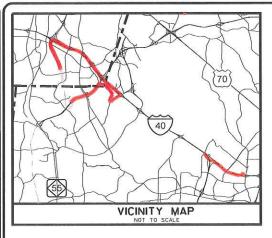
4763B AND -2000AD2635, **PROJECTS**

022 C



NORTH CAROLINA TURNPIKE AUTHORITY

WAKE / DURHAM COUNTIES

STATE PROJ. NO. F.A. PROJ. NO. DESCRIPTIO NHS-54(7) CONST. NHS-540(7) CONST.

STATE PROJECT REFERENCE NO

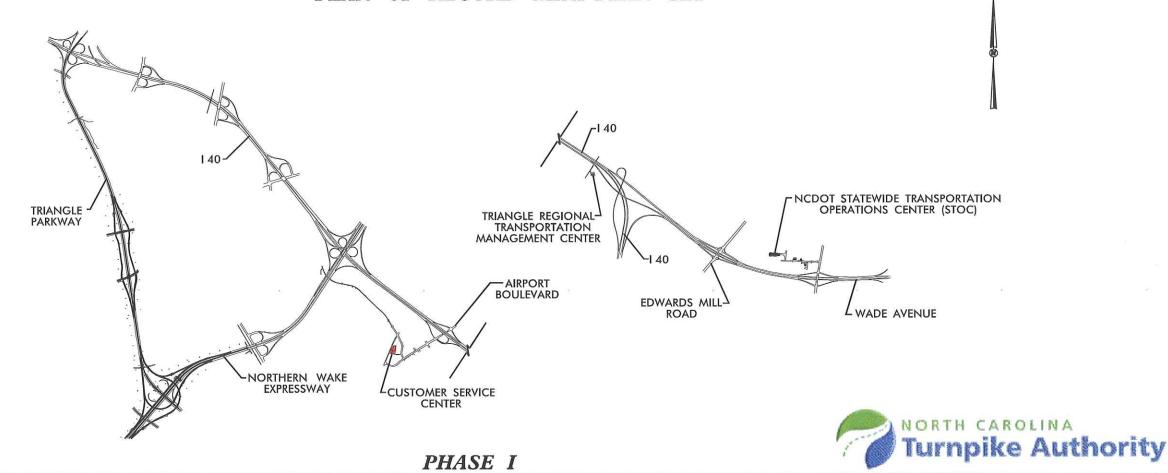
C202250

LOCATION: TRIANGLE PARKWAY, NORTHERN WAKE EXPRESSWAY, I-40 AND WADE AVENUE

TYPE OF WORK: FIBER-OPTIC COMMUNICATIONS CABLE ROUTING

PLAN OF RECORD MINI-PLAN SET

PLAN OF RECORD



ROADWAY STANDARD DRAWINGS

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

STD. NUMBER

1715.01

DESCRIPTION UNDERGROUND CONDUIT

JUNCTION BOXES

FIBER OPTIC SPARE CABLE STORAGE

INDEX OF PLANS

DESCRIPTION

TITLE SHEET

CONSTRUCTION NOTES IA CABLE ROUTING PLAN KEY 1B

2-2B **DETAILS**

CABLE ROUTING PLANS 3-28

29-33 SPLICE PLANS

TRAFFIC CONTROL D DEVICES, INC.

DESIGN-BUILD TEAM

SUMMIT CONSULTING

ENGINEERING # ARCHITECTURE # SURVEYING

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE

LETTING DATE:

J. Cross
PROJECT DESIGN ENGINEER

PROJECT LENGTH

PROJECT LENGTH = 12.2 MI

STATE DESIGN ENGINEER

P.E.

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA



DATE

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

APPROVED

AND FUSION SPLICE CABLE IN CABINET

INSTALL AERIAL SPLICE ENCLOSURE

NOT USED

NOT USED

MODIFY EXISTING SPLICE ENCLOSURE

INSTALL UNDERGROUND SPLICE ENCLOSURE

29

34	INSTALL CABINET FOUNDATION
35	REMOVE EXISTING CABINET FOUNDATION
36	INSTALL CCTV CAMERA ASSEMBLY
37	INSTALL MVDS ASSEMBLY
38	INSTALL EQUIPMENT CABINET
39	INSTALL JUNCTION BOX
40	INSTALL OVERSIZED, HEAVY-DUTY JUNCTION BOX
41	INSTALL SPECIAL-SIZED, HEAVY DUTY JUNCTION BOX
42	INSTALL WOOD POLE
43	INSTALL CCTV CAMERA LOWERING DEVICE
44	INSTALL AERIAL GUY ASSEMBLY
45	INSTALL STANDARD GUY ASSEMBLY
46	INSTALL SIDEWALK GUY ASSEMBLY
47	INSTALL MESSENGER CABLE
48	INSTALL MVDS POLE
49	INSTALL CCTV POLE
50	INSTALL DMS ASSEMBLY
51	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
52	INSTALL DELINEATOR MARKER
53	STORE 50 FEET OF EACH COMMUNICATIONS CABLE
54	STORE 100 FEET OF EACH COMMUNICATIONS CABLE
55	LASH CABLE(S) TO SIGNAL/COMMUNICATIONS CABLE
56	LASH CABLE(S) TO NEW MESSENGER CABLE
57	MODIFY EXISTING ELECTRICAL SERVICE
58	INSTALL NEW ELECTRICAL SERVICE
59	INSTALL ETHERNET EDGE SWITCH
60	INSTALL GIGABIT ETHERNET SWITCH
61	INSTALL VIDEO ENCODER

BOND TRACER WIRE TO CABINET GROUND

INSTALL SOLAR POWER ASSEMBLY

62

63

---- NEW CONDUIT (3) S

SHEET NO.

9.9.13

LEGEND

NEW DIRECTIONAL DRILLED CONDUIT EXISTING CONDUIT

PLAN OF RECORD

EXISTING CONDUIT (NOT USED)

NEW OVERSIZED, HEAVY-DUTY JUNCTION BOX

EXISTING OVERSIZED, HEAVY-DUTY JUNCTION BOX NEW SPECIAL SIZED, HEAVY-DUTY JUNCTION BOX

EXISTING SPECIAL SIZED, HEAVY-DUTY JUNCTION BOX

NEW UNDERGROUND SPLICE ENCLOSURE NEW SPLICE CABINET

EXISTING CCTV ASSEMBLY

EXISTING OR NEW (BY OTHERS) OVERHEAD SIGN STRUCTURE

NEW OVERHEAD DMS AND SIGN STRUCTURE EXISTING OVERHEAD DMS AND SIGN STRUCTURE

EXISTING CONTROLLER AND CABINET STATIC GROUND MOUNTED SIGN

ABBREVIATIONS

CUSTOMER SERVICE CENTER INTELLIGENT TRANSPORTATION SYSTEMS

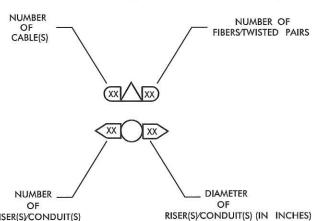
CONSTRUCTION NOTE SYMBOLOGY KEY

INDICATES NUMBER OF CABLES, LOOPS, ETC.

INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.

INDICATES NUMBER OF RISER(S)/CONDUIT(S)

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





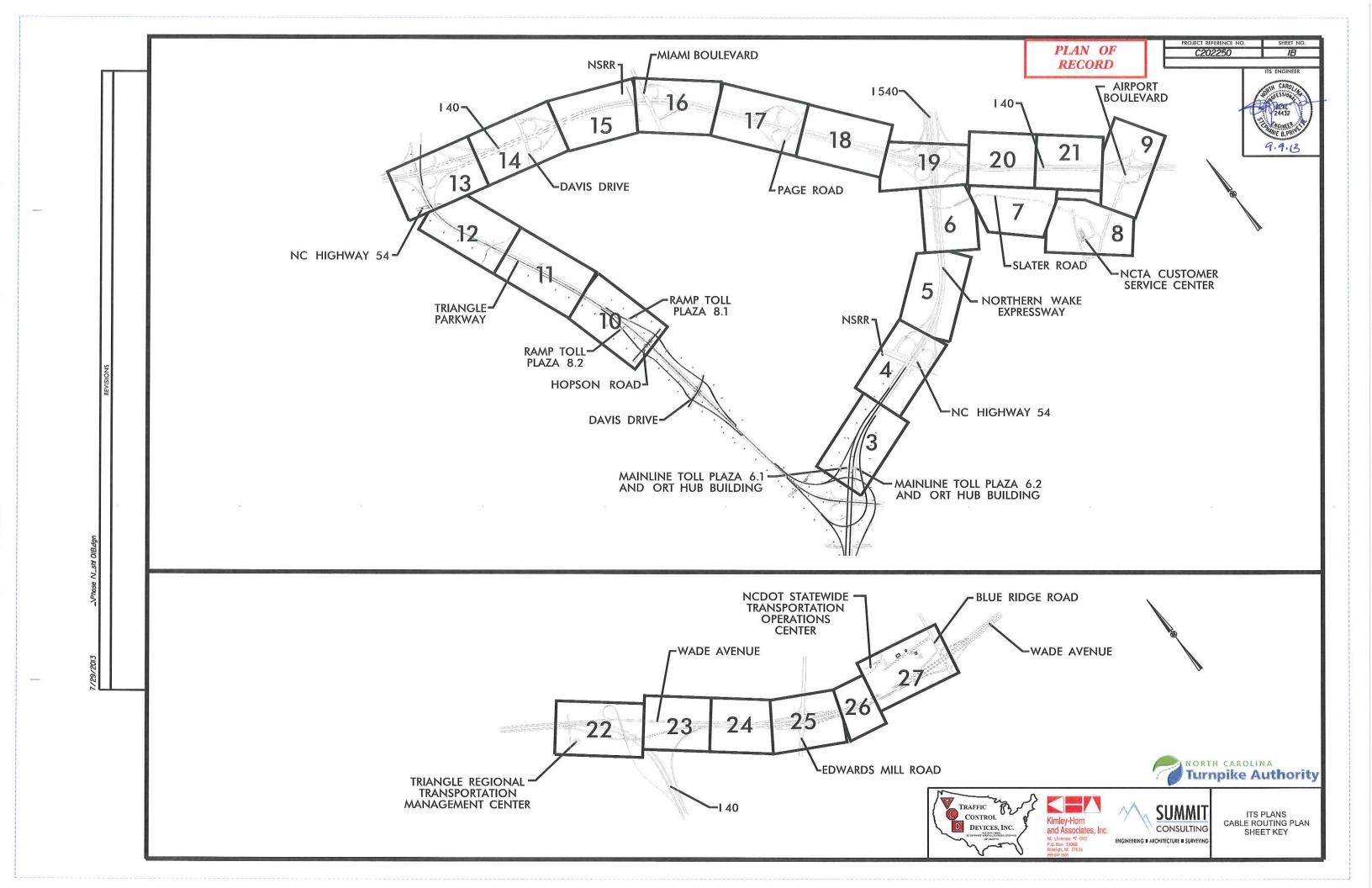


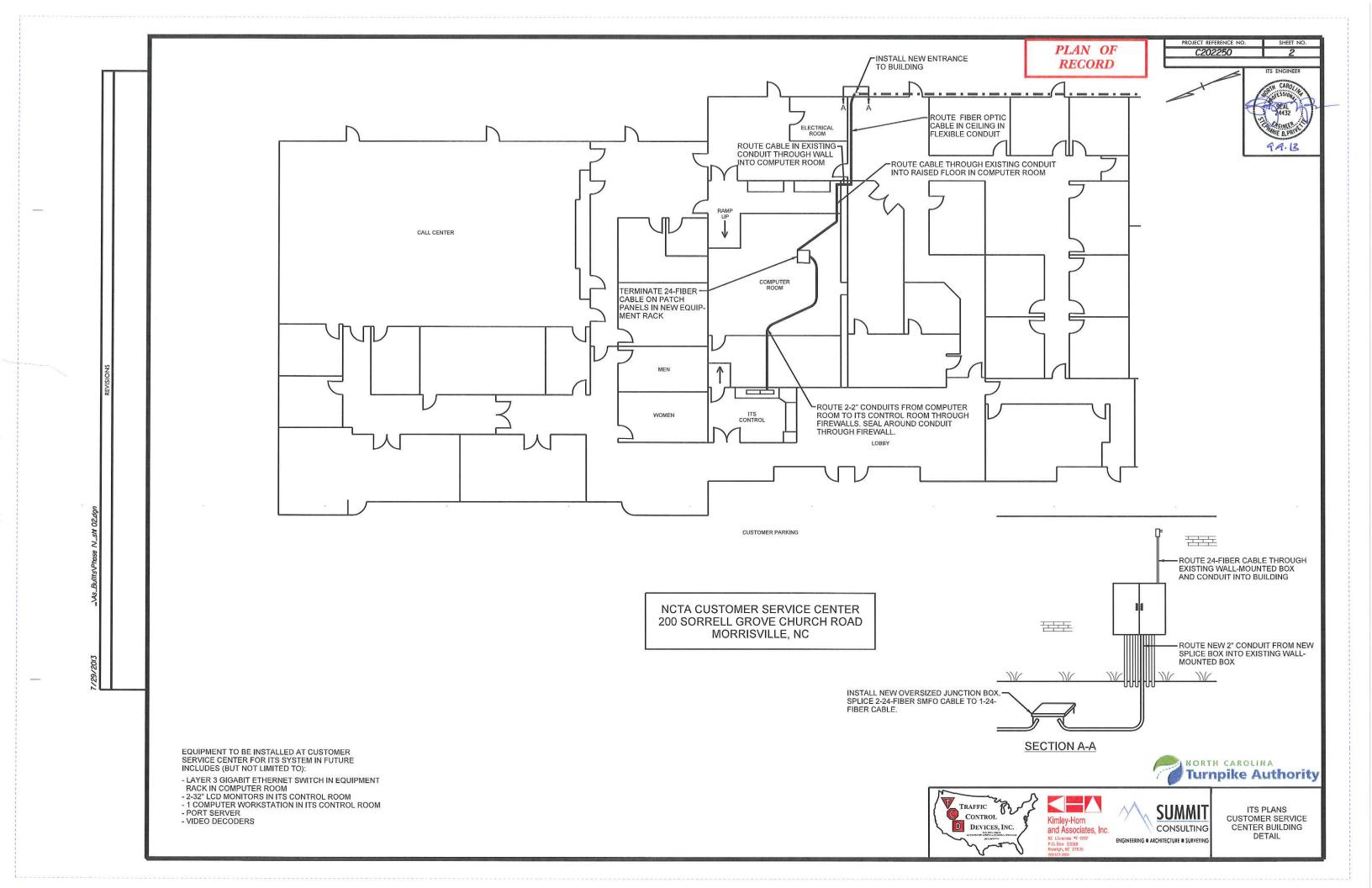


RISER(S)/CONDUIT(S)

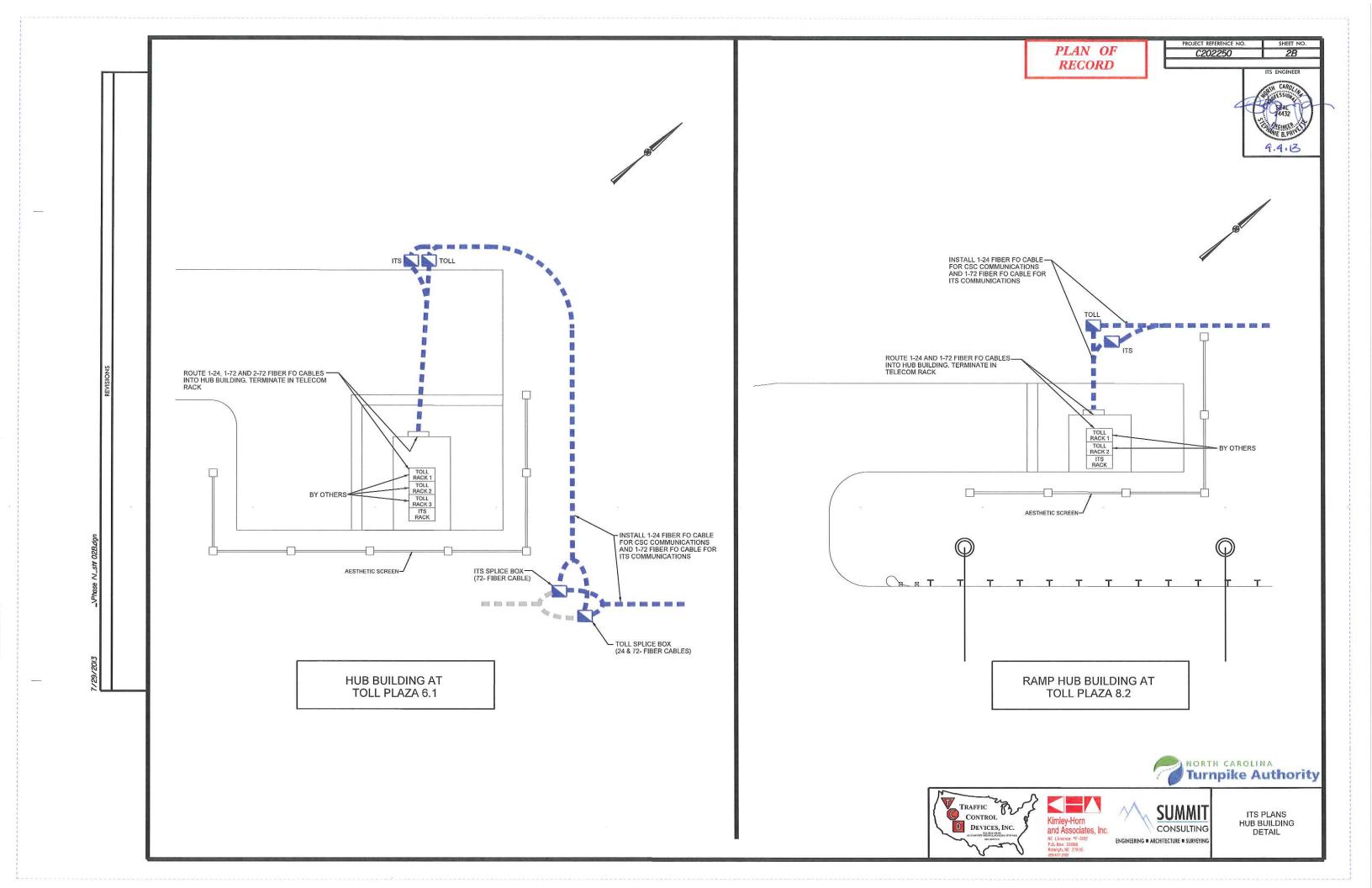


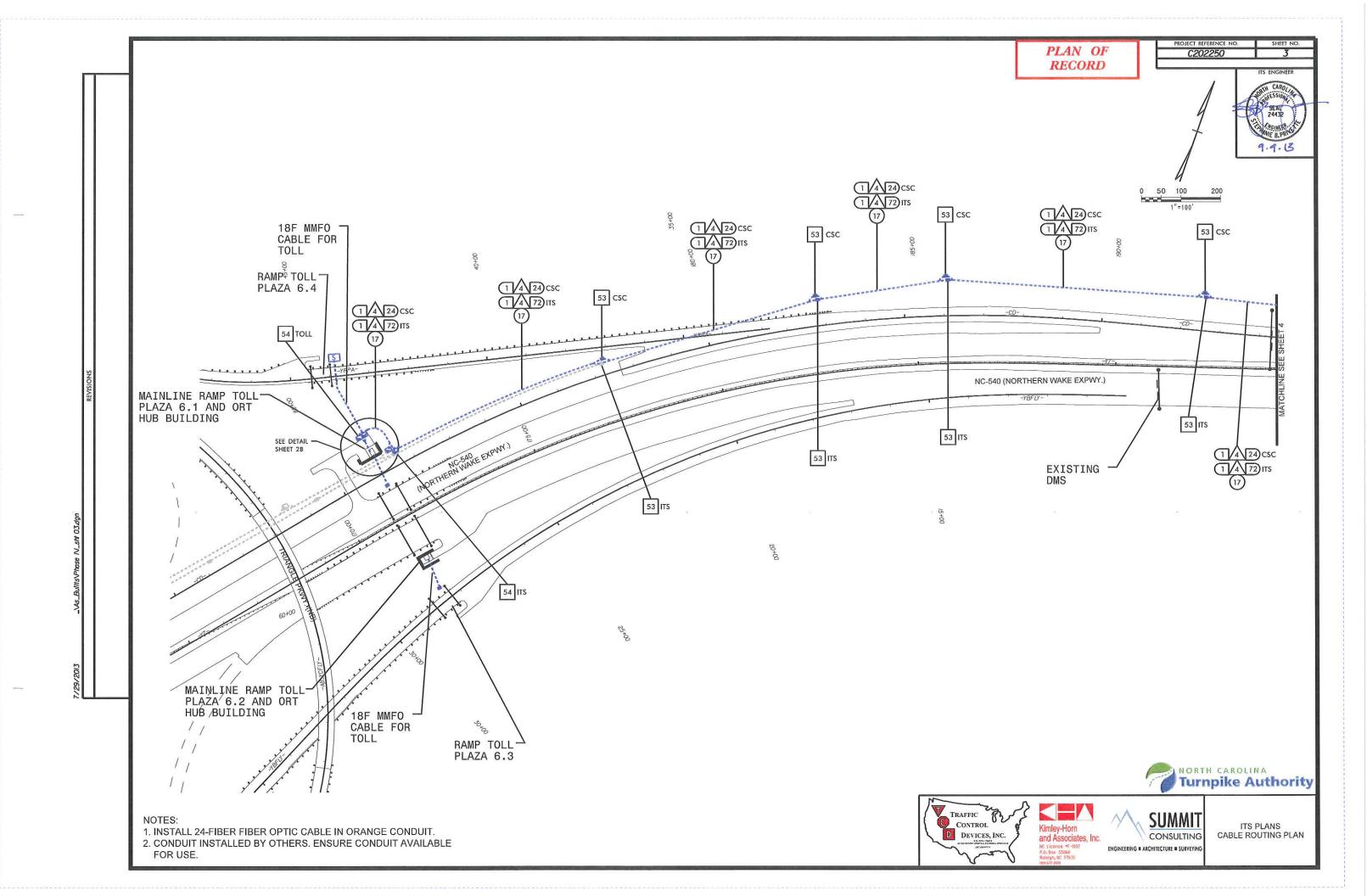
ITS PLANS CONSTRUCTION NOTES AND LEGEND

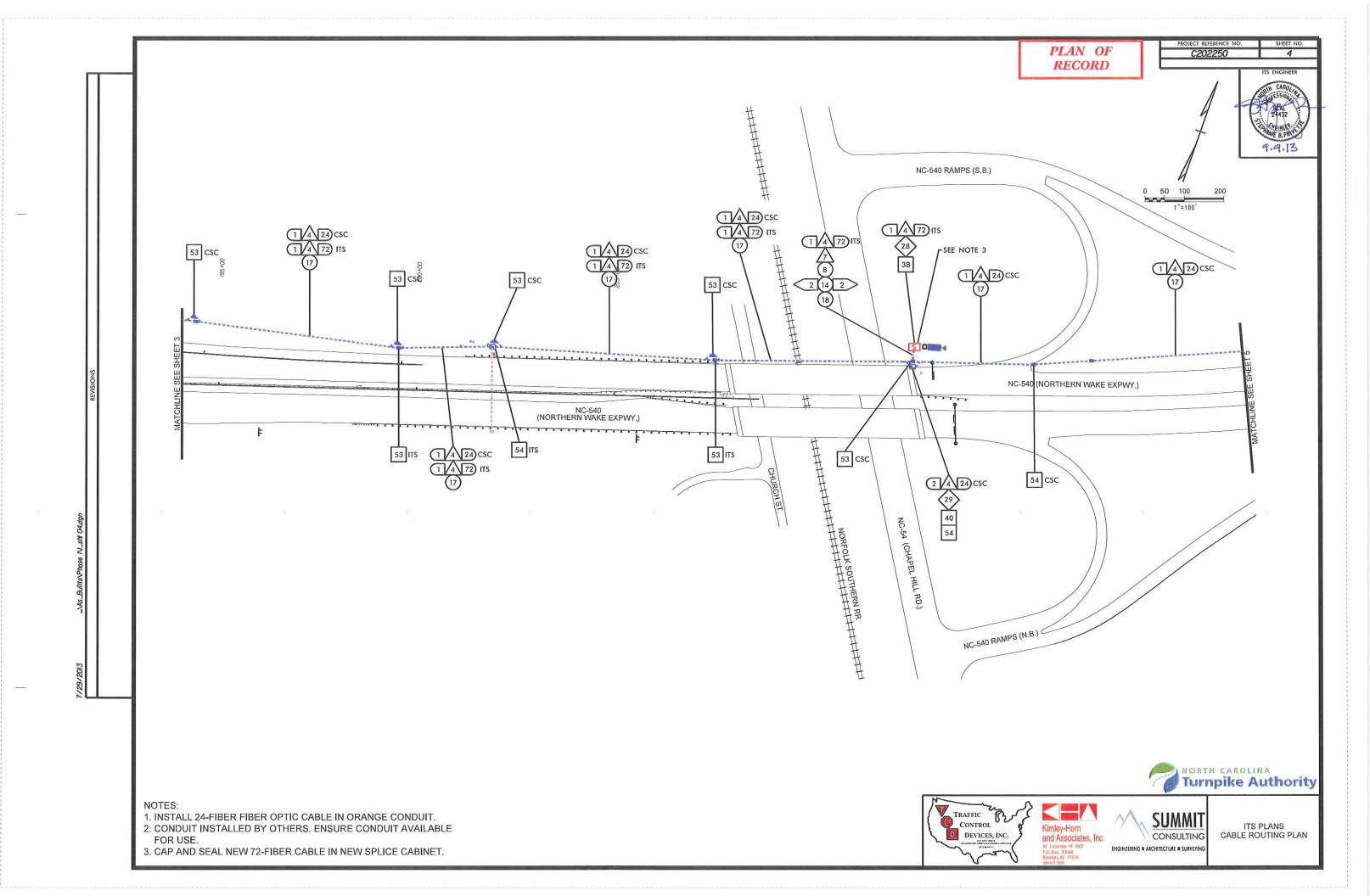


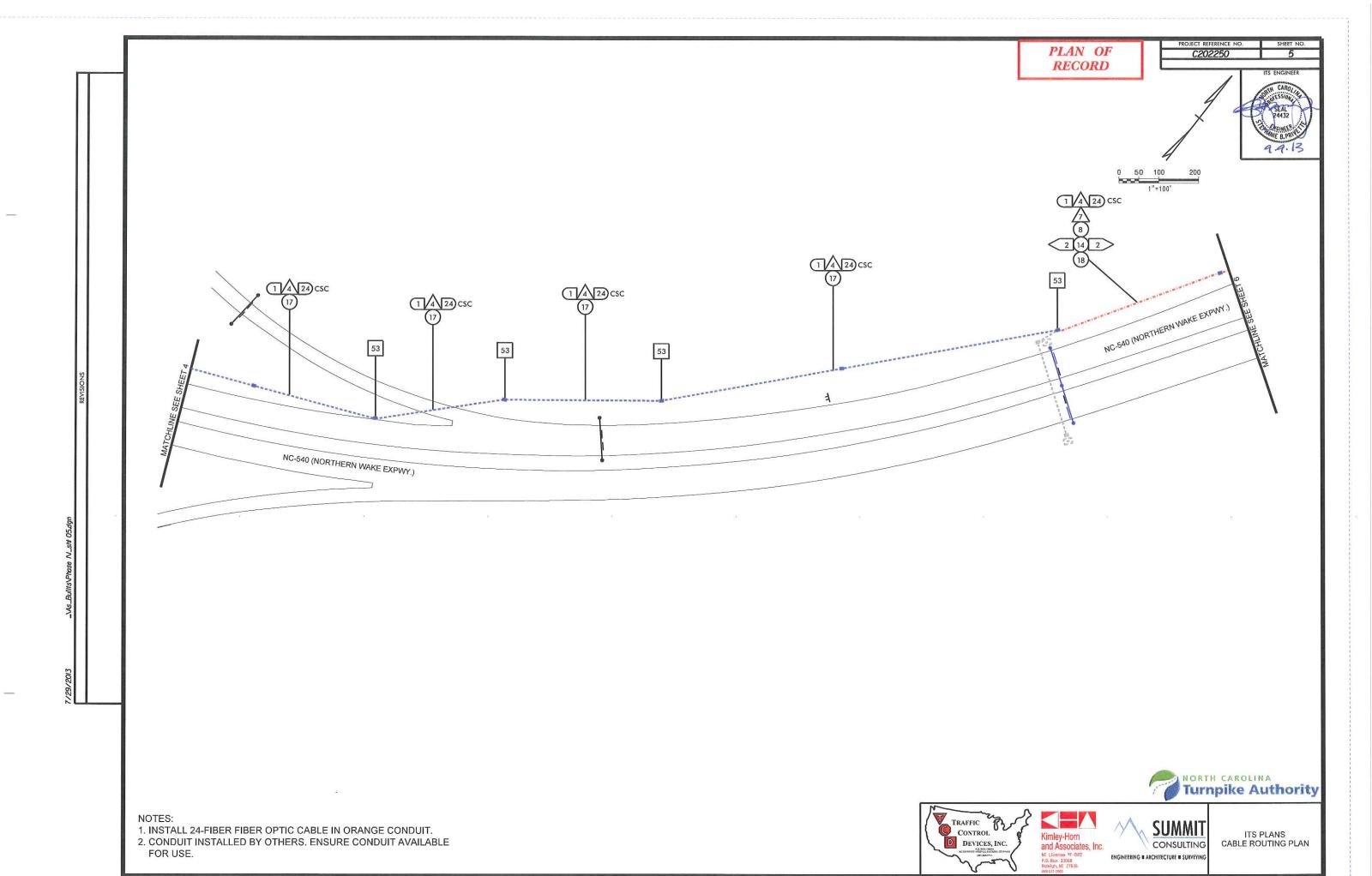


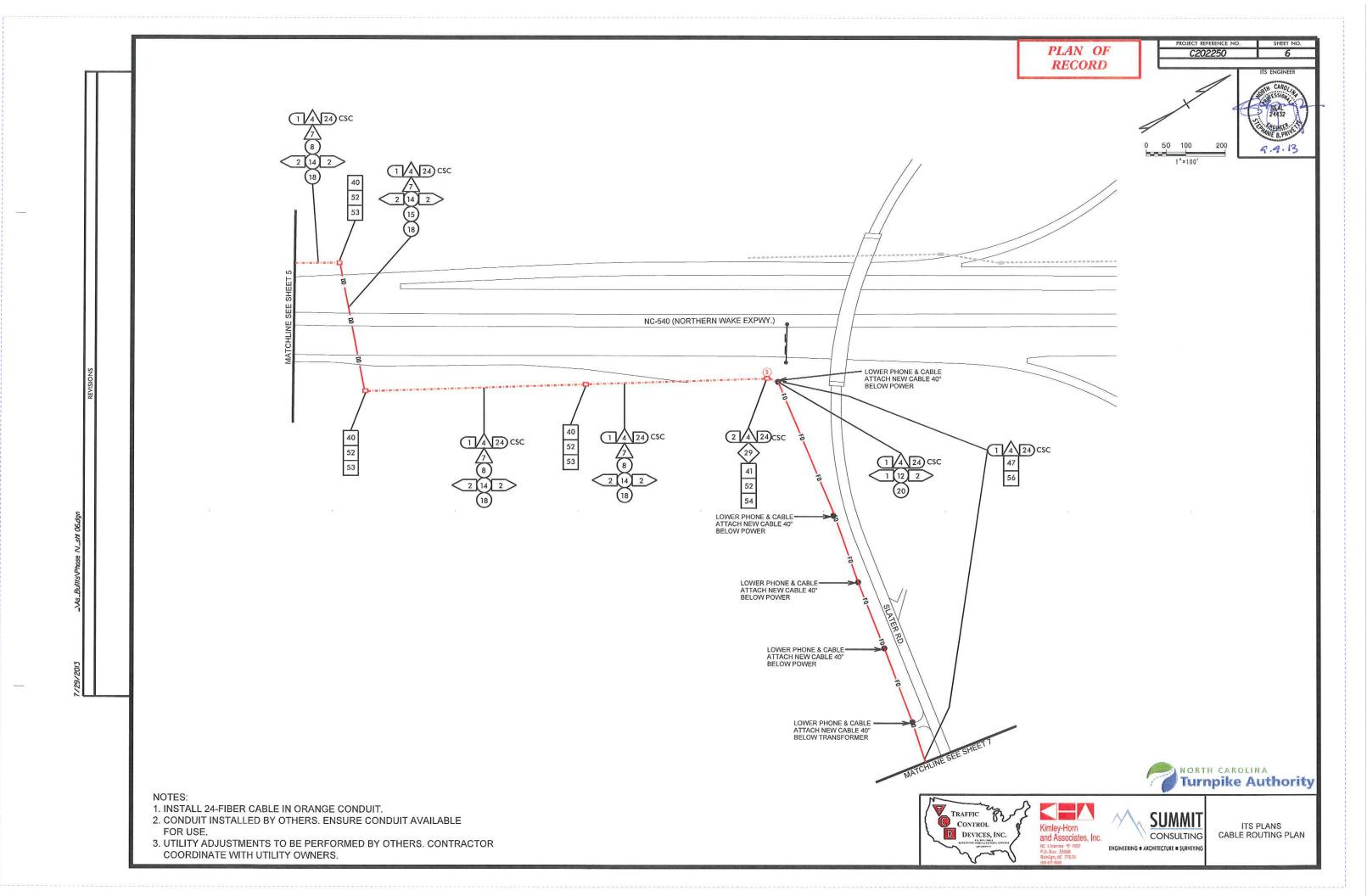
PLAN OF C202250 RECORD 99.13 1: 2-4" CONDUITS FOR NCDOT 2: 2-4" CONDUITS FOR NCSHP 3: 4-4" CONDUITS FOR OTHERS **8-WAY DUCT BANK DETAIL** 0082 STOC CONTROL CENTER 0500 0081 हरी हरी हरी हरी हरी हरी हरी हरी है। F27 F27 ROUTE 1-72 FIBER SHP CABLE, 1-72 FIBER NCDOT CABLE AND 3-144 FIBER NCDOT CABLES IN 8 WAY DUCT (BY OTHERS) ROUTE CABLES IN CONDUIT BY OWNER. SEE DÉTAIL THIS SHEET. TERMINATE ALL CABLES IN RACK MOUNTED J FIBER INTERCONNECT CENTERS IN TELECOM DEMARC ROOM (0061) **GROUND FLOOR PLAN** EXISTING MANHOLE -AT DISTRICT DRIVE NORTH CAROLINA
Turnpike Authority RALEIGH ARMED FORCES RESERVE CENTER, JOINT FORCES HEADQUARTERS NEXT PHASE OF ITS COMMUNICATIONS PROJECT WILL ROUTE FIBER OPTIC CABLE FROM DEMARC TRAFFIC SUMMIT DISTRICT DRIVE CONTROL ITS PLANS Kimley-Horn RALEIGH, NC BUILDING DETAIL D DEVICES, INC. CONSULTING ROOM (0061) TO SERVER ROOM (0082) AND and Associates, Inc. CONTROL CENTER VIA ROOMS 0066 AND 0081 IN ENGINEERING # ARCHITECTURE # SURVEYIN EXISTING CONDUITS, RISERS AND CABLE RACEWAYS.

