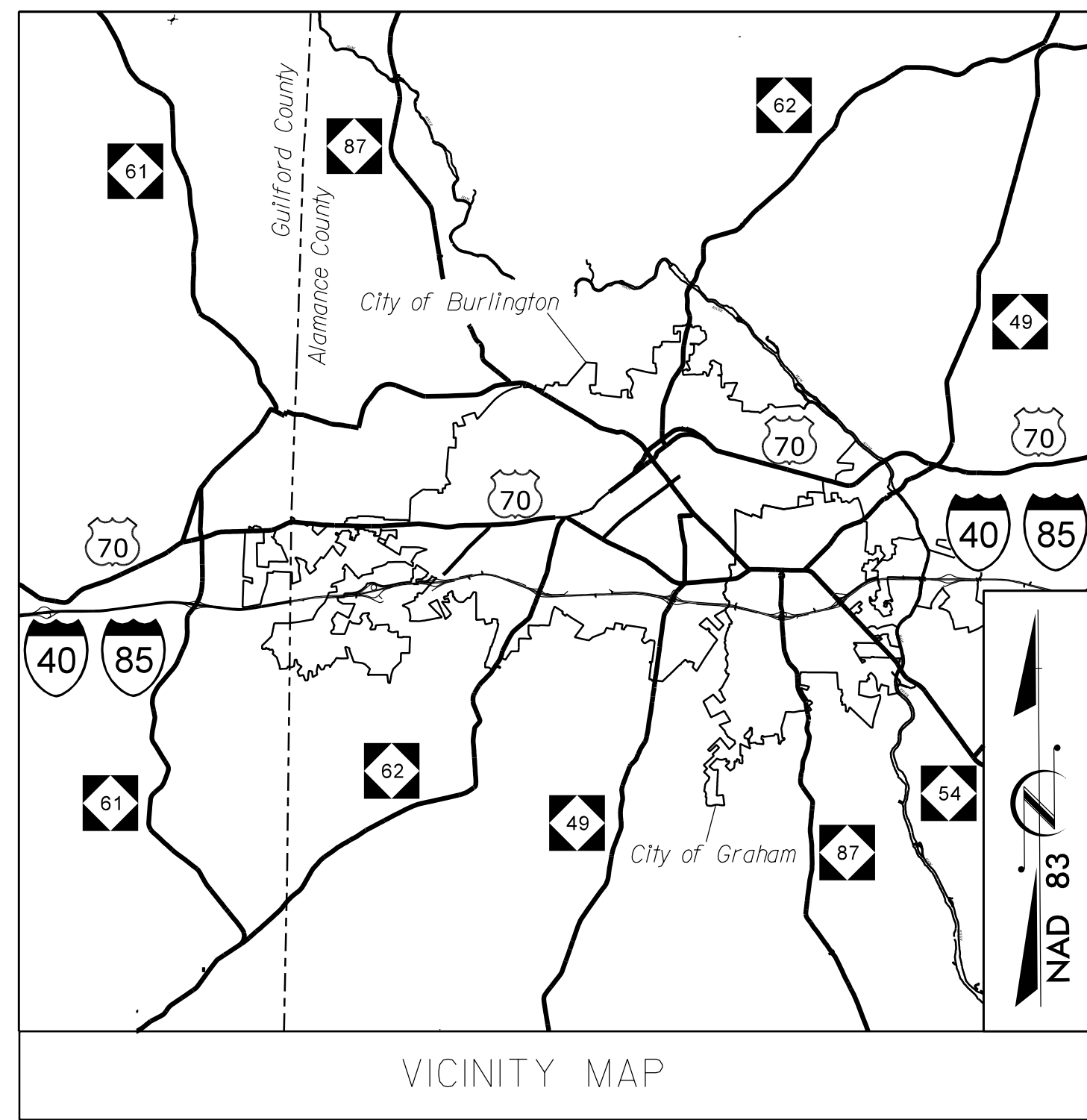


TIP PROJECT: U-6015

CONTRACT: C204111



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED IMPROVEMENTS
CITIES OF BURLINGTON & GRAHAM
COMPUTERIZED TRAFFIC SIGNAL SYSTEM

REPLACEMENT OF EXISTING SIGNAL SYSTEM WITH A NEW COMPUTERIZED TRAFFIC SIGNAL SYSTEM.
RELATED WORK INCLUDES:
UPGRADING LOCAL INTERSECTION CONTROLLERS, CABINETS, AND SYSTEM DETECTORS WITH LIMITED SIGNAL WIRING AND SIGNAL HEAD UPGRADES WHEN NECESSARY; UPGRADE AND EXPANSION OF CCTV MONITORING NETWORK; INSTALLING CENTRAL EQUIPMENT AND CENTRAL SOFTWARE; AND INSTALLATION OF AN ETHERNET COMMUNICATIONS NETWORK COMPRISED OF FIBER-OPTIC CABLE AND WIRELESS TECHNOLOGY WITH ALL RELATED EQUIPMENT.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-6015	ITS-1.000	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47160.1.1		PE	
47160.3.1	STBG-0701 (036)	CONST	

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



**Volume I of III
Communications & CCTV
Field Infrastructure,
Building Modifications
and Special Details**

2018 STANDARD SPECIFICATIONS
LETTING DATE: SEPTEMBER 18, 2018
PROJECT LENGTH = 55 MILES



750 Greenfield Parkway, Garner, NC 27529
NCDOT CONTACTS:
TRANSPORTATION MOBILITY & SAFETY DIVISION
INTELLIGENT TRANSPORTATION SYSTEMS SECTION
SHERRY YOW - METRO SYSTEMS PROJECT ENGINEER
WILLIAM B. HAIRSTON, III - PROJECT DESIGN ENGINEER
CYNTHIA MULDROW - DESIGN ENGINEER

ATKINS

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEE# #F-0326

MELISSA B. TOTH, PE - ATKINS PROJECT MANAGER
H. ALFRED BADGETT, PE - ATKINS SENIOR PROJECT ENGINEER
BRADFORD SLOCUM, PE - ATKINS PROJECT ENGINEER
ANTHONY M. ENCARNACION, PE - ATKINS PROJECT ENGINEER



DocuSigned by:
Melissa B. Toth 6/13/2018
SIGNATURE DATE

INDEX OF SHEETS

Volume I

ITS-1.00	TITLE SHEET – COMMUNICATIONS & CCTV FIELD INFRASTRUCTURE, BUILDING MODIFICATIONS AND SPECIAL DETAILS
ITS-2.00	INDEX OF SHEETS AND ROADWAY STANDARD DRAWINGS
ITS-3.00 THRU ITS-3.02	BLOCK DIAGRAMS
ITS-4.00 THRU ITS-4.06	SYSTEM DETECTORS AND CONTROL ZONES
ITS-5.00	CCTV CAMERA INSTALLATION, WOOD POLES
ITS-5.01 THRU ITS-5.03	CCTV CAMERA INSTALLATION, METAL POLES
ITS-5.04	ELECTRICAL SERVICE GROUNDING
ITS-5.05	CCTV CABINET ASSEMBLY LAYOUT
ITS-5.06	SIGNAL CABINET DETAIL, POLE-MOUNTED
ITS-5.07	RISER DETAIL
ITS-5.08	FOUNDATION MODIFICATION DETAIL
ITS-5.09	BASE ADAPTER DETAIL
ITS-5.10	GROUND MOUNTED ELECTRICAL SERVICE DETAIL
ITS-5.11	OVERHEAD ELECTRICAL SERVICE DETAIL
ITS-5.12	AERIAL FIBER-OPTIC CABLE STORAGE & SPLICE ENCLOSURES
ITS-5.13	BASE-MOUNTED CABINET FOUNDATION DETAIL
ITS-5.14	TERMINAL SPLICE CABINET DETAIL
ITS-5.15	CCTV AND RADIO BUILDING MOUNTING
ITS-5.16 THRU ITS-5.25	TCC DETAILS
CRP-1.000 THRU CRP-1.017	SUMMARY OF WORK BY CABLE ROUTING PLANS
CRP-2.000	CCTV INSTALLATION SUMMARY
CRP-3.000 THRU CRP-3.002	CABLE ROUTING PLANS KEY SHEET
CRP-4.000	LEGEND/GENERAL NOTES/ABBREVIATIONS
CRP-5.000	CONSTRUCTION NOTES
CRP-6.001 THRU CRP-6.199	CABLE ROUTING PLANS
TMP-7.01 THRU TMP-7.04	TRANSPORTATION MANAGEMENT PLAN

Volume II

FS 1.00	TITLE SHEET (FIBER-OPTIC SPLICING)
FS 1.01	INDEX OF SHEETS AND ROADWAY STANDARD DRAWINGS
FS 2.00	COMMS. CABLE SCHEMATICS SHEET LAYOUT
FS 2.01 THRU FS 2.04	COMMS. CABLE SCHEMATICS
FS 2.05 THRU FS 2.25	FIBER-OPTIC RING SCHEMATICS
FS 3.00	FIBER-OPTIC CABLE USAGE SUMMARY
FS 4.000	FIBER-OPTIC SPLICING DETAILS KEY SHEET
FS 4.001 THRU FS 4.120	FIBER-OPTIC SPLICING DETAILS

Volume III – Part 1

SIG. 1.00	TITLE SHEET (TRAFFIC SIGNAL DESIGNS)
SIG. 1.01	INDEX OF SHEETS AND ROADWAY STANDARD DRAWINGS
SIG. 1.02	SIGNAL PLANS INDEX SHEET
SIG. 2.00 THRU SIG. 2.26	SUMMARY OF WORK BY INTERSECTION
SIG. 3.00 THRU SIG. 100.1	TRAFFIC SIGNAL PLANS

Volume III – Part 2

SIG. 101.A	TITLE SHEET (TRAFFIC SIGNAL DESIGNS)
SIG. 101.0 THRU SIG. 208.1	TRAFFIC SIGNAL PLANS

ROADWAY STANDARD DRAWINGS

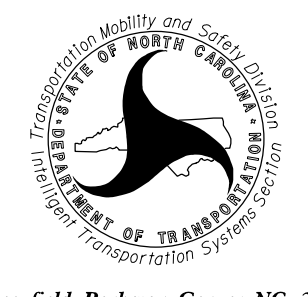
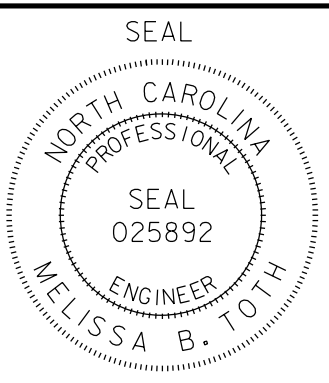
THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" CONTRACT SERVICES UNIT – N.C. DEPARTMENT OF TRANSPORTATION – RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE ARE HEREBY CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
848.01	CONCRETE SIDEWALK
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY DRUMS
1205.01	PAVEMENT MARKINGS – LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS – TWO-LANE AND MULTI-LANE ROADWAYS
1205.04	PAVEMENT MARKINGS – INTERSECTIONS
1205.05	PAVEMENT MARKINGS – TURN LANES
1205.07	PAVEMENT MARKINGS – PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS – SYMBOLS AND WORD MESSAGES
1700.01	ELECTRICAL SERVICE OPTIONS
1700.02	ELECTRICAL SERVICE GROUNDING
1705.01	SIGNAL HEADS – SIGNAL HEADS
1705.02	SIGNAL HEADS – MOUNTING
1705.03	SIGNAL HEADS – WIRE COLOR CONVENTIONS
1705.04	SIGNAL HEADS – PEDESTRIAN PUSHBUTTON PLACEMENT
1715.01	UNDERGROUND CONDUIT – TRENCHING
1716.01	JUNCTION BOXES
1720.01	WOOD POLES
1721.01	GUY ASSEMBLIES
1725.01	INDUCTIVE DETECTION LOOPS
1730.01	FIBER-OPTIC CABLE – SPARE CABLE STORAGE
1736.01	SPREAD SPECTRUM RADIO
1743.01	PEDESTALS – PEDESTRIAN PUSHBUTTON (TYPE I)
1743.04	PEDESTALS – FOUNDATIONS
1751.01	CONTROLLERS AND CABINETS – CABINET COMPONENT LAYOUT
1751.02	CONTROLLERS AND CABINETS – POWER, GROUND AND AUXILIARY

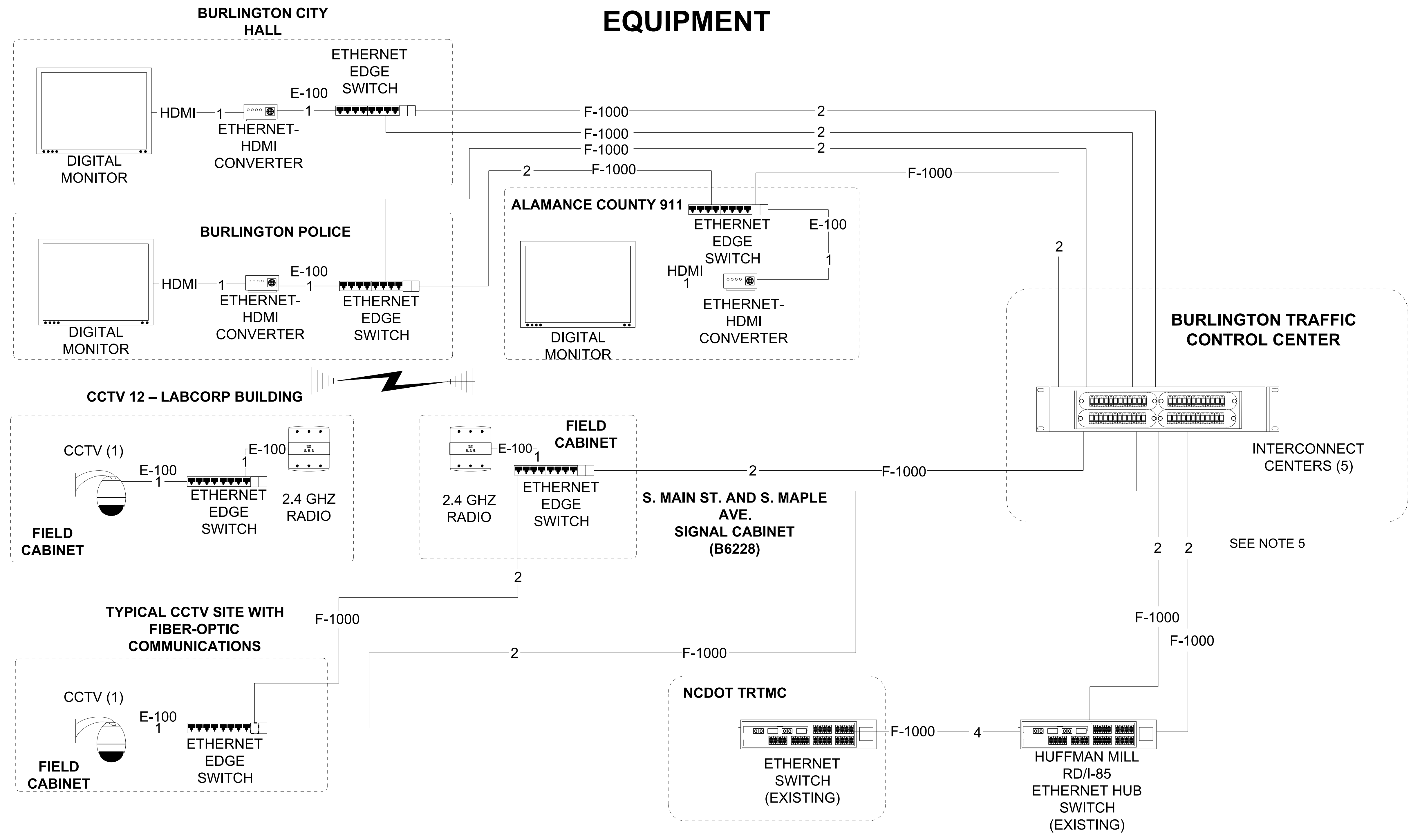
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 (919) 876-6888 NCBES #F-0326

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	Burlington-Graham Signal System Index of Sheets and Roadway Standard Drawings		
	Division 7 Alamance County Burlington & Graham		
750 Greenfield Parkway, Garner, NC 27529 SCALE NTS	PLAN DATE: June 2018 PREPARED BY: JW/AH	REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum	Date: 7/11/2018 Signature: _____ Date: _____
REVISIONS		INIT. DATE	CADD File name: 270_002_U-6015_1

BLOCK DIAGRAM PROPOSED FIELD CCTV EQUIPMENT



NOTES

1. ALL EQUIPMENT PROPOSED EXCEPT WHERE NOTED.
2. CCTV ARE EQUIPPED WITH INTERNAL ENCODERS.
3. EQUIPMENT IN CITY HALL, POLICE DEPT. AND ALAMANCE CO. 911 TO BE PROVIDED AND INSTALLED BY OTHERS.
4. MAINTAIN THE TACTICS SERVERS THROUGHOUT PROJECT.
5. SEE ITS-3.00 FOR ADDITIONAL EQUIPMENT IN TRAFFIC CONTROL CENTER.

CONNECTION LEGEND			
— E-100 —	10/100 TX ETHERNET	— F-100 —	10/100 FX ETHERNET
— E-1000 —	10/1000 TX ETHERNET	— F-1000 —	10/1000 FX ETHERNET
— USB —	USB	— HDMI —	HDMI
— NTSC —	NTSC VIDEO	— DVI —	DVI
— 2 —	DENOTES NUMBER OF CABLES/ FO STRANDS USED		

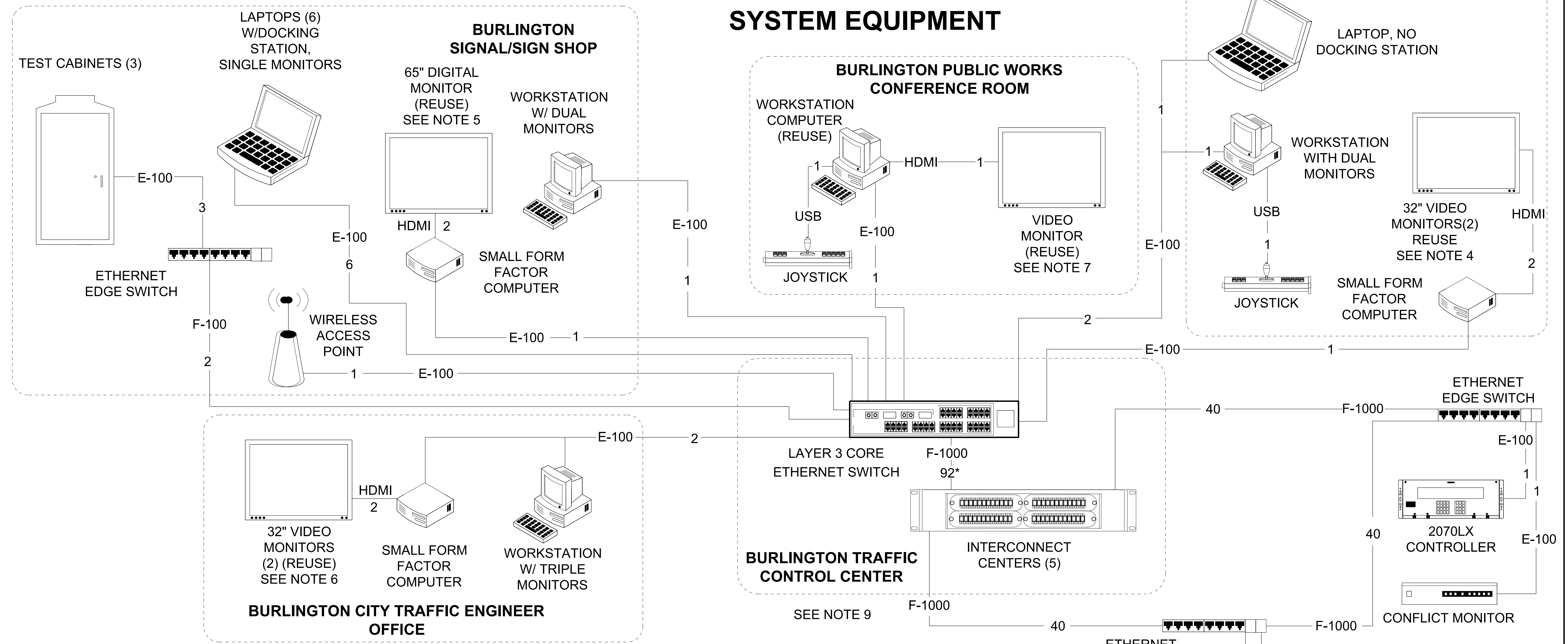
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RALEIGH, NORTH CAROLINA 27609
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	Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		
	Burlington-Graham Signal System Block Diagrams (2 of 3)		
	Division 7 Alamance County	Burlington & Graham	
	PLAN DATE: June 2018 PREPARED BY: JW/AH	REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum	
SCALE NTS	REVISIONS	INIT. DATE	DATE

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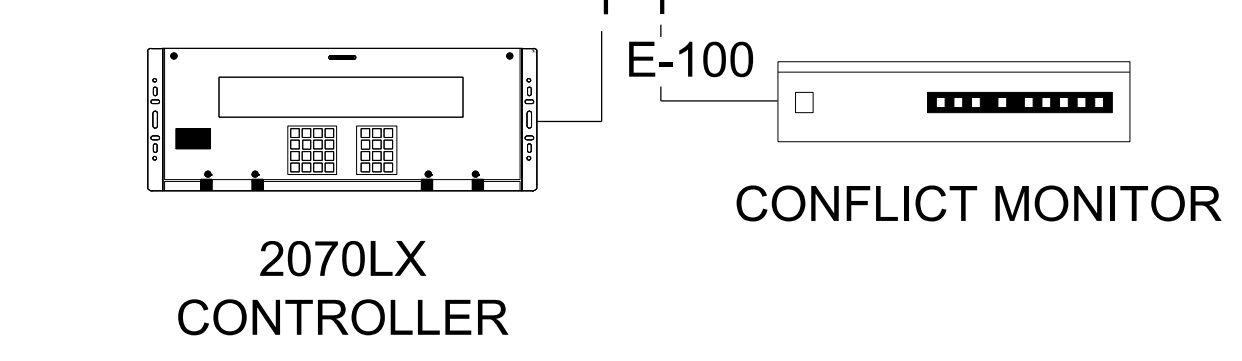
BLOCK DIAGRAM PROPOSED SIGNAL SYSTEM EQUIPMENT



*INCLUDES RINGS TO TRTMC, CITY HALL POLICE DEPT., AND ALAMANCE 911 AS SHOWN ON ITS-3.01

CONNECTION LEGEND			
— E-100 —	10/100 TX ETHERNET	— F-100 —	10/100 FX ETHERNET
— E-1000 —	10/1000 TX ETHERNET	— F-1000 —	10/1000 FX ETHERNET
— USB —	USB	— HDMI —	HDMI
— NTSC —	NTSC VIDEO	— DVI —	DVI
— 2 —	DENOTES NUMBER OF CABLES/ FO STRANDS USED		

- NOTES**
1. ALL EQUIPMENT PROPOSED EXCEPT WHERE NOTED.
 2. INSTALL ONE SIGNAL SYSTEM WORKSTATION EACH IN TRAFFIC SUPERVISOR AND LEAD TRAFFIC TECHNICIAN OFFICES.
 3. INSTALL SIX SIGNAL SYSTEM LAPTOPS IN SIGNAL/SIGN SHOP AS SHOWN IN THE PLANS.
 4. REUSE TWO 32" MONITORS CONNECTED TO WORKSTATION IN TRAFFIC SUPERVISOR'S OFFICE.
 5. REUSE ONE 65" MONITOR CONNECTED TO ONE LAPTOP IN SIGNAL SHOP.
 6. REUSE TWO 32" MONITORS CONNECTED TO WORKSTATION IN CITY TRAFFIC ENGINEER'S OFFICE.
 7. REUSE EXIST. MONITOR AND WORKSTATION IN CONFERENCE ROOM.
 8. INSTALL SMALL FORM FACTOR COMPUTERS TO DECODE VIDEO TO MONITORS.
 9. SEE ITS-3.00 FOR ADDITIONAL EQUIPMENT IN TRAFFIC CONTROL CENTER.

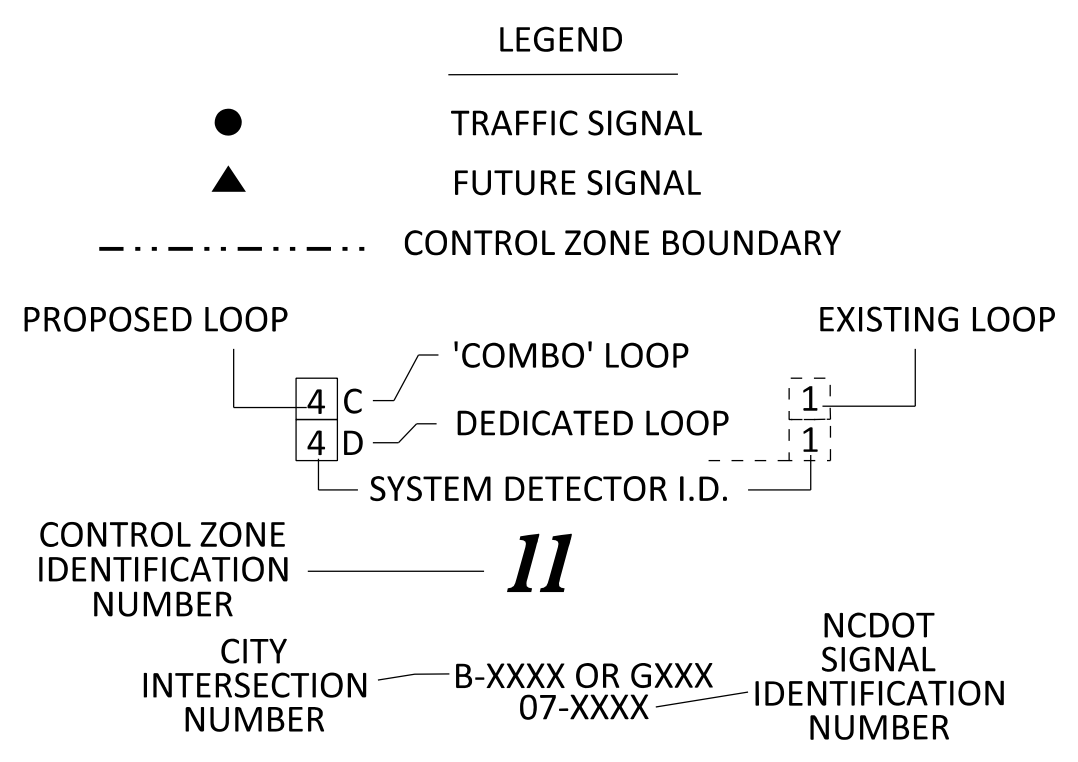
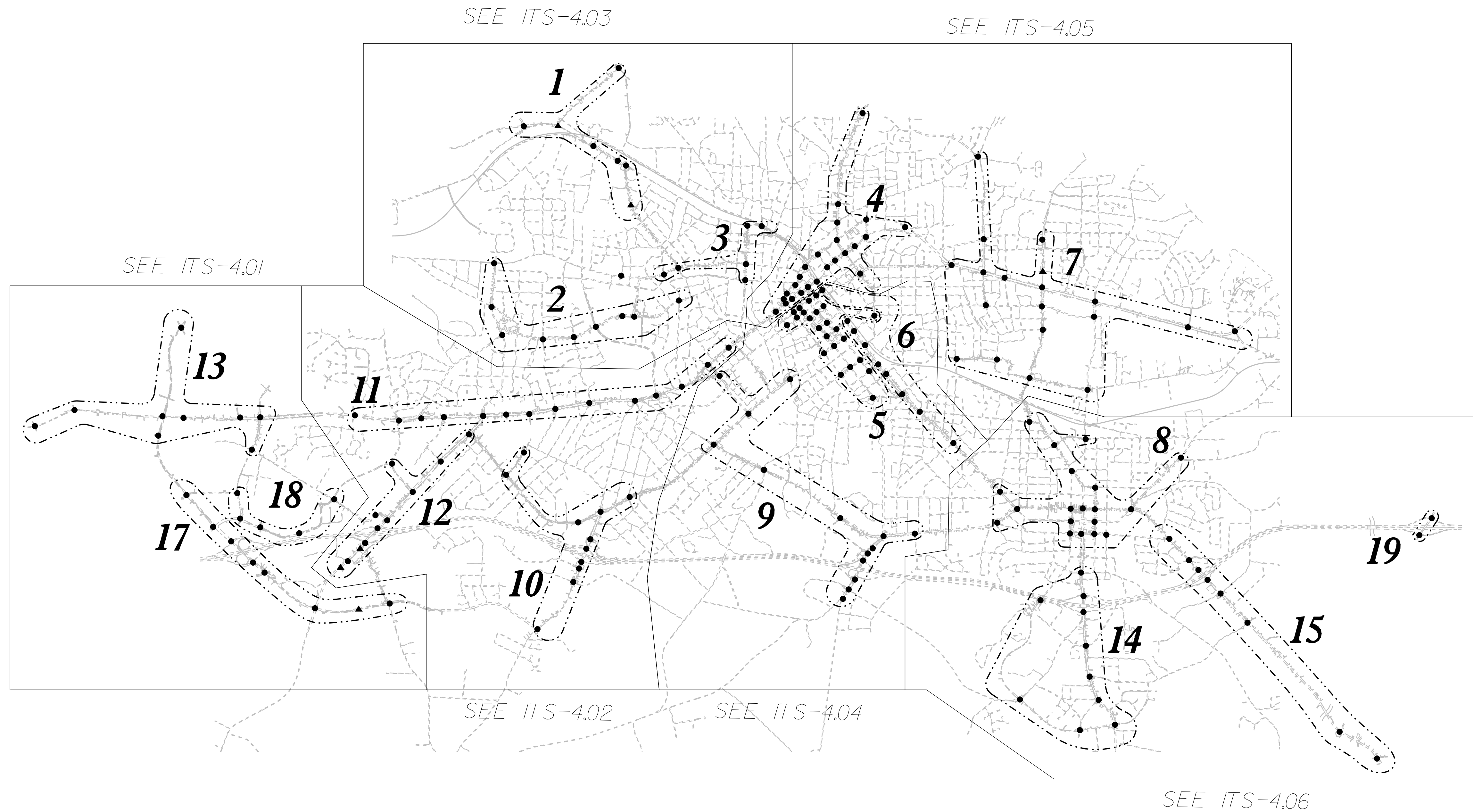


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	Burlington-Graham Signal System Block Diagrams (3 of 3)		
	Division 7 Alamance County Burlington & Graham	PLAN DATE: June 2018	
PREPARED BY: JW/AH	REVISIONS	REVIEWED BY: BJ Slocum	DATE
SCALE: NTS	INIT.	DATE	DATE

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- NOTES**
- SEE SIGNAL AND CABLE ROUTING PLANS FOR EXACT LOCATIONS OF SYSTEM DETECTORS.
 - CONTROL ZONE 16 IS A TEST ZONE IN SIGNAL SHOP AND NOT SHOWN.

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Burlington-Graham Signal System System Detectors and Control Zones (1 of 7)

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018	REVIEWED BY: HA Badgett
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529

SCALE: NTS

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER

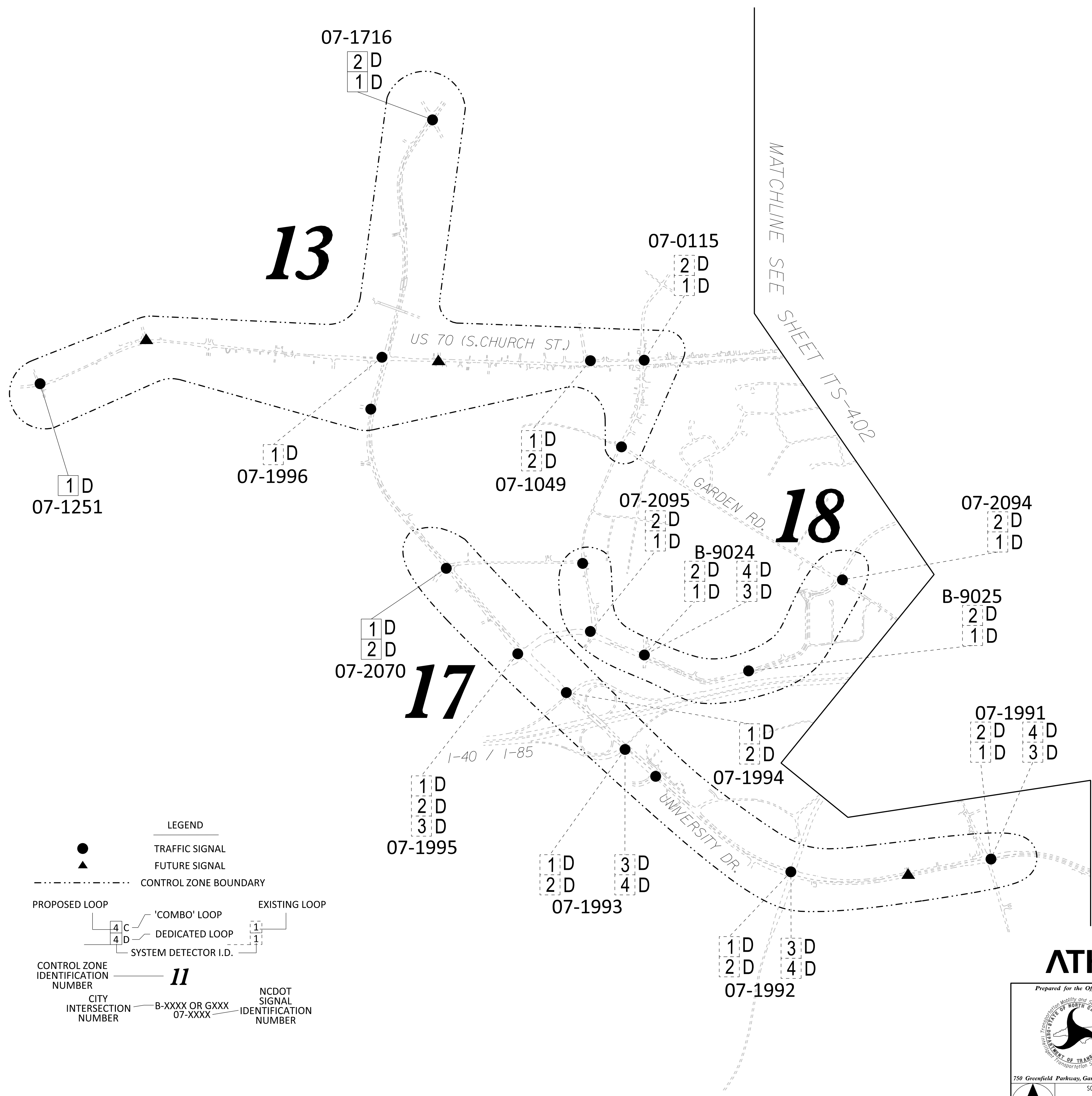
SEAL 040877

BRAD F. SLOCOM

3/2018

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SIGNATURE DATE



LEGEND

- TRAFFIC SIGNAL
- ▲ FUTURE SIGNAL
- - - CONTROL ZONE BOUNDARY
- PROPOSED LOOP
- EXISTING LOOP
- 'COMBO' LOOP
- DEDICATED LOOP
- SYSTEM DETECTOR I.D.
- CONTROL ZONE IDENTIFICATION NUMBER **11**
- CITY INTERSECTION NUMBER
- B-XXXX OR GXXX 07-XXXX
- NCDOT SIGNAL IDENTIFICATION NUMBER

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RALEIGH, NORTH CAROLINA 27609
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		Burlington-Graham Signal System Detectors and Control Zones (2 of 7) Division 7 Alamance County Burlington & Graham		
PLAN DATE: June 2018	REVIEWED BY: HA Badgett	PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum	
SCALE: NTS	750 Greenfield Parkway, Garner, NC 27529	REVISIONS	INIT.	DATE

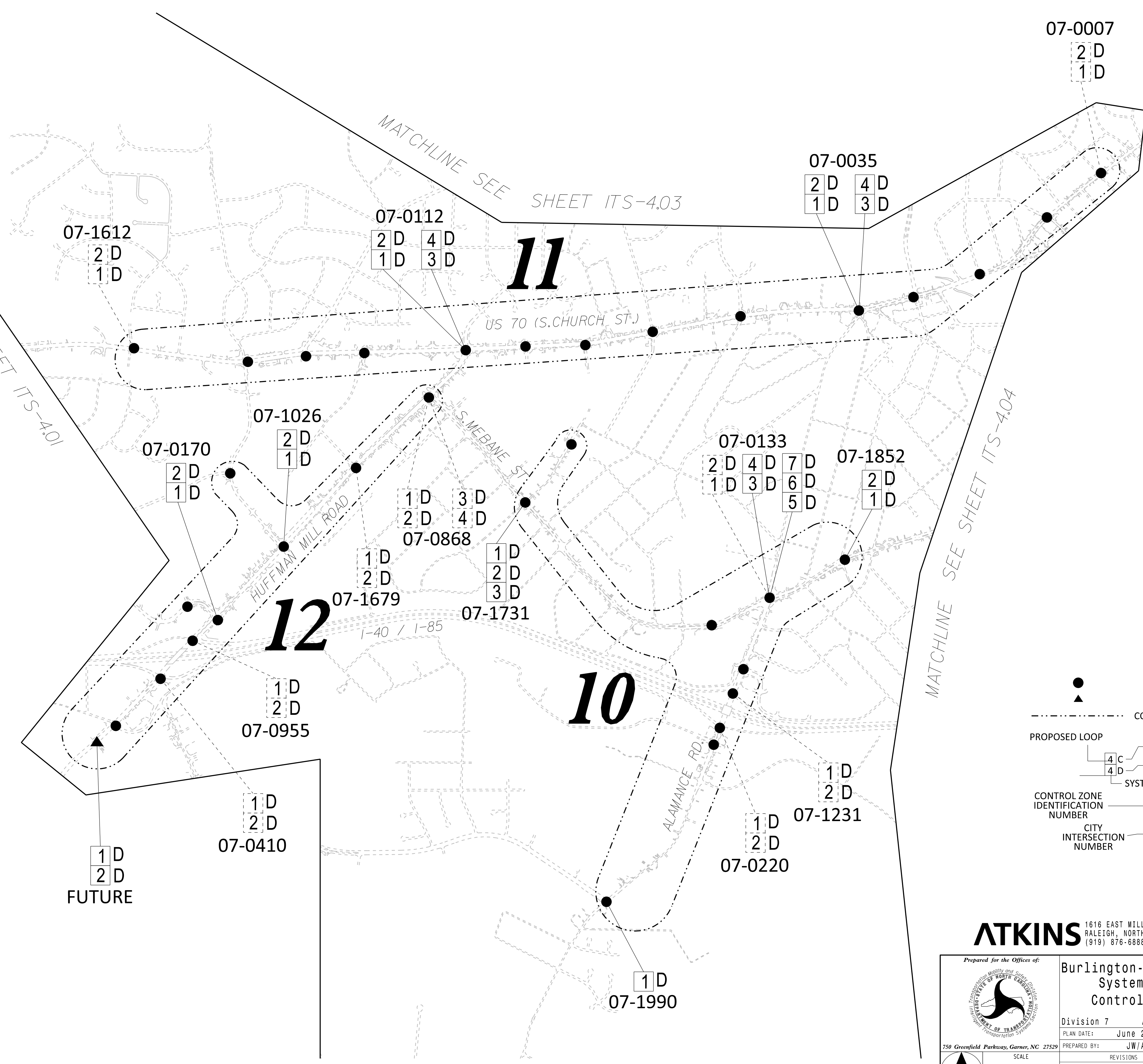
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MATCHLINE SEE SHEET ITS-401

MATCHLINE SEE SHEET ITS-403

MATCHLINE SEE SHEET ITS-404



LEGEND

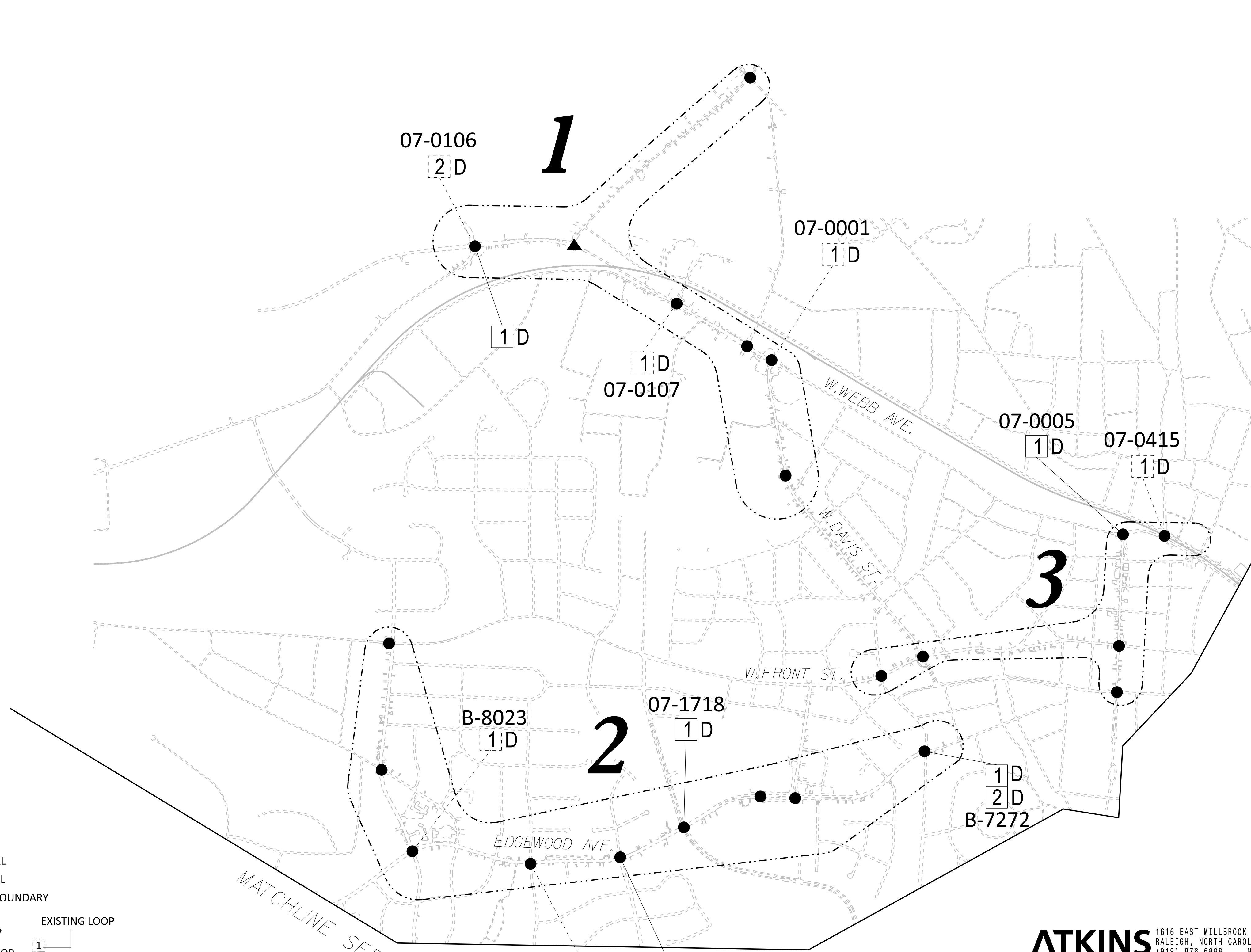
- TRAFFIC SIGNAL
- ▲ FUTURE SIGNAL
- - - - CONTROL ZONE BOUNDARY
- PROPOSED LOOP
- EXISTING LOOP
- 4 C 'COMBO' LOOP
- 4 D DEDICATED LOOP
- 1 SYSTEM DETECTOR I.D.
- CONTROL ZONE IDENTIFICATION NUMBER **11**
- CITY INTERSECTION NUMBER B-XXXX OR GXXX 07-XXXX
- NCDOT SIGNAL IDENTIFICATION NUMBER

