

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

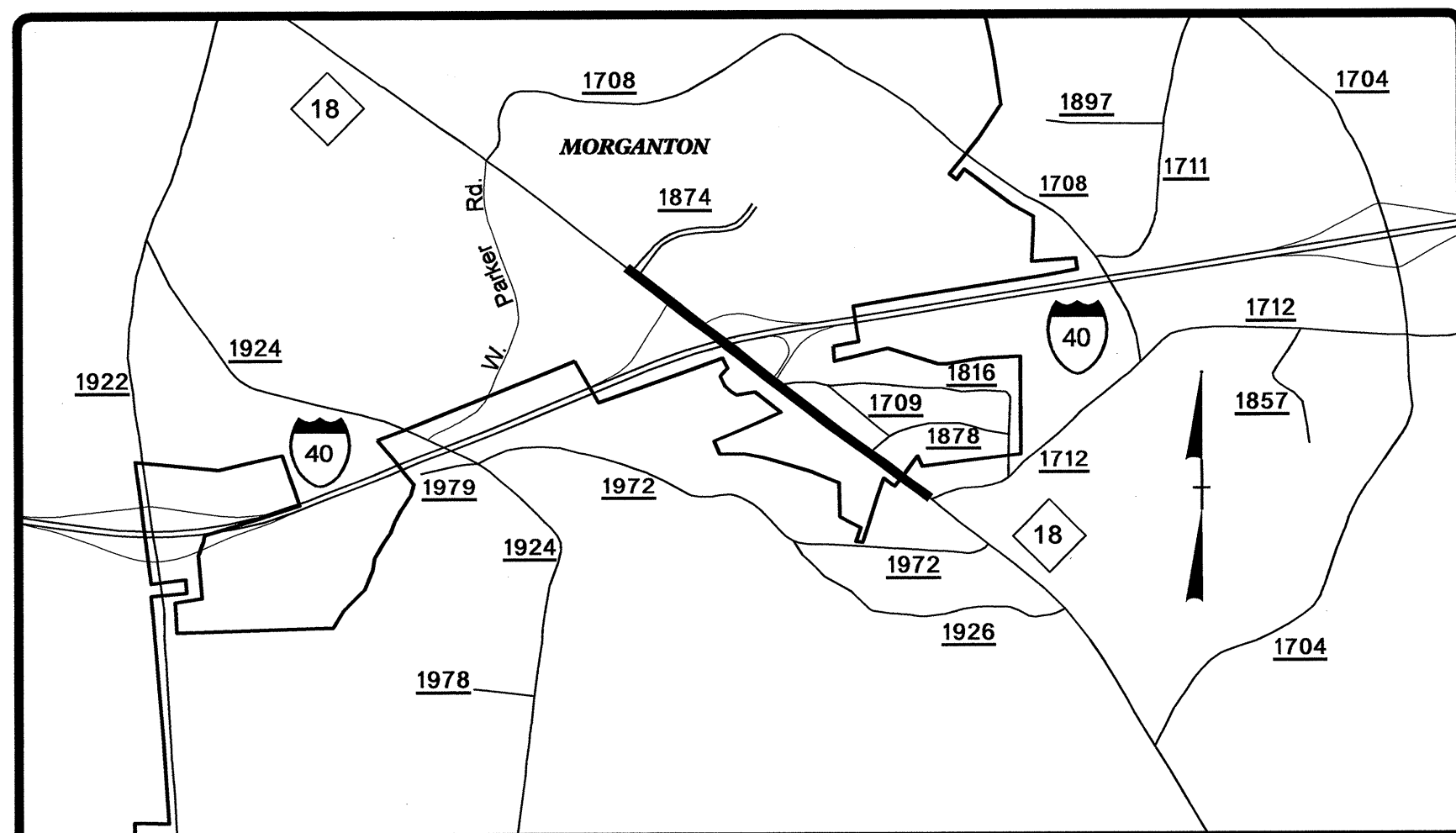
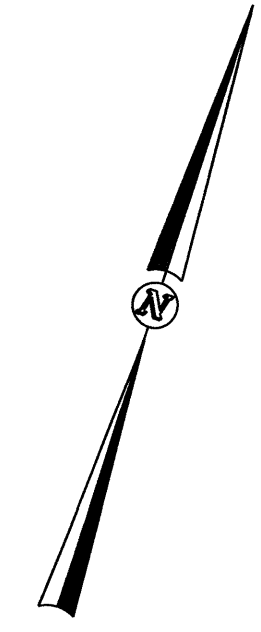
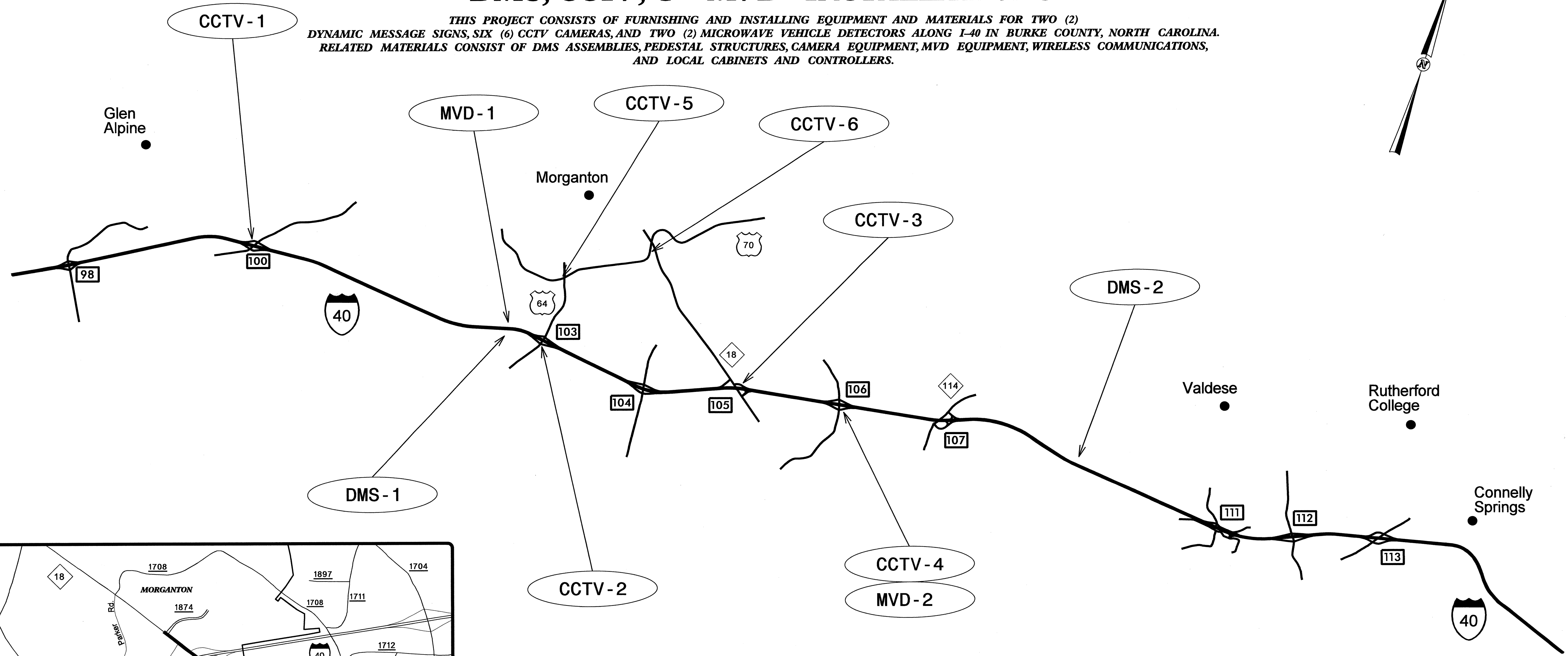
BURKE COUNTY

**PLANS FOR PROPOSED
DMS, CCTV, & MVD INSTALLATIONS**

THIS PROJECT CONSISTS OF FURNISHING AND INSTALLING EQUIPMENT AND MATERIALS FOR TWO (2) DYNAMIC MESSAGE SIGNS, SIX (6) CCTV CAMERAS, AND TWO (2) MICROWAVE VEHICLE DETECTORS ALONG I-40 IN BURKE COUNTY, NORTH CAROLINA. RELATED MATERIALS CONSIST OF DMS ASSEMBLIES, PEDESTAL STRUCTURES, CAMERA EQUIPMENT, MVD EQUIPMENT, WIRELESS COMMUNICATIONS, AND LOCAL CABINETS AND CONTROLLERS.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	U-2550B	ITS-1
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34831.1.1		P.E. CONST.

PROJECT: U-2550B



VICINITY MAP

2006 STANDARD SPECIFICATION

NCDOT CONTACT:
TRANSPORTATION MOBILITY AND SAFETY

G. A. FULLER, P.E.
STATE ITS & SIGNALS ENGINEER



ENGLISH

ALL DIMENSIONS IN THESE PLANS ARE IN FEET UNLESS OTHERWISE NOTED

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
023919
ENGINEER
GREGORY A. FULLER

Gregory A. Fuller
SIGNATURE
3-10-11
DATE

INDEX OF SHEETS


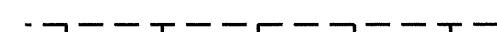








- SHEET 1 TITLE SHEET
- SHEET 2 INDEX OF SHEETS, ROADWAY STANDARD DRAWINGS, AND LEGEND
- SHEET 2A SYSTEM BLOCK DIAGRAM
- SHEET 3-12 PLAN SHEETS
- SHEET 13-14 TYPICAL DETAILS

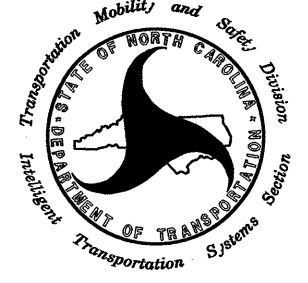

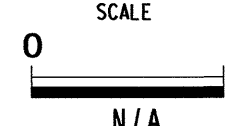
ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS". ROADWAY DESIGN UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1715.01	UNDERGROUND CONDUIT
1720.01	WOOD POLES

LEGEND

	NEW CONDUIT
	EXISTING GUARDRAIL
	EXISTING PORTABLE CONCRETE BARRIER
	NEW ELECTRICAL SERVICE
	EXISTING ELECTRICAL SERVICE (6" X 6" PEDESTAL)
	EXISTING WOOD POLE
	NEW SHOULDER MOUNT DMS PEDESTAL STRUCTURE
	NEW CCTV CAMERA ASSEMBLY
	NEW MVD ASSEMBLY
	NEW BROADBAND RADIO