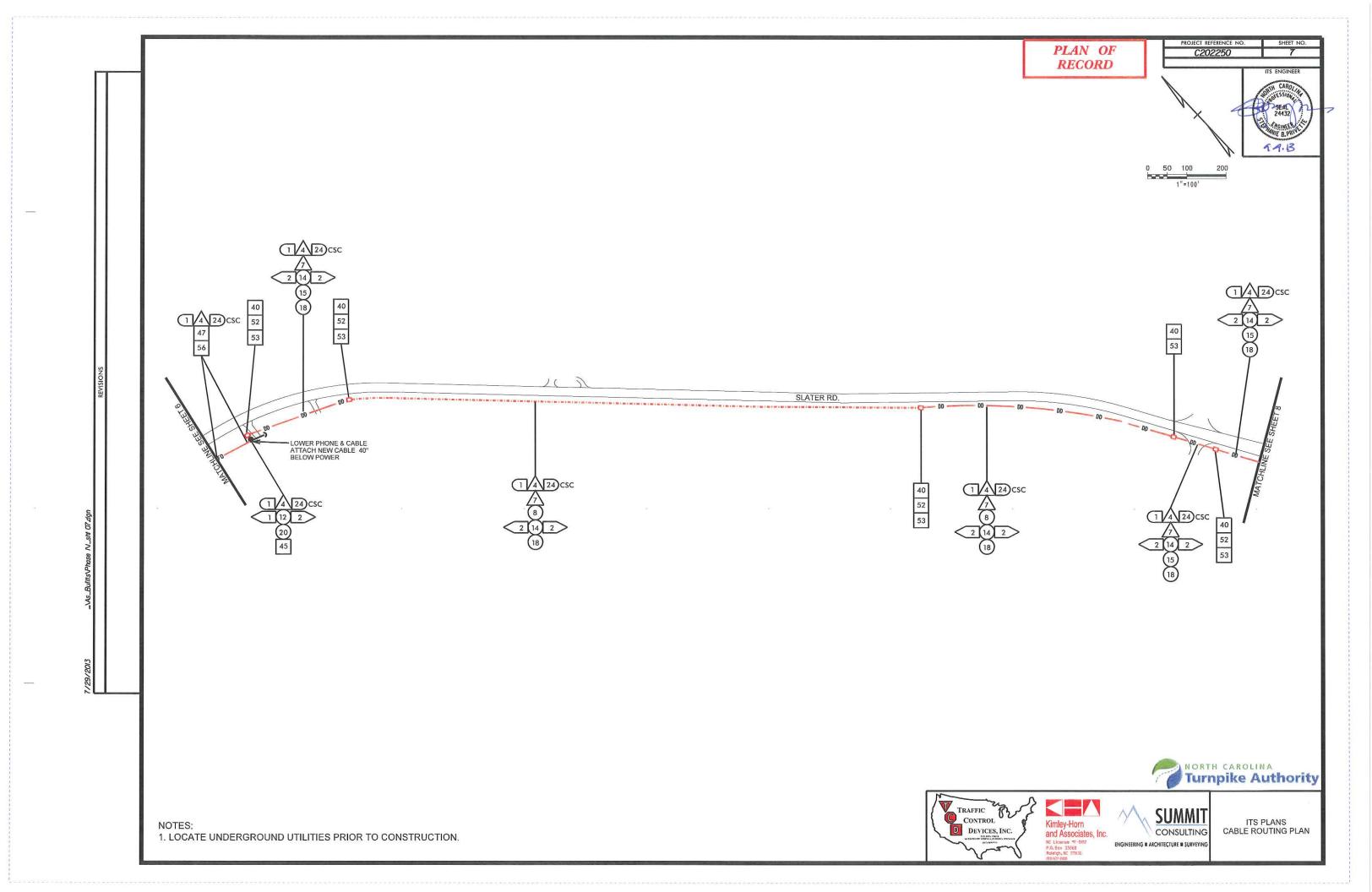


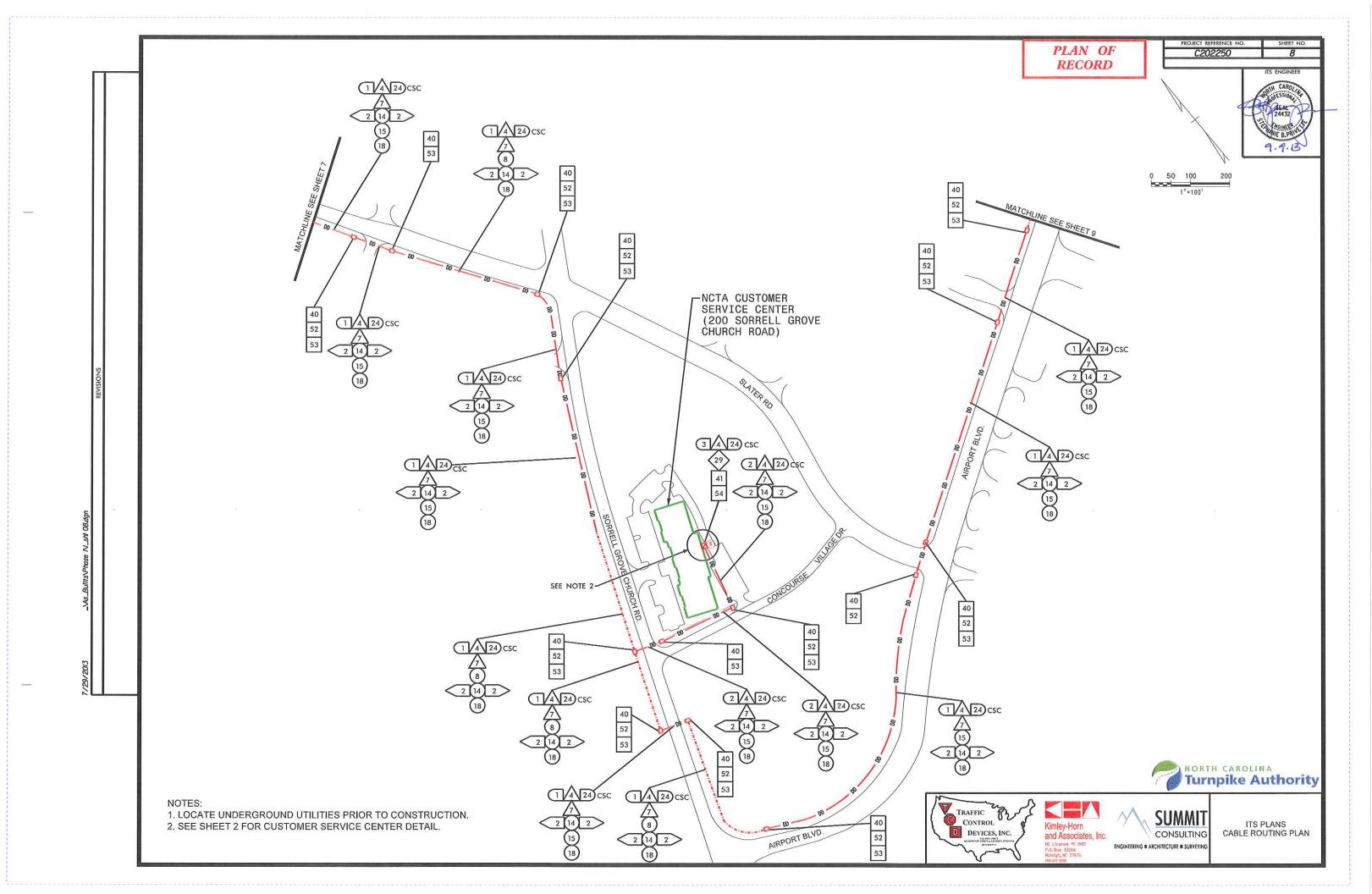


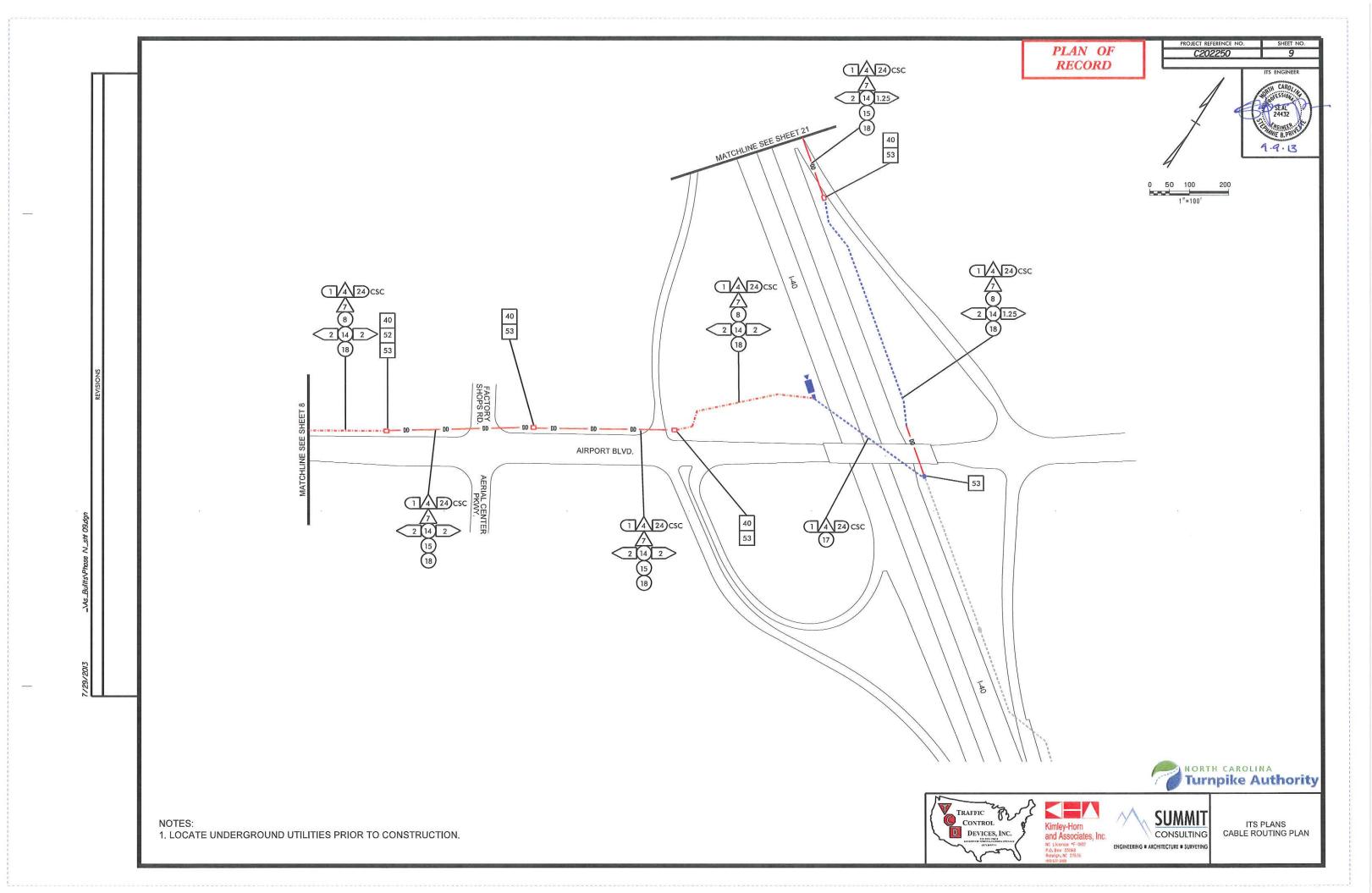


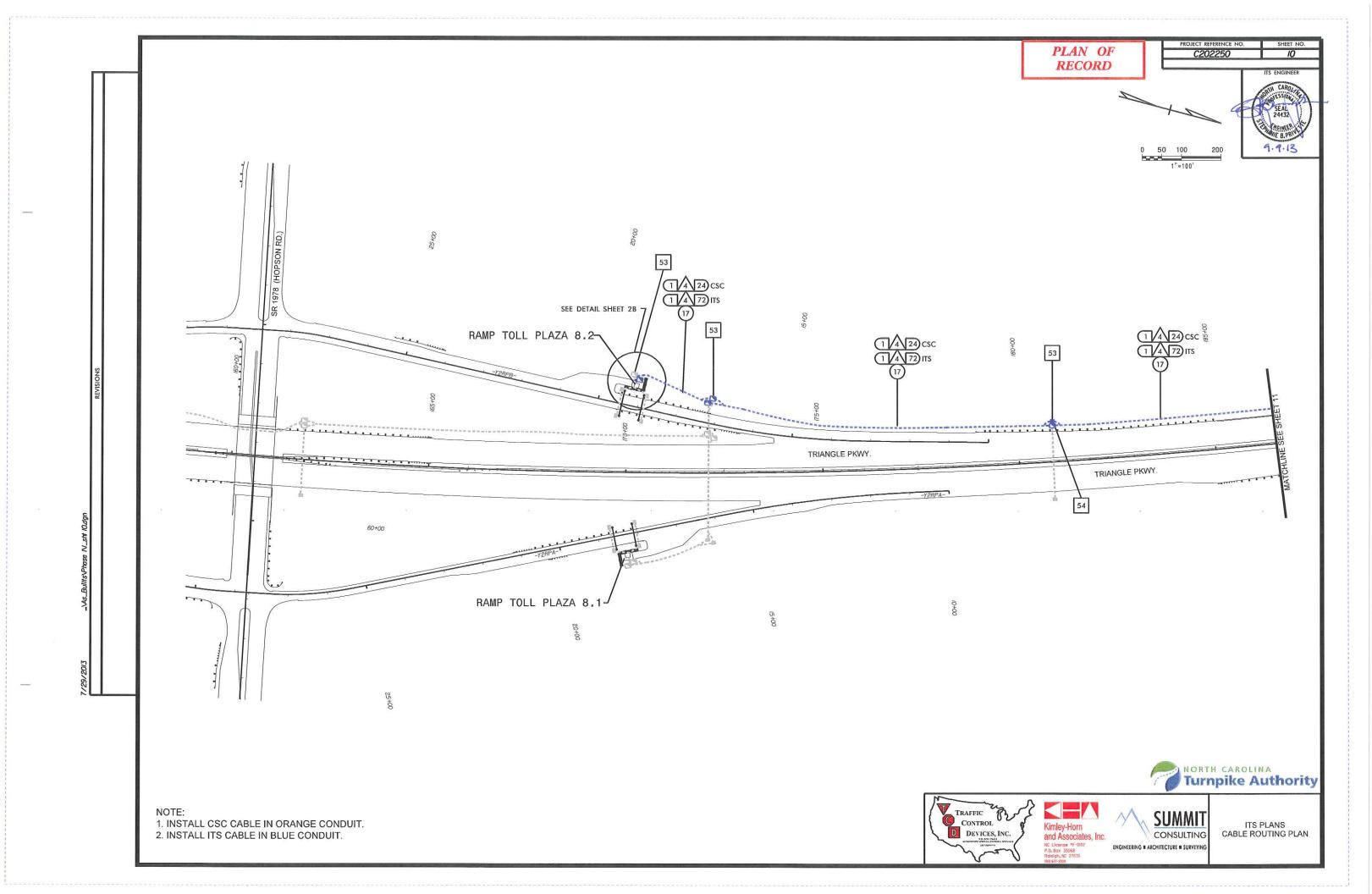


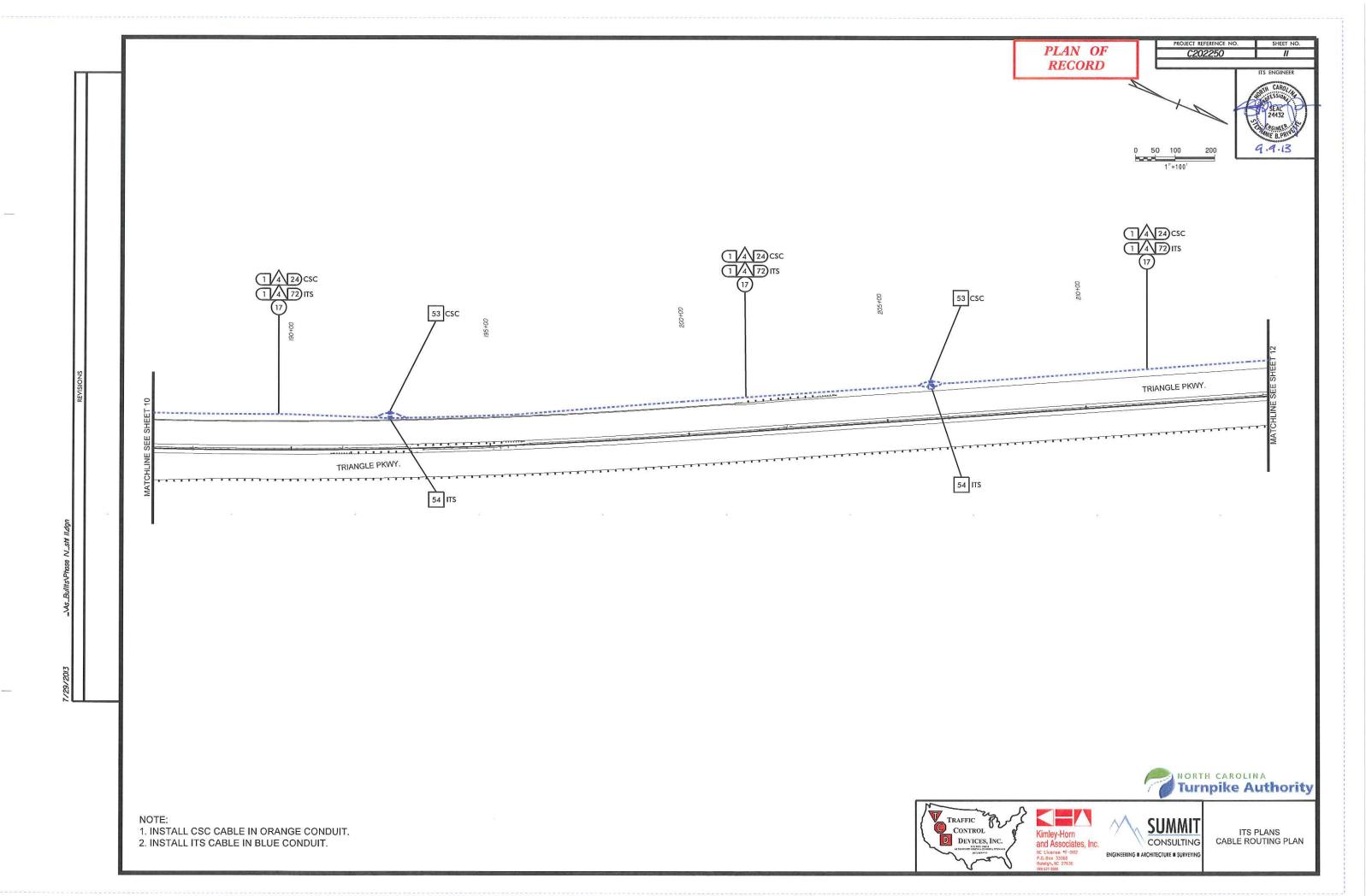


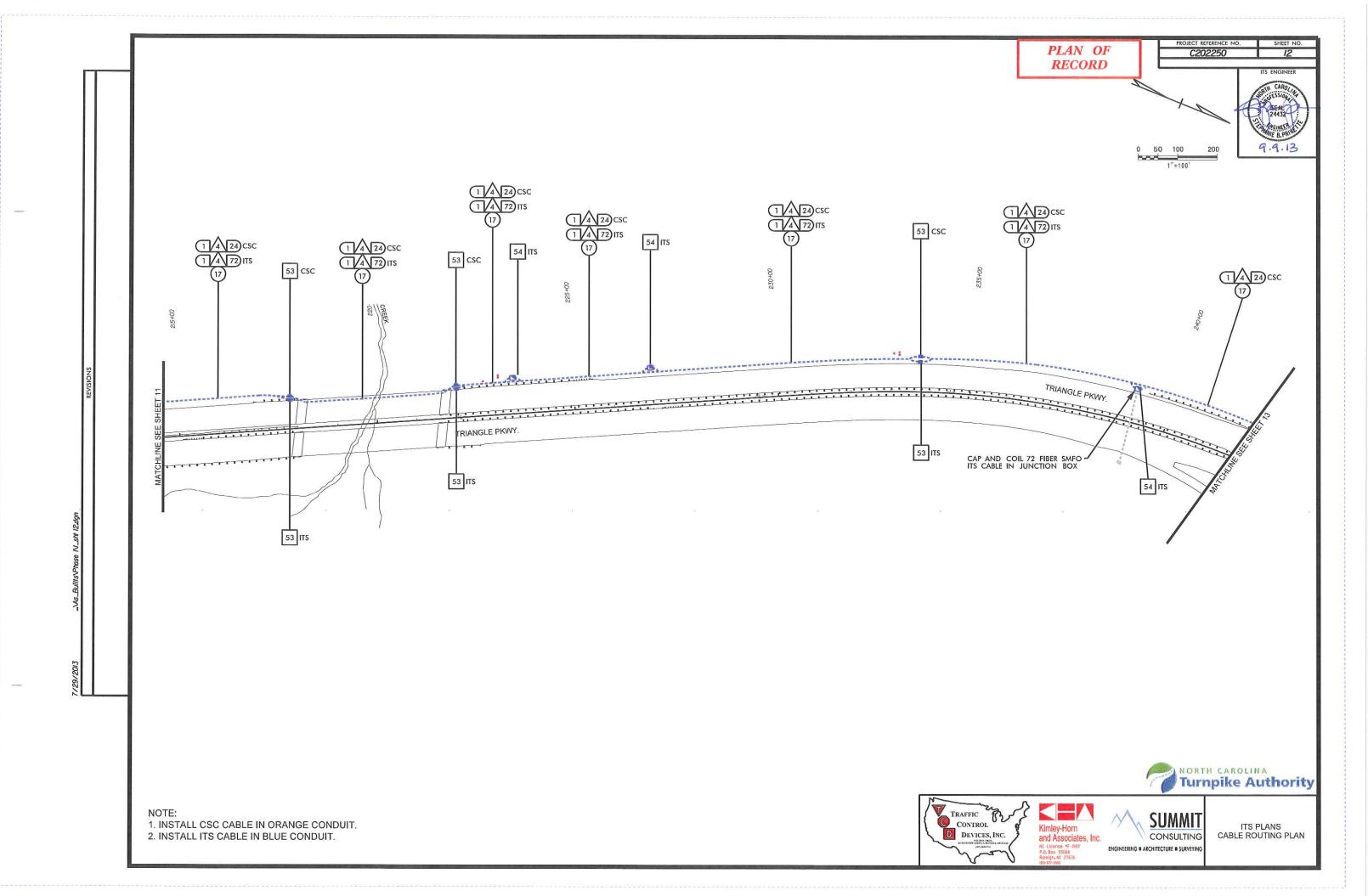


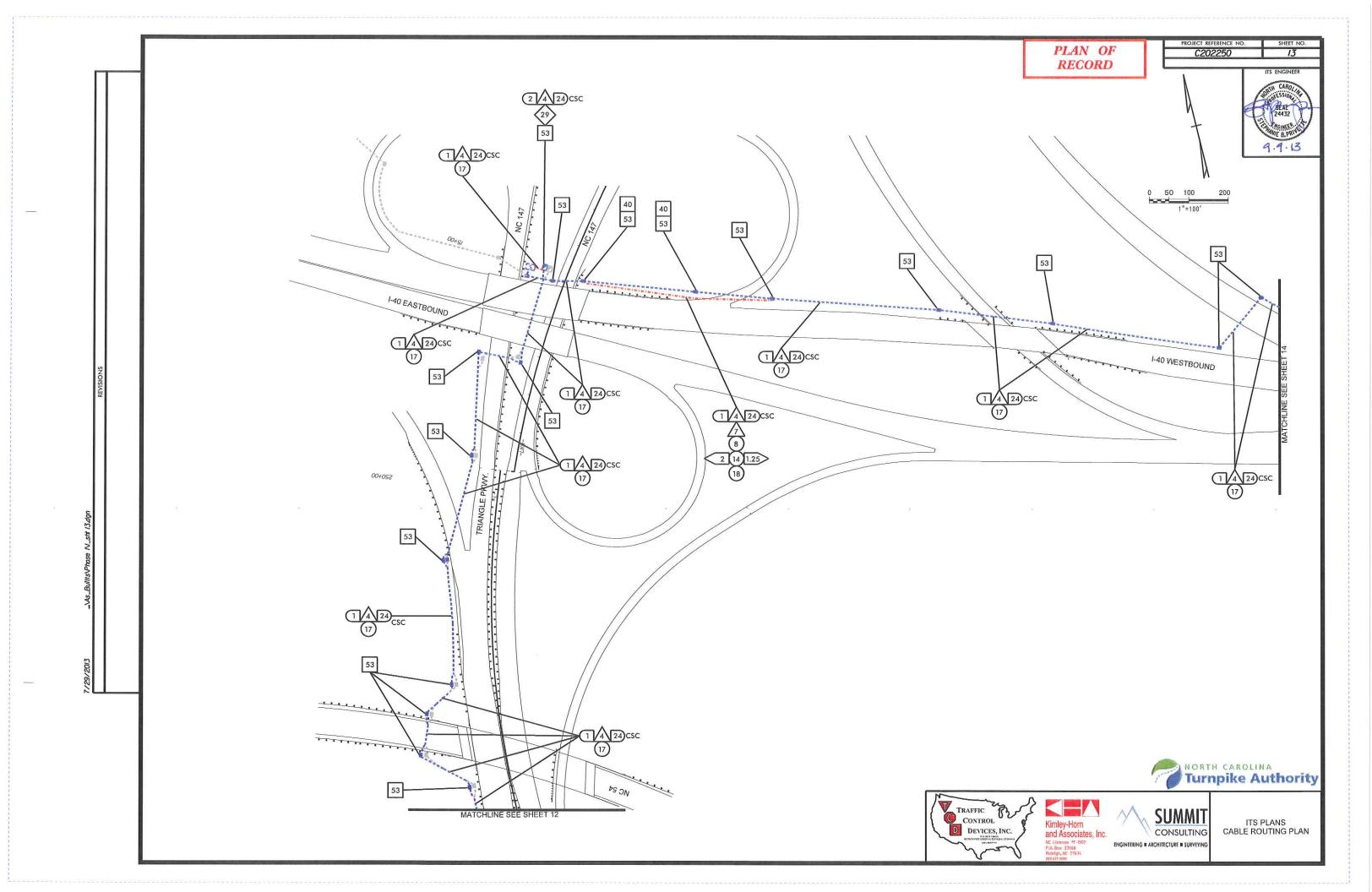


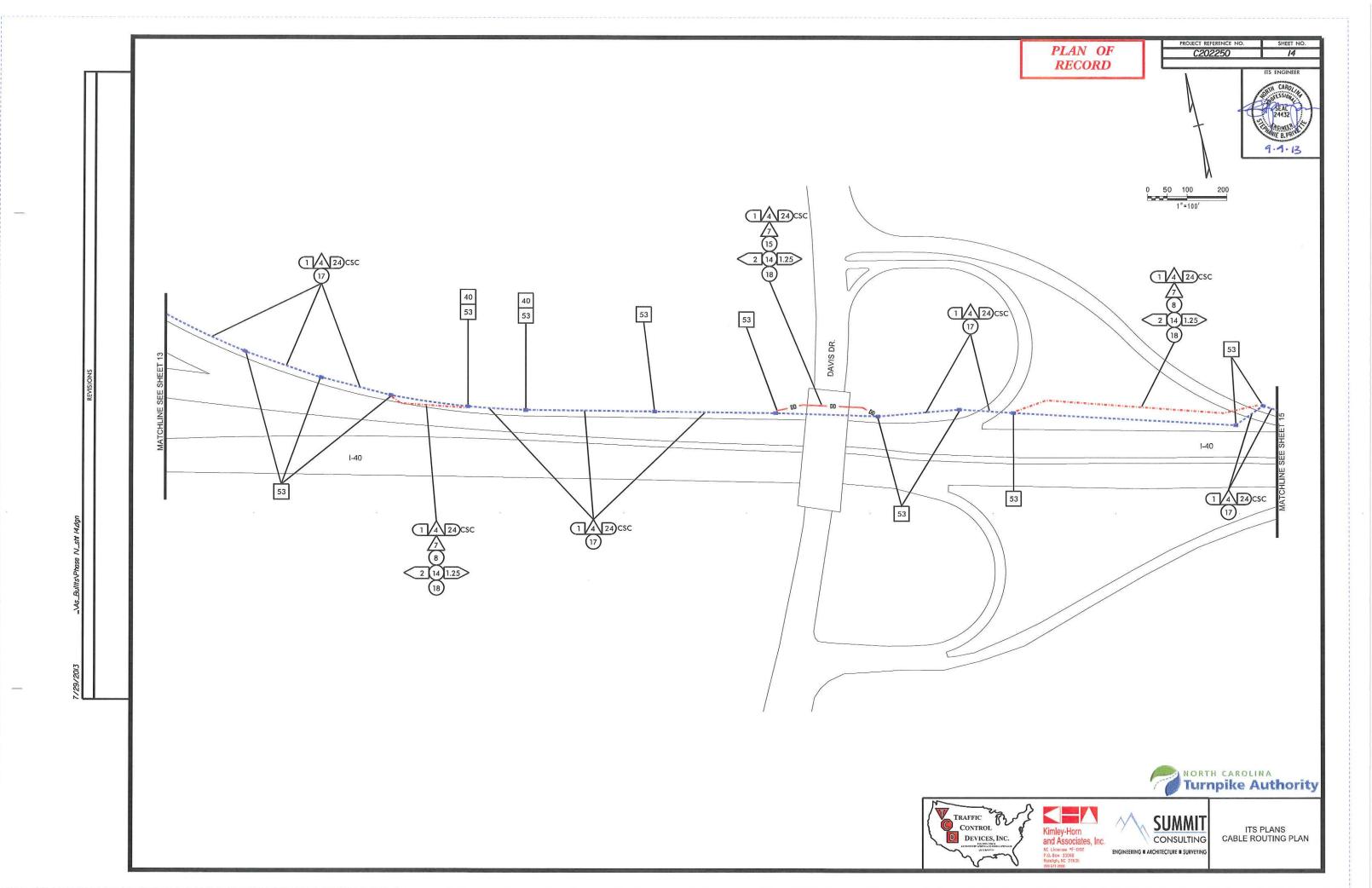


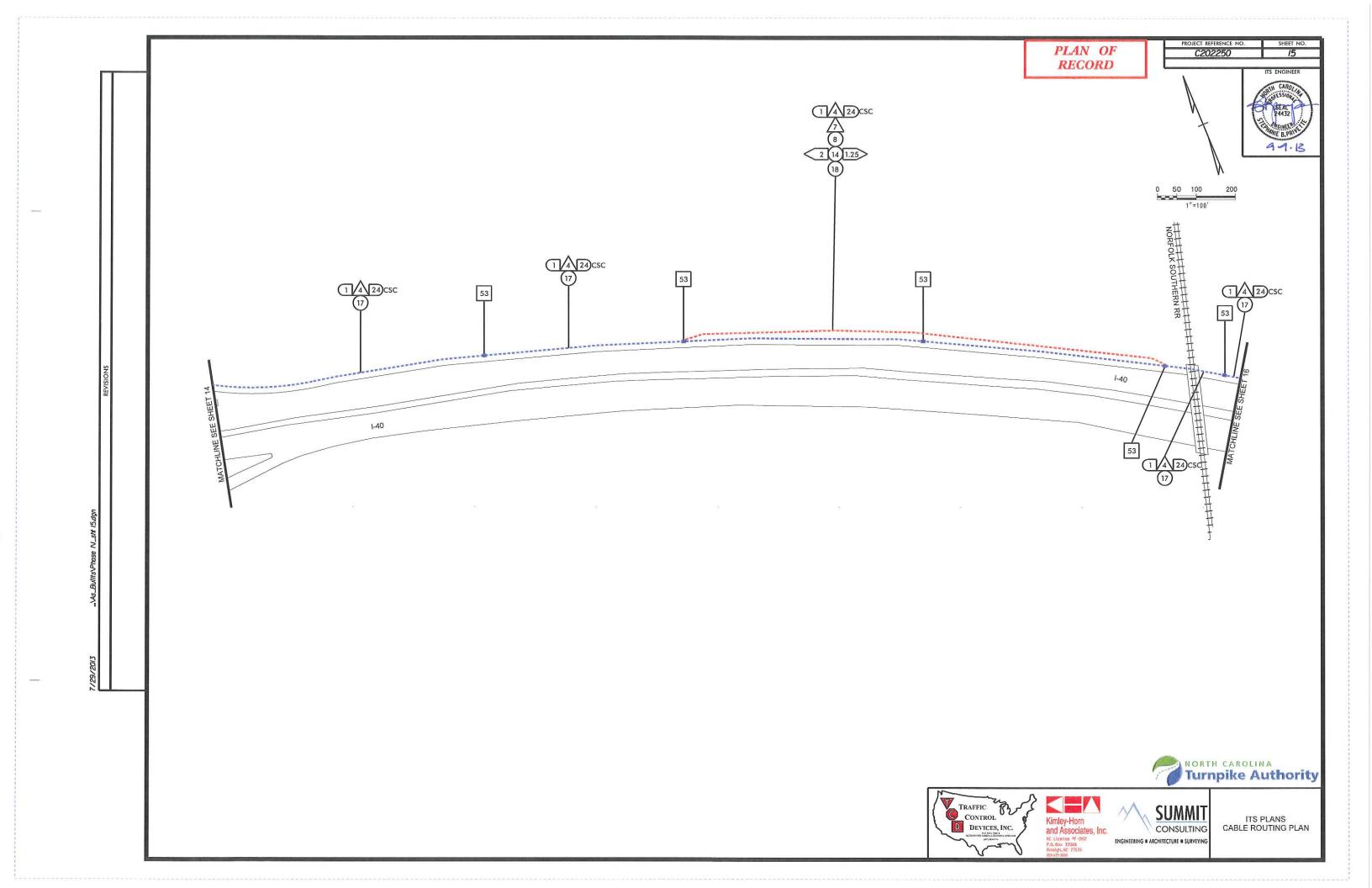


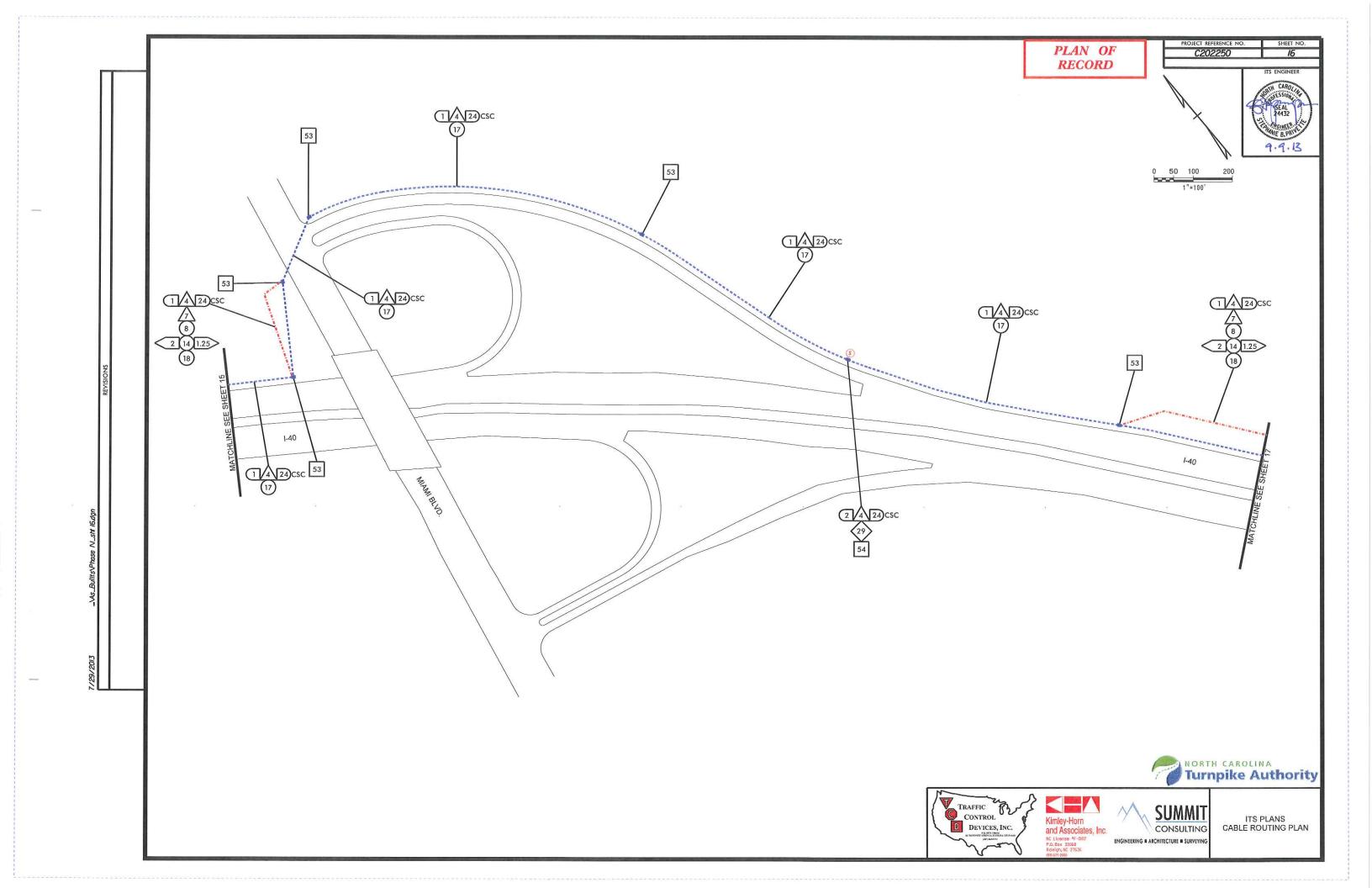


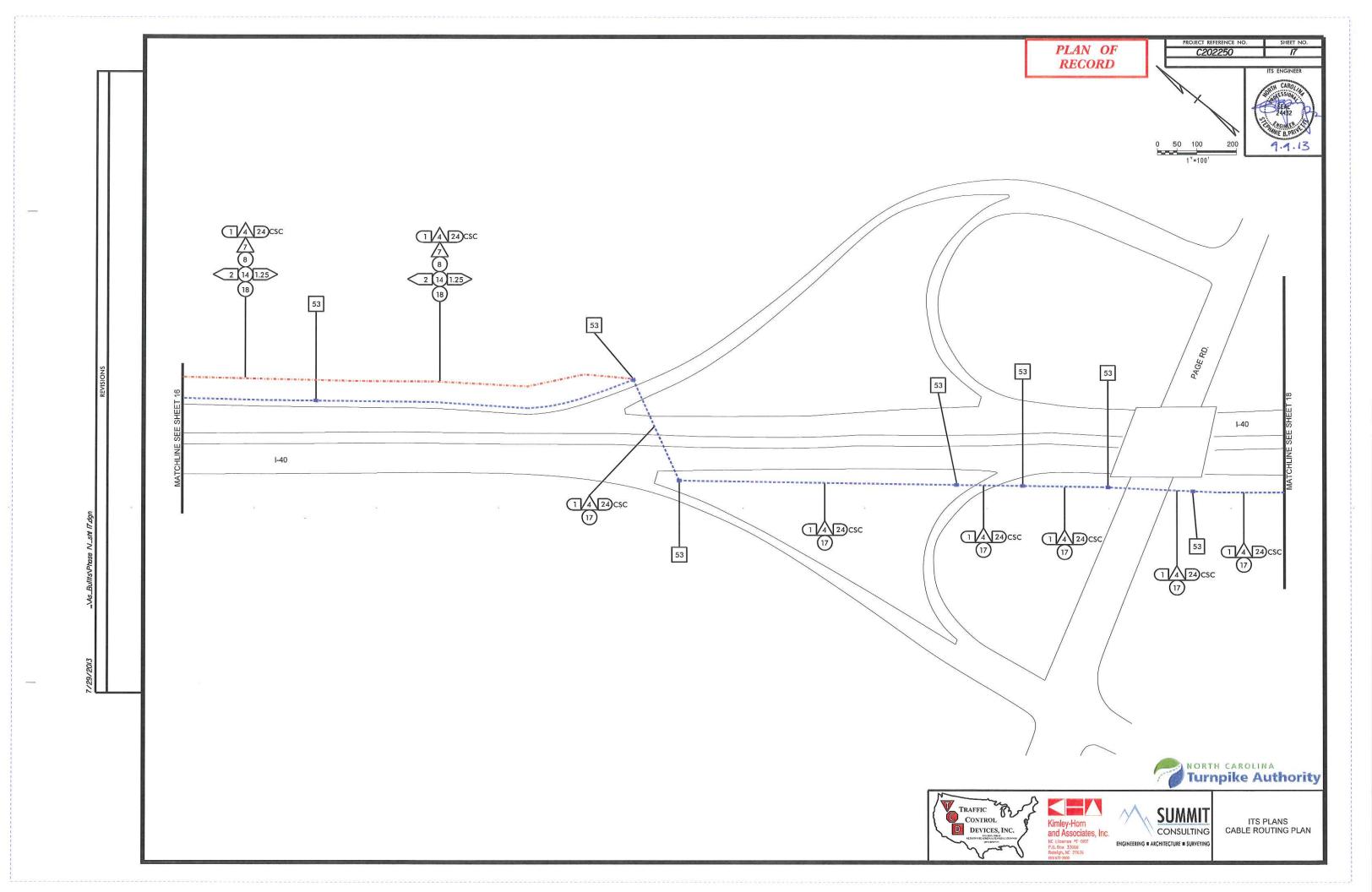


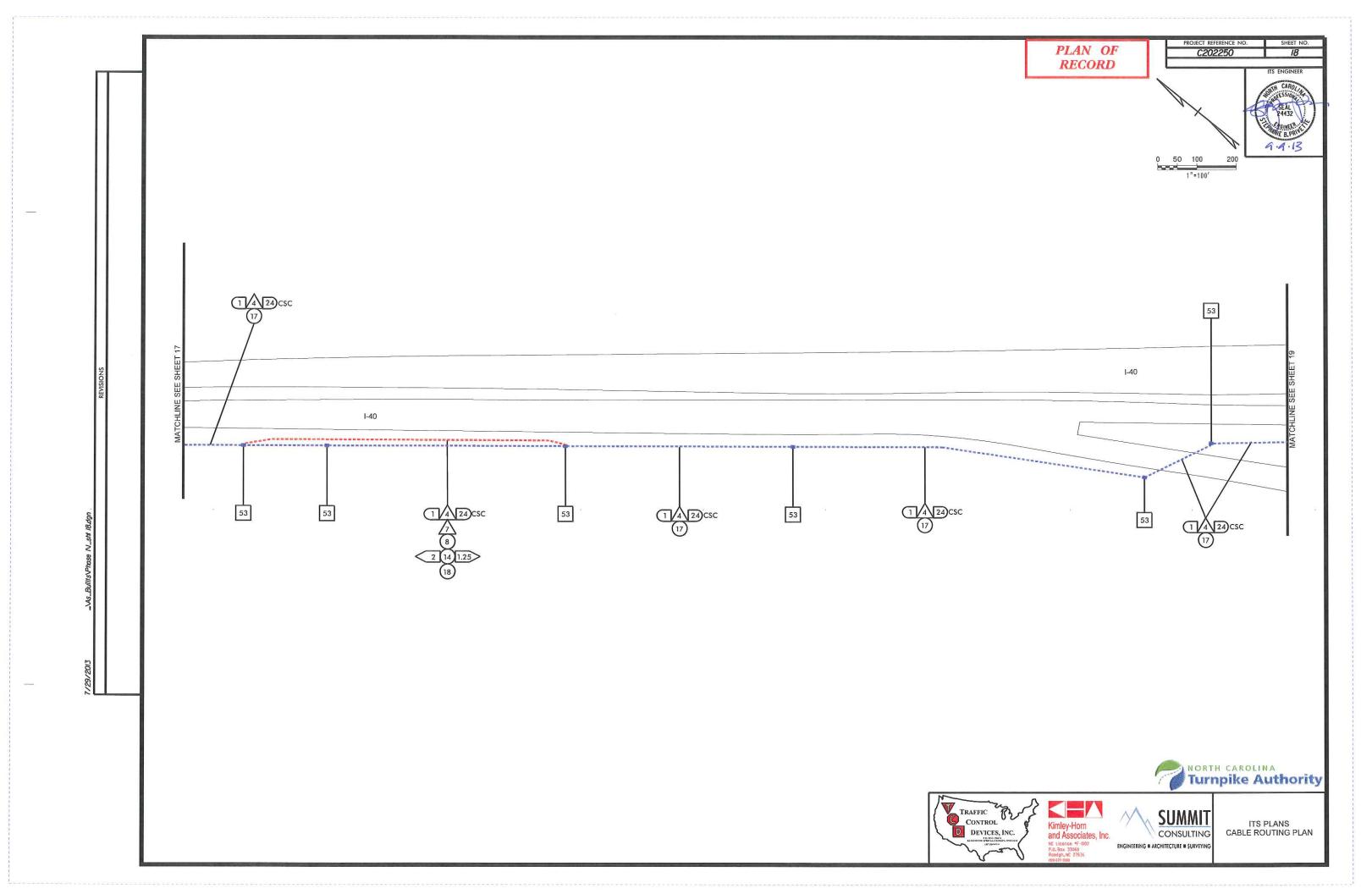


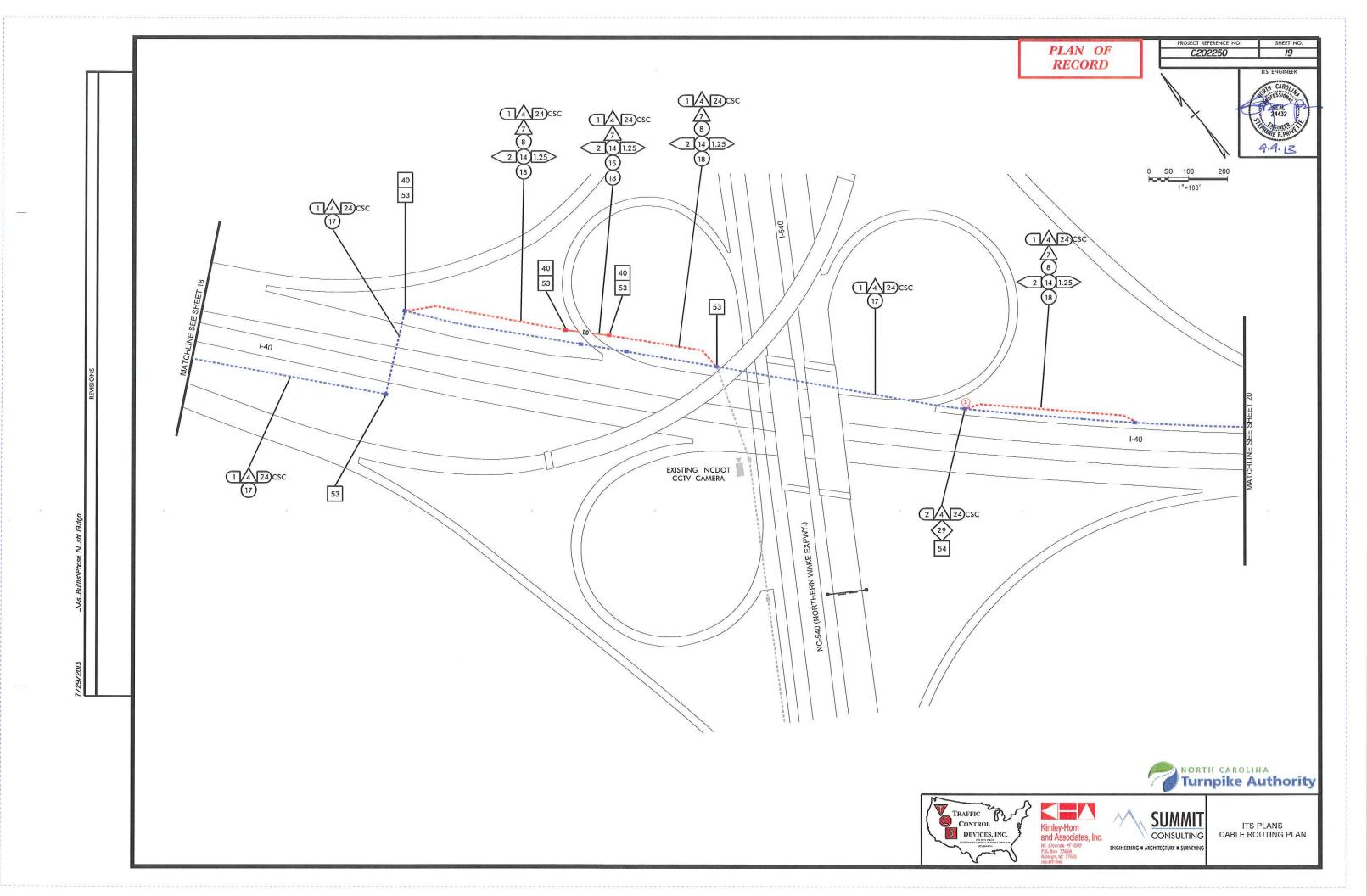


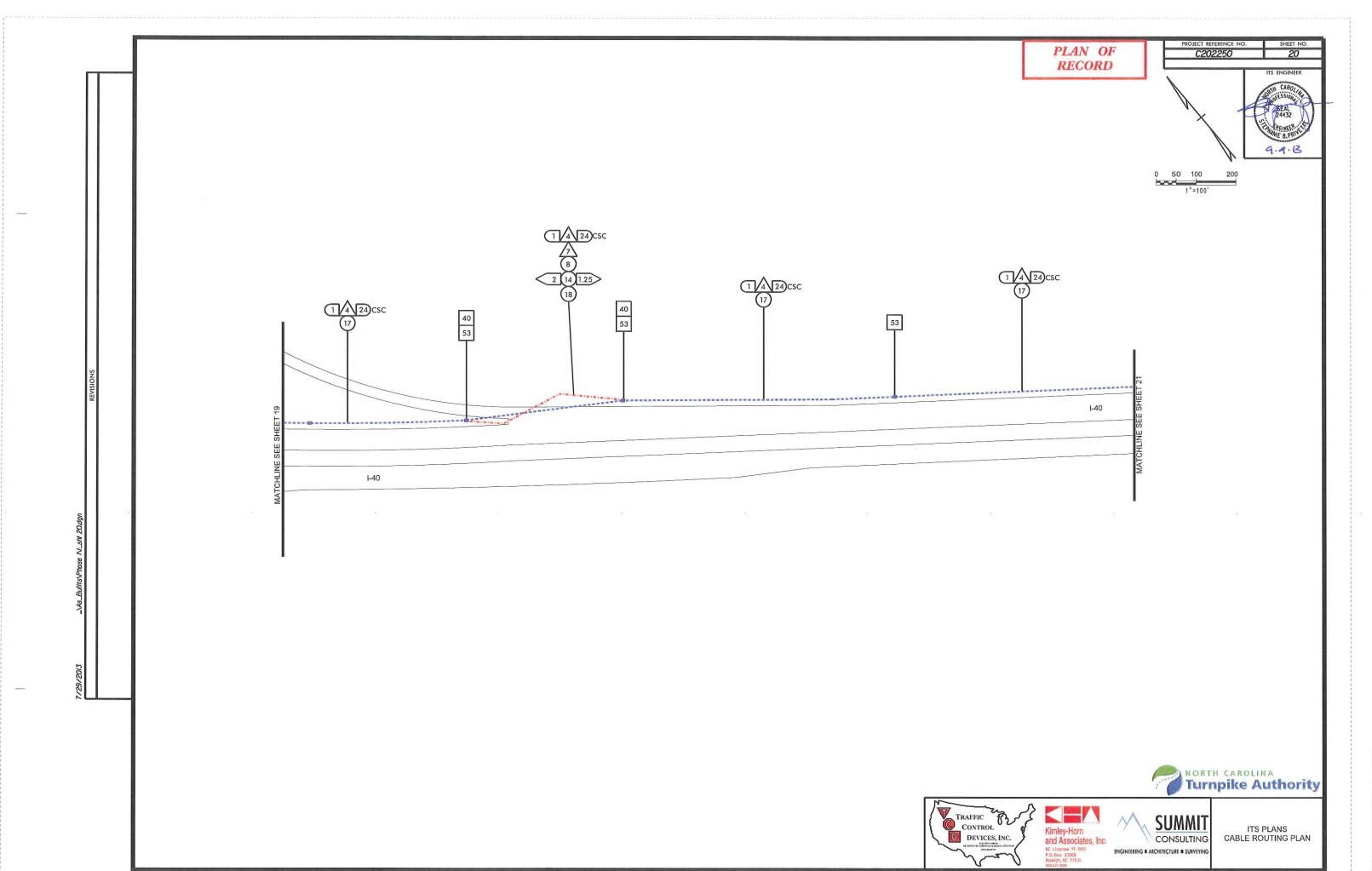


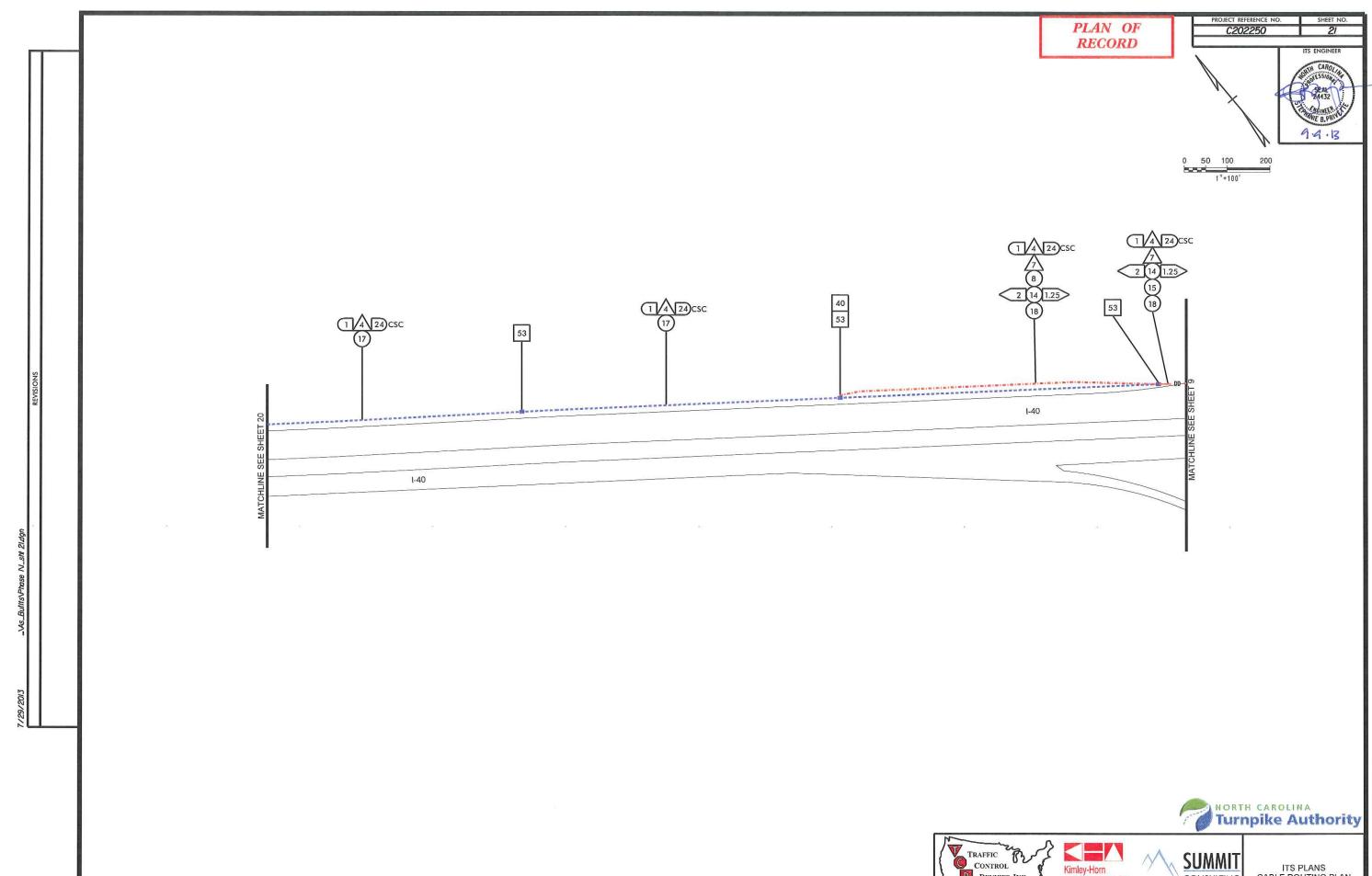










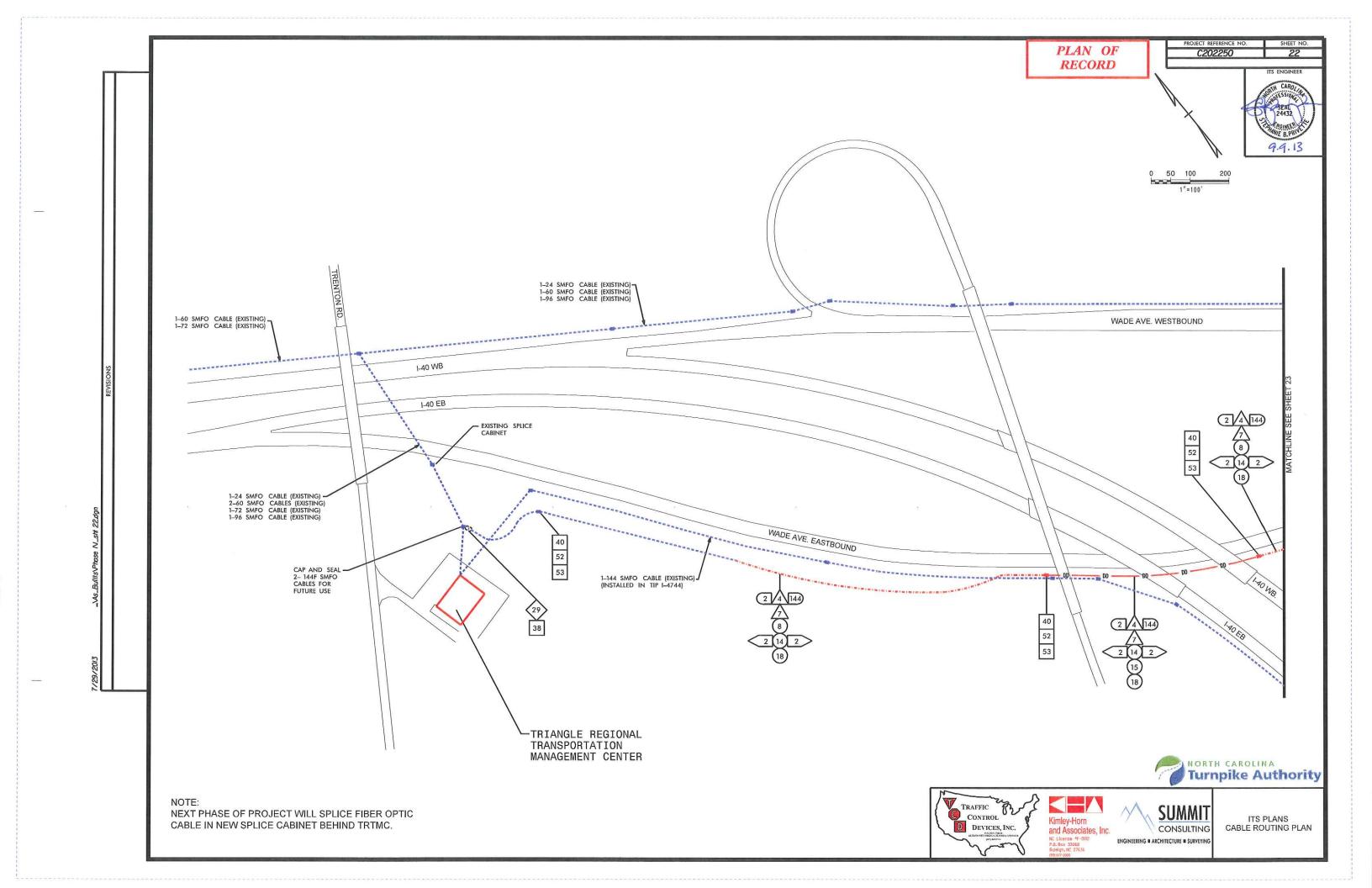


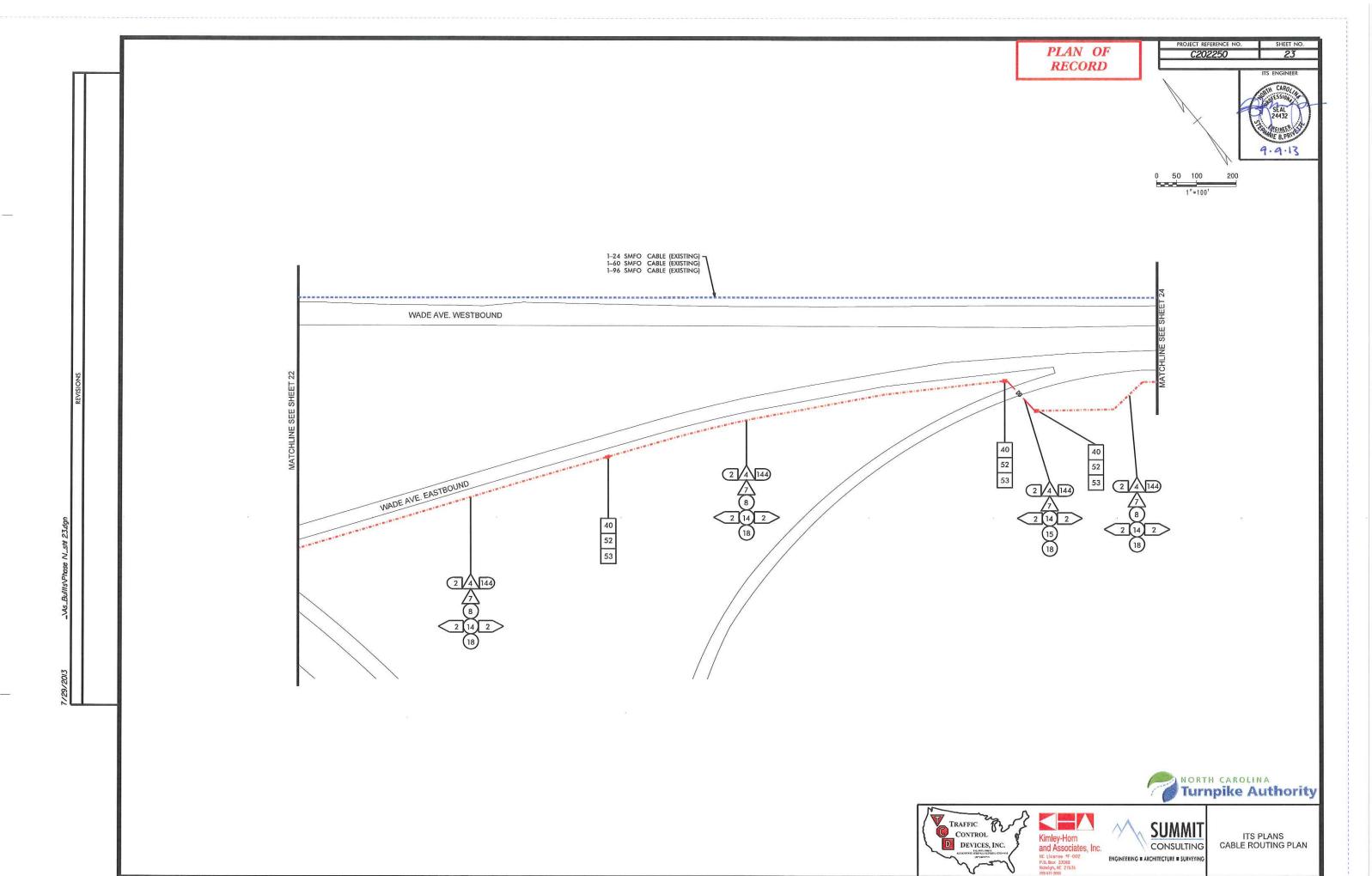


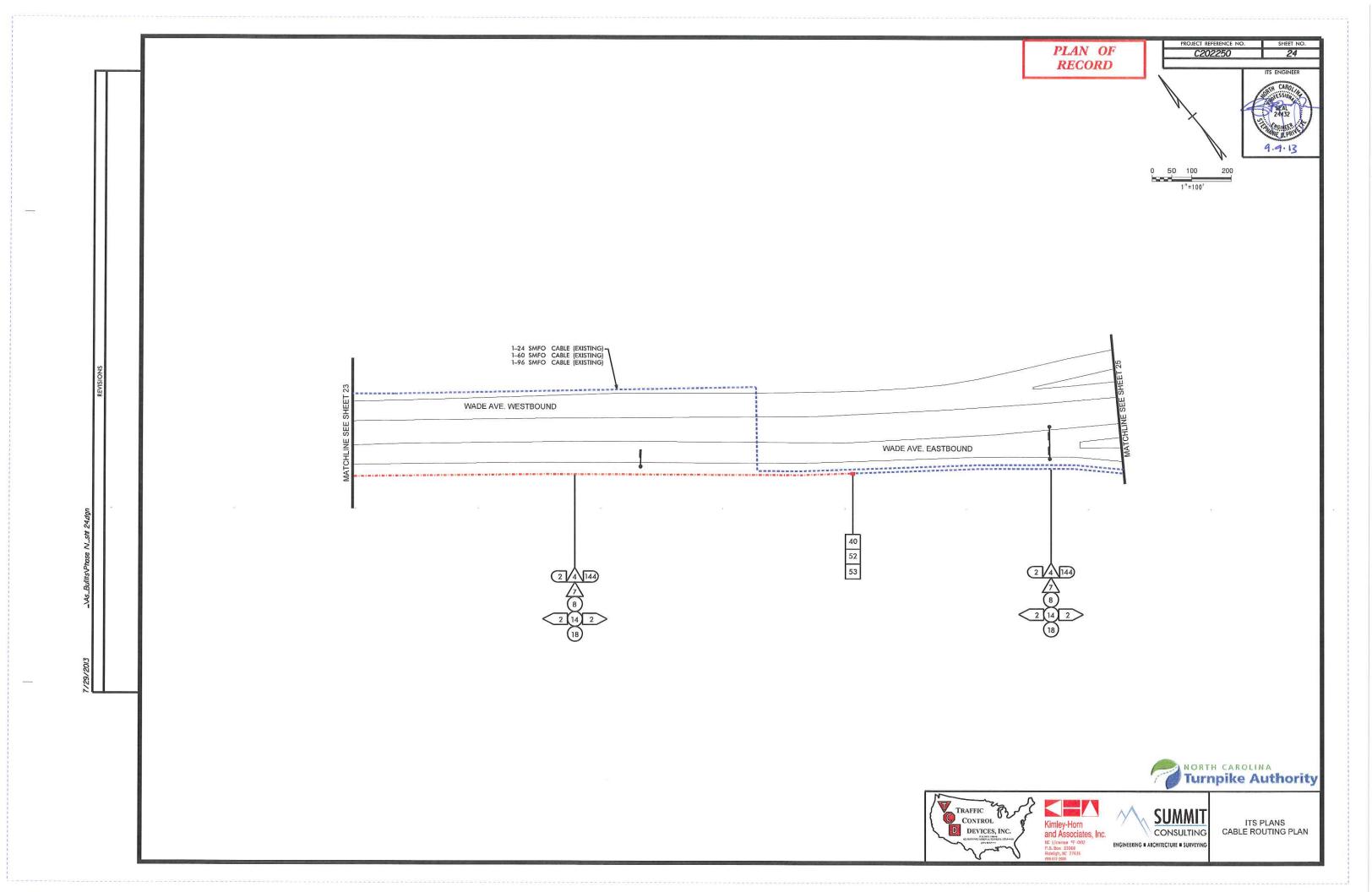


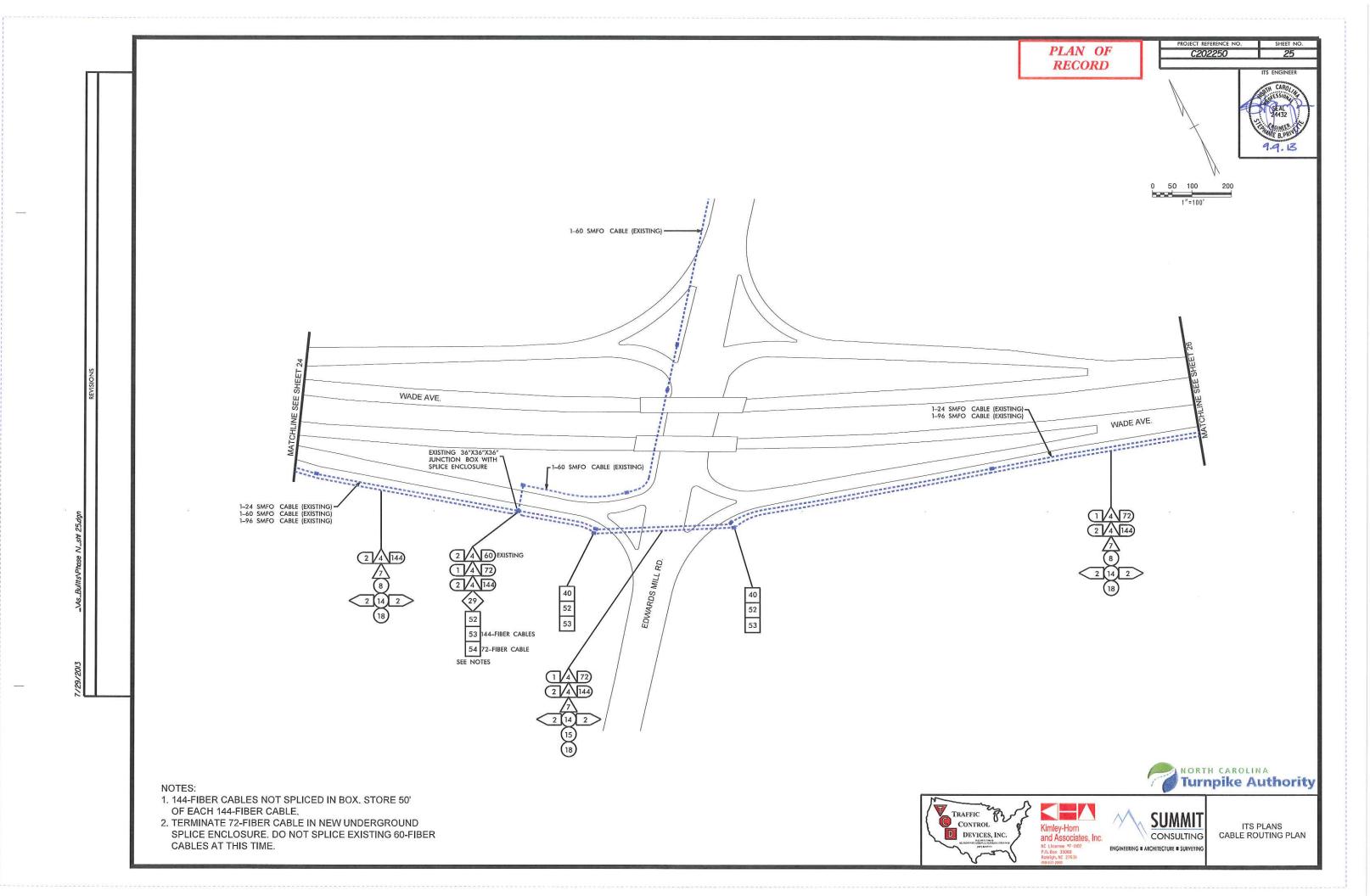


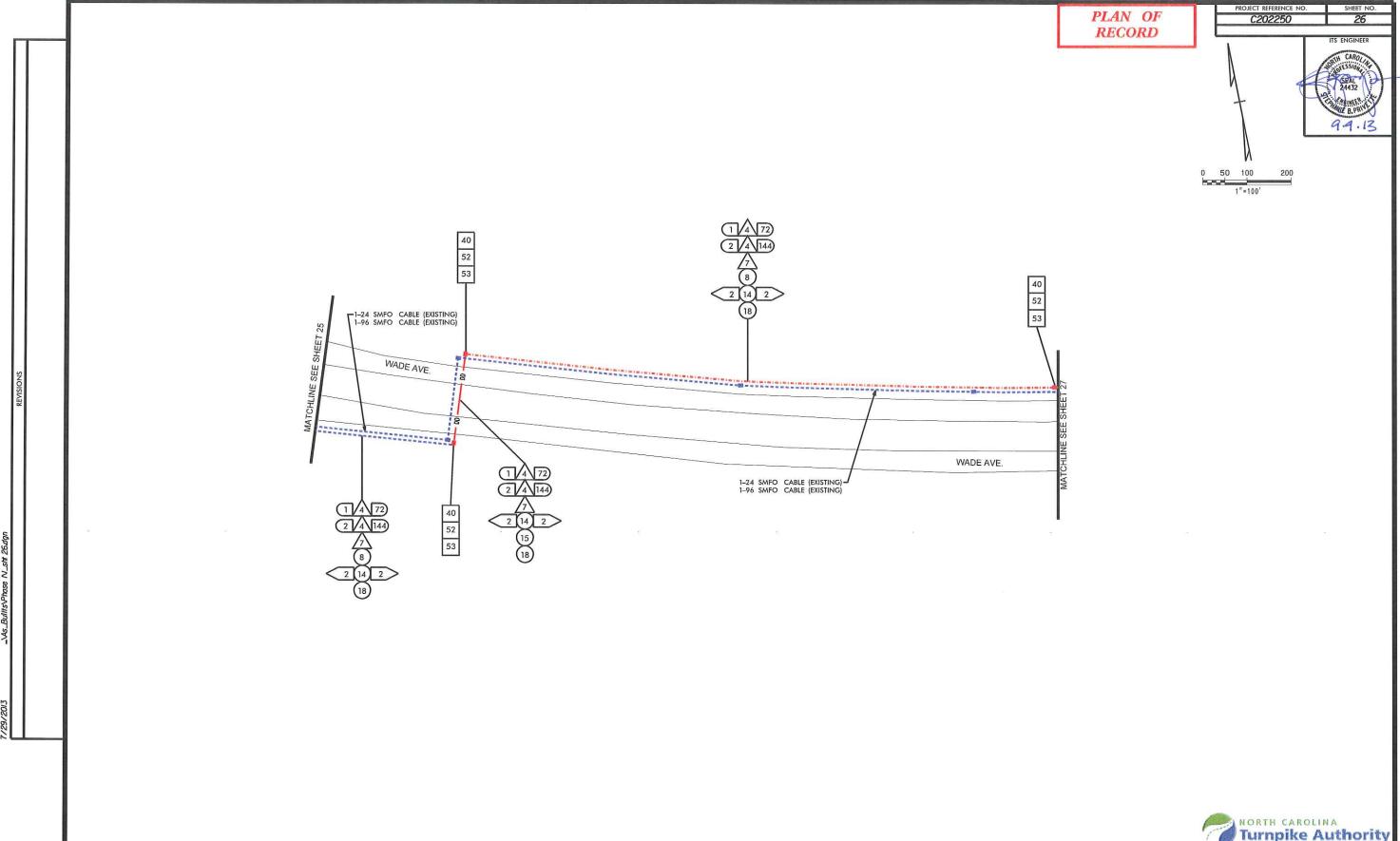
ITS PLANS CABLE ROUTING PLAN











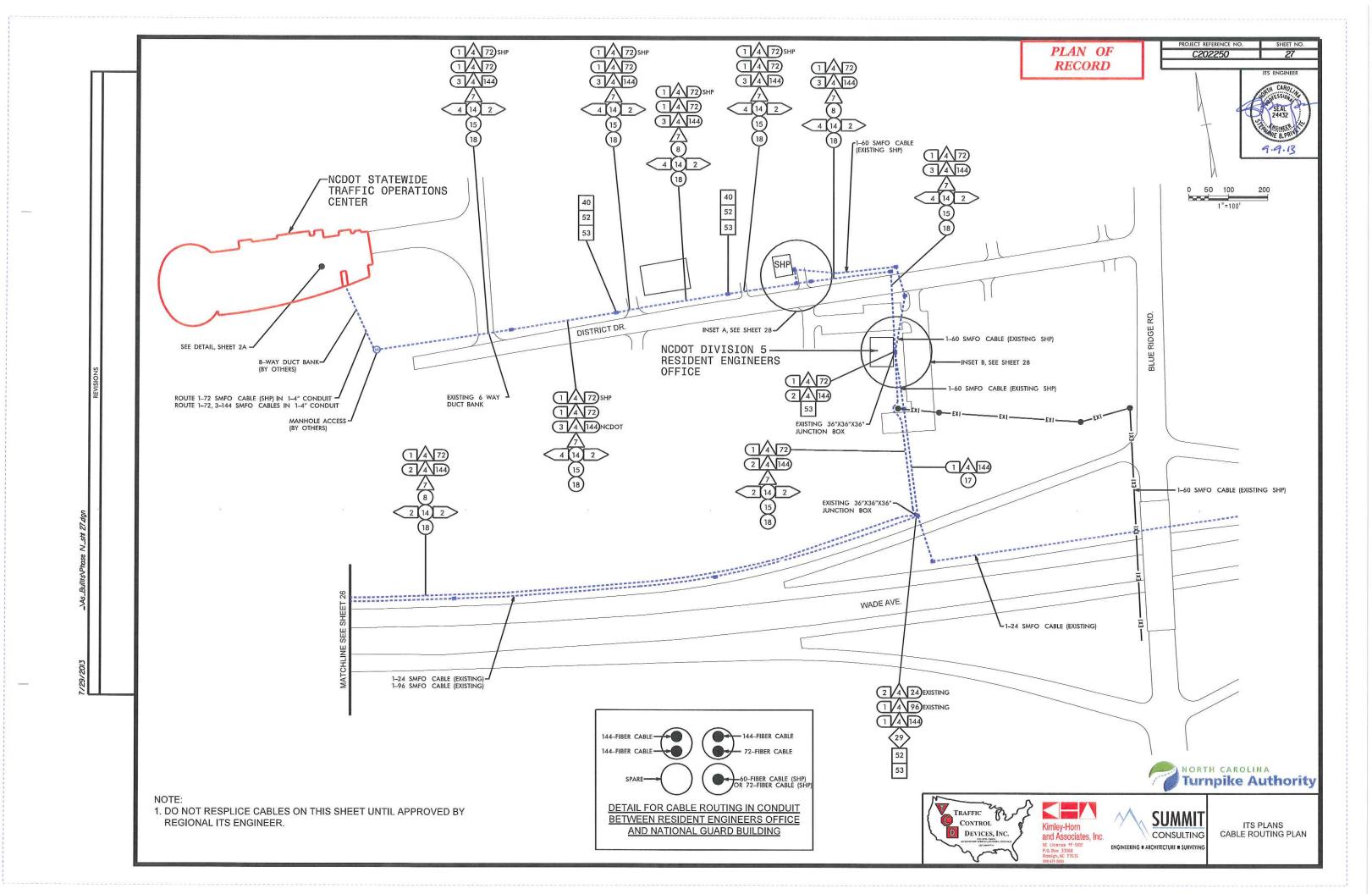


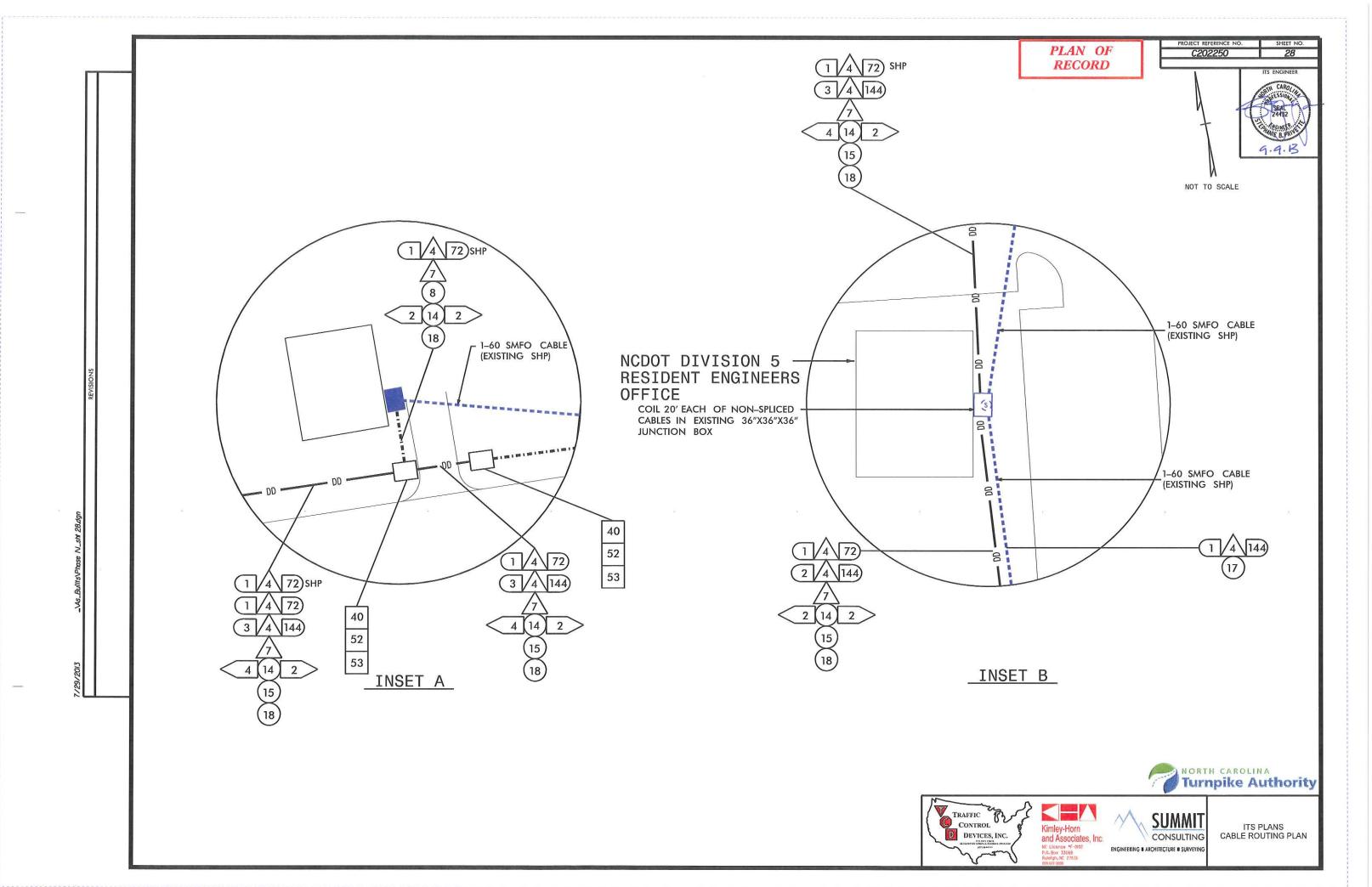






ITS PLANS CABLE ROUTING PLAN





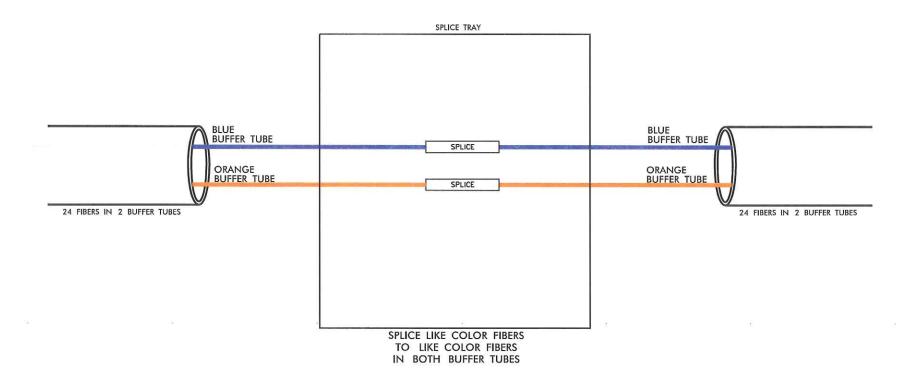
PLAN OF RECORD

9.9.13

LEGEND X = FUSION SPLICE

COLOR CODE TIA/EIA 598-C

(1) BLUE (7) RED
(2) ORANGE (8) BLACK
(3) GREEN (9) YELLOW
(4) BROWN (10) VIOLET
(5) SLATE (11) ROSE
(6) WHITE (12) AQUA



FULL CABLE SPLICE TYPICAL

(SPLICE ENCLOSURES ON SHEETS 4, 6, 13, 16 & 19)

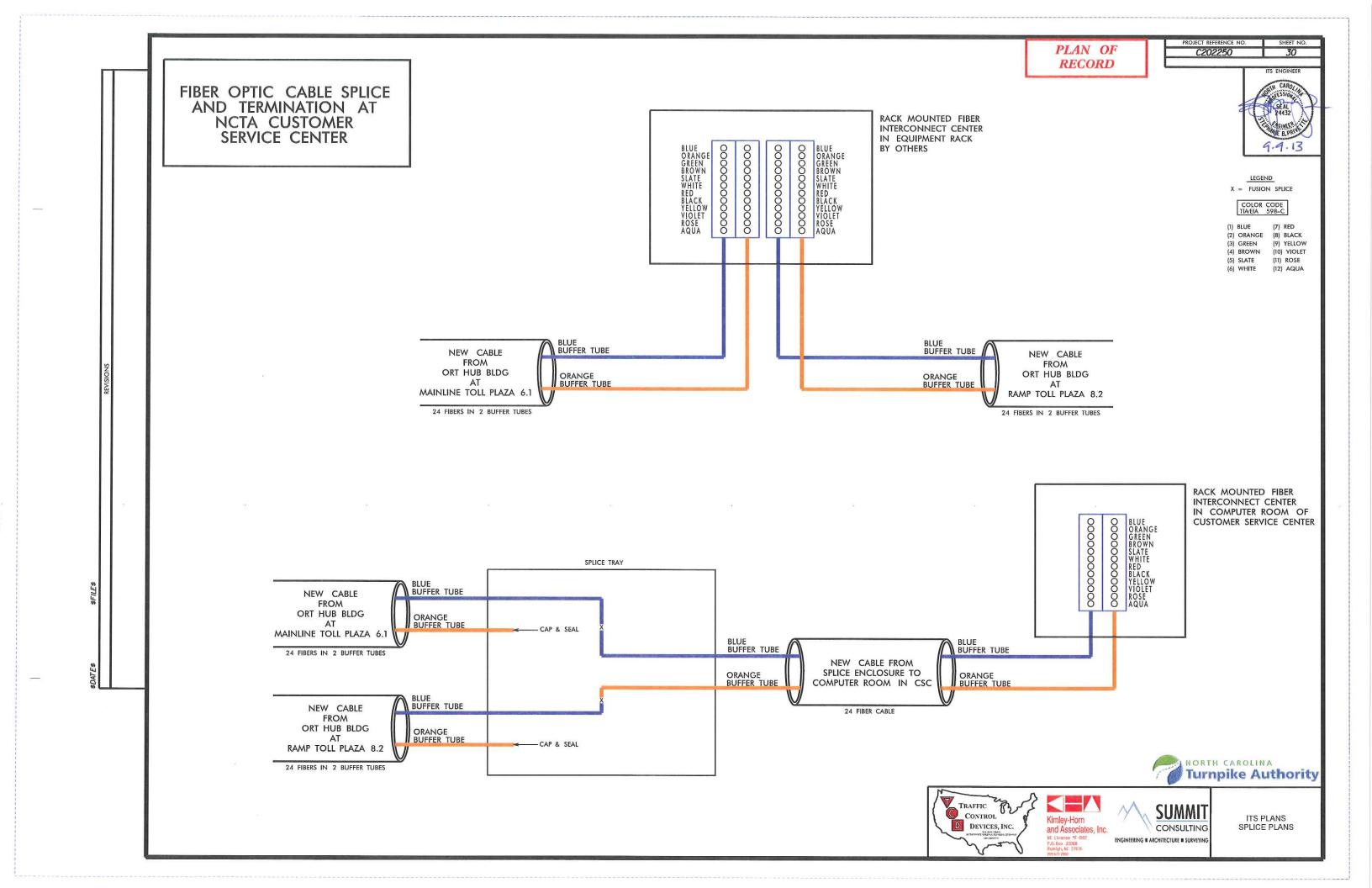


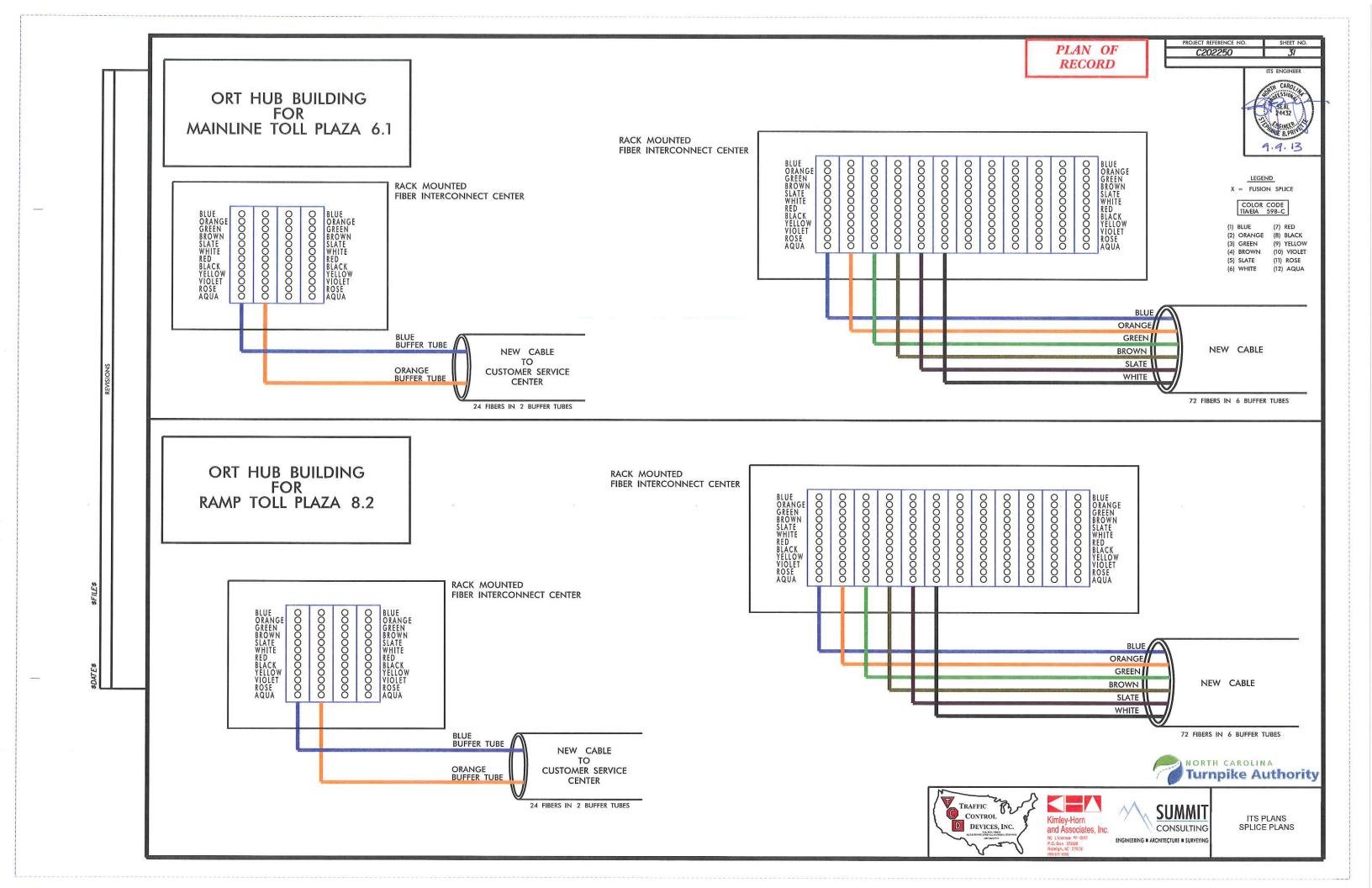






ITS PLANS SPLICE PLANS





PLAN OF RECORD

PROJECT REFERENCE NO. SHEET NO.

LEGEND X = FUSION SPLICE

COLOR CODE TIA/EIA 598-C

(1) BLUE (7) RED
(2) ORANGE (8) BLACK
(3) GREEN (9) YELLOW
(4) BROWN (10) VIOLET

(5) SLATE (11) ROSE

(6) WHITE (12) AQUA

NEW CABLE TO STOC IN JOINT FORCES **HEADQUARTERS**

SPLICE TRAY BLUE BLUE ORANGE ORANGE/ GREEN GREEN EXISTING CABLE BROWN BROWN FROM EAST SLATE SLATE WHITE WHITE RED RED // BLACK BLACK YELLOW 96 FIBERS IN 8 BUFFER TUBES VIOLET ROSE AQUA 1 BLUE BUFFER TUBE 144 FIBERS IN 12 BUFFER TUBES EXISTING CABLE ORANGE BUFFER TUBE FROM EAST 24 FIBERS IN 2 BUFFER TUBES BLUE BUFFER TUBE EXISTING CABLE ORANGE BUFFER TUBE FROM WEST/TRTMC

> FUSION SPLICE ALL FIBERS IN BUFFER TUBE TO LIKE FIBERS IN BUFFER TUBE

> > NORTH CAROLINA
> > Turnpike Authority







ITS PLANS SPLICE PLANS

SCHEDULE ALL SPLICES ON THIS SHEET WITH NCDOT REGIONAL ITS ENGINEER.

24 FIBERS IN 2 BUFFER TUBES

NEW SPLICE ENCLOSURE AT RAMP SHOULDER ON

WADE AVENUE AT BLUE RIDGE ROAD

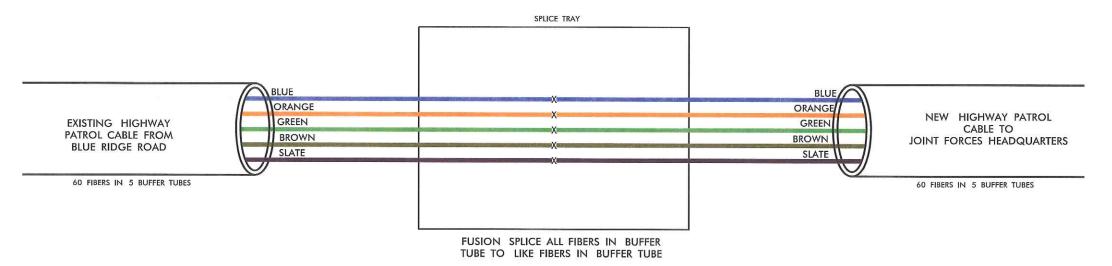
LEGEND

X = FUSION SPLICE

COLOR CODE TIA/EIA 598-C

(1) BLUE

(1) BLDE (7) RED (2) ORANGE (8) BLACK (3) GREEN (9) YELLOW (4) BROWN (10) VIOLET (5) SLATE (11) ROSE (6) WHITE (12) AQUA



SCHEDULE ALL SPLICES ON THIS SHEET WITH NCDOT REGIONAL ITS ENGINEER.

