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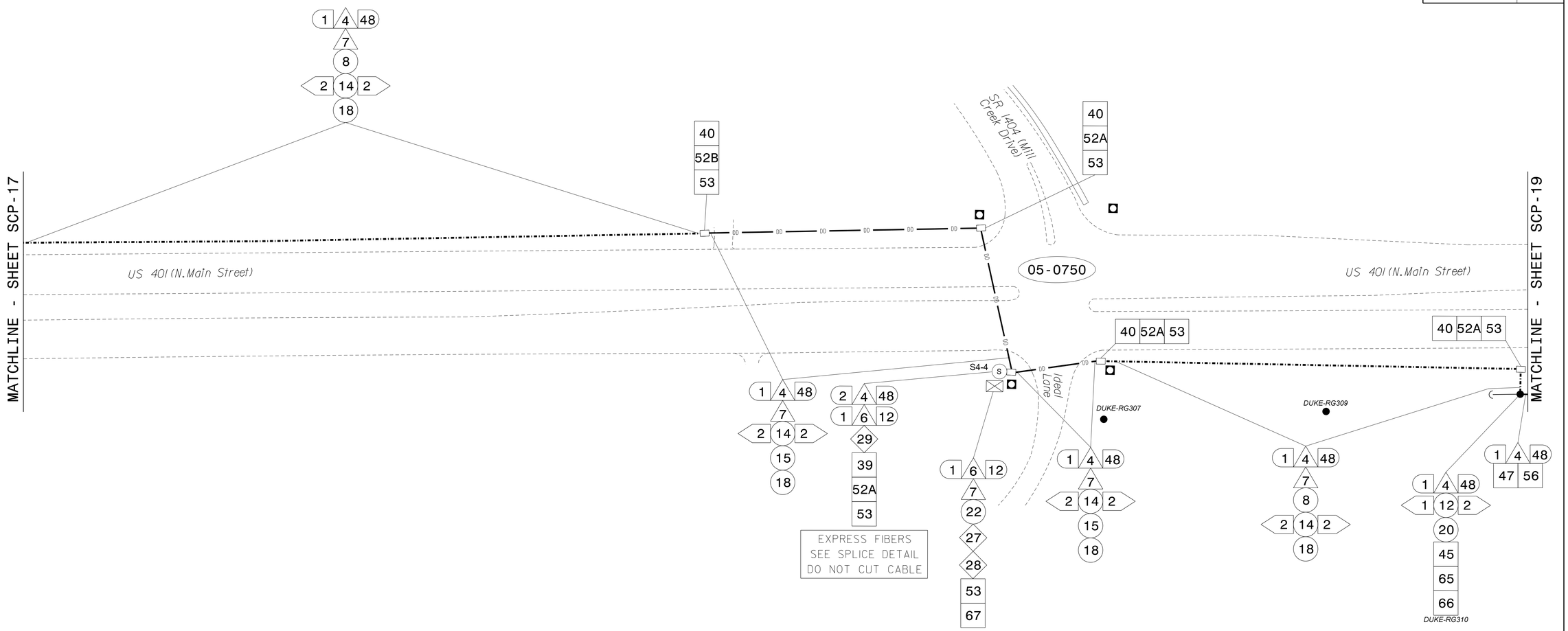
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-18



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CONSTRUCTION NOTE SYMBOLOGY KEY

NUMBER OF CABLE(S)/LOOPS, DETECTOR AMPLIFIERS, GUYS, ANTENNAS — NUMBER OF FIBERS/TWISTED PAIRS

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

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Prepared for the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section
750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — DBC5D7B23A6F... 4/14/2023 DATE

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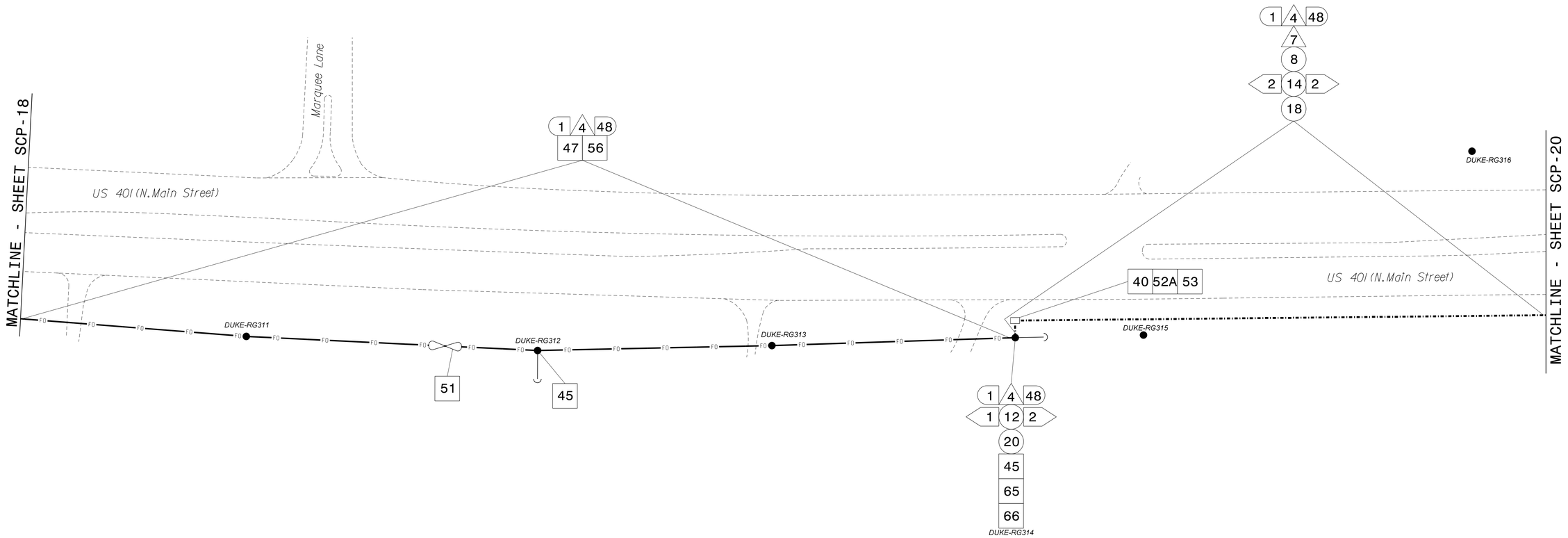

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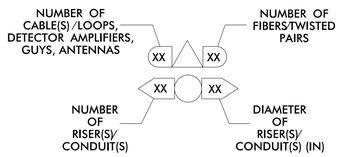

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Prepared for the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

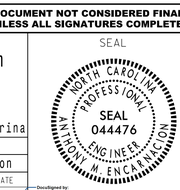
Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL



Designed by: Anthony Encarnacion — DOCUSIGNED — 4/14/2023 — DATE

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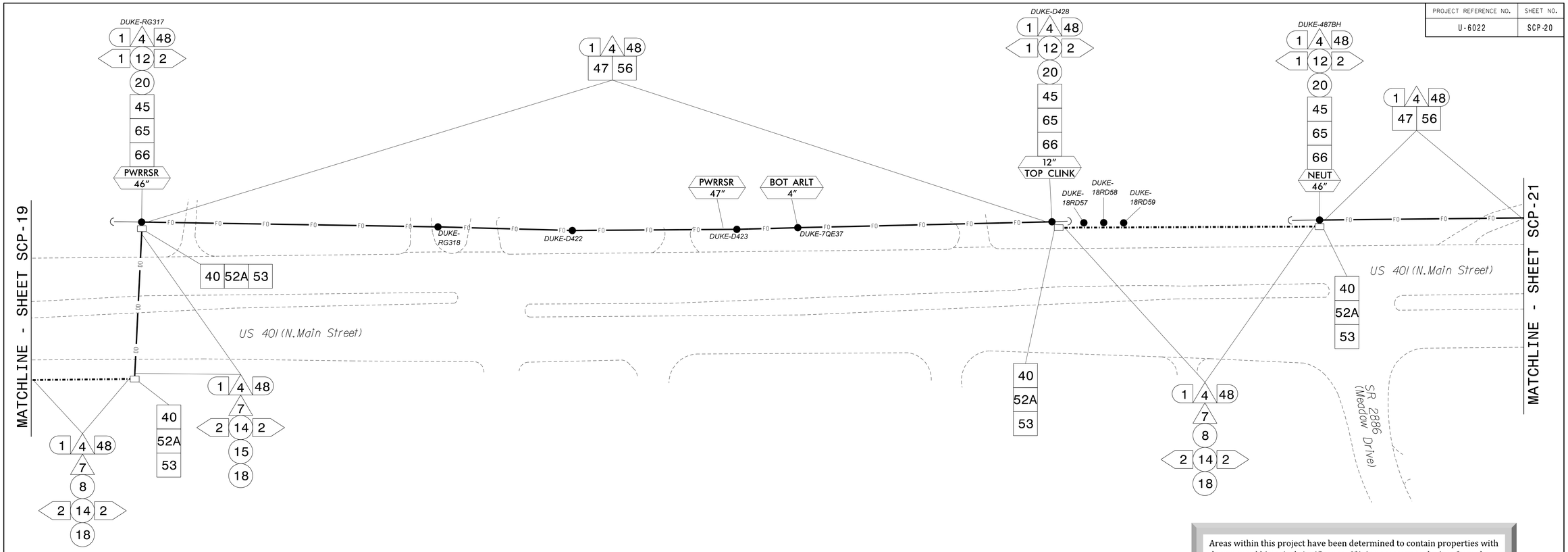

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Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

Docusigned by: Anthony Encarnacion — DBEC5097B2364CF... 4/14/2023 DATE

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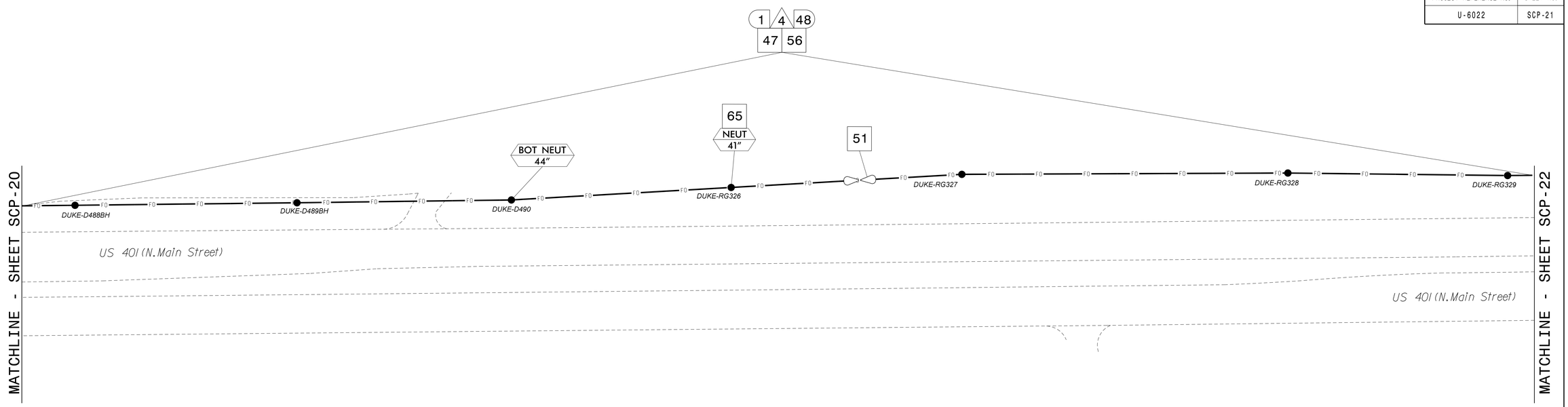

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XXX / YYY — DISTANCE ABOVE (IN) / REFERENCE POINT

YYY / XXX — REFERENCE POINT / DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOGY KEY

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

NUMBER OF FIBERS/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

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Prepared for the Offices of:

Transportation Mobility and Safety Division — STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION — Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE: 0 50 — 1"=50'

REVISIONS | INIT. | DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

Docusigned by: Anthony Encarnacion — DBEC5097823846F... — 4/14/2023 — DATE

CADD Filename: CL-16.dgn

16-MAR-2023 16:26
pw://CSUDO36343.wsatkins.com:ATKNNC01/Documents/Roads and Bridges/Projects/100063268 Fuquay Varina/Task 11_CL/CL-16.dgn
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PROJECT REFERENCE NO.	SHEET NO.
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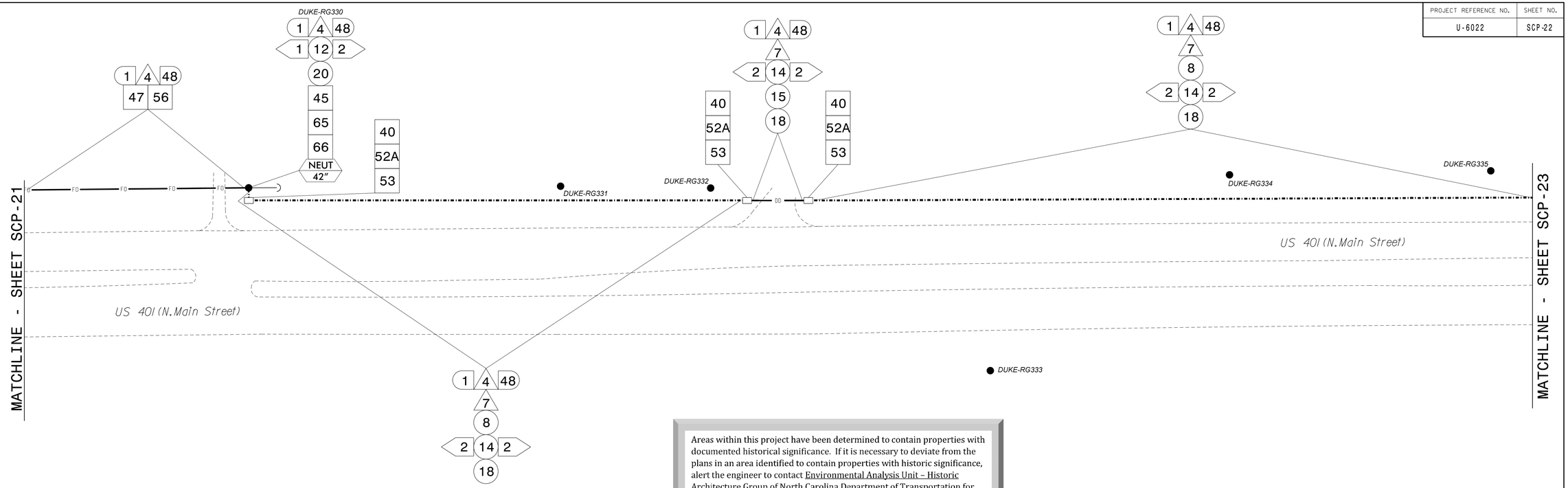

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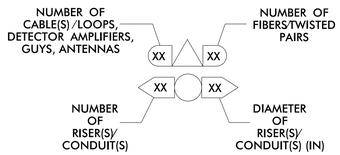

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750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — DBEC5397E2844DF... 4/14/2023
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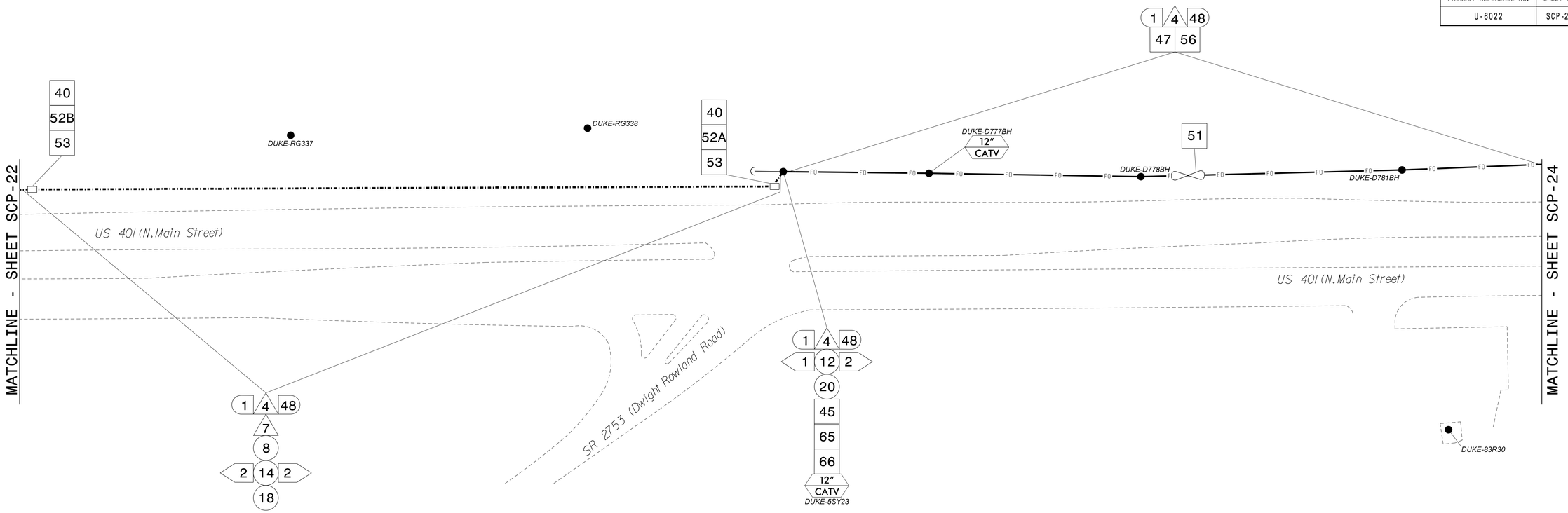