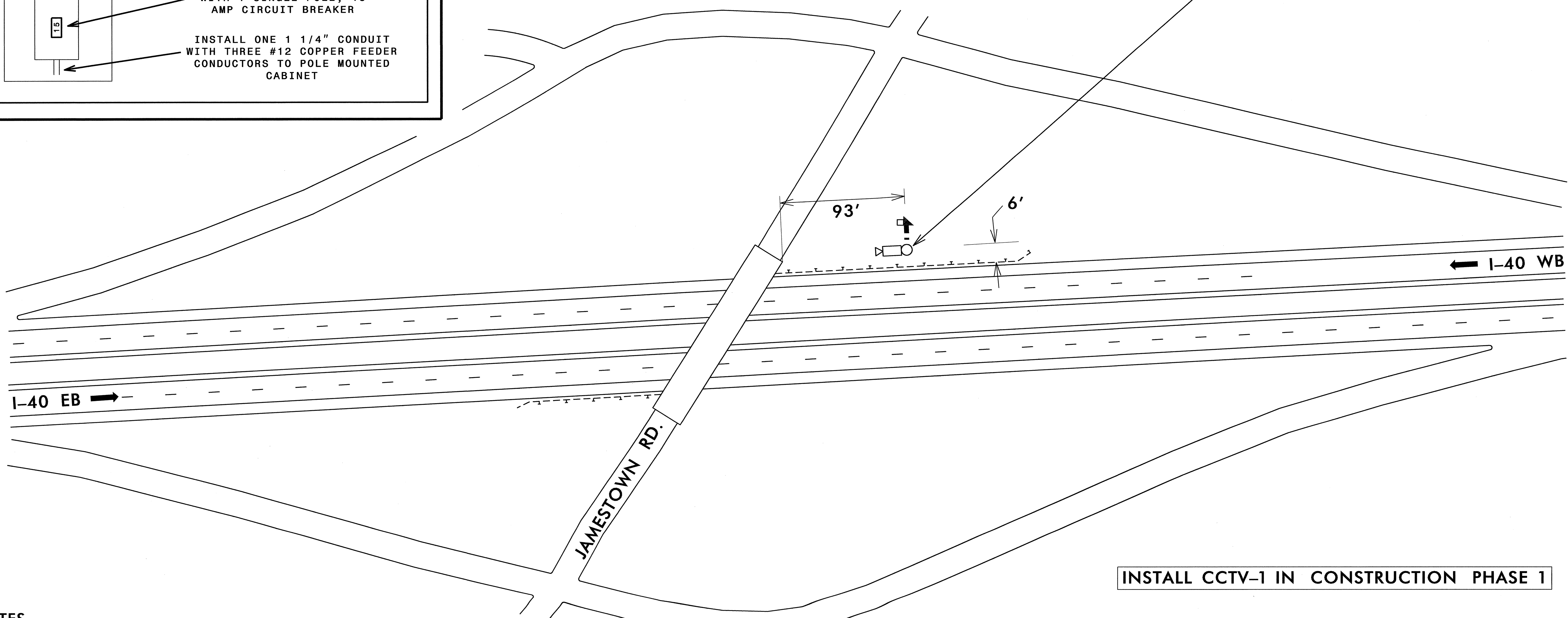
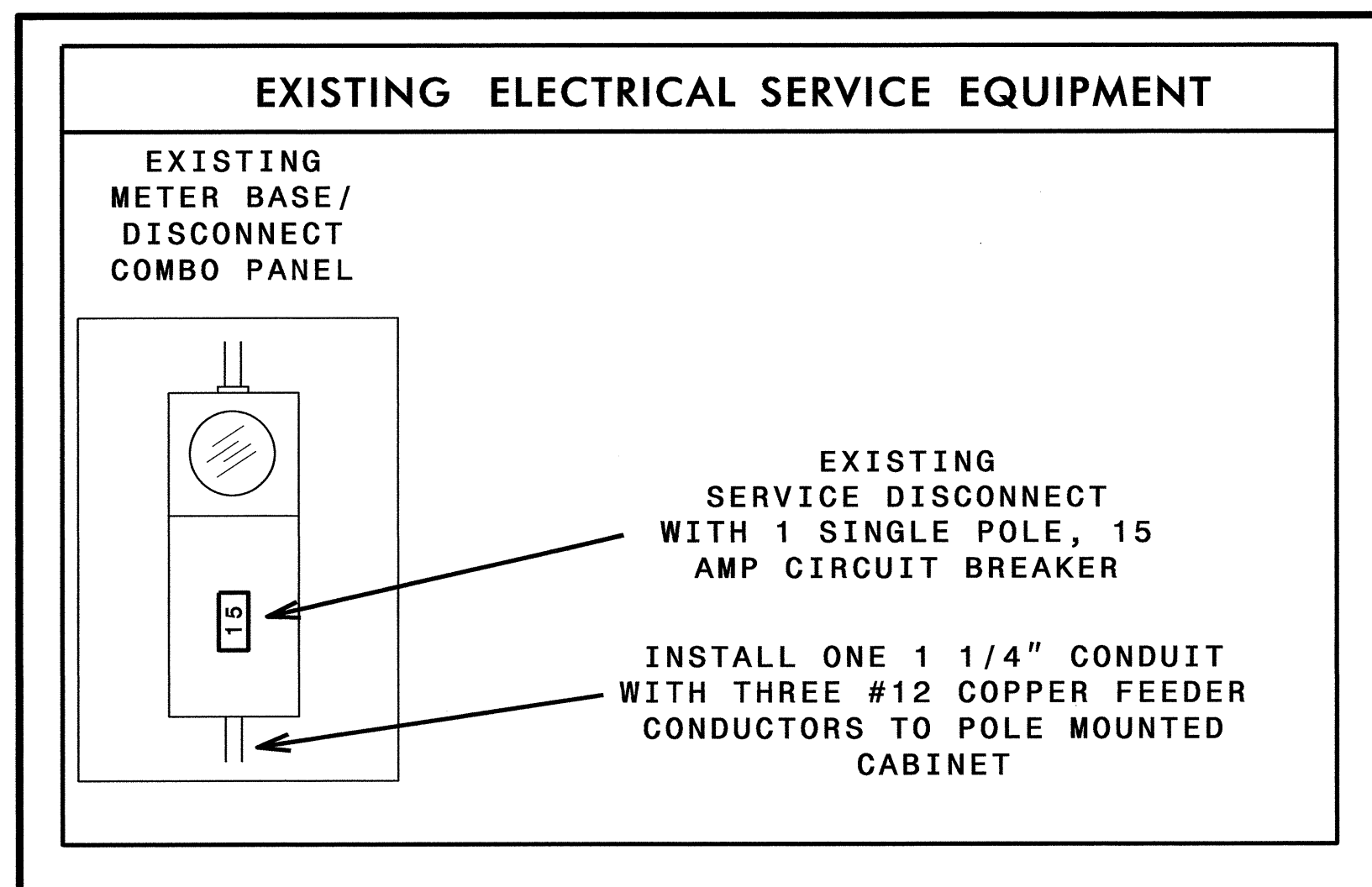
 <small>Prepared in the Offices of: Transportation Mobility and Safety Division STATE OF NORTH CAROLINA Department of Transportation</small> <small>750 N. Greenfield Pkwy., Garner, NC 27529</small>	INDEX OF SHEETS, ROADWAY STANDARD DRAWINGS, AND LEGEND		 <small>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER GREGORY A. FULLER</small>
	<small>DIVISION 13 BURKE CO.</small>		
<small>PLAN DATE: MARCH 2011</small>	<small>REVIEWED BY: M.A. ASLAMI, PE</small>		<small>3-10-11</small> <small>DATE</small>
<small>PREPARED BY: GREEN</small>	<small>REVIEWED BY: T.G. PARKER</small>		
<small>SCALE</small>  <small>N/A</small>	<small>REVISIONS</small>	<small>INIT.</small>	<small>DATE</small>
<small>CADD File Name: _____</small>			

CCTV-1 GPS COORDINATES

N 35° 43.093
W 81° 45.117

INSTALL THE FOLLOWING

QUANTITY	DESCRIPTION
1	CCTV CAMERA ASSEMBLY
1	CLASS 3, 60' WOOD POLE
1	FIELD EQUIPMENT CABINET
1	VIDEO ENCODER
1	INDUSTRIAL ETHERNET SWITCH
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	3-WIRE COPPER FEEDER CONDUCTORS
4	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR



NOTES

1. MOUNT CAMERA 45' ABOVE GRADE.
2. INSTALL NEW FIELD EQUIPMENT CABINET ON NEW CCTV POLE.
3. INSTALL NEW GROUNDING SYSTEM AS SHOWN ON SHEET ITS-14 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.
4. ROADWAY PAY ITEM - REMOVE EXISTING GUARDRAIL ANCHOR UNIT AND EXTEND GUARDRAIL TO PROVIDE A MINIMUM OF 170' OF GUARDRAIL (INCLUDING GRAU 350) BEFORE THE CLASS 3, 60' POLE. GUARDRAIL WORK TO BE COMPLETED PRIOR TO INSTALLING WOOD POLE.
5. COMMUNICATION TO CCTV-1 BY OTHERS.

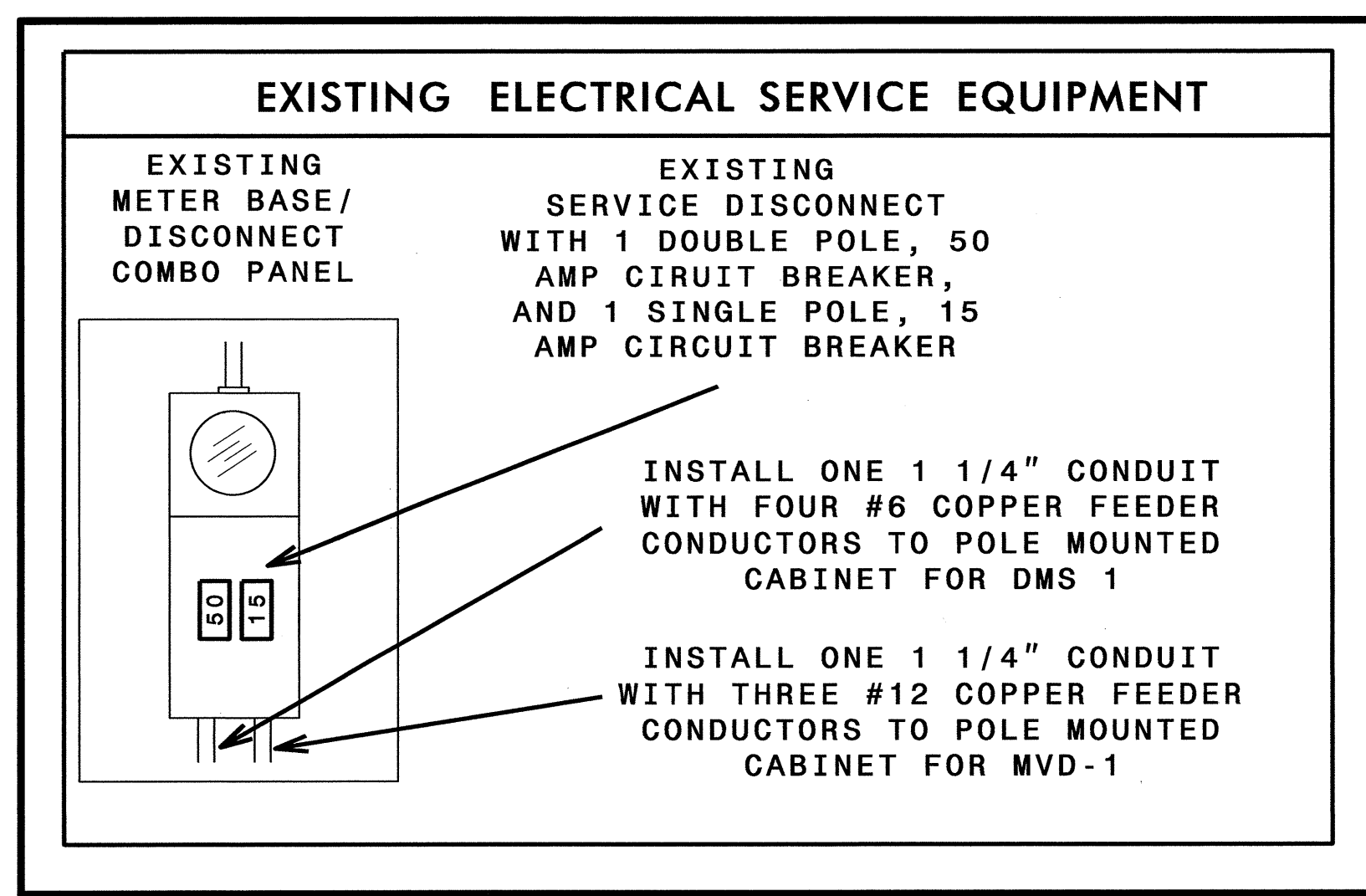
EXIT 100

	<p>DMS, CCTV, AND MVD INSTALLATIONS</p>								
	<p>DIVISION 13 BURKE CO. MORGANTON</p> <p>PLAN DATE: MARCH 2011 REVIEWED BY: M.A. ASLAMI, PE</p> <p>PREPARED BY: GREEN REVIEWED BY: T.G. PARKER</p>	<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DATE	INIT.	DATE			
NO.	DATE	INIT.	DATE						
<p>750 N. Greenfield Pkwy., Garner, NC 27529</p> <p>SCALE: 0 N/A</p>	<p>SEAL</p> <p>REGISTRY A. FULLER</p> <p>3-10-11</p> <p>CADD Filename:</p>	<p>DATE</p>							

DMS-1 GPS COORDINATES MVD-1 GPS COORDINATES

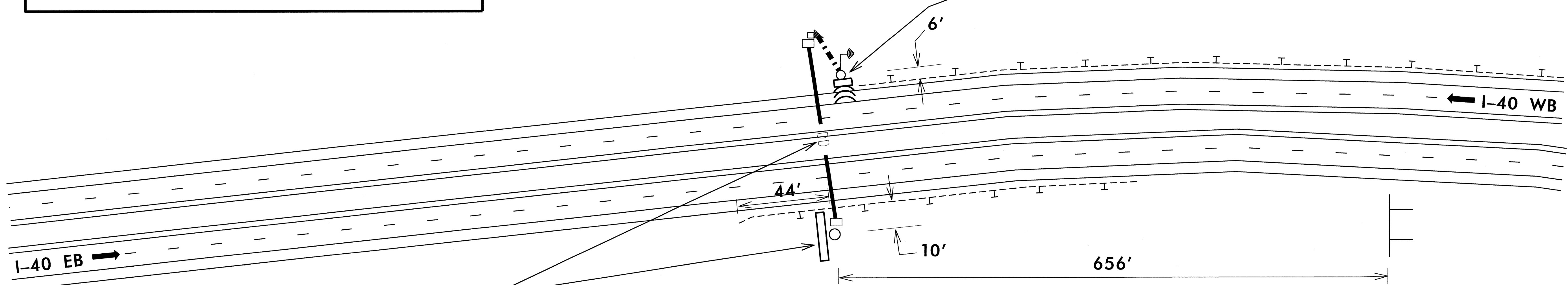
N 35° 43.143
W 81° 42.036

N 35° 43.166
W 81° 42.042



INSTALL THE FOLLOWING


QUANTITY	DESCRIPTION
1	MVD ASSEMBLY
1	CLASS 4, 40' WOOD POLE
1	FIELD EQUIPMENT CABINET
1	BROADBAND RADIO ASSEMBLY
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	3-WIRE COPPER FEEDER CONDUCTORS



INSTALL THE FOLLOWING

QUANTITY	DESCRIPTION
1	DMS
1	EQUIPMENT CABINET DISCONNECT
150'	DIRECTIONAL DRILL (2)(1 1/4")
2	STANDARD SIZE JUNCTION BOX
160'	4-WIRE COPPER FEEDER CONDUCTORS
1	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
10'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR

EXIT 103



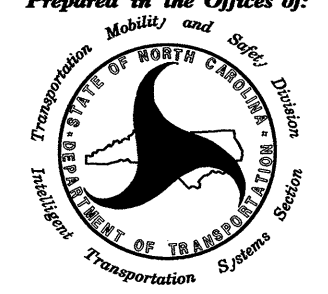

**MORGANTON
RUTHERFORDTON**

INSTALL DMS-1 AND MVD-1 IN CONSTRUCTION PHASE 1

NOTES

1. INSTALL NEW DMS ON NEW DMS STRUCTURE.
2. INSTALL NEW DMS POLE MOUNTED CABINET ON NEW DMS STRUCTURE.
3. INSTALL NEW GROUNDING SYSTEM FOR DMS AS SHOWN ON SHEETS ITS-13 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.
4. ROADWAY PAY ITEM - REMOVE EXISTING GUARDRAIL ANCHOR UNIT AND EXTEND GUARDRAIL TO PROVIDE A MINIMUM OF 247' OF GUARDRAIL (INCLUDING GRAU 350) BEFORE THE DMS METAL POLE. GUARDRAIL WORK TO BE COMPLETED PRIOR TO INSTALLING DMS STRUCTURE FOUNDATION.
5. COMMUNICATION TO DMS-1 BY OTHERS.

