378'



DRAWING 2

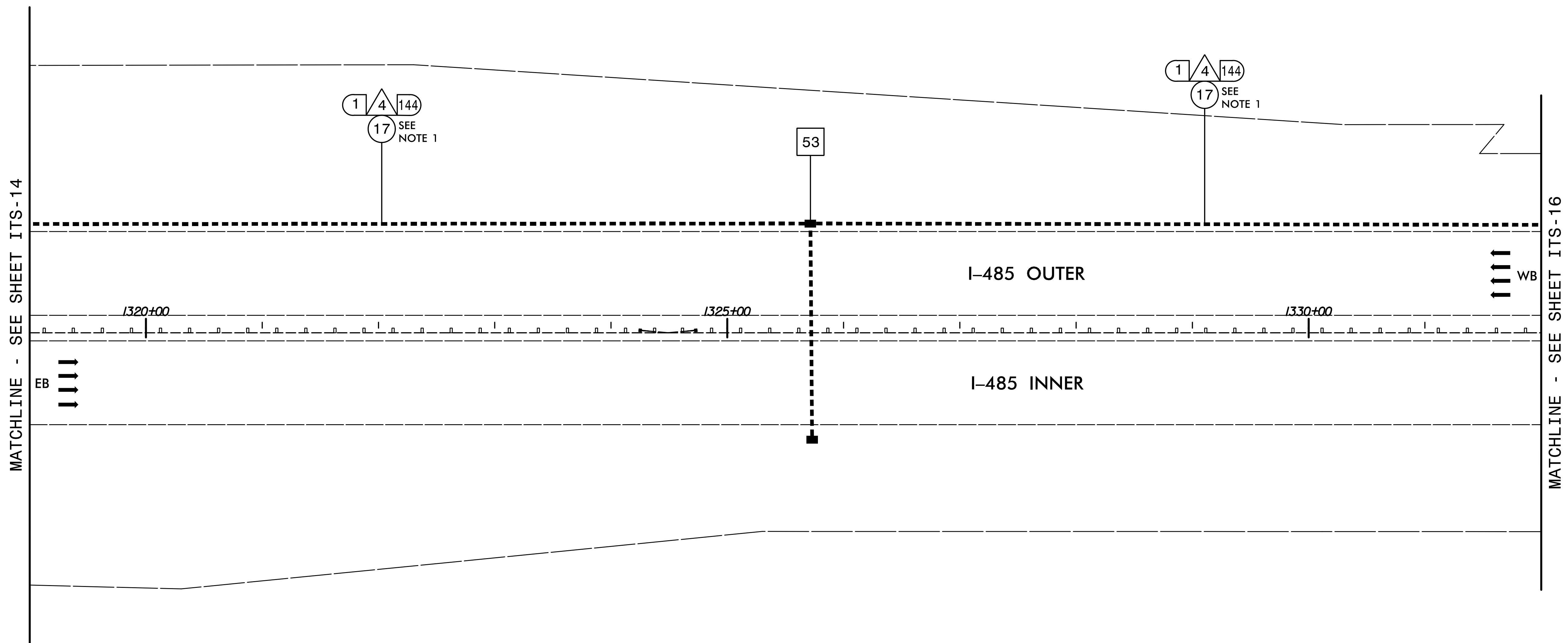


NOTE:
ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.

- NOTES:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
 2. CONTACT THE REGIONAL ITS ENGINEER AT (704) 347-6601 TO CONFIRM THE LOCATION OF THE CCTV.
 3. MOUNT THE CCTV CAMERA 45' ABOVE GRADE.
 4. INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOOR OF THE CCTV EQUIPMENT CABINET. SEE TYPICAL DETAILS SHEET.
 5. CONTACT TOM EDELEN (DUKE ENERGY) AT (704) 582-8070 TO OBTAIN POWER TO ELECTRICAL SERVICE.

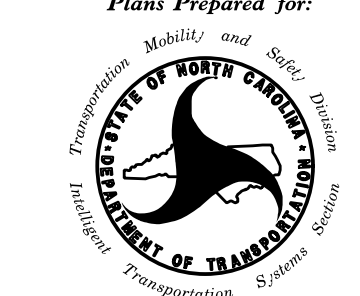


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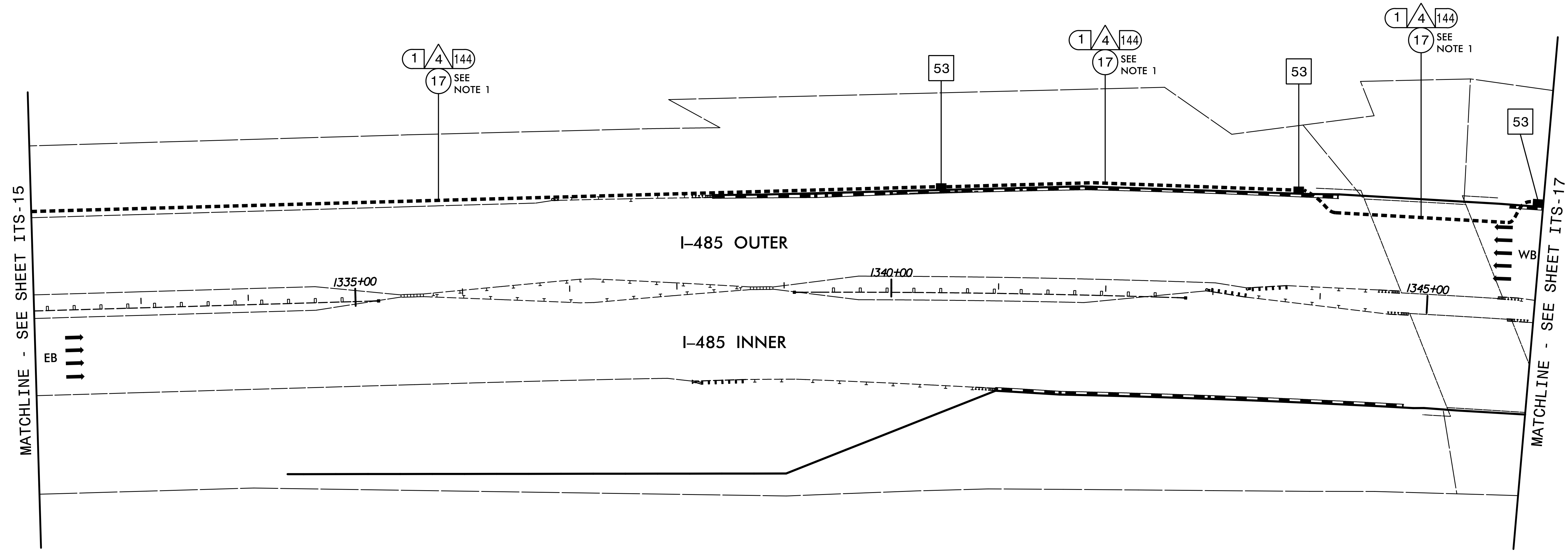
<p>Plans Prepared for: TRANSPORTATION MOBILITY AND SAFETY DIVISION DEPARTMENT OF TRANSPORTATION 250 N. Greenfield Place, Garner, NC 27529</p>	CABLE ROUTING PLAN							
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD							
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REVISIONS	INIT.	DATE						



NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.




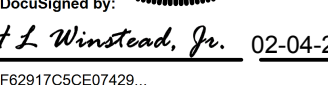
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NC License No: C-1554

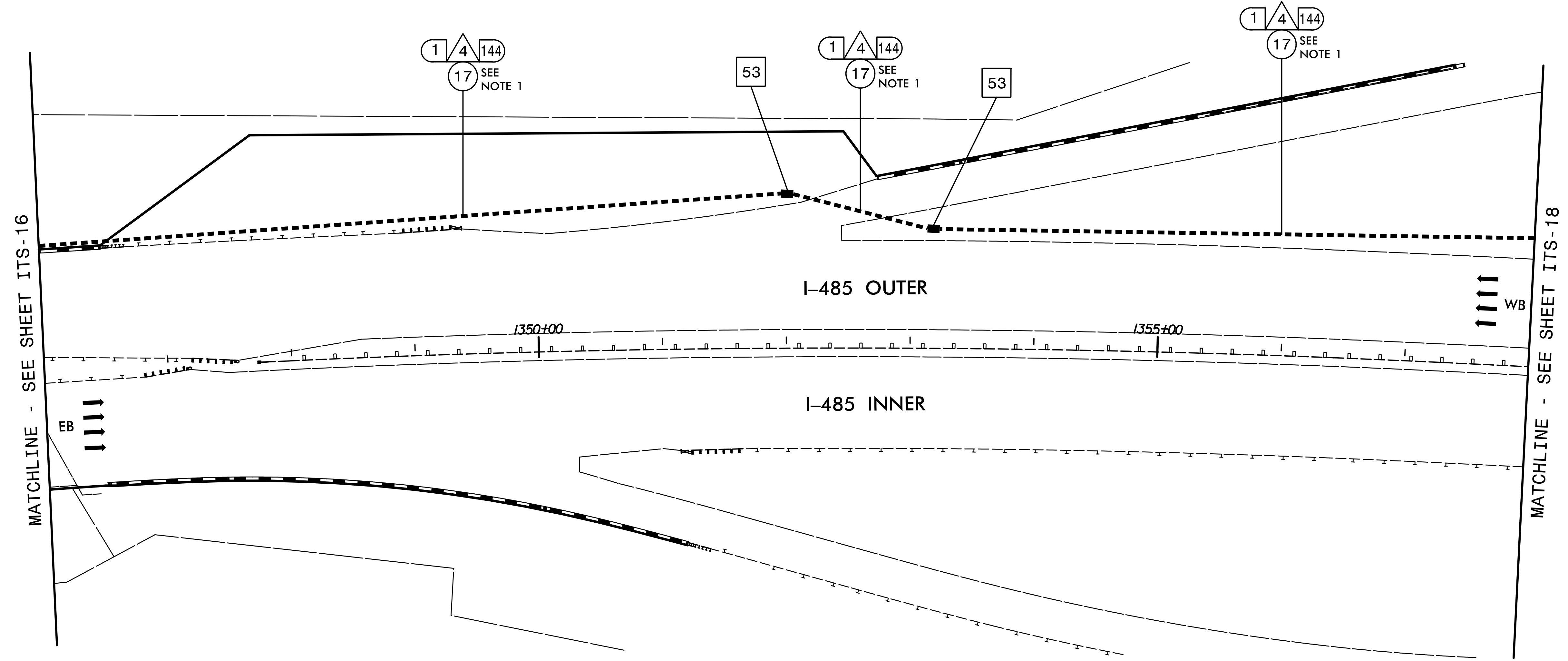
 <small>250 N. Greenfield Place, Garner, NC 27529</small>	CABLE ROUTING PLAN											
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD			DocuSigned by: H.L. Winstead, Jr. 02-04-2015 <small>14291703607429</small> SIGNATURE DATE								
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REVISIONS	INIT.	DATE										



NOTE:
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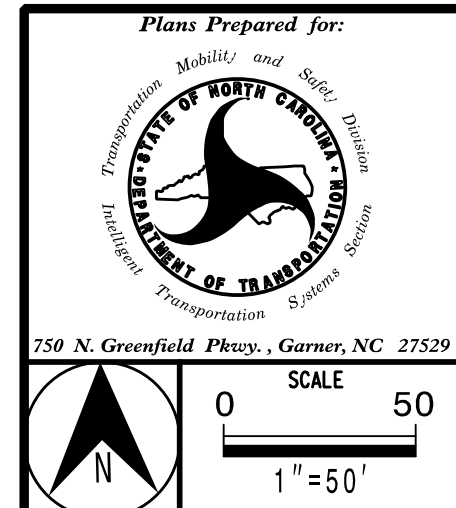
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 <small>750 N. Greenfield Place, Garner, NC 27529</small>	CABLE ROUTING PLAN								
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD, JR.								
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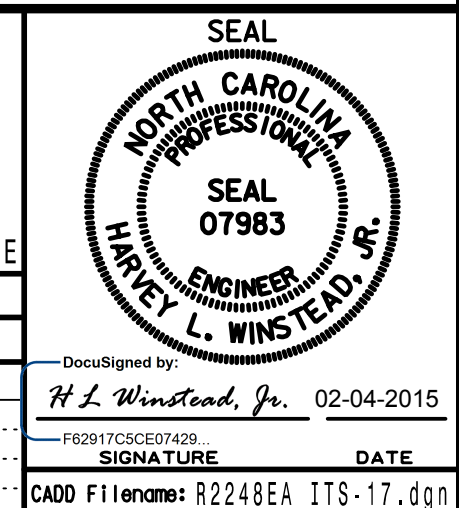


NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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CABLE ROUTING PLAN			
DIVISION 10		MECKLENBURG CO., CHARLOTTE	
PLAN DATE: FEBRUARY 2015	REVIEWED BY: A.D. KLINKSIEK	PREPARED BY: T.R. TERRELL	REVIEWED BY: H.L. WINSTEAD
REVISIONS	INIT.	DATE	

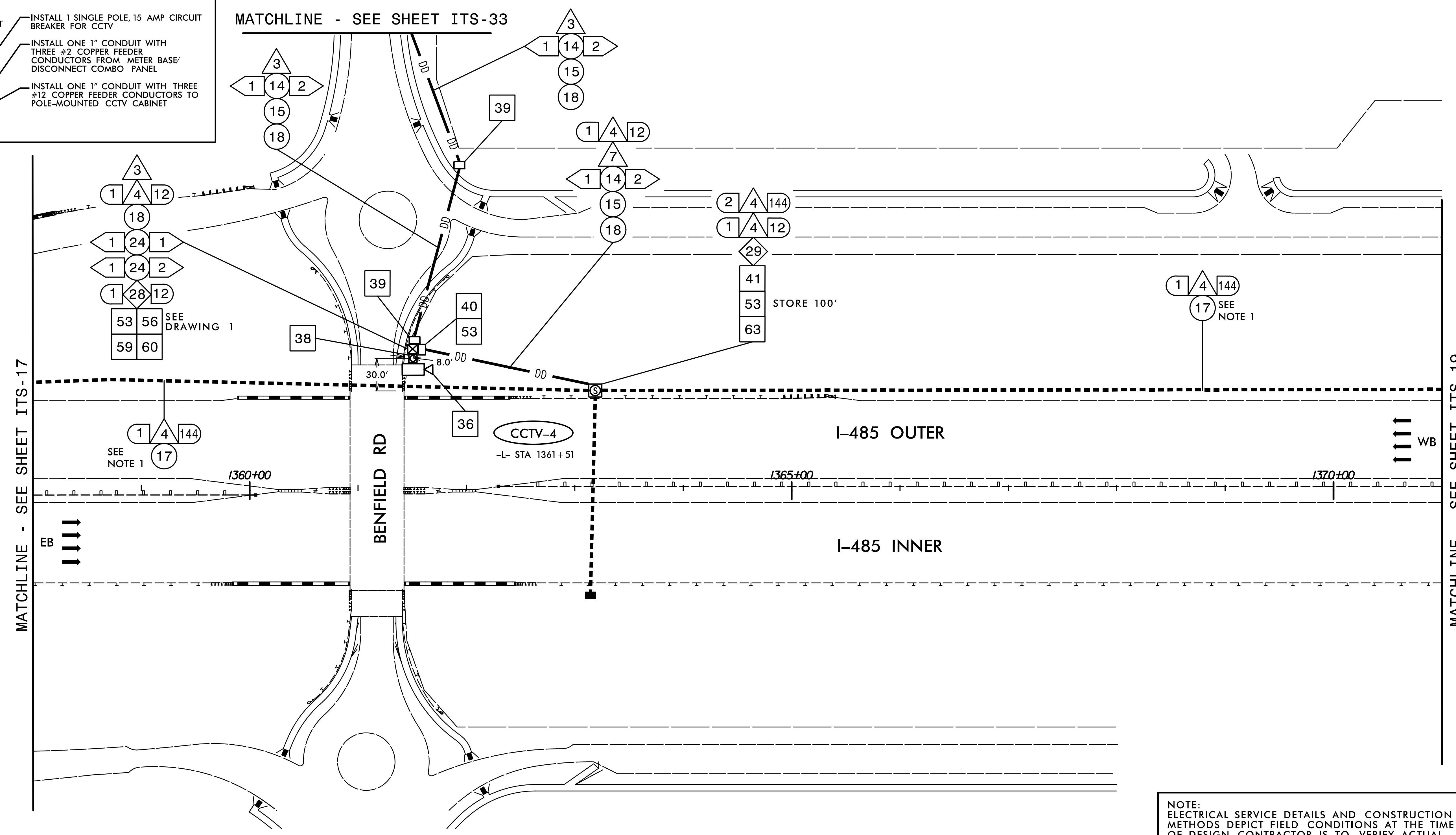
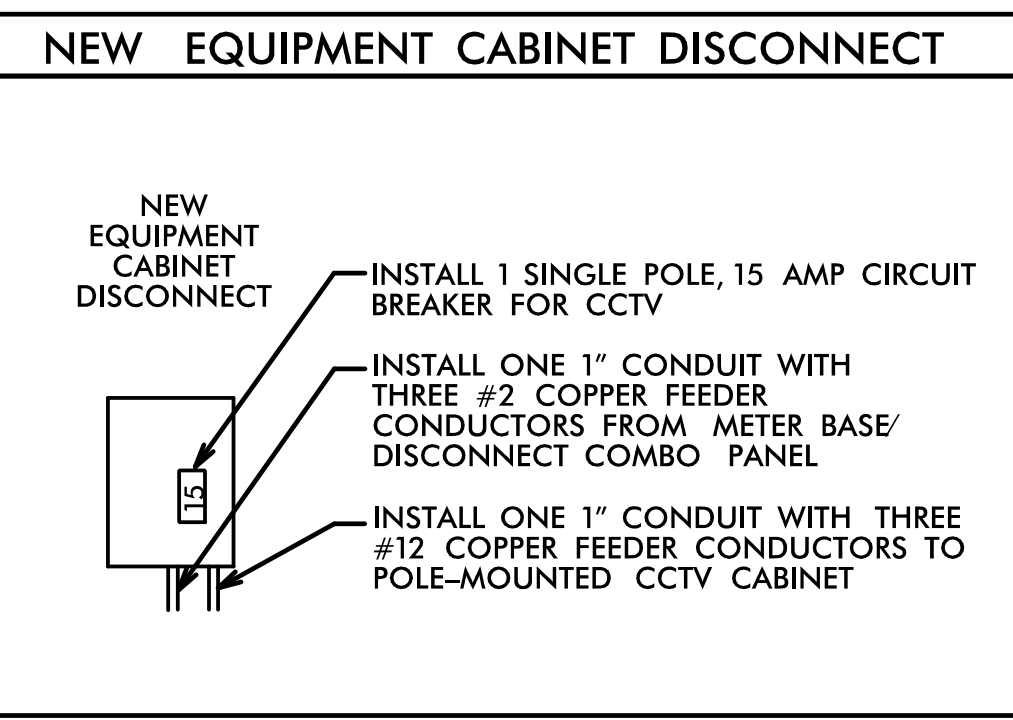


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CADD File Name: R2248EA ITS-17.dgn

DRAWING 1

CCTV-4 GPS COORDINATES

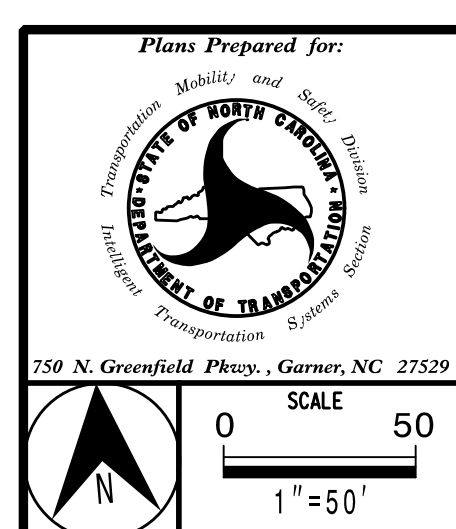
N 35° 22.164'
W 80° 47.362'



NOTE:
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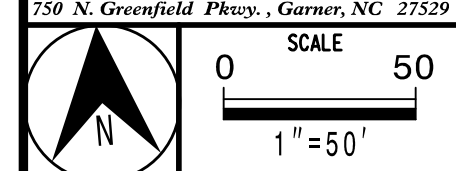
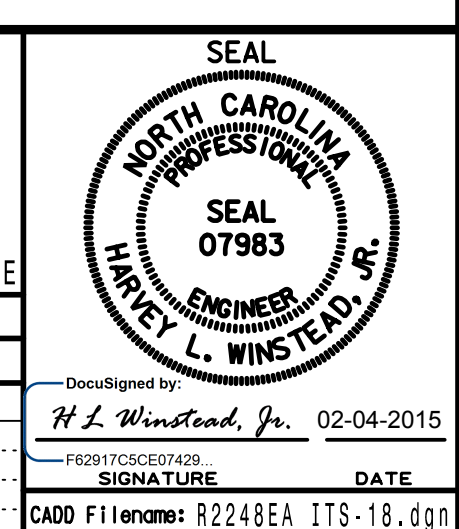
CABLE ROUTING PLAN

DIVISION 10 MECKLENBURG CO., CHARLOTTE

PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK

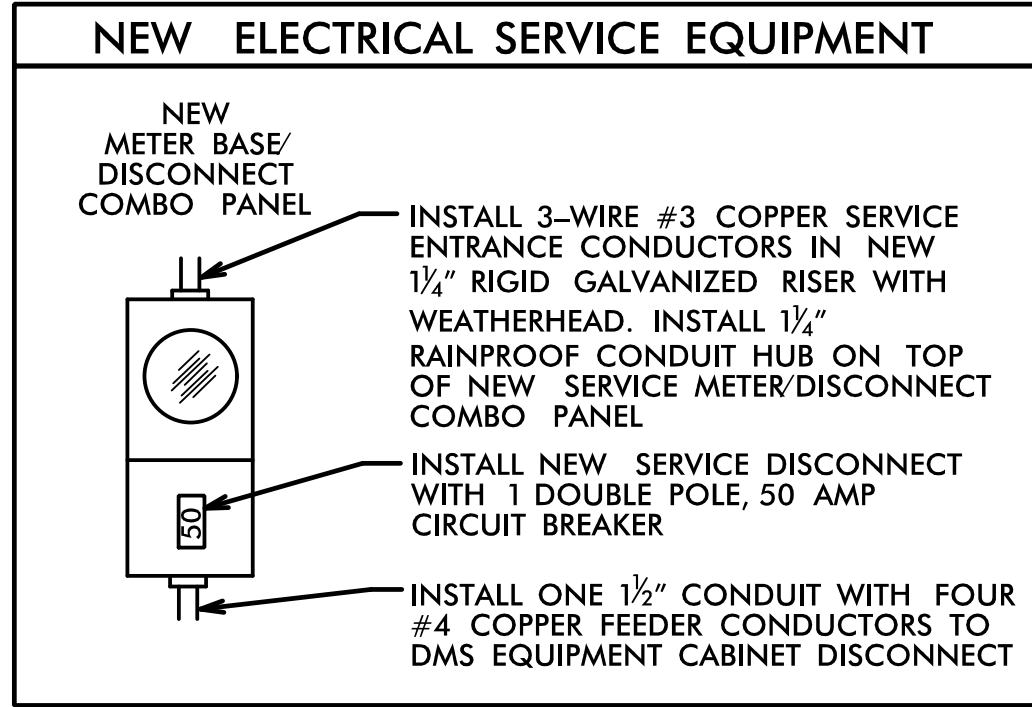
PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD, JR.

REVISIONS	INIT.	DATE

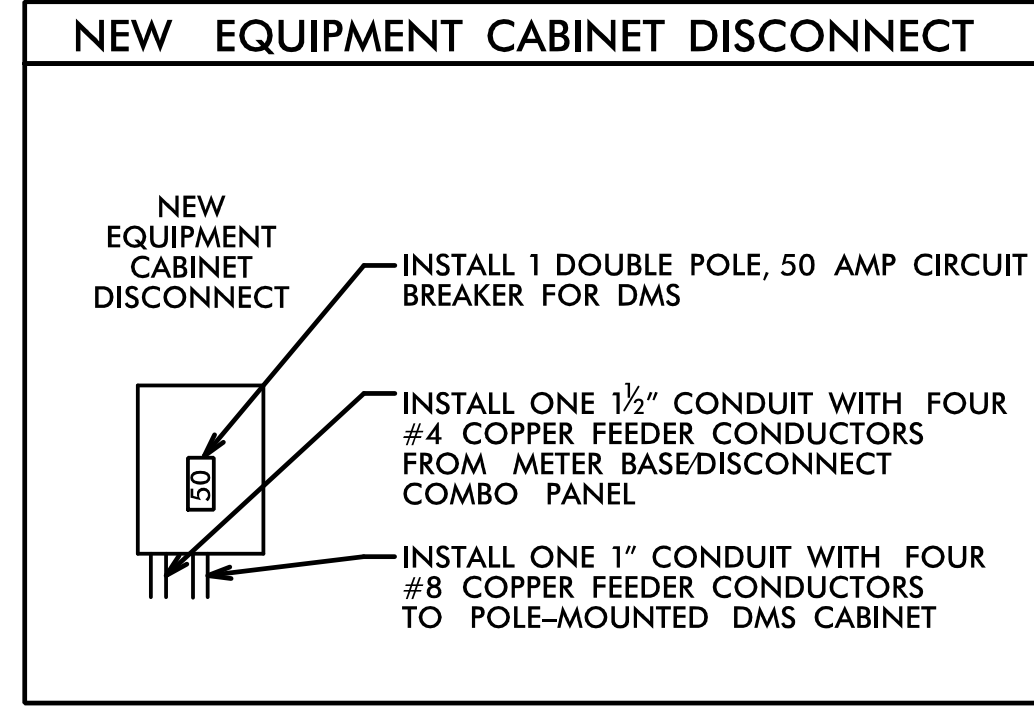


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H.L. Winstead, Jr. 02-04-2015
F02917C3E07429
SIGNATURE DATE
CADD File Name: R2248EA ITS-18.dgn

DRAWING 1

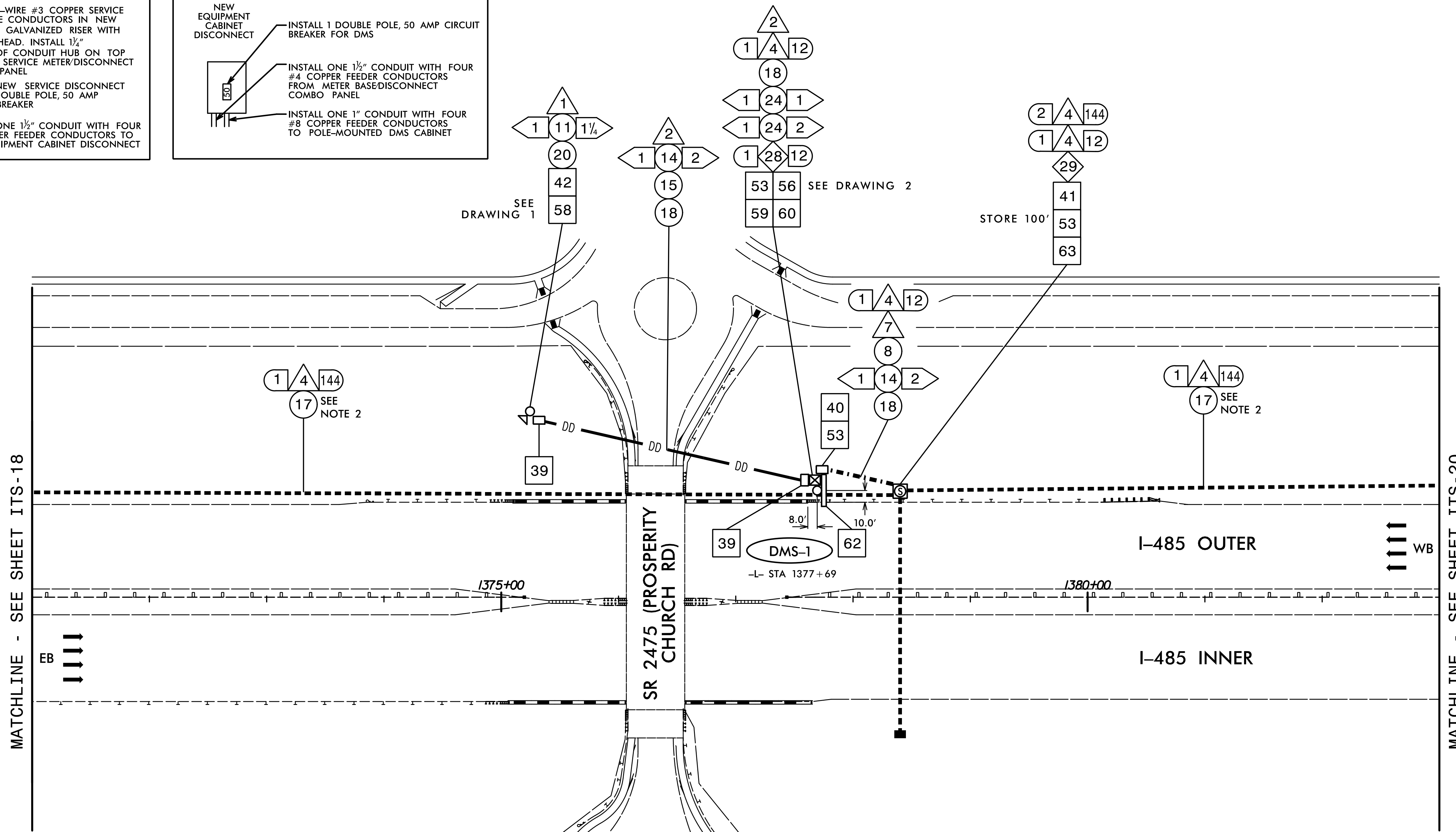


DRAWING 2



DMS-1 GPS COORDINATES

N 35° 22.150'
W 80° 47.036'



NOTES:

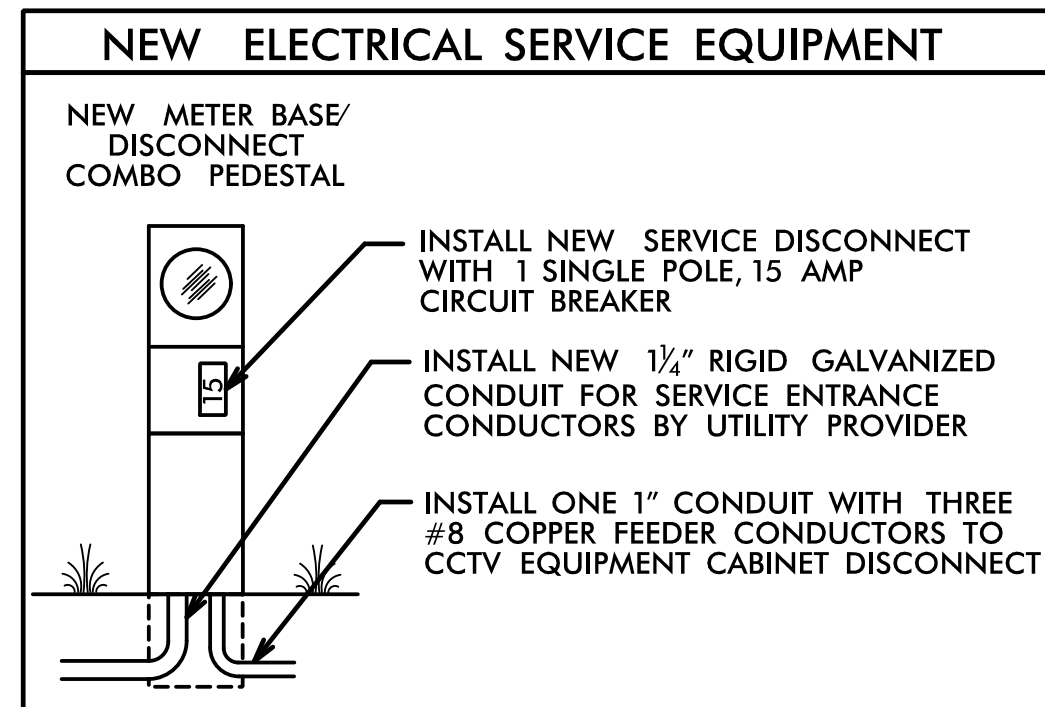
1. MAINTAIN A MINIMUM OF SIX (6) FEET FROM THE EDGE OF PAVEMENT WHEN TRENCHING PARALLEL TO THE ROADWAY.
2. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
3. CONTACT THE REGIONAL ITS ENGINEER AT (704) 347-6601 TO CONFIRM THE LOCATION OF THE DMS.
4. INSTALL A NEW DMS, WALKWAY, LADDER, AND POLE-MOUNTED CABINET ON THE NEW DMS STRUCTURE.
5. INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOOR OF THE DMS EQUIPMENT CABINET. SEE TYPICAL DETAILS SHEET.
6. CONTACT TOM EDELEN (DUKE ENERGY) AT (704) 582-8070 TO OBTAIN POWER TO ELECTRICAL SERVICE.