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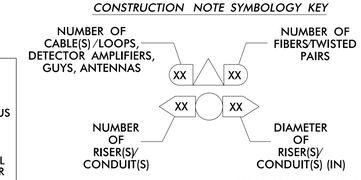

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750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

Digitally signed by Anthony Encarnacion — 4/14/2023

CADD Filename: CL-18.dgn

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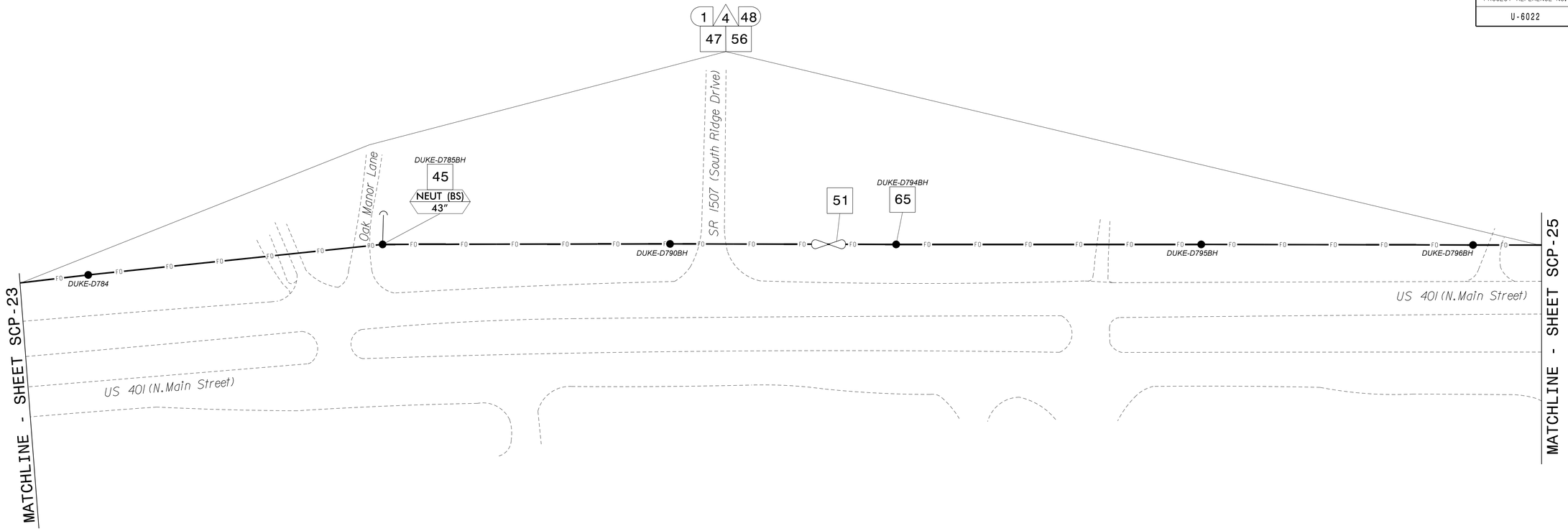

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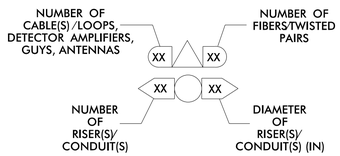

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Division 5 | Wake County | Fuquay-Varina

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SCALE: 0 — 50, 1"=50'

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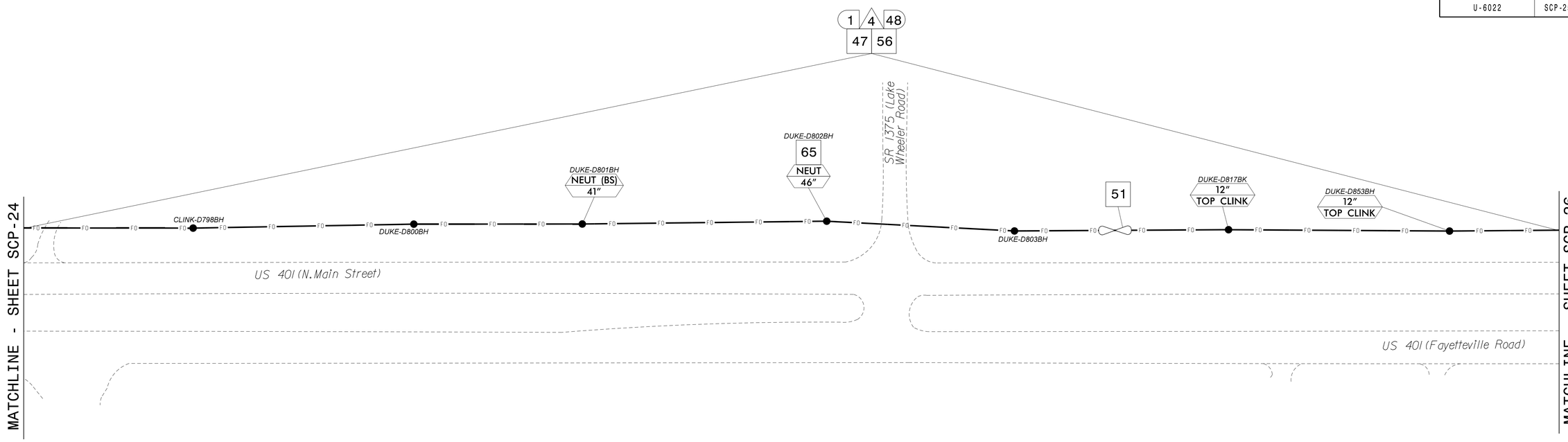

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15 DIRECTIONAL DRILL CONDUIT
16 BORE AND JACK CONDUIT
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22 INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)
23 INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE 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
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30 INSTALL AERIAL SPLICE ENCLOSURE
31 INSTALL TYPE 332 HUB CABINET
32 MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
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34 INSTALL CABINET FOUNDATION
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37 INSTALL CCTV CAMERA WOOD POLE
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46 INSTALL SIDEWALK GUY ASSEMBLY
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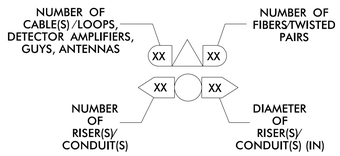

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Prepared for the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

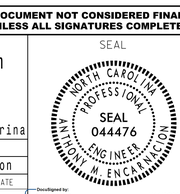
Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL



Anthony Encarnacion — 4/14/2023
DOCUSIGNED BY: DATE

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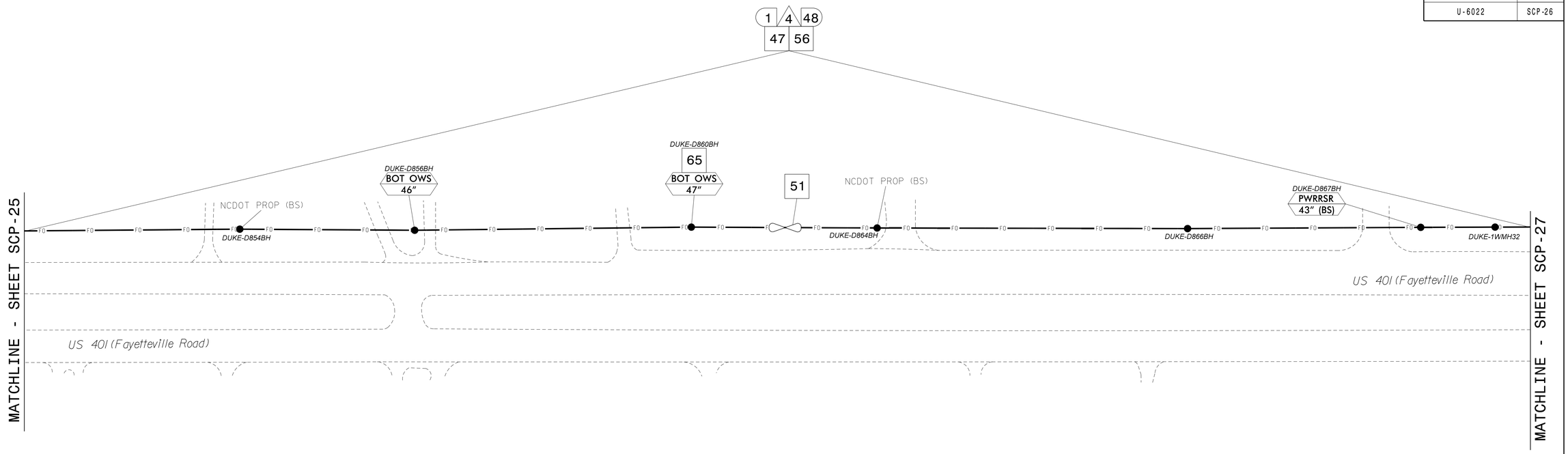
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-26



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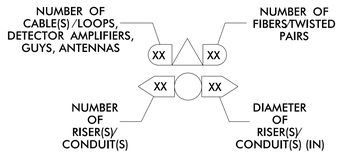

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

Developed by: Anthony Encarnacion — 4/14/2023
CONSULTANT ENGINEER — DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

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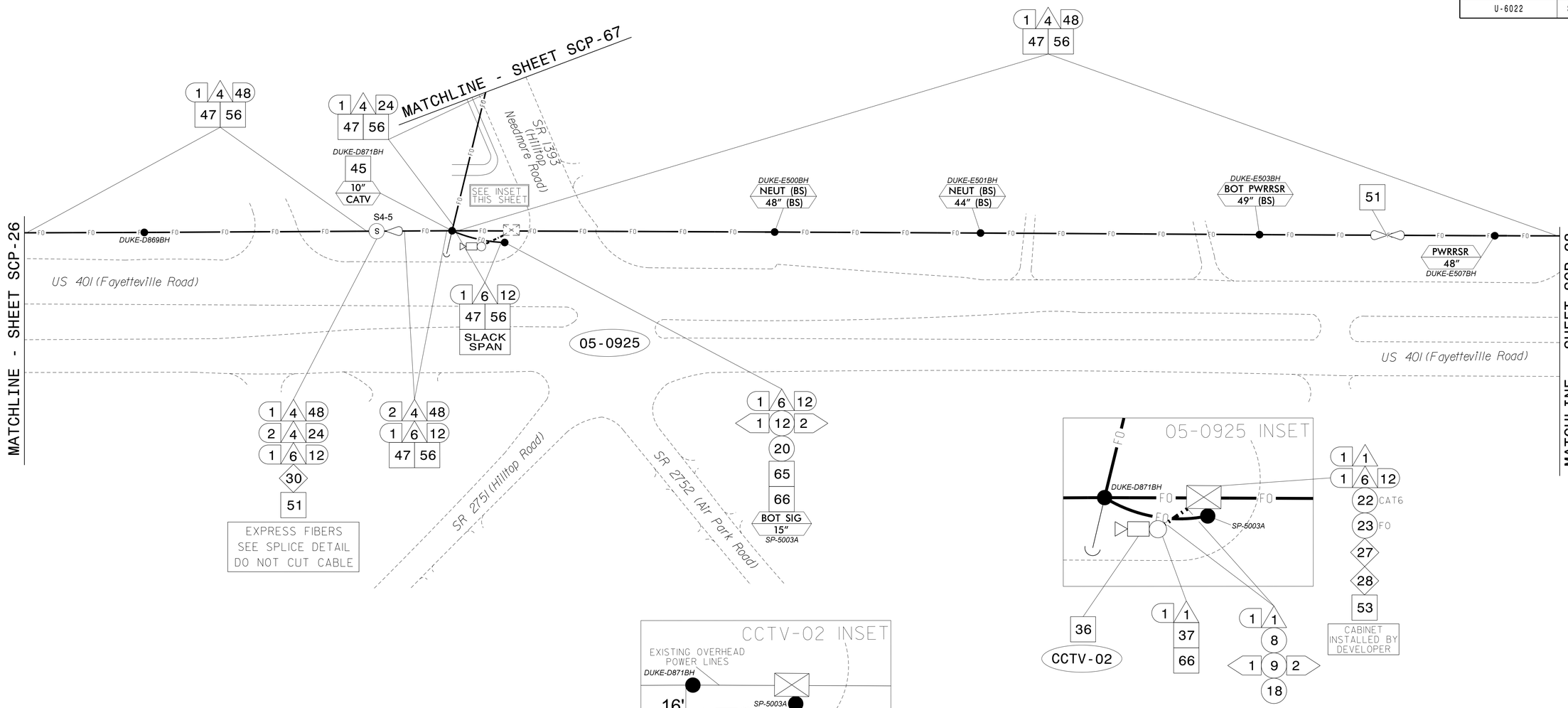
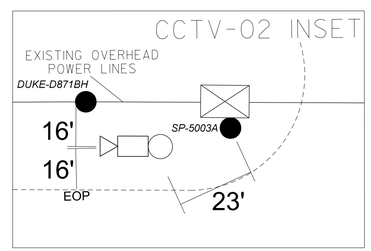
U-6022	SCP-27





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XX △ XX

XX ○ XX

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Intelligent Transportation Systems Section
750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth
PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

REVISIONS	INIT.	DATE

SCALE 0 50 — 1"=50'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023 DATE

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PROJECT REFERENCE NO.	SHEET NO.
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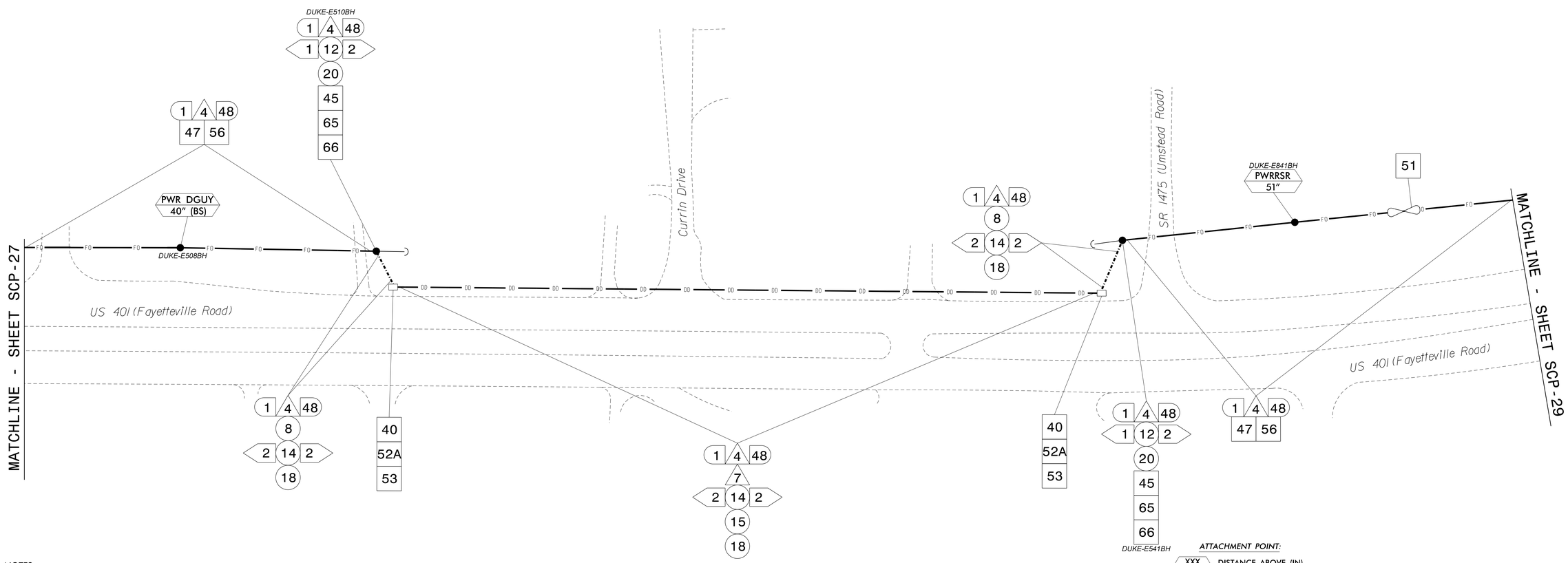

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DIAMETER OF RISER(S)/ CONDUIT(S) (IN) — XX

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

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Prepared for the Offices of:

Transportation Mobility and Safety Division — State of North Carolina — Department of Transportation — Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE: 0 — 50, 1" = 50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023

DATE

CADD Filename: CL-23.dgn

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STIFF4685 AT LUS491089

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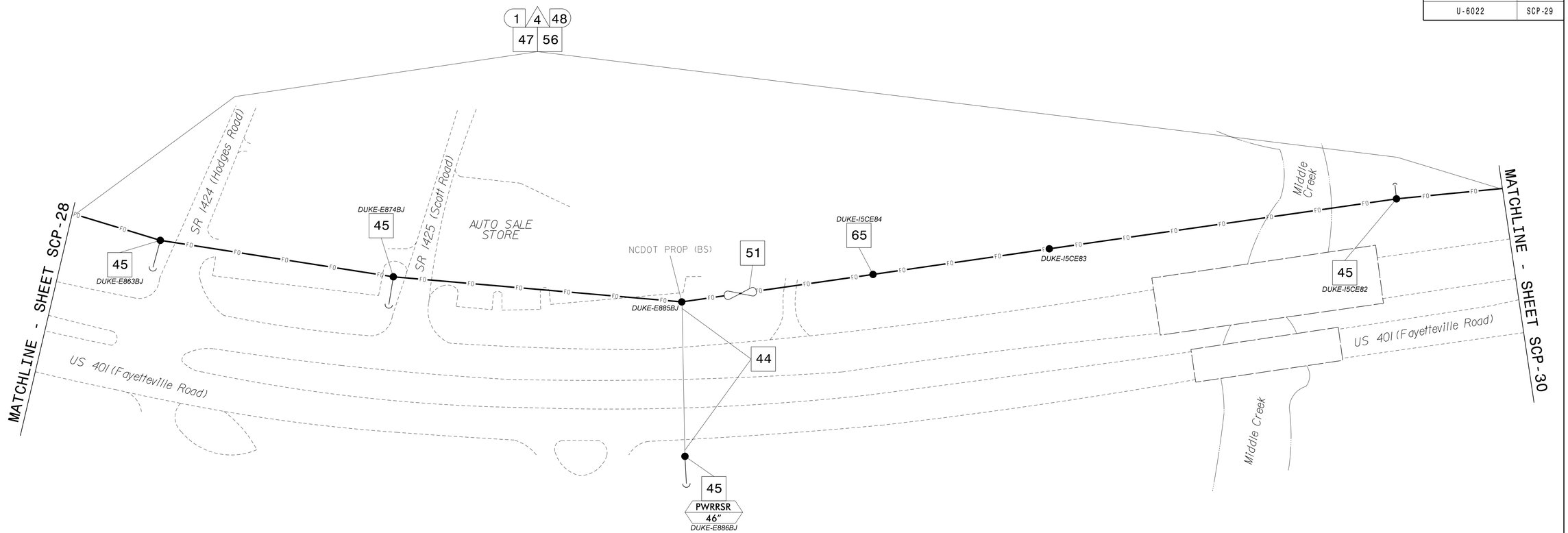
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-29



NOTES:
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   - 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.