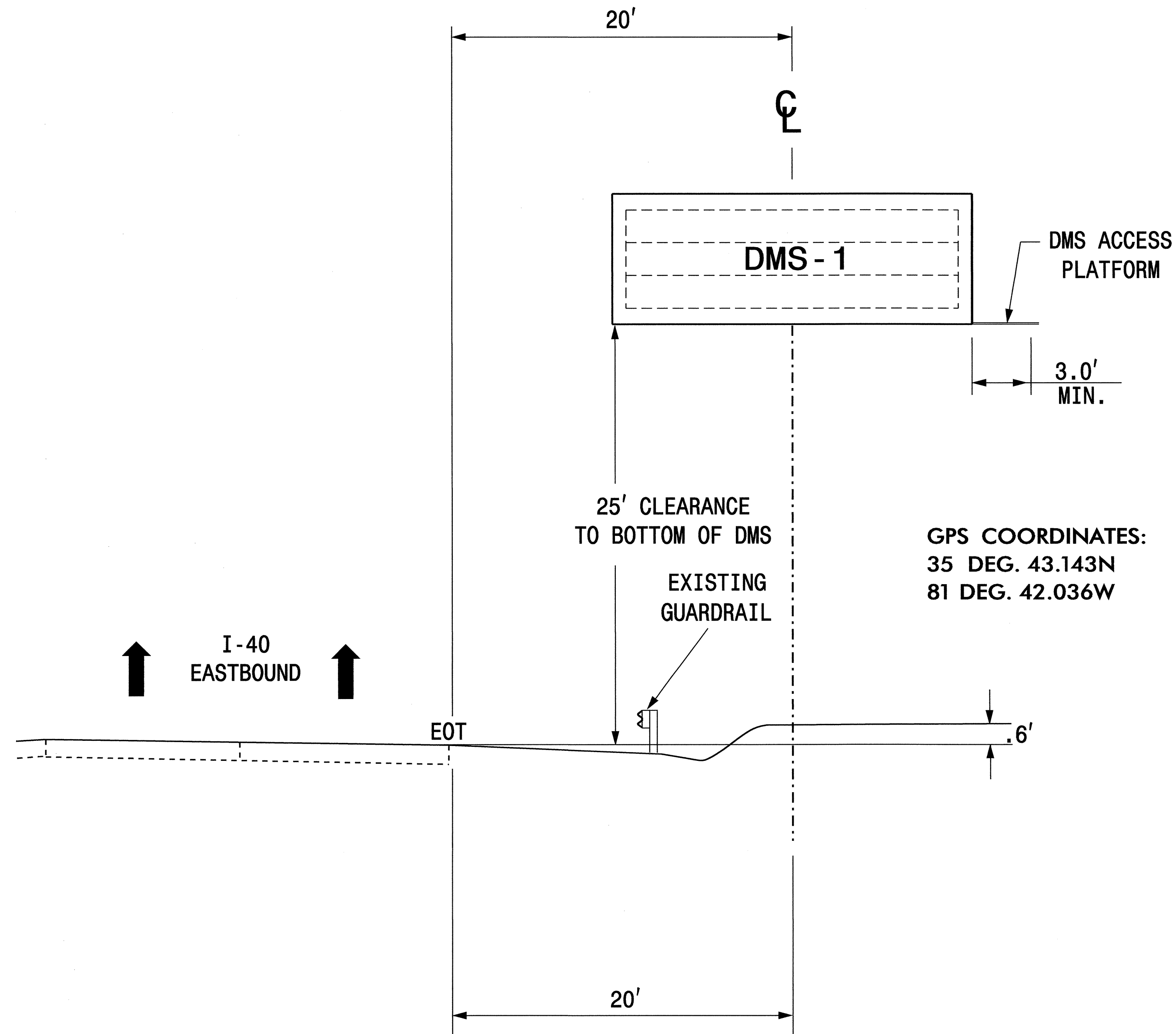
WEST OF EXIT 103

 <small>Prepared in the Offices of Professional, Mobile, and Public District Engineers of the State of North Carolina Department of Transportation System Services 750 N. Greenfield Pkwy., Garner, NC 27529</small>	<p>DMS, CCTV, AND MVD INSTALLATIONS</p>	<p>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER GREGORY A. FULLER</p>
	<p>DIVISION 13 BURKE CO. MORGANTON</p> <p>PLAN DATE: MARCH 2011 REVIEWED BY: M.A. ASLAMI, PE</p> <p>PREPARED BY: GREEN REVIEWED BY: T.G. PARKER</p>	<p>REVISIONS INIT. DATE</p>
 <p>SCALE 0 N/A</p>	<p><i>Gregory A. Fuller</i> 3-10-11 SIGNATURE DATE</p> <p><small>CADD File name:</small></p>	

ESTIMATED DIMENSION : 27' X 10'
 MAXIMUM DEADLOAD OF 5200 LBS

NOTES:

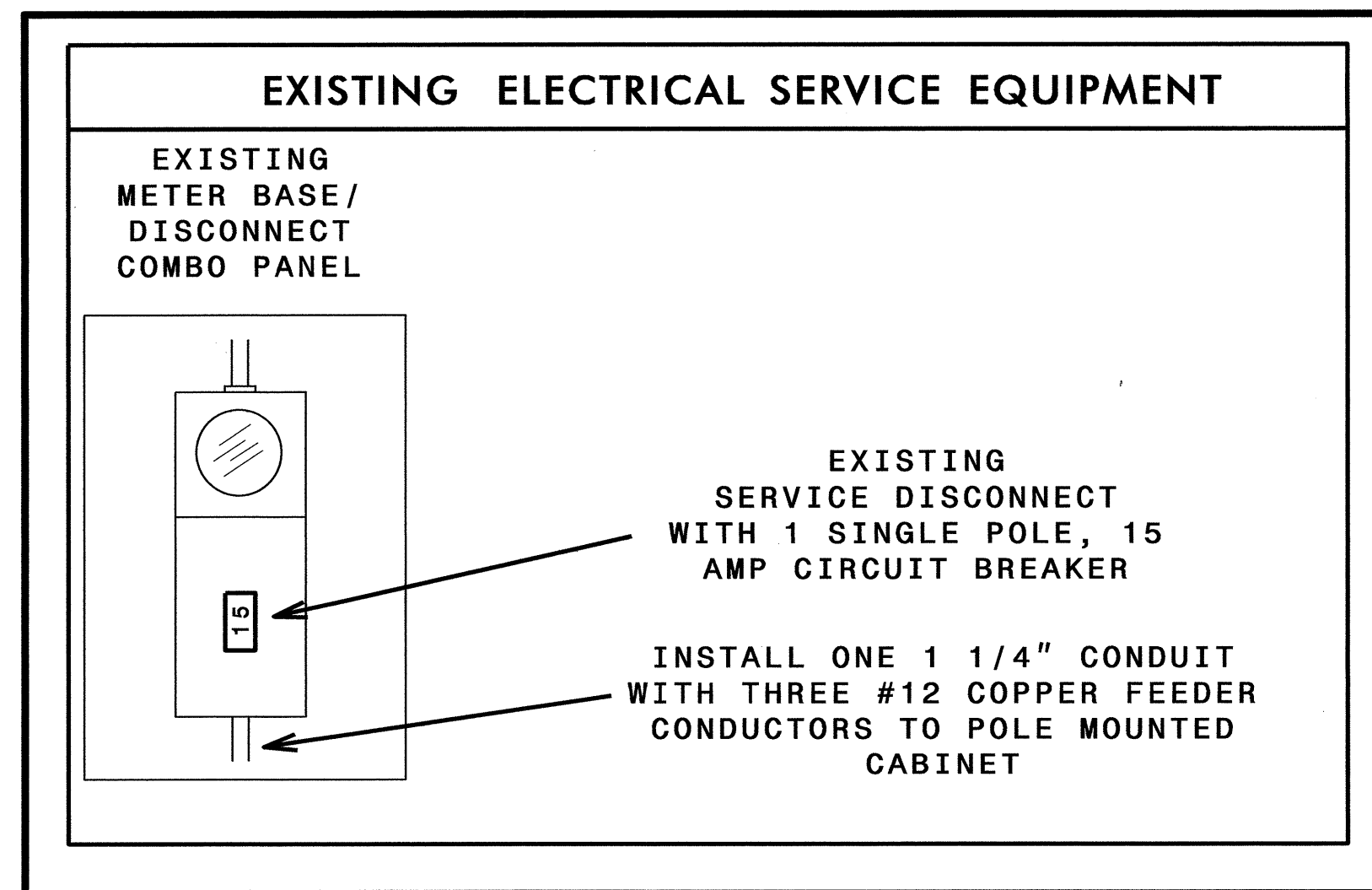
1. FURNISH AND INSTALL LADDER AND ACCESS PLATFORM ON THE DMS STRUCTURE AS INDICATED IN THE PROJECT SPECIAL PROVISIONS.
2. USE THE ACTUAL DIMENSIONS AND WEIGHT OF THE DMS PROVIDED BY THE DMS FABRICATOR TO COMPLETE THE DESIGN OF THE DMS STRUCTURE.
3. FIELD VERIFY ALL FOOTING ELEVATIONS AND GROUND SLOPES AT THE FOOTINGS USING THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
4. 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.
5. DESIGN AND CONSTRUCT THE PEDESTAL STRUCTURE AND DMS ENCLOSURE TO WITHSTAND MINIMUM WIND VELOCITIES OF 90 MPH.
6. VERIFY ALL UNDERGROUND UTILITY LOCATIONS BEFORE BEGINNING ANY UNDERGROUND WORK. DO NOT DAMAGE ANY EXISTING UTILITIES OR NCDOT COMMUNICATIONS CABLE DURING CONSTRUCTION.



	DMS, CCTV, AND MVD INSTALLATIONS		
	DIVISION 13 BURKE CO. MORGANTON		
PLAN DATE: MARCH 2011 REVIEWED BY: M.A. ASLAMI, PE		PREPARED BY: GREEN REVIEWED BY: T.G. PARKER	
SCALE: 0 N/A		REVISIONS INIT. DATE	
		Signature: <i>Gregory A. Fuller</i> 3-10-11 DATE	

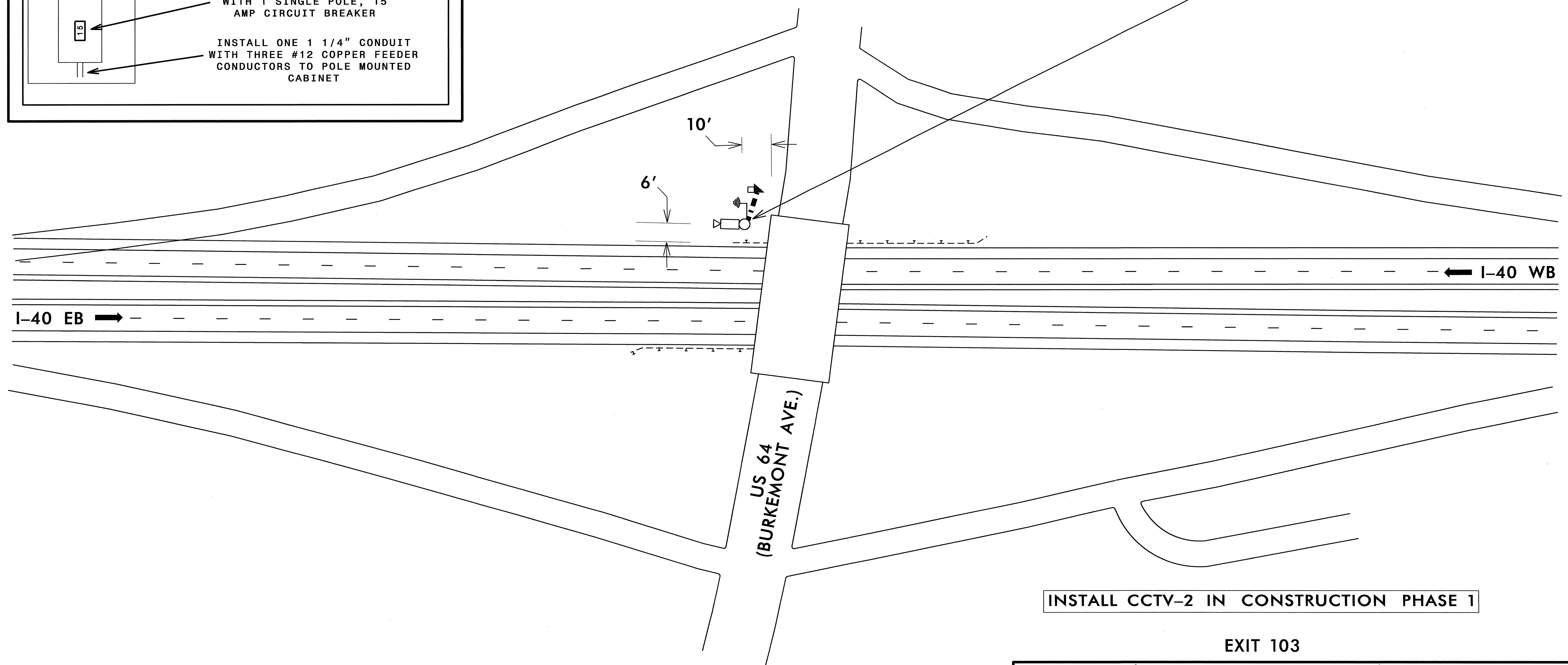
CCTV-2 GPS COORDINATES

N 35° 43.169
W 81° 41.642



INSTALL THE FOLLOWING

QUANTITY	DESCRIPTION
1	CCTV CAMERA ASSEMBLY
1	CLASS 3, 60' WOOD POLE
1	FIELD EQUIPMENT CABINET
1	VIDEO ENCODER
1	INDUSTRIAL ETHERNET SWITCH
1	BROADBAND RADIO ASSEMBLY
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	3-WIRE COPPER FEEDER CONDUCTORS
4	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR



INSTALL CCTV-2 IN CONSTRUCTION PHASE 1

EXIT 103

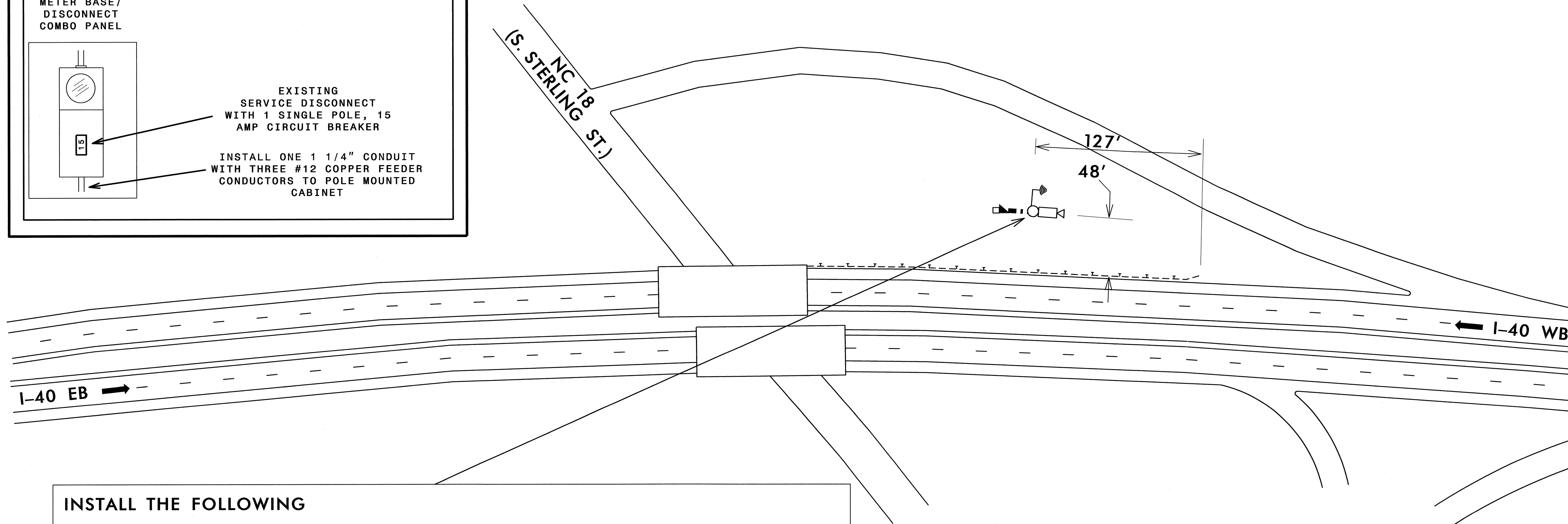
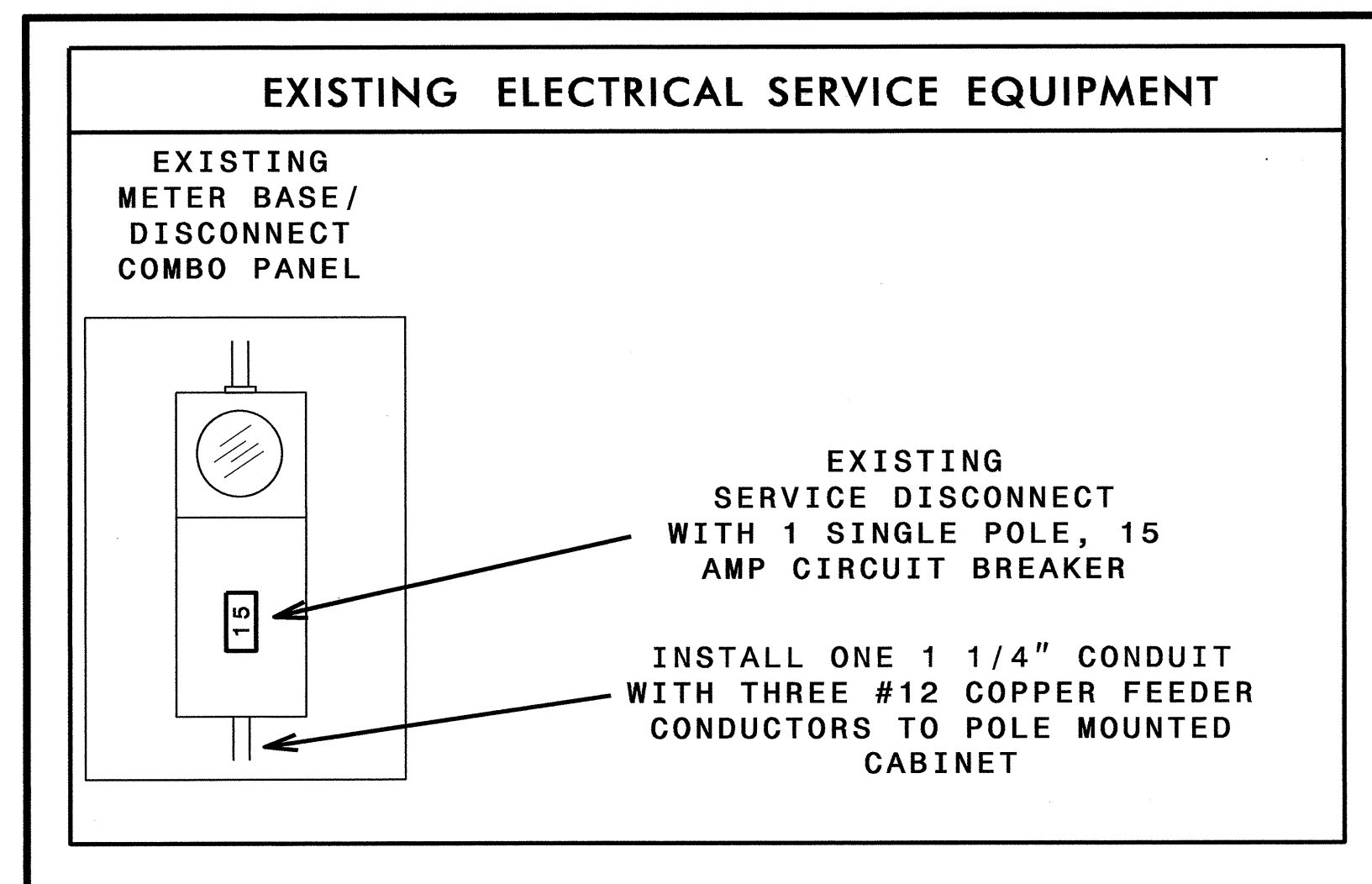
NOTES

1. MOUNT CAMERA 45' ABOVE GRADE.
2. INSTALL NEW FIELD EQUIPMENT CABINET ON NEW CCTV POLE.
3. INSTALL NEW GROUNDING SYSTEM AS SHOWN ON SHEET ITS-14 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.
4. COMMUNICATION TO CCTV-2 BY OTHERS.

	DMS, CCTV, AND MVD INSTALLATIONS	
	DIVISION 13 BURKE CO. MORGANTON	
PLAN DATE: MARCH 2011 PREPARED BY: GREEN	REVIEWED BY: M.A. ASLAMI, PE REVIEWED BY: T.G. PARKER	
REVISIONS _____ _____	INIT. _____ _____	DATE _____ _____
	SIGNATURE: <i>Gregory A. Fuller</i> DATE: 3-10-11	

CCTV-3 GPS COORDINATES

N 35° 43.365
W 81° 39.334



INSTALL THE FOLLOWING


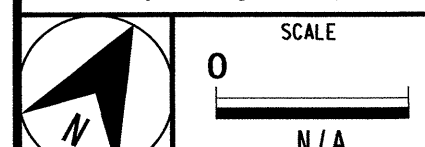
QUANTITY	DESCRIPTION
1	CCTV CAMERA ASSEMBLY
1	CLASS 3, 60' WOOD POLE
1	FIELD EQUIPMENT CABINET
1	VIDEO ENCODER
1	INDUSTRIAL ETHERNET SWITCH
1	BROADBAND RADIO ASSEMBLY
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	3-WIRE COPPER FEEDER CONDUCTORS
4	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR

INSTALL CCTV-3 IN CONSTRUCTION PHASE 5

EXIT 105

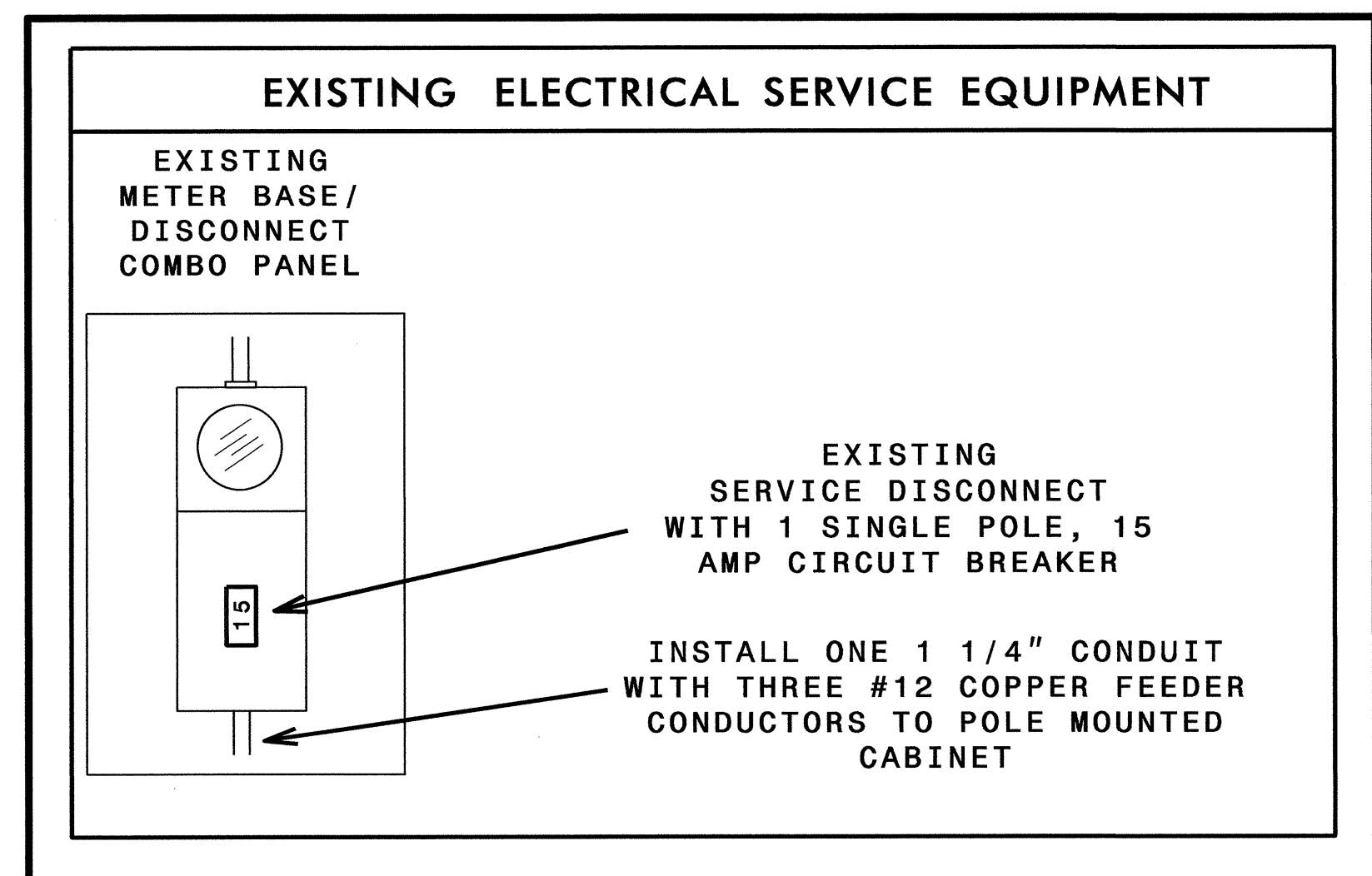
NOTES

1. MOUNT CAMERA 45' ABOVE GRADE.
2. INSTALL NEW FIELD EQUIPMENT CABINET ON NEW CCTV POLE.
3. INSTALL NEW GROUNDING SYSTEM AS SHOWN ON SHEET ITS-14 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.

	<p>DMS, CCTV, AND MVD INSTALLATIONS</p>									
	<p>DIVISION 13 BURKE CO. MORGANTON</p> <p>PLAN DATE: MARCH 2011 REVIEWED BY: M.A. ASLAMI, PE</p> <p>PREPARED BY: GREEN REVIEWED BY: T.G. PARKER</p>									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISIONS	INIT.	DATE						
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<p><i>Gregory A. Fuller</i> 3/10/11</p> <p>SEAL SIGNATURE DATE</p>										