MODIFY EXISTING SPLICE ENCLOSURE

AT RESIDENT ENGINEER'S OFFICE







ITS PLANS SPLICE PLANS

NORTH CAROLINA
Turnpike Authority

AND R-2000ADVICINITY MAP -2635, R **PROJECTS**

NORTH CAROLINA TURNPIKE AUTHORITY

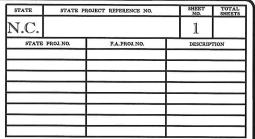
WAKE / DURHAM COUNTIES

LOCATION: TRIANGLE PARKWAY, WESTERN WAKE FREEWAY AND NORTHERN WAKE EXPRESSWAY

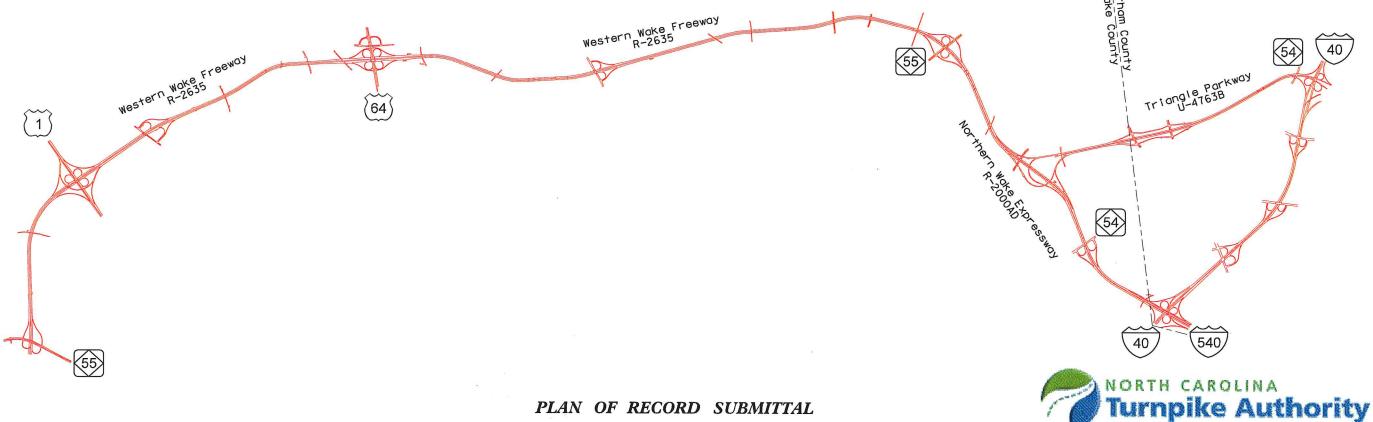
TYPE OF WORK: FIBER-OPTIC COMMUNICATIONS, ITS DEVICES,

ETHERNET SWITCHES, AND RELOCATION OF REGIONAL

TRANSPORTATION MANAGEMENT CENTER



PLAN OF RECORD



ROADWAY STANDARD DRAWINGS

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

STD. NUMBER
1700.01
1700.02
1715.01
1716.01
1720 01

1721.01

DESCRIPTION ELECTRICAL SERVICE GROUNDING

ELECTRICAL SERVICE DETAILS UNDERGROUND CONDUIT JUNCTION BOXES WOOD POLES **GUY ASSEMBLIES**

FIBER OPTIC SPARE CABLE STORAGE

INDEX OF PLANS

PLAN OF RECORD SUBMITTAL

IA $1R_{-}1E$ 2-2AM 3-44

SPL 01-SPL 28

DESCRIPTION TITLE SHEET CONSTRUCTION NOTES CABLE ROUTING PLAN KEY **DETAILS** CABLE ROUTING PLANS SPLICING DETAILS



2006 STANDARD SPECIFICATIONS

LETTING DATE:





CONSULTING ENGINEERING # ARCHITECTURE # SURVEYING

SEAL

PROJECT LENGTH

PROJECT LENGTH = 18.8 MI

STEPHANIE PRIVETTE, P.E.

PROJECT ENGINEER



C202250

CONTRACT:

34	INSTALL CABINET FOUNDATION
35	REMOVE EXISTING CABINET FOUNDATION
36	INSTALL CCTV CAMERA ASSEMBLY
37	INSTALL MVD ASSEMBLY
38	INSTALL EQUIPMENT CABINET
39	INSTALL JUNCTION BOX
40	INSTALL OVERSIZED. HEAVY-DUTY JUNCTION BOX
41	INSTALL SPECIAL-SIZED, HEAVY DUTY JUNCTION BOX
42	INSTALL WOOD POLE
43	INSTALL CCTY CAMERA LOWERING DEVICE
44	INSTALL AERIAL GUY ASSEMBLY
45	INSTALL STANDARD GUY ASSEMBLY
46	INSTALL SIDEWALK GUY ASSEMBLY
47	INSTALL MESSENGER CABLE
48	INSTALL MVD POLE
49	INSTALL CCTV POLE
50	INSTALL DMS ASSEMBLY
51	INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
52	INSTALL DELINEATOR MARKER
53	STORE 50 FEET OF EACH COMMUNICATIONS CABLE
54	STORE 100 FEET OF EACH COMMUNICATIONS CABLE
55	LASH CABLE(S) TO SIGNAL/COMMUNICATIONS CABLE
56	LASH CABLE(S) TO NEW MESSENGER CABLE
57	MODIFY EXISTING ELECTRICAL SERVICE
58	INSTALL NEW ELECTRICAL SERVICE
59	INSTALL ETHERNET EDGE SWITCH
60	INSTALL GIGABIT ETHERNET SWITCH
61	INSTALL VIDEO ENCODER
62	BOND TRACER WIRE TO CABINET GROUND
(2)	INICTALL COLAR ROWER ACCEMBLY

CONTRACTOR UTILIZE CONDUITS INSTALLED BY OTHERS IN EXISTING INSTALLATION: CONDUIT USE **TOLL FOC** BLUE TOLL SPARE WHITE BLACK ITS FOC **ORANGE** ITS SPARE

INSTALL SOLAR POWER ASSEMBLY

PLAN OF RECORD

C202250

12.2.13

LEGEND

NEW CONDUIT

- DD - NEW DIRECTIONAL DRILLED CONDUIT

EXISTING CONDUIT

NEW OVERSIZED, HEAVY-DUTY JUNCTION BOX EXISTING OVERSIZED, HEAVY-DUTY JUNCTION BOX

NEW SPECIAL SIZED, HEAVY-DUTY JUNCTION BOX EXISTING SPECIAL SIZED, HEAVY-DUTY JUNCTION BOX

S NEW SPLICE CABINET

0 NEW WOOD POLE EXISTING WOOD POLE

NEW METAL POLE EXISTING METAL POLE

NEW CCTY ASSEMBLY EXISTING CCTV ASSEMBLY

Illitta NEW MICROWAVE DETECTOR (MVD) ASSEMBLY

EXISTING OR NEW (BY OTHERS) OVERHEAD SIGN STRUCTURE

NEW OVERHEAD DMS ON SIGN STRUCTURE (BY OTHERS) EXISTING OVERHEAD DMS AND SIGN STRUCTURE

O PEDASTAL MOUNTED DMS SIGN

EXISTING EQUIPMENT CABINET

STATIC GROUND MOUNTED SIGN

OVERHEAD TRANSFORMER

PAD-MOUNTED TRANSFORMER

POWER METER

ELECTRICAL JUNCTION BOX

ELECTRICAL SERVICE

 $\langle A \rangle$

ABBREVIATIONS

CCTV CLOSED-CIRCUIT TELEVISION

CSC CUSTOMER SERVICE CENTER

ITS INTELLIGENT TRANSPORTATION SYSTEMS

MVD MICROWAVE VEHICLE DETECTION

STOC STATEWIDE TRAFFIC OPERATIONS CENTER

05-XXXX EQUIPMENT ASSET NUMBER

CONSTRUCTION NOTE SYMBOLOGY KEY

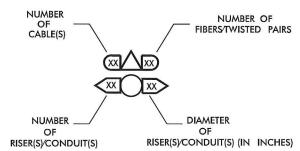
(XX INDICATES NUMBER OF CABLES, LOOPS, ETC.

INDICATES NUMBER OF FIBERS PER CABLE, XX

TWISTED PAIRS PER CABLE, ETC.

INDICATES NUMBER OF RISER(S)/CONDUIT(S)

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





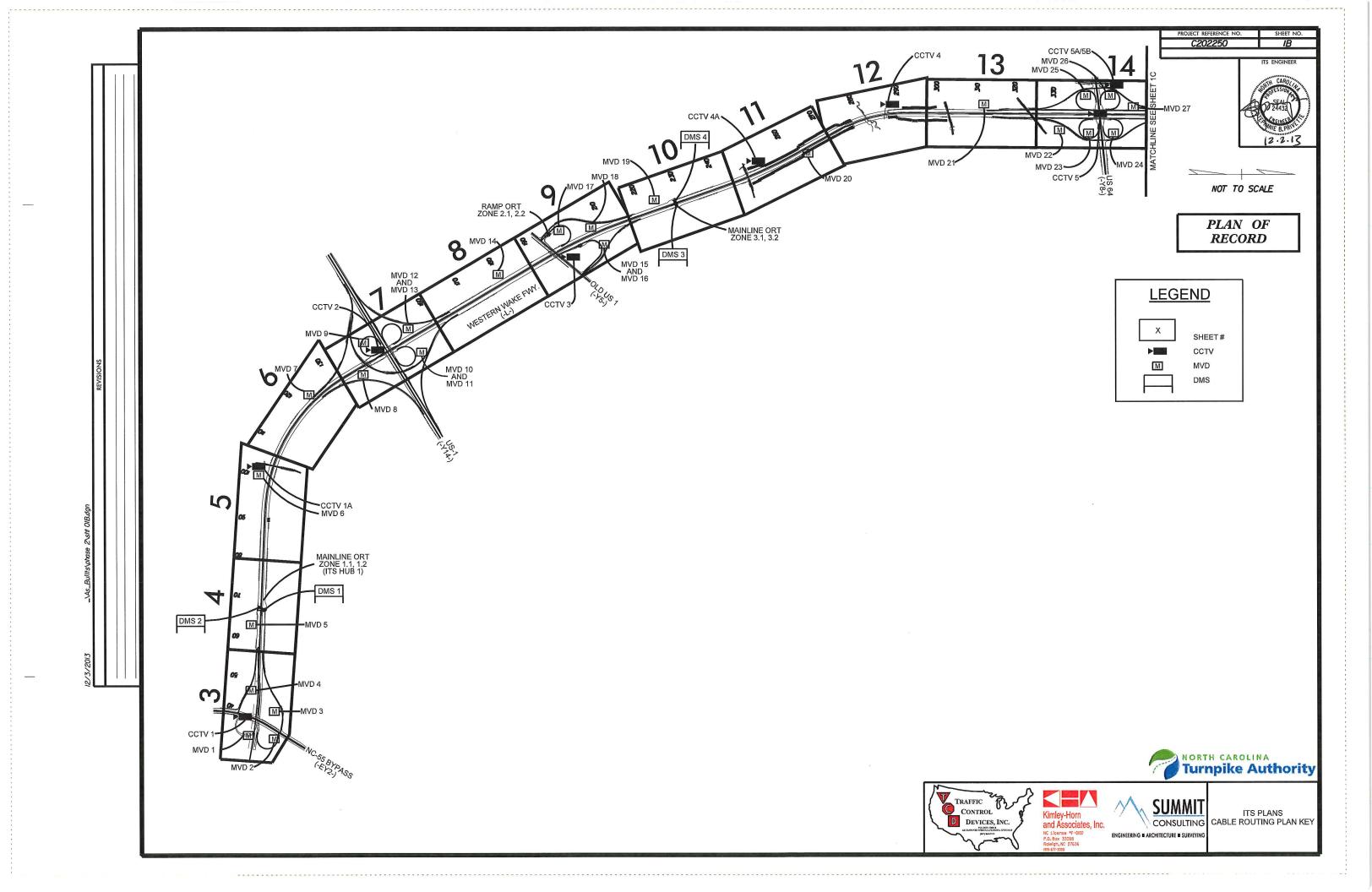


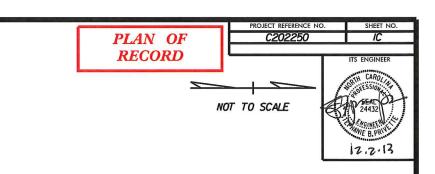
⟨XX

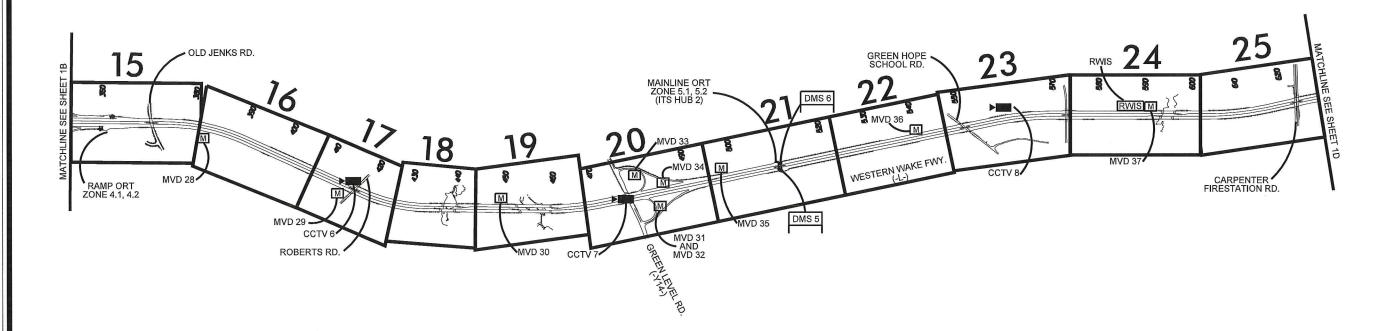


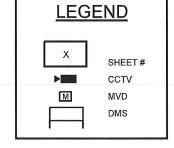


ITS PLANS CONSTRUCTION NOTES AND LEGEND









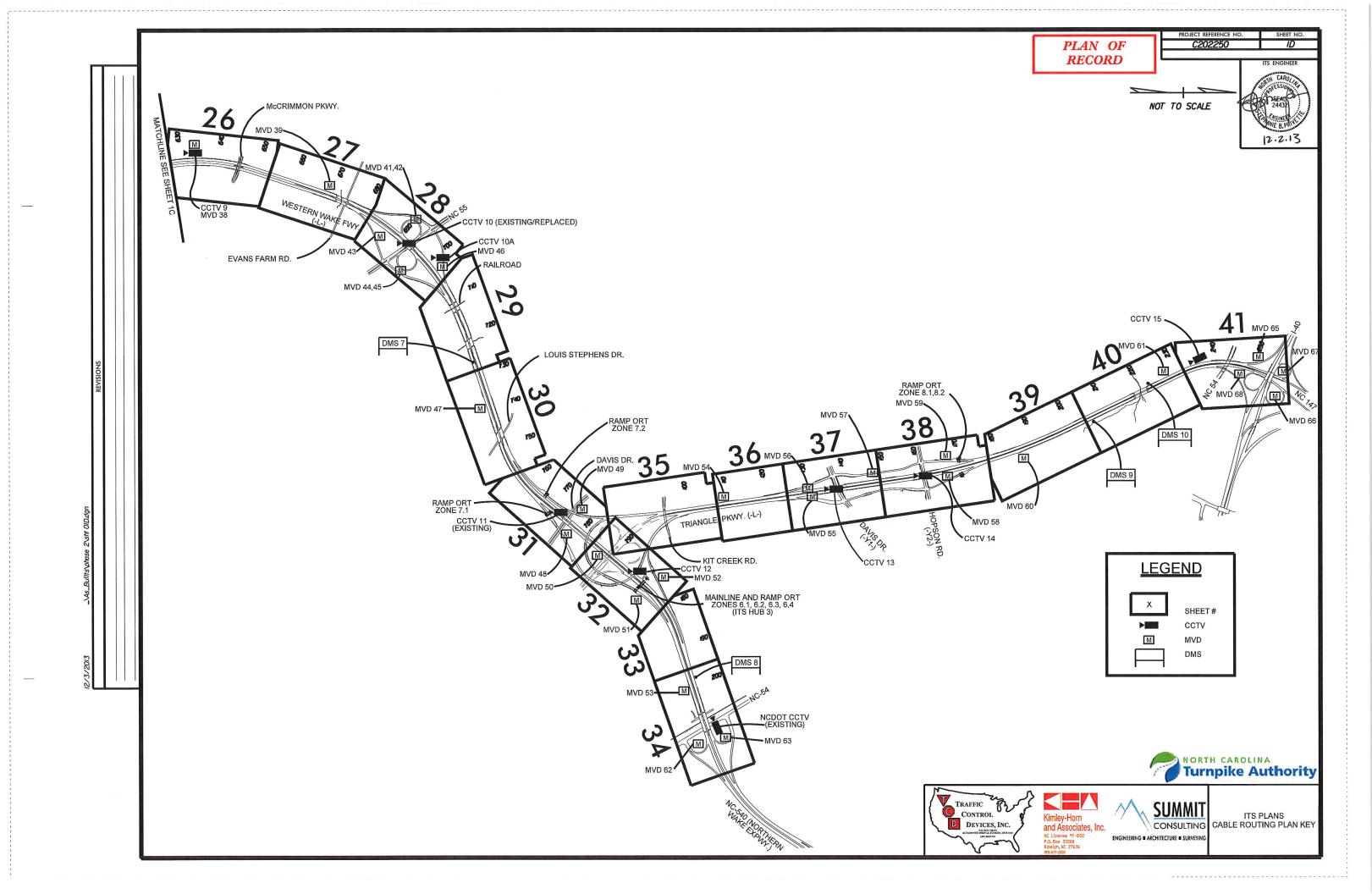




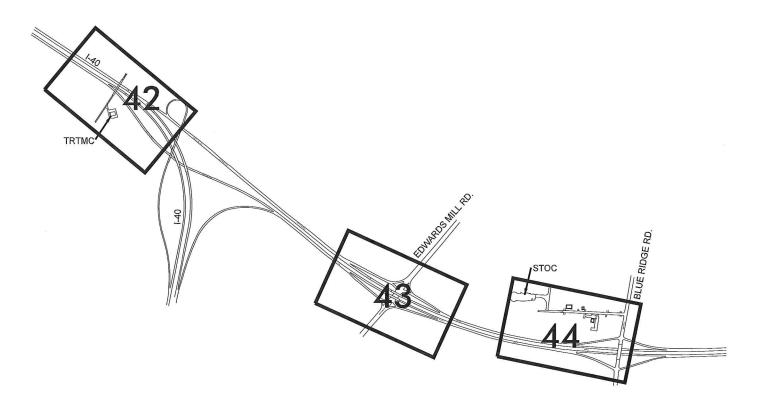




ITS PLANS CABLE ROUTING PLAN KEY





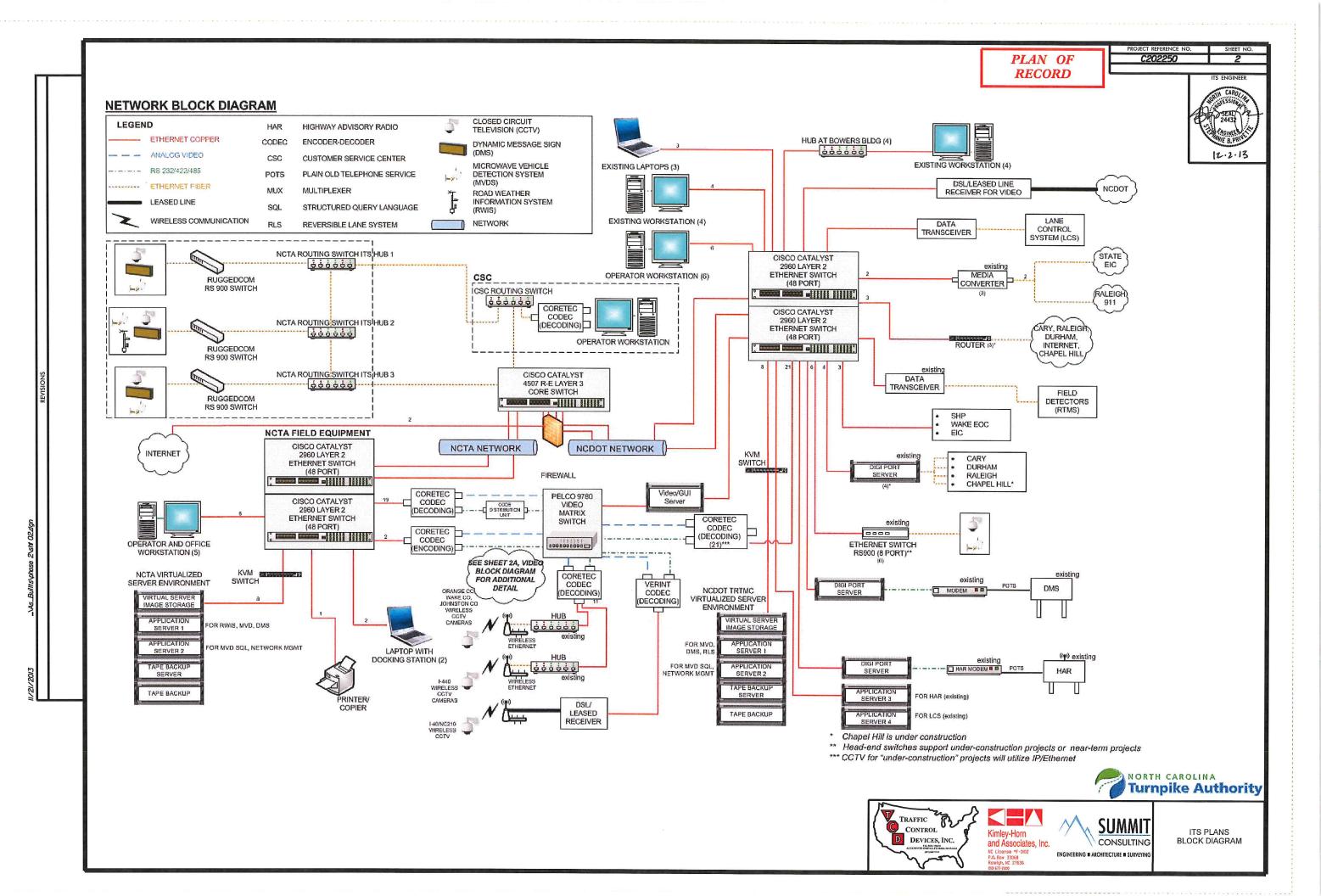


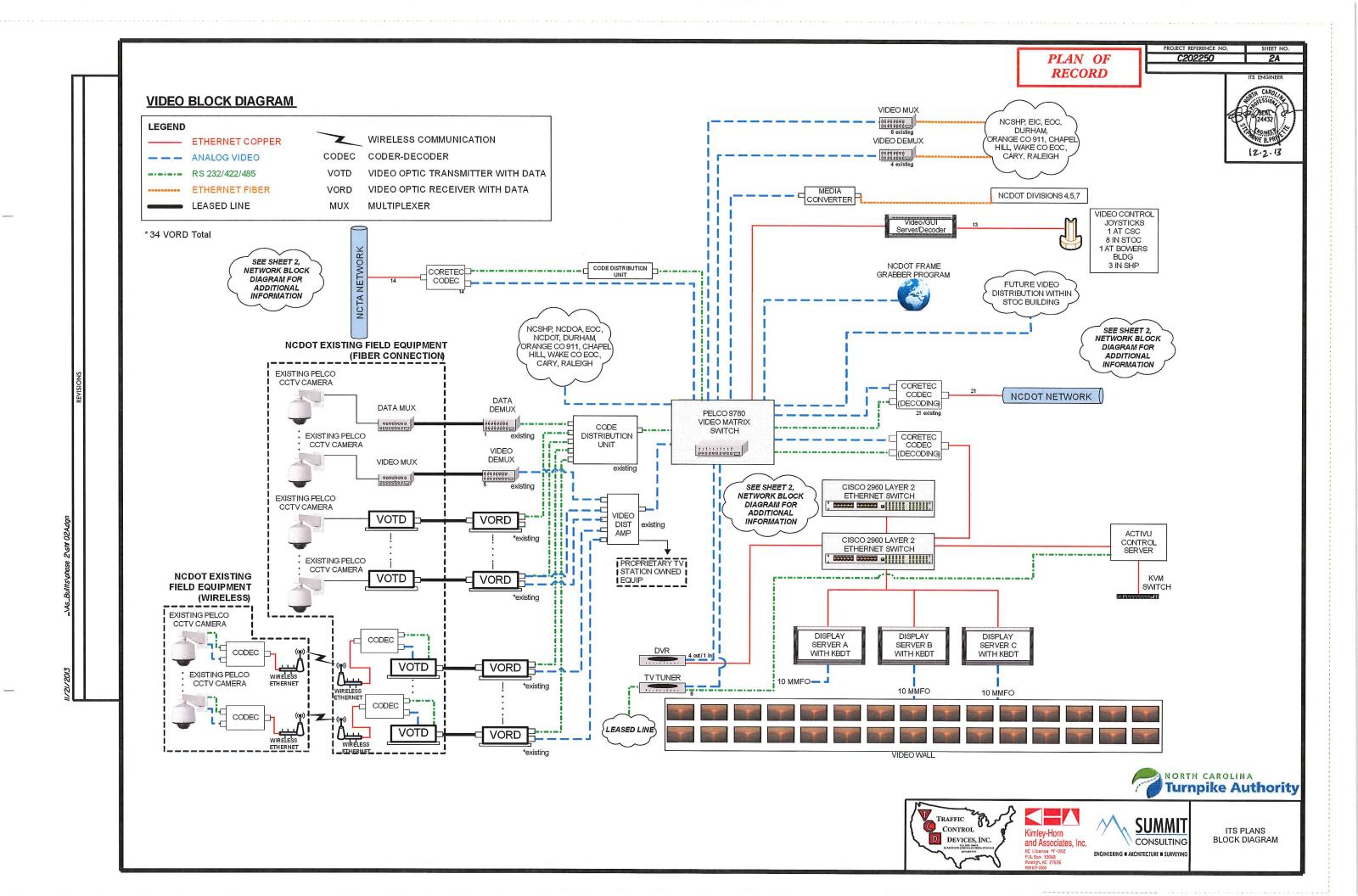


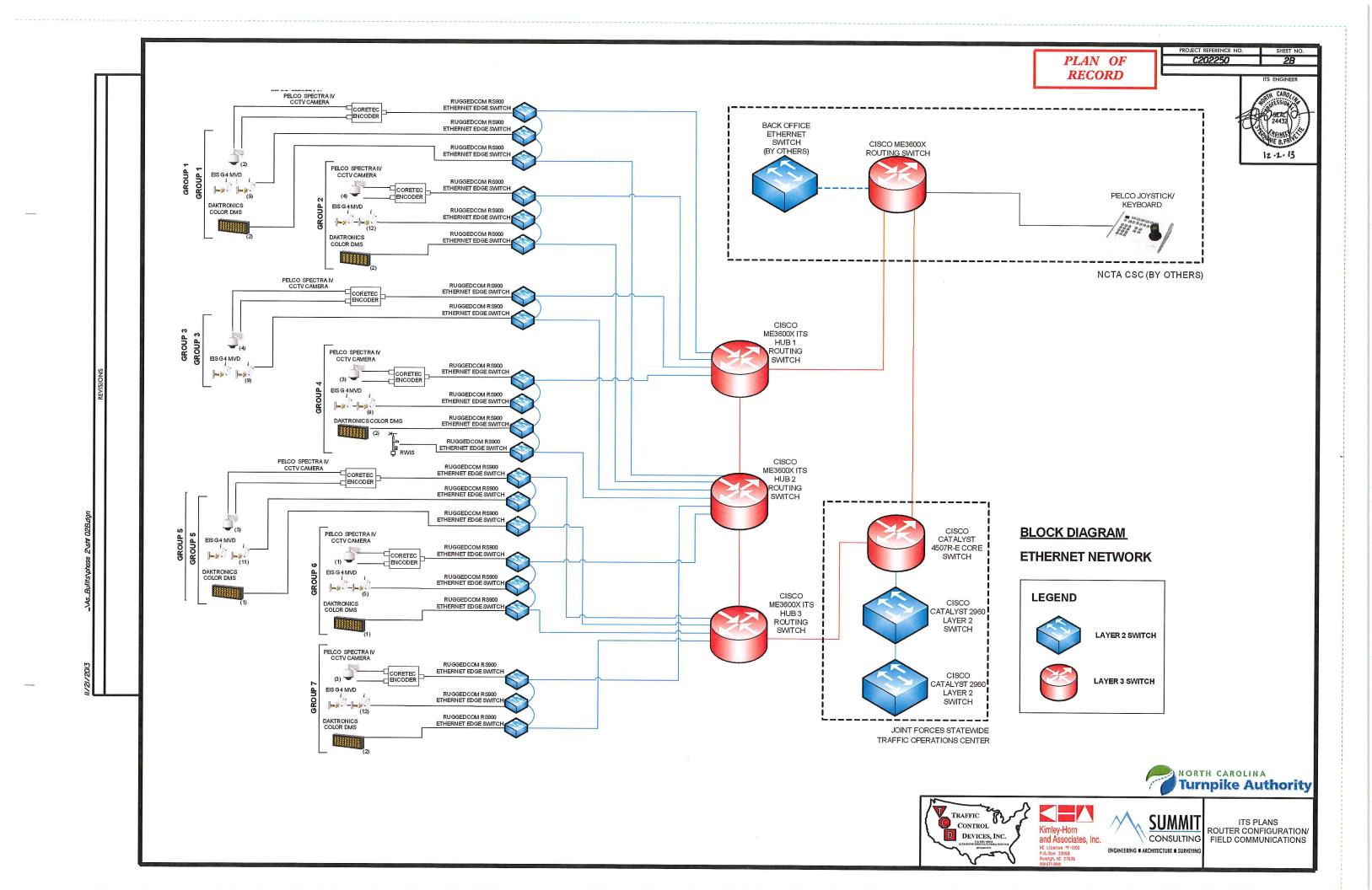


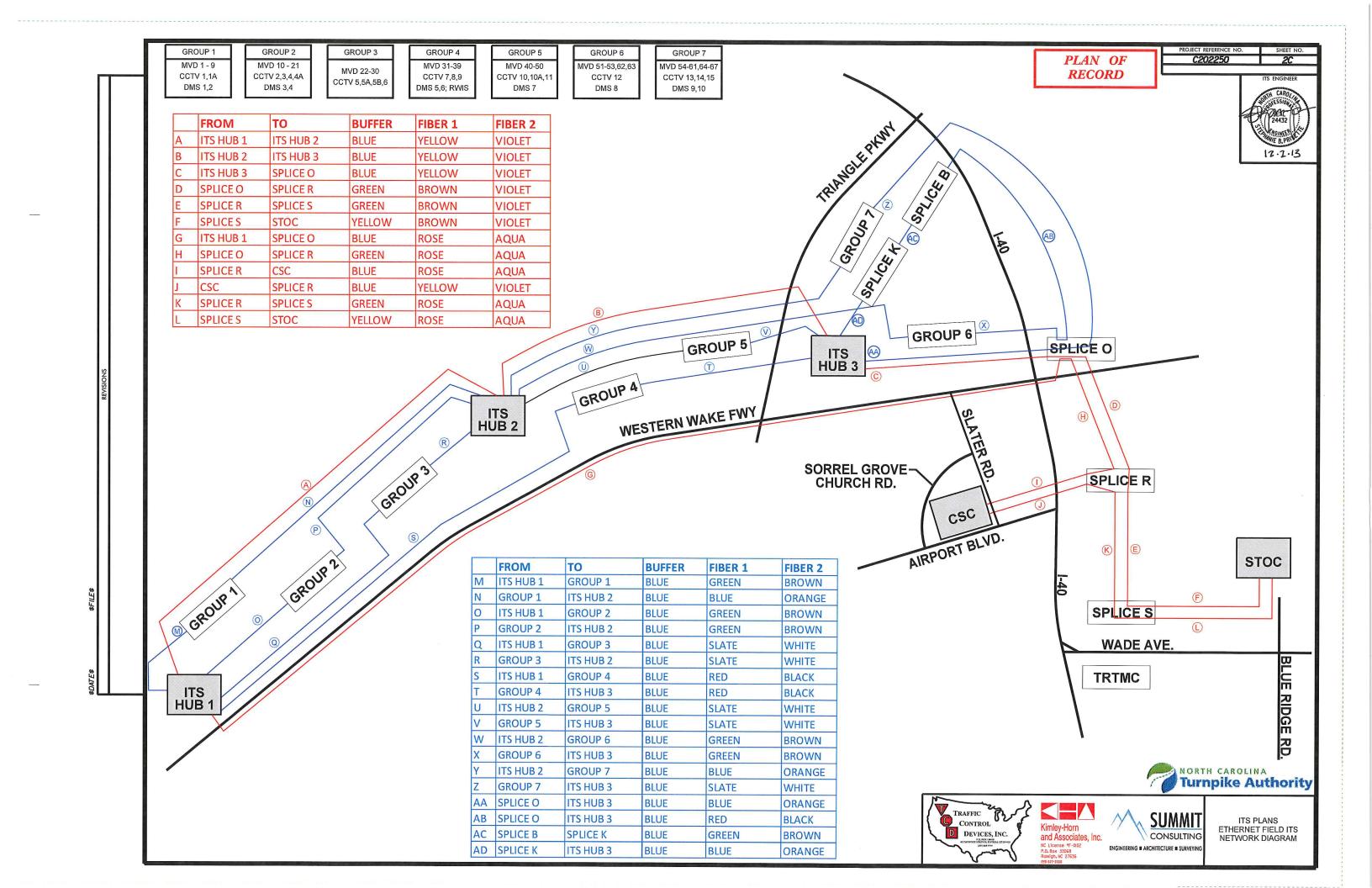


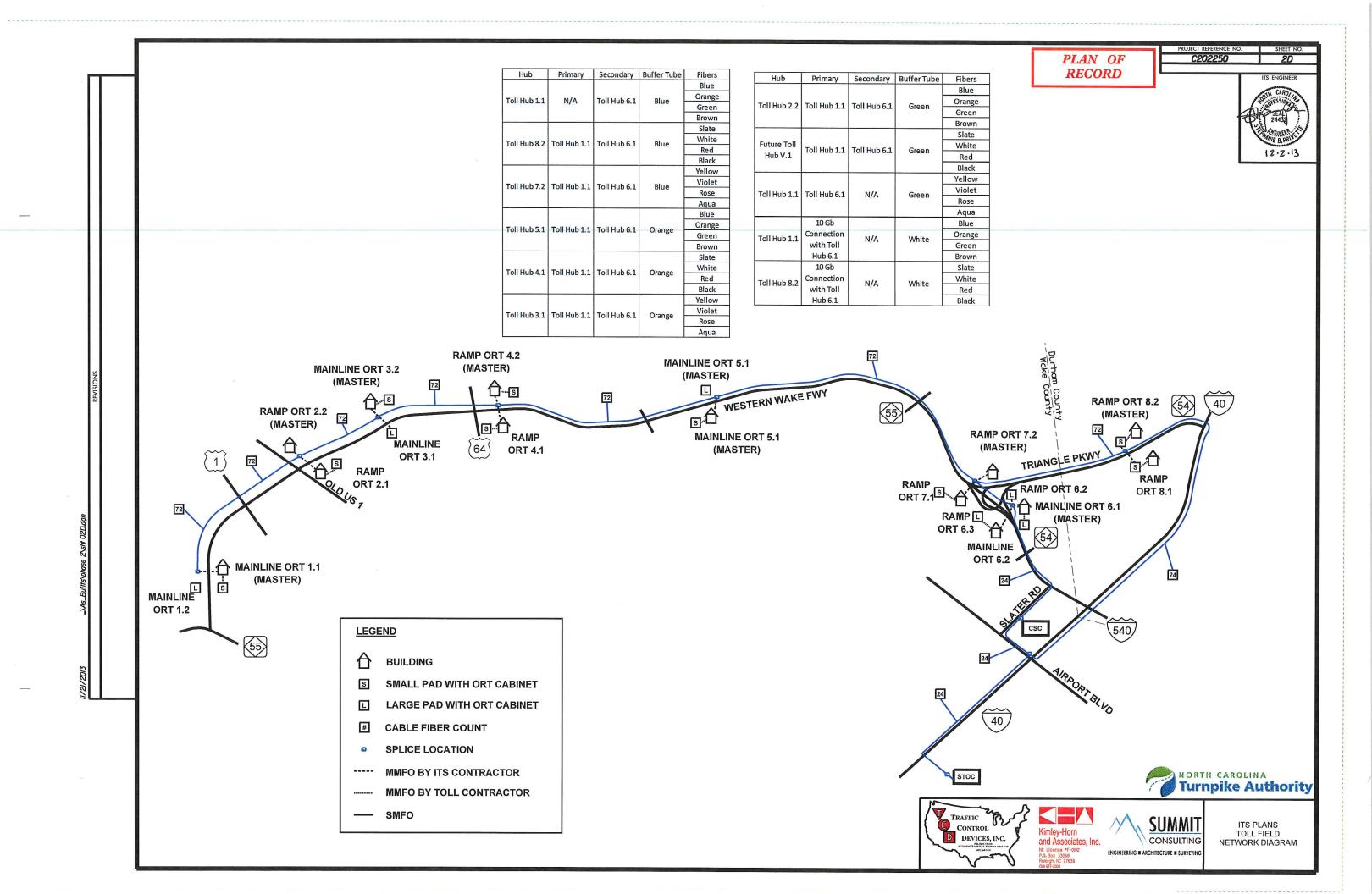




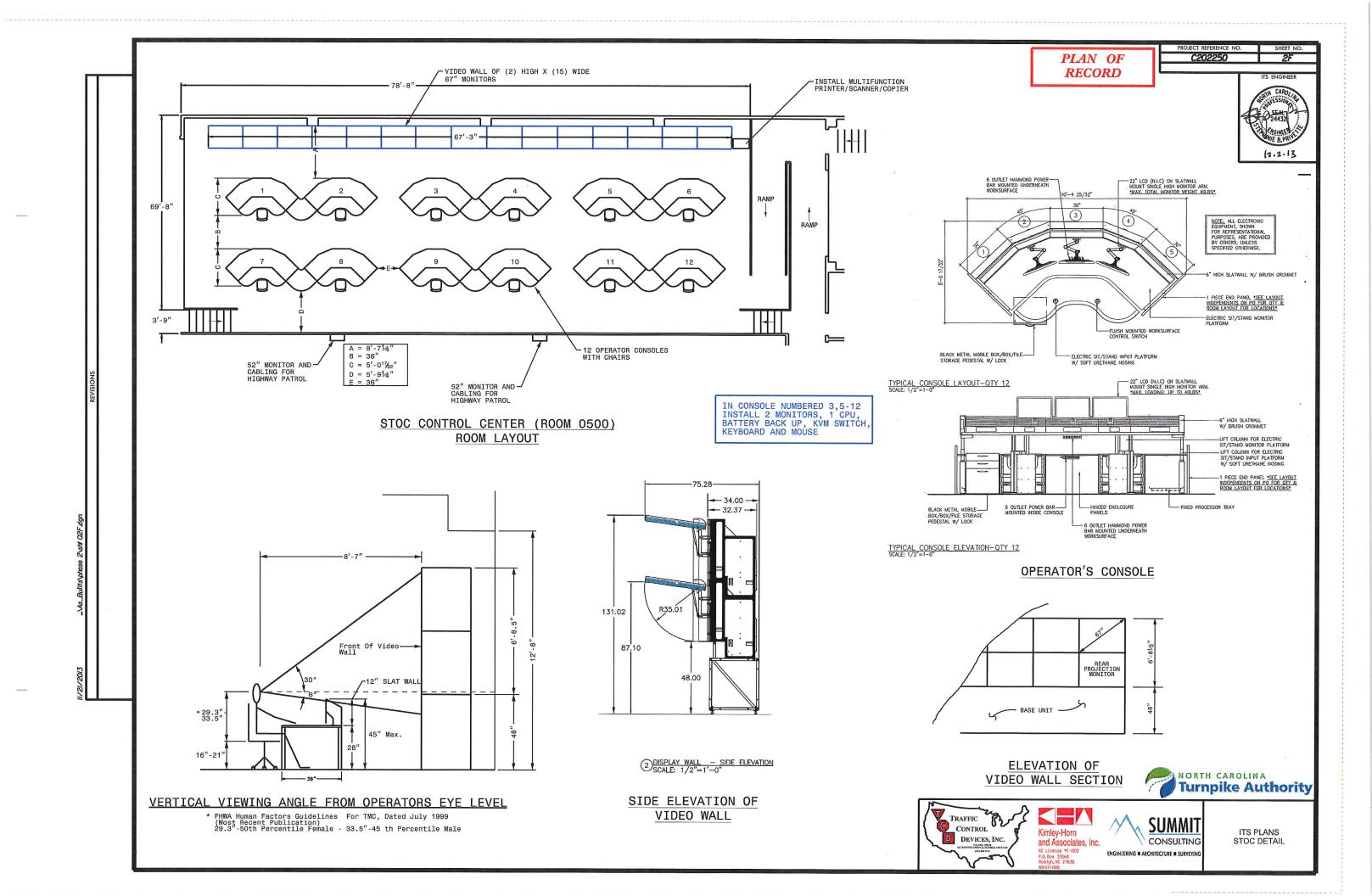


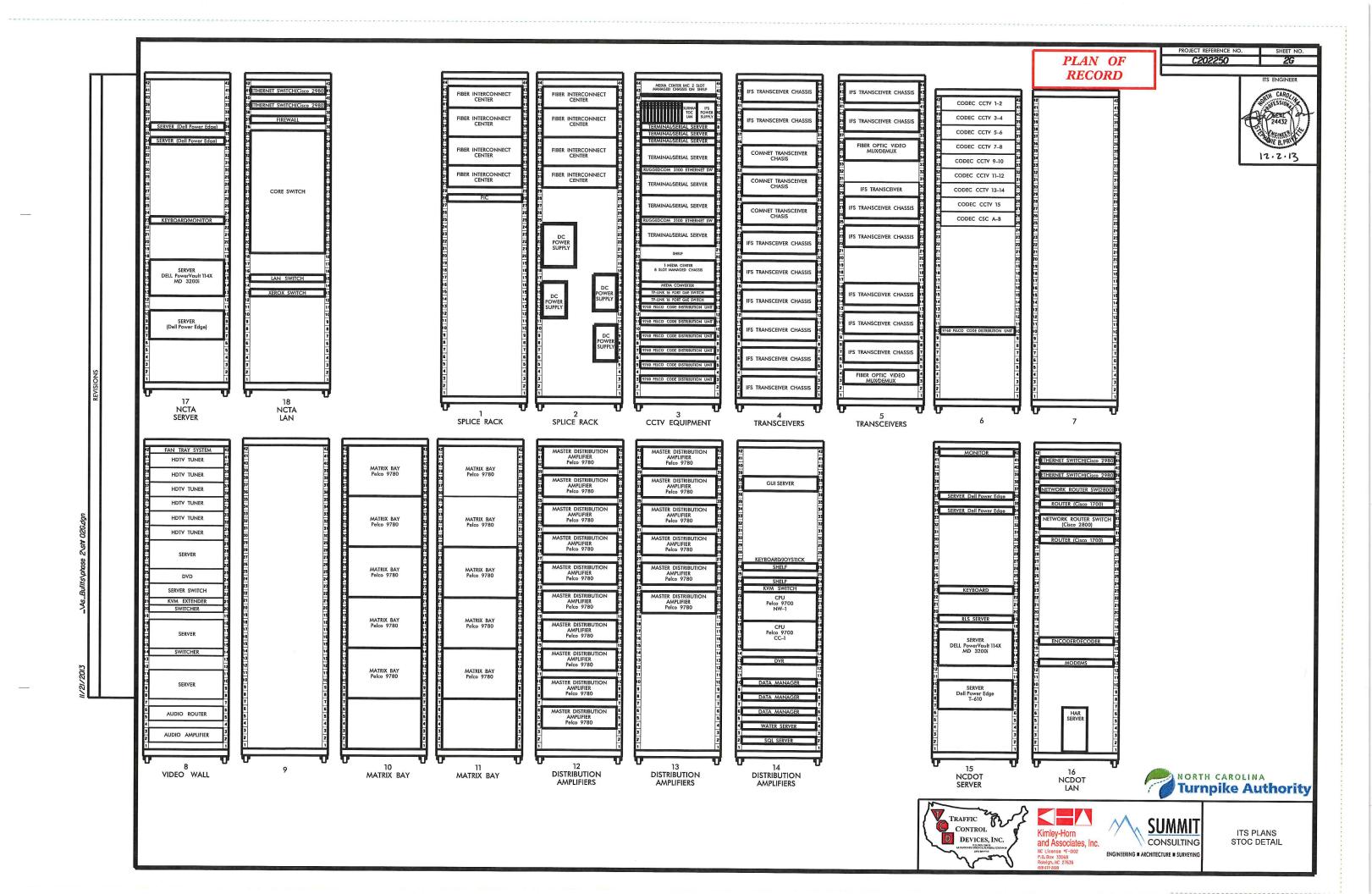


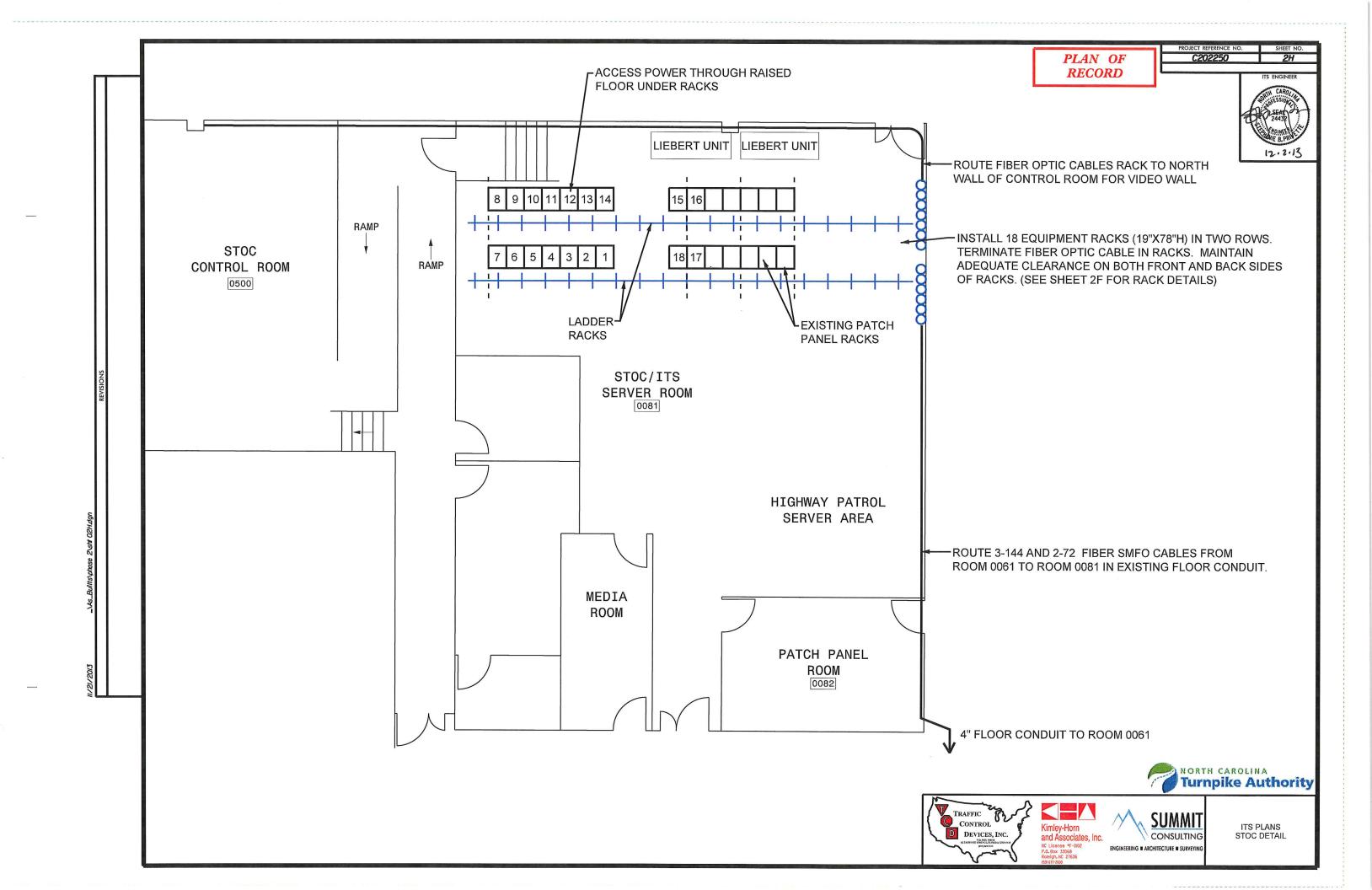


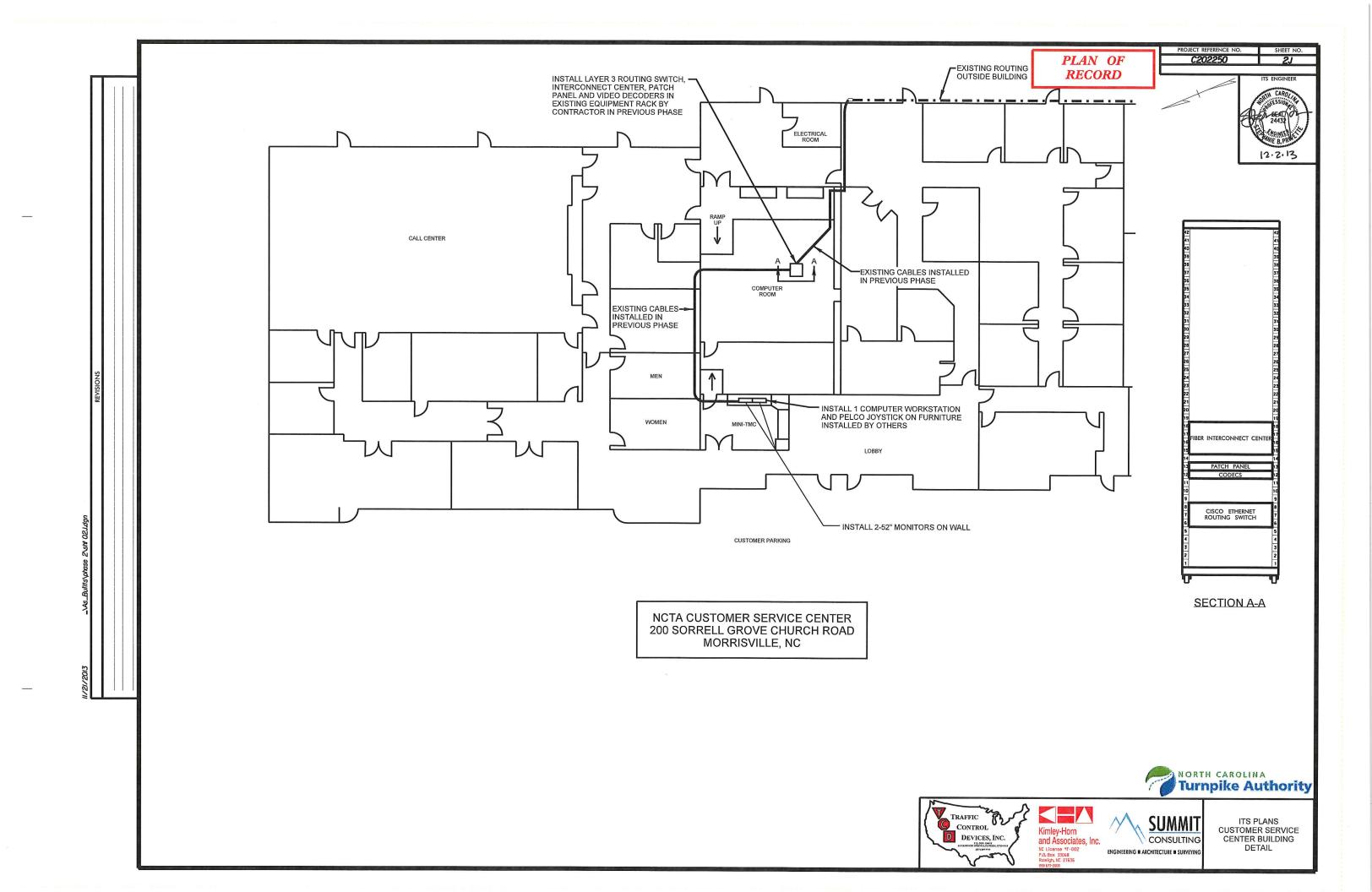


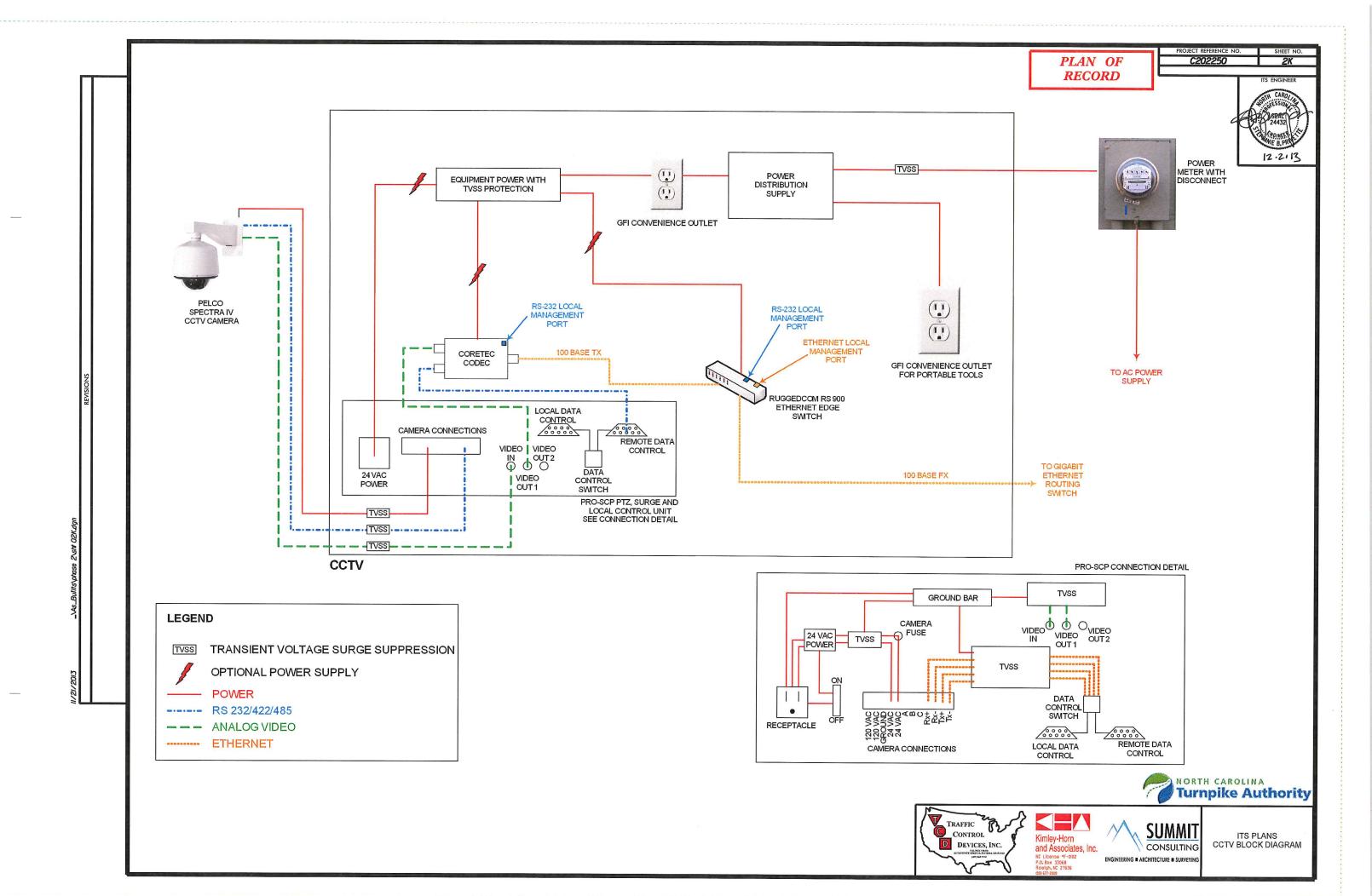
PLAN OF RECORD SEE SHEET 2F FOR ROUTE 30 MULTIMODE CABLES CONTROL ROOM DETAIL IN CONDUIT FROM SERVER ROOM 0081 TO VIDEO WALL SEE SHEET 2G FOR SERVER ROOM DETAIL 3- 144 AND 1-72 COUNT SMFO CABLE FOR 0081 SERVER ROOM STOC CONTROL ROOM SERVER ROOM ROUTE PATCH CABLES IN EXISTING LADDER RACK FROM PATCH PANEL RACKS TO 0081 0500 EQUIPMENT RACKS. TERMINATE IN RACK CABINETS. **SERVER** 1-72 COUNT SMFO CABLE FOR HP SERVER AREA AREA 0082 E31 E31 E31 E31 E31 E31 E31 E31 ROUTE FIBER OPTIC CABLES IN EXISTING FLOOR CONDUITS FROM ROOM 0061 TO ROOM 0081 IN 1 - 4" CONDUIT ROUTE 3-144, 2-72 FIBER OPTIC CABLES ON EXISTING LADDER RACK ACROSS **ROOM 0061** EXISTING CABLE ROUTING - 3-144, 2-72 FIBER OPTIC CABLES IN 6-4" EXISTING CONDUITS 3-144, 2-72 FIBER OPTIC CABLES IN 8-4" IN EXISTING CONDUITS **GROUND FLOOR PLAN** ROAD EXISTING MANHOLE SEE SHEET 44 1 FOR CABLE EXISTING JUNCTION -AT DISTRICT DRIVE ROUTING 2-4" EXISTING CONDUITS -FOR USE BY OTHERS NORTH CAROLINA
Turnpike Authority RALEIGH ARMED FORCES RESERVE CENTER, JOINT FORCES HEADQUARTERS TRAFFIC **SUMMIT** DISTRICT DRIVE _CONTROL Kimley-Horn and Associates, Inc. ITS PLANS RALEIGH, NC DEVICES, INC. CONSULTING **BUILDING DETAIL** ENGINEERING # ARCHITECTURE # SURVEYING











PROJECT REFERENCE NO

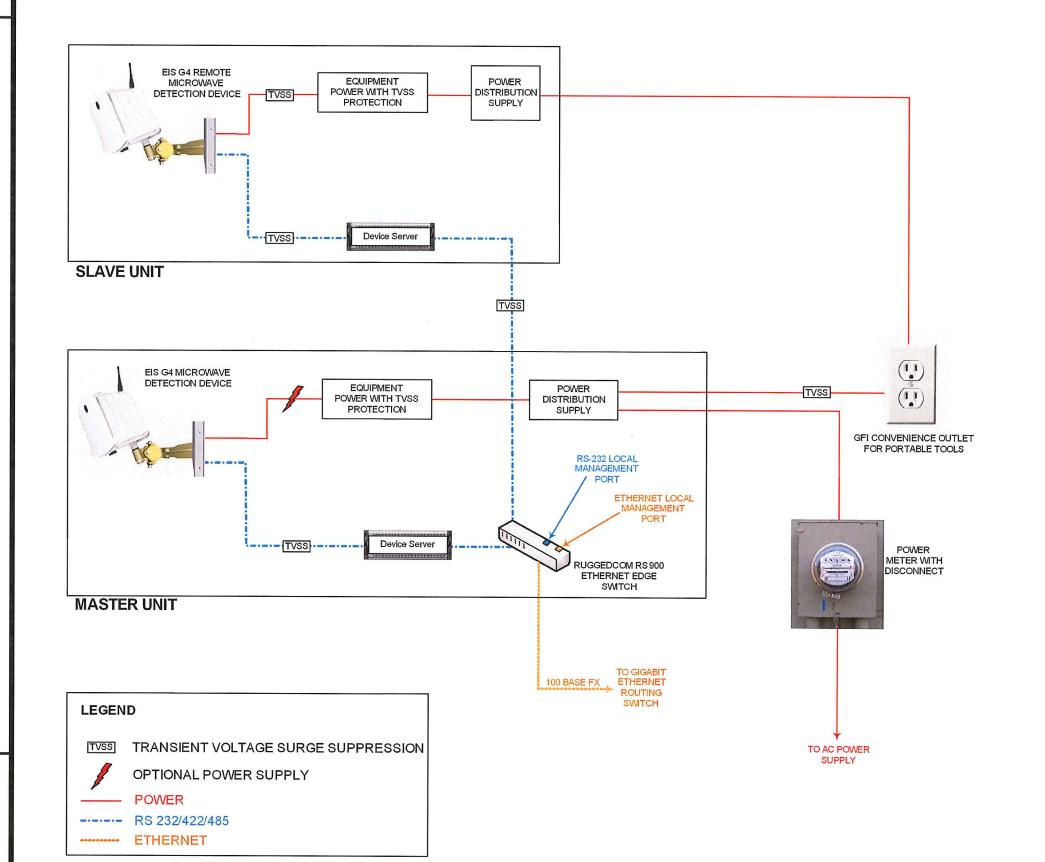
2250 SHEET NO. SHEET NO. 2L

CAROLLES ENGINEER

CAROLLES ENGINEER

24432

MI B PRIL









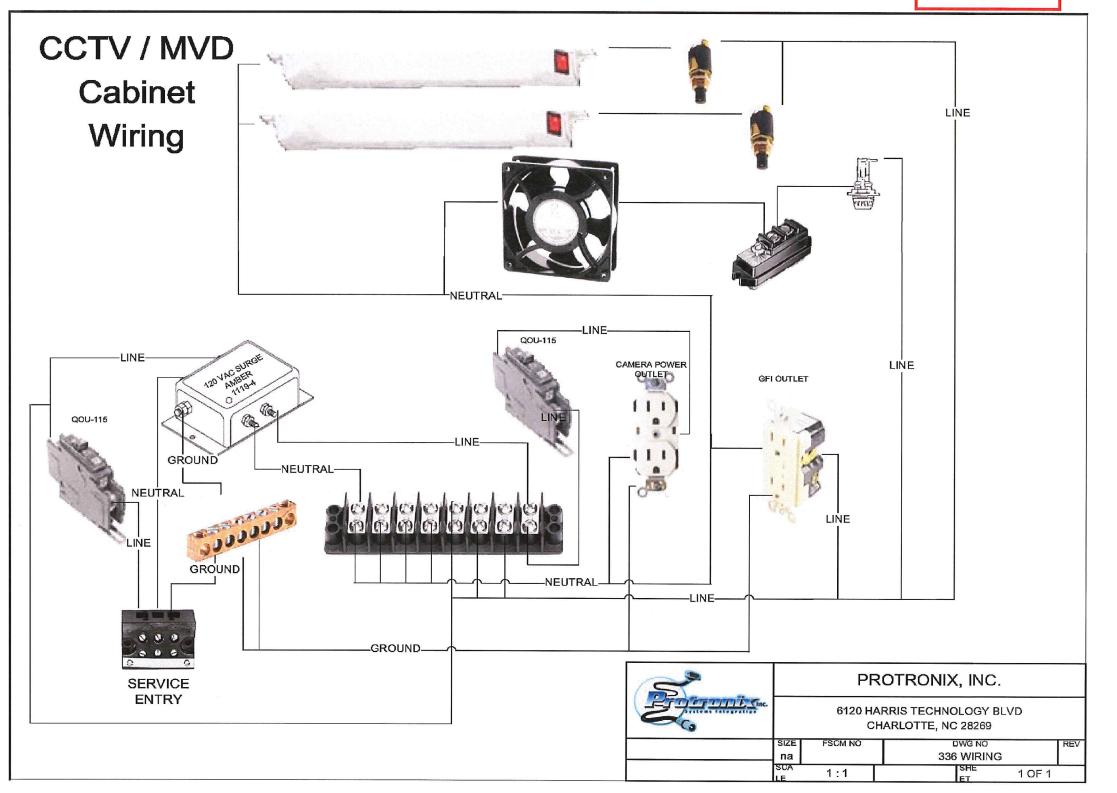


ITS PLANS MVD BLOCK DIAGRAM

PROJECT REFERENCE NO.