NOTE:
ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.

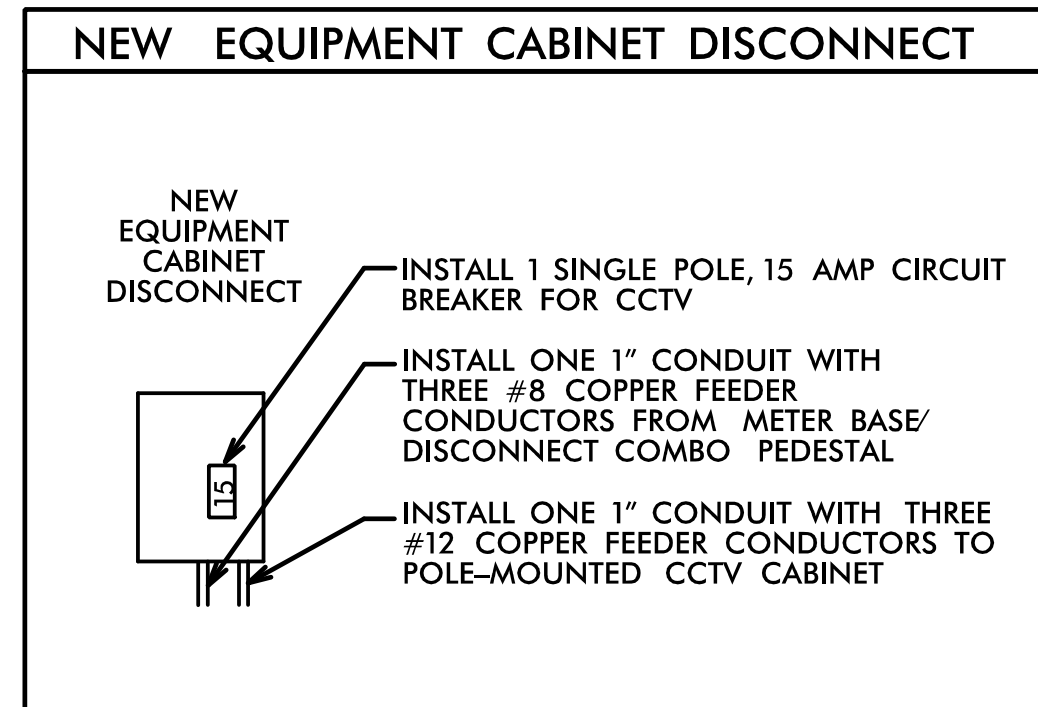
HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

<p>Plans Prepared for:</p> <p>250 N. Greenfield Place, Garner, NC 27529</p>	<p>CABLE ROUTING PLAN</p>		<p>SEAL</p> <p>H.L. Winstead, Jr. 02-04-2015</p>					
	<p>DIVISION 10 MECKLENBURG CO. CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK</p> <p>PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD</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> </tbody> </table>		REVISIONS	INIT.	DATE		
REVISIONS	INIT.	DATE						

DRAWING 1



DRAWING 2

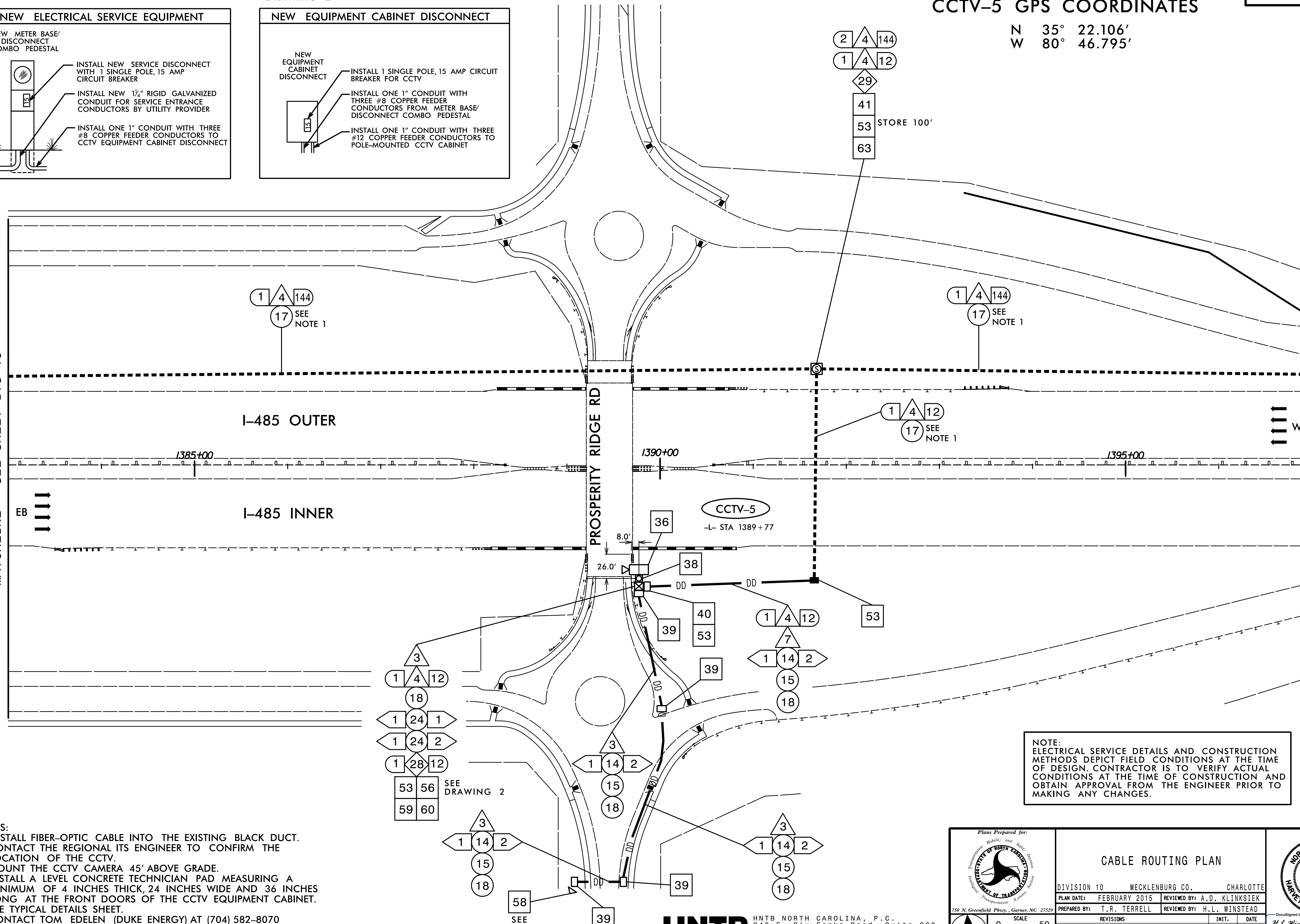


CCTV-5 GPS COORDINATES

N 35° 22.106'
W 80° 46.795'

MATCHLINE - SEE SHEET ITS-19

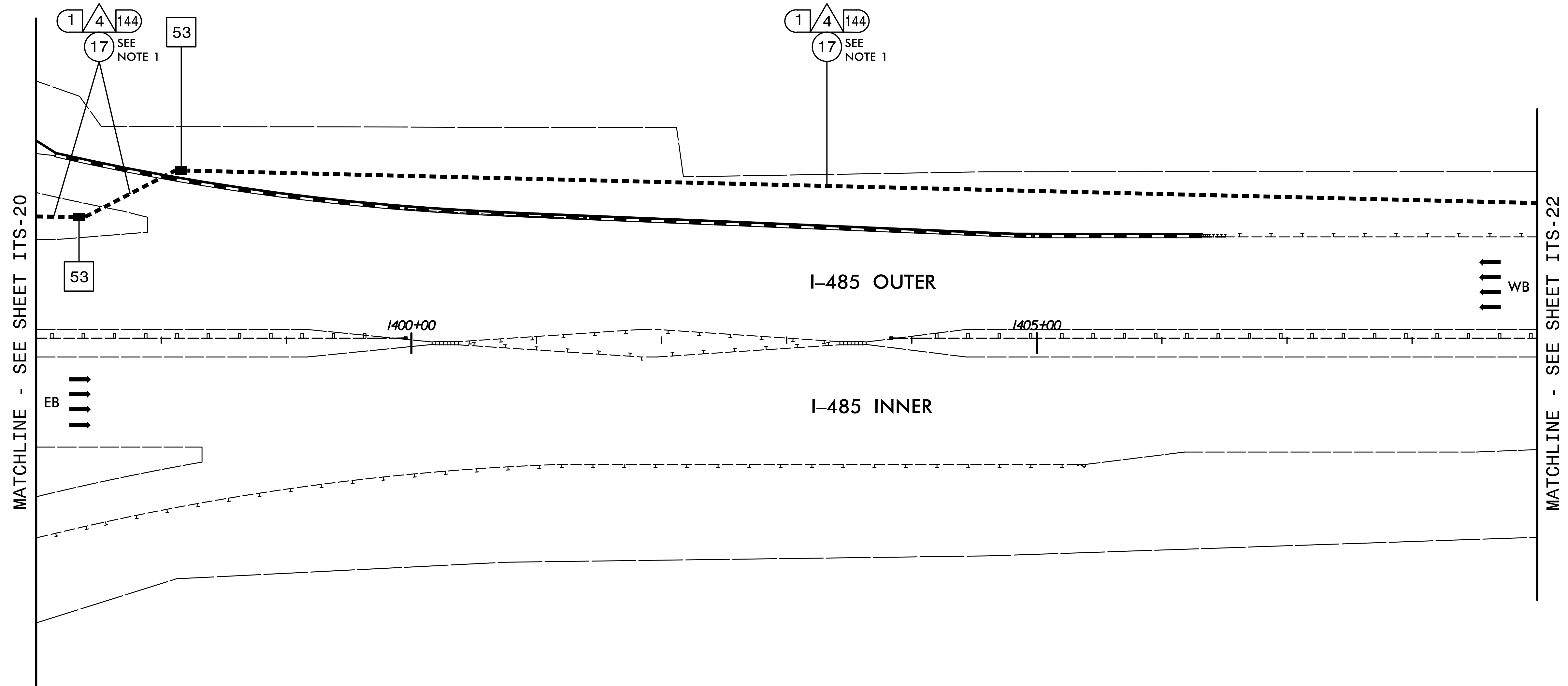
MATCHLINE - SEE SHEET ITS-21



NOTE:
ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.

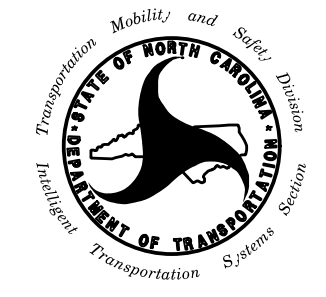
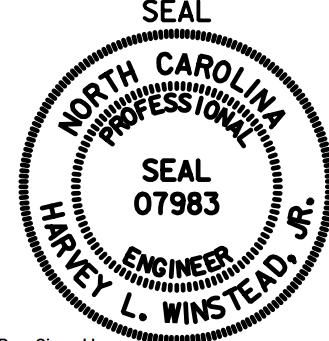

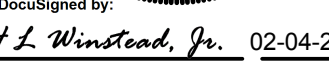
- NOTES:**
- INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
 - CONTACT THE REGIONAL ITS ENGINEER TO CONFIRM THE LOCATION OF THE CCTV.
 - MOUNT THE CCTV CAMERA 45' ABOVE GRADE.
 - INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOORS OF THE CCTV EQUIPMENT CABINET. SEE TYPICAL DETAILS SHEET.
 - CONTACT TOM EDELEN (DUKE ENERGY) AT (704) 582-8070 TO OBTAIN POWER TO ELECTRICAL SERVICE.

<p>HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554</p>	<p>Plans Prepared for: MECKLENBURG COUNTY Division 10</p>							
	<p>CABLE ROUTING PLAN</p> <p>DIVISION 10 MECKLENBURG CO. CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK</p> <p>PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD</p>							
<p>250 N. Greenfield Place, Garner, NC 27529</p> <p>0 SCALE 50 1" = 50'</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> </tbody> </table>	REVISIONS	INIT.	DATE				<p>DocuSigned by: H.L. Winstead, Jr. 02-04-2015</p> <p>CADD File Name: R2248EA ITS-20.dgn</p>
REVISIONS	INIT.	DATE						



NOTE:
 1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

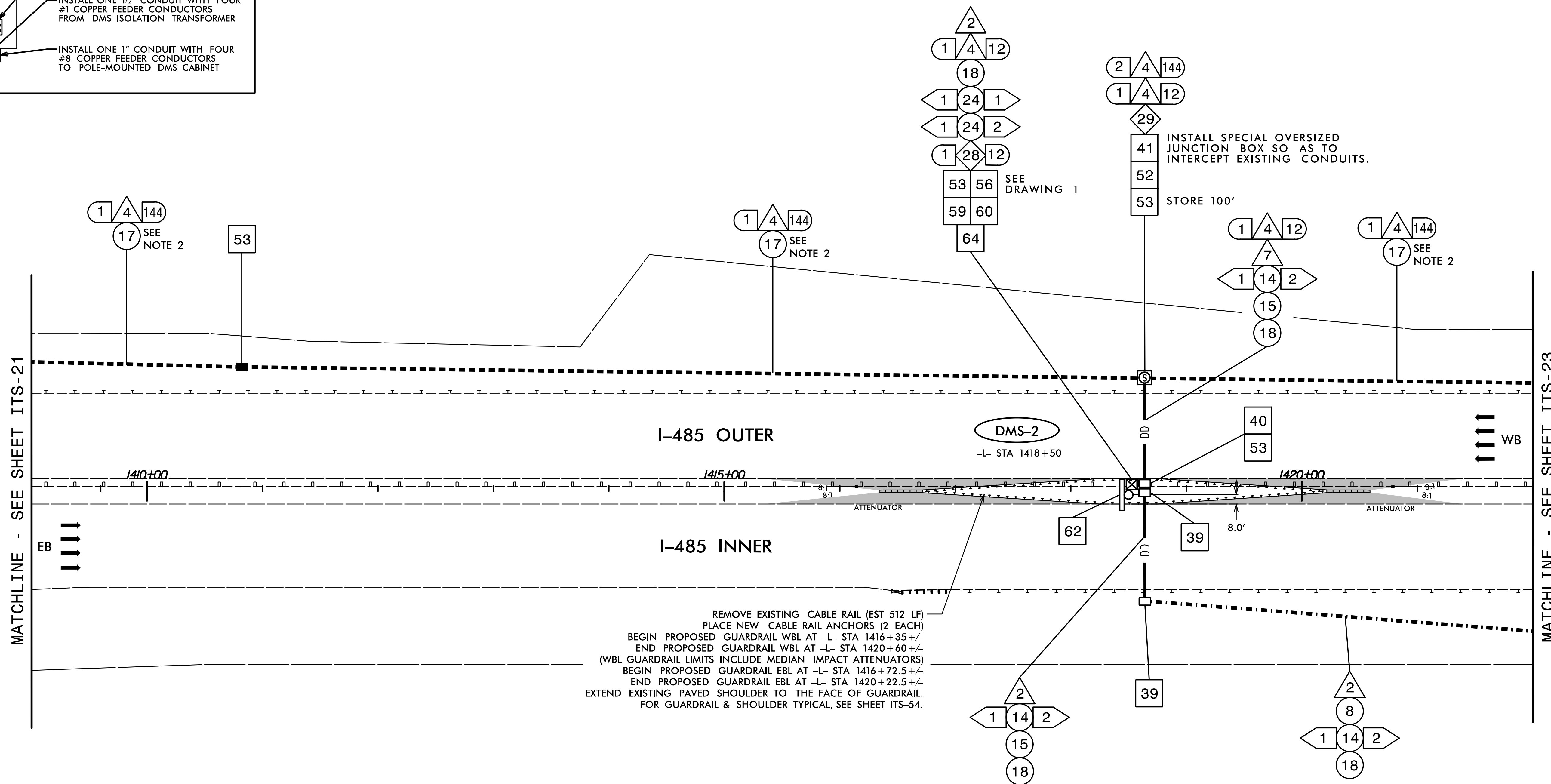
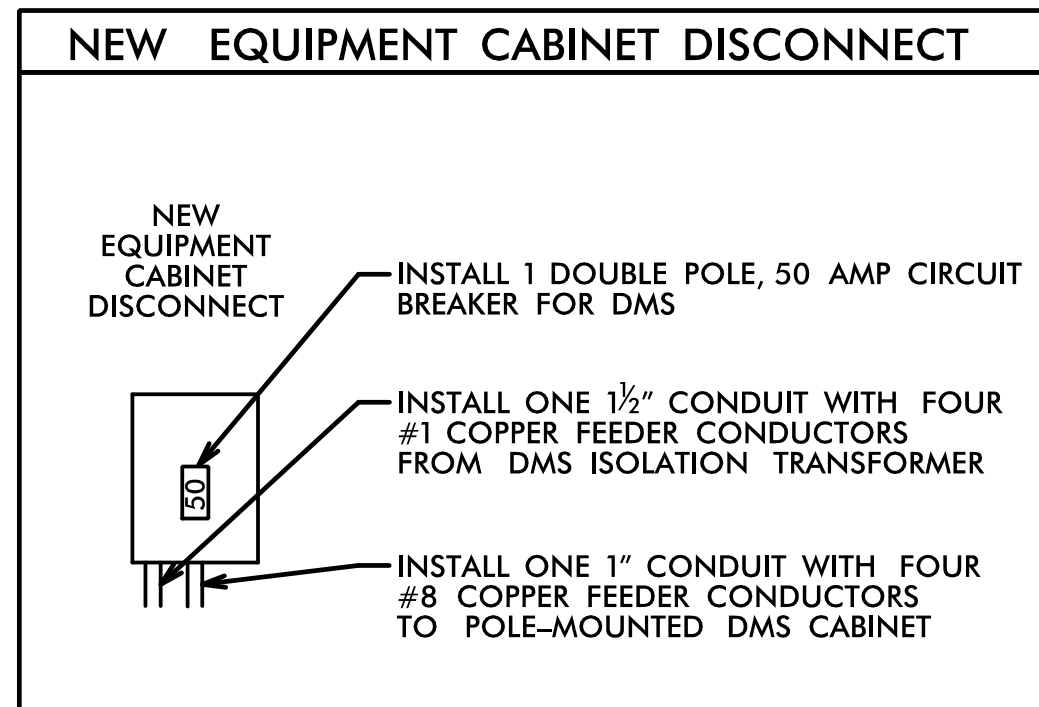
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 NC License No: C-1554

 <small>750 N. Greenfield Place, Garner, NC 27529</small>	CABLE ROUTING PLAN											
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD											
	SCALE 0 50 1" = 50'	<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							DocuSigned by:  02-04-2015 SIGNATURE DATE <small>CADD File name: R2248EA ITS-21.dgn</small>
REVISIONS	INIT.	DATE										

DRAWING 1

DMS-2 GPS COORDINATES

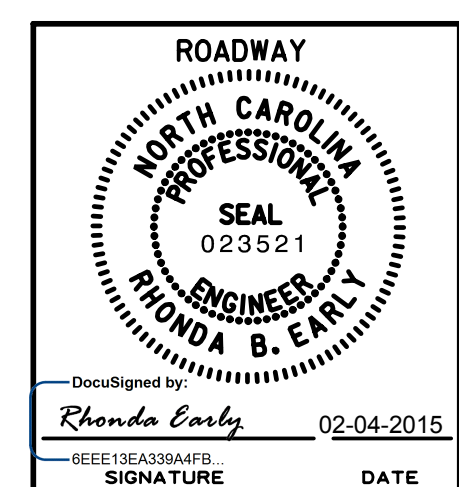
N 35° 22.107'
W 80° 46.217'



REMOVE EXISTING CABLE RAIL (EST 512 LF)
PLACE NEW CABLE RAIL ANCHORS (2 EACH)
BEGIN PROPOSED GUARDRAIL WBL AT -L- STA 1416+35 +/-
END PROPOSED GUARDRAIL WBL AT -L- STA 1420+60 +/-
(WBL GUARDRAIL LIMITS INCLUDE MEDIAN IMPACT ATTENUATORS)
BEGIN PROPOSED GUARDRAIL EBL AT -L- STA 1416+72.5 +/-
END PROPOSED GUARDRAIL EBL AT -L- STA 1420+22.5 +/-
EXTEND EXISTING PAVED SHOULDER TO THE FACE OF GUARDRAIL.
FOR GUARDRAIL & SHOULDER TYPICAL, SEE SHEET ITS-54.

NOTE:
ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.

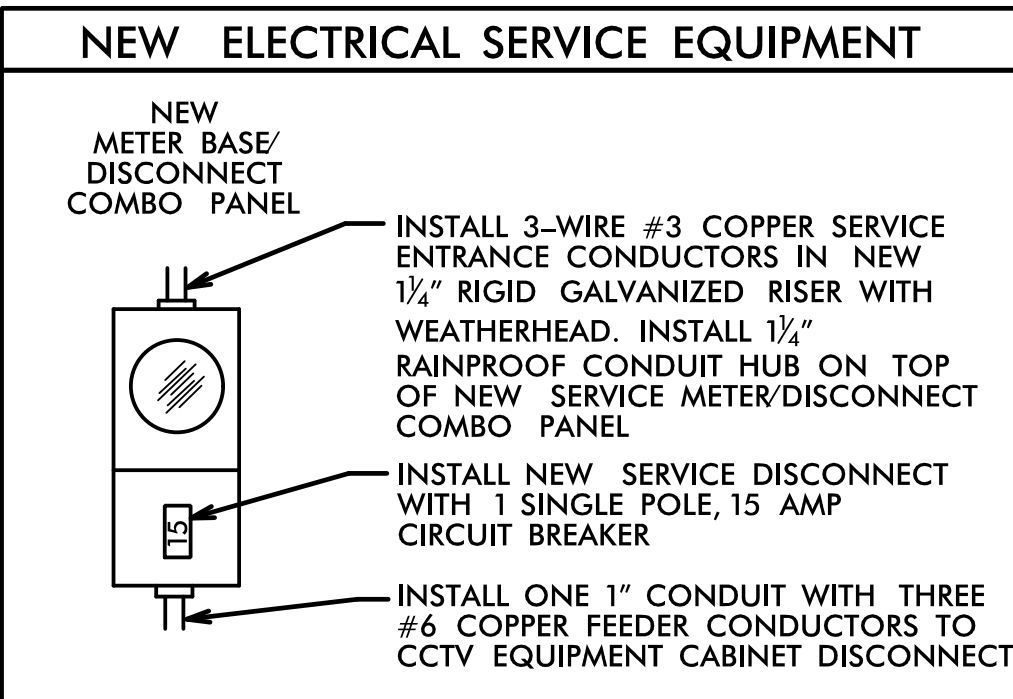
- NOTES:
1. MAINTAIN A MINIMUM OF SIX (6) FEET FROM THE EDGE OF PAVEMENT WHEN TRENCHING PARALLEL TO THE ROADWAY.
 2. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
 3. CONTACT THE REGIONAL ITS ENGINEER AT (704) 347-6601 TO CONFIRM THE LOCATION OF THE DMS.
 4. INSTALL A NEW DMS, WALKWAY, LADDER, AND POLE-MOUNTED CABINET ON THE NEW DMS STRUCTURE.
 5. INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOOR OF THE DMS EQUIPMENT CABINET. SEE TYPICAL DETAILS SHEET.



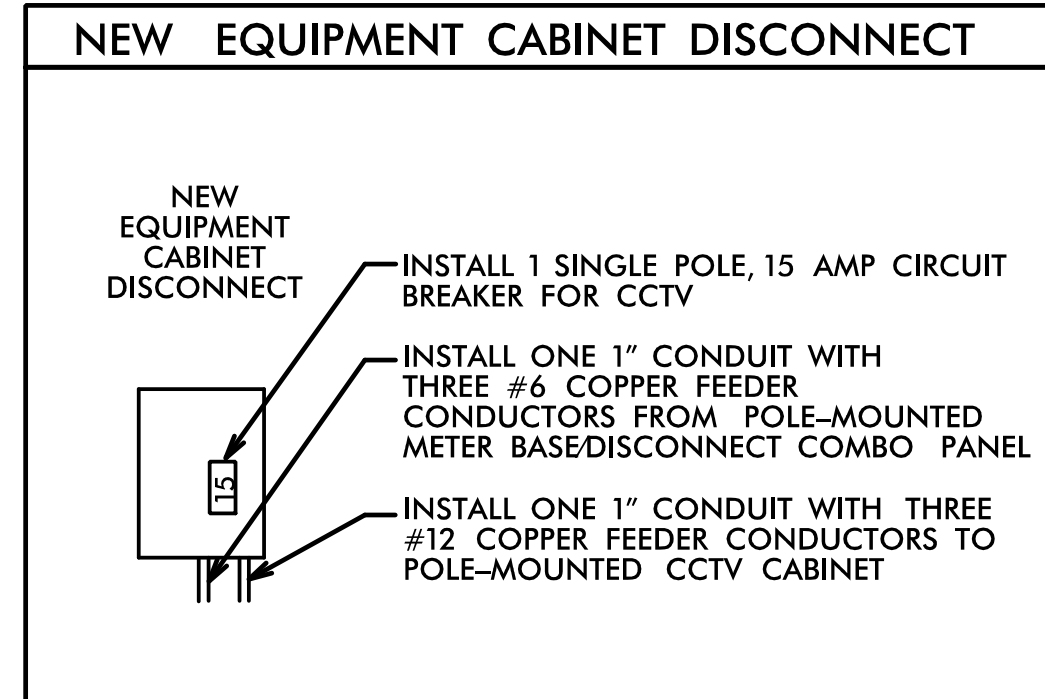
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Raleigh, North Carolina 27609
NC License No: C-1554

<p>Plans Prepared for:</p> <p>750 N. Greenfield Place, Garner, NC 27529</p>	<p>CABLE ROUTING PLAN</p>							
	<p>DIVISION 10 MECKLENBURG CO., CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK</p> <p>PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD</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> </tbody> </table>		REVISIONS	INIT.	DATE		
REVISIONS	INIT.	DATE						

DRAWING 1

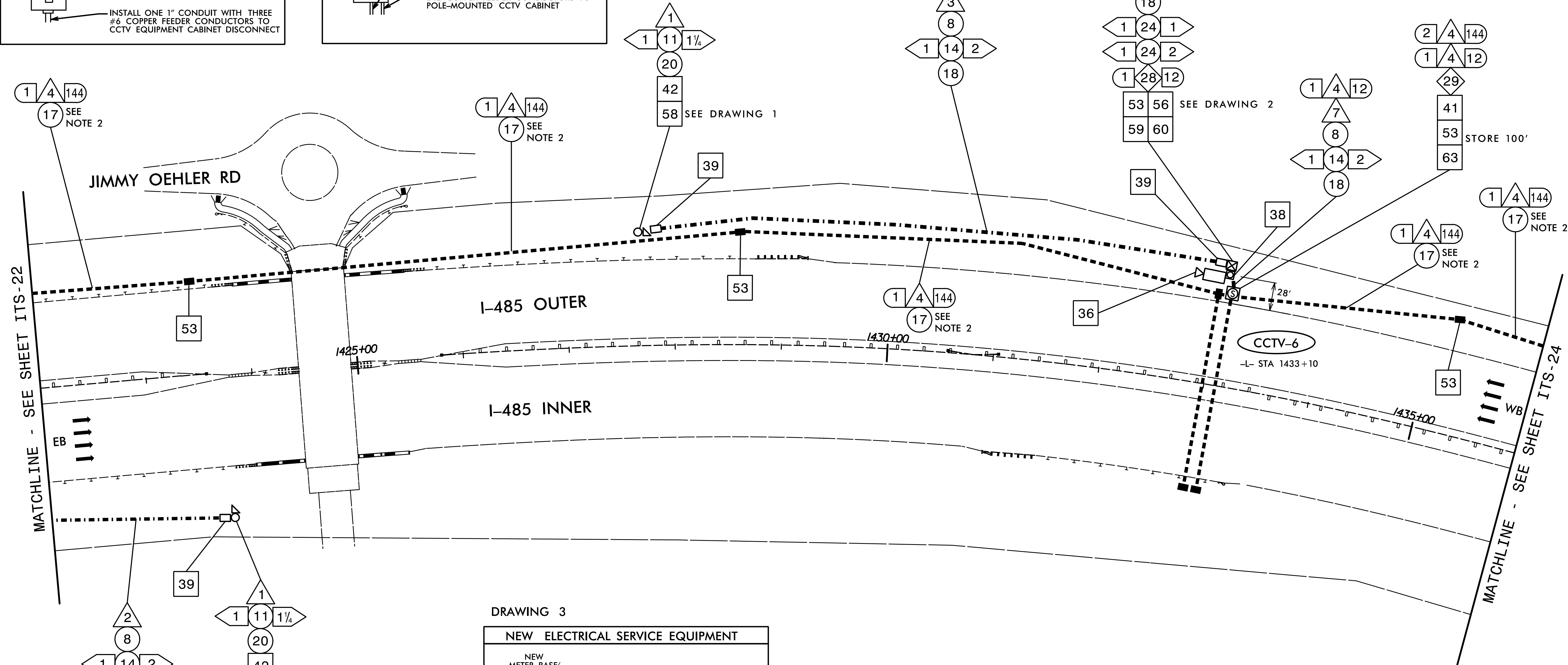


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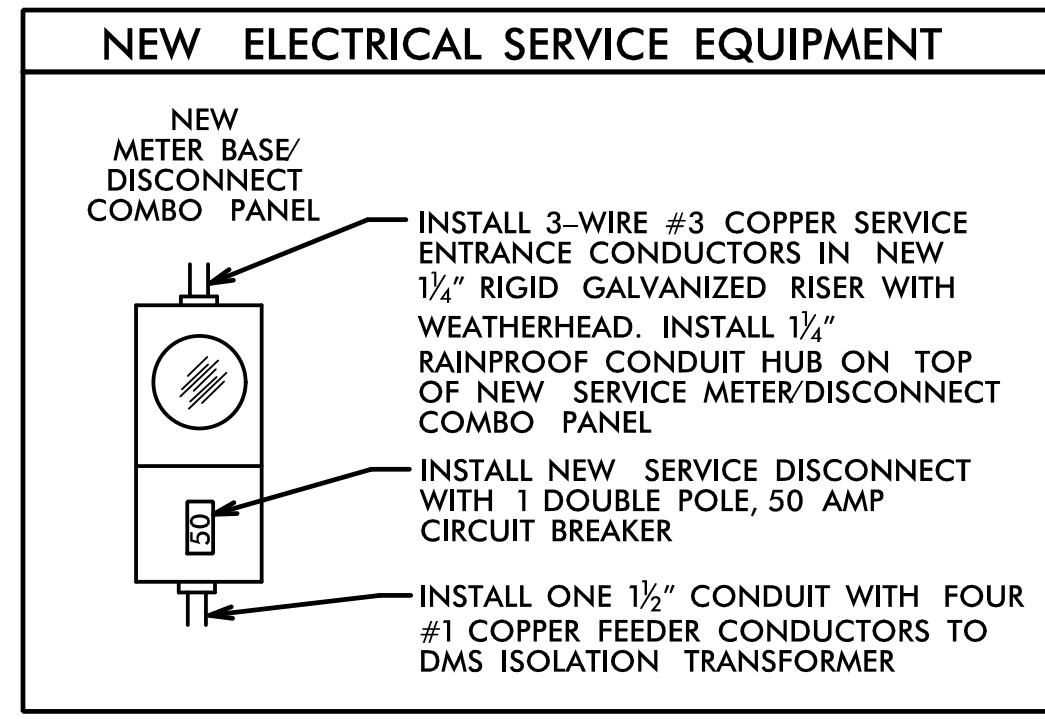


CCTV-6 GPS COORDINATES

N 35° 22.099'
W 80° 45.920'



DRAWING 3

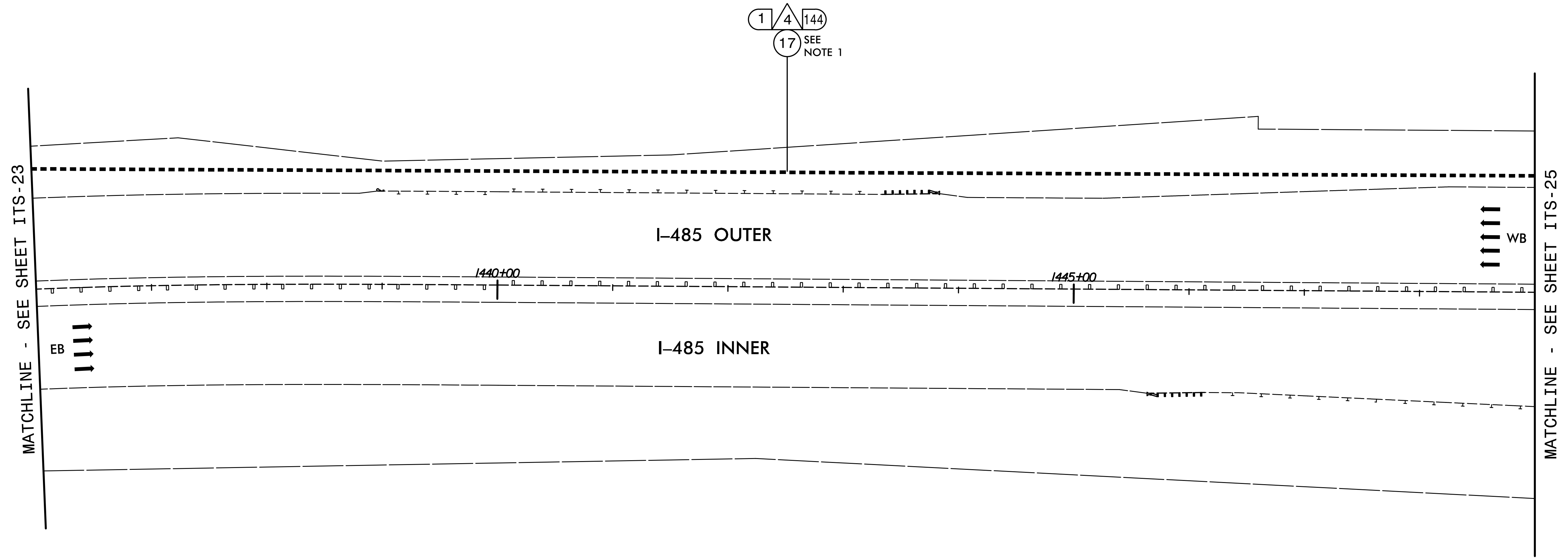


- NOTES:**
1. MAINTAIN A MINIMUM OF SIX (6) FEET FROM THE EDGE OF PAVEMENT WHEN TRENCHING PARALLEL TO THE ROADWAY.
 2. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
 3. CONTACT THE REGIONAL ITS ENGINEER AT (704) 347-6601 TO CONFIRM THE LOCATION OF THE CCTV.
 4. MOUNT THE CCTV CAMERA 45' ABOVE GRADE.
 5. INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOOR OF THE CCTV EQUIPMENT CABINETS. SEE TYPICAL DETAILS SHEET.
 6. CONTACT TOM EDELEN (DUKE ENERGY) AT (704) 582-8070 TO OBTAIN POWER TO ELECTRICAL SERVICE.

