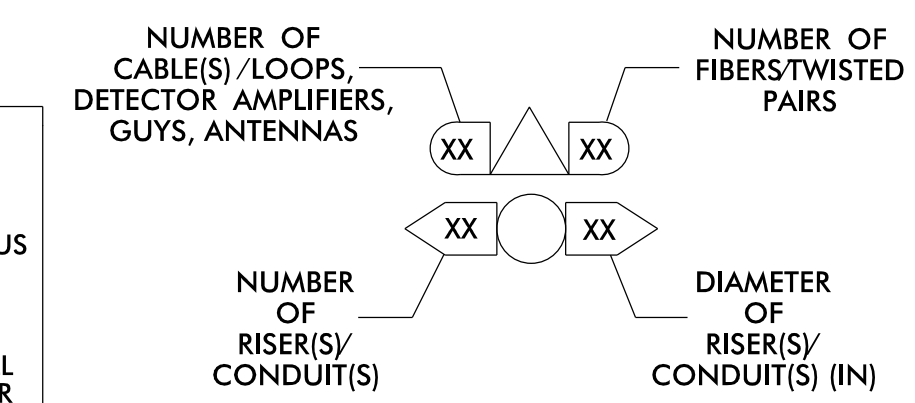


- NOTES:**
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 - ATTACH NEW MESSENGER CABLE 40" BELOW POWER.
 - ATTACH ON FRONT SIDE (FS) OF POLE.
 - SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER AT ALL JUNCTION BOX / CABINET ENTRANCES.

- ATTACHMENT POINT:**
- XXX DISTANCE ABOVE (IN)
 - YYY REFERENCE POINT
 - YYY REFERENCE POINT
 - XXX DISTANCE BELOW (IN)
- CONSTRUCTION NOTE SYMBOLGY KEY**



1 INSTALL CATEGORY 6 CABLE	11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	22 INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)	32 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER	43 REMOVE EXISTING WOOD POLE	55 LASH CABLE(S) TO EXISTING MESSENGER CABLE	66 BOND RISER TO POLE GROUND
2 INSTALL LOW VOLTAGE POWER CABLE (24VAC)	12 INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING	23 INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)	33 REMOVE EXISTING SPLICE /HUB /CCTV CABINET	44 INSTALL AERIAL GUY ASSEMBLY	56 LASH CABLE(S) TO NEW MESSENGER CABLE	67 BOND TRACER WIRE TO EQUIPMENT GROUND BUS
3 INSTALL COMPOSITE CCTV CABLE	13 INSTALL HEAT SHRINK TUBING KIT	24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34 INSTALL CABINET FOUNDATION	45 INSTALL STANDARD GUY ASSEMBLY	57 MODIFY EXISTING ELECTRICAL SERVICE FOR CCTV	68 BOND TRACER WIRE TO POLE GROUND
4 INSTALL SMFO CABLE	14 INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25 INSTALL NEW RISER INTO POLE MOUNTED CABINET	35 REMOVE EXISTING CABINET FOUNDATION	46 INSTALL SIDEWALK GUY ASSEMBLY	58 INSTALL NEW ELECTRICAL SERVICE FOR CCTV OR RADIO	69 HANDLASH AND INSTALL AERIAL CABLE PROTECTOR
5 INSTALL COAXIAL ANTENNA CABLE	15 DIRECTIONAL DRILL CONDUIT	26 INSTALL DIGITAL VIDEO ENCODER	36 INSTALL CCTV CAMERA ASSEMBLY	47 INSTALL MESSENGER CABLE	59 INSTALL NEW POLE MOUNTED CCTV CABINET (336)	70 INSTALL CCTV CABINET DISCONNECT
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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 Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529

SCALE 0 50 1"=50'

REVISIONS INIT. DATE

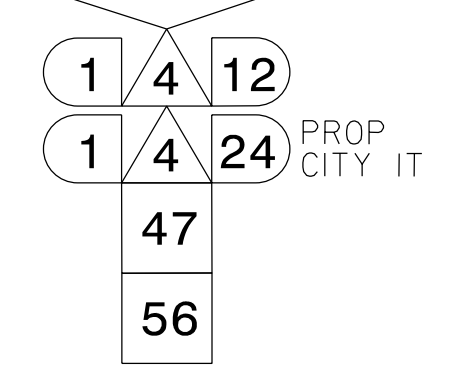
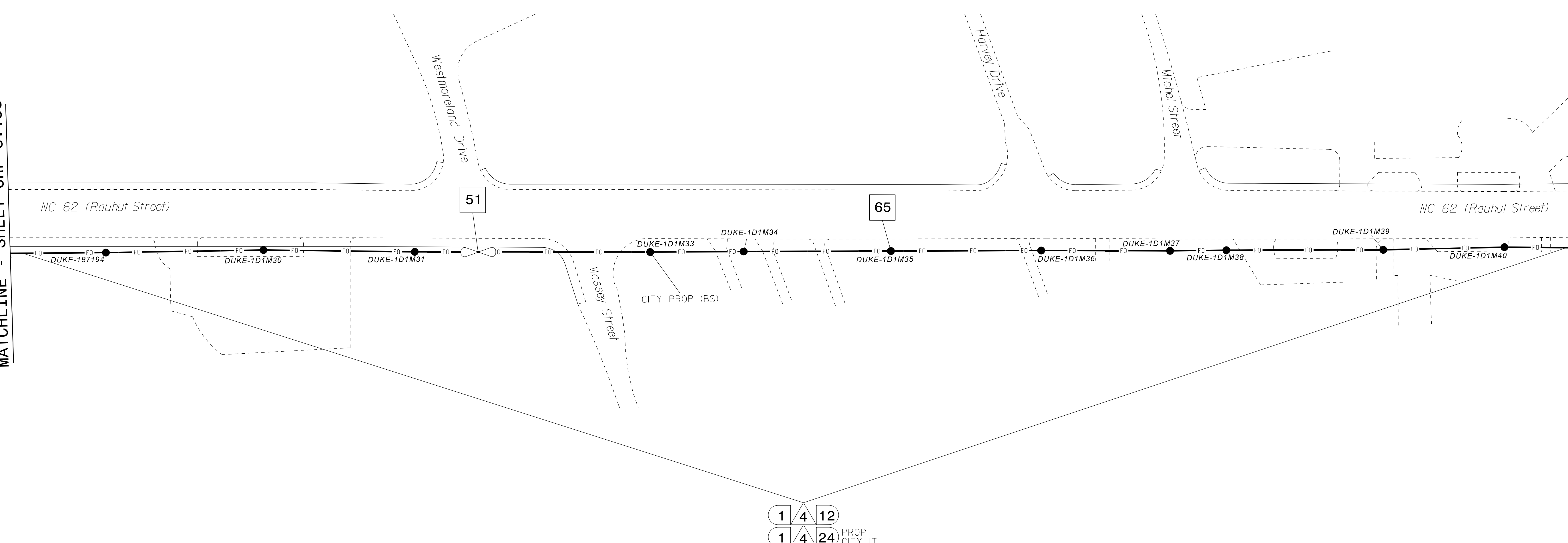
Melissa B. Toth 1/13/2018

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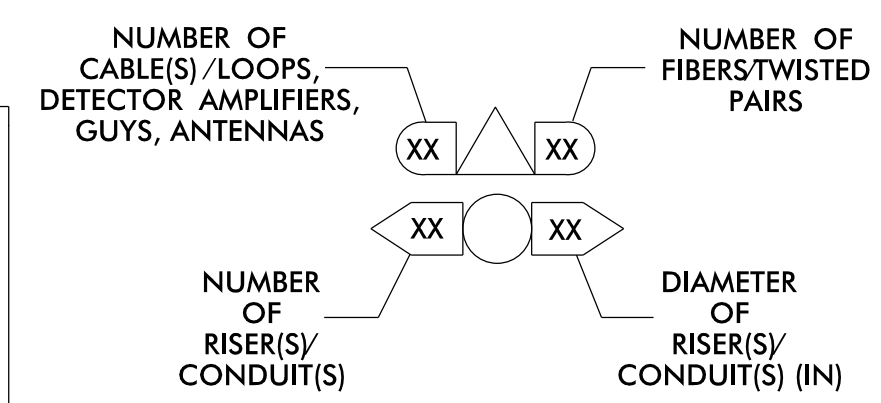
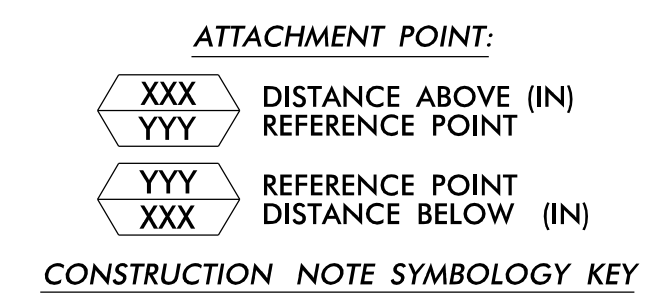
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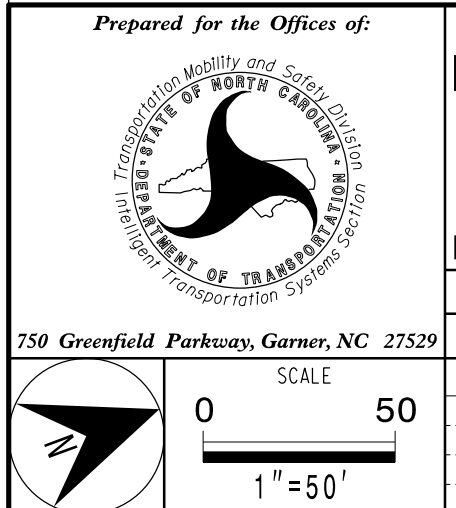
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Burlington-Graham Signal System Cable Routing Plans

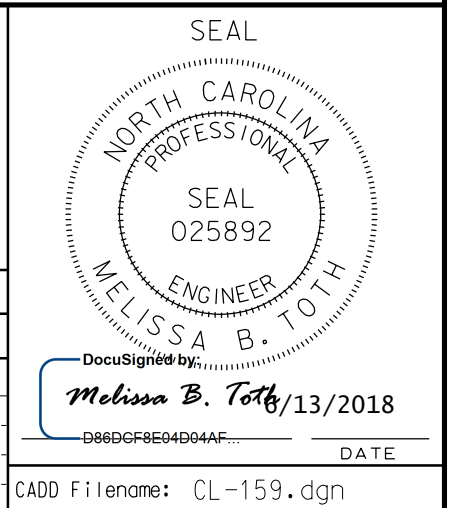
Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

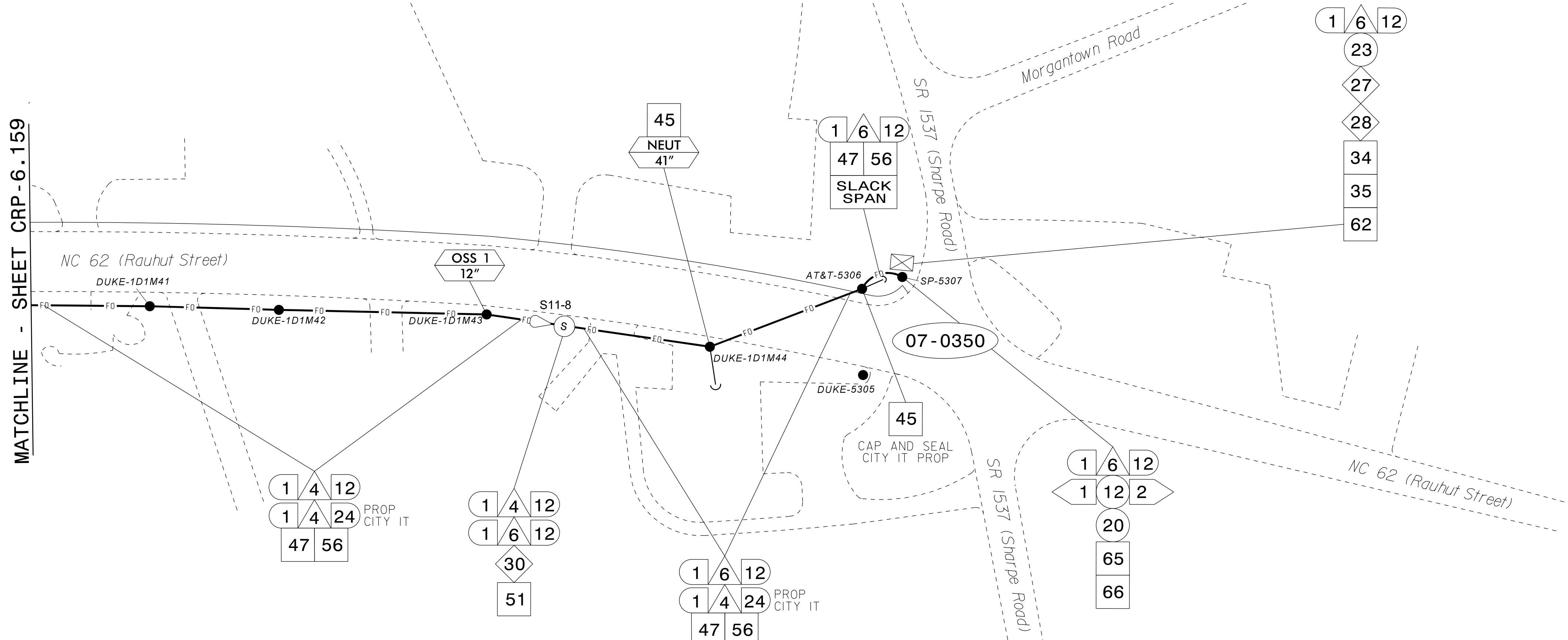
PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

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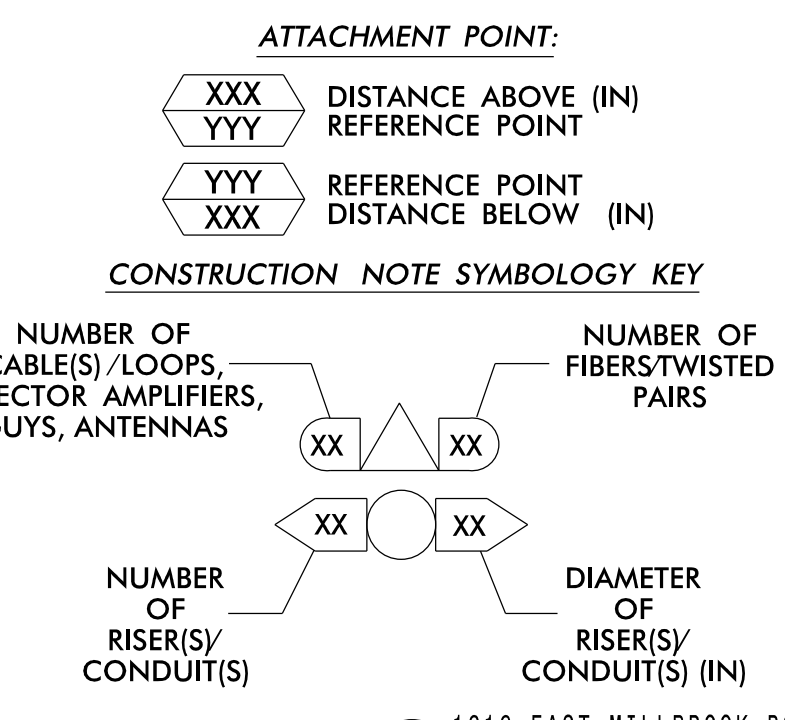


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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 878-8888 NCBEES #F-0326

Prepared for the Offices of:

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

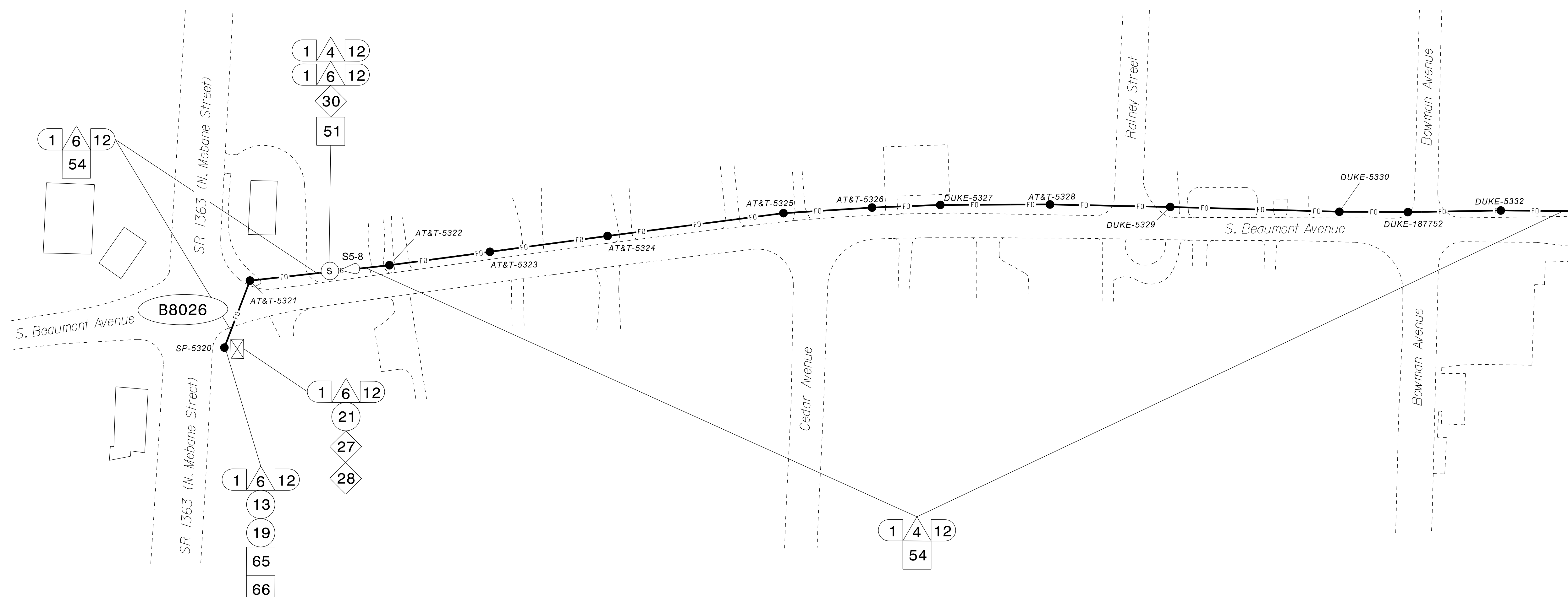
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DocuSign by: **Melissa B. Toth** 13/2018

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 025892 MELISSA B. TOTH

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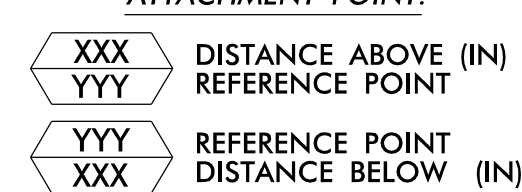


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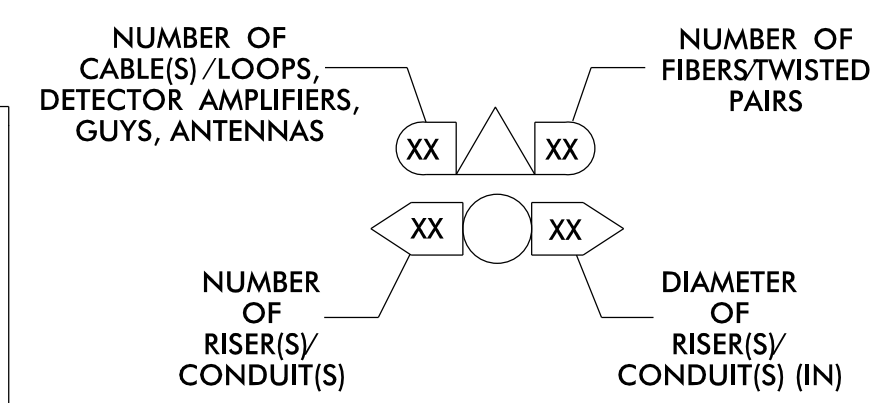
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ATTACHMENT POINT:



CONSTRUCTION NOTE SYMBOLOLOGY KEY



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

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Prepared for the Offices of:

 State of North Carolina
 Department of Transportation

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth
 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529

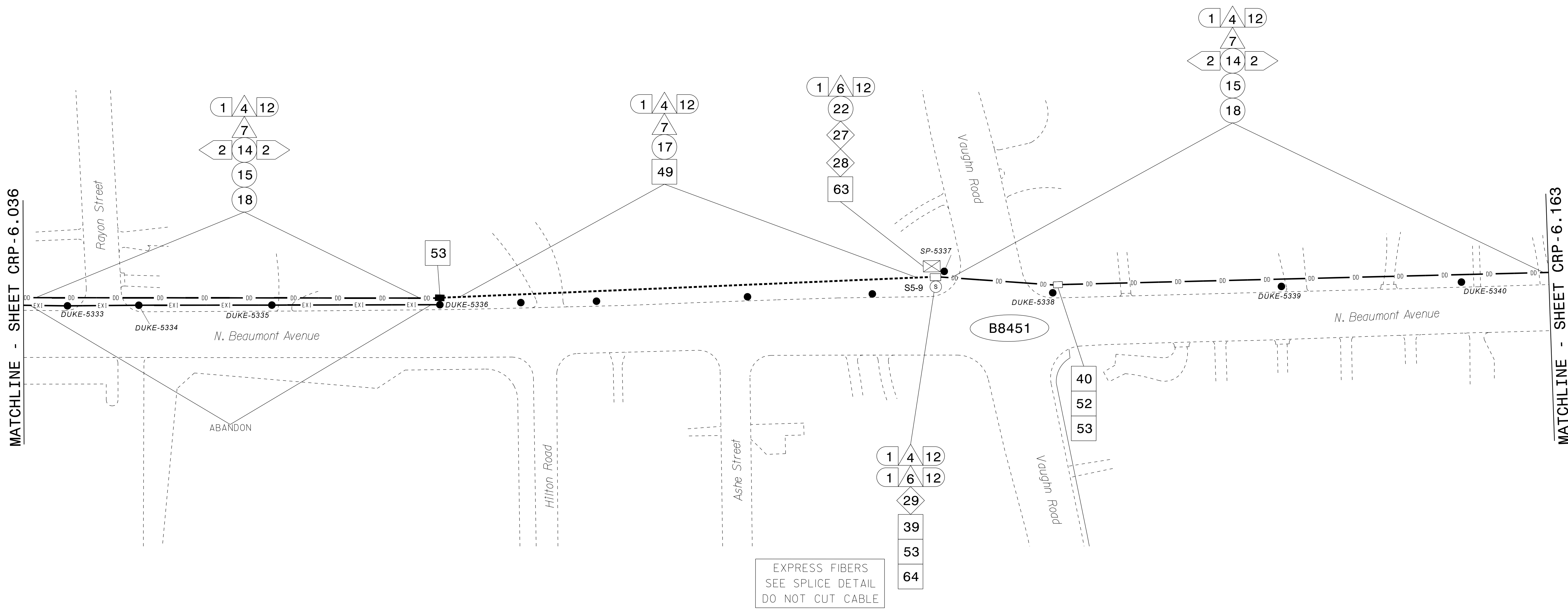
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REVISIONS: INIT. DATE

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CONSTRUCTION NOTE SYMBOLOLOGY KEY

	NUMBER OF CABLE(S) / LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS
	DIAMETER OF RISER(S) / CONDUIT(S) (IN)
	NUMBER OF RISER(S) / CONDUIT(S)
	NUMBER OF FIBER TWISTED PAIRS

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

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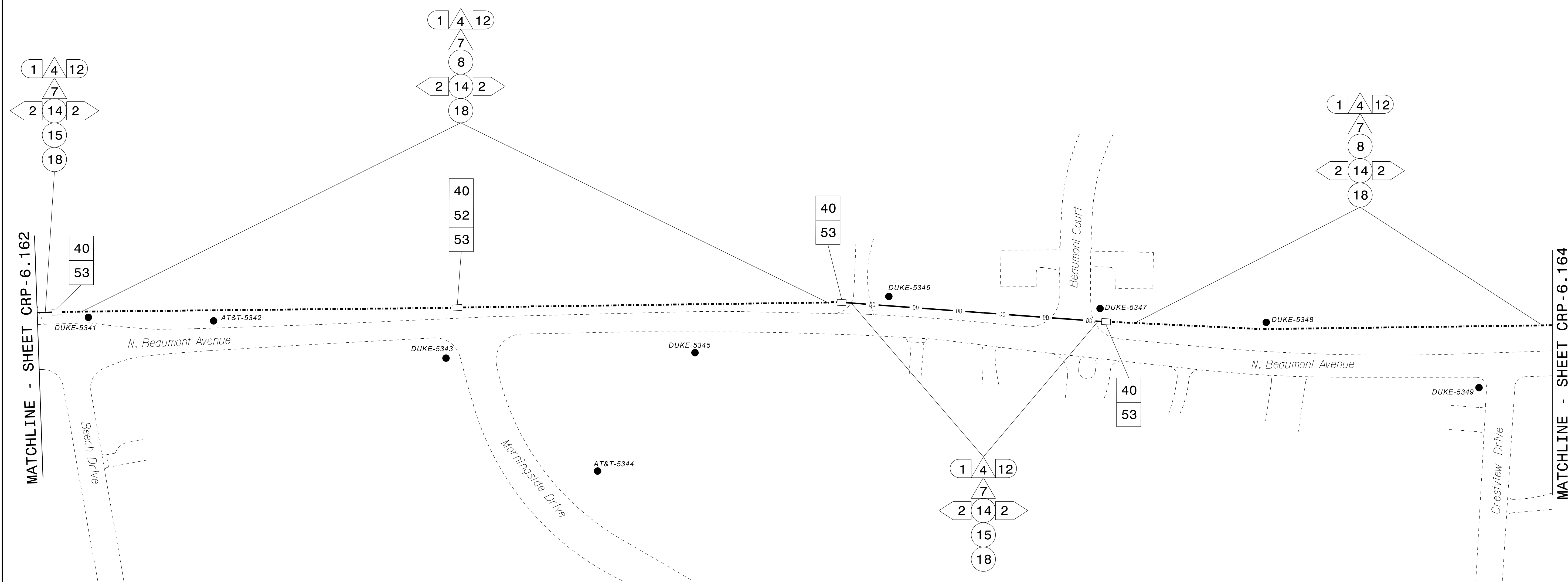
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DocuSign by: Melissa B. Toth 08/08/2018 13:00:00

CADD File name: CL-162.dgn

1	INSTALL CATEGORY 6 CABLE	11	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	22	INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)	32	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER	43	REMOVE EXISTING WOOD POLE	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE	66	BOND RISER TO POLE GROUND
2	INSTALL LOW VOLTAGE POWER CABLE (24VAC)	12	INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING	23	INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)	33	REMOVE EXISTING SPLICE / HUB / CCTV CABINET	44	INSTALL AERIAL GUY ASSEMBLY	56	LASH CABLE(S) TO NEW MESSENGER CABLE	67	BOND TRACER WIRE TO EQUIPMENT GROUND BUS
3	INSTALL COMPOSITE CCTV CABLE	13	INSTALL HEAT SHRINK TUBING KIT	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34	INSTALL CABINET FOUNDATION	45	INSTALL STANDARD GUY ASSEMBLY	57	MODIFY EXISTING ELECTRICAL SERVICE FOR CCTV	68	BOND TRACER WIRE TO POLE GROUND
4	INSTALL SMFO CABLE	14	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	INSTALL NEW RISER INTO POLE MOUNTED CABINET	35	REMOVE EXISTING CABINET FOUNDATION	46	INSTALL SIDEWALK GUY ASSEMBLY	58	INSTALL NEW ELECTRICAL SERVICE FOR CCTV OR RADIO	69	HANDLASH AND INSTALL AERIAL CABLE PROTECTOR
5	INSTALL COAXIAL ANTENNA CABLE	15	DIRECTIONAL DRILL CONDUIT	26	INSTALL DIGITAL VIDEO ENCODER	36	INSTALL CCTV CAMERA ASSEMBLY	47	INSTALL MESSENGER CABLE	59	INSTALL NEW POLE MOUNTED CCTV CABINET (336)	70	INSTALL CCTV CABINET DISCONNECT
6	INSTALL FIBER-OPTIC DROP CABLE	16	BORE AND JACK CONDUIT	27	INSTALL NEW ETHERNET EDGE SWITCH IN CABINET	37	INSTALL CCTV WOOD POLE	48	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE	60	INSTALL NEW CCTV CABINET (NEMA TYPE 4)	71	INSTALL MANAGED ETHERNET SWITCH
7	INSTALL TRACER WIRE	17	INSTALL CABLE(S) IN EXISTING CONDUIT	28	INSTALL INTERCONNECT CENTER, PATCH PANEL JUMPERS, AND FUSION SPLICE CABLE IN CABINET	38	INSTALL STANDARD SIZE JUNCTION BOX	49	REMOVE EXISTING COMMUNICATIONS CABLE	60A	INSTALL NEW POLE MOUNTED CABINET FOR ANTENNA (RADIO)	72	INSTALL CCTV METAL POLE
8	INSTALL CONDUIT UNDERGROUND	18	INSTALL CABLE(S) IN NEW CONDUIT	29	INSTALL UNDERGROUND SPLICE ENCLOSURE	39	INSTALL SPECIAL-SIZED JUNCTION BOX	50	INSTALL SERVICE CONDUCTORS	61	REMOVE EXISTING CCTV CAMERA ASSEMBLY	73	REMOVE EXISTING CCTV METAL POLE
9	INSTALL PVC CONDUIT	19	INSTALL CABLE(S) IN EXISTING RISER(S)	30	INSTALL AERIAL SPLICE ENCLOSURE	40	INSTALL OVER-SIZED JUNCTION BOX	51	INSTALL CABLE STORAGE GUIDE(S) [SNOW SHOE(S)] AND STORE 100 FEET OF EACH CABLE	62	NEW CABINET ENTRANCE INTO NEW FOUNDATION	74	REMOVE WIRELESS COMMUNICATIONS EQUIPMENT
10	INSTALL RIGID, GALVANIZED STEEL CONDUIT	20	INSTALL CABLE(S) IN NEW RISER(S)	31	INSTALL SPLICE CABINET	41	REMOVE EXISTING JUNCTION BOX	52	INSTALL DELINEATOR MARKER	63	DRILL/CORE DRILL EXISTING FOUNDATION	75	BACKPULL AND COIL CITY IT CABLE
		21	INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE			42	INSTALL WOOD POLE	53	STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE)	64	INTERCEPT AND REROUTE EXISTING CONDUITS	76	INSTALL 2.4 GHZ RADIO AND PANEL ANTENNA
								54	LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE	65	BOND MESSENGER TO POLE GROUND	77	INSTALL BASE MOUNTED CCTV CABINET WITH EXTENDER (336)

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- NOTES:**
- UNLESS OTHERWISE NOTED:
 - OVERLASH NEW FIBER OPTIC CABLE TO EXISTING COMMUNICATIONS CABLE.
 - ATTACH NEW MESSENGER CABLE 40" BELOW POWER.
 - ATTACH ON FRONT SIDE (FS) OF POLE.
 - SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER AT ALL JUNCTION BOX / CABINET ENTRANCES.