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	Burlington-Graham Signal System Detectors and Control Zones (3 of 7)		
	Division 7 Alamance County Burlington & Graham		
PLAN DATE: June 2018	REVIEWED BY: HA Badgett		
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum		
SCALE: NTS	REVISIONS	INIT.	DATE
		SIGNATURE: <i>Bradford J. Slocum</i>	DATE: 3/2018



MATCHLINE SEE SHEET ITS-4.05

MATCHLINE SEE SHEET ITS-4.02

LEGEND

- TRAFFIC SIGNAL
- ▲ FUTURE SIGNAL
- - - - CONTROL ZONE BOUNDARY
- PROPOSED LOOP
- EXISTING LOOP
- 4C 'COMBO' LOOP
- 4D DEDICATED LOOP
- 1 SYSTEM DETECTOR I.D.
- II CONTROL ZONE IDENTIFICATION NUMBER
- CITY INTERSECTION NUMBER
- B-XXXX OR GXXX NCDOT SIGNAL IDENTIFICATION NUMBER
- 07-XXXX

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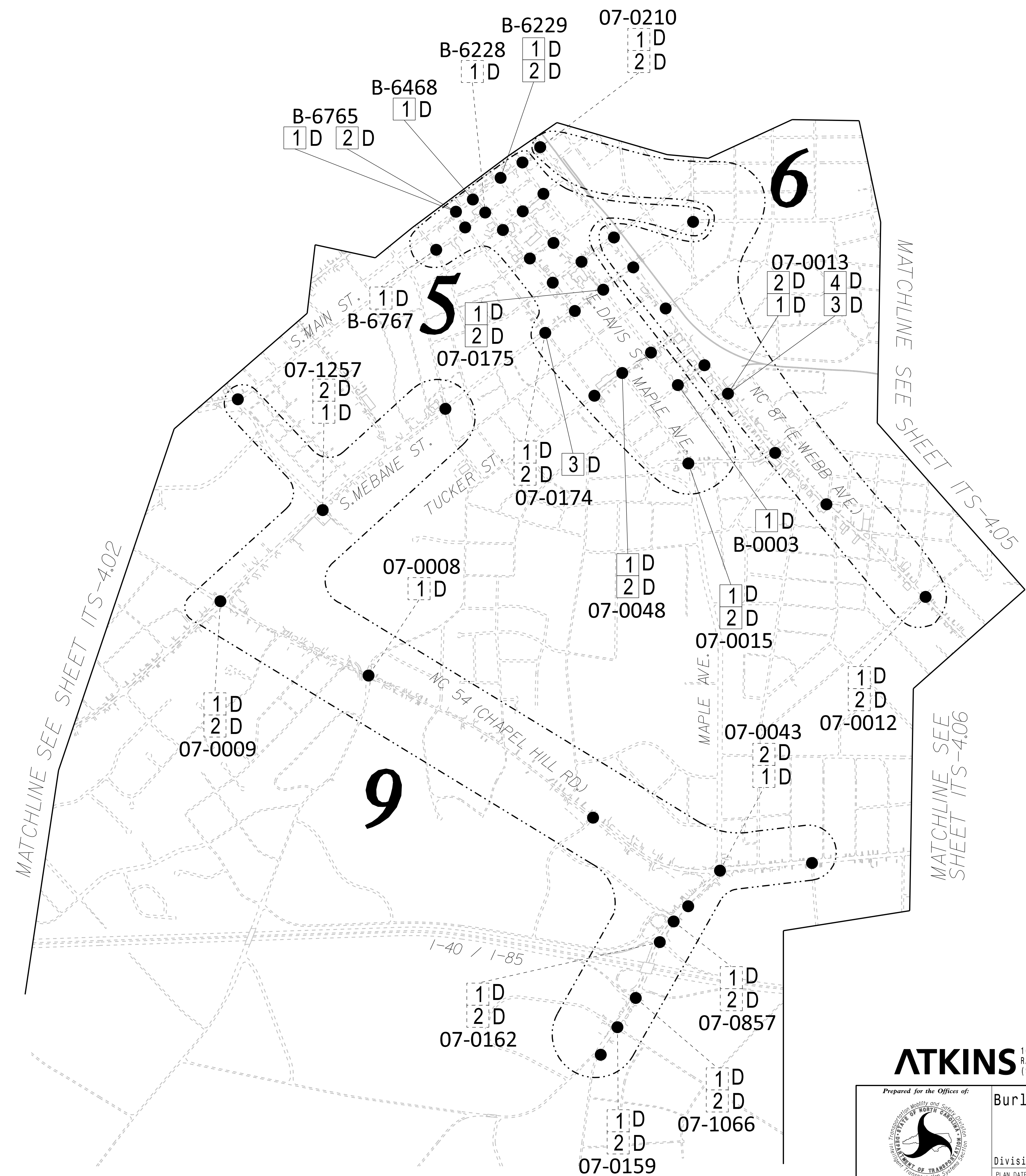
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 SCALE: NTS

Burlington-Graham Signal System Detectors and Control Zones (4 of 7)	
Division 7	Alamance County
PLAN DATE: June 2018	REVIEWED BY: HA Badgett
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum
REVISIONS	INIT. DATE

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 040877
 BRAD F. SLOCUM
 BRAD F. SLOCUM
 SIGNATURE
 DATE

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and of 5)

LEGEND

- TRAFFIC SIGNAL
- ▲ FUTURE SIGNAL
- CONTROL ZONE BOUNDARY
- PROPOSED LOOP
- EXISTING LOOP
- 4 C 'COMBO' LOOP
- 4 D DEDICATED LOOP
- 1 SYSTEM DETECTOR I.D.
- CONTROL ZONE IDENTIFICATION NUMBER **II**
- CITY INTERSECTION NUMBER B-XXXX OR GXXX 07-XXXX
- NCDOT SIGNAL IDENTIFICATION NUMBER

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Burlington-Graham Signal System Detectors and Control Zones (5 of 7)

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018	REVIEWED BY: HA Badgett
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum

SCALE: NTS

REVISIONS	INIT.	DATE

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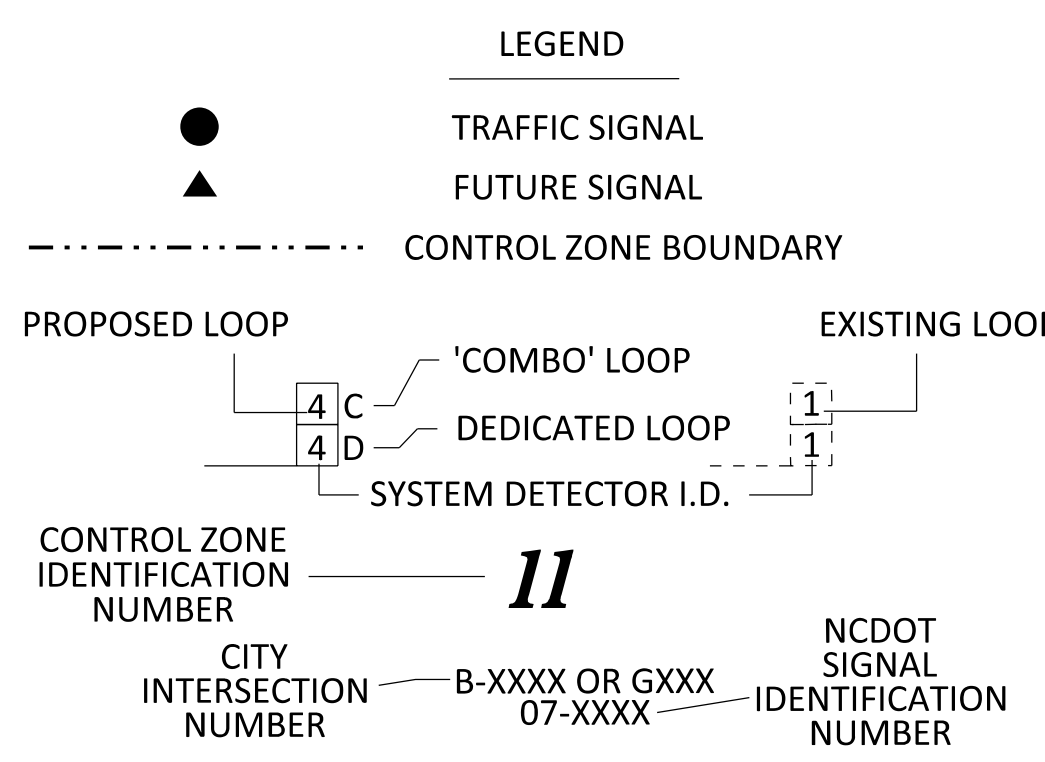
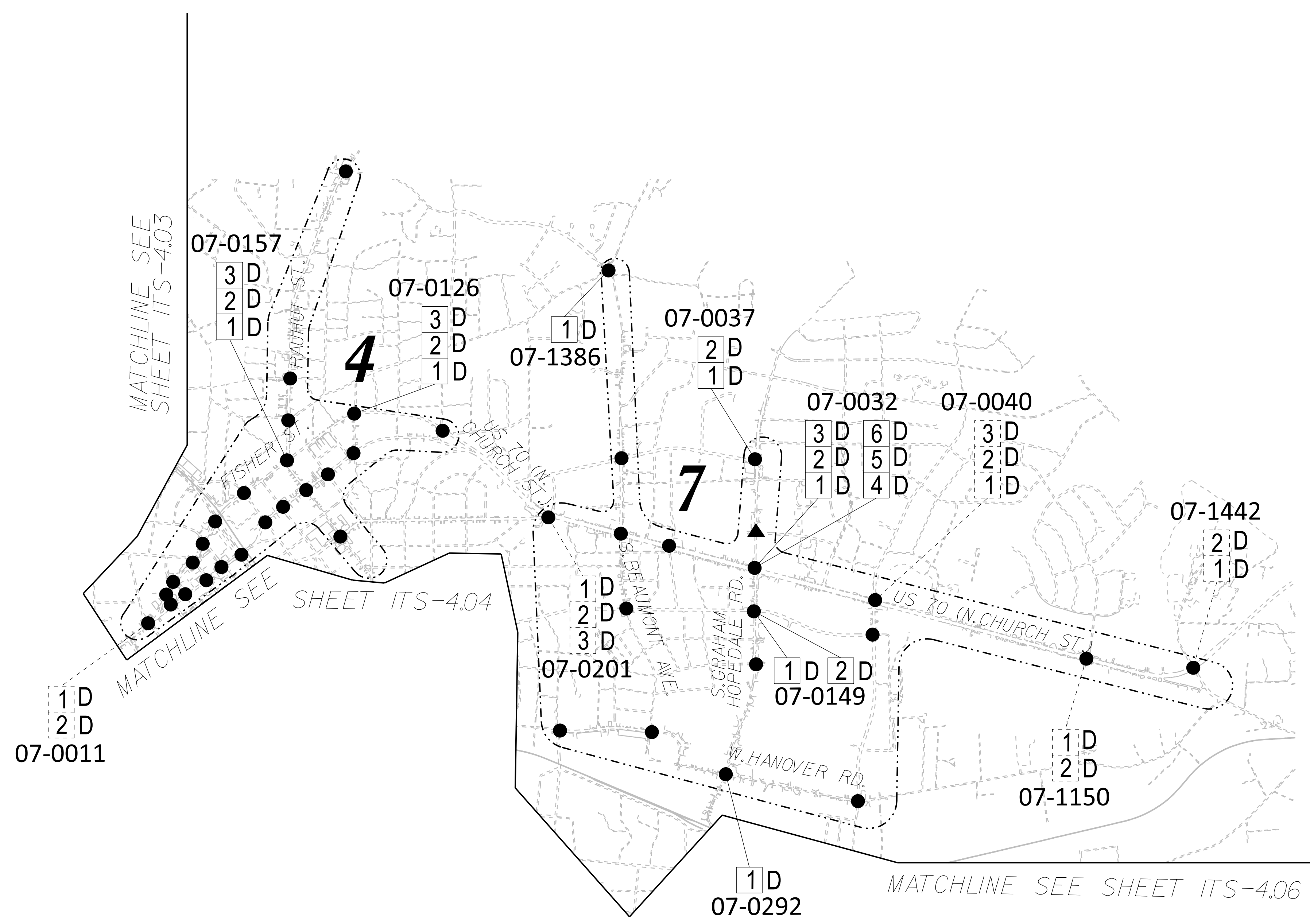
SEAL 040877

BRADLEY J. SLOCUM

Signature: *Bradley J. Slocum*

DATE: 3/2018

CADD File name: 270_015_U-6015_ITS-4.04



750 Greenfield Parkway, Garner, NC 27529

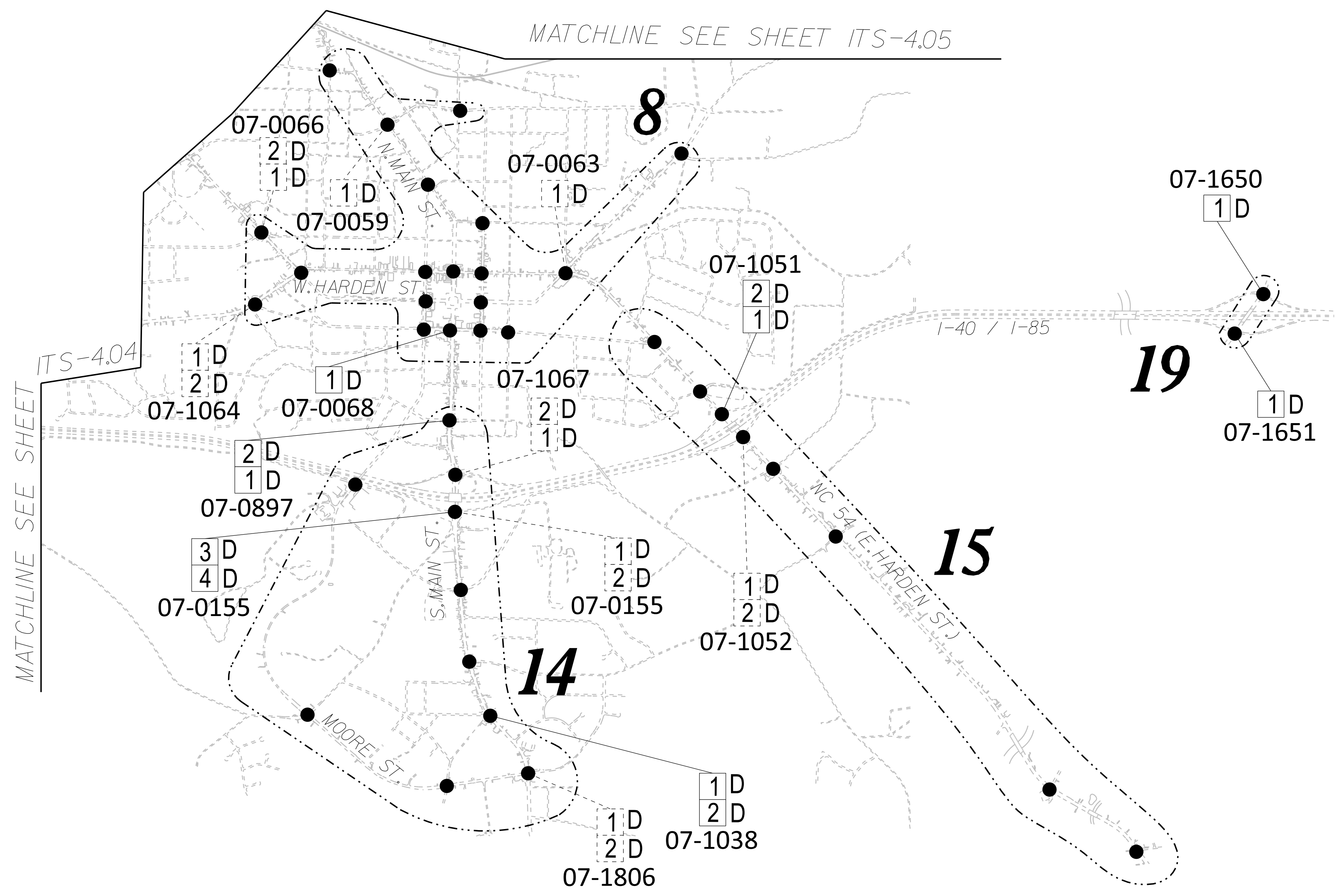
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UNLESS ALL SIGNATURES COMPLETED**

Burlington-Graham Signal System System Detectors and Control Zones (6 of 7)			
Division 7		Alamance County	
Burlington & Graham			
PLAN DATE: June 2018	REVIEWED BY: HA Badgett		
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum		
REVISIONS	INIT.	DATE	

SCALE: NTS

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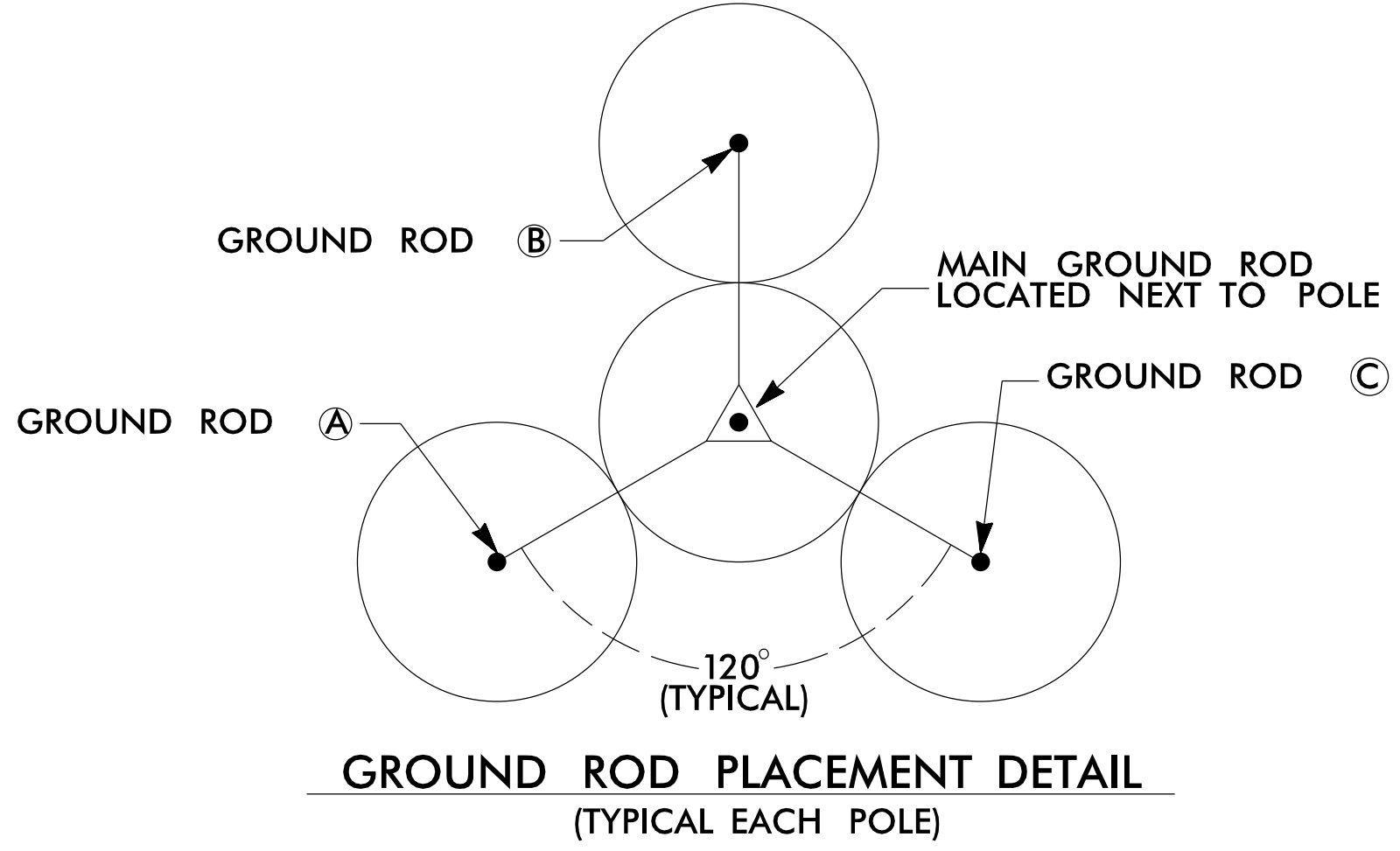
Prepared for the Offices of:

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 SCALE: NTS

Burlington-Graham Signal System System Detectors and Control Zones (7 of 7)	
Division 7	Alamance County
PLAN DATE: June 2018	REVIEWED BY: HA Badgett
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum
REVISIONS	INIT. DATE

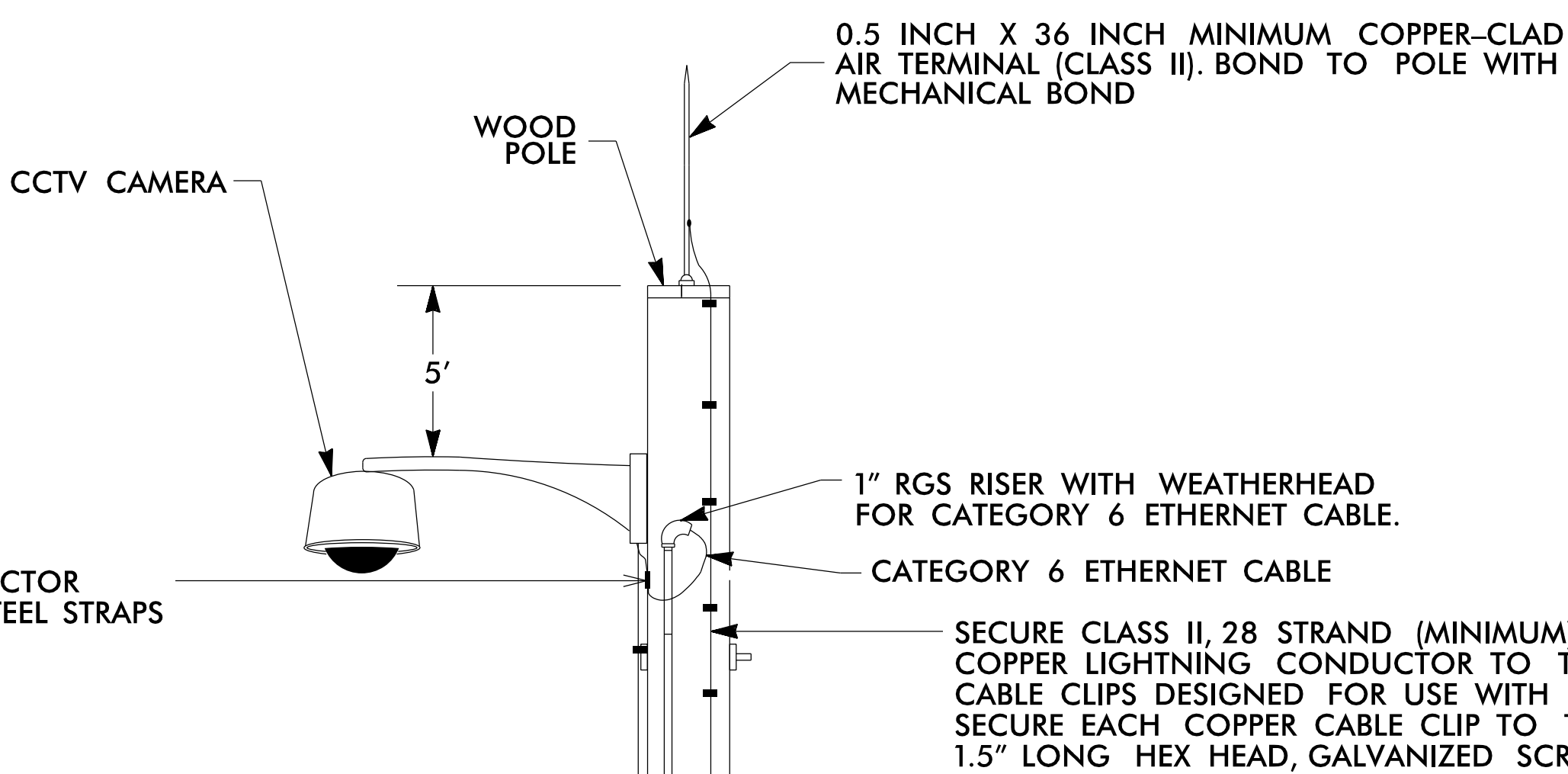
SEAL
 NORTH CAROLINA
 PROFESSIONAL
 SEAL
 040877
 ENGINEER
 BRADLEY J. SLOCUM
 3/2018
 SIGNATURE
 DATE

10' RADIUS EACH "SPHERE OF INFLUENCE"



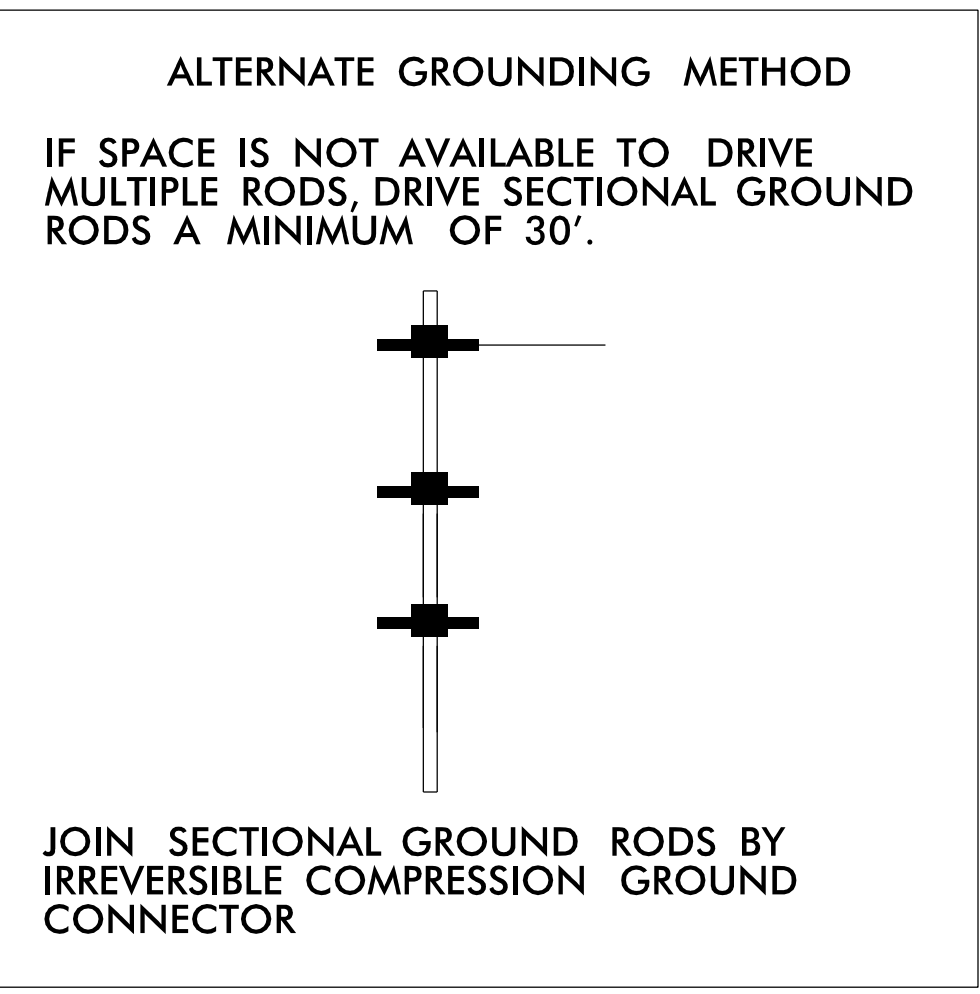
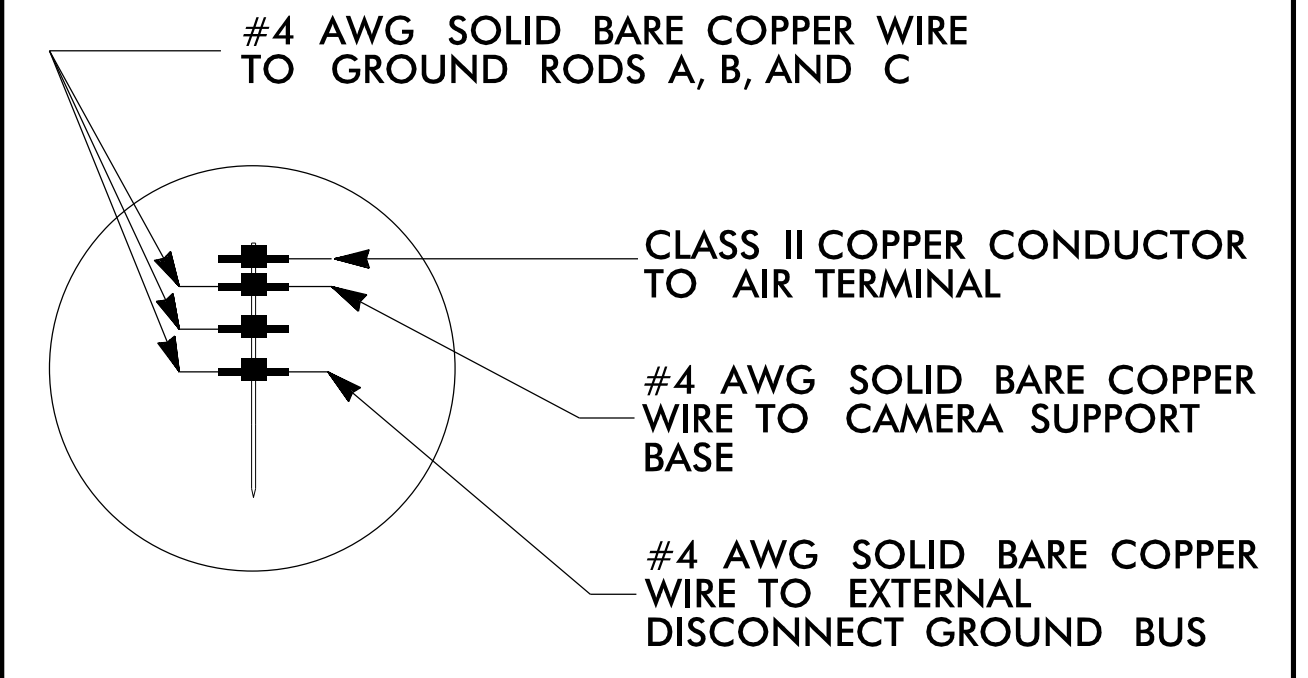
CCTV MOUNTED ON WOOD POLE

NOTE: ENTRY HEIGHT MAY VARY WITH ATTACHMENT HEIGHT OF CABLES.



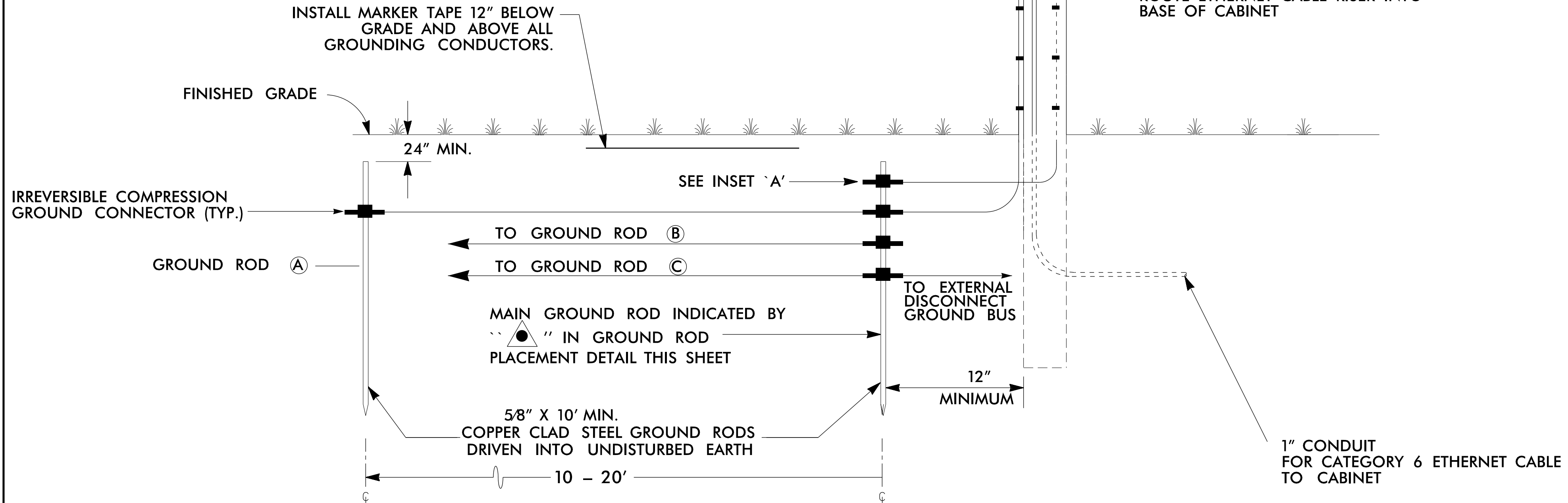
CATEGORY 6 ETHERNET SURGE PROTECTOR SECURE TO POLE WITH STAINLESS STEEL STRAPS

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.



NOTES

1. USE IRREVERSIBLE COMPRESSION GROUND CONNECTOR TO BOND CLASS II, 28 STRAND (MINIMUM), 15 AWG (MINIMUM) ROPE-LAY BARE COPPER CONDUCTOR TO THE MAIN GROUND ROD. MAINTAIN MAXIMUM HORIZONTAL SEPARATION BETWEEN COPPER CONDUCTOR AND RISER.
2. USE IRREVERSIBLE COMPRESSION GROUND CONNECTOR BETWEEN GROUND CONDUCTOR AND TO GROUND RODS.
3. CONTRACTOR MAY, UPON APPROVAL OF THE ENGINEER, INSTALL A 30' SECTIONAL GROUND ROD FOR INSTANCES WHEN CONDITIONS WILL NOT ALLOW FOR THE INSTALLATION OF THE 3 - RADIAL GROUND RODS.
4. STALL MARKER TAPE DIRECTLY ABOVE ALL GROUNDING ELECTRODES AND CONDUCTORS AT A DEPTH OF 12".
5. REPLACE RISERS WHERE CALLED FOR IN PLANS.
6. FOR LOCATION WITH POLE MOUNTED CCTV CABINET SEE ITS-5.06 FOR CONDUITS TO CABINET AND GROUNDING.



