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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

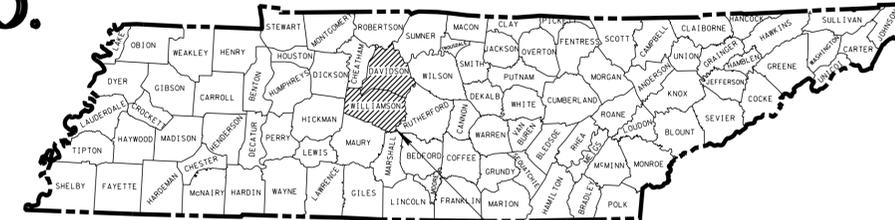
TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	NH-1-098-3(26)	
STATE PROJ. NO.	98301-3103-44	

DAVIDSON & WILLIAMSON CO.

INTELLIGENT TRANSPORTATION SYSTEM (ITS) REGION THREE
NASHVILLE SMARTWAY EXPANSION I-65 SOUTH (PHASE 1)

CONSTRUCTION PLANS

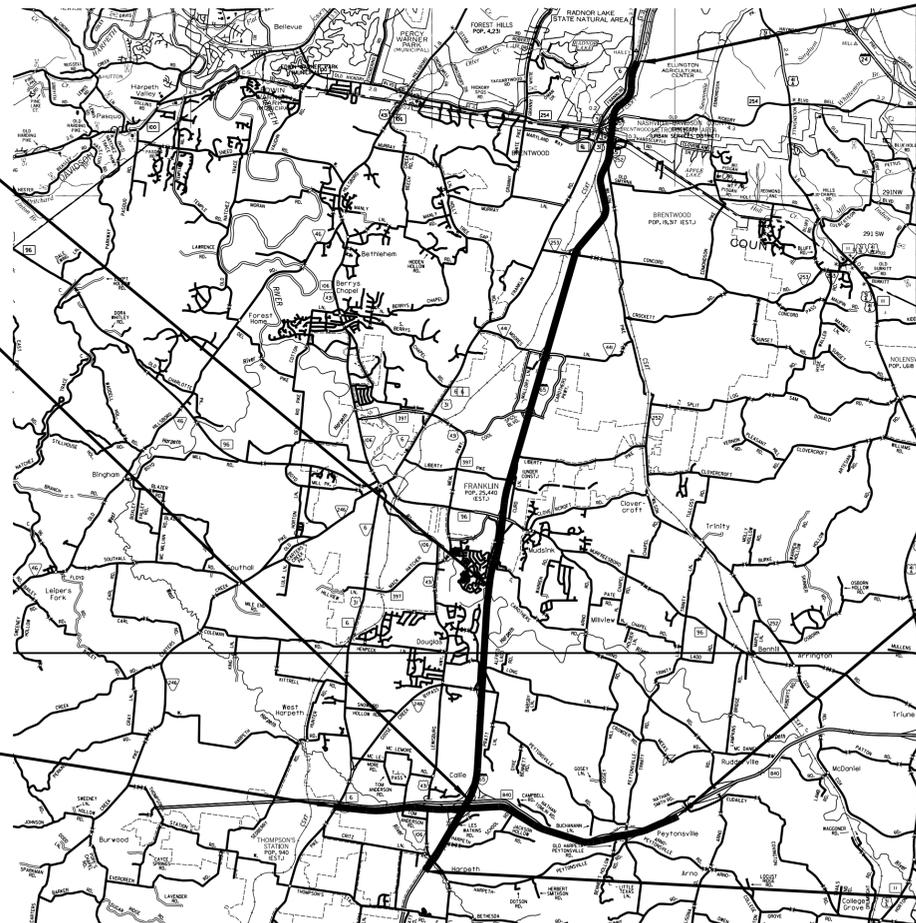
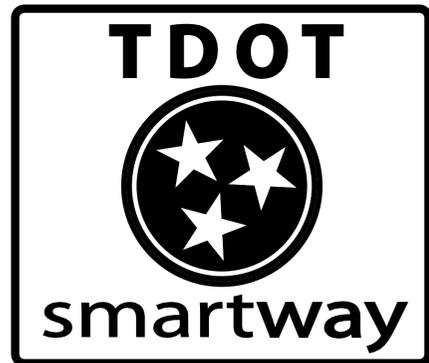
STATE HIGHWAY NO. N/A F.A.H.S. NO. I-65



PROJ. NO. 94002-1184-04
DAVIDSON & WILLIAMSON CO.