ATTACHMENT POINT:

XXX
YYY DISTANCE ABOVE (IN)
REFERENCE POINT

YYY
XXX REFERENCE POINT
DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY

NUMBER OF CABLE(S) / LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS

NUMBER OF FIBER TWISTED PAIRS

NUMBER OF RISER(S) / CONDUIT(S)

DIAMETER OF RISER(S) / CONDUIT(S) (IN)

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3 INSTALL COMPOSITE CCTV CABLE	13 INSTALL HEAT SHRINK TUBING KIT	24 INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34 INSTALL CABINET FOUNDATION	45 INSTALL STANDARD GUY ASSEMBLY	57 MODIFY EXISTING ELECTRICAL SERVICE FOR CCTV	68 BOND TRACER WIRE TO POLE GROUND
4 INSTALL SMFO CABLE	14 INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25 INSTALL NEW RISER INTO POLE MOUNTED CABINET	35 REMOVE EXISTING CABINET FOUNDATION	46 INSTALL SIDEWALK GUY ASSEMBLY	58 INSTALL NEW ELECTRICAL SERVICE FOR CCTV OR RADIO	69 HANDLASH AND INSTALL AERIAL CABLE PROTECTOR
5 INSTALL COAXIAL ANTENNA CABLE	15 DIRECTIONAL DRILL CONDUIT	26 INSTALL DIGITAL VIDEO ENCODER	36 INSTALL CCTV CAMERA ASSEMBLY	47 INSTALL MESSENGER CABLE	59 INSTALL NEW POLE MOUNTED CCTV CABINET (336)	70 INSTALL CCTV CABINET DISCONNECT
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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-6888 NCBEES #F-0326

Prepared for the Offices of:

 State of North Carolina Department of Transportation

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

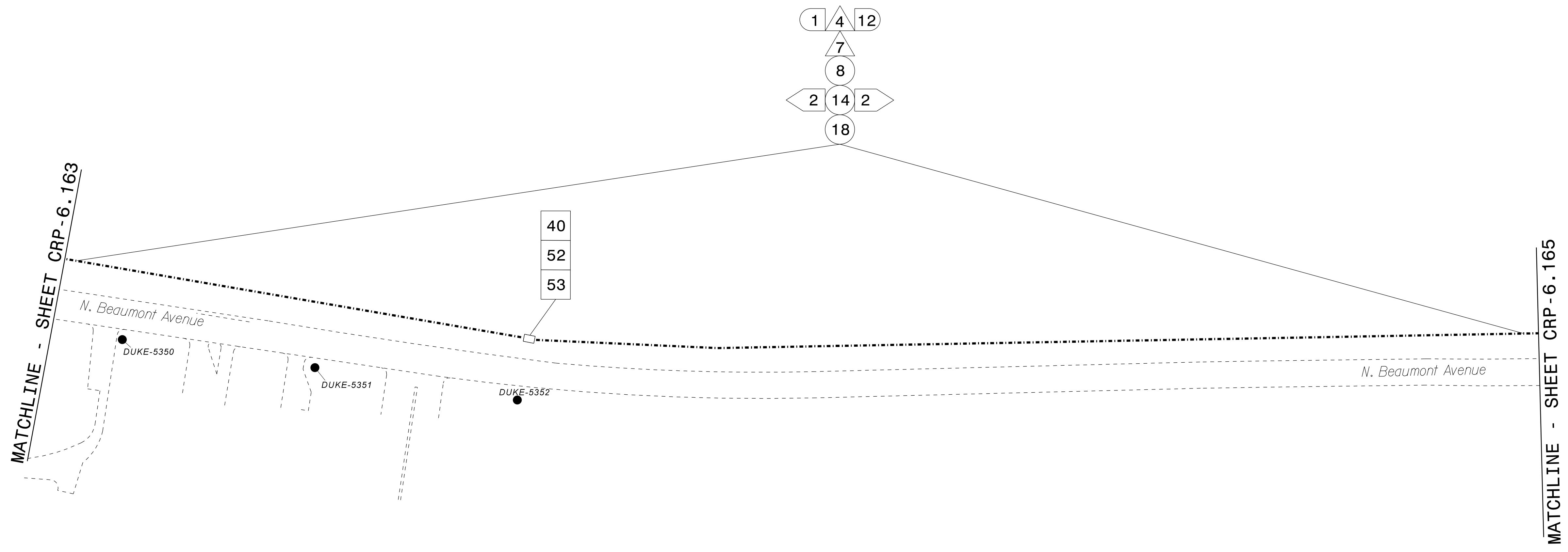
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SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892

Melissa B. Toth 11/13/2018

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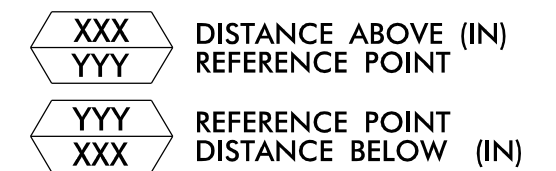


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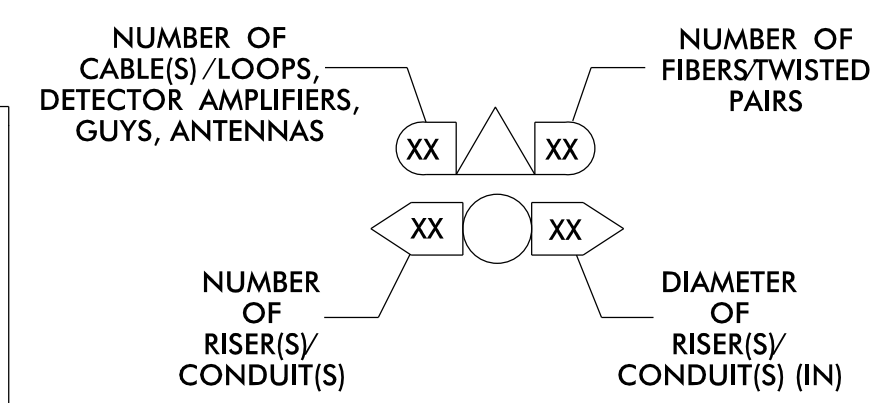
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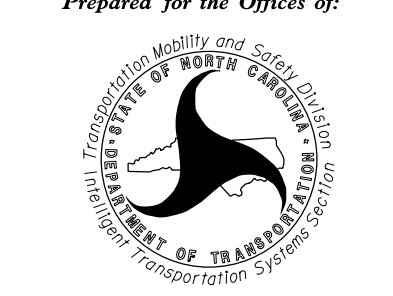


CONSTRUCTION NOTE SYMBOLOLOGY KEY



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:

 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

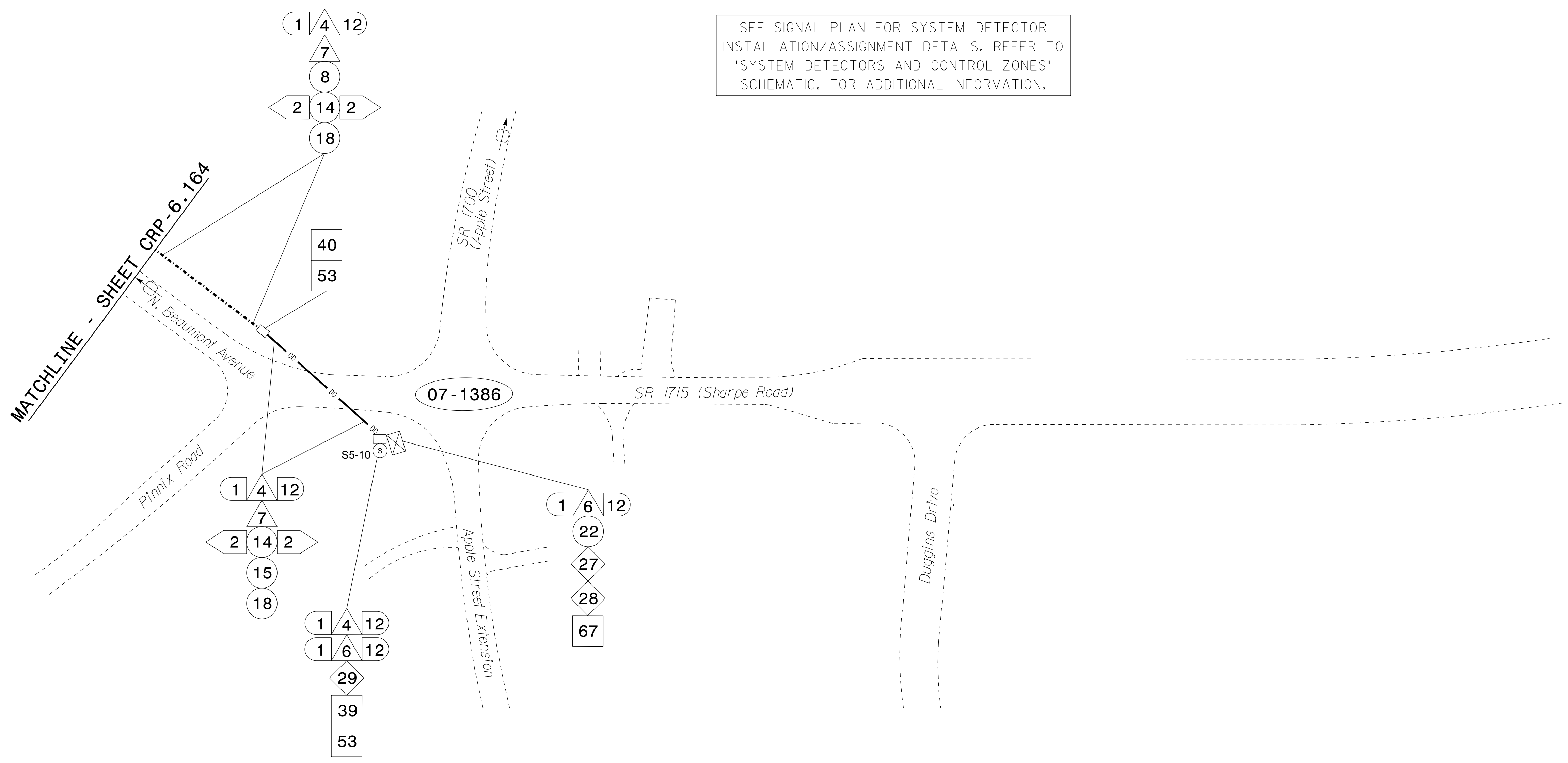
PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

REVISIONS INIT. DATE

DocuSign by: *Melissa B. Toth* 025892 ENGINEER
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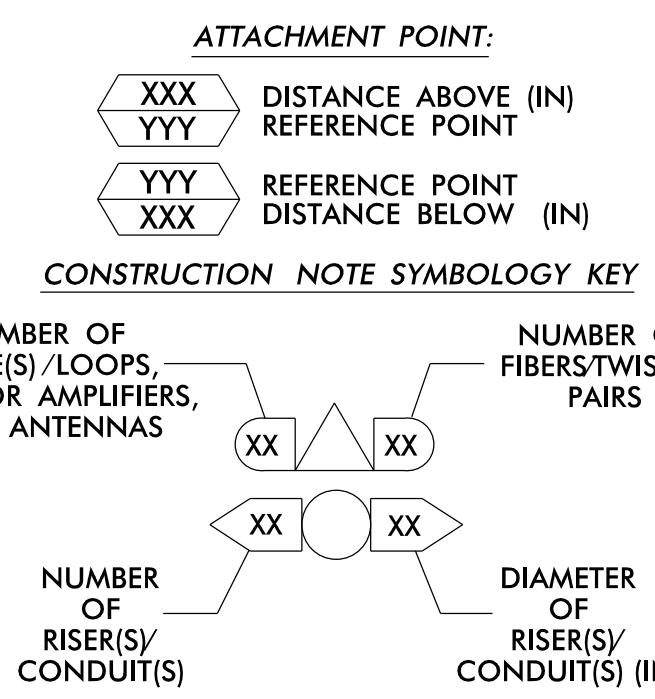
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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

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Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

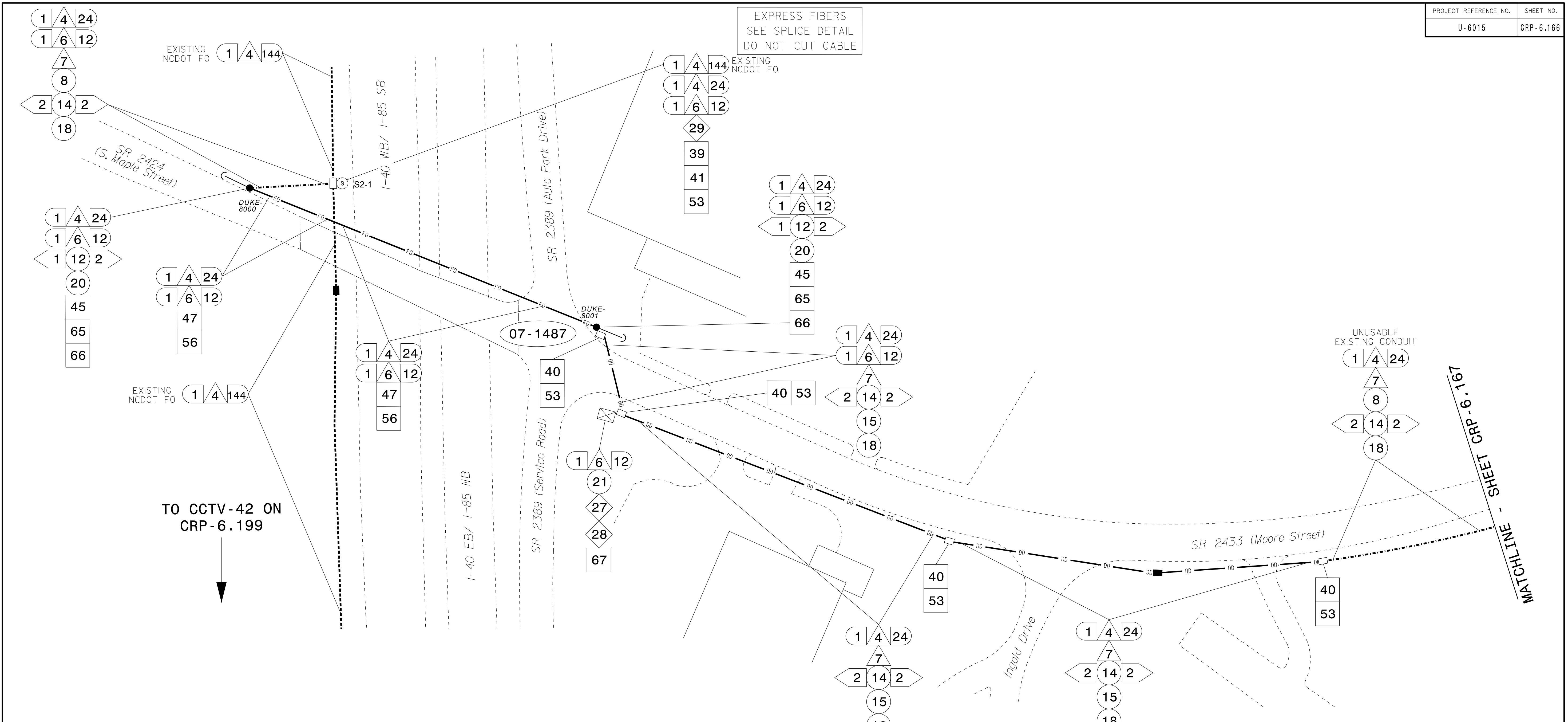
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DocuSign by: *Melissa B. Toth* 11/13/2018
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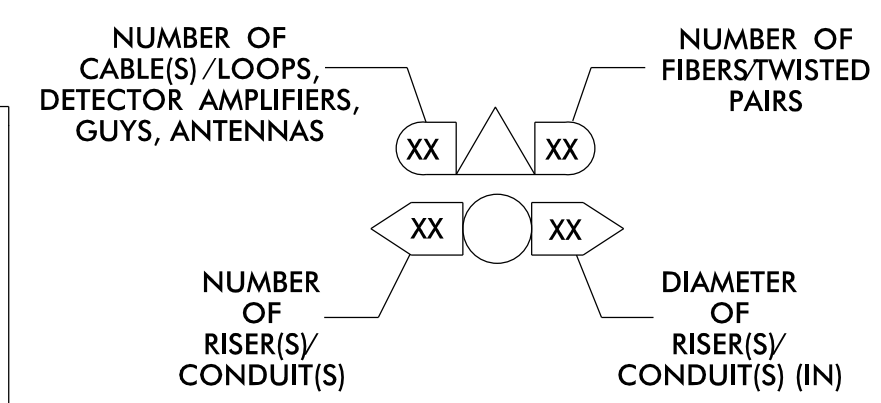
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9 INSTALL PVC CONDUIT	19 INSTALL CABLE(S) IN EXISTING RISER(S)	30 INSTALL AERIAL SPLICE ENCLOSURE	40 INSTALL OVER-SIZED JUNCTION BOX	51 INSTALL CABLE STORAGE GUIDE(S) [SNOW SHOE(S)] AND STORE 100 FEET OF EACH CABLE	62 NEW CABINET ENTRANCE INTO NEW FOUNDATION	74 REMOVE WIRELESS COMMUNICATIONS EQUIPMENT
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				54 LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE	65 BOND MESSENGER TO POLE GROUND	77 INSTALL BASE MOUNTED CCTV CABINET WITH EXTENDER (336)

Prepared for the Offices of:

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

750 Greenfield Parkway, Garner, NC 27529

SCALE 0 50 1"=50'

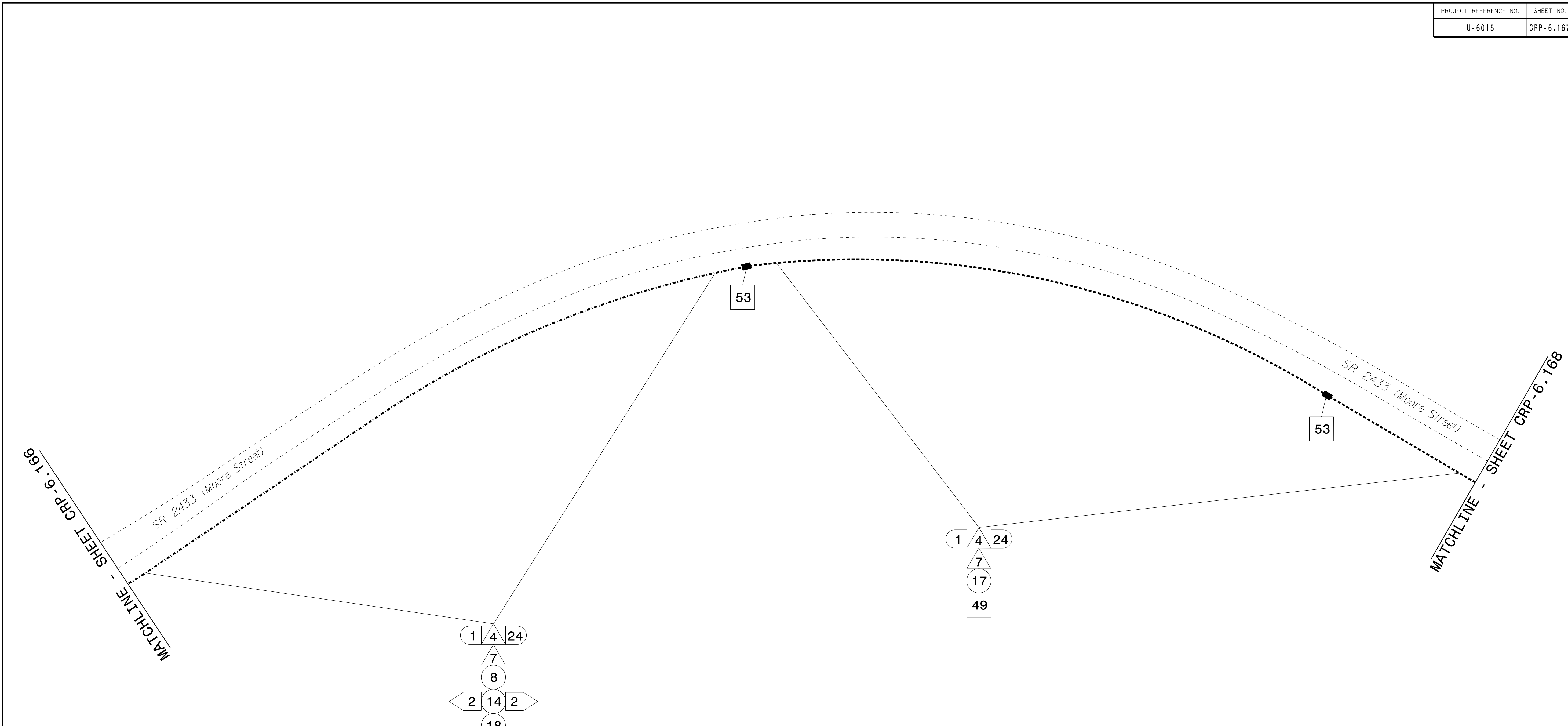
REVISIONS INIT. DATE

DocuSign by: *Melissa B. Toth* 11/13/2018

SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892

CADD File name: CL-166.dgn

13-JUN-2018 15:45
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 ENCA5396 AT LUS330048



NOTES:

- UNLESS OTHERWISE NOTED:
 - OVERLASH NEW FIBER OPTIC CABLE TO EXISTING COMMUNICATIONS CABLE.
 - ATTACH NEW MESSENGER CABLE 40" BELOW POWER.
 - ATTACH ON FRONT SIDE (FS) OF POLE.
- SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER AT ALL JUNCTION BOX / CABINET ENTRANCES.

UNUSABLE EXISTING CONDUIT

ATTACHMENT POINT:

XXX DISTANCE ABOVE (IN)
YYY REFERENCE POINT

YYY REFERENCE POINT
XXX DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY

NUMBER OF CABLE(S)/LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS: XX

NUMBER OF FIBER/TWISTED PAIRS: XX

NUMBER OF RISER(S)/CONDUIT(S): XX

DIAMETER OF RISER(S)/CONDUIT(S) (IN): XX

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

1	INSTALL CATEGORY 6 CABLE	11	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	22	INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)	32	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER	43	REMOVE EXISTING WOOD POLE	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE	66	BOND RISER TO POLE GROUND
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Prepared for the Offices of:

 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

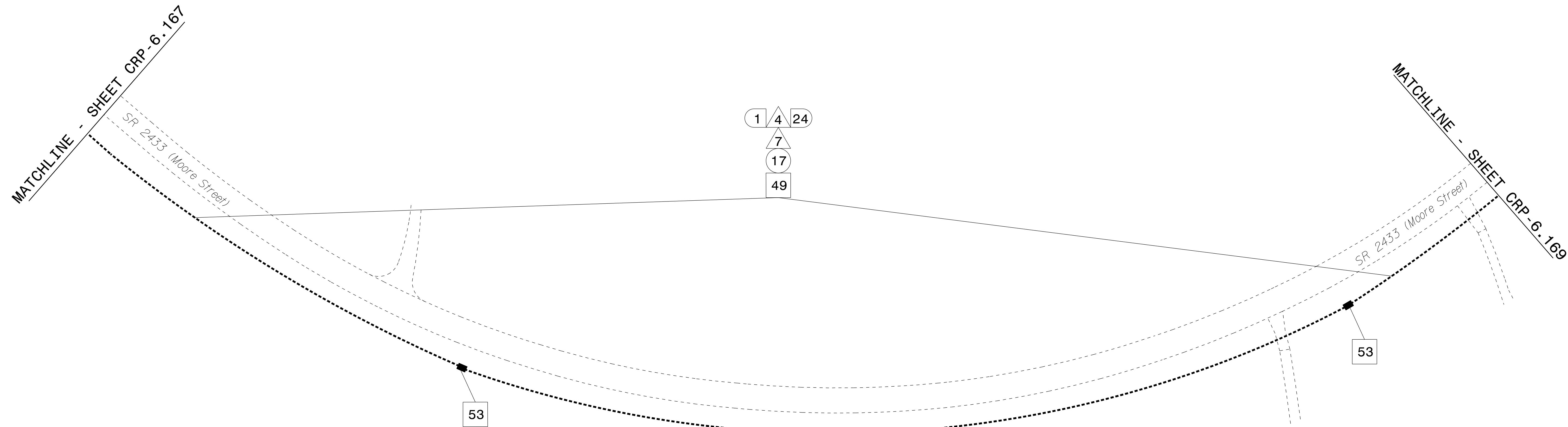
REVISIONS INIT. DATE

SCALE: 1"=50'

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOOTH
 025892
 13/2018

CADD Filename: CL-167.dgn

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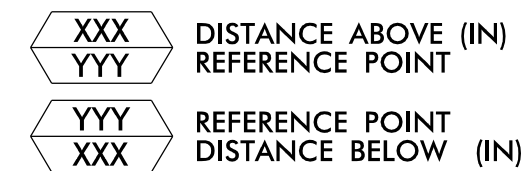


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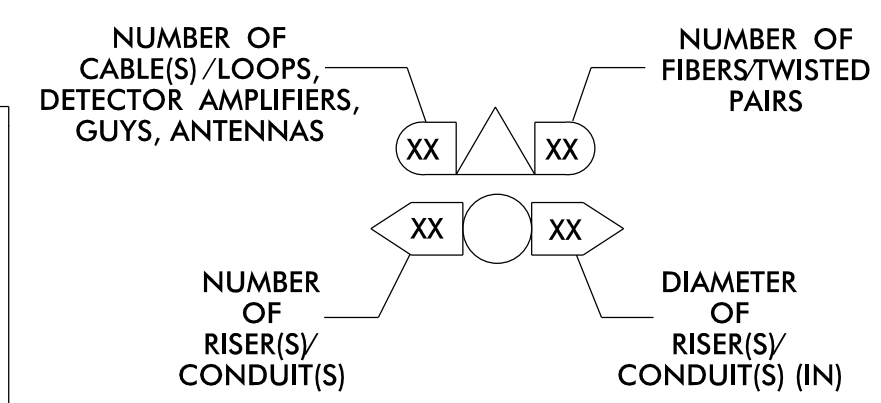
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ATTACHMENT POINT:



CONSTRUCTION NOTE SYMBOLOLOGY KEY



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

Prepared for the Offices of:
Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