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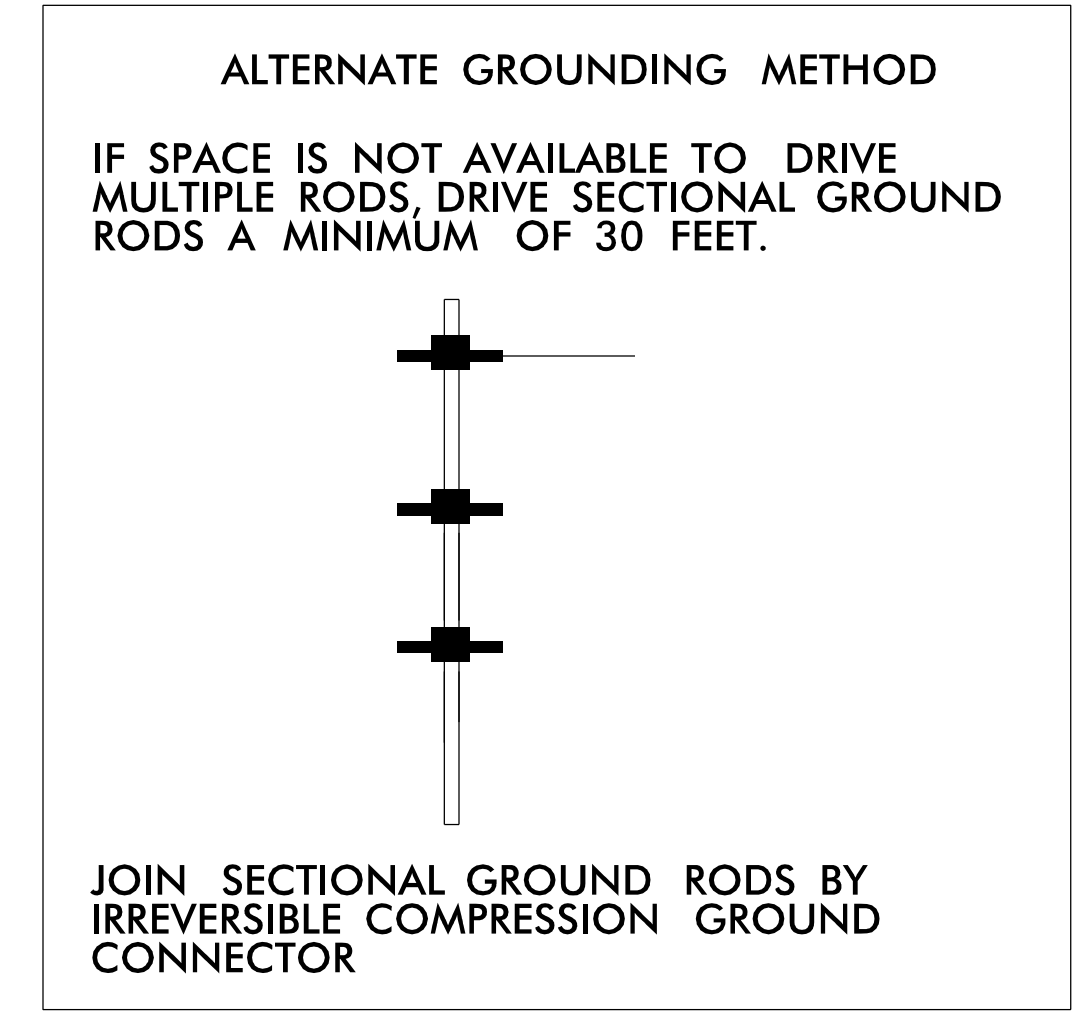
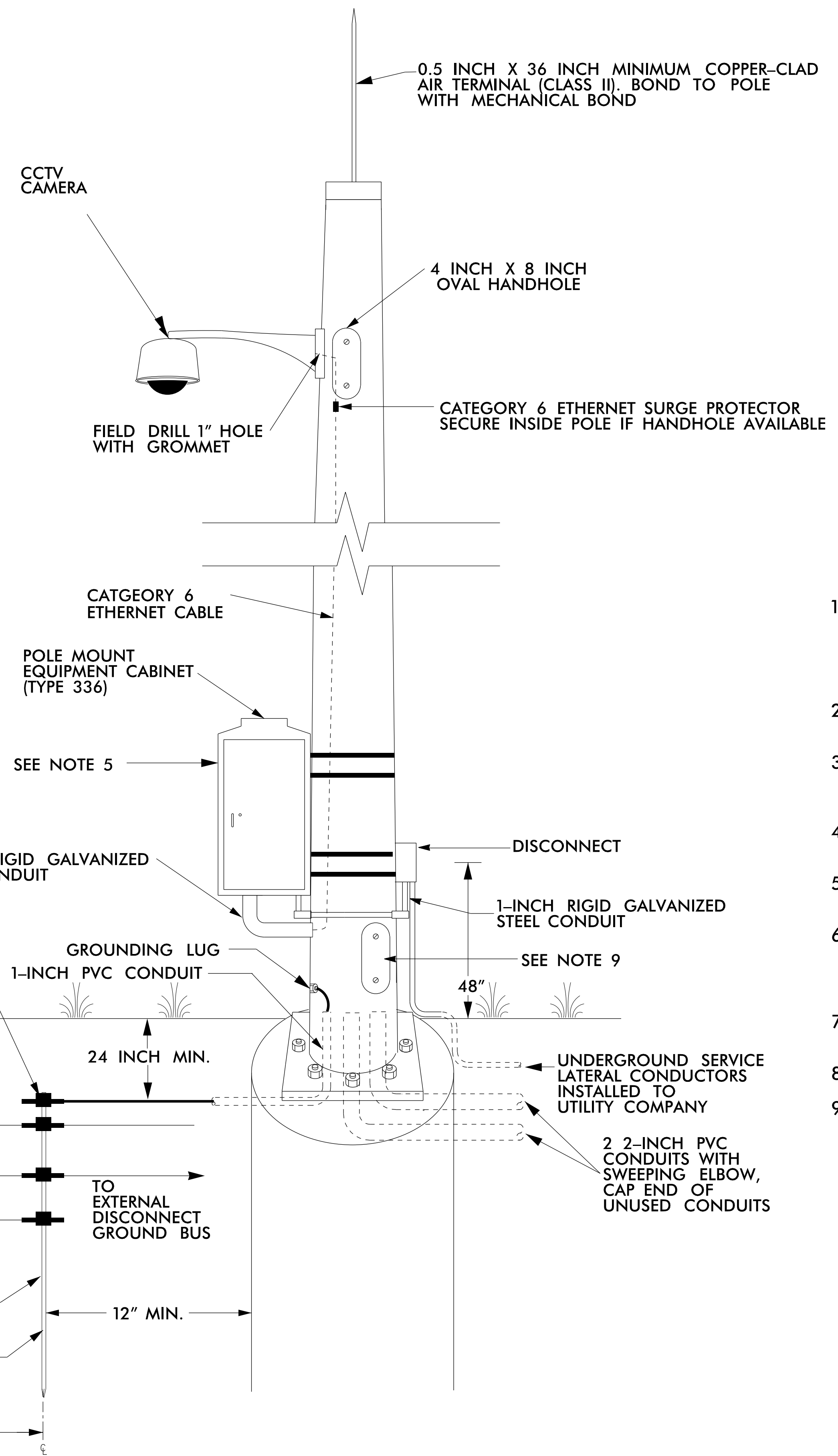
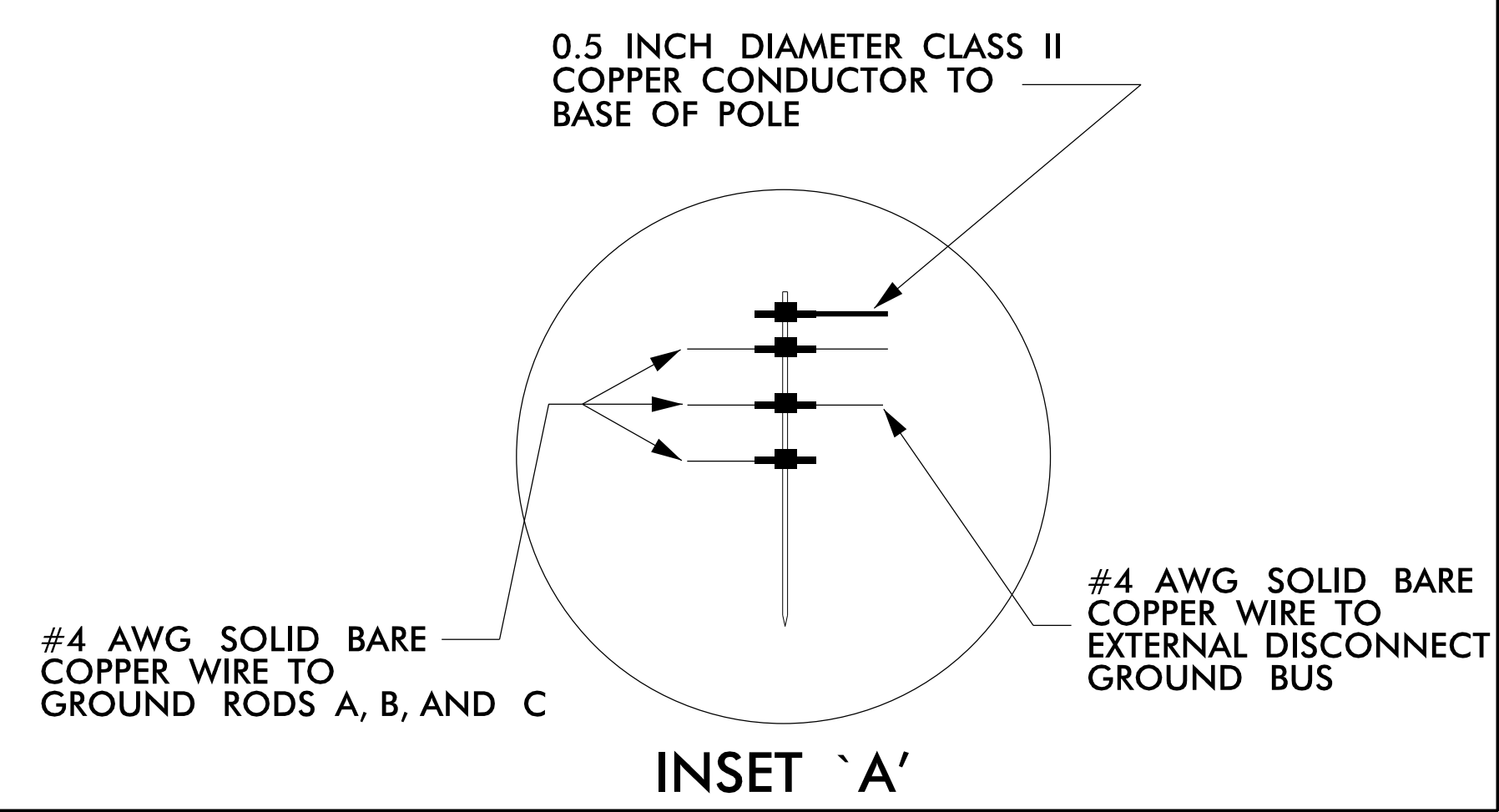
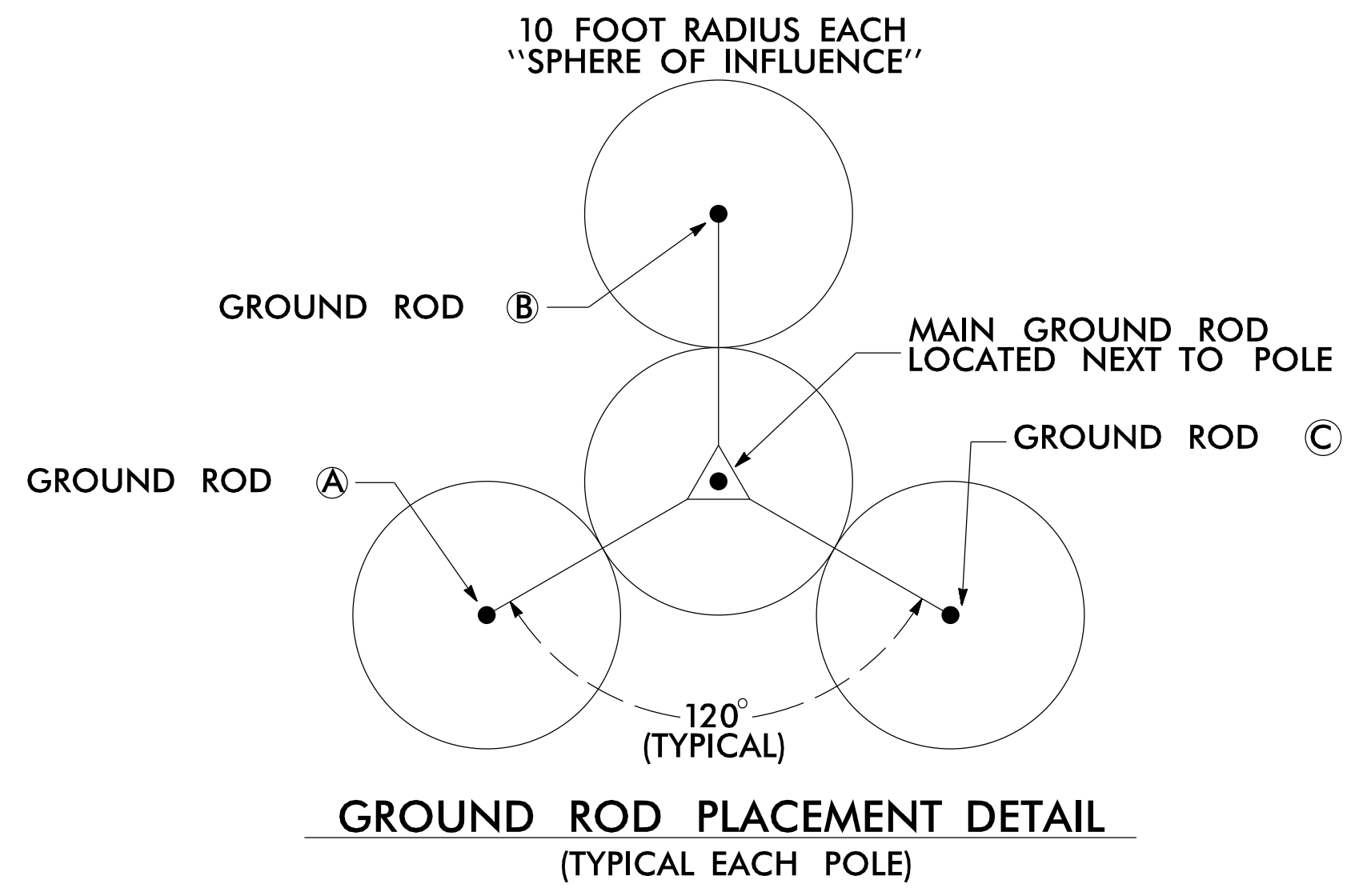
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

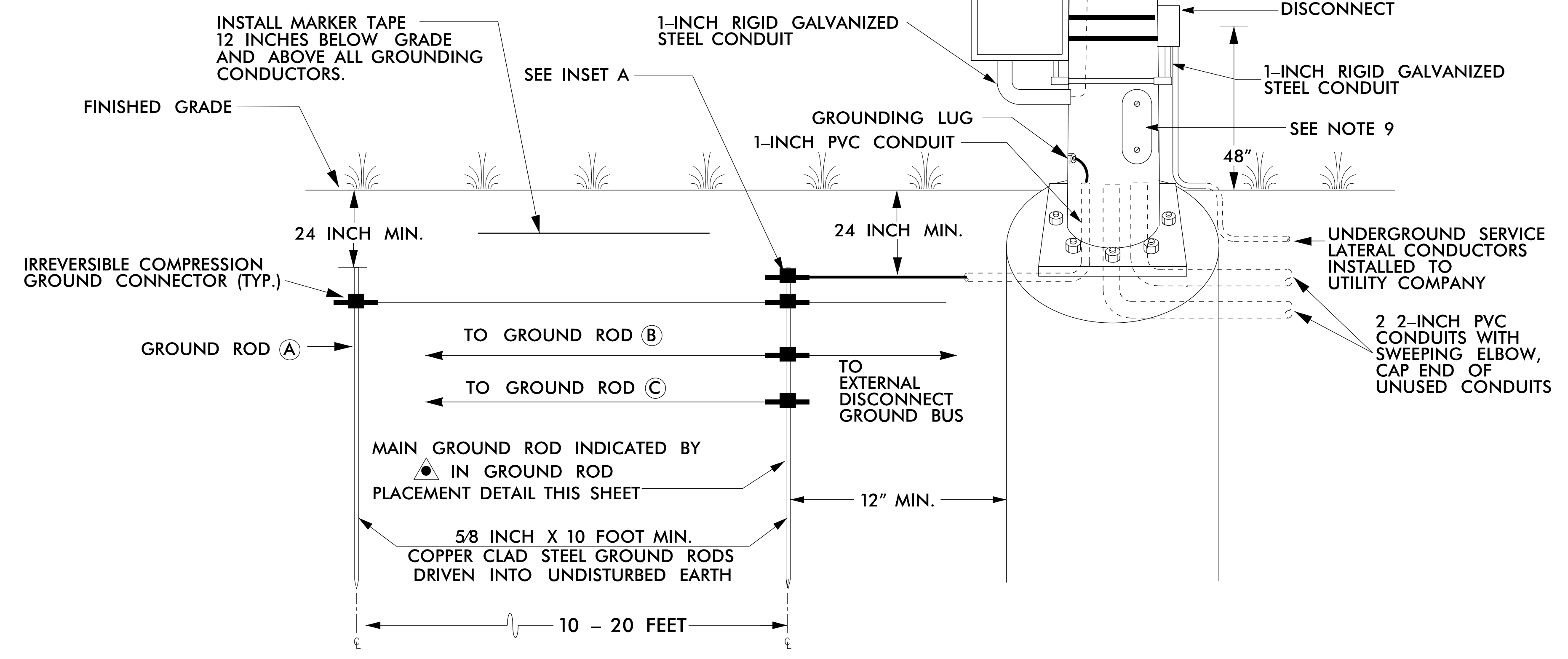
Prepared for the Offices of: 750 Greenfield Parkway, Garner, NC 27529		Burlington-Graham Signal System CCTV Camera Installation, Wood Poles		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 019962 H. A. BADGETT DATE 6/13/2018
Division 7 Alamance County Burlington & Graham		PLAN DATE: June 2018 REVIEWED BY: HA Badgett		SIGNATURE DATE
PREPARED BY: JW/AH REVIEWED BY: BJ Slocum		REVISIONS INIT. DATE		
SCALE NTS				

CCTV MOUNTED ON METAL POLE, POLE MOUNT CCTV CABINET



NOTES

1. USE IRREVERSIBLE COMPRESSION GROUND CONNECTOR TO BOND CLASS II, 28 STRAND (MINIMUM), 15 AWG (MINIMUM) ROPE-LAY BARE COPPER CONDUCTOR TO THE MAIN GROUND ROD. MAINTAIN MAXIMUM HORIZONTAL SEPARATION BETWEEN COPPER CONDUCTOR AND RISER.
2. USE IRREVERSIBLE COMPRESSION GROUND CONNECTOR BETWEEN GROUND CONDUCTOR AND TO GROUND RODS.
3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY AN IRREVERSIBLE COMPRESSION GROUND CONNECTOR.
4. ENSURE CAMERA HOUSING, CAMERA, AND PAN-TILT UNIT ARE BONDED TO POLE.
5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUS AND NEUTRAL BUS.
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.
8. MOUNT DISCONNECT ON OPPOSITE SIDE OF POLE FROM CABINET.
9. FOR CCTV/SIGNAL POLES USE 8" X 27" TERMINAL COMPARTMENT FOR DEDICATED CCTV POLES USE 4" X 8" HANDHOLE.



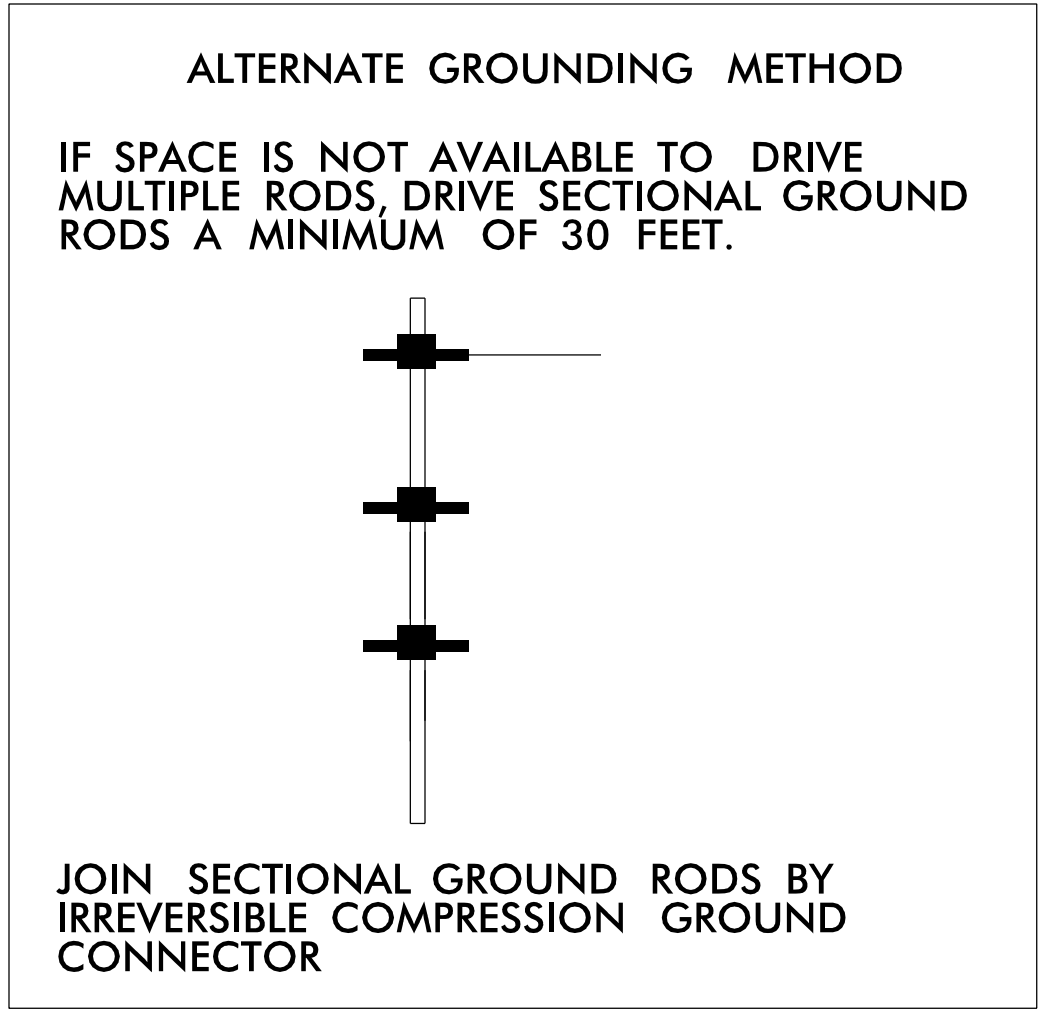
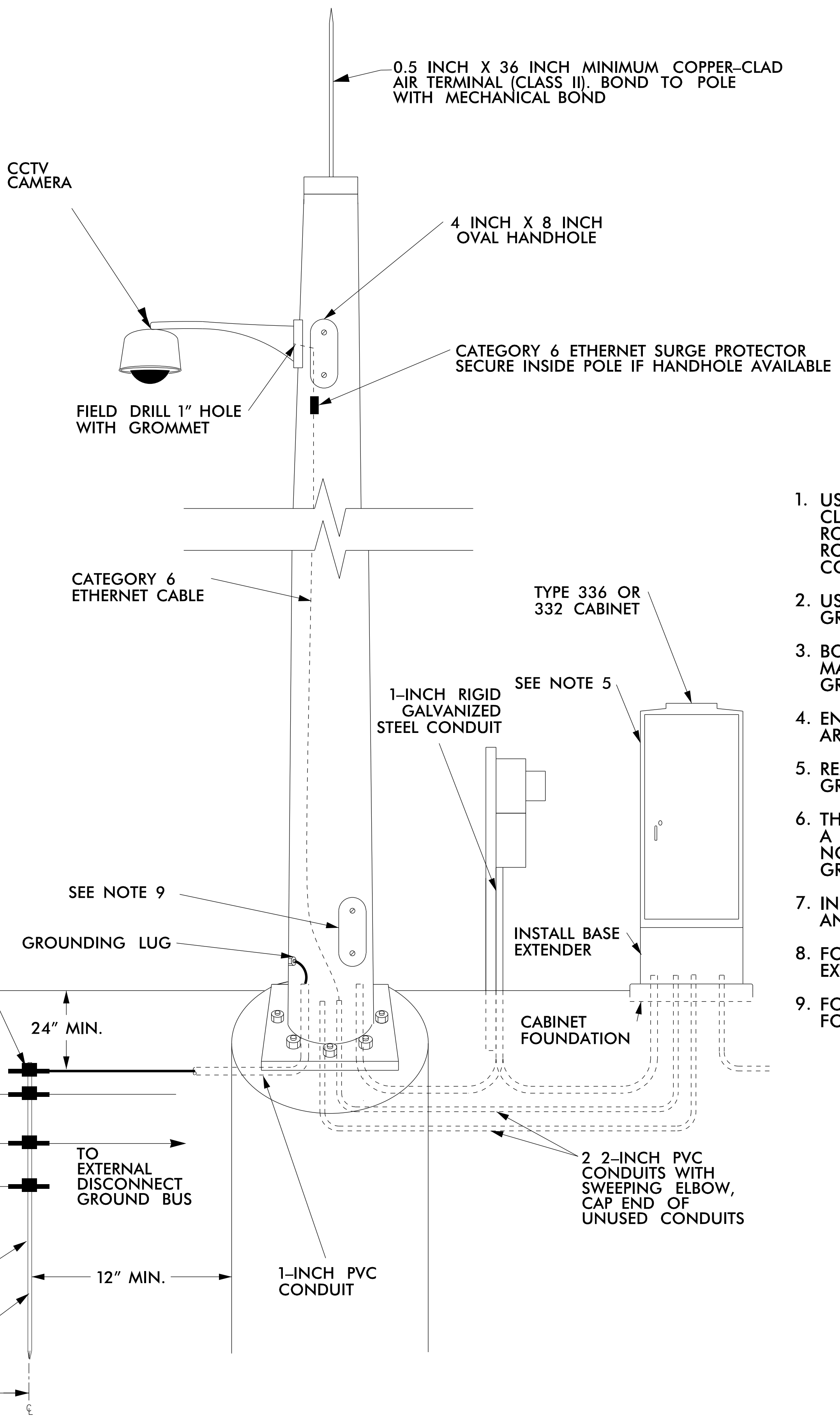
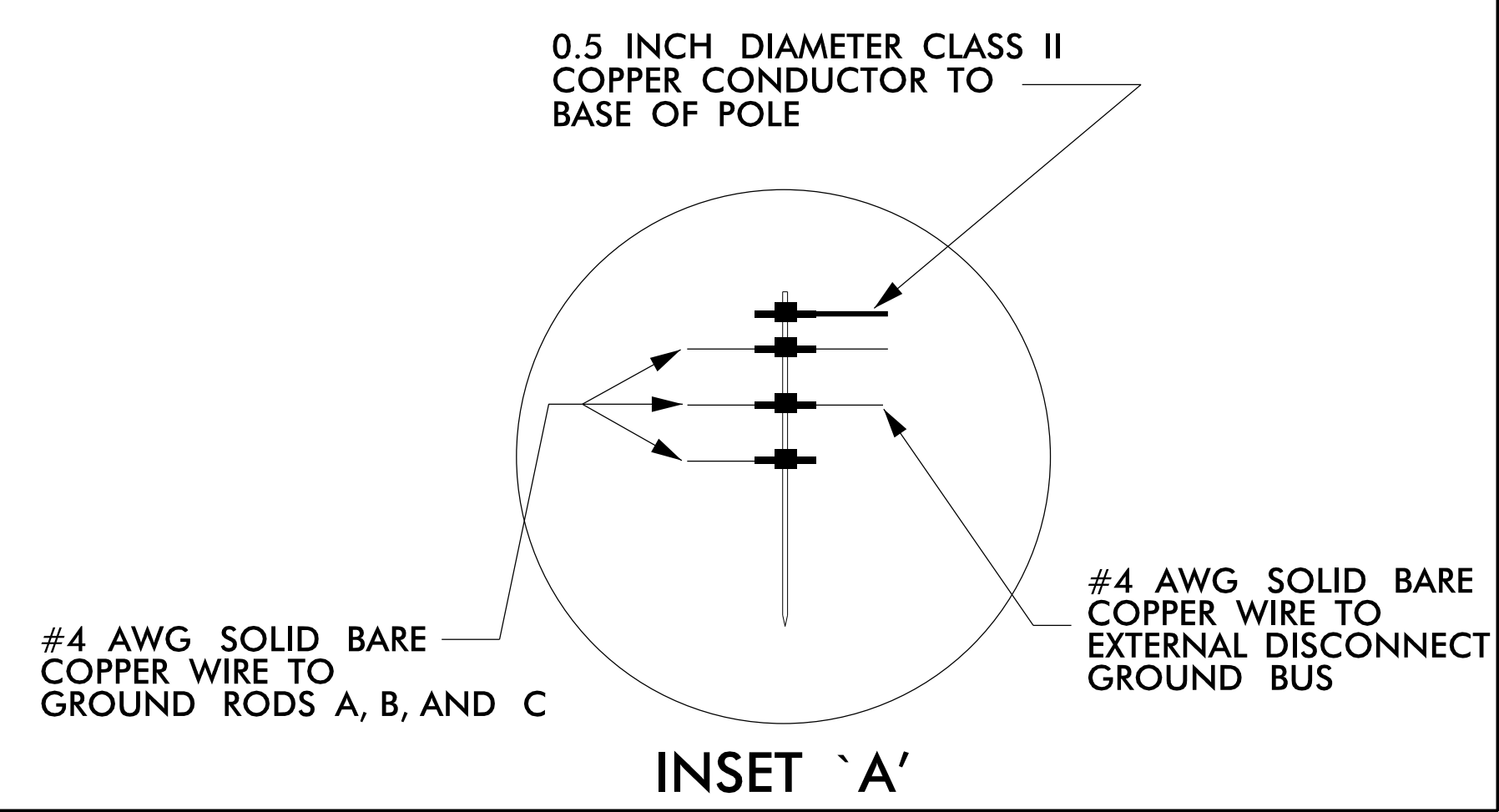
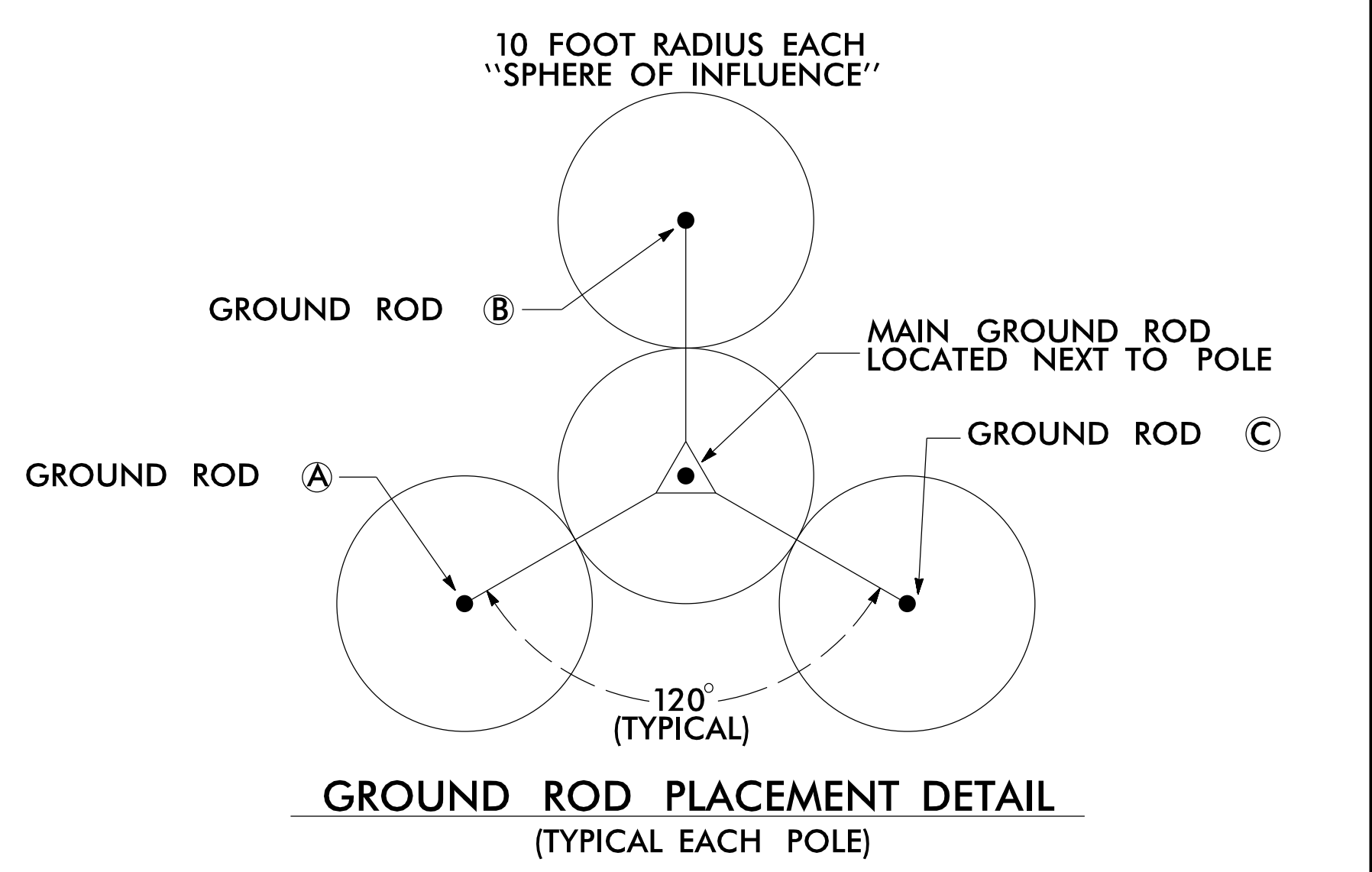
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HOEK7534 AT LUS354180

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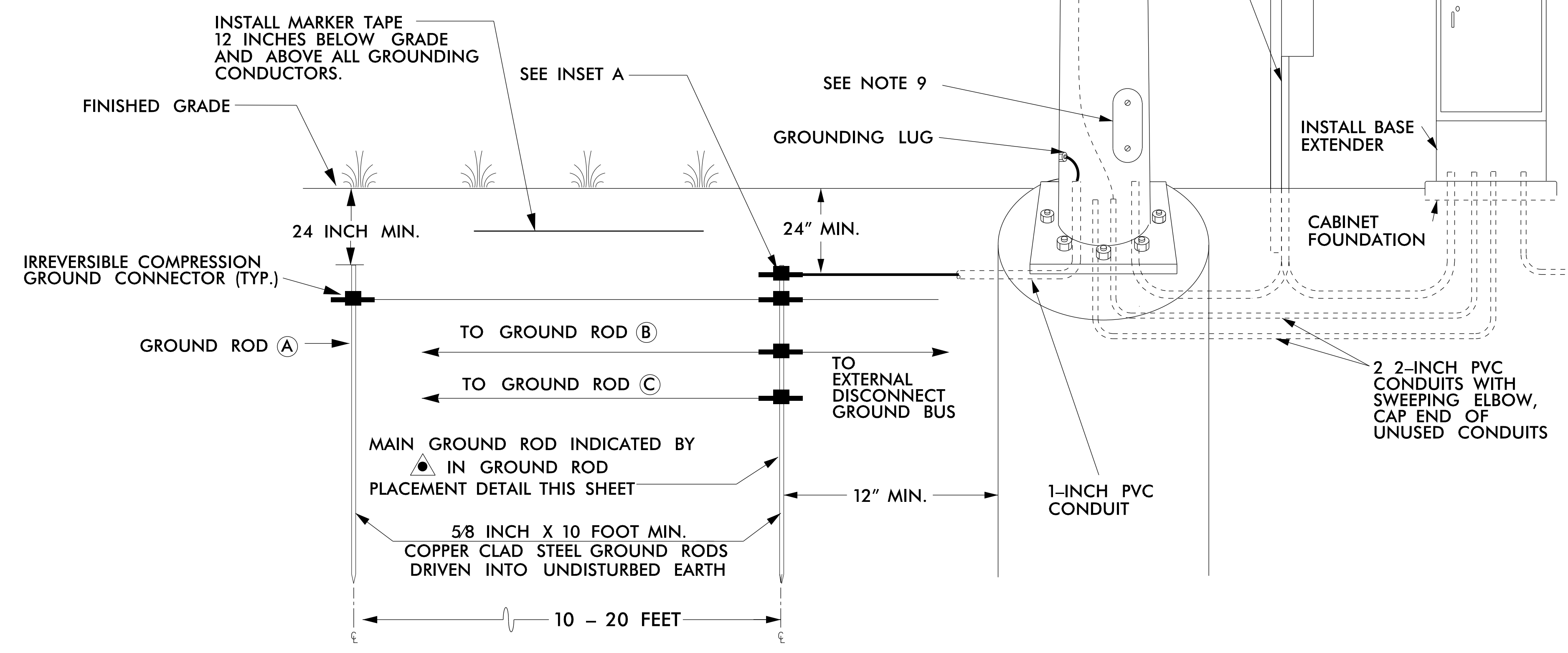
	Burlington-Graham Signal System CCTV Camera Installation, Metal Poles (1 of 3)			
	Division 7 Alameda County Burlington & Graham	PLAN DATE: June 2018		REVIEWED BY: HA Badgett
	PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum		DATE: 13/2018
SCALE: NTS	REVISIONS:	INIT. DATE	SIGNATURE DATE	

CCTV MOUNTED ON METAL POLE GROUND MOUNT SHARED CABINET



NOTES

1. USE IRREVERSIBLE COMPRESSION GROUND CONNECTOR TO BOND CLASS II, 28 STRAND (MINIMUM), 15 AWG (MINIMUM) ROPE-LAY BARE COPPER CONDUCTOR TO THE MAIN GROUND ROD. MAINTAIN MAXIMUM HORIZONTAL SEPARATION BETWEEN COPPER CONDUCTOR AND RISER.
2. USE IRREVERSIBLE COMPRESSION GROUND CONNECTOR BETWEEN GROUND CONDUCTOR AND TO GROUND RODS.
3. BOND #4 AWG SOLID BARE COPPER WIRE TO REBAR CAGE AND THE MAIN GROUND ROD BY AN IRREVERSIBLE COMPRESSION GROUND CONNECTOR.
4. ENSURE CAMERA HOUSING, CAMERA, AND PAN-TILT UNIT ARE BONDED TO POLE.
5. REMOVE BONDING JUMPER BETWEEN EQUIPMENT CABINET GROUND BUS AND NEUTRAL BUS.
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.
8. FOR EXISTING BASE MOUNTED CCTV CABINETS, INSTALL BASE EXTENDER UNDER NEW CABINET.
9. FOR CCTV/SIGNAL POLES USE 8" X 27" TERMINAL COMPARTMENT FOR DEDICATED CCTV POLES USE 4" X 8" HANDHOLE.



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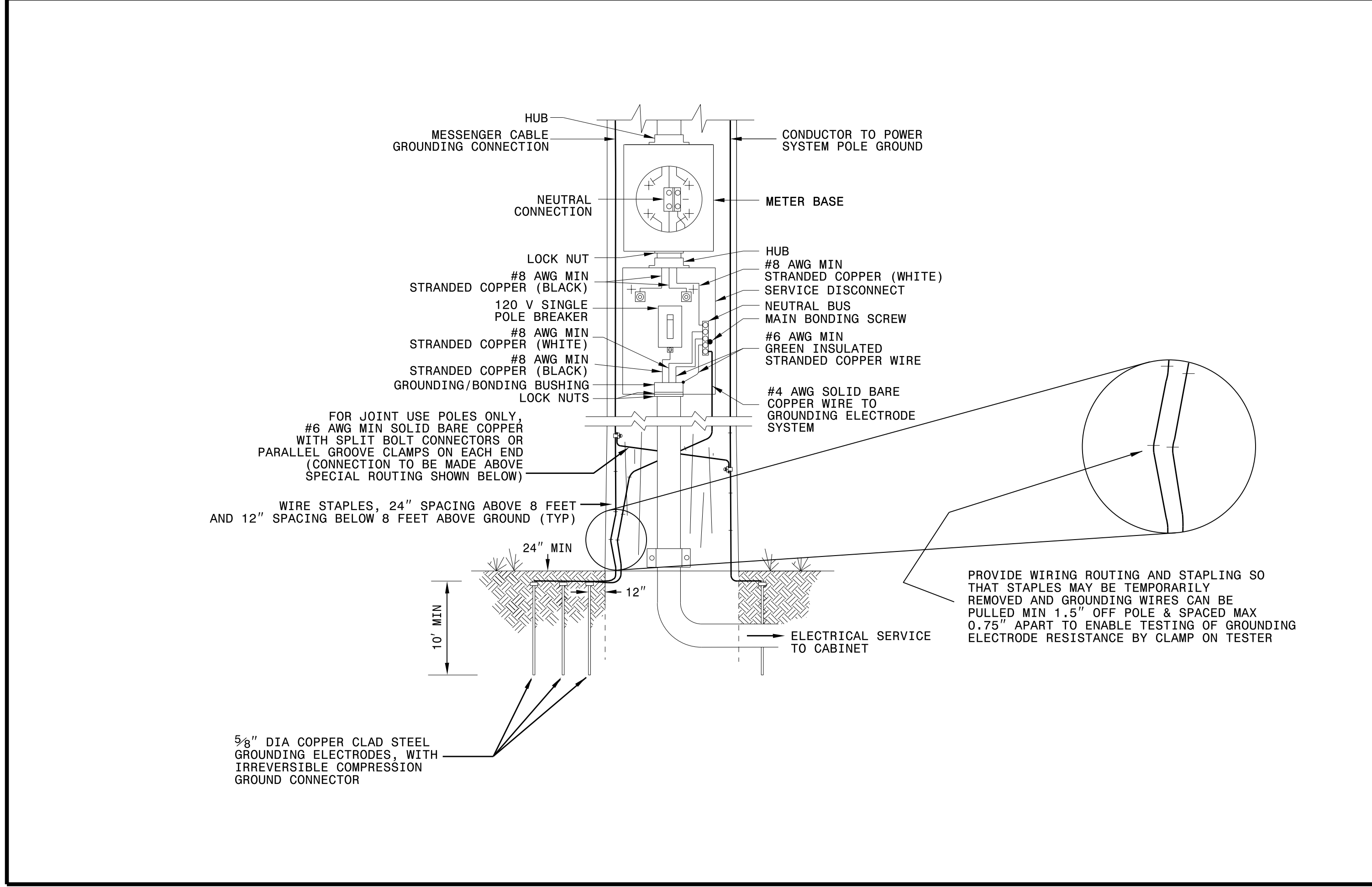
Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 019962 HENRY A. BADGETT 13/2018	
Burlington-Graham Signal System CCTV Camera Installation, Metal Poles (2 of 3)		Division 7 Alamance County Burlington & Graham	
PLAN DATE: June 2018	REVIEWED BY: HA Badgett	PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum
SCALE		DATE	
NTS		DATE	

750 Greenfield Parkway, Garner, NC 27529

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
ELECTRICAL SERVICE GROUNDING
GROUNDING AND BONDING

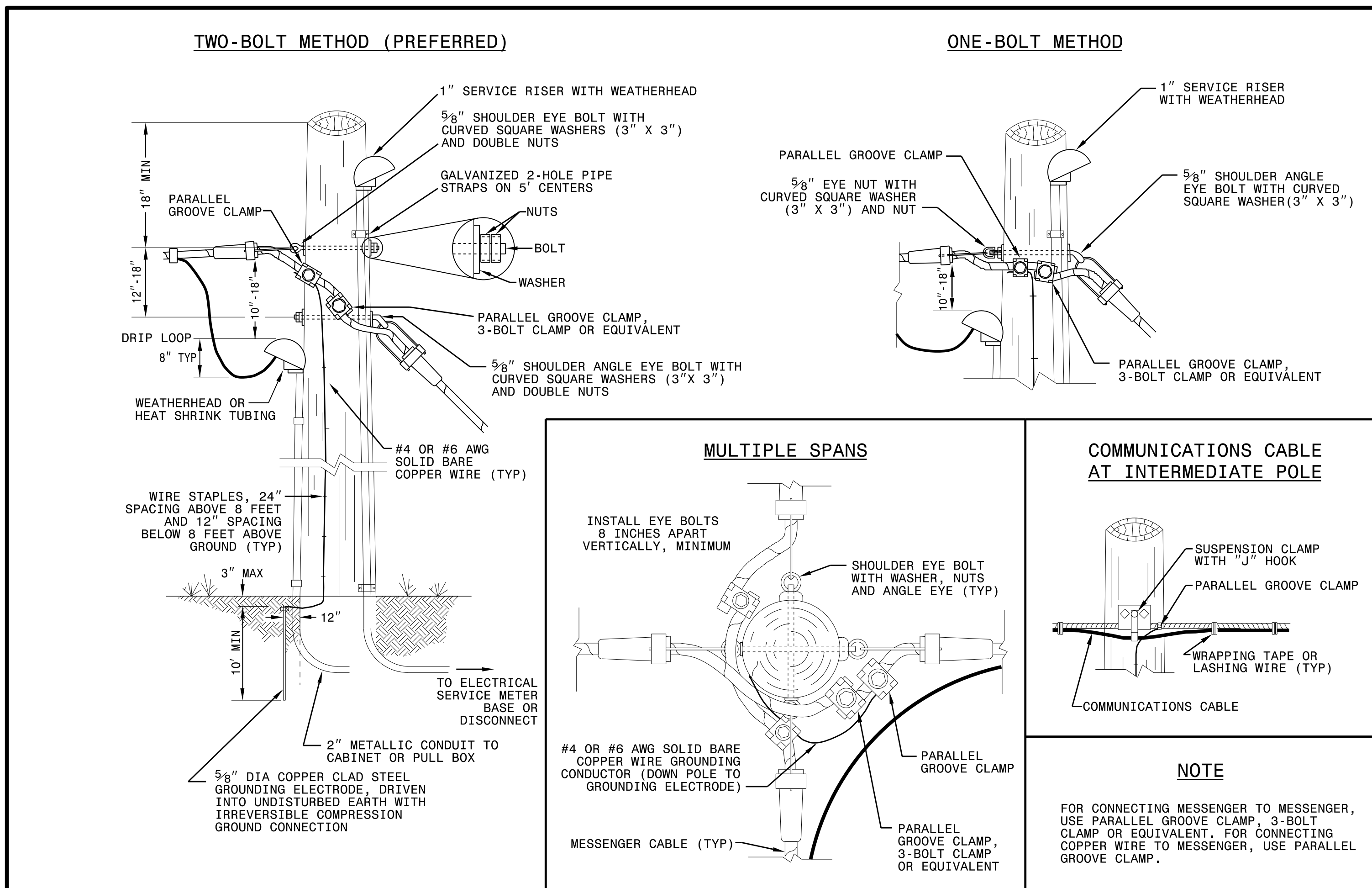
SHEET 1 OF 1
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1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
WOOD POLES
METHODS OF ATTACHMENT AND GROUNDING

SHEET 1 OF 1
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See Plate for Title

Prepared in the Offices of:

SEAL

SEAL
032108
ENGINEER
MOHD A. ASLAMI

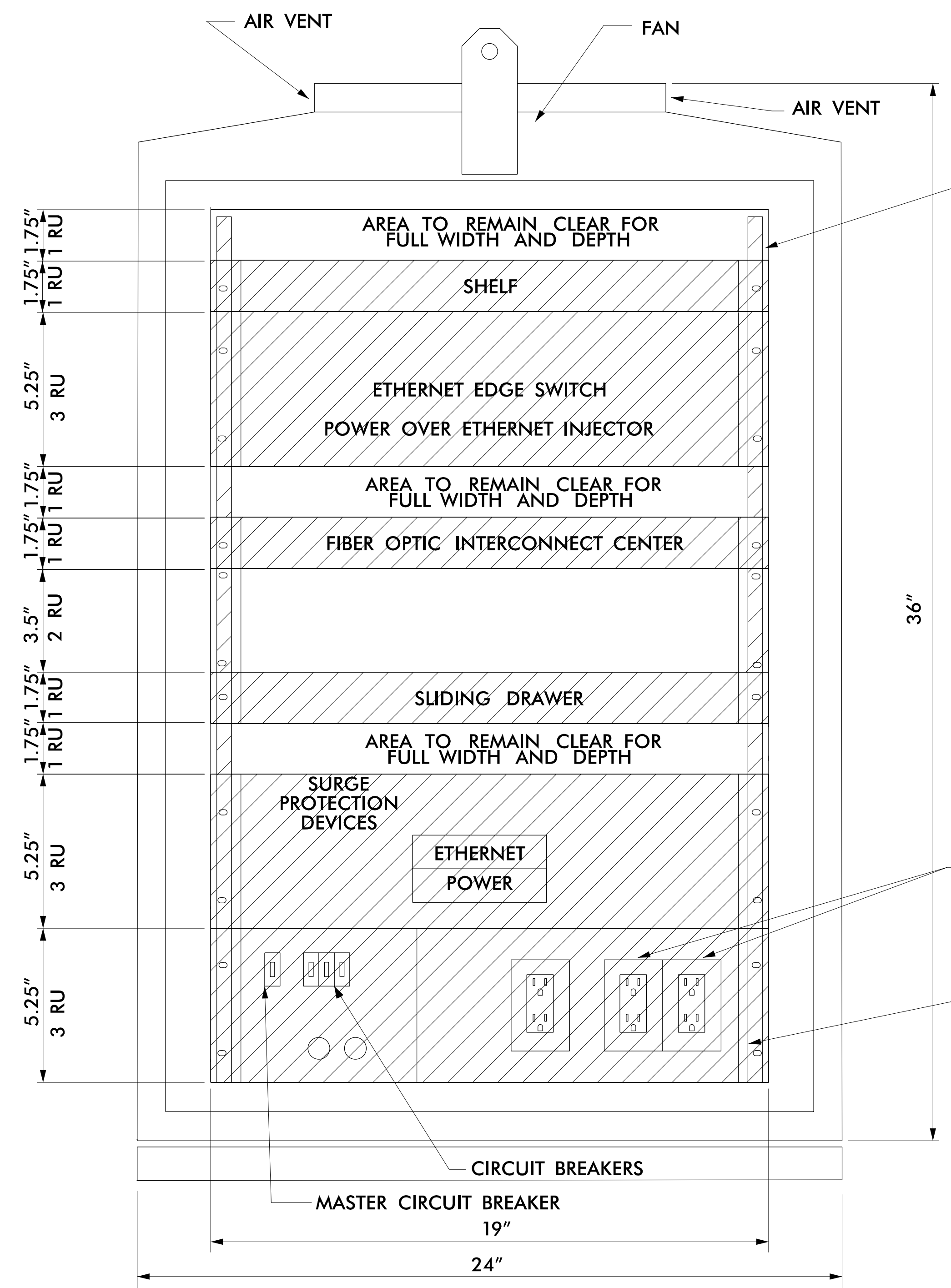
DocuSigned by:
Mohd Aslami

10/11/2017

750 N. Greenfield Parkway
Garner, NC 27529

DATE

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FRONT VIEW

NOTES

1. ALL DIMENSIONS AND SCALE ARE APPROXIMATE.
2. CABINETS WILL BE CALTRANS TYPE 336A
3. CONDUIT ENTRANCES SHALL BE IN BOTTOM OF CABINET.
4. THERE WILL BE FRONT AND REAR DOORS. BOTH DOORS SHALL HAVE THE HINGE-SIDE NEXT TO THE POLE WHEN POLE MOUNTED.