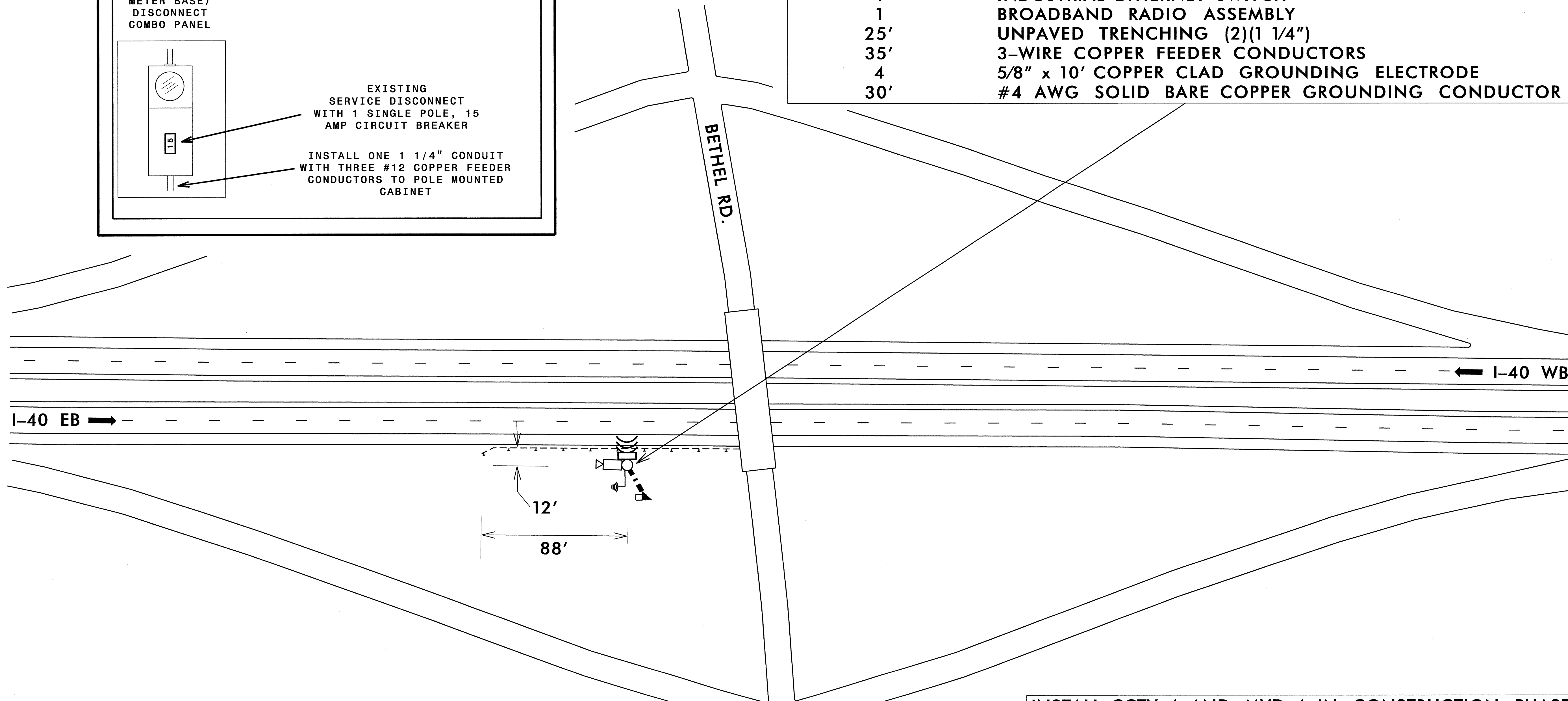
CCTV-4 & MVD-2 GPS COORDINATES

N 35° 43.511
W 81° 38.196



INSTALL THE FOLLOWING

QUANTITY	DESCRIPTION
1	CCTV CAMERA ASSEMBLY
1	CLASS 3, 60' WOOD POLE
1	MVD ASSEMBLY
1	FIELD EQUIPMENT CABINET
1	VIDEO ENCODER
1	INDUSTRIAL ETHERNET SWITCH
1	BROADBAND RADIO ASSEMBLY
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	3-WIRE COPPER FEEDER CONDUCTORS
4	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR



INSTALL CCTV-4 AND MVD-4 IN CONSTRUCTION PHASE 1

EXIT 106

NOTES

1. MOUNT CAMERA 45' ABOVE GRADE.
2. INSTALL NEW FIELD EQUIPMENT CABINET ON NEW CCTV POLE.
3. INSTALL NEW GROUNDING SYSTEM AS SHOWN ON SHEET ITS-14 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.
4. ROADWAY PAY ITEM - REMOVE EXISTING GUARDRAIL ANCHOR UNIT AND EXTEND GUARDRAIL TO PROVIDE A MINIMUM OF 258' OF GUARDRAIL (INCLUDING GRAU 350) BEFORE THE CLASS 3, 60' POLE. GUARDRAIL WORK TO BE COMPLETED PRIOR TO INSTALLING WOOD POLE.
5. COMMUNICATION TO CCTV-4 AND MVD-2 BY OTHERS.

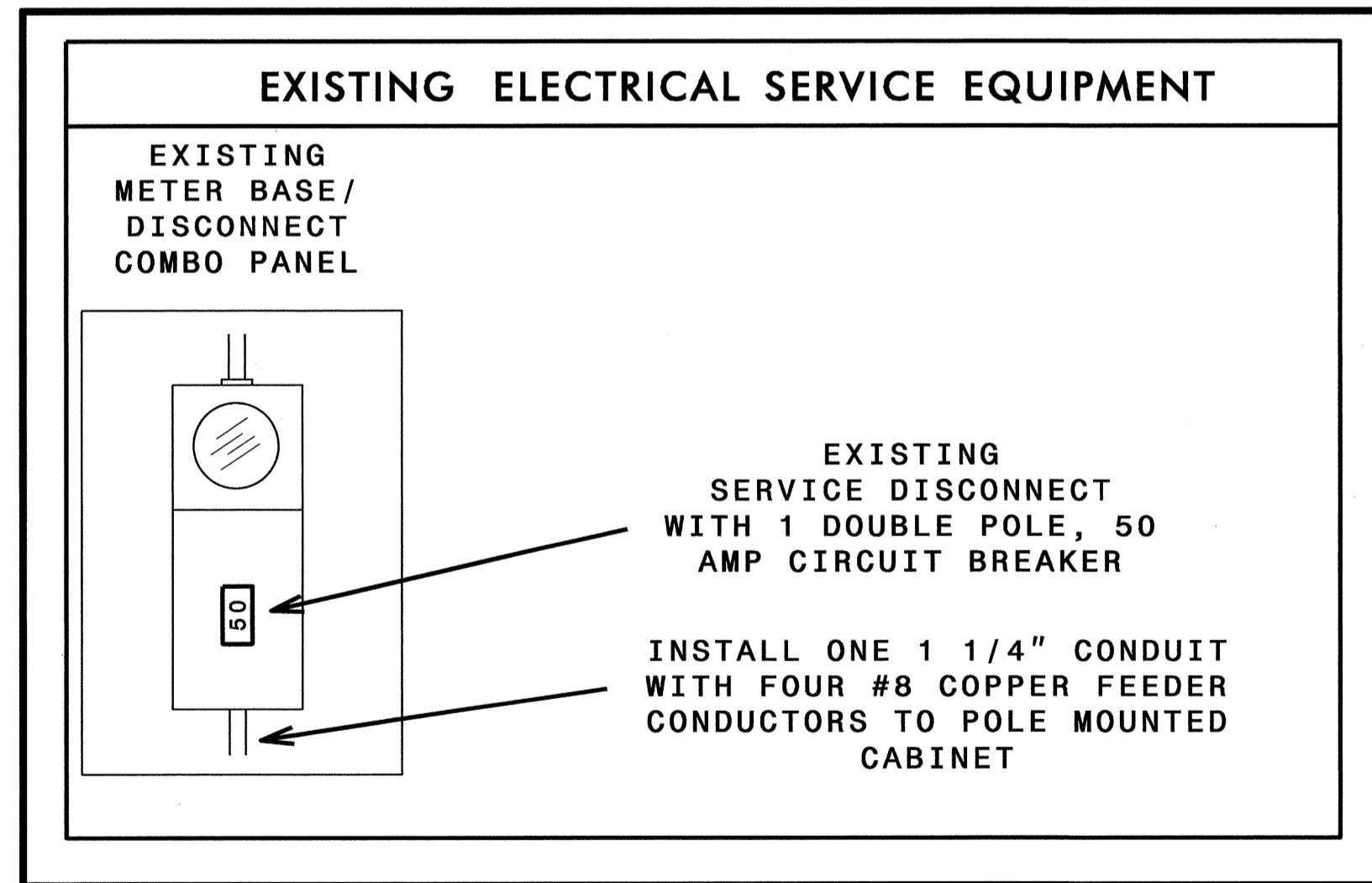
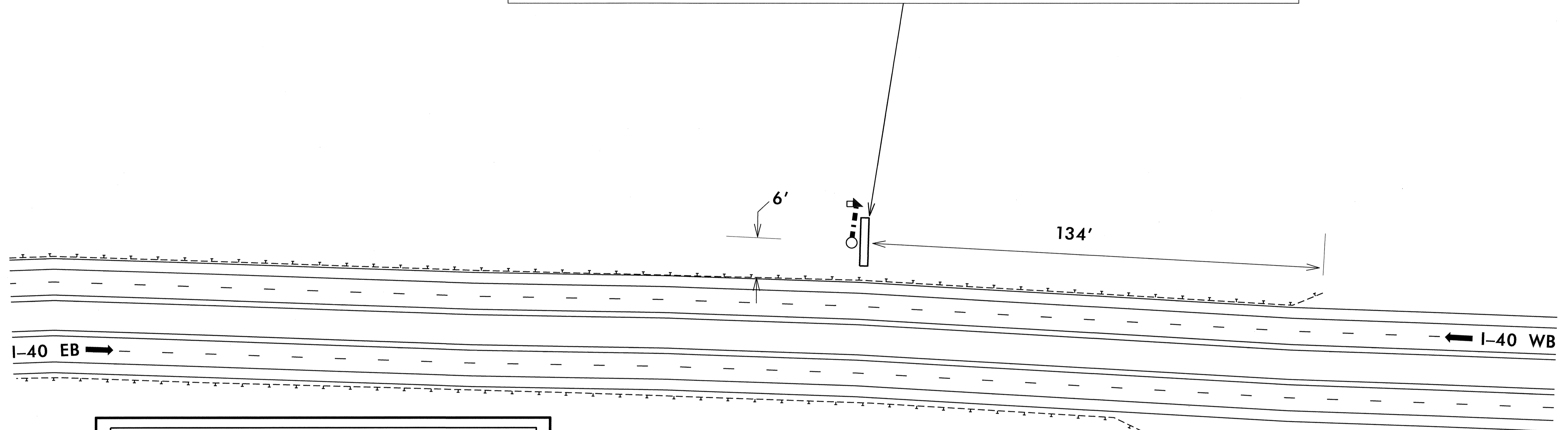
	DMS, CCTV, AND MVD INSTALLATIONS	
	DIVISION 13 PLAN DATE: MARCH 2011 PREPARED BY: GREEN	BURKE CO. MORGANTON REVIEWED BY: M.A. ASLAMI, PE REVIEWED BY: T.G. PARKER
	REVISIONS INIT. DATE	SIGNATURE: <i>Gregory A. Fuller</i> DATE: 3/10/11

CADD Filename:

DMS-2 GPS COORDINATES

N 35° 43.836
W 81° 35.936

INSTALL THE FOLLOWING	
QUANTITY	DESCRIPTION
1	DMS
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	4-WIRE COPPER FEEDER CONDUCTORS
1	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
10'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR



NOTES

1. INSTALL NEW DMS ON NEW DMS STRUCTURE.
2. INSTALL NEW DMS POLE MOUNTED CABINET ON NEW DMS STRUCTURE.
3. INSTALL NEW GROUNDING SYSTEM AS SHOWN ON SHEET ITS-13 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.
4. ROADWAY PAY ITEM - REMOVE EXISTING GUARDRAIL ANCHOR UNIT AND EXTEND GUARDRAIL TO PROVIDE A MINIMUM OF 206' OF GUARDRAIL (INCLUDING GRAU 350) BEFORE THE DMS METAL POLE. GUARDRAIL WORK TO BE COMPLETED PRIOR TO INSTALLING DMS STRUCTURE FOUNDATION.
5. COMMUNICATION TO DMS-2 BY OTHERS.

INSTALL DMS-2 IN CONSTRUCTION PHASE 1

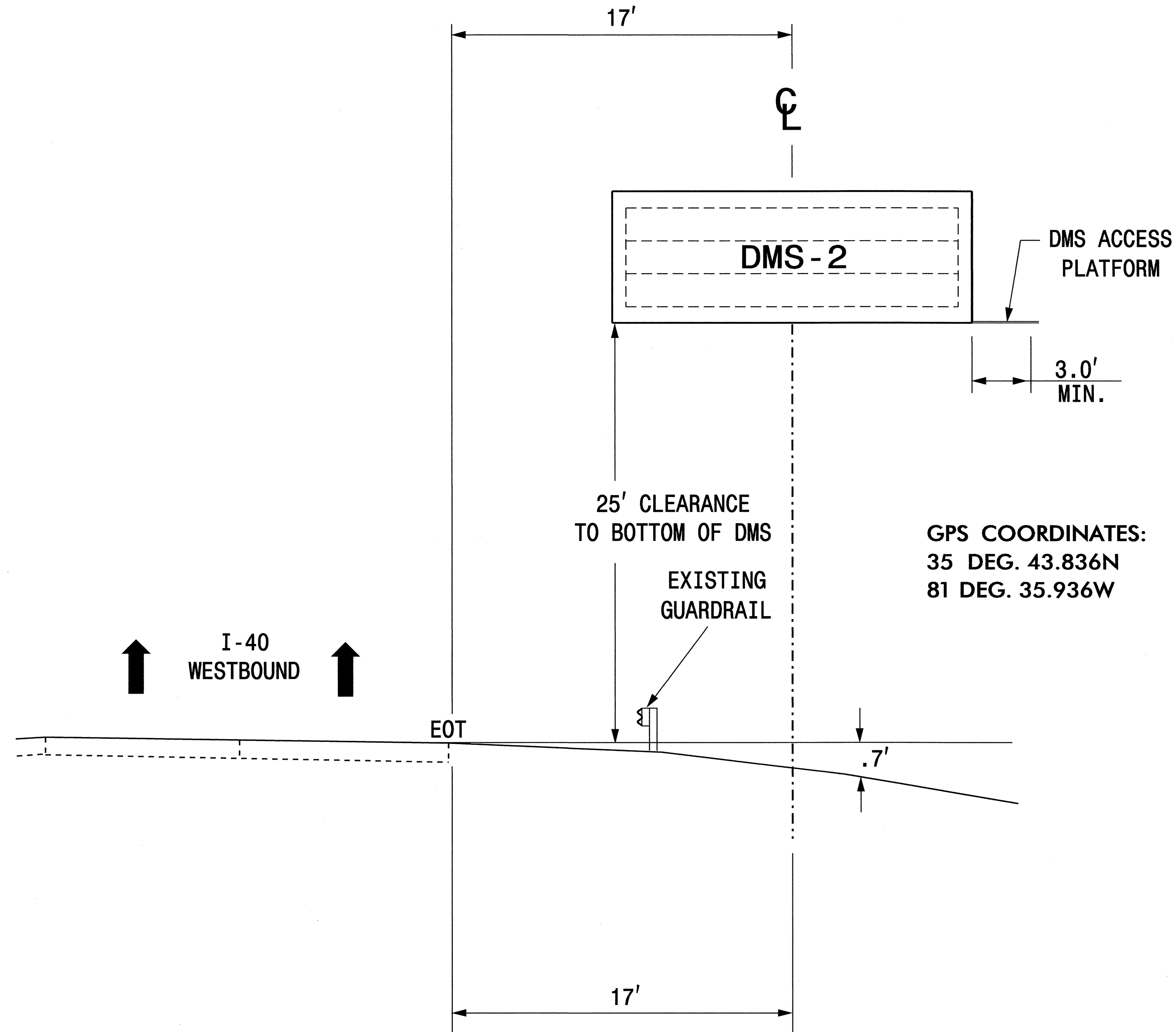
MM 108

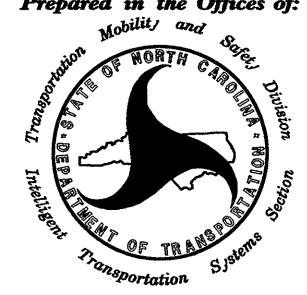

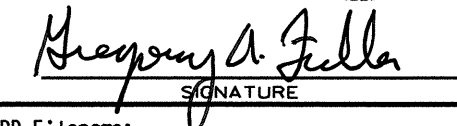
	<p>DMS, CCTV, AND MVD INSTALLATIONS</p>	<p>SEAL</p>									
	<p>Prepared in the Offices of: Professional, Mobile, and Public Division DEPARTMENT OF TRANSPORTATION 750 N. Greenfield Place, Garner, NC 27529</p>	<p>DIVISION 13 BURKE CO. MORGANTON</p> <p>PLAN DATE: MARCH 2011 REVIEWED BY: M.A. ASLAMI, PE</p> <p>PREPARED BY: GREEN REVIEWED BY: T.G. PARKER</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REVISIONS	INIT.	DATE					
REVISIONS	INIT.	DATE									
<p>SCALE 0 N/A</p>	<p><i>Gregory A. Fuller</i> 3/10/11</p> <p>SIGNATURE DATE</p>										