1. INSTALL CATEGORY 6 CABLE
2. INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS
3. INSTALL 3-WIRE COPPER FEEDER CONDUCTORS
4. INSTALL SMFO CABLE
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6. INSTALL FIBER-OPTIC DROP CABLE
7. INSTALL TRACER WIRE
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11. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
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13. INSTALL HEAT SHRINK TUBING RETROFIT KIT
14. INSTALL HIGH DENSITY POLYETHYLENE CONDUIT
15. DIRECTIONAL DRILL CONDUIT
16. BORE AND JACK CONDUIT
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19. INSTALL CABLE(S) IN EXISTING RISER(S)
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22. INSTALL NEW CONDUIT INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)
23. INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)
24. INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET
25. INSTALL NEW RISER INTO POLE MOUNTED CABINET
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29. INSTALL UNDERGROUND SPLICE ENCLOSURE
30. INSTALL AERIAL SPLICE ENCLOSURE
31. INSTALL TYPE 332 HUB 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 CAMERA WOOD POLE
38. INSTALL STANDARD SIZE JUNCTION BOX
39. INSTALL SPECIAL-SIZED JUNCTION BOX (36" x 24" x 24")
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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
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50. INSTALL SERVICE CONDUCTORS
51. INSTALL CABLE STORAGE GUIDE(S) [SNOW SHOE(S)] AND STORE 100 FEET OF EACH CABLE
52A. INSTALL DELINEATOR MARKER
52B. INSTALL JUNCTION BOX MARKER
53. STORE 30' 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
58. INSTALL NEW ELECTRICAL SERVICE
59. INSTALL NEW POLE MOUNTED CCTV CABINET (336)
60. INSTALL NEW CCTV CABINET (NEMA TYPE 4)
61. REMOVE EXISTING CCTV CAMERA ASSEMBLY
62. NEW CABINET ENTRANCE INTO NEW FOUNDATION
63. DRILL/CORE DRILL EXISTING FOUNDATION
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ATTACHMENT POINT:

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CONSTRUCTION NOTE SYMBOLOGY KEY

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

NUMBER OF FIBERS/TWISTED PAIRS — XX

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

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DEPARTMENT OF TRANSPORTATION
Intermodal Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 — Wake County — Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

REVISIONS	INIT.	DATE

SCALE 0 — 50 1"=50'

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023

DATE

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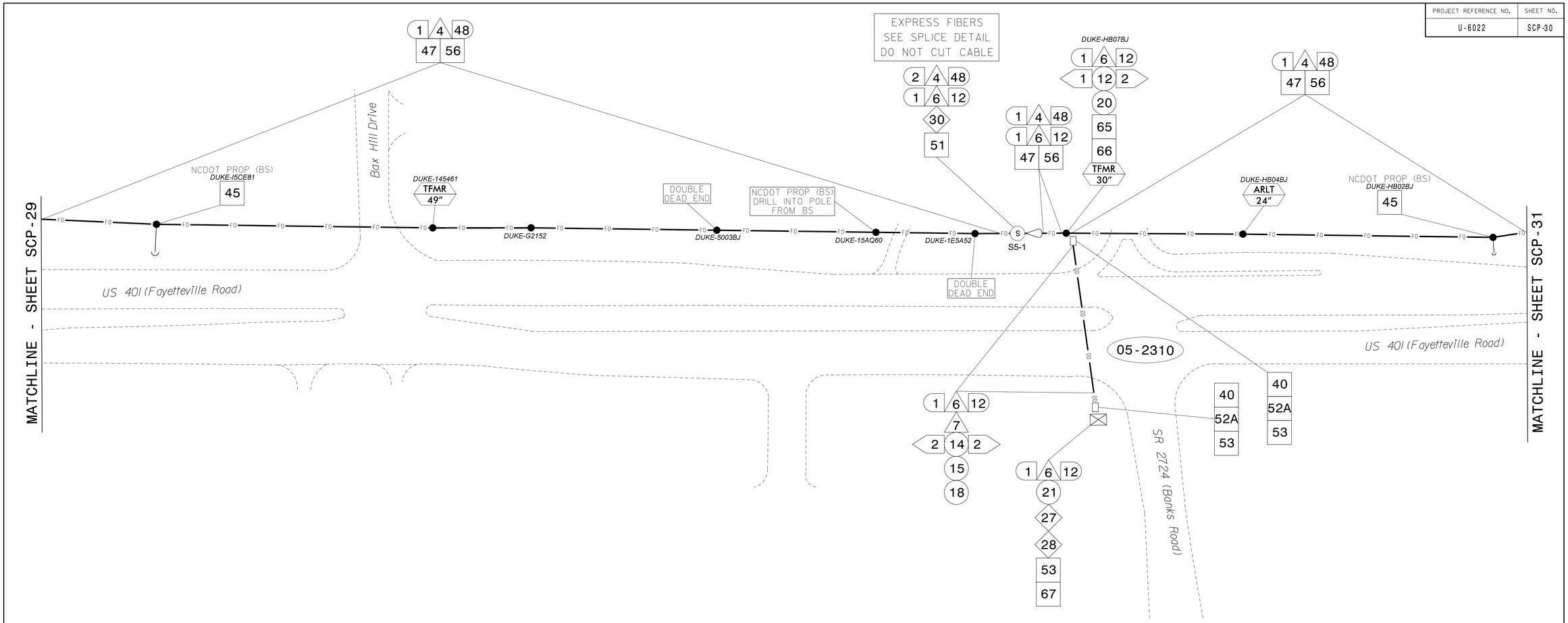
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-30



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2	INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS	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	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE
3	INSTALL 3-WIRE COPPER FEEDER CONDUCTORS	13	INSTALL HEAT SHRINK TUBING RETROFIT KIT	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34	INSTALL CABINET FOUNDATION	45	INSTALL STANDARD GUY ASSEMBLY	56	LASH CABLE(S) TO NEW MESSENGER CABLE
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	57	MODIFY EXISTING ELECTRICAL SERVICE
5	INSTALL COAXIAL ANTENNA CABLE	15	DIRECTIONAL DRILL CONDUIT	26	INSTALL DIGITAL VIDEO ENCODER	36	INSTALL CCTV CAMERA ASSEMBLY	47	INSTALL MESSENGER CABLE	58	INSTALL NEW ELECTRICAL SERVICE
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8	INSTALL CONDUIT UNDERGROUND	18	INSTALL CABLE(S) IN NEW CONDUIT	29	INSTALL UNDERGROUND SPLICE ENCLOSURE	39	INSTALL SPECIAL-SIZED JUNCTION BOX (36" x 24" x 24")	50	INSTALL SERVICE CONDUCTORS	61	REMOVE EXISTING CCTV CAMERA ASSEMBLY
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
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750 Greenfield Parkway, Garner, NC 27529

SCALE 0 50 — 1"=50'

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023 DATE

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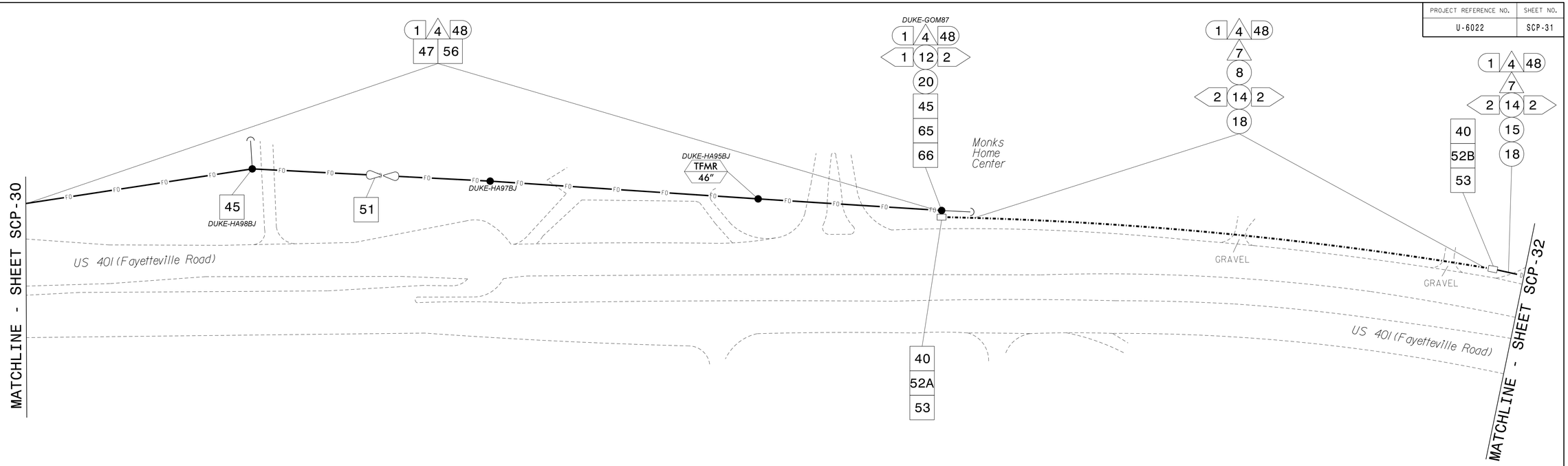
U-6022	SCP-31



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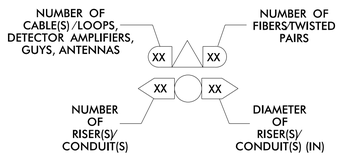

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Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE: 0 — 50, 1"=50'

REVISIONS	INIT.	DATE

SEAL

Digitally signed by Anthony Encarnacion
CN=ANCONTRACTOR
4/14/2023
DATE

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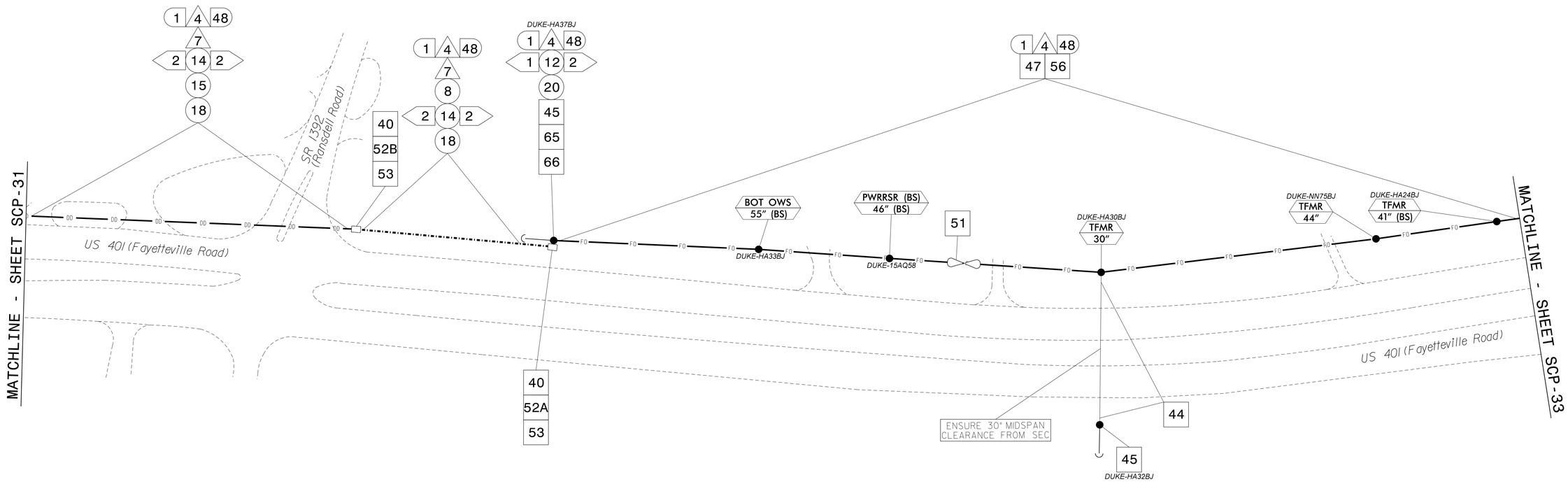
U-6022	SCP-32



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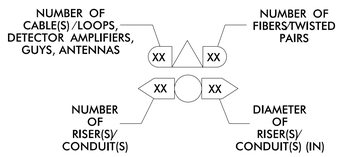
9	INSTALL PVC CONDUIT	19	INSTALL CABLE(S) IN EXISTING RISER(S)	30	INSTALL AERIAL SPLICE ENCLOSURE	40	INSTALL OVER-SIZED JUNCTION BOX	51	INSTALL CABLE STORAGE GUIDE(S) [SNOW SHOE(S)] AND STORE 100 FEET OF EACH CABLE	62	NEW CABINET ENTRANCE INTO NEW FOUNDATION	74	REMOVE WIRELESS COMMUNICATIONS EQUIPMENT		
10	INSTALL RIGID, GALVANIZED STEEL CONDUIT	20	INSTALL CABLE(S) IN NEW RISER(S)	31	INSTALL TYPE 332 HUB CABINET	41	REMOVE EXISTING JUNCTION BOX	52A	INSTALL DELINEATOR MARKER	63	DRILL/CORE DRILL EXISTING FOUNDATION	75	BACKPULL AND COIL NCDOT ITS CABLE		
		21	INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE			42	INSTALL WOOD POLE	52B	INSTALL JUNCTION BOX MARKER	64	INTERCEPT AND REROUTE EXISTING CONDUITS	76	INSTALL HUB SWITCH		
								53	STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE)	65	BOND MESSENGER TO POLE GROUND	77	INSTALL CELLULAR MODEM		

ATTACHMENT POINT:

XXX / YYY — DISTANCE ABOVE (IN) / REFERENCE POINT

YYY / XXX — REFERENCE POINT / DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOGY 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:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

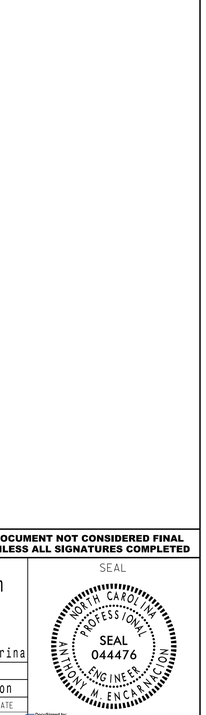
SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

Digitally signed by Anthony Encarnacion — CN=DOCUSIGN, O=DOCUSIGN, INC., C=US — 4/14/2023

SIGNATURE DATE

SEAL



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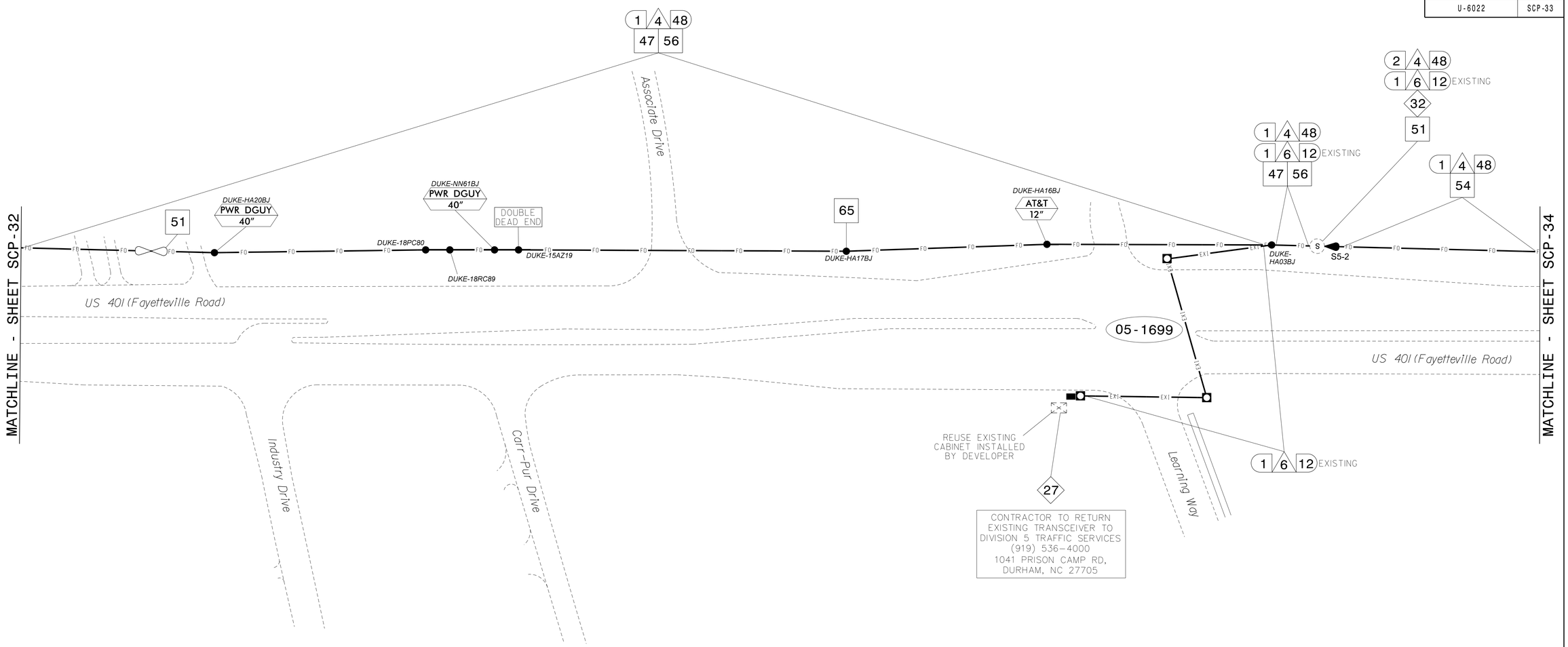
DocuSign Envelope ID: 141787D7-8A9D-47C3-9CC7-9D4F1DBE1BD5

PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-33



NOTES:
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   - 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.