19" EIA RACK WITH TAPPED 10-32 THREADED HOLES

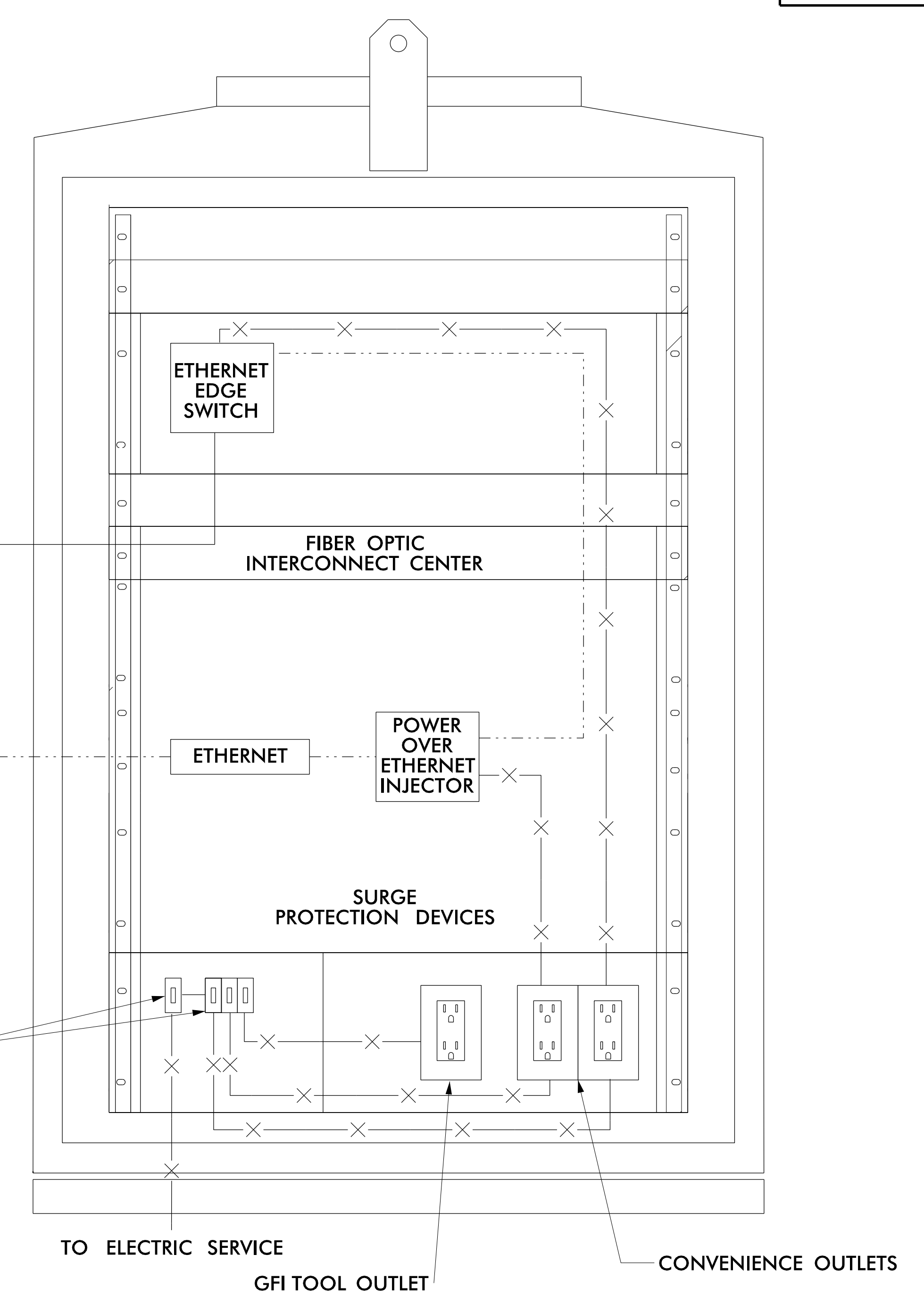
TVSS PROTECTED OUTLETS (2) FOR EQUIPMENT

POWER DISTRIBUTION ASSEMBLY SERVICE ENTRANCE, BREAKER, PRIMARY AC POWER FILTER, TERMINAL BLOCKS, GROUND BUS BAR

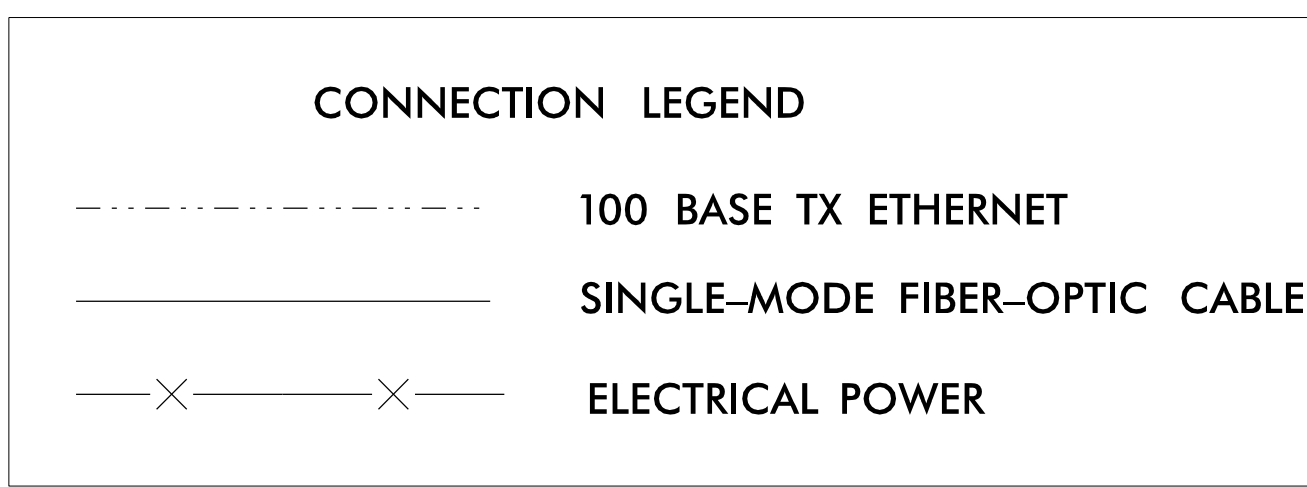
TO FIBER-OPTIC COMMUNICATIONS NETWORK

CATEGORY 6 ETHERNET CABLE

CIRCUIT BREAKERS



CABINET WIRING VIEW



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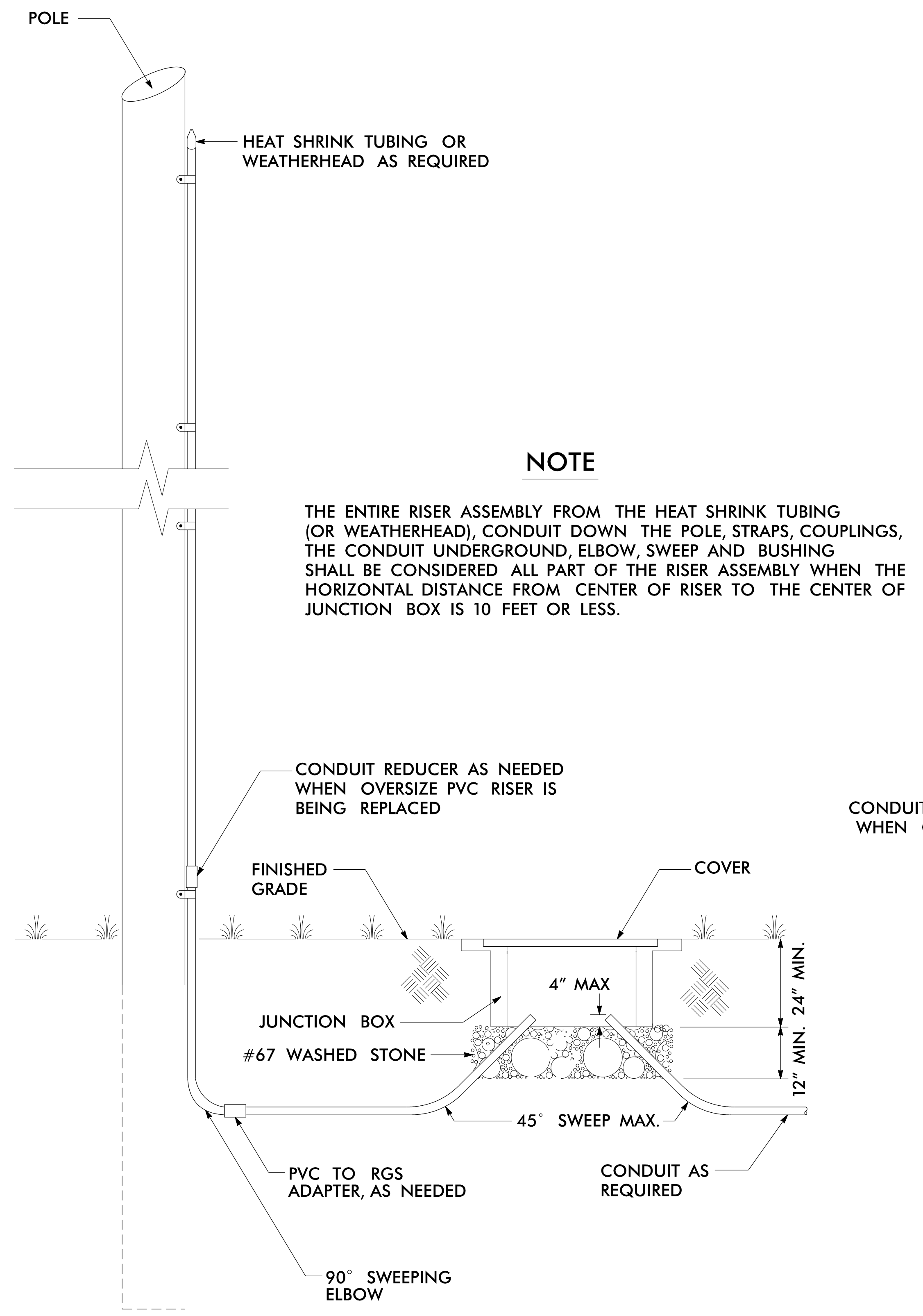
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Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		Burlington-Graham Signal System CCTV Cabinet Assembly Layout		SEAL NORTH CAROLINA PROFESSIONAL SEAL 019962 ENGINEER H. ALFRED BADGETT 11/13/2018
750 Greenfield Parkway, Garner, NC 27529 SCALE NTS		Division 7 Alamance County Burlington & Graham PLAN DATE: June 2018 REVIEWED BY: HA Badgett PREPARED BY: JW/AH REVIEWED BY: BJ Slocum		DATE REVISIONS INIT. DATE
SIGNATURE DATE		SIGNATURE DATE		DATE

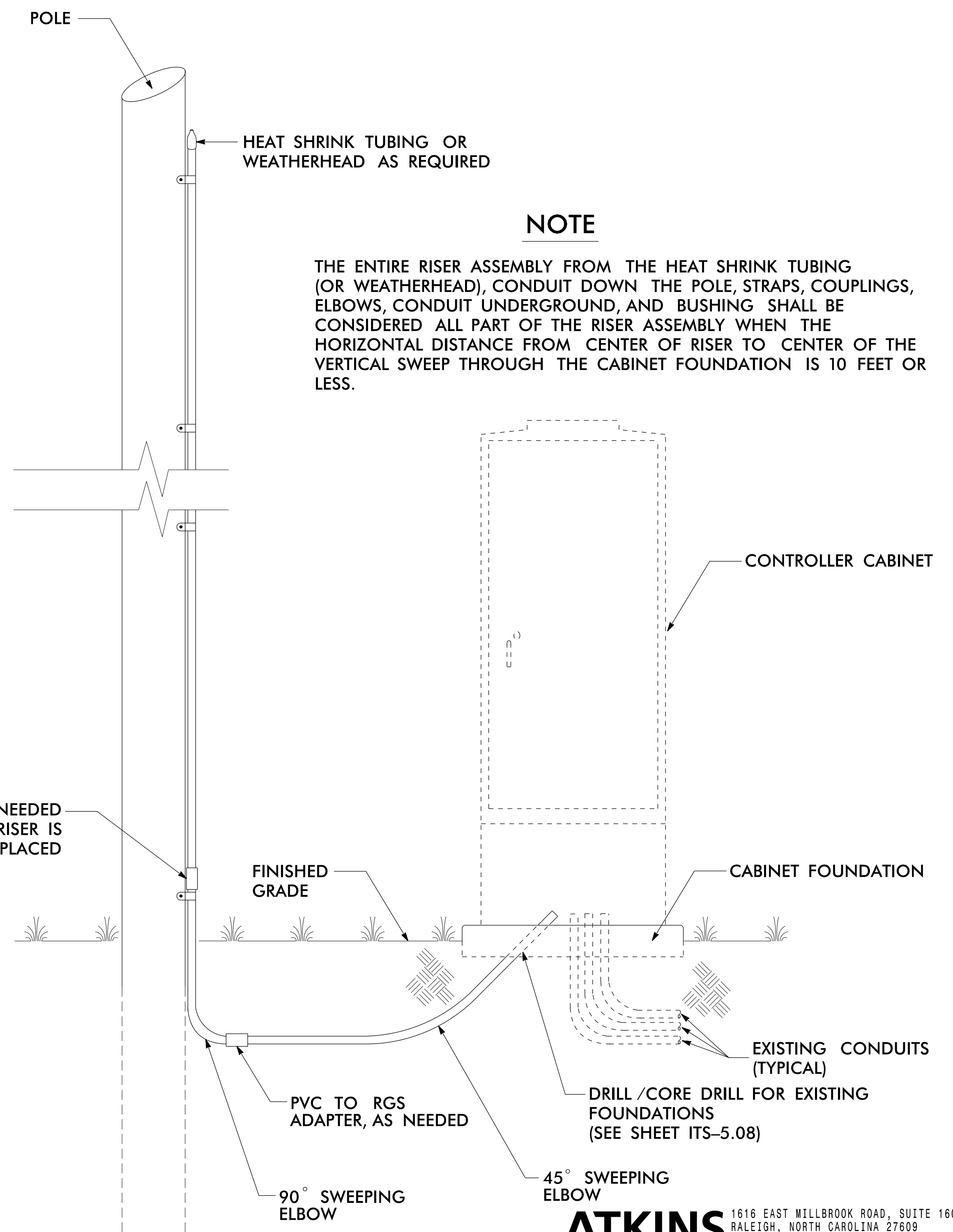
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TYPICAL RISER DETAILS

RISER TO JUNCTION BOX



RISER TO CABINET FOUNDATION



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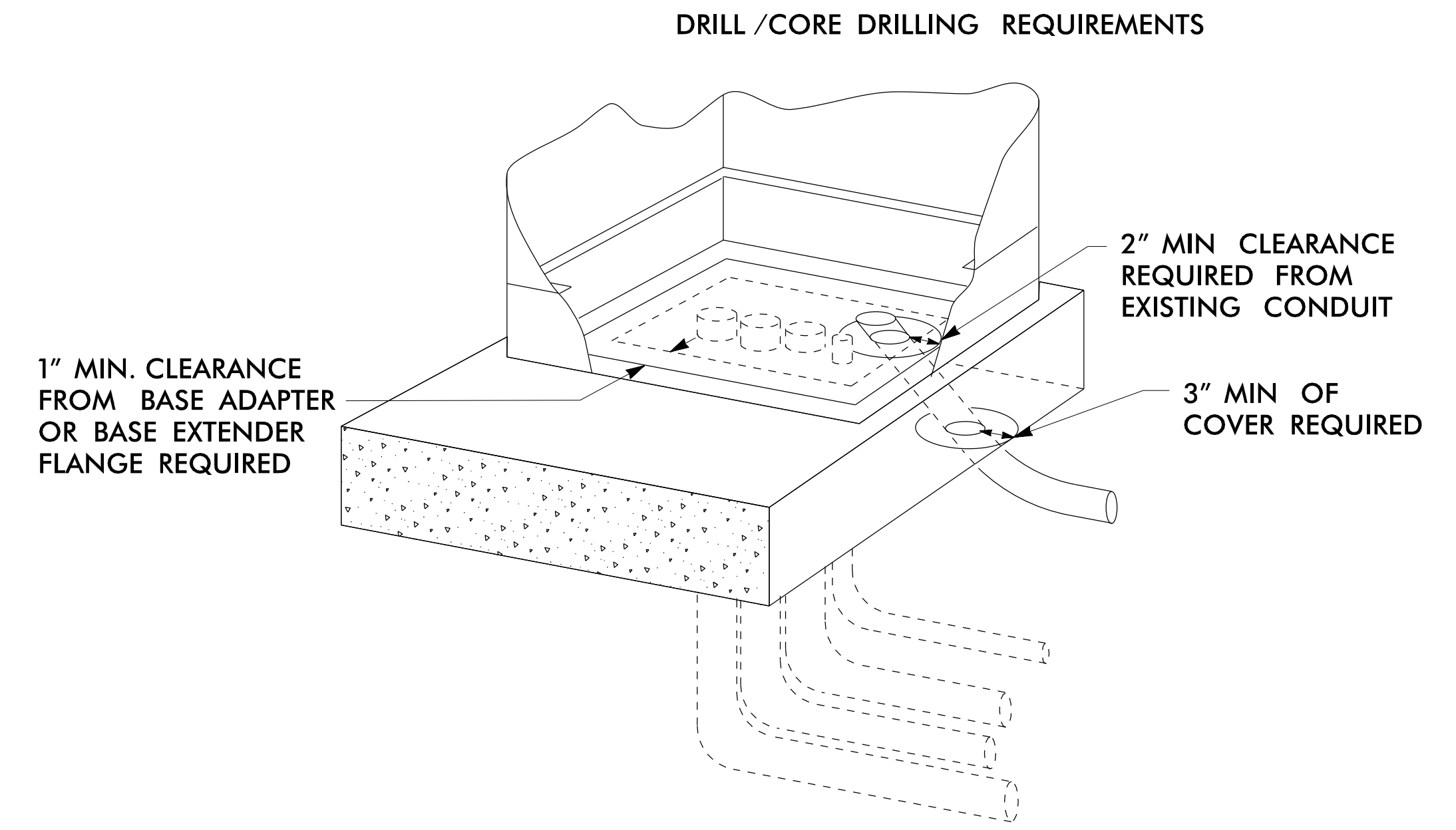
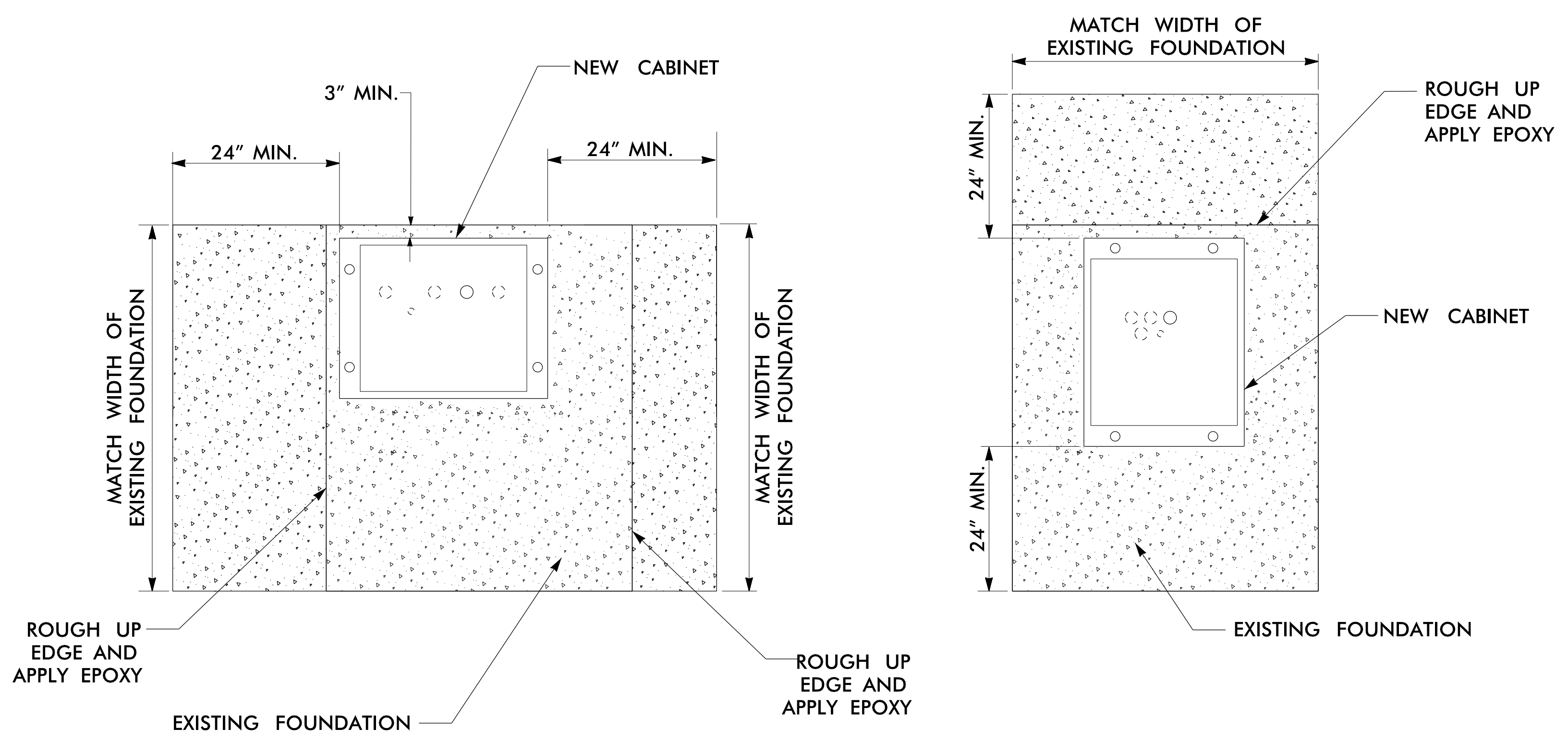
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		Burlington-Graham Signal System Riser Detail		
Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		Division 7 Alamance County Burlington & Graham		
PLAN DATE:	June 2018	REVIEWED BY:	HA Badgett	DATE: 13/2018 SIGNATURE:
PREPARED BY:	JW/AH	REVIEWED BY:	BJ Slocum	
SCALE:	NTS	REVISIONS:	INIT. DATE	

CADD File name: 270_034_U-6015_1

TYPICAL FOUNDATION MODIFICATIONS



FOUNDATION EXTENSION	LENGTH OF DOWEL
>16"	18"
>6' AND ≤16"	11"
=6"	8"

NOTES

FOR FOUNDATION MODIFICATIONS:

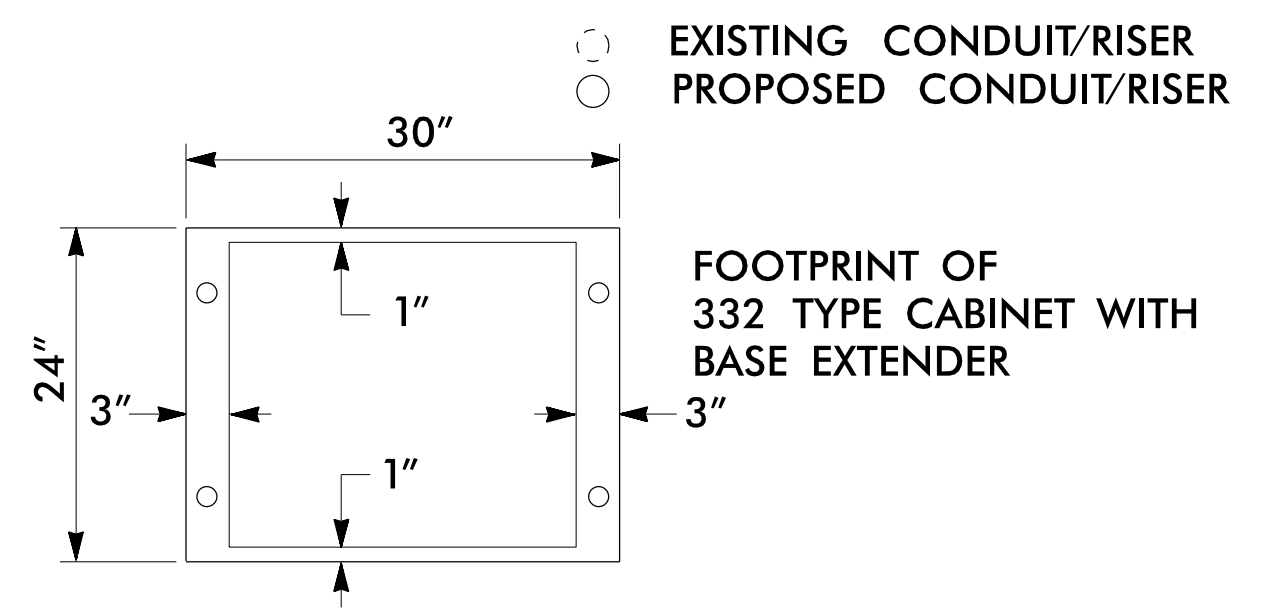
- MAINTENANCE TECHNICIAN PADS SHALL BE ADDED TO THE FOUNDATION TO PROVIDE A MINIMUM PAD AREA THAT EXTENDS 24" FROM THE FRONT AND BACK OF THE CABINET, AND MATCHES THE WIDTH OF THE EXISTING FOUNDATION.
- EXCAVATE THE GROUND AROUND THE EXISTING FOUNDATION TO A DEPTH SUFFICIENT TO EXPOSE A MINIMUM OF 4" OF THE FOUNDATION BELOW EXISTING GRADE.
- ROUGH THE SIDES OF THE EXISTING FOUNDATION FROM THE TOP TO A POINT FOUR INCHES BELOW GRADE BY MEANS OF A CHISEL OR OTHER METHOD APPROVED BY THE ENGINEER.
- WASH THE SIDES OF THE FOUNDATION WITH WATER PRESSURIZED AT 50 PSI AND THOROUGHLY DRY WITH COMPRESSED AIR.
- DRILL HOLES APPROXIMATELY 6" DEEP ON 12-INCH CENTERS INTO THE EXISTING FOUNDATION. INSTALL #4 DOWELS AND EPOXY INTO PLACE. DOWELS SHALL BE THE LENGTH SHOWN IN THE TABLE ABOVE.
- FORM THE SIDES OF THE MODIFIED FOUNDATION TO A MINIMUM DEPTH OF 4" BELOW GRADE.
- POSITION FORMS SO THAT ALL EXISTING EXPOSED FOUNDATION SURFACES AT OR ABOVE GRADE LEVEL WILL BE MATCHED.
- APPLY A COATING OF APPROVED EPOXY BONDING AGENT TO ALL EXPOSED ROUGHENED CONCRETE SURFACES AS RECOMMENDED BY THE MANUFACTURER.
- PROVIDE A ONE INCH CHAMFER ON ALL NEW OUTSIDE EDGES.
- USE CONCRETE TO INSTALL THE MAINTENANCE TECHNICIAN PAD.
- WHERE CABINETS ARE RELOCATED OR ROTATED ON EXISTING FOUNDATION, CUT OFF ANY EXISTING CABINET MOUNTING BOLTS AND GRIND FLUSH WITH THE PAD SURFACE.

NOTES

FOR DRILL AND CORE DRILLING:

- A MINIMUM OF 3" OF COVER SHALL BE MAINTAINED BETWEEN NEW CONDUIT AND EDGE OF EXISTING FOUNDATION.
- MINIMUM CLEARANCES OF 1" FROM THE FLANGE OF THE BASE ADAPTER AND 2" FROM EXISTING CONDUITS SHALL BE MAINTAINED.
- AVOID DAMAGING EXISTING CONDUIT, CONDUCTORS, AND ANCHOR BOLTS. CONTRACTOR SHALL REPAIR SUCH DAMAGES.
- WHERE APPROVED BY THE ENGINEER, EXISTING FOUNDATION MAY BE CHIPPED INSTEAD OF DRILLED FOR CONDUIT ENTRANCE.
- BOND NEW METALLIC CONDUIT TO THE CABINET GROUNDING SYSTEM.
- AFTER INSTALLATION OF CONDUIT, PLACE GROUT TO SEAL AROUND CONDUIT, AND RETURN EXISTING FOUNDATION TO NORMAL APPEARANCE.

LEGEND



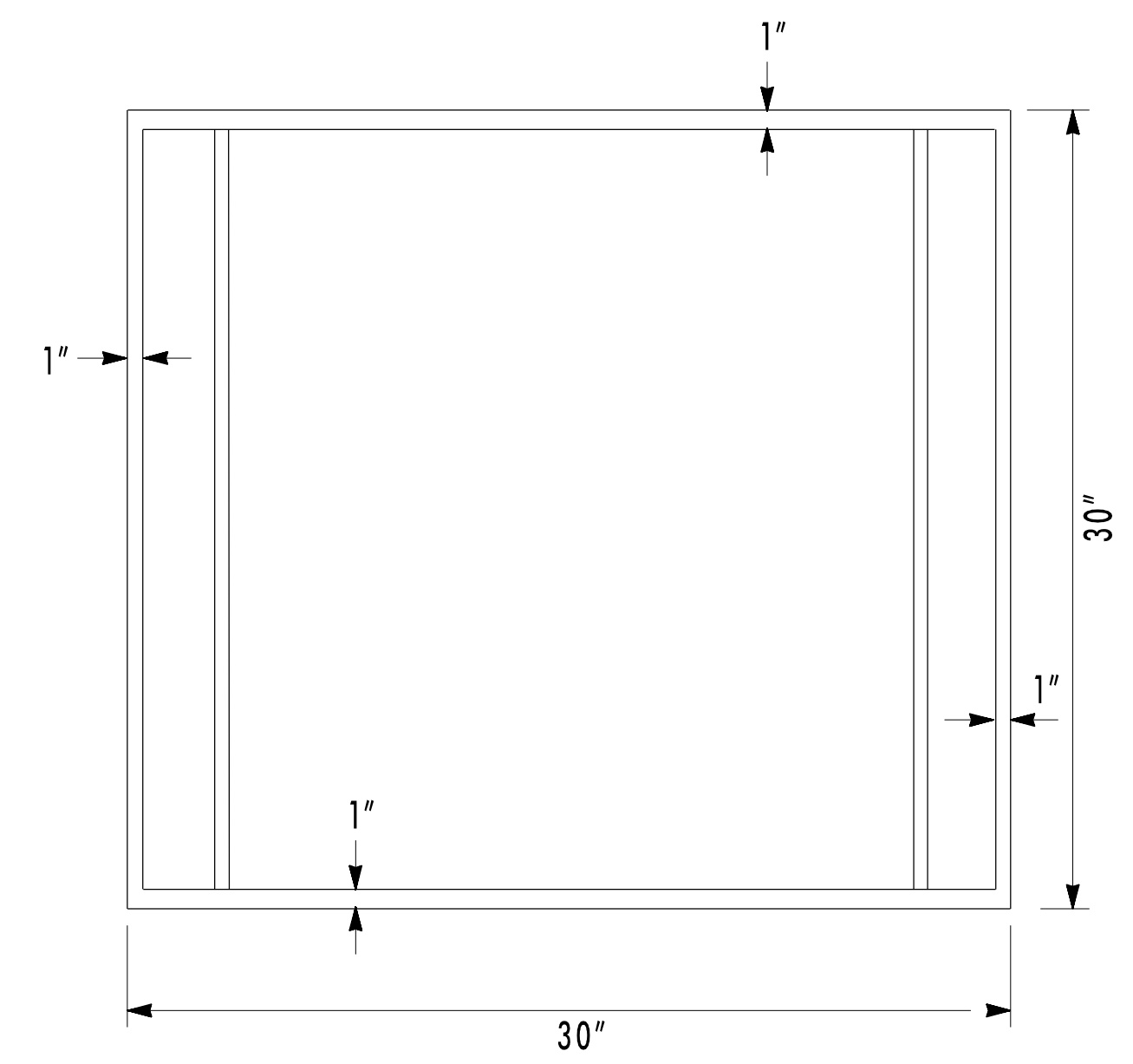
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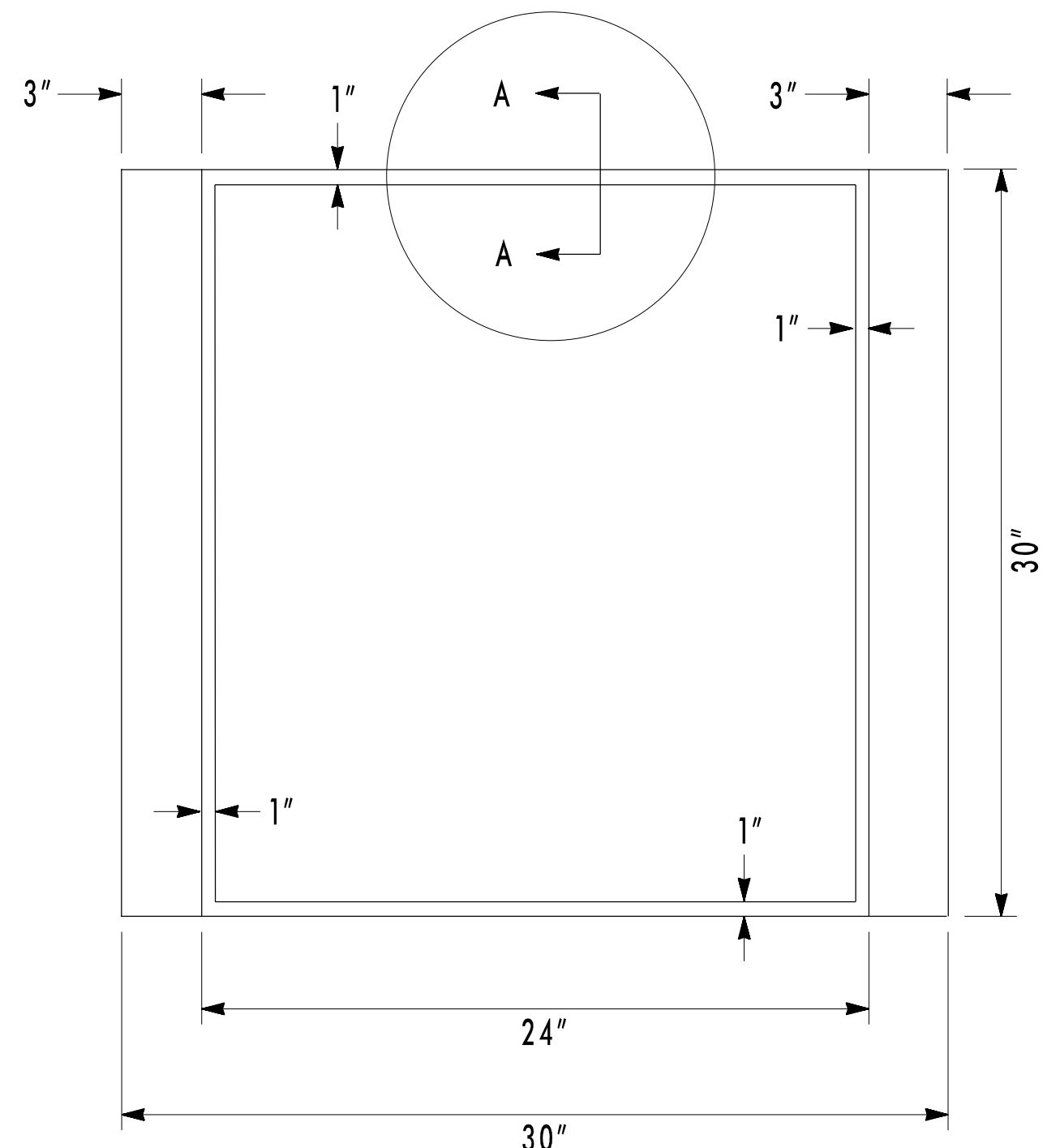
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Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
Burlington-Graham Signal System Foundation Modification Detail	
Division 7 Alamance County Burlington & Graham	
PLAN DATE: June 2018	REVIEWED BY: HA Badgett
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum
SCALE: NTS	
REVISIONS:	
INIT.	DATE
SIGNATURE:	
DATE: 6/13/2018	

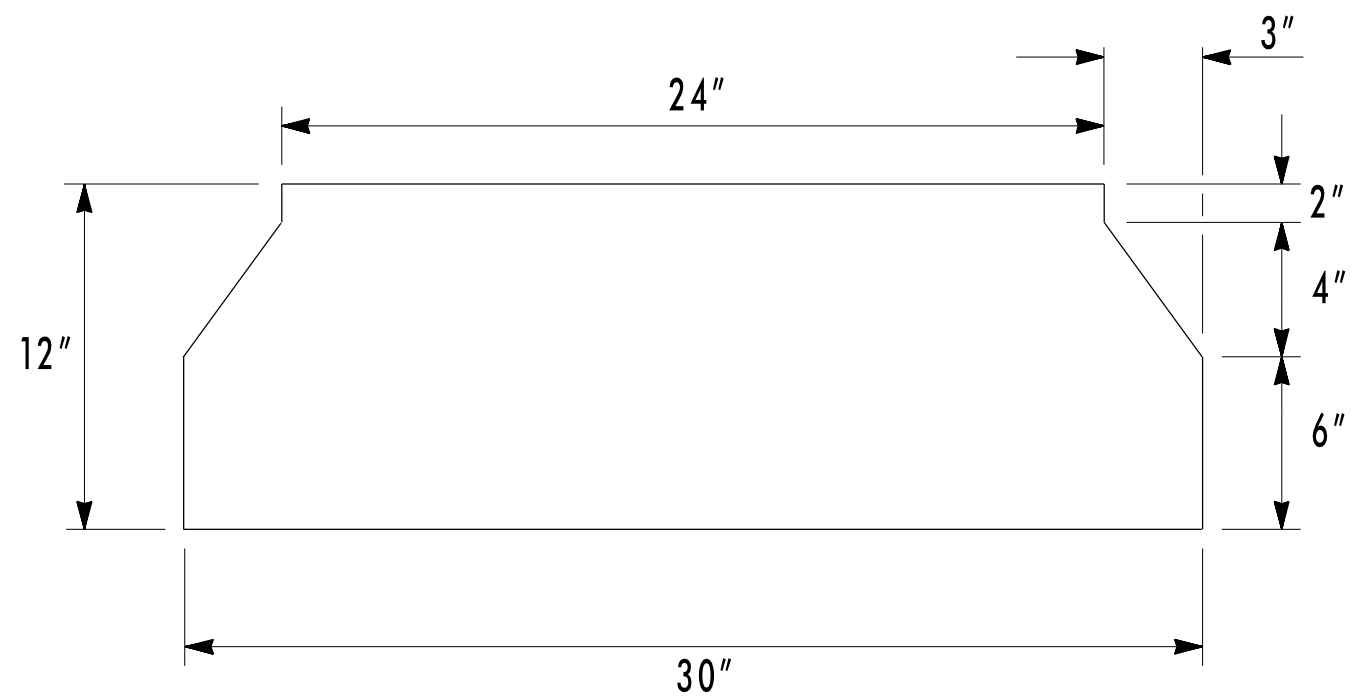
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BOTTOM VIEW