NOTE:
ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.

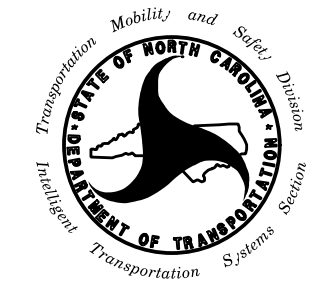

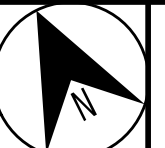

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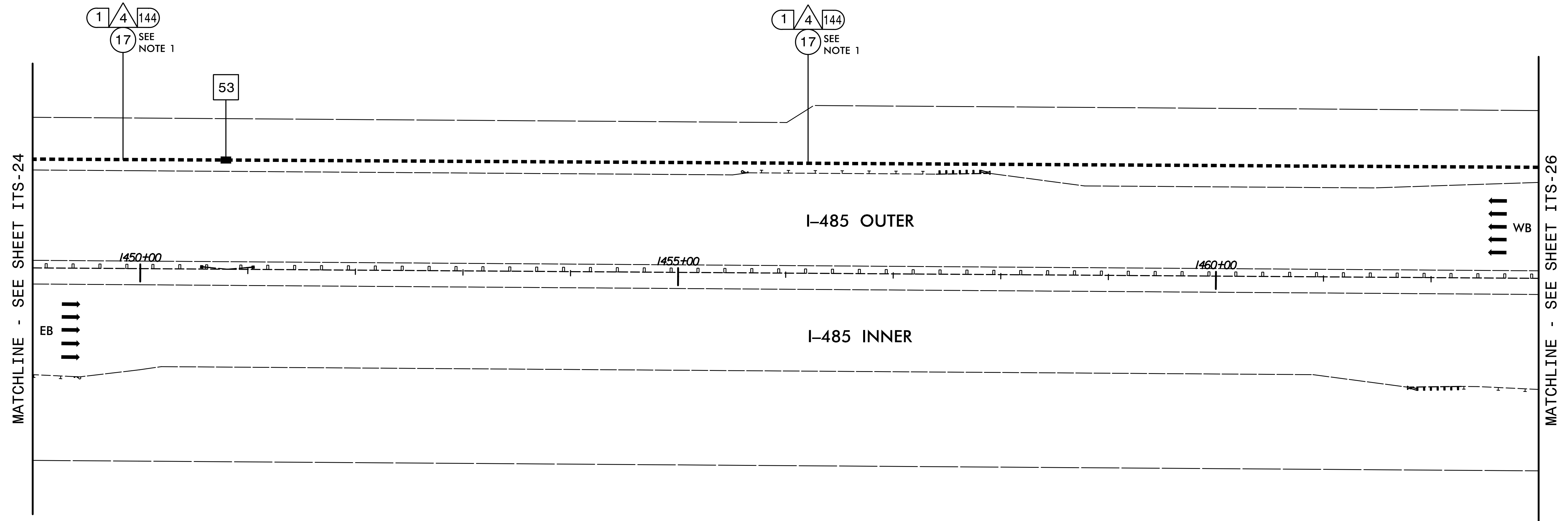
<p>Plans Prepared for: TRANSPORTATION MOBILITY AND SAFETY DIVISION DEPARTMENT OF TRANSPORTATION 250 N. Greenfield Place, Garner, NC 27529</p>	CABLE ROUTING PLAN		
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD		
SCALE 0 50 1" = 50'	REVISIONS INIT. DATE	SIGNATURE DATE	DocuSigned by: H.L. Winstead, Jr. 02-04-2015 F82917C3CE07429 SIGNATURE DATE CADD File Name: R2248EA ITS-23.dgn



NOTE:
 1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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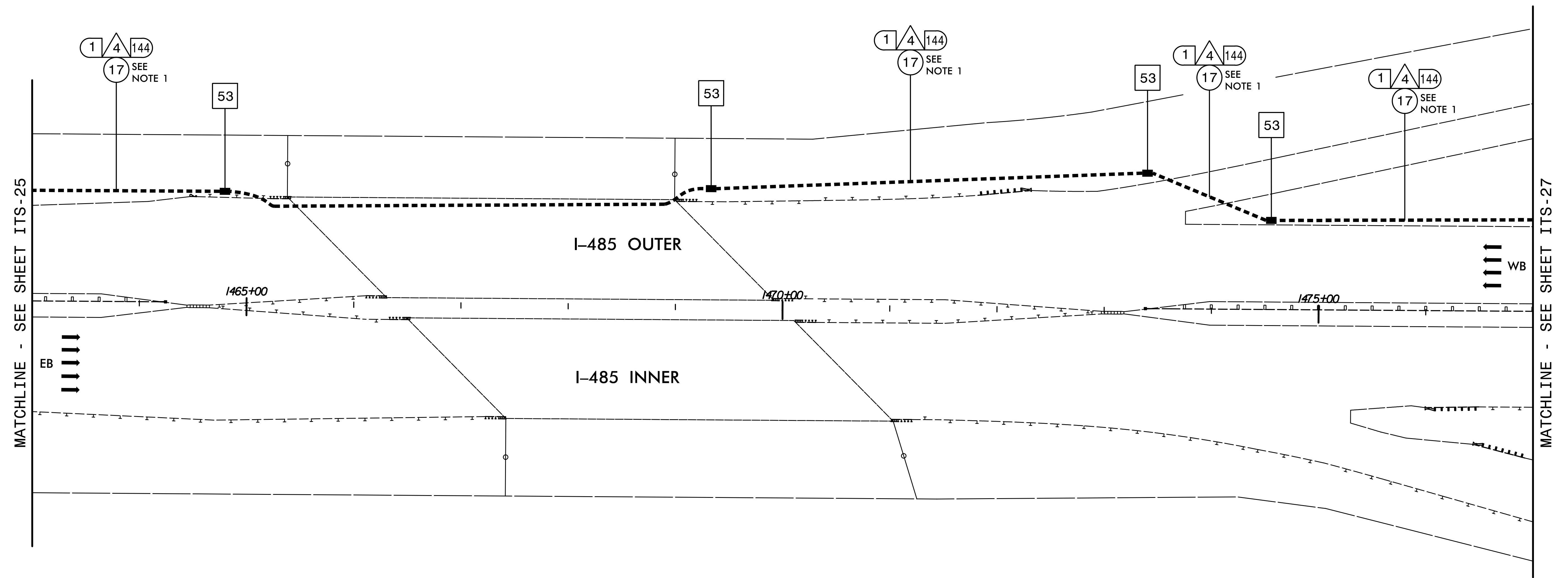
 Plans Prepared for: Transportation Mobility and Safety Division DEPARTMENT OF TRANSPORTATION 750 N. Greenfield Place, Garner, NC 27529	CABLE ROUTING PLAN		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER HARVEY L. WINSTEAD, JR. SEAL 07983								
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD										
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REVISIONS	INIT.	DATE									



NOTE:
 1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

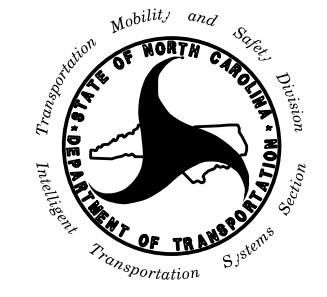

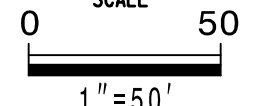
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 Raleigh, North Carolina 27609
 NC License No: C-1554

 Plans Prepared for: Transportation Mobility and Safety Division DEPARTMENT OF TRANSPORTATION 750 N. Greenfield Place, Garner, NC 27529	CABLE ROUTING PLAN		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER H.L. WINSTEAD, JR. 07983					
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD							
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REVISIONS	INIT.	DATE						

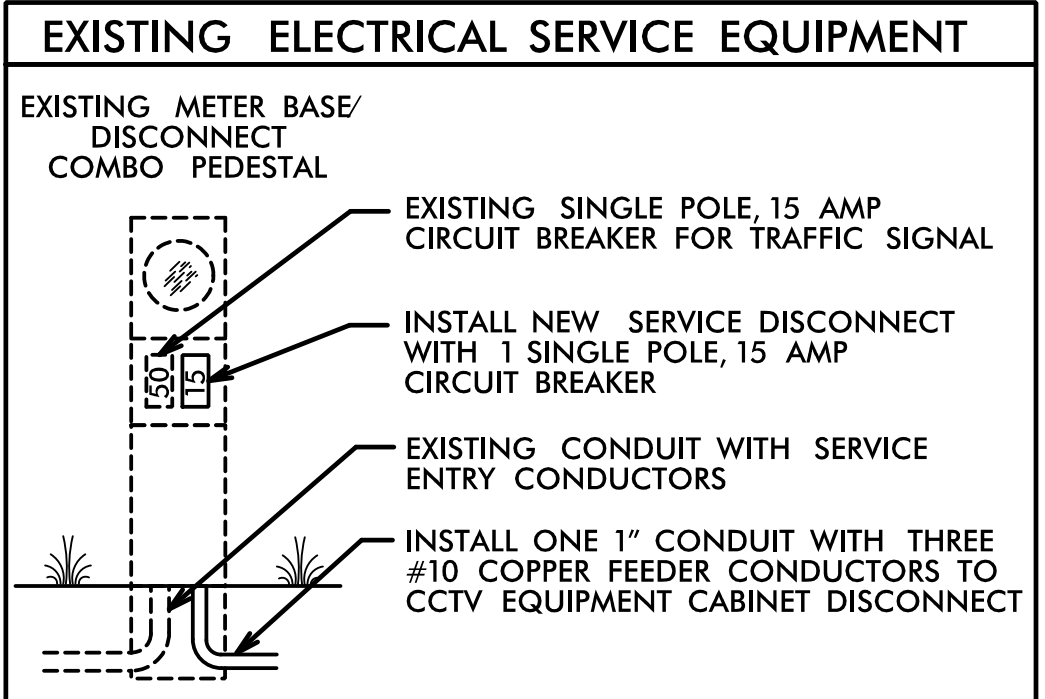


NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

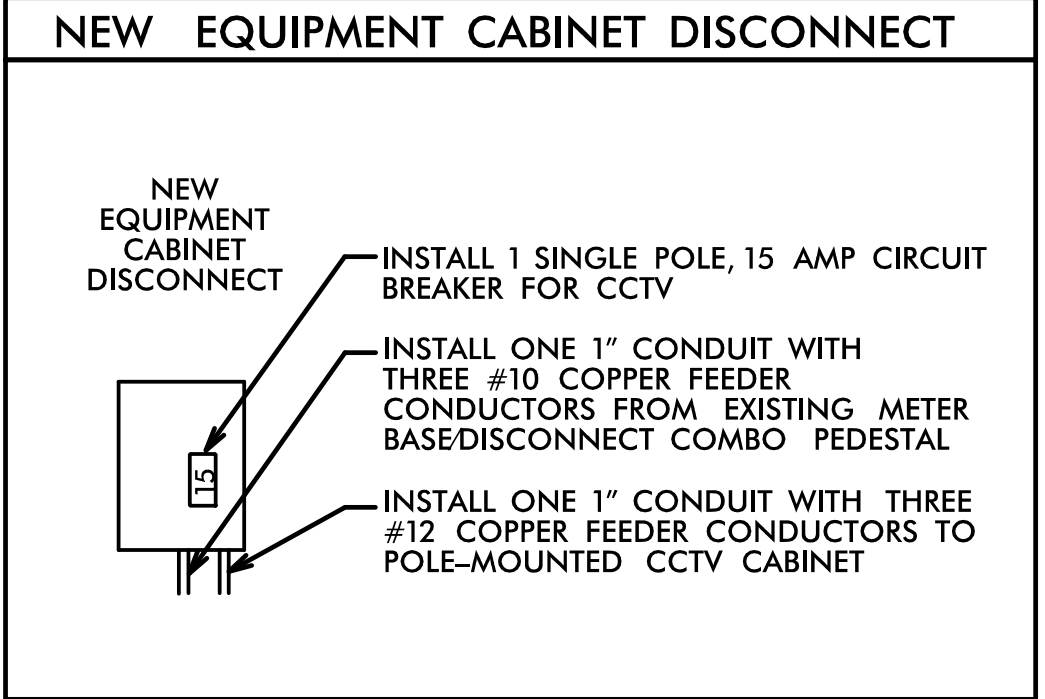
HNTB HNTB NORTH CAROLINA, P.C.
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NC License No: C-1554

 Plans Prepared for: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 N. Greenfield Place, Garner, NC 27529	CABLE ROUTING PLAN								
	DIVISION 10 MECKLENBURG CO., CHARLOTTE								
PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINSIEK REVIEWED BY: H.L. WINSTEAD		Date Signed: 02-04-2015 Signature: H.L. Winstead, Jr. Title: Professional Engineer						
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REVISIONS	INIT.	DATE							

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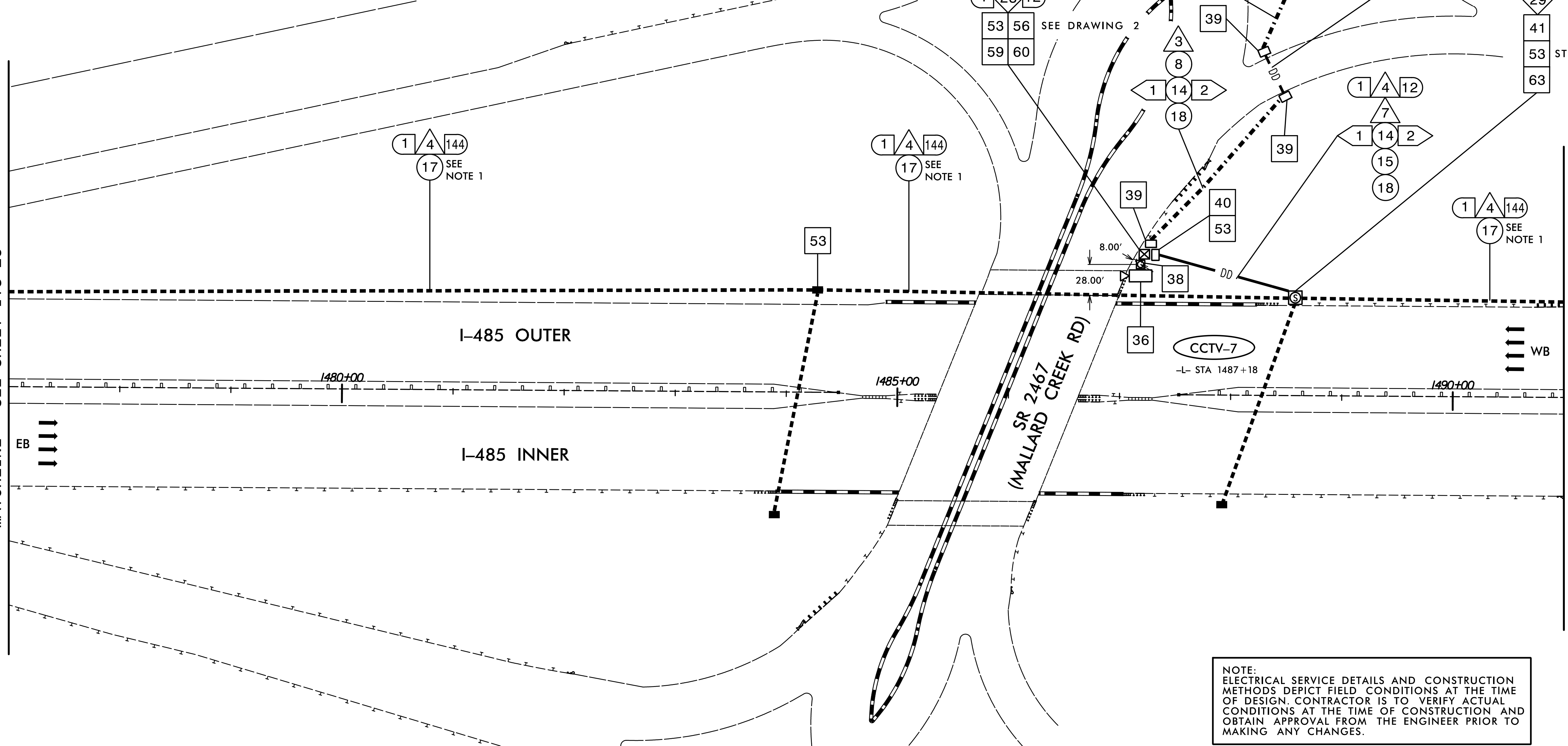


CCTV-7 GPS COORDINATES

N 35° 21.725'
W 80° 44.928'

MATCHLINE - SEE SHEET ITS-26

MATCHLINE - SEE SHEET ITS-28

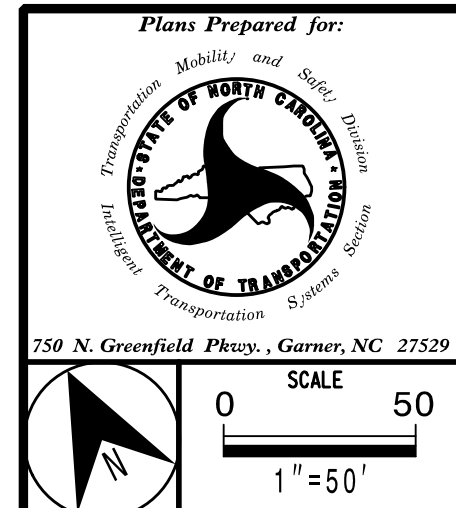


NOTE:
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NOTES:

1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.
2. CONTACT THE REGIONAL ITS ENGINEER AT (704) 347-6601 TO CONFIRM THE LOCATION OF THE CCTV.
3. MOUNT THE CCTV CAMERA 45' ABOVE GRADE.
4. INSTALL A LEVEL CONCRETE TECHNICIAN PAD MEASURING A MINIMUM OF 4 INCHES THICK, 24 INCHES WIDE AND 36 INCHES LONG AT THE FRONT DOOR OF THE CCTV EQUIPMENT CABINET. SEE TYPICAL DETAILS SHEET.
5. CONTACT CHARLES ABEL (CITY OF CHARLOTTE) AT (704) 336-3945 TO COORDINATE ANY TRAFFIC SIGNAL SERVICE MODIFICATIONS.

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Raleigh, North Carolina 27609
NC License No: C-1554



CABLE ROUTING PLAN

DIVISION 10 MECKLENBURG CO., CHARLOTTE

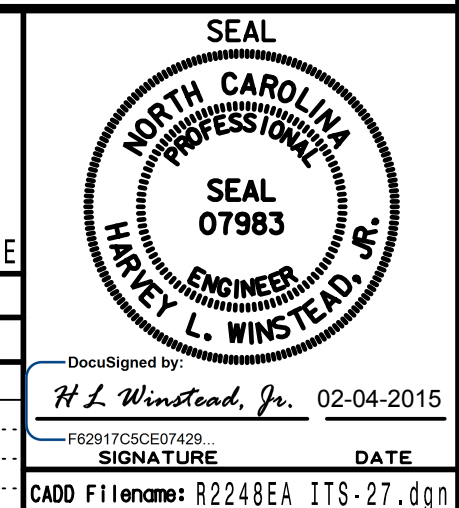
PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK

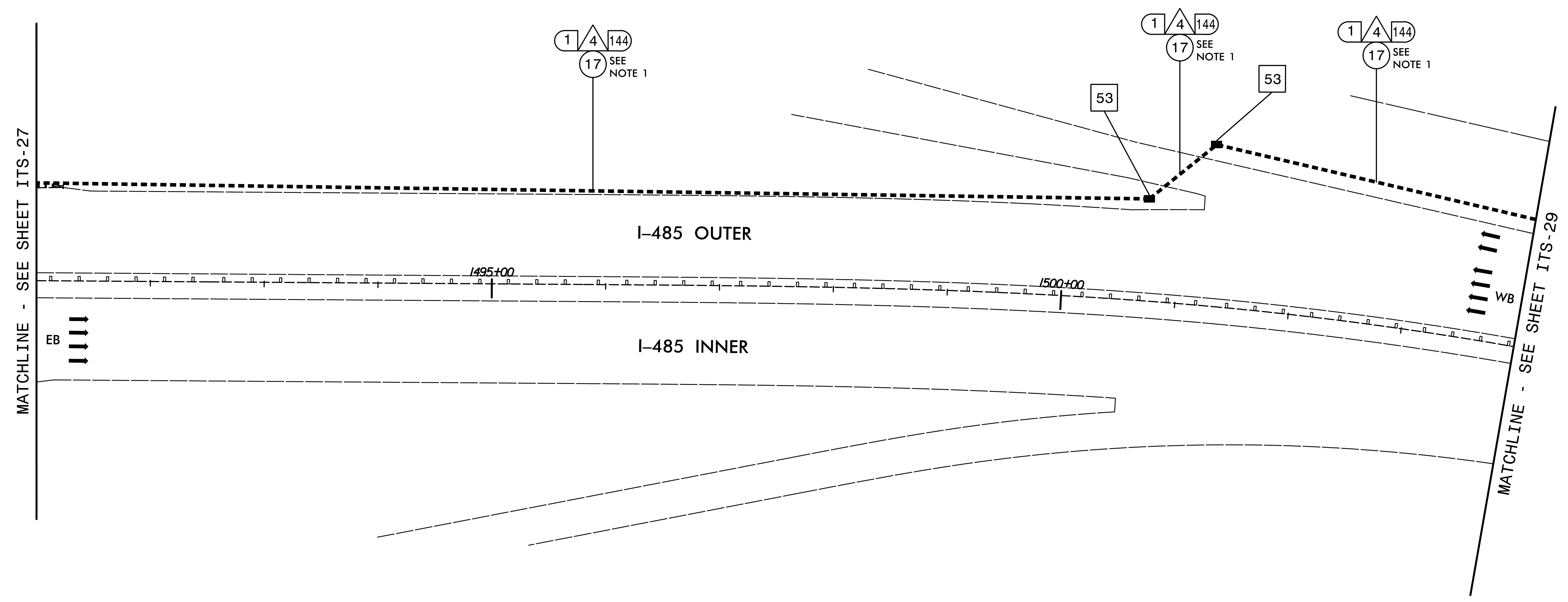
PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD

REVISIONS	INIT.	DATE

DocuSigned by:
H.L. Winstead, Jr. 02-04-2015

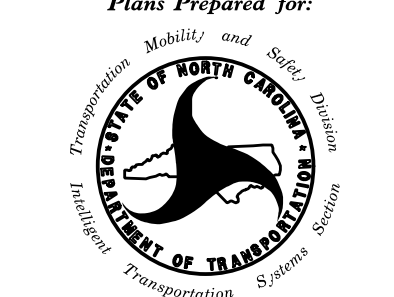
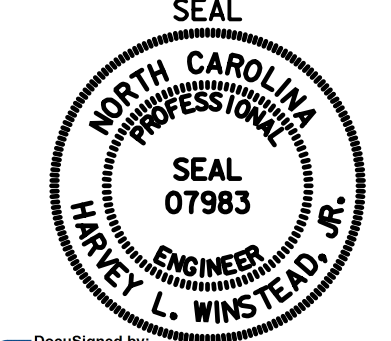
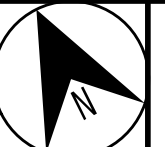
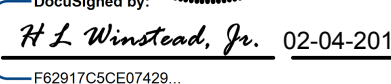
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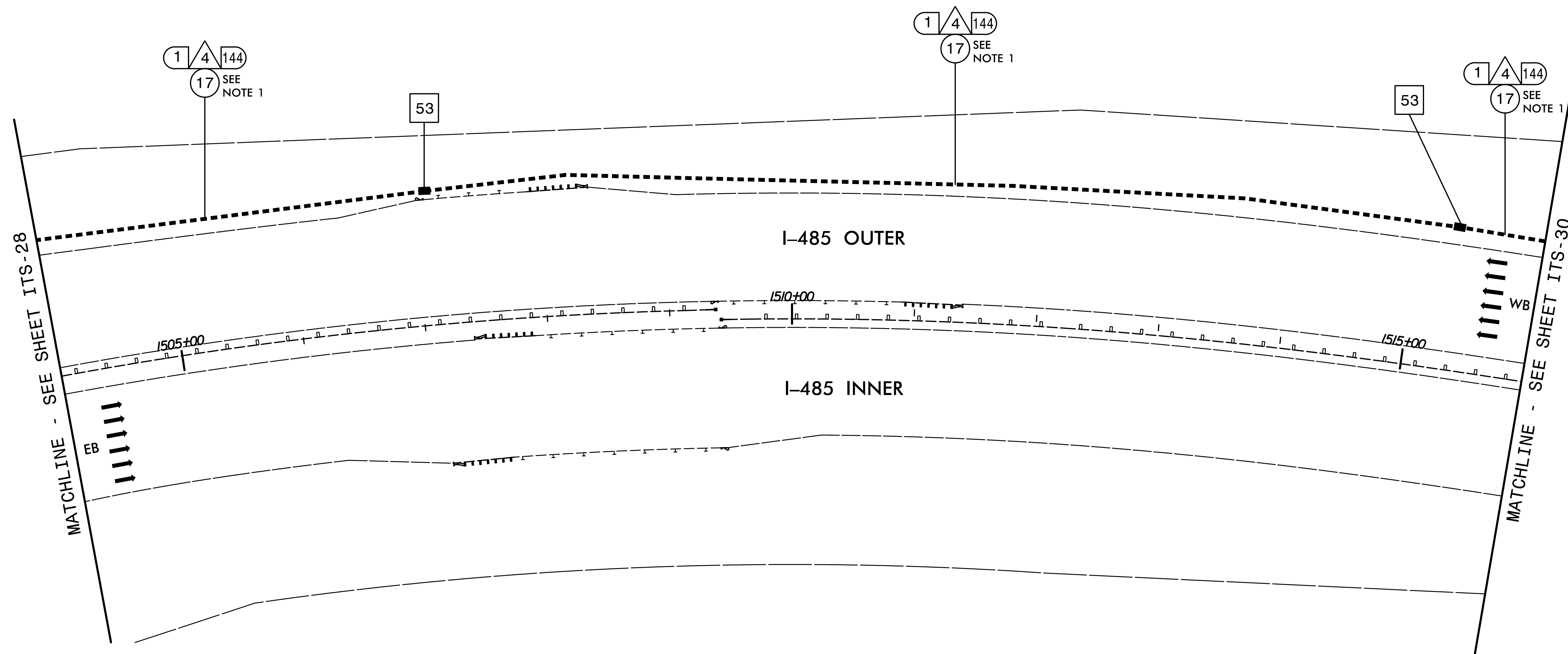




NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

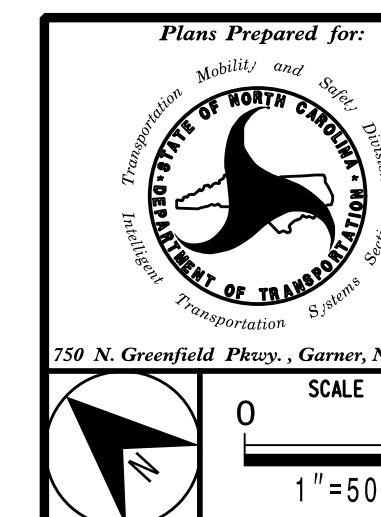
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Raleigh, North Carolina 27609
NC License No: C-1554

 <small>750 N. Greenfield Place, Garner, NC 27529</small>	CABLE ROUTING PLAN								
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD								
	SCALE 0 50 1" = 50'	<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> </tbody> </table>	REVISIONS	INIT.	DATE				DocuSigned by:  02-04-2015 <small>F02917C3CE07429</small> SIGNATURE DATE <small>CADD File name: R2248EA ITS-28.dgn</small>
REVISIONS	INIT.	DATE							