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2. INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS
3. INSTALL 3-WIRE COPPER FEEDER CONDUCTORS
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5. INSTALL COAXIAL ANTENNA CABLE
6. INSTALL FIBER-OPTIC DROP CABLE
7. INSTALL TRACER WIRE
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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
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16. BORE AND JACK CONDUIT
17. INSTALL CABLE(S) IN EXISTING CONDUIT
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25. INSTALL NEW RISER INTO POLE MOUNTED CABINET
26. INSTALL DIGITAL VIDEO ENCODER
27. INSTALL NEW ETHERNET EDGE SWITCH IN CABINET
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29. INSTALL UNDERGROUND SPLICE ENCLOSURE
30. INSTALL AERIAL SPLICE ENCLOSURE
31. INSTALL TYPE 332 HUB 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 CAMERA WOOD POLE
38. INSTALL STANDARD SIZE JUNCTION BOX
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47. INSTALL MESSENGER CABLE
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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
52A. INSTALL DELINEATOR MARKER
52B. INSTALL JUNCTION BOX MARKER
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54. LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE
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59. INSTALL NEW POLE MOUNTED CCTV CABINET (336)
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63. DRILL/CORE DRILL EXISTING FOUNDATION
64. INTERCEPT AND REROUTE EXISTING CONDUITS
65. BOND MESSENGER TO POLE GROUND
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68. NOT USED
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70. INSTALL EQUIPMENT CABINET DISCONNECT
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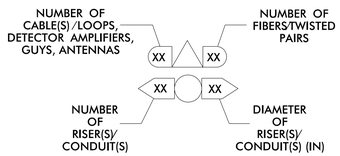
CONSTRUCTION NOTE SYMBOLOGY KEY



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(919) 876-6888 NCBEES #F-0326

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Prepared for the Offices of:

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL: NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — DBEC0375E2364BF... — 4/14/2023 DATE

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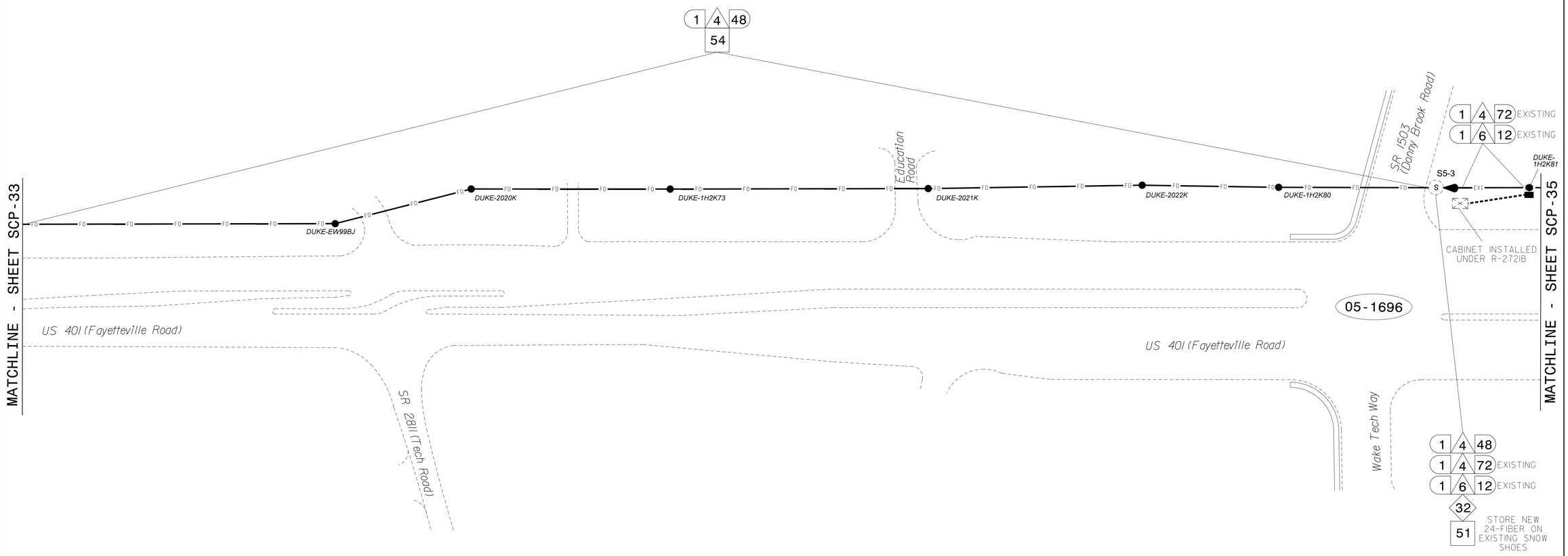
U-6022	SCP-34



R-2721B CURRENTLY UNDER CONSTRUCTION. THIS PLAN SHOWS INFORMATION FROM R-2721B PLANS.

NOTES:
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29. INSTALL UNDERGROUND SPLICE ENCLOSURE
30. INSTALL AERIAL SPLICE ENCLOSURE
31. INSTALL TYPE 332 HUB CABINET
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59. INSTALL NEW POLE MOUNTED CCTV CABINET (336)
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ATTACHMENT POINT:

XXX / YYY — DISTANCE ABOVE (IN) / REFERENCE POINT

YYY / XXX — REFERENCE POINT / DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOGY KEY

NUMBER OF CABLE(S)/LOOPS, DETECTOR AMPLIFIERS, GUYS, ANTENNAS — NUMBER OF FIBERS/TWISTED PAIRS

XX △ XX

XX ○ XX

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) 876-6888 NCBEES #F-0326

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Prepared for the Offices of:

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION — Connecting People, Places, Products and Services — Transportation Mobility and Safety Division

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

REVISIONS | INIT. | DATE

SCALE 0 50 — 1"=50'

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023 DATE

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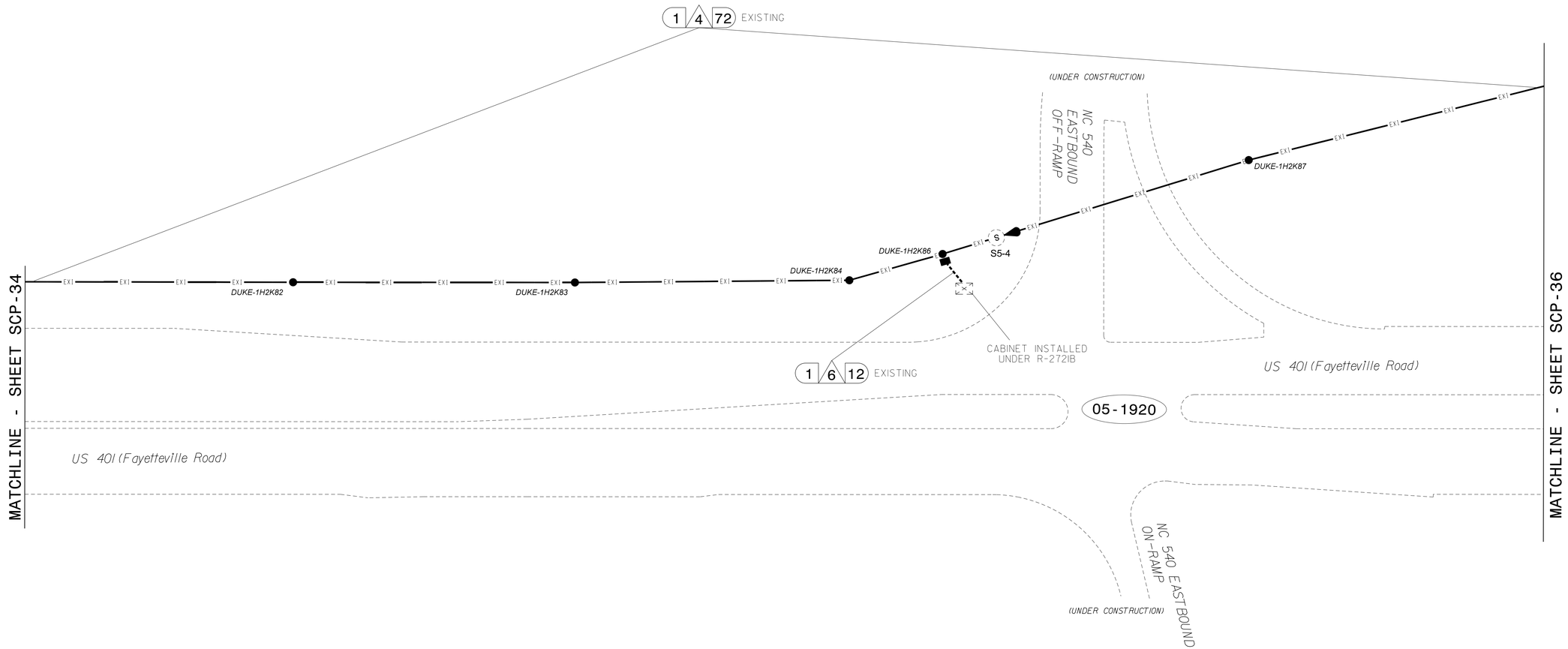
U-6022	SCP-35



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R-2721B CURRENTLY UNDER CONSTRUCTION. THIS PLAN SHOWS INFORMATION FROM R-2721B PLANS.

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CONSTRUCTION NOTE SYMBOLOGY KEY

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

NUMBER OF FIBERS/TWISTED PAIRS — XX

NUMBER OF RISER(S)/CONDUIT(S) — XX

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

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29. INSTALL UNDERGROUND SPLICE ENCLOSURE
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31. INSTALL TYPE 332 HUB CABINET
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Prepared for the Offices of:

Transportation Mobility and Safety Division — State of North Carolina — Department of Transportation — Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 — 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — DBEC5597E5394AF... — 4/14/2023 — DATE

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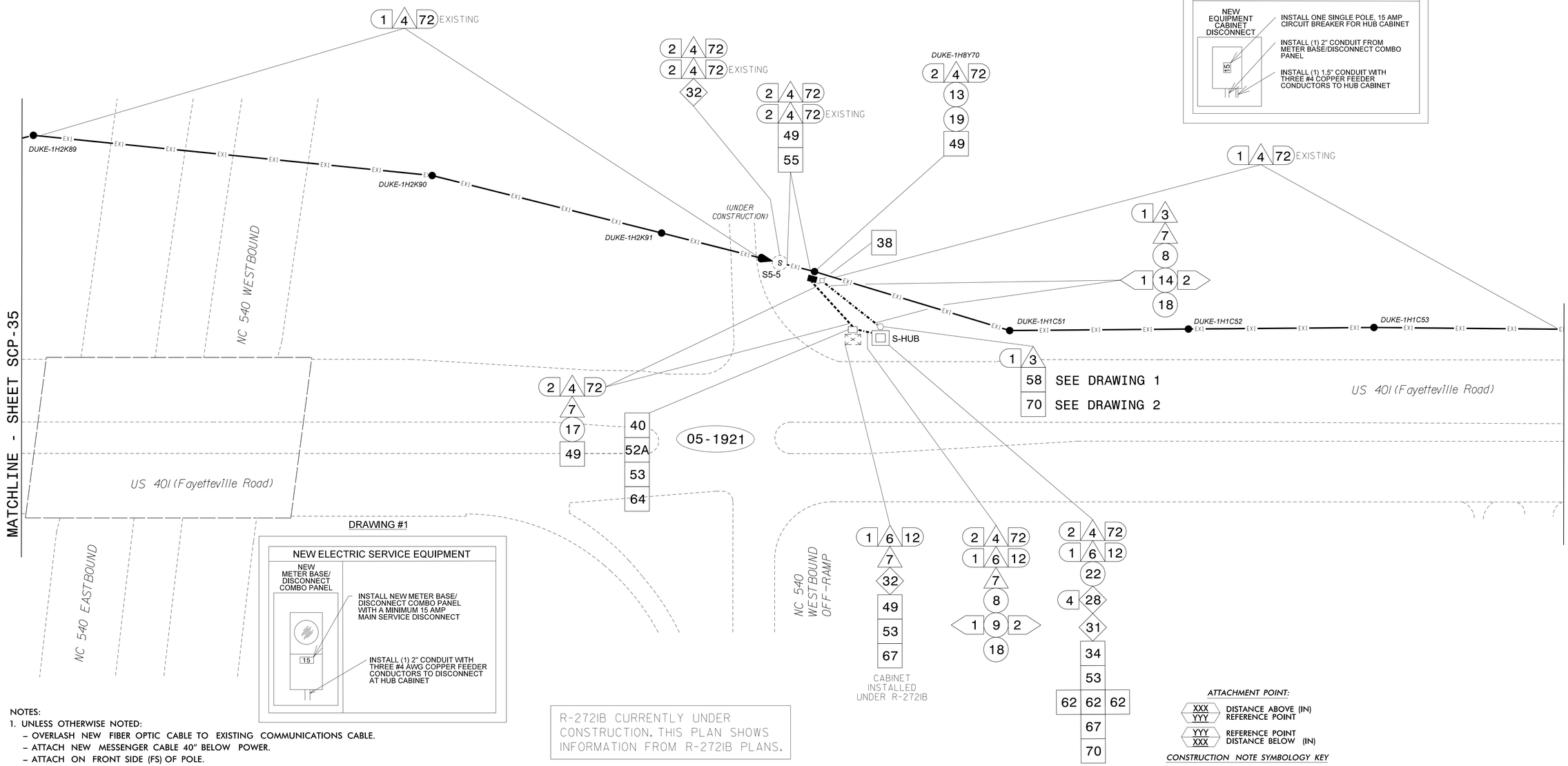
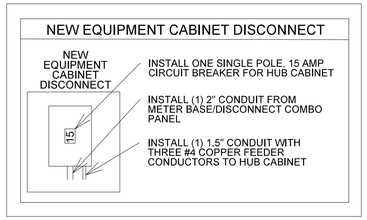
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-36



DRAWING #2

NEW EQUIPMENT CABINET DISCONNECT



DRAWING #1

NEW ELECTRIC SERVICE EQUIPMENT

R-272IB CURRENTLY UNDER CONSTRUCTION. THIS PLAN SHOWS INFORMATION FROM R-272IB PLANS.

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.

1. INSTALL CATEGORY 6 CABLE
2. INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS
3. INSTALL 3-WIRE COPPER FEEDER CONDUCTORS
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 EX CABINET ENTRANCE WHEN AVAILABLE)
23. INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE 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 TYPE 332 HUB 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 CAMERA WOOD POLE
38. INSTALL STANDARD SIZE JUNCTION BOX
39. INSTALL SPECIAL-SIZED JUNCTION BOX (36" x 24" x 24")
40. INSTALL OVER-SIZED JUNCTION BOX
41. REMOVE EXISTING JUNCTION BOX
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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
52A. INSTALL DELINEATOR MARKER
52B. INSTALL JUNCTION BOX MARKER
53. STORE 30' 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
58. INSTALL NEW ELECTRICAL SERVICE
59. INSTALL NEW POLE MOUNTED CCTV CABINET (336)
60. INSTALL NEW CCTV CABINET (NEMA TYPE 4)
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. NOT USED
69. HANDLASH AND INSTALL AERIAL CABLE PROTECTOR
70. INSTALL EQUIPMENT CABINET DISCONNECT
71. INSTALL MANAGED ETHERNET SWITCH
72. INSTALL CCTV METAL POLE
73. REMOVE EXISTING CCTV METAL POLE
74. REMOVE WIRELESS COMMUNICATIONS EQUIPMENT
75. BACKPULL AND COIL NCDOT ITS CABLE
76. INSTALL HUB SWITCH
77. INSTALL CELLULAR MODEM

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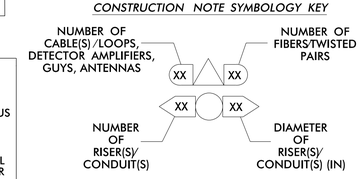
CONSTRUCTION NOTE SYMBOLOGY KEY



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Prepared for the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion 4/14/2023
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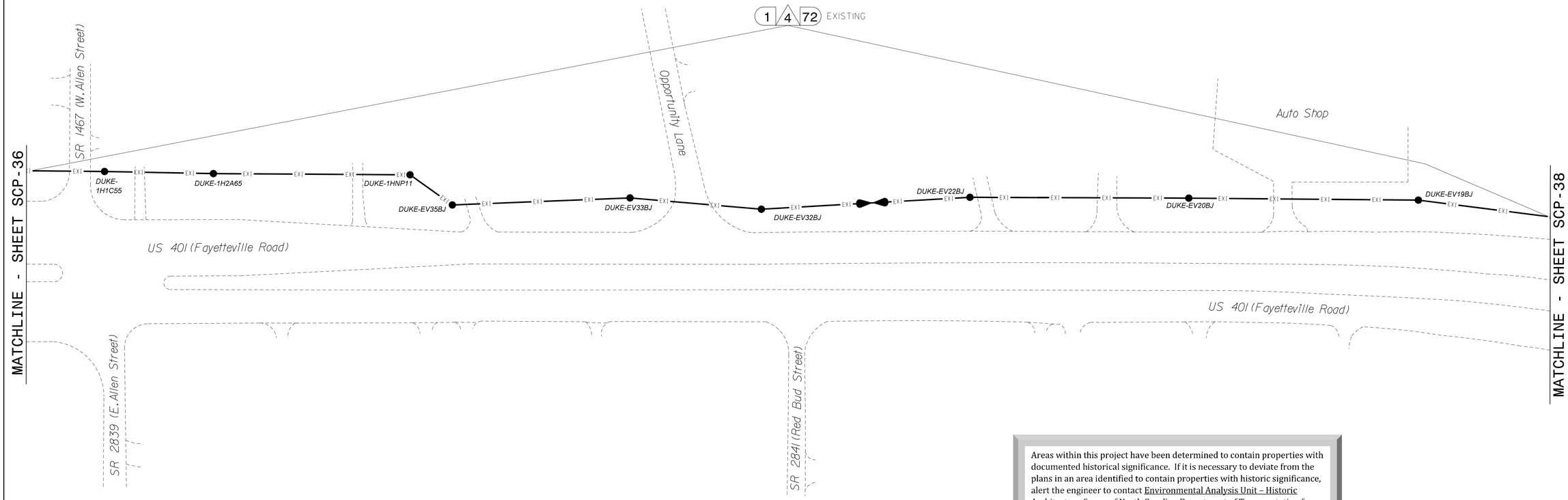
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-37



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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   - 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.