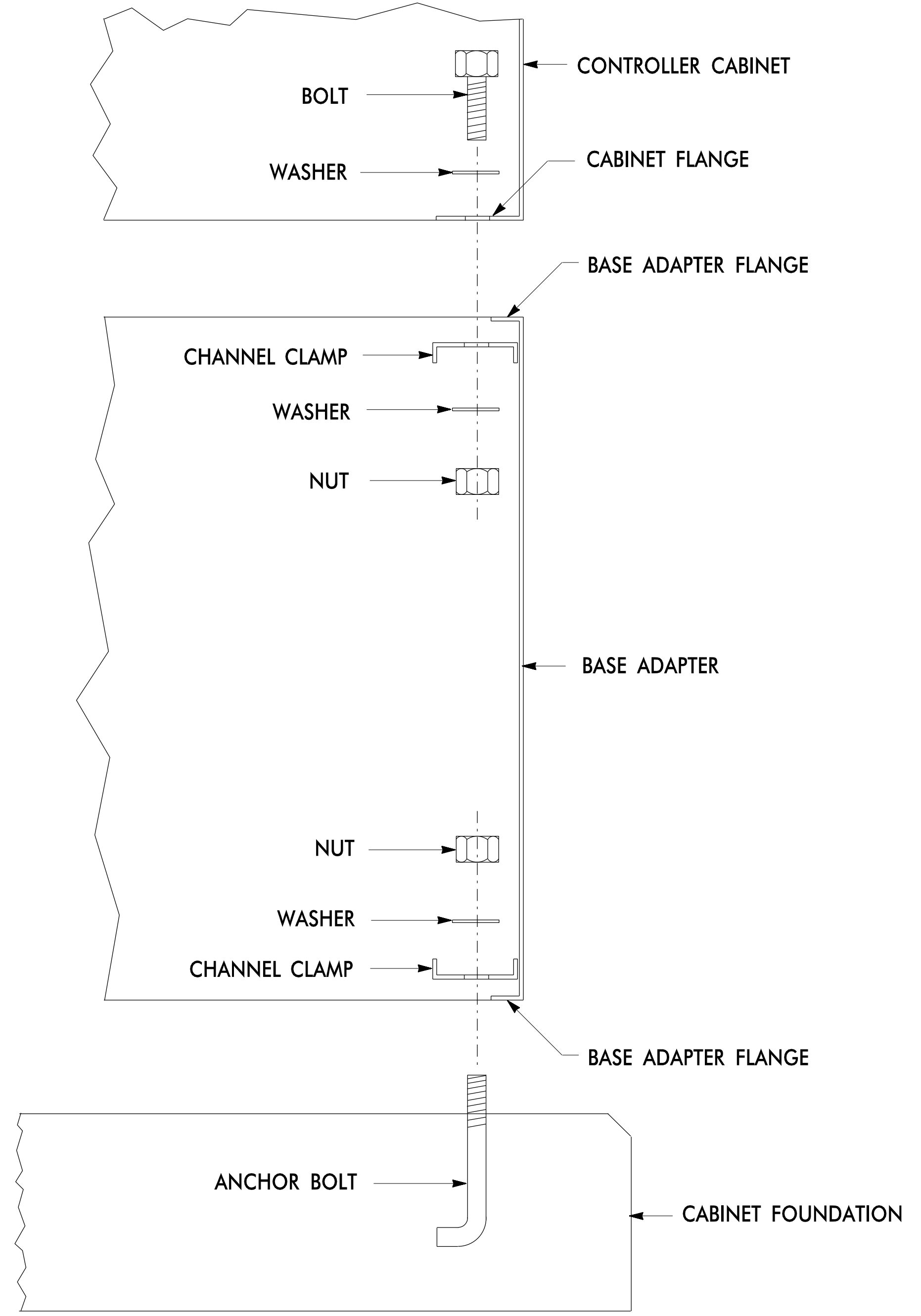
TOP VIEW



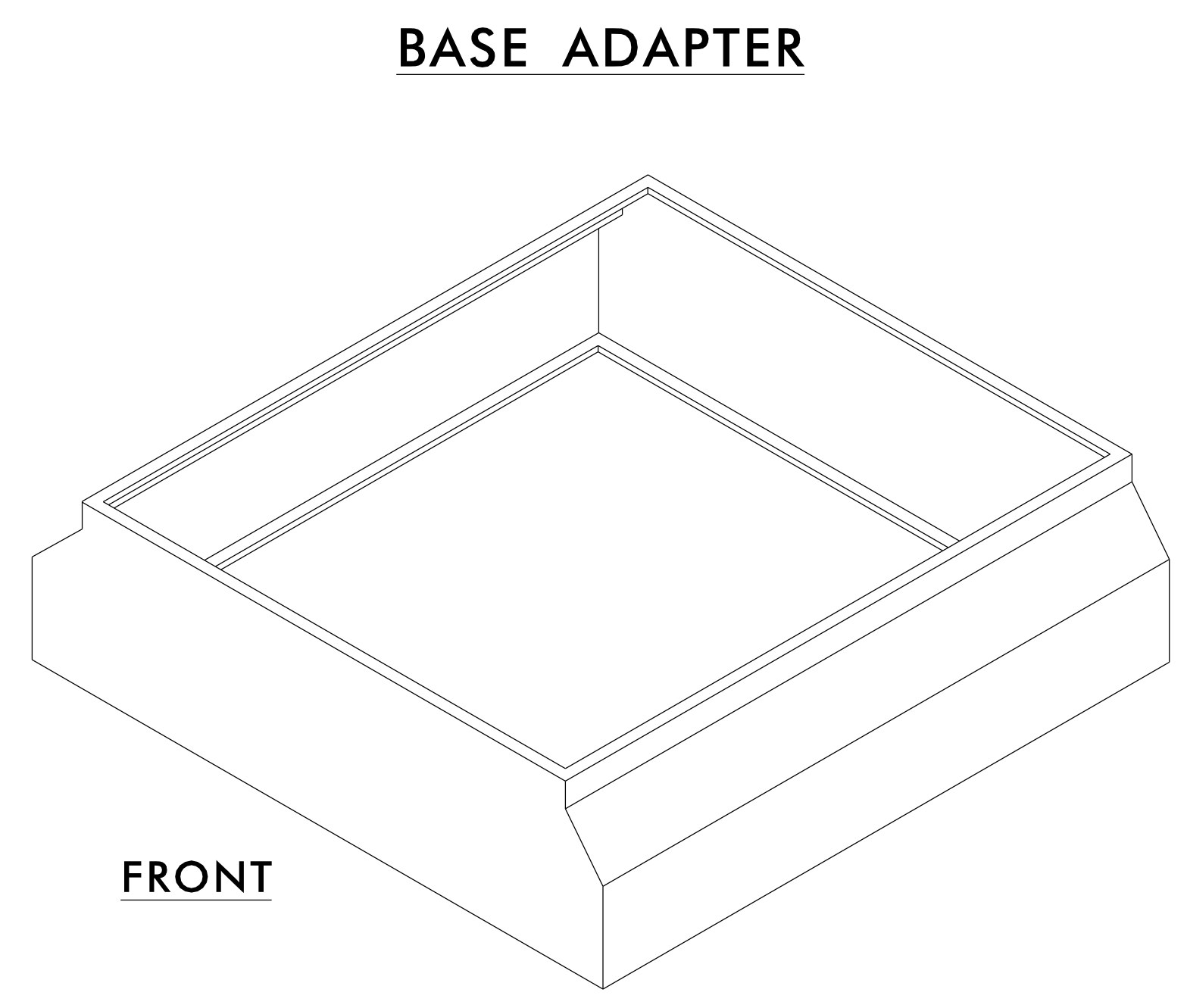
FRONT VIEW



RIGHT SIDE VIEW

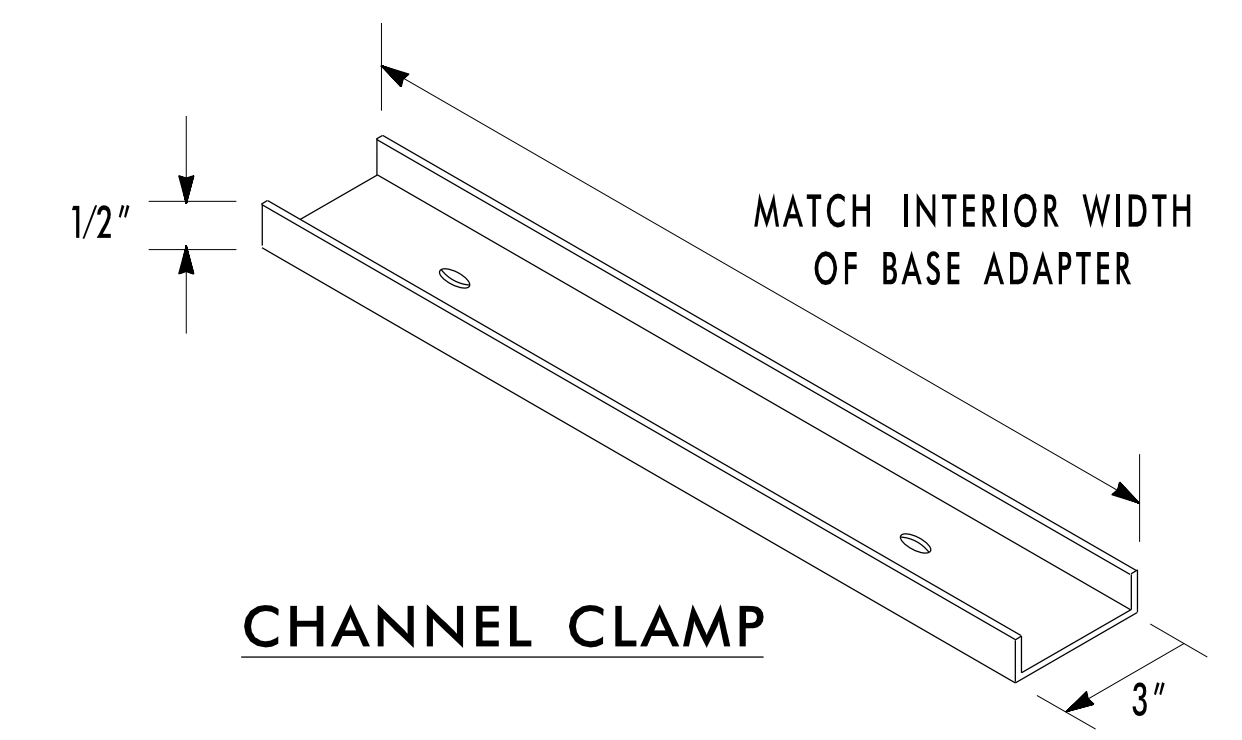


SECTION 'A - A'



BASE ADAPTER

FRONT



CHANNEL CLAMP

NOTES FOR BASE ADAPTER

1. FURNISH BASE ADAPTERS WITH FLANGES BOTH TOP AND BOTTOM SIZED AS SHOWN.
2. DRILL HOLES IN CHANNEL CLAMP TO MATCH ANCHOR BOLTS AND CABINET FLANGE BOLT HOLES.
3. APPLY CONTINUOUS, CLEAR, FLEXIBLE, WATERPROOF SEALANT TO TOP AND BOTTOM FLANGES TO SEAL TOP CONNECTION WITH THE CABINET AND BOTTOM CONNECTION WITH THE CABINET FOUNDATION.

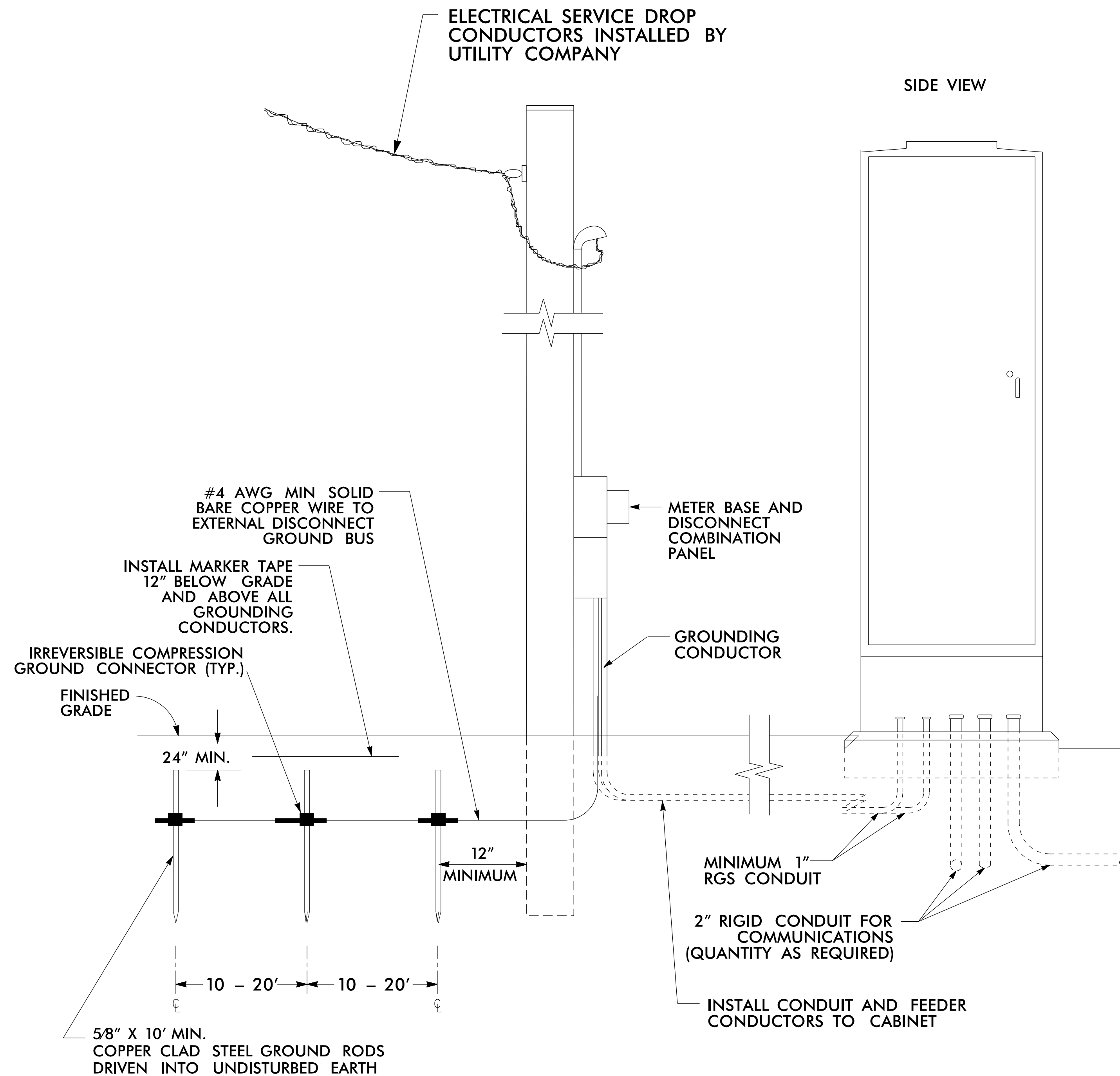
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	Burlington-Graham Signal System Base Adapter Detail	
	Division 7 Alamance County PLAN DATE: June 2018 PREPARED BY: JW/AH	Burlington & Graham REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum
SCALE: NTS	REVISIONS:	INIT. DATE:

OVERHEAD ELECTRICAL SERVICE DETAIL



NOTES

1. TEST GROUNDING SYSTEM USING AN APPROVED METHOD IN ACCORDANCE WITH SPECIAL PROVISIONS. INSTALL GROUND RODS AS DIRECTED BY THE ENGINEER TO MEET THIS REQUIREMENT.
2. REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
3. BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO "EQUIPMENT GROUND".
4. INSTALL RIGID GALVANIZED STEEL CONDUIT (MINIMUM 1") BETWEEN DISCONNECT AND CABINET UNLESS OTHERWISE NOTED ON THE PLANS.
5. SERVICE DISCONNECT GROUND BUS BAR SHALL PROVIDE FOR 2 #4 AWG CONNECTIONS.
6. ENSURE EQUIPMENT GROUND IS ELECTRONICALLY BONDED TO CABINET.

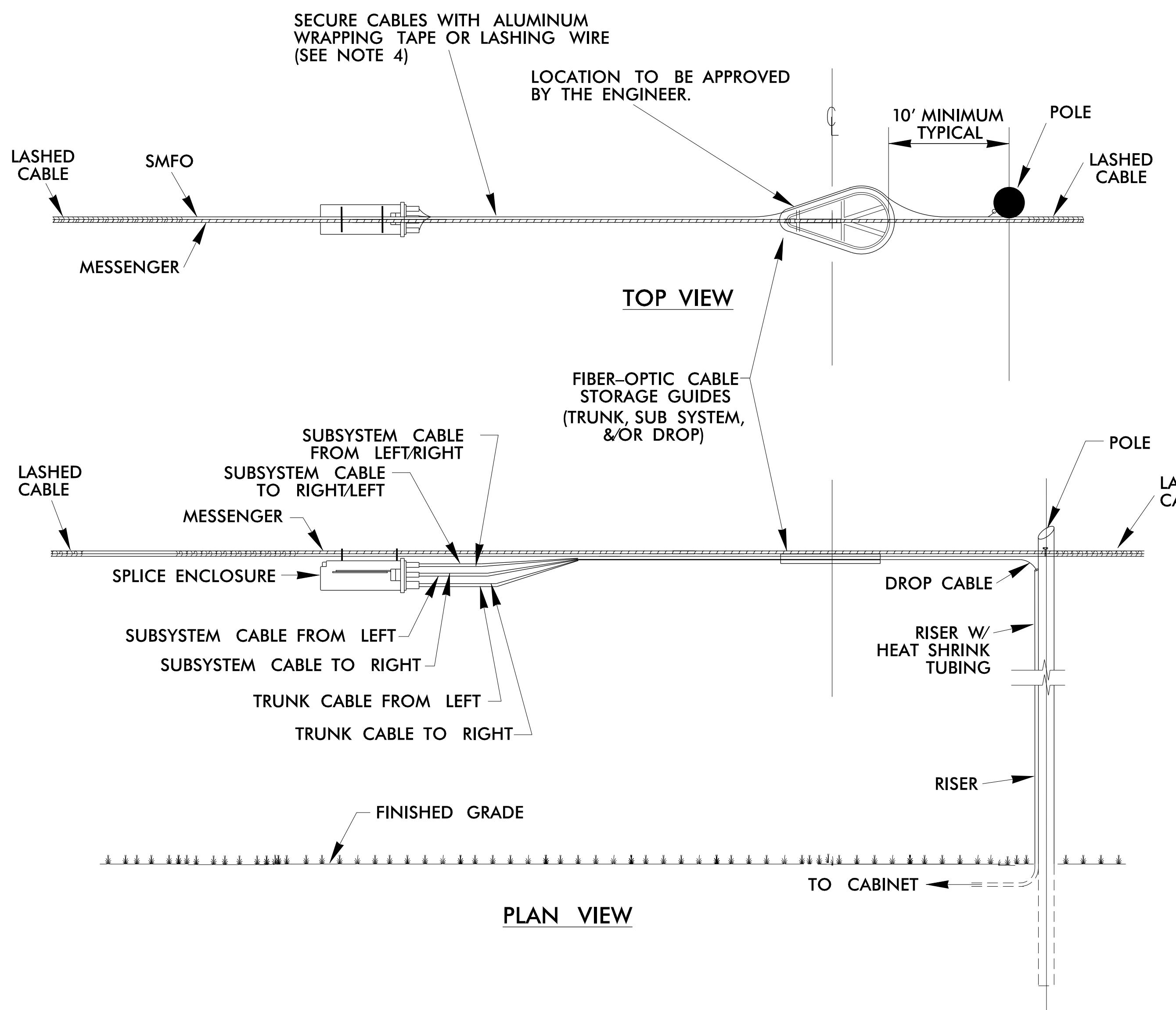
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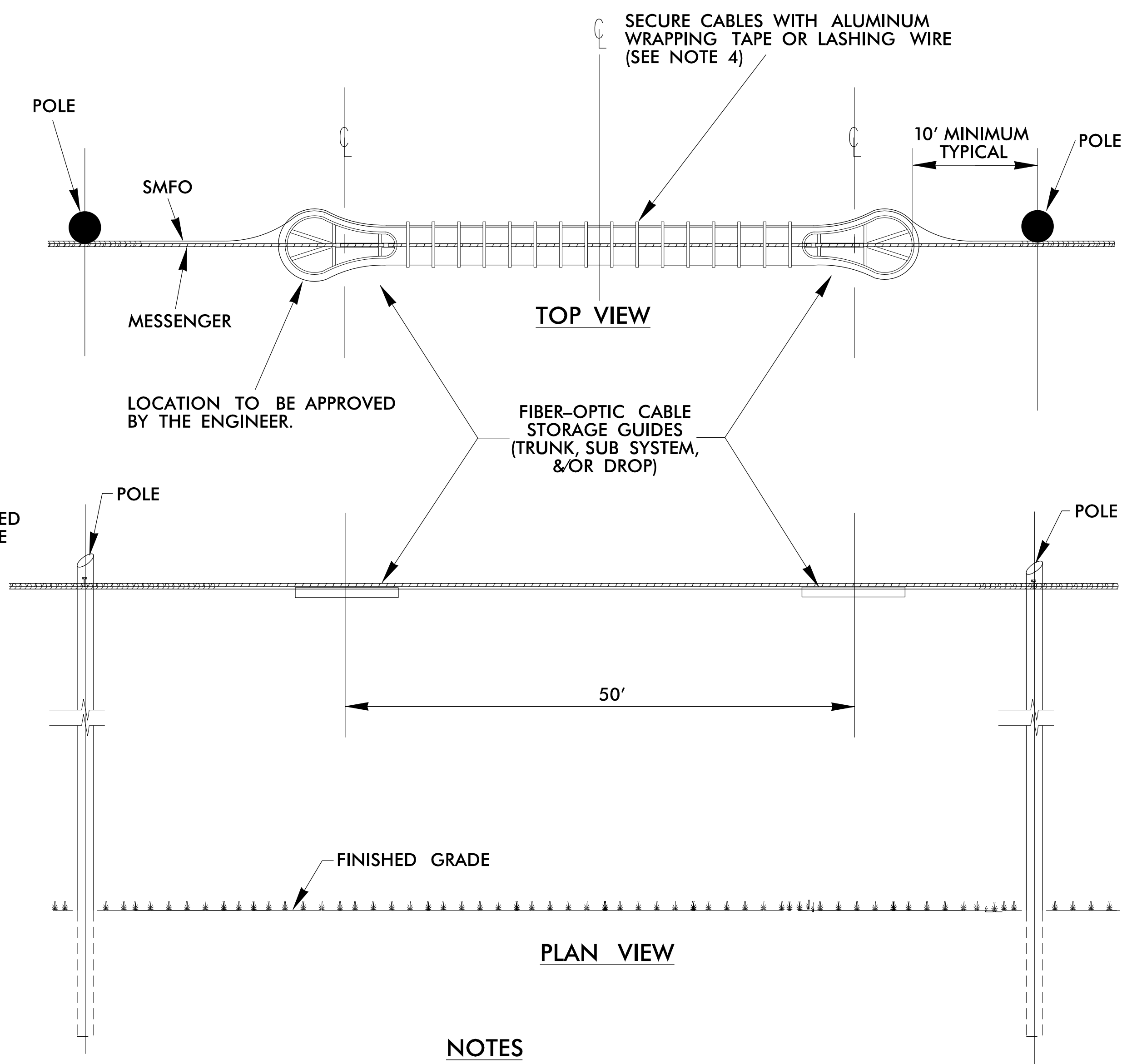
	Burlington-Graham Signal System Overhead Electrical Service Detail		
	Division 7 Alamance County Burlington & Graham		
750 Greenfield Parkway, Garner, NC 27529	SCALE NTS	PLAN DATE: June 2018 PREPARED BY: JW/AH REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum	DATE: 13/2018 SIGNATURE:

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SPLICE ENCLOSURE WITH STORAGE TYP. DETAIL



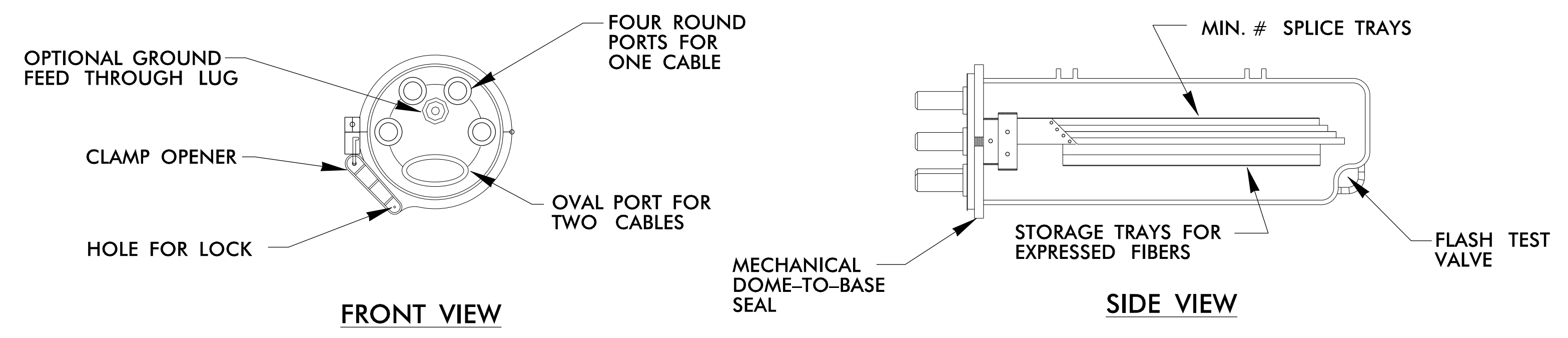
SPARE CABLE STORAGE TYP. DETAIL



NOTES

1. SPARE FIBER-OPTIC CABLE SHALL NOT BE STORED OVER ROADWAYS OR DRIVEWAYS.
2. STORE 100' OF SPARE FIBER-OPTIC CABLE WHERE SHOWN ON PLANS.
3. FIBER-OPTIC CABLE STORAGE GUIDE MATERIAL AND SIZE SHALL BE AS INDICATED IN THE PROJECT SPECIAL PROVISIONS.
4. 0.05" THICK BY 0.3" WIDE ALUMINUM WRAPPING TAPE (FOUR TURNS MINIMUM) AT 6" ON CENTER OR .061" LASHING WIRE WITH ONE 360 DEGREE SPIRAL PER FOOT.
5. FOR SPLICE ENCLOSURES:
 - A) APPLY A HEAT SOURCE, AS RECOMMENDED BY THE MANUFACTURER, TO SHRINK THE HEAT SHRINKABLE TUBING TO PROVIDE A SECURE FIT AROUND THE CABLES AND PORTS.
 - B) PERFORM A PRESSURIZATION FLASH TEST UPON CONCLUSION OF THE SPLICING AND PRIOR TO THE FINAL PLACEMENT OF THE ENCLOSURE.

SPLICE ENCLOSURE DETAILS



ATKINS

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
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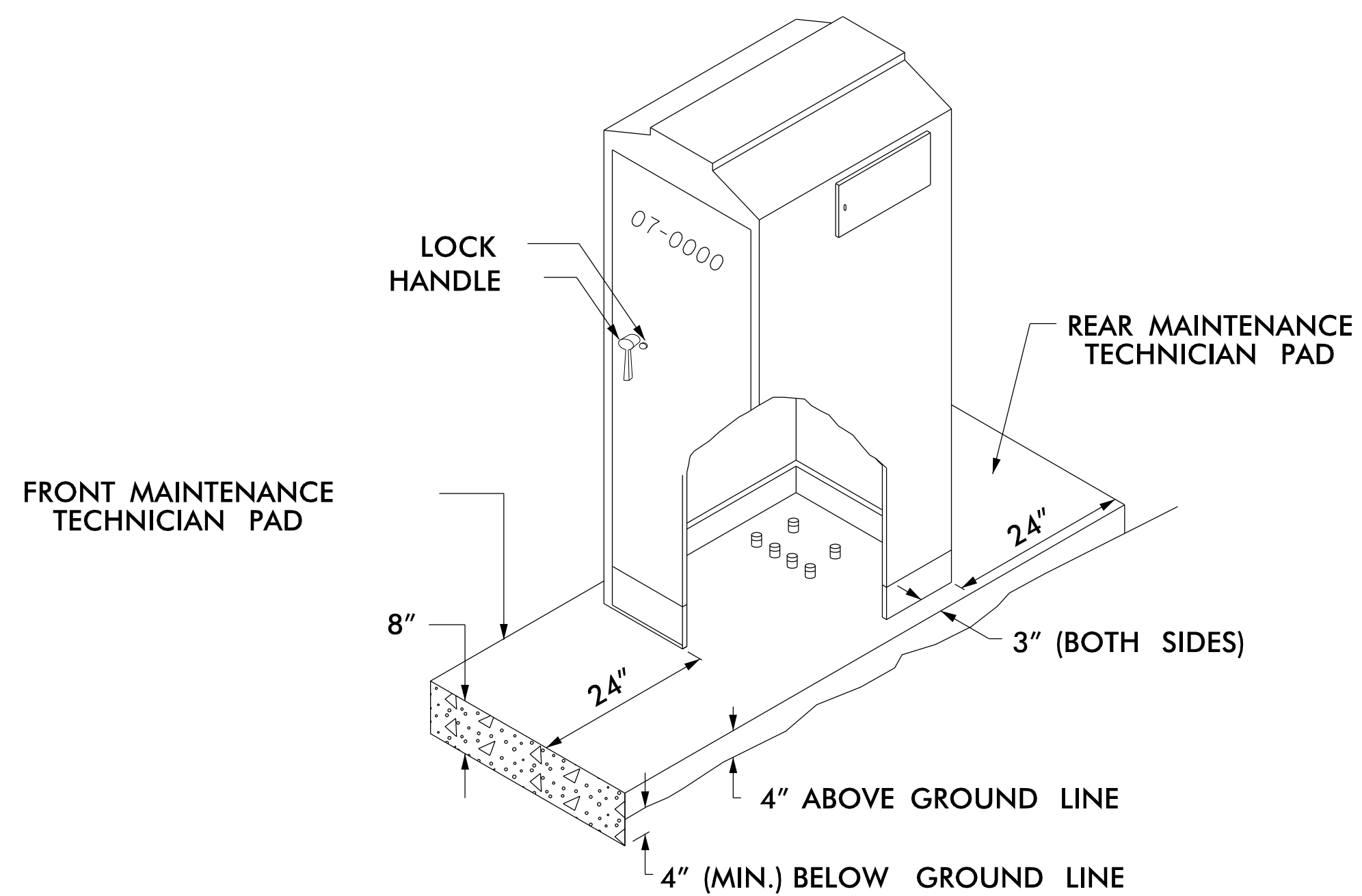
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<p>Prepared for the Offices of:</p> <p>750 Greenfield Parkway, Garner, NC 27529</p>		<p>Burlington-Graham Signal System Aerial Fiber-Optic Cable Storage & Splice Enclosures</p>		<p>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER HA BADGETT 019962</p>
<p>Division 7 Alamance County Burlington & Graham</p>		<p>PLAN DATE: June 2018 REVIEWED BY: HA Badgett</p>		<p>DATE: 11/13/2018</p>
<p>PREPARED BY: JW/AH REVIEWED BY: BJ Slocum</p>		<p>SCALE: NTS</p>		
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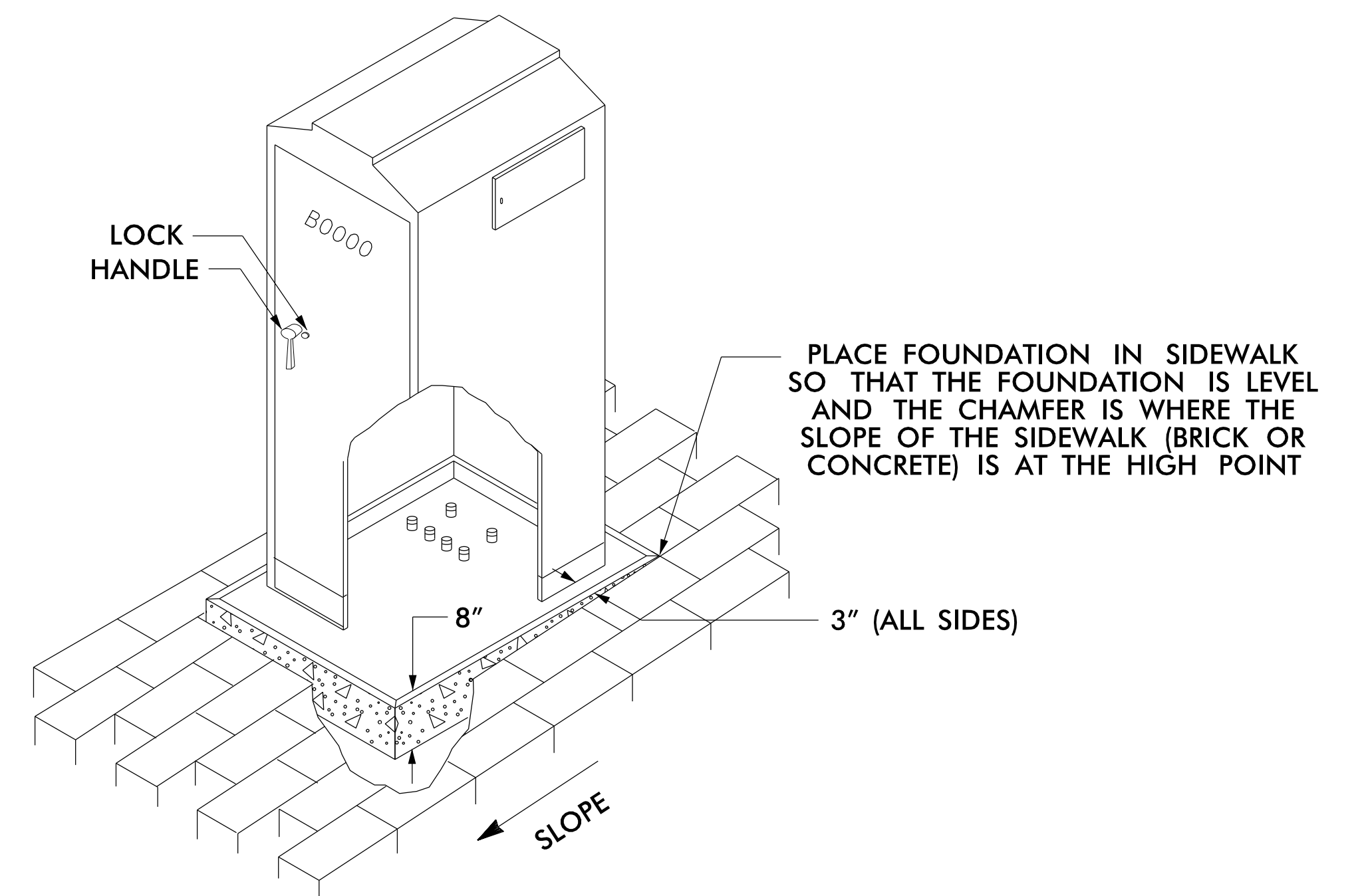
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TYPICAL BASE-MOUNTED CABINET NEW STANDARD FOUNDATION



TYPICAL BASE-MOUNTED CABINET NEW FOUNDATION IN SIDEWALK



NOTES

1. STUB OUT SPARE 2" CONDUIT TO 12" BEYOND EDGE OF CABINET FOUNDATION.
2. SEAL SPARE CONDUIT WITH REMOVABLE CAP.
3. TOPS OF CONDUIT SHALL BE NO LESS THAN 2" AND NO MORE THAN 3" ABOVE FOUNDATION.

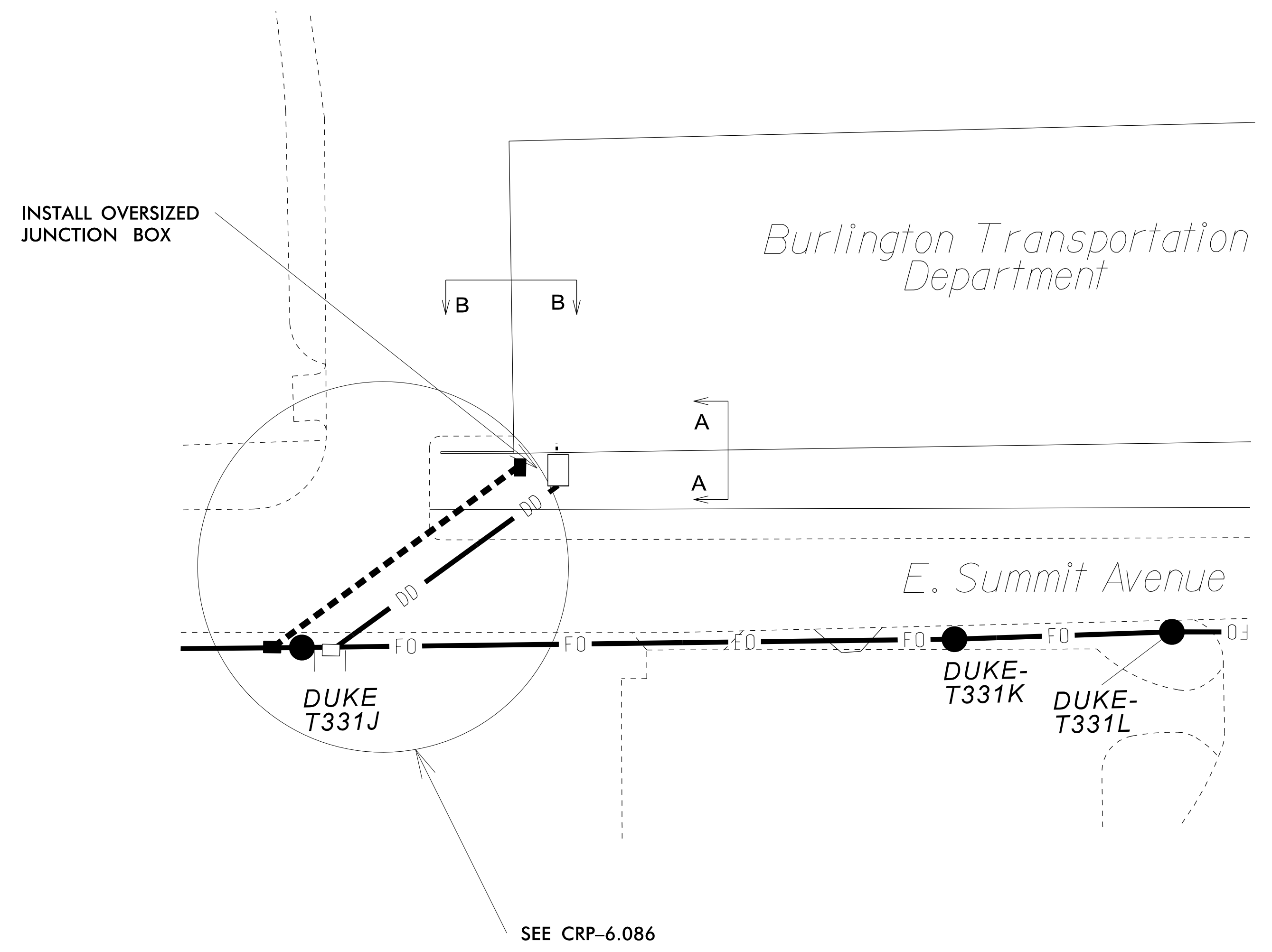
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<p>Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION TRANSPORTATION SYSTEMS DIVISION 750 Greenfield Parkway, Garner, NC 27529</p>	Burlington-Graham Signal System Base-Mounted Cabinet Foundation Details		
	Division 7 Alamance County Burlington & Graham	PLAN DATE: June 2018 REVIEWED BY: HA Badgett PREPARED BY: JW/AH REVIEWED BY: BJ Slocum	
SCALE NTS	REVISIONS	INIT. DATE	DATE

CABLE ENTRANCE PLAN VIEW



- NOTES**
- SEE ITS-5.17 FOR CONDUIT ENTRANCE DETAILS.
 - SEE ITS-5.17 FOR SECTION A-A AND B-B VIEWS.