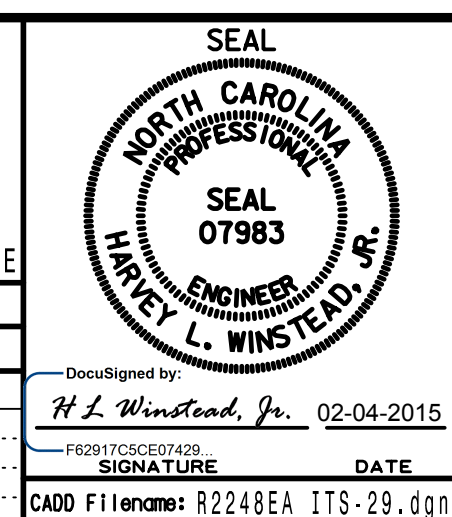


NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

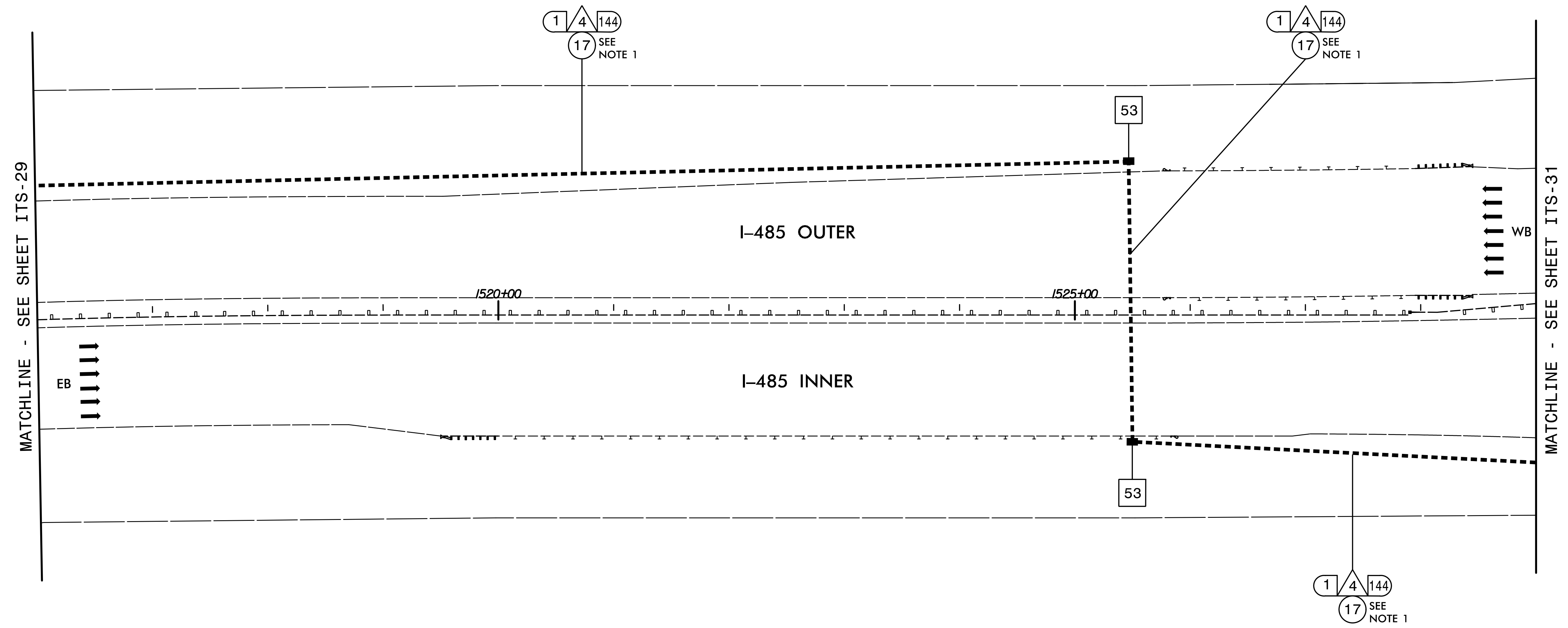
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NC License No: C-1554



CABLE ROUTING PLAN			
DIVISION 10		MECKLENBURG CO., CHARLOTTE	
PLAN DATE: FEBRUARY 2015	REVIEWED BY: A.D. KLINKSIEK	PREPARED BY: T.R. TERRELL	REVIEWED BY: H.L. WINSTEAD
REVISIONS	INIT.	DATE	

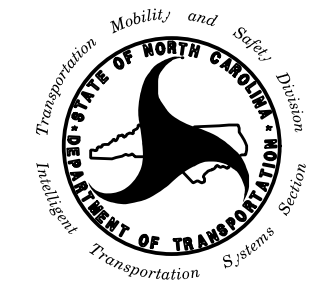




DocuSigned by:
H.L. Winstead, Jr. 02-04-2015
F02917C3C6507429
SIGNATURE DATE
CADD File Name: R2248EA ITS-29.dgn

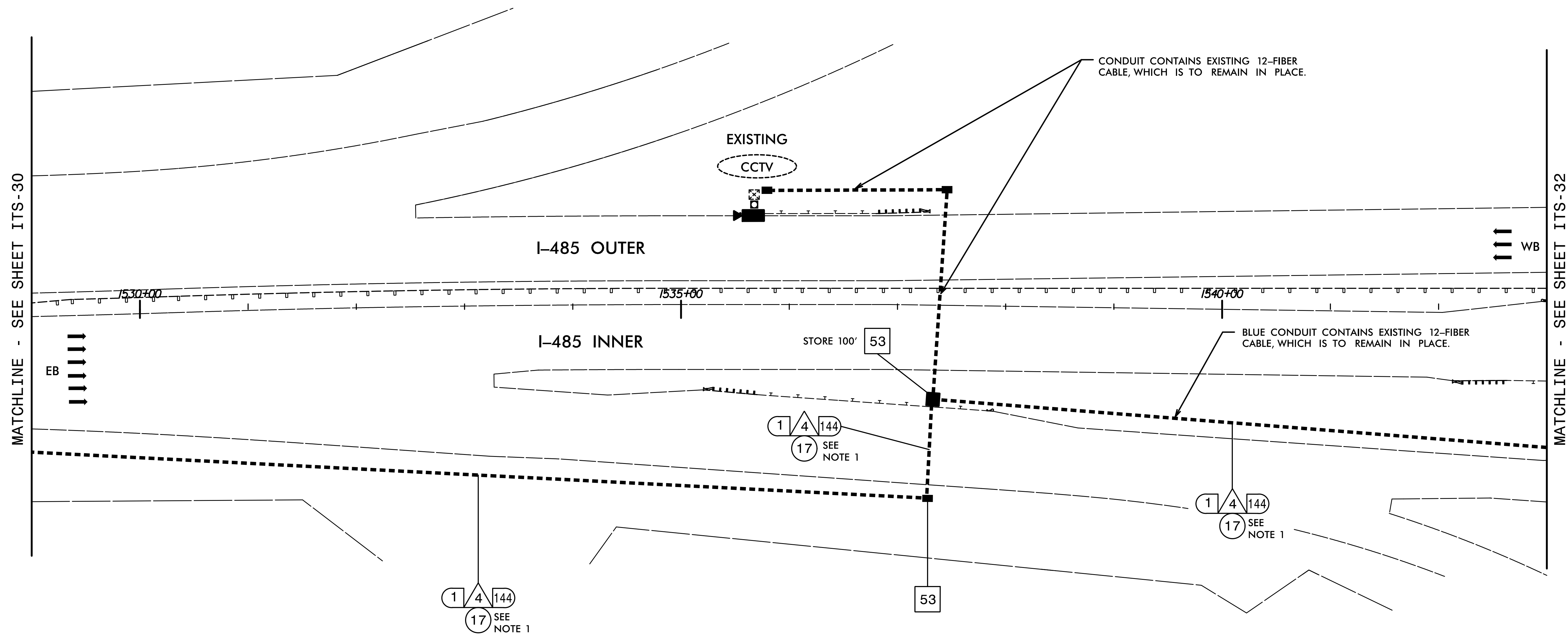


NOTE:
 1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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 Raleigh, North Carolina 27609
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 <small>750 N. Greenfield Place, Garner, NC 27529</small>	CABLE ROUTING PLAN		 <small>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 07983 HARVEY L. WINSTEAD, JR.</small>															
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD			<small>DocuSigned by: H.L. Winstead, Jr. 02-04-2015</small>														
	SCALE 0 50 1" = 50'	<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							<table border="1"> <thead> <tr> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	SIGNATURE	DATE				
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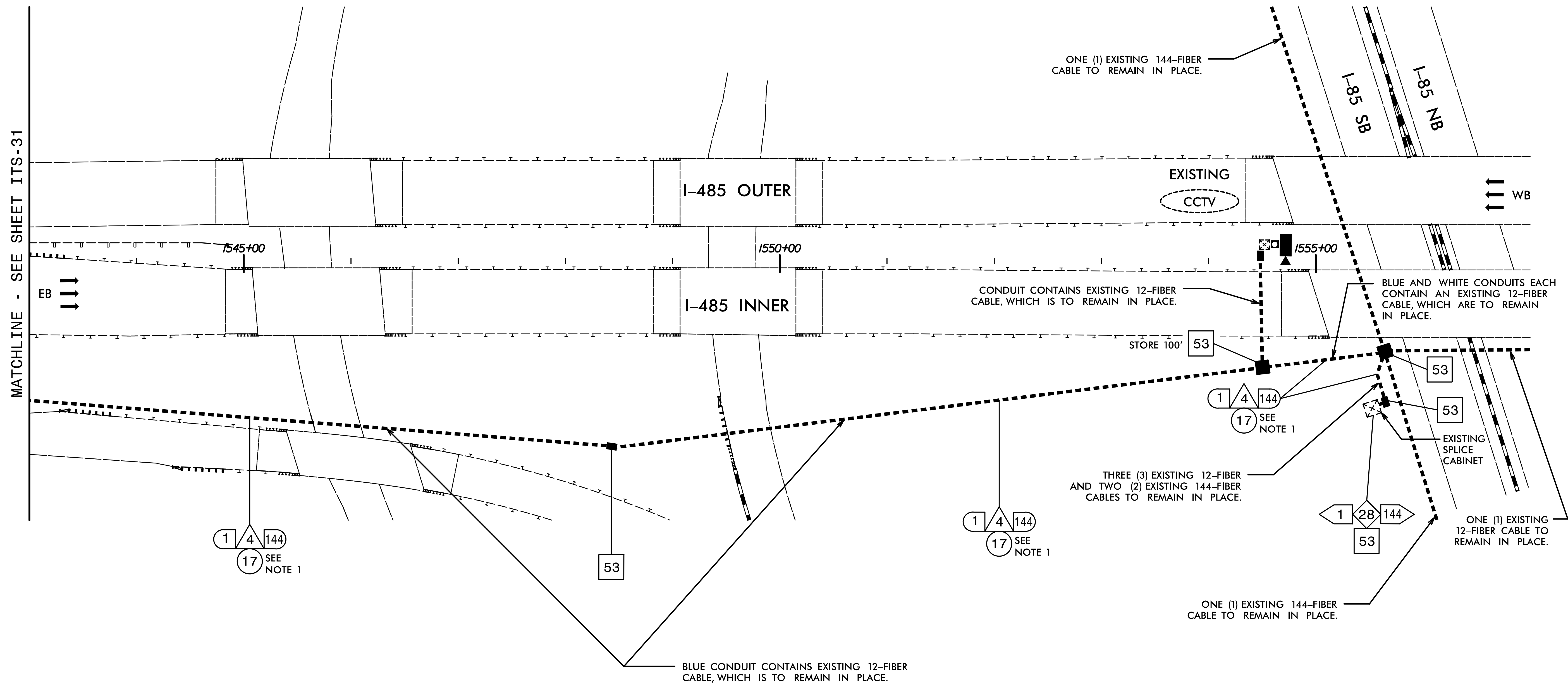
CADD File Name: R2248EA ITS-30.dgn



NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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<p>Plans Prepared for: Transportation Mobility and Safety Division DEPARTMENT OF TRANSPORTATION 750 N. Greenfield Place, Garner, NC 27529</p>	CABLE ROUTING PLAN								
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD								
<p>SCALE 0 50 1" = 50'</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> </tbody> </table>		REVISIONS	INIT.	DATE				DocuSigned by: 02-04-2015 F02917C3CE07429 SIGNATURE DATE CADD File Name: R2248EA ITS-31.dgn
REVISIONS	INIT.	DATE							

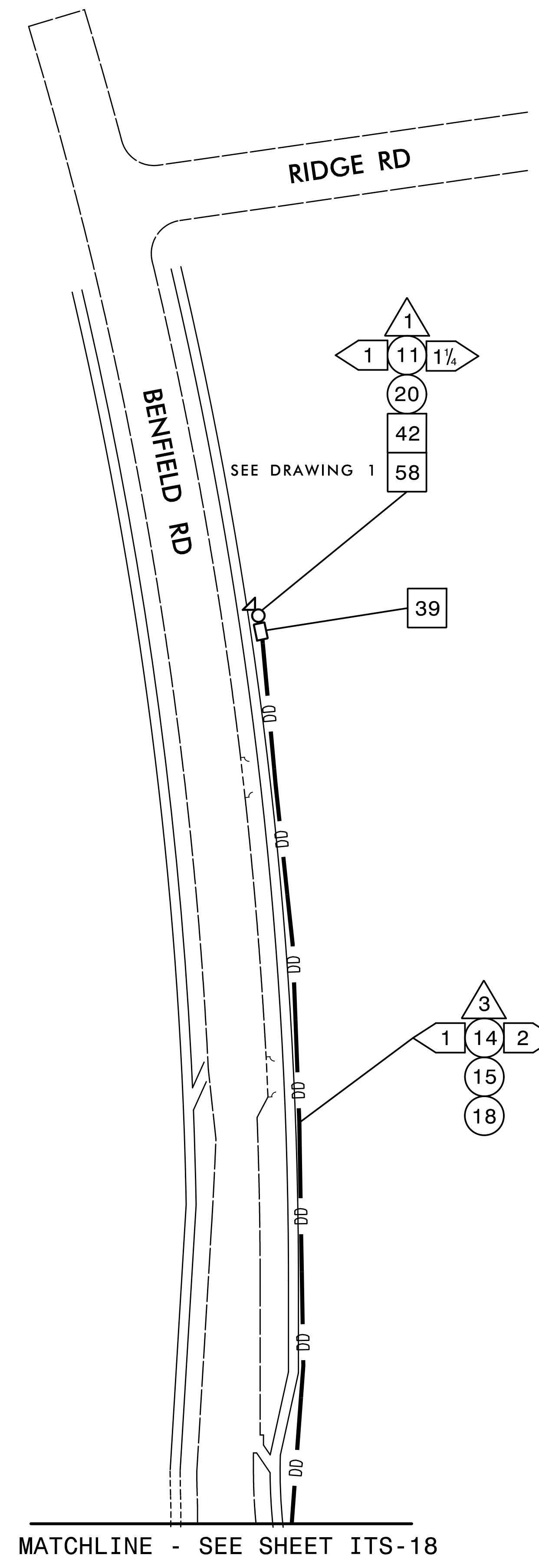
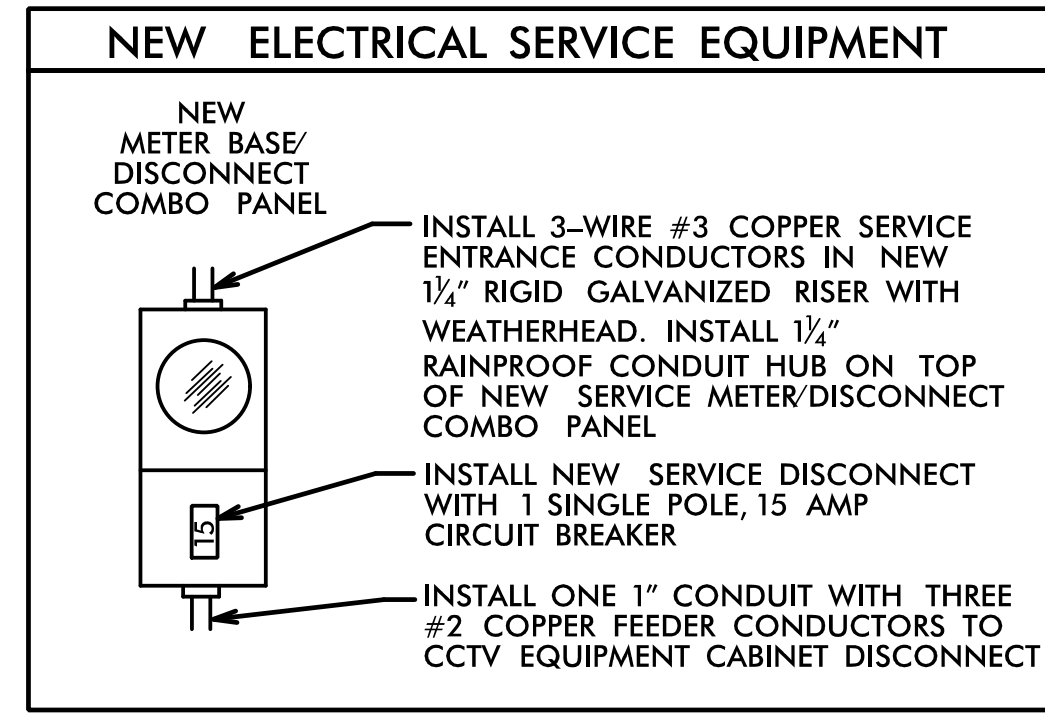


NOTE:
1. INSTALL FIBER-OPTIC CABLE INTO THE EXISTING BLACK DUCT.

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Raleigh, North Carolina 27609
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<p>Plans Prepared for: Department of Transportation State of North Carolina</p>	CABLE ROUTING PLAN											
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD											
750 N. Greenfield Place, Garner, NC 27529 	SCALE 0 50 1" = 50'	<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							DocuSigned by: H.L. Winstead, Jr. 02-04-2015 F82917C3CE07429 SIGNATURE DATE CADD File name: R2248EA ITS-32.dgn
REVISIONS	INIT.	DATE										

DRAWING 1



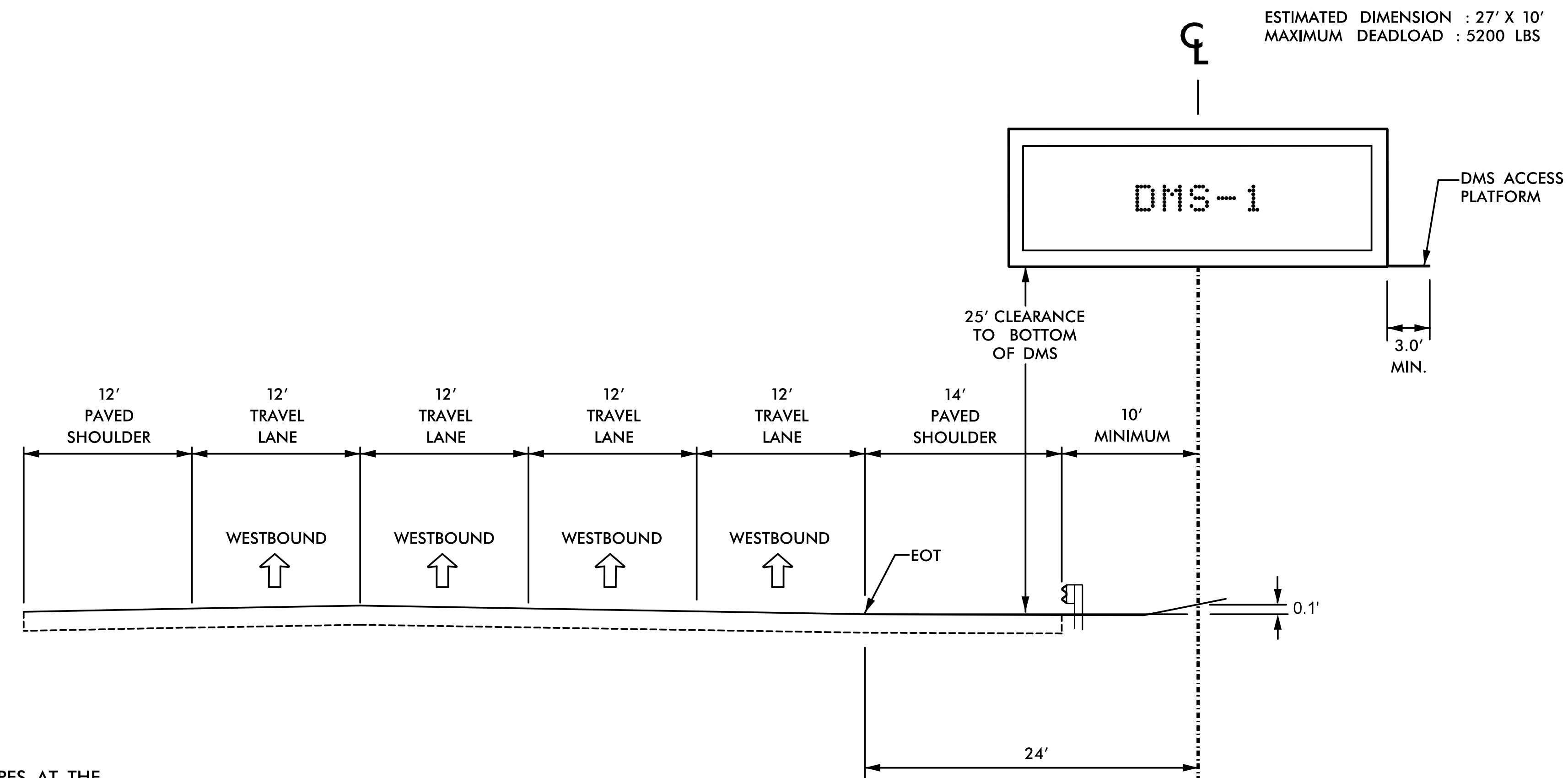
NOTE:
ELECTRICAL SERVICE DETAILS AND CONSTRUCTION METHODS DEPICT FIELD CONDITIONS AT THE TIME OF DESIGN. CONTRACTOR IS TO VERIFY ACTUAL CONDITIONS AT THE TIME OF CONSTRUCTION AND OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO MAKING ANY CHANGES.

NOTE:
1. CONTACT TOM EDELEN (DUKE ENERGY) AT (704) 582-8070 TO OBTAIN POWER TO ELECTRICAL SERVICE.

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Raleigh, North Carolina 27609
NC License No: C-1554

<p>Plans Prepared for: Department of Transportation System Division</p> <p>250 N. Greenfield Place, Garner, NC 27529</p>	CABLE ROUTING PLAN											
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD											
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REVISIONS	INIT.	DATE										

CADD File Name: R2248EA ITS-33.dgn



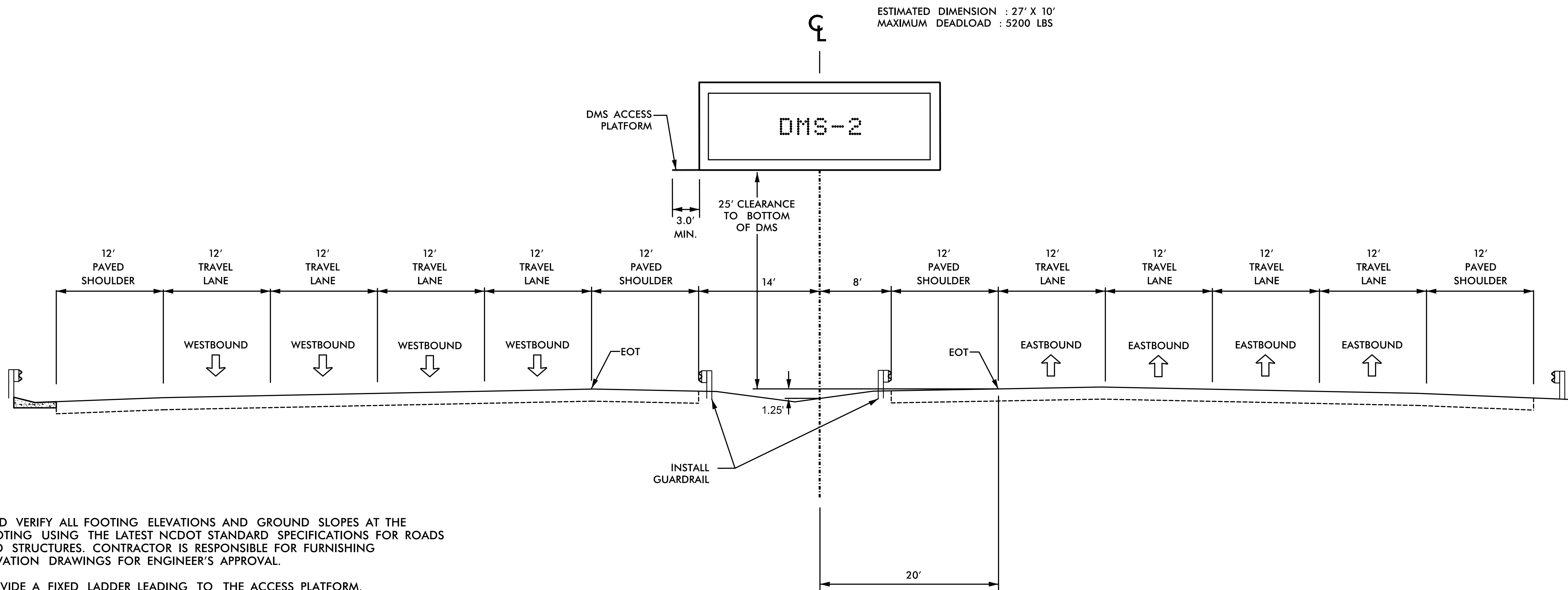
NOTES:

1. FIELD VERIFY ALL FOOTING ELEVATIONS AND GROUND SLOPES AT THE FOOTING USING THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ELEVATION DRAWINGS FOR ENGINEER'S APPROVAL.
2. PROVIDE A FIXED LADDER LEADING TO THE ACCESS PLATFORM.
3. EQUIP THE LADDER WITH A SECURITY COVER (LADDER GUARD) AND LOCK. START THE FIRST LADDER RUNG NO MORE THAN 18 INCHES ABOVE A CONCRETE LANDING PAD. DESIGN RUNGS ON 12 INCH CENTER-TO-CENTER TYPICAL SPACING.
4. INSTALL A LEVEL CONCRETE LANDING PAD MEASURING A MINIMUM 4 INCHES DEEP, 24 INCHES WIDE, AND 36 INCHES LONG DIRECTLY BENEATH THE LADDER.
5. USE ACTUAL DIMENSIONS AND WEIGHT OF THE DMS TO COMPLETE THE DESIGN OF THE DMS STRUCTURE.
6. ENSURE THAT THE TOP OF THE FOOTING EXTENDS AT LEAST 6 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
7. DESIGN AND CONSTRUCT THE PEDESTAL STRUCTURE AND DMS ENCLOSURE TO WITHSTAND WIND VELOCITIES OF 90 MPH.
8. VERIFY ALL UNDERGROUND UTILITY LOCATIONS BEFORE BEGINNING ANY UNDERGROUND WORK. DO NOT DAMAGE ANY EXISTING UTILITIES OR NCDOT CABLES DURING CONSTRUCTION.
9. SEE CABLE ROUTING SHEET FOR GUARDRAIL DETAILS.

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 Raleigh, North Carolina 27609
 NC License No: C-1554

	DMS-1 ELEVATION		
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD		
SCALE	REVISIONS	INIT.	DATE
NONE			

DocuSigned by: H.L. Winstead, Jr. 02-04-2015
 CADD File Name: R2248EA ITS-34.dgn



NOTES:

1. FIELD VERIFY ALL FOOTING ELEVATIONS AND GROUND SLOPES AT THE FOOTING USING THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR FURNISHING ELEVATION DRAWINGS FOR ENGINEER'S APPROVAL.
2. PROVIDE A FIXED LADDER LEADING TO THE ACCESS PLATFORM.
3. EQUIP THE LADDER WITH A SECURITY COVER (LADDER GUARD) AND LOCK. START THE FIRST LADDER RUNG NO MORE THAN 18 INCHES ABOVE A CONCRETE LANDING PAD. DESIGN RUNGS ON 12 INCH CENTER-TO-CENTER TYPICAL SPACING.
4. INSTALL A LEVEL CONCRETE LANDING PAD MEASURING A MINIMUM 4 INCHES DEEP, 24 INCHES WIDE, AND 36 INCHES LONG DIRECTLY BENEATH THE LADDER.
5. USE ACTUAL DIMENSIONS AND WEIGHT OF THE DMS TO COMPLETE THE DESIGN OF THE DMS STRUCTURE.
6. ENSURE THAT THE TOP OF THE FOOTING EXTENDS AT LEAST 6 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
7. DESIGN AND CONSTRUCT THE PEDESTAL STRUCTURE AND DMS ENCLOSURE TO WITHSTAND WIND VELOCITIES OF 90 MPH.
8. VERIFY ALL UNDERGROUND UTILITY LOCATIONS BEFORE BEGINNING ANY UNDERGROUND WORK. DO NOT DAMAGE ANY EXISTING UTILITIES OR NCDOT CABLES DURING CONSTRUCTION.
9. SEE CABLE ROUTING SHEET FOR GUARDRAIL DETAILS.