750 Greenfield Parkway, Garner, NC 27529

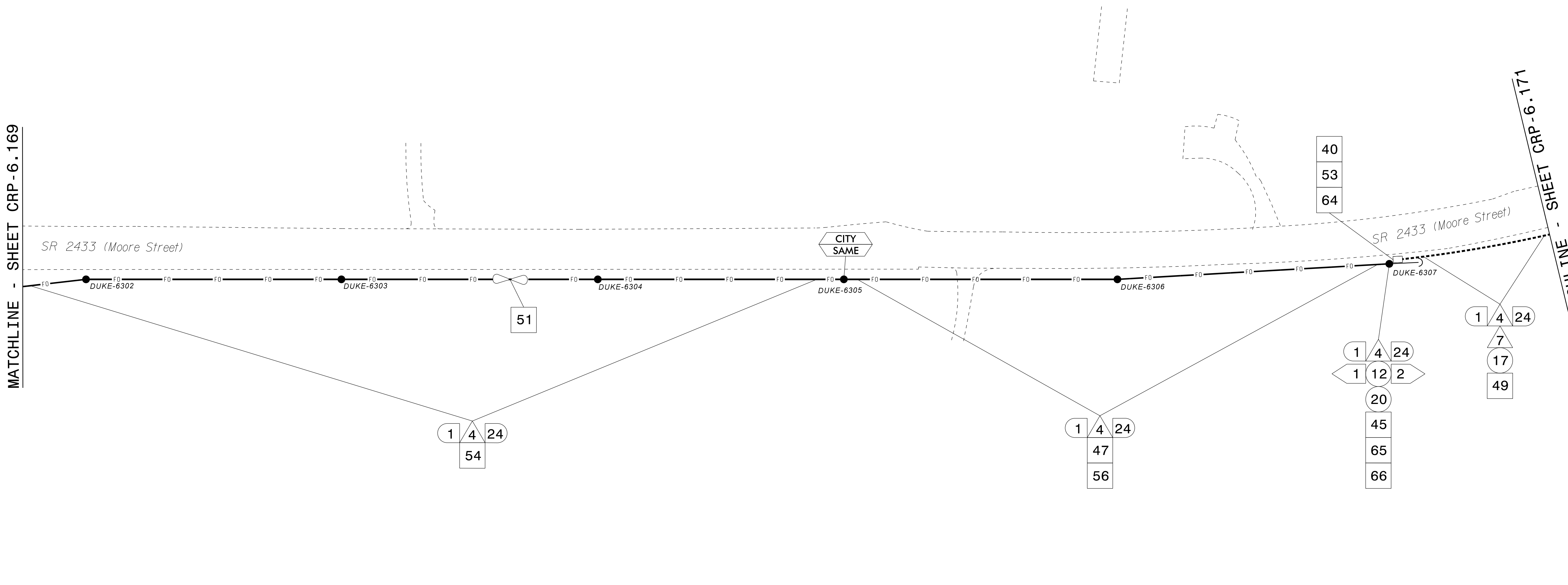
SCALE: 1"=50'

REVISIONS: _____ INIT: _____ DATE: _____

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOOTH
 025892
 DocuSign by: Melissa B. Toth 6/13/2018
 0980CF8E9404AF DATE: _____
 CADD Filename: CL-168.dgn

MATCHLINE - SHEET CRP-6.169

MATCHLINE - SHEET CRP-6.171



NOTES:

- 1. UNLESS OTHERWISE NOTED:
- OVERLASH NEW FIBER OPTIC CABLE TO EXISTING COMMUNICATIONS CABLE.
- ATTACH NEW MESSENGER CABLE 40" BELOW POWER.
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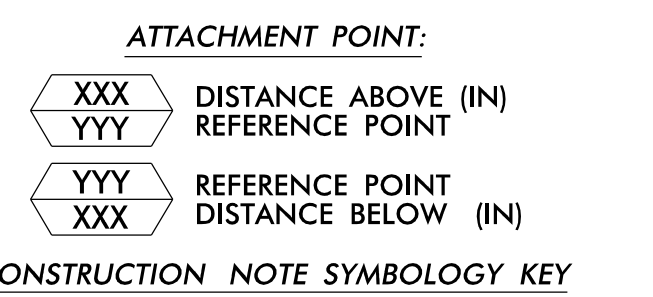
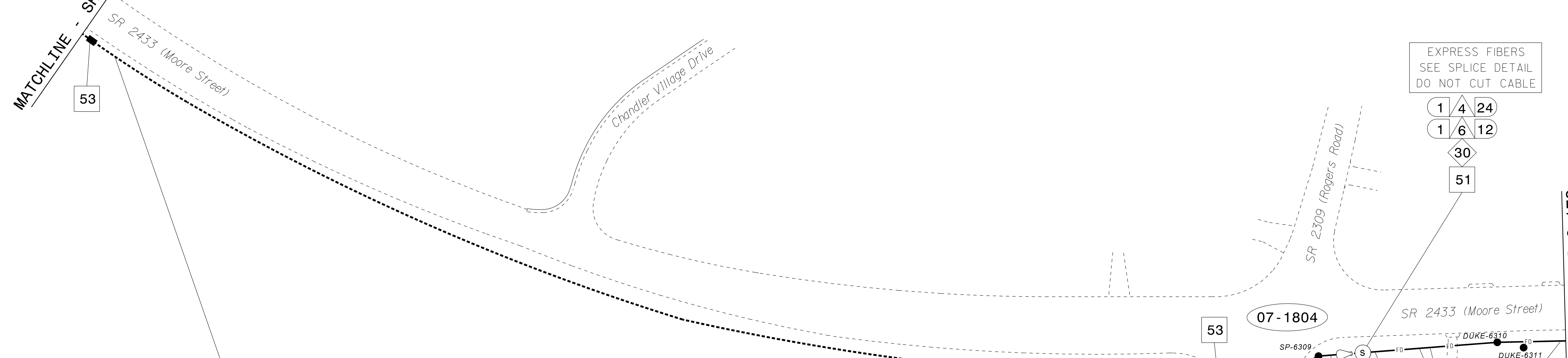


Table with 10 columns of construction notes, each with a numbered symbol and a corresponding description of the work to be performed.

Project information block including the Atkins logo, project name 'Burlington-Graham Signal System Cable Routing Plans', division details, plan date (June 2018), and a professional seal for Melissa B. Toth.

13-JUN-2018 15:45:01
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ENC45396 AT LUS330048

MATCHLINE - SHEET CRP-6.170



EXPRESS FIBERS
SEE SPLICE DETAIL
DO NOT CUT CABLE

MATCHLINE - SHEET CRP-6.172

NOTES:

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ATTACHMENT POINT:

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

CONSTRUCTION NOTE SYMBOLOLOGY KEY

- NUMBER OF CABLE(S)/LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS
- NUMBER OF FIBER/TWISTED PAIRS
- NUMBER OF RISER(S)/CONDUIT(S)
- DIAMETER OF RISER(S)/CONDUIT(S) (IN)

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 878-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:

750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

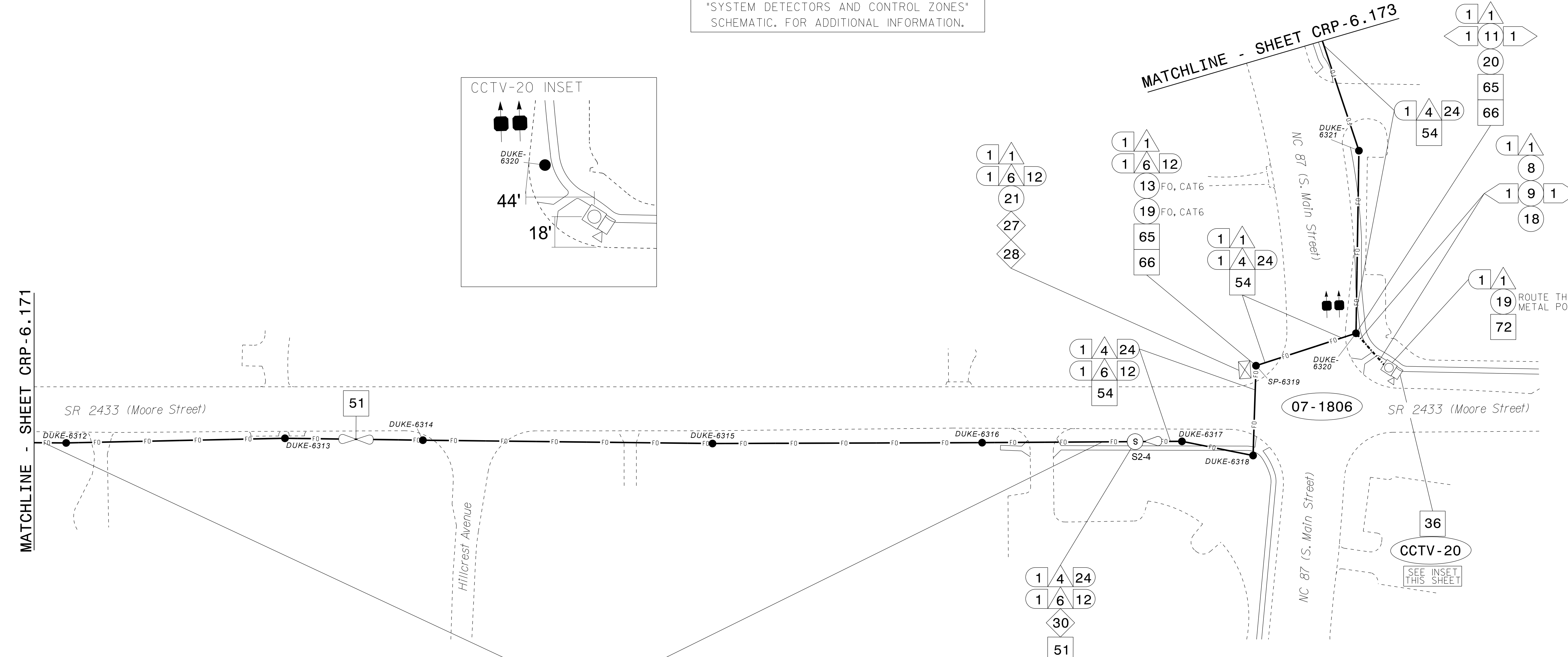
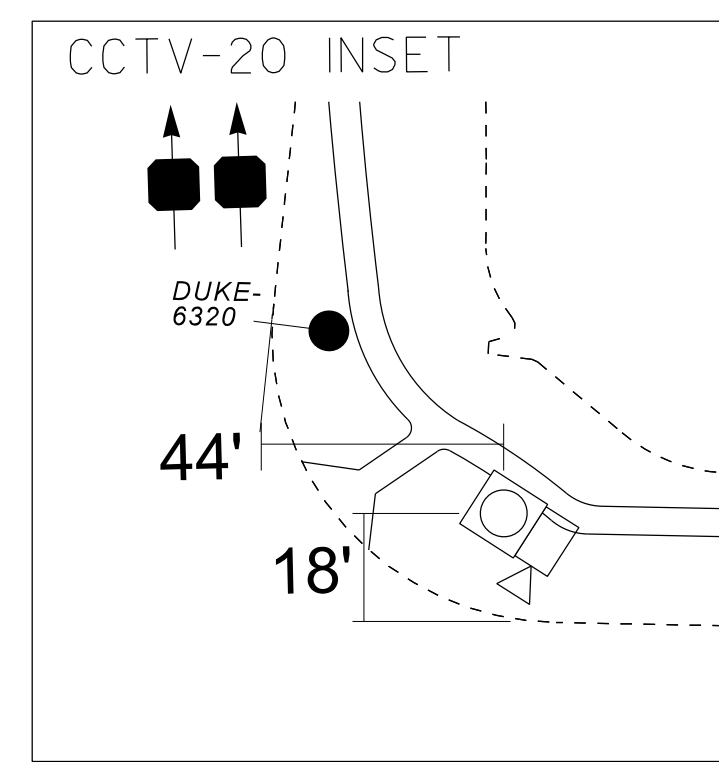
Division 7	Alamance County	Burlington & Graham
PLAN DATE: June 2018	RALEIGH, NORTH CAROLINA 27609	REVIEWED BY: M B Toth
PREPARED BY: ANE/AJH/VJP/NAP/JAW	REVIEWED BY: BJ Slocum	
REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL
025892
MELISSA B. TOOTH
DocuSign by: Melissa B. Toth 6/13/2018
098DCF8E0404AF
DATE

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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC, FOR ADDITIONAL INFORMATION.



NOTES:

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ATTACHMENT POINT:

XXX DISTANCE ABOVE (IN) REFERENCE POINT

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NUMBER OF FIBER TWISTED PAIRS

DIAMETER OF RISER(S) / CONDUIT(S) (IN)

ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 878-6888 NCBEES #F-0326

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Prepared for the Offices of:

750 Greenfield Parkway, Garner, NC 27529

SCALE: 0 50 1"=50'

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AWE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Sloucum

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER

SEAL 025892

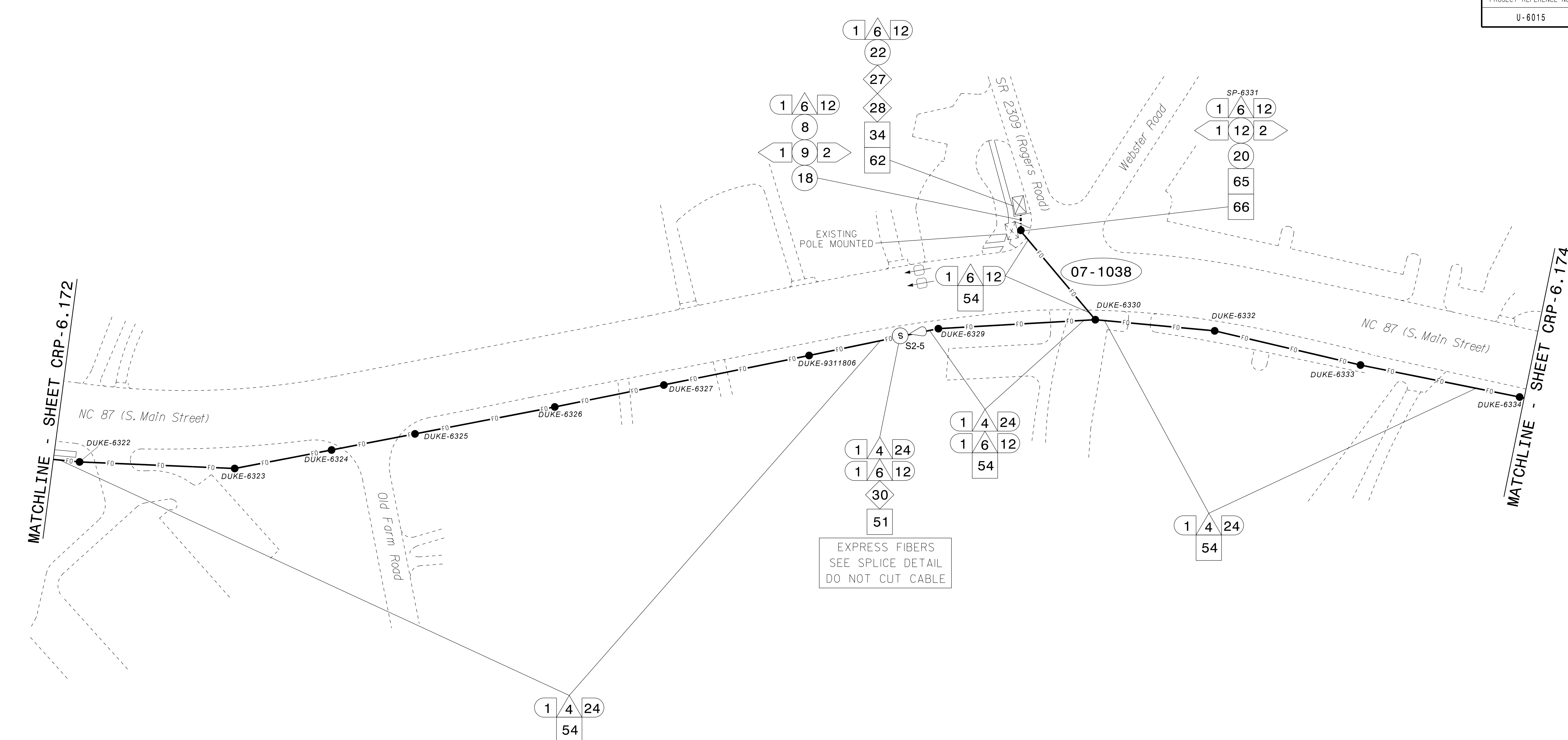
MELISSA B. TOTH

Melissa B. Toth 1/13/2018

DATE

CADD File name: CL-172.dgn

13-JUN-2018 15:45
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 AT LUS3330048



EXPRESS FIBERS
SEE SPLICE DETAIL
DO NOT CUT CABLE

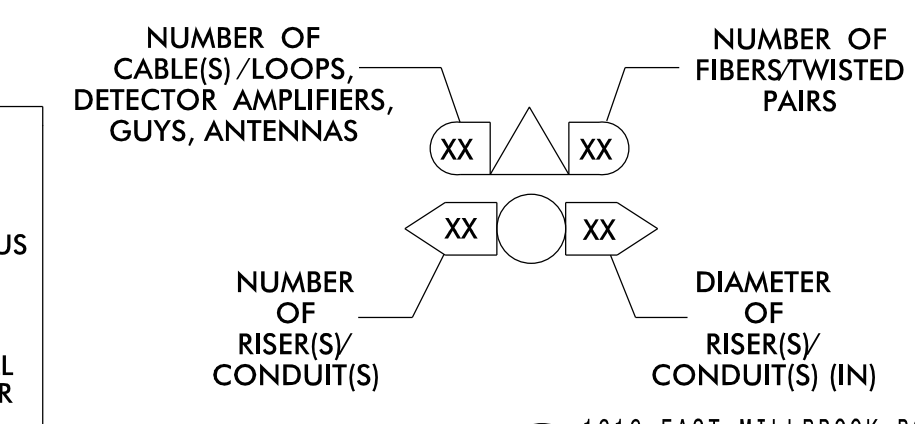
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REFERENCE POINT

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CONSTRUCTION NOTE SYMBOLOLOGY KEY



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

**Burlington-Graham Signal System
Cable Routing Plans**

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

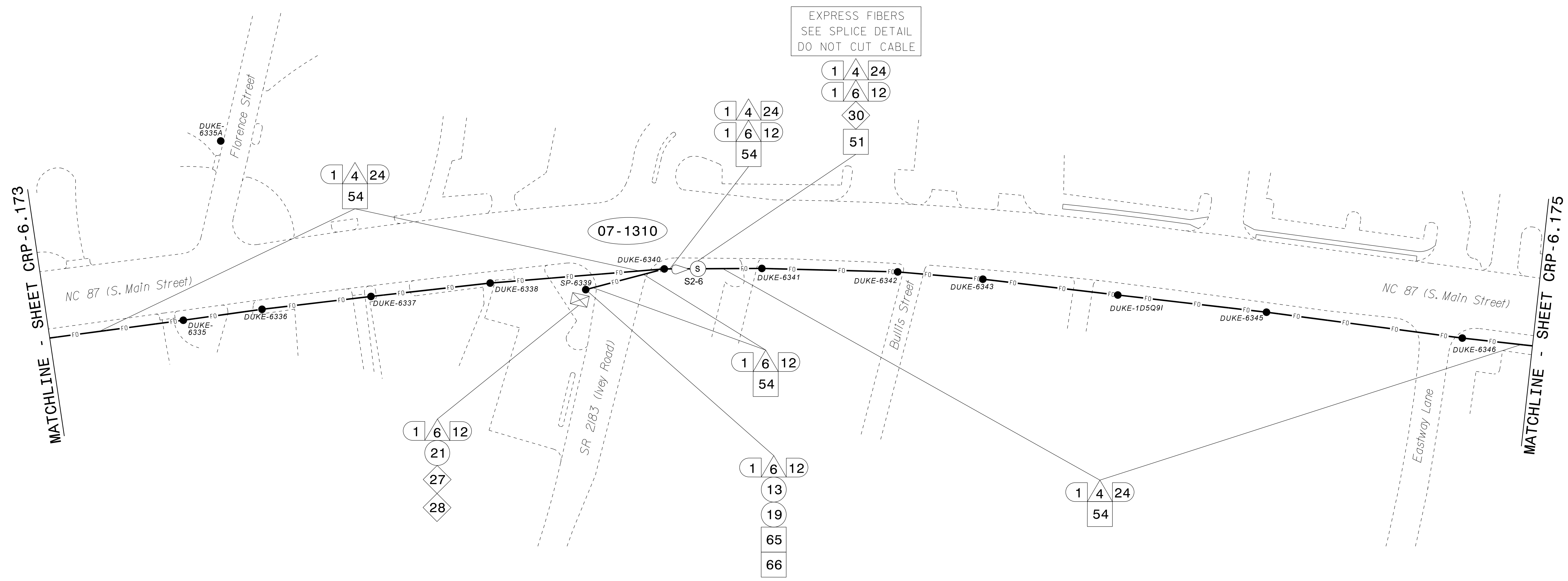
REVISIONS INIT. DATE

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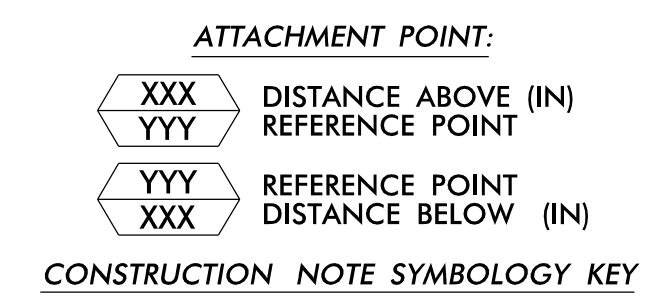
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04:10:00
AT LUS3330048

CADD File name: CL-173.dgn



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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:

 State of North Carolina
 Department of Transportation

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

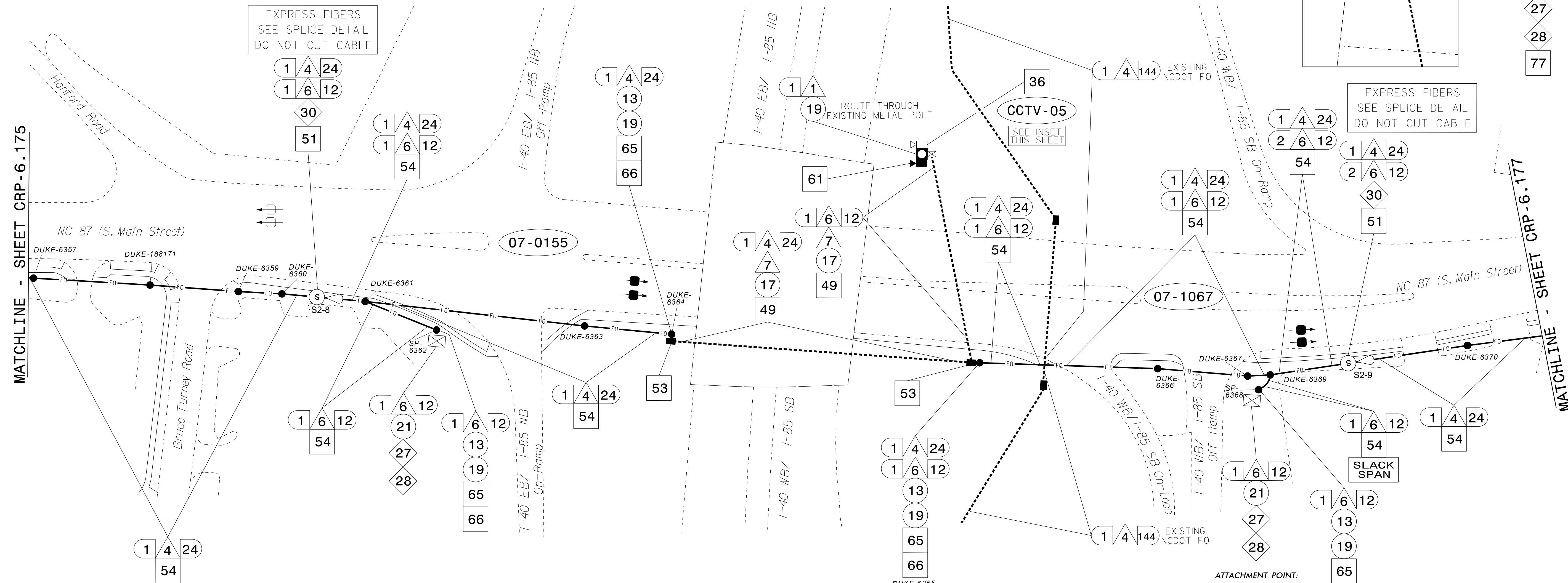
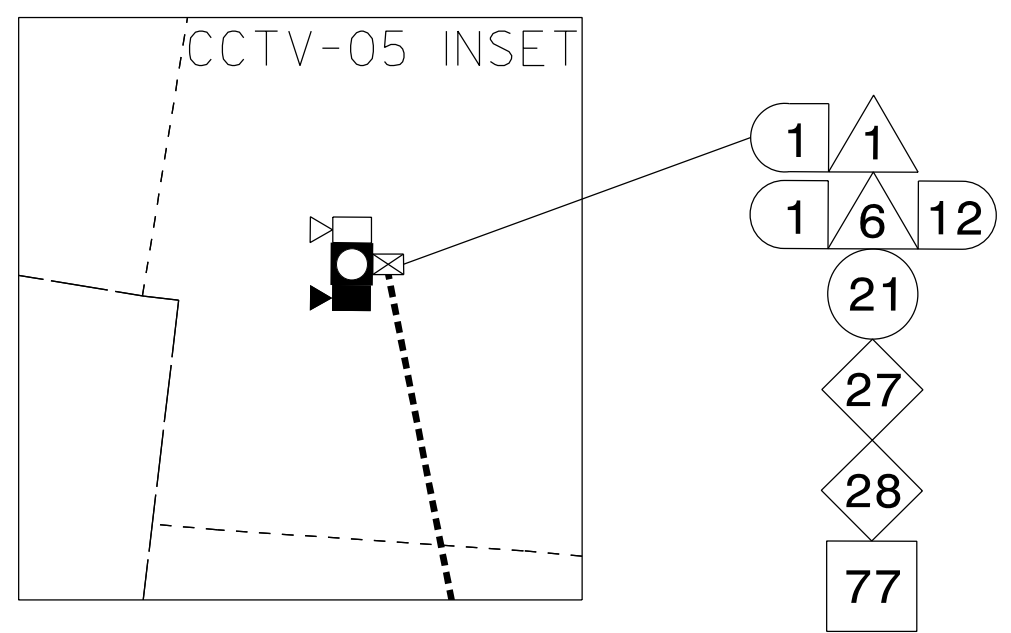
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DocuSign by: Melissa B. Toth 025892
 MELISSA B. TOTH
 ENGINEER
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 DATE: 11/13/2018

CADD File name: CL-174.dgn

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 AT LUS333048

SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.



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CONSTRUCTION NOTE SYMBOLOLOGY KEY

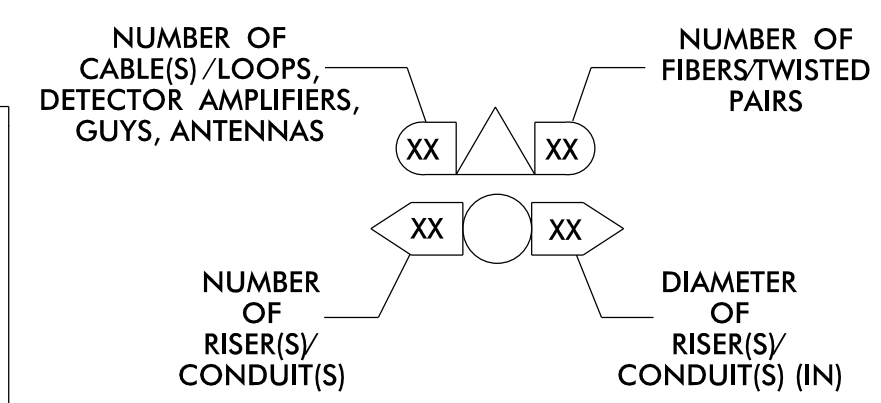


Table with 10 columns of construction notes detailing cable installation, conduit, and equipment requirements.

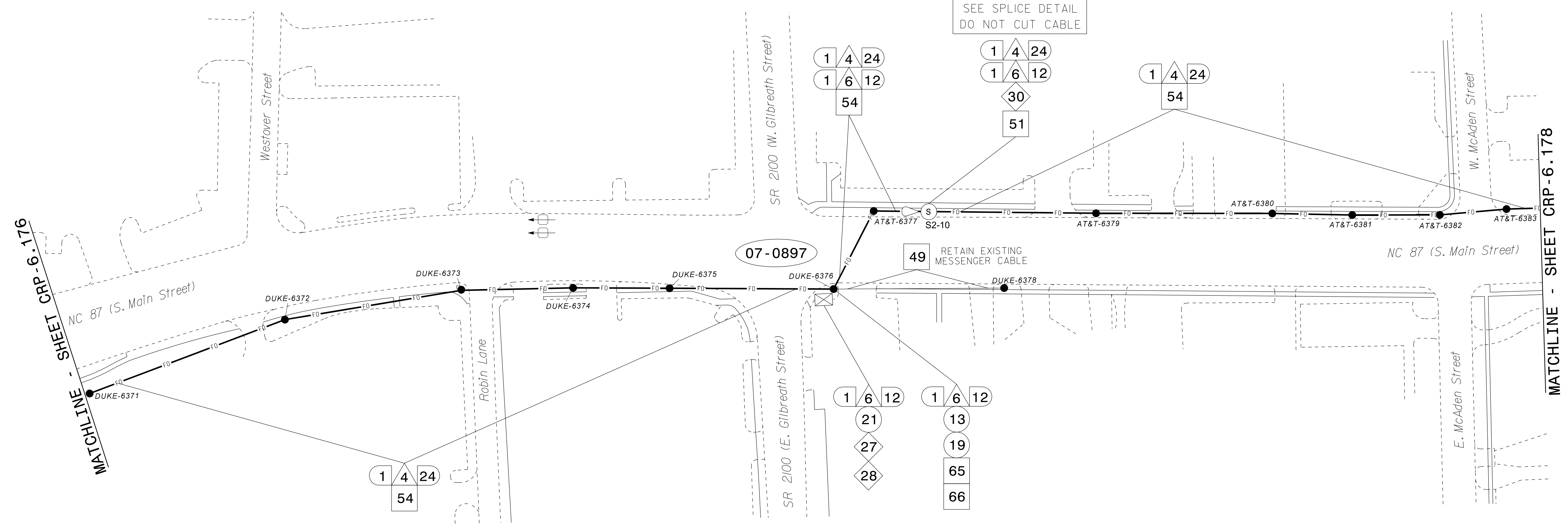
ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160 RALEIGH, NORTH CAROLINA 27609 (919) 876-8888 NCBEES #F-0326

Project information block including title 'Burlington-Graham Signal System Cable Routing Plans', division details, dates, and signatures.