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	54	LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE	66	BOND RISER TO POLE GROUND
2	INSTALL 2-WIRE COPPER SERVICE ENTRANCE CONDUCTORS	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	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE	67	BOND TRACER WIRE TO EQUIPMENT GROUND BUS
3	INSTALL 3-WIRE COPPER FEEDER CONDUCTORS	13	INSTALL HEAT SHRINK TUBING RETROFIT KIT	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34	INSTALL CABINET FOUNDATION	45	INSTALL STANDARD GUY ASSEMBLY	56	LASH CABLE(S) TO NEW MESSENGER CABLE	68	NOT USED
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	57	MODIFY EXISTING ELECTRICAL SERVICE	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	58	INSTALL NEW ELECTRICAL SERVICE	70	INSTALL EQUIPMENT CABINET DISCONNECT
6	INSTALL FIBER-OPTIC DROP CABLE	16	BORE AND JACK CONDUIT	27	INSTALL NEW ETHERNET EDGE SWITCH IN CABINET	37	INSTALL CCTV CAMERA WOOD POLE	48	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE	59	INSTALL NEW POLE MOUNTED CCTV CABINET (336)	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	60	INSTALL NEW CCTV CABINET (NEMA TYPE 4)	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 (36" x 24" x 24")	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 TYPE 332 HUB CABINET	41	REMOVE EXISTING JUNCTION BOX	52A	INSTALL DELINEATOR MARKER	63	DRILL/CORE DRILL EXISTING FOUNDATION	75	BACKPULL AND COIL NCDOT ITS CABLE
		21	INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE			42	INSTALL WOOD POLE	52B	INSTALL JUNCTION BOX MARKER	64	INTERCEPT AND REROUTE EXISTING CONDUITS	76	INSTALL HUB SWITCH
								53	STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE)	65	BOND MESSENGER TO POLE GROUND	77	INSTALL CELLULAR MODEM

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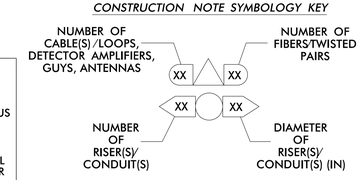

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Prepared for the Offices of:

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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — DBEC0397E0364BF...

4/14/2023

DATE

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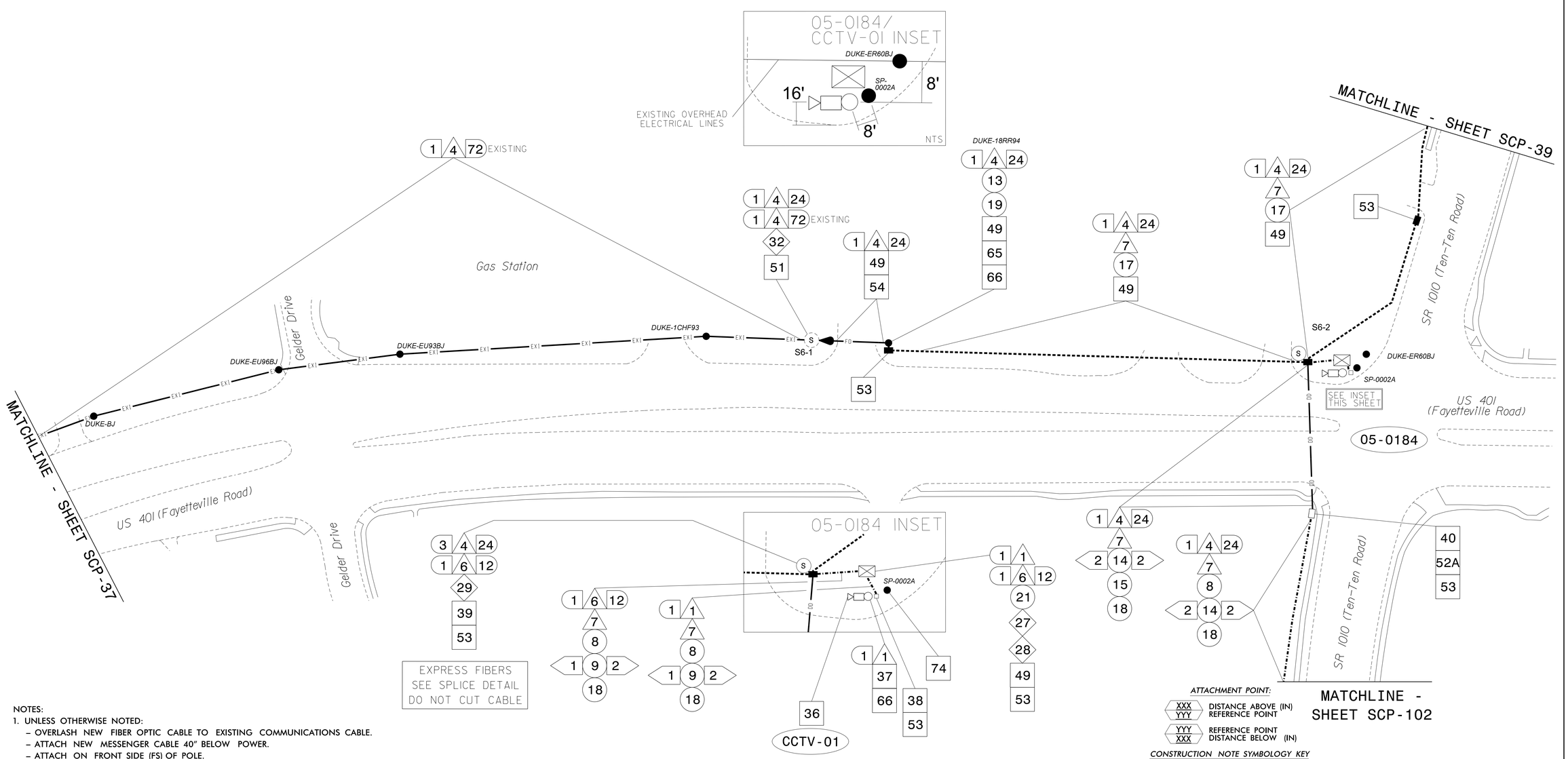

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23. INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE WHEN AVAILABLE)
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29. INSTALL UNDERGROUND SPLICE ENCLOSURE
30. INSTALL AERIAL SPLICE ENCLOSURE
31. INSTALL TYPE 332 HUB CABINET
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33. REMOVE EXISTING SPLICE /HUB / CCTV CABINET
34. INSTALL CABINET FOUNDATION
35. REMOVE EXISTING CABINET FOUNDATION
36. INSTALL CCTV CAMERA ASSEMBLY
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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
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CONSTRUCTION NOTE SYMBOLOGY KEY

NUMBER OF CABLE(S)/LOOPS, DETECTOR AMPLIFIERS, GUYS, ANTENNAS — XX △ XX — NUMBER OF FIBERS/TWISTED PAIRS

NUMBER OF RISER(S)/ CONDUIT(S) — XX ○ XX — DIAMETER OF RISER(S)/ CONDUIT(S) (IN)

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Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023
DATE

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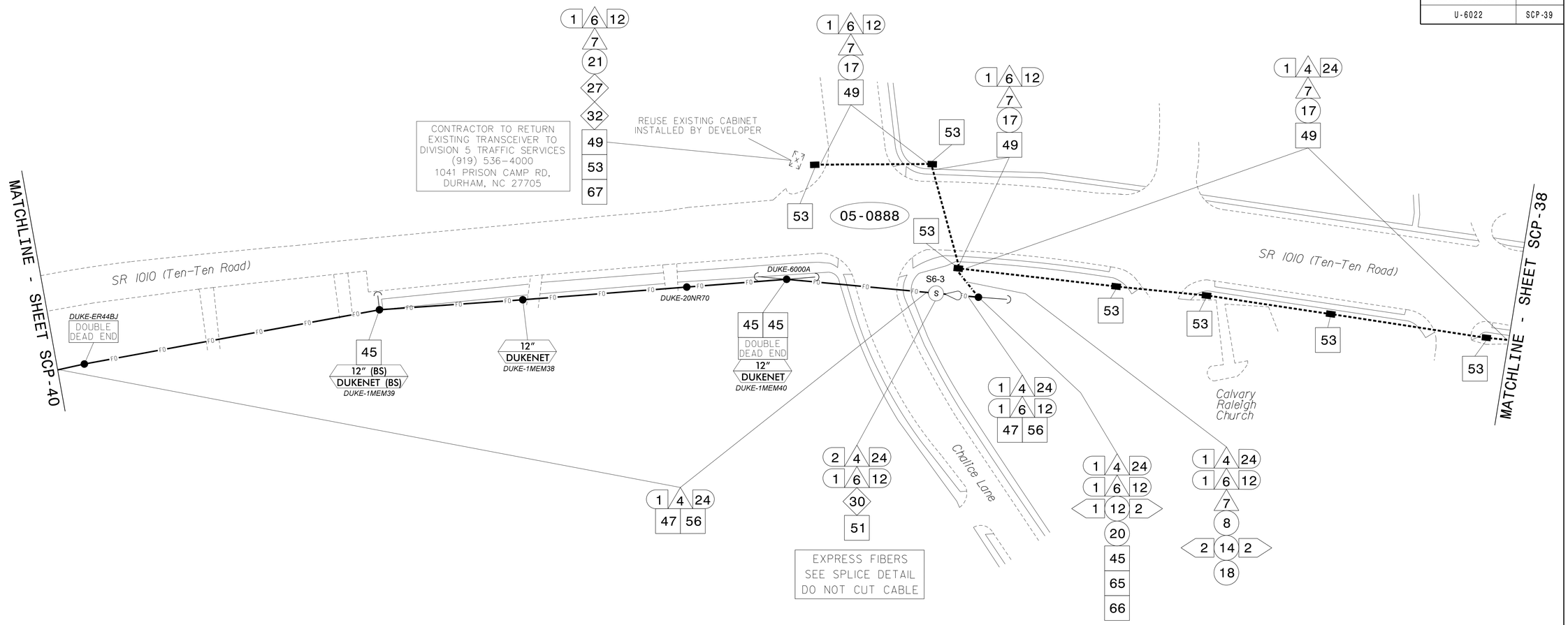
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-39



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8 INSTALL CONDUIT UNDERGROUND	18 INSTALL CABLE(S) IN NEW CONDUIT	29 INSTALL UNDERGROUND SPLICE ENCLOSURE	39 INSTALL SPECIAL-SIZED JUNCTION BOX (36" x 24" x 24")	50 INSTALL SERVICE CONDUCTORS	61 REMOVE EXISTING CCTV CAMERA ASSEMBLY
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
10 INSTALL RIGID, GALVANIZED STEEL CONDUIT	20 INSTALL CABLE(S) IN NEW RISER(S)	31 INSTALL TYPE 332 HUB CABINET	41 REMOVE EXISTING JUNCTION BOX	52A INSTALL DELINEATOR MARKER	63 DRILL/CORE DRILL EXISTING FOUNDATION
	21 INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE		42 INSTALL WOOD POLE	52B INSTALL JUNCTION BOX MARKER	64 INTERCEPT AND REROUTE EXISTING CONDUITS
				53 STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE)	65 BOND MESSENGER TO POLE GROUND

66 BOND RISER TO POLE GROUND	75 BACKPULL AND COIL NCDOT ITS CABLE	77 INSTALL CELLULAR MODEM	
67 BOND TRACER WIRE TO EQUIPMENT GROUND BUS	76 INSTALL HUB SWITCH		
68 NOT USED			
69 HANDLASH AND INSTALL AERIAL CABLE PROTECTOR			
70 INSTALL EQUIPMENT CABINET DISCONNECT			
71 INSTALL MANAGED ETHERNET SWITCH			
72 INSTALL CCTV METAL POLE			
73 REMOVE EXISTING CCTV METAL POLE			
74 REMOVE WIRELESS COMMUNICATIONS EQUIPMENT			

ATTACHMENT POINT:

XXX / YYY — DISTANCE ABOVE (IN) REFERENCE POINT

YYY / XXX — REFERENCE POINT DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOGY KEY

NUMBER OF CABLE(S) /LOOPS, DETECTOR AMPLIFIERS, GUYS, ANTENNAS — NUMBER OF FIBERS/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) 876-6888 NCBEES #F-0326

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared for the Offices of:
Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section
750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth
PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS | INIT. | DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023
DATE

CADD Filename: CL-34.dgn

16-MAR-2023 16:54
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STIFF685 AT LUS491083

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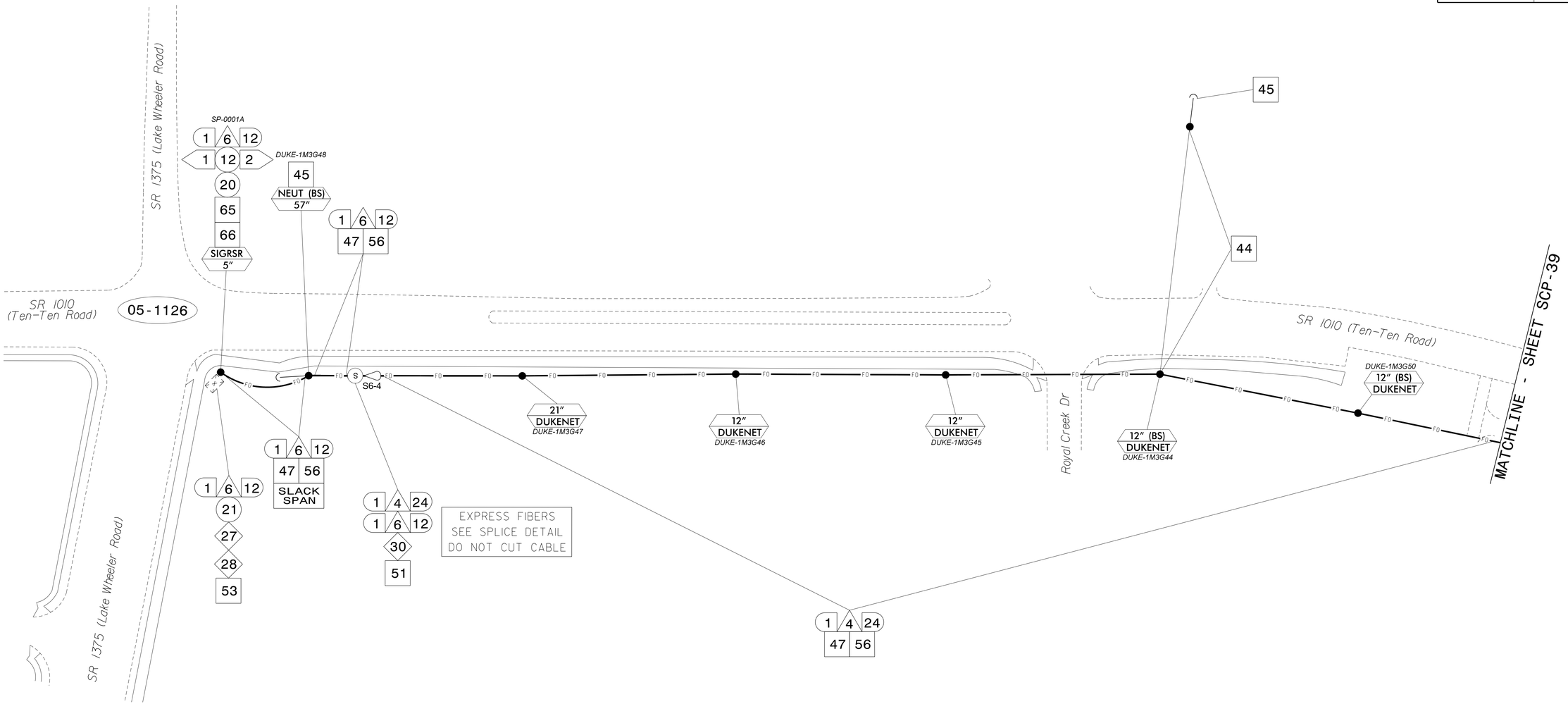
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-40



NOTES:
1. UNLESS OTHERWISE NOTED:
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   - ATTACH NEW MESSENGER CABLE 40" BELOW POWER.
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2. SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER AT ALL JUNCTION BOX / CABINET ENTRANCES.