C202250

CAROLINES (AROUNES)



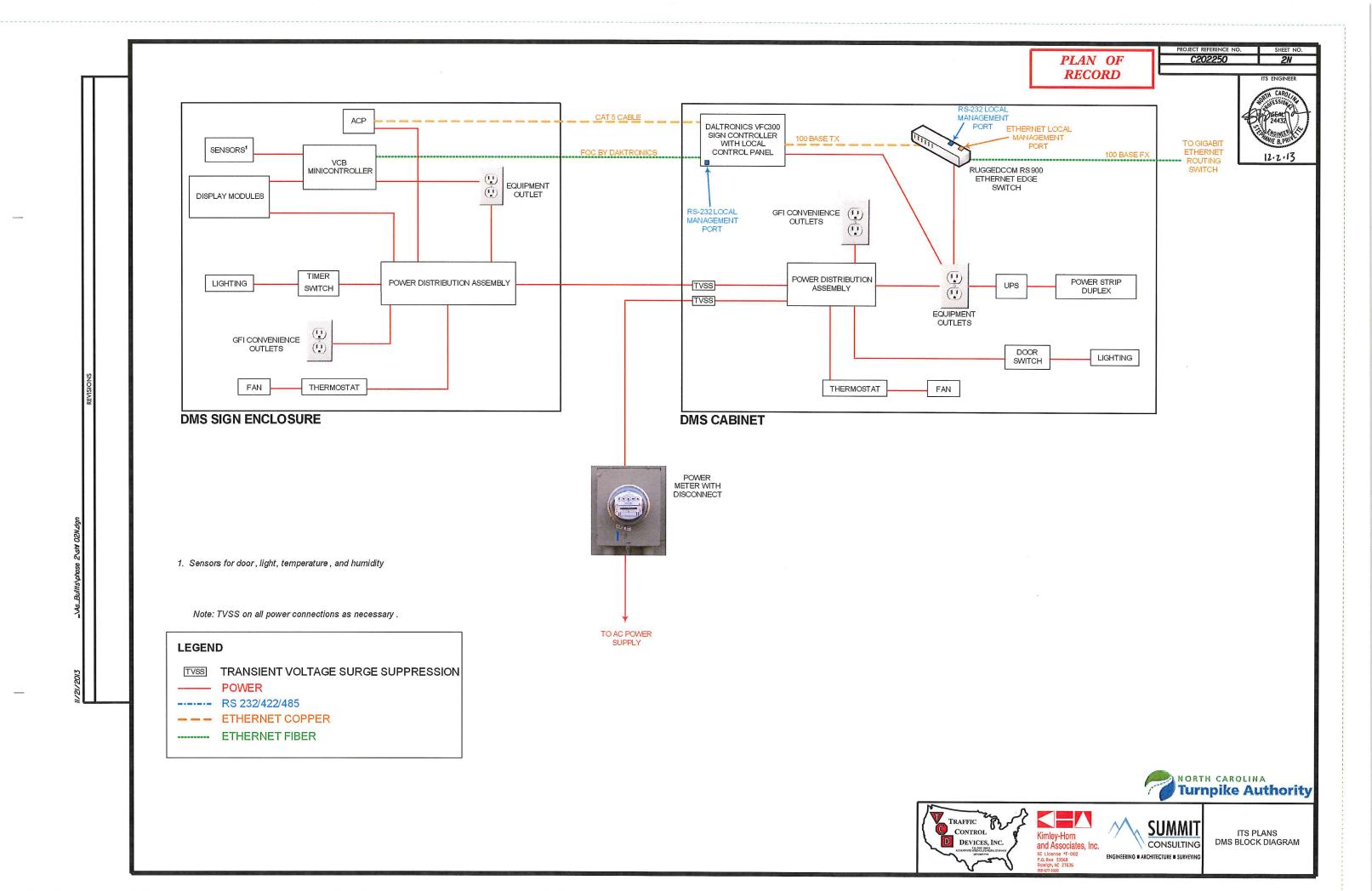


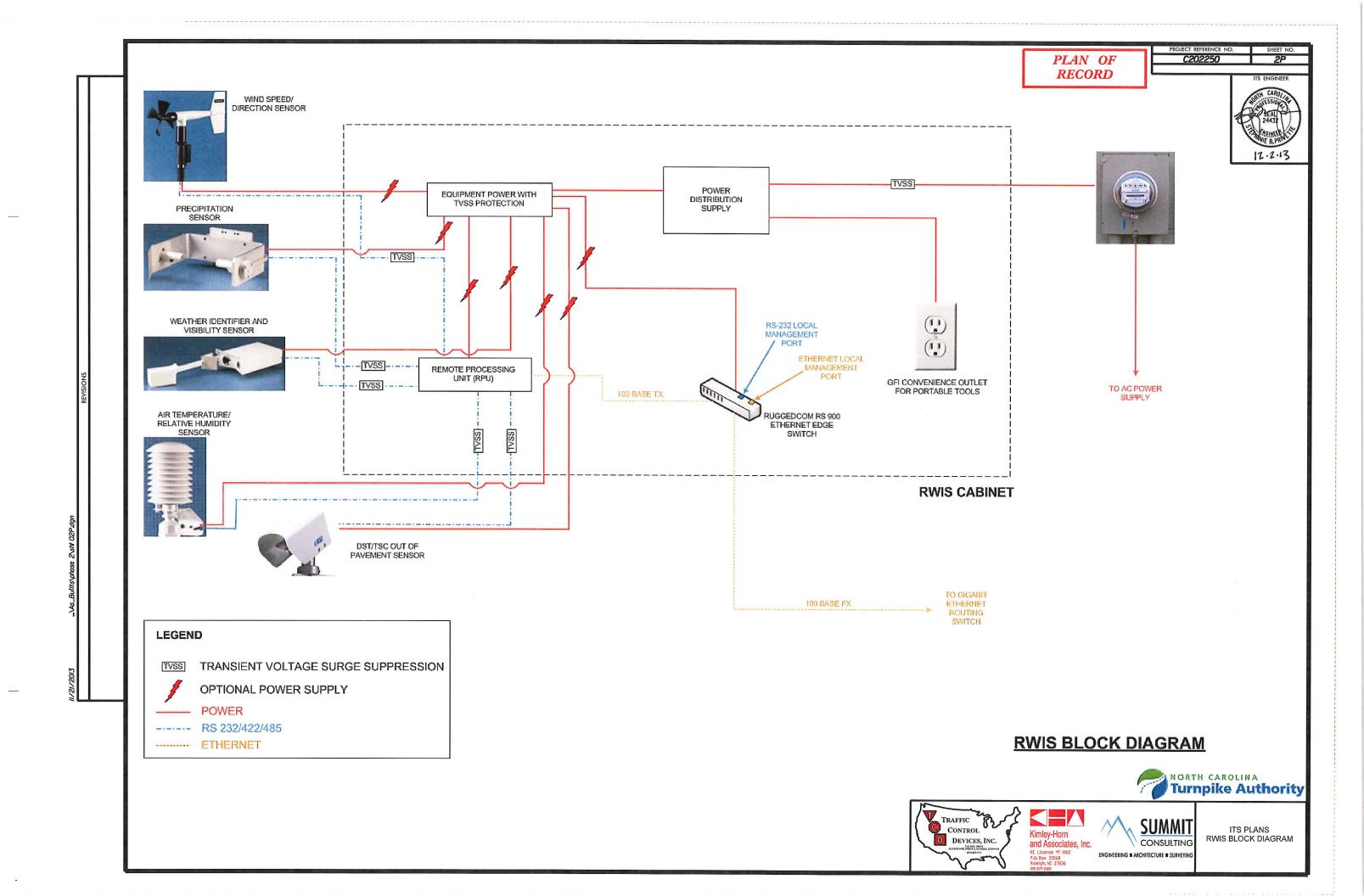


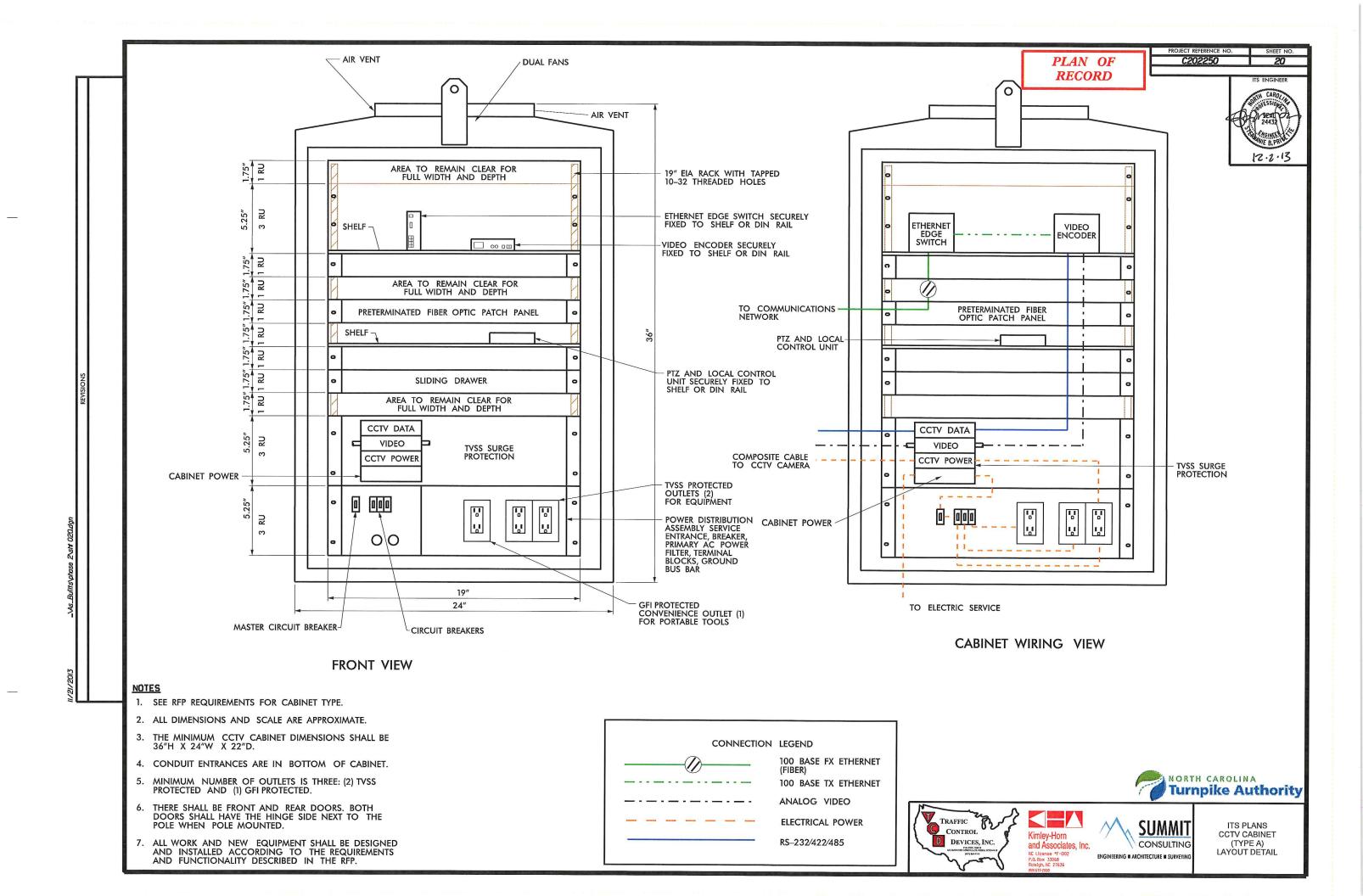


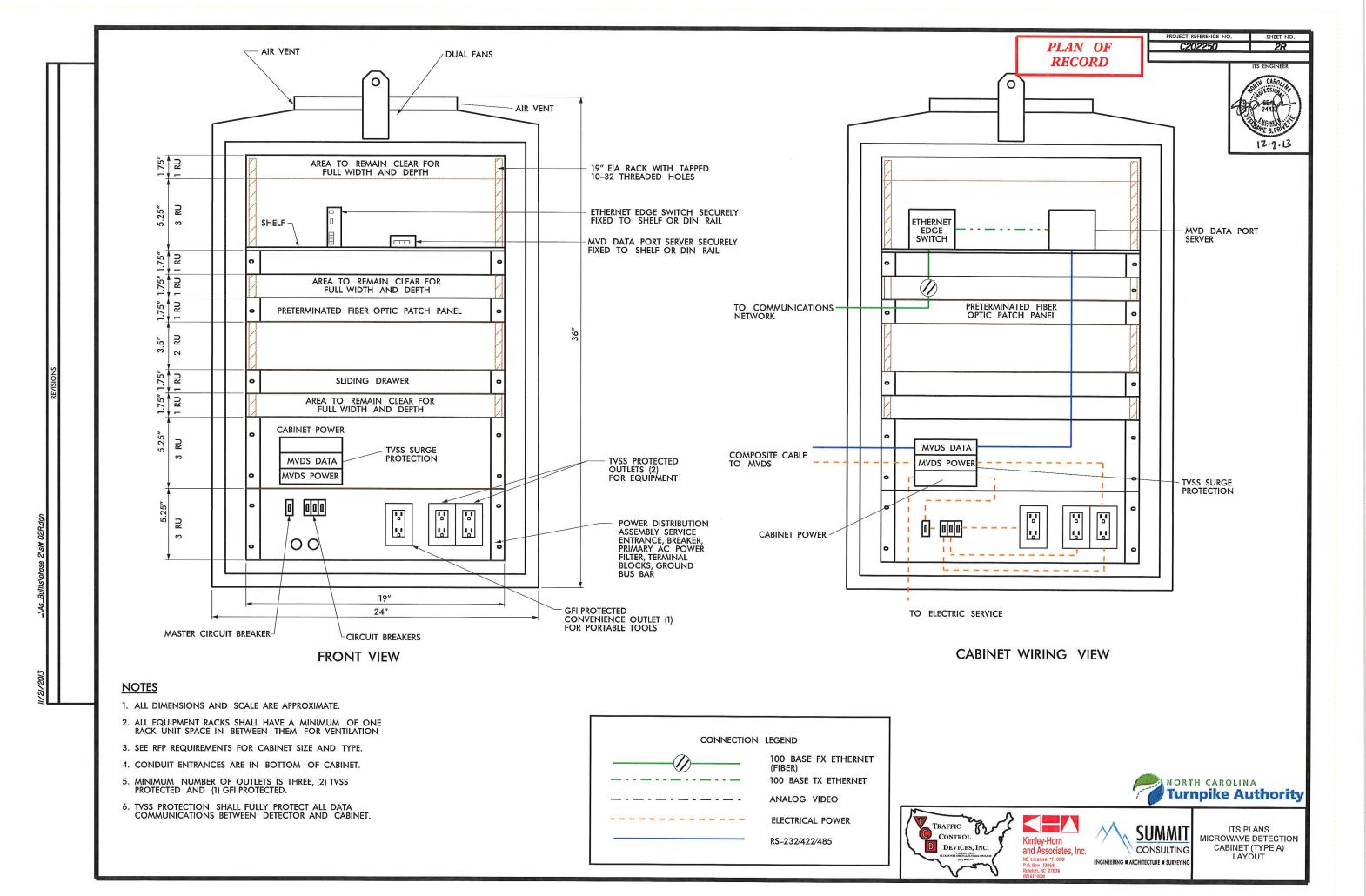


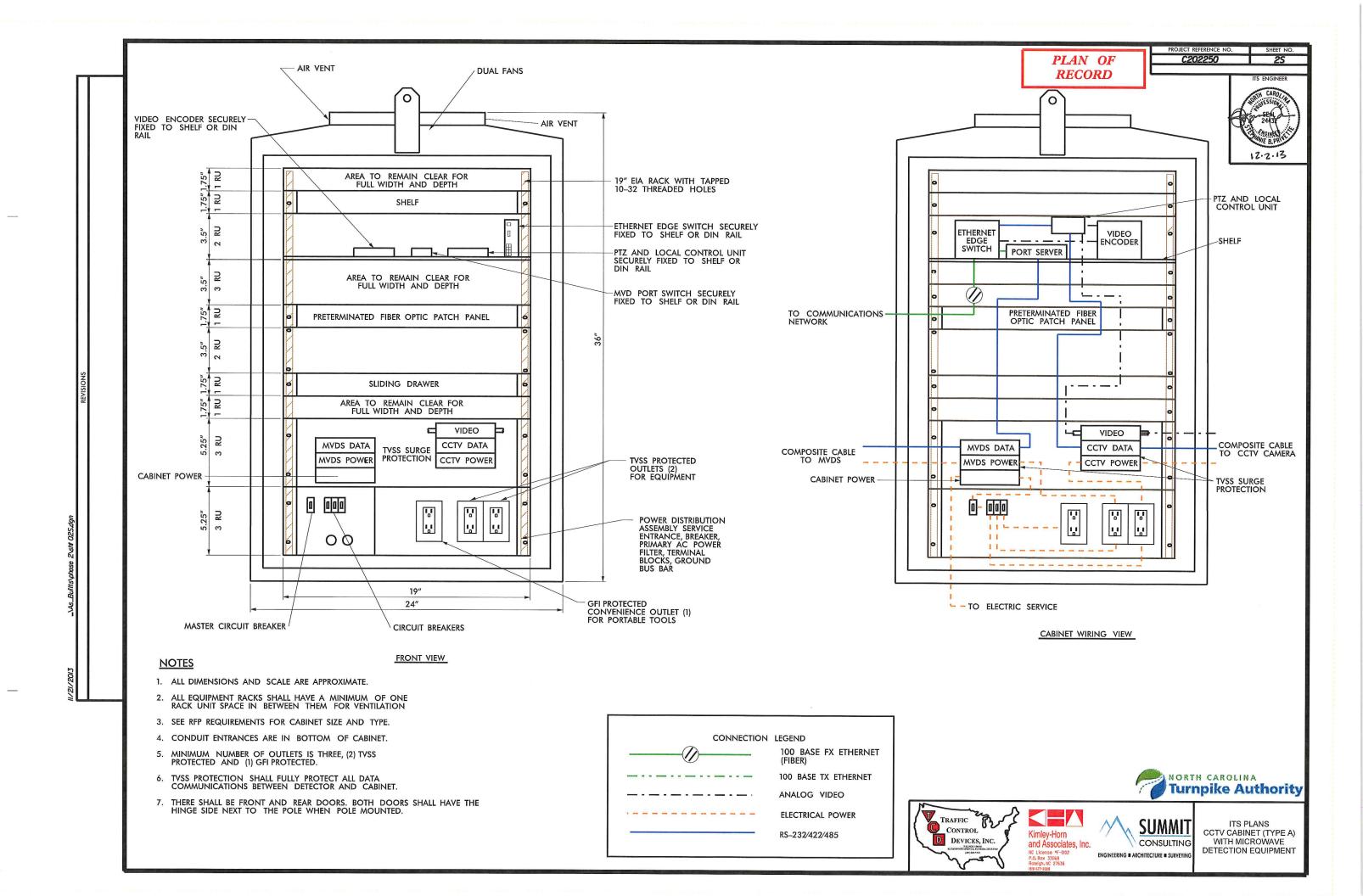
ITS PLANS CCTV BLOCK DIAGRAM

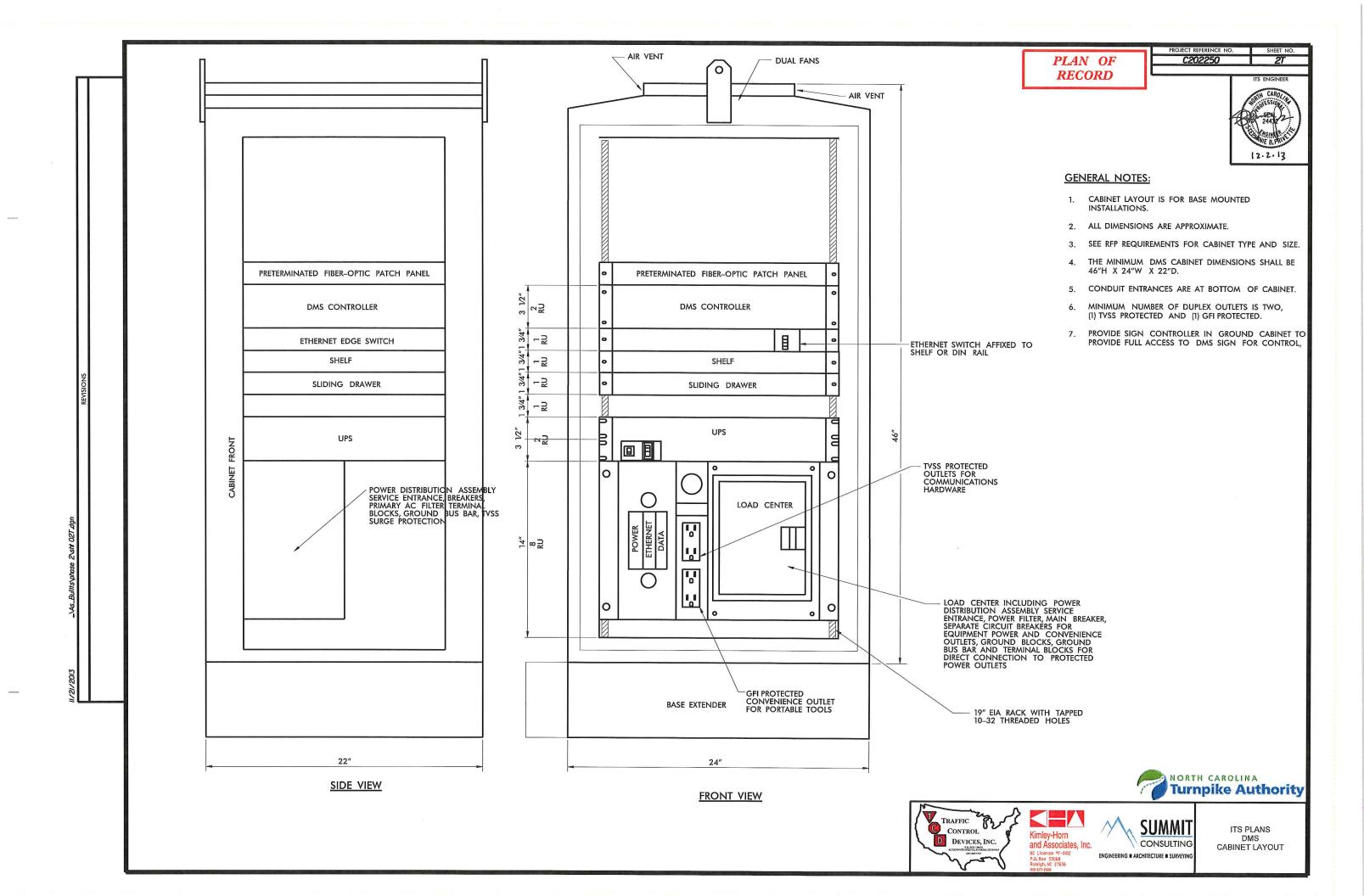






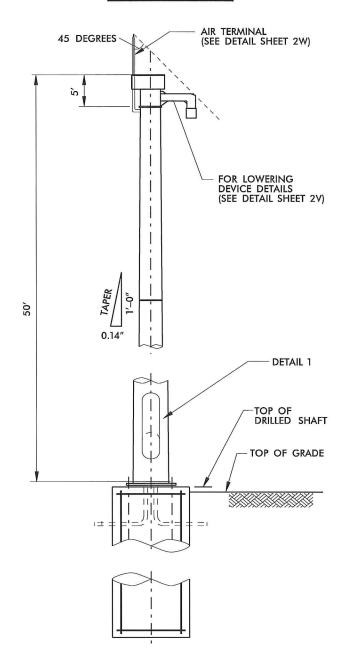




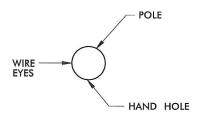


POLE WIRE LOWERING DEVICE ARM **EYES** HAND HOLE

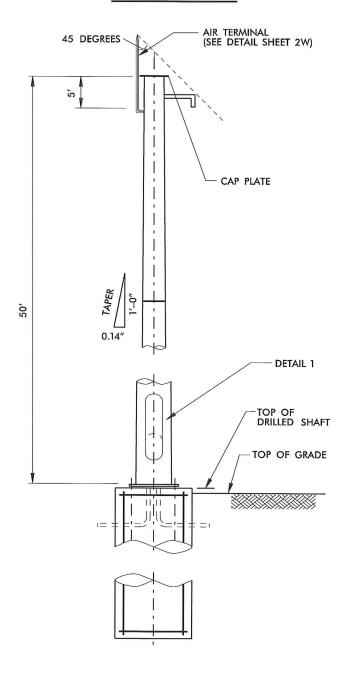
ORIENTATION VIEW



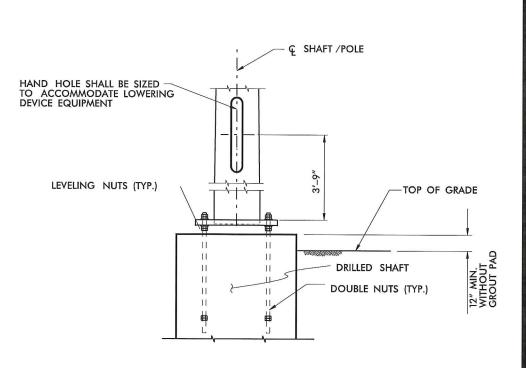
ELEVATION
WITH LOWERING DEVICE
AT INTERCHANGES AND BEHIND GUARDRAIL



ORIENTATION VIEW



ELEVATION WITHOUT LOWERING DEVICE ON MAINLINE



DETAIL 1

NOT TO SCALE





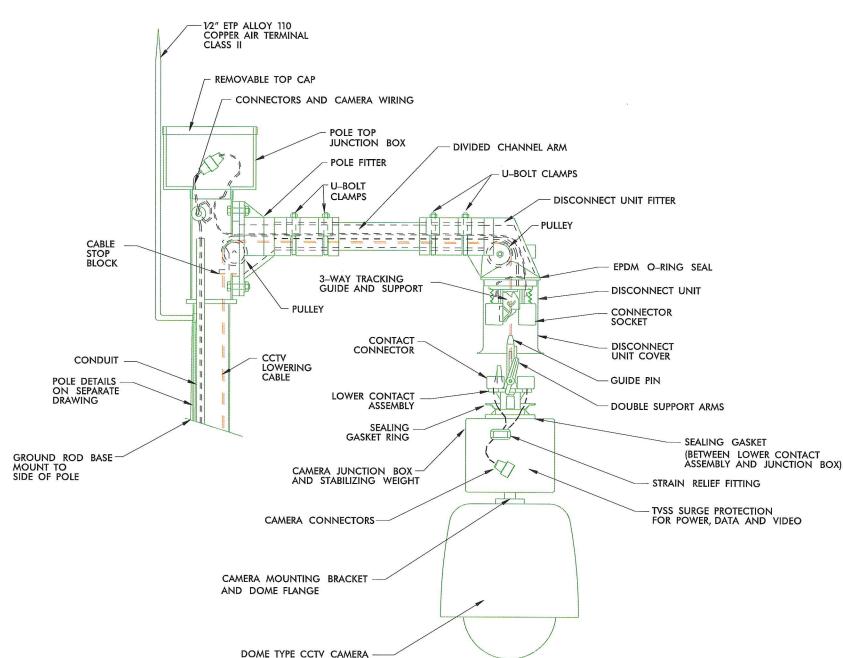




ITS PLANS SPECIAL CCTV POLE DETAILS

C202250

12.2.13



GENERAL NOTES:

- LOWERING DEVICE TO BE SHIPPED READY FOR POLE ATTACHMENT TO INCLUDE 100 FT. OF COMPOSITE POWER AND SIGNAL CABLE PREWIRED TO LOWERING DEVICE AT THE FACTORY.
- 2. THE LOWERING DEVICE MANUFACTURER SHALL SUPPLY BOTH A PORTABLE LOWERING TOOL WITH A MANUAL HAND CRANK AND A PORTABLE ELECTRIC DRILL MOTOR WITH CUSTOM CLUTCH ADAPTER. ONE LOWERING TOOL PER EVERY 10 LOWERING DEVICES
- 3. THE LOWERING DEVICE MANUFACTURER SHALL PROVIDE AN ON-SITE INSTALLATION INSPECTION AND OPERATOR INSTRUCTION AND CERTIFICATION. THIS ENSURES THE PRODUCT IS ASSEMBLED CORRECTLY AND, MORE IMPORTANTLY, THAT ALL NECESSARY PERSONS ARE TRAINED IN THE PROPER, SAFE OPERATION OF THE SYSTEM. BEFORE ERECTING THE FIRST POLE THE CONTRACTOR MUST CONTACT THE LOWERING DEVICE SUPPLIER AND SCHEDULE A FACTORY REPRESENTATIVE TO BE ON-SITE.
- 4. LOWERING DEVICE CONNECTION TO TOP OF POLE SHALL BE CAPABLE OF SERVICE TENSION AND SHEAR OF 1 KIP MINIMUM. THE CONTRACTOR SHALL PROVIDE PRODUCT CUT SHEET AND CAPACITY DATA FOR THE ENGINEER'S REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 5. CAMERA TO BE MOUNTED TO CAMERA JUNCTION BOX AND STABILIZING WEIGHT VIA 1 1/2" STANDARD NPT PIPE THREAD.
- $\,$ 6. Use air terminal extension when the pole top junction box is wider than top of pole.
- 7. ALL WORK AND NEW EQUIPMENT SHALL BE DESIGNED AND INSTALLED ACCORDING TO THE REQUIREMENTS AND FUNCTIONALITY DESCRIBED IN THE RFP.

NOT TO SCALE

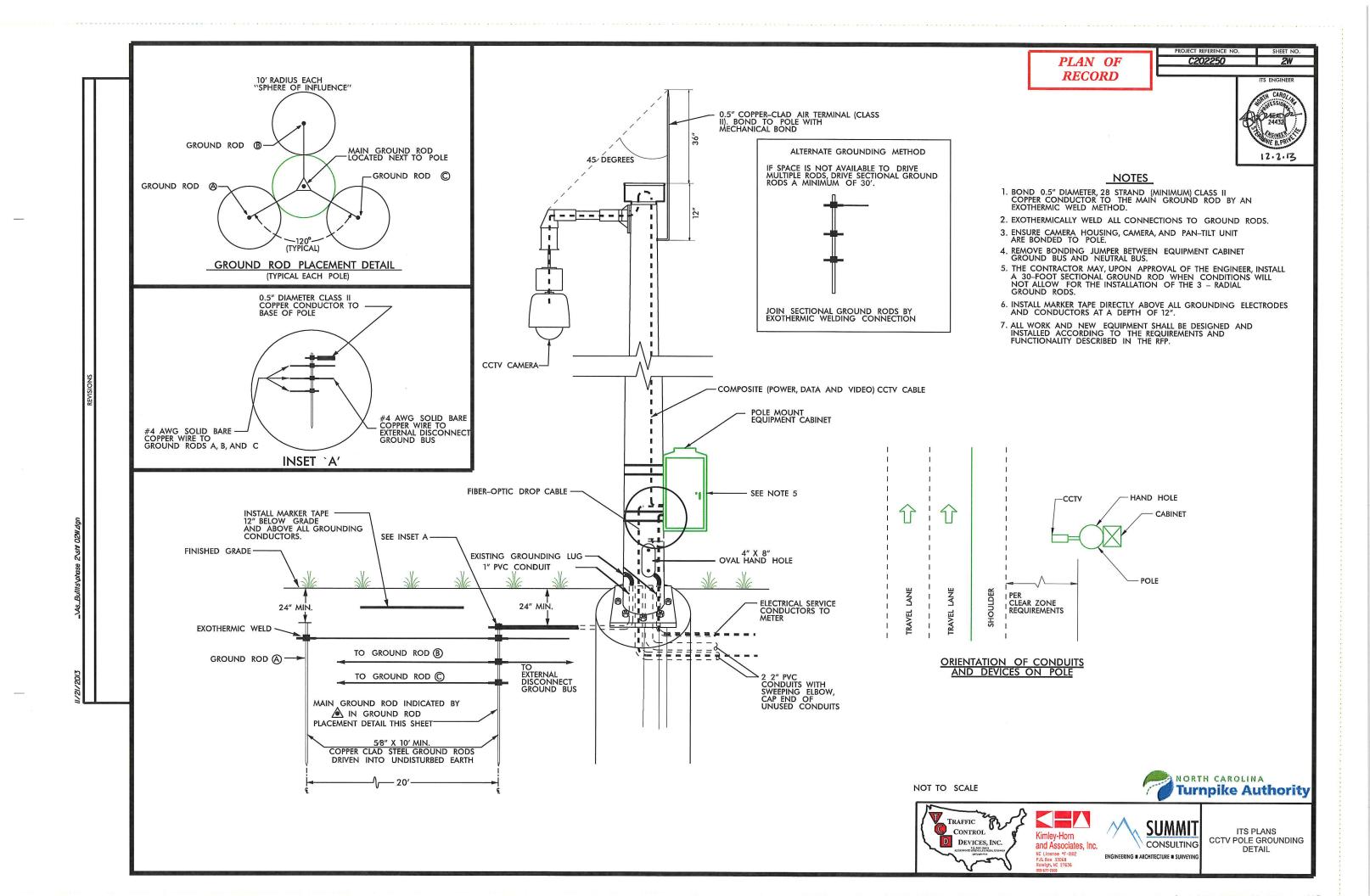








ITS PLANS CCTV CAMERA LOWERING DEVICE



C202250 PLAN OF POLE MOUNTED CCTV CABINET DETAIL RECORD 0.5" COPPER-CLAD AIR TERMINAL-(CLASS II). BOND TO POLE WITH MECHANICAL BOND CCTV CAMERA -NOTE: ENTRY HEIGHT MAY VARY WITH ATTACHMENT HEIGHT OF CABLES. -METAL POLE COMPOSITE (POWER, DATA -AND VIDEO) CCTV CABLE - SEE RFP REQUIREMENTS FOR CABINET TYPE AND SIZE <u>NOTES</u> ALL WORK AND NEW EQUIPMENT SHALL BE DESIGNED AND INSTALLED ACCORDING TO THE REQUIREMENTS AND FUNCTIONALITY DESCRIBED IN THE RFP. 48" -2" RGS CONDUIT 11 111111 II HHIII $\mathbf{H}_{j}^{\dagger}HH\mathbf{H}$ UNDERGROUND SERVICE LATERAL CONDUCTORS INSTALLED BY NORTH CAROLINA NOT TO SCALE **Turnpike Authority** 2" PVC CONDUIT FOR— FIBER-OPTIC CABLE TRAFFIC **SUMMIT** ITS PLANS CCTV POLE-MOUNTED CABINET DETAIL CONTROL D DEVICES, INC. CONSULTING ENGINEERING # ARCHITECTURE # SURVEYIN

NOTES:

1. CONTRACTOR SHALL TERMINATE FIBER-OPTIC CABLES IN CABINET WITH PRETERMINATED PATCH PANEL.

2. FURNISH AND INSTALL THE TVSS PROTECTION ON ALL DATA AND POWER CABLING INTO CABINET.

3. FURNISH AND INSTALL SECONDARY TVSS PROTECTION ON CONVENIENCE OUTLETS FOR EQUIPMENT HARDWARE IN CABINET.

4. SIZE AND TYPE OF CONDUITS FOR NETWORK COMMUNICATIONS BETWEEN THE PULL BOX AND CABINET SHALL BE SHOWN IN THE PLANS.

5. SEE DETAIL 2Z FOR GROUNDING REQUIREMENTS.

6. ALL NETWORK COMMUNICATIONS CONDUITS AND DUCTS SHALL BE SEALED WITH APPROVED WATERPROOF DUCT PLUGS OR SEALS.

METAL POLE SEE DETAILS 2R DETECTION EQUIPMENT — CABINET, POLE MOUNTED SEE FIBER-OPTIC PULL BOX OR FIBER-OPTIC SPLICE BOX DETAILS 2" PVC CONDUIT BETWEEN POLE AND CABINET FOR ELECTRICAL CONDUCTORS FIBER-OPTIC CONDUIT FOR NETWORK COMMUNICATION -2" HDPE FIBER-OPTIC CONDUIT 1" PVC CONDUIT FOR GROUNDING 2" HDPE CONDUIT TO SECOND MVD UNIT IN PAIR WITH UNIFIED CABLE IN CONDUIT 1" PVC CONDUIT TO POWER SERVICE ASSEMBLY

FOUNDATION

NOT TO SCALE

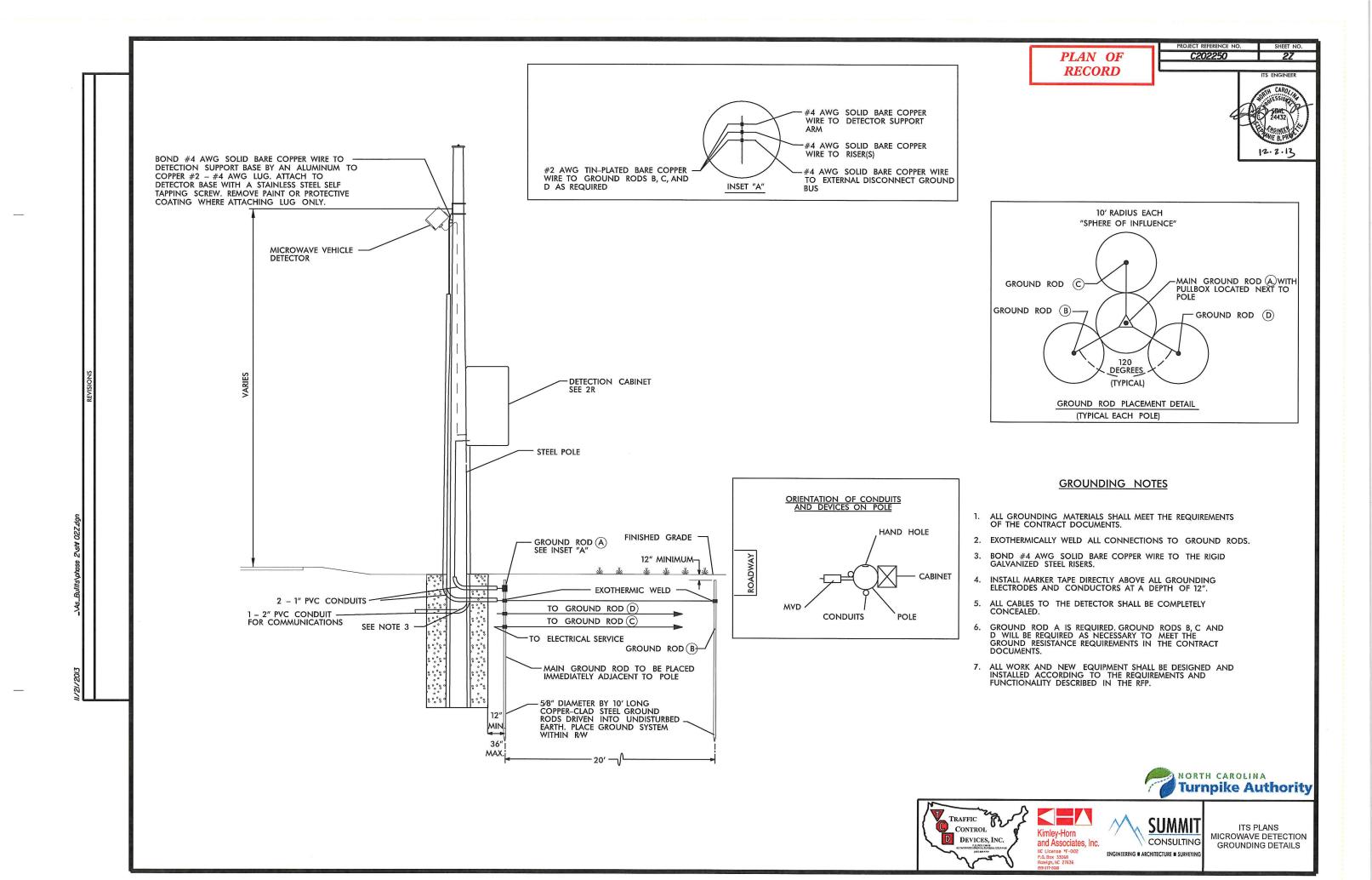


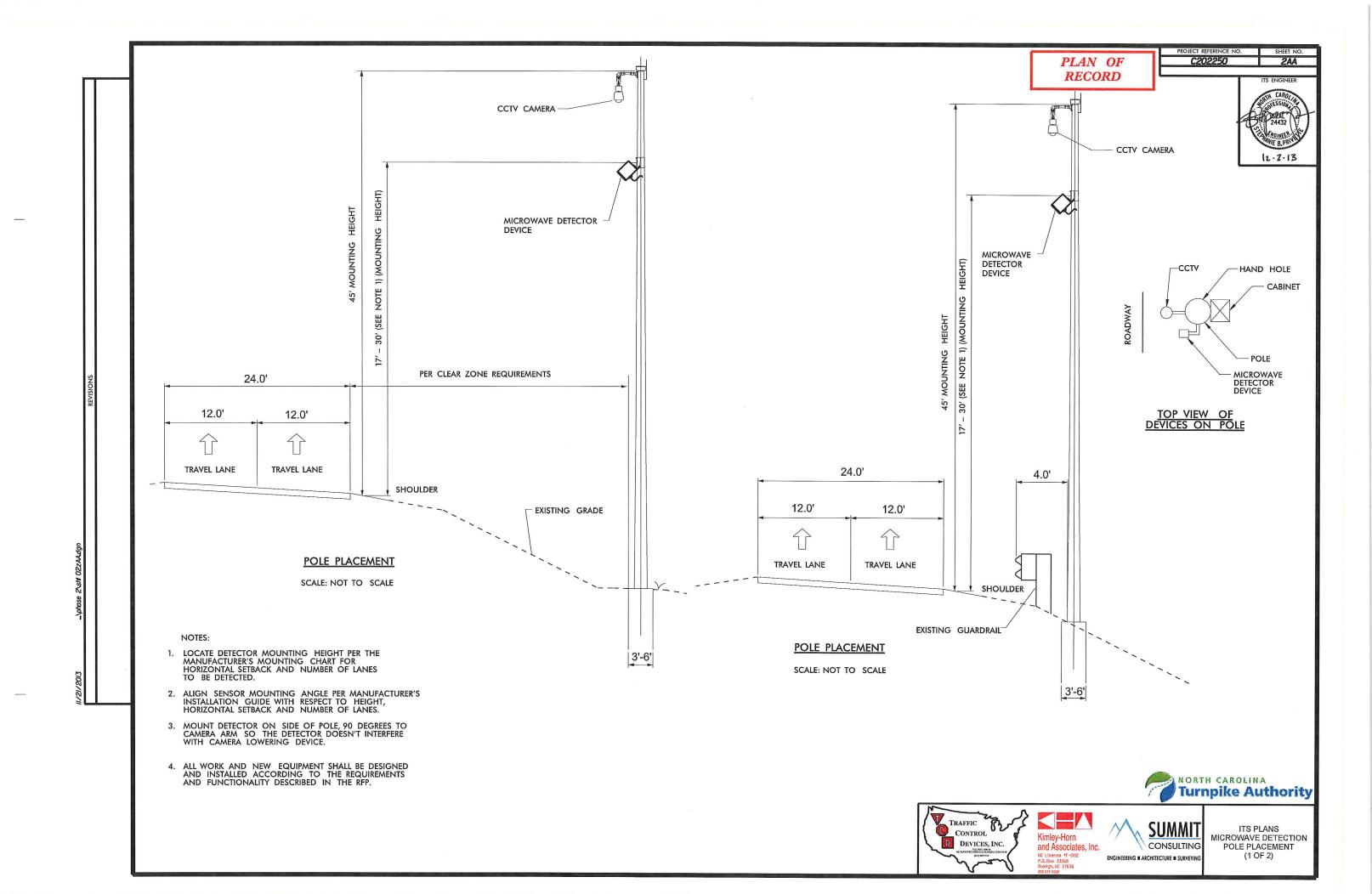


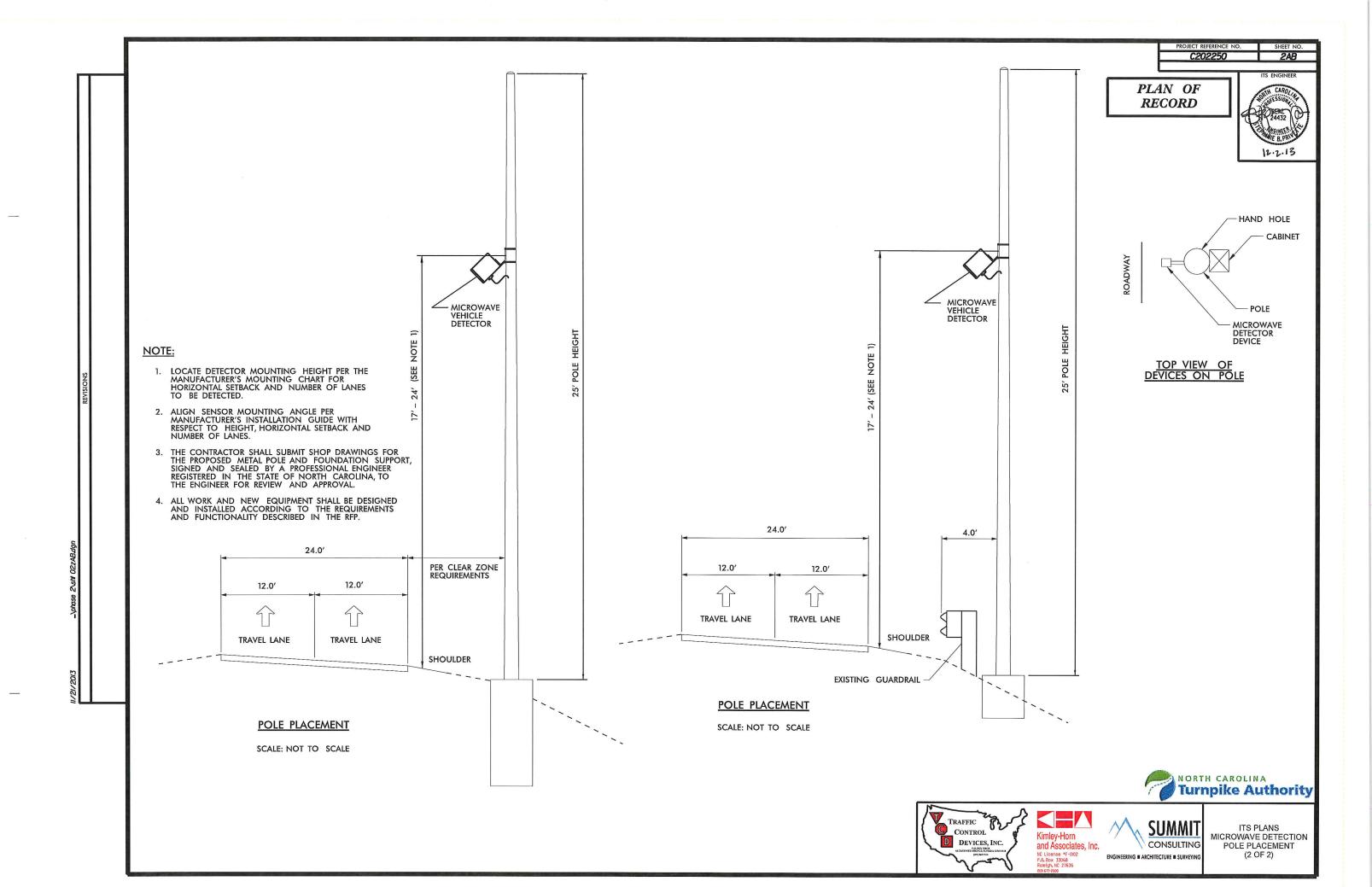




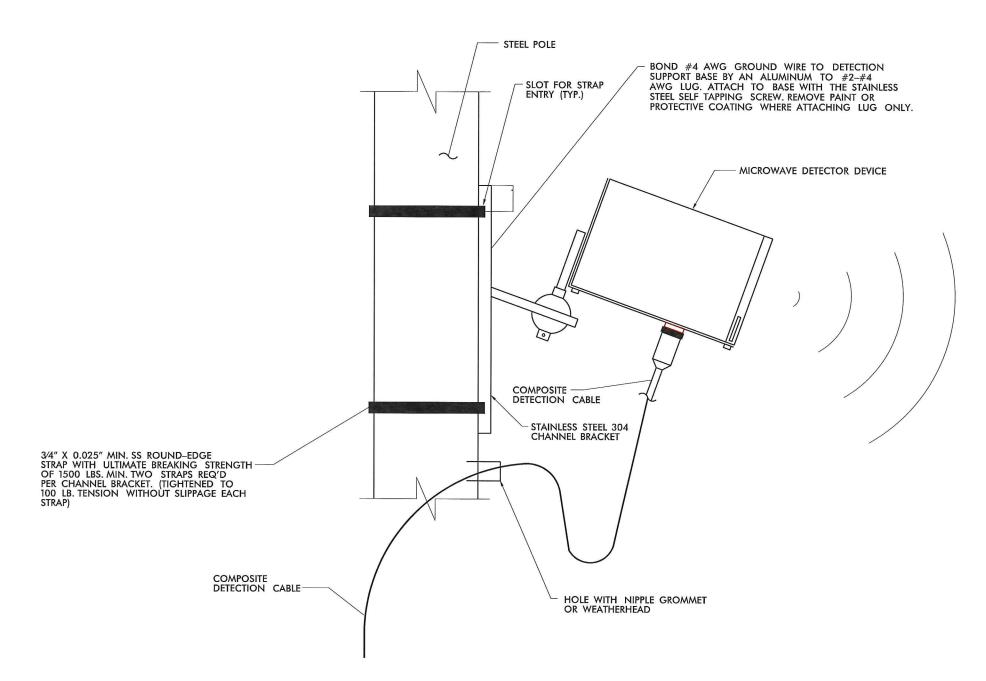
ITS PLANS MICROWAVE DETECTION CABINET DETAIL







- 1. NO FIELD WELDING SHALL BE PERMITTED.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE PROPOSED SUPPORT, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA, TO THE ENGINEER FOR REVIEW AND APPROVAL.
- 3. MOUNTING BRACKET CONNECTION TO POLE SHALL ALLOW ADJUSTMENT OF TILT ANGLE.



MICROWAVE DETECTOR HOUSING ELEVATION VIEW

NOT TO SCALE

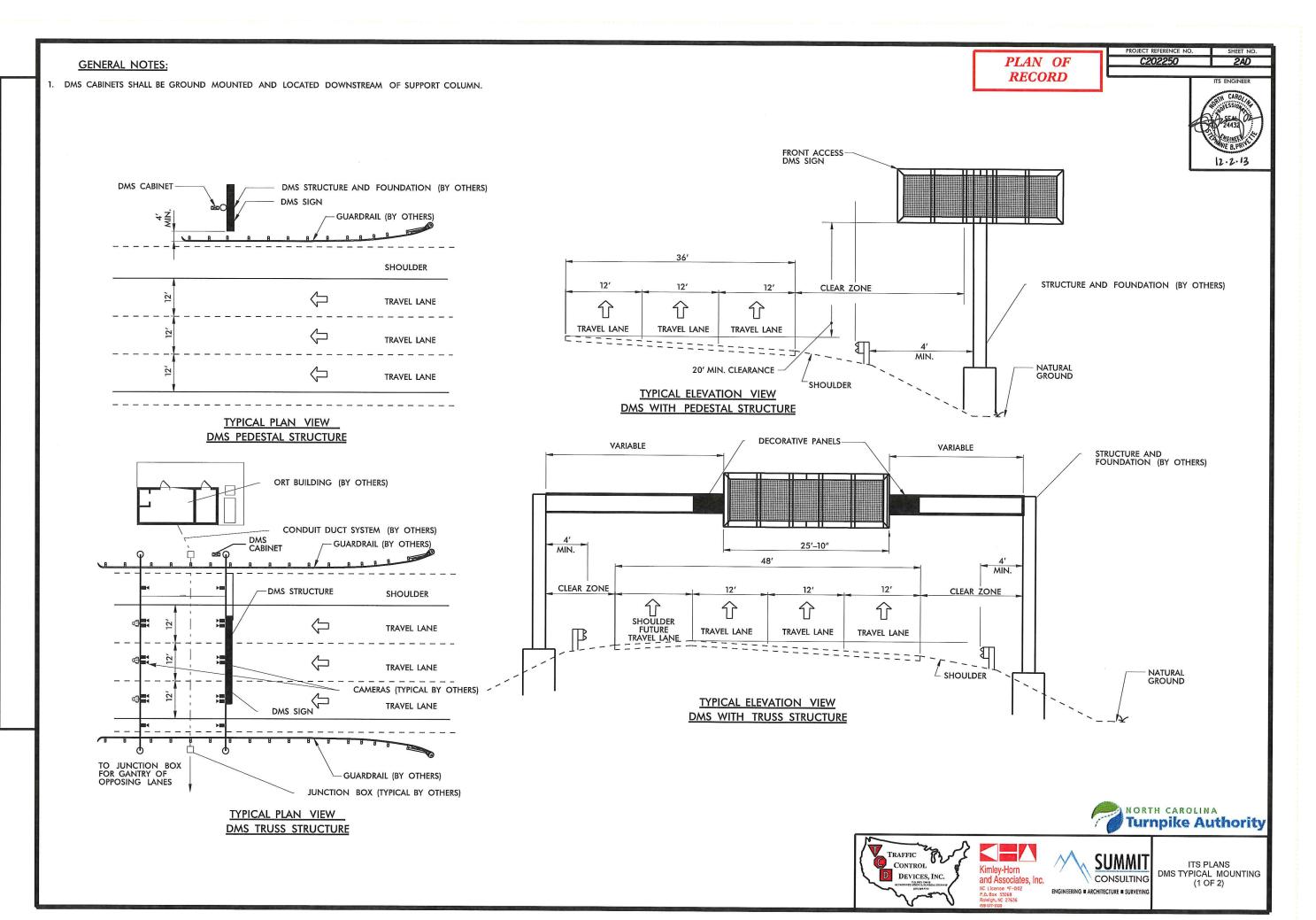








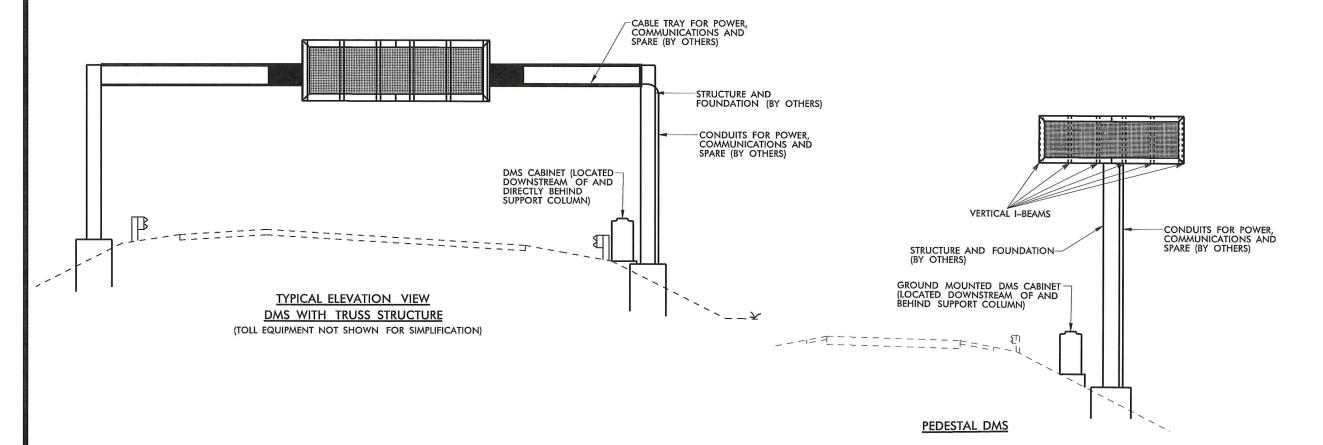
ITS PLANS MICROWAVE DETECTION MOUNTING



PROJECT REFERENCE NO.

C202250

50 ZAE



GENERAL NOTES:

- BENDS IN THE CONDUIT WITH DMS COMMUNICATIONS CABLE SHALL NOT EXCEED THE MANUFACTURER'S MINIMUM RADIUS FOR FIBER-OPTIC CABLE.
- 2. ALL DATA AND POWER CABLE FOR THE DMS SHALL BE COMPLETELY CONCEALED.
- 3. STRUCTURAL ATTACHMENT OF DMS TO STRUCTURE IS RESPONSIBILITY OF CONTRACTOR.
- 4. DMS CABINETS SHALL BE GROUND MOUNTED AND LOCATED DOWNSTREAM OF AND DIRECTLY BEHIND SUPPORT COLUMN.

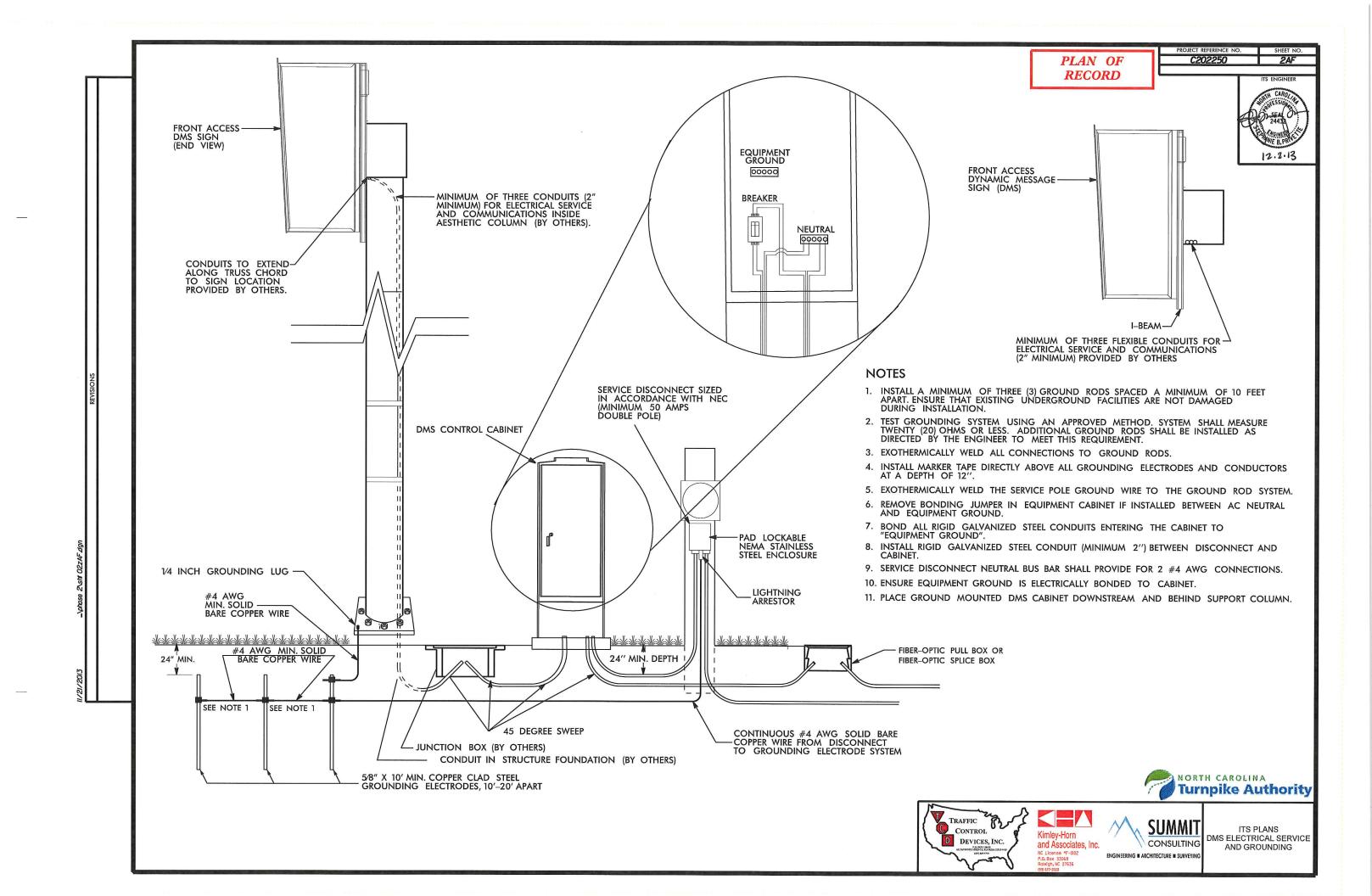








ITS PLANS DMS TYPICAL MOUNTING (2 OF 2)



NOTES:

ITEMS NOT SHOWN: CONCRETE SERVICE PAD, IN-GROUND POWER, SENSOR CABLES AND CONDUIT.



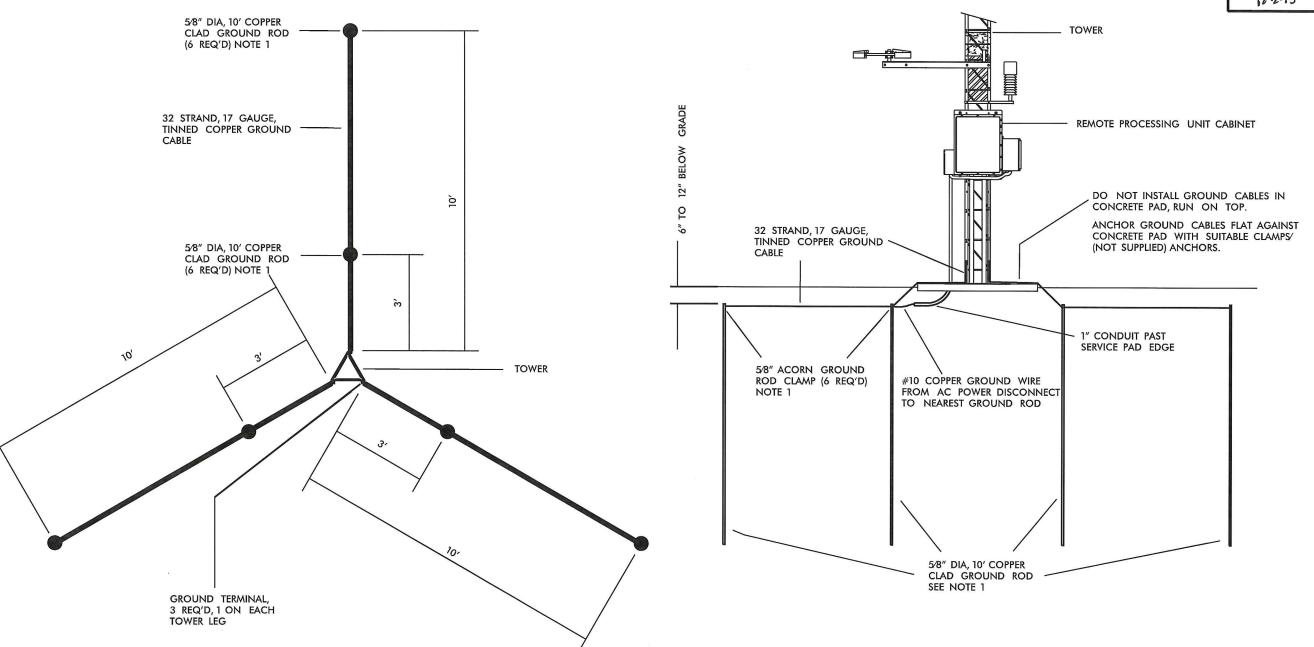






ITS PLANS RWIS ELEVATION VIEW

C202250



NOTES:

1. 6 EA. 5/8" DIA, 10' COPPER CLAD GROUND RODS AND 5/8" ACORN GROUND ROD CLAMPS ARE NOT SUPPLIED. INSTALLATION CONTRACTOR RESPONSIBLE FOR PROVIDING.







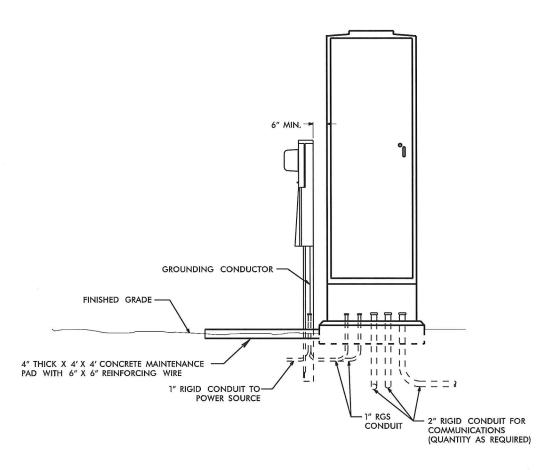


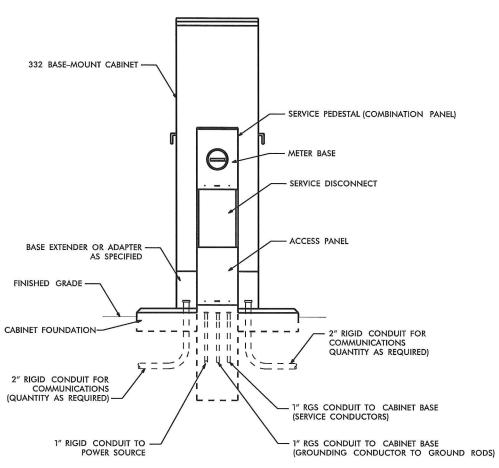
ITS PLANS RWIS GROUNDING

PROJECT REFERENCE I

SHEET NO.

CARO CA CARO CA





NOTES

- 1. TEST GROUNDING SYSTEM USING AN APPROVED METHOD IN ACCORDANCE WITH SPECIAL PROVISIONS. INSTALL GROUND RODS AS DIRECTED BY THE ENGINEER TO MEET THIS REQUIREMENT.
- 2. REMOVE ANY EXISTING GROUND RODS IN CONCRETE CABINET FOUNDATION BY CUTTING OFF FLUSH WITH FOUNDATION SURFACE.
- 3. REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
- 4. BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO "EQUIPMENT GROUND".
- 5. INSTALL RIGID GALVANIZED STEEL CONDUIT (MINIMUM 1") BETWEEN DISCONNECT AND CABINET.
- 6. SERVICE DISCONNECT GROUND BUS BAR SHALL PROVIDE FOR 2 #4 AWG CONNECTIONS.
- 7. IF CONDITIONS REQUIRE SERVICE PEDESTAL TO BE INSTALLED IN FRONT OR REAR OF CABINET, MAINTAIN SUFFICIENT CLEARANCE FOR DOOR TO FULLY OPEN.







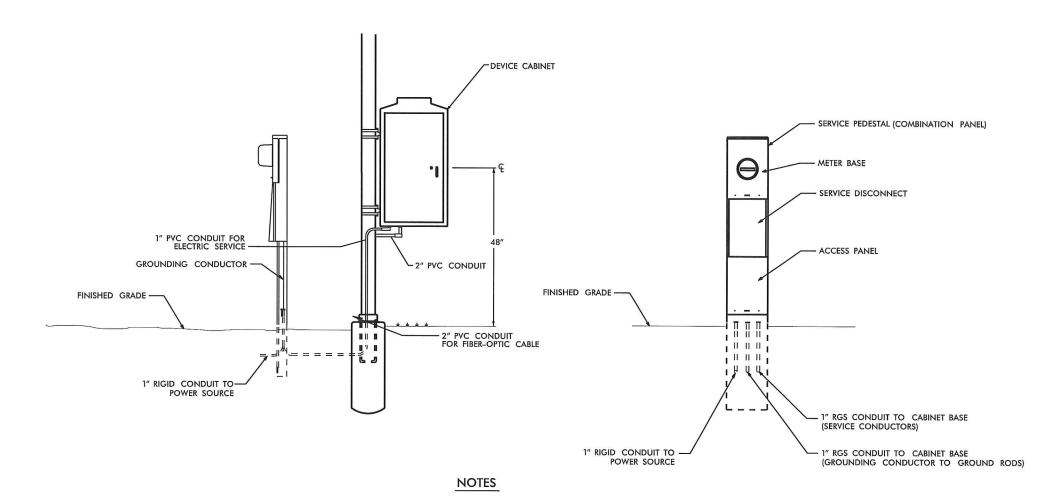


SUMMIT ITS PLANS POWER SERVICE DETAILS GROUND MOUNT CABINET DETAILS

PROJECT REFERENCE

250 SHEET NO. SHEET NO. 2AK

CARO CA CARO CA



- TEST GROUNDING SYSTEM USING AN APPROVED METHOD IN ACCORDANCE WITH SPECIAL PROVISIONS. INSTALL GROUND RODS AS DIRECTED BY THE ENGINEER TO MEET THIS REQUIREMENT.