ESTIMATED DIMENSION : 27' X 10'
 MAXIMUM DEADLOAD OF 5200 LBS

NOTES:

1. FURNISH AND INSTALL LADDER AND ACCESS PLATFORM ON THE DMS STRUCTURE AS INDICATED IN THE PROJECT SPECIAL PROVISIONS.
2. USE THE ACTUAL DIMENSIONS AND WEIGHT OF THE DMS PROVIDED BY THE DMS FABRICATOR TO COMPLETE THE DESIGN OF THE DMS STRUCTURE.
3. FIELD VERIFY ALL FOOTING ELEVATIONS AND GROUND SLOPES AT THE FOOTINGS USING THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
4. 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.
5. DESIGN AND CONSTRUCT THE PEDESTAL STRUCTURE AND DMS ENCLOSURE TO WITHSTAND MINIMUM WIND VELOCITIES OF 90 MPH.
6. VERIFY ALL UNDERGROUND UTILITY LOCATIONS BEFORE BEGINNING ANY UNDERGROUND WORK. DO NOT DAMAGE ANY EXISTING UTILITIES OR NCDOT COMMUNICATIONS CABLE DURING CONSTRUCTION.



 <small>759 N. Greenfield Pkwy., Garner, NC 27529</small>	DMS, CCTV, AND MVD INSTALLATIONS		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER GREGORY K. FULLER
	DIVISION 13 BURKE CO. MORGANTON		
PLAN DATE: MARCH 2011	REVIEWED BY: M.A. ASLAMI, PE		 SIGNATURE
PREPARED BY: GREEN	REVIEWED BY: T.G. PARKER		
SCALE: 0 N/A	REVISIONS	INIT.	DATE
			3-10-11 DATE

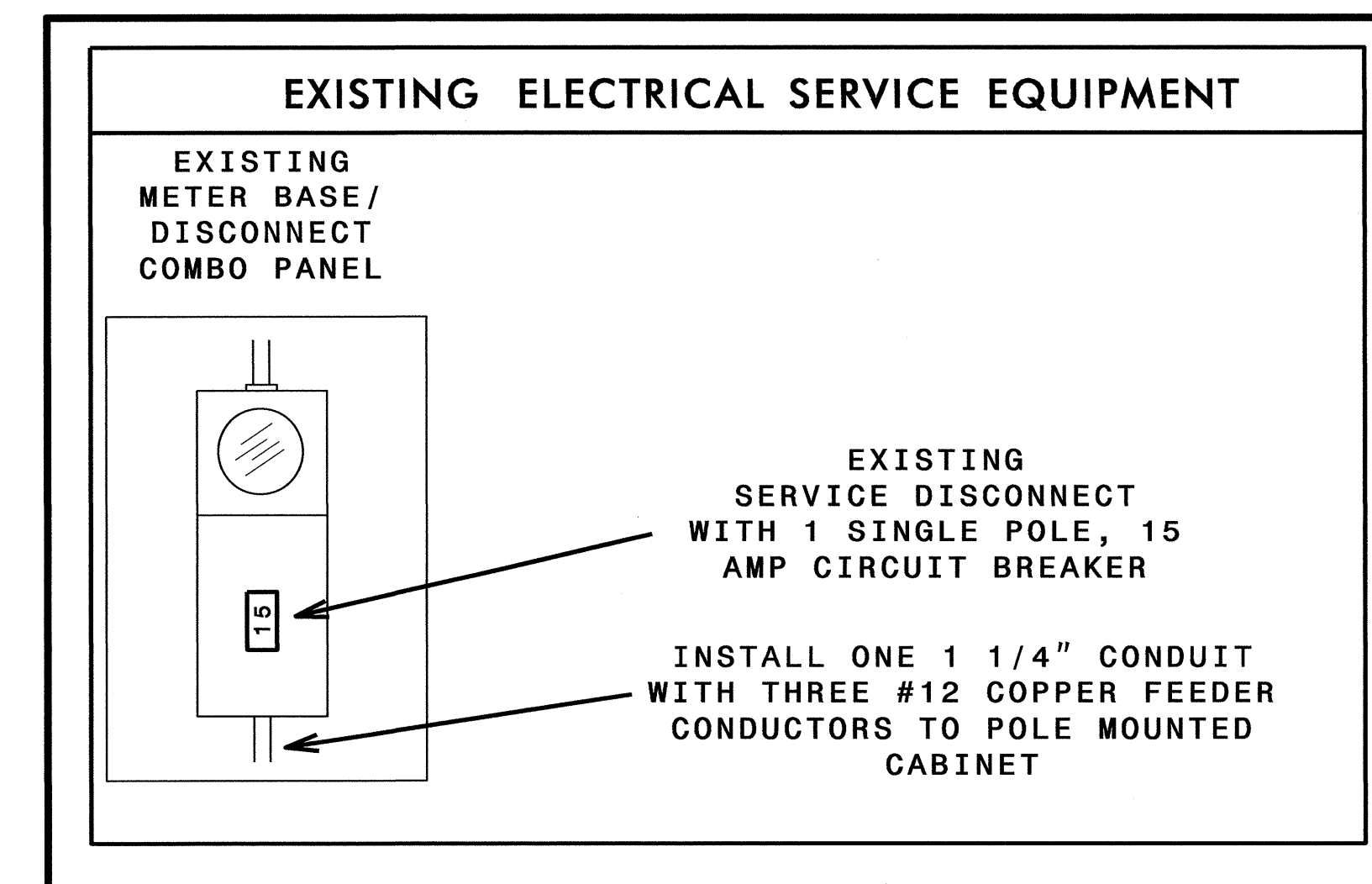
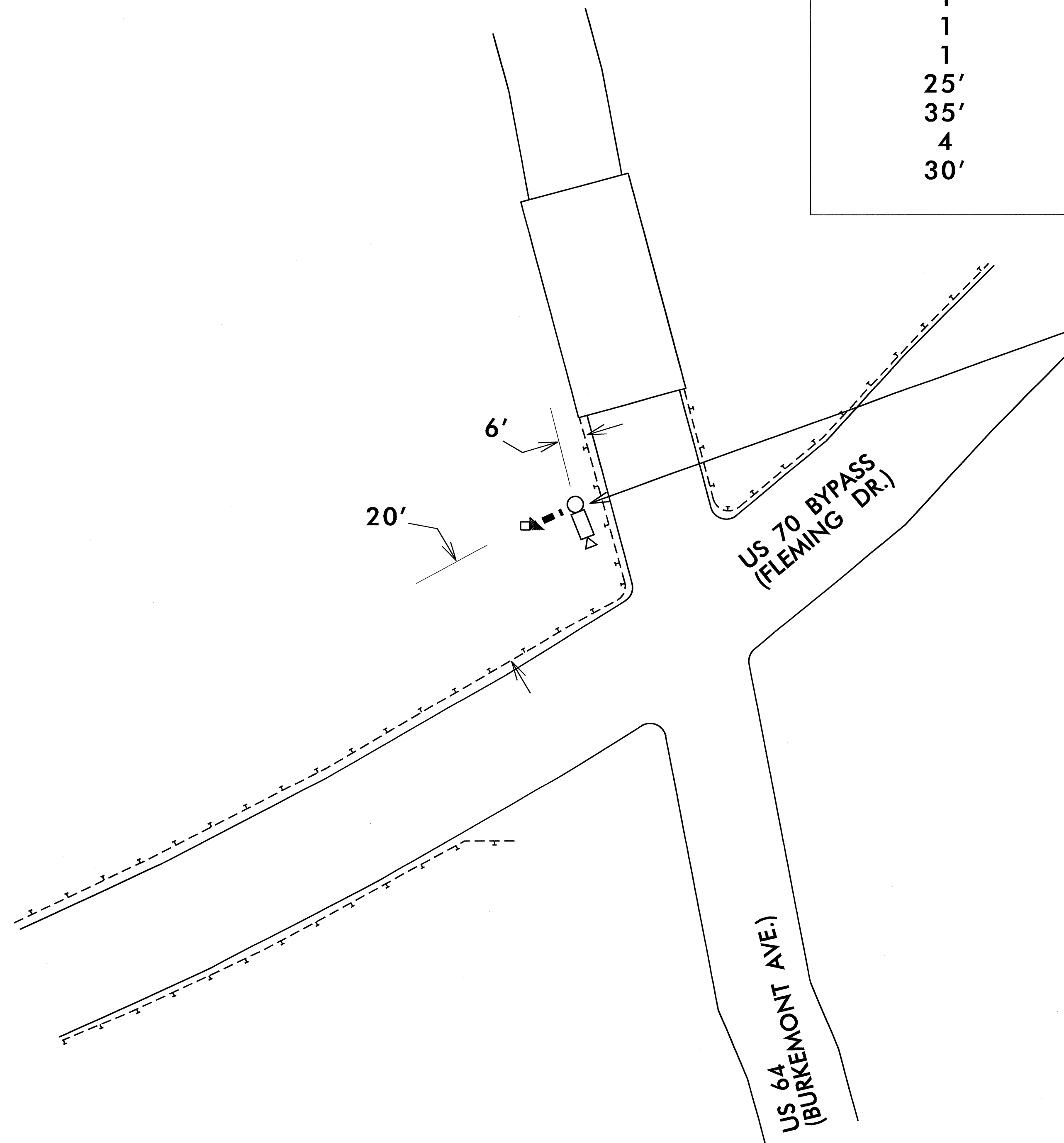
CADD File Name:

CCTV-5 GPS COORDINATES

N 35° 43.784
W 81° 41.659

INSTALL THE FOLLOWING

QUANTITY	DESCRIPTION
1	CCTV CAMERA ASSEMBLY
1	CLASS 3, 60' WOOD POLE
1	FIELD EQUIPMENT CABINET
1	VIDEO ENCODER
1	INDUSTRIAL ETHERNET SWITCH
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	3-WIRE COPPER FEEDER CONDUCTORS
4	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR



INSTALL CCTV-5 IN CONSTRUCTION PHASE 1

US 64 AT US 70 BYPASS

NOTES

1. MOUNT CAMERA 45' ABOVE GRADE.
2. INSTALL NEW FIELD EQUIPMENT CABINET ON NEW CCTV POLE.
3. INSTALL NEW GROUNDING SYSTEM AS SHOWN ON SHEET ITS-14 AND AS DESCRIBED IN THE PROJECT SPECIAL PROVISIONS.
4. COMMUNICATION TO CCTV-5 BY OTHERS.