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

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4. INSTALL SMFO CABLE
5. INSTALL COAXIAL ANTENNA CABLE
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12. INSTALL RIGID, GALVANIZED STEEL RISER WITH HEAT SHRINK TUBING
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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
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29. INSTALL UNDERGROUND SPLICE ENCLOSURE
30. INSTALL AERIAL SPLICE ENCLOSURE
31. INSTALL TYPE 332 HUB CABINET
32. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
33. REMOVE EXISTING SPLICE /HUB / CCTV CABINET
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35. REMOVE EXISTING CABINET FOUNDATION
36. INSTALL CCTV CAMERA ASSEMBLY
37. INSTALL CCTV CAMERA WOOD POLE
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57. MODIFY EXISTING ELECTRICAL SERVICE
58. INSTALL NEW ELECTRICAL SERVICE
59. INSTALL NEW POLE MOUNTED CCTV CABINET (336)
60. INSTALL NEW CCTV CABINET (NEMA TYPE 4)
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
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Prepared for the Offices of:

Transportation Mobility and Safety Division — Intelligent Transportation Systems Section — STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 Wake County Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — C9BCD5595236404... — 4/14/2023 DATE

CADD Filename: CL-35.dgn

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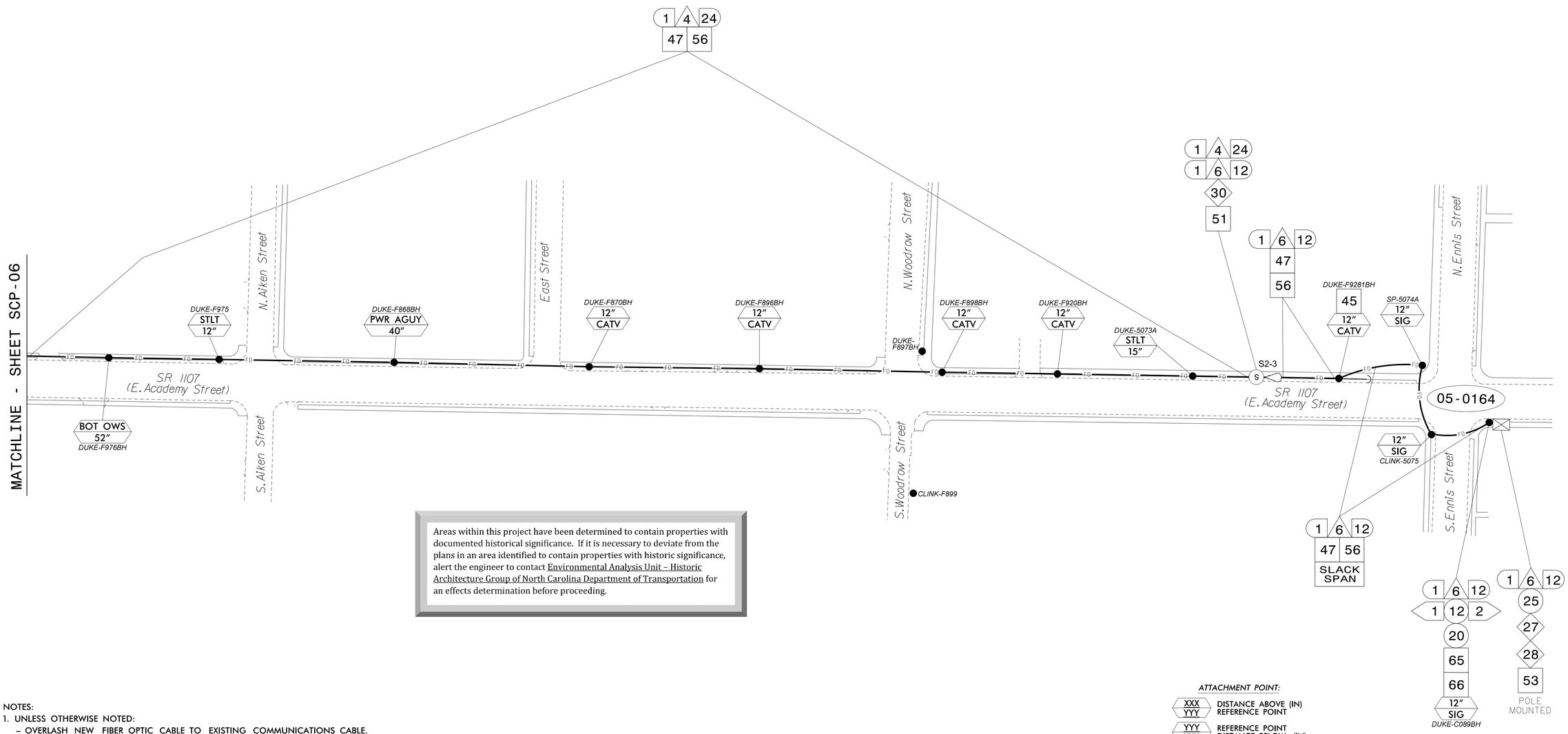
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-41



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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2. SEAL ALL CONDUIT ENDS WITH DUCT AND CONDUIT SEALER AT ALL JUNCTION BOX / CABINET ENTRANCES.

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
2	INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS	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
3	INSTALL 3-WIRE COPPER FEEDER CONDUCTORS	13	INSTALL HEAT SHRINK TUBING RETROFIT KIT	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34	INSTALL CABINET FOUNDATION
4	INSTALL SMFO CABLE	14	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	INSTALL NEW RISER INTO POLE MOUNTED CABINET	35	REMOVE EXISTING CABINET FOUNDATION
5	INSTALL COAXIAL ANTENNA CABLE	15	DIRECTIONAL DRILL CONDUIT	26	INSTALL DIGITAL VIDEO ENCODER	36	INSTALL CCTV CAMERA ASSEMBLY
6	INSTALL FIBER-OPTIC DROP CABLE	16	BORE AND JACK CONDUIT	27	INSTALL NEW ETHERNET EDGE SWITCH IN CABINET	37	INSTALL CCTV CAMERA WOOD POLE
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
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10	INSTALL RIGID, GALVANIZED STEEL CONDUIT	20	INSTALL CABLE(S) IN NEW RISER(S)	31	INSTALL TYPE 332 HUB CABINET	41	REMOVE EXISTING JUNCTION BOX
		21	INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE			42	INSTALL WOOD POLE

43	REMOVE EXISTING WOOD POLE	54	LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE	66	BOND RISER TO POLE GROUND		
44	INSTALL AERIAL GUY ASSEMBLY	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE	67	BOND TRACER WIRE TO EQUIPMENT GROUND BUS		
45	INSTALL STANDARD GUY ASSEMBLY	56	LASH CABLE(S) TO NEW MESSENGER CABLE	68	NOT USED		
46	INSTALL SIDEWALK GUY ASSEMBLY	57	MODIFY EXISTING ELECTRICAL SERVICE	69	HANDLASH AND INSTALL AERIAL CABLE PROTECTOR		
47	INSTALL MESSENGER CABLE	58	INSTALL NEW ELECTRICAL SERVICE	70	INSTALL EQUIPMENT CABINET DISCONNECT		
48	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE	59	INSTALL NEW POLE MOUNTED CCTV CABINET (336)	71	INSTALL MANAGED ETHERNET SWITCH		
49	REMOVE EXISTING COMMUNICATIONS CABLE	60	INSTALL NEW CCTV CABINET (NEMA TYPE 4)	72	INSTALL CCTV METAL POLE		
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52A	INSTALL DELINEATOR MARKER	63	DRILL/CORE DRILL EXISTING FOUNDATION	75	BACKPULL AND COIL NCDOT ITS CABLE		
52B	INSTALL JUNCTION BOX MARKER	64	INTERCEPT AND REROUTE EXISTING CONDUITS	76	INSTALL HUB SWITCH		
53	STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE)	65	BOND MESSENGER TO POLE GROUND	77	INSTALL CELLULAR MODEM		

ATTACHMENT POINT:

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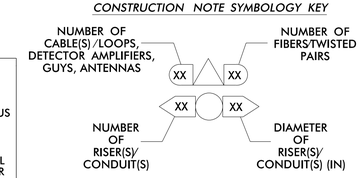
CONSTRUCTION NOTE SYMBOLOGY KEY



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Prepared for the Offices of:

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE: 0 — 50, 1"=50'

REVISIONS	INIT.	DATE

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023

CADD Filename: CL-36.dgn

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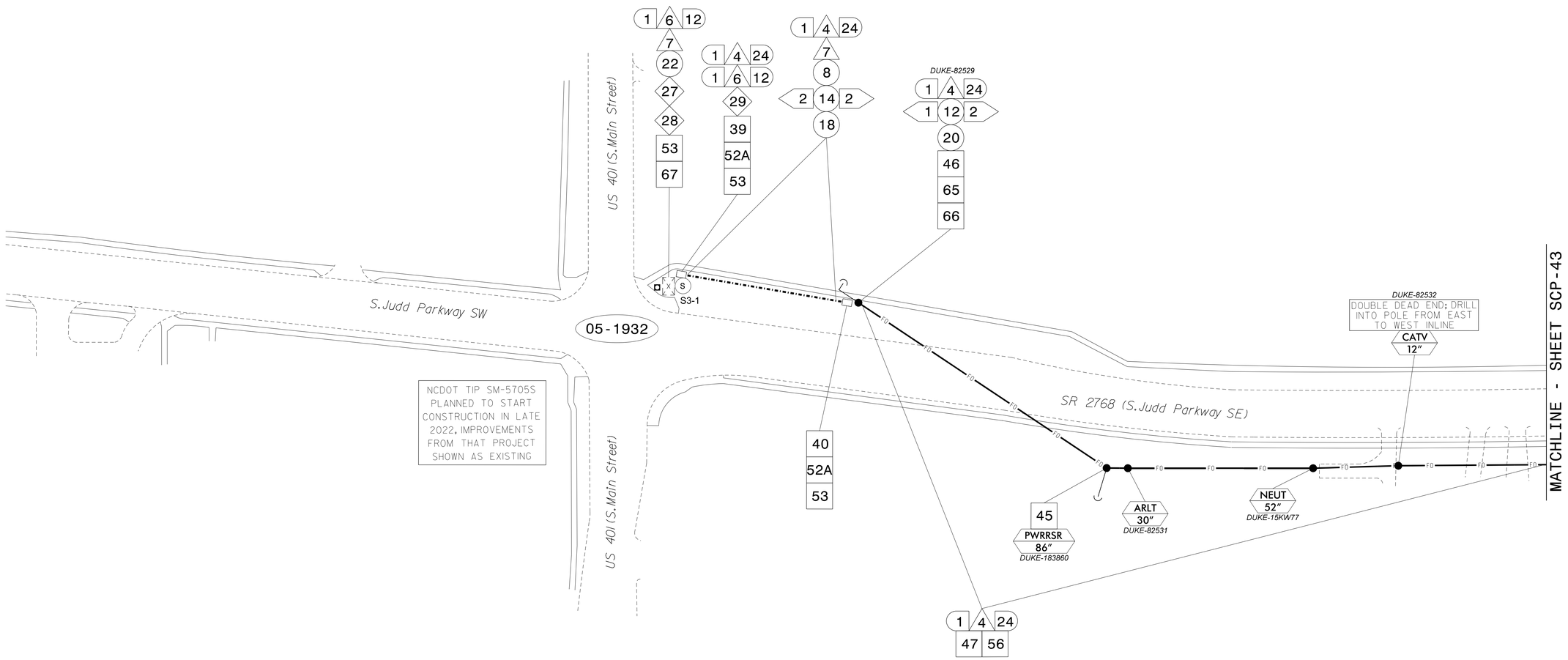
U-6022	SCP-42



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31. INSTALL TYPE 332 HUB CABINET
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Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth
PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023
DATE

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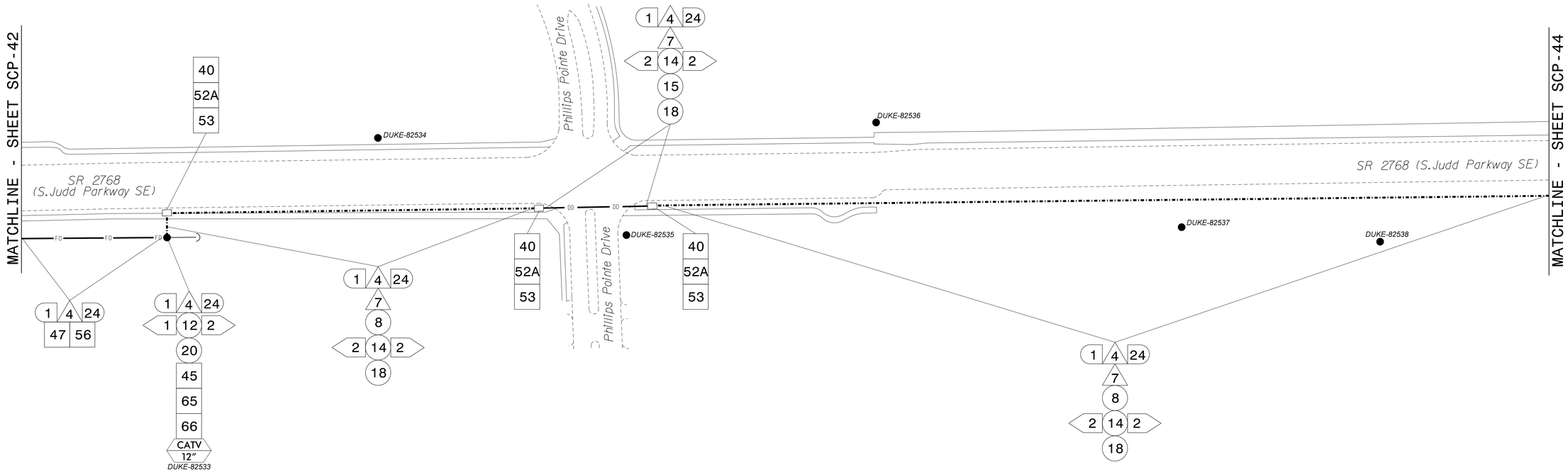
U-6022	SCP-43



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NUMBER OF RISER(S)/ CONDUIT(S) — XX

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

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
2	INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS	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
3	INSTALL 3-WIRE COPPER FEEDER CONDUCTORS	13	INSTALL HEAT SHRINK TUBING RETROFIT KIT	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34	INSTALL CABINET FOUNDATION
4	INSTALL SMFO CABLE	14	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	INSTALL NEW RISER INTO POLE MOUNTED CABINET	35	REMOVE EXISTING CABINET FOUNDATION
5	INSTALL COAXIAL ANTENNA CABLE	15	DIRECTIONAL DRILL CONDUIT	26	INSTALL DIGITAL VIDEO ENCODER	36	INSTALL CCTV CAMERA ASSEMBLY
6	INSTALL FIBER-OPTIC DROP CABLE	16	BORE AND JACK CONDUIT	27	INSTALL NEW ETHERNET EDGE SWITCH IN CABINET	37	INSTALL CCTV CAMERA WOOD POLE
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
8	INSTALL CONDUIT UNDERGROUND	18	INSTALL CABLE(S) IN NEW CONDUIT	29	INSTALL UNDERGROUND SPLICE ENCLOSURE	39	INSTALL SPECIAL-SIZED JUNCTION BOX (36" x 24" x 24")
9	INSTALL PVC CONDUIT	19	INSTALL CABLE(S) IN EXISTING RISER(S)	30	INSTALL AERIAL SPLICE ENCLOSURE	40	INSTALL OVER-SIZED JUNCTION BOX
10	INSTALL RIGID, GALVANIZED STEEL CONDUIT	20	INSTALL CABLE(S) IN NEW RISER(S)	31	INSTALL TYPE 332 HUB CABINET	41	REMOVE EXISTING JUNCTION BOX
		21	INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE			42	INSTALL WOOD POLE

43	REMOVE EXISTING WOOD POLE	54	LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE	66	BOND RISER TO POLE GROUND		
44	INSTALL AERIAL GUY ASSEMBLY	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE	67	BOND TRACER WIRE TO EQUIPMENT GROUND BUS		
45	INSTALL STANDARD GUY ASSEMBLY	56	LASH CABLE(S) TO NEW MESSENGER CABLE	68	NOT USED		
46	INSTALL SIDEWALK GUY ASSEMBLY	57	MODIFY EXISTING ELECTRICAL SERVICE	69	HANDLASH AND INSTALL AERIAL CABLE PROTECTOR		
47	INSTALL MESSENGER CABLE	58	INSTALL NEW ELECTRICAL SERVICE	70	INSTALL EQUIPMENT CABINET DISCONNECT		
48	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE	59	INSTALL NEW POLE MOUNTED CCTV CABINET (336)	71	INSTALL MANAGED ETHERNET SWITCH		
49	REMOVE EXISTING COMMUNICATIONS CABLE	60	INSTALL NEW CCTV CABINET (NEMA TYPE 4)	72	INSTALL CCTV METAL POLE		
50	INSTALL SERVICE CONDUCTORS	61	REMOVE EXISTING CCTV CAMERA ASSEMBLY	73	REMOVE EXISTING CCTV METAL POLE		
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		
52A	INSTALL DELINEATOR MARKER	63	DRILL/CORE DRILL EXISTING FOUNDATION	75	BACKPULL AND COIL NCDOT ITS CABLE		
52B	INSTALL JUNCTION BOX MARKER	64	INTERCEPT AND REROUTE EXISTING CONDUITS	76	INSTALL HUB SWITCH		
53	STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE)	65	BOND MESSENGER TO POLE GROUND	77	INSTALL CELLULAR MODEM		