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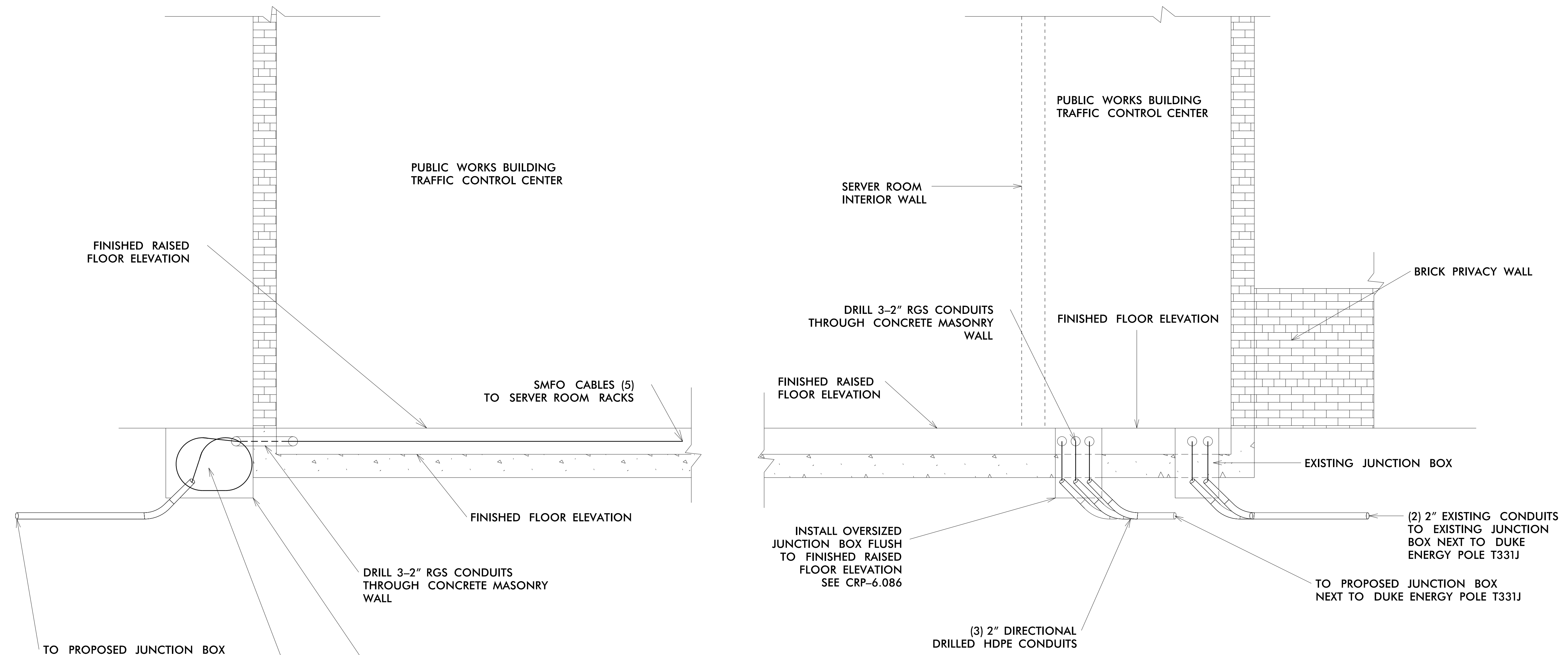
<p style="font-size: 8px;">Prepared for the Offices of:</p> <p style="font-size: 8px;">750 Greenfield Parkway, Garner, NC 27529</p>	<p>Burlington-Graham Signal System</p> <p>TCC Details</p> <p>(1 of 10)</p> <p>Division 7 Alamance County Burlington & Graham</p> <p>PLAN DATE: June 2018 REVIEWED BY: HA Badgett</p> <p>PREPARED BY: JW/AH REVIEWED BY: BJ Slocum</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: 8px;"> <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							
REVISIONS	INIT.	DATE									

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CABLE ENTRANCE ELEVATION SECTION A-A

CABLE ENTRANCE ELEVATION SECTION B-B



NOTES

1. RETAIN CITY IT CABLE

TO PROPOSED JUNCTION BOX
NEXT TO DUKE ENERGY POLE T331J

DRILL 3-2" RGS CONDUITS
THROUGH CONCRETE MASONRY
WALL

INSTALL OVERSIZED
JUNCTION BOX FLUSH
TO FINISHED RAISED
FLOOR ELEVATION
SEE CRP-6.086

STORE 50' OF CABLE
FOR EACH CABLE

FINISHED FLOOR ELEVATION

SMFO CABLES (5)
TO SERVER ROOM RACKS

FINISHED RAISED
FLOOR ELEVATION

PUBLIC WORKS BUILDING
TRAFFIC CONTROL CENTER

INSTALL OVERSIZED
JUNCTION BOX FLUSH
TO FINISHED RAISED
FLOOR ELEVATION
SEE CRP-6.086

FINISHED RAISED
FLOOR ELEVATION

DRILL 3-2" RGS CONDUITS
THROUGH CONCRETE MASONRY
WALL

SERVER ROOM
INTERIOR WALL

FINISHED FLOOR ELEVATION

PUBLIC WORKS BUILDING
TRAFFIC CONTROL CENTER

EXISTING JUNCTION BOX

BRICK PRIVACY WALL

(2) 2" EXISTING CONDUITS
TO EXISTING JUNCTION
BOX NEXT TO DUKE
ENERGY POLE T331J

TO PROPOSED JUNCTION BOX
NEXT TO DUKE ENERGY POLE T331J

(3) 2" DIRECTIONAL
DRILLED HDPE CONDUITS

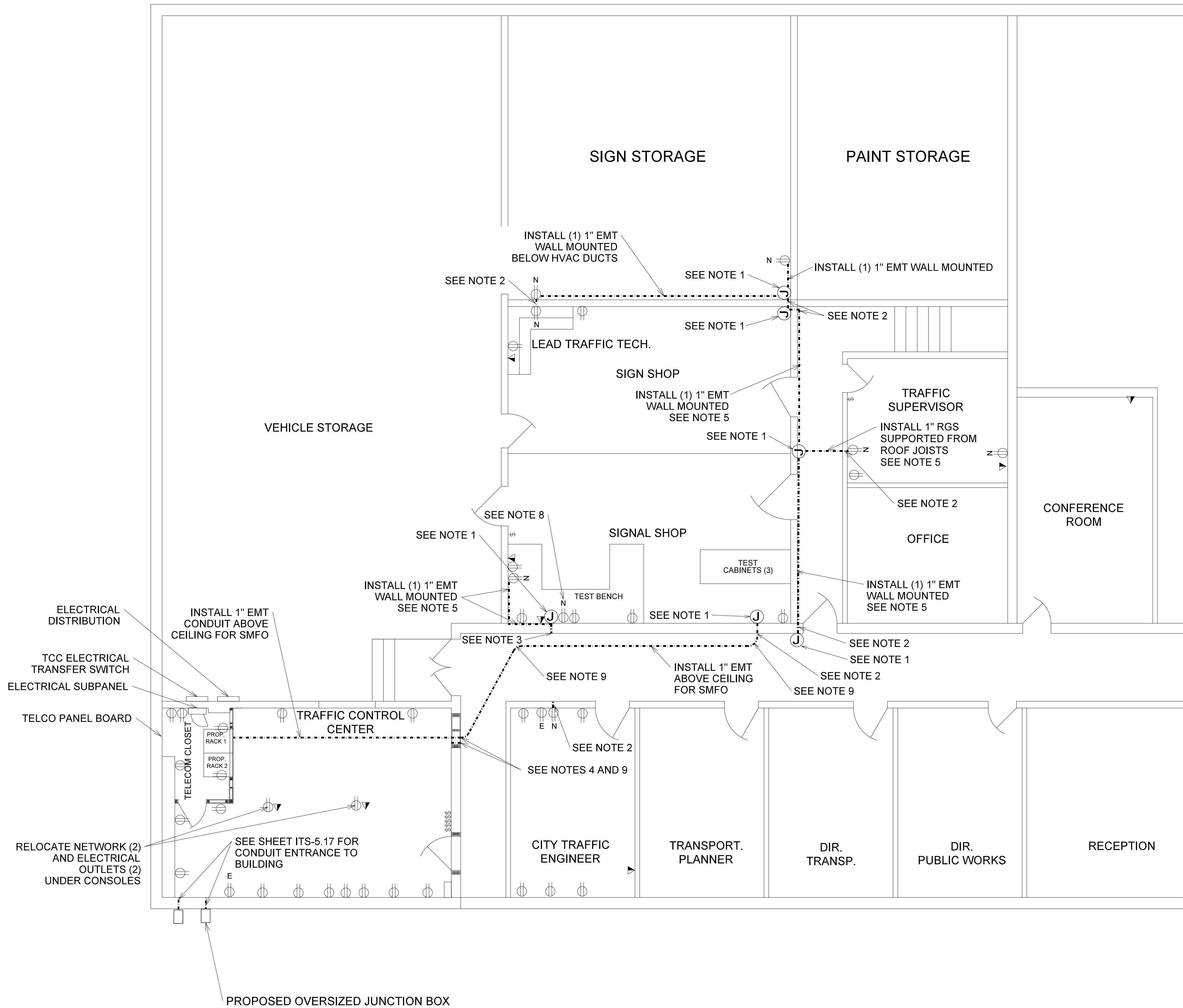
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	Burlington-Graham Signal System TCC Details (2 of 10)	
	Division 7 Alamance County PLAN DATE: June 2018 PREPARED BY: JW/AH	Burlington & Graham REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum
SCALE NTS	REVISIONS INIT. DATE	SIGNATURE DATE

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CONDUIT PLAN VIEW



NOTES:

1. INSTALL WALL MOUNT JUNCTION BOX.
2. INSTALL 1" EMT CONDUIT THROUGH WALL, SEAL WITH FIRESTOP.
3. INSTALL 2" EMT CONDUIT THROUGH WALL, SEAL WITH FIRESTOP.
4. INSTALL 1-1" AND 1-2" EMT CONDUIT THROUGH WALL, SEAL WITH FIRESTOP.
5. INSTALL CONDUIT 9' ABOVE FINISHED FLOOR.
6. INSTALL ALL CABLING SUPPORTED BY CABLE HANGERS ATTACHED TO ROOF JOISTS.
7. SEAL CONDUIT SLEEVES THROUGH WALLS WITH FIRESTOP AFTER ALL CABLE INSTALLATION.
8. INSTALL QUAD NETWORK OUTLET BOX.
9. INSTALL EMT CONDUIT FOR FIBER OPTIC CABLE WITH BEND RADIUS OF AT LEAST 6".

LEGEND

- EXIST. ELECTRICAL OUTLET
- EXIST. NETWORK OUTLET
- EXIST. ELECTRICAL SWITCH
- PROP. ELECTRICAL OUTLET
- PROP. JUNCTION BOX
- PROP. WALL
- PROP. VIDEO WALL
- PROP. NETWORK OUTLET
- EXIST. NETWORK CABLING
- PROP. NETWORK CABLING
- PROP. VIDEO CABLING
- PROP. FIBER-OPTIC CABLING
- EXIST. FIBER-OPTIC CABLING

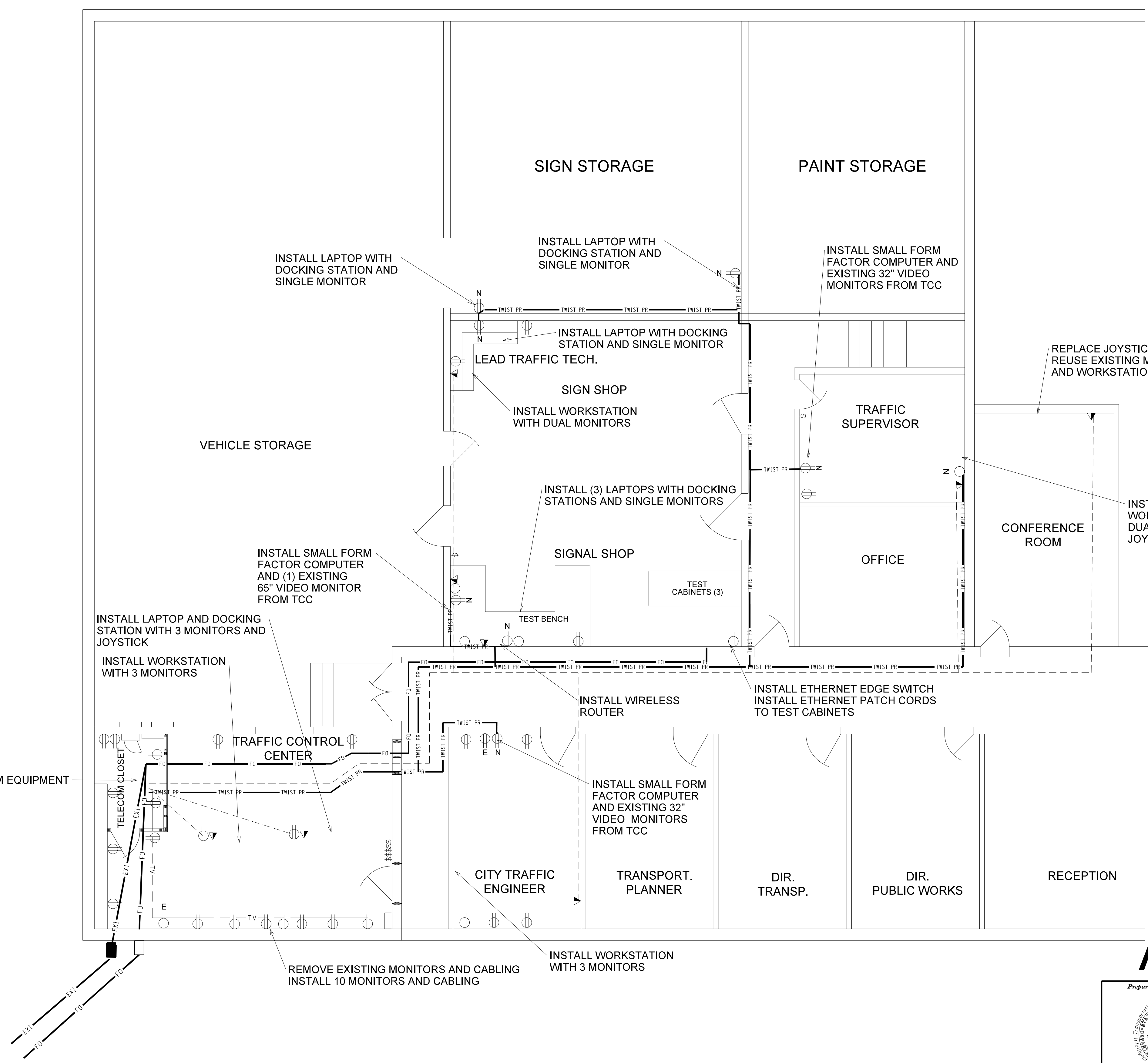
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	Burlington-Graham Signal System TCC Details (3 of 10)		
	Division 7 Alamance County PLAN DATE: June 2018 PREPARED BY: JW/AH	Burlington & Graham REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum	
REVISIONS: _____ INIT. DATE _____			

EQUIPMENT PLAN VIEW

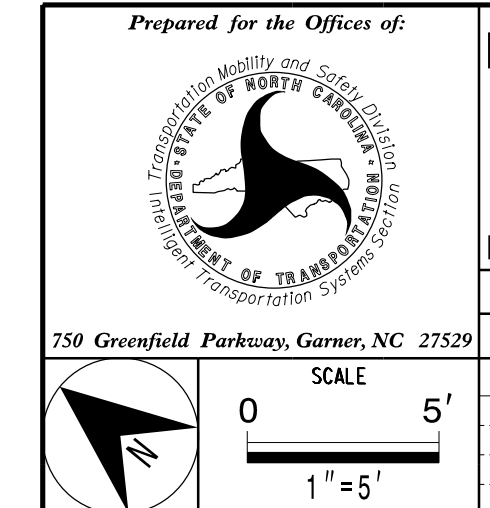


- LEGEND**
- EXIST. ELECTRICAL OUTLET
 - EXIST. NETWORK OUTLET
 - EXIST. ELECTRICAL SWITCH
 - PROP. ELECTRICAL OUTLET
 - PROP. JUNCTION BOX
 - PROP. WALL
 - PROP. VIDEO WALL
 - PROP. NETWORK OUTLET
 - EXIST. NETWORK CABLING
 - PROP. NETWORK CABLING
 - PROP. VIDEO CABLING
 - PROP. FIBER-OPTIC CABLING
 - EXIST. FIBER-OPTIC CABLING

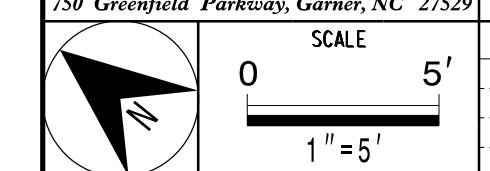
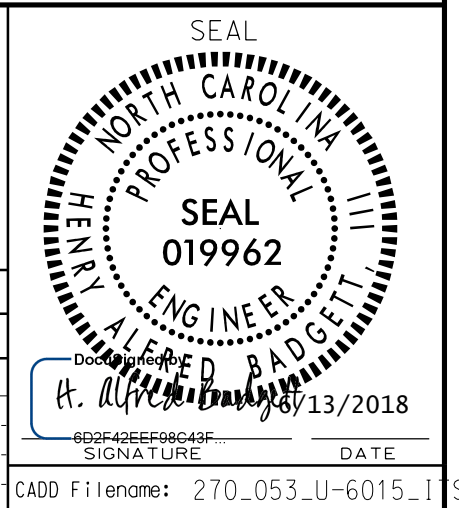
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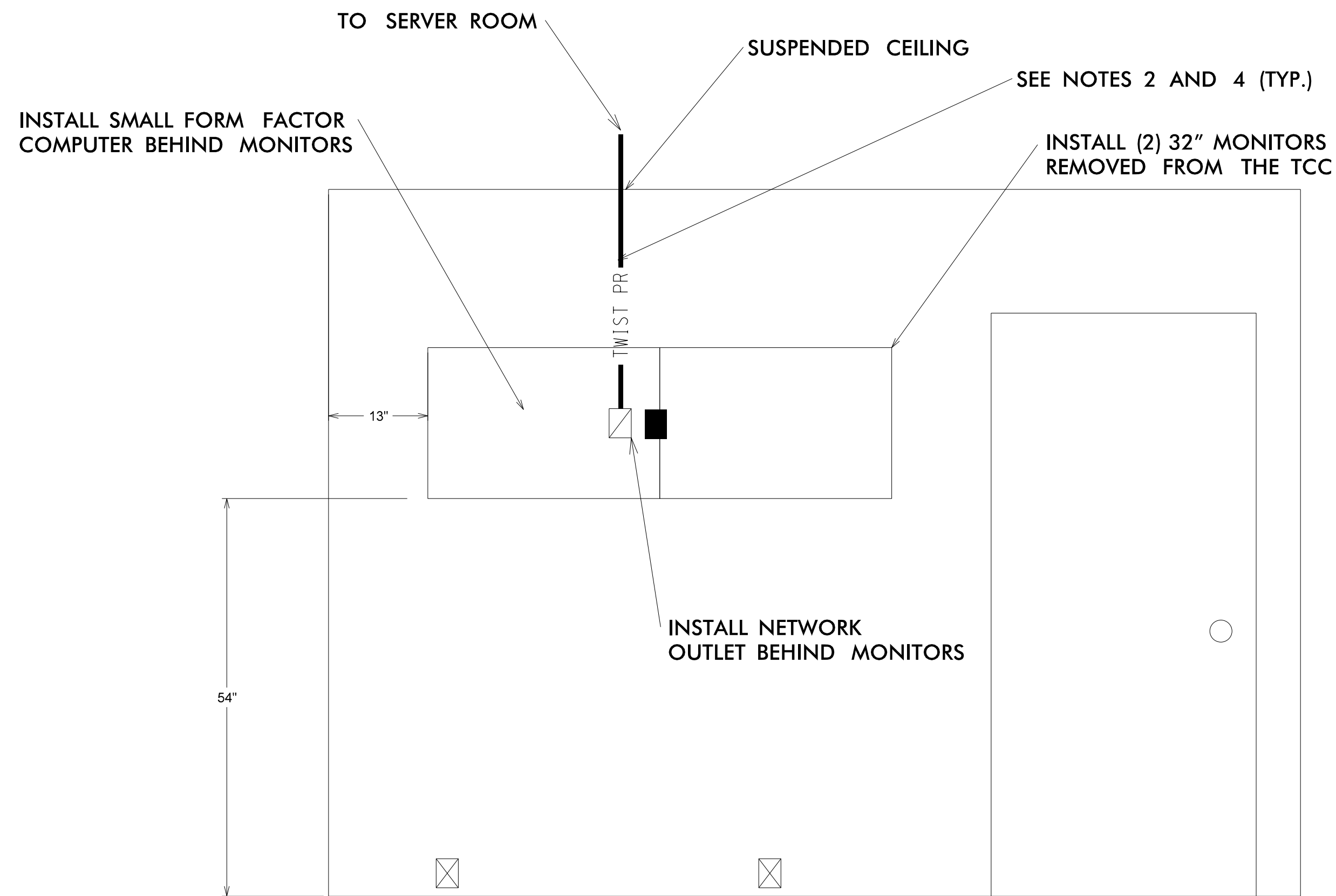
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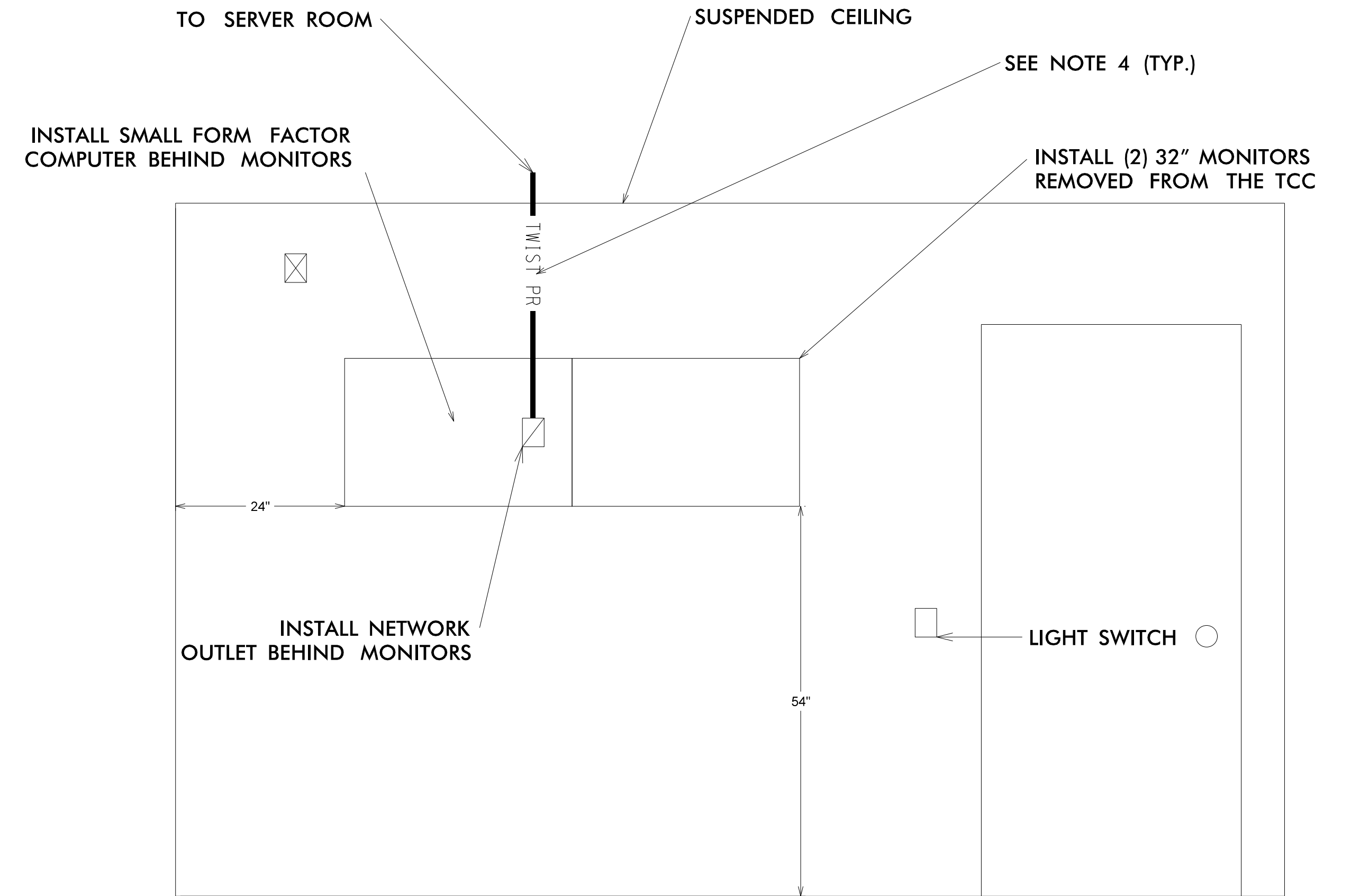
Burlington-Graham Signal System TCC Details (6 of 10)	
Division 7	Alamance County
PLAN DATE: June 2018	REVIEWED BY: HA Badgett
PREPARED BY: JW/AH	REVIEWED BY: BJ Slocum
REVISIONS	INIT. DATE







CITY TRAFFIC ENGINEER MONITOR WALL ELEVATION VIEW



TRAFFIC SUPERVISOR MONITOR WALL ELEVATION VIEW



LEGEND

-  EXISTING ELECTRICAL QUAD OUTLET BOX
-  EXISTING ELECTRICAL DUPLEX OUTLET BOX
-  PROPOSED ELECTRICAL DUPLEX OUTLET BOX (BY OTHERS)
-  PROPOSED NETWORK OUTLET

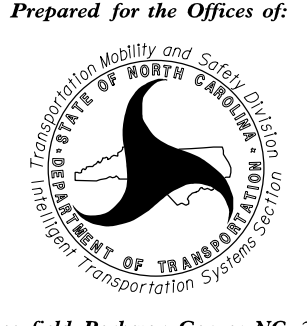
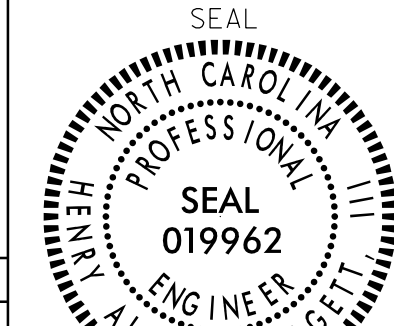
NOTES

1. ELECTRICAL OUTLETS TO BE INSTALLED BY OTHERS.
2. INSTALL NEW NETWORK CABLING ABOVE SUSPENDED CEILING TO SERVER RACKS.
3. INSTALL NETWORK OUTLETS BEHIND MONITORS
4. INSTALL NEW NETWORK CABLING FROM ABOVE CEILING THROUGH WALL TO NETWORK OUTLET. SEE ITS-5.19.
5. ALIGN MONITORS HORIZONTALLY.
6. UTILIZE EXISTING AND PROPOSED ELECTRICAL OUTLETS.
7. INSTALL SMALL FORM FACTOR COMPUTER ON WALL BEHIND MONITORS TO DRIVE WALL MONITORS.
8. INSTALL HDMI CABLING BETWEEN EACH MONITOR AND SMALL FORM FACTOR COMPUTER.

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 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System TCC Details (9 of 10)		
	Division 7 Alamance County Burlington & Graham	PLAN DATE: June 2018 REVIEWED BY: HA Badgett PREPARED BY: JW/AH REVIEWED BY: BJ Slocum	
SCALE NTS	REVISIONS INIT. DATE		DATE 13/2018

SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	MESSANGER CABLE (1/4")	BOND MESSANGER CABLE	TRACER WIRE	UNDERGROUND CONDUIT (1 CONDUIT, 1 INCH)	UNDERGROUND CONDUIT (1 CONDUIT, 2 INCH)	UNDERGROUND CONDUIT (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH)	JUNCTION BOX (OVER-SIZED)	JUNCTION BOX (SPECIAL-SIZED)	JUNCTION BOX STANDARD-SIZED)	REMOVE EXISTING JUNCTION BOX	DELINEATOR MARKER	STANDARD GUY ASSEMBLY	AERIAL GUY ASSEMBLY	SIDEWALK GUY ASSEMBLY	1" RISER WITH WEATHERHEAD FOR CCTV ELEC SERVICE	1" RISER WITH WEATHERHEAD FOR CAT 6	1.25" RISER WITH HEAT SHRINK TUBING	2" RISER WITH HEAT SHRINK TUBING	HEAT SHRINK TUBING KIT	NEW CABINET ENTRANCE INTO NEW FOUNDATION	DRILL/ CORE DRILL EXIST FOUNDATION
	LF	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.001	1,355	1	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	1	-	-
CRP-6.002	1,350	1	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
CRP-6.003	1,165	1	200	-	-	200	-	-	1	-	-	-	-	1	-	-	-	-	-	1	-	-	-
CRP-6.004	785	1	505	-	-	505	-	-	1	-	-	-	-	2	-	-	-	-	-	1	-	-	-
CRP-6.005	365	2	1,530	-	65	-	-	-	1	-	-	-	-	3	-	-	-	-	-	2	1	-	-
CRP-6.006	-	-	1,405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.007	-	2	560	-	-	-	-	200	-	-	3	-	-	-	-	-	-	-	-	-	3	-	1
CRP-6.008	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.009	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.010	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
CRP-6.011	-	1	130	-	-	-	130	-	-	-	2	-	-	-	-	-	-	-	-	-	1	-	1
CRP-6.012	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
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CRP-6.016	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.017	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
CRP-6.018	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.019	-	3	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3	-	-
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CRP-6.024	210	5	1,200	-	25	-	-	165	-	-	1	-	-	-	-	1	-	-	1	-	3	1	-
CRP-6.025	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	-
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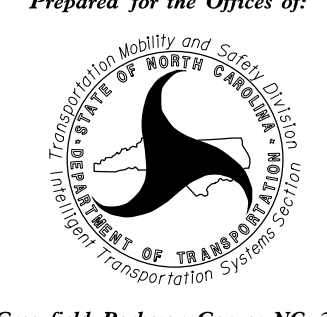
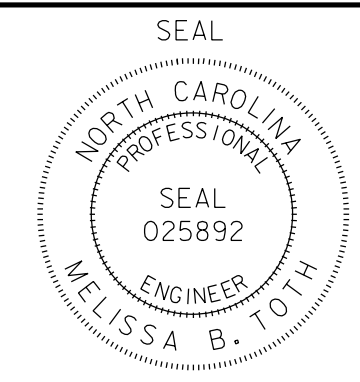
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- Work shown on this sheet is a summary of work for the installation of the fiber-optic cable and CCTV installations that are shown on the cable routing plans (i.e. CRP sheets). Work to be done for traffic signals is shown separately on the signal designs and the "Summary of Work by Intersection" sheets in Volume III of III.

- The items listed above are for informational purposes only and represent work that is necessary to complete the project and are not necessarily pay items. See Summary of Quantities and the Project Special Provisions for defined Pay Items for this contract.

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 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 1 of 18)		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025892 MELISSA B. TOTH
	Division 7 Alamance County Burlington & Graham	PLAN DATE: December 2017 PREPARED BY: AH/AW REVISIONS: _____ INIT. DATE _____	

NTS


SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	COMMUNICATIONS CABLE (12-FIBER)	COMMUNICATIONS CABLE (24-FIBER)	CITY IT COMMUNICATIONS CABLE (24-FIBER)	COMMUNICATIONS CABLE (36-FIBER)	COMMUNICATIONS CABLE (48-FIBER)	DROP CABLE (12-FIBER)	HANDLASH & AERIAL CABLE PROTECTOR	SPLICE ENCLOSURE	MODIFY EXISTING SPLICE OR INTERCONNECT CENTER	INTERCONNECT CENTER, PATCH PANEL, JUMPERS, FUSION SPLICE CABLE	ETHERNET EDGE SWITCH	REMOVE EXISTING COMMUNICATIONS CABLE	REMOVE CCTV CABINET	INSTALL CCTV CAMERA ASSEMBLY	REMOVE EX CCTV ASSEMBLY	POLE-MOUNTED CCTV CABINET (336)	POLE-MOUNTED CCTV CABINET (NEMA)	CCTV WOOD POLE	WOOD POLE
	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA
CRP-6.001	-	-	1,415	1,515	-	400	-	1	-	1	1	-	-	1	-	-	-	-	-
CRP-6.002	-	-	1,350	1,450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.003	-	-	1,425	1,425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.004	-	-	1,350	1,350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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CRP-6.006	-	-	1,495	1,495	-	-	-	-	-	-	-	1,405	-	-	-	-	-	-	-
CRP-6.007	460	-	1,385	1,675	-	790	-	2	-	2	2	360	-	1	1	-	-	-	-
CRP-6.008	-	-	-	1,535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.009	-	-	-	1,540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.010	-	-	-	1,625	-	330	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.011	-	-	-	1,680	-	465	-	1	-	1	1	-	-	1	-	-	-	-	-
CRP-6.012	-	-	-	1,575	-	290	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.013	-	-	-	1,480	-	325	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.014	-	670	-	1,685	-	395	-	1	-	1	1	105	-	1	1	-	-	-	-
CRP-6.015	-	-	-	1,585	-	935	-	2	-	3	3	-	-	1	-	1	-	-	-
CRP-6.016	-	-	-	1,585	-	390	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.017	-	-	-	1,475	-	330	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.018	-	-	-	1,275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.019	-	-	-	1,580	-	1,070	-	2	-	3	3	-	-	1	1	-	-	-	-
CRP-6.020	-	-	-	1,495	-	360	-	1	-	1	1	75	-	-	-	-	-	-	-
CRP-6.021	-	-	-	1,535	-	740	-	1	-	1	1	205	-	-	-	-	-	-	-
CRP-6.022	-	-	-	3,465	-	345	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.023	-	-	-	2,990	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.024	-	-	-	3,855	-	2,900	-	2	-	5	5	1,220	-	1	-	-	-	-	-
CRP-6.025	640	745	-	1,995	-	1,700	-	4	-	3	3	115	-	-	-	-	-	-	-
CRP-6.026	-	-	-	1,285	-	320	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.027	690	-	430	1,550	-	305	-	1	-	1	1	-	-	1	-	-	-	-	-
CRP-6.028	-	-	-	745	-	3,090	-	1	-	3	3	125	-	1	-	-	-	-	-
CRP-6.029	555	-	-	1,870	-	1,315	-	1	-	3	3	-	-	-	-	-	-	-	-
CRP-6.030	1,105	-	-	-	-	710	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.031	885	-	-	1,045	-	235	-	1	-	1	1	130	-	-	-	-	-	-	-

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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

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UNLESS ALL SIGNATURES COMPLETED**

SEAL
NORTH CAROLINA
PROFESSIONAL
ENGINEER
MELISSA B. YOTH

Burlington-Graham Signal System
Summary of Work by
Cable Routing Plans
(Sheet 2 of 18) Burlington & Graham
Division 7 Alamance County

PLAN DATE: December 2017 REVIEWED BY: HA Badgett
PREPARED BY: AH/AW REVIEWED BY: BJ Slocum

REVISIONS	INIT.	DATE

NTS

Date: 6/18/2018
 Signature: Melissa B. Yoth
 CADD Filename: 270_060_U-6015_CRP-1.0

SUMMARY OF WORK BY CABLE ROUTING PLANS


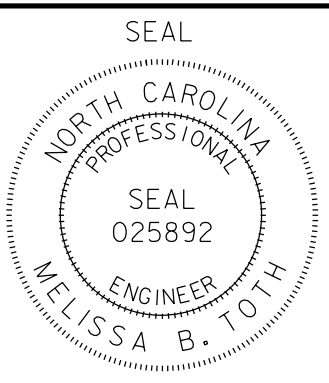
CABLE ROUTING SHEET NUMBER	ETHERNET CABLE (CAT 6)	MODIFY ELEC SERVICE FOR CCTV	REMOVE EXISTING CABINET FOUNDATION	SERVICE CONDUCTORS	NEW ELEC SERVICE FOR CCTV OR RADIO	MODIFY ELEC SERVICE FOR CCTV OR RADIO	INSTALL CABINET FOUNDATION	BASE MOUNTED CCTV CABINET W/ EXTENDER	INSTALL CCTV METAL POLE	INSTALL 2.4 GHZ RADIO	REMOVE EX CCTV METAL POLE	REMOVE WIRELESS COMM EQUIPMENT	BACK PULL FIBER-OPTIC CABLE
	LF	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	LF
CRP-6.001	155	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.002	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.003	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.004	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.005	70	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.006	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.007	270	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.008	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.009	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.010	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.011	190	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.012	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.013	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.014	250	-	-	-	-	-	-	-	-	-	-	-	105
CRP-6.015	50	-	-	-	1	-	-	-	1	-	-	-	-
CRP-6.016	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.017	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.018	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.019	60	-	-	-	-	-	-	1	-	-	-	-	-
CRP-6.020	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.021	-	-	-	-	-	-	-	-	-	-	-	-	205
CRP-6.022	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.023	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.024	250	-	-	-	-	-	1	-	1	-	-	-	210
CRP-6.025	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.026	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.027	230	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.028	255	-	-	-	-	-	1	-	1	-	-	-	-
CRP-6.029	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.030	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.031	-	-	-	-	-	-	-	-	-	-	-	-	-

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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

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

 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 3 of 18) Burlington & Graham		
	Division 7 Alamance County	REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum	
PLAN DATE: December 2017	PREPARED BY: AH/AW	REVIEWED BY: BJ Slocum	REVIEWED BY: BJ Slocum
NTS	REVISIONS	INIT.	DATE
6/18/2018 MELISSA B. TOTH ENGINEER			DATE


SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	MESSANGER CABLE (1/4")	BOND MESSANGER CABLE	TRACER WIRE	UNDERGROUND CONDUIT (1 CONDUIT, 1 INCH)	UNDERGROUND CONDUIT (1 CONDUIT, 2 INCH)	UNDERGROUND CONDUIT (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH)	JUNCTION BOX (OVER-SIZED)	JUNCTION BOX (SPECIAL-SIZED)	JUNCTION BOX (STANDARD-SIZED)	REMOVE EXISTING JUNCTION BOX	DELINEATOR MARKER	STANDARD GUY ASSEMBLY	AERIAL GUY ASSEMBLY	SIDEWALK GUY ASSEMBLY	1" RISER WITH WEATHERHEAD FOR CCTV ELEC SERVICE	1" RISER WITH WEATHERHEAD FOR CAT 6	1.25" RISER WITH HEAT SHRINK TUBING	2" RISER WITH HEAT SHRINK TUBING	HEAT SHRINK TUBING KIT	NEW CABINET ENTRANCE INTO NEW FOUNDATION	DRILL/ CORE DRILL EXIST FOUNDATION
	LF	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.032	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	
CRP-6.033	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.034	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.035	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	1	-	-
CRP-6.036	420	4	70	-	-	-	70	-	1	-	-	-	-	1	1	2	-	-	-	2	-	-	-
CRP-6.037	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
CRP-6.038	-	2	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-
CRP-6.039	110	4	275	-	-	-	275	-	2	-	-	-	-	3	-	-	-	-	-	3	1	-	-
CRP-6.040	65	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
CRP-6.041	170	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.042	-	1	90	-	-	-	90	-	-	-	2	-	-	-	-	-	-	1	-	1	-	1	-
CRP-6.043	230	3	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	1	-
CRP-6.044	1,490	1	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-
CRP-6.045	1,440	1	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-
CRP-6.046	720	1	-	-	25	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-
CRP-6.047	-	1	1,320	-	-	795	525	-	3	1	-	-	-	1	-	-	-	-	-	1	-	-	-
CRP-6.048	1,275	1	175	-	-	175	-	-	1	-	-	-	-	4	-	-	-	-	-	1	-	-	-
CRP-6.049	460	1	1,275	-	-	870	280	-	4	1	1	1	-	-	-	-	-	-	-	1	-	-	-
CRP-6.050	-	-	980	-	-	830	150	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	1
CRP-6.051	-	1	1,655	-	20	-	-	-	-	2	-	2	-	-	-	-	-	-	-	1	-	-	-
CRP-6.052	-	-	1,455	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.053	-	-	1,425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.054	-	1	455	-	-	-	-	-	-	1	-	1	-	3	1	-	-	-	-	-	1	-	-
CRP-6.055	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.056	-	1	40	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	1	-	-
CRP-6.057	-	-	1,725	-	20	810	120	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.058	-	-	1,460	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.059	-	-	1,690	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.060	-	1	1,470	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	-	-
CRP-6.061	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.062	-	1	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	1	-	-
CRP-6.063	280	3	-	-	-	-	-	-	-	-	-	-	-	5	2	-	-	-	-	-	1	-	-
CRP-6.064	475	3	135	-	20	-	-	-	-	1	-	1	-	2	1	-	-	-	-	2	-	-	-
CRP-6.065	-	2	550	-	-	-	550	-	1	1	-	-	-	2	-	-	-	-	-	2	-	-	1
CRP-6.066	30	3	190	-	-	-	190	-	2	-	-	-	-	2	-	-	-	1	-	2	1	-	-

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Burlington-Graham Signal System
 Summary of Work by
 Cable Routing Plans
 (Sheet 4 of 18)

Division 7 Alamance County Burlington & Graham

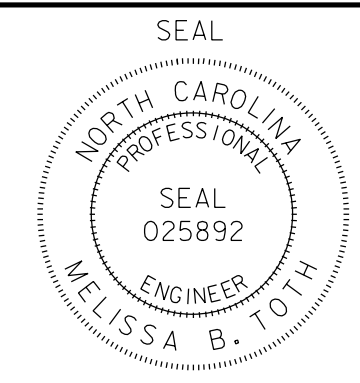
PLAN DATE: December 2017 REVIEWED BY: HA Badgett
 PREPARED BY: AH/AW REVIEWED BY: BJ Slocum

NTS

REVISIONS

INIT.	DATE

SEAL



NORTH CAROLINA
 PROFESSIONAL ENGINEER
 MELISSA B. TOTH
 025892

6/18/2018
 DATE

SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	COMMUNICATIONS CABLE (12-FIBER)	COMMUNICATIONS CABLE (24-FIBER)	CITY IT COMMUNICATIONS CABLE (24-FIBER)	COMMUNICATIONS CABLE (36-FIBER)	COMMUNICATIONS CABLE (48-FIBER)	DROP CABLE (12-FIBER)	HANDLASH & AERIAL CABLE PROTECTOR	SPLICE ENCLOSURE	MODIFY EXISTING SPLICE OR INTERCONNECT CENTER	INTERCONNECT CENTER PATCH PANEL, JUMPERS, FUSION SPLICE CABLE	ETHERNET EDGE SWITCH	REMOVE EXISTING COMMUNICATIONS CABLE	REMOVE CCTV CABINET	INSTALL CCTV CAMERA ASSEMBLY	REMOVE EX CCTV ASSEMBLY	POLE-MOUNTED CCTV CABINET (336)	POLE-MOUNTED CCTV CABINET (NEMA)	CCTV WOOD POLE	WOOD POLE
	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA
CRP-6.032	1,300	-	-	-	-	265	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.033	-	-	-	1,470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.034	-	-	-	1,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.035	-	-	-	1,795	-	335	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.036	1,185	-	-	1,535	-	280	-	1	-	1	1	425	-	-	-	-	-	-	1
CRP-6.037	-	-	-	1,535	-	480	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.038	280	1,185	-	1,640	-	550	-	1	-	1	1	120	1	1	1	-	-	-	-
CRP-6.039	-	1,660	-	-	-	1,470	-	1	-	2	2	465	-	-	-	-	-	-	-
CRP-6.040	-	1,515	-	-	-	-	-	-	-	-	-	65	-	-	-	-	-	-	-
CRP-6.041	-	1,495	-	-	-	-	-	-	-	-	-	170	-	-	-	-	-	-	-
CRP-6.042	-	1,610	-	-	-	300	-	1	-	1	1	-	-	1	-	-	-	1	-
CRP-6.043	-	1,910	-	-	-	300	-	1	-	1	1	220	-	-	-	-	-	-	-
CRP-6.044	-	1,590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.045	-	1,540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.046	-	710	-	-	-	310	-	1	-	1	1	15	-	1	-	-	-	-	-
CRP-6.047	-	1,560	-	-	-	65	-	1	-	1	1	400	-	-	-	-	-	-	-
CRP-6.048	-	1,610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.049	-	1,660	-	-	-	205	-	1	-	1	1	1,140	-	1	-	-	-	-	-
CRP-6.050	-	1,815	-	-	-	45	-	1	-	1	1	-	-	1	1	-	-	-	-
CRP-6.051	-	1,960	-	-	-	765	-	2	-	3	3	1,680	-	1	1	-	-	-	-
CRP-6.052	-	1,575	-	-	-	60	-	1	-	1	1	1,480	-	-	-	-	-	-	-
CRP-6.053	-	1,545	-	-	-	-	-	-	-	-	-	1,425	-	-	-	-	-	-	-
CRP-6.054	-	1,775	-	-	-	75	-	1	-	1	1	455	-	-	-	-	-	-	-
CRP-6.055	-	1,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.056	-	1,010	-	-	-	535	-	1	-	1	1	40	-	-	-	-	-	-	-
CRP-6.057	330	1,555	-	-	-	45	-	1	-	1	1	780	-	1	-	-	-	-	-
CRP-6.058	-	1,545	-	-	-	100	-	1	-	1	1	1,460	-	-	-	-	-	-	-
CRP-6.059	-	1,520	-	-	-	320	-	1	-	1	1	1,690	-	-	-	-	-	-	-
CRP-6.060	-	1,585	-	-	-	175	-	1	-	1	1	1,470	-	-	-	-	-	-	-
CRP-6.061	-	1,360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.062	-	1,270	-	-	-	260	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.063	1,240	800	-	-	-	360	-	1	-	1	1	50	-	-	-	-	-	-	-
CRP-6.064	450	1,360	-	-	-	120	-	1	1	3	2	610	-	1	1	-	-	-	-
CRP-6.065	-	1,930	-	-	-	70	-	1	-	1	1	550	-	-	-	-	-	-	-
CRP-6.066	465	1,810	-	-	-	240	-	1	-	1	1	260	-	1	-	-	-	-	-



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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 5 of 18)		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 025892 MELISSA B. TOTH
	Division 7 Alamance County Burlington & Graham	PLAN DATE: December 2017 PREPARED BY: AH/AW REVISIONS: _____ INIT. DATE _____	
NTS		CADD File name: 270_060_U-6015_CRP-1.0	

SUMMARY OF WORK BY CABLE ROUTING PLANS

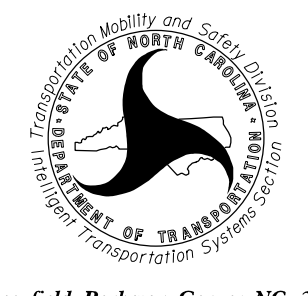
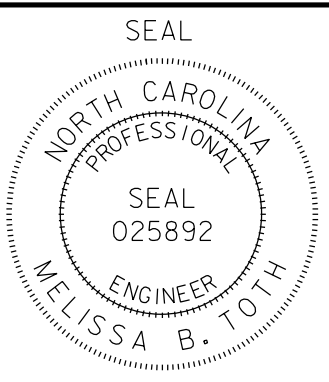
CABLE ROUTING SHEET NUMBER	ETHERNET CABLE (CAT 6)	MODIFY ELEC SERVICE FOR CCTV	REMOVE EXISTING CABINET FOUNDATION	SERVICE CONDUCTORS	NEW ELEC SERVICE FOR CCTV OR RADIO	MODIFY ELEC SERVICE FOR CCTV OR RADIO	INSTALL CABINET FOUNDATION	BASE MOUNTED CCTV CABINET W/ EXTENDER	INSTALL CCTV METAL POLE	INSTALL 2.4 GHZ RADIO	REMOVE EX CCTV METAL POLE	REMOVE WIRELESS COMM EQUIPMENT	BACK PULL FIBER-OPTIC CABLE
	LF	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.032	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.033	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.034	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.035	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.036	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.037	-	-	-	-	-	-	1	-	-	-	-	-	-
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CRP-6.039	-	-	-	-	-	-	-	-	-	-	-	-	265
CRP-6.040	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.041	-	-	-	-	-	-	-	-	-	-	-	-	65
CRP-6.042	145	-	-	-	-	-	1	-	-	-	-	-	170
CRP-6.043	-	-	-	-	-	-	1	-	-	-	-	-	220
CRP-6.044	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.045	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.046	70	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.047	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.048	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.049	180	-	-	-	-	-	-	-	-	-	-	-	1,010
CRP-6.050	55	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.051	60	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.052	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.053	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.054	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.055	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.056	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.057	80	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.058	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.059	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.060	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.061	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.062	-	-	-	-	-	-	-	-	-	-	-	-	-
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CRP-6.065	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.066	165	-	1	-	-	-	1	-	-	-	-	-	-

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- Work shown on this sheet is a summary of work for the installation of the fiber-optic cable and CCTV installations that are shown on the cable routing plans (i.e. CRP sheets). Work to be done for traffic signals is shown separately on the signal designs and the "Summary of Work by Intersection" sheets in Volume III of III.
- The items listed above are for informational purposes only and represent work that is necessary to complete the project and are not necessarily pay items. See Summary of Quantities and the Project Special Provisions for defined Pay Items for this contract.