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 Raleigh, North Carolina 27609
 NC License No: C-1554

<p>Plans Prepared for: Transportation Mobility and Safety Division NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 250 N. Greenfield Place - Garner, NC 27529</p>	<p>DMS-2 ELEVATION</p>							
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD							
SCALE NONE	<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> </tbody> </table>	REVISIONS	INIT.	DATE				DocuSigned by: H.L. Winstead, Jr. 02-04-2015 F02917C3E07429 SIGNATURE DATE CADD File Name: R2248EA ITS-35.dgn
REVISIONS	INIT.	DATE						

COMPUTED BY: RB Early DATE: January 16, 2015
 CHECKED BY: E Roque

PROJECT REFERENCE NO. R-2248EA SHEET NO. ITS-36

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
 W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
 G = GATING IMPACT ATTENUATOR TYPE 350
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS										IMPACT ATTENUATOR TYPE 350	REMOVE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END													
-L-	1416+35.0	1420+60.0	MEDIAN	425'					12'	14'	50'																
-L-	1416+72.5	1420+22.5	MEDIAN	350'					12'	14'	50'																
			SUBTOTAL:	775'																							
LESS ANCHOR DEDUCTIONS:																											
			IMPACT ATTENUATOR 350:				2 @ 37.5'																				
			TOTAL:	700'																							
			SAY:	712.5'																							
			ADDITIONAL POST:	4																							

NOTE:

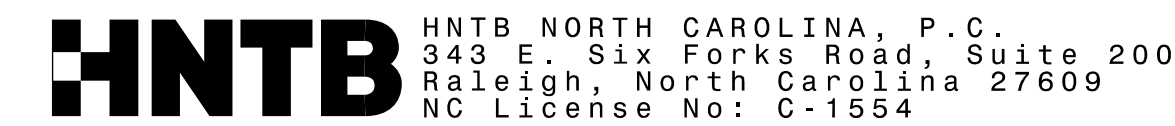
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

CABLE GUIDERAIL SUMMARY

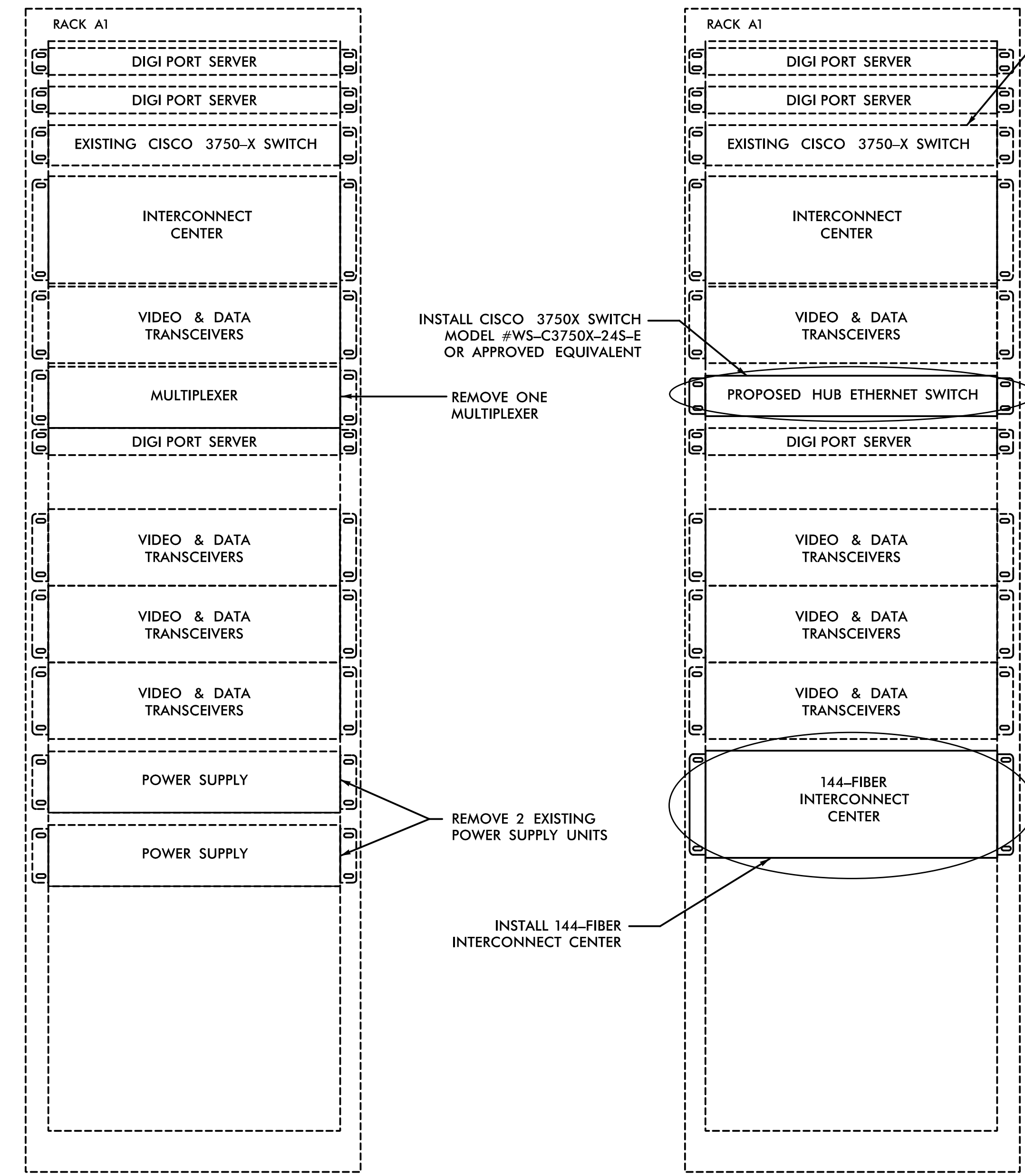
SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH (FT)	ANCHORS (EA)
-L-	1415+90	1416+15	MEDIAN	25'	1
-L-	1420+77	1421+02	MEDIAN	25'	1
			SUBTOTAL:	50'	2
LESS ANCHOR DEDUCTIONS:					
			2 @ 25'	-50'	
			TOTAL:	0'	2
			SAY:	0'	2
			ADDITIONAL GUIDERAIL POST:	4 (EA)	

REMOVE EXISTING GUIDERAIL

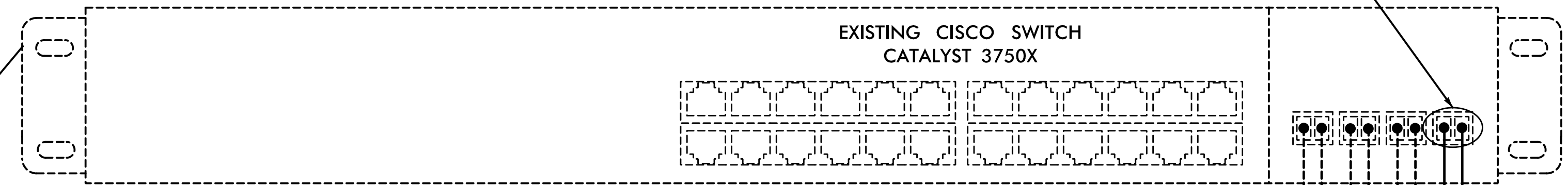
SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH (FT)	ANCHORS (EA)
-L-	1415+90	1421+02	MEDIAN	512'	0
			SUBTOTAL:	512'	0
LESS ANCHOR DEDUCTIONS:					
			0 @ 25'	0	
			TOTAL:	512'	0
			SAY:	512'	0



<p>Plans Prepared for: Transportation Mobility and Safety Division DEPARTMENT OF TRANSPORTATION 250 N. Greenfield Place, Garner, NC 27529</p>	GUARDRAIL SUMMARY		
	DIVISION 10 MECKLENBURG CO. CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: R.B. EARLY PREPARED BY: T.R. HOWELL REVIEWED BY: H.L. WINSTEAD		
SCALE	REVISIONS		DocuSigned by: Rhonda B. Early 02-12-2015
NONE	INIT.	DATE	SIGNATURE DATE



HUB #4 EQUIPMENT RACK
FRONT VIEW



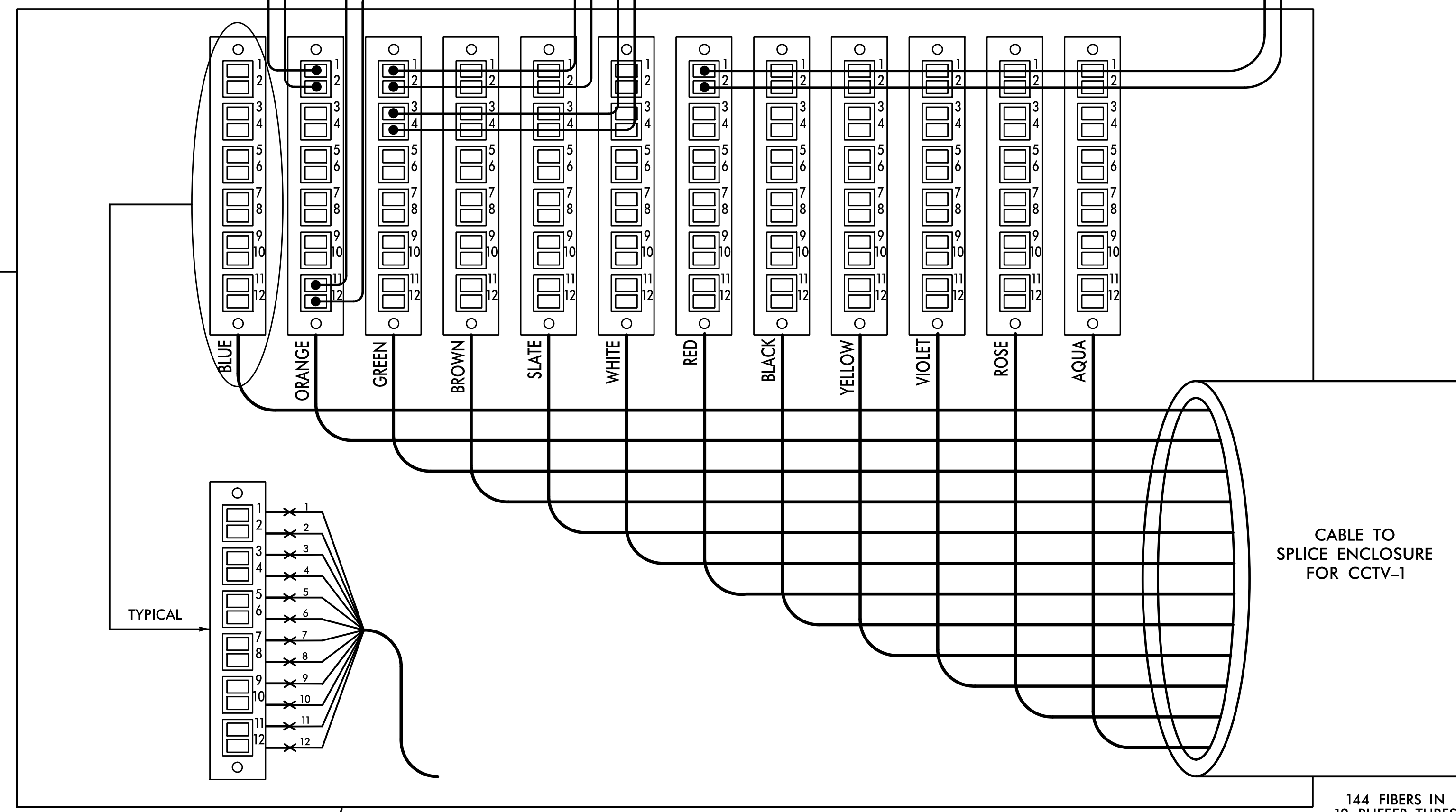
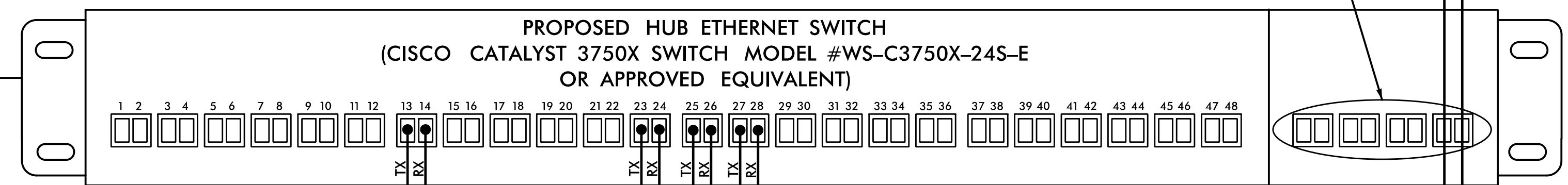
NOTES:

1. INSTALL CROSS-CONNECT CABLES FOR BOTH POWER AND DATA BETWEEN THE EXISTING AND PROPOSED SWITCHES ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
2. INSTALL 24 SFP 1000 BASE-FX OPTICAL TRANSCEIVER MODULES WITH 'LC' PORTS.
3. INSTALL FIBER-OPTIC JUMPERS AS SHOWN WITH 'LC' CONNECTORS AT BOTH ENDS.
4. DO NOT DISTURB ANY EXISTING JUMPERS.

EXISTING FIBER-OPTIC JUMPERS WITH 'LC' CONNECTORS

INSTALL FOUR (4) GIGABIT TRANSCEIVER MODULES WITH 'LC' PORTS

INSTALL FIBER-OPTIC JUMPER PAIR WITH 'LC' CONNECTORS TO CONNECT HUB #5 SWITCH WITH HUB #4 SWITCH

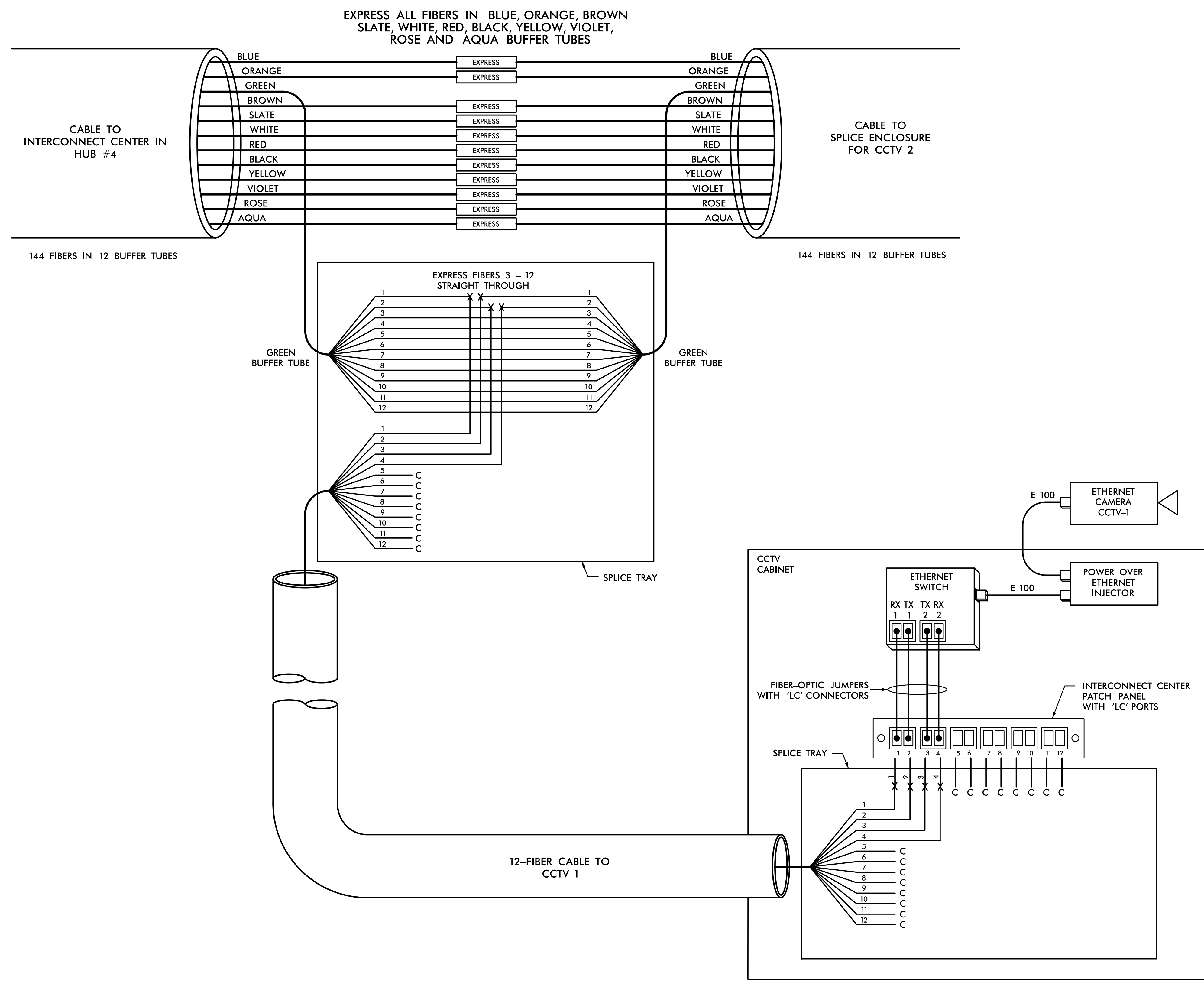


144-FIBER INTERCONNECT CENTER WITH PATCH PANELS AND 'LC' PORTS

COLOR CODE		LEGEND	
TIA/EIA	598-C		
(1) BLUE	(7) RED	X = NEW FUSION SPlice INDIVIDUAL FIBER	
(2) ORANGE	(8) BLACK	● = EXISTING FUSION SPlice	
(3) GREEN	(9) YELLOW	C = CAP AND SEAL	
(4) BROWN	(10) VIOLET	EXPRESS = EXPRESS ENTIRE BUFFER TUBE THROUGH WITHOUT CUTTING	
(5) SLATE	(11) ROSE	BUFFER SPlice = SPlice ALL FIBERS IN BUFFER TUBE COLOR TO COLOR	
(6) WHITE	(12) AQUA		

- NOTES**
1. UNUSED FIBERS LEFT COILED AND STORED IN SPlice TRAY.
 2. UNUSED BUFFER TUBES LEFT COILED AND STORED IN SPlice ENCLOSURE.
 3. ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING/ENSURING PROPER TERMINATION.

<p>HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554</p>	<p>Plans Prepared for:</p>		<p>HUB #4 FIBER-OPTIC SPlice DETAIL</p> <p>DIVISION 10 MECKLENBURG CO., CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINGSIEK</p> <p>PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD, JR.</p>							
	<p>SCALE</p> <p>NONE</p>	<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>INIT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			NO.	DATE	INIT.	DATE		
NO.	DATE	INIT.	DATE							



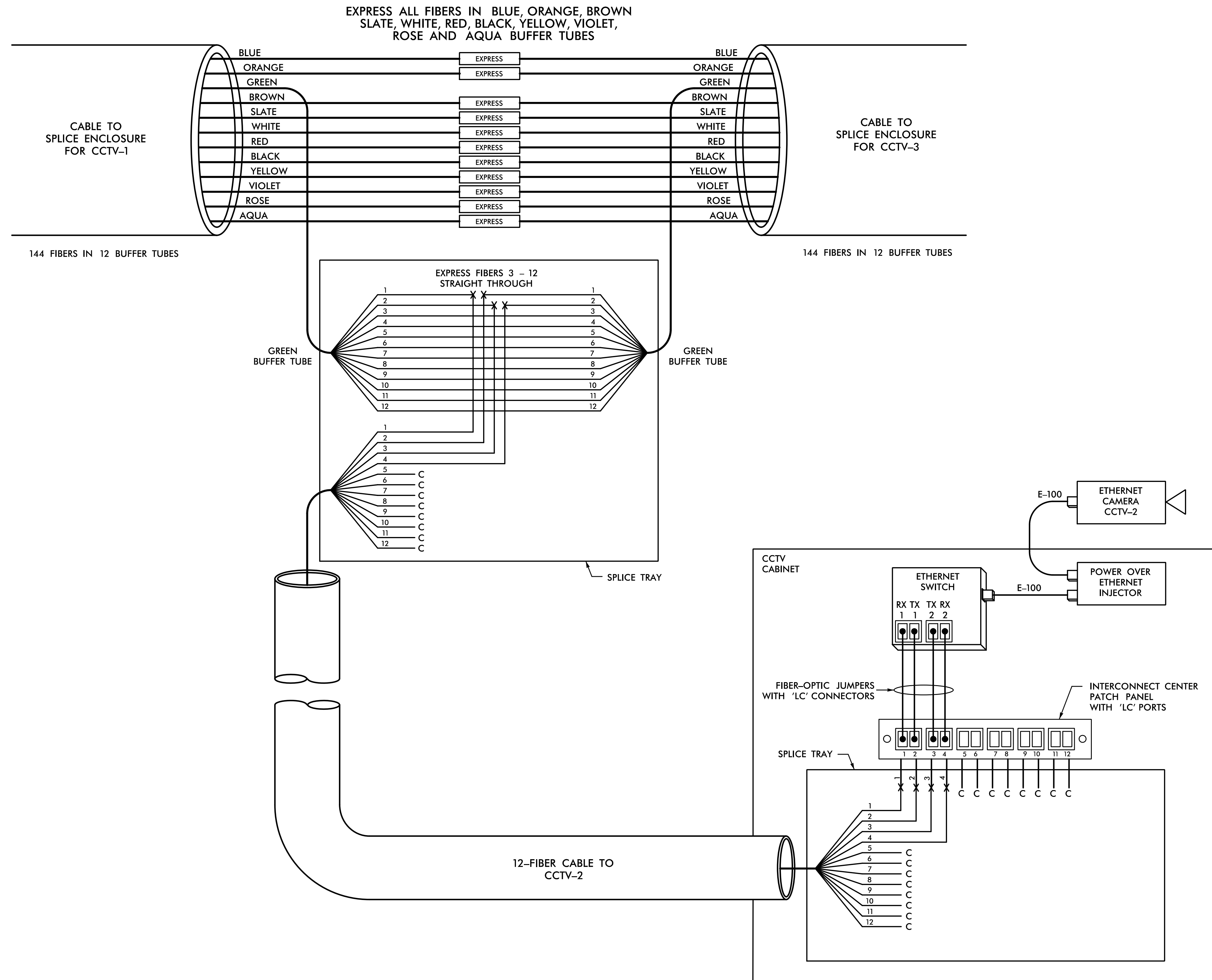
COLOR CODE TIA/EIA 598-C		LEGEND	
(1) BLUE	(7) RED	X = NEW FUSION SPLICE INDIVIDUAL FIBER	
(2) ORANGE	(8) BLACK	• = EXISTING FUSION SPLICE	
(3) GREEN	(9) YELLOW	C = CAP AND SEAL	
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 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	CCTV-1 FIBER-OPTIC SPLICE DETAIL		SEAL H.L. Winstead, Jr. 02-04-2015
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINKSIEK REVIEWED BY: H.L. WINSTEAD	

DocuSigned by: H.L. Winstead, Jr. 02-04-2015
 CADD File Name: R2248EA ITS-38.dgn

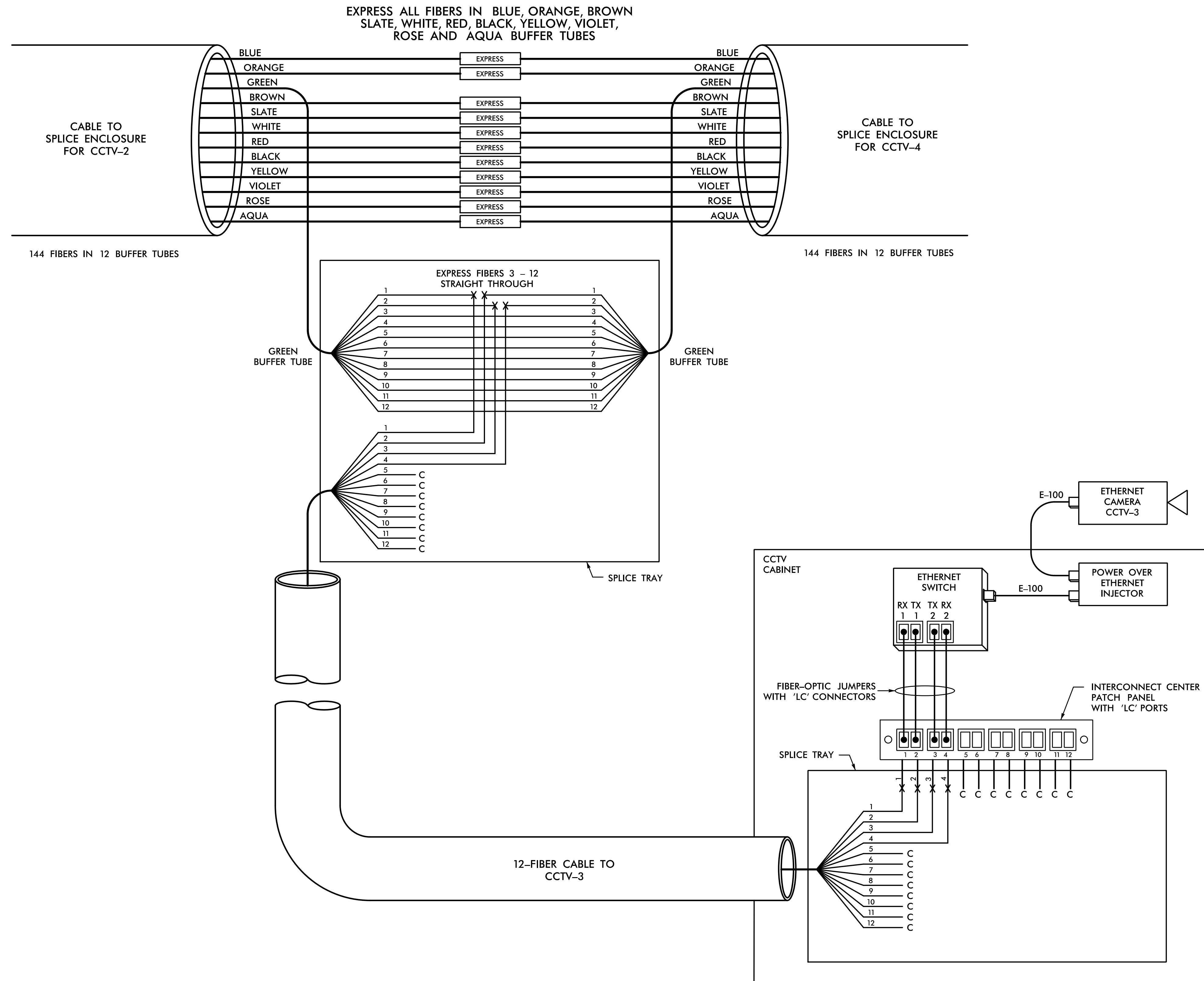


COLOR CODE TIA/EIA 598-C		LEGEND	
(1) BLUE	(7) RED	X = NEW FUSION SPlice INDIVIDUAL FIBER	
(2) ORANGE	(8) BLACK	• = EXISTING FUSION SPlice	
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 - ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING/ENSURING PROPER TERMINATION.

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 Raleigh, North Carolina 27609
 NC License No: C-1554

<p>Plans Prepared for:</p> <p>250 N. Greenfield Place, Garner, NC 27529</p>	<p>CCTV-2 FIBER-OPTIC SPlice DETAIL</p>		<p>SEAL</p>
	<p>DIVISION 10 MECKLENBURG CO., CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK</p> <p>PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD</p>		
SCALE	REVISIONS	INIT.	DATE
NONE			
<p>DocuSigned by: <i>H.L. Winstead, Jr.</i> 02-04-2015</p>			<p>DATE</p>
<p>CADD File Name: R2248EA ITS-39.dgn</p>			



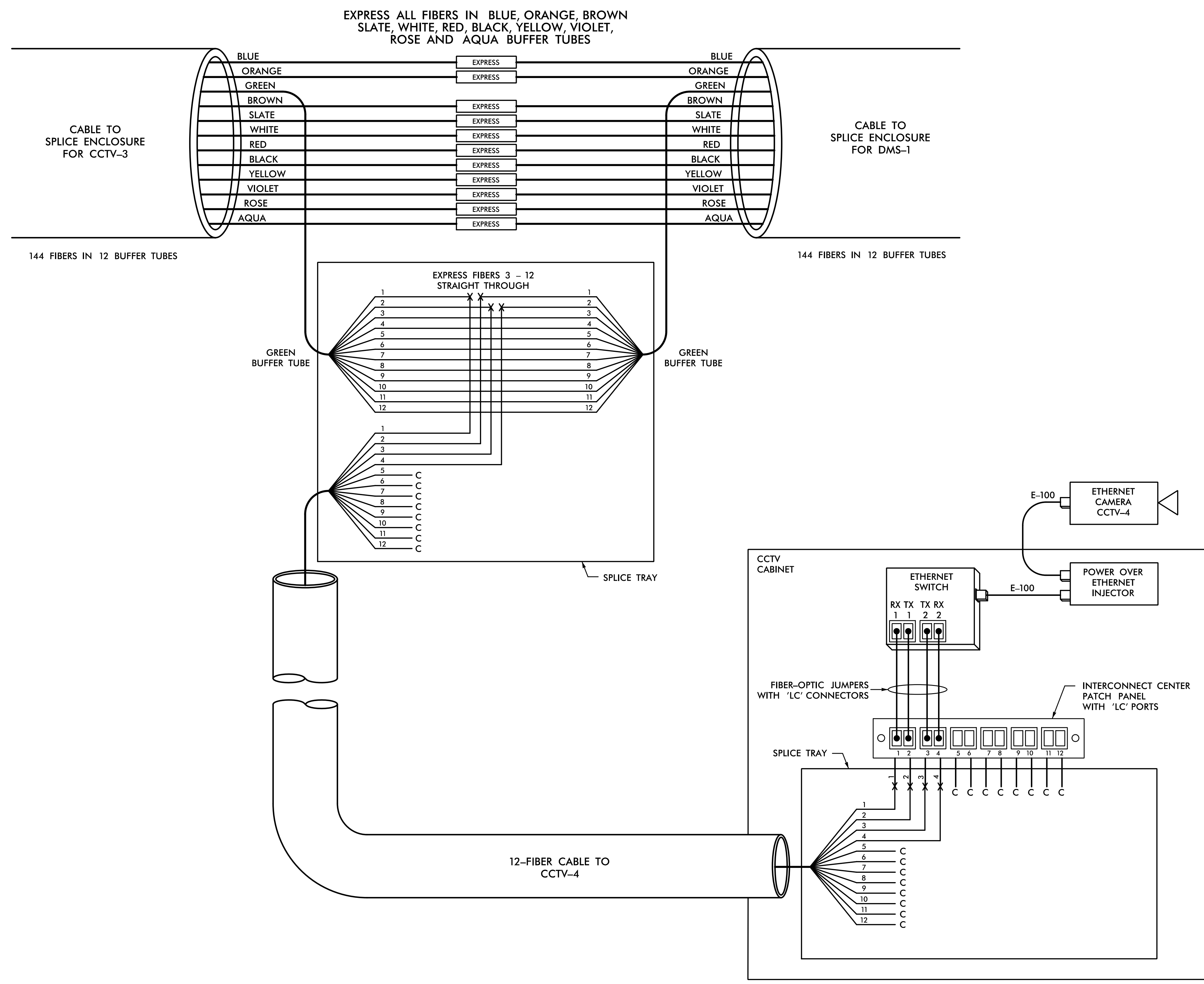
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(3) GREEN	(9) YELLOW	C = CAP AND SEAL	
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(5) SLATE	(11) ROSE	BUFFER SPLICE = SPLICE ALL FIBERS IN BUFFER TUBE COLOR TO COLOR	
(6) WHITE	(12) AQUA		

- NOTES**
- UNUSED FIBERS LEFT COILED AND STORED IN SPLICE TRAY.
 - UNUSED BUFFER TUBES LEFT COILED AND STORED IN SPLICE ENCLOSURE.
 - ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING/ENSURING PROPER TERMINATION.

HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	CCTV-3 FIBER-OPTIC SPLICE DETAIL		SEAL H.L. Winstead, Jr. 02-04-2015
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINSIEK REVIEWED BY: H.L. WINSTEAD	

DocuSigned by: H.L. Winstead, Jr. 02-04-2015
 FID2917C3CE07429
 SIGNATURE DATE
 CADD File name: R2248EA ITS-40.dgn

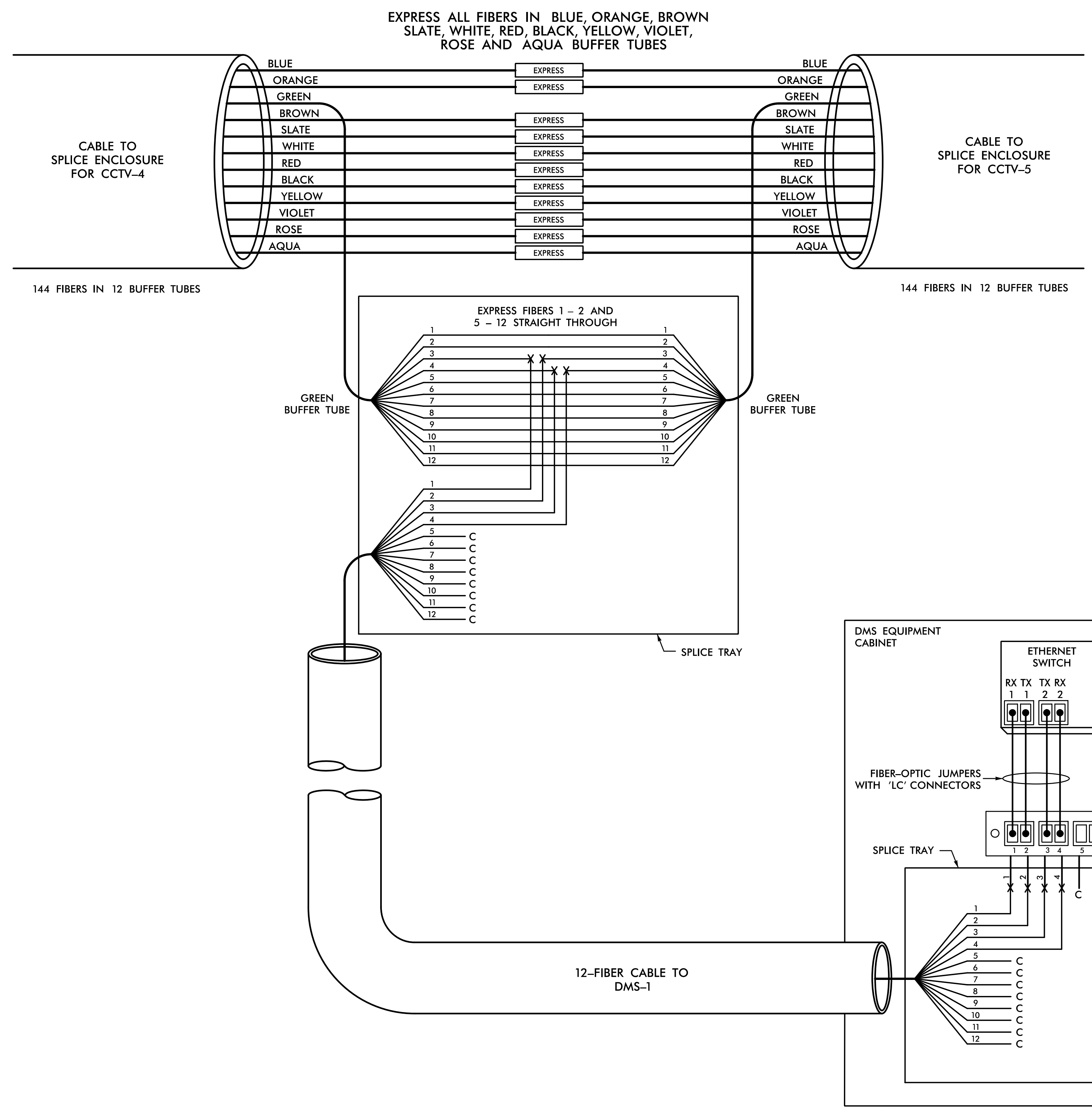


COLOR CODE TIA/EIA 598-C		LEGEND	
(1) BLUE	(7) RED	X = NEW FUSION SPLICE INDIVIDUAL FIBER	
(2) ORANGE	(8) BLACK	• = EXISTING FUSION SPLICE	
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 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	CCTV-4 FIBER-OPTIC SPLICE DETAIL		SEAL H.L. Winstead, Jr. ENGINEER
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINSIEK REVIEWED BY: H.L. WINSTEAD	

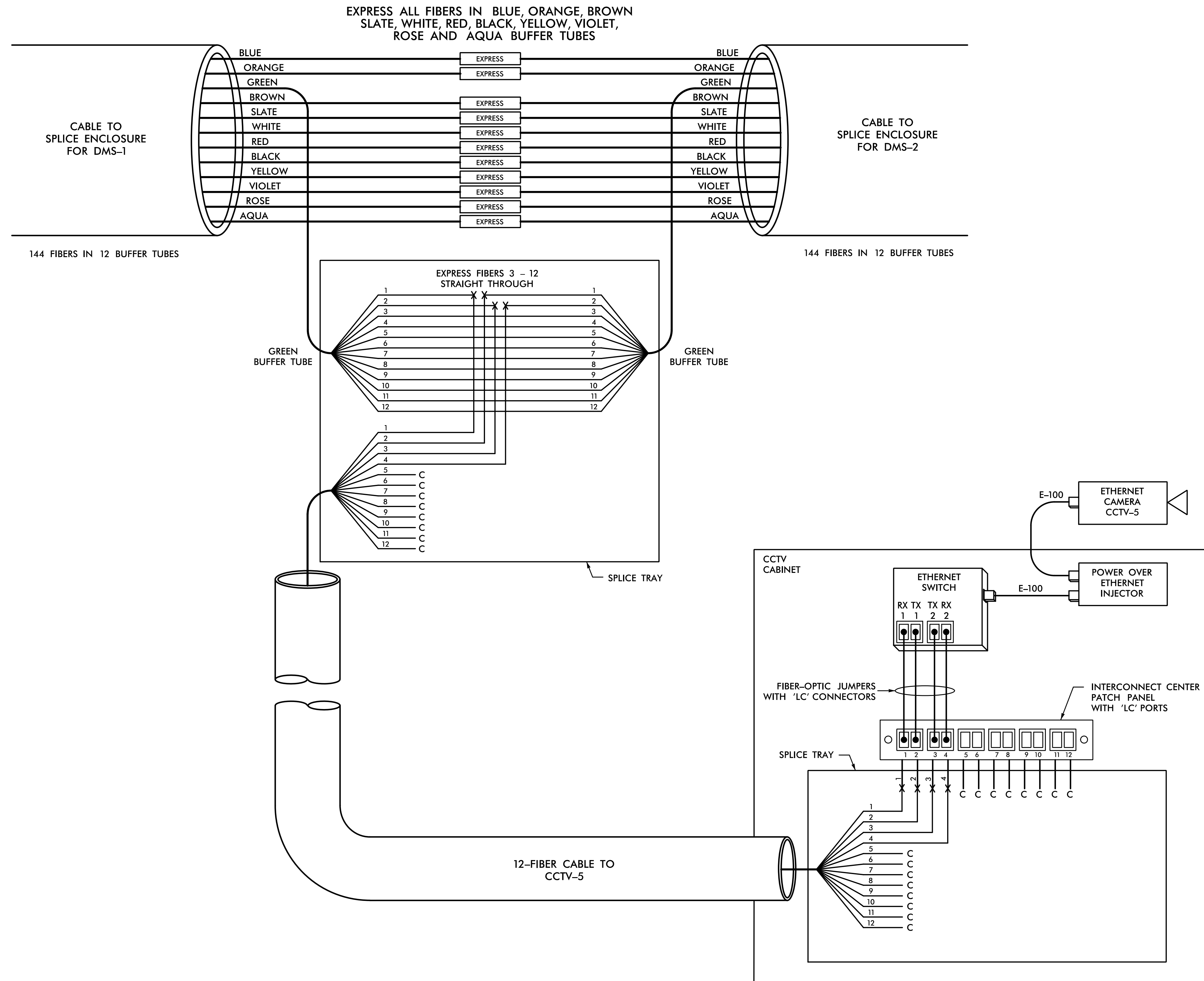


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 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	DMS-1 FIBER-OPTIC SPLICE DETAIL		SEAL H.L. Winstead, Jr. ENGINEER
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINSIEK REVIEWED BY: H.L. WINSTEAD	

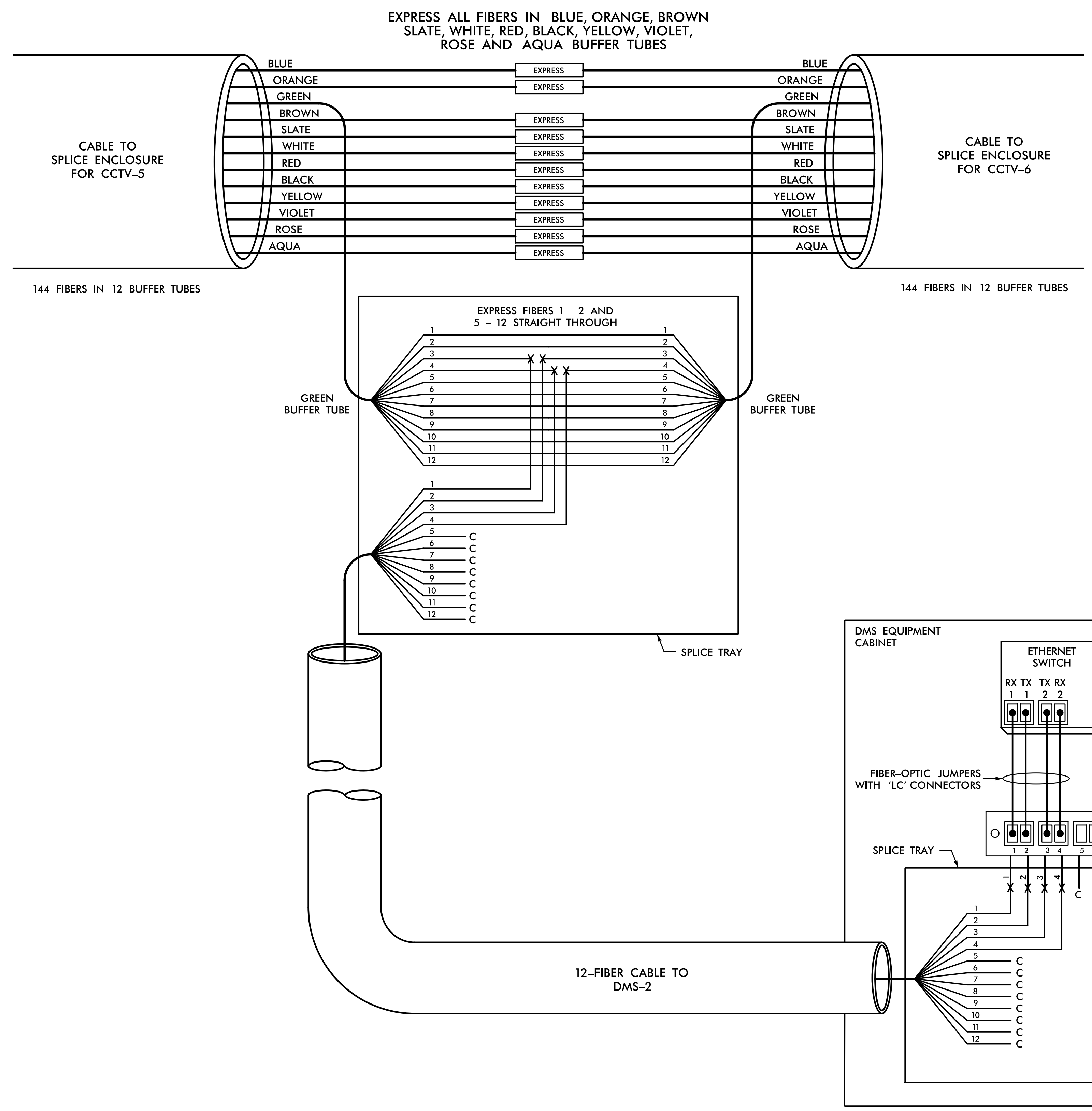


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Raleigh, North Carolina 27609
NC License No: C-1554

<p>Plans Prepared for:</p> <p>250 N. Greenfield Place, Garner, NC 27529</p>	<p>CCTV-5 FIBER-OPTIC SPlice DETAIL</p>		<p>SEAL</p>							
	<p>DIVISION 10 MECKLENBURG CO., CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK</p> <p>PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD</p>									
<p>SCALE</p> <p>NONE</p>	<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION	INIT.	DATE					<p>DocuSigned by: H.L. Winstead, Jr. 02-04-2015</p> <p>FR0917C3CE07429</p> <p>SIGNATURE DATE</p> <p>CADD File name: R2248EA ITS-43.dgn</p>
NO.	DESCRIPTION	INIT.	DATE							



COLOR CODE TIA/EIA 598-C		LEGEND	
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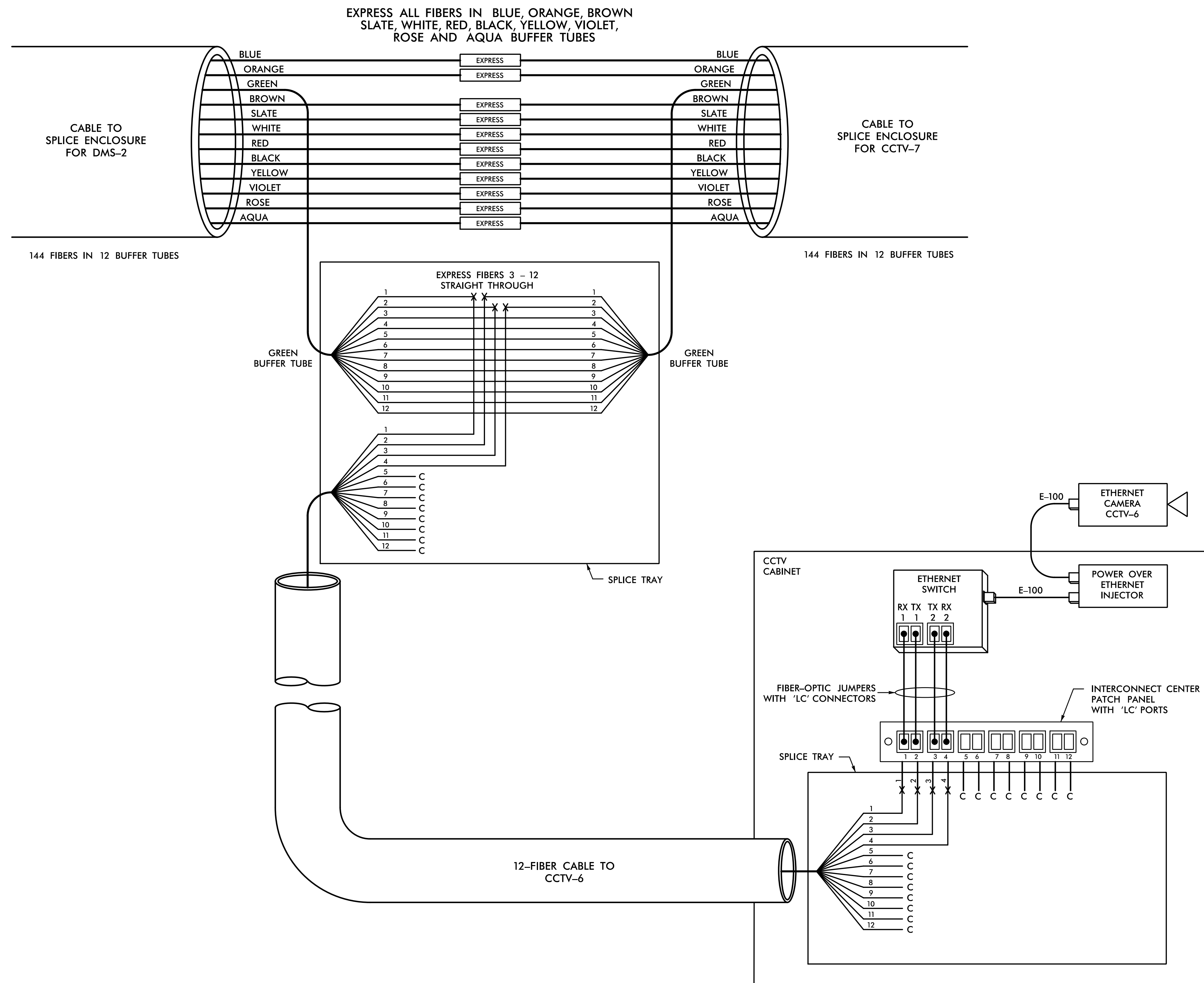
- NOTES**
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HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	DMS-2 FIBER-OPTIC SPLICE DETAIL		SEAL H.L. Winstead, Jr. 02-04-2015
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINSIEK REVIEWED BY: H.L. WINSTEAD	

SCALE: NONE

CADD File name: R2248EA ITS-44.dgn

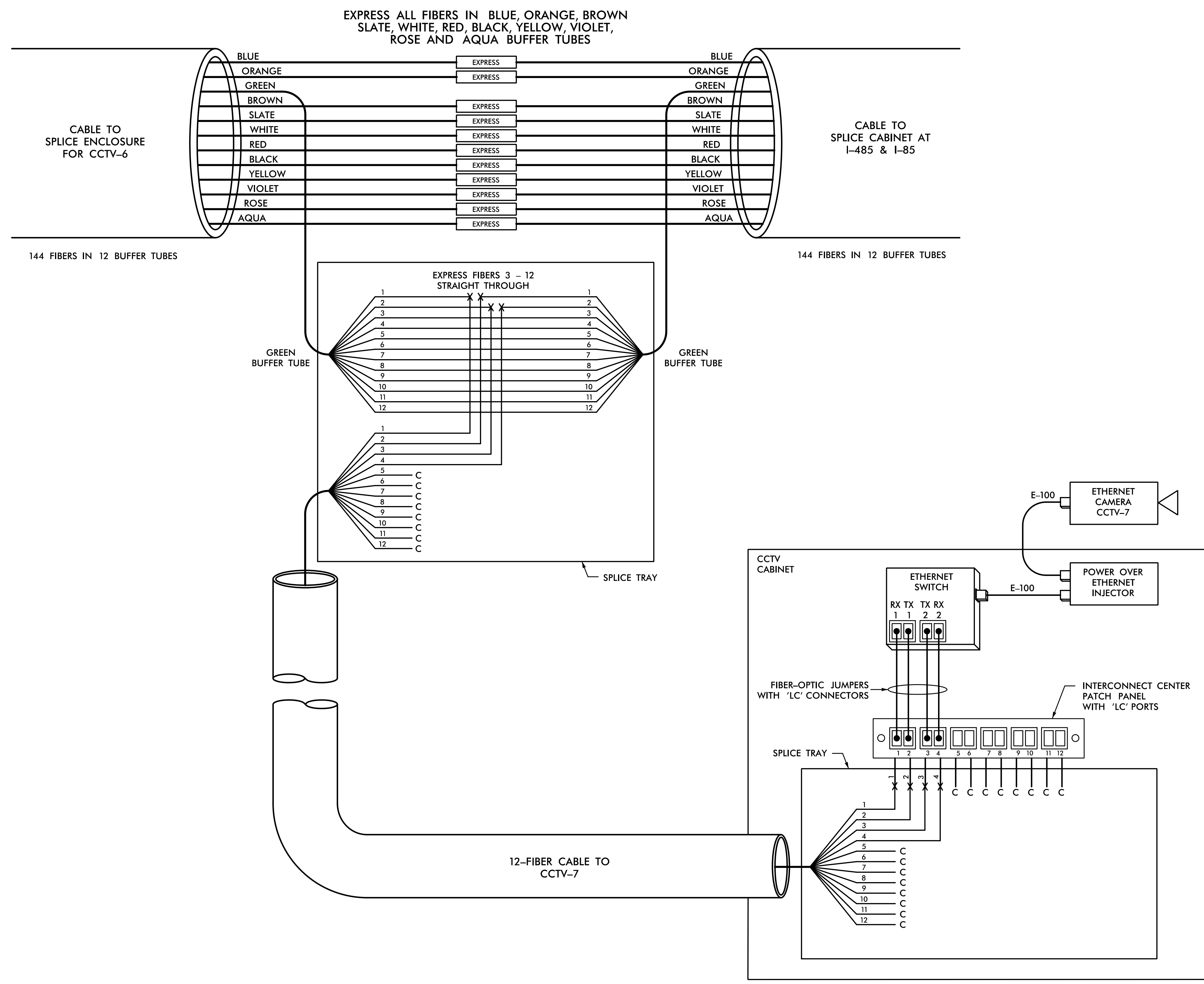


COLOR CODE TIA/EIA 598-C		LEGEND	
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Raleigh, North Carolina 27609
NC License No: C-1554

<p>Plans Prepared for:</p> <p>250 N. Greenfield Place, Garner, NC 27529</p>	<p>CCTV-6 FIBER-OPTIC SPLICE DETAIL</p>		<p>SEAL</p>
	<p>DIVISION 10 MECKLENBURG CO., CHARLOTTE</p> <p>PLAN DATE: FEBRUARY 2015</p> <p>PREPARED BY: T.R. TERRELL</p>	<p>REVIEWED BY: A.D. KLINKSIEK</p> <p>REVIEWED BY: H.L. WINSTEAD</p>	



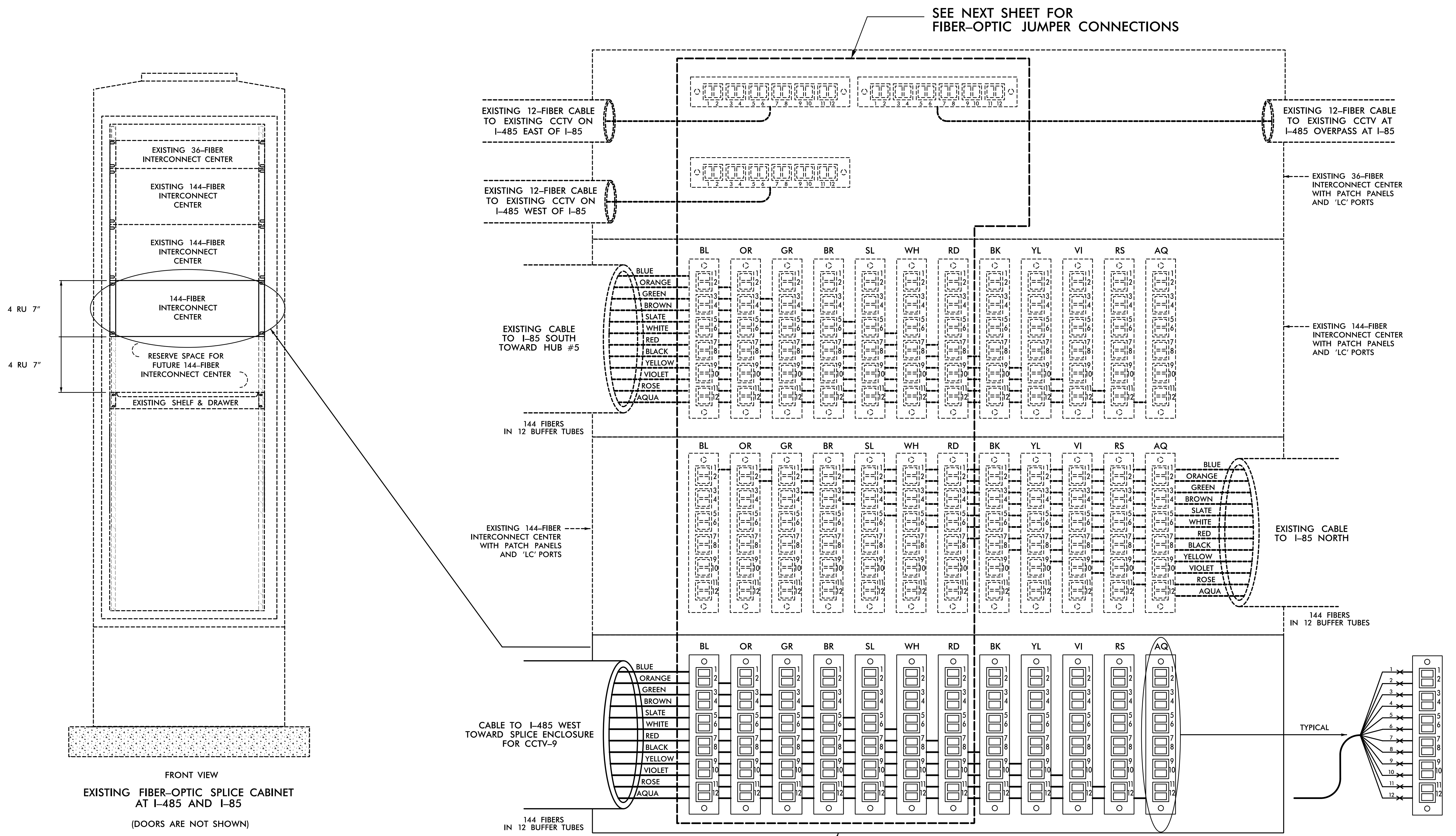
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HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	CCTV-7 FIBER-OPTIC SPLICE DETAIL		SEAL H.L. Winstead, Jr. 02-04-2015
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD		
SCALE NONE	REVISIONS	INIT.	DATE

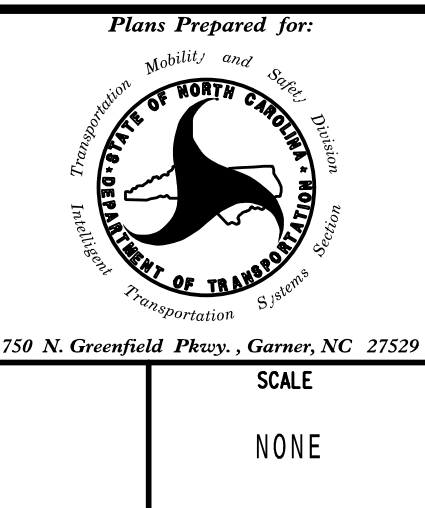
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(2) ORANGE	(8) BLACK
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LEGEND	
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REVISIONS		INIT.	DATE

SEAL	
NORTH CAROLINA PROFESSIONAL ENGINEER	
H.L. WINSTEAD, JR.	
02-04-2015	

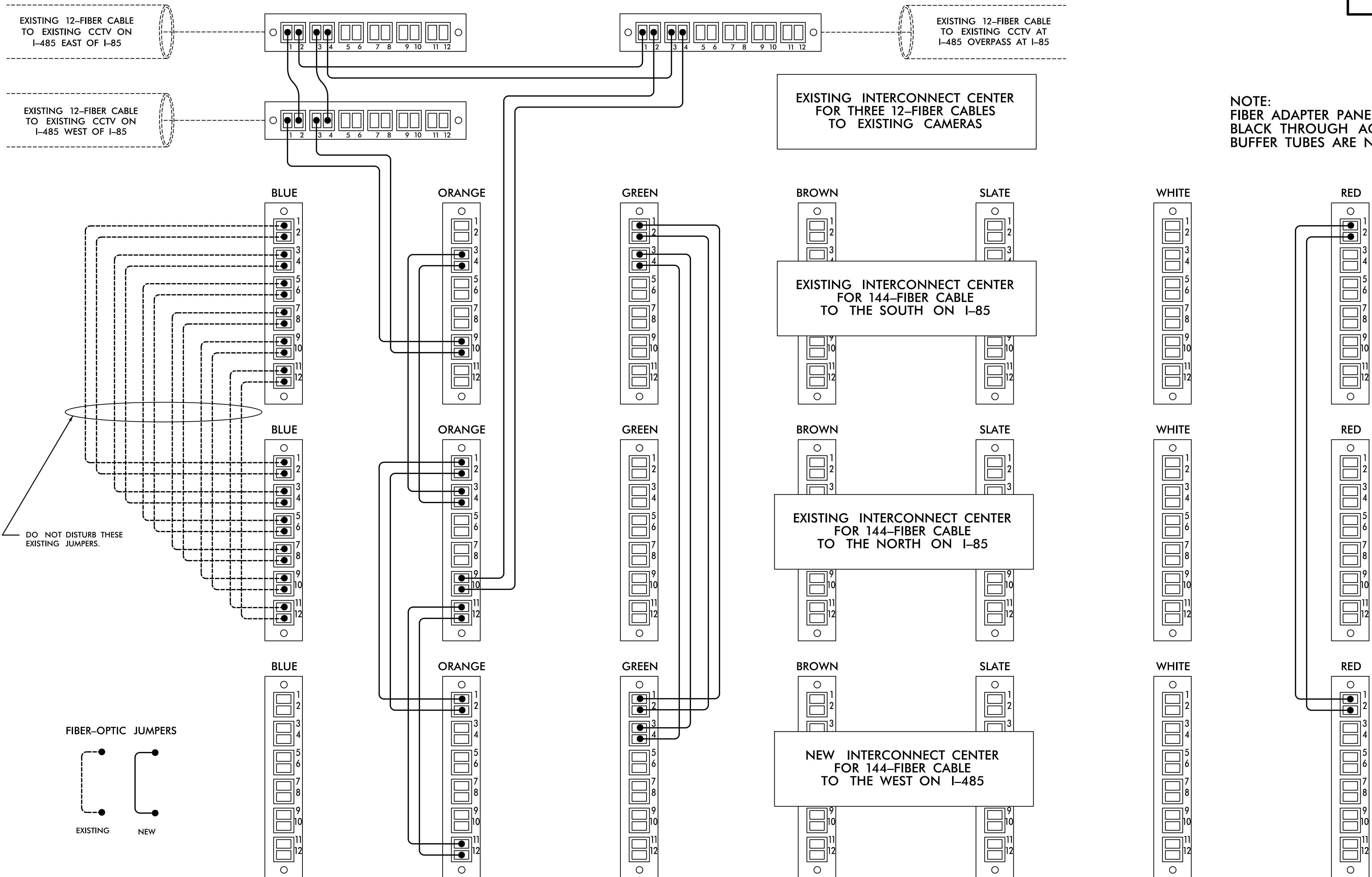
HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

Plans Prepared for:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
250 N. Greenfield Place, Garner, NC 27529

**SPLICE CABINET
FIBER-OPTIC SPLICE DETAIL**

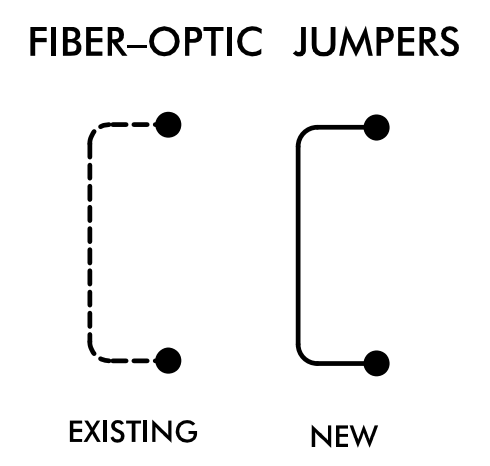
DIVISION 10 MECKLENBURG CO. CHARLOTTE
PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK
PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD

DocuSigned by:
H.L. Winstead, Jr. 02-04-2015
FR0917C3E507429
SIGNATURE DATE
CADD File Name: R2248EA ITS-47.dgn



NOTE:
FIBER ADAPTER PANELS FOR
BLACK THROUGH AQUA
BUFFER TUBES ARE NOT SHOWN.

DO NOT DISTURB THESE
EXISTING JUMPERS.



COLOR CODE TIA/EIA 598-C

LEGEND

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NOTES

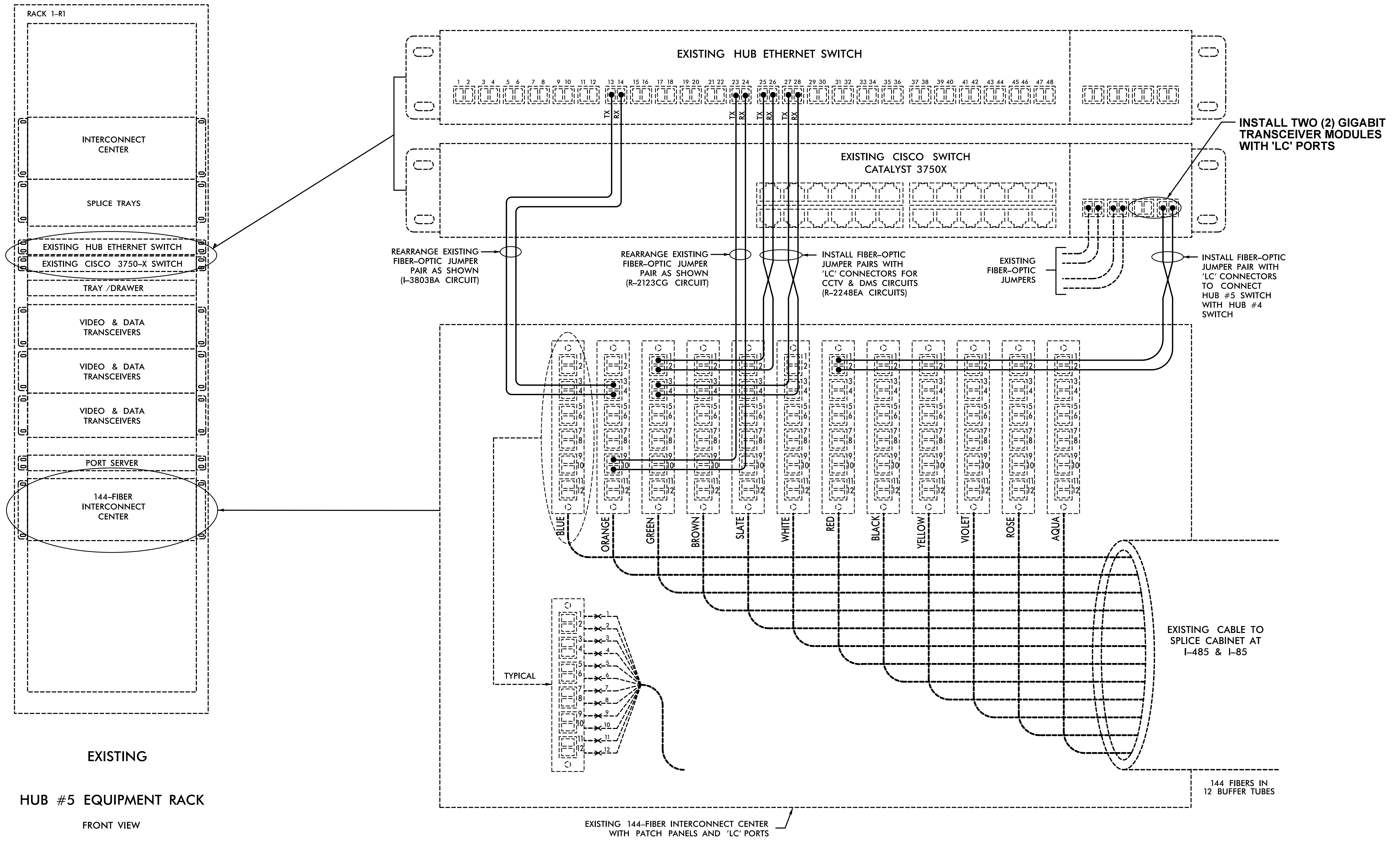
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NOTE:
1. INSTALL NEW JUMPERS, REARRANGE EXISTING JUMPERS, AND REMOVE EXISTING JUMPERS AS NECESSARY TO MATCH THE JUMPER ARRANGEMENT SHOWN ABOVE.

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NC License No: C-1554

Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	SPLICE CABINET FIBER-OPTIC JUMPER DETAIL		SEAL H.L. Winstead, Jr. ENGINEER
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINKSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD		

NOTE:
 1. INSTALL NEW JUMPERS, REARRANGE EXISTING JUMPERS, AND REMOVE EXISTING JUMPERS AS NECESSARY TO MATCH THE JUMPER ARRANGEMENT SHOWN BELOW.