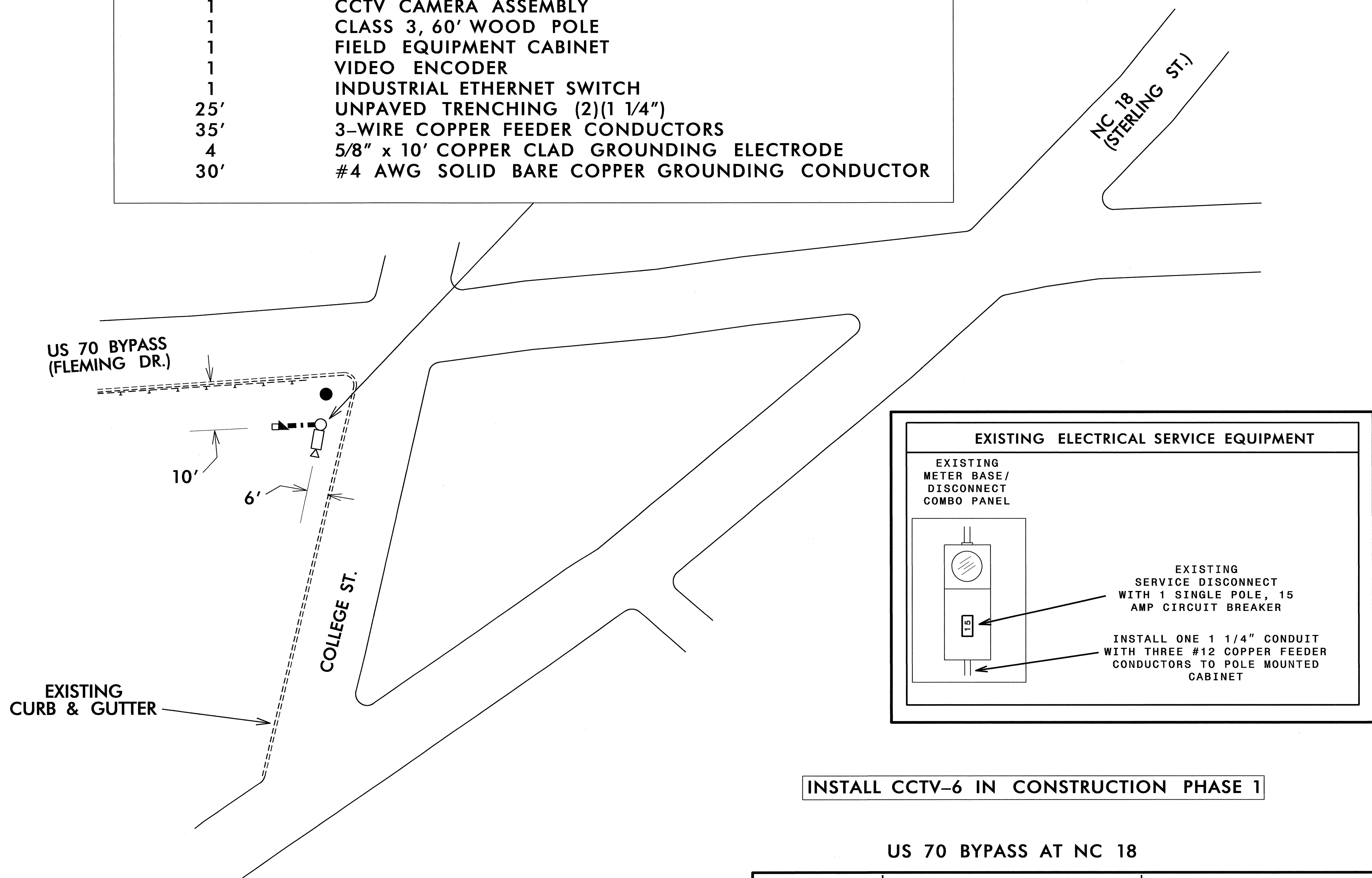
<p>Prepared in the Office of: Transportation, Mobility, and Safety Division DEPARTMENT OF TRANSPORTATION 750 N. Greenfield Place, Greensboro, NC 27429</p>	DMS, CCTV, AND MVD INSTALLATIONS										
	DIVISION 13 BURKE CO. MORGANTON PLAN DATE: MARCH 2011 REVIEWED BY: M.A. ASLAMI, PE PREPARED BY: GREEN REVIEWED BY: T.G. PARKER	<table border="1"> <tr> <th>REVISIONS</th> <th>INIT.</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		REVISIONS	INIT.	DATE					
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CCTV-6 GPS COORDINATES

N 35° 44.277
W 81° 40.754

INSTALL THE FOLLOWING

QUANTITY	DESCRIPTION
1	CCTV CAMERA ASSEMBLY
1	CLASS 3, 60' WOOD POLE
1	FIELD EQUIPMENT CABINET
1	VIDEO ENCODER
1	INDUSTRIAL ETHERNET SWITCH
25'	UNPAVED TRENCHING (2)(1 1/4")
35'	3-WIRE COPPER FEEDER CONDUCTORS
4	5/8" x 10' COPPER CLAD GROUNDING ELECTRODE
30'	#4 AWG SOLID BARE COPPER GROUNDING CONDUCTOR



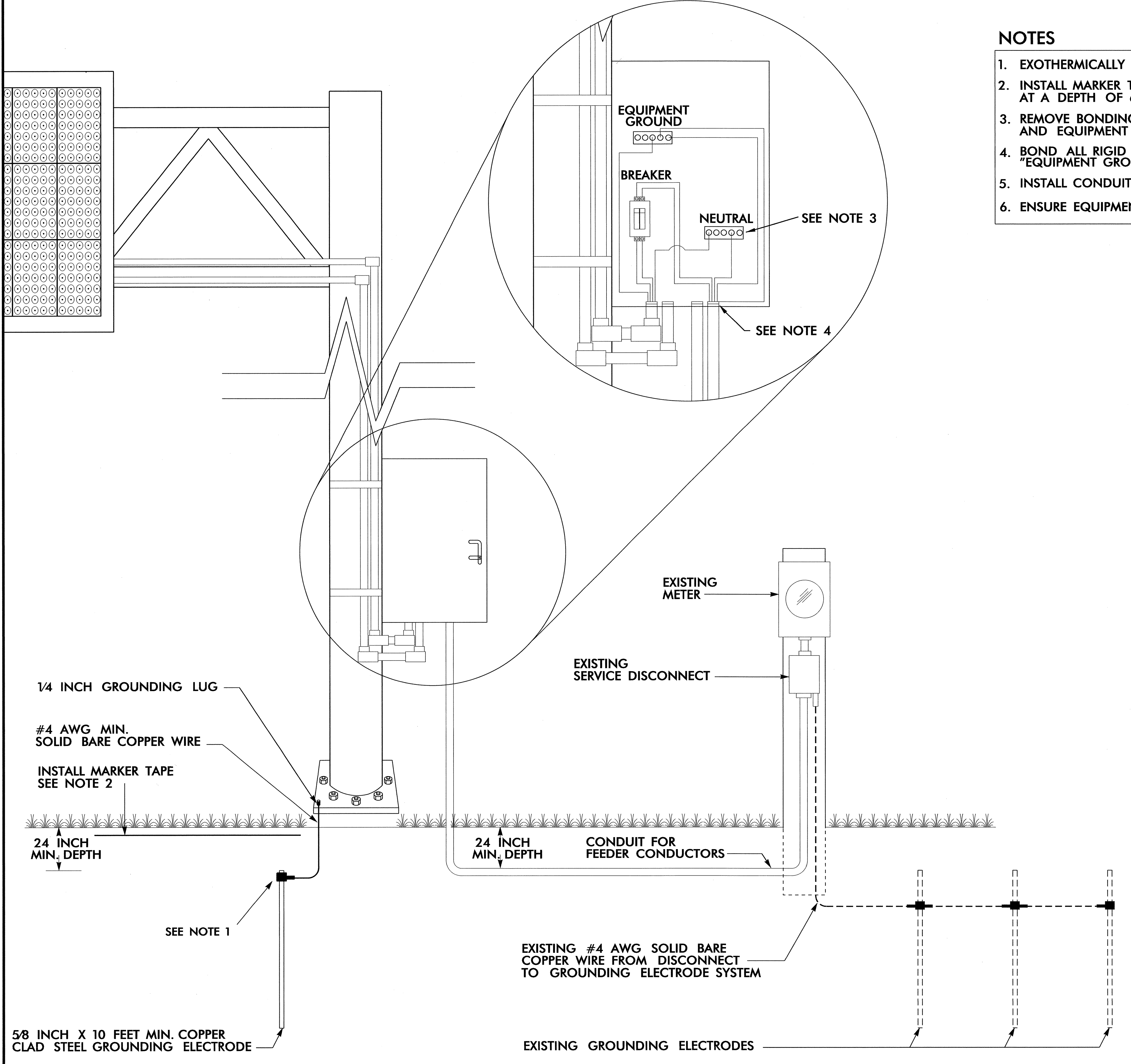
INSTALL CCTV-6 IN CONSTRUCTION PHASE 1

US 70 BYPASS AT NC 18

NOTES

1. MOUNT CAMERA 45' ABOVE GRADE.
2. INSTALL NEW FIELD EQUIPMENT CABINET ON NEW CCTV POLE.
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4. COMMUNICATION TO CCTV-6 BY OTHERS.

	DMS, CCTV, AND MVD INSTALLATIONS											
	DIVISION 13 PLAN DATE: MARCH 2011 PREPARED BY: GREEN	BURKE CO. MORGANTON REVIEWED BY: M.A. ASLAMI, PE REVIEWED BY: T.G. PARKER										
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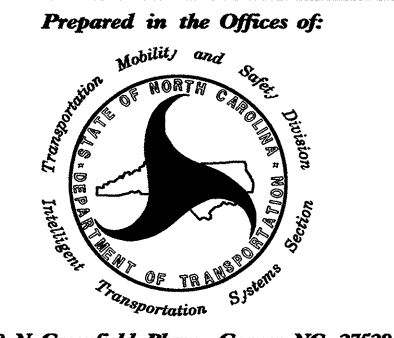
NOTES

1. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUNDING ELECTRODES.
2. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 6 - 12 INCHES.
3. REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
4. BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO "EQUIPMENT GROUND".
5. INSTALL CONDUIT BETWEEN DISCONNECT AND CABINET.
6. ENSURE EQUIPMENT GROUND IS ELECTRICALLY BONDED TO CABINET.

**NEW DMS INSTALLATION
EXISTING ELECTRICAL SERVICE AND GROUNDING
TYPICAL DETAIL**

DIVISION 13		BURKE CO.	
PLAN DATE: MARCH 2011	REVIEWED BY: M.A. ASLAMI, PE		
PREPARED BY: GREEN	REVIEWED BY: T.G. PARKER		
REVISIONS		INIT.	DATE

Prepared in the Offices of:



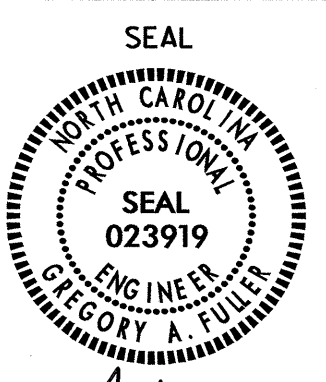
750 N. Greenfield Place, Garner, NC 27529