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 6 of 18)		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892
	Division 7 Alameda County Burlington & Graham		
PLAN DATE: December 2017 REVIEWED BY: HA Badgett		REVIEWED BY: BJ Slocum	
PREPARED BY: AH/AW		REVISIONS: _____ INIT. DATE _____	
NTS		Date: 6/18/2018 Signature: Melissa B. Toth	


SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	MESSENGER CABLE (1/4")	BOND MESSENGER CABLE	TRACER WIRE	UNDERGROUND CONDUIT (1 CONDUIT, 1 INCH)	UNDERGROUND CONDUIT (1 CONDUIT, 2 INCH)	UNDERGROUND CONDUIT (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH)	JUNCTION BOX (OVER-SIZED)	JUNCTION BOX (SPECIAL-SIZED)	JUNCTION BOX STANDARD-SIZED)	REMOVE EXISTING JUNCTION BOX	DELINEATOR MARKER	STANDARD GUY ASSEMBLY	AERIAL GUY ASSEMBLY	SIDEWALK GUY ASSEMBLY	1" RISER WITH WEATHERHEAD FOR CCTV ELEC SERVICE	1" RISER WITH WEATHERHEAD FOR CAT 6	1.25" RISER WITH HEAT SHRINK TUBING	2" RISER WITH HEAT SHRINK TUBING	HEAT SHRINK TUBING KIT	NEW CABINET ENTRANCE INTO NEW FOUNDATION	DRILL/ CORE DRILL EXIST FOUNDATION
	LF	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.067	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.068	-	2	390	-	-	-	390	-	2	-	-	-	-	2	-	-	-	-	-	2	-	-	-
CRP-6.069	-	1	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-
CRP-6.070	-	-	890	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.071	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-
CRP-6.072	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.073	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.074	125	2	235	-	-	-	235	-	1	-	-	-	-	4	2	-	-	-	-	1	1	-	-
CRP-6.075	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.076	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.077	-	1	-	-	20	-	-	-	-	-	-	-	-	4	4	-	-	-	-	-	1	-	1
CRP-6.078	-	1	-	-	-	-	-	-	-	-	-	-	-	3	2	-	-	-	-	-	1	-	-
CRP-6.079	-	1	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-
CRP-6.080	-	1	-	-	-	-	-	-	-	-	-	-	-	4	3	-	-	-	-	-	-	-	-
CRP-6.081	-	1	-	-	25	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	1	-	1
CRP-6.082	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.083	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	1	-	-
CRP-6.084	840	3	-	-	-	-	-	-	-	-	-	-	-	3	1	-	-	-	-	-	1	-	-
CRP-6.085	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	1	-
CRP-6.086	-	1	90	-	-	-	90	90	-	2	-	-	-	-	-	-	-	-	-	2	-	-	-
CRP-6.087	-	1	-	-	-	-	-	-	-	-	-	-	-	3	2	-	-	-	-	-	1	-	-
CRP-6.088	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.089	-	4	450	-	30	230	-	-	-	1	-	1	-	1	-	-	-	1	-	1	3	-	-
CRP-6.090	250	3	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	-
CRP-6.091	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.092	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-
CRP-6.093	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.094	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.095	-	1	-	-	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-	-	-
CRP-6.096	-	2	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
CRP-6.097	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.098	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.099	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.100	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-
CRP-6.101	-	2	275	-	-	-	275	-	3	-	-	-	-	-	-	1	-	-	-	2	-	-	-

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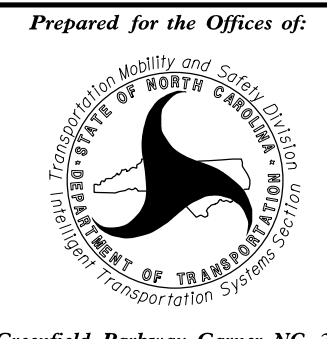
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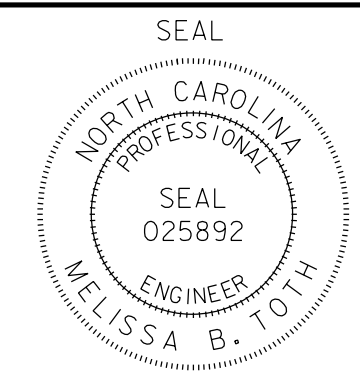
1616 EAST MILLBROOK ROAD, SUITE 160
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Prepared for the Offices of:

 DEPARTMENT OF TRANSPORTATION
 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System
Summary of Work by
Cable Routing Plans
 (Sheet 7 of 18) Burlington & Graham
 Division 7 Alamance County

PLAN DATE: December 2017 REVIEWED BY: HA Badgett
 PREPARED BY: AH/AW REVIEWED BY: BJ Slocum

SEAL

 NORTH CAROLINA
 PROFESSIONAL ENGINEER
 SEAL
 025892
 MELISSA B. TOTH

NTS

REVISIONS	INIT.	DATE

Digitized by: *Melissa B. Toth* 6/18/2018
 DATE
 CADD File name: 270_060_U-6015_CRP-1.0

SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	COMMUNICATIONS CABLE (12-FIBER)	COMMUNICATIONS CABLE (24-FIBER)	CITY IT COMMUNICATIONS CABLE (24-FIBER)	COMMUNICATIONS CABLE (36-FIBER)	COMMUNICATIONS CABLE (48-FIBER)	DROP CABLE (12-FIBER)	HANDLASH & AERIAL CABLE PROTECTOR	SPLICE ENCLOSURE	MODIFY EXISTING SPLICE OR INTERCONNECT CENTER	INTERCONNECT CENTER, PATCH PANEL, JUMPERS, FUSION SPLICE CABLE	ETHERNET EDGE SWITCH	REMOVE EXISTING COMMUNICATIONS CABLE	REMOVE CCTV CABINET	INSTALL CCTV CAMERA ASSEMBLY	REMOVE EX CCTV ASSEMBLY	POLE-MOUNTED CCTV CABINET (336)	POLE-MOUNTED CCTV CABINET (NEMA)	CCTV WOOD POLE	WOOD POLE
	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA
CRP-6.067	-	1,630	-	-	-	230	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.068	-	1,980	-	-	-	290	-	1	-	1	1	620	-	-	-	-	-	-	-
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CRP-6.070	940	-	-	-	-	70	-	1	-	1	1	885	-	-	-	-	-	-	-
CRP-6.071	1,120	-	-	-	-	410	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.072	-	1,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.073	-	1,520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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CRP-6.075	-	1,630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.076	-	1,490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.077	-	1,520	-	-	710	450	-	2	-	2	2	-	-	1	-	-	-	-	-
CRP-6.078	-	-	-	-	1,600	370	-	1	-	1	1	30	-	-	-	-	-	-	-
CRP-6.079	-	-	-	-	1,490	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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CRP-6.081	-	-	-	-	2,030	190	-	1	-	1	1	20	-	1	-	-	-	-	-
CRP-6.082	-	-	-	-	3,130	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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CRP-6.085	-	-	-	-	-	660	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.086	-	-	-	4,150	990	-	-	-	-	-	-	90	-	-	-	-	-	-	-
CRP-6.087	-	1,320	-	-	-	410	-	1	-	1	1	20	-	-	-	-	-	-	-
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CRP-6.093	-	-	-	-	1,580	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.094	-	-	-	-	1,550	230	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.095	-	-	-	-	1,570	330	-	1	-	-	-	-	-	-	-	-	-	-	1
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CRP-6.097	-	-	-	-	1,570	405	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.098	-	-	-	-	1,570	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.099	-	-	-	-	1,545	330	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.100	-	-	-	680	1,475	225	-	1	-	1	1	-	-	1	-	-	-	-	-
CRP-6.101	-	-	-	-	1,535	1,685	-	1	-	1	1	200	-	-	-	-	-	-	-

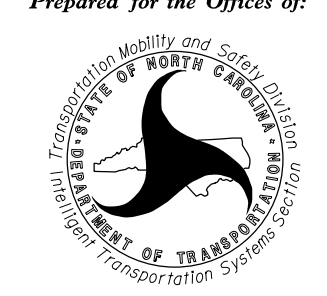
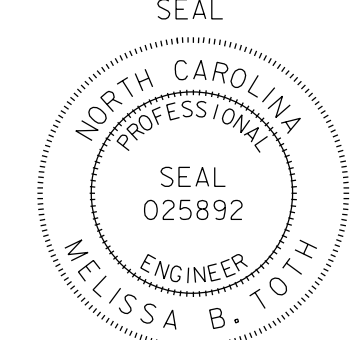
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 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 8 of 18)		
	Division 7 Alamance County Burlington & Graham	PLAN DATE: December 2017 PREPARED BY: AH/AW REVISIONS: _____ INIT. DATE _____	
NTS		CAD FILE NAME: 270_060_U-6015_CRP-1.0	

SUMMARY OF WORK BY CABLE ROUTING PLANS


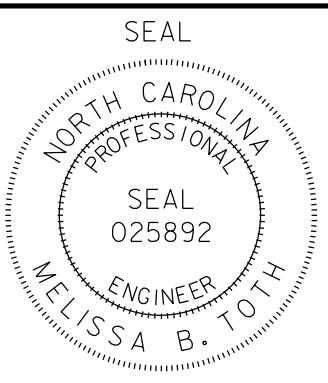
CABLE ROUTING SHEET NUMBER	ETHERNET CABLE (CAT 6)	MODIFY ELEC SERVICE FOR CCTV	REMOVE EXISTING CABINET FOUNDATION	SERVICE CONDUCTORS	NEW ELEC SERVICE FOR CCTV OR RADIO	MODIFY ELEC SERVICE FOR CCTV OR RADIO	INSTALL CABINET FOUNDATION	BASE MOUNTED CCTV CABINET W/ EXTENDER	INSTALL CCTV METAL POLE	INSTALL 2.4 GHZ RADIO	REMOVE EX CCTV METAL POLE	REMOVE WIRELESS COMM EQUIPMENT	BACK PULL FIBER-OPTIC CABLE
	LF	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.067	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.068	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.069	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.070	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.071	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.072	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.073	-	-	-	-	-	-	-	-	-	-	-	-	-
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CRP-6.076	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.077	260	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.078	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.079	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.080	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.081	190	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.082	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.083	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.084	-	-	-	-	-	-	-	-	-	-	-	-	320
CRP-6.085	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.086	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.087	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.088	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.089	310	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.090	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.091	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.092	130	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.093	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.094	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.095	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.096	220	-	-	-	-	-	-	1	-	-	-	-	-
CRP-6.097	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.098	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.099	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.100	225	-	-	-	-	-	-	1	-	-	-	-	-
CRP-6.101	-	-	-	-	-	-	-	-	-	-	-	-	90

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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 9 of 18) Burlington & Graham Division 7 Alamance County		
	PLAN DATE: December 2017 PREPARED BY: AH/AW	REVIEWED BY: HA Badgett REVIEWED BY: BJ Slocum	
NTS	REVISIONS INIT. DATE	DATE	6/18/2018 DATE CADD Filename: 270_060_U-6015_CRP-1.0

SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	MESSENGER CABLE (1/4")	BOND MESSENGER CABLE	TRACER WIRE	UNDERGROUND CONDUIT (1 CONDUIT, 1 INCH)	UNDERGROUND CONDUIT (1 CONDUIT, 2 INCH)	UNDERGROUND CONDUIT (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH)	JUNCTION BOX (OVER-SIZED)	JUNCTION BOX (SPECIAL-SIZED)	JUNCTION BOX STANDARD-SIZED)	REMOVE EXISTING JUNCTION BOX	DELINEATOR MARKER	STANDARD GUY ASSEMBLY	AERIAL GUY ASSEMBLY	SIDEWALK GUY ASSEMBLY	1" RISER WITH WEATHERHEAD FOR CCTV ELEC SERVICE	1" RISER WITH WEATHERHEAD FOR CAT 6	1.25" RISER WITH HEAT SHRINK TUBING	2" RISER WITH HEAT SHRINK TUBING	HEAT SHRINK TUBING KIT	NEW CABINET ENTRANCE INTO NEW FOUNDATION	DRILL/ CORE DRILL EXIST FOUNDATION
	LF	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.102	-	3	520	-	-	-	520	-	2	1	-	-	-	1	-	-	-	-	-	2	1	-	-
CRP-6.103	305	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
CRP-6.104	-	1	75	-	-	75	-	-	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-
CRP-6.105	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.106	-	4	535	-	-	50	-	-	1	2	-	2	-	1	-	-	-	-	-	-	4	-	-
CRP-6.107	295	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.108	1,565	1	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	1	-	-
CRP-6.109	1,465	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.110	1,440	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
CRP-6.111	1,405	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
CRP-6.112	1,430	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-
CRP-6.113	985	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-
CRP-6.114	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CRP-6.115	-	7	595	-	-	40	-	-	-	1	-	1	-	2	-	-	-	-	-	1	6	-	-
CRP-6.116	-	-	2,090	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-
CRP-6.117	-	-	1,390	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.118	-	-	1,405	-	-	55	410	-	3	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.119	110	5	320	-	-	320	-	-	3	-	-	-	-	4	-	-	-	-	1	1	3	-	-
CRP-6.120	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	3	1	-
CRP-6.121	-	4	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	4	-	-
CRP-6.122	-	2	140	-	20	-	140	-	2	-	-	-	-	1	1	1	1	-	-	1	-	1	-
CRP-6.123	75	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
CRP-6.124	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.125	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.126	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.127	-	2	1,710	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	2	-	-
CRP-6.128	-	2	175	-	-	-	175	-	2	-	-	-	-	1	-	-	-	-	-	1	1	-	-
CRP-6.129	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1	-	1	-
CRP-6.130	1,070	3	120	-	-	-	120	-	1	-	-	-	-	4	1	-	-	2	-	1	1	-	-
CRP-6.131	1,270	2	800	-	-	-	800	-	3	1	-	-	-	7	1	-	-	-	-	2	-	-	-
CRP-6.132	600	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.133	165	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	1	-	-
CRP-6.134	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
CRP-6.135	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.136	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

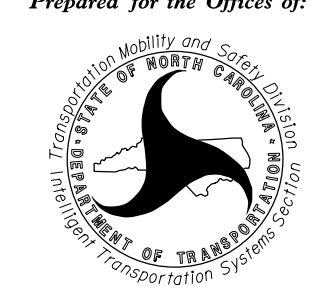
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750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System
 Summary of Work by
 Cable Routing Plans
 (Sheet 10 of 18)

Division 7 Alamance County Burlington & Graham

PLAN DATE: December 2017 REVIEWED BY: HA Badgett
 PREPARED BY: AH/AW REVIEWED BY: BJ Slocum

REVISIONS: _____ INIT. DATE

NTS

SEAL
 NORTH CAROLINA
 PROFESSIONAL
 ENGINEER
 MELISSA B. YOTH
 SEAL 025892

6/18/2018
 DATE

Signature: _____
 Date: _____

CADD File name: 270_060_U-6015_CRP-1.0

SUMMARY OF WORK BY CABLE ROUTING PLANS



CABLE ROUTING SHEET NUMBER	COMMUNICATIONS CABLE (12-FIBER)	COMMUNICATIONS CABLE (24-FIBER)	CITY IT COMMUNICATIONS CABLE (24-FIBER)	COMMUNICATIONS CABLE (36-FIBER)	COMMUNICATIONS CABLE (48-FIBER)	DROP CABLE (12-FIBER)	HANDLASH & AERIAL CABLE PROTECTOR	SPLICE ENCLOSURE	MODIFY EXISTING SPLICE OR INTERCONNECT CENTER	INTERCONNECT CENTER, PATCH PANEL, JUMPERS, FUSION SPLICE CABLE	ETHERNET EDGE SWITCH	REMOVE EXISTING COMMUNICATIONS CABLE	REMOVE CCTV CABINET	INSTALL CCTV CAMERA ASSEMBLY	REMOVE EX CCTV ASSEMBLY	POLE-MOUNTED CCTV CABINET (336)	POLE-MOUNTED CCTV CABINET (NEMA)	CCTV WOOD POLE	WOOD POLE
	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA
CRP-6.102	-	910	-	325	245	280	-	1	-	2	2	170	-	-	-	-	-	-	-
CRP-6.103	605	1,690	-	-	-	350	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.104	-	1,475	-	-	-	405	-	1	-	1	1	80	-	-	-	-	-	-	-
CRP-6.105	-	1,460	-	-	-	470	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.106	-	1,690	-	-	-	785	-	2	-	2	2	-	-	1	1	-	-	-	-
CRP-6.107	-	1,645	-	-	-	430	-	1	-	1	1	355	-	-	-	-	-	-	-
CRP-6.108	-	1,565	-	-	-	595	-	1	-	1	1	265	-	-	-	-	-	-	-
CRP-6.109	-	1,565	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.110	-	1,540	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.111	-	1,505	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.112	-	1,490	-	-	-	310	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.113	-	715	-	-	-	590	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.114	-	750	-	-	-	1,920	-	1	-	3	3	-	-	-	-	-	-	-	-
CRP-6.115	-	1,745	-	-	-	1,535	-	2	-	4	4	-	-	1	1	-	-	-	-
CRP-6.116	330	-	-	740	-	2,000	-	2	-	5	6	2,090	1	1	1	-	1	-	-
CRP-6.117	-	-	-	590	-	1,570	-	1	-	3	3	540	-	-	-	-	-	-	-
CRP-6.118	775	-	-	1,080	-	530	-	2	-	2	2	810	-	-	-	-	-	-	-
CRP-6.119	1,120	-	-	1,160	-	2,570	-	2	-	5	5	70	-	-	-	-	-	-	-
CRP-6.120	-	-	-	1,190	-	1,560	-	1	-	3	3	-	-	1	1	-	-	-	-
CRP-6.121	720	-	-	1,760	-	2,220	-	3	-	4	4	-	-	-	-	-	-	-	-
CRP-6.122	500	-	-	1,470	-	440	-	1	-	1	1	-	-	1	-	-	-	1	-
CRP-6.123	-	-	-	1,570	-	360	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.124	-	-	-	1,500	-	390	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.125	-	-	-	1,540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.126	-	-	-	1,540	-	280	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.127	1,025	-	-	-	-	2,950	-	1	-	6	6	1,755	-	-	-	-	-	-	-
CRP-6.128	360	-	-	-	-	1,620	-	1	-	2	2	240	-	-	-	-	-	-	-
CRP-6.129	580	-	-	-	-	700	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.130	-	1,230	-	-	-	280	-	1	-	1	1	-	-	1	-	-	-	-	-
CRP-6.131	710	1,600	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
CRP-6.132	-	1,630	-	-	-	300	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.133	-	1,310	-	-	-	980	-	1	-	2	2	300	-	1	-	-	-	-	-
CRP-6.134	-	1,510	-	-	-	210	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.135	-	1,440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.136	-	1,490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 11 of 18)		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH
	Division 7 Alamance County Burlington & Graham	PLAN DATE: December 2017 PREPARED BY: AH/AW REVISIONS: _____ INIT. DATE _____	

SUMMARY OF WORK BY CABLE ROUTING PLANS

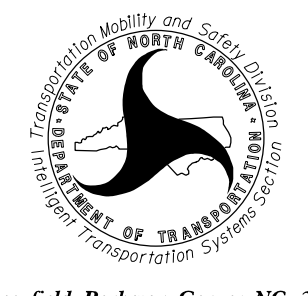
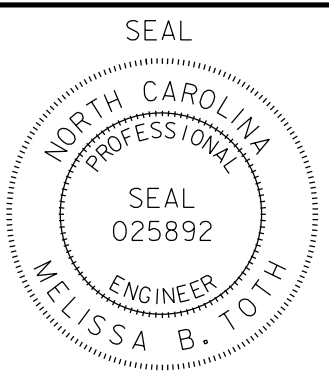
CABLE ROUTING SHEET NUMBER	ETHERNET CABLE (CAT 6)	MODIFY ELEC SERVICE FOR CCTV	REMOVE EXISTING CABINET FOUNDATION	SERVICE CONDUCTORS	NEW ELEC SERVICE FOR CCTV OR RADIO	MODIFY ELEC SERVICE FOR CCTV OR RADIO	INSTALL CABINET FOUNDATION	BASE MOUNTED CCTV CABINET W/ EXTENDER	INSTALL CCTV METAL POLE	INSTALL 2.4 GHZ RADIO	REMOVE EX CCTV METAL POLE	REMOVE WIRELESS COMM EQUIPMENT	BACK PULL FIBER-OPTIC CABLE
	LF	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.102	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.103	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.104	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.105	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.106	135	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.107	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.108	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.109	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.110	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.111	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.112	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.113	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.114	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.115	60	-	-	-	-	-	-	1	-	-	-	-	-
CRP-6.116	100	-	-	-	-	-	-	-	-	2	-	2	-
CRP-6.117	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.118	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.119	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.120	270	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.121	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.122	190	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.123	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.124	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.125	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.126	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.127	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.128	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.129	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.130	200	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.131	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.132	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.133	55	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.134	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.135	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.136	-	-	-	-	-	-	-	-	-	-	-	-	-

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RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 12 of 18)		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 025892 MELISSA B. TOTH
	Division 7 Alamance County Prepared by: AH/AW Reviewed by: HA Badgett B.J. Slocum		
NTS	PLAN DATE: December 2017 REVIEWED BY: HA Badgett B.J. Slocum	REVIEWED BY: HA Badgett B.J. Slocum	6/18/2018 DATE MELISSA B. TOTH SIGNATURE

SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	MESSENGER CABLE (1/4")	BOND MESSENGER CABLE	TRACER WIRE	UNDERGROUND CONDUIT (1 CONDUIT, 1 INCH)	UNDERGROUND CONDUIT (1 CONDUIT, 2 INCH)	UNDERGROUND CONDUIT (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH)	JUNCTION BOX (OVER-SIZED)	JUNCTION BOX (SPECIAL-SIZED)	JUNCTION BOX STANDARD-SIZED)	REMOVE EXISTING JUNCTION BOX	DELINEATOR MARKER	STANDARD GUY ASSEMBLY	AERIAL GUY ASSEMBLY	SIDEWALK GUY ASSEMBLY	1" RISER WITH WEATHERHEAD FOR CCTV ELEC SERVICE	1" RISER WITH WEATHERHEAD FOR CAT 6	1.25" RISER WITH HEAT SHRINK TUBING	2" RISER WITH HEAT SHRINK TUBING	HEAT SHRINK TUBING KIT	NEW CABINET ENTRANCE INTO NEW FOUNDATION	DRILL/ CORE DRILL EXIST FOUNDATION
	LF	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.137	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
CRP-6.138	290	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	1	-	-
CRP-6.139	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.140	-	2	240	-	10	-	240	-	1	-	-	-	-	-	-	-	-	-	1	1	1	-	-
CRP-6.141	-	1	1,200	-	-	-	1,200	-	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-
CRP-6.142	-	2	120	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	2	-	-
CRP-6.143	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.144	-	-	920	-	-	-	920	-	3	1	-	-	-	-	-	-	-	-	-	-	-	1	-
CRP-6.145	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.146	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-
CRP-6.147	-	2	-	-	25	-	-	-	-	-	-	-	-	2	2	-	-	1	-	-	1	-	1
CRP-6.148	140	1	-	-	-	-	-	-	-	-	-	-	-	5	1	-	-	-	-	1	-	1	-
CRP-6.149	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
CRP-6.150	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
CRP-6.151	-	2	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	2	-	-
CRP-6.152	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.153	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-
CRP-6.154	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.155	1,480	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.156	1,470	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-
CRP-6.157	445	2	695	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	1	2	-	-
CRP-6.158	1,425	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.159	1,430	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.160	625	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1	-	1	-
CRP-6.161	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.162	-	-	1,440	-	-	-	975	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	1
CRP-6.163	-	-	1,465	-	-	1,190	275	-	4	-	-	-	1	-	-	-	-	-	-	-	-	-	-
CRP-6.164	-	-	1,180	-	-	1,180	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-
CRP-6.165	-	-	230	-	-	105	125	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.166	365	2	1,040	-	-	255	790	-	4	1	-	1	-	2	-	-	-	-	-	2	-	-	-
CRP-6.167	-	-	1,440	-	-	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.168	-	-	1,480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.169	-	2	1,020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
CRP-6.170	510	1	150	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	1	-	-	-
CRP-6.171	-	1	1,120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-

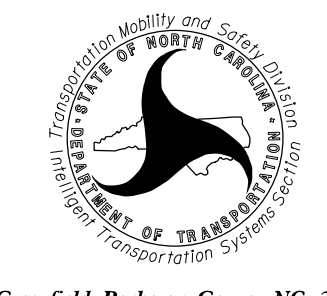

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 ENC45386 AT LUIS330048

- Work shown on this sheet is a summary of work for the installation of the fiber-optic cable and CCTV installations that are shown on the cable routing plans (i.e. CRP sheets). Work to be done for traffic signals is shown separately on the signal designs and the "Summary of Work by Intersection" sheets in Volume III of III.

- The items listed above are for informational purposes only and represent work that is necessary to complete the project and are not necessarily pay items. See Summary of Quantities and the Project Special Provisions for defined Pay Items for this contract.

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

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

 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 13 of 18)		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892
	Division 7 Alamance County Prepared by: AH/AW Revisions: _____ Date: _____	Burlington & Graham Prepared by: HA Badgett Reviewed by: BJ Slocum Date: 6/18/2018	

SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	COMMUNICATIONS CABLE (12-FIBER)	COMMUNICATIONS CABLE (24-FIBER)	CITY IT COMMUNICATIONS CABLE (24-FIBER)	COMMUNICATIONS CABLE (36-FIBER)	COMMUNICATIONS CABLE (48-FIBER)	DROP CABLE (12-FIBER)	HANDLASH & AERIAL CABLE PROTECTOR	SPLICE ENCLOSURE	MODIFY EXISTING SPLICE OR INTERCONNECT CENTER	INTERCONNECT CENTER, PATCH PANEL, JUMPERS, FUSION SPLICE CABLE	ETHERNET EDGE SWITCH	REMOVE EXISTING COMMUNICATIONS CABLE	REMOVE CCTV CABINET	INSTALL CCTV CAMERA ASSEMBLY	REMOVE EX CCTV ASSEMBLY	POLE-MOUNTED CCTV CABINET (336)	POLE-MOUNTED CCTV CABINET (NEMA)	CCTV WOOD POLE	WOOD POLE
	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA
CRP-6.137	1,430	-	-	-	-	180	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.138	440	1,690	-	-	-	180	-	1	-	1	1	290	-	-	-	-	-	-	-
CRP-6.139	-	1,460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.140	-	540	-	-	-	715	-	1	-	2	2	-	-	-	-	-	-	-	-
CRP-6.141	-	1,380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.142	-	1,830	-	-	-	980	-	1	-	2	2	110	-	-	-	-	-	-	-
CRP-6.143	-	1,470	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.144	-	1,040	-	-	-	45	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.145	1,430	-	-	-	-	260	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.146	1,060	-	-	-	-	200	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.147	1,280	-	-	-	-	605	-	1	-	1	1	-	-	1	-	-	-	1	-
CRP-6.148	1,400	-	-	-	-	420	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.149	1,620	-	-	-	-	270	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.150	1,570	-	-	-	-	415	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.151	2,315	-	-	-	-	815	-	1	-	2	2	-	-	1	-	-	-	-	-
CRP-6.152	1,390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.153	490	-	-	-	-	290	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.154	1,430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.155	1,580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.156	1,380	-	-	-	-	330	-	1	-	1	1	-	-	-	-	-	-	-	1
CRP-6.157	1,860	-	1,760	-	-	1,385	-	1	-	2	2	-	-	-	-	-	-	-	-
CRP-6.158	1,525	-	1,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.159	1,530	-	1,530	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.160	580	-	595	-	-	450	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.161	1,205	-	-	-	-	320	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.162	1,530	-	-	-	-	65	-	1	-	1	1	470	-	-	-	-	-	-	-
CRP-6.163	1,585	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.164	1,210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.165	290	-	-	-	-	45	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.166	-	1,615	-	-	-	690	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.167	-	1,500	-	-	-	-	-	-	-	-	-	760	-	-	-	-	-	-	-
CRP-6.168	-	1,540	-	-	-	-	-	-	-	-	-	1,480	-	-	-	-	-	-	-
CRP-6.169	-	1,600	-	-	-	220	-	1	-	1	1	1,015	-	-	-	-	-	-	-
CRP-6.170	-	1,580	-	-	-	-	-	-	-	-	-	145	-	-	-	-	-	-	-
CRP-6.171	-	1,640	-	-	-	290	10	1	-	1	1	-	-	-	-	-	-	-	-


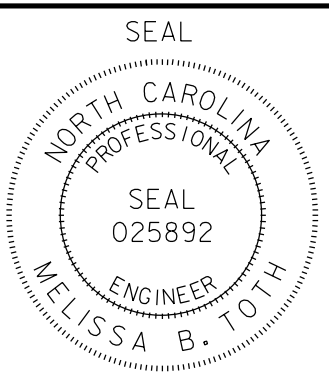
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 ENC43386 AT LUIS330048

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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 14 of 18)		
	Division 7 Alamance County Burlington & Graham	PLAN DATE: December 2017 PREPARED BY: AH/AW REVISIONS: _____ INIT. DATE _____	
750 Greenfield Parkway, Garner, NC 27529 NTS		6/18/2018 DATE CADD Filename: 270_060_U-6015_CRP-1.0	

SUMMARY OF WORK BY CABLE ROUTING PLANS

CABLE ROUTING SHEET NUMBER	MESSENGER CABLE (1/4")	BOND MESSENGER CABLE	TRACER WIRE	UNDERGROUND CONDUIT (1 CONDUIT, 1 INCH)	UNDERGROUND CONDUIT (1 CONDUIT, 2 INCH)	UNDERGROUND CONDUIT (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (2 CONDUIT, 2 INCH)	DIRECTIONAL DRILL (1 CONDUIT, 2 INCH)	JUNCTION BOX (OVER-SIZED)	JUNCTION BOX (SPECIAL-SIZED)	JUNCTION BOX STANDARD-SIZED)	REMOVE EXISTING JUNCTION BOX	DELINEATOR MARKER	STANDARD GUY ASSEMBLY	AERIAL GUY ASSEMBLY	SIDEWALK GUY ASSEMBLY	1" RISER WITH WEATHERHEAD FOR CCTV ELEC SERVICE	1" RISER WITH WEATHERHEAD FOR CAT 6	1.25" RISER WITH HEAT SHRINK TUBING	2" RISER WITH HEAT SHRINK TUBING	HEAT SHRINK TUBING KIT	NEW CABINET ENTRANCE INTO NEW FOUNDATION	DRILL/ CORE DRILL EXIST FOUNDATION
	LF	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.172	-	2	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-
CRP-6.173	-	1	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-
CRP-6.174	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.175	-	1	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	1	-	-
CRP-6.176	-	4	485	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-
CRP-6.177	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.178	-	2	170	-	-	-	170	-	1	-	-	-	-	-	-	-	-	-	-	1	1	-	-
CRP-6.179	-	1	1,115	-	-	-	1,115	-	5	1	-	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.180	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CRP-6.181	-	1	660	-	-	-	660	-	2	-	-	-	-	-	-	-	-	-	1	1	-	-	-
CRP-6.182	20	1	-	-	-	-	-	-	-	-	-	-	-	2	4	-	-	-	-	-	1	-	-
CRP-6.183	710	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.184	925	2	620	-	-	115	505	-	3	1	-	-	-	3	-	1	-	-	-	2	-	-	-
CRP-6.185	2,210	1	-	-	-	-	-	-	-	-	-	-	-	7	2	1	-	-	-	1	-	1	-
CRP-6.186	525	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-
CRP-6.187	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
CRP-6.188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.189	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
CRP-6.190	1,345	1	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	1	-	-	-	-
CRP-6.191	1,565	3	300	-	20	-	300	-	2	-	-	-	-	4	1	-	-	-	-	3	-	1	-
CRP-6.192	1,435	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
CRP-6.193	880	1	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	1	-	-	-	-
CRP-6.194	120	1	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	1	-	-
CRP-6.195	1,390	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.196	1,205	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
CRP-6.197	1,055	3	180	-	20	180	-	-	-	1	2	1	-	6	-	-	-	-	-	3	-	-	-
CRP-6.198	-	-	115	-	175	-	-	95	-	1	2	1	-	-	-	-	1	-	-	-	-	-	-
CRP-6.199	-	-	240	-	250	240	-	-	1	1	2	1	-	-	-	-	-	-	-	-	-	-	-
TOTALS	47,895	280	52,120	75	875	8,900	12,870	550	78	38	17	26	3	217	63	11	3	16	11	77	130	24	8



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- Work shown on this sheet is a summary of work for the installation of the fiber-optic cable and CCTV installations that are shown on the cable routing plans (i.e. CRP sheets). Work to be done for traffic signals is shown separately on the signal designs and the "Summary of Work by Intersection" sheets in Volume III of III.