EXISTING
HUB #5 EQUIPMENT RACK
 FRONT VIEW

EXISTING CABLE TO
 SPLICE CABINET AT
 I-485 & I-85

144 FIBERS IN
 12 BUFFER TUBES

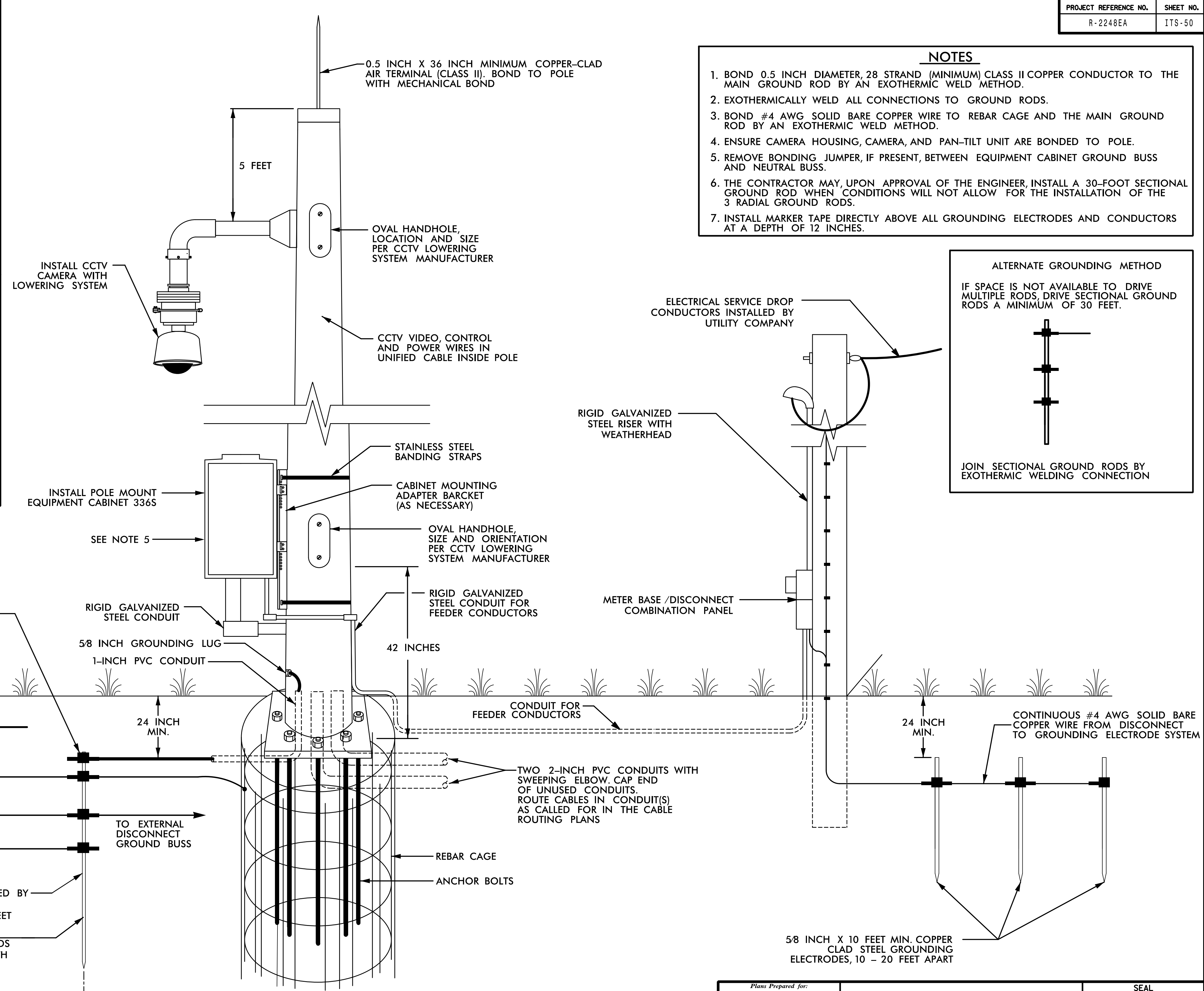
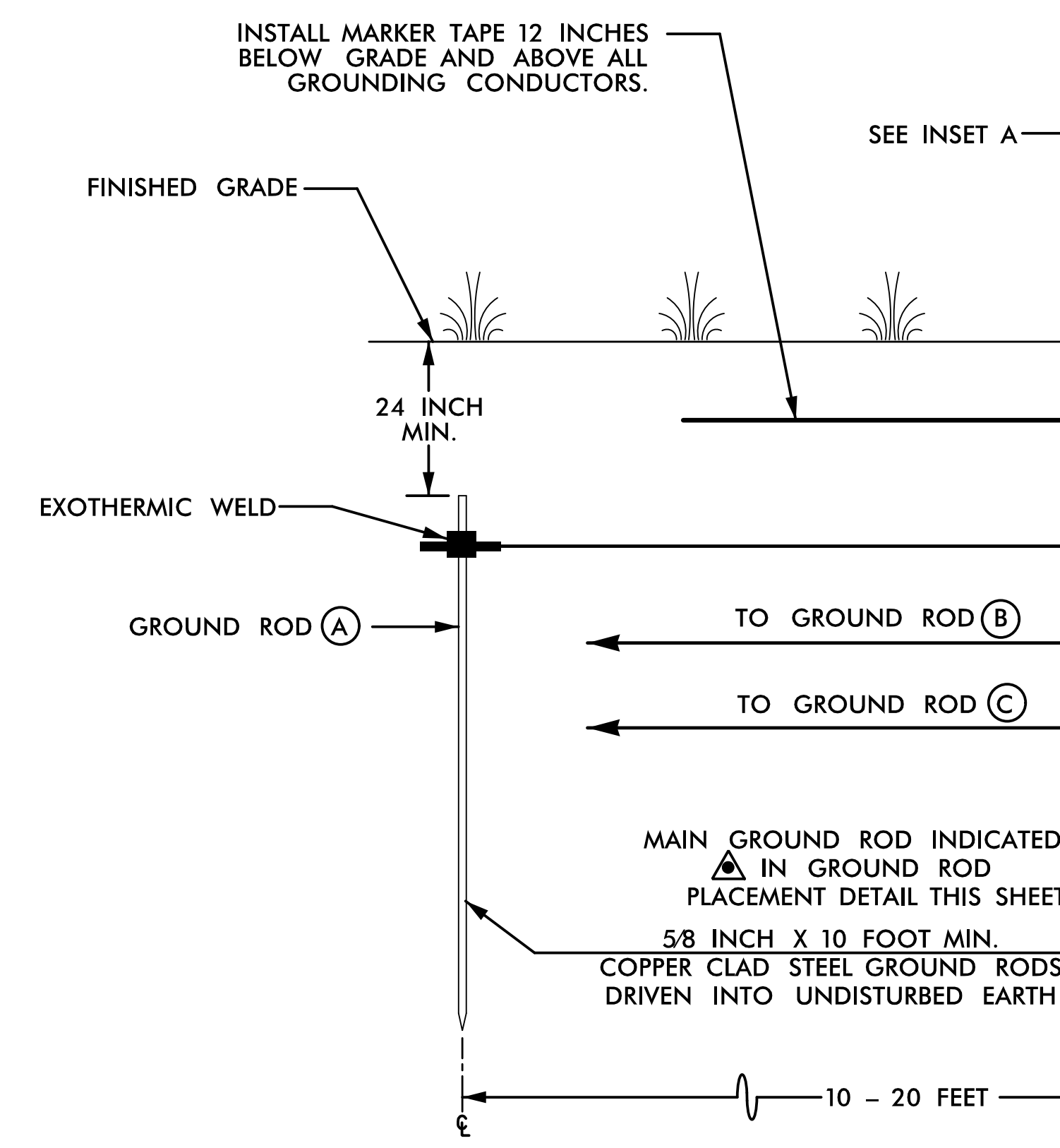
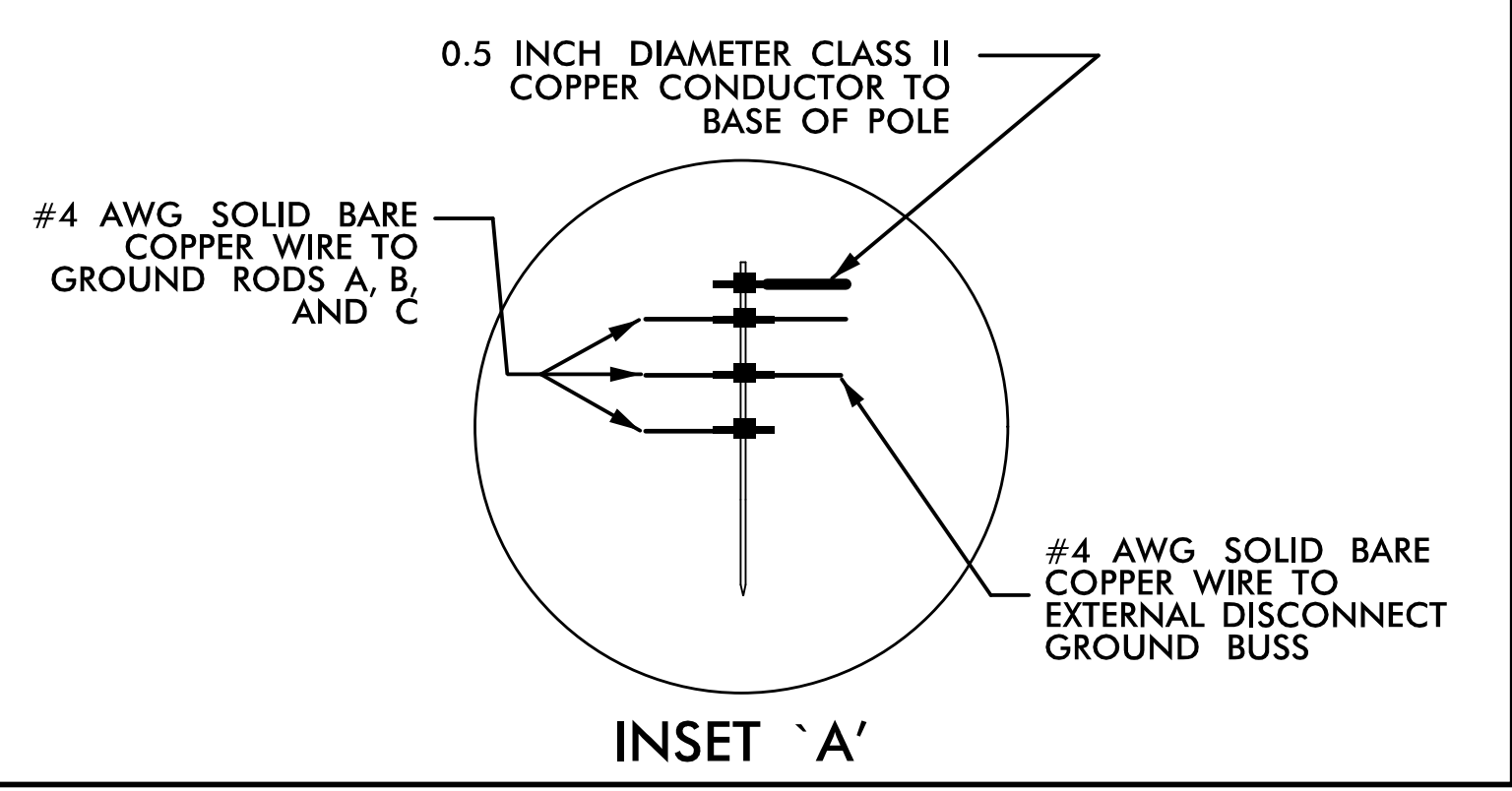
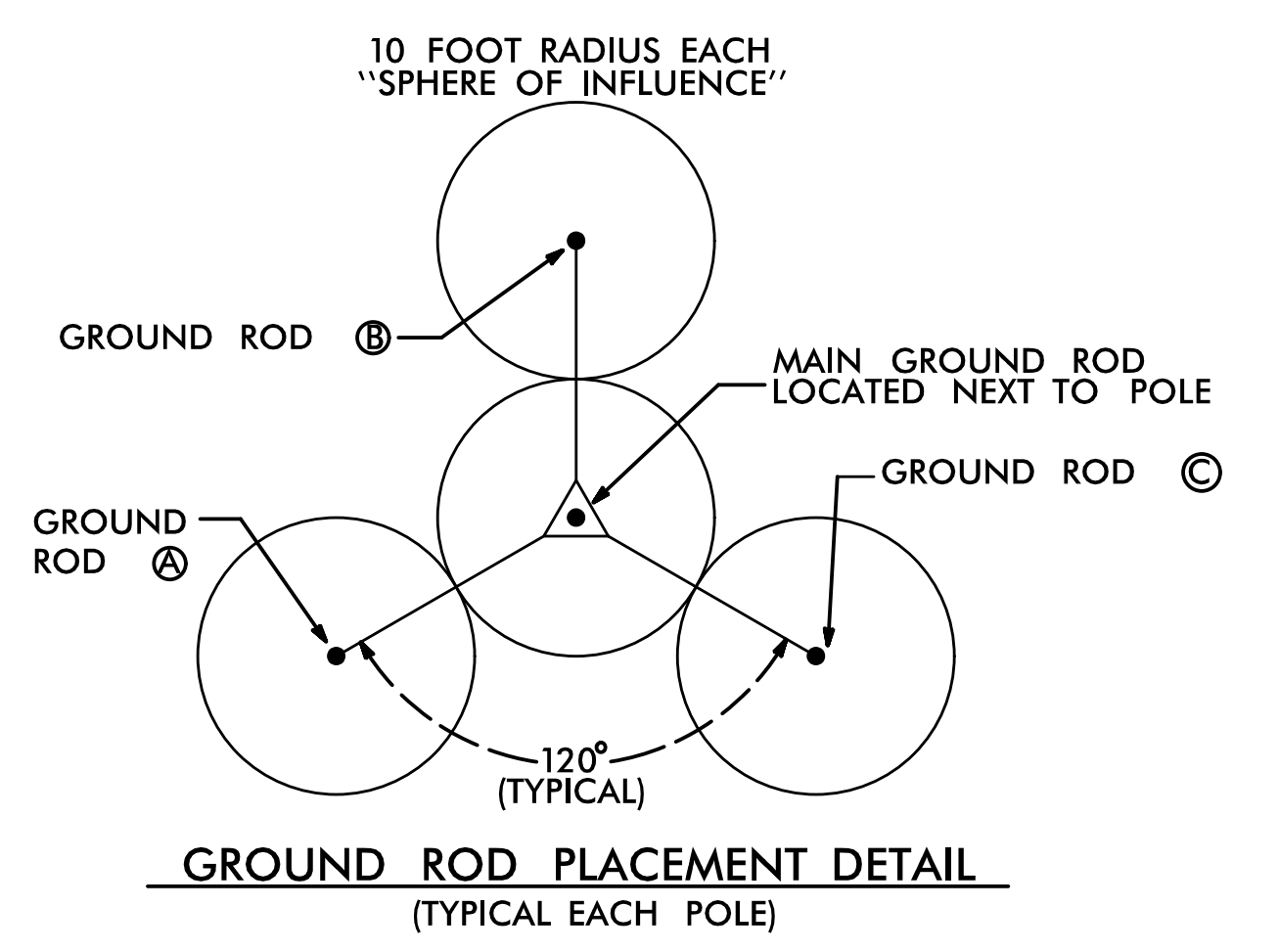
EXISTING 144-FIBER INTERCONNECT CENTER
 WITH PATCH PANELS AND 'LC' PORTS

COLOR CODE TIA/EIA 598-C		LEGEND	
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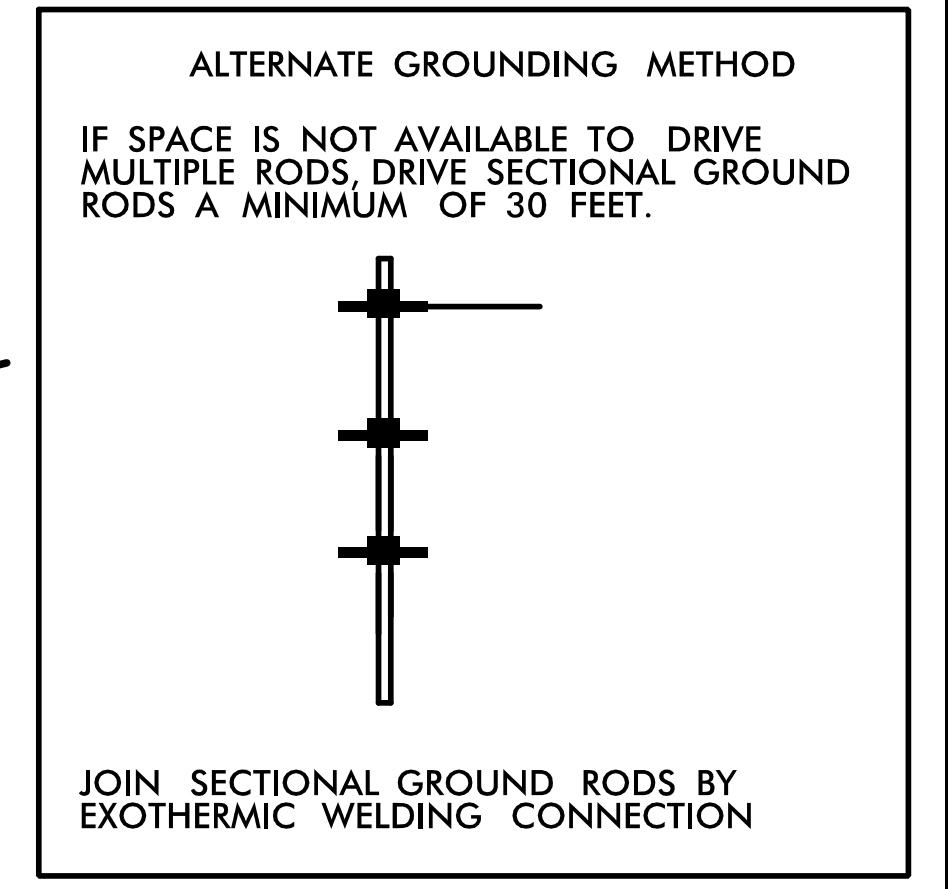
- NOTES**
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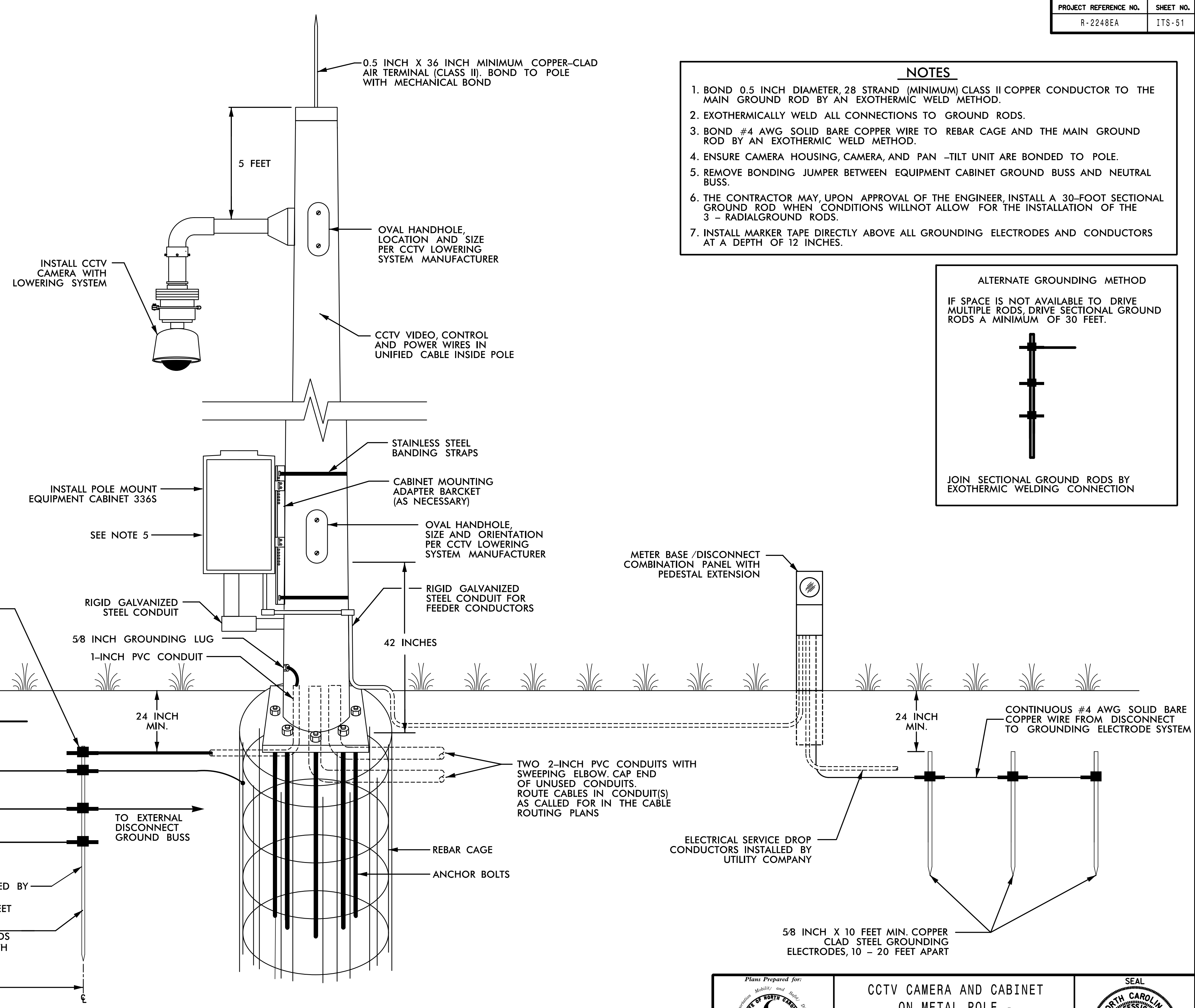
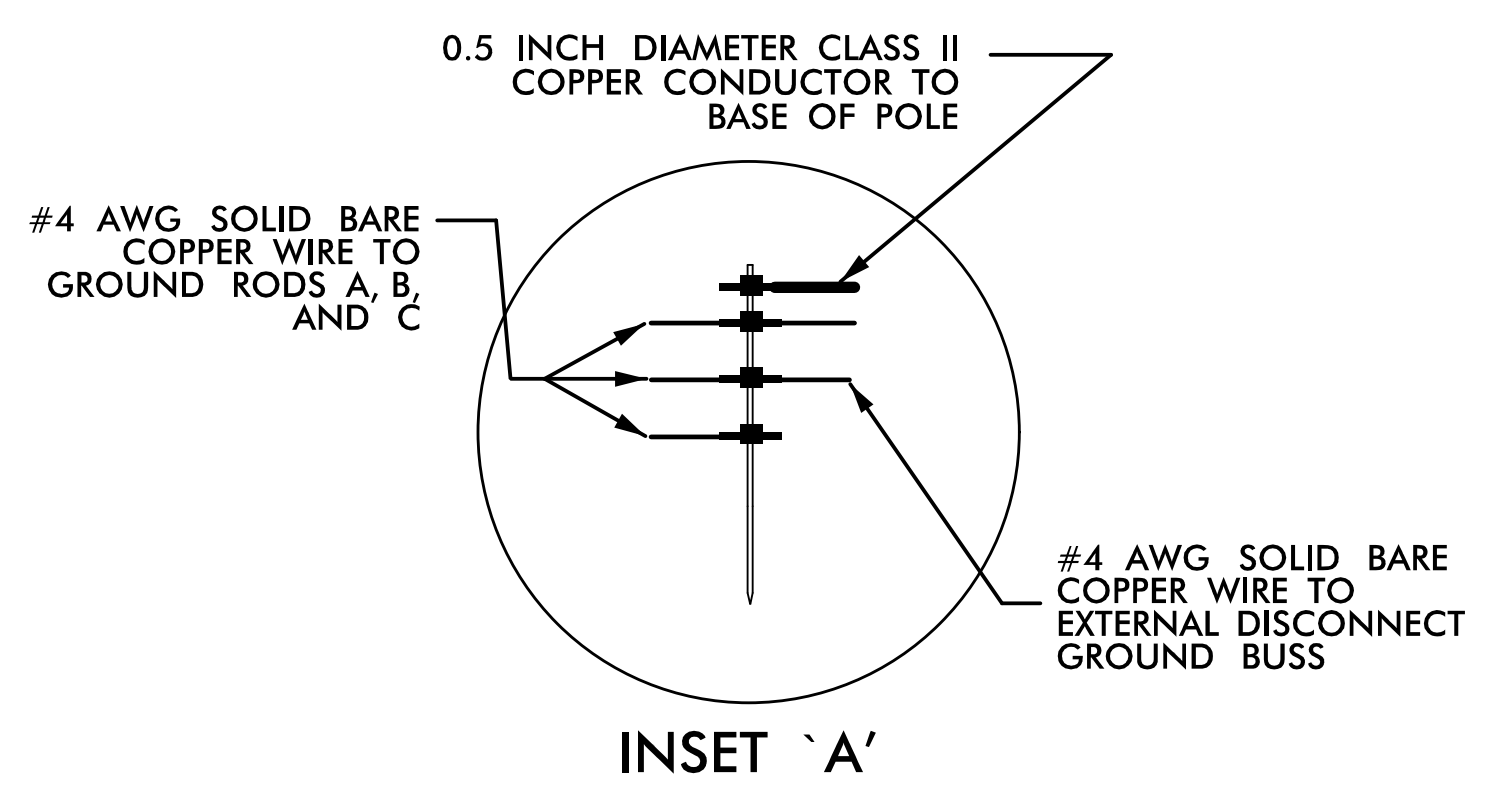
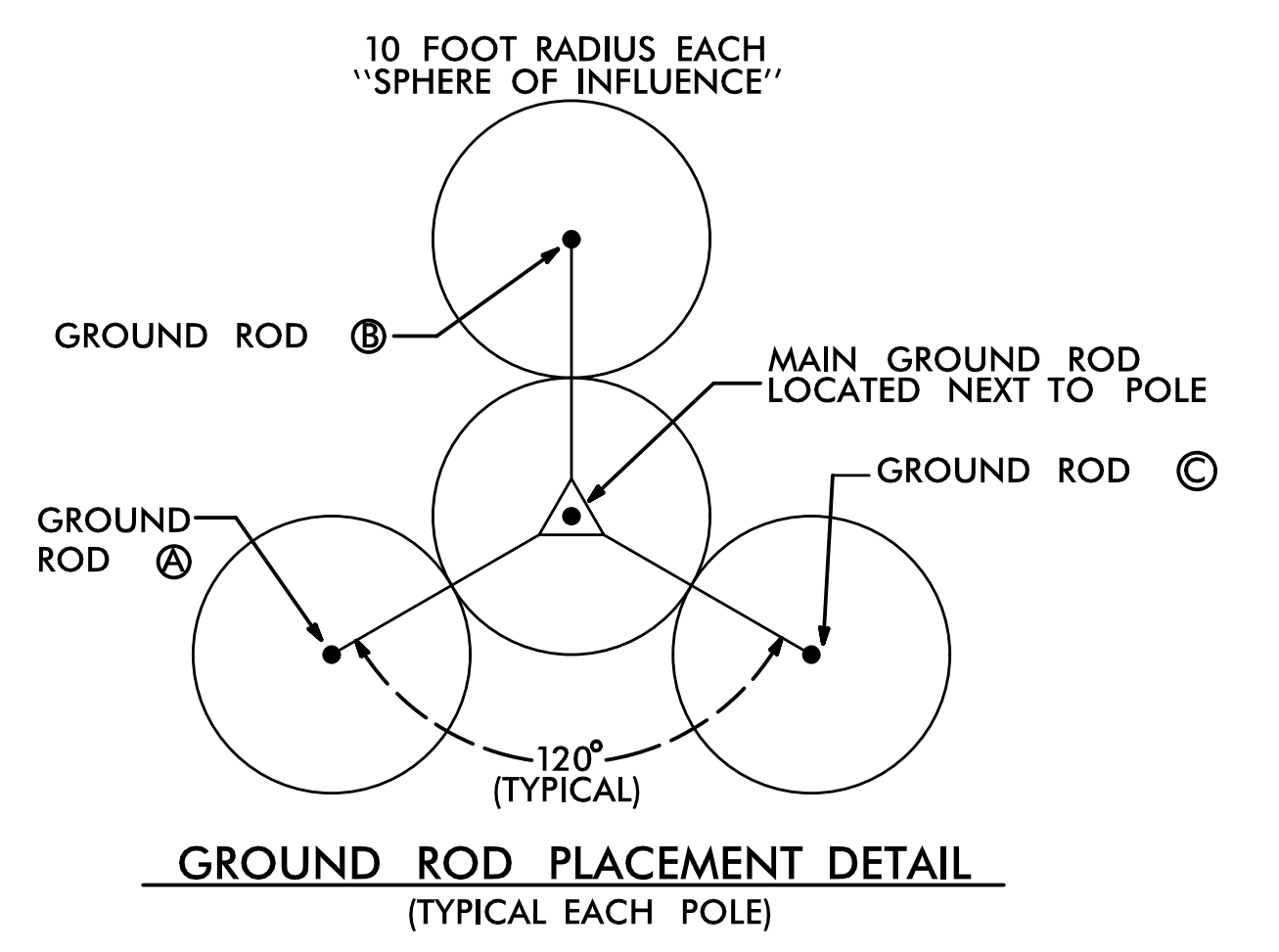
Plans Prepared for: 250 N. Greenfield Place, Garner, NC 27529	HUB #5 FIBER-OPTIC SPLICE DETAIL		SEAL H.L. Winstead, Jr. ENGINEER
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINSIEK REVIEWED BY: H.L. WINSTEAD	



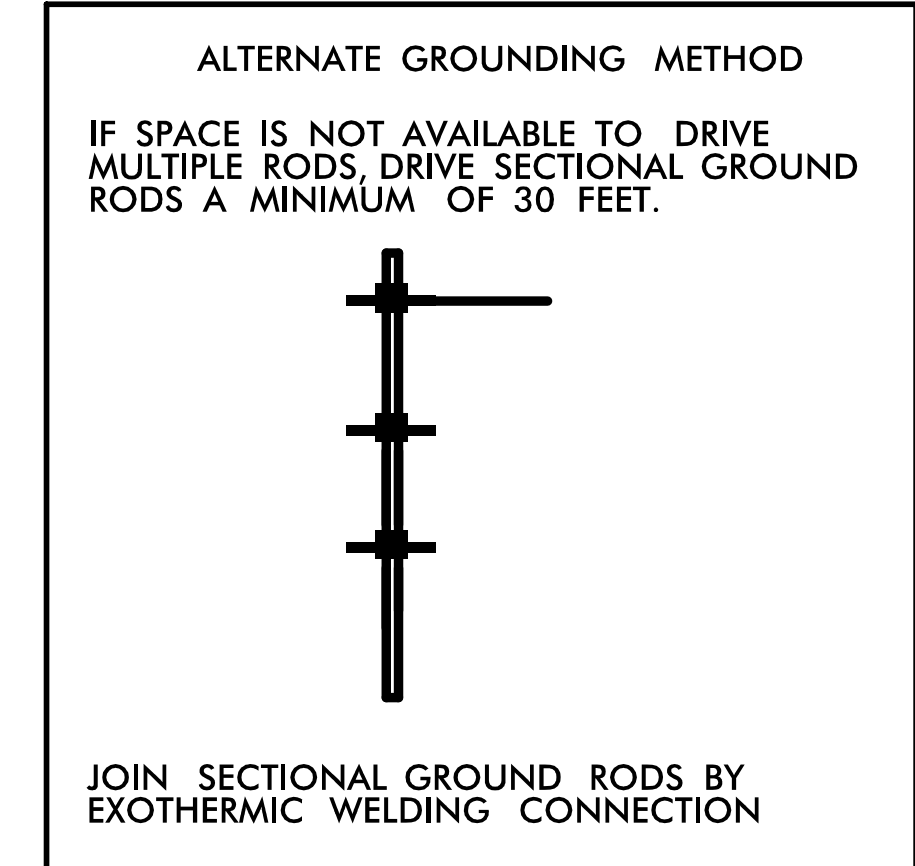
- NOTES**
1. BOND 0.5 INCH DIAMETER, 28 STRAND (MINIMUM) CLASS II COPPER CONDUCTOR TO THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD.
 2. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
 3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD.
 4. ENSURE CAMERA HOUSING, CAMERA, AND PAN-TILT UNIT ARE BONDED TO POLE.
 5. REMOVE BONDING JUMPER, IF PRESENT, BETWEEN EQUIPMENT CABINET GROUND BUSS AND NEUTRAL BUSS.
 6. 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.
 7. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.