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Prepared for the Offices of:

Transportation Mobility and Safety Division — State of North Carolina — Department of Transportation

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — CBEC5579276A4F — 4/14/2023 DATE

CADD Filename: CL-38.dgn

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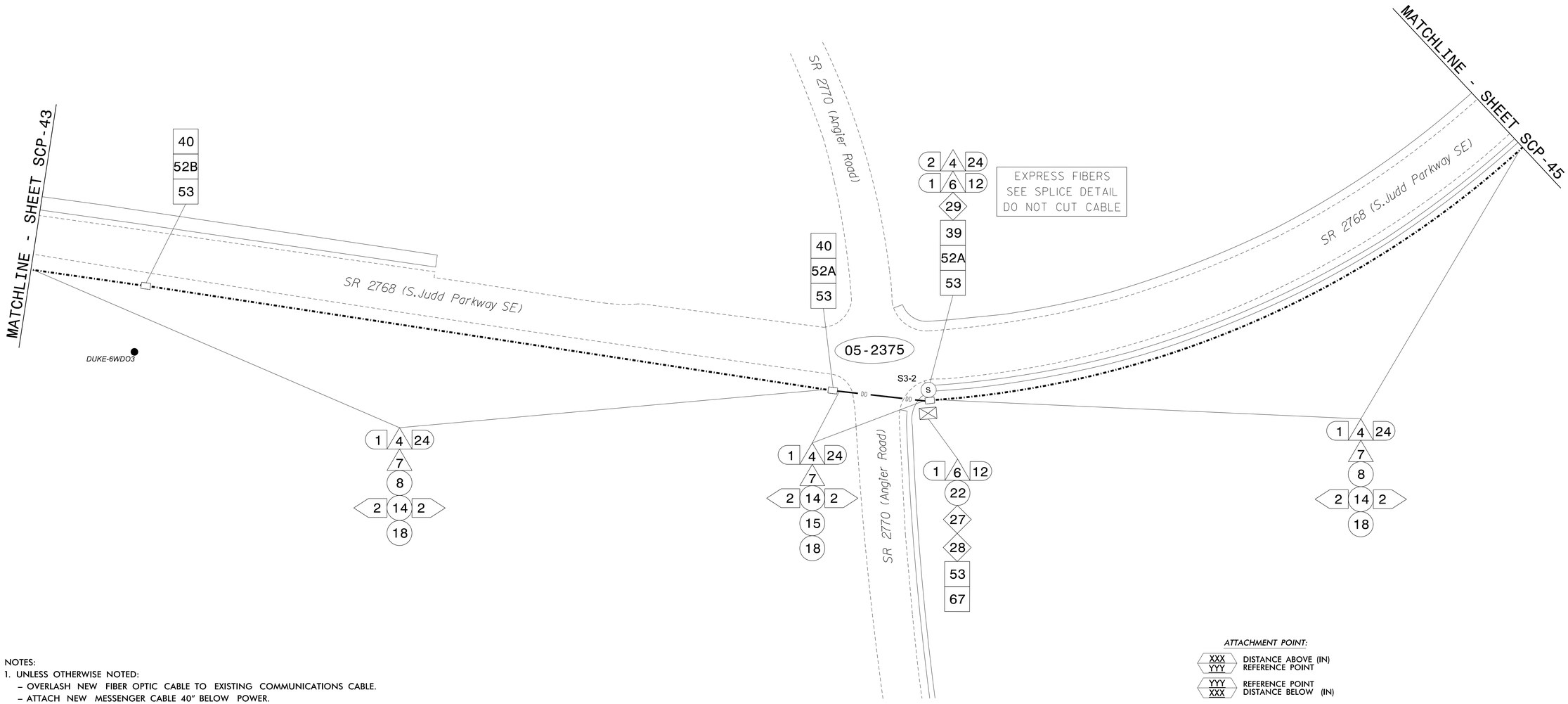
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-44



NOTES:
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   - 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:

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CONSTRUCTION NOTE SYMBOLOGY KEY

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

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28. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
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31. INSTALL TYPE 332 HUB CABINET
32. MODIFY EXISTING SPLICE ENCLOSURE OR INTERCONNECT CENTER
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DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section
750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

REVISIONS | INIT. | DATE

SCALE 0 50 — 1"=50'

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NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023 DATE

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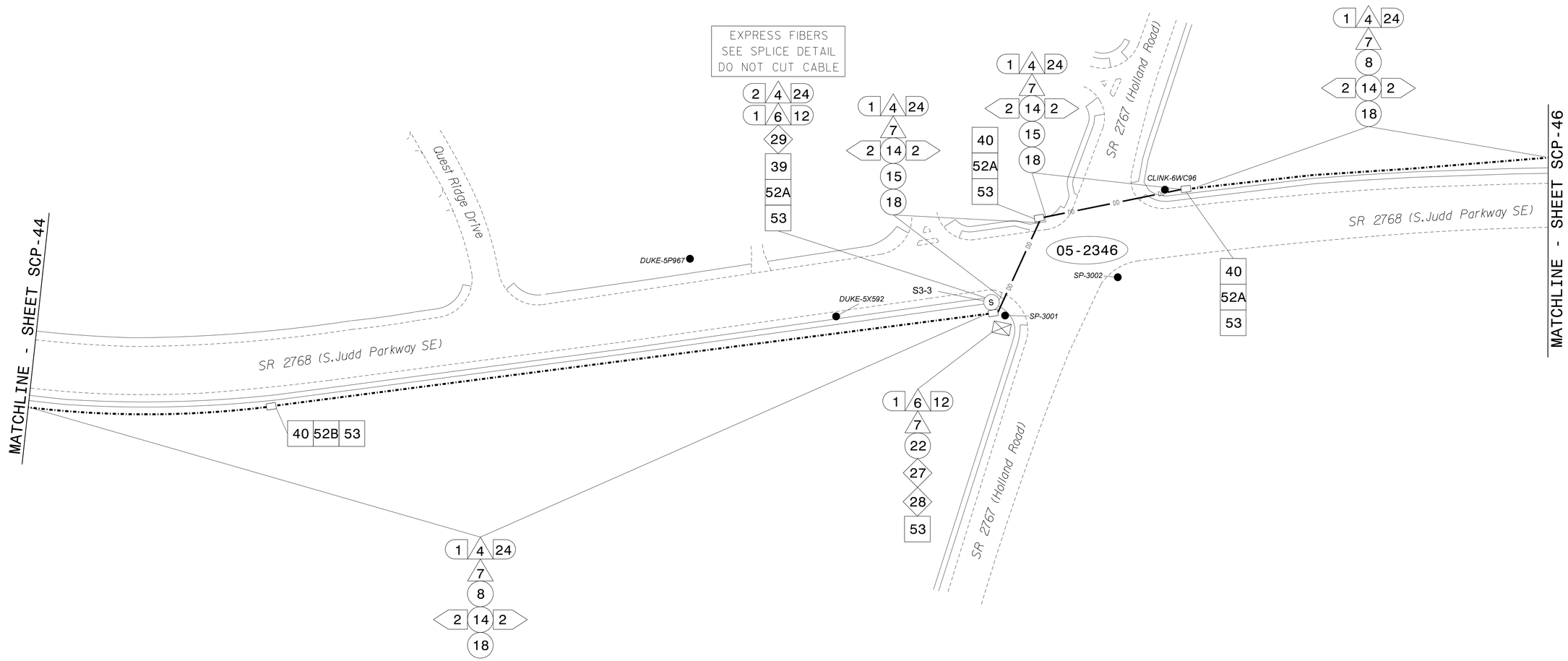
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-45



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Prepared for the Offices of:

Transportation Mobility and Safety Division — Intelligent Transportation Systems Section — STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 — 50 — 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — CBEC5579323946F... — 4/14/2023 DATE

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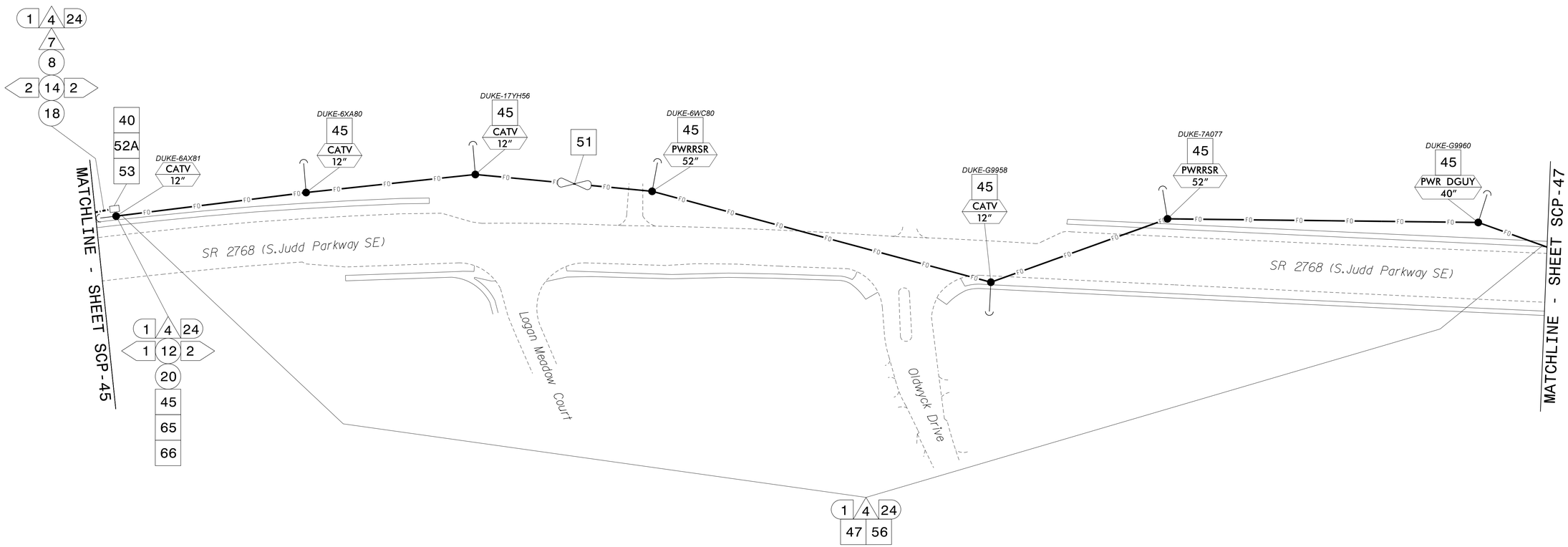

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Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023

CADD Filename: CL-41.dgn

16-MAR-2023 16:55
pw://SUSDOS6343.wsatkins.com:ATKNANC01/Documents/Roads and Bridges/Projects/10006326B Fuquay Varina/Task 11_CL/CL-41.dgn
S1TT4685 AT LUS491089

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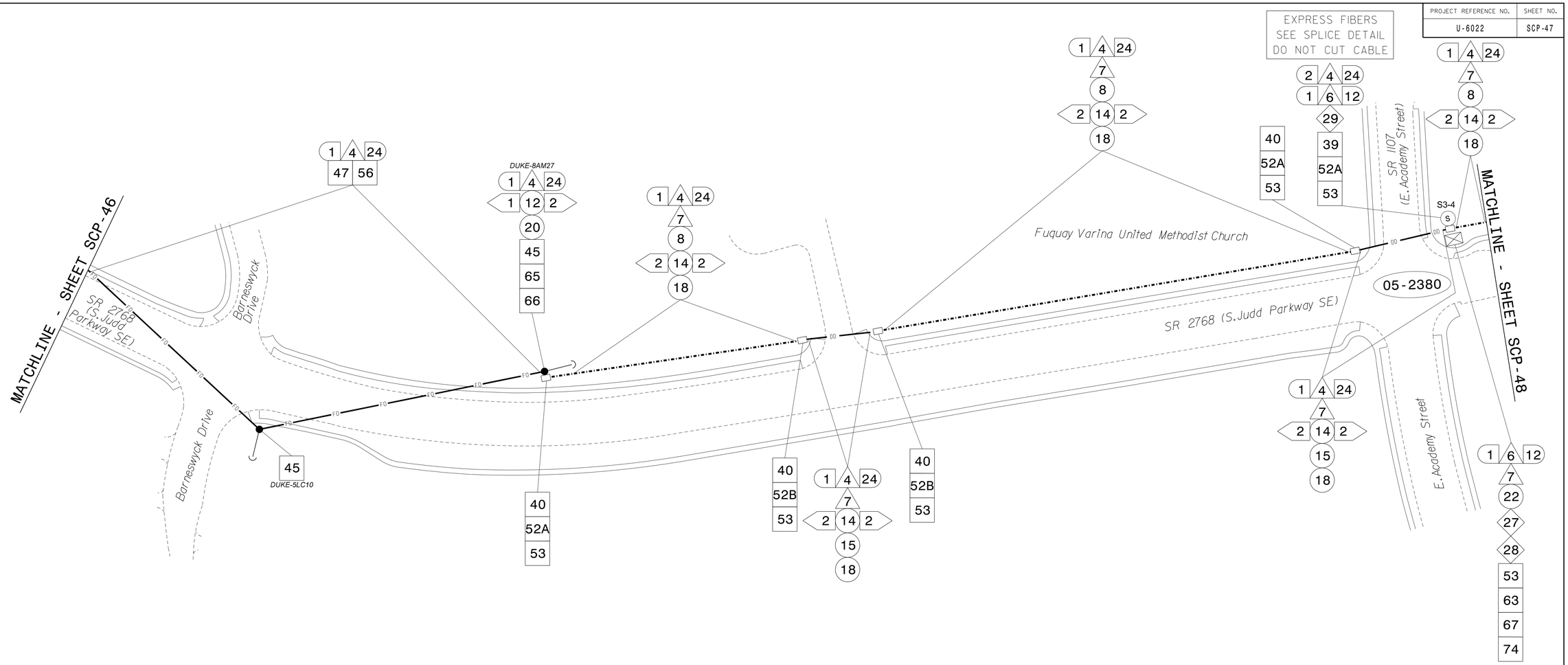
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-47



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.

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
2	INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS	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
3	INSTALL 3-WIRE COPPER FEEDER CONDUCTORS	13	INSTALL HEAT SHRINK TUBING RETROFIT KIT	24	INSTALL NEW CONDUIT INTO POLE MOUNTED CABINET	34	INSTALL CABINET FOUNDATION
4	INSTALL SMFO CABLE	14	INSTALL HIGH DENSITY POLYETHYLENE CONDUIT	25	INSTALL NEW RISER INTO POLE MOUNTED CABINET	35	REMOVE EXISTING CABINET FOUNDATION
5	INSTALL COAXIAL ANTENNA CABLE	15	DIRECTIONAL DRILL CONDUIT	26	INSTALL DIGITAL VIDEO ENCODER	36	INSTALL CCTV CAMERA ASSEMBLY
6	INSTALL FIBER-OPTIC DROP CABLE	16	BORE AND JACK CONDUIT	27	INSTALL NEW ETHERNET EDGE SWITCH IN CABINET	37	INSTALL CCTV CAMERA WOOD POLE
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
8	INSTALL CONDUIT UNDERGROUND	18	INSTALL CABLE(S) IN NEW CONDUIT	29	INSTALL UNDERGROUND SPLICE ENCLOSURE	39	INSTALL SPECIAL-SIZED JUNCTION BOX (36" x 24" x 24")
9	INSTALL PVC CONDUIT	19	INSTALL CABLE(S) IN EXISTING RISER(S)	30	INSTALL AERIAL SPLICE ENCLOSURE	40	INSTALL OVER-SIZED JUNCTION BOX
10	INSTALL RIGID, GALVANIZED STEEL CONDUIT	20	INSTALL CABLE(S) IN NEW RISER(S)	31	INSTALL TYPE 332 HUB CABINET	41	REMOVE EXISTING JUNCTION BOX
		21	INSTALL CABLE(S) IN EXISTING CABINET ENTRANCE			42	INSTALL WOOD POLE

43	REMOVE EXISTING WOOD POLE	54	LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE	66	BOND RISER TO POLE GROUND
44	INSTALL AERIAL GUY ASSEMBLY	55	LASH CABLE(S) TO EXISTING MESSENGER CABLE	67	BOND TRACER WIRE TO EQUIPMENT GROUND BUS
45	INSTALL STANDARD GUY ASSEMBLY	56	LASH CABLE(S) TO NEW MESSENGER CABLE	68	NOT USED
46	INSTALL SIDEWALK GUY ASSEMBLY	57	MODIFY EXISTING ELECTRICAL SERVICE	69	HANDLASH AND INSTALL AERIAL CABLE PROTECTOR
47	INSTALL MESSENGER CABLE	58	INSTALL NEW ELECTRICAL SERVICE	70	INSTALL EQUIPMENT CABINET DISCONNECT
48	REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE	59	INSTALL NEW POLE MOUNTED CCTV CABINET (336)	71	INSTALL MANAGED ETHERNET SWITCH
49	REMOVE EXISTING COMMUNICATIONS CABLE	60	INSTALL NEW CCTV CABINET (NEMA TYPE 4)	72	INSTALL CCTV METAL POLE
50	INSTALL SERVICE CONDUCTORS	61	REMOVE EXISTING CCTV CAMERA ASSEMBLY	73	REMOVE EXISTING CCTV METAL POLE
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
52A	INSTALL DELINEATOR MARKER	63	DRILL/CORE DRILL EXISTING FOUNDATION	75	BACKPULL AND COIL NCDOT ITS CABLE
52B	INSTALL JUNCTION BOX MARKER	64	INTERCEPT AND REROUTE EXISTING CONDUITS	76	INSTALL HUB SWITCH
53	STORE 30' OF COMMUNICATIONS CABLE (EACH CABLE)	65	BOND MESSENGER TO POLE GROUND	77	INSTALL CELLULAR MODEM