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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

 Prepared for the Offices of: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION 750 Greenfield Parkway, Garner, NC 27529	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 16 of 18)		 SEAL NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 025892 MELISSA B. TOTH
	Division 7 Alamance County Burlington & Graham	PLAN DATE: December 2017 PREPARED BY: AH/AW REVISIONS: _____ INIT. DATE _____	
NTS		CADD File name: 270_060_U-6015-CRP-1.0	

SUMMARY OF WORK BY CABLE ROUTING PLANS

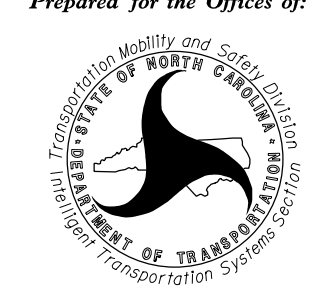
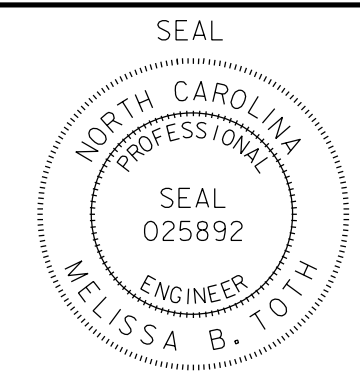
CABLE ROUTING SHEET NUMBER	COMMUNICATIONS CABLE (12-FIBER)	COMMUNICATIONS CABLE (24-FIBER)	CITY IT COMMUNICATIONS CABLE (24-FIBER)	COMMUNICATIONS CABLE (36-FIBER)	COMMUNICATIONS CABLE (48-FIBER)	DROP CABLE (12-FIBER)	HANDLASH & AERIAL CABLE PROTECTOR	SPLICE ENCLOSURE	MODIFY EXISTING SPLICE OR INTERCONNECT CENTER	INTERCONNECT CENTER, PATCH PANEL, JUMPERS, FUSION SPLICE CABLE	ETHERNET EDGE SWITCH	REMOVE EXISTING COMMUNICATIONS CABLE	REMOVE CCTV CABINET	INSTALL CCTV CAMERA ASSEMBLY	REMOVE EX CCTV ASSEMBLY	POLE-MOUNTED CCTV CABINET (338)	POLE-MOUNTED CCTV CABINET (NEMA)	CCTV WOOD POLE	WOOD POLE
	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA
CRP-6.172	-	1,790	-	-	-	340	-	1	-	1	1	-	-	1	-	-	-	-	-
CRP-6.173	-	1,480	-	-	-	445	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.174	-	1,500	-	-	-	260	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.175	-	1,520	-	-	-	270	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.176	-	1,750	-	-	-	1,395	-	2	-	3	3	485	-	1	1	-	-	-	-
CRP-6.177	-	1,485	-	-	-	430	-	1	-	1	1	155	-	-	-	-	-	-	-
CRP-6.178	380	1,180	-	-	840	595	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.179	945	-	-	-	1,145	665	-	-	-	2	2	-	-	1	-	-	-	-	-
CRP-6.180	-	-	-	-	1,070	1,550	-	1	-	3	3	-	-	-	-	-	-	-	-
CRP-6.181	-	-	-	1,290	-	210	-	1	-	1	1	-	-	-	-	-	-	-	1
CRP-6.182	-	-	-	1,520	-	280	65	1	-	1	1	110	-	-	-	-	-	-	-
CRP-6.183	400	-	-	1,580	-	260	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.184	-	-	-	1,720	-	45	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.185	1,280	-	-	1,750	-	505	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.186	-	-	-	1,490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.187	-	-	-	1,730	-	1,505	-	1	-	2	2	30	-	-	-	-	-	-	-
CRP-6.188	1,425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.189	600	-	-	-	-	425	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.190	1,185	-	-	-	-	535	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.191	1,985	-	-	-	-	285	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.192	1,535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.193	755	-	-	-	-	360	-	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.194	1,090	-	-	-	-	325	-	1	-	1	1	80	-	-	-	-	-	-	-
CRP-6.195	1,490	-	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.196	950	-	-	-	-	500	30	1	-	1	1	-	-	-	-	-	-	-	-
CRP-6.197	945	-	-	-	-	700	-	2	-	2	2	-	-	1	-	-	-	-	1
CRP-6.198	-	-	-	-	-	160	-	1	-	1	1	-	-	1	-	1	-	-	1
CRP-6.199	-	-	-	-	-	300	-	1	-	1	1	-	-	1	-	1	-	-	-
TOTALS	64,905	123,530	15,900	91,035	38,800	84,585	190	161	1	208	208	35,150	2	40	13	3	1	3	7

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- Work shown on this sheet is a summary of work for the installation of the fiber-optic cable and CCTV installations that are shown on the cable routing plans (i.e. CRP sheets). Work to be done for traffic signals is shown separately on the signal designs and the "Summary of Work by Intersection" sheets in Volume III of III.
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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 17 of 18)		
	Division 7 Alamance County Prepared by: AH/AW Date:	Burlington & Graham Reviewed by: HA Badgett Date:	
Revisions:			Date:
NTS			CAD File name: 270_060_U-6015_CRP-1.0

SUMMARY OF WORK BY CABLE ROUTING PLANS


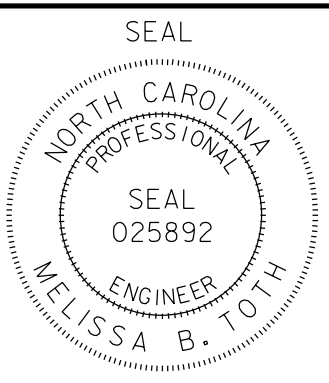
CABLE ROUTING SHEET NUMBER	ETHERNET CABLE (CAT 6)	MODIFY ELEC SERVICE FOR CCTV	REMOVE EXISTING CABINET FOUNDATION	SERVICE CONDUCTORS	NEW ELEC SERVICE FOR CCTV OR RADIO	MODIFY ELEC SERVICE FOR CCTV OR RADIO	INSTALL CABINET FOUNDATION	BASE MOUNTED CCTV CABINET W/ EXTENDER	INSTALL CCTV METAL POLE	INSTALL 2.4 GHZ RADIO	REMOVE EX CCTV METAL POLE	REMOVE WIRELESS COMM EQUIPMENT	BACK PULL FIBER-OPTIC CABLE
	LF	EA	EA	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA
CRP-6.172	270	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.173	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.174	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.175	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.176	70	-	-	-	-	-	-	1	-	-	-	-	-
CRP-6.177	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.178	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.179	110	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.180	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.181	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.182	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.183	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.184	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.185	-	-	-	-	-	-	1	-	-	-	-	-	-
CRP-6.186	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.187	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.188	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.189	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.190	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.191	-	-	1	-	-	-	1	-	-	-	-	-	-
CRP-6.192	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.193	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.194	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.195	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.196	-	-	-	-	-	-	-	-	-	-	-	-	-
CRP-6.197	-	-	-	-	-	-	-	-	1	-	-	-	-
CRP-6.198	45	-	-	155	2	-	-	-	1	-	-	-	-
CRP-6.199	-	1	-	250	1	1	-	-	1	-	-	-	-
TOTALS	6,135	1	3	405	4	1	25	3	17	2	1	2	2,660

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 ENCLAS386 AT LUS330048

- Work shown on this sheet is a summary of work for the installation of the fiber-optic cable and CCTV installations that are shown on the cable routing plans (i.e. CRP sheets). Work to be done for traffic signals is shown separately on the signal designs and the "Summary of Work by Intersection" sheets in Volume III of III.
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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

	Burlington-Graham Signal System Summary of Work by Cable Routing Plans (Sheet 18 of 18)		
	Division 7 Alamance County	Burlington & Graham	
PLAN DATE: December 2017	REVIEWED BY: HA Badgett	PREPARED BY: AH/AW REVIEWED BY: BJ Slocum	
750 Greenfield Parkway, Garner, NC 27529	NTS	REVISIONS INIT. DATE	SEAL NORTH CAROLINA PROFESSIONAL SEAL 025892 ENGINEER MELISSA B. TOTH
Prepared for the Offices of:		Date: 6/18/2018 Signature: Melissa B. Toth	

CCTV INSTALLATION SUMMARY

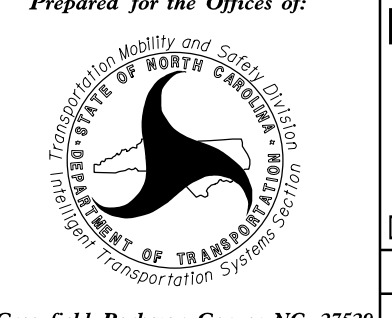
PROJECT REFERENCE NO.	SHEET NO.
U-6015	CRP-2.000

SHEET REFERENCE	CCTV CAMERA NUMBER	LOCATION	QUADRANT	POLE				CAMERA STATUS	CAMERA MOUNTING HEIGHT (FT)	POWER SERVICE		CABINET TYPE	DIST. TO SIGNAL CABINET
				TYPE	STATUS	USE TYPE	LENGTH (FT)			TYPE	STATUS		
CRP-064	CCTV-1	HUFFMAN MILL ROAD & I-85	SW	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	n/a
CRP-014	CCTV-2	HUFFMAN MILL ROAD & CHURCH STREET	SE	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	200'
CRP-089	CCTV-3	ALAMANCE ROAD & I-85	SW	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	n/a
CRP-115	CCTV-4	MAPLE AVENUE & I-85	NW	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	n/a
CRP-176	CCTV-5	MAIN STREET & I-85	NW	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	n/a
CRP-106	CCTV-6	HARDEN STREET & I-85	SW	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	n/a
CRP-120	CCTV-7	MEBANE STREET & WEBB AVENUE	SE	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	100'
CRP-019	CCTV-8	CHURCH STREET & O'NEAL STREET	SW	STEEL	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	n/a
CRP-038	CCTV-9	US 70 (CHURCH STREET) & GRAHAM-HOPEDALE ROAD (REMOVE)	SE	STEEL	REMOVE	n/a	50'	REMOVE	n/a	REMOVE	REMOVE	REMOVE	n/a
CRP-051	CCTV-10	UNIVERSITY DRIVE & I-85	SW	WOOD	EXIST.	CCTV ONLY	50'	REPLACE	45'	UNDERGROUND	EXIST.	TYPE 332 CCTV	n/a
CRP-007	CCTV-11	US 70 (CHURCH STREET) & ST. MARKS CHURCH ROAD (REMOVE)	SE	WOOD	REMOVE	n/a	40'	REMOVE	n/a	REMOVE	REMOVE	REMOVE	n/a
CRP-116	CCTV-12	SOUTH MAIN STREET & EAST DAVIS STREET (LABCORP BLDG.)	NE	BUILD.	EXIST.	CCTV ONLY	n/a	REPLACE	SAME	BUILDING	EXIST.	NEMA 4	n/a
CRP-050	CCTV-13	UNIVERSITY DRIVE & BOONE STATION DRIVE	NW	STEEL	EXIST.	CCTV ONLY	35'	REPLACE	32'	PoE	EXIST.	TYPE 332 SIGNAL	0'
CRP-005	CCTV-14	US 70 (CHURCH STREET) & UNIVERSITY DRIVE	SE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	280'
CRP-133	CCTV-15	NC 87 (WEBB AVE.) & GLEN RAVEN RD.	NW	WOOD	REPL.	JOINT	50'	PROPOSED	37'	PoE	EXIST.	TYPE 332 SIGNAL	55'
CRP-057	CCTV-16	ST. MARKS CHURCH ROAD/JAVA LANE & BOONE STATION DRIVE	NE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	80'
CRP-081	CCTV-17	NC 54 (CHAPEL HILL ROAD) & S. MEBANE STREET	SE	STEEL	EXIST.	JOINT	35'	PROPOSED	30'	PoE	EXIST.	TYPE 332 SIGNAL	190'
CRP-122	CCTV-18	NC 87 (WEBB AVENUE) & NC 100 (ANTHONY STREET)	SE	WOOD	PROP.	CCTV ONLY	50'	PROPOSED	37'	PoE	EXIST.	TYPE 332 SIGNAL	190'
CRP-179	CCTV-19	PINE STREET & MAPLE STREET (CITY OF GRAHAM)	NW	WOOD	EXIST.	JOINT	40'	PROPOSED	27'	PoE	EXIST.	TYPE 332 SIGNAL	110'
CRP-172	CCTV-20	MOORE STREET & S. MAIN STREET (NC 87) (CITY OF GRAHAM)	NE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	270'
CRP-027	CCTV-21	N. FISHER STREET & W. HOLT STREET/RAUHUT STREET	SW	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	230'
CRP-024	CCTV-22	US 70 (CHURCH STREET) & FISHER STREET	n/a	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	240'
CRP-100	CCTV-23	NC 54 (W. HARDEN STREET) & W. ELM STREET	n/a	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	40'	PoE	EXIST.	TYPE 332 SIGNAL	225'
CRP-197	CCTV-24	JIMMIE KERR ROAD (SR 1928) & I-40/85 RAMPS	NE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	240'
CRP-011	CCTV-25	US 70 (CHURCH STREET) & FORESTDALE DRIVE	SW	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	40'	PoE	EXIST.	TYPE 332 SIGNAL	190'
CRP-015	CCTV-26	US 70 (CHURCH STREET) & GURNEY STREET	n/a	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	UNDERGROUND	PROP.	TYPE 336 CCTV	n/a
CRP-007	CCTV-27	US 70 (CHURCH STREET) & ST. MARKS CHURCH ROAD (RELOCATE/REPLACE CCTV 11)	NW	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	270'
CRP-038	CCTV-28	US 70 (CHURCH STREET) & GRAHAM-HOPEDALE ROAD (RELOCATE/REPLACE CCTV 9)	NW	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	265'
CRP-042	CCTV-29	US 70 (CHURCH STREET) & MCKINNEY STREET	SE	WOOD	PROP.	CCTV ONLY	50'	PROPOSED	37'	PoE	EXIST.	TYPE 332 SIGNAL	145'
CRP-147	CCTV-30	EDGEWOOD AVENUE & SHADOWBROOK DRIVE	NE	WOOD	PROP.	CCTV ONLY	50'	PROPOSED	37'	PoE	EXIST.	TYPE 332 SIGNAL	70'
CRP-151	CCTV-31	EDGEWOOD AVENUE & MEDICAL CENTER DRIVE	SW	WOOD	EXIST.	JOINT	40'	PROPOSED	27'	PoE	EXIST.	TYPE 332 SIGNAL	225'
CRP-049	CCTV-32	UNIVERSITY DRIVE & RURAL RETREAT ROAD	NE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	180'
CRP-066	CCTV-33	HUFFMAN MILL ROAD & FORESTDALE DRIVE	NE	STEEL	REPL.	JOINT	45'	PROPOSED	40'	PoE	EXIST.	TYPE 332 SIGNAL	165'
CRP-077	CCTV-34	ALAMANCE ROAD & MEBANE STREET	SE	STEEL	EXIST.	JOINT	33'	PROPOSED	30'	PoE	EXIST.	TYPE 332 SIGNAL	260'
CRP-198	CCTV-35	TUCKER STREET & I-40/85	NE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	UNDERGROUND	PROP.	TYPE 336 CCTV	n/a
CRP-092	CCTV-36	TUCKER STREET & CHAPEL HILL ROAD	SW	STEEL	REPL.	JOINT	40'	PROPOSED	35'	PoE	EXIST.	TYPE 332 SIGNAL	130'
CRP-096	CCTV-37	MAPLE AVENUE & CHAPEL HILL ROAD	SE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	40'	PoE	EXIST.	TYPE 332 SIGNAL	220'
CRP-046	CCTV-38	UNIVERSITY DRIVE & WESTBROOK AVENUE	SE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	70'
CRP-130	CCTV-39	UNIVERSITY DRIVE & HAGGARD AVENUE	NE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	200'
CRP-001	CCTV-40	US 70 (CHURCH STREET) & SPRINGWOOD CHURCH ROAD	SE	STEEL	EXIST.	JOINT	33'	PROPOSED	30'	PoE	EXIST.	TYPE 332 SIGNAL	155'
CRP-028	CCTV-41	US 70 (CHURCH STREET) & TRADE STREET	NE	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	PoE	EXIST.	TYPE 332 SIGNAL	255'
CRP-199	CCTV-42	I-40/85 & MILE MARKER 146.16	n/a	STEEL	PROP.	CCTV ONLY	50'	PROPOSED	45'	UNDERGROUND	EXIST.	TYPE 336 CCTV	n/a

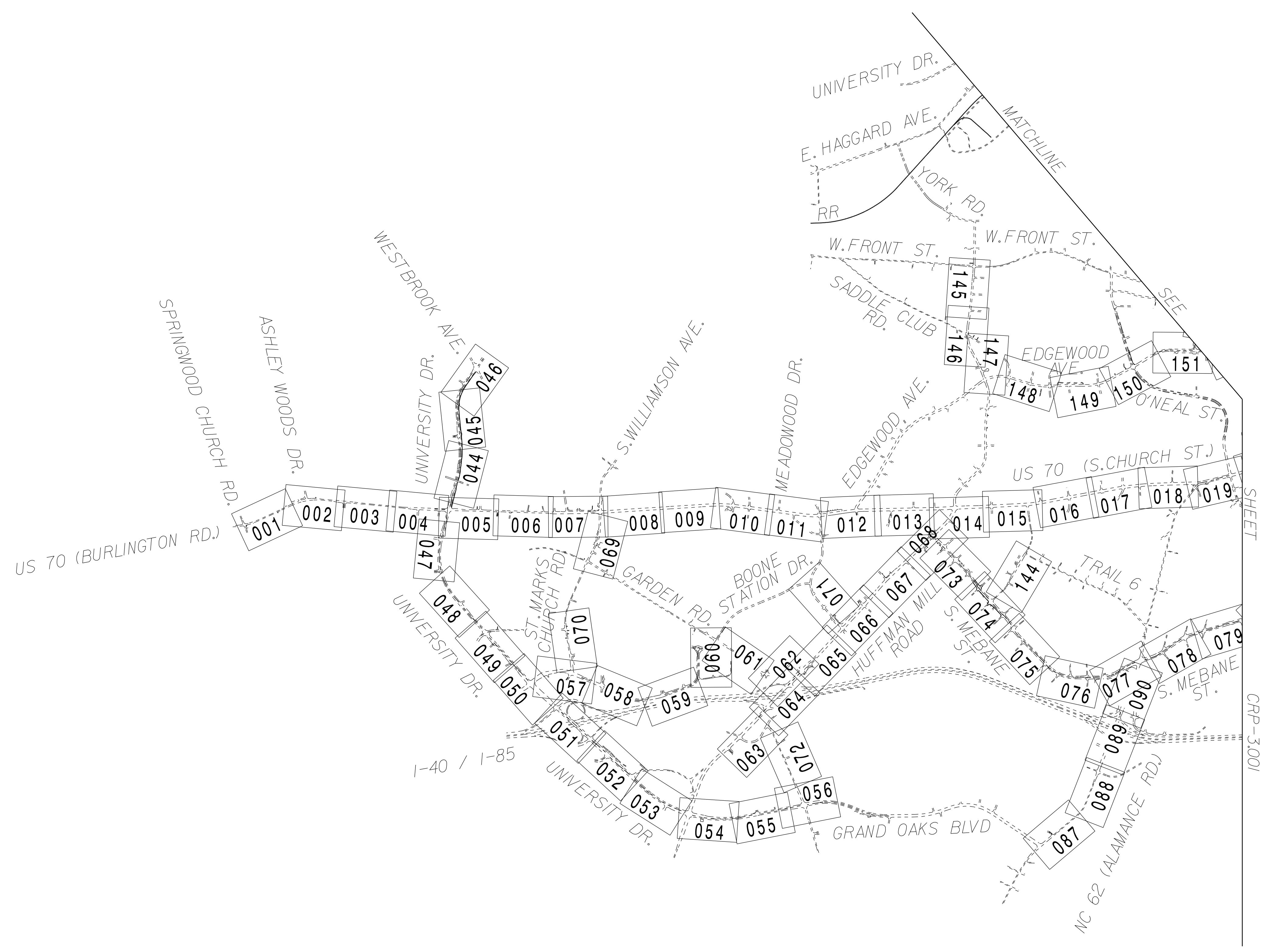
* MOUNT REPLACEMENT CCTV AT THE SAME HEIGHT AS THE EXISTING CCTV.
 BD = Bridge Deck OR = Off Ramp NB = Northbound
 EOP = Edge of Pavement TSCP = Traffic Signal Cabinet SB = Southbound
 EOC = Edge of Concrete TSP = Traffic Signal Pole EB = Eastbound
 ESS = Existing Sign PoE = Power Over Ethernet WB = Westbound
 GR = Guardrail from Signal Cabinet

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBES #F-0326

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

 Prepared for the Office of: NTS	Burlington-Graham Signal System CCTV Installation Summary Division 7 Alamance County Burlington & Graham PLAN DATE: December 2017 REVIEWED BY: HA Badgett PREPARED BY: AH/AW REVIEWED BY: BJ Slocum	SEAL NORTH CAROLINA PROFESSIONAL SEAL 040877 ENGINEER BRADLEY J. SLOCUM 3/2018 SIGNATURE DATE
REVISIONS INIT. DATE		

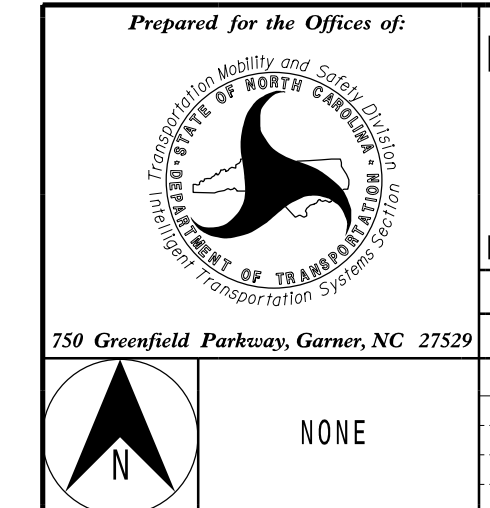
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 (919) 876-6888 NCBES #F-0326

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Burlington-Graham Signal System Cable Routing Plans Key Sheet (1 of 3)	
Division 7 Alamance County	Burlington & Graham
PLAN DATE: April 2018	REVIEWED BY: MB Toth
PREPARED BY: JA Wiles	REVIEWED BY: BJ Slocum
REVISIONS	INIT. DATE

SEAL

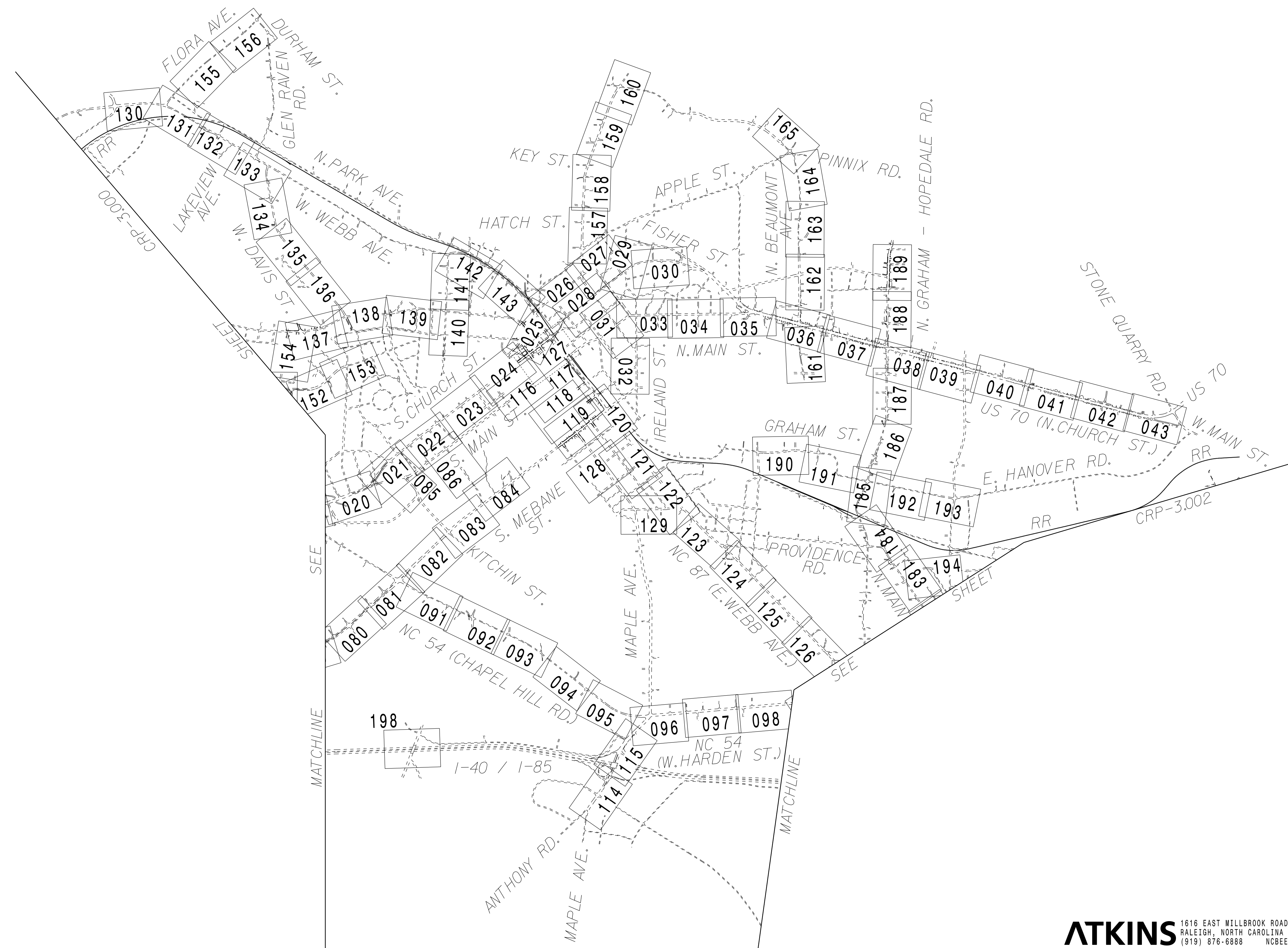
SEAL
025892
ENGINEER
MELISSA B. TOTH

DocuSigned by:
Melissa B. Toth/13/2018

DATE



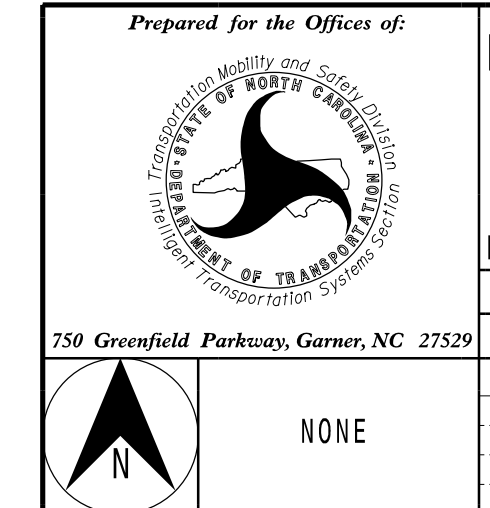
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 RALEIGH, NORTH CAROLINA 27609
 (919) 876-6888 NCBES #F-0326

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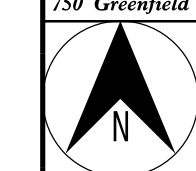
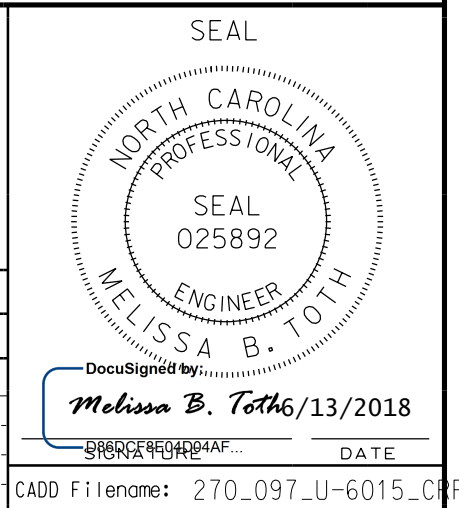


**Burlington-Graham Signal System
 Cable Routing Plans Key Sheet
 (2 of 3)**

Division 7 Alamance County Burlington & Graham

PLAN DATE: April 2018	REVIEWED BY: MB Toth
PREPARED BY: JA Wiles	REVIEWED BY: BJ Slocum

REVISIONS	INIT.	DATE



NONE


DocuSigned by:
Melissa B. Toth / 13/2018
 DATE



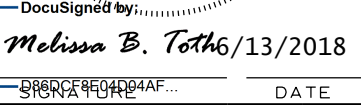
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Prepared for the Offices of:

 DEPARTMENT OF TRANSPORTATION
 STATE OF NORTH CAROLINA
 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans Key Sheet (3 of 3)	
Division 7	Alamance County
Burlington & Graham	
PLAN DATE: April 2018	REVIEWED BY: MB Toth
PREPARED BY: JA Wiles	REVIEWED BY: BJ Slocum
REVISIONS	INIT. DATE

SEAL
 NORTH CAROLINA
 PROFESSIONAL
 SEAL
 025892
 ENGINEER
 MELISSA B. TOTH
 DocuSigned by:

 MELISSA B. TOTH/13/2018
 DATE



NONE

ABBREVIATIONS

AGUY	Aerial Guy
ARLT	Area Light
AT&T	AT&T
BOT	Bottom Attachment
BS	Backside Attachment
CATV	Cable Television (Spectrum)
CAM	Camera Bracket
CCTV	Closed-Circuit Television
CLINK	Century Link
COB	City of Burlington
COG	City of Graham
COMM	Communications Cable
COMP	Composite Cable
DL	Drip Loop
DRP	Drop
DNET	DukeNet
DUKE	Duke Energy
EXI	Existing Communications Cable
FLCAB	Flasher Cabinet
FOC / FO	Fiber Optic Cable
FS	Front Side Attachment
IMC	Intermediate Metallic Conduit
LIC	Lead-In Cable (Detector)
MSGR	Messenger
NCDOT	North Carolina Department of Transportation
NEUT	Neutral
OH	Overhead
OSS	Overhead Sign Span
OWS	Open Wire Secondary
PNG	Piedmont Natural Gas
PWR	Power
RSR	Riser
SAME	Same Elevation/Attachment Height
SEC	Secondary Power
SGRSR	Signal Riser
SIG	Signal Span
SP	Signal Pole
SO	Standoff
STLT	Streetlight
SVRSR	Service Riser
TEL	Telephone
TFMR	Transformer
TOP	Top of Pole or Top Attachment
TRI	Triplex
UG	Underground
VZN	Verizon
X ANY	Crossing Line, where "Any" is the abbreviation for the overhead line that is crossing exist/prop. cable route

	NEW FIBER OPTIC COMMUNICATIONS CABLE		NEW CONTROLLER AND CABINET
	EXISTING COMMUNICATIONS CABLE		EXISTING CONTROLLER AND CABINET
	EXISTING COMMUNICATIONS CABLE TO BE REMOVED		NEW SPLICE CABINET
	NEW AND EXISTING AERIAL GUY ASSEMBLY		EXISTING SPLICE CABINET
	NEW CONDUIT		NEW AERIAL SPLICE ENCLOSURE
	EXISTING CONDUIT		EXISTING AERIAL SPLICE ENCLOSURE
	NEW DIRECTIONAL DRILLED CONDUIT		NEW UNDERGROUND SPLICE ENCLOSURE IN NEW SPECIAL-SIZED JUNCTION BOX
	NEW BORED AND JACKED CONDUIT		NEW UNDERGROUND SPLICE ENCLOSURE IN EXISTING SPECIAL-SIZED JUNCTION BOX
	RAILROAD TRACK		EXISTING UNDERGROUND SPLICE ENCLOSURE IN EXISTING SPECIAL-SIZED JUNCTION BOX
	NEW WOOD POLE		NEW CABLE STORAGE GUIDES (SNOW SHOES)
	EXISTING WOOD POLE		EXISTING CABLE STORAGE GUIDES (SNOW SHOES)
	NEW METAL POLE		NEW CCTV CAMERA ASSEMBLY
	EXISTING METAL POLE		EXISTING CCTV CAMERA ASSEMBLY
	EXISTING CONCRETE POLE		EXISTING ELECTRICAL JUNCTION BOX
	NEW STANDARD GUY ASSEMBLY		YAGI ANTENNA
	EXISTING STANDARD GUY ASSEMBLY		OMNI-DIRECTIONAL ANTENNA
	NEW SIDEWALK GUY ASSEMBLY		900 MHZ RADIO / FLAT-PANEL ANTENNA
	EXISTING SIDEWALK GUY ASSEMBLY		
	NEW HUB CABINET		
	EXISTING HUB CABINET		

	NEW STANDARD JUNCTION BOX
	EXISTING STANDARD JUNCTION BOX
	NEW OVER-SIZED OR SPECIAL-SIZED JUNCTION BOX
	EXISTING OVER-SIZED OR SPECIAL-SIZED JUNCTION BOX
	EXISTING UNDERGROUND VAULT
	EXISTING COMMUNICATIONS MANHOLE
	DESIGNATES UNFUSED POWER IN JUNCTION BOX, VAULT OR MANHOLE
	NCDOT SIGNAL ID NUMBER
	CITY OF BURLINGTON SIGNAL INVENTORY NUMBER
	CITY OF GRAHAM SIGNAL INVENTORY NUMBER
	CCTV CAMERA ID NUMBER
	EDGE OF PAVEMENT
	EDGE OF LANE
	BACK OF CURB
	FACE OF CURB
	NEW SYSTEM DETECTOR
	EXISTING SYSTEM DETECTOR

LEGEND

GENERAL NOTES

- THESE PLANS WERE PREPARED FROM INVENTORIES AND FIELD DATA COLLECTED DURING JULY 2017 THRU DECEMBER 2017. ACTUAL CONDITIONS IN THE FIELD AT THE TIME OF CONSTRUCTION MAY BE DIFFERENT FROM THOSE SHOWN IN THE PLANS.
- THE FIELD LOCATION OF ANY ITEM TO BE INSTALLED AS PART OF THIS PROJECT SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- NEW TRAFFIC SIGNAL CONTROLLER CABINETS ARE SPECIFIED ON THE SIGNAL PLANS.
- BURIED UTILITIES AND STRUCTURES: PIPELINES, STORM SEWERS, POWER CABLES, UTILITY CABLES, BASEMENTS, AND OTHER PUBLICLY AND PRIVATELY OWNED UNDERGROUND OBSTRUCTIONS EXIST ADJACENT TO AND WITHIN THE STREET RIGHT-OF-WAY WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. INVESTIGATE THE LOCATION OF SUCH BURIED UTILITIES AND STRUCTURES WITH PUBLIC AND PRIVATE UTILITIES.
- THE PLAN SHEETS HAVE BEEN DEVELOPED AS CLOSE TO SCALE AS PRACTICAL. HOWEVER, ACTUAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR APPLYING THE WORK SHOWN.
- THE ROADWAY STANDARD DRAWINGS AND THE DETAILS PROVIDED IN THIS PLAN SET SHALL ALL APPLY TO ALL WORK REQUIRED IN THIS PROJECT, WHETHER A PARTICULAR DETAIL IS SPECIFICALLY REFERENCED TO A WORK ITEM OR NOT. IN THE EVENT OF A CONFLICT, THE ORDER OF PRECEDENCE SHALL BE: THE PROJECT SPECIAL PROVISIONS, THE PLAN SET - INCLUDING DETAILS - SUPPLEMENTAL SPECIFICATIONS, THE STANDARD SPECIFICATIONS, AND THEN THE ROADWAY STANDARD DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING THE PROPER DETAILS.
- ANY OF THE CONTRACTOR'S WORK ACTIVITIES WHICH IMPACT ANY UTILITY FACILITY SHALL BE COORDINATED WITH THE OWNER OF THE AFFECTED UTILITIES. THE CONTRACTOR SHALL FOLLOW ANY AND ALL WORK PROCEDURES THE UTILITY OWNERS MAY REQUIRE.
- ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED TO BE PERFORMED BY OTHERS.
- AREAS WITHIN THIS PROJECT HAVE BEEN DETERMINED TO CONTAIN PROPERTIES WITH DOCUMENTED HISTORICAL SIGNIFICANCE. IF IT IS NECESSARY TO DEVIATE FROM THE PLANS IN AN AREA IDENTIFIED TO CONTAIN PROPERTIES WITH HISTORIC SIGNIFICANCE, ALERT THE ENGINEER TO CONTACT ENVIRONMENTAL ANALYSIS UNIT - HISTORIC ARCHITECTURE GROUP OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR AN EFFECTS DETERMINATION BEFORE PROCEEDING.

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 (919) 876-6888 NCBES #F-0326

	Burlington-Graham Signal System Legend/ General Notes/ Abbreviations		
	Division 7 Alamance County Burlington & Graham		
PLAN DATE: December 2017	REVIEWED BY: HA Badgett		
PREPARED BY: AH/AW	REVIEWED BY: BJ Slocum		
REVISIONS	INIT.	DATE	
NTS			

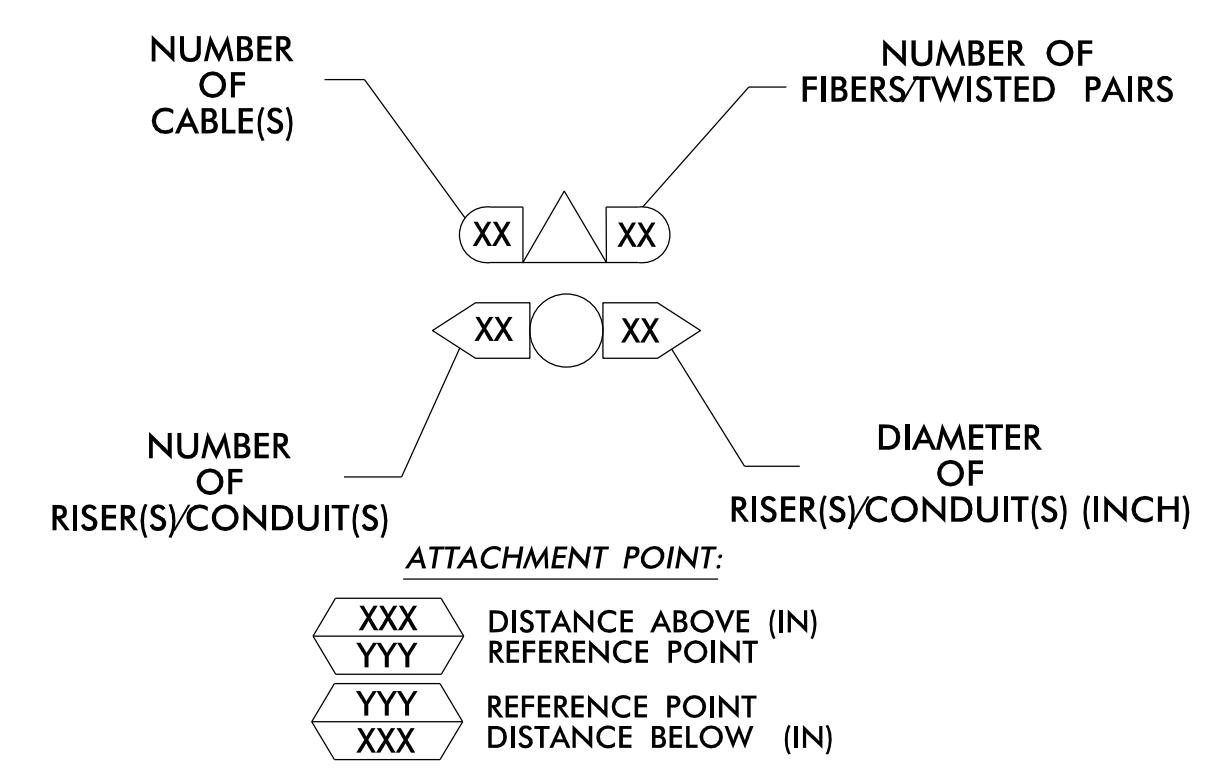
- 1 INSTALL CATEGORY 6 CABLE
- 2 INSTALL LOW VOLTAGE POWER CABLE (24VAC)
- 3 INSTALL COMPOSITE CCTV CABLE
- 4 INSTALL SMFO CABLE
- 5 INSTALL COAXIAL ANTENNA CABLE
- 6 INSTALL FIBER-OPTIC DROP CABLE
- 7 INSTALL TRACER WIRE
- 8 INSTALL CONDUIT UNDERGROUND
- 9 INSTALL PVC CONDUIT
- 10 INSTALL RIGID, GALVANIZED STEEL CONDUIT
- 11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
- 12 INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
- 13 INSTALL HEAT SHRINK TUBING RETROFIT KIT
- 14 INSTALL HIGH DENSITY POLYETHYLENE CONDUIT
- 15 DIRECTIONAL DRILL CONDUIT
- 16 BORE AND JACK CONDUIT
- 17 INSTALL CABLE(S) IN EXISTING CONDUIT
- 18 INSTALL CABLE(S) IN NEW CONDUIT
- 19 INSTALL CABLE(S) IN EXISTING RISER(S)
- 20 INSTALL CABLE(S) IN NEW RISER(S)
- 21 INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE
- 22 INSTALL NEW CONDUIT INTO CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHEN AVAILABLE)
- 23 INSTALL NEW RISER INTO CABINET BASE (USE EXISTING CONDUIT STUBOUTS WHEN AVAILABLE)
- 24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET
- 25 INSTALL NEW RISER INTO POLE MOUNTED CABINET
- 26 INSTALL DIGITAL VIDEO ENCODER
- 27 INSTALL NEW ETHERNET EDGE SWITCH IN CABINET
- 28 INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
- 29 INSTALL UNDERGROUND SPLICE ENCLOSURE
- 30 INSTALL AERIAL SPLICE ENCLOSURE
- 31 INSTALL SPLICE CABINET
- 32 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER

- 33 REMOVE EXISTING SPLICE / HUB / CCTV CABINET
- 34 INSTALL CABINET FOUNDATION
- 35 REMOVE EXISTING CABINET FOUNDATION
- 36 INSTALL CCTV CAMERA ASSEMBLY
- 37 INSTALL CCTV WOOD POLE
- 38 INSTALL STANDARD SIZE JUNCTION BOX
- 39 INSTALL SPECIAL-SIZED JUNCTION BOX
- 40 INSTALL OVER-SIZED JUNCTION BOX
- 41 REMOVE EXISTING JUNCTION BOX
- 42 INSTALL WOOD POLE
- 43 REMOVE EXISTING WOOD POLE
- 44 INSTALL AERIAL GUY ASSEMBLY
- 45 INSTALL STANDARD GUY ASSEMBLY
- 46 INSTALL SIDEWALK GUY ASSEMBLY
- 47 INSTALL MESSENGER CABLE
- 48 REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
- 49 REMOVE EXISTING COMMUNICATIONS CABLE
- 50 INSTALL SERVICE CONDUCTORS
- 51 INSTALL CABLE STORAGE GUIDE(S) [SNOW SHOE(S)] AND STORE 100 FEET OF EACH CABLE
- 52 INSTALL DELINEATOR MARKER
- 53 STORE 50 FEET OF COMMUNICATIONS CABLE (EACH CABLE)
- 54 LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE
- 55 LASH CABLE(S) TO EXISTING MESSENGER CABLE
- 56 LASH CABLE(S) TO NEW MESSENGER CABLE
- 57 MODIFY EXISTING ELECTRICAL SERVICE FOR CCTV
- 58 INSTALL NEW ELECTRICAL SERVICE FOR CCTV OR RADIO
- 59 INSTALL NEW POLE MOUNTED CCTV CABINET (336)
- 60 INSTALL NEW CCTV CABINET (NEMA TYPE 4)
- 60A INSTALL NEW POLE MOUNTED CABINET FOR ANTENNA (RADIO CABINET)
- 61 REMOVE EXISTING CCTV CAMERA ASSEMBLY
- 62 NEW CABINET ENTRANCE INTO NEW FOUNDATION
- 63 DRILL/CORE DRILL EXISTING FOUNDATION

- 64 INTERCEPT AND REROUTE EXISTING CONDUITS
- 65 BOND MESSENGER TO POLE GROUND
- 66 BOND RISER TO POLE GROUND
- 67 BOND TRACER WIRE TO EQUIPMENT GROUND BUS
- 68 BOND TRACER WIRE TO POLE GROUND
- 69 HANDLASH AND INSTALL AERIAL CABLE PROTECTOR
- 70 INSTALL CCTV CABINET DISCONNECT
- 71 INSTALL MANAGED ETHERNET SWITCH
- 72 INSTALL CCTV METAL POLE
- 73 REMOVE EXISTING CCTV METAL POLE
- 74 REMOVE WIRELESS COMMUNICATIONS EQUIPMENT
- 75 COIL CITY IT CABLE
- 76 INSTALL 2.4 GHZ RADIO AND PANEL ANTENNA
- 77 INSTALL BASE MOUNTED CCTV CABINET WITH EXTENDER (336)

CONSTRUCTION NOTE SYMBOLOGY KEY

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



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	Construction Notes		
750 Greenfield Parkway, Garner, NC 27529 NTS	Division 7 Alamance County Burlington & Graham	PLAN DATE: December 2017	REVIEWED BY: HA Badgett
	PREPARED BY: AH/AW	REVIEWED BY: BJ Slocum	REVISIONS INIT. DATE
SIGNATURE: <i>Melissa B. Toth</i>		DATE: 12/13/2018	

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