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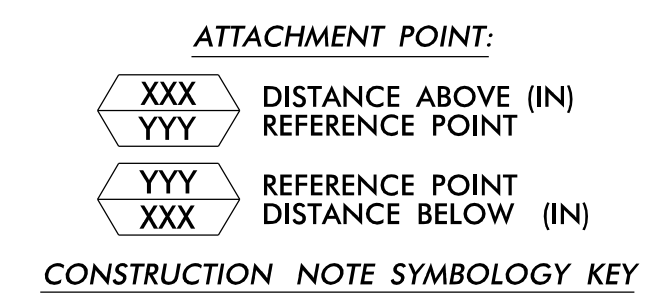
EXPRESS FIBERS SEE SPLICE DETAIL DO NOT CUT CABLE



SHEET CRP-6.176 MATCHLINE

MATCHLINE - SHEET CRP-6.178

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PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth B J Slocum

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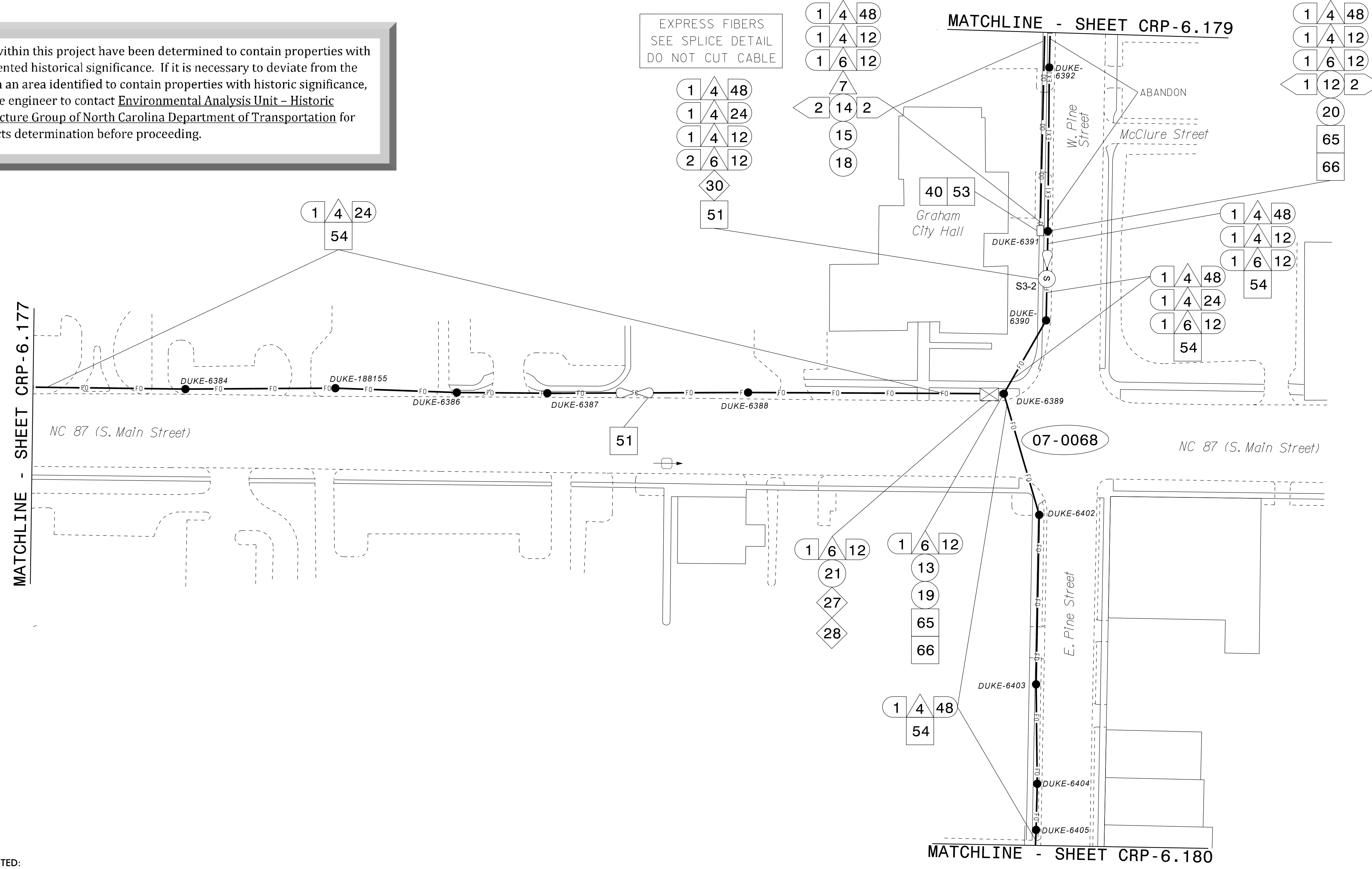
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Melissa B. Toth 11/13/2018

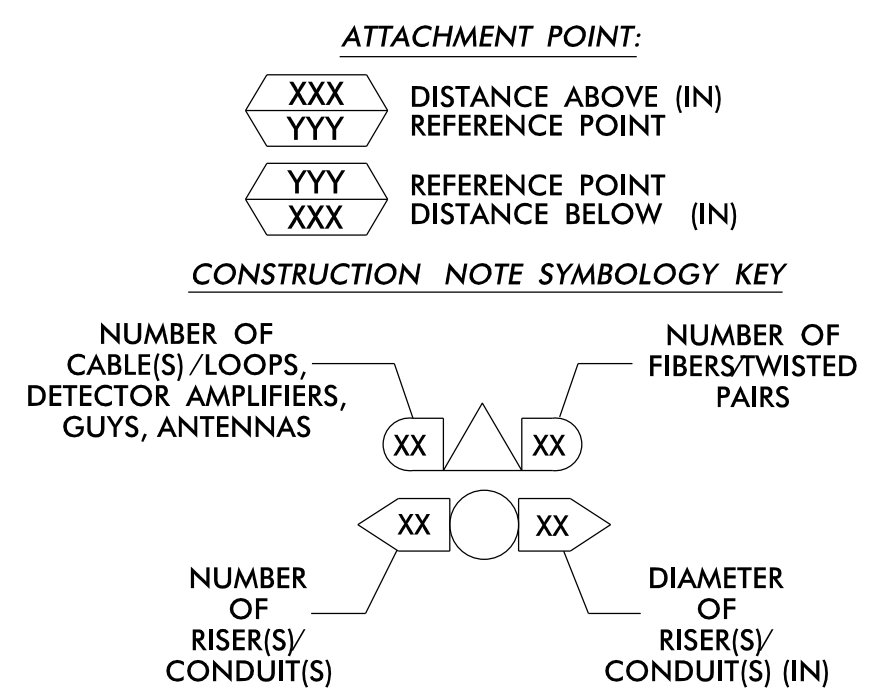
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Areas within this project have been determined to contain properties with documented historical significance. If it is necessary to deviate from the plans in an area identified to contain properties with historic significance, alert the engineer to contact Environmental Analysis Unit - Historic Architecture Group of North Carolina Department of Transportation for an effects determination before proceeding.

EXPRESS FIBERS
SEE SPLICE DETAIL
DO NOT CUT CABLE



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5	INSTALL COAXIAL ANTENNA CABLE	15	DIRECTIONAL DRILL CONDUIT	26	INSTALL DIGITAL VIDEO ENCODER	36	INSTALL CCTV CAMERA ASSEMBLY	47	INSTALL MESSENGER CABLE	59	INSTALL NEW POLE MOUNTED CCTV CABINET (336)	70	INSTALL CCTV CABINET DISCONNECT
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Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

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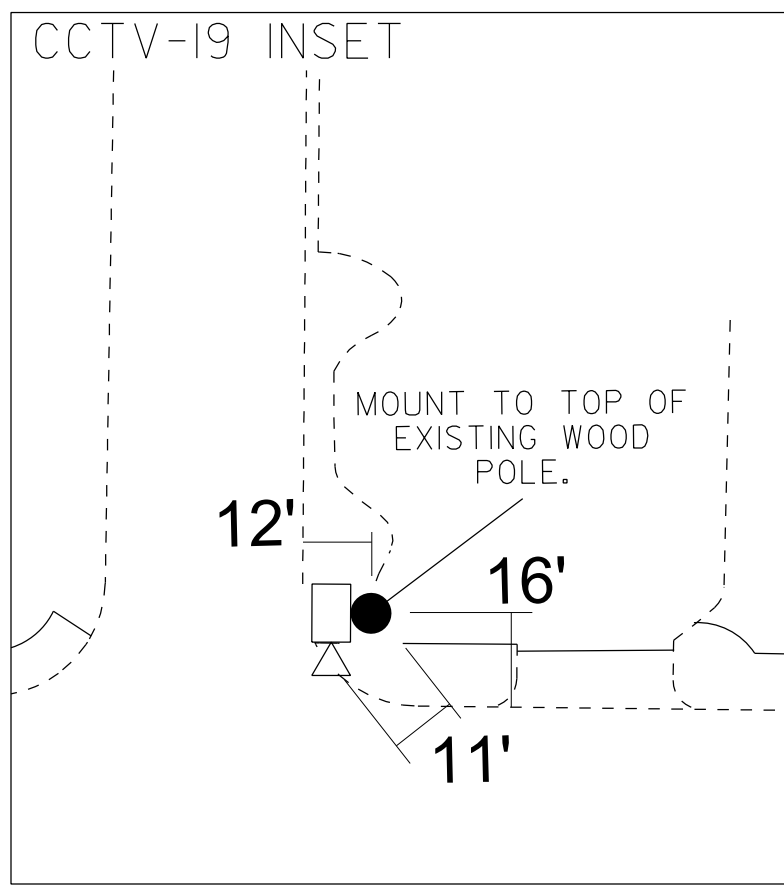
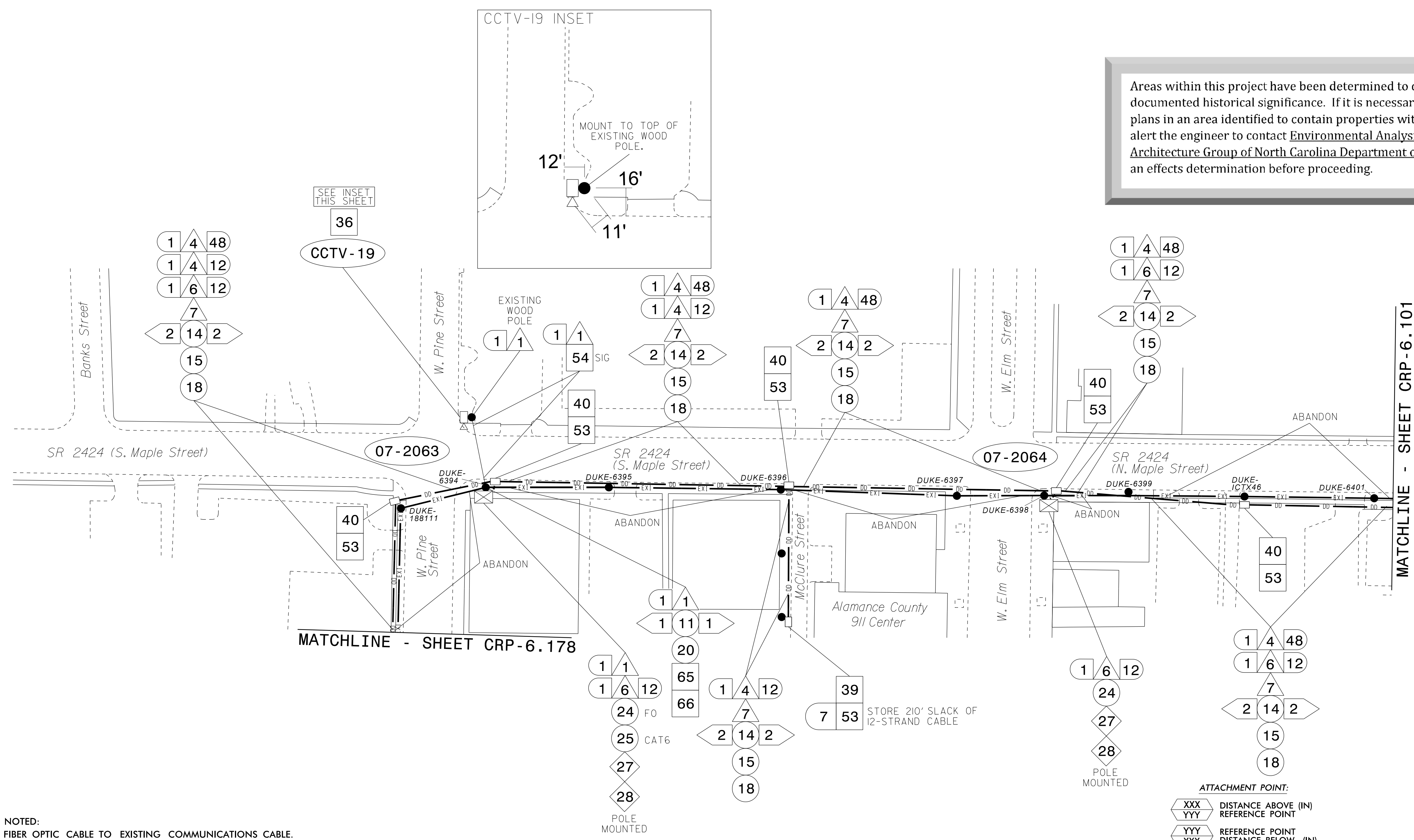
750 Greenfield Parkway, Garner, NC 27529

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER
MELISSA B. TOTH
025892
13/2018

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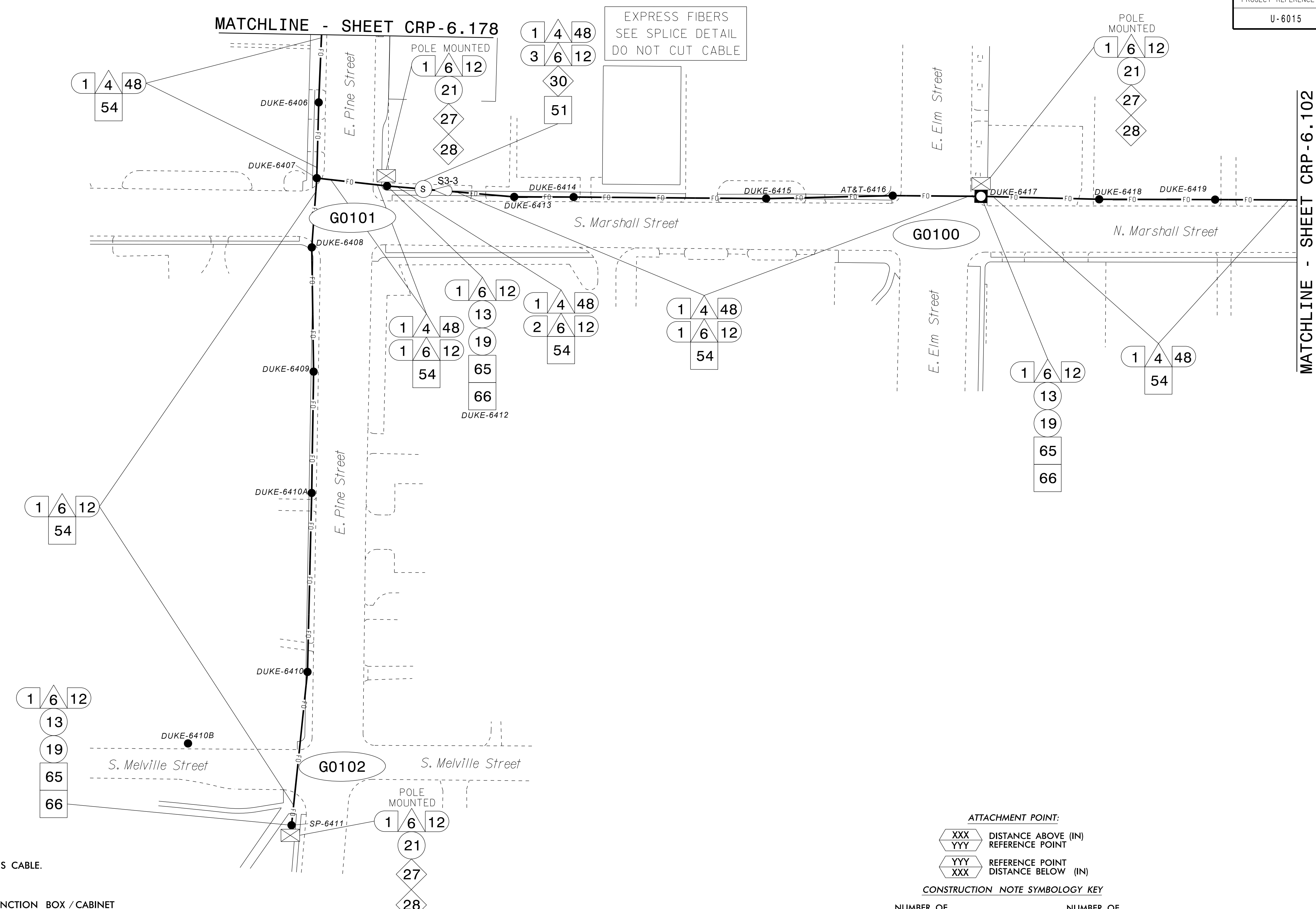
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XXX DISTANCE ABOVE (IN)
YYY REFERENCE POINT
YYY REFERENCE POINT
XXX DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY
NUMBER OF CABLE(S) / LOOPS, DETECTOR, AMPLIFIERS, GUYS, ANTENNAS
NUMBER OF FIBER TWISTED PAIRS
NUMBER OF RISER(S) / CONDUIT(S)
DIAMETER OF RISER(S) / CONDUIT(S) (IN)

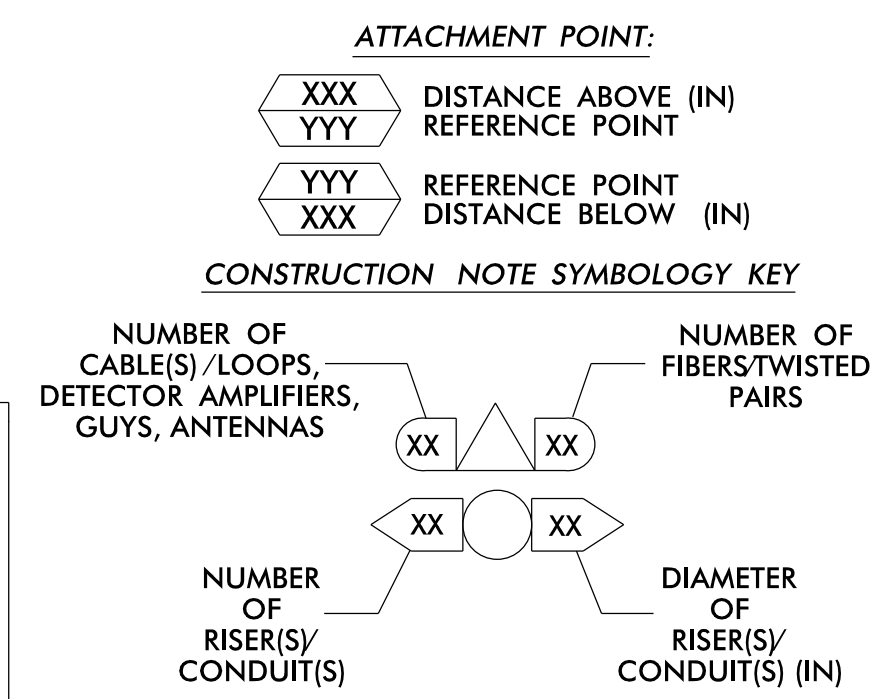
Table with 10 columns and 10 rows of construction notes, each with a circled number and a brief description of the task (e.g., 'INSTALL CATEGORY 6 CABLE', 'REMOVE EXISTING WOOD POLE').

Project information block including the Atkins logo, project name 'Burlington-Graham Signal System Cable Routing Plans', division 'Division 7', location 'Alamance County', and a signature block for Melissa B. Toth.

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AT LUS333048



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Prepared for the Offices of:

 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 Transportation Systems

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

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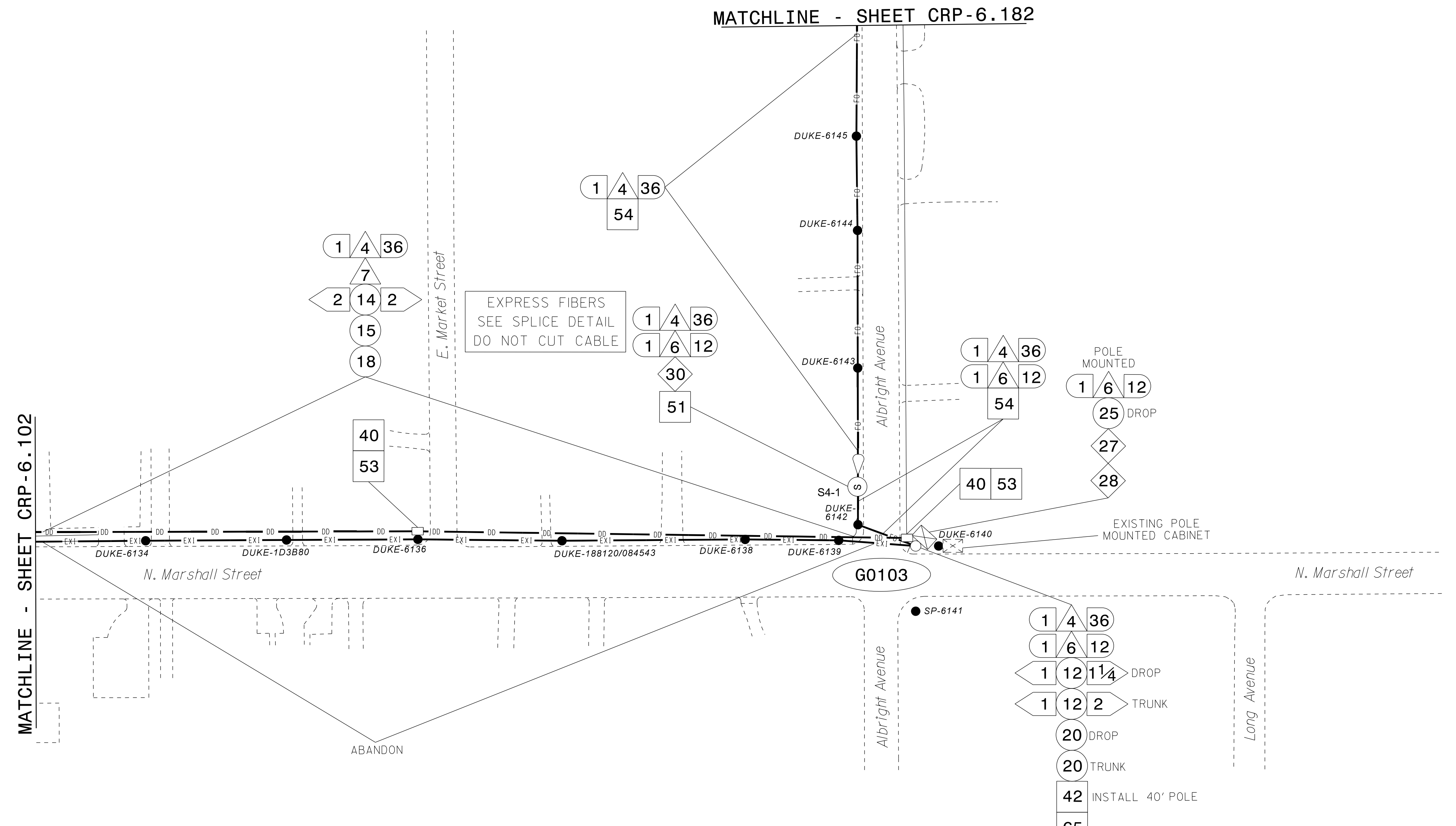
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DATE 11/13/2018

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MATCHLINE - SHEET CRP-6.182

MATCHLINE - SHEET CRP-6.102

EXPRESS FIBERS
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DO NOT CUT CABLE

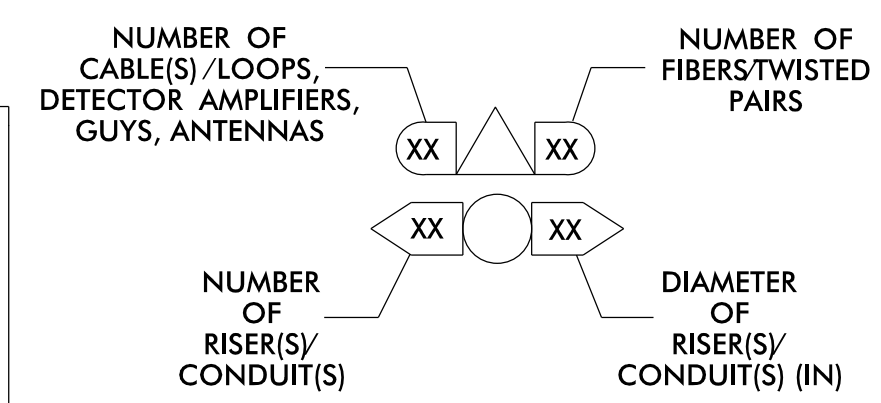
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Prepared for the Offices of:

 Department of Transportation
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 Alamance County
 Burlington & Graham

Burlington-Graham Signal System Cable Routing Plans

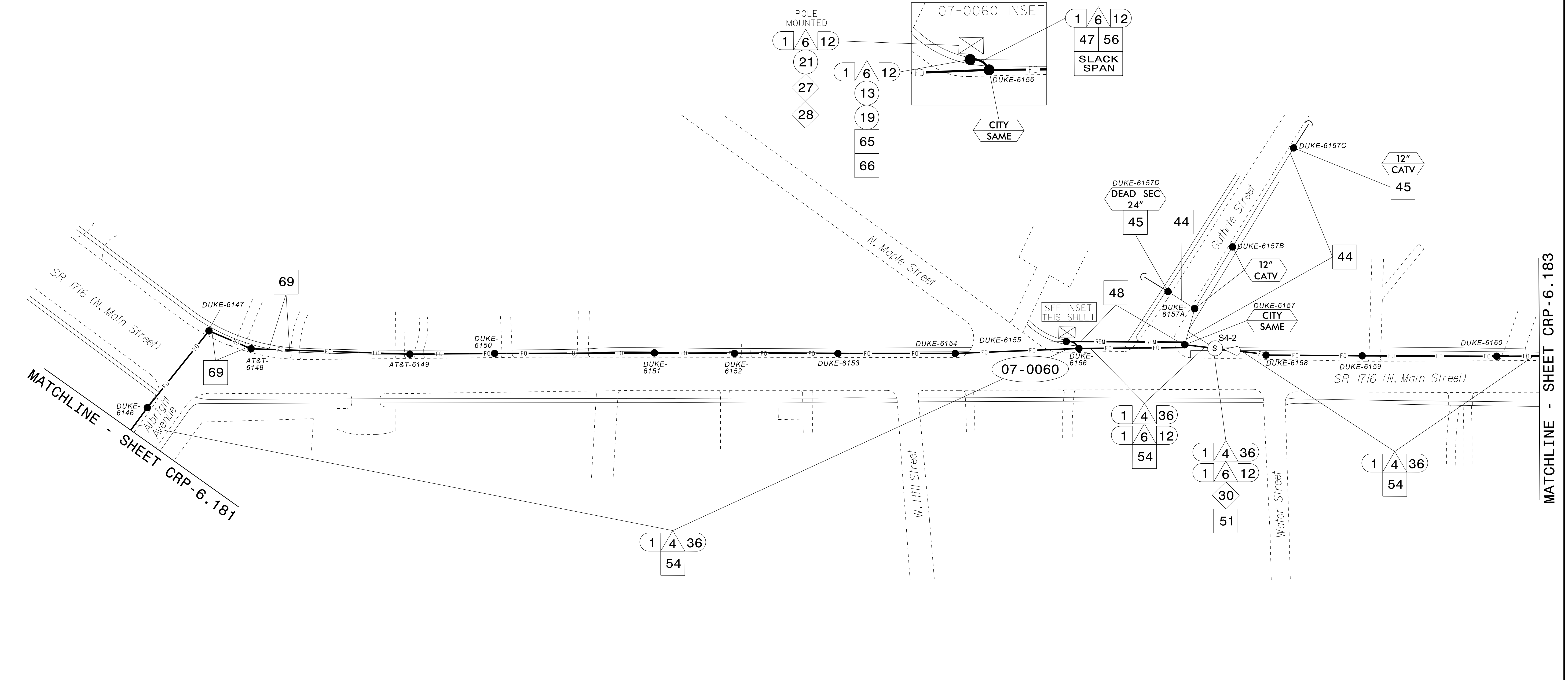
PLAN DATE: June 2018
 PREPARED BY: AME/AJH/VJP/NAP/JAW
 REVIEWED BY: M B Toth
 REVISIONS: _____ INIT. DATE

SCALE: 1"=50'

DocuSign by: **Melissa B. Toth**, 13/2018
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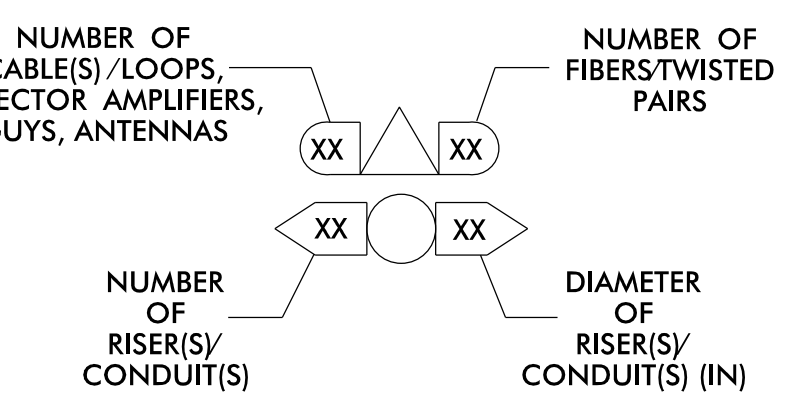
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 AT LUS3330048



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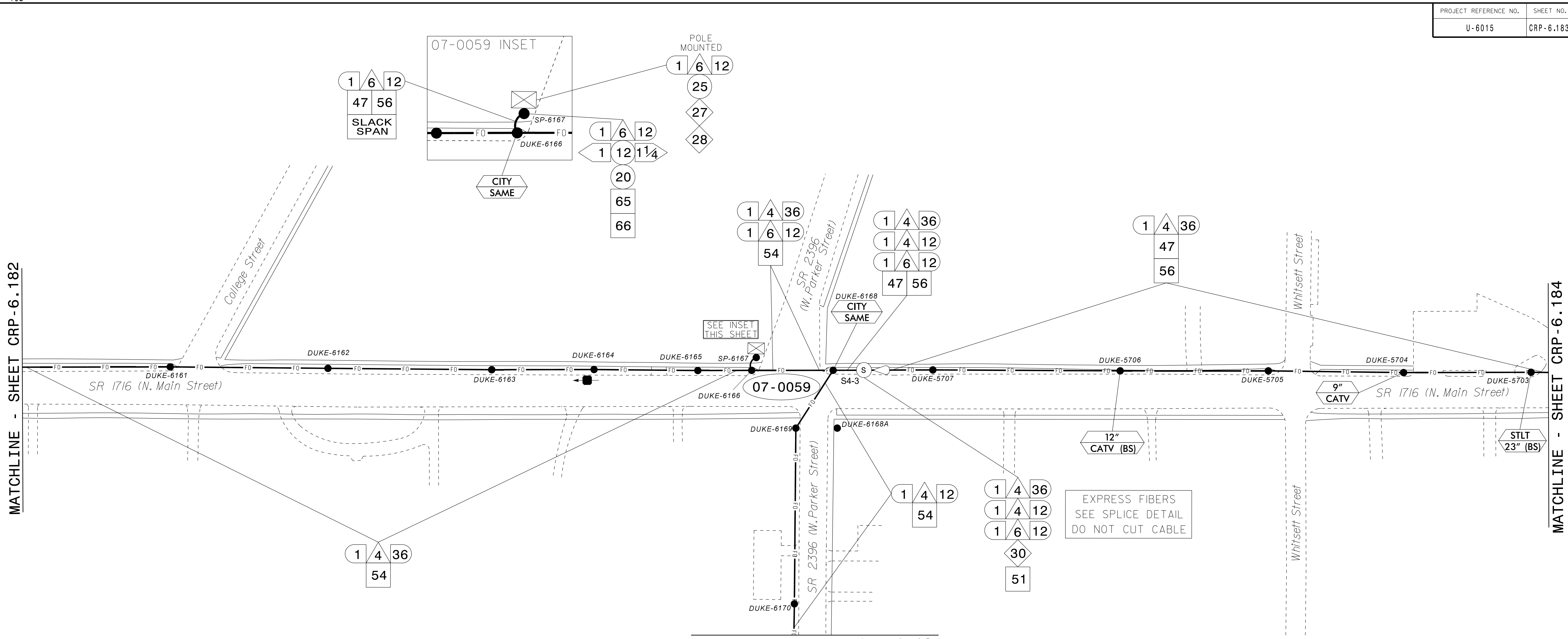
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750 Greenfield Parkway, Garner, NC 27529
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Melissa B. Toth 025892
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MATCHLINE - SHEET CRP-6.183



MATCHLINE - SHEET CRP-6.182

MATCHLINE - SHEET CRP-6.184

MATCHLINE - SHEET CRP-6.194

SEE SIGNAL PLAN FOR SYSTEM DETECTOR
 INSTALLATION/ASSIGNMENT DETAILS. REFER TO
 "SYSTEM DETECTORS AND CONTROL ZONES"
 SCHEMATIC. FOR ADDITIONAL INFORMATION.

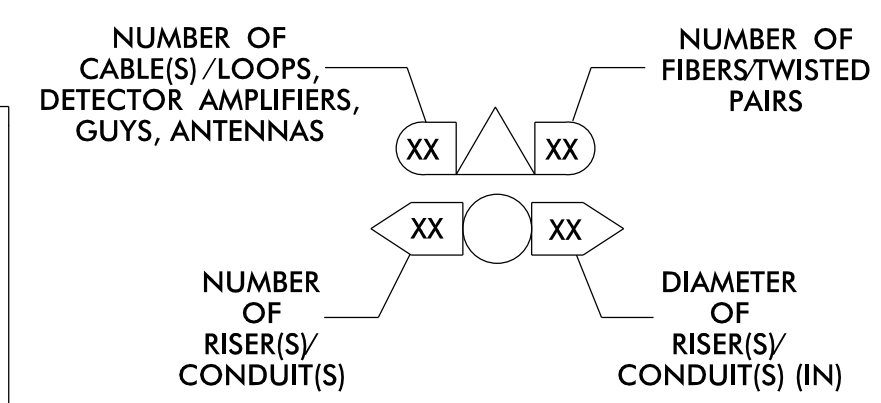
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DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOLOGY KEY



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**

1	INSTALL CATEGORY 6 CABLE	11	INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	22	INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)	32	MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER	43	REMOVE EXISTING WOOD POLE	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE	66	BOND RISER TO POLE GROUND
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3	INSTALL COMPOSITE CCTV CABLE	13	INSTALL HEAT SHRINK TUBING KIT	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34	INSTALL CABINET FOUNDATION	45	INSTALL STANDARD GUY ASSEMBLY	57	MODIFY EXISTING ELECTRICAL SERVICE FOR CCTV	68	BOND TRACER WIRE TO POLE GROUND
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Prepared for the Offices of:
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION SYSTEMS DIVISION

**Burlington-Graham Signal System
 Cable Routing Plans**

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

REVISIONS INIT. DATE

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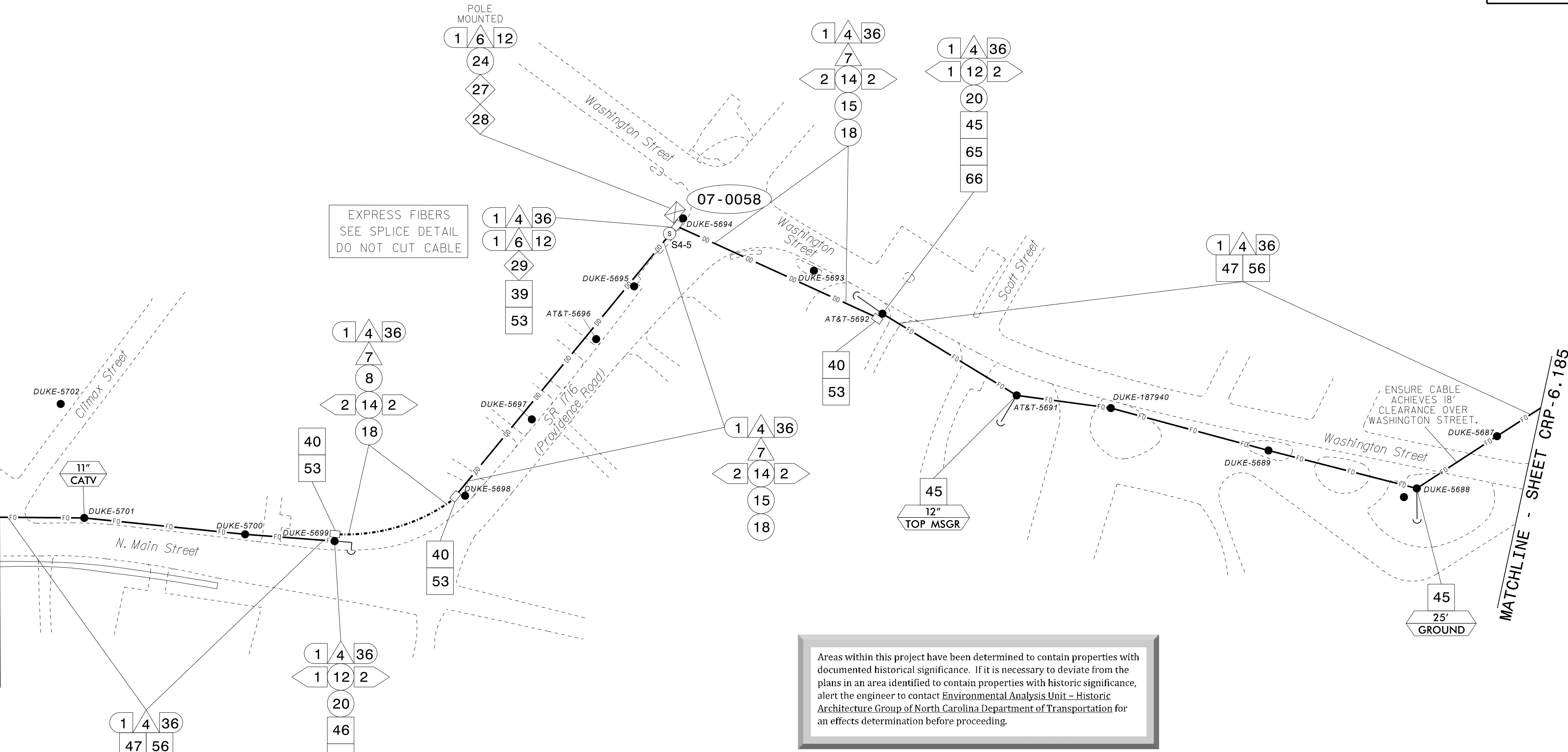
SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOOTH
 025892
 08020804044F
 13/2018
 DATE

CADD File name: CL-183.dgn

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 ENCA5386 AT LUS330048

MATCHLINE - SHEET CRP-6.183

MATCHLINE - SHEET CRP-6.185



EXPRESS FIBERS SEE SPLICE DETAIL DO NOT CUT CABLE

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.

- NOTES:
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YYY REFERENCE POINT
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XXX DISTANCE BELOW (IN)
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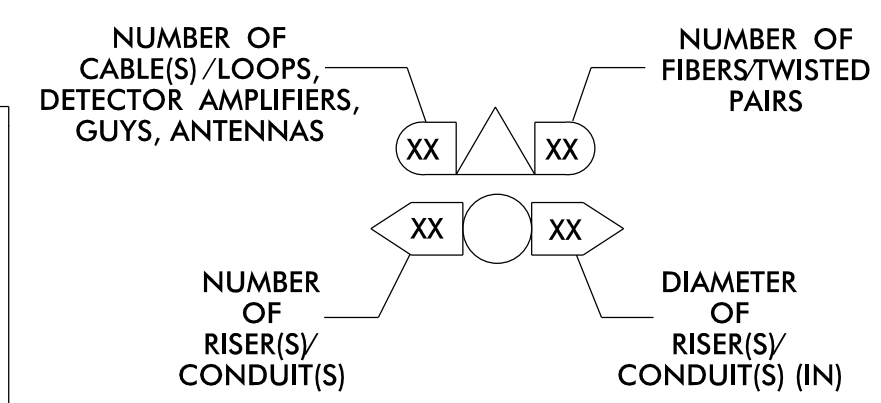
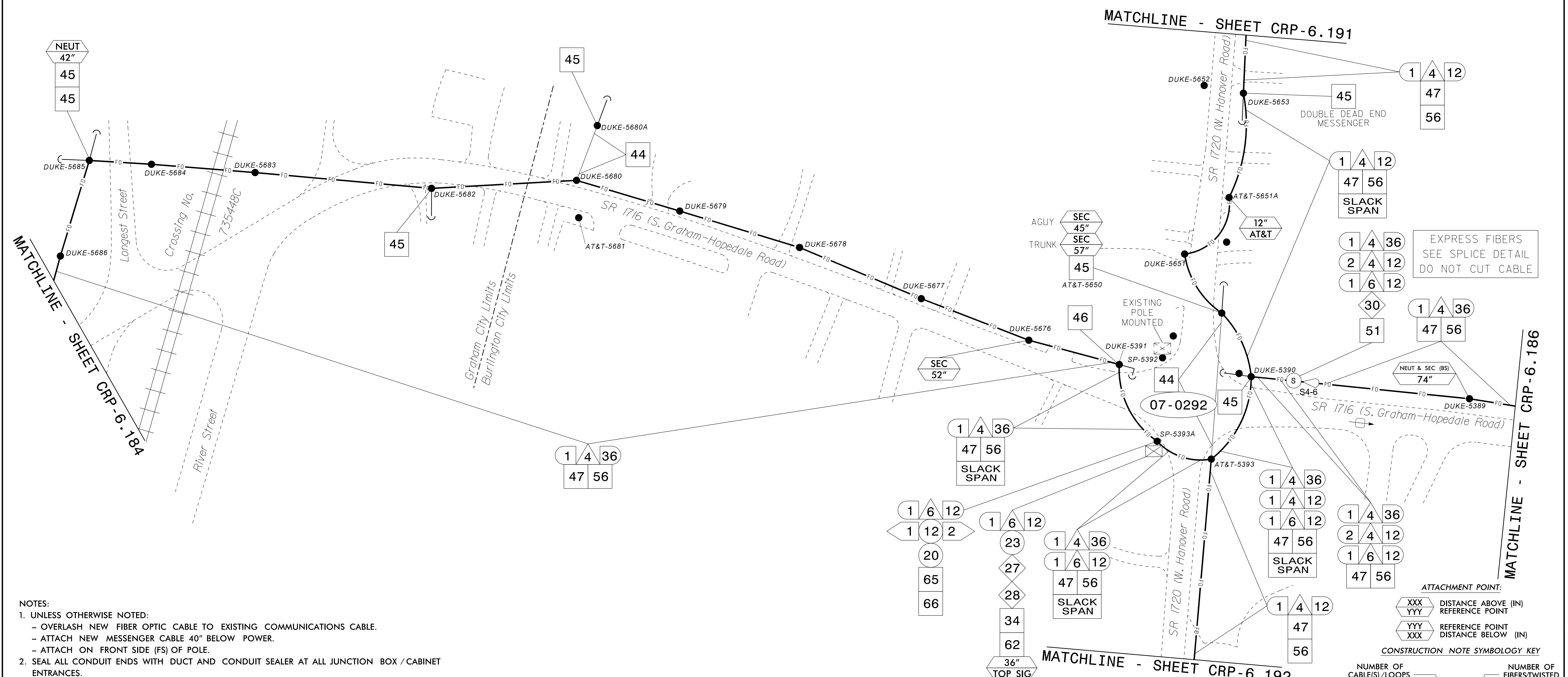


Table with 10 columns and 2 rows of callout codes and descriptions for cable and equipment installation.

Project title block for 'Burlington-Graham Signal System Cable Routing Plans' including company logo (ATKINS), plan date (June 2018), and various revision and signature fields.

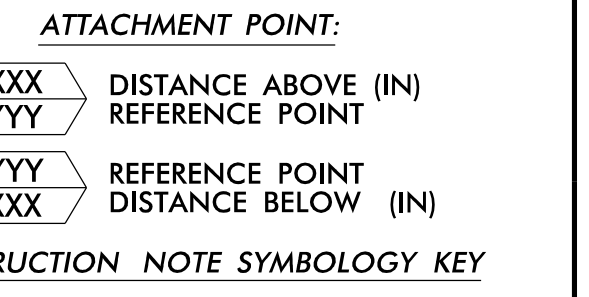
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ENC45396 AT LUS330048



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Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AWE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Sloucom

REVISIONS

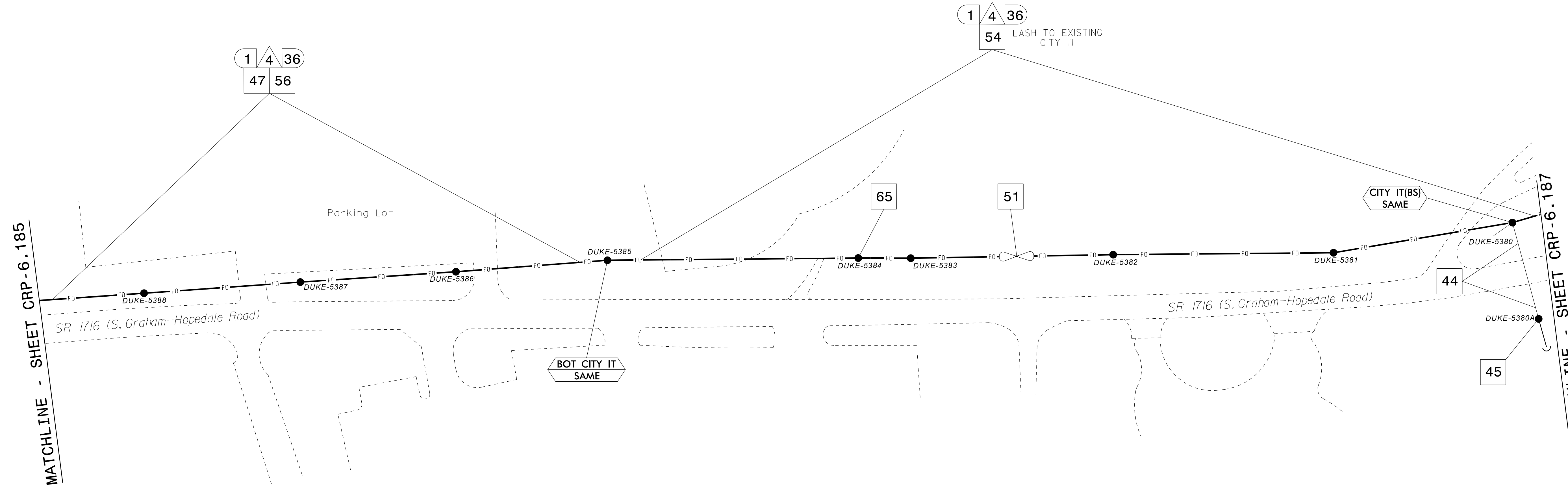
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DocuSign by: **Melissa B. Toth** 6/13/2018

CADD File name: CL-185.dgn

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PROJECT REFERENCE NO.	SHEET NO.
U-6015	CRP-6.186



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 AT LUS333048
 ENCA5396

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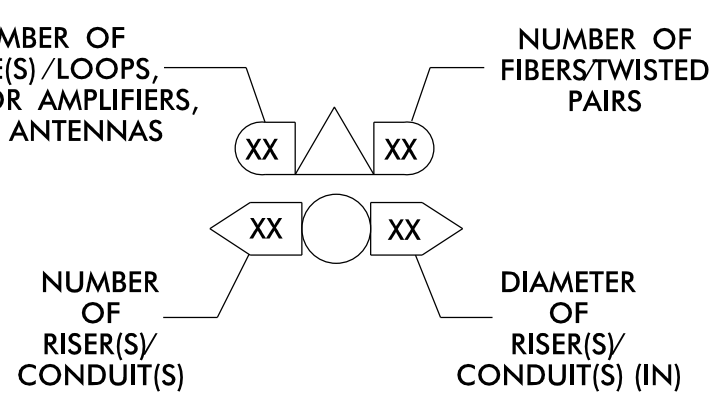
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Prepared for the Offices of:

 Department of Transportation

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

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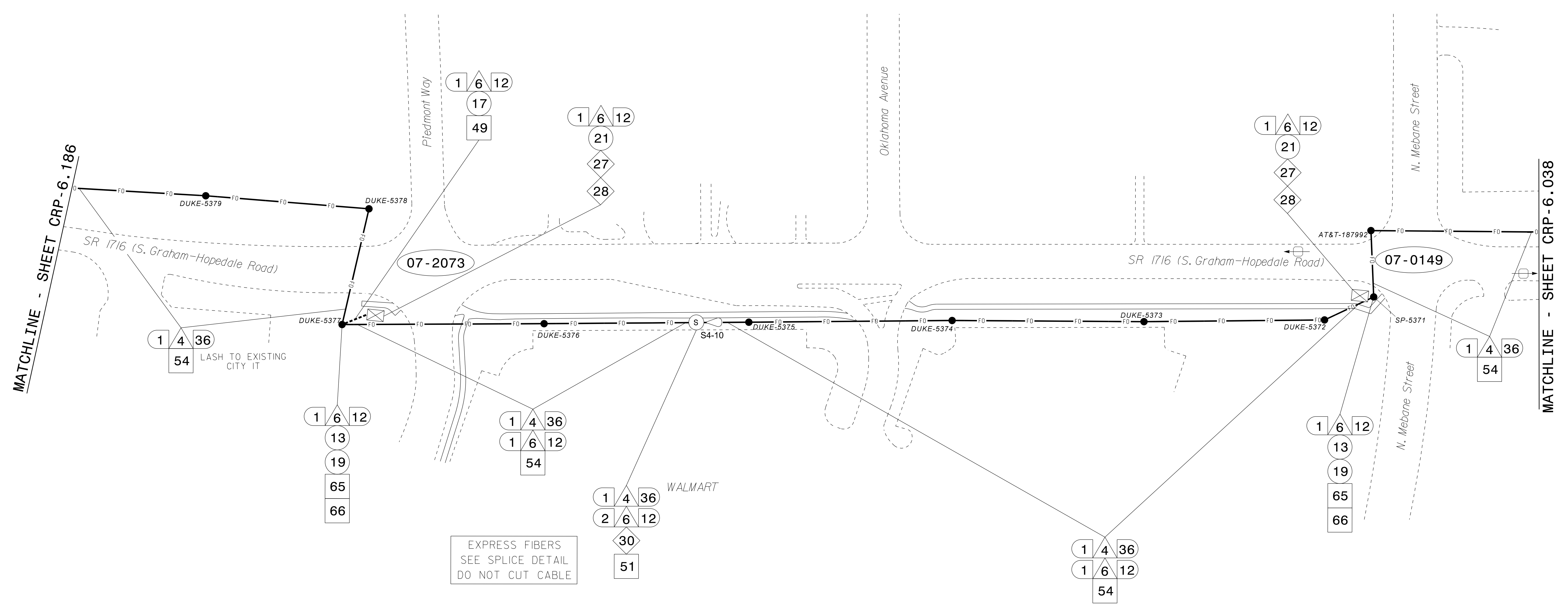
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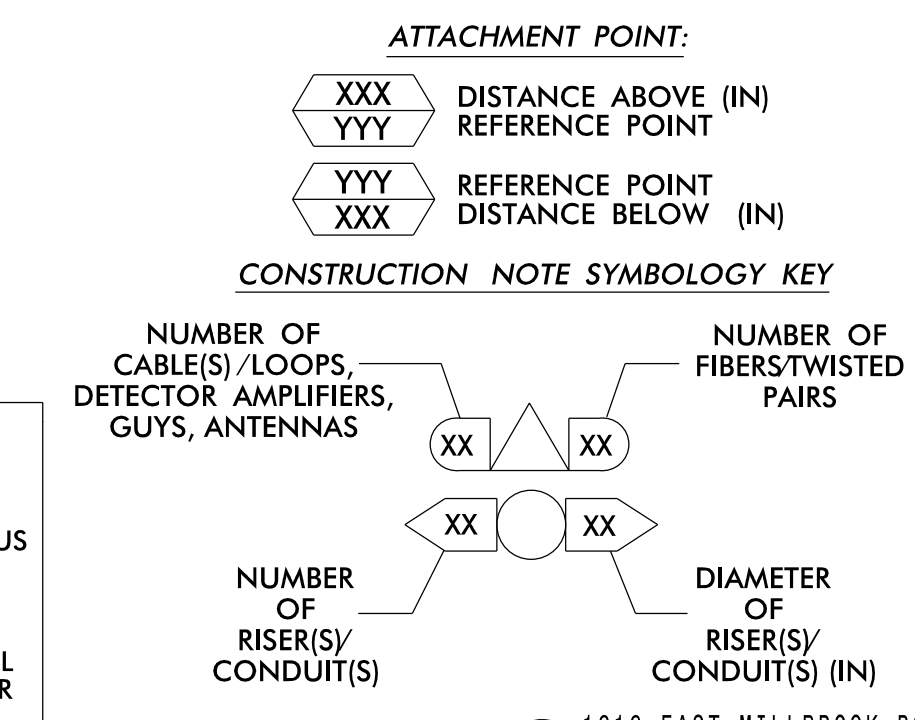
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 MELISSA B. TOTH
 08606864044F DATE: 6/13/2018

CADD Filename: CL-186.dgn

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DocuSign by: Melissa B. Toth 08/08/2018 13/2018

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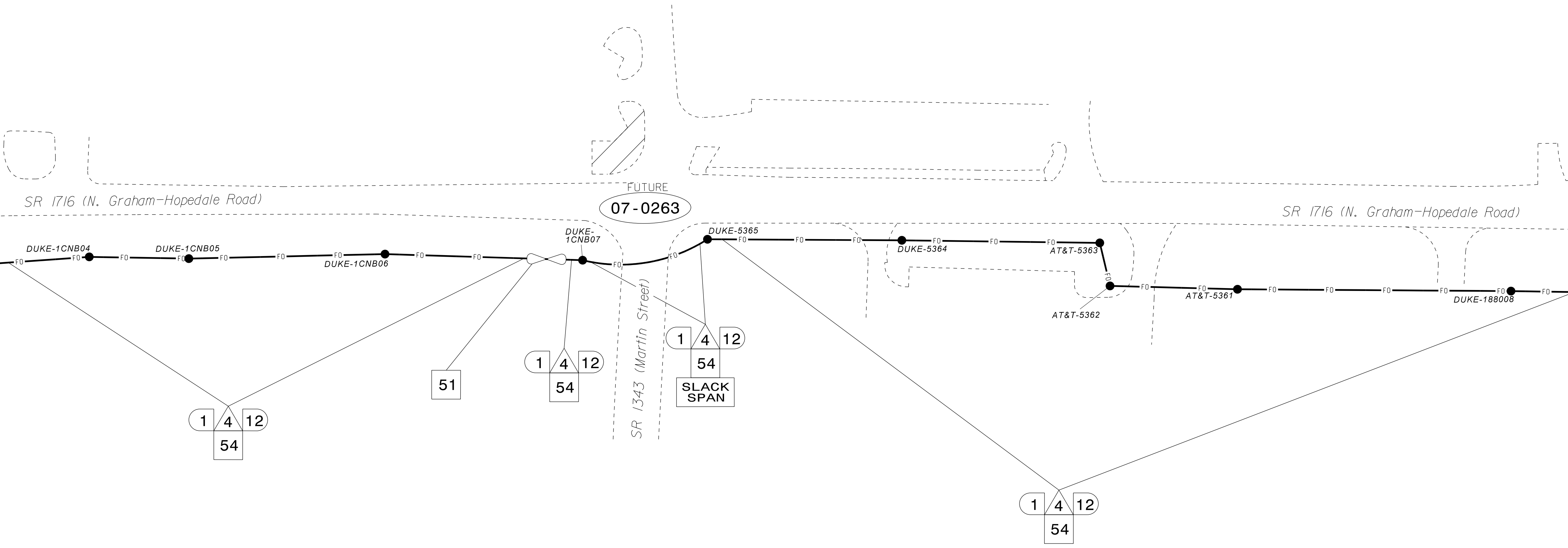
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MATCHLINE - SHEET CRP-6.038

MATCHLINE - SHEET CRP-6.189



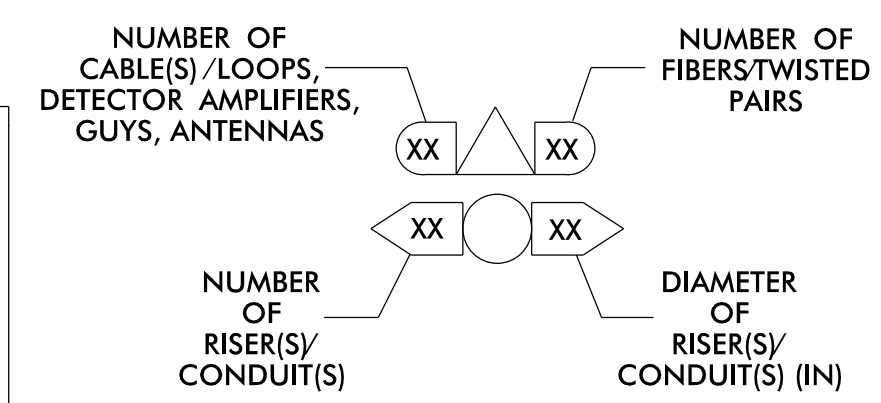
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Prepared for the Offices of:

 750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

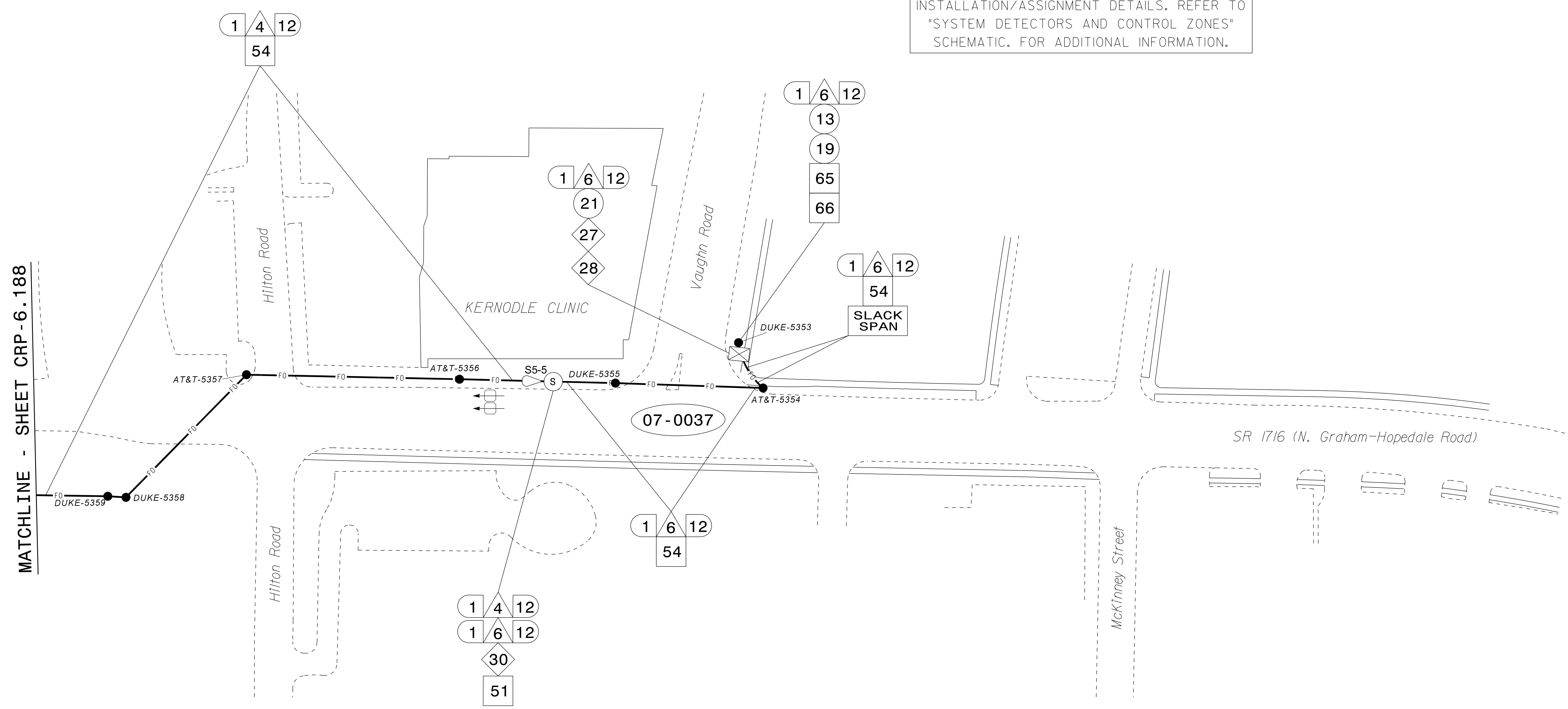
REVISIONS INIT. DATE

SCALE: 1"=50'

SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOOTH
 025892
 MELISSA B. TOOTH
 13/2018
 DATE

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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.



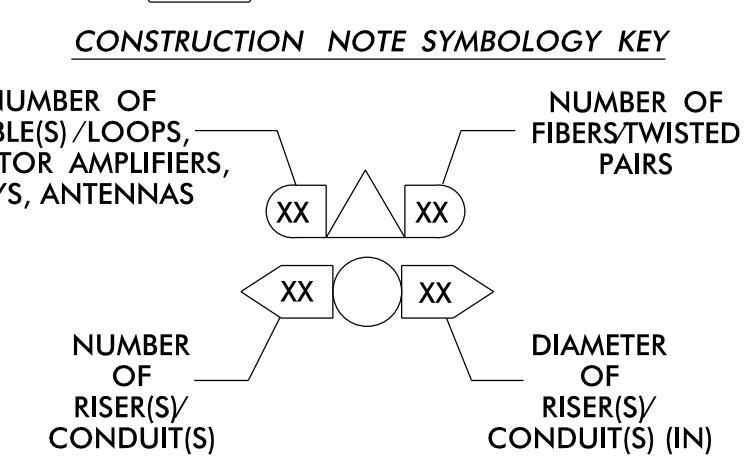
MATCHLINE - SHEET CRP-6.188

- NOTES:**
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DISTANCE ABOVE (IN)

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Prepared for the Offices of:

 Department of Transportation, State of North Carolina

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

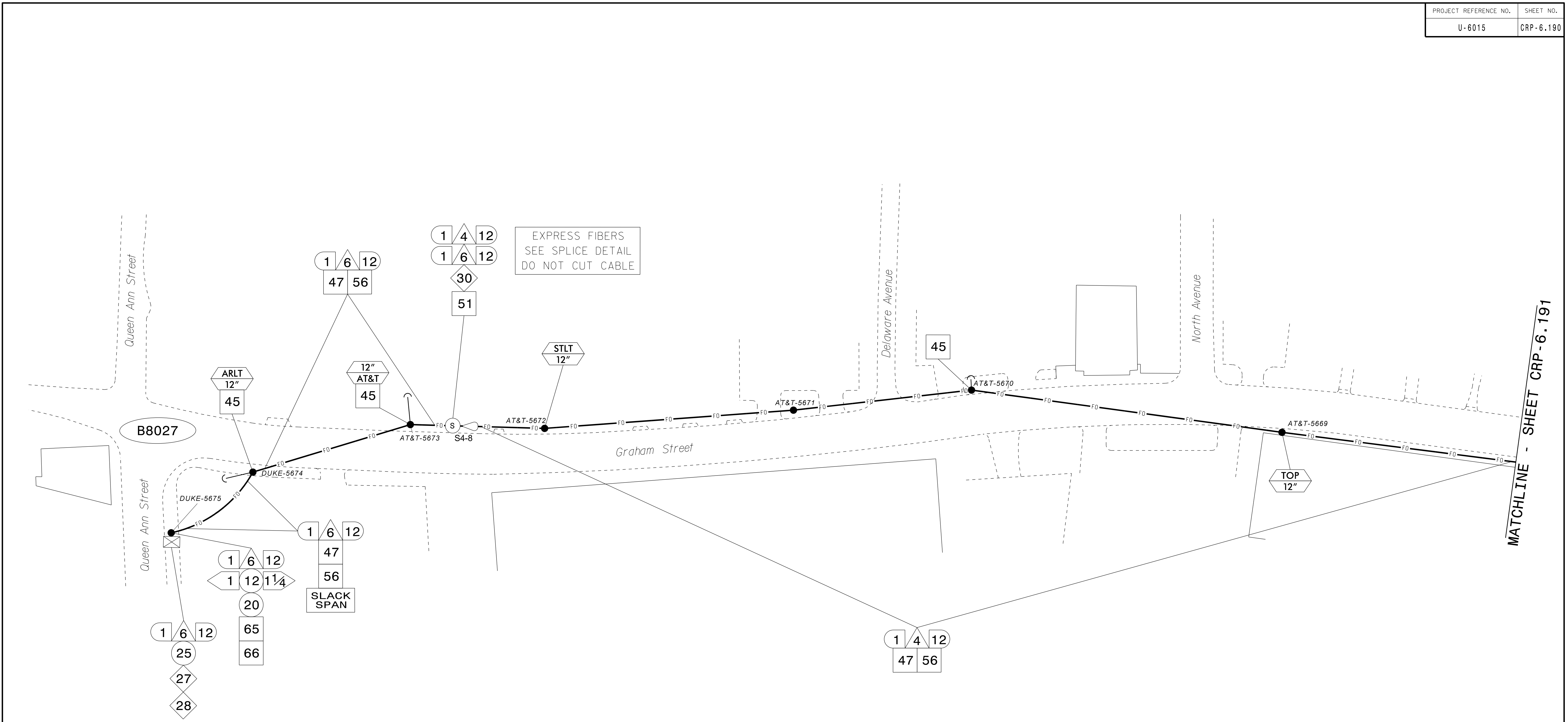
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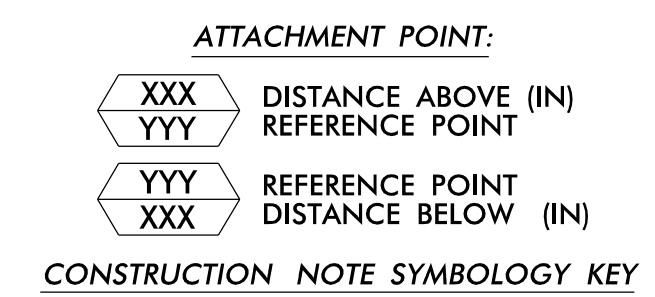
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ENC45396 AT LUS333048



MATCHLINE - SHEET CRP-6.191

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Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: ANE/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

750 Greenfield Parkway, Garner, NC 27529

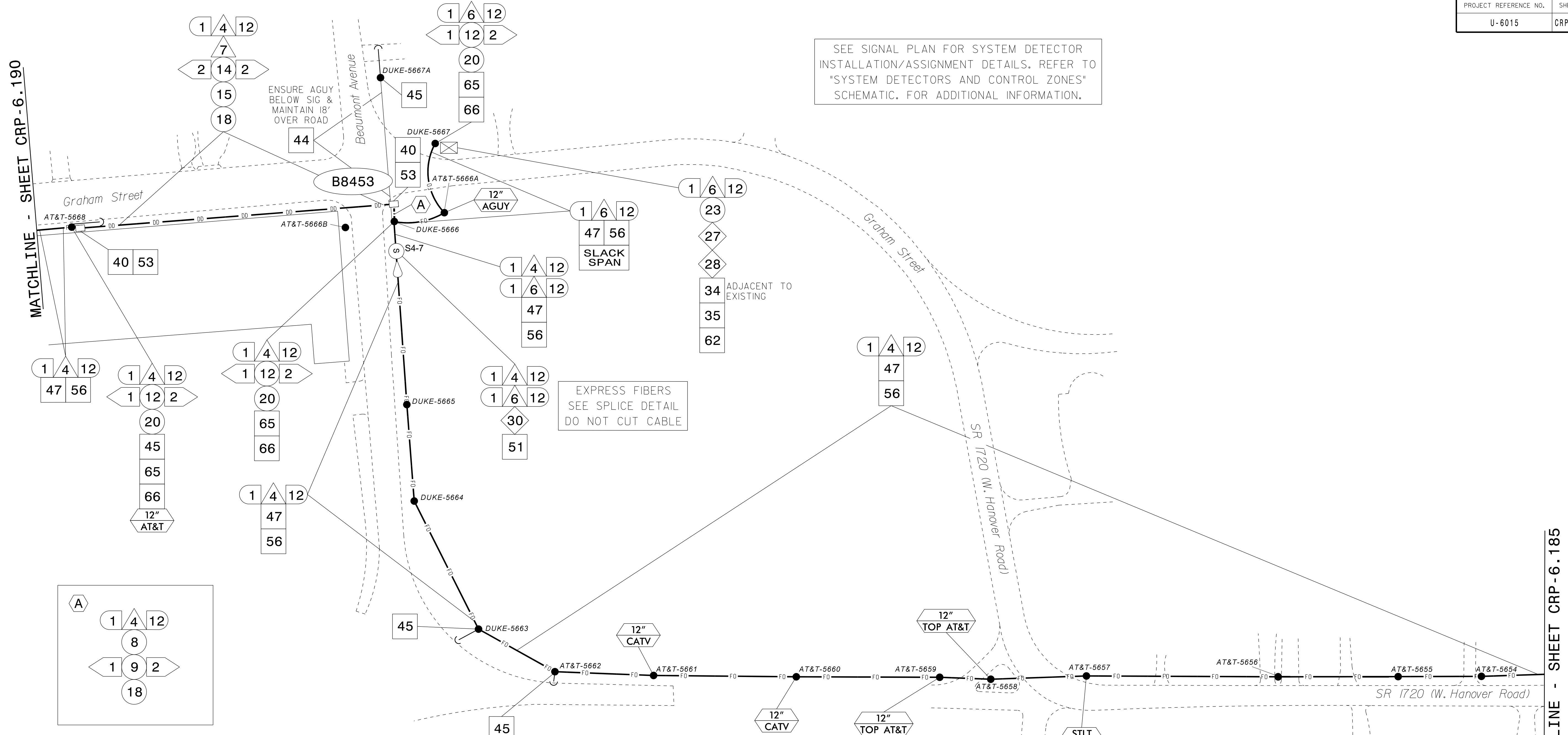
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SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892

Melissa B. Toth 6/13/2018

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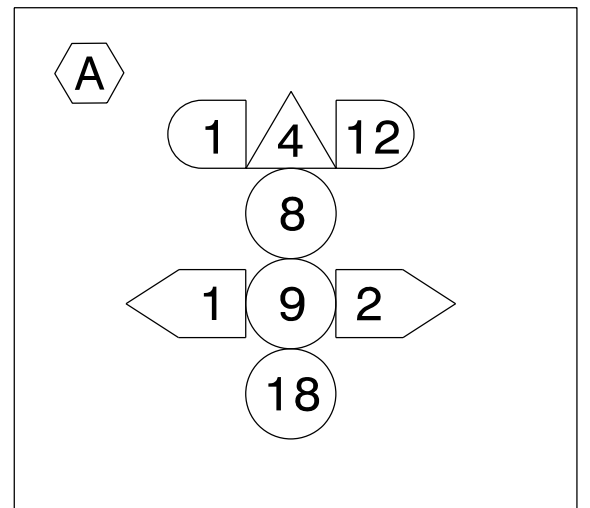
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SEE SIGNAL PLAN FOR SYSTEM DETECTOR INSTALLATION/ASSIGNMENT DETAILS. REFER TO "SYSTEM DETECTORS AND CONTROL ZONES" SCHEMATIC. FOR ADDITIONAL INFORMATION.

MATCHLINE - SHEET CRP-6.190

MATCHLINE - SHEET CRP-6.185



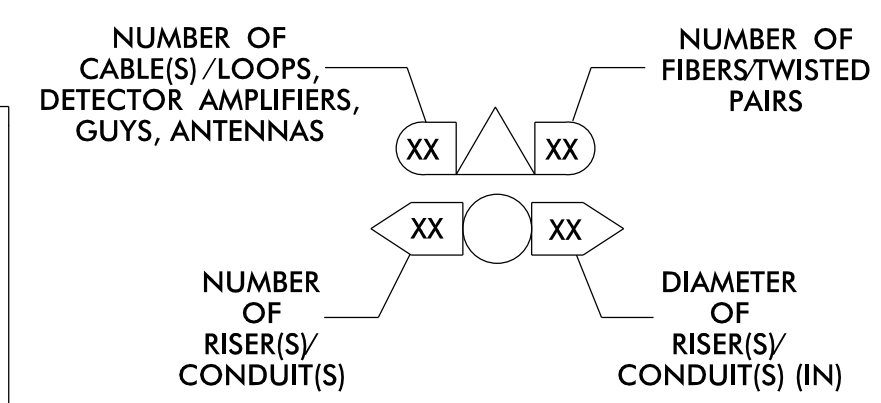
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CONSTRUCTION NOTE SYMBOLOLOGY KEY



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REVISIONS

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SEAL NORTH CAROLINA PROFESSIONAL ENGINEER MELISSA B. TOTH 025892

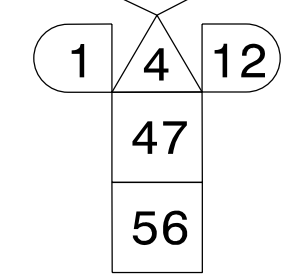
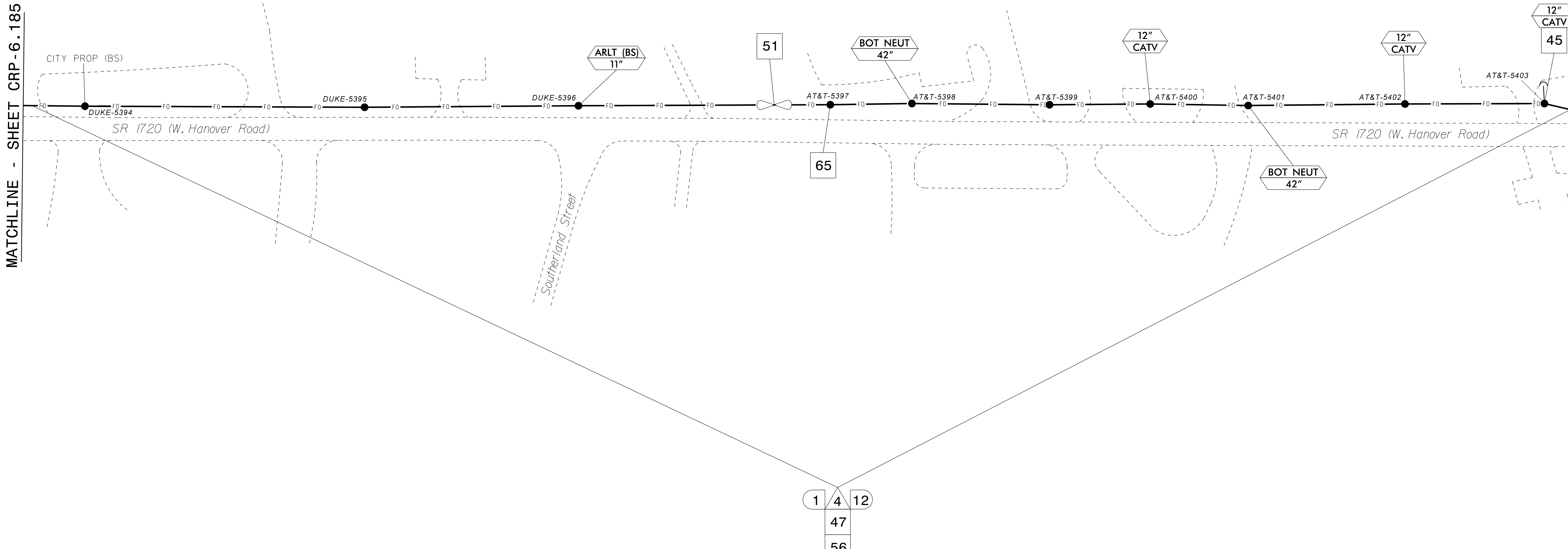
Melissa B. Toth 6/13/2018

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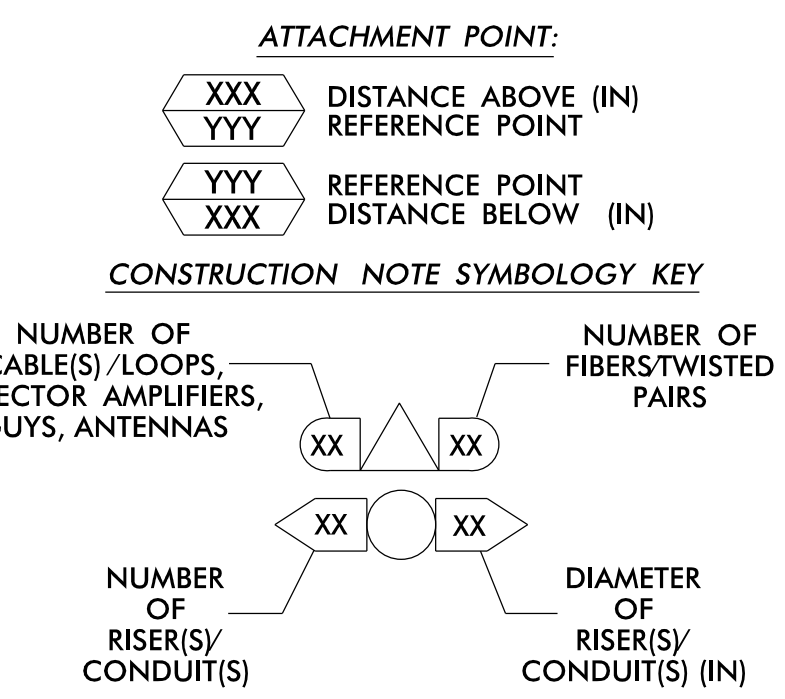
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MATCHLINE - SHEET CRP-6.185

MATCHLINE - SHEET CRP-6.193



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6 INSTALL FIBER-OPTIC DROP CABLE	16 BORE AND JACK CONDUIT	27 INSTALL NEW ETHERNET EDGE SWITCH IN CABINET	37 INSTALL CCTV WOOD POLE	48 REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE	60 INSTALL NEW CCTV CABINET (NEMA TYPE 4)	71 INSTALL MANAGED ETHERNET SWITCH
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ATKINS

1616 EAST MILLBROOK ROAD, SUITE 160
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Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

750 Greenfield Parkway, Garner, NC 27529

SCALE 0 50 1"=50'

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER

SEAL 025892

MELISSA B. TOTH

DocuSign by: Melissa B. Toth 6/13/2018

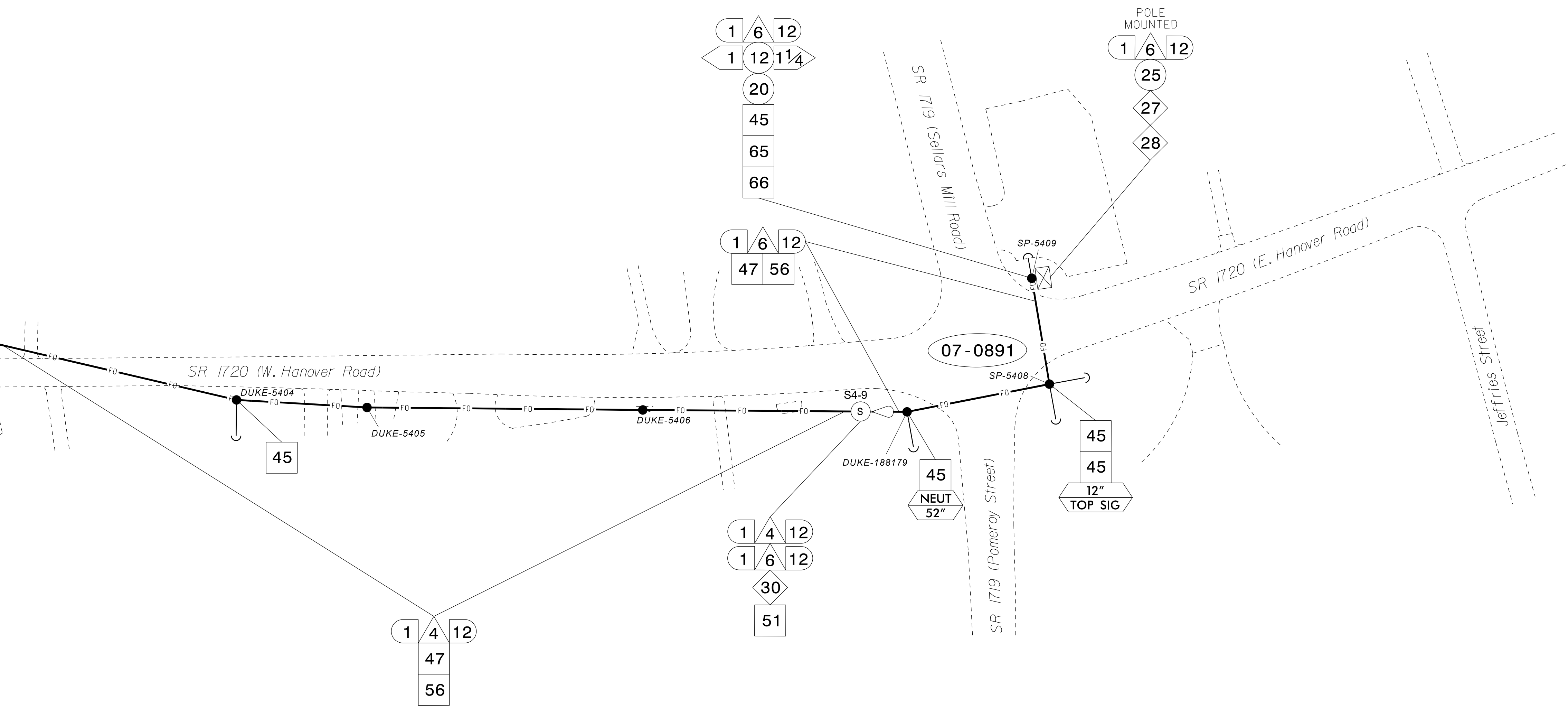
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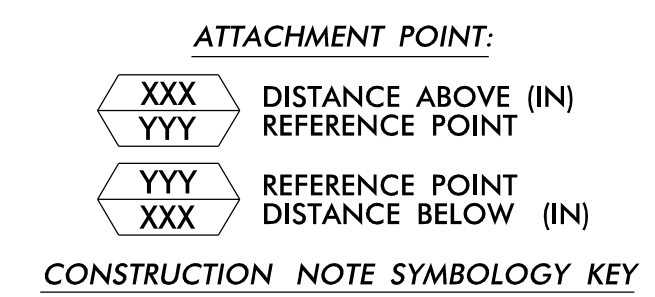
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ENC45396 AT LUS330048

MATCHLINE - SHEET CRP-6.192



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(919) 876-6888 NCBEES #F-0326

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Prepared for the Offices of:

 State of North Carolina
 Department of Transportation

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 REVIEWED BY: M B Toth

PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

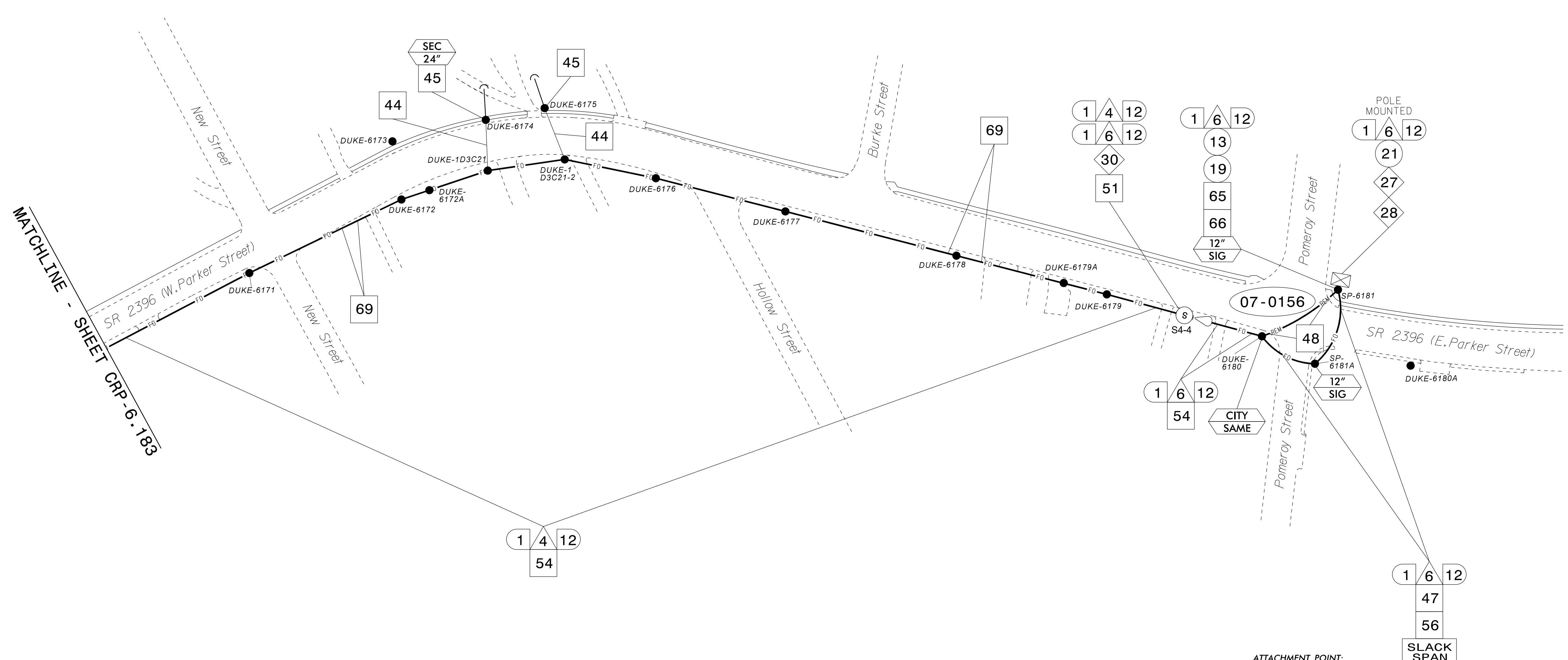
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SCALE 1"=50'

DocuSign by: MELISSA B. TOTH
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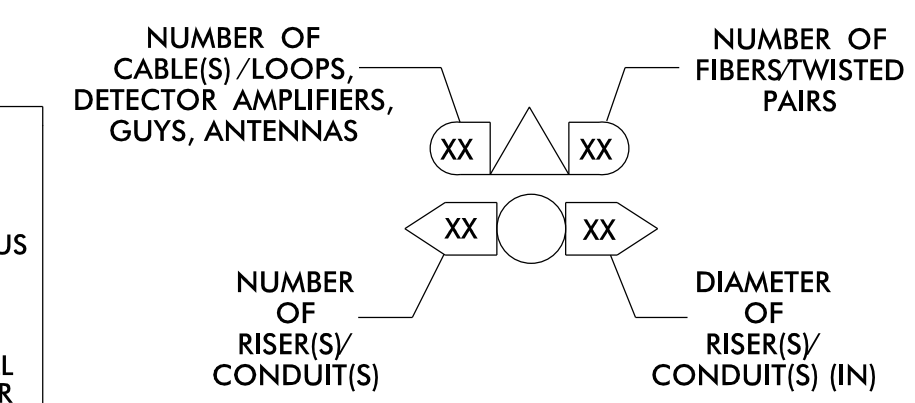
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ATTACHMENT POINT:
 XXX DISTANCE ABOVE (IN) REFERENCE POINT
 YYY REFERENCE POINT
 YYY REFERENCE POINT DISTANCE BELOW (IN)
CONSTRUCTION NOTE SYMBOLOLOGY KEY



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
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Prepared for the Offices of:

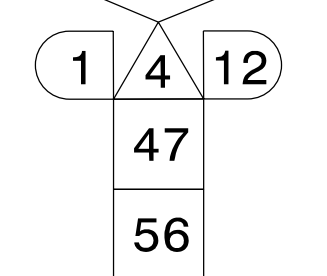
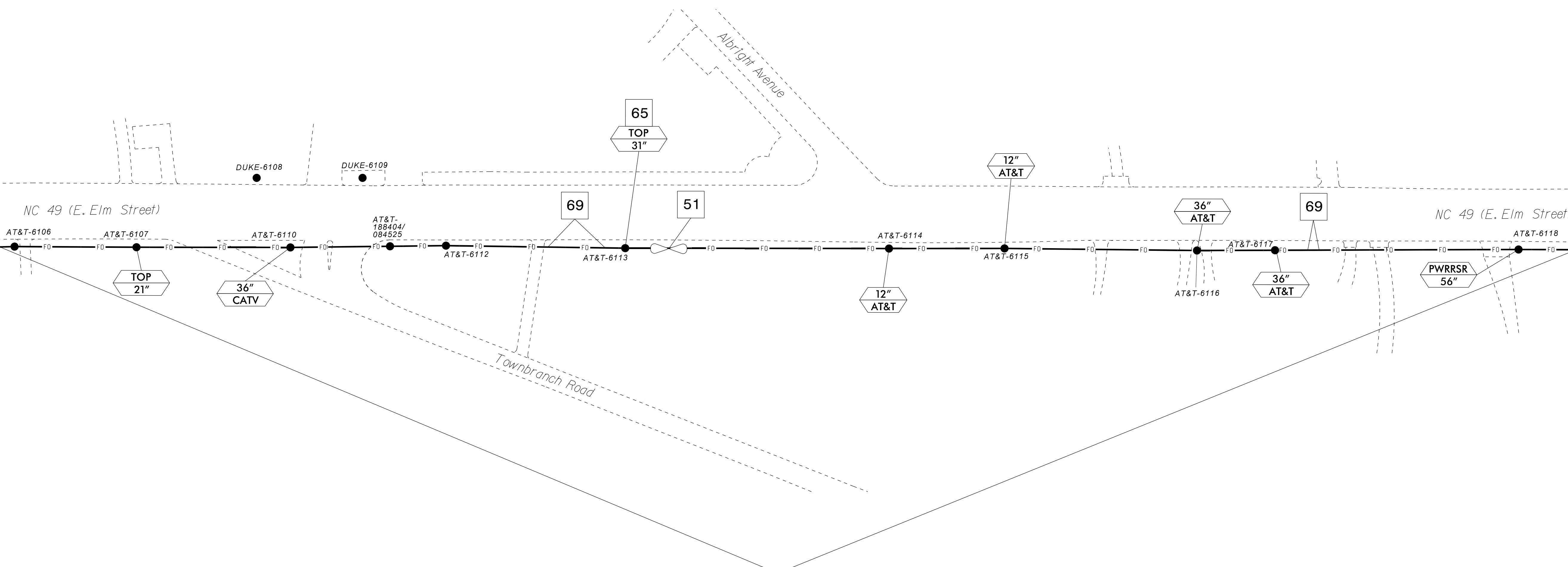
Burlington-Graham Signal System Cable Routing Plans
 Division 7 Alamance County Burlington & Graham
 PLAN DATE: June 2018 REVIEWED BY: M B Toth
 PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum
 REVISIONS INIT. DATE

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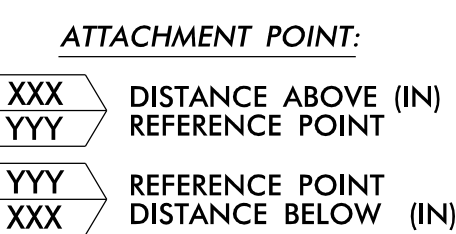
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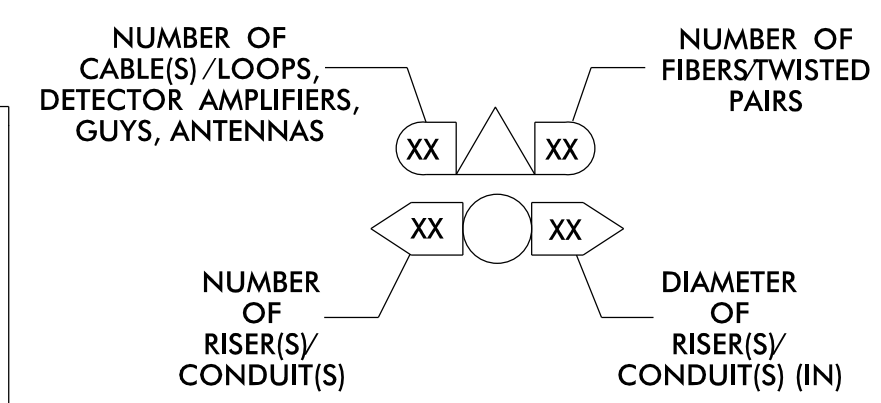


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CONSTRUCTION NOTE SYMBOLOLOGY KEY



ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 878-6888 NCBEES #F-0326

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750 Greenfield Parkway, Garner, NC 27529

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

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PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: BJ Slocum

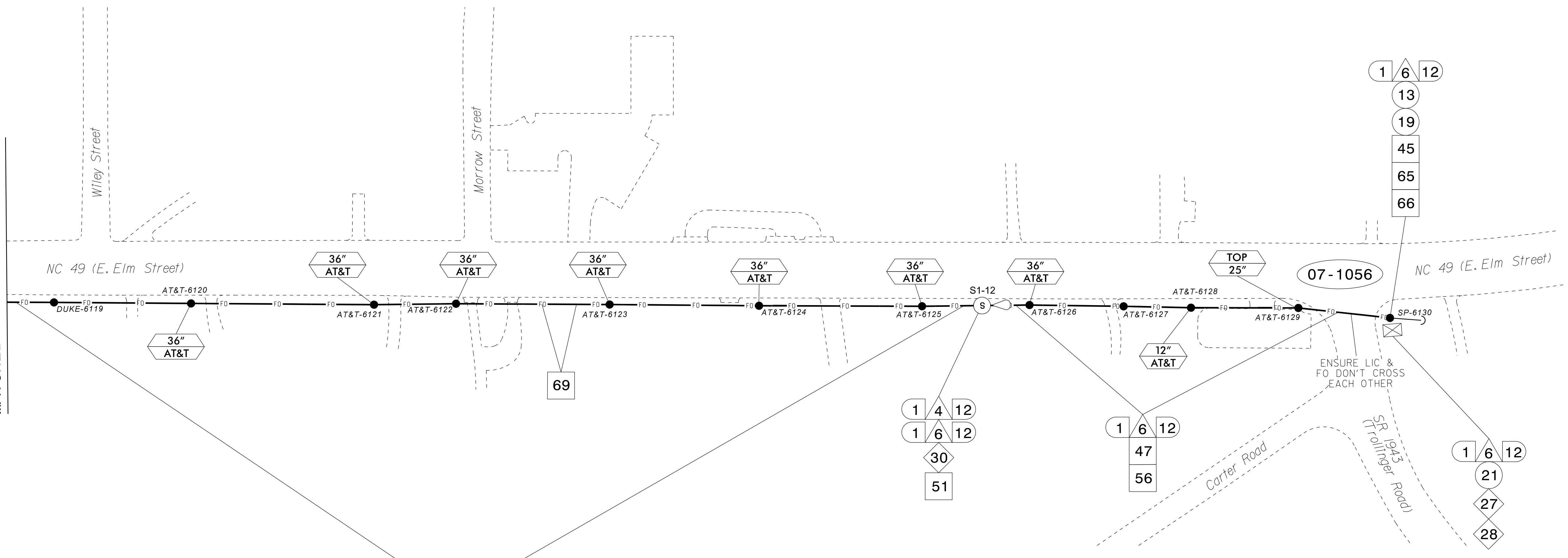
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Melissa B. Toth 6/13/2018

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 AT LUS333048

MATCHLINE - SHEET CRP-6.195



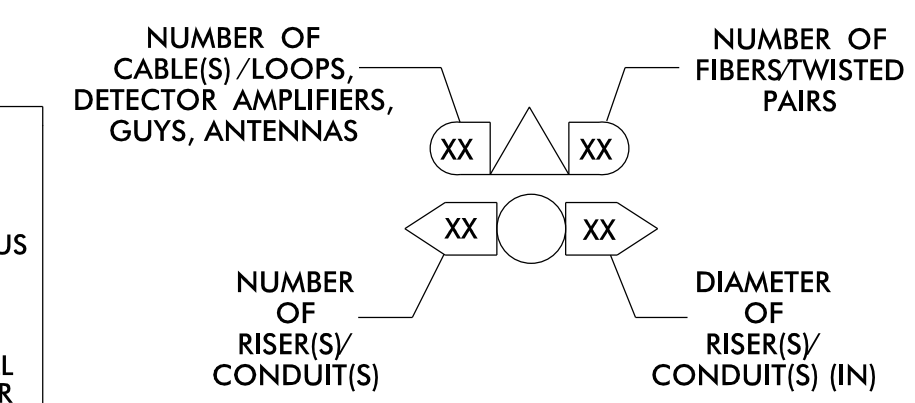
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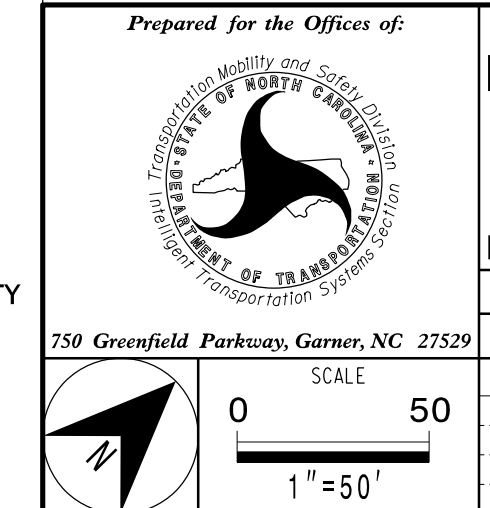
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CADD File name: CL-196.dgn

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER

MELISSA B. TOTH

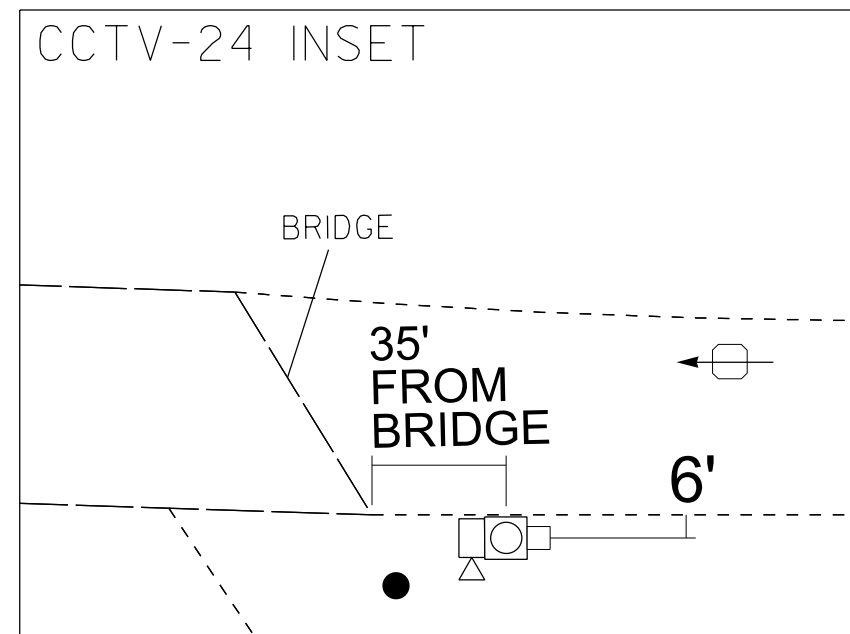
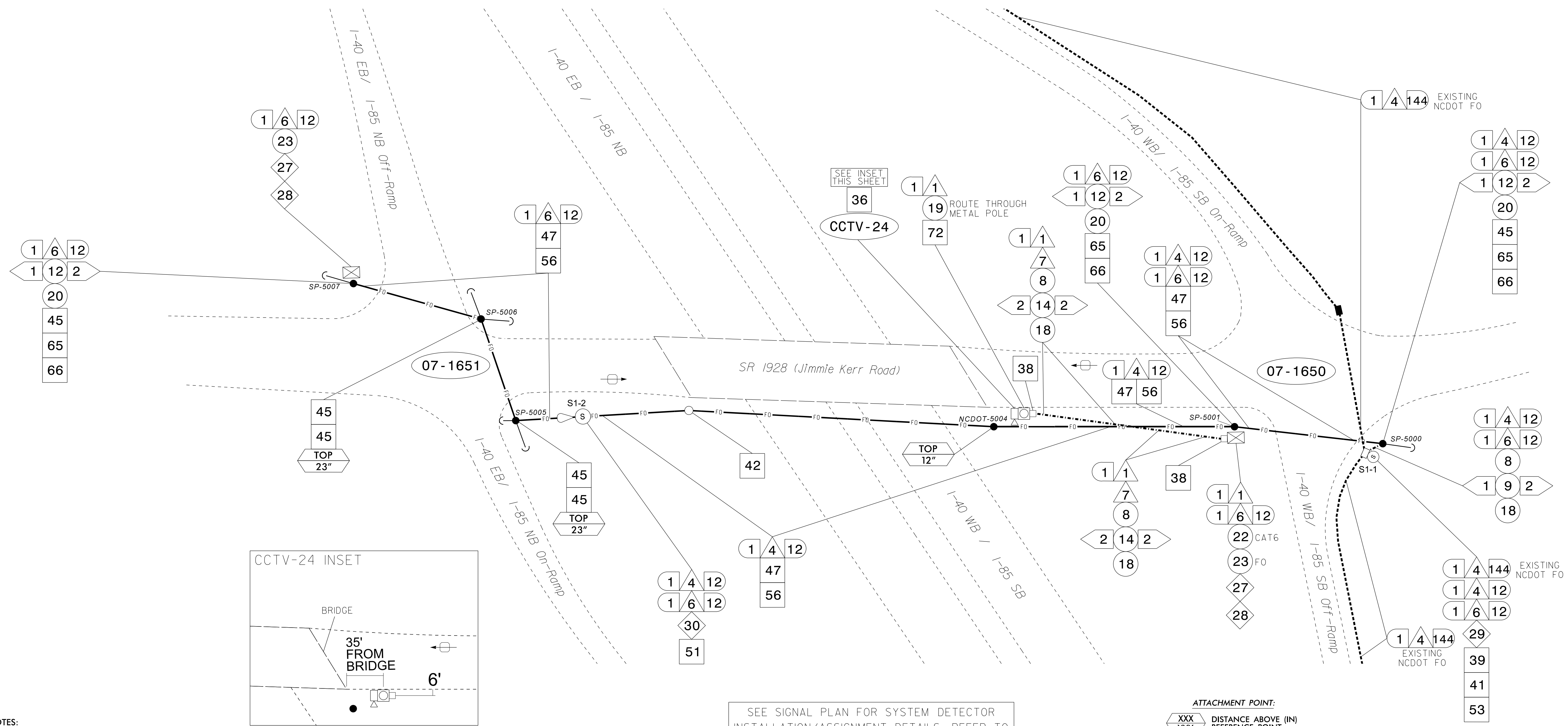
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DocuSign by: Melissa B. Toth 6/13/2018

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SEE SIGNAL PLAN FOR SYSTEM DETECTOR
 INSTALLATION/ASSIGNMENT DETAILS. REFER TO
 "SYSTEM DETECTORS AND CONTROL ZONES"
 SCHEMATIC. FOR ADDITIONAL INFORMATION.

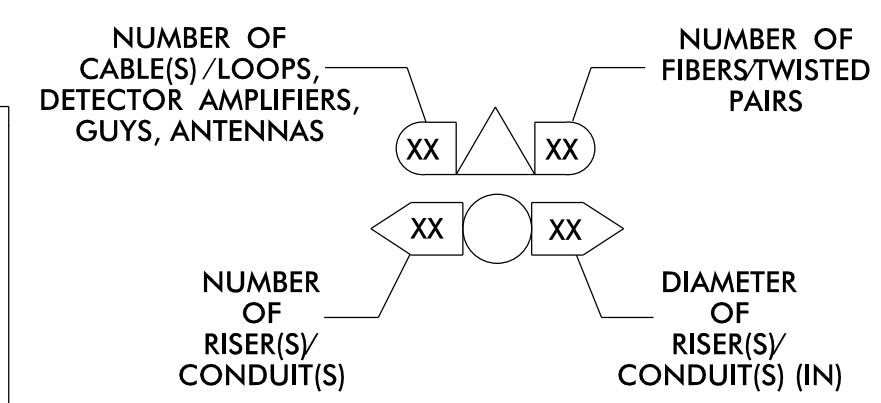
NOTES:

1. UNLESS OTHERWISE NOTED:
 - OVERLASH NEW FIBER OPTIC CABLE TO EXISTING COMMUNICATIONS CABLE.
 - ATTACH NEW MESSENGER CABLE 40" BELOW POWER.
 - ATTACH ON FRONT SIDE (FS) OF POLE.
2. SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER AT ALL JUNCTION BOX / CABINET ENTRANCES.

ATTACHMENT POINT:

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

CONSTRUCTION NOTE SYMBOLGY KEY



EXPRESS FIBERS
 SEE SPLICE DETAIL
 DO NOT CUT CABLE

1 INSTALL CATEGORY 6 CABLE	11 INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD	22 INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)	32 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER	43 REMOVE EXISTING WOOD POLE	55 LASH CABLE(S) TO EXISTING MESSENGER CABLE	66 BOND RISER TO POLE GROUND
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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
 RALEIGH, NORTH CAROLINA 27609
 (919) 878-6888 NCBES #F-0326

Burlington-Graham Signal System Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018
 PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

REVISIONS: INIT. DATE

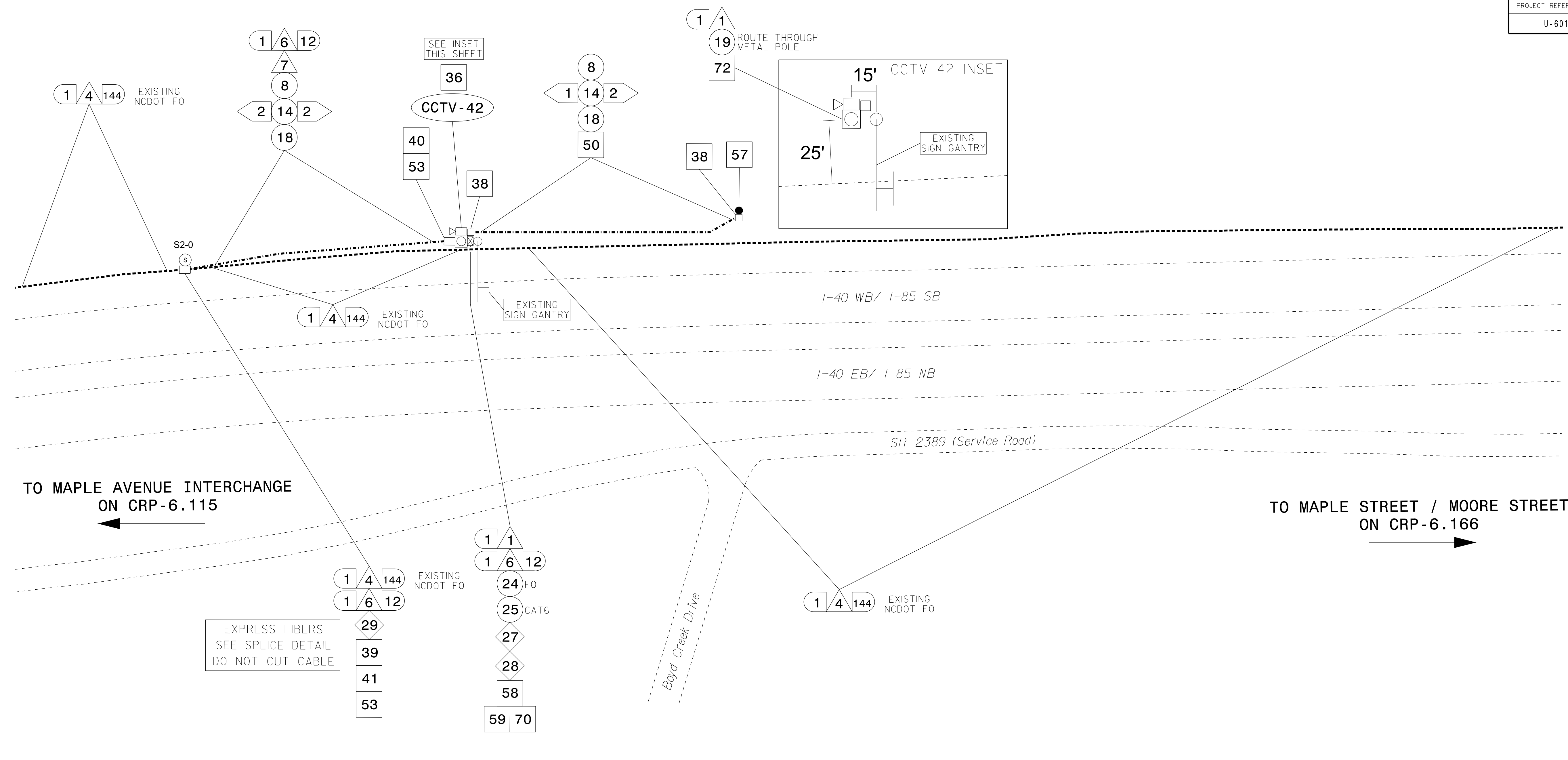
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SEAL
 NORTH CAROLINA PROFESSIONAL ENGINEER
 MELISSA B. TOTH
 025892

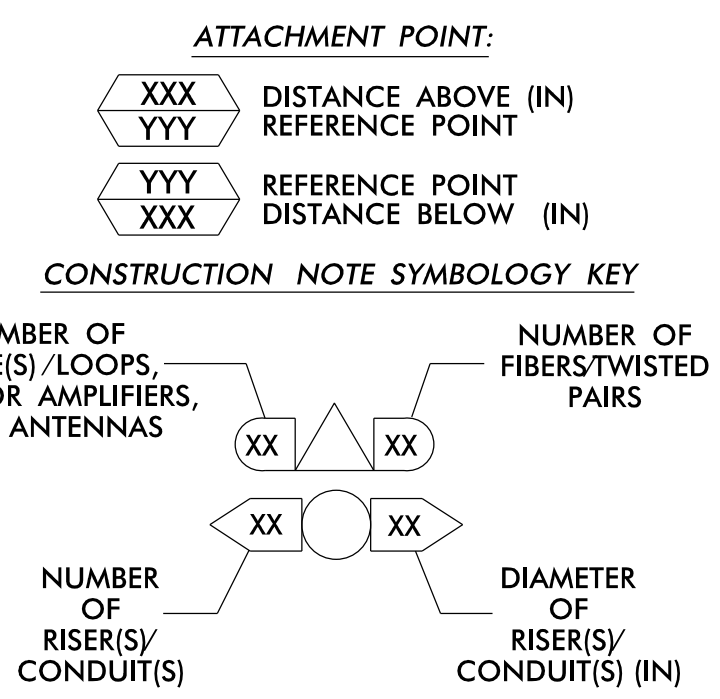
Documented by:
 Melissa B. Toth 1/13/2018

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 ENCA5396 AT LUS333048



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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 Cable Routing Plans

Division 7 Alamance County Burlington & Graham

PLAN DATE: June 2018 PREPARED BY: AME/AJH/VJP/NAP/JAW REVIEWED BY: M B Toth

750 Greenfield Parkway, Garner, NC 27529

SCALE: 0 50 1"=50'

DATE: 11/13/2018

FILENAME: CL-199.dgn

SEAL

MELISSA B. TOTH
 ENGINEER
 025892

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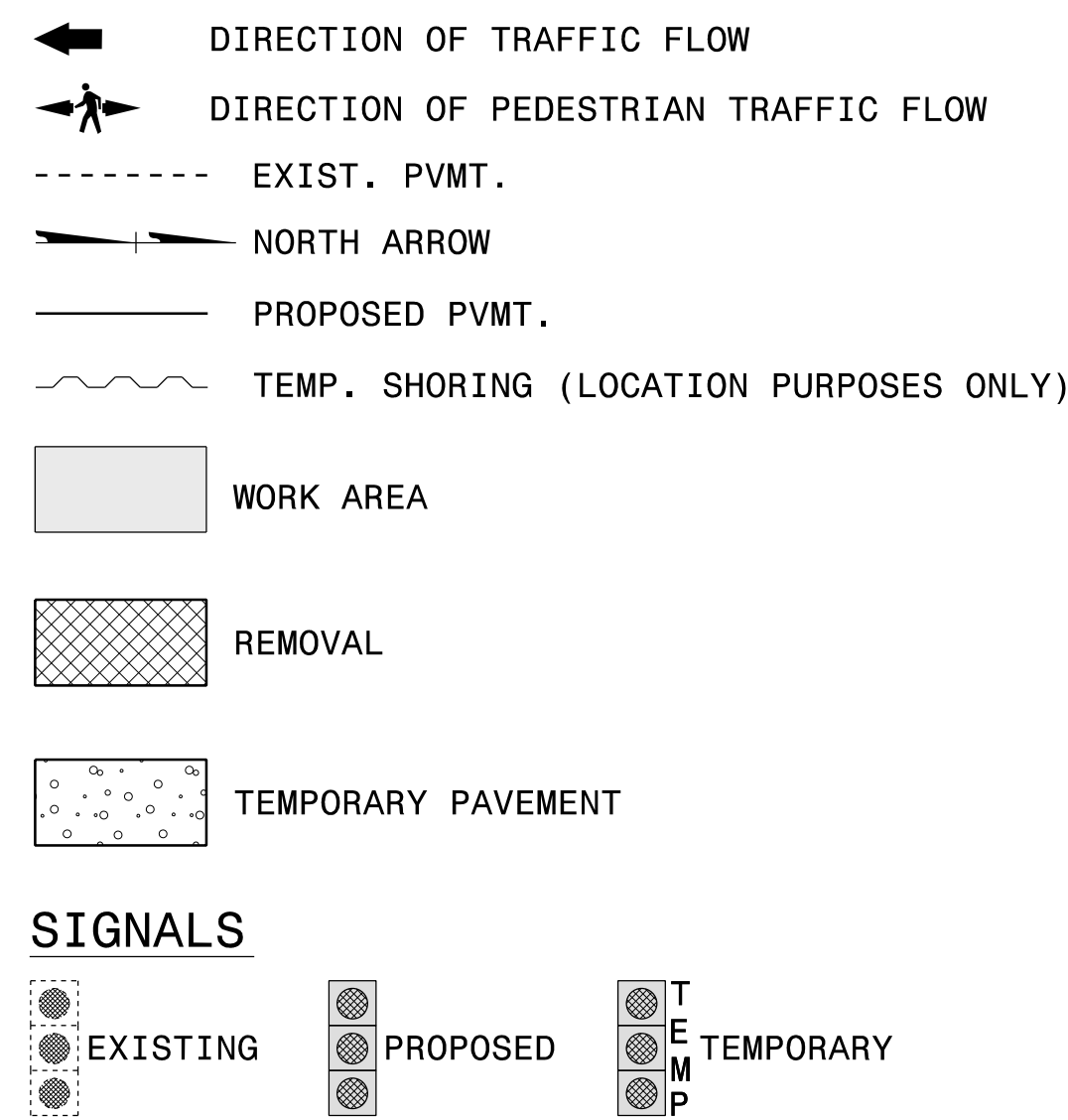
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ALAMANCE COUNTY

LEGEND

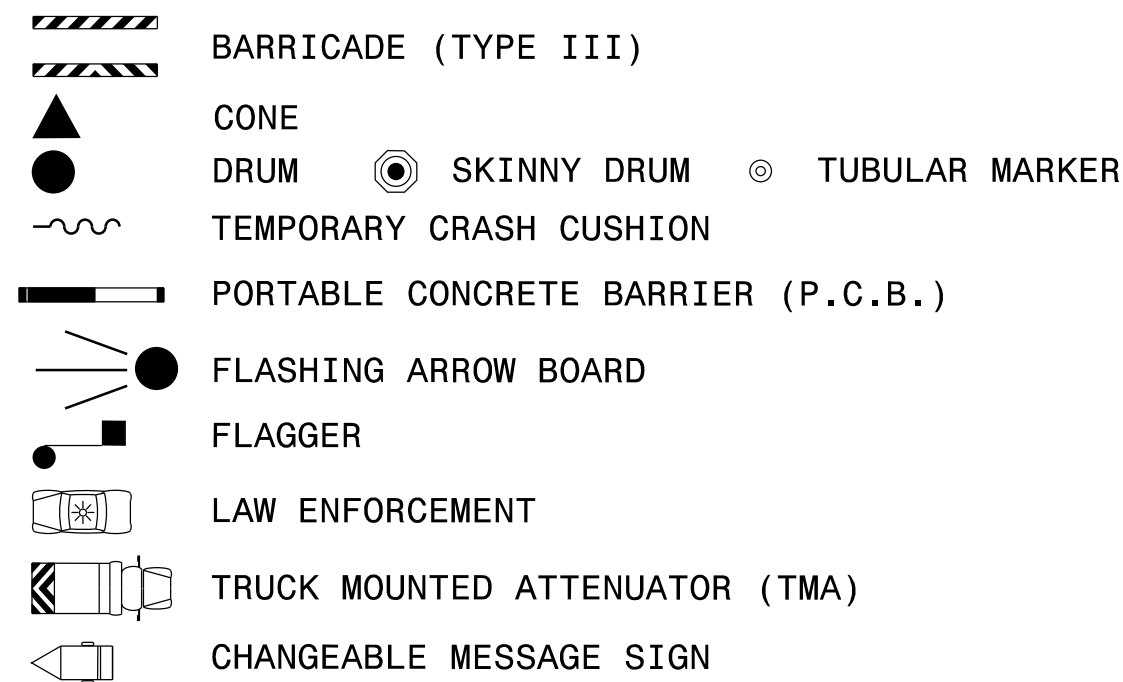
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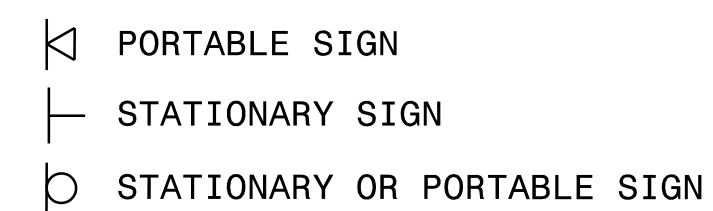
PAVEMENT MARKINGS



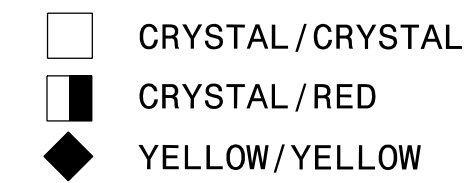
TRAFFIC CONTROL DEVICES



TEMPORARY SIGNING



PAVEMENT MARKERS



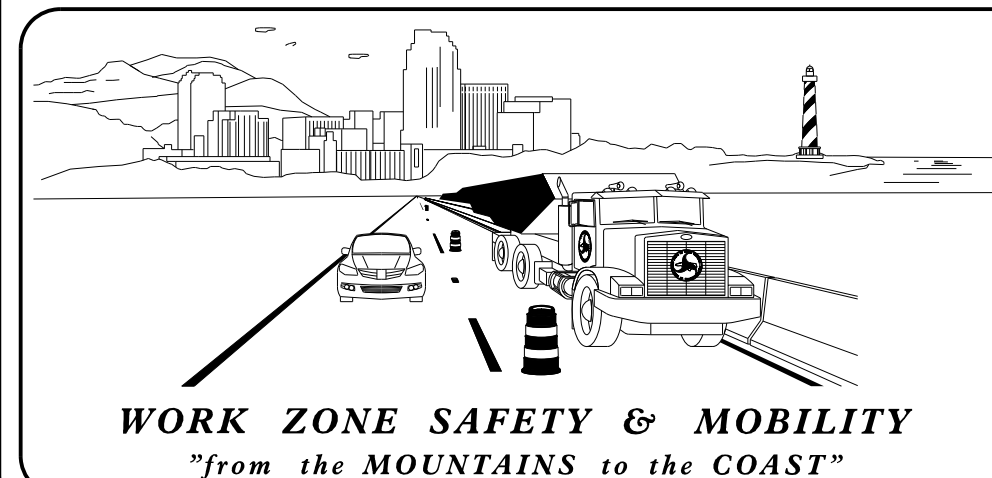
PAVEMENT MARKING SYMBOLS



ROADWAY STANDARD DRAWINGS

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

<u>STD. NO.</u>	<u>TITLE</u>
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	DRUM
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGERS
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY DRUMS



PLANS PREPARED BY:

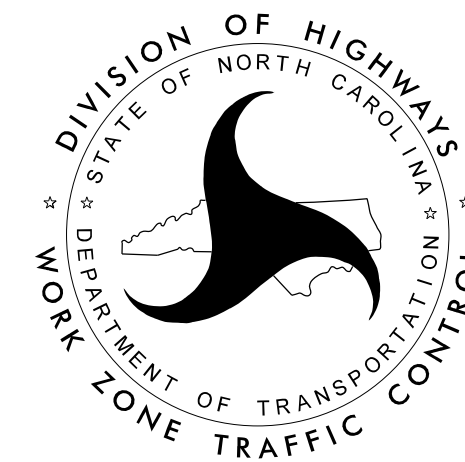
MELISSA B. TOTH, PE
PROJECT ENGINEER

PAMELA L. ALEXANDER, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACTS:

SHERRY YOW
PROJECT ENGINEER

WILLIAM B. HAIRSTON, III
PROJECT DESIGN ENGINEER



PLAN PREPARED FOR N.C.D.O.T. BY:

ATKINS

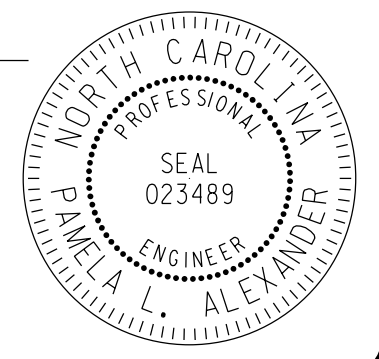
1616 EAST MILLBROOK ROAD, SUITE 160
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(919) 876-6888 NCBEES #F-0326

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

APPROVED: *Pamela Alexander*

DATE: 6/12/2018

SEAL



INDEX OF SHEETS

<u>SHEET NO.</u>	<u>TITLE</u>
TMP-7.01	TITLE SHEET, INDEX OF SHEETS, LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-7.02 - TMP-7.02A	TRAFFIC CONTROL NOTES
TMP-7.03	TRAFFIC CONTROL NARRATIVE
TMP-7.04	TYPICAL SIDEWALK CLOSURE AND PEDESTRIAN DETOUR

SHEET NO.
TMP-7.01

TIP PROJECT: U-6015

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TRAFFIC CONTROL NOTES

PROJ. REFERENCE NO. U-6015	SHEET NO. TMP-7.02
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CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
I-40 / I-85 AND ALL RAMPS AND LOOPS	6:00 AM TO 7:00 PM MONDAY THROUGH SUNDAY

ALL STREETS CITYWIDE WITHIN THE CITY OF BURLINGTON AND THE CITY OF GRAHAM, UNLESS PRIOR APPROVAL IS GIVEN TO VARY FROM THIS SCHEDULE AT LEAST ONE WEEK IN ADVANCE FROM THE NCDOT AND THE CITY OF BURLINGTON.

7:00 AM TO 9:00 AM
4:00 PM TO 6:30 PM
MONDAY THROUGH FRIDAY

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

ROAD NAME
I-40 / I-85 AND ALL RAMPS AND LOOPS

ALL STREETS CITYWIDE WITHIN THE CITY OF BURLINGTON AND THE CITY OF GRAHAM, UNLESS PRIOR APPROVAL IS GIVEN TO VARY FROM THIS SCHEDULE AT LEAST ONE WEEK IN ADVANCE FROM THE NCDOT AND THE CITY OF BURLINGTON.

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 AM DECEMBER 31st TO 7:00 PM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 PM THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 AM THURSDAY AND 7:00 PM MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY TO 7:00 PM TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 AM THE DAY BEFORE INDEPENDENCE DAY AND 7:00 PM THE DAY AFTER INDEPENDENCE DAY.
6. IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 AM THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 PM THE TUESDAY AFTER INDEPENDENCE DAY.
7. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 AM FRIDAY AND 7:00 PM TUESDAY.
8. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 AM TUESDAY TO 7:00 PM MONDAY.

SPECIAL EVENTS

9. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 AM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 PM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
10. FOR WEEKENDS DURING THE HOLIDAY SHOPPING PERIOD AT ALAMANCE CROSSING AND UNIVERSITY COMMONS BETWEEN THE WEEKEND OF THANKSGIVING AND THE WEEKEND OF CHRISTMAS, BETWEEN THE HOURS OF 9:00 AM AND 9:00 PM ON BOTH SATURDAY AND SUNDAY. (THIS NOTE ONLY APPLIES TO UNIVERSITY DRIVE, BOONE STATION DRIVE AND HUFFMAN MILL ROAD).
11. FOR BURLINGTON ROYALS HOME GAMES OCCURING AT BURLINGTON ATHLETIC STADIUM, BETWEEN FOUR (4) HOURS BEFORE THE START OF THE GAME AND FOUR (4) HOURS AFTER THE END OF EACH OF THE BURLINGTON ROYALS HOME GAMES. (THIS NOTE ONLY APPLIES TO THE PORTIONS OF GRAHAM STREET, BEAUMONT AVENUE AND WEST HANOVER ROAD THAT ARE ADJACENT TO OR APPROACHING THE STADIUM).
12. DO NOT CLOSE OR NARROW TRAVEL LANES OR CLOSE SIDEWALKS OR PEDESTRIAN CROSSINGS WITHIN 1/2 MILE OF A SCHOOL DURING ARRIVAL AND DISMISSAL HOURS ON A SCHOOL DAY. COORDINATE WITH THE AFFECTED SCHOOL CONCERNING OPERATIONAL HOURS AND SCHOOL DAYS. AS A MINIMUM, DO NOT CLOSE OR NARROW A LANE OR CLOSE A SIDEWALK OR PEDESTRIAN CROSSING DURING HOURS POSTED ON SCHOOL SPEED ZONE SIGNS (WHEN PRESENT).
13. DO NOT CLOSE OR NARROW TRAVEL LANES OR CLOSE SIDEWALKS OR PEDESTRIAN CROSSINGS ANYWHERE WITHIN THE DOWNTOWN CENTRAL BUSINESS DISTRICT OF BURLINGTON BETWEEN 1 (ONE) HOUR BEFORE AND 1 (ONE) AFTER ANY PLANNED SPECIAL EVENTS AS SHOWN ON THE CITY OF BURLINGTON PARKS AND RECREATION DEPARTMENT'S SPECIAL EVENT CALENDAR.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
ALL ROADS	MON. - SUN. 5:00 AM TO 11:00 PM	10 MINUTES INSTALLING CABLE ACROSS ROAD (USING RSD. 1101.03, SHEETS 8 & 9 OF 9)

D) NO WORK IS TO TAKE PLACE WITHIN 300 FEET OF A RESIDENTIAL AREA BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.

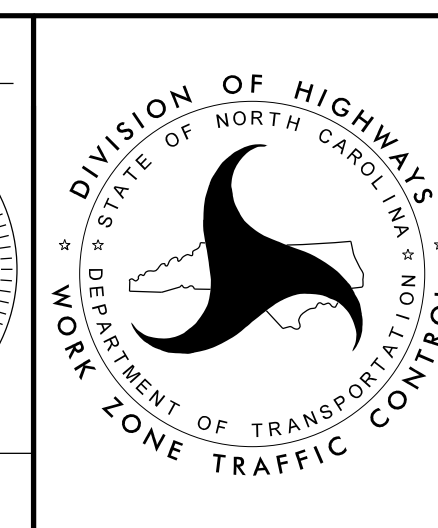
E) ACCESS TO THE TRAFFIC CONTROL CENTER (TCC) OR ANY GOVERNMENTAL BUILDING WITHIN THE CITY OF BURLINGTON OR THE CITY OF GRAHAM WILL BE ALLOWED ON A NORMAL BASIS DURING THE HOURS OF 8:00 AM TO 5:00 PM, MONDAY THROUGH FRIDAY (EXCEPT FOR AS NOTED UNDER "HOLIDAY"). A KEY AND DOOR CODE CAN BE PROVIDED TO THE CONTRACTOR TO ACCESS THE TCC OR ANY OF THE SIGNAL WORKSHOP AREAS IN THE CITY OF BURLINGTON PUBLIC WORKS BUILDING DURING HOURS OTHER THAN THESE. CITY STAFF WILL NOT BE AVAILABLE DURING THESE OFF TIMES IN THE TCC OR THE PUBLIC WORKS BUILDING.

07-AUG-2018 11:57 AM
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ALEXANDER, AT LUS340649

APPROVED *Pamela Alexander*
DATE: 8/7/2018

SEAL
023489
ENGINEER
PAMELA L. ALEXANDER

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(CONTINUED ON TMP-7.02A)

**TRANSPORTATION
OPERATIONS
PLAN**

TRAFFIC CONTROL NOTES

PROJ. REFERENCE NO.	SHEET NO.
U-6015	TMP-7.02A

(CONTINUED FROM TMP-7.02)

LANE AND SHOULDER CLOSURE REQUIREMENTS

- F) ON STREETS WHERE POSTED SPEED LIMIT IS 40 MPH OR LESS AND WORK IS ON THE SHOULDER, CLOSE THE SHOULDER USING RSD 1101.04 OR USE A SHOULDER CLOSURE WITH MINOR ENCROACHMENT INTO THE ADJACENT TRAFFIC LANE AS SHOWN IN MUTCD. FIGURE 6H-6, "SHOULDER WORK WITH MINOR ENCROACHMENT (TA-6)." WHEN USING TA-6, COMPLY WITH THE APPLICATION NOTES ON MUTCD PAGE 6H-16, AND MAINTAIN A MINIMUM OF 10-FT TRAVEL LANE. CLOSE AFFECTED SIDEWALKS AND PEDESTRIAN PATHS. WHERE A 10FT. OR GREATER TRAVEL LANE CANNOT BE MAINTAINED OR AS DIRECTED BY THE ENGINEER, CLOSE THE ADJACENT TRAFFIC LANE USING RSD 1101.02, SHEETS 1 THRU 4 OF 14.

- G) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.

- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

- I) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

- J) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

- K) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON ANY ROADWAY.

SIGNING

- L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

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

- N) THE WORD "SIGNAL" OR "UTILITY" MAY BE USED IN LIEU OF "ROAD" ON W20-1 (ROAD WORK AHEAD) SIGNS G20-2a (END ROAD WORK) SIGNS. HOWEVER, DO NOT INTERMIX SIGNS.

- O) USE PORTABLE SIGN SUPPORTS IN LIEU OF STATIONARY SIGN SUPPORTS FOR ALL WORKZONE SIGNS UNLESS THE ENGINEER DIRECTS OTHERWISE.

TRAFFIC CONTROL DEVICES

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

- Q) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES (DRUMS) PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PEDESTRIANS

- R) CONTRACTOR SHALL MAINTAIN PEDESTRIAN MOBILITY WITHIN CONSTRUCTION AREAS AT ALL TIMES. AT LOCATIONS WHERE A PORTION OF SIDEWALK MUST BE REMOVED TEMPORARILY FOR CONSTRUCTION OPERATIONS, CLOSE THE AFFECTED SECTION OF SIDEWALK AND DETOUR PEDESTRIANS TO THE OTHER SIDE OF THE STREET AS SHOWN ON TMP-7.04. WHERE A PEDESTRIAN DETOUR IS NOT FEASIBLE, PROVIDE A TEMPORARY FOOTPATH CONSTRUCTED OF SUITABLE MATERIALS FOR PEDESTRIANS TO WALK AROUND THE WORK AREA AS DIRECTED AND APPROVED BY THE ENGINEER. REPLACE THE REMOVED SIDEWALK WITH LIKE MATERIALS AND REOPEN TO PEDESTRIAN TRAFFIC WITHIN 5 CALENDAR DAYS OF INITIAL REMOVAL. REFER TO THE PROJECT SPECIAL PROVISIONS FOR ADDITIONAL, MORE SPECIFIC REQUIREMENTS.

- S) MAINTAIN REASONABLE AND SAFE PEDESTRIAN ACCESS TO ALL BUSINESSES, SCHOOLS AND DWELLINGS IN AREAS AFFECTED BY CONSTRUCTION AT ALL TIMES.

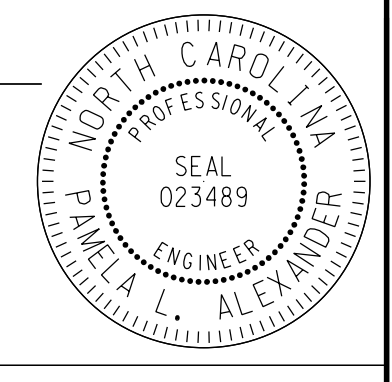

- T) REFER TO MUTCD SECTION 6D.01, "PEDESTRIAN CONSIDERATIONS" AND SECTION 6D.02, "ACCESSIBILITY CONSIDERATIONS" FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS FOR MAINTAINING PEDESTRIAN MOBILITY THROUGH WORK AREA.

- U) WHEN CONSTRUCTION ACTIVITIES WILL BLOCK PEDESTRIAN ACCESS TO PEDESTRIAN SIGNAL PUSHBUTTONS, NOTIFY THE ENGINEER AT LEAST 24 HOURS IN ADVANCE OF SUCH WORK TO HAVE THE TRAFFIC SIGNAL PLACED ON PEDESTRIAN RECALL.

MISCELLANEOUS

- V) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED AND APPROVED IN ADVANCE BY THE ENGINEER, AND SUBJECT TO THE AFOREMENTIONED TIME RESTRICTIONS.

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<p>APPROVED: <i>Pamela Alexander</i> <small>E79605AF4838AAA</small></p> <p>DATE: 6/12/2018</p>			<p>TRANSPORTATION OPERATIONS PLAN</p>
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TRAFFIC CONTROL NARRATIVE

STEP 1: PERFORM ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE PROPOSED SIGNALS AND TRAFFIC MANAGEMENT SYSTEM AS SHOWN IN THE CONTRACT, CONSTRUCTION PLANS AND/OR SPECIAL PROVISIONS IN ACCORDANCE WITH THE "NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES - JANUARY 2018".

NOTE: ADDRESS ANY SAFETY HAZARDS CONCERNING MOTORISTS AND PEDESTRIANS BEFORE REMOVING TEMPORARY TRAFFIC CONTROL DEVICES AND WORK ZONE WARNING SIGNS. RETURN TRAFFIC TO ITS EXISTING TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD.

NOTE: INSTALL CHANGEABLE MESSAGE SIGNS IN ADVANCE OF THE WORK ZONE AS DIRECTED BY THE ENGINEER.

NOTE: REMOVE ALL TEMPORARY TRAFFIC CONTROL LANE CLOSURE DEVICES AND RETURN TRAFFIC TO ITS EXISTING TRAFFIC PATTERN AT THE END OF EACH WORK PERIOD.

NOTE: WHEN CHANGING OUT CONTROLLER CABINETS, USE LAW ENFORCEMENT TO DIRECT TRAFFIC THROUGH THE INTERSECTION WHILE TRAFFIC SIGNAL IS NOT IN OPERATION. DO NOT TAKE TRAFFIC SIGNAL OUT OF OPERATION FOR MORE THAN 3 HOURS AT A GIVEN INTERSECTION. DO NOT TAKE ANY TRAFFIC SIGNAL OUT OF OPERATION TO PERFORM CONTROLLER CABINET CHANGEOUT BETWEEN THE HOURS OF 3:00 PM AND 9:00 AM THE FOLLOWING MORNING.

NOTE: CONSTRUCT NEW CONDUIT ENTRANCES INTO EXISTING CONTROLLER CABINET FOUNDATIONS WHILE MAINTAINING THE OPERATIONS OF THE EXISTING TRAFFIC SIGNAL WHEREVER POSSIBLE. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF OPERATION TO CONSTRUCT A CONDUIT ENTRANCE INTO AN EXISTING CONTROLLER CABINET FOUNDATION AND SUBJECT TO THE ENGINEER'S APPROVAL, USE LAW ENFORCEMENT TO DIRECT TRAFFIC THROUGH THE INTERSECTION WHILE THE TRAFFIC SIGNAL IS NOT IN OPERATION. DO NOT TAKE A TRAFFIC SIGNAL OUT OF OPERATION WITHOUT THE PRIOR APPROVAL OF THE ENGINEER AND DO NOT TAKE THE TRAFFIC SIGNAL OUT OF OPERATION FOR MORE THAN ONE HOUR AT A GIVEN INTERSECTION.

NOTE: WHEN CONSTRUCTING/REMOVING SIGNAL POLE STRUCTURES OR FOOTINGS ADJACENT TO SIDEWALKS, THE CONTRACTOR MAY WORK EACH LOCATION INDEPENDENTLY OR CONCURRENTLY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. WORK IN A CONTINUOUS MANNER TO PERFORM THE WORK IN THE FOLLOWING SEQUENCE, IN STEPS 'A' THRU 'E'.

A: USING SHEET TMP-7.04 AS A GUIDE, AND AS DIRECTED BY THE ENGINEER CLOSE THE APPROPRIATE SIDEWALK UTILIZING TYPE III BARRICADES WITH SIGNS ATTACHED.

B: CONSTRUCT PROPOSED OR REMOVE EXISTING STRUCTURE AS SHOWN IN THE CABLE ROUTING PLANS AND/OR SIGNAL PLANS. PROTECT PEDESTRIANS FROM OPEN EXCAVATIONS OR OTHER HAZARDS POSED BY INCOMPLETE CONSTRUCTION WORK, BY ONE OR A COMBINATION OF THE FOLLOWING METHODS AS APPROVED BY THE ENGINEER:

- 1) COVER AREA
- 2) COMPLETELY SURROUND AREA WITH AN ORANGE TREE PROTECTION FENCE

C: OPEN SIDEWALK TO EXISTING TRAFFIC PATTERN BY THE END OF EACH WORK PERIOD.

D: WHEN PROPERLY CURED, USING SHEET TMP-7.04 AS A GUIDE, AND AS DIRECTED BY THE ENGINEER CLOSE THE APPROPRIATE SIDEWALK UTILIZING TYPE III BARRICADES WITH SIGNS ATTACHED;

BACKFILL & PAVE, IF REQUIRED, UP TO THE EDGE AND ELEVATION OF EXISTING SIDEWALK (SEE CABLE LAYOUT PLANS AND/OR SIGNAL PLANS).

E: OPEN SIDEWALK TO EXISTING TRAFFIC PATTERN BY THE END OF THE WORK PERIOD.

NOTE: USE RSD 1101.03, SHEET 8 OF 9 (FLAGGERS), TO TEMPORARILY STOP TRAFFIC WHEN INSTALLING MESSENGER AND CABLE OR REMOVING EXISTING MESSENGER AND CABLE OVER A TWO-LANE, TWO-WAY ROAD. USE RSD 1101.03, SHEET 9 OF 9 (ROLLING ROADBLOCK), TO TEMPORARILY STOP TRAFFIC WHEN INSTALLING MESSENGER AND CABLE OR REMOVING EXISTING MESSENGER AND CABLE OVER A MULTI-LANE ROADWAY.

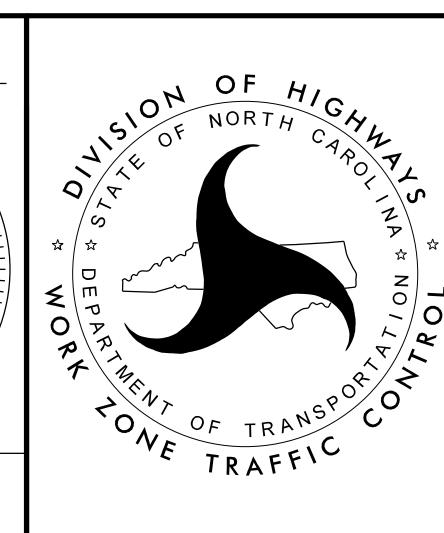
STEP 2: UPON COMPLETION OF THE PROJECT, REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

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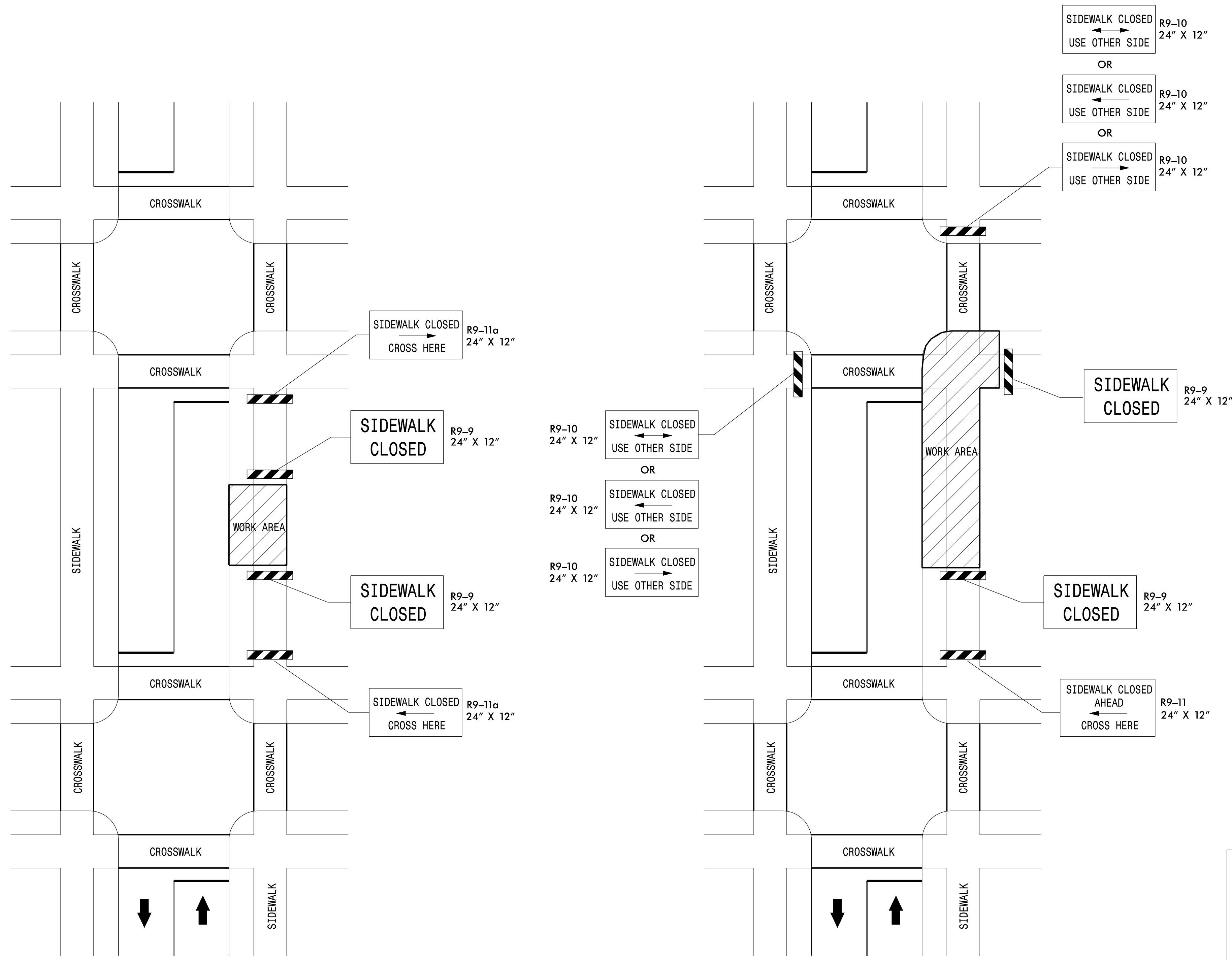


1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

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NARRATIVE



TYPICAL DRAWING FOR
SIDEWALK CLOSURES

NOTE

USE AND MODIFY AS DIRECTED
BY THE ENGINEER FOR WORK
REQUIRING THE CLOSURE OF
A SIDEWALK

LEGEND

- TYPE III BARRICADE

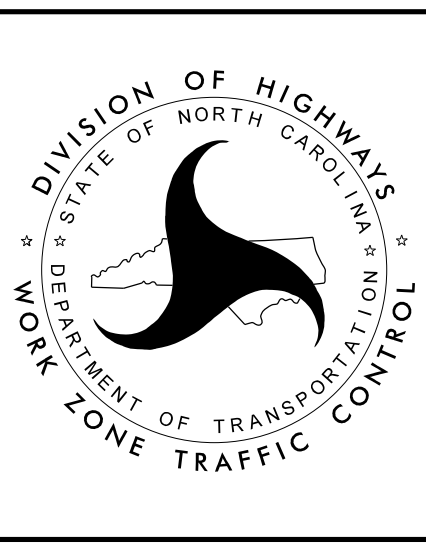
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ATKINS 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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DATE: 6/12/2018

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**TYPICAL SIDEWALK
CLOSURE AND
PEDESTRAIN
DETOUR**