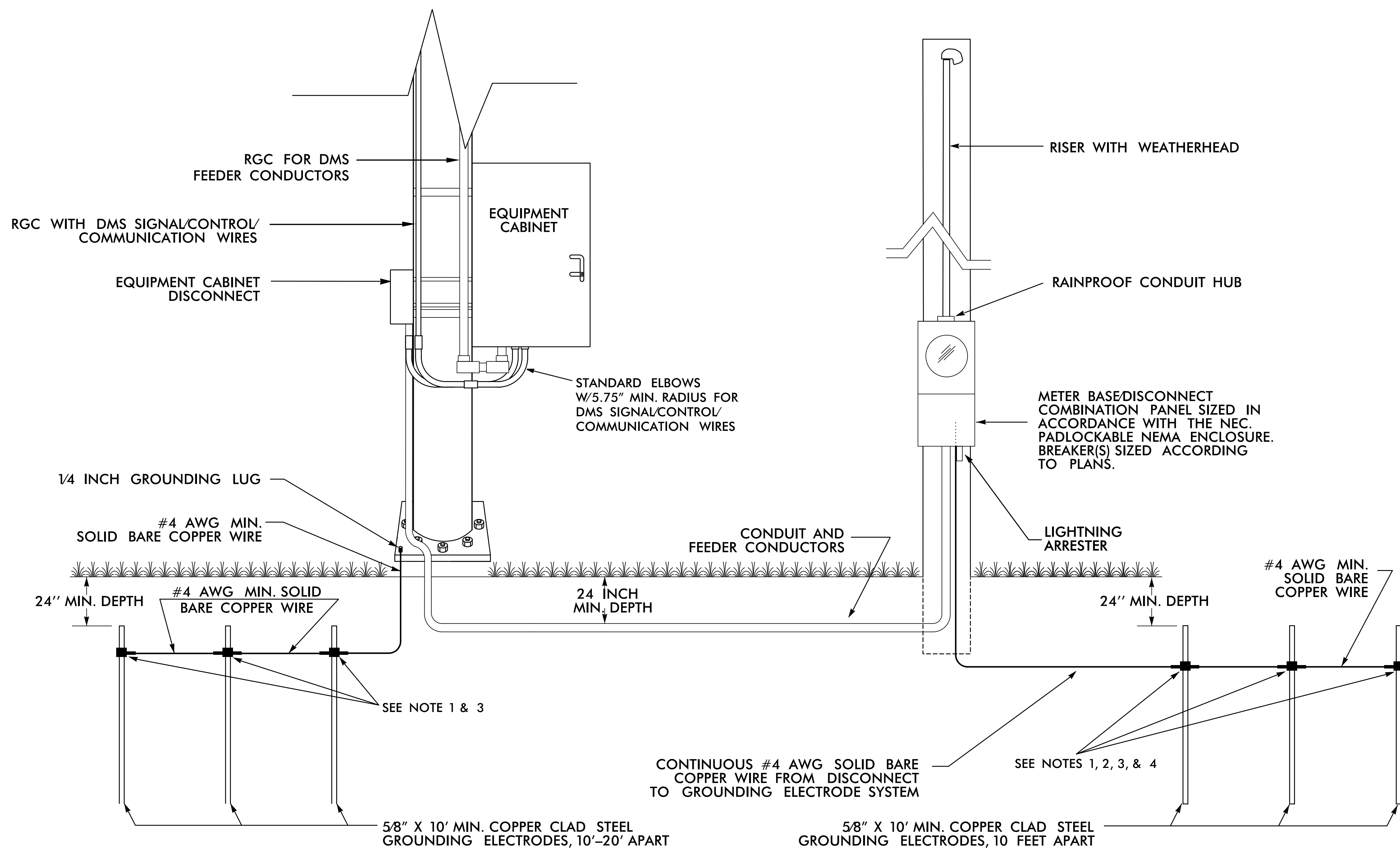
<p>Plans Prepared for: HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554</p>	CCTV CAMERA AND CABINET ON METAL POLE - OVERHEAD SERVICE		
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINKSIEK REVIEWED BY: H.L. WINSTEAD	
SCALE NONE	REVISIONS _____	INIT. DATE	CADD File name: R2248EA ITS-50.dgn



- NOTES**
1. BOND 0.5 INCH DIAMETER, 28 STRAND (MINIMUM) CLASS II COPPER CONDUCTOR TO THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD.
 2. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
 3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD.
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 7. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.



	CCTV CAMERA AND CABINET ON METAL POLE - UNDERGROUND SERVICE	
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 PREPARED BY: T. R. TERRELL	REVIEWED BY: A. D. KLINKSIEK REVIEWED BY: H. L. WINSTEAD
SCALE: NONE	REVISIONS:	INIT. DATE
DocuSigned by: <i>H. L. Winstead, Jr.</i> 02-04-2015 F4291702C5D7429 SIGNATURE DATE CADD File name: R2248EA ITS-51.dgn		



NOTES

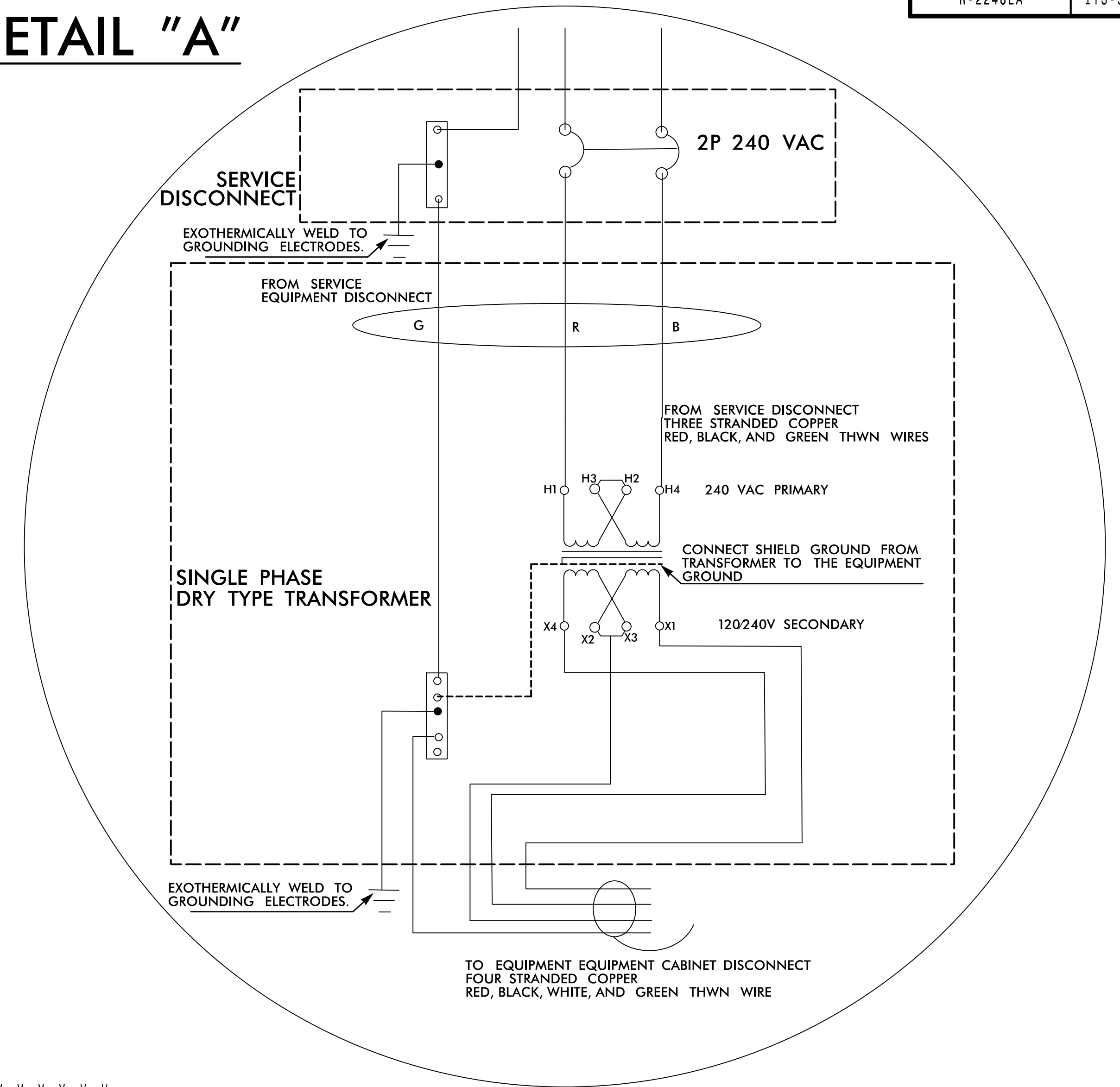
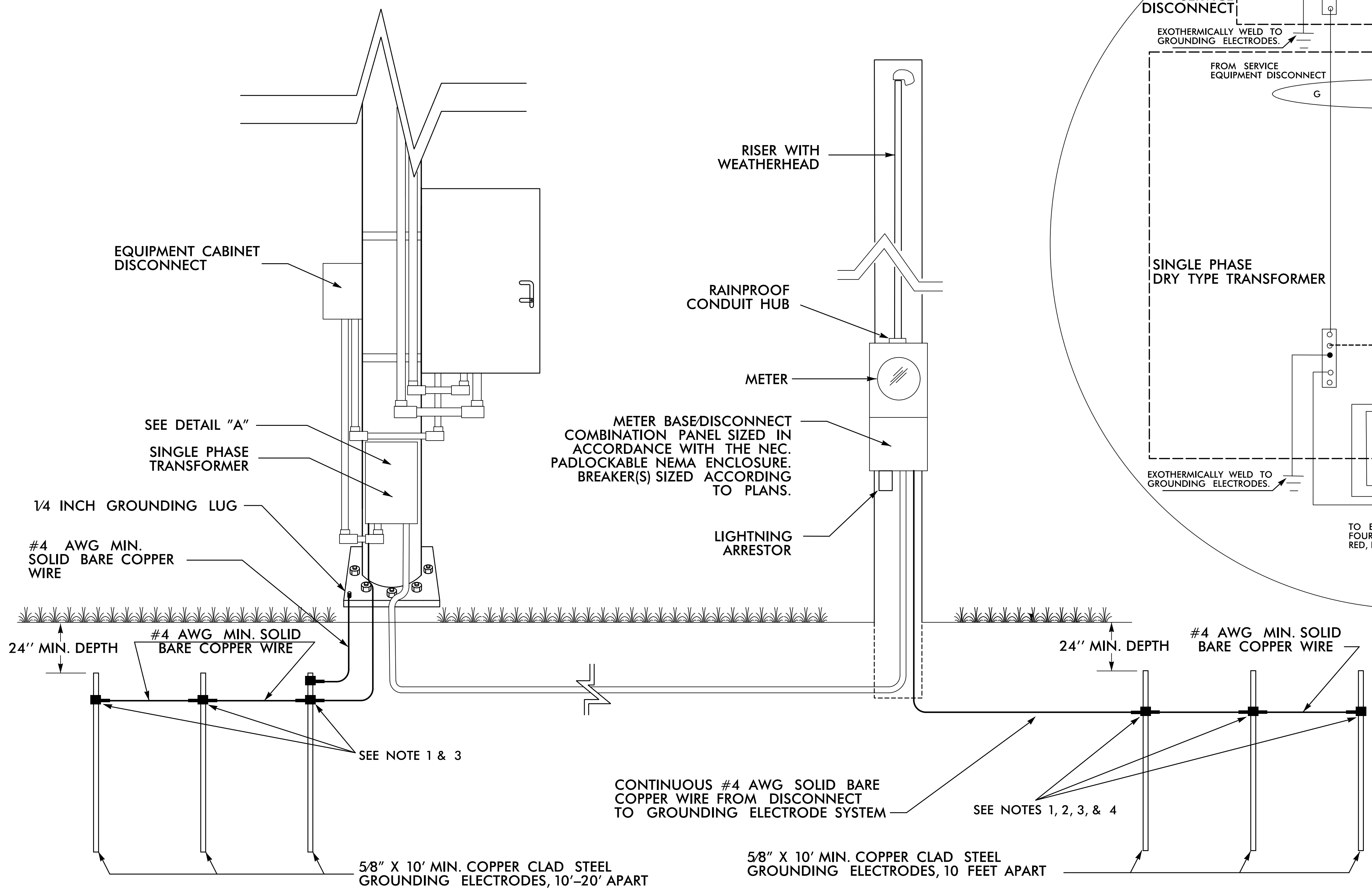
1. INSTALL A MINIMUM OF 3 GROUND RODS SPACED A MINIMUM OF 10 FEET APART. ENSURE THAT EXISTING UNDERGROUND FACILITIES ARE NOT DAMAGED DURING INSTALLATION.
2. TEST GROUNDING SYSTEM USING AN APPROVED METHOD. SYSTEM SHALL MEASURE TWENTY (20) OHMS OR LESS. ADDITIONAL GROUND RODS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER TO MEET THIS REQUIREMENT.
3. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
4. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.

5. REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
6. BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO EQUIPMENT GROUND.
7. INSTALL CONDUIT BETWEEN DISCONNECT, TRANSFORMER, AND CABINET.
8. ENSURE EQUIPMENT GROUND IS ELECTRICALLY BONDED TO EQUIPMENT CABINET.

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 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

	Plans Prepared for: DYNAMIC MESSAGE SIGN 1 NEW ELECTRICAL SERVICE AND GROUNDING DETAIL	
	DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD	
SCALE NONE	REVISIONS _____ _____ _____	INIT. DATE _____ _____ _____
DocuSigned by: H.L. Winstead, Jr. 02-04-2015 _____ SIGNATURE DATE CADD File name: R2248EA ITS-52.dgn		

DETAIL "A"



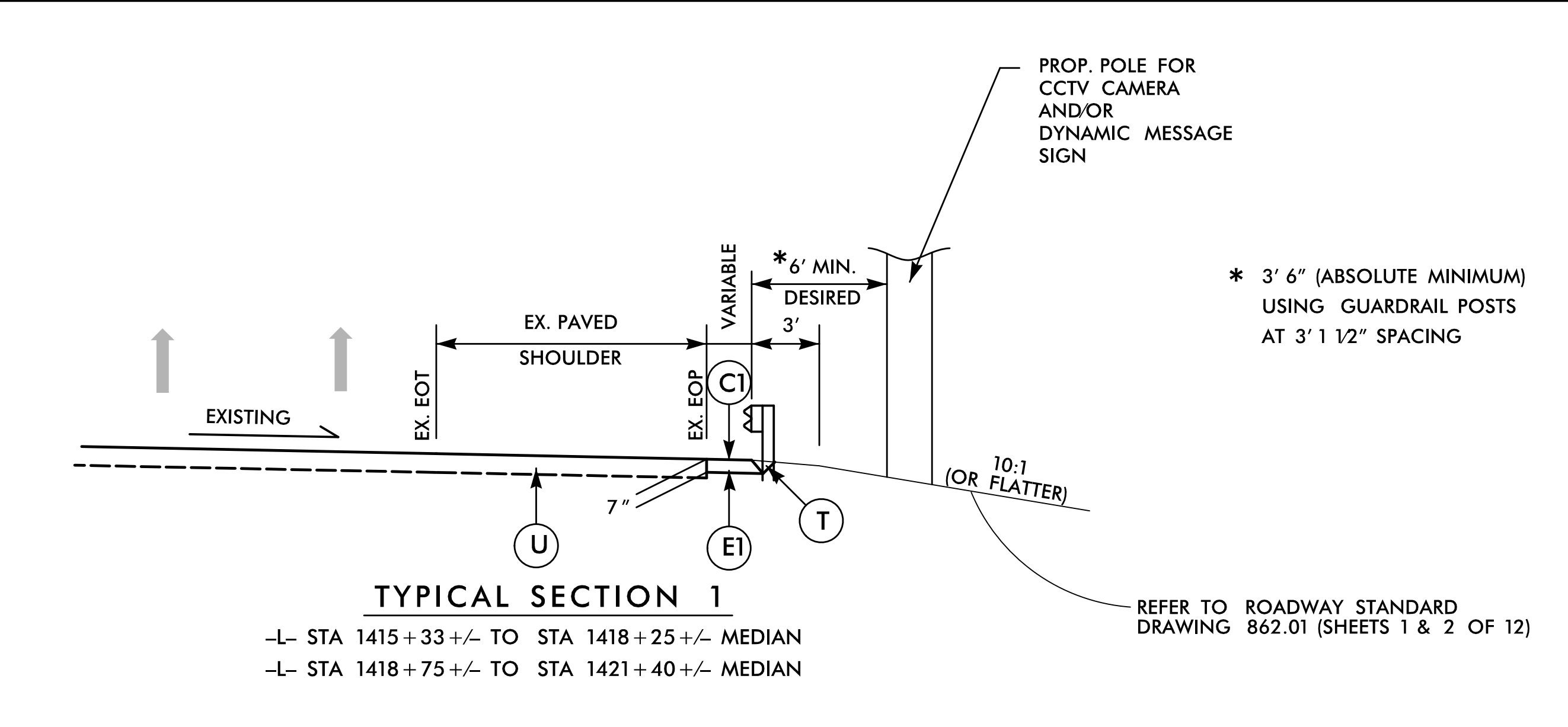
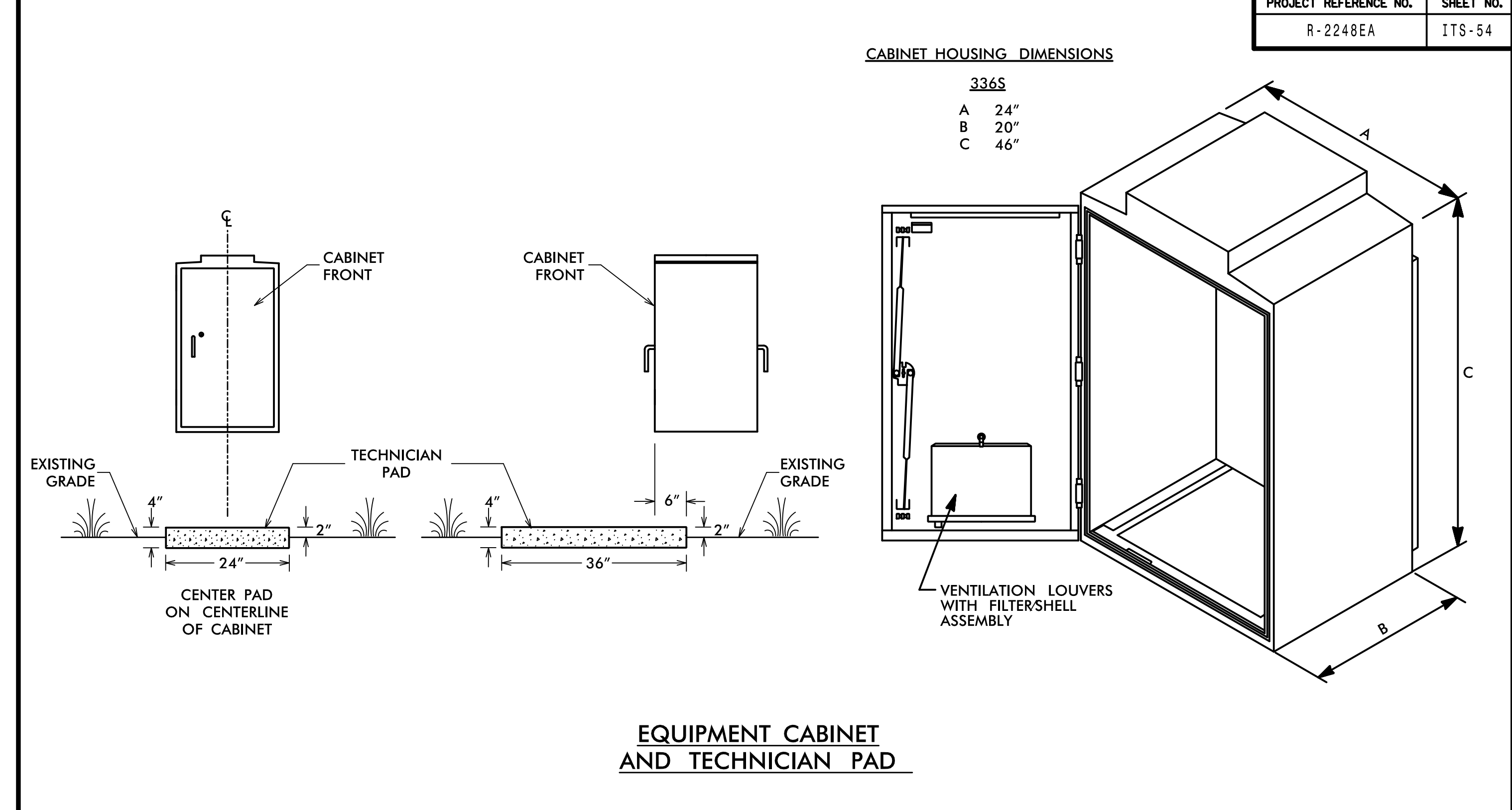
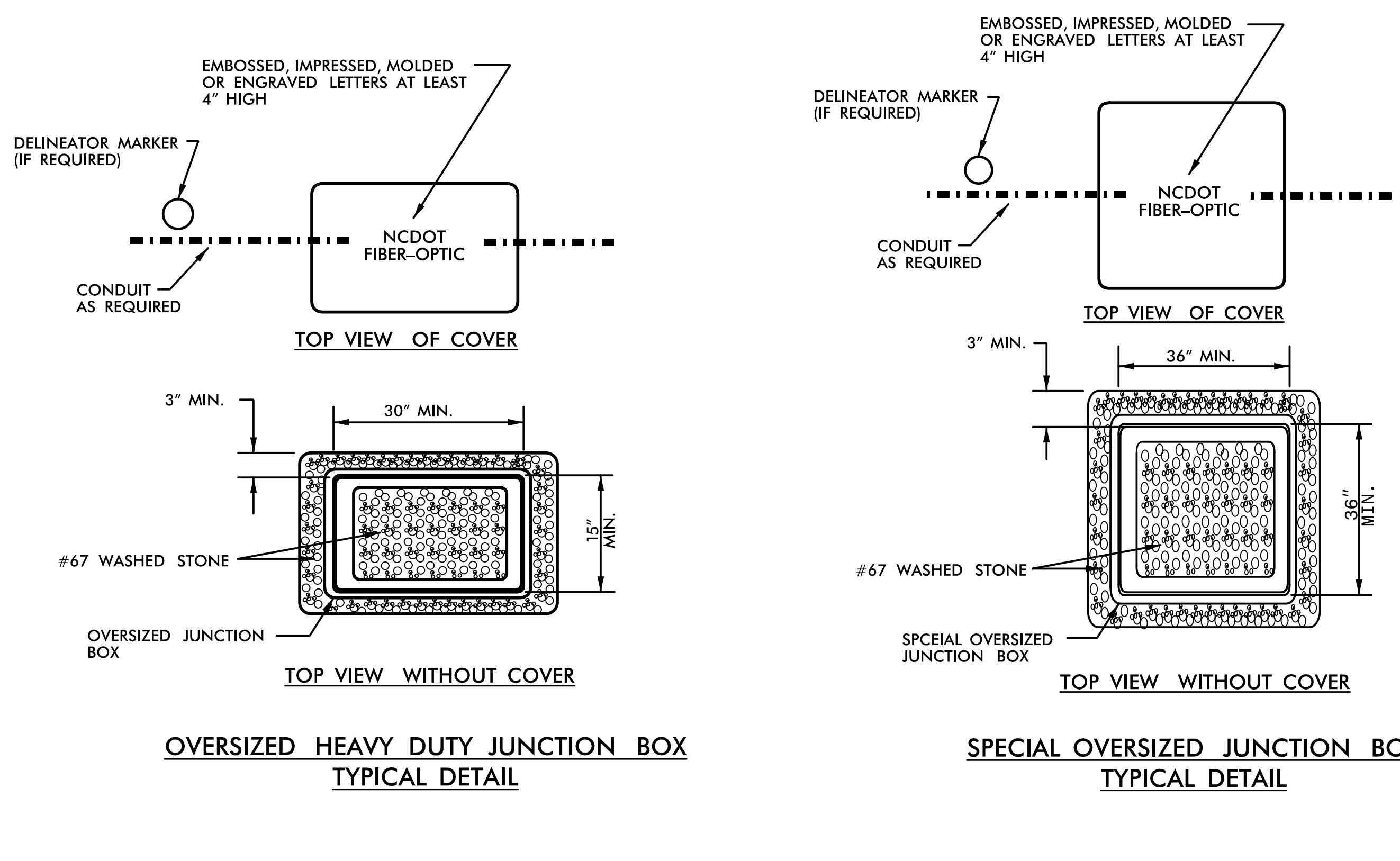
NOTES

- INSTALL A MINIMUM OF 3 GROUND RODS SPACED A MINIMUM OF 10 FEET APART. ENSURE THAT EXISTING UNDERGROUND FACILITIES ARE NOT DAMAGED DURING INSTALLATION.
- TEST GROUNDING SYSTEM USING AN APPROVED METHOD. SYSTEM SHALL MEASURE TWENTY (20) OHMS OR LESS. ADDITIONAL GROUND RODS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER TO MEET THIS REQUIREMENT.
- EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
- INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.
- REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
- BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO EQUIPMENT GROUND.
- INSTALL CONDUIT BETWEEN DISCONNECT, TRANSFORMER, AND CABINET.
- ENSURE EQUIPMENT GROUND IS ELECTRICALLY BONDED TO EQUIPMENT CABINET.
- CONNECTIONS TO ISOLATION TRANSFORMER AS SHOWN IN DETAIL "A" ARE GENERIC.

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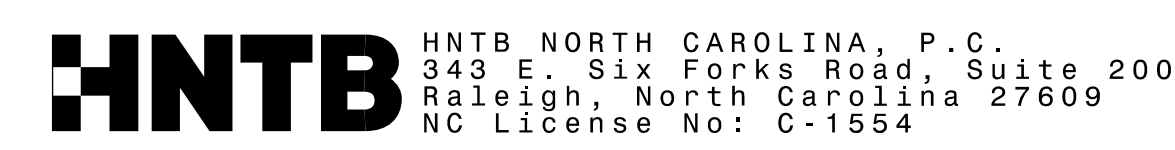
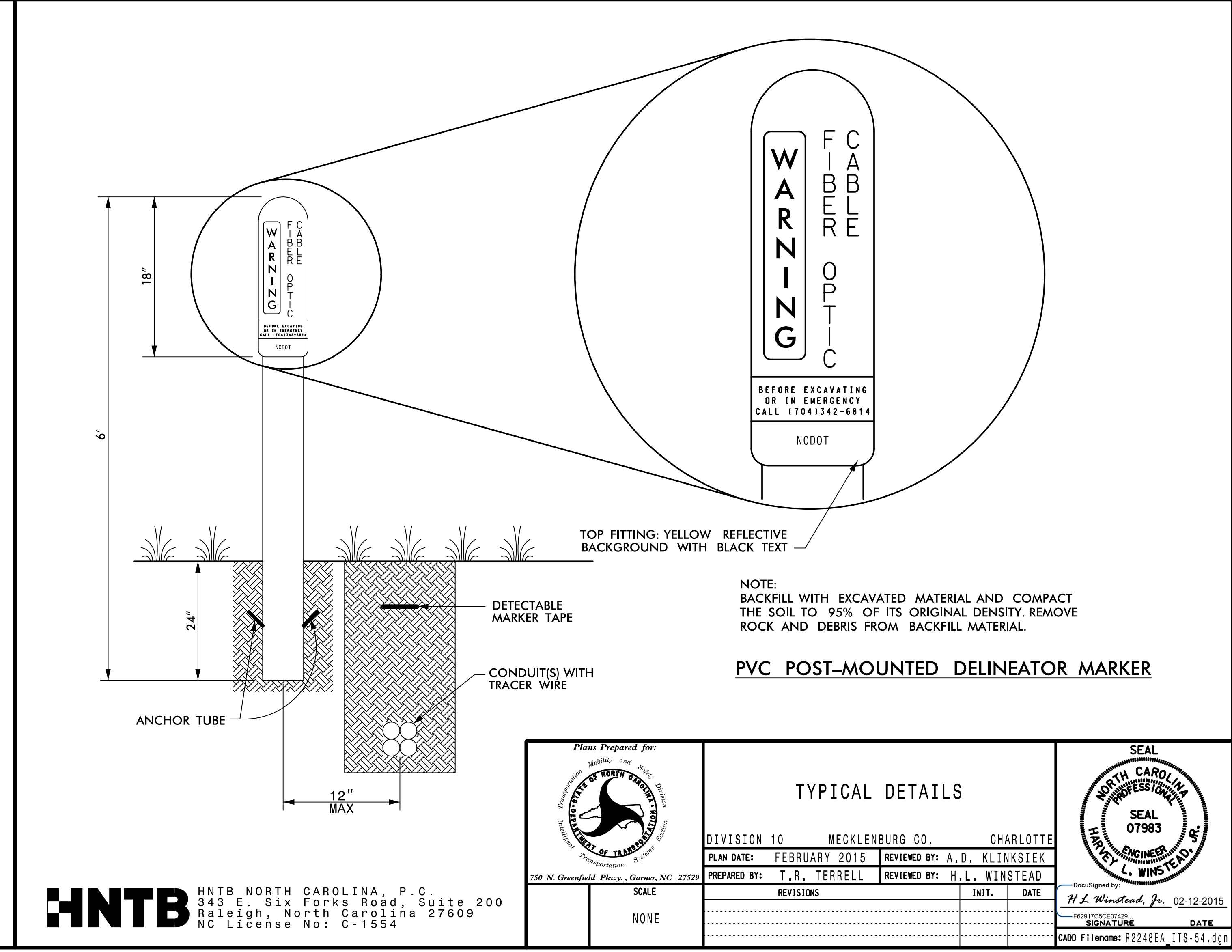
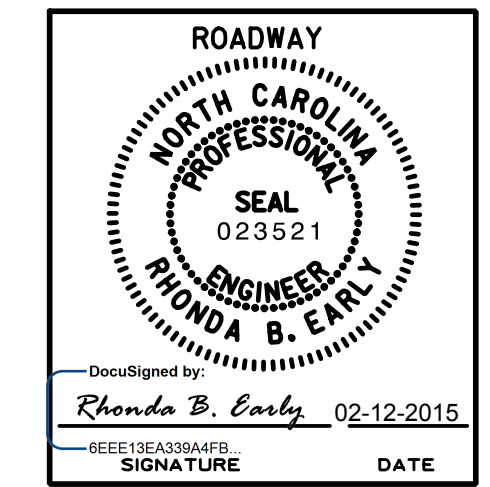
	DYNAMIC MESSAGE SIGN 2 NEW ELECTRICAL SERVICE AND ISOLATION TRANSFORMER DIVISION 10 MECKLENBURG CO., CHARLOTTE		
	PLAN DATE: FEBRUARY 2015 PREPARED BY: T.R. TERRELL	REVIEWED BY: A.D. KLINKSIEK REVIEWED BY: H.L. WINSTEAD	

DocuSigned by: H.L. Winstead, Jr. 02-04-2015
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PAVEMENT SCHEDULE	
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



TYPICAL DETAILS		SEAL
DIVISION 10 MECKLENBURG CO., CHARLOTTE PLAN DATE: FEBRUARY 2015 REVIEWED BY: A.D. KLINSIEK PREPARED BY: T.R. TERRELL REVIEWED BY: H.L. WINSTEAD		
SCALE: NONE	REVISIONS: INIT. DATE	
Plans Prepared for:		DocuSigned by: <i>H.L. Winstead, Jr.</i> 02-12-2015 SIGNATURE DATE CADD File Name: R2248EA ITS-54.dgn