 REMOVE ANY EXISTING GROUND RODS IN CONCRETE CABINET FOUNDATION BY CUTTING OFF FLUSH WITH
- 3. REMOVE BONDING JUMPER IN EQUIPMENT CABINET IF INSTALLED BETWEEN AC NEUTRAL AND EQUIPMENT GROUND.
- 4. BOND ALL RIGID GALVANIZED STEEL CONDUITS ENTERING THE CABINET TO "EQUIPMENT GROUND".
- 5. INSTALL RIGID GALVANIZED STEEL CONDUIT (MINIMUM 1") BETWEEN DISCONNECT AND CABINET.
- 6. SERVICE DISCONNECT GROUND BUS BAR SHALL PROVIDE FOR 2 #4 AWG CONNECTIONS.
- 7. IF CONDITIONS REQUIRE SERVICE PEDESTAL TO BE INSTALLED IN FRONT OR REAR OF CABINET, MAINTAIN SUFFICIENT CLEARANCE FOR DOOR TO FULLY OPEN.









ITS PLANS POWER SERVICE DETAIL POLE MOUNT CABINET DETAILS

PROJECT REFERENCE NO. SHEET NO.

C202250 2AL

CARO CARO 4432 CHIEF B. PRINCE B.

DSPLAY SERVER C. DESCANDED CO. 4 ONBSACSA

ONBSADSA

TO DISPLAY SERVER A
ONBSADSB

TO DISPLAY SERVER B
ONBSADSC

TO DISPLAY SERVER C REMOTE CONTRINSPOSITION OF THE PROPERTY OF THE LCD KEYBOARD MOUSE CNTRL SERVER A HP DL 380 OPERATOR STATION 1 ONBOARD P 1 VISION SOB 1 O CTL (CHARREL 9-12) CTL TUNER 1 (R) TO AUDIO ROUTER DISPLAY CUBE. CU15 DISPLAY CUBE CU11 DISPLAY CUSE CU12 DISPLAY CUBE CU13 DISPLAY CUSE CU14 4/ ② 1 VISION SOB 3 CTL TUNER 2 R [10 AUDIO ROUTER 1 VISION 508 4 CTL TUNCR 3 R TO AUDIO AFRX (I) DVI O----OCTL PAFRX(IX) DVI ØFRX (I) DVI Ø-D CTL ØFRX (I) (I) DM OFRX () DVI TUNER 4 R TO AUDIO DISPLAY CUBE CU22 DISPLAY CUBE DISPLAY CUBE CU24 DISPLAY CUBE CJ25 DISPLAY CUEE DISPLAY SERVER A

DISPLAY SERVER A

PP DL370

PP: CTL TUNER 5 (R) TO AUDIO POUTER CTL TUNER 6 R/R TO AUDIO | TO KOM SMITCH | TO KOM SMITC AFRX O D DM OFRX () () DVI © CTL ©FRX () () DVI (CHMNEL 37-40) DISPLAY CUBE CU18 DISPLAY CUBE CU19 DISPLAY CUBE CU110 DISPLAY CUBE CU17 (CHANNEL 45-46) (CHEMIST 49-53) (CHANNET 53-56) (CHMAEL 57-60) AFRX DO DVI (A)FRX(I)(I)DW OFRX OD DVI OFRX (D) DVI DISPLAY CUBE CU25 DISPLAY CUBE CU27 DISPLAY CUGE CUZB DISPLAY CUBE CU29 DISPLAY CUBE CU210 NO OX DIXES D CTL AFRX(T) DVI D-DCIL AFRX(T)(T)(T) (CHANEL 81-84) (CH9/NE) 55-68; DISPLAY CUBE CU112 DISPLAY CUBE CU113 DISPLAY CUSE CU114 DISPLAY CUBE CU115 (CH8P4L 89-92) DISPLAY SERVER C AFRX D D DVI (A) FRX (1) DVI D DCTL AFRX (1) DVI AFRX () DOVI AFRX () () DW DISPLAY CUBE CU214 DISPLAY CUSE CU215 DISPLAY CUTE CU211 FROM TAMER 1 - TAMEN AND 1 1 1 000 - TAMEN TAMER 2 - TAMEN AND 2 2 2 000 - TAMEN AND 3 3 3 000 - TAMEN AND 5 5 5 000 - TAMEN AND 5 5 5 000 - TAMEN AND 5 5 0000 - TAMEN AND 5 5 000 - TAME ARTIAUP1 (2) 1 (6) AVP1SPK1
ARTIAUP2 (2) 2 (6) AVP2SPK3
ARTIAUP3 (2) 3 5 (6) AVP2SPK5 CONNECTOR LEGEND (I) PS/2 MOUSE
(I) 15 PR DSUB
(II) PROPIECTARY/NCN-STD
(III) PROPIECTARY/NCN-STD
(III) PROPIECTARY/NCN-STD
(III) PROPIECTARY/NCN-STD
(III) PROPIECTARY/NCN-STD
(III) US9
(III) VOCO BREAKOUT:
(III) CHANNEL VIDED IN
(III) COSPET MEDUSIAN ACTIVU AGENT SCREW TERMINAL
XGA BREAKOUT:
A CHANNEL XGA OUT
DUAL BNC (M)
XLR 3 PN 52" LCD DISPLAY 52" LCD DISPLAY NORTH CAROLINA VIDEO AUDIO -SPECIAL -STHERNET -DVI -COMM --CAT5 ---SYSTEM WIRING DW - 301DIAGRAM TURNPIKE AUTHORITY S2221 DRAWN BY Activu Corporation
2 Stewart Court Denville NJ 07834
1: 973,366,5550 ft 973,366,1770 05.05.2011









ITS PLANS VIDEO WALL WIRING DETAIL

SVZ espud'-

1/2013

C202250

12.2.13

EQUIPMENT DESIGNATIONS CABLE PINOUTS ELECTRICAL SYMBOLS LABEL DEVICE LABEL DEVICE COMTROL DB9 COMPORT TO JDS IR EXPANDER COMTROL DB9 COMPORT TO MITSUBISHI DISPLAY COMTROL DB9 COMPORT TO C.R. STS-232 LABEL DEVICE

ART - AUDIO ROUTER

CS - CONTROL SERVER

COM - SERIAL COM PORT EXPANSION

CU - DISPLAY CUBE

DS - DISPLAY SERVER

KBD - KEYBOARD

KW - KW SWITCH

KVXL - KW EXTENDER (LOCAL) KVRF - KVW EXTENDER (REMOTE)
MIX - AUDIO MIXER
MON - MONITOR
MSE - MOUSE
NWS - NETWORK SWITCH
SPK - SPEAKER
TUN - CABLE TV TUNER - DUPLEX OUTLET DCD 2 TXD 3 DTR 4 GND 5 DSR RTS 7 CTS 8 DCD 1 RXD 2 TXD 3 DTR 4 GND 5-DSR RTS 7 CTS 8 1 N/C RXD TXD DTR 5 GND DTR N/C N/C 9 N/C - QUAD OUTLET - DATA OUTLET MITSUBISHI STS-232 - TELEPHONE OUTLET A - VOICE/DATA OUTLET JB - JUNCTION BOX CABLE LABEL LEGEND TYPICAL EQUIPMENT CABLE DESIGNATION: SOURCE EQUIPMENT DESIGNATION ___ EQUIPMENT NUMBER/SUB ASSY NUMBER (IF APPL) - OUTPUT NUMBER/LETTER VCA 1 4L 1 4 EQUIPMENT NUMBER/SUB ASSY NUMBER (IF APPL) COMMON CONNECTOR PINOUTS - DESTINATION EQUIPMENT DESIGNATION CAT 5E/ CAT 6 568B VGA HD15 TO COMPONENT VIDEO RS-232C STANDARD DB9 RS232 STANDARD RJ45 TYPICAL SERVER TO DISPLAY WALL CABLE DESIGNATION: 02345 67890 MALE END 12345678 OUTPUT SERVER DESIGNATION PIN COLOR

1 WHITE/ORANGE
2 ORANGE
3 WHITE/GREEN
4 BLUE
5 WHITE/BLUE
6 GREEN
7 WHITE/BROWN
8 BROWN - OUTPUT CARD SLOT NUMBER (IF APPL) DCD DATA CARRIER DETECT
RXD RECENCE DATA
TXO TRANSMIT DATA
DTR DATA TERMINAL READY
SGND SIGNAL GROUND
DSR DATA SET READY
RTS REQUEST TO SEND
RTS RIGHT OF SEND OUTPUT NUMBER/LETTER R-Y (Pr) Y B-Y (Pb) GND GND R-Y (GND) Y (GND) B-Y (GND) 4 8 CU 1 4 DISPLAY WALL COLUMN ID DISPLAY WALL ROW ID - EQUIPMENT DESIGNATION (CUBE) COMTROL DEVICEMASTER RS232 COMTROL ROCKETPORT RS232 MITSUBISHI DISPLAY RS232C COMTROL DEVICEMASTER RS422 DCD DATA CARRIER DETECT
RXD RECEIVE DATA
TXD TRANSMIT DATA
DIR DATA TERMINAL READY
SGRD SIGNAL GROUND
DSR DATA SET READY
RTS REQUEST TO SEND
CTS CLEAR TO SEND
RT RING INDICATOR N/C RXD- RECEIVE DATA -TXD- TRANSMIT DATA -N/C N/C TXD+ TRANSMIT DATA + RXD+ REGEIVE DATA + N/C

NORTH CAROLINA

TURNPIKE AUTHORITY

VIDEO AUDIO SPECIAL THERNET DVI





SYMBOLS

ROJECT NO. S2221 DRAWN B

01.20.2011



DW - 01

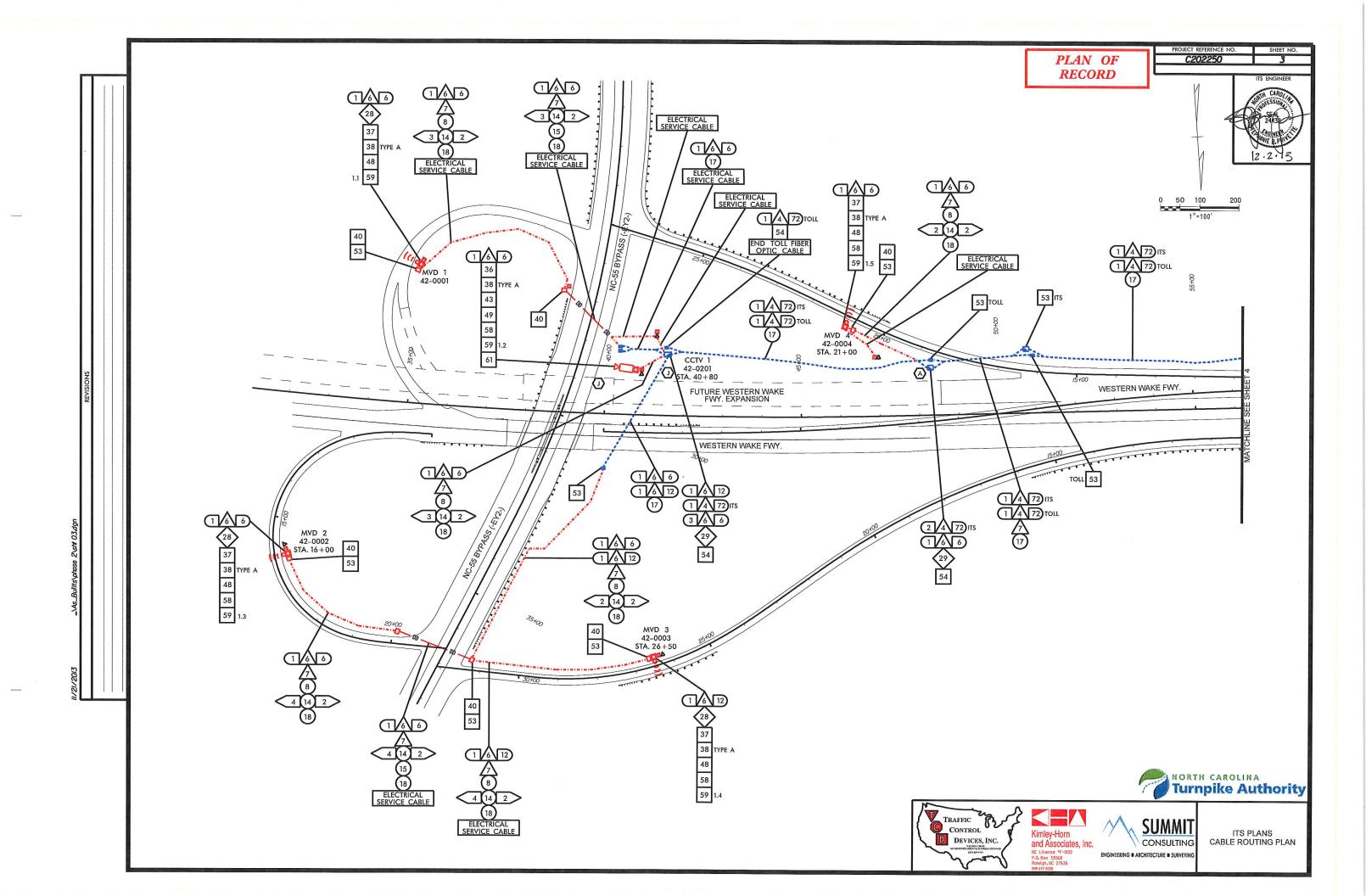
MI FORMS EDG MANAGEMENT, HE FLAS INCOME OF EXPRESSED IF HE OWNERS AND HE HEILEDON, FORTHER OF MICH. OF THE OF SUCH MICH. EDGLAND, FIR THE MICH. IN THE OF SUCH MICH. EDGL. OF MANAGEMENT SHE OF SUCH DESIGN, TO ANY POSSON WHICH WITTEN PROVIDED FROM AN ACTIC CORPORATION.

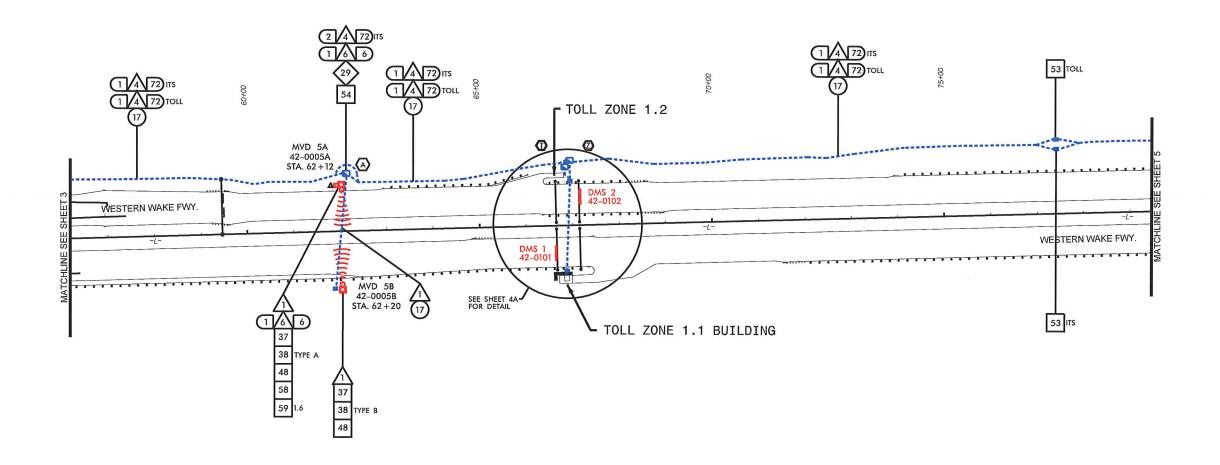


ITS PLANS VIDEO WALL WIRING DETAIL

activu

Activu Corporation
2 Stewart Court Denville NJ 07834
t; 973,366,5550 f; 973,366,1770







NOTES

1. SEE SHEET E23 IN ACS DETAILED DESIGN DRAWING DOCUMENT DATED FEBRUARY, 2011.

2. SEE NCTA STANDARD DRAWINGS SHEET TF-7 FOR TOLL ZONE 1.1.

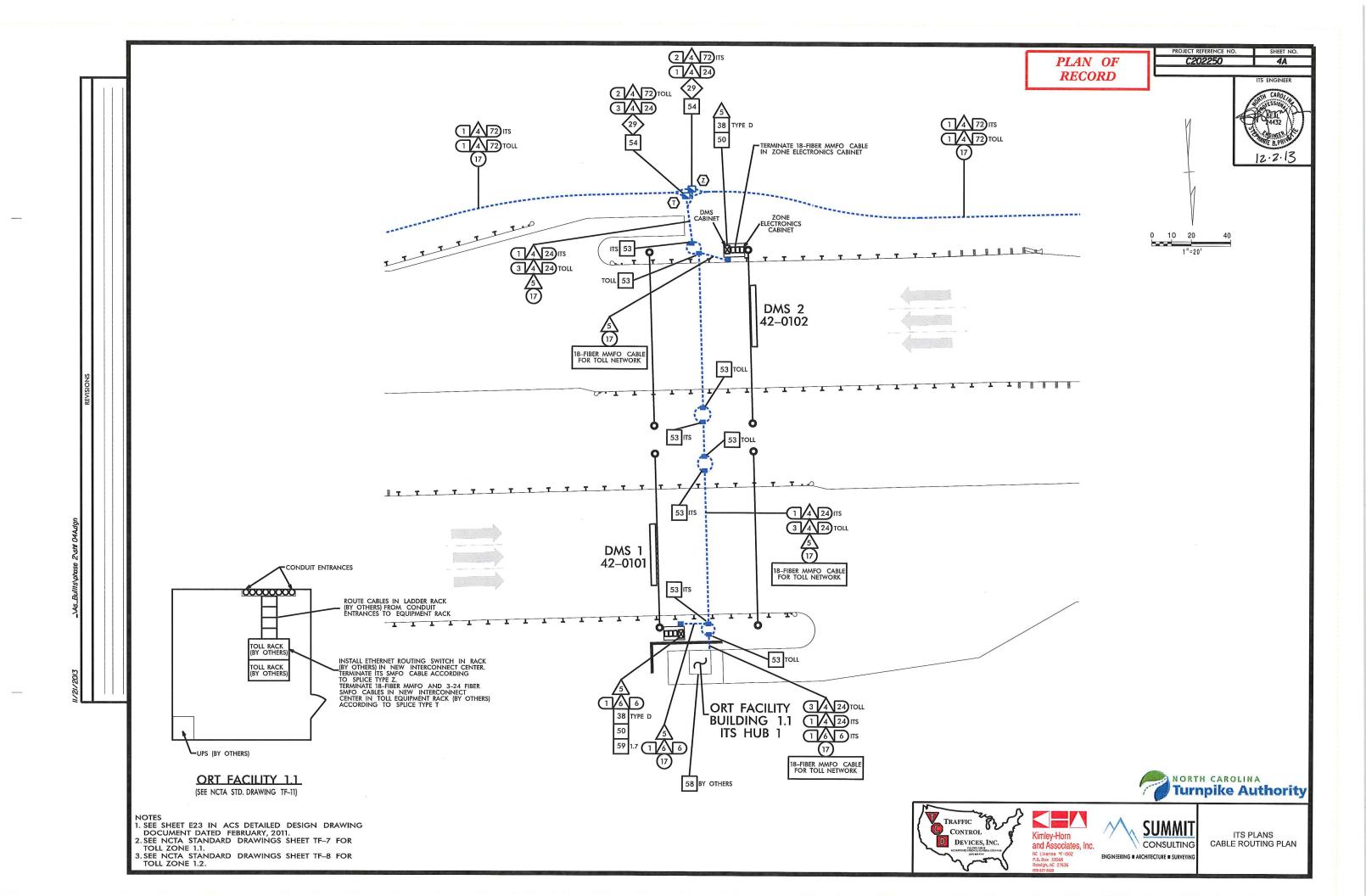
3. SEE NCTA STANDARD DRAWINGS SHEET TF-8 FOR TOLL ZONE 1.2.

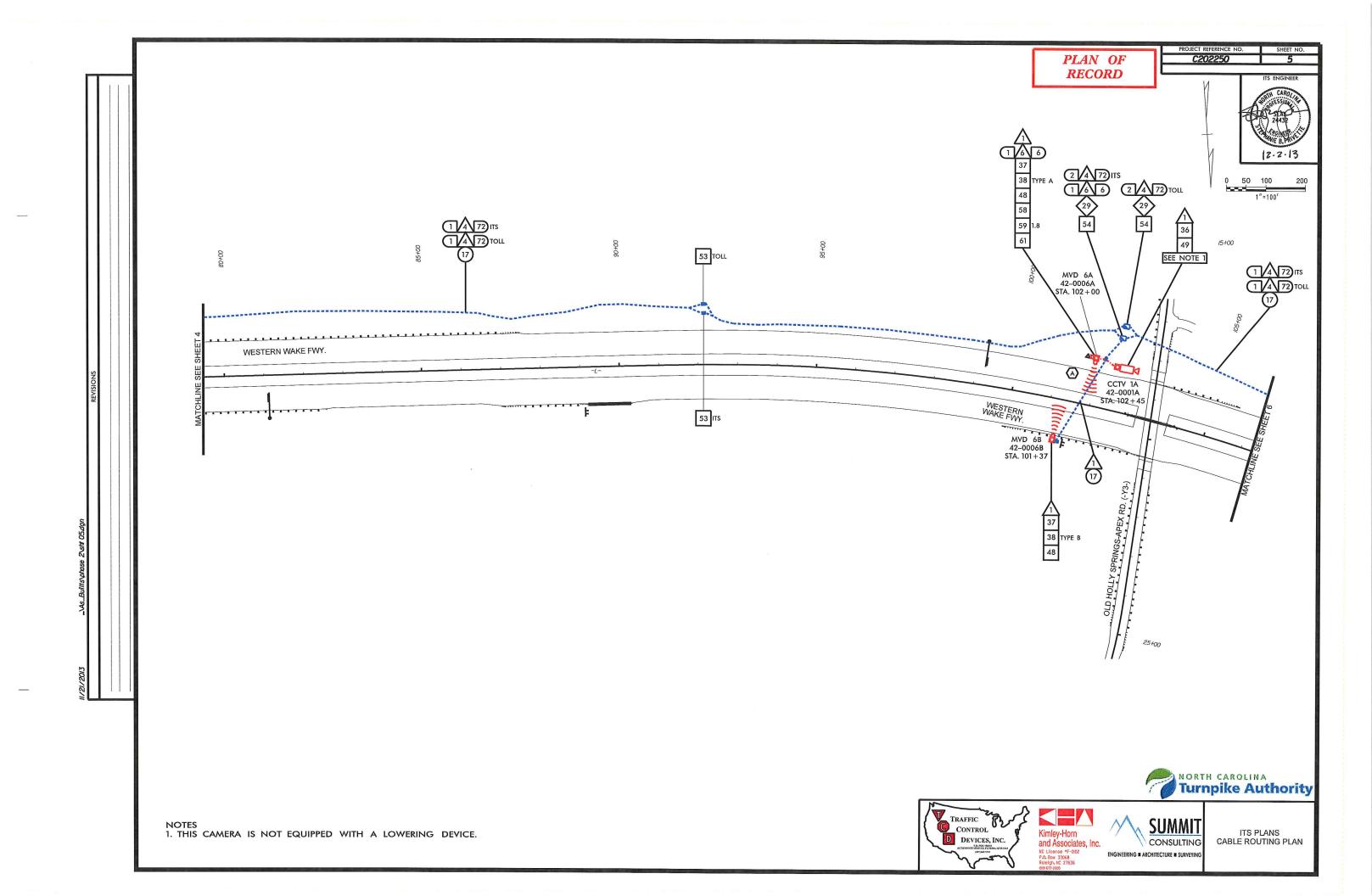


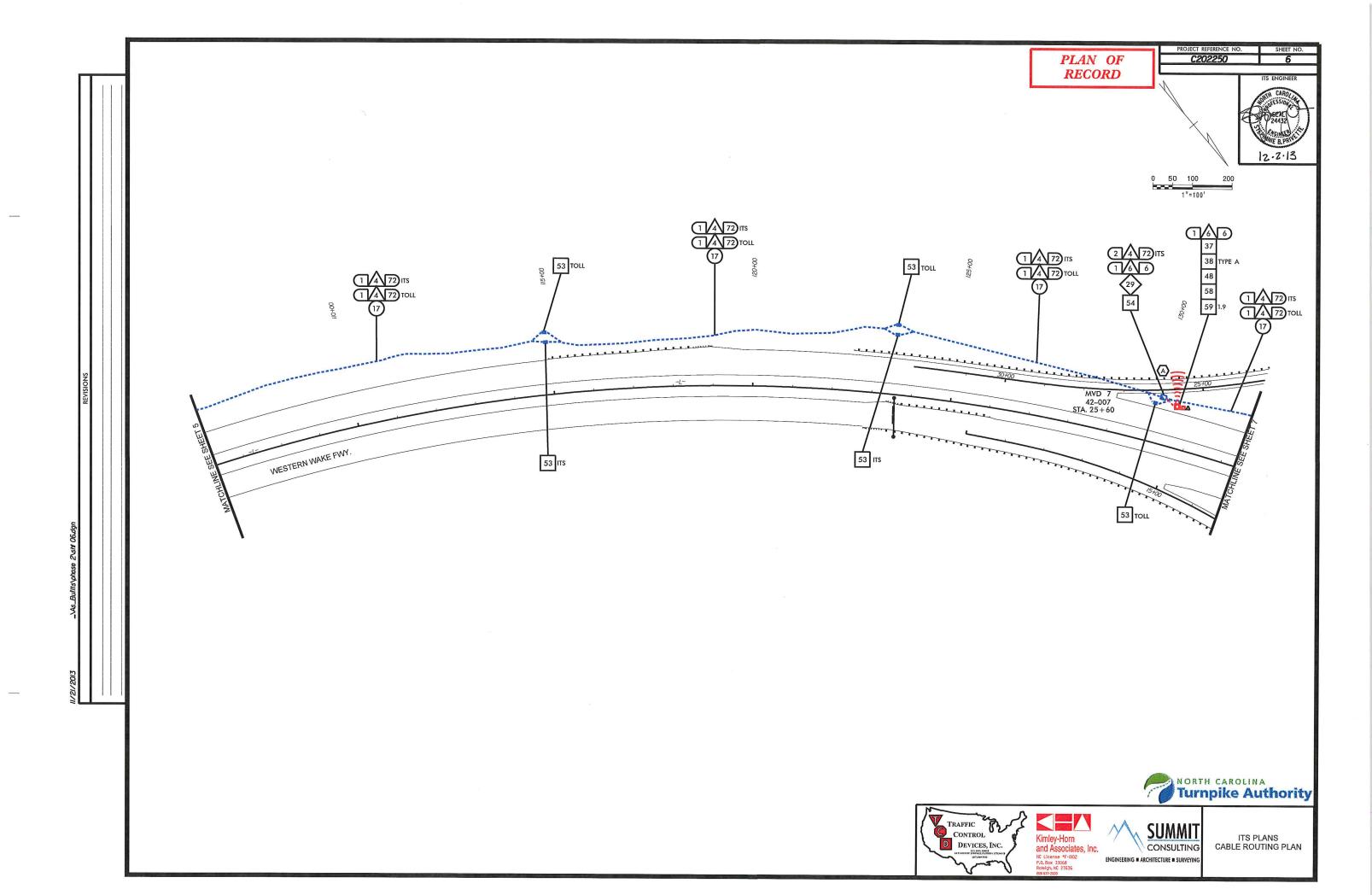


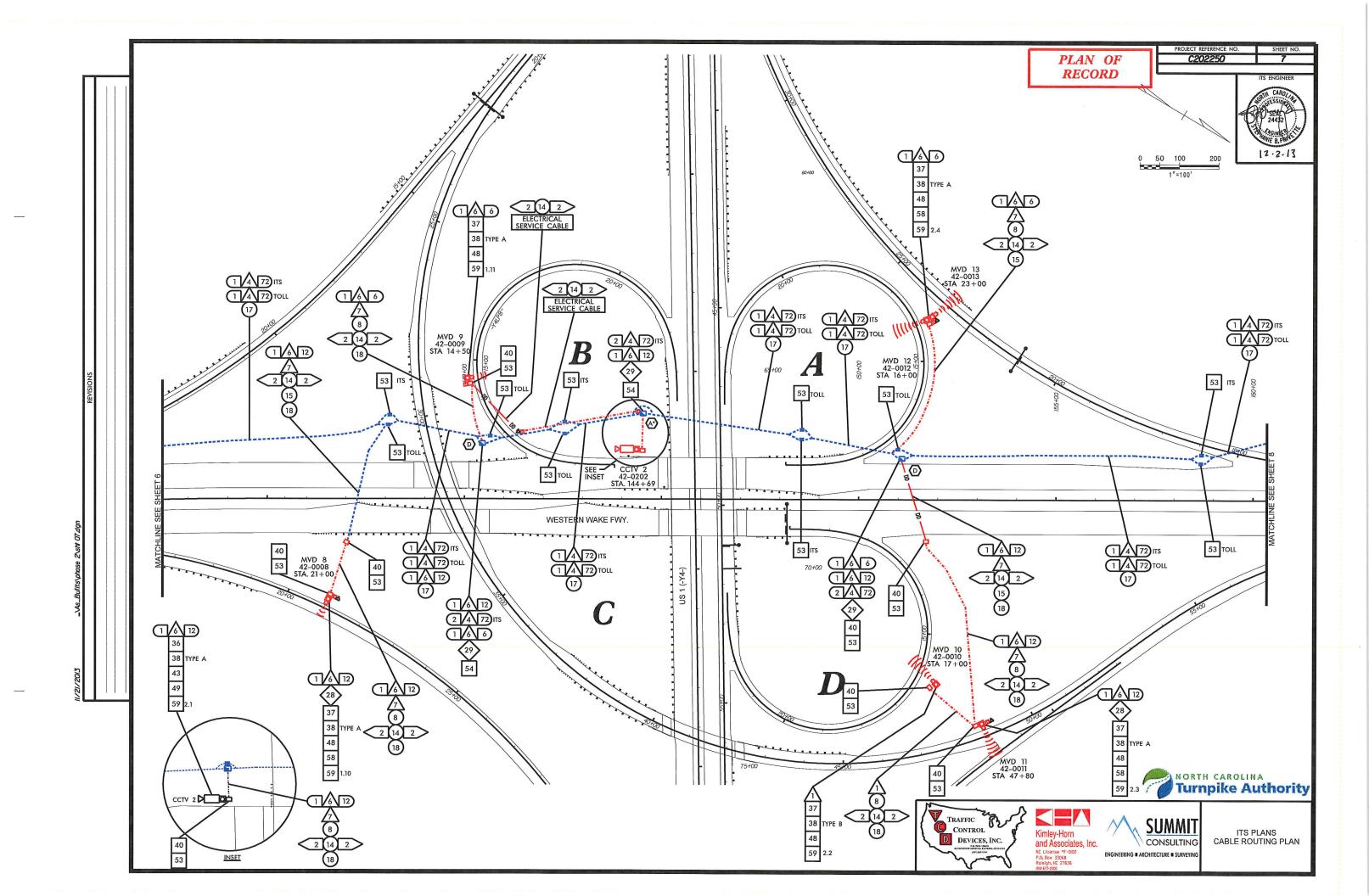


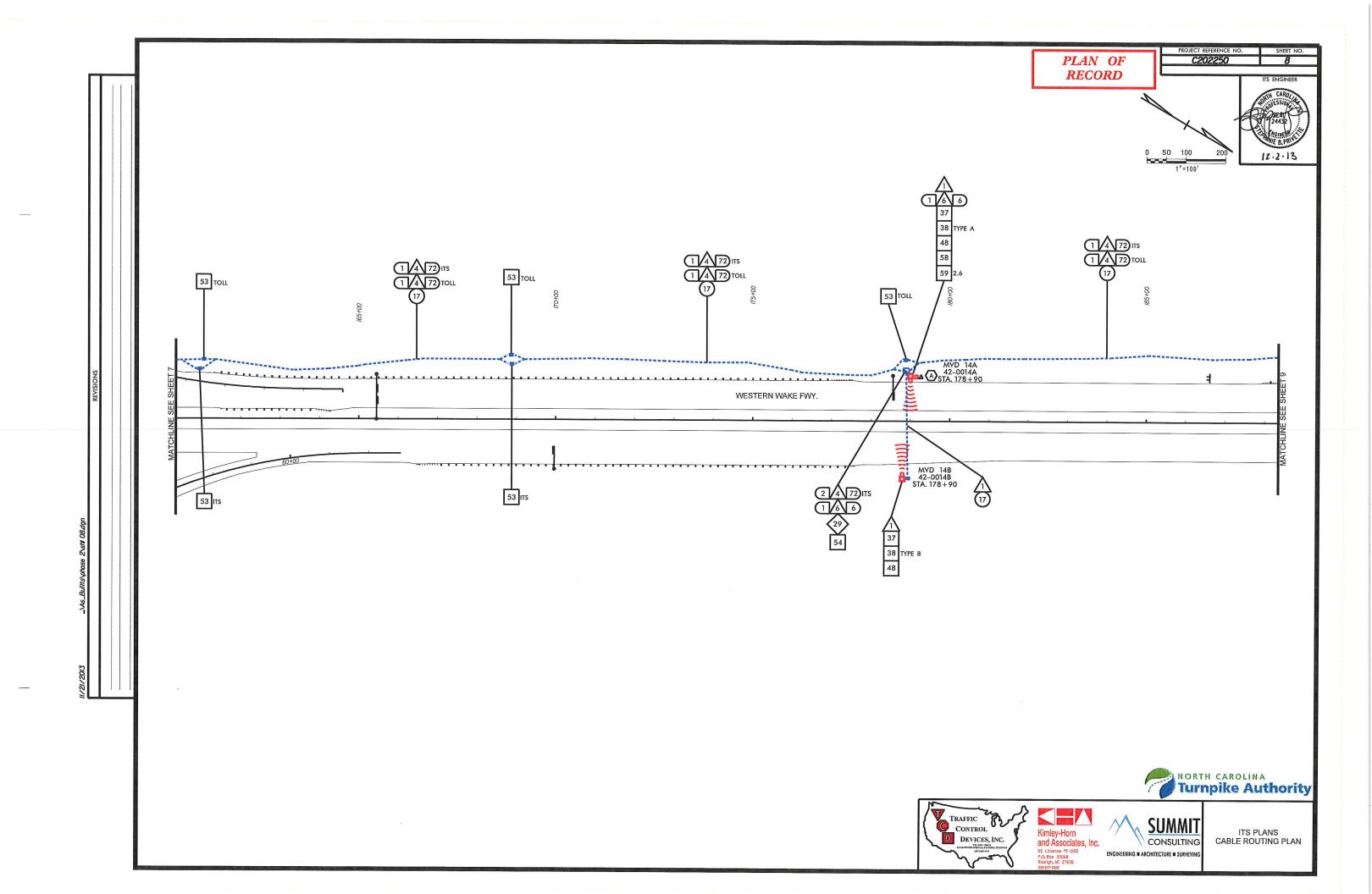


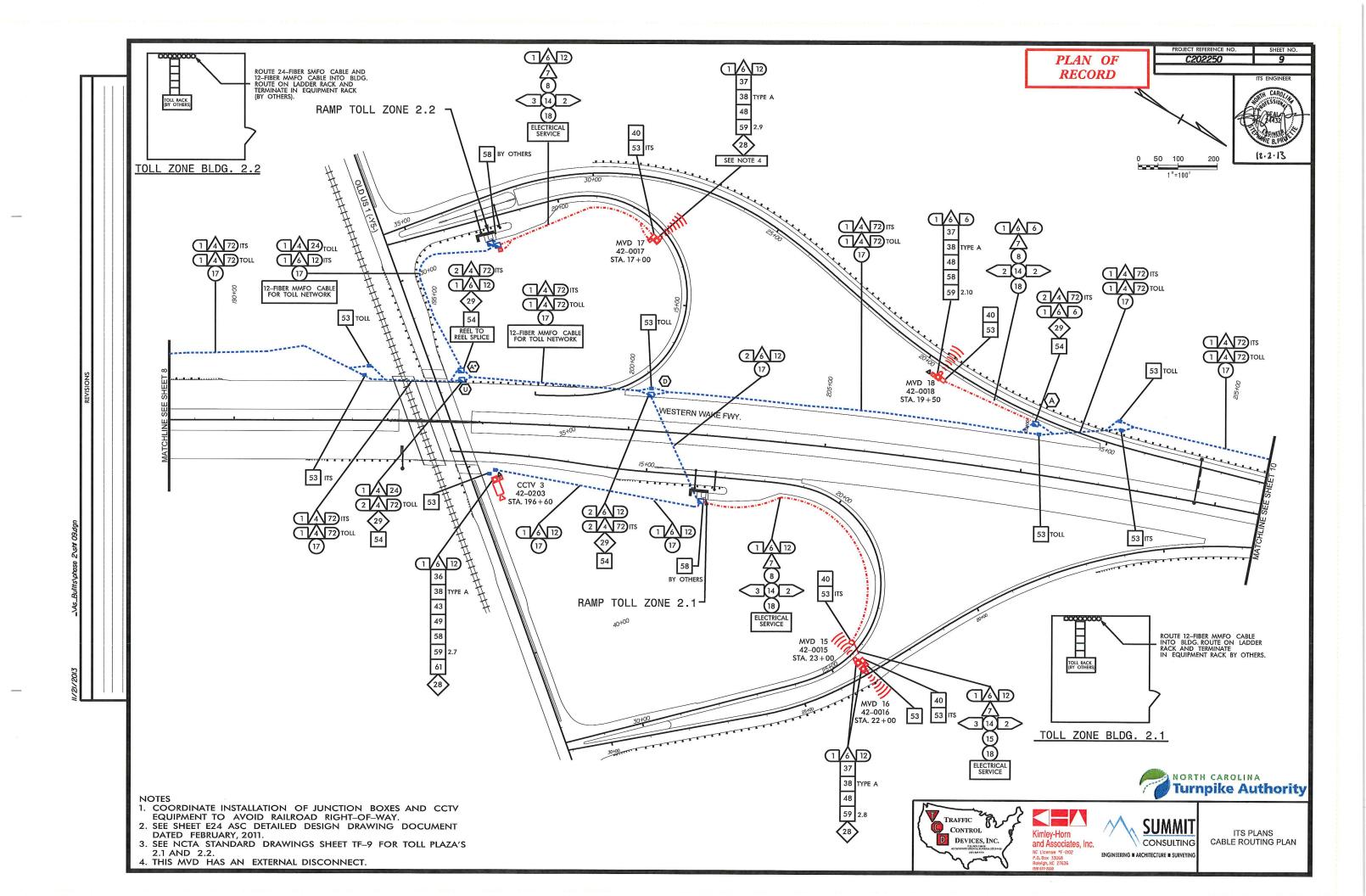


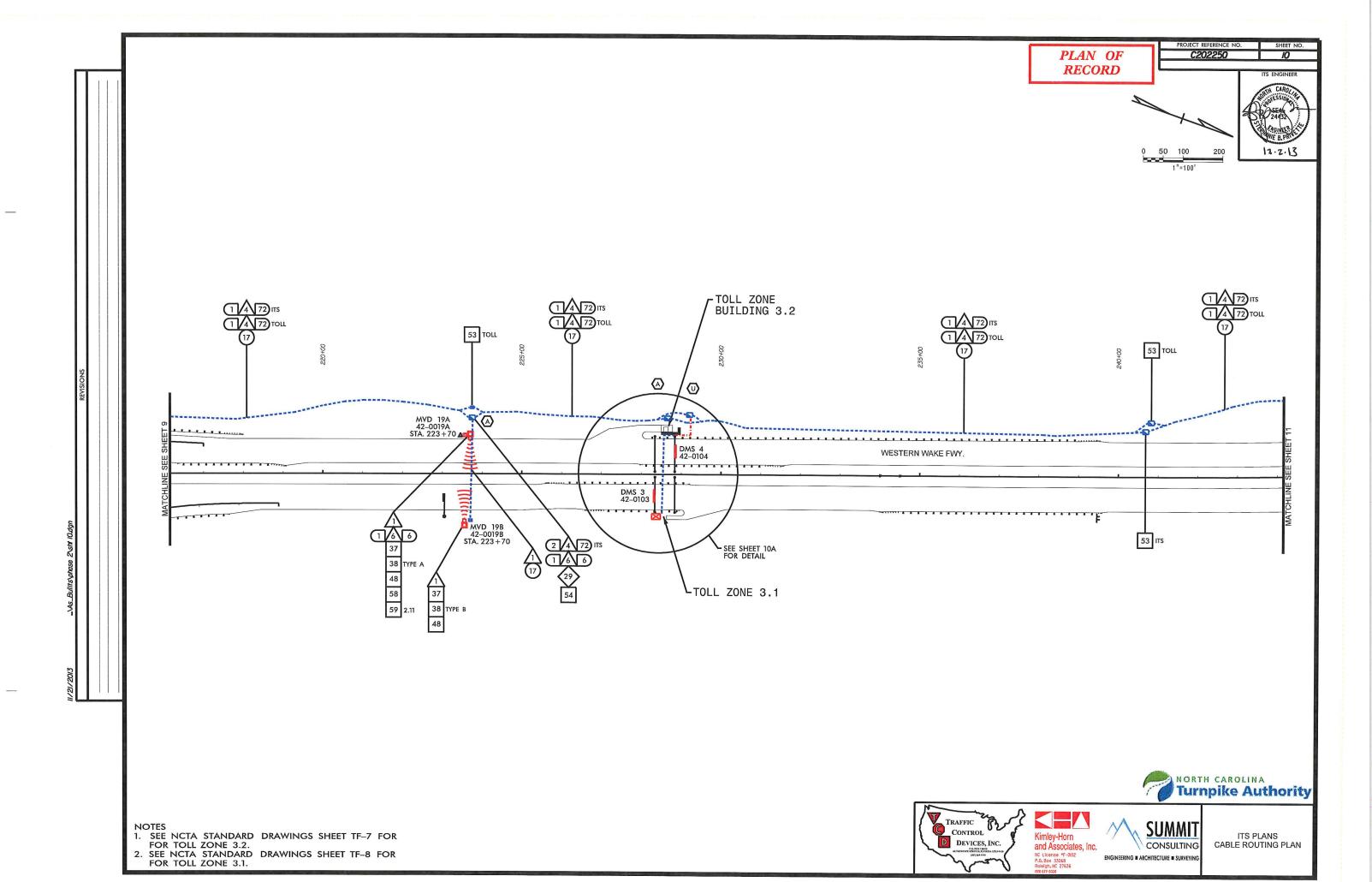


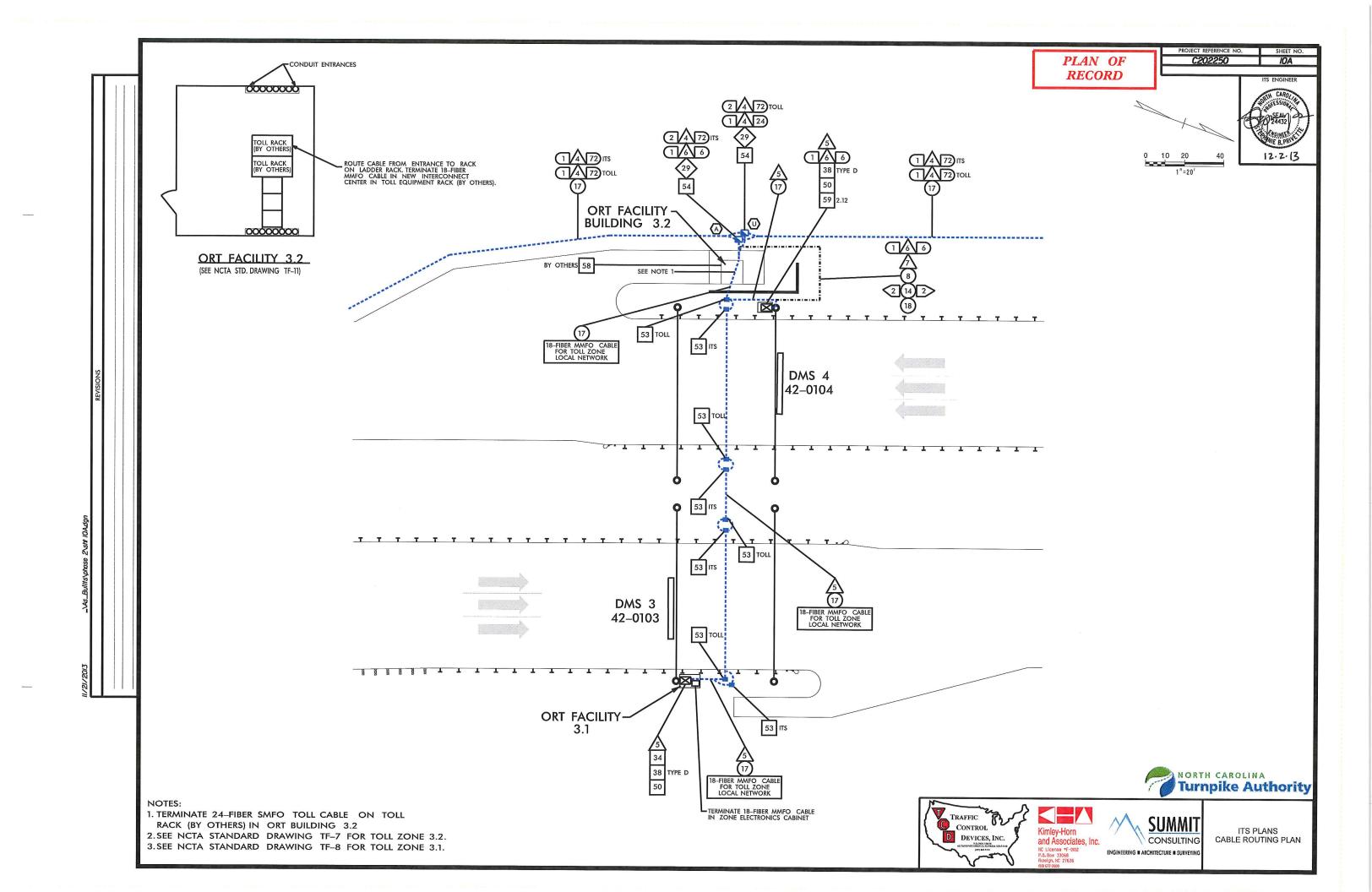


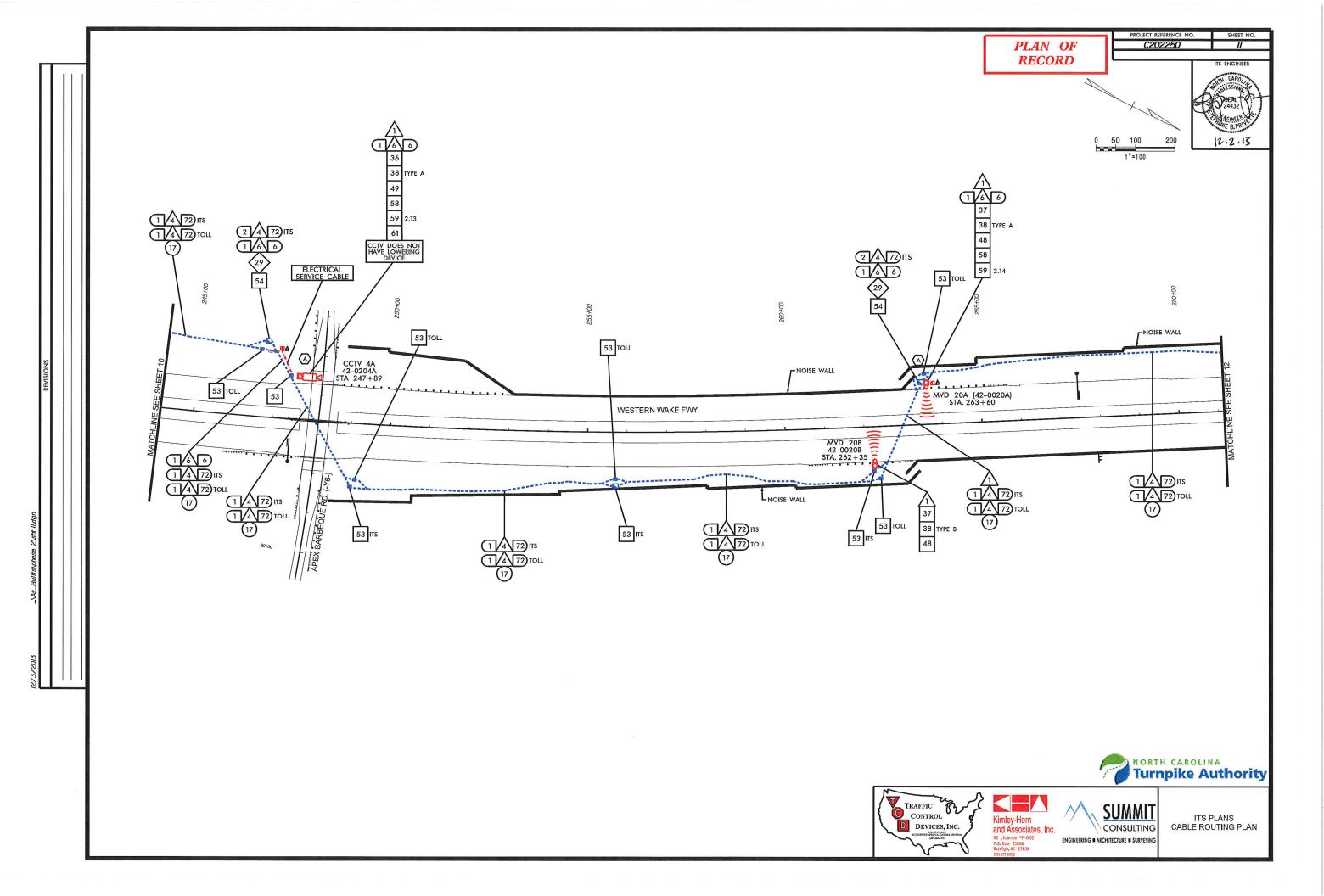


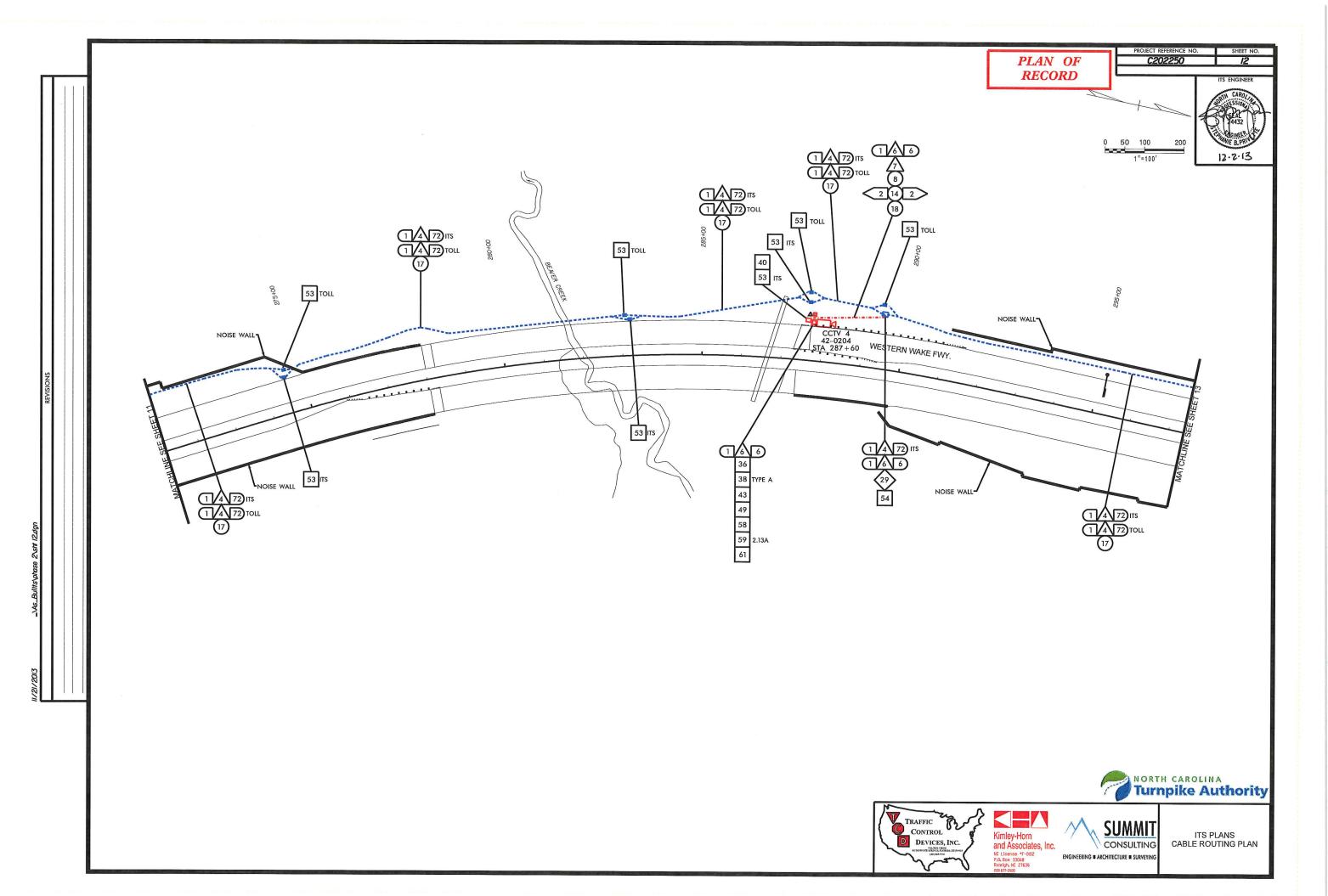


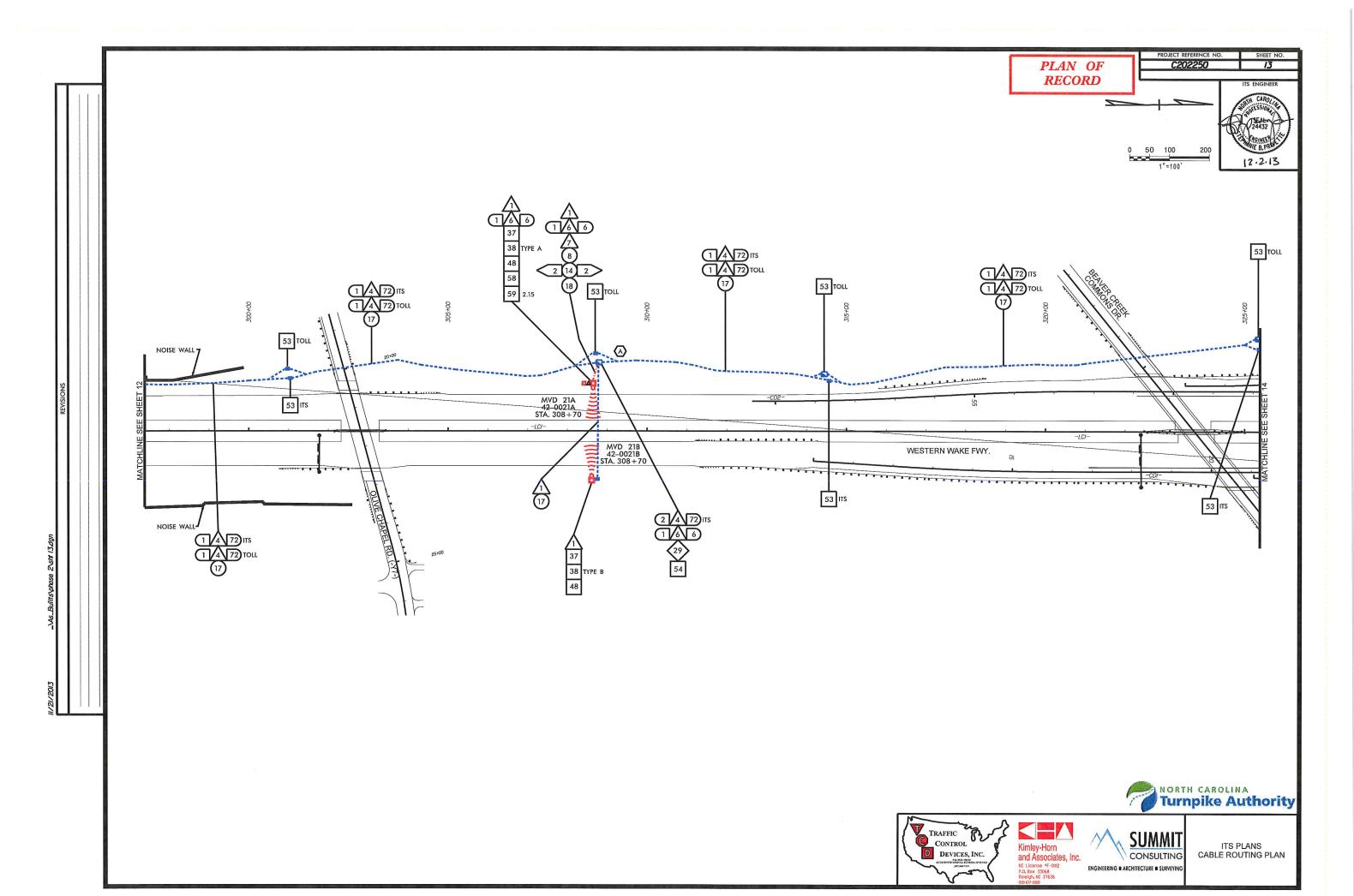


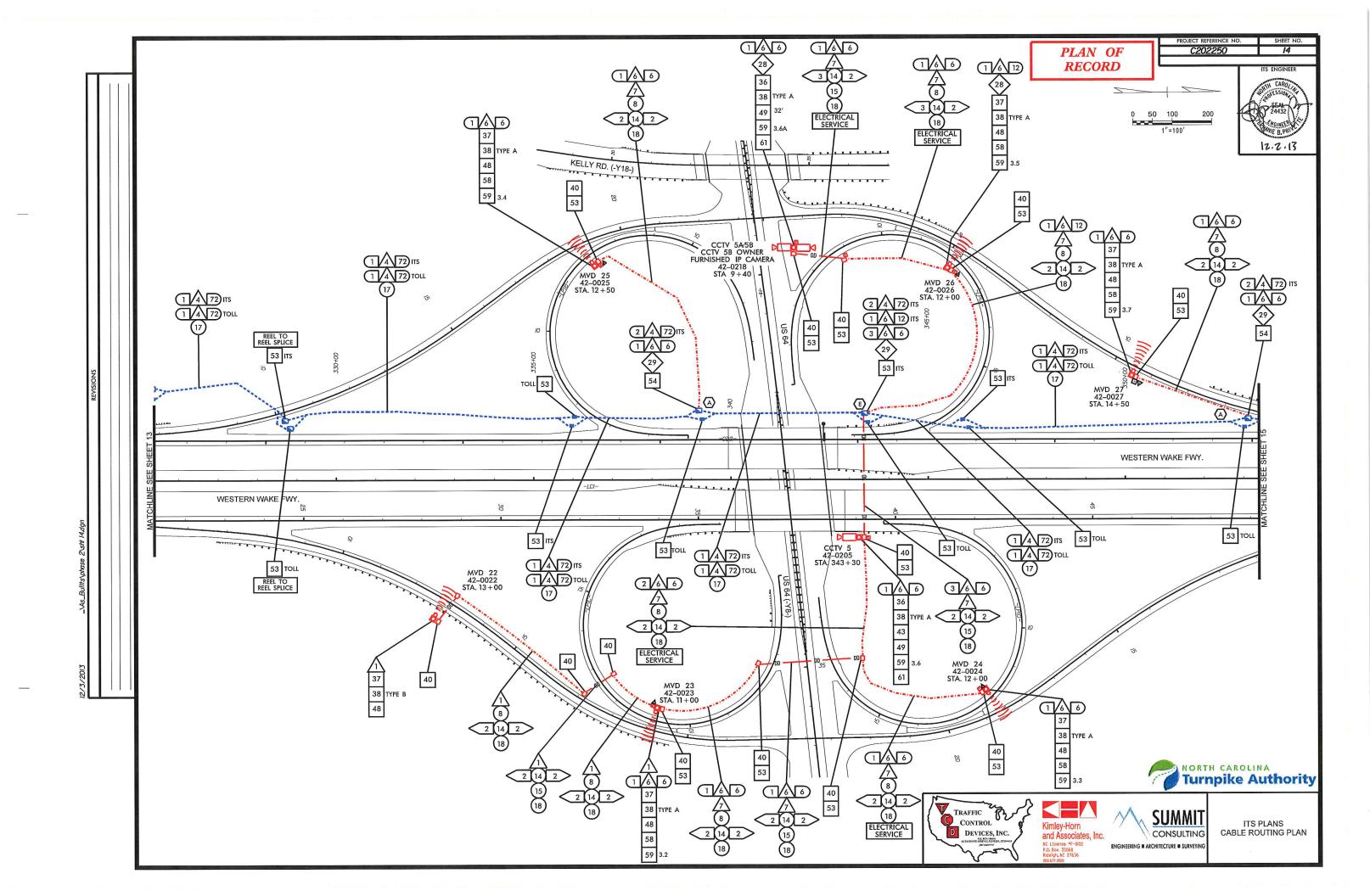


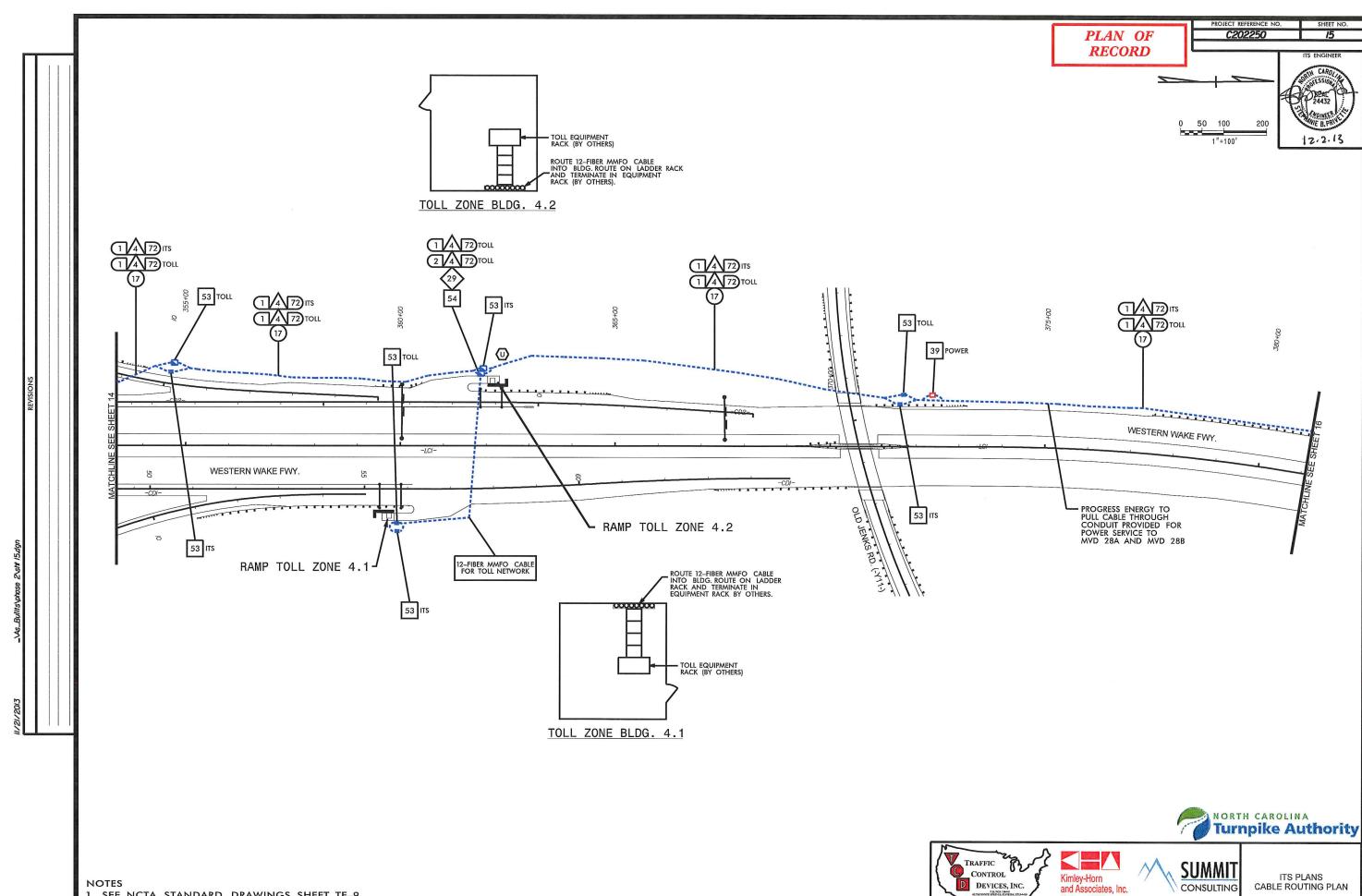










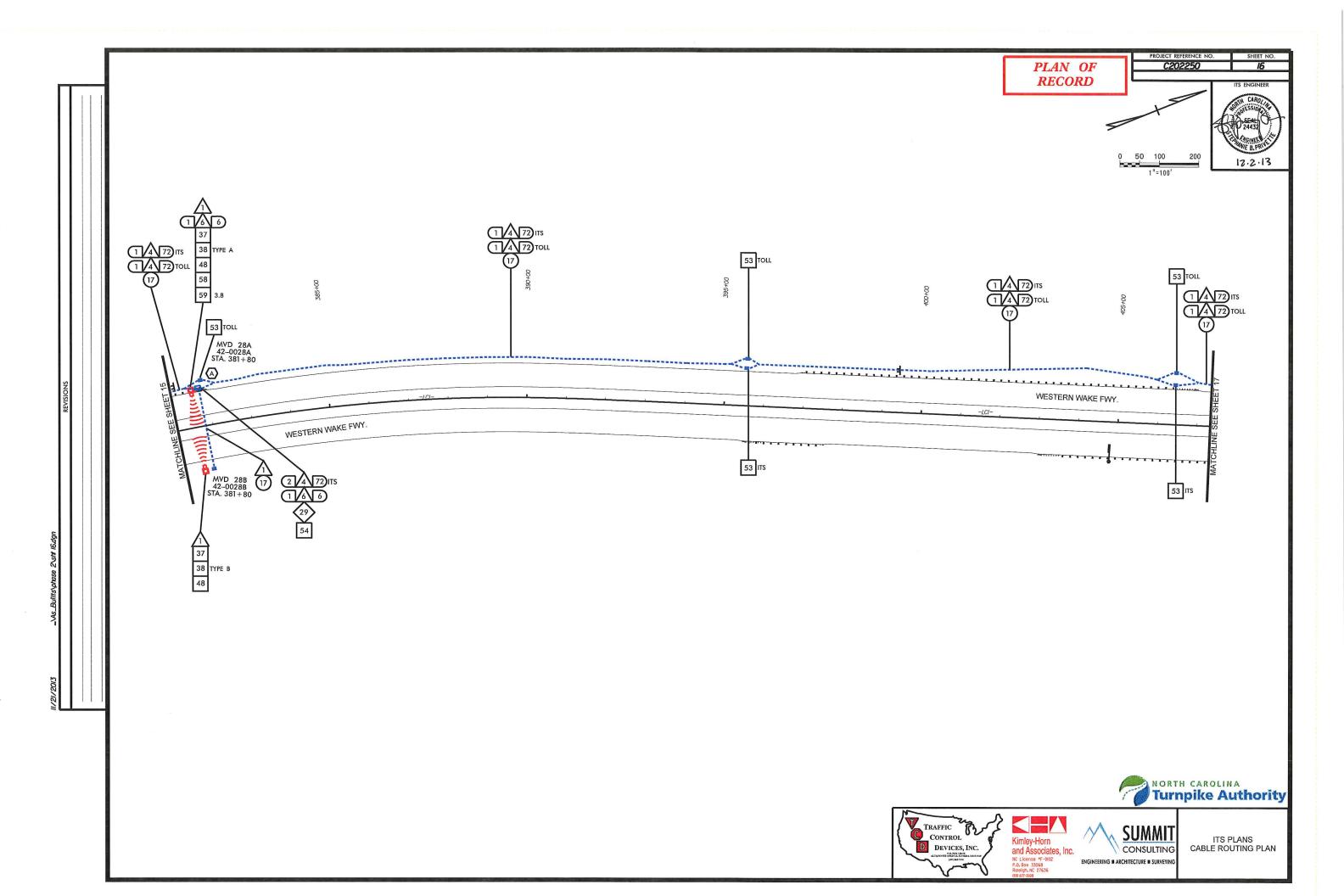


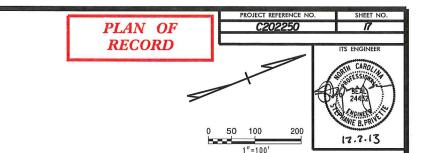
1. SEE NCTA STANDARD DRAWINGS SHEET TF-9 FOR TOLL ZONE'S 4.1 AND 4.2.