BEGIN PROJ. NO. NH-1-098-3(26)
I-65 STA. 385+30
N-568589.47
E-1723016.47

END PROJ. NO. NH-1-098-3(26)
I-65 STA. 130+00
N-543356.67
E-1720301.68



END PROJ. NO. NH-1-098-3(26)
I-65 STA. 1027+00
N-629037.54
E-1740116.64

**NO EXCLUSIONS
NO EQUATIONS**

**THIS PROJECT DOES NOT
REQUIRE ANY R.O.W.
ACQUISITION OR EASEMENTS.**

END PROJ. NO. NH-1-098-3(26)
S.R. 840 STA. 1910+00
N-542044.70
E-1744809.22



BEGIN PROJ. NO. NH-1-098-3(26)
S.R. 840 STA. 1500+00
N-543568.60
E-1696795.06

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT C.E. MANAGER 1 OR
TDOT DESIGN MANAGER 1 P. BRAD FREEZE, P.E.

DESIGNED BY GRESHAM SMITH & PARTNERS

DESIGNER MARK H. WASHING, P.E. CHECKED BY ADAM C. MOSER, P.E.

P.E. NO. 94002-1184-04

PIN NO. 115547.00

DAVIDSON CO. 1.815 MILES
WILLIAMSON CO. 19.199 MILES
PROJECT LENGTH 21.014 MILES



SCALE: 1" = 2 MI.

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE: _____

APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER

BEGIN PROJ. NO. NH-1-098-3(26)
I-65 STA. 40+00
N-535695.89
E-1715582.79

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

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STANDARD ROADWAY DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
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R.D.S. MOUNTING TABLE	2E
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FIELD EQUIPMENT BLOCK DIAGRAMS	2G
COMMUNICATIONS ARCHITECTURE DIAGRAM	2H
FIBER OPTIC SPLICING DETAILS	2J-2K
FIBER OPTIC JUMPER TABLES	2L
FIBER JUMPER DIAGRAMS	2M
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TRENCHING DETAILS	2Y
CABLE MARKER DETAILS	2Z
EROSION CONTROL DETAILS	2AA
ACCESS GATE DETAIL	2AB
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DYNAMIC MESSAGE SIGN SITE LAYOUT	2AF
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NOTE: "I" AND "O" ARE OMITTED FROM LETTERED SHEET ORDER.

DWG. NO	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
SAFETY APPURTENANCES AND FENCE		
S-F-10	06-01-09	STANDARD RIGHT-OF-WAY STOCK FENCE
S-F-10B	05-14-10	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-FG-11	05-14-10	STANDARD STOCK FENCE GATE
S-GR31-1		W-BEAM GUARDRAIL
S-GRC-1		GUARDRAIL CONNECTION TO BRIDGE ENDS OR BARRIER WALL
S-GRT-2		TYPE 38 GUARDRAIL TERMINAL
S-GRT-4		TYPE 13 GUARDRAIL TERMINAL (TRAILING END)
S-GRA-3		GUARDRAIL ANCHOR FOR TYPE 21, 13 AND IN-LINE TERMINALS
S-SSMB-2	08-19-13	51" SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-8	12-04-13	FOOTING DETAIL FOR OVERHEAD SIGN STRUCTURES 51" MEDIAN BARRIER WALL
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-L-3	04-15-96	STANDARD LIGHTING DETAILS PULL BOXES
T-L-4	05-25-11	STANDARD LIGHTING DETAILS CONDUIT, CABLE INSTALLATION
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	11-15-13	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-M-5	04-23-13	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-6	06-22-12	MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-8	01-12-12	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
T-S-6	02-12-91	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-9	11-01-11	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-16	11-01-11	GROUND MOUNTED ROADSIDE SIGN AND DETAILS

DWG. NO	REV.	DESCRIPTION
T-S-17	07-19-13	STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE
T-S-18	02-14-14	END OF ROADWAY AND DEAD END SIGNS, METAL BARRICADES (TYPE III) & WORK ZONE SPEED SIGNS
T-S-19	07-19-13	STANDARD MEMBERS BENDAWAY SIGN SUPPORTS STEEL DESIGN
T-S-20	11-01-11	SIGN DETAILS
T-SG-1	11-01-11	WOOD POLE DETAILS FOR SPAN MOUNTED SIGNALS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-11	03-13-09	ONE LANE CLOSURE DETAIL ON DIVIDED HIGHWAYS
T-WZ-13	03-13-09	TWO-OUTSIDE LANE CLOSURE ON FREEWAY OR EXPRESSWAY
T-WZ-15	04-02-12	INTERIOR LANE CLOSURE ON FREEWAYS OR EXPRESSWAYS
T-WZ-16	03-13-09	LANE SHIFT ON DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-40	04-02-12	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
EROSION PREVENTION AND SEDIMENT CONTROL		
EC-STR-3B	08-01-12	SILT FENCE
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-37	08-01-12	SEDIMENT TUBE
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-8	08-01-12	FILTER SOCK



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX
AND
STANDARD
DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
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INTELLIGENT TRANSPORTATION SYSTEM (I.T.S.) LEGEND	
SYMBOL	ITEM
	PROPOSED CABINET, TYPE A
	PROPOSED CABINET, TYPE B
	PROPOSED CABINET, TYPE C
	EXISTING FIELD JUNCTION CABINET
	PROPOSED FIELD JUNCTION CABINET
	EXISTING CLOSED-CIRCUIT TELEVISION (C.C.T.V.) CAMERA (ARROW DENOTES ORIENTATION OF PIPE ARM)
	PROPOSED CLOSED-CIRCUIT TELEVISION (C.C.T.V.) CAMERA (ARROW DENOTES ORIENTATION OF PIPE ARM)
	EXISTING COMMUNICATIONS CONDUIT
	EXISTING ELECTRICAL CONDUIT
	PROPOSED COMMUNICATIONS CONDUIT
	PROPOSED ELECTRICAL CONDUIT
	EXISTING ELECTRICAL DEMARICATION POINT
	PROPOSED ELECTRICAL DEMARICATION POINT
	EXISTING DYNAMIC MESSAGE SIGN (D.M.S.)
	PROPOSED DYNAMIC MESSAGE SIGN (D.M.S.)
	EXISTING HIGHWAY ADVISORY RADIO (H.A.R.)
	PROPOSED HIGHWAY ADVISORY RADIO (H.A.R.)
	EXISTING HIGHWAY ADVISORY RADIO (H.A.R.) SIGN
	EXISTING PULL BOX
	PROPOSED PULL BOX, TYPE C
	PROPOSED PULL BOX, TYPE D
	PROPOSED PULL BOX, TYPE E
	EXISTING PULL BOX TYPE LABEL (LETTER(S) DENOTE PULL BOX TYPE(S))
	PROPOSED PULL BOX TYPE LABEL (LETTER(S) DENOTE PULL BOX TYPE(S))
	EXISTING RADAR DETECTION SYSTEM (R.D.S.)
	PROPOSED RADAR DETECTION SYSTEM (R.D.S.)

ABBREVIATIONS

LIST OF ABBREVIATIONS

AQ.	AQUA
ASSY(S).	ASSEMBLY(IES)
A.W.G.	AMERICAN WIRE GAUGE
BK. *	BLACK
BL. *	BLUE
BR.	BROWN
C.C.T.V.	CLOSED-CIRCUIT TELEVISION
COAX.	COAXIAL
COMM.	COMMUNICATIONS
DET.	DETECTOR
D.M.S.	DYNAMIC MESSAGE SIGN
D.O.T.	DEPARTMENT OF TRANSPORTATION
E.O.P.	END OF PROJECT
E.O.T.L.	EDGE OF TRAVEL LANE
F *	FIBER(S)
F.C.C.	FEDERAL COMMUNICATIONS COMMISSION
F.O.	FIBER OPTIC
G.M.	GROUND-MOUNTED
GR. *	GREEN
H.A.R.	HIGHWAY ADVISORY RADIO
H.D.P.E.	HIGH-DENSITY POLYETHYLENE
HEX.	HEXAGONAL
INFO.	INFORMATION
I.P. *	INTERNET PROTOCOL
I.T.S.	INTELLIGENT TRANSPORTATION SYSTEM
KVA	KILOVOLT-AMPERE
L.D.	LOWERING DEVICE
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
N.T.S.	NOT TO SCALE
OR.	ORANGE
P.	POWER
P.B. *	PULL BOX
P.T.Z.	PAN, TILT AND ZOOM
RCV.	RECEIVE
RD. *	RED, ROAD
R.D.S.	RADAR DETECTION SYSTEM
R.G.S.	RIGID GALVANIZED STEEL
REFL.	REFLECTIVE
SCH.	SCHEDULE
SL.	SLATE
S.M.	SINGLE MODE
T.M.C.	TRANSPORTATION MANAGEMENT CENTER
T.S.P.	TECHNICAL SPECIAL PROVISIONS
U.L.	UNITED LABORATORIES
V	VOLTS
V.D.S.	VIDEO DETECTION SYSTEM
VI.	VIOLET
W	WATTS
WH.	WHITE
YL.	YELLOW

ABBREVIATIONS NOTES

- (1) REFER TO STANDARD DRAWING RD-A-1 FOR STANDARD ABBREVIATIONS.
- (2) ABBREVIATIONS MARKED WITH AN ASTERISK (*) ARE USED FOR LISTED TERMS AND NOT TERMS FOR DUPLICATE ABBREVIATIONS LISTED ON STANDARD DRAWING RD-A-1.

CABLE/CONDUIT LABELS

EXAMPLE CABLE/CONDUIT LABEL

[LINE 1] COMM. CONDUIT BANK TYPE 4 (290 L.F.)
 [LINE 2] 1 - 2" CONDUIT W/ BANK (290 L.F.)
 [LINE 3] F.O. CABLE, 72 F (490 L.F.)
 [LINE 4] 3 - #8 A.W.G. POWER (365 L.F.)

CABLE/CONDUIT LABEL DESCRIPTION

- [LINE 1] INDICATES TYPE 4 COMMUNICATIONS CONDUIT BANK TO CONTAIN FOUR (4) 1/4" HIGH-DENSITY POLYETHYLENE CONDUITS. LENGTH OF EACH CONDUIT IS 290 LINEAR FEET.
- [LINE 2] INDICATES ONE (1) 2" CONDUIT TO BE INSTALLED IN SAME TRENCH AS COMMUNICATIONS CONDUIT BANK. LENGTH OF CONDUIT IS 290 LINEAR FEET.
- [LINE 3] INDICATES FIBER OPTIC CABLE WITH 60 FIBERS TO BE INSTALLED IN COMMUNICATIONS CONDUIT. LENGTH OF FIBER OPTIC CABLE (INCLUDING COILS INSIDE PULL BOXES) IS 365 LINEAR FEET.
- [LINE 4] INDICATES THREE (3) #8 AMERICAN WIRE GAUGE POWER CABLES TO BE INSTALLED IN CONDUIT. LENGTH OF EACH POWER CABLE (INCLUDING COILS INSIDE PULL BOXES) IS 365 LINEAR FEET.

CABLE/CONDUIT LABEL NOTES

- (1) NEW CABLE/CONDUIT LABELS ARE LISTED ONLY WHEN TYPE OR COMBINATION OF CABLE/CONDUIT CHANGES OR WHEN CABLE/CONDUIT SPANS MULTIPLE SHEETS. IF TYPE DOES NOT CHANGE, A SINGLE LABEL MAY REFER TO CABLE/CONDUIT SPANNING MULTIPLE PULL BOXES AND DEVICES.
- (2) CABLE/CONDUIT LENGTHS ARE APPROXIMATE ONLY. PAYMENT BASED ON ACTUAL LENGTHS OF CABLE/CONDUIT INSTALLED.

I.T.S. LEGEND NOTE

ALL DEVICE SYMBOLS ARE FOR GRAPHICAL REPRESENTATION ONLY AND ARE NOT TO SCALE. CENTER OF DEVICE IS INDICATED ON PLANS BY STATION AND OFFSET.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LEGEND AND
ABBREVIATIONS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	1C

GENERAL NOTES

GRADING

- ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

- SEED SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES. SEEDING SHALL INCLUDE SLOPE STABILIZATION.

ROADWAY SAFETY HARDWARE

- THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.
- IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

UTILITIES

- THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 PER TCA 65-31-106 WILL BE REQUIRED.
- UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT.
- THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.
- THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

MISCELLANEOUS

- NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.

EROSION PREVENTION AND SEDIMENT CONTROL

- CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.
- ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.
- NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. THE SWPPP SHALL BE MODIFIED TO INCLUDE EPSC MEASURES TO PREVENT NEGATIVE IMPACTS TO LEGALLY PROTECTED STATE OR FEDERAL FAUNA OR FLORA OR AS INDICATED IN THE ECOLOGICAL STUDIES OR ON THE PERMIT(S).
- INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.
- WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.
- THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND

ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

- CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
- EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
- SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.
- INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.
- OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.
- UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.



STATE OF TENNESSEE
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GENERAL
NOTES

GENERAL NOTES (CONTINUED)

EROSION PREVENTION AND SEDIMENT CONTROL

SWPPP, PERMITS, PLANS, RECORDS

- (23) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (24) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, QUALITY ASSURANCE SITE ASSESSMENT RECORDS, PRECIPITATION RECORDS, SWPPP, PROJECT ENVIRONMENTAL PERMITS, AND A COPY OF THE PROJECT EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION.
- (25) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (26) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BREIF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.
- (27) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (28) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.
- (29) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.
- (30) NO CONSTRUCTION ACTIVITIES SHALL IMPACT ANY PORTION OF STREAMS OR WETLANDS ON THIS PROJECT. IF THE IMPACT CANNOT BE AVOIDED, CONTACT THE NATURAL RESOURCES OFFICE, PERMITTING SECTION AS SOON AS POSSIBLE.

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STATE OF TENNESSEE
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GENERAL
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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

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SCOPE OF WORK

CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COMPLETE CONSTRUCTION AND TESTING OF "TDOT SMARTWAY NASHVILLE" INTELLIGENT TRANSPORTATION SYSTEM (I.T.S.) AS SHOWN IN CONTRACT DOCUMENTS.

SMARTWAY I.T.S. COVERS APPROXIMATELY 18.49 MILES OF ROADWAY WITH FIBER OPTIC COMMUNICATIONS AND DEVICES AS DETAILED IN T.S.P. AND DESIGN PLANS. TOTAL PROJECT INCLUDES 14 TRAFFIC SURVEILLANCE CLOSED-CIRCUIT TELEVISION (C.C.T.V.) CAMERAS, 20 RADAR DETECTION SENSORS (R.D.S.) AND 3 DYNAMIC MESSAGE SIGNS (D.M.S.) FOR TDOT. SYSTEM INCLUDES BUT IS NOT LIMITED TO FURNISHING AND INSTALLATION OF POLES, SIGN STRUCTURES, CABINETS, FOUNDATIONS, GUARDRAIL, CONDUIT, FIBER OPTIC CABLE NETWORKS, ELECTRICAL POWER SERVICE, WIRELINE AND WIRELESS WIDE-AREA ETHERNET COMMUNICATIONS NETWORK SYSTEMS, AND OTHER REQUIRED VENDOR HARDWARE/SOFTWARE NECESSARY TO COMPLETE A FULLY FUNCTIONING SYSTEM.

ALL EQUIPMENT PROVIDED SHALL COMPLY WITH APPLICABLE INDUSTRY-APPROVED STANDARDS FOR SUBSYSTEMS AND COMMUNICATIONS NETWORKS. USE OF APPROVED INDUSTRY STANDARDS AND NATIONAL TRANSPORTATION COMMUNICATIONS FOR I.T.S. PROTOCOLS (N.T.C.I.P.) SHALL BE REQUIRED FOR D.M.S. DEVICES AND AS REQUIRED BY EXISTING TDOT SOFTWARE SYSTEMS.

S.R. 840 DEVICES SHALL CONNECT TO A THIRD PARTY COMMUNICATION VENDOR. CONTRACTOR SHALL COORDINATE COMMUNICATIONS CONFIGURATION FOR SWITCHES WITH THIRD PARTY COMM. PROVIDER. CONTRACTOR SHALL TEST S.R. 840 DEVICES THRU THE THIRD PARTY LINK, AND WORK WITH THE VENDOR DURING CONFIGURATION AT THE TMC.

ALL HARDWARE, FIRMWARE, AND SOFTWARE NECESSARY TO CONTROL, CONVERT, FORMAT, DISPLAY, NETWORK, AND DISTRIBUTE DIGITAL VIDEO AND OTHER DATA SIGNALS SHALL BE PROVIDED UNDER CONTRACT. ALL HARDWARE, FIRMWARE, AND SOFTWARE NECESSARY TO CONTROL, CONFIGURE, AND MONITOR ALL FIELD AND CONTROL CENTER DEVICES AND SYSTEMS SHALL BE PROVIDED UNDER CONTRACT. CONTRACT PROVIDES FOR A TOTAL "TURN-KEY" SOLUTION INCLUDING REQUIRED INTEGRATION EFFORTS. CENTRAL SOFTWARE MAY BE INSTALLED IN FUTURE BY OTHERS; HOWEVER, IT IS CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT COMPLETE SYSTEM IS FULLY FUNCTIONAL EVEN WITHOUT ANY CENTRAL SOFTWARE BEING INSTALLED.

SPECIAL NOTES

MISCELLANEOUS

- (1) ALL BASELINES SHOWN ON PLANS ARE FOR GRAPHICAL INFORMATION PURPOSES ONLY AND ARE NOT STAKED IN FIELD.
- (2) LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. ADJUSTMENTS IN FIELD MAY BECOME NECESSARY. VARIATIONS FROM PROPOSED LOCATIONS MUST BE APPROVED BY ENGINEER. CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND RECEIVE APPROVAL BY PROJECT ENGINEER PRIOR TO INSTALLATION OR CONSTRUCTION.
- (3) CONTRACTOR SHALL COORDINATE ACTIVITIES WITH OTHER CONTRACTORS IN WORK AREA. CONFLICTS WILL BE HANDLED AT THE DISCRETION OF ENGINEER.
- (4) CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS OF ALL EQUIPMENT PLACED AS PART OF THIS CONTRACT PRIOR TO CONDITIONAL ACCEPTANCE.
- (5) ALL DEVICE LOCATIONS REPRESENT CENTER LOCATION FOR MOUNTING POLE UNLESS INDICATED OTHERWISE.
- (6) ALL REMOVED EQUIPMENT OR MATERIALS SHALL BE DISPOSED OF BY CONTRACTOR. COST OF DISPOSAL SHALL BE INCLUDED IN COST OF OTHER ITEMS.
- (7) CONTRACTOR SHALL NOT BE ALLOWED TO STOCKPILE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN CLEAR ZONE (40' FROM EDGE OF TRAVEL LANE) UNLESS SHIELDED BY BARRIER.
- (8) NO SOIL BORING INFORMATION IS PROVIDED. CONTRACTOR IS RESPONSIBLE FOR ALL SOIL BORINGS TAKEN FOR FOUNDATION DESIGNS. COST FOR SOIL BORINGS SHALL BE INCLUDED IN COST OF POLES AND STRUCTURES. ALL C.C.T.V. POLE LOCATIONS AND D.M.S. SIGN STRUCTURE LOCATIONS REQUIRE SOIL BORINGS FOR FOUNDATION DESIGN.
- (9) ALL GUARDRAIL THAT IS REMOVED TEMPORARILY FOR INSTALLATION OF DEVICES SHALL BE REINSTALLED IMMEDIATELY OR THE AREA SHALL BE PROTECTED BY BARRIER.
- (10) REMOVAL OF EXISTING VEGETATION MAY BE REQUIRED DURING CONSTRUCTION ACTIVITIES. IN CONSIDERATION OF THE INDIANA BAT, NO TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) OF 5 INCHES OR GREATER SHOULD BE REMOVED WITHOUT CLEARANCE FROM THE TDOT ENVIRONMENTAL DIVISION ECOLOGY SECTION.

CONDUIT

- (1) PROPOSED CONDUIT LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY FIELD CONDITIONS UPON APPROVAL OF ENGINEER.
- (2) MULTIPLE RUNS OF CONDUIT SHALL BE PLACED IN SAME TRENCH AS SHOWN ON TYPICAL SECTIONS.
- (3) ALL ELECTRICAL WORK AND POWER SERVICE DUCT SHALL CONFORM TO REQUIREMENTS OF LATEST EDITION OF "NATIONAL ELECTRICAL CODE", "NATIONAL ELECTRIC SAFETY CODE", LOCAL BUILDING CODES, AND TO REQUIREMENTS OF TDOT AND ALL INVOLVED UTILITIES.
- (4) PROPOSED CONDUIT SHALL BE INSTALLED OVER EXISTING STRUCTURES OR ATTACHED TO EXISTING BRIDGES. NO TRENCHING OR PROPOSED CONDUIT SHALL CROSS ANY PROPOSED DRAINAGE FEATURES OR WETLAND AREAS. IF CONTRACTOR OR TDOT INSPECTOR IS UNSURE WHETHER DRAINAGE FEATURES ARE STREAMS OR WETLANDS, CONTRACTOR OR INSPECTOR SHALL CONTACT TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION TO OBTAIN APPROPRIATE PERMITS.

UTILITIES

- (1) CONTRACTOR SHALL COORDINATE WITH CITIES OF FRANKLIN AND BRENTWOOD ENGINEERING DEPARTMENTS FOR MARKING OF TRAFFIC SIGNAL AND STREET LIGHTING CABLE PRIOR TO UNDERGROUND WORK COMMENCING WITHIN CITY LIMITS. CITIES OF FRANKLIN AND BRENTWOOD NOT PART OF TENNESSEE ONE CALL SYSTEM.



STATE OF TENNESSEE
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SCOPE OF WORK
AND
SPECIAL NOTES

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SPECIAL NOTES (CONTINUED)

EROSION PREVENTION AND SEDIMENT CONTROL

- (1) NO DETAILED ECOLOGY REVIEW HAS BEEN CONDUCTED FOR THIS PROJECT. THEREFORE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE NO IMPACTS OR DISTURBANCE OF WATER QUALITY FEATURES. IF THE CONTRACTOR OR TDOT INSPECTOR ARE UNSURE OF THE PRESENCE OF WATER QUALITY FEATURES, THE TDOT ENVIRONMENTAL DIVISION ECOLOGY AND PERMITS SECTION MUST BE CONTACTED.
- (2) IF PROPOSED CONSTRUCTION OCCURS NEAR OR WITHIN THE IMPACT AREA OF ANY ENVIRONMENTAL OR DRAINAGE FEATURE, THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO INITIATING CONSTRUCTION TO ENSURE THAT ENVIRONMENTAL OR DRAINAGE FEATURES ARE NOT STREAMS OR WETLANDS. IF THE CONTRACTOR OR TDOT INSPECTOR ARE UNSURE OF THE PRESENCE OF STREAMS OR WETLANDS, THE TDOT ENVIRONMENTAL DIVISION ECOLOGY AND PERMITS SECTION MUST BE CONTACTED.
- (3) THE CONTRACTOR SHALL USE EXTREME MEASURES TO ENSURE THAT CONSTRUCTION AND CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF WATER QUALITY FEATURES.
- (4) THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING STRUCTURES ALONG THE ROADWAY AND MEDIAN PRIOR TO INITIATING CONSTRUCTION.
- (5) NO OPEN CUTTING OR DISTURBANCE OF STREAMS OR OTHER WATER QUALITY FEATURES SHALL OCCUR.
- (6) NO CLEARING OF VEGETATION ALONG WATER QUALITY FEATURES SHALL OCCUR.
- (7) UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR DISTURB OR CROSS ANY STREAMS, SPRINGS OR WETLANDS DURING CONSTRUCTION. WITHOUT PROPER TDEC PERMIT. ALL STREAMS ARE TO BE CROSSED EITHER BY ATTACHING CONDUIT TO BRIDGES OR BY CROSSING OVER EXISTING CULVERTS. ADDITIONALLY NO CLEARING OF THE STREAM BANKS SHOULD OCCUR.
- (8) ALL DISTURBED AREAS INCLUDING POLE AND STRUCTURE FOUNDATION LOCATIONS SHALL BE DRESSED AND EITHER SODDED, SEEDED WITH MULCH, OR SEEDED WITH EROSION CONTROL BLANKET. SPECIFIC TYPE OF VEGETATIVE MEASURES SHALL BE APPROVED BY THE ENGINEER.
- (9) DUE TO THE NATURE OF THIS PROJECT, IT IS IMPRACTICAL TO INSTALL A RAIN GAUGE AT EVERY MILE OF THIS PROJECT. THEREFORE, THE RAIN GAUGE AT THE CONSTRUCTION STAGING AREA WILL BE USED TO REPRESENT THE SITE. WEATHER DATA IS AVAILABLE FROM SEVERAL ONLINE SOURCES SUCH AS NOAA AND NWS. THE RAINFALL AMOUNT, ESTIMATED DURATION AND FORECASTED PERCENTAGE OF PRECIPITATION WILL BE BASED ON THE INFORMATION AVAILABLE FROM THE AIRPORT SITE. THIS INFORMATION WILL BE RECORDED DAILY AND PROVIDED TO THE ENGINEER ON A MONTHLY BASIS.
- (10) CATCHBASIN PROTECTION TYPES D AND E SHALL BE USED AT THE ENGINEER'S DISCRETION WHERE RUNOFF FROM A FOUNDATION OF TRENCH LOCATION MAY BE NEAR AND EXISTING CATCHBASIN.
- (11) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.