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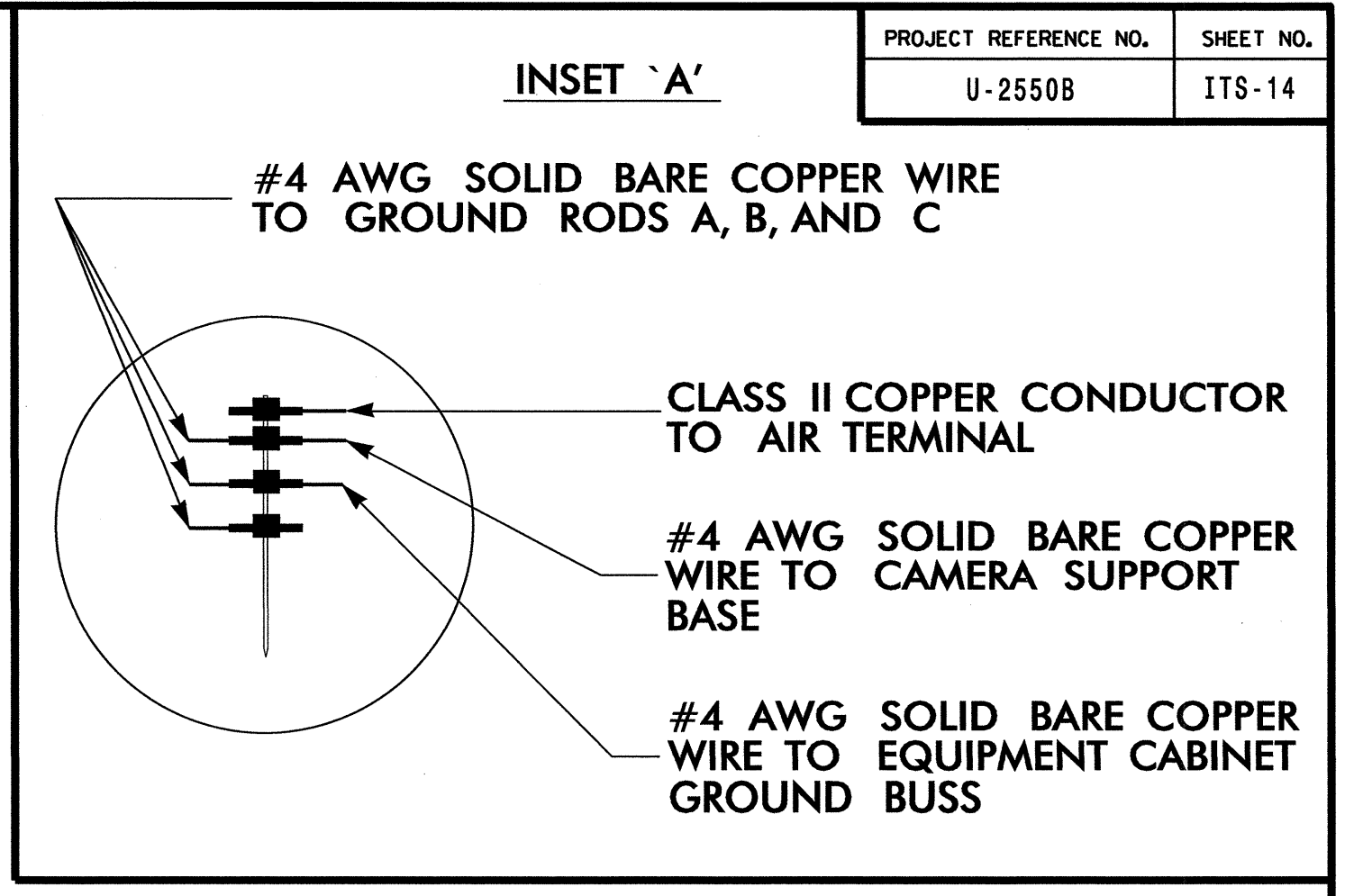
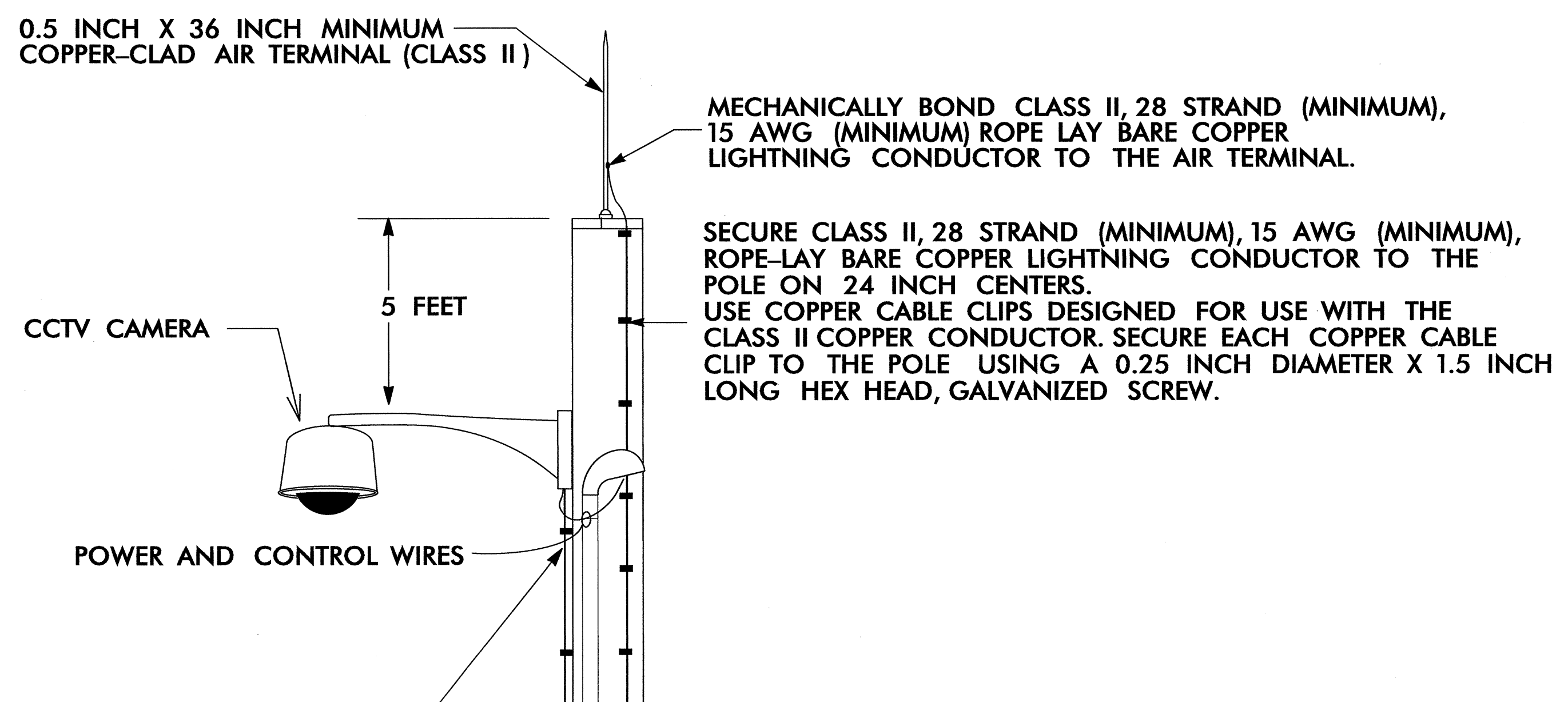
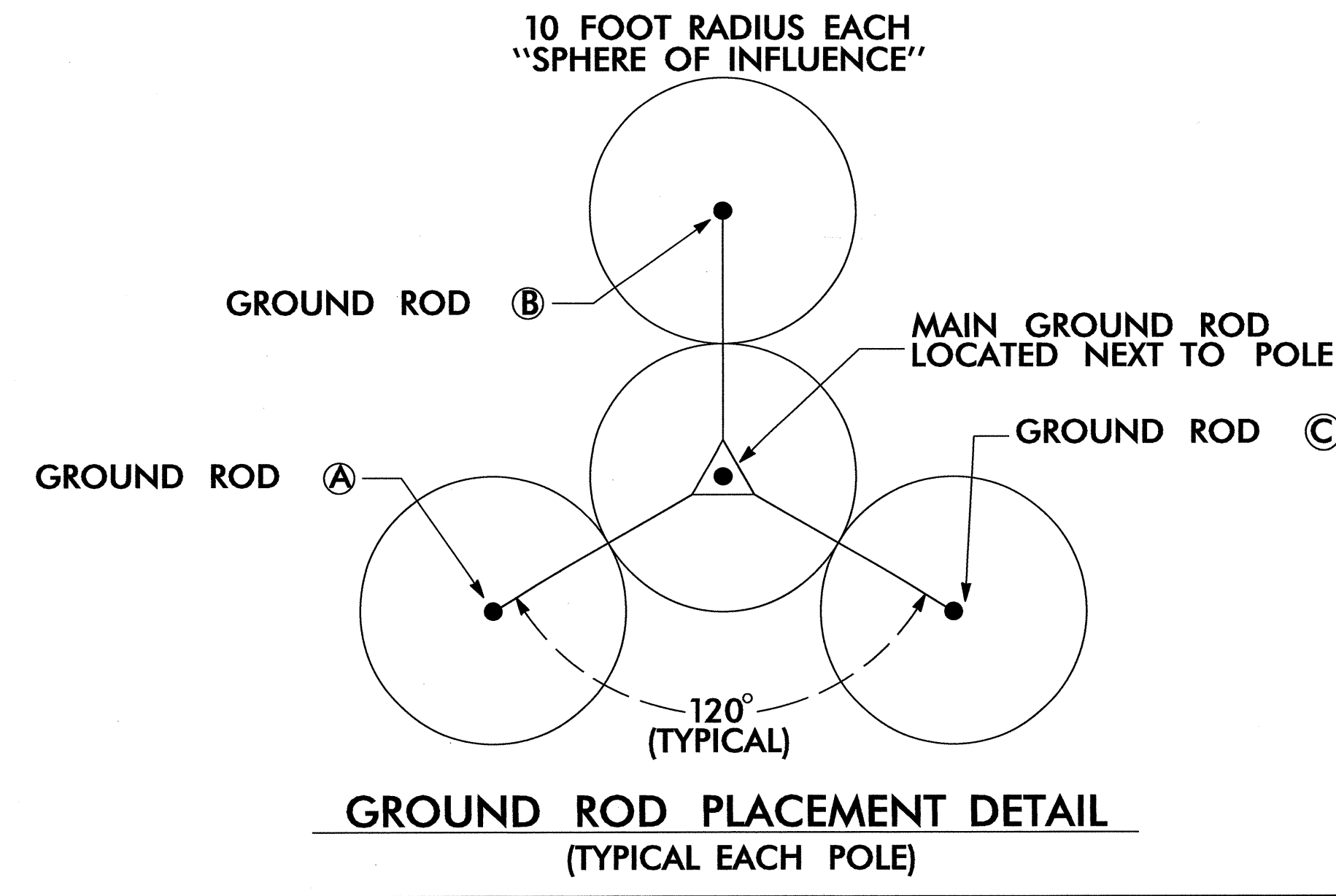


SEAL 023919
ENGINEER
GREGORY A. FULLER

Gregory A. Fuller
SIGNATURE

3/10/11
DATE

CADD File name:

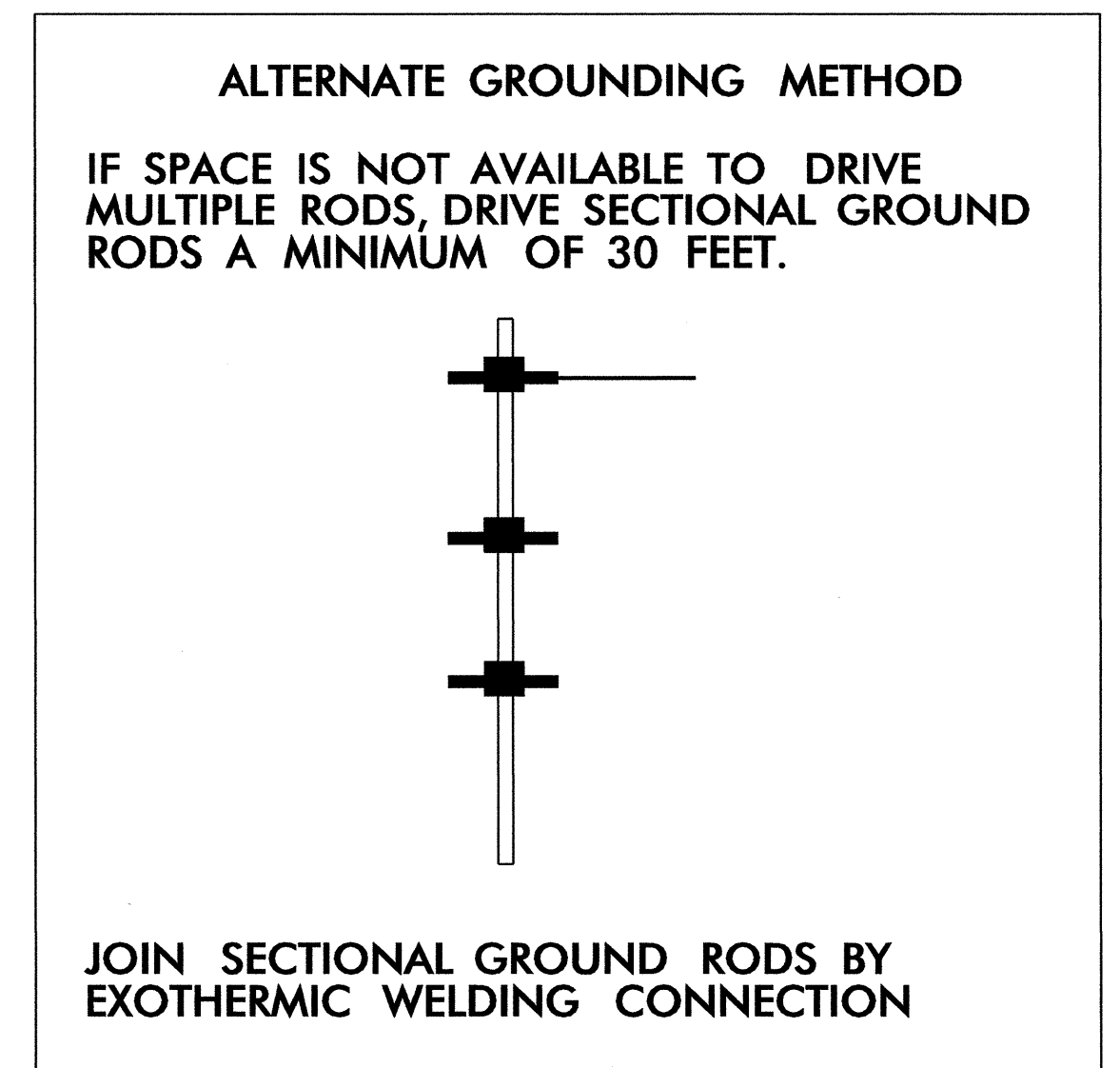
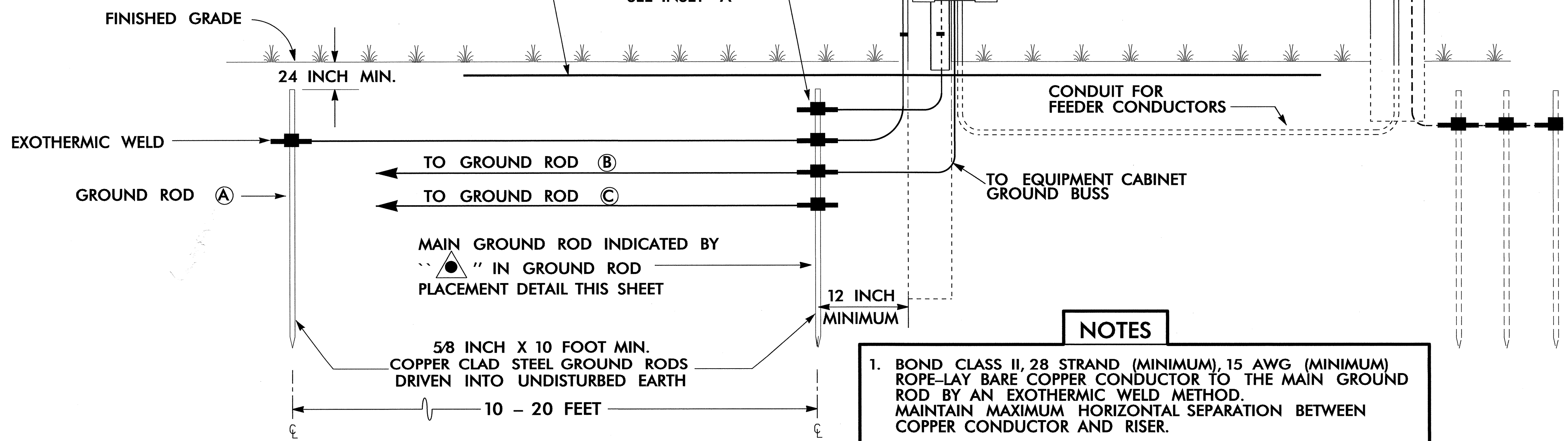


BOND #4 AWG SOLID BARE COPPER WIRE TO CAMERA SUPPORT BASE BY AN ALUMINUM TO COPPER #2 - #14 AWG LUG. ATTACH TO CAMERA BASE WITH A STAINLESS STEEL SELF TAPPING SCREW. REMOVE PAINT OR PROTECTIVE COATING WHERE ATTACHING LUG ONLY.

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

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

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



NOTES

1. BOND CLASS II, 28 STRAND (MINIMUM), 15 AWG (MINIMUM) ROPE-LAY BARE COPPER CONDUCTOR TO THE MAIN GROUND ROD BY AN EXOTHERMIC WELD METHOD. MAINTAIN MAXIMUM HORIZONTAL SEPARATION BETWEEN COPPER CONDUCTOR AND RISER.
2. EXOTHERMICALLY WELD ALL CONNECTIONS TO GROUND RODS.
3. THE CONTRACTOR MAY, UPON APPROVAL OF THE ENGINEER, INSTALL A 30-FOOT SECTIONAL GROUND ROD FOR INSTANCES WHEN CONDITIONS WILL NOT ALLOW FOR THE INSTALLATION OF THE 3 - RADIAL GROUND RODS.
4. INSTALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12 INCHES.
5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUSS AND NEUTRAL BUSS.

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

PLAN DATE: MARCH 2011	REVIEWED BY: M.A. ASLAMI, PE
PREPARED BY: GREEN	REVIEWED BY: T.G. PARKER
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759 N. Greenfield Place, Garner, NC 27529

SCALE: 0 N/A

SIGNATURE: *Gregory A. Fuller* DATE: 3-10-11