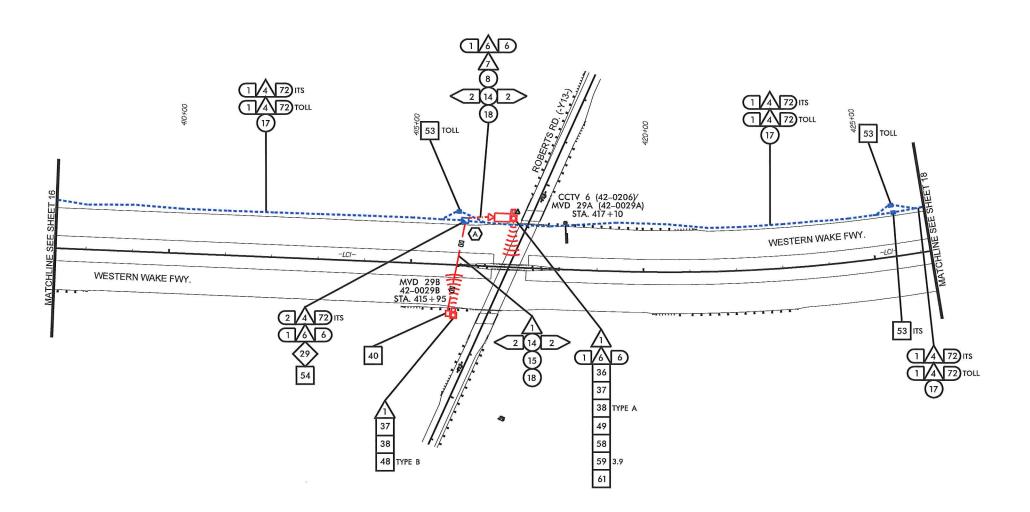
DEVICES, INC.



ENGINEERING # ARCHITECTURE # SURVEYIN











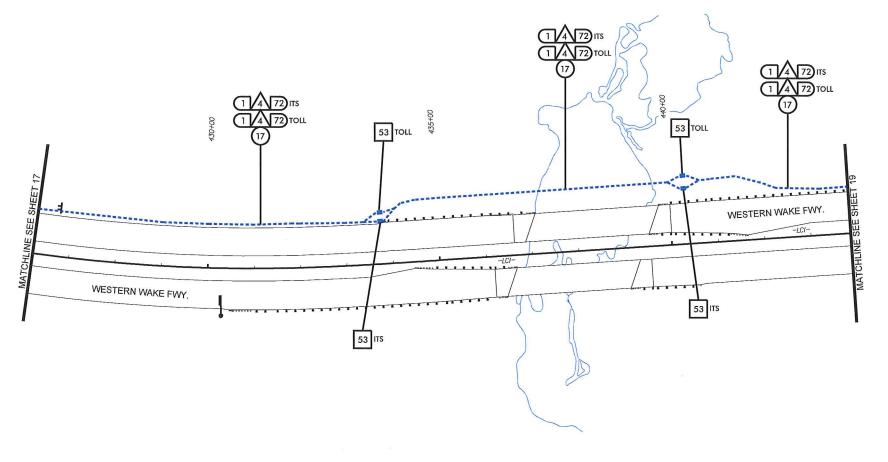




PROJECT REFERENCE NO.

2250 18

12.2.13

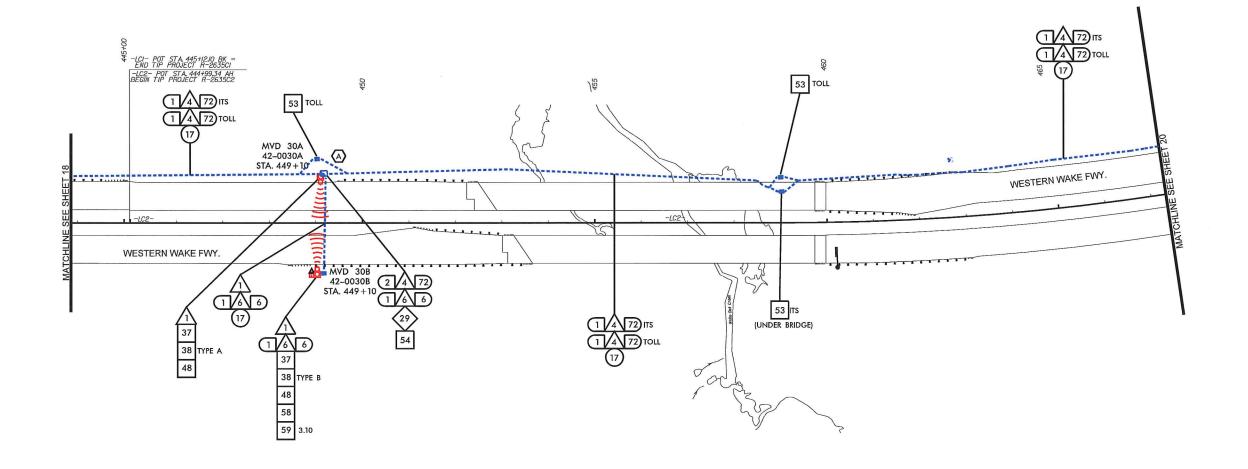










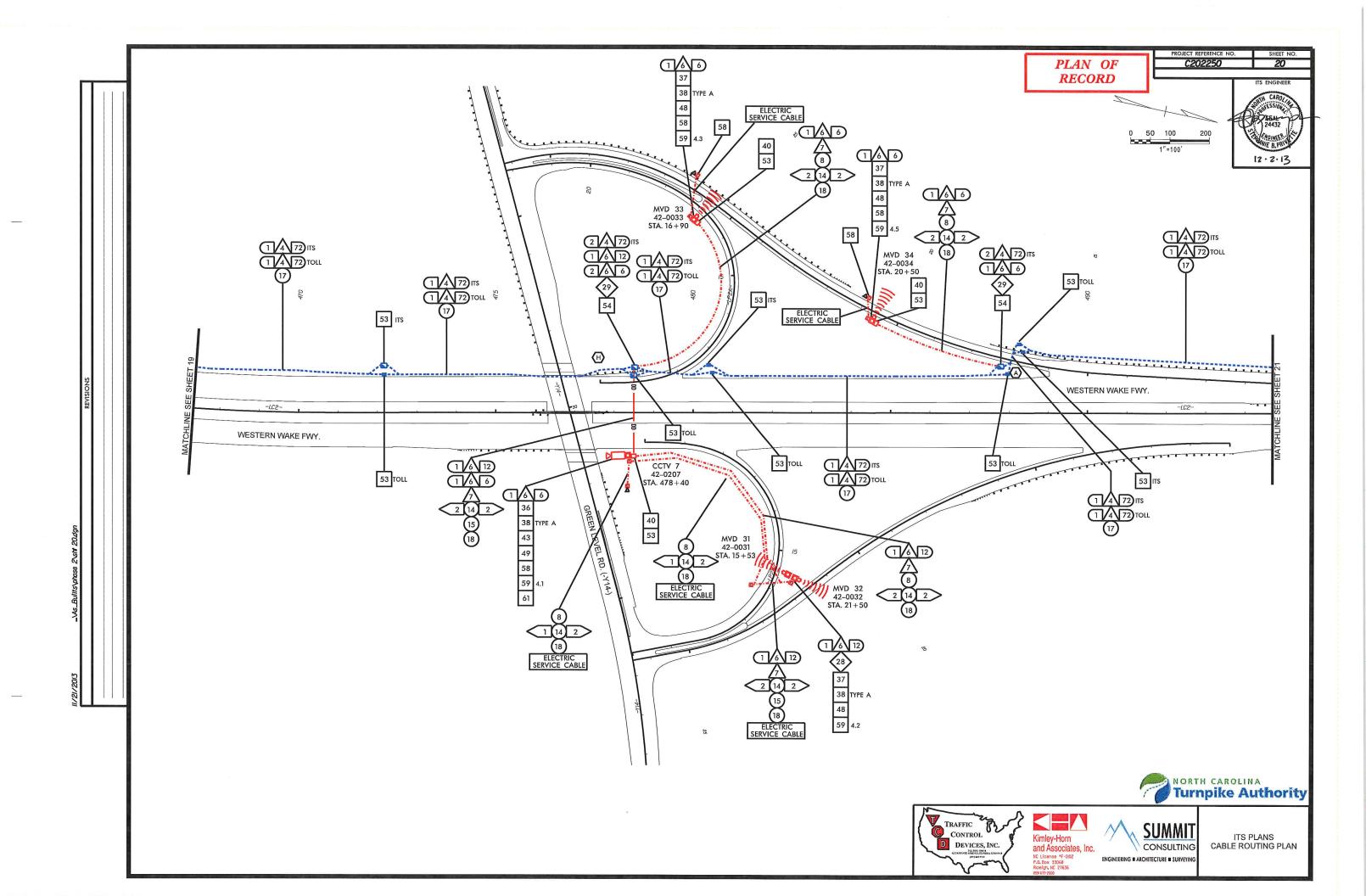


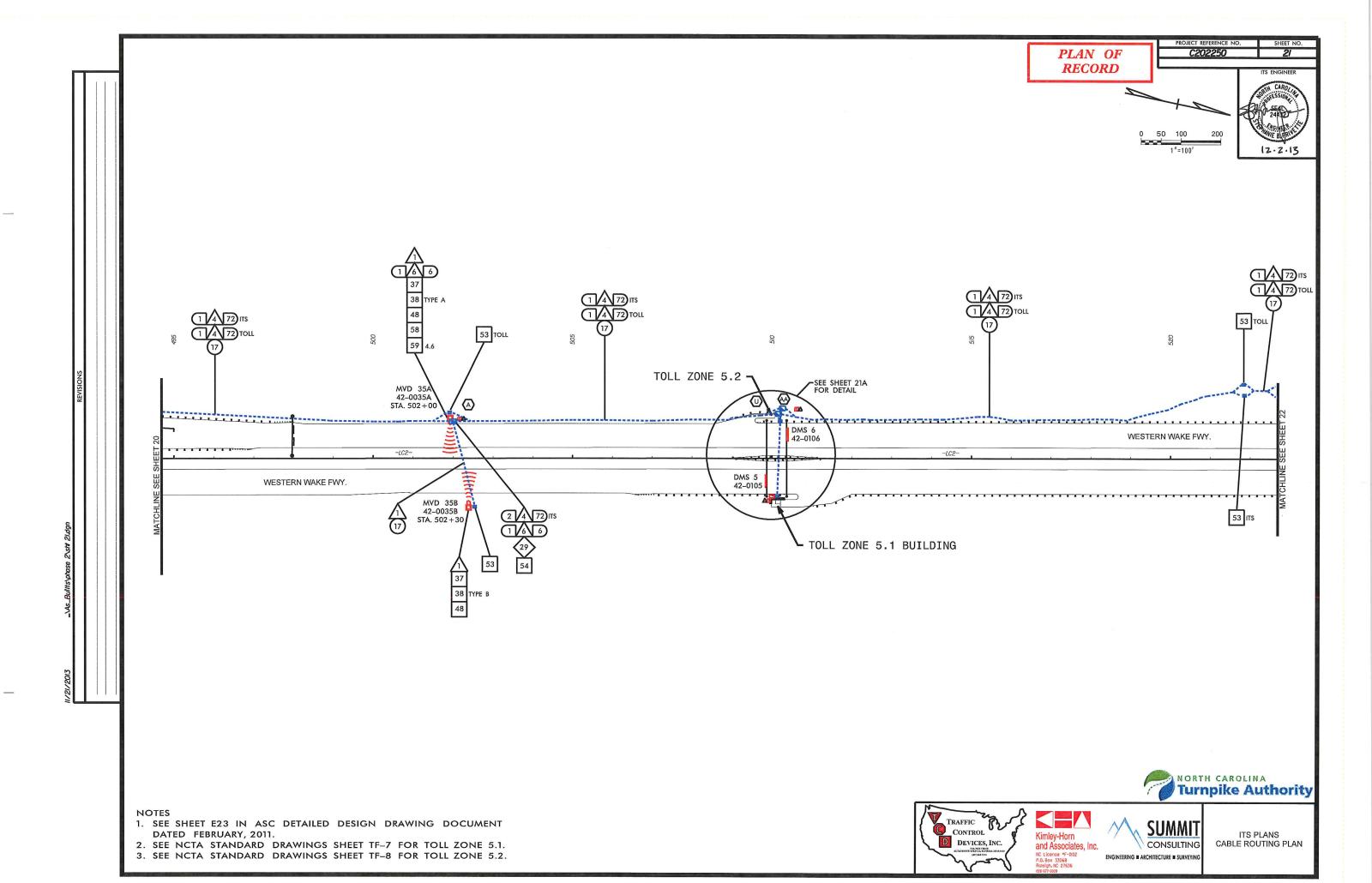


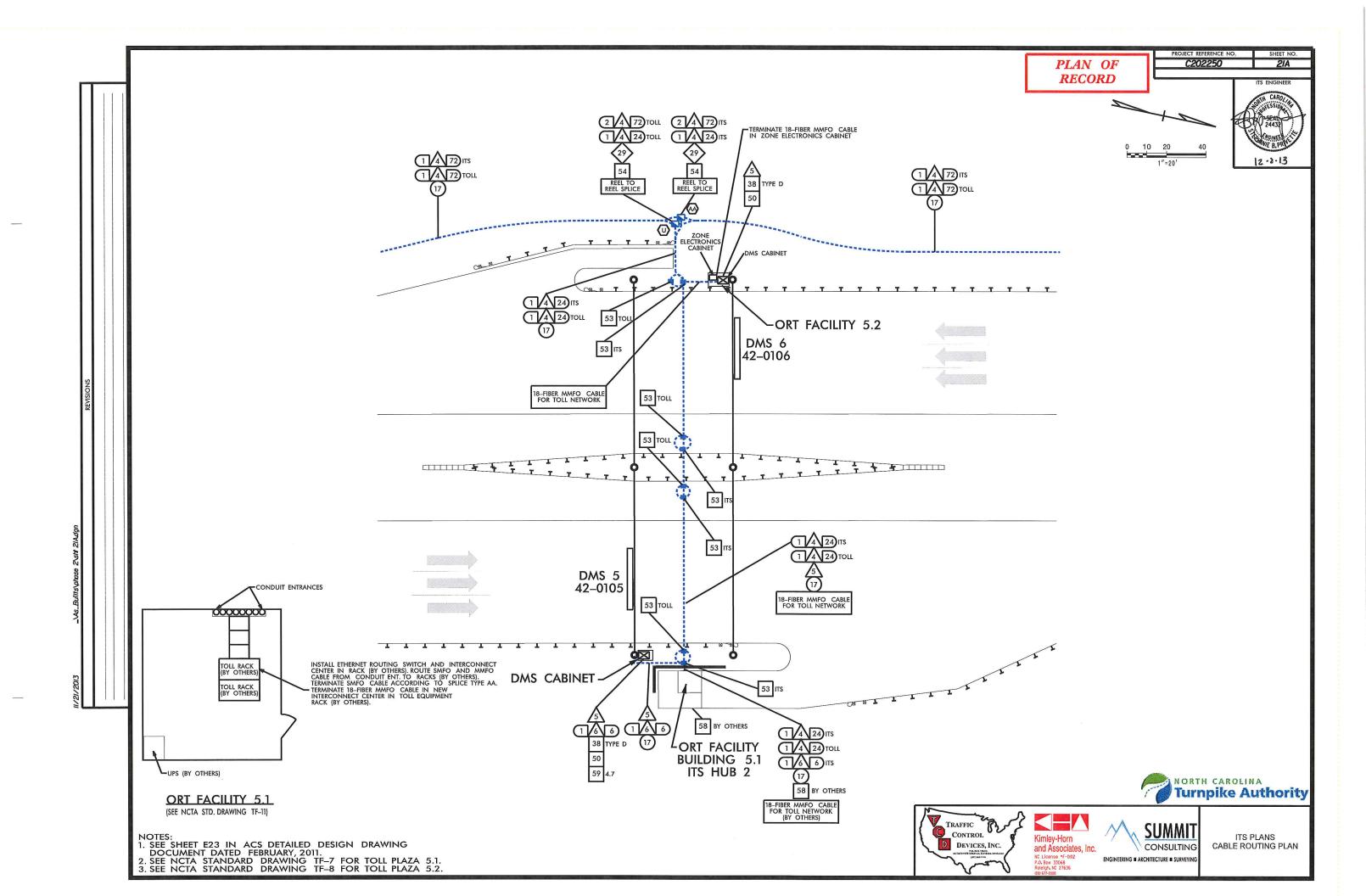


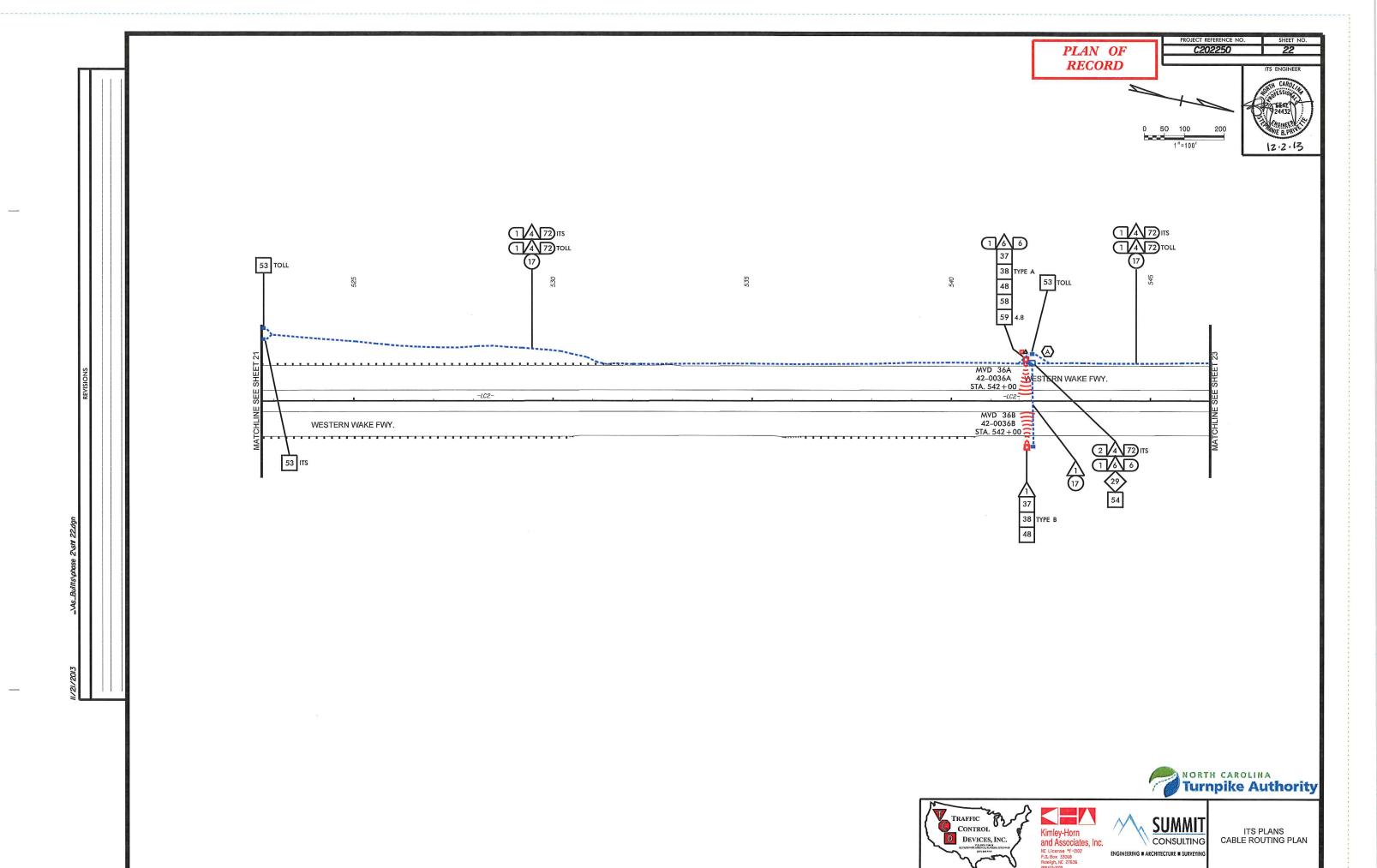


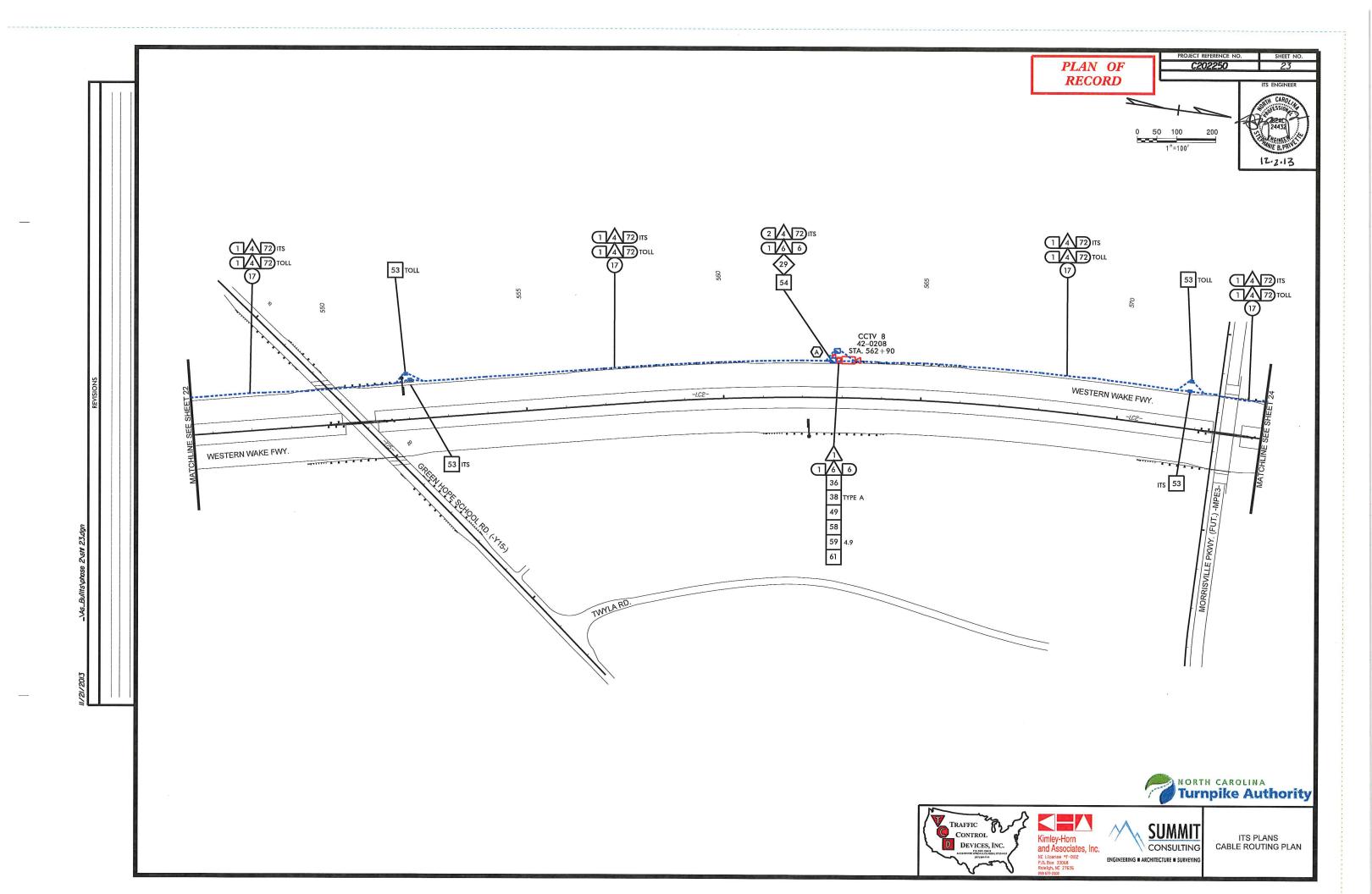


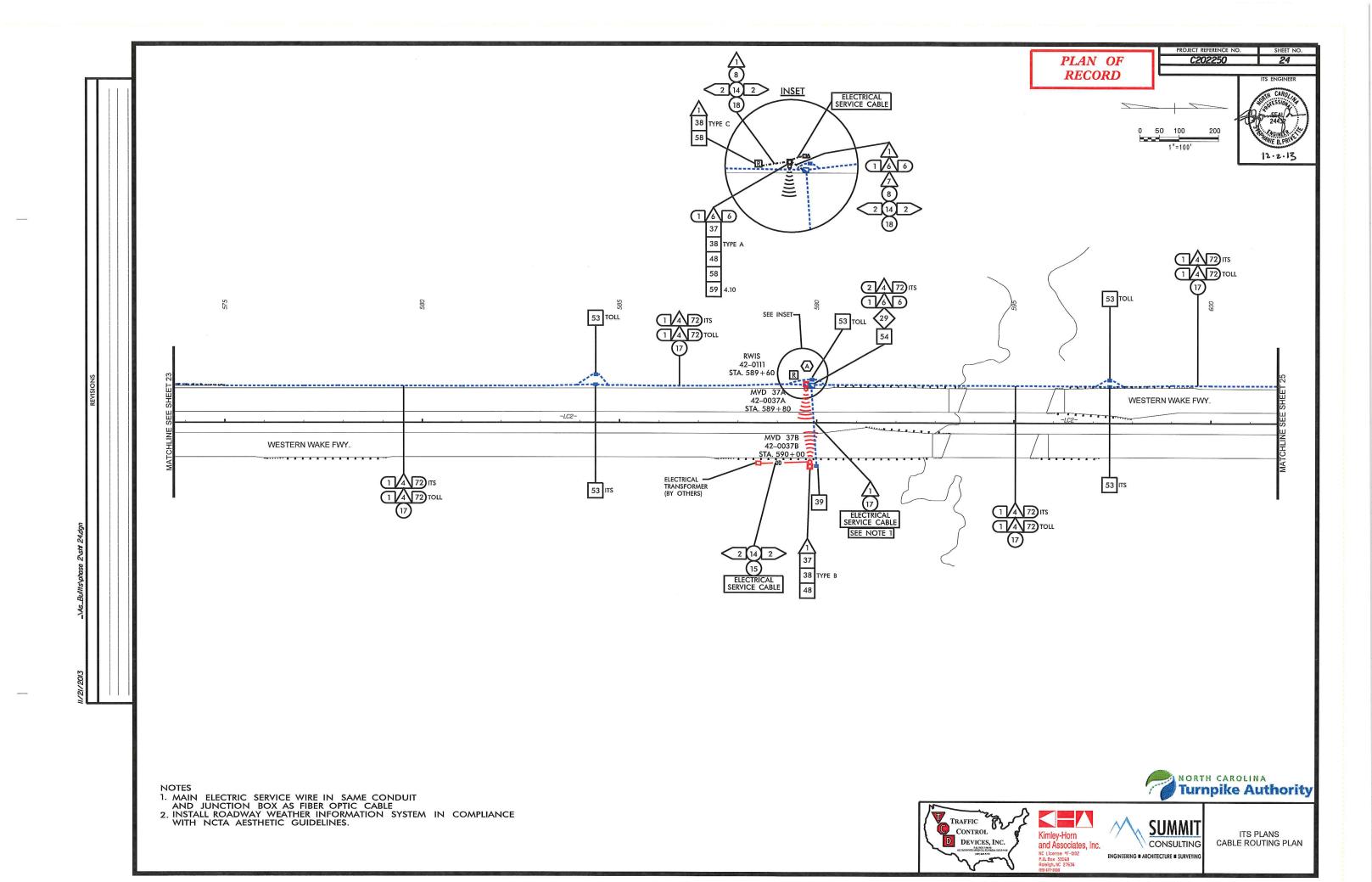






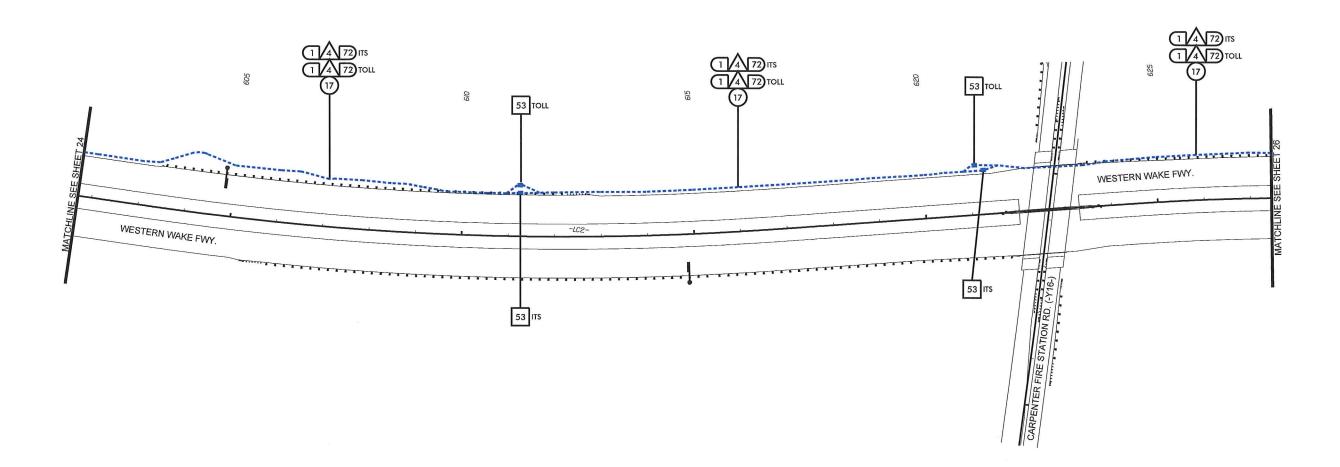






PROJECT REFERENCE NO. SHEET NO. C202250 25



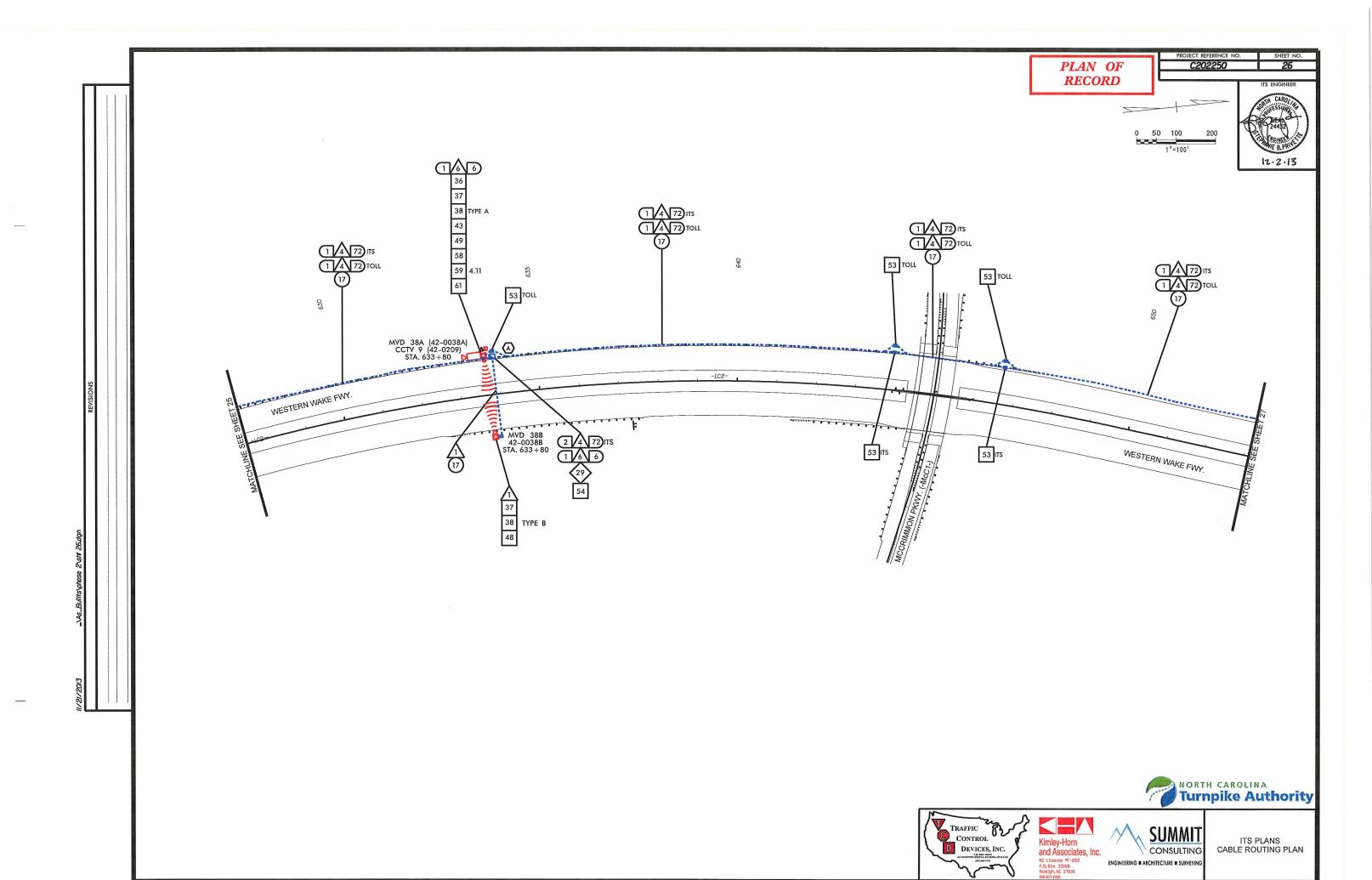


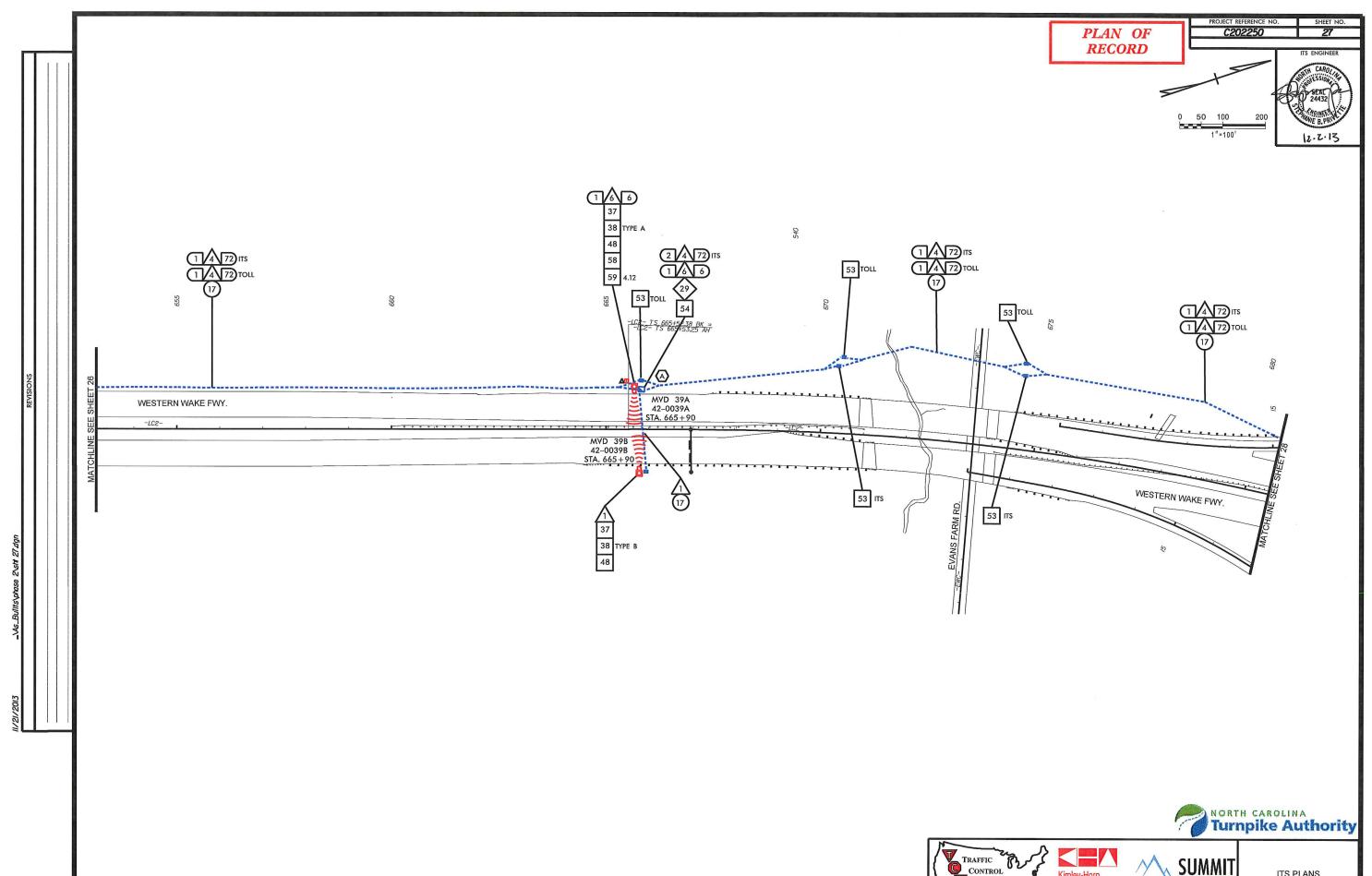








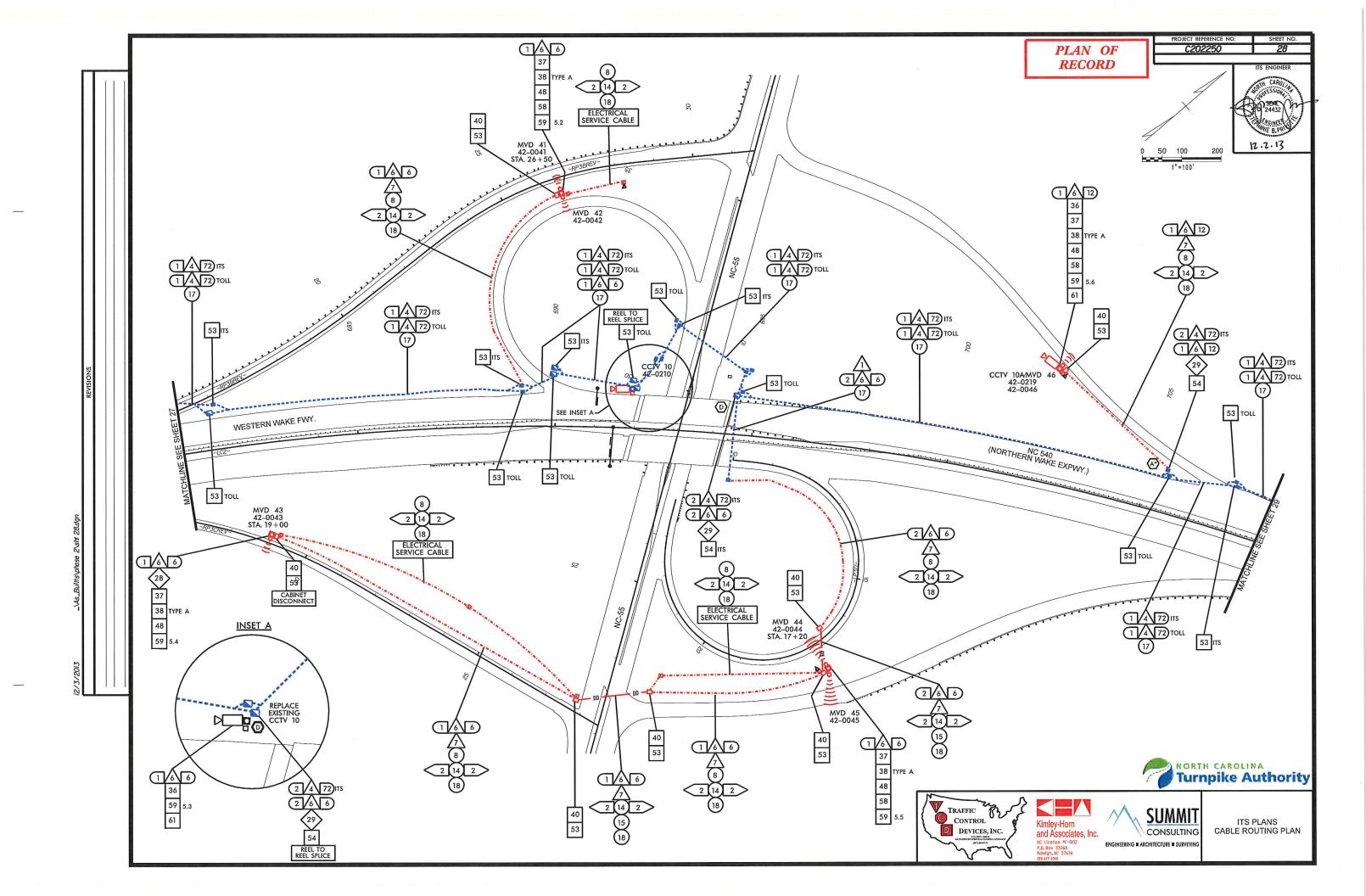


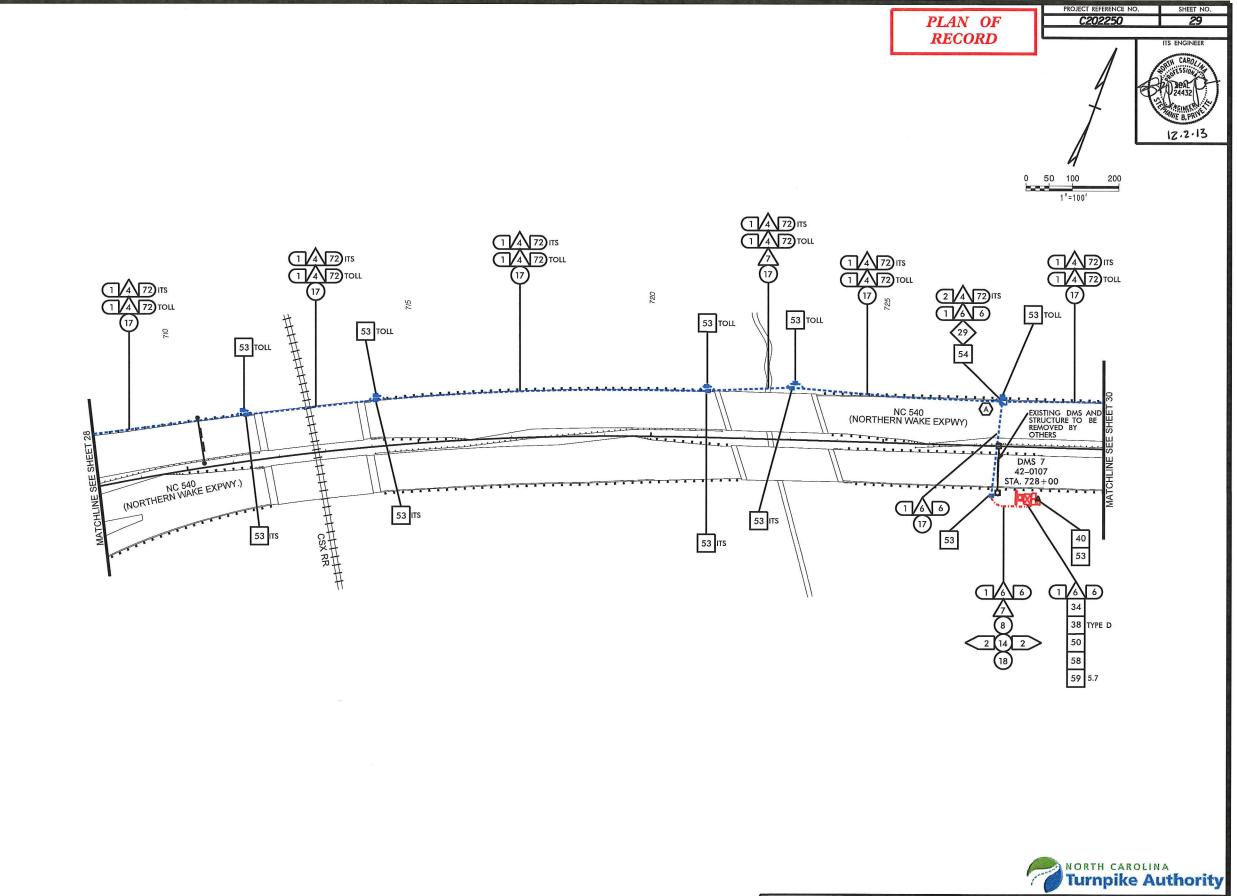








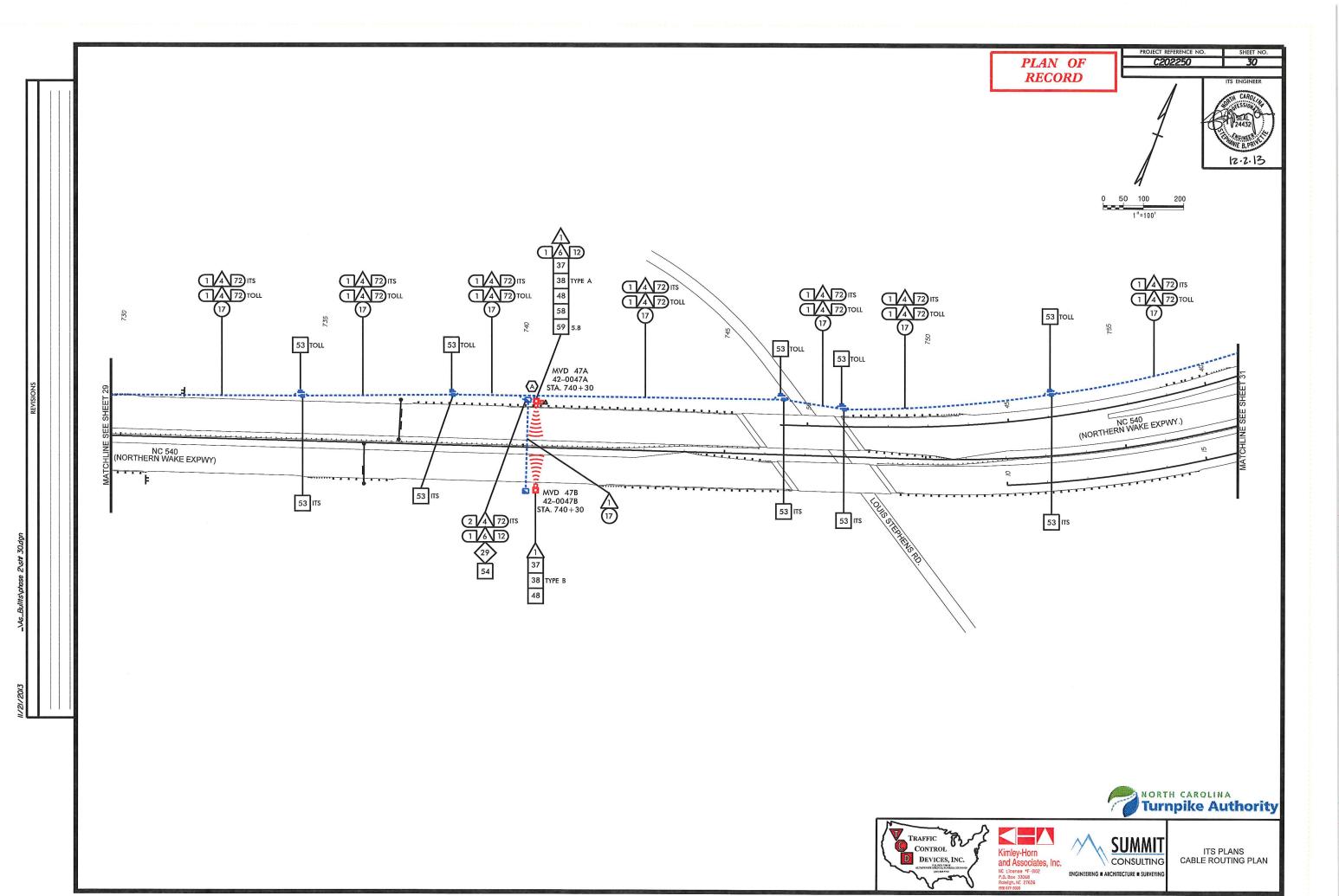


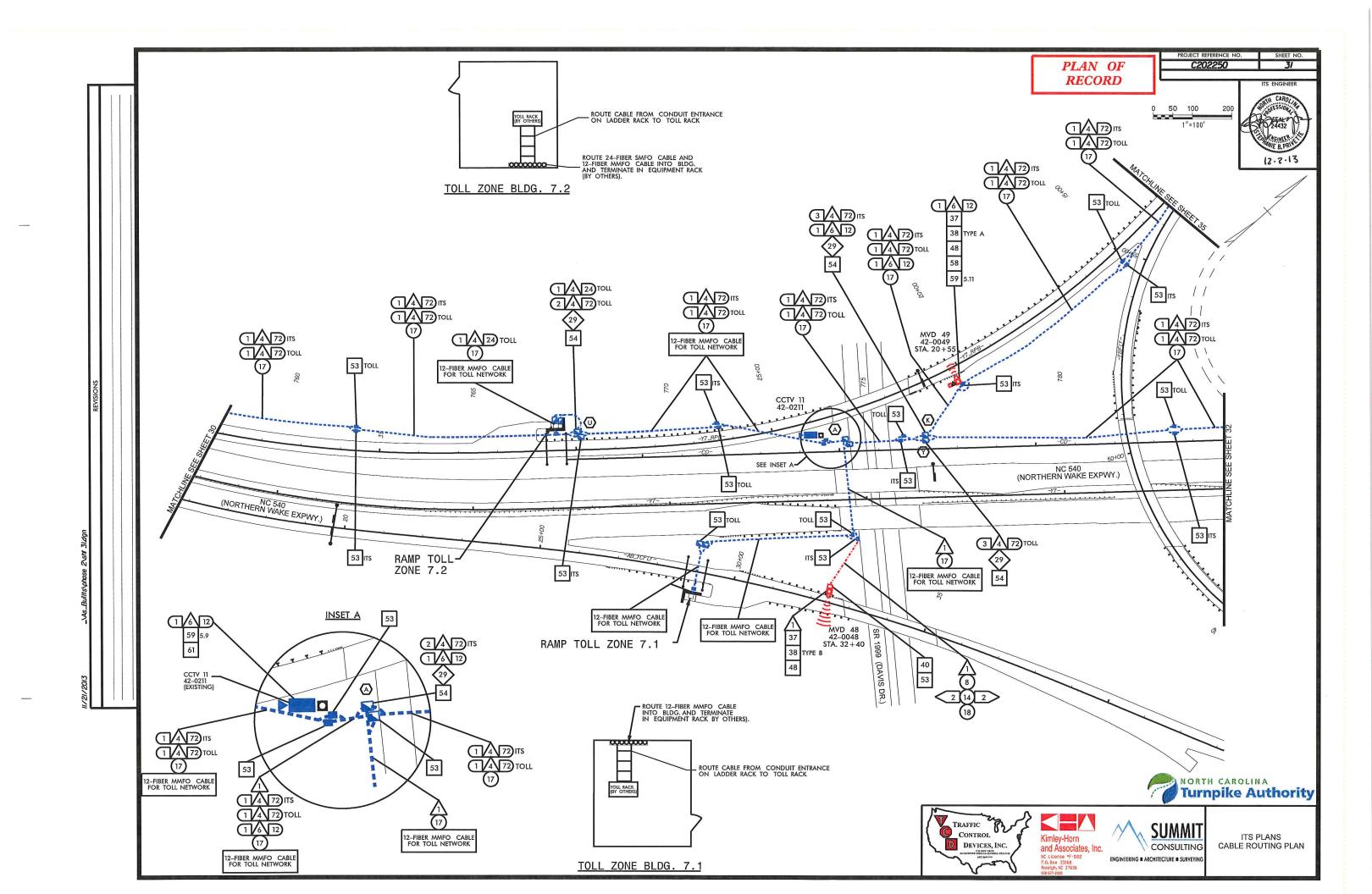


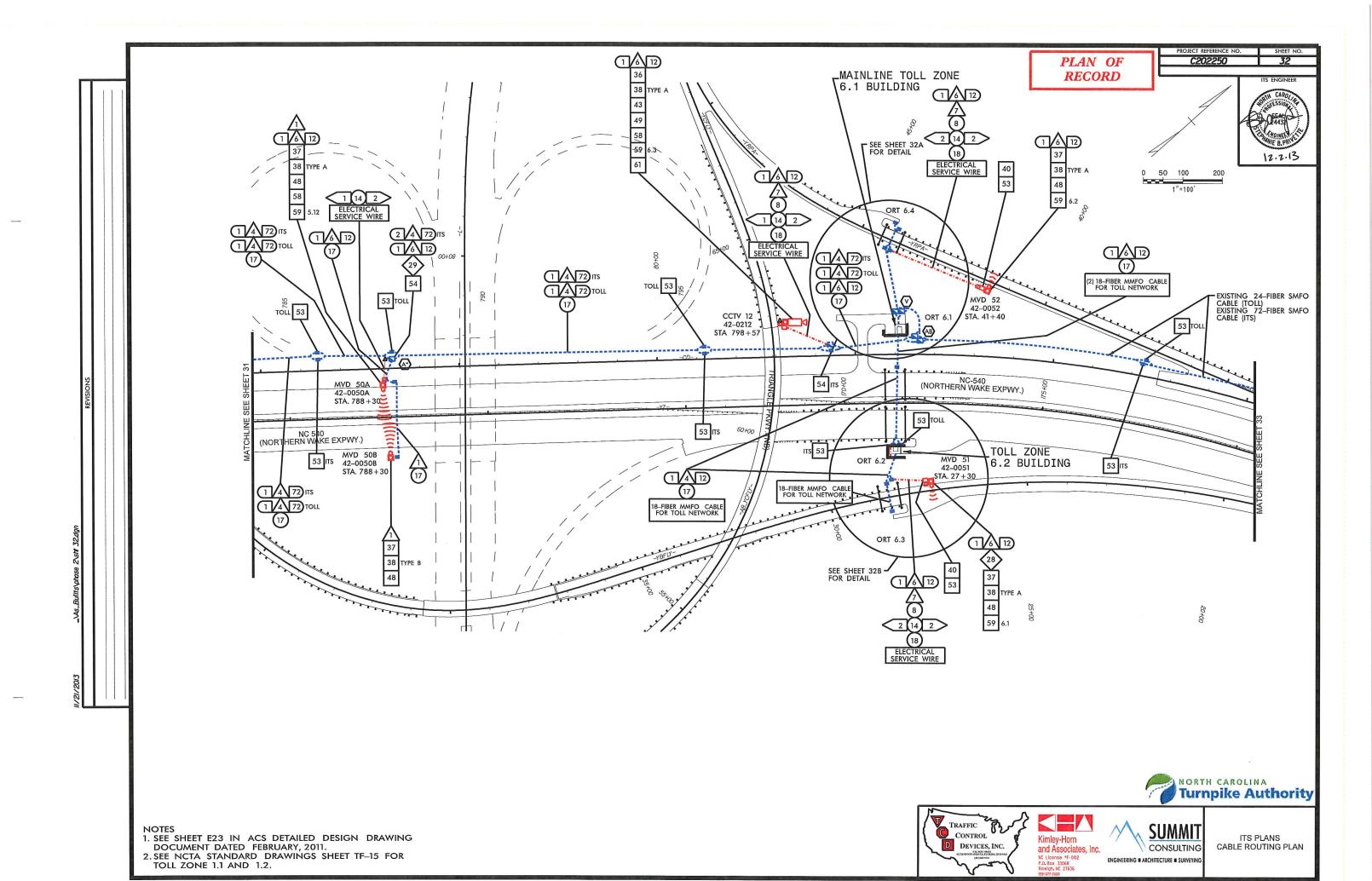


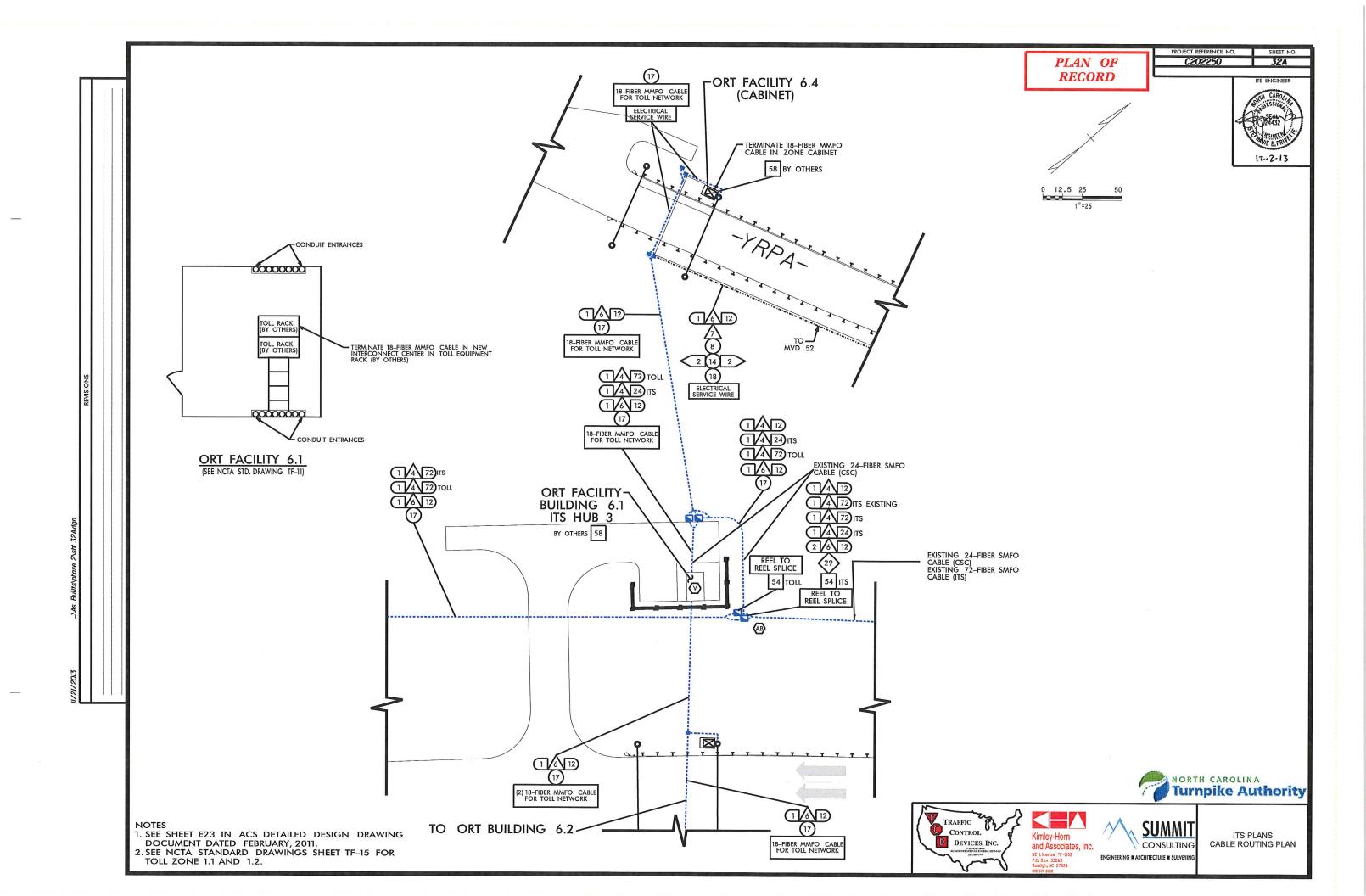


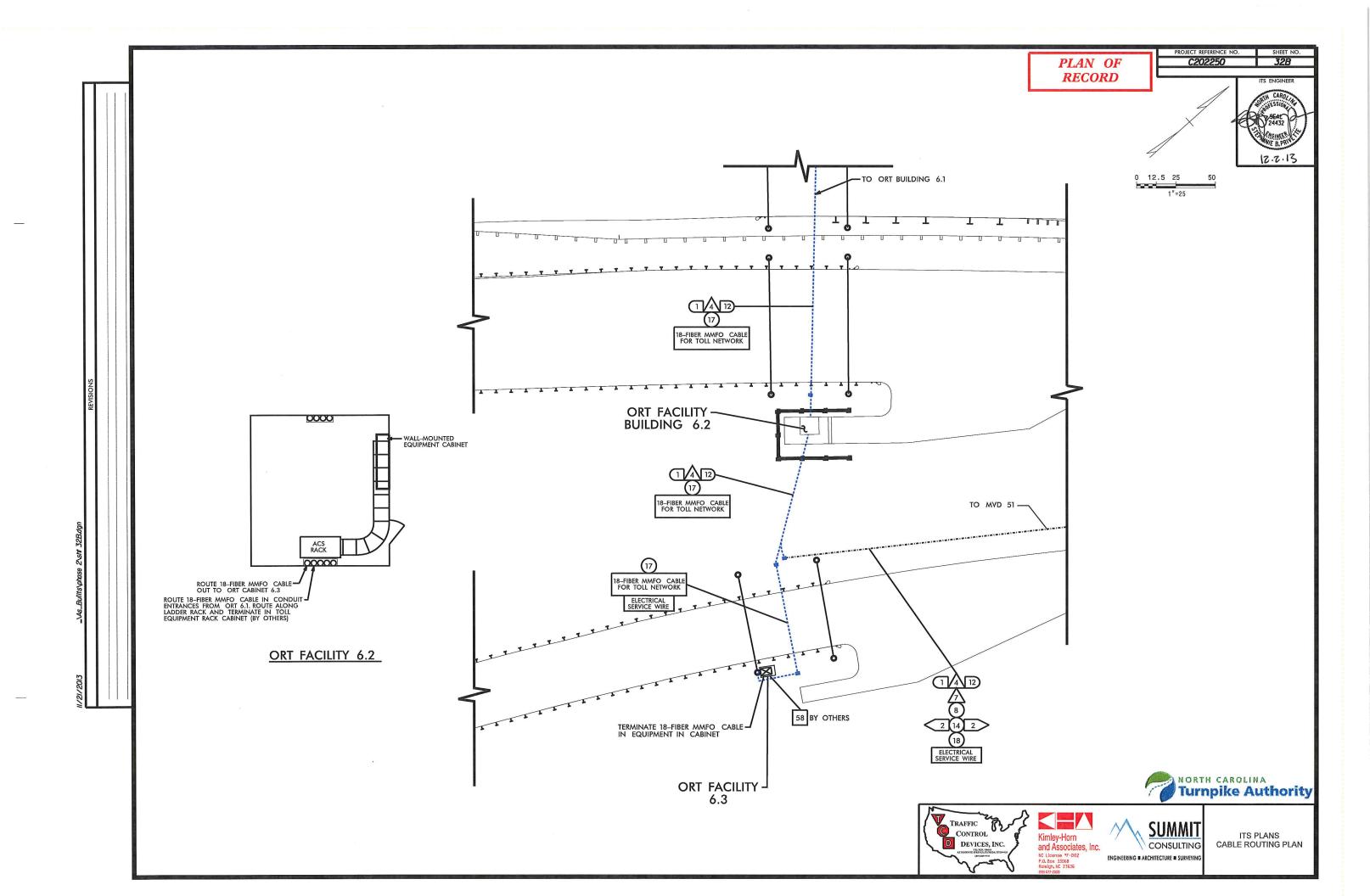












PROJECT REFERENCE NO.

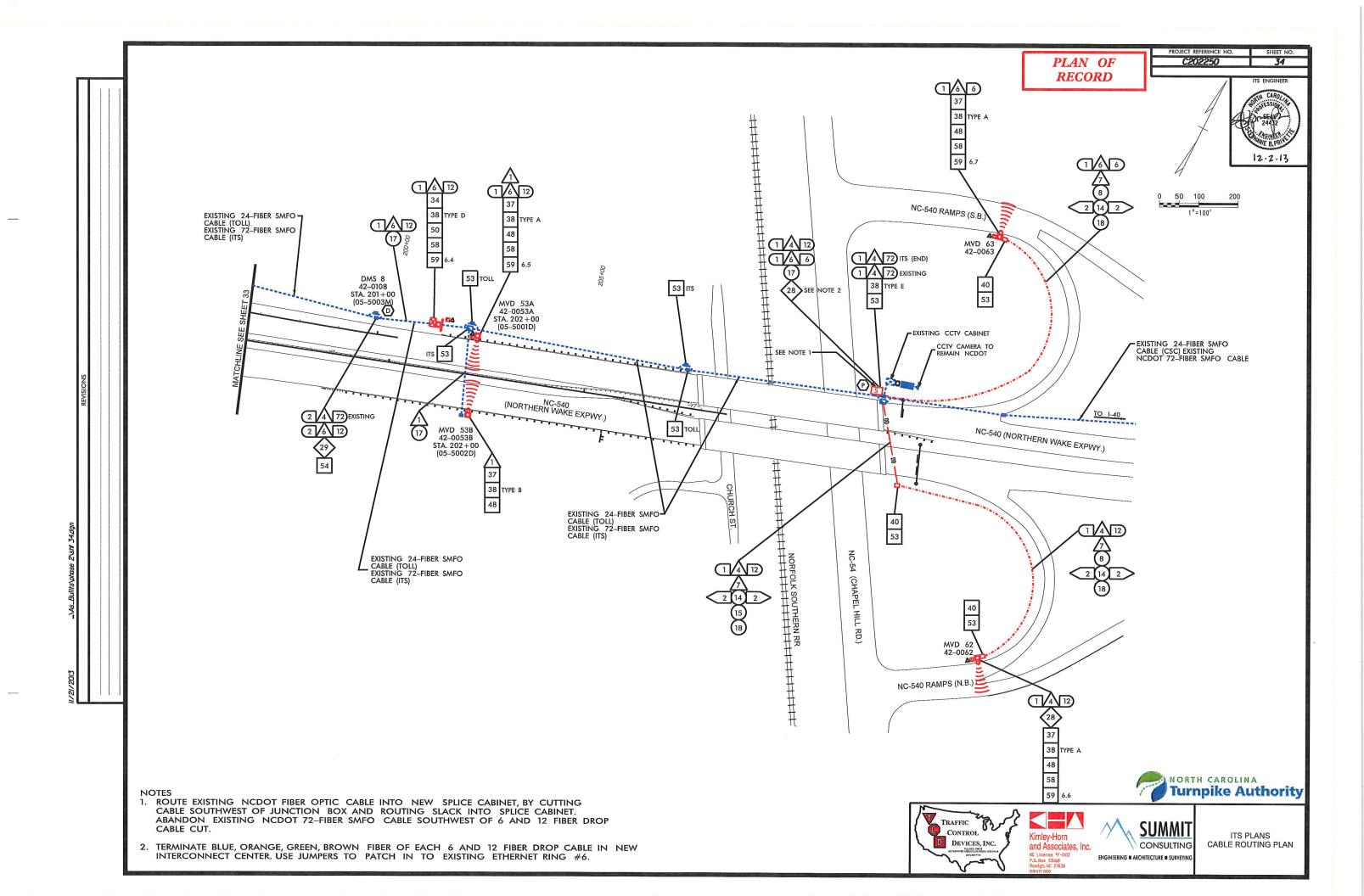
C202250 PLAN OF RECORD EXISTING 24-FIBER SMFO CABLE (TOLL)
EXISTING 72-FIBER SMFO CABLE (ITS) NC-540 (NORTHERN WAKE EXPWY.) EXISTING 24-FIBER SMFO CABLE (TOLL) EXISTING 72-FIBER SMFO CABLE (ITS)











PROJECT REFERENCE NO. PLAN OF RECORD TRIANGLE PKWY.







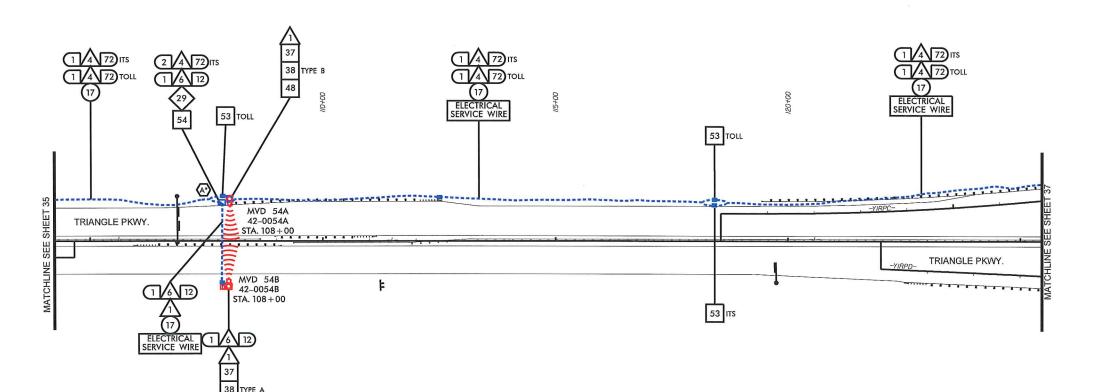


PLAN OF RECORD PROJECT REFERENCE NO. SHEET NO.

C202250 36

0 50 100 200 1"=100'

CAROLITATION OF THE BANKS IN TH

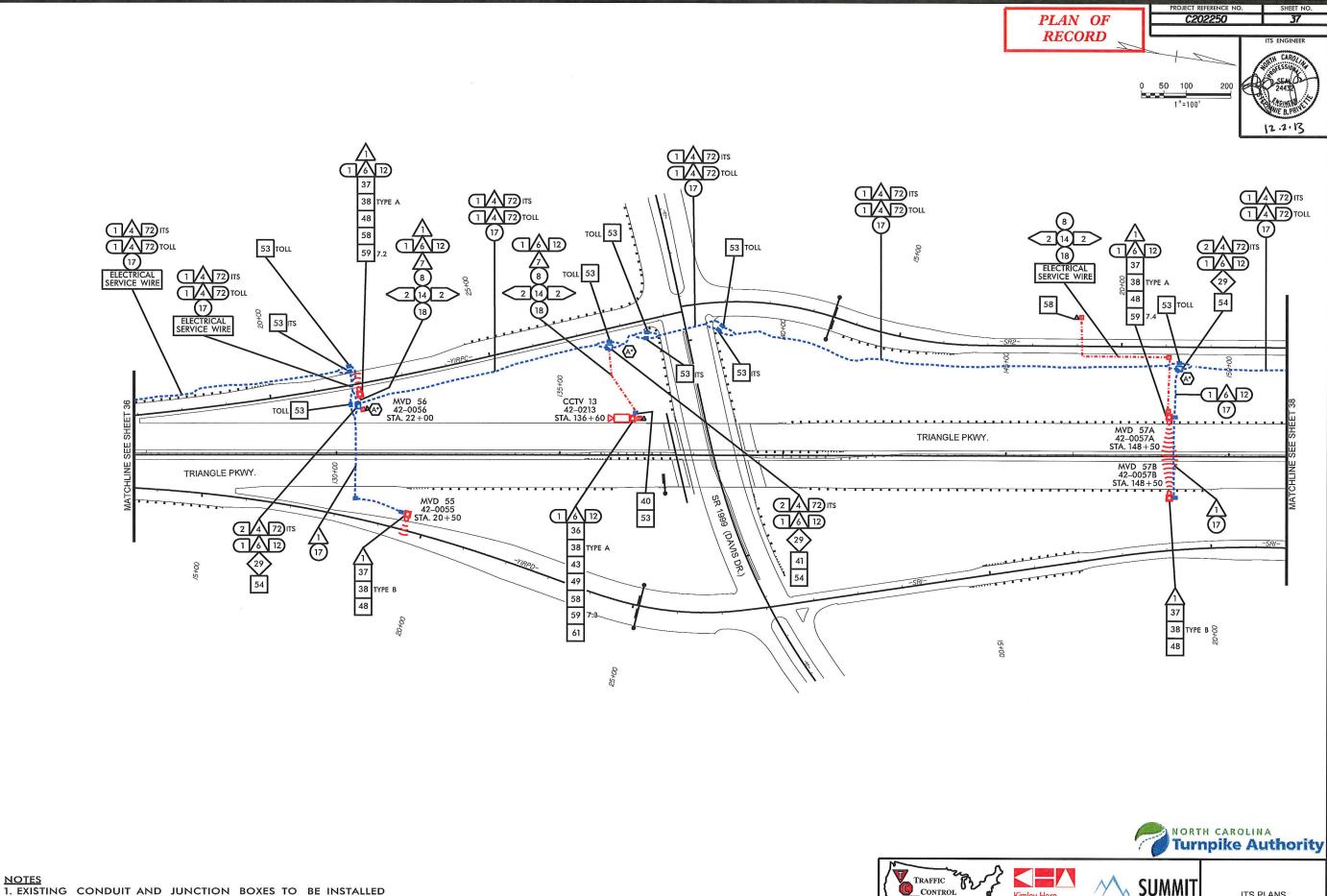












<u>NOTES</u>

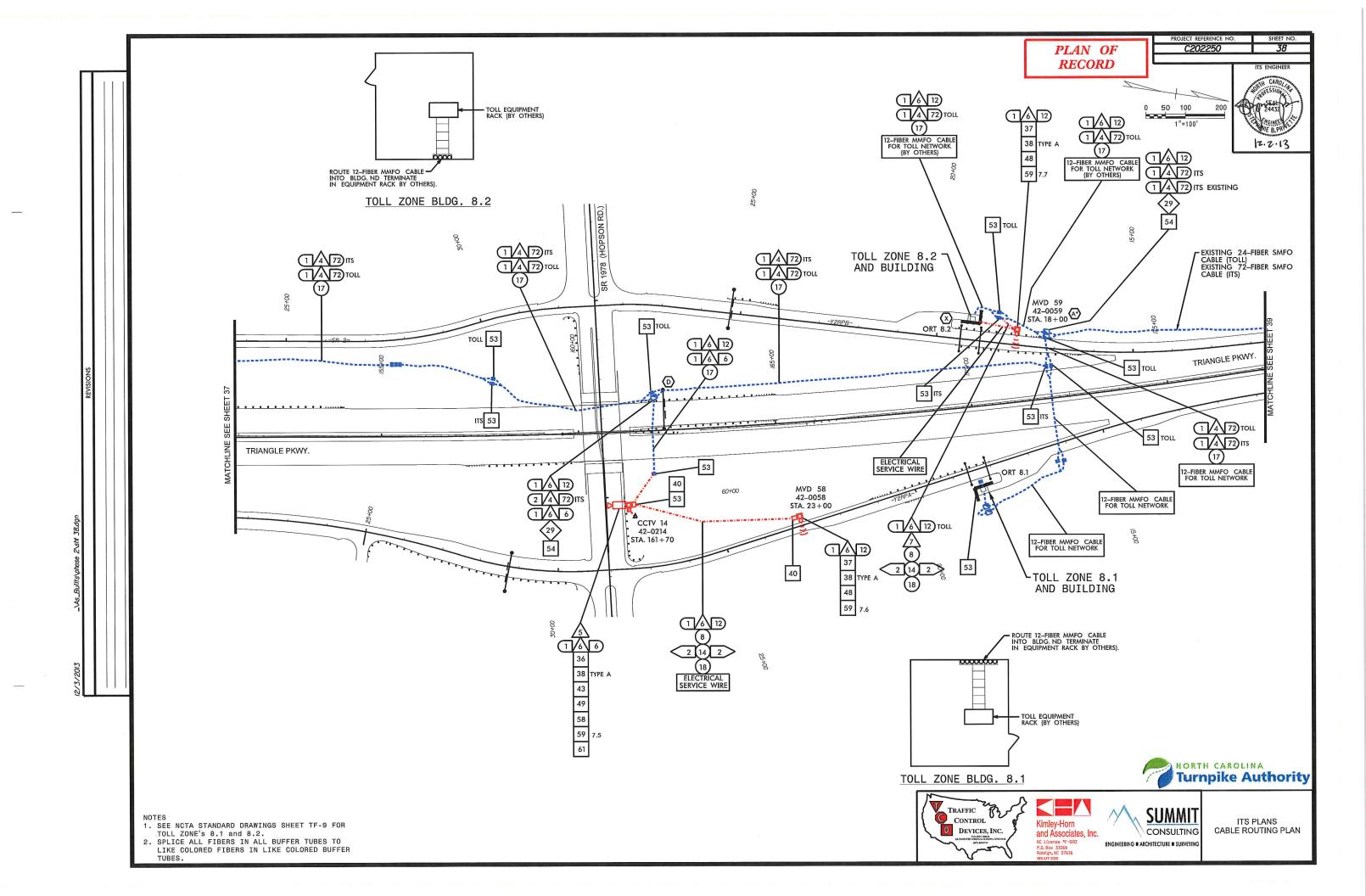
BY ROADWAY DESIGN-BUILD CONTRACTORS. LOCATION SHOWN IS APPROXIMATE. EXACT LOCATION TO BE DETERMINED.

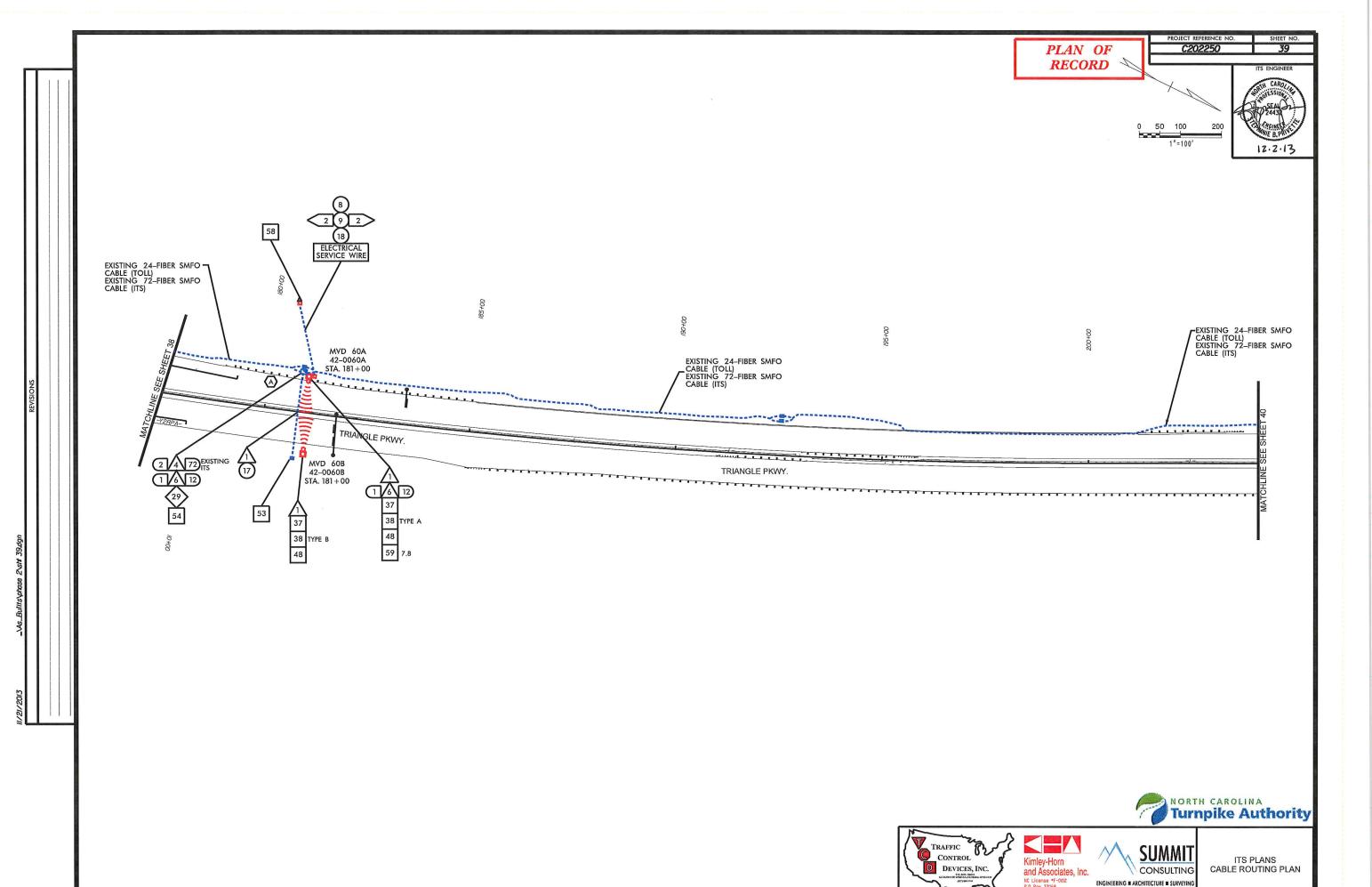
2. SEE DETAIL SHEETS FOR EQUIPMENT CABINET CONFIGURATION.

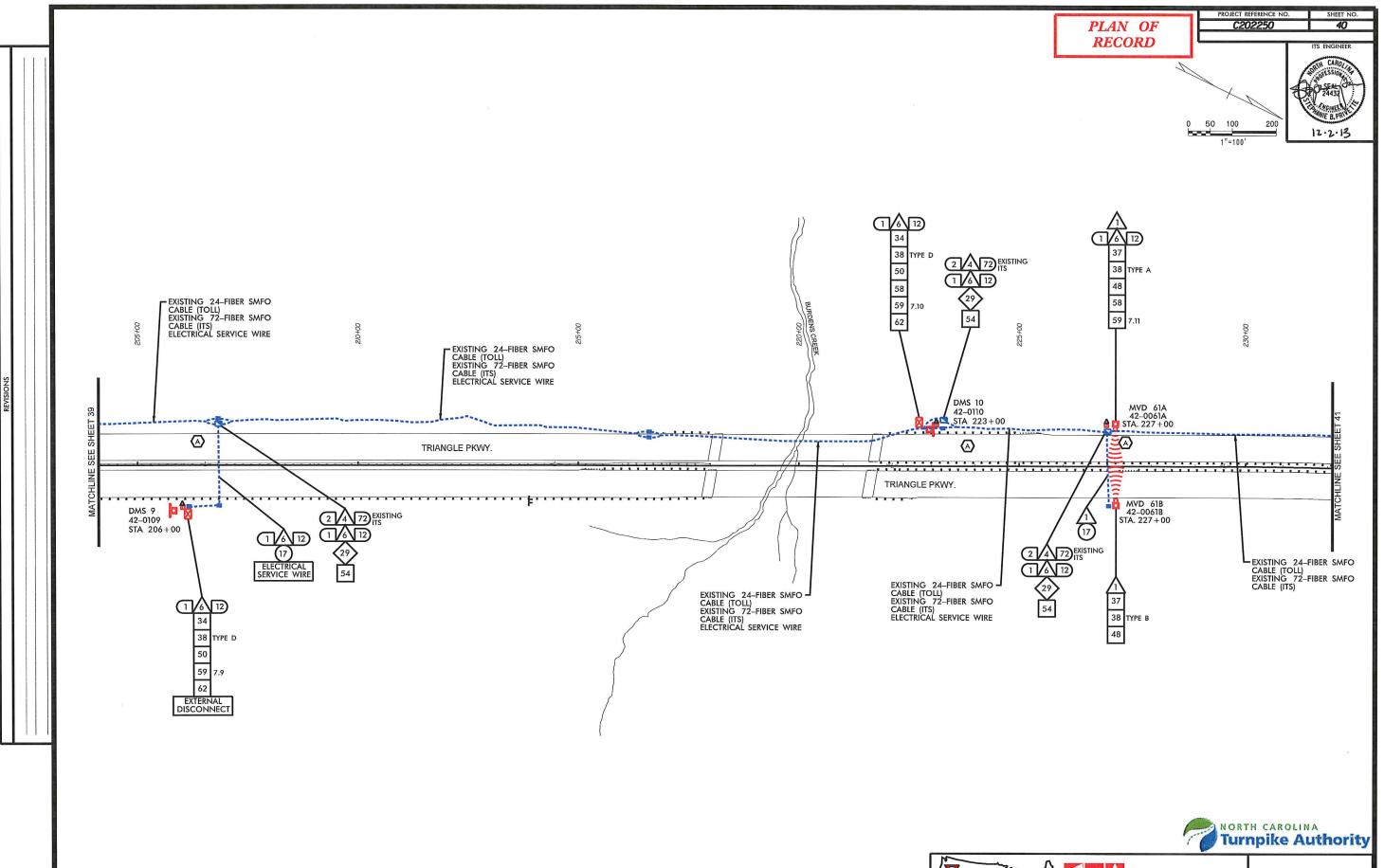








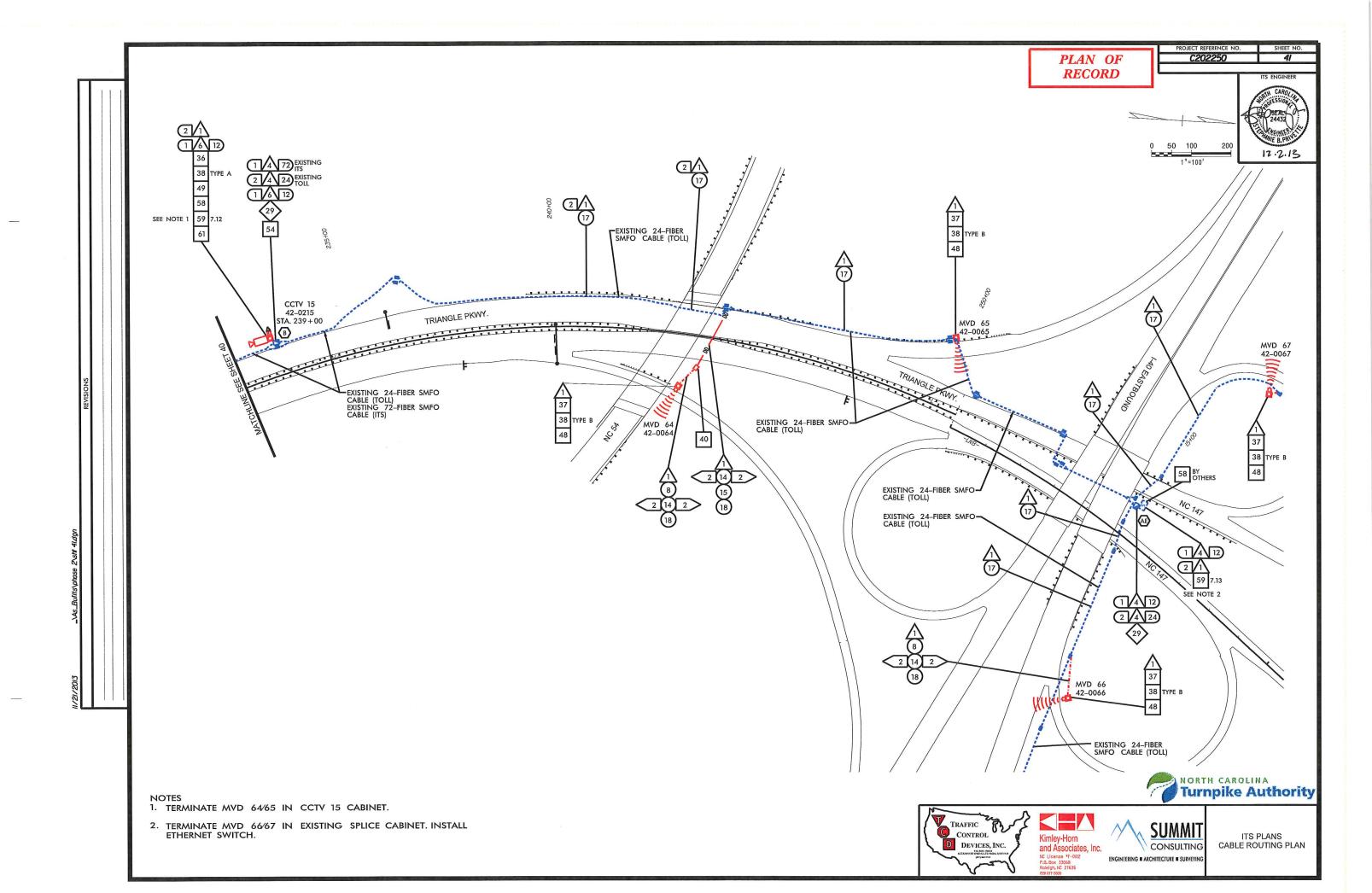












TRAFFIC

CONTROL

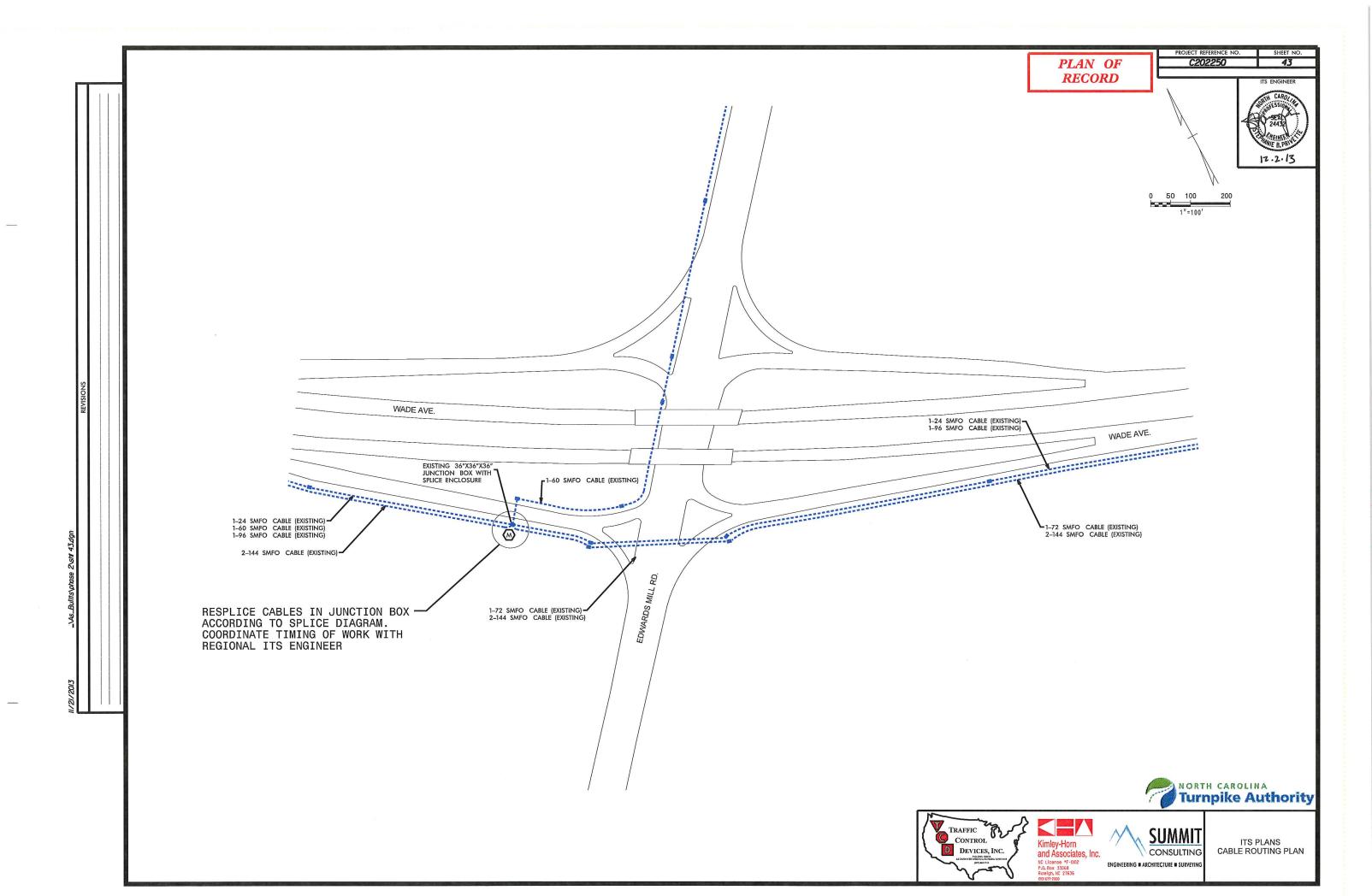
DEVICES, INC.

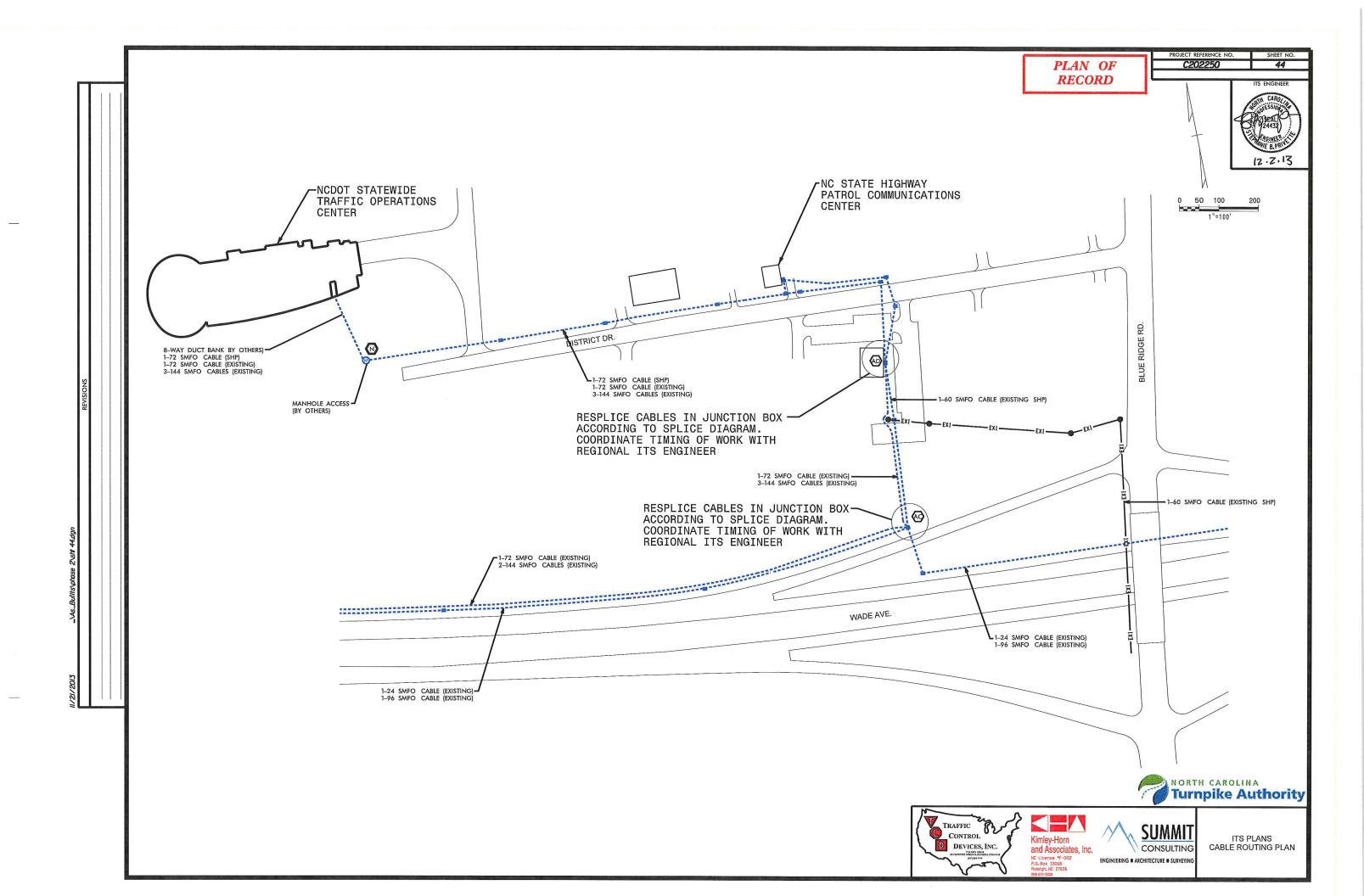
Kimley-Horn and Associates, Inc.

SUMMIT

CONSULTING

ENGINEERING ■ ARCHITECTURE ■ SURVEY





	Sį	olice Referen	ce		
lan Sheet leference	Switch	Devices	Splice Type	Splice Sheet Reference	
	1.1	MVD1			
	1.2	CCTV 1	1 .		
3	1.3	MVD 2	- J	SPL 07	
	1.4	MVD3			
	1.5	MVD4	А	SPL 02	
4	1.6	MVD5	А	SPL 02	
	Toll Bui	lding 1.1	Т	SPL 16	
	ITS F	lub 1			
4A		DMS 1	z	SPL 21	
	1.7	DMS 2			
_		MVD 6		SPL 02	
5	1.8	CCTV 1A	A		
6	1.9	MVD7	А	SPL 02	
	1.10	MVD8	- D	SPL 04	
	1.11	MVD9			
	2.1	CCTV 2	A*	SPL 02	
7	2.3	MVD 10			
	2.5	MVD 11		SPL 04	
	2.4	MVD 12	D		
	2.4	MVD 13			
8	2.6	MVD 14	А	SPL 02	
	2.7	CCTV 3		SPL 06	
	2.8	MVD 15	D		
•	2.8	MVD 16			
9	2.9	MVD 17	A*	SPL 02	
	2.10	MVD 18	А	SPL 02	
	Toll Building 2.2		U	SPL 17	
10	2.11	MVD 19	А	SPL 02	
	2.12	DMS 3	A	SDI US	
10A	2.12	DMS 4	^	SPL 02	
	Toll Bui	lding 3.2	U	SPL 17	

	Sį	olice Referen	ce	1	
Plan Sheet Reference	Switch	Devices	Splice Type	Splice Sheet Reference	
	2.13	CCTV 4A	А	SPL 02	
11	2.14	MVD 20	А	SPL 02	
12	2.13A	CCTV 4	А	SPL 02	
13	2.15	MVD 21	А	SPL 02	
		MVD 22			
	3.2	MVD 23			
	3,3	MVD 24			
	3.5	MVD 26	E	SPL 05	
14	3.6	CCTV 5	1		
	2.64	CCTV 5A			
	3.6A	CCTV 5B			
	3.4	MVD 25			
	3.7	MVD 27	A	SPL 02	
15	Toll Bui	lding 4.2	U	SPL 17	
16	3.8	MVD 28	А	SPL 02	
47	2.0	CCTV 6	_	CDI 02	
17	3.9	MVD 29	A	SPL 02	
19	3.10	MVD 30	А	SPL 02	
	4.1	CCTV 7			
	4.2	MVD 31]	501.05	
20	4.2	MVD 32	Н	SPL 06	
	4.3	MVD 33			
	4.5	MVD 34	А	SPL 02	
21	4.6	MVD 35	А	SPL 02	
	ITS	Hub 2			
	4.7	DMS 5	AA	SPL 22	
21A	4.7	DMS 6			
	Toll Bui	lding 5.1	U	SPL 17	

	Sį	plice Referen	ce		
Plan Sheet Reference	Switch	Devices	Splice Type	Splice Sheet Reference	
22	4.8	MVD 36	A	SPL 02	
23	4.9	CCTV 8	А	SPL 02	
24	4.10	MVD 37		CDI OD	
24	4.10	RWIS	A	SPL 02	
26	4.11	CCTV 9		SPL 02	
20	4.11	MVD 38	A	SPLUZ	
27	4.12	MVD 39	А	SPL 02	
	F 2	MVD 41			
	5.2	MVD 42	D	SPL 04	
	5.3	CCTV 10			
20	5.4	MVD 43			
28	5.5	MVD 44	D	SPL 04	
		MVD 45			
	5.6	MVD 46	- A*	SPL 02	
		CCTV 10A			
29	5.7	DMS 7	À	SPL 02	
30	5.8	MVD 47	А	SPL 02	
		CCTV 11			
	5.9	MVD 48	A	SPL 04	
31	5.11	MVD 49	К	SPL 08	
	Toll Bui	lding 7.2	U	SPL 17	
		riangle Pkwy Splice	Υ	SPL 20	
22	5.12	MVD 50	A*	SPL 02	
32	Toll Bui	lding 6.1	V	SPL 18	
	ITS I	Hub 3			
	6.1	MVD 51			
32A	6.2	MVD 52	AB	SPL 23	
	6.3	CCTV 12			

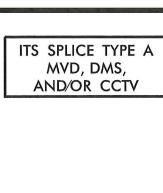
S	plice Referen	ce	
Switch	Devices	Splice Type	Splice Sheet Reference
6.4	DMS 8		501.04
6.5	MVD 53	ט	SPL 04
NC 540 and	NC 54 Splice		
6.6	MVD 62	P	SPL 12
6.7	MVD 63		
7.1	MVD 54	A*	SPL 02
	MVD 55		
7.2	MVD 56	A*	SPL 02
7.3	CCTV 13	A*	SPL 02
7.4	MVD 57	A*	SPL 02
7.5	CCTV 14		
7.6	MVD 58	D	SPL 04
7.7	MVD 59	A*	SPL 02
Toll Bui	Iding 8.2	X	SPL 19
7.8	MVD 60	А	SPL 02
7.9	DMS 9	А	SPL 02
7.10	DMS 10	А	SPL 02
7.11	MVD 61	А	SPL 02
	CCTV 15		
7.12	MVD 65	В	SPL 03
	MVD 64		
	MVD 66		
7.13	MVD 67	AE	SPL 26
TR*	ГМС	S	SPL 15
Charles and the same part of the party		М	SPL 09
		N	SPL 10
	-	AC	SPL 24
		AD	SPL 25
1-540 a	ind I-40	0	SPL 11
C	sc	Q	SPL 13
I-40 and A	irport Blvd.	R	SPL 14
	Switch 6.4 6.5 NC 540 and 6.6 6.7 7.1 7.2 7.3 7.4 7.5 7.6 7.7 Toll Bui 7.8 7.9 7.10 7.11 7.12 7.13 TR' Wade Ave. at R R Resident Eng	Switch Devices 6.4 DMS 8 6.5 MVD 53 NC 540 and NC 54 Splice 6.6 MVD 62 6.7 MVD 63 7.1 MVD 54 MVD 55 MVD 56 7.3 CCTV 13 7.4 MVD 57 7.5 CCTV 14 7.6 MVD 58 7.7 MVD 59 Toll Building 8.2 NVD 60 7.9 DMS 9 7.10 DMS 10 7.11 MVD 61 CCTV 15 MVD 65 MVD 64 MVD 66	6.4 DMS 8 6.5 MVD 53 NC 540 and NC 54 Splice 6.6 MVD 62 6.7 MVD 63 7.1 MVD 54 A* MVD 55 MVD 56 7.3 CCTV 13 A* 7.4 MVD 57 A* 7.5 CCTV 14 7.6 MVD 58 7.7 MVD 59 A* TOll Building 8.2 X 7.8 MVD 60 A 7.9 DMS 9 A 7.10 DMS 10 A 7.11 MVD 61 A CCTV 15 MVD 65 B MVD 66 MVD 65 MVD 66 MVD 66 MVD 66 MVD 67 TRTMC S Wade Ave. at Edward Mills Rd. STOC N Wade Ave. at Blue Ridge Rd. Resident Engineer's Office AD I-540 and I-40 O CSC Q











Location

COLOR CODE TIA/EIA 598-C

(1) BLUE (7) RED (2) ORANGE (8) BLAC

To

(5) SLATE

(6) WHITE

(2) ORANGE (8) BLACK
(3) GREEN (9) YELLOW
(4) BROWN (10) VIOLET

(11) ROSE

(12) AQUA

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE

SPLICE SPLICE ENTIRE BUFFER TUBE

O UNUSED FIBER
USED (LIT) FIBER

TO/FROM
DIR. 1

| SIUE
| ORANGE
| II GREEN
| II SAVE
| JUNE
| JUN

Plan Sheet Reference	Switch	Devices	Splice for Switch(es)		Occupied in uffer Tube	Splice for Switch(es)		Occupied in Buffer Tube
3	1.5	MVD 4	1.1, 1.2, 1.3,	f1	blue	1.6	f3	blue
3	1.5	NIV D 4	and 1.4	f2	orange	1.6	f4	orange
4	1.6	MVD 5	1.5	f1	blue	1.7	f3	blue
4	1.6	IVIVUS	1.5	f2	orange	1./	f4	orange
5	1.8	MVD 6	1.7	f1	blue	1.9	f3	blue
3	1,0	CCTV 1A	1.7	f2	orange	1.9	f4	orange
6	1.9	MVD 7	1.8	f1	blue	1.10 and 1.11	f3	blue
· ·	1.5	IVIV D 7	1.0	f2	orange	1.10 and 1.11	f4	orange
7	2.1*	CCTV 2	1.11	f1	blue	2.2	f3	blue
	2.1	CCIVZ	1.11	f2	orange	2.2	f4	orange
8	2.6	MVD 14	2.4	f1	green	2.7, 2.8, and	f3	green
0	2.0	IVIV D 14	2.4	f2	brown	2.9	f4	brown
9	2.10	MVD 18	2.7, 2.8, and	f1	green	2.11	f3	green
9	2.10	MAD 19	2.9	f2	brown	2.11	f4	brown
9	2.9*	MVD 17	2.8	f1	green	2.10	f3	green
9	2.9	IVIV D 17	2.0	f2	brown	2.10	f4	brown
10	2.11	MVD 19	2.10	f1	green	2.12	f3	green
10	2.11	IVIV D 19	2.10	f2	brown	2.12	f4	brown
10	2.12	DMS 3	2.11	f1	green	2.13	f3	green
10	2.12	DMS 4	2.11	f2	brown	2.15	f4	brown
11	2.13	CCTV 4A	2.12	f1	green	2.14	f3	green
11	2.13	CCTV 4A	2.12	f2	brown	2.14	f4	brown
11	2.14	MVD 20	2.13	f1	green	2.13A	f3	green
11	2.14	IVIV D 20	2.13	f2	brown	2.13A	f4	brown
12	2.13A	CCTV 4	2.14	f1	green	2.15	f3	green
12	2.13A	CCIV4	2.14	f2	brown	2.15	f4	brown
13	2.15	MVD 21	2.13A	f1	green	3.1, 3.2, 3.3,	f3	green
13	2.13	IVIV D ZI	2.13A	f2	brown	and 3.4	f4	brown
14	3.4	MVD 25	3.3	f1	green	3.5 and 3.6	f3	green
14	3,4	1010 0 23	3.3	f2	brown	3.5 and 3.0	f4	brown
14	3.7	MVD 27	3.5 and 3.6	f1	slate	3.8	f3	slate
14	3.7	IVIV D 27	3.5 and 5.0	f2	white	3.6	f4	white
16	3.8	MVD 28	3.7	f1	slate	3.9	f3	slate
10	5.0	IVIV D 20	3.7	f2	white	3.5	f4	white
17	3.9	MVD 29	3.8	f1	slate	3.10	f3	slate
1,	3.5	CCTV 6	5.0	f2	white	3.10	f4	white
19	3.10	MVD 30	3.9	f1	slate	4.1, 4.2, and	f3	slate
13	3.10	1010 0 30	3.3	f2	white	4.3	f4	white
20	4.5	MVD 34	4.1, 4.2, and	f1	red	4.6	f3	red
20	4.5	1010 0 34	4.3	f2	black	4.0	f4	black
21	4.6	MVD 35	4.4 and 4.5	f1	red	4.7	f3	red
21	4.0	נכ טאאי	4.4 anu 4.5	f2	black	4.7	f4	black

Splice Type A

From

*INDICATES A 12F DROP INSTEAD OF A 6F GATOR PATCH

				Splice Typ	e A			
	Location	1		From			То	
Plan Sheet Reference	Switch	Devices	Splice for Switch(es)	10.0000 10.0000 10.000	Occupied in ouffer Tube	Splice for Switch(es)		Occupied in Buffer Tube
22	4.0	10/D 20	47	f1	red	4.0	f3	red
22	4.8	MVD 36	4.7	f2	black	4.9	f4	black
23	4.9	CCTV 8	4.8	f1	red	4.10	f3	red
25	4.9	CCIVA	4.0	f2	black	4.10	f4	black
24	4.10	MVD 37	4.9	f1	red	4.11	f3	red
24	4.10	RWIS	4.9	f2	black	4.11	f4	black
26	4.11	CCTV 9	4.10	f1	red	4.12	f3	red
20	4.11	MVD 38	4.10	f2	black	4.12	f4	black
27	4.12	MVD 39	4.11	f1	red	5.2 and 5.3	f3	red
	4.12	1010 0 35	4.11	f2	black	5.2 and 5.5	f4	black
28	5.6*	MVD 46	5.4 and 5.5	f1	slate	5.7	f3	slate
20	5.0	CCTV 10A	5.4 and 5.5	f2	white	5.7	f4	white
29	5.7	DMS 7	5.6	f1	slate	5.8	f3	slate
23	5.7	DIVIS 7	5.0	f2	white	3,6	f4	white
30	5.8	MVD 47	5.7	f1	slate	5.9	f3	slate
	5.8	1010 0 47	5.7	f2	white	5,5	f4	white
31	5.9	CCTV 11	5.8	f1	slate	5.11	f3	slate
31	5.5	MVD 48	5.8	f2	white	5.11	f4	white
32	5.12*	MVD 50	5.11	f1	slate	6.1, 6.2, and	f3	slate
J2.	5.12	1010 30	3.11	f2	white	6.3	f4	white
36	7.1*	MVD 54	5.11	f1	blue	7.2	f3	blue
30	/.1	IVIV D 34	3.11	f2	orange	7.2	f4	orange
37	7.2*	MVD 55	7.1	f1	blue	7.3	f3	blue
٥,	/.2	MVD 56	7.1	f2	orange	7.5	f4	orange
37	7.3*	CCTV 13	7.2	f1	blue	7.4	f3	blue
	7.5	COTY 15	7.2	f2	orange	100.0000	f4	orange
37	7.4*	MVD 57	7.3	f1	blue	7.5, 7.6, and	f3	blue
	7	1111001	7.5	f2	orange	7.7	f4	orange
39	7.8*	MVD 60	7.5, 7.6, and	f1	blue	7.9	f3	blue
	710	1111000	7.7	f2	orange	7.5	f4	orange
40	7.9*	DMS 9	7.8	f1	blue	7.10	f3	blue
		233		f2	orange	7.10	f4	orange
40	7.10*	DMS 10	7.9	f1	blue	7.11	f3	blue
	,,,,,	5,110 10	,,,	f2	orange	7.11	f4	orange
40	7.11*	MVD 61	7.10	f1	blue	7.12	f3	blue
40	/.11	1010 01	7.10	f2	orange	7.12	f4	orange

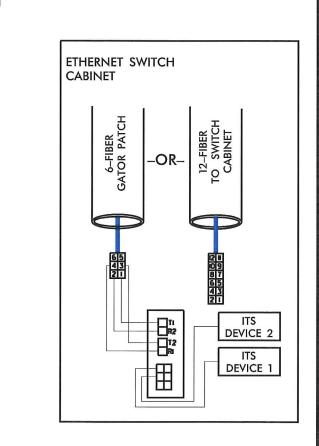




TO/FROM

DIR. 2

72 FIBERS IN 6 BUFFER TUBES







SPLICE TRAY

EXPRESS

EXPRESS EXPRESS

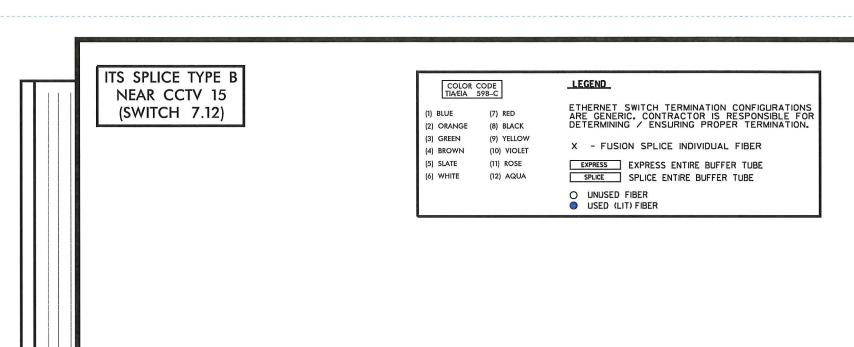
6–FIBER GATOR PATCH TO SWITCH CABINET

12-FIBER TO SWITCH CABINET

-OR-







ETHERNET SWITCH 7.12 CABINET CCTV 15, MVD 65,

CCTV 15

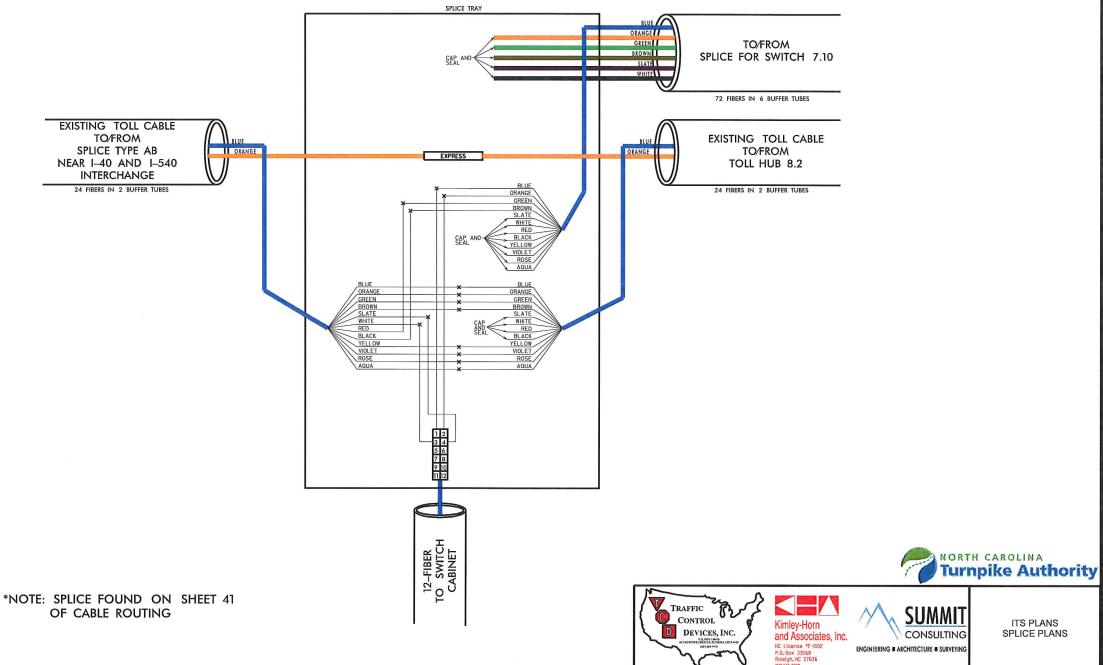
MVD 65

MVD 64

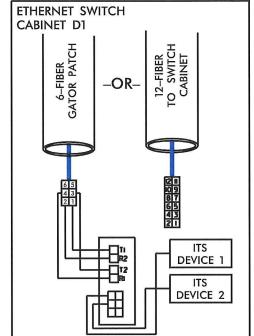
AND MVD 68

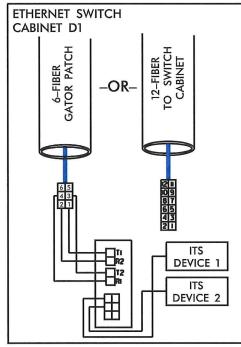
IBER DROP CABINET

C202250 SPL 03 PLAN OF RECORD



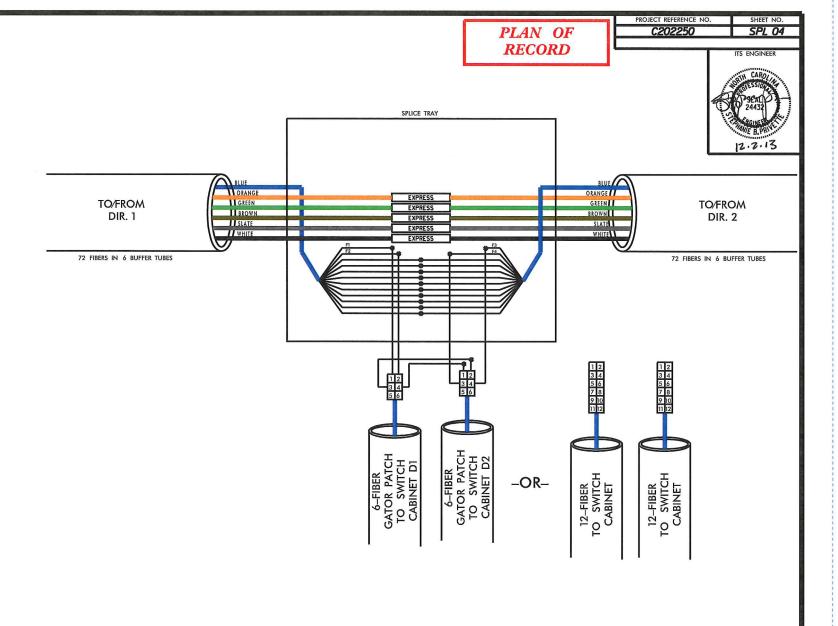
ITS SPLICE TYPE D MVD, DMS AND/OR CCTV (MULTIPLE CABINETS)





					L			
				Splice Typ	o D			
	Location	1	·	From	E D		То	
Plan Sheet			Splice for	II DECISION	Occupied in	Splice for	1000	Occupied in
Reference	Switch	Devices	Switch(es)		uffer Tube	Switch(es)		Buffer Tube
Hererenee			011111(00)	f1	blue	01111011(00)		Patch Cable
	1.10*	MVD 8	SW 9-66	f2	orange	2.1, 2.3, and		r MVD 9
7			1.9		tch Cable fo		f3	blue
	1.11	MVD 9		and and a second	/IVD8		f4	orange
		1.0/0.40		f1	blue		Gator	Patch Cable
_	2.3*	MVD 10		f2	orange		for	MVD 11
7		10/044	2.1	Gator Pa	tch Cable fo	2.5	f3	blue
	2.4	MVD 11		N	1VD 10		f4	orange
	2.7*	CCTV 3		f1	blue		Gator	Patch Cable
9	2.7	CCIVS	2.6	f2	orange	2.9	for M\	/D 15 and 16
9	2.8*	MVD 15*	2.6	Gator Pa	tch Cable fo	or 2.9	f3	blue
	2.8	MVD 16*			CTV 3		f4	orange
	3.5	MVD 26		f1	slate		Gator	Patch Cable
14	3,3	1010 0 26	3.2, 3.3, 3.4,	f2	white	3.7	for CC	TV 5A & 5B
14	3.6A	CCTV 5A	and 3.6	Gator Pa	tch Cable fo	or 3.7	f3	slate
	3.0A	CCTV 5B		N	1VD 26		f4	white
	5.2	MVD 41		f1	slate		Gator	Patch Cable
28	J.2	MVD 42	4.12	f2	white	5.4 and 5.5	for	CCTV 10
20	5.3	CCTV 10	7.12	Gator Pa	tch Cable f	or S.4 and 3.5	f3	slate
	3.3	CCIVIO		MVI	0 41 & 42		f4	white
	5.4	MVD 43		f1	slate		Gator	Patch Cable
28	J. 1	, 4440, 544	5.2 and 5.3	f2	white	5.6	for N	IVD 44 & 45
20	5.5	MVD 44	3.2 drid 3.3		tch Cable f	or	f3	slate
	3.3	MVD 45		+	1VD 43		f4	white
	6.4*	DMS 8		f1	blue			Patch Cable
34		5,11,5 0	6.1, 6.2, and	f2	orange	Splice Type P		MVD 53
= .	6.5*	MVD 53	6.3	10-761-3000-4000-500	tch Cable f	or spine 1, por	f3	blue
					OMS 8		f4	orange
	7.5	CCTV 14		f1	blue		1	Patch Cable
38			7.4	f2	orange	7.7		r MVD 58
	7.6*	MVD 58			tch Cable f	or	f3	blue
LIDICATE		E DROB I	L		CTV 14		f4	orange

*INDICATES A 12F DROP INSTEAD OF A 6F GATOR PATCH



COLOR CODE TIA/EIA 598-C

(1) BLUE (7) RED (2) ORANGE (8) BLACK

(3) GREEN (9) YELLOW (4) BROWN (10) VIOLET

(5) SLATE (11) ROSE (6) WHITE (12) AQUA LEGEND

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE

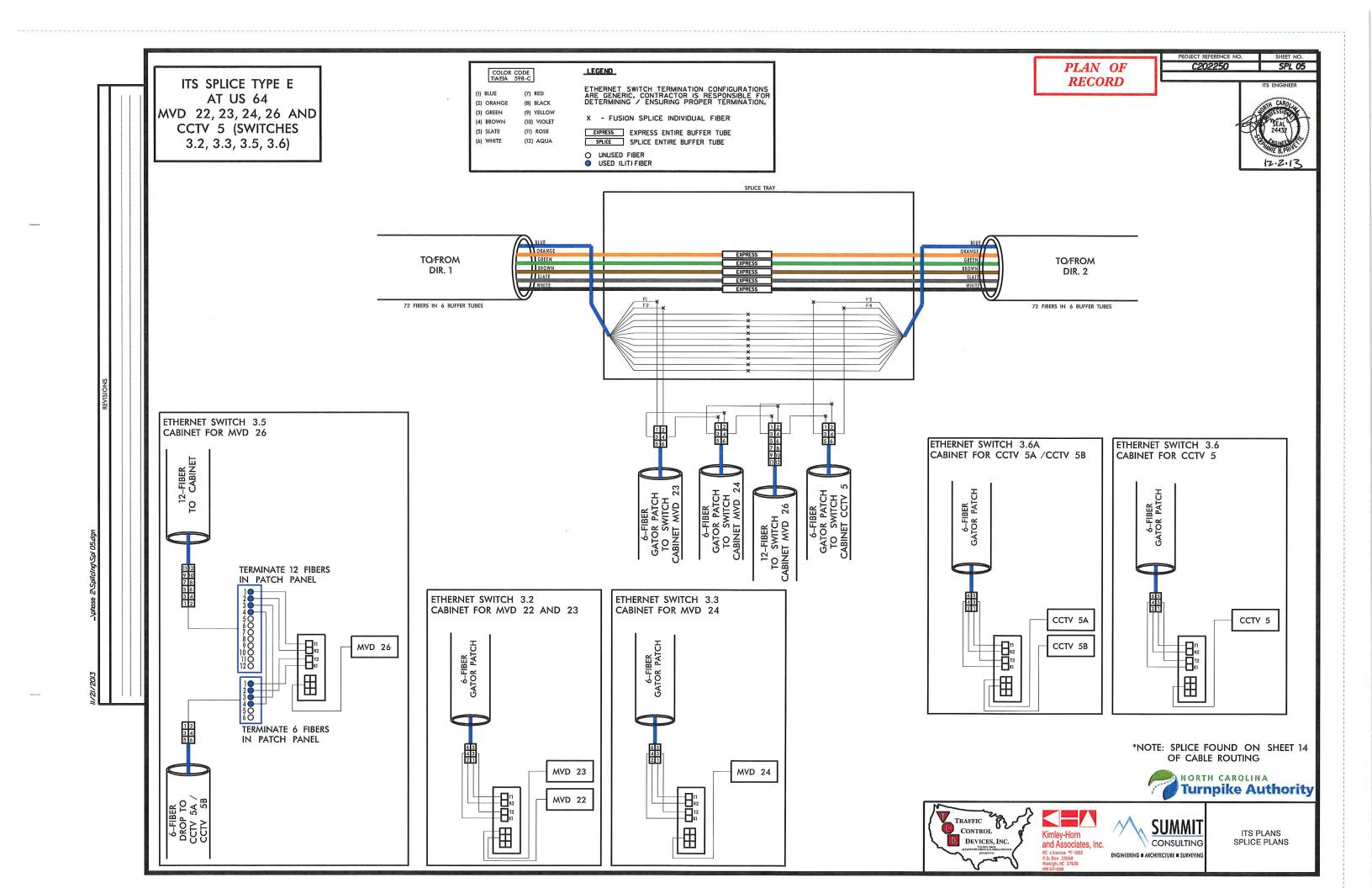
SPLICE SPLICE ENTIRE BUFFER TUBE

O UNUSED FIBER
USED (LIT) FIBER









ITS SPLICE TYPE H
FOR CCTV 7 AND
MVD 31, 32, AND 33
(SWITCHES 4.1, 4.2,
AND 4.3)

COLOR CODE TIA/EIA 598-C

(4) BROWN

(5) SLATE

(6) WHITE

(1) BLUE (7) RED (2) ORANGE (8) BLACK (3) GREEN (9) YELLOW

(10) VIOLET

(11) ROSE

(12) AQUA

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS EXPRESS ENTIRE BUFFER TUBE

SPLICE SPLICE ENTIRE BUFFER TUBE

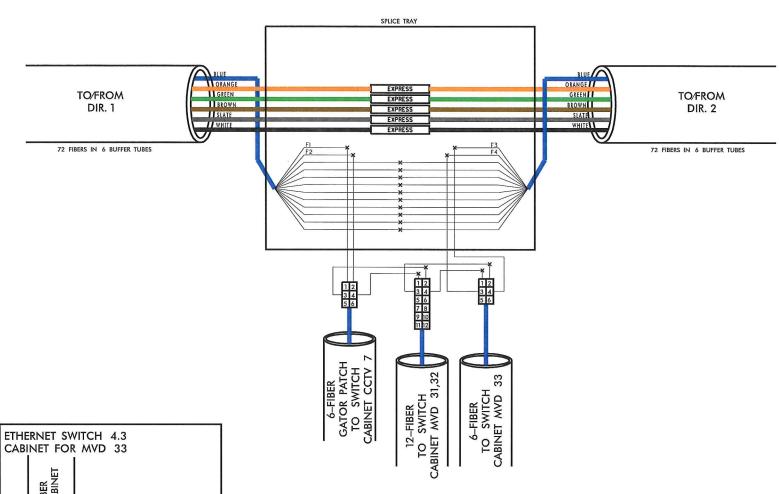
O UNUSED FIBER
USED (LIT) FIBER

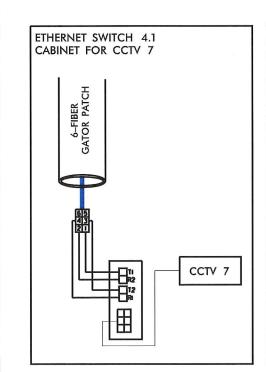
LEGEND

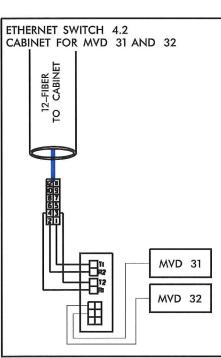
PLAN OF RECORD PROJECT REFERENCE NO. SHEET NO.

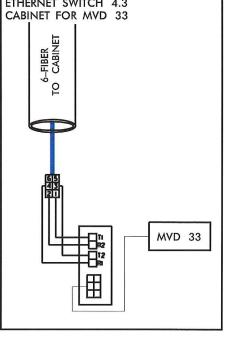
C202250 SPL 06

CARO SEAL 24432 VE B. PRI









*NOTE: SPLICE FOUND ON SHEET 20 OF CABLE ROUTING









ITS SPLICE TYPE J NEAR NC 55 BYPASS **INTERCHANGE** CCTV 1, MVD 1, MVD 2 AND MVD 3 (SWITCHES 1.1, 1.2, 1.3, AND 1.4)

COLOR CODE TIA/EIA 598-C (1) BLUE (7) RED

(8) BLACK

(9) YELLOW

(10) VIOLET

(11) ROSE

(12) AQUA

(2) ORANGE

(3) GREEN

(4) BROWN

(5) SLATE

(6) WHITE

LEGEND

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE SPLICE ENTIRE BUFFER TUBE

O UNUSED FIBER
USED (LIT) FIBER

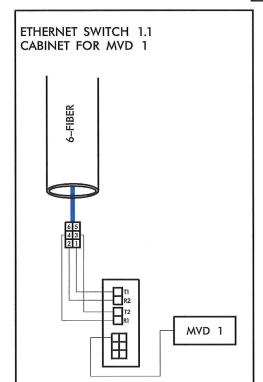
PLAN OF RECORD

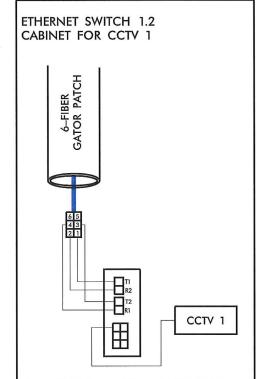
PROJECT REFERENCE NO.

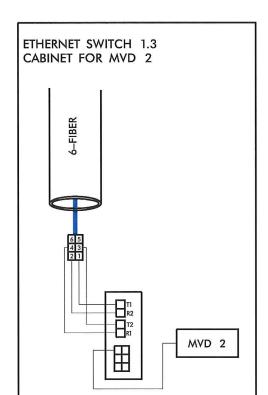
TO/FROM SPLICE FOR SWITCH 1.5

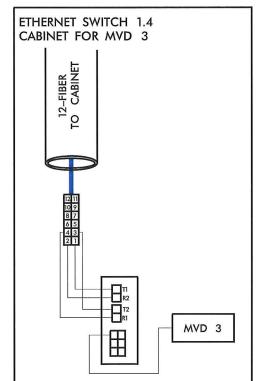
72 FIBERS IN 6 BUFFER TUBES

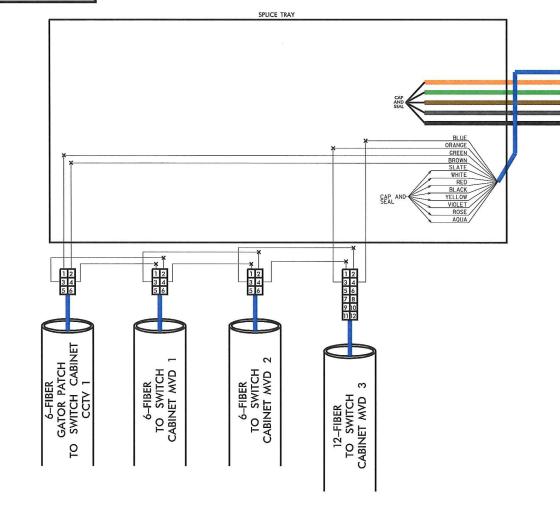






















PLAN OF RECORD

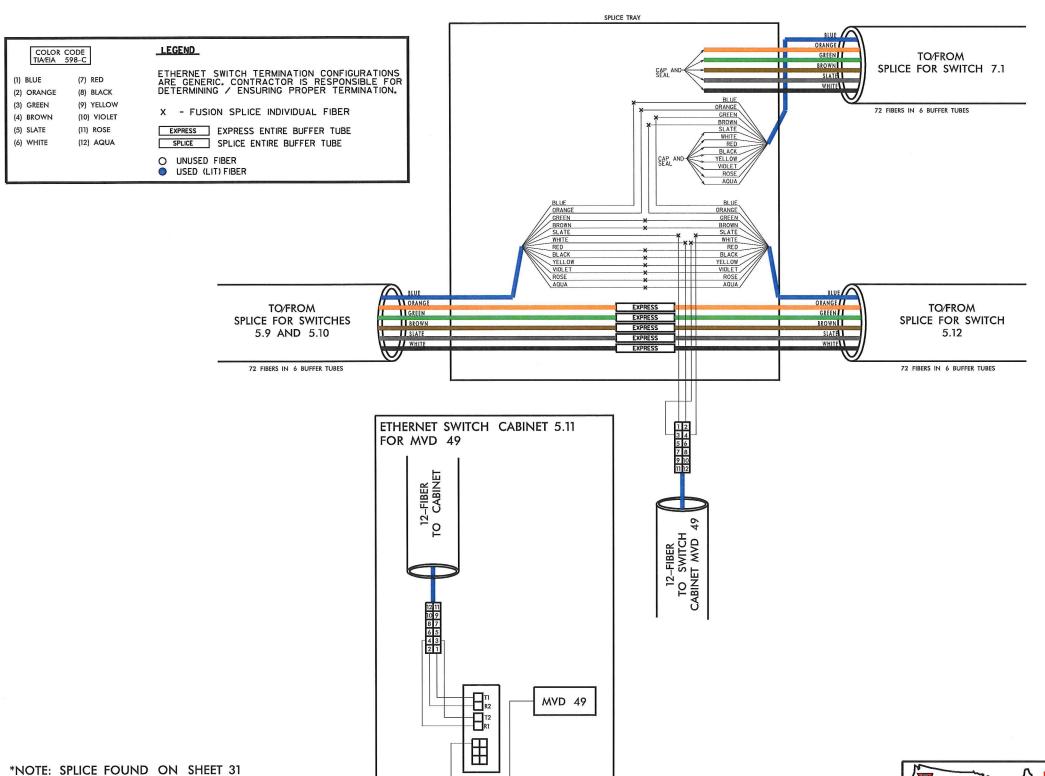
PROJECT REFERENCE NO C202250

250 SPL 08

24432 72432 172-72-18

ITS SPLICE TYPE K (NEAR NC–540 AND TRIANGLE PARKWAY INTERCHANGE)

OF CABLE ROUTING



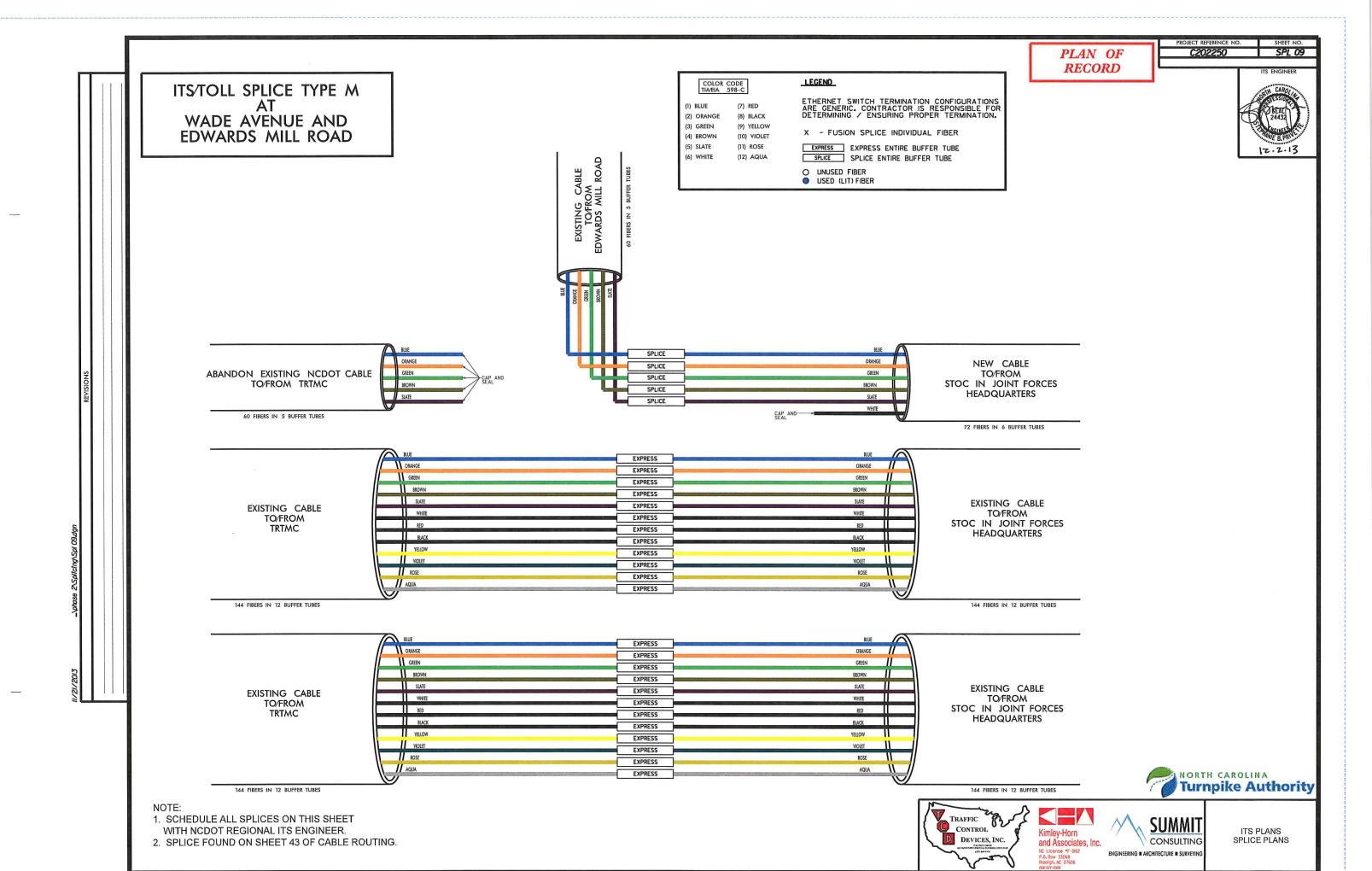


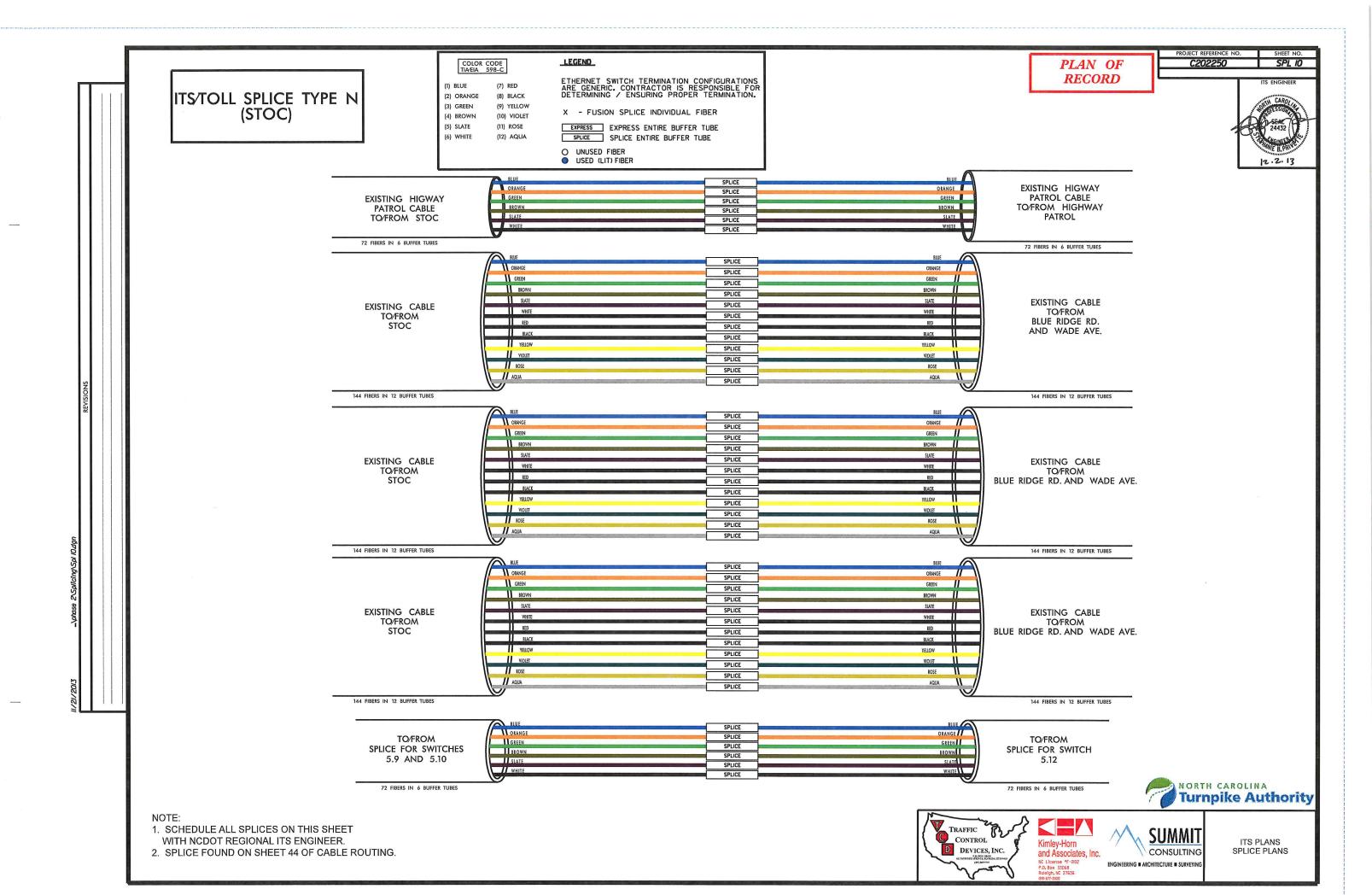


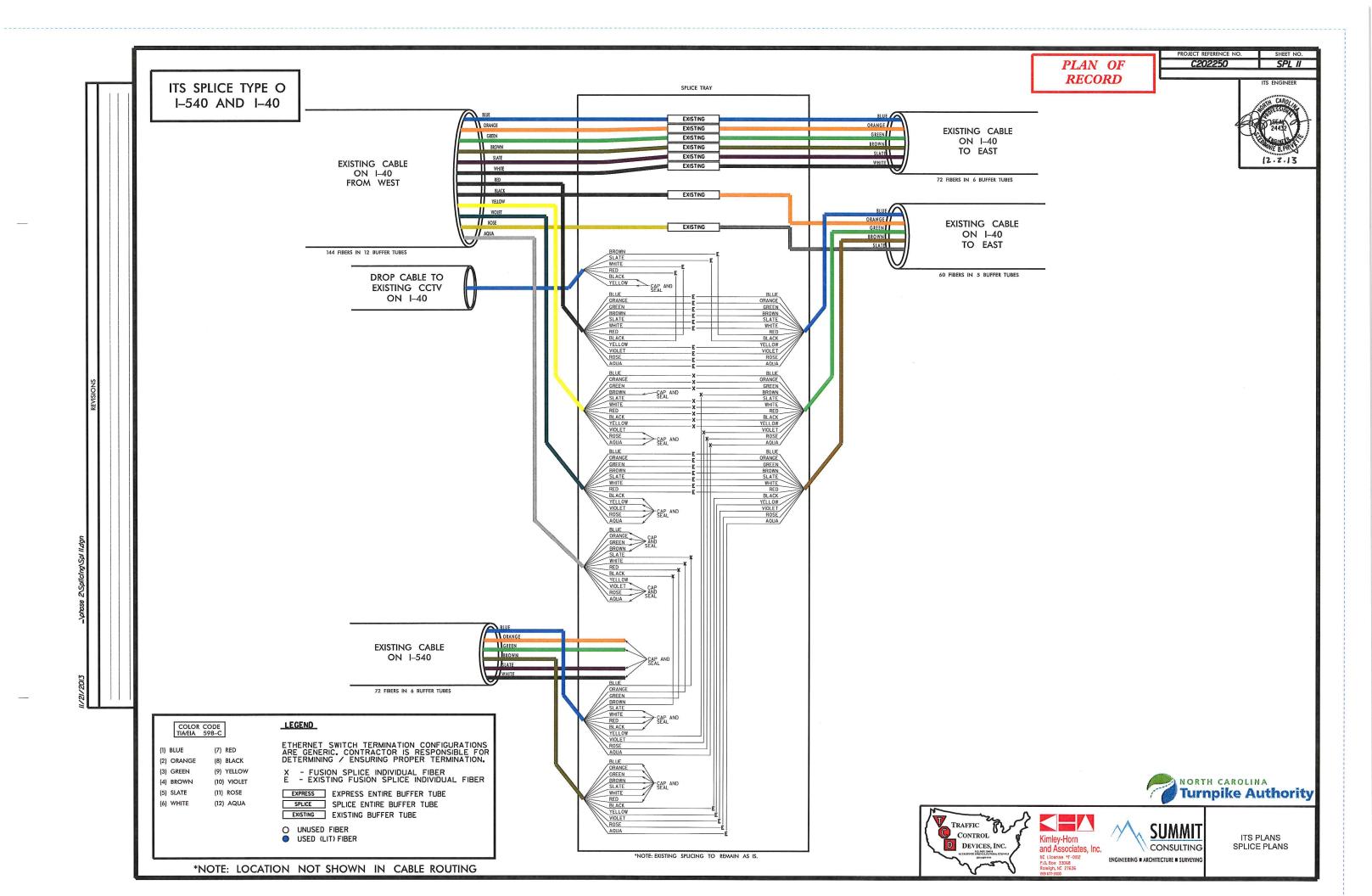


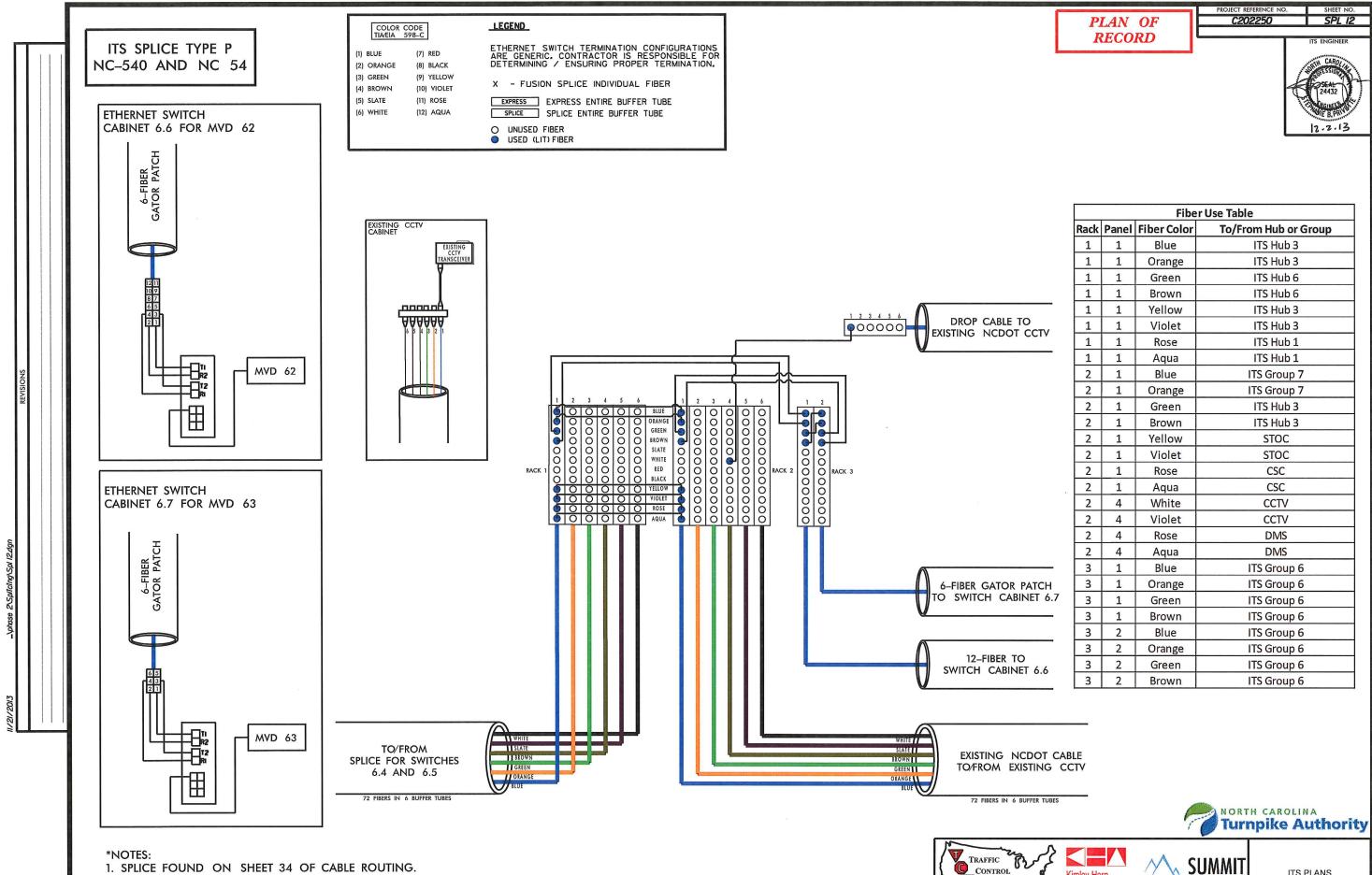












ITS PLANS SPLICE PLANS

CONSULTING

ENGINEERING # ARCHITECTURE # SURVEYING

DEVICES, INC.

and Associates, Inc.

ITS/TOLL SPLICE TYPE Q (CUSTOMER SERVICE CENTER)

COLOR CODE TIA/EIA 598-C

(1) BLUE (7) RED
(2) ORANGE (8) BLAC
(3) GREEN (9) YELL

(4) BROWN

(5) SLATE

(6) WHITE

(B) BLACK
(9) YELLOW
(10) VIOLET
(11) ROSE

(12) AQUA

LEGEND

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE

SPLICE SPLICE ENTIRE BUFFER TUBE

O UNUSED FIBER

USED (LIT) FIBER

PLAN OF RECORD

OF C

DJECT REFERENCE NO. SHEET NO. SPL 13

CARDO 24432

Rack	Panel	Fiber Color	To/From Hub or Group
1	1	Blue	Toll Hub 6.1
1	1	Orange	Toll Hub 6.1
1	1	Green	Toll Hub 6.1
1	1	Brown	Toll Hub 6.1
1	2	Blue	Toll Hub 8.2
1	2	Orange	Toll Hub 8.2
1	2	Green	Toll Hub 8.2
1	2	Brown	Toll Hub 8.2
1	2	Slate	STOC (Toll)
1	2	White	STOC (Toll)
1	2	Red	STOC (Toll)
1	2	Black	STOC (Toll)
1	2	Yellow	ITS Hub 1
1	2	Violet	ITS Hub 1
1	2	Rose	STOC (ITS)
1	2	Aqua	STOC (ITS)

24 FIBER CABLE

Fiber Use Table

SPLICE TRAY IN
ENCLOSURE OUTSIDE

OF BUILDING

OF BUILDING

SPLICE TYPE V
NEAR TOLL HUB
BUILDING 6.1

10 ANNEE

SPLICE

NEW CABLE FROM
SPLICE TYBE

NEW CABLE FROM
SPLICE ENCLOSURE TO
COMPUTER ROOM IN CSC

ORANGE
BUFFER TUBE

ORANGE
ORANGE
BUFFER TUBE

ORANGE
BUFFER TUBE

ORANGE
BUFFER TUBE

RACK MOUNTED FIBER
INTERCONNECT CENTER
IN COMPUTER ROOM OF
CUSTOMER SERVICE CENTER









TO/FROM SPLICE TYPE R

NEAR I-40 AND AIRPORT

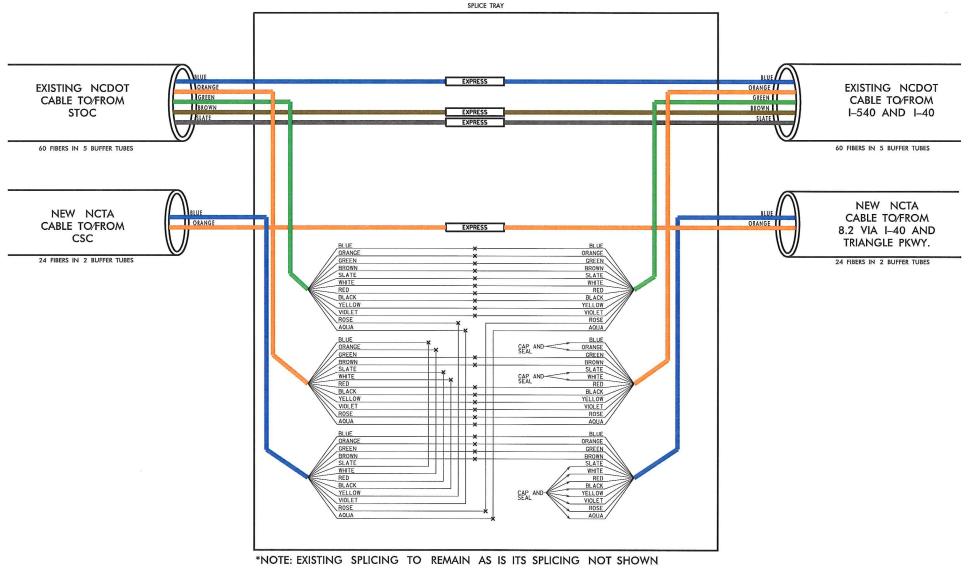
24 FIBERS IN 2 BUFFER TUBES

LEGEND COLOR CODE TIA/EIA 598-C ITS/TOLL SPLICE TYPE R ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION. I-40 AND AIRPORT BLVD. (1) BLUE (7) RED (2) ORANGE (8) BLACK (3) GREEN (9) YELLOW X - FUSION SPLICE INDIVIDUAL FIBER (4) BROWN (10) VIOLET (5) SLATE (11) ROSE EXPRESS ENTIRE BUFFER TUBE SPLICE SPLICE ENTIRE BUFFER TUBE (12) AQUA O UNUSED FIBER USED (LIT) FIBER SPLICE TRAY

PLAN OF RECORD PROJECT REFERENCE NO. SHEET NO.

C202250 SPL 14

CAROLINA 2443 12.2.13

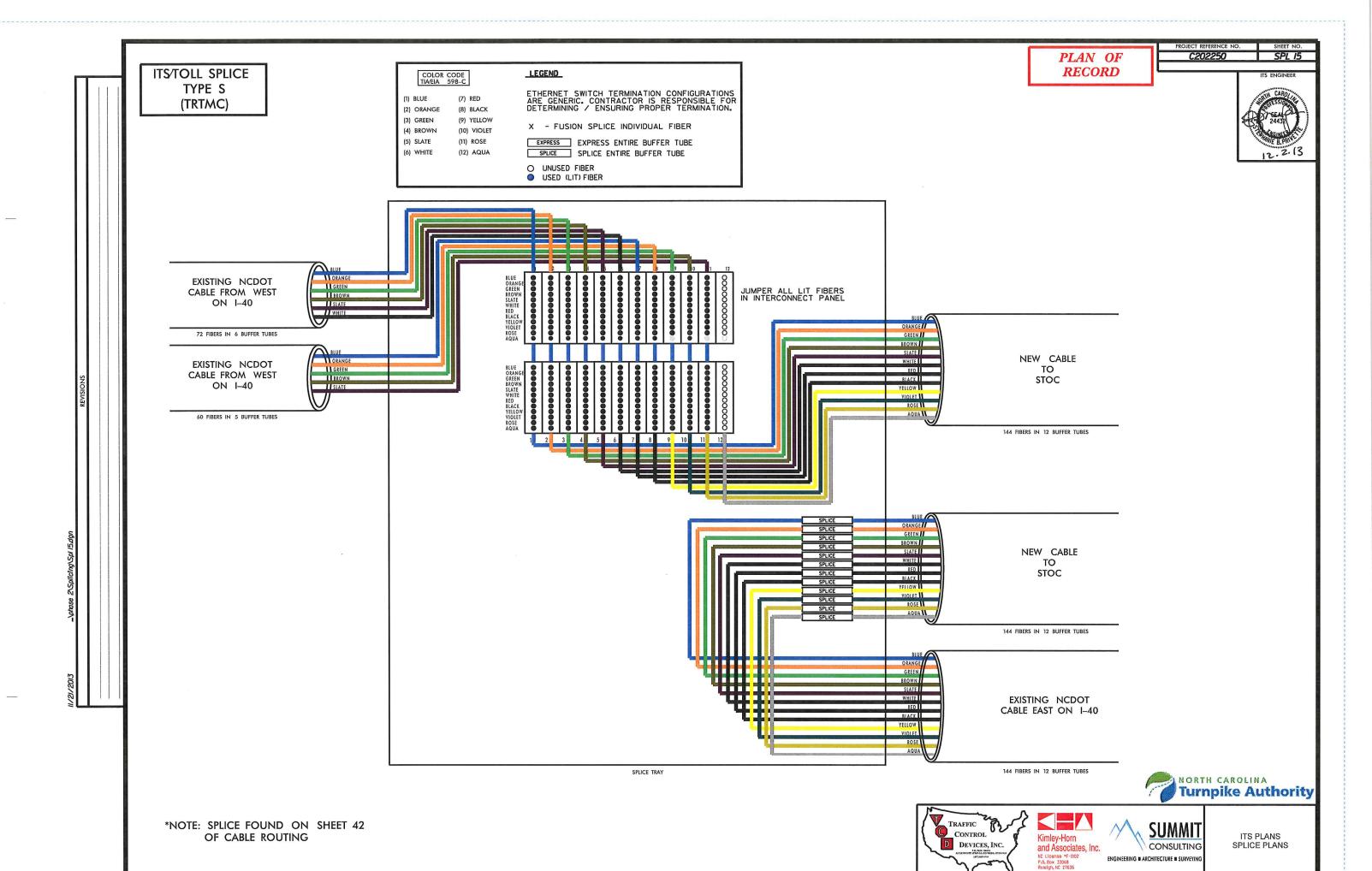












C202250 PLAN OF LEGEND COLOR CODE TIA/EIA 598-C RECORD TOLL SPLICE TYPE T ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION. (7) RED (1) BLUE **NEAR TOLL HUB 1.1** (2) ORANGE (8) BLACK (9) YELLOW (3) GREEN X - FUSION SPLICE INDIVIDUAL FIBER (4) BROWN (10) VIOLET (11) ROSE (5) SLATE EXPRESS ENTIRE BUFFER TUBE (6) WHITE (12) AQUA SPLICE ENTIRE BUFFER TUBE O UNUSED FIBER USED (LIT) FIBER SPLICE SPLICE TO/FROM SPLICE TO/FROM TOLL END SPLICE NEAR SPLICE BROWN 2.2 CAP AND NC 55 BYPASS ON SHEET 3 SPLICE 72 FIBERS IN 6 BUFFER TUBES 72 FIBERS IN 6 BUFFER TUBES FIBER TERMINATION IN TOLL HUB 1.1 Fiber Use Table Fiber Use Table Rack Panel Fiber Color To/From Hub or Group Rack Panel Fiber Color To/From Hub or Group 3 Toll Hub 6.1 Secondary 1 5 Toll Hub 2.2 24 F CABLE TO 5 AND 6 I 1 Toll Hub 6.1 Secondary 3 5 Orange 1 Orange Toll Hub 2.2 1 CABLE 3 AND 3 1 5 CABLE 1 Green Toll Hub 6.1 Secondary (Spare) Green Toll Hub 2.2 (Spare) Toll Hub 6.1 Secondary(Spare) 1 3 1 5 Brown Brown Toll Hub 2.2 (Spare) 1 Slate 3 Toll Hub 8.2 1 5 Slate Toll Hub V.1 24 FIBER DROP CABLE TO PATCH PANELS 3 AND 4 IN TOLL HUB 1.1 1 3 White Toll Hub 8.2 1 5 White Toll Hub V.1 1 3 Red Toll Hub 8.2 (Spare) 1 5 Red Toll Hub V.1 (Spare) 24 FIBER DROF CABLE TO PATCH P 5 AND 6 IN TOLL F 1 3 Black Toll Hub 8.2 (Spare) 1 5 Black Toll Hub V.1 (Spare) 1 3 Yellow 1 5 Toll Hub 7.2 Yellow Toll Hub 6.1 Primary 1 Violet 1 3 Toll Hub 7.2 5 Violet Toll Hub 6.1 Primary 1 Toll Hub 6.1 Primary (Spare 3 Rose Toll Hub 7.2 (Spare) 1 5 Rose 1 3 Aqua Toll Hub 7.2 (Spare) 1 5 Aqua Toll Hub 6.1 Primary (Spare) CABLE 1 AND 1 4 1 6 Blue Toll Hub 5.1 Blue Toll Hub 6.1 (10 Gb) 1 4 Orange Toll Hub 5.1 1 6 Orange Toll Hub 6.1 (10 Gb) 1 4 Green Toll Hub 5.1 (Spare) 1 6 Green Toll Hub 6.1 (10 Gb) 1 4 Toll Hub 5.1 (Spare) 1 6 Toll Hub 6.1 (10 Gb) Brown Brown 1 4 Slate Toll Hub 4.2 1 White 4 Toll Hub 4.2 1 4 Red Toll Hub 4.2 (Spare) ORANGE GREEN Toll Hub 4.2 (Spare) 1 4 Black BROWN 4 1 Yellow Toll Hub 3.2 1 4 Violet Toll Hub 3.2 1 4 Rose Toll Hub 3.2 (Spare) 1 4 Toll Hub 3.2 (Spare) Aqua

*NOTE: SPLICE FOUND ON SHEET 4A

OF CABLE ROUTING





ITS PLANS SPLICE PLANS

NORTH CAROLINA
Turnpike Authority

TOLL SPLICE TYPE U
NEAR VARIOUS TOLL HUBS

COLOR CODE TIA/EIA 598-C

(7) RED

(8) BLACK

(9) YELLOW

(10) VIOLET

(11) ROSE

(12) AQUA

(1) BLUE

(2) ORANGE

(3) GREEN

(5) SLATE

(6) WHITE

F1

F2

F3

F4

F1

F2

F3

F4

F1

F2

F3

F4

Orange

Orange

Blue

3.2

4.2

4.2

slate

white

red

black

blue

orange

green

brown

yellow

violet

rose

aqua

(4) BROWN

LEGEND

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE

SPLICE SPLICE ENTIRE BUFFER TUBE

F1

F2

F3

F4

F1

F2

F3

F4

F1

F2

F3

F4

Orange

Orange

Blue

5.1

7.2

Toll Splice "Y"

Near SR 1999

(Davis Dr.)

slate

white

red

black

blue

orange

green

brown

yellow

violet

rose

aqua

UNUSED FIBERUSED (LIT) FIBER

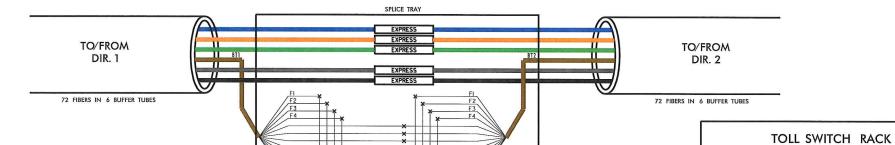
PLAN OF RECORD

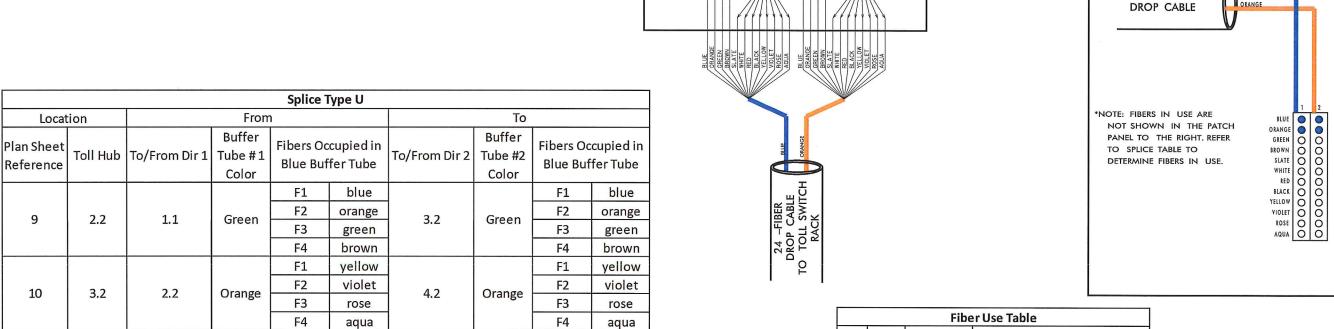
24 FIBER

DJECT REFERENCE NO. **C202250**

250 | SPL

CARO SSTOP 24432 GME E-PRINT





	Fiber Use Table					
Rack	Panel	Fiber Color	To/From Hub or Group			
1	1	Blue	Toll Hub 1.1			
1	1	Orange	Toll Hub 1.1			
1	1	Green	Toll Hub 1.1 (spare)			
1	1	Brown	Toll Hub 1.1 (spare)			
1	2	Blue	Toll Hub 6.1			
1	2	Orange	Toll Hub 6.1			
1	2	Green	Toll Hub 6.1 (spare)			
1	2	Brown	Toll Hub 6.1 (spare)			









ITS PLANS SPLICE PLANS

-\prase Z\splicing\split

15

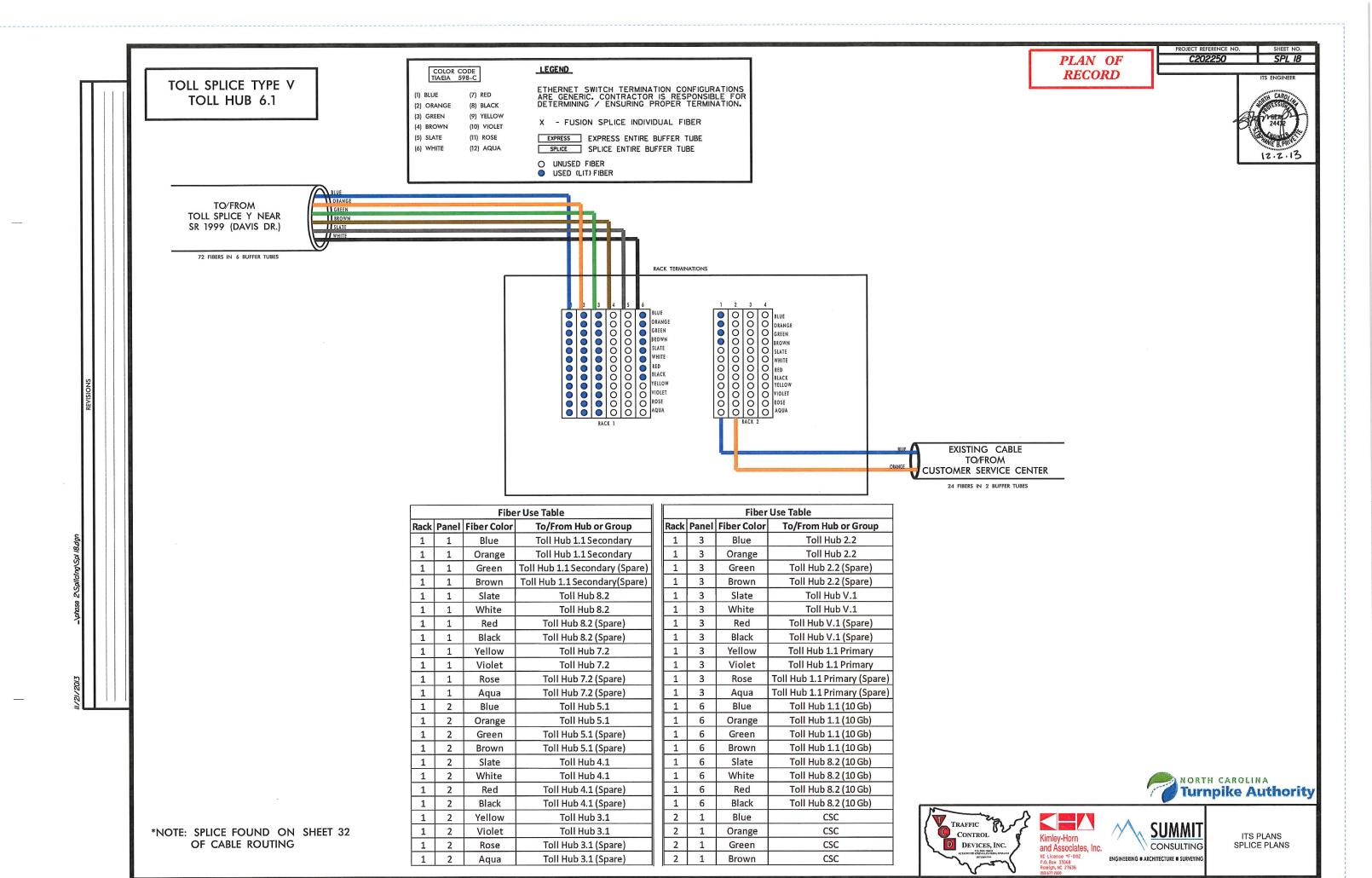
21

31

4.2

5.1

7.2



TOLL SPLICE TYPE X NEAR TOLL HUB 8.2

COLOR CODE TIA/EIA 598-C

(1) BLUE (7) RED (2) ORANGE (8) BLACK

(2) ORANGE (B) BLACK
(3) GREEN (9) YELLOW
(4) BROWN (10) VIOLET
(5) SLATE (11) ROSE
(6) WHITE (12) AQUA

LEGEND

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE

SPLICE SPLICE ENTIRE BUFFER TUBE

O UNUSED FIBER
USED (LIT) FIBER

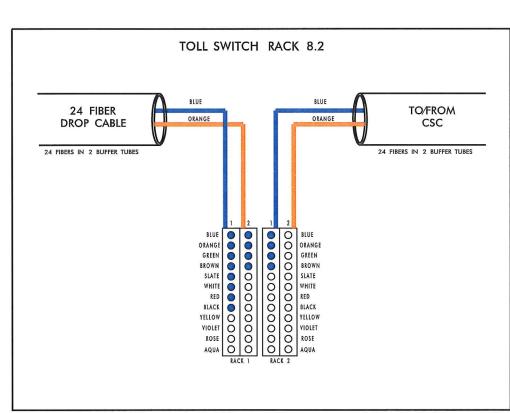
PLAN OF RECORD PROJECT REFERENCE NO. SHEET NO.

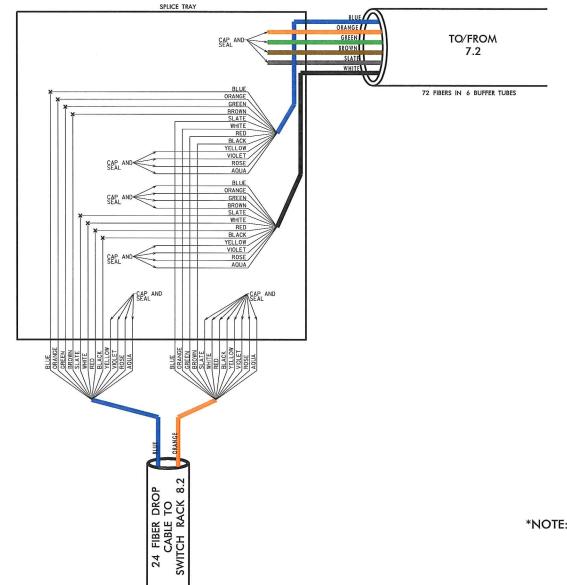
C202250 SPL 19



	Fiber Use Table					
Rack	Panel	Fiber Color	To/From Hub or Group			
1	1	Blue	Toll Hub 6.1			
1	1	Orange	Toll Hub 6.1			
1	1	Green	Toll Hub 6.1 (Spare)			
1	1	Brown	Toll Hub 6.1 (Spare)			
1	1	Slate	Toll Hub 1.1 (10 Gb)			
1	1	White	Toll Hub 1.1 (10 Gb)			
1	1	Red	Toll Hub 1.1 (10 Gb)			
1	1	Black	Toll Hub 1.1 (10 Gb)			
1	2	Yellow	Toll Hub 1.1			
1	2	Violet	Toll Hub 1.1			
1	2	Rose	Toll Hub 1.1 (Spare)			
1	2	Aqua	Toll Hub 1.1 (Spare)			
2	1	Blue	CSC			
2	1	Orange	CSC			
2	1	Green	CSC			
2	1	Brown	CSC			

Mislabeled.. these actually go to 6.1





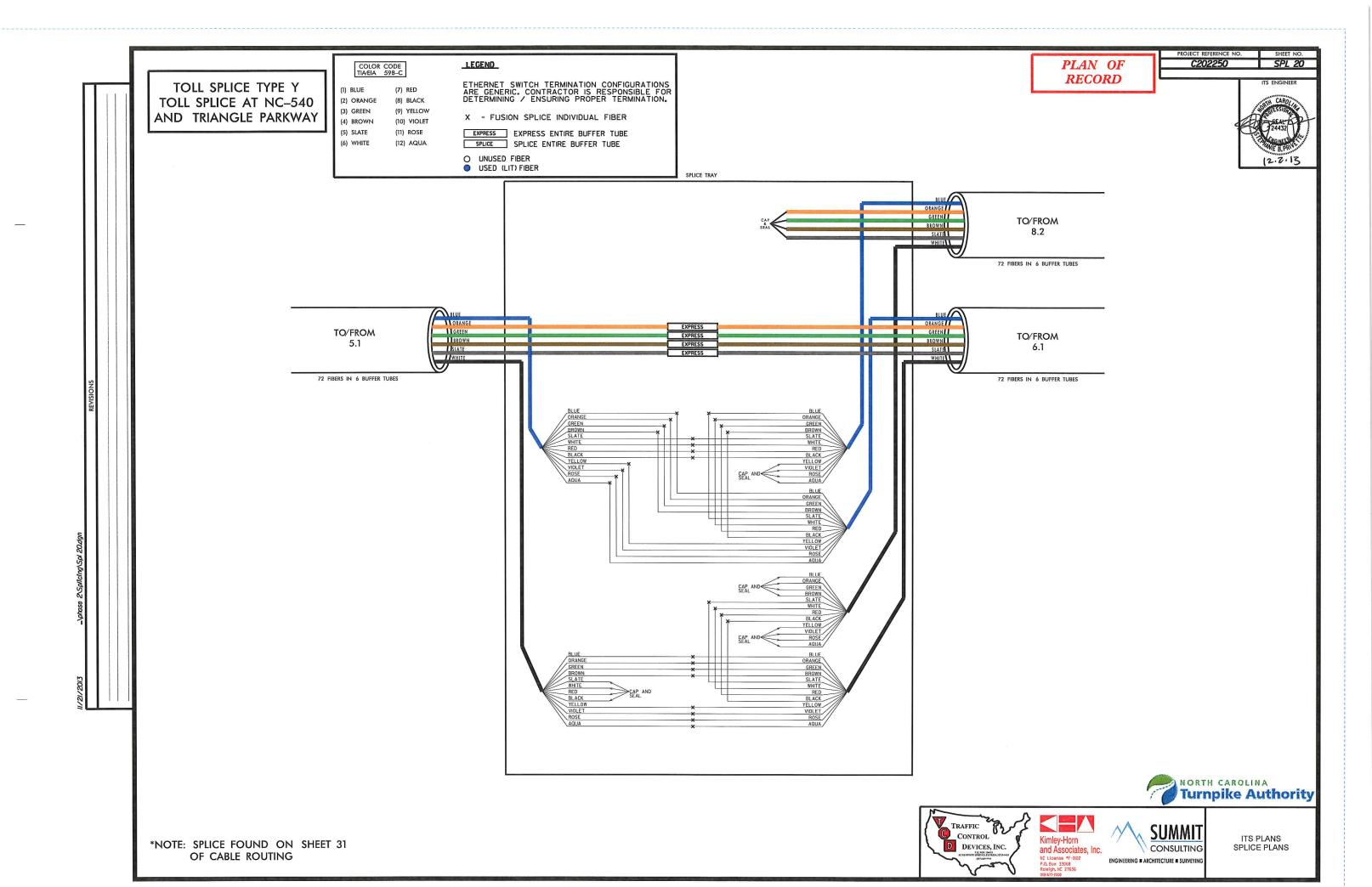
*NOTE: SPLICE FOUND ON SHEET 38 OF CABLE ROUTING

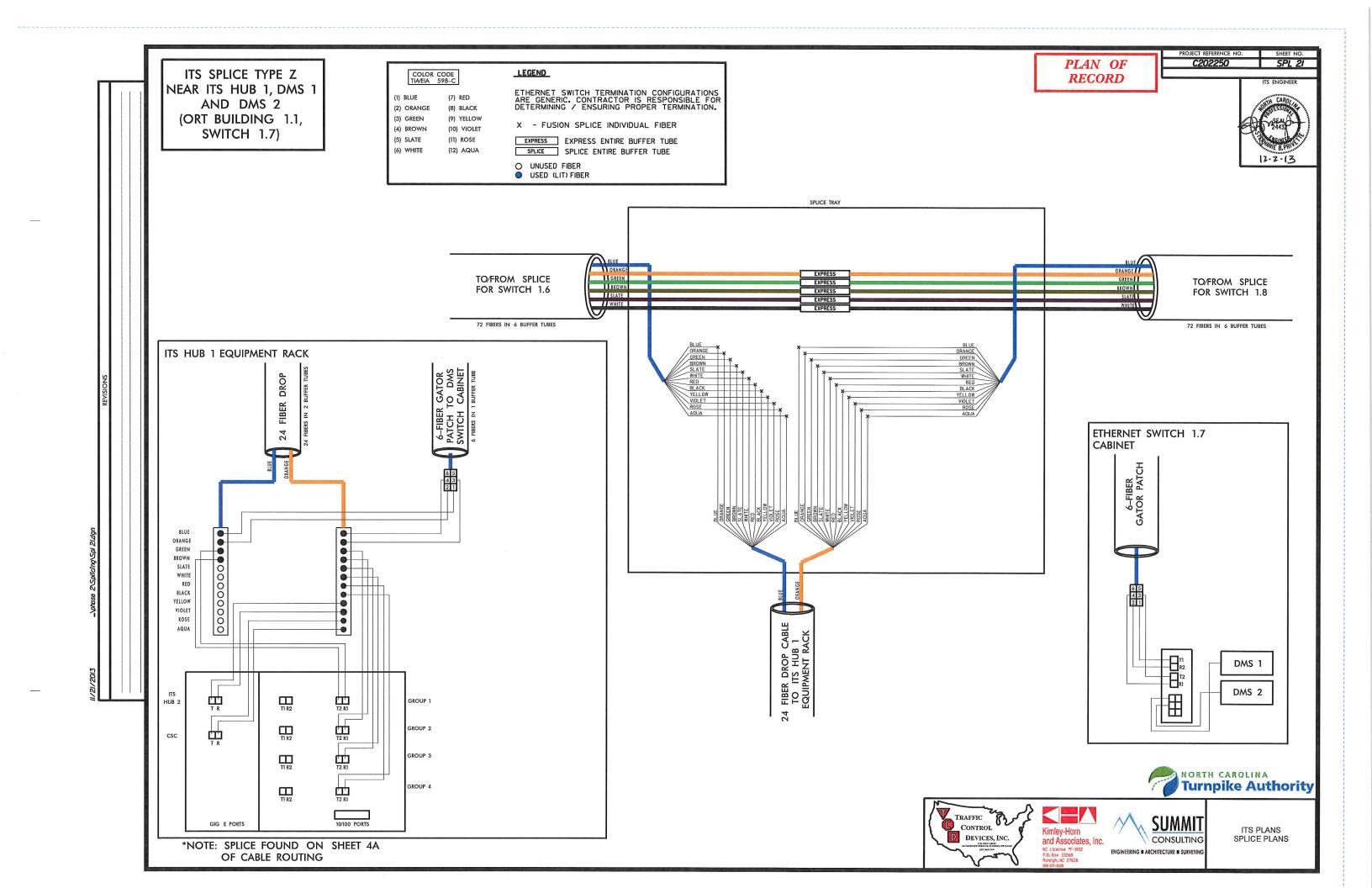


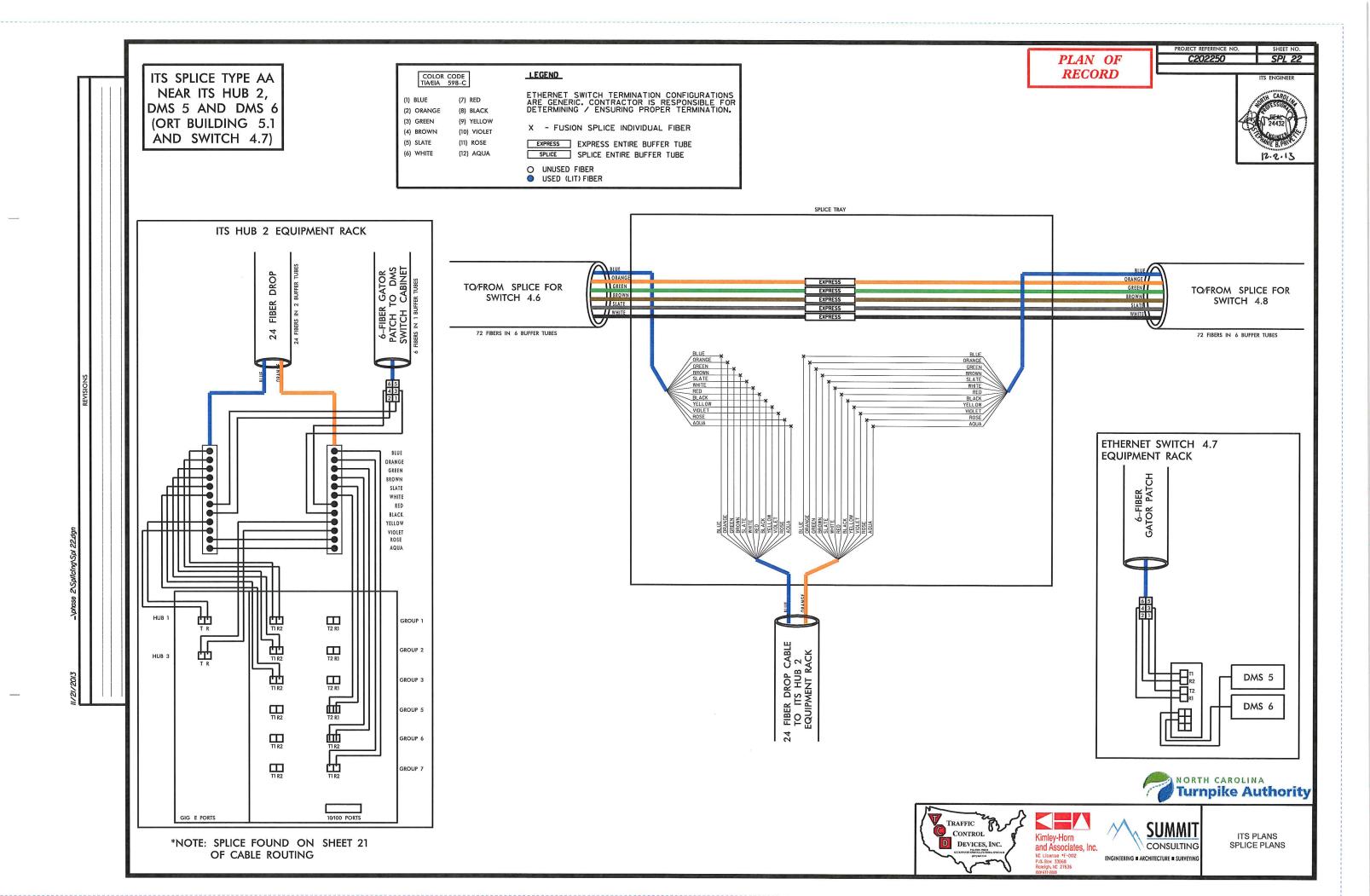


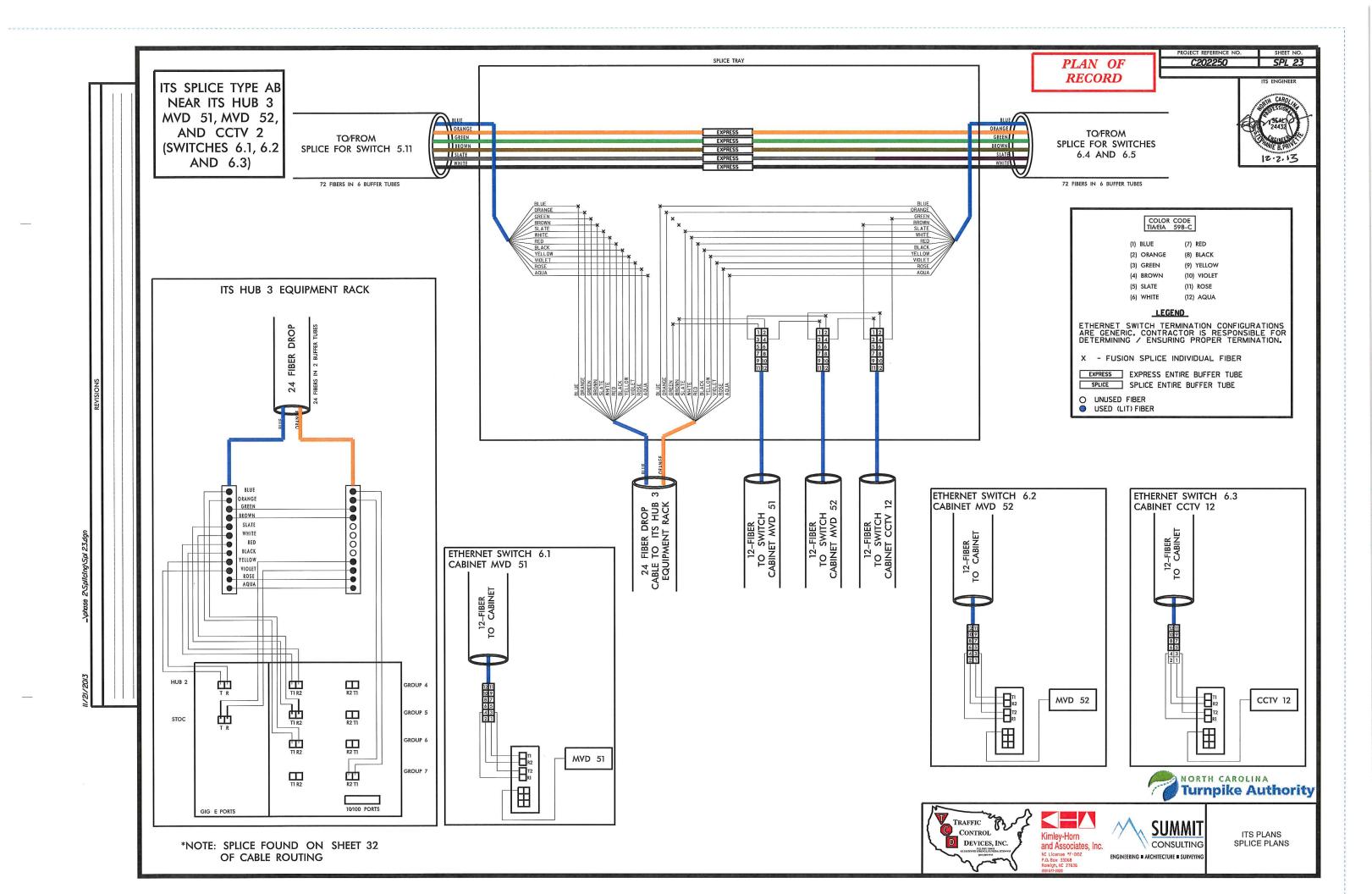












ITS/TOLL SPLICE TYPE AC AT RAMP SHOULDER ON WADE AVENUE AT BLUE RIDGE ROAD OR CODE

(11) ROSE

(12) AQUA

(1) BLUE (7) RED
(2) ORANGE (8) BLACK
(3) GREEN (9) YELLOW
(4) BROWN (10) VIOLET

(5) SLATE

(6) WHITE

LEGEND

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE

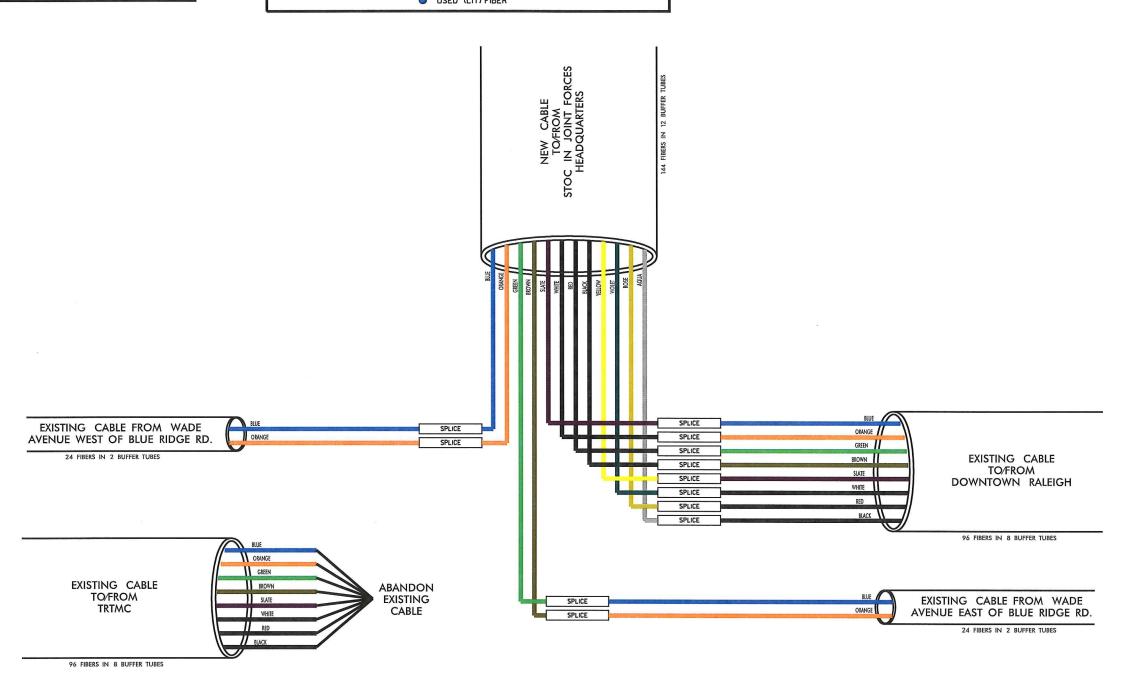
SPLICE SPLICE ENTIRE BUFFER TUBE

O UNUSED FIBER
USED (LIT) FIBER

PLAN OF RECORD PROJECT REFERENCE NO.

2250 SPL

CARO 255 001 24432 1 E PRINTER













SPLICE TYPE AD RESIDENT ENGINEER'S OFFICE

COLOR CODE TIA/EIA 598-C

(8) BLACK

(9) YELLOW

(10) VIOLET

(11) ROSE

(12) AQUA

(2) ORANGE

(3) GREEN

(4) BROWN

(5) SLATE

(6) WHITE

LEGEND

ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION.

X - FUSION SPLICE INDIVIDUAL FIBER

EXPRESS ENTIRE BUFFER TUBE SPLICE SPLICE ENTIRE BUFFER TUBE

O UNUSED FIBER

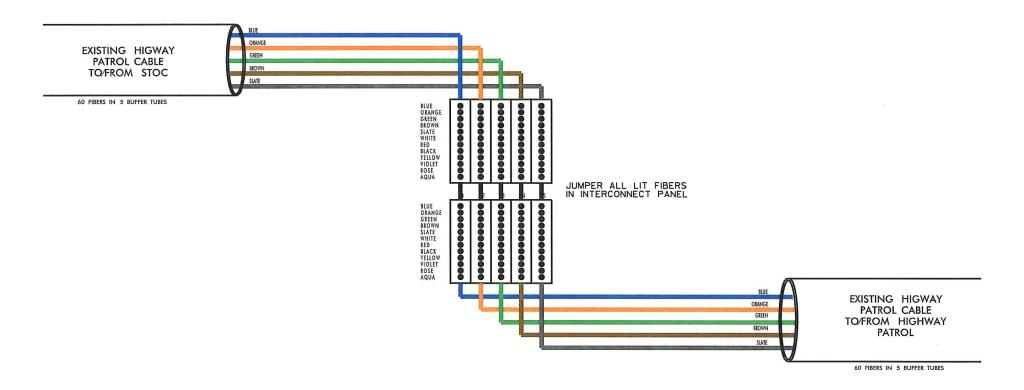
USED (LIT) FIBER

PLAN OF **RECORD**

C202250

SPL 25















PLAN OF ITS SPLICE TYPE AE RECORD TRIANGLE PKWY. AND 1-40 EXISTING TOLL CABLE EXISTING TOLL CABLE TO/FROM SPLICE TO/FROM CSC EXPRESS TYPE B NEAR CCTV 15 24 FIBERS IN 2 BUFFER TUBES ETHERNET SWITCH 7.13 FOR MVD 67 12—FIBER GATOR PATCH MVD 67 MVD 66 LEGEND COLOR CODE TIA/EIA 598-C ETHERNET SWITCH TERMINATION CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR DETERMINING / ENSURING PROPER TERMINATION. (1) BLUE (7) RED (2) ORANGE (8) BLACK (3) GREEN (9) YELLOW X - FUSION SPLICE INDIVIDUAL FIBER E - EXISTING FUSION SPLICE INDIVIDUAL FIBER NORTH CAROLINA
Turnpike Authority (10) VIOLET EXPRESS ENTIRE BUFFER TUBE (5) SLATE (11) ROSE (6) WHITE (12) AQUA SPLICE SPLICE ENTIRE BUFFER TUBE O UNUSED FIBER
USED (LIT) FIBER TRAFFIC TO CONTROL Kimley-Horn and Associates, Inc. ITS PLANS DEVICES, INC. CONSULTING SPLICE PLANS

*NOTE: SPLICE SHOWN ON SHEET 41 IN CABLE ROUTING PLANS

ENGINEERING # ARCHITECTURE # SURVEYING