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XXX / YYY — DISTANCE ABOVE (IN) REFERENCE POINT

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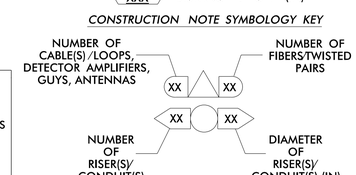
CONSTRUCTION NOTE SYMBOLOGY KEY



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(919) 876-6888 NCBEES #F-0326

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Prepared for the Offices of:

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 Wake County Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 50 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion 4/14/2023

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CADD Filename: CL-42.dgn

16-MAR-2023 16:56
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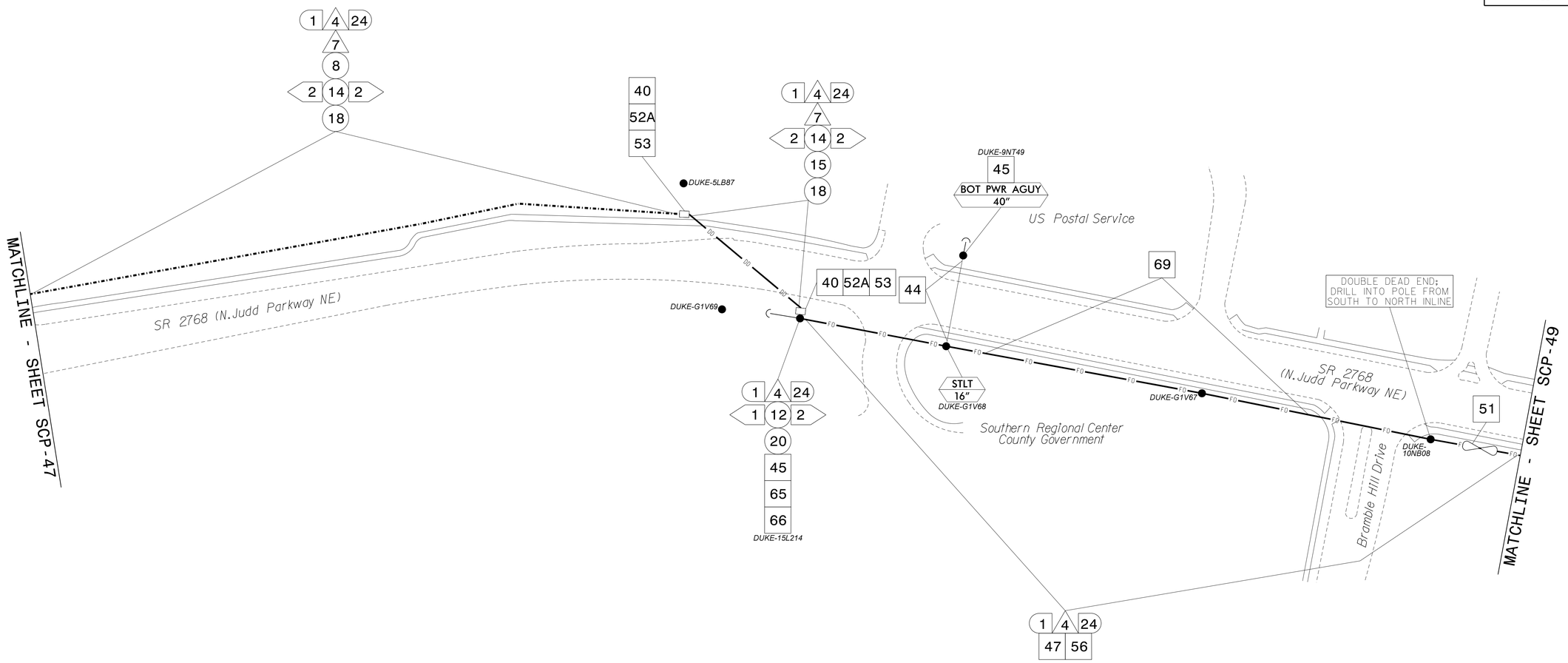
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-48



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CONSTRUCTION NOTE SYMBOLOGY KEY

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

NUMBER OF FIBERS/TWISTED PAIRS — XX

NUMBER OF RISER(S)/ CONDUIT(S) — XX

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

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

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Prepared for the Offices of:

Transportation Mobility and Safety Division
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
Intelligent Transportation Systems Section

750 Greenfield Parkway, Garner, NC 27529

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

SCALE: 0 — 50, 1"=50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023 DATE

CADD Filename: CL-43.dgn

16-MAR-2023 16:56
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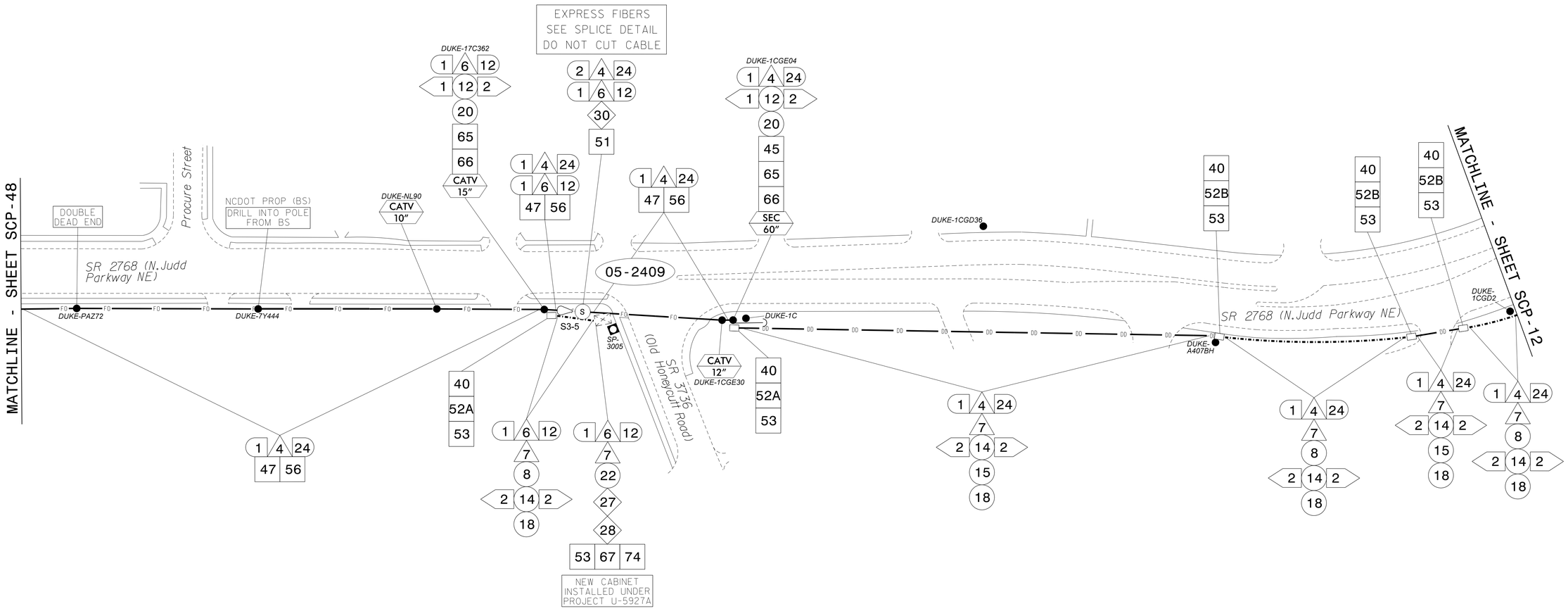
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-49



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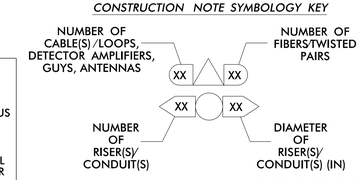

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Division 5 | Wake County | Fuquay-Varina

PLAN DATE:	June 2022	REVIEWED BY:	MB Toth
PREPARED BY:	JT Stiff	REVIEWED BY:	AM Encarnacion

SCALE 0 — 50, 1"=50'

REVISIONS	INIT.	DATE

Digitally signed by Anthony Encarnacion, CN=DOT/PERSONAL, C=US — 4/14/2023

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044476 ANTHONY M. ENCARNACION

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STIFF485 AT LU9491089

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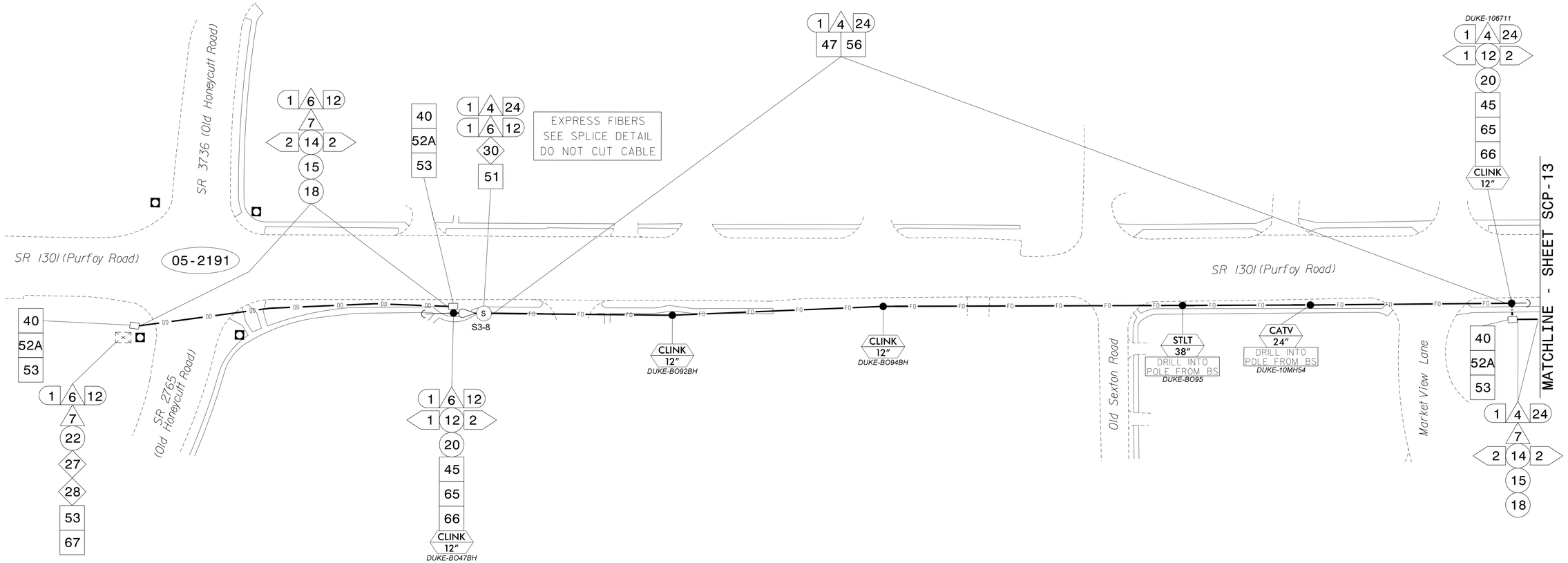
U-6022	SCP-50



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CONSTRUCTION NOTE SYMBOLOGY KEY

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

NUMBER OF FIBERS/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

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Prepared for the Offices of:

Transportation Mobility and Safety Division — STATE OF NORTH CAROLINA — DEPARTMENT OF TRANSPORTATION — Intermodal Transportation Planning Section

750 Greenfield Parkway, Garner, NC 27529

SCALE 0 50 — 1"=50'

Fuquay-Varina Signal System Cable Routing Plans

Division 5 | Wake County | Fuquay-Varina

PLAN DATE: June 2022 | REVIEWED BY: MB Toth

PREPARED BY: JT Stiff | REVIEWED BY: AM Encarnacion

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

DocuSigned by: Anthony Encarnacion — 4/14/2023

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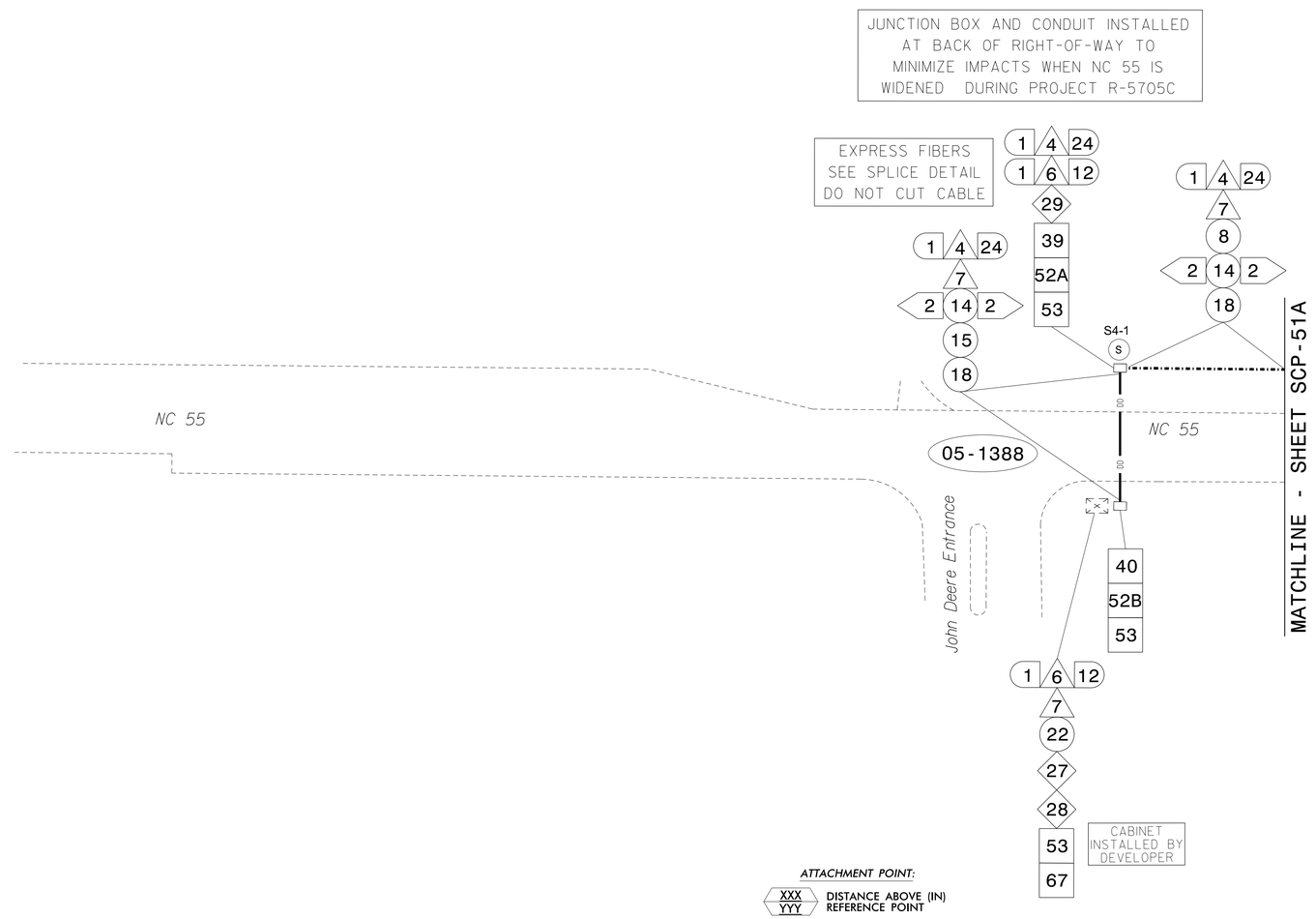
PROJECT REFERENCE NO.	SHEET NO.
U-6022	SCP-51



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.

1. INSTALL CATEGORY 6 CABLE
2. INSTALL 3-WIRE COPPER SERVICE ENTRANCE CONDUCTORS
3. INSTALL 3-WIRE COPPER FEEDER CONDUCTORS
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 EX CABINET ENTRANCE WHEN AVAILABLE)
23. INSTALL NEW RISER INTO CABINET BASE (USE EX CABINET ENTRANCE 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 TYPE 332 HUB 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 CAMERA WOOD POLE
38. INSTALL STANDARD SIZE JUNCTION BOX
39. INSTALL SPECIAL-SIZED JUNCTION BOX (36" x 24" x 24")
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
52A. INSTALL DELINEATOR MARKER
52B. INSTALL JUNCTION BOX MARKER
53. STORE 30' 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
58. INSTALL NEW ELECTRICAL SERVICE
59. INSTALL NEW POLE MOUNTED CCTV CABINET (336)
60. INSTALL NEW CCTV CABINET (NEMA TYPE 4)
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. NOT USED
69. HANDLASH AND INSTALL AERIAL CABLE PROTECTOR
70. INSTALL EQUIPMENT CABINET DISCONNECT
71. INSTALL MANAGED ETHERNET SWITCH
72. INSTALL CCTV METAL POLE
73. REMOVE EXISTING CCTV METAL POLE
74. REMOVE WIRELESS COMMUNICATIONS EQUIPMENT
75. BACKPULL AND COIL NCDOT ITS CABLE
76. INSTALL HUB SWITCH
77. INSTALL CELLULAR MODEM

ATTACHMENT POINT:

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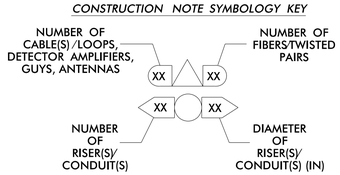
YYY / XXX — REFERENCE POINT DISTANCE BELOW (IN)

CONSTRUCTION NOTE SYMBOLOGY KEY



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NORTH CAROLINA PROFESSIONAL SEAL 044476 ENGINEER ANTHONY M. ENCARNACION

Developed by Anthony Encarnacion — CBECS5TFB23A6EF... — 4/14/2023 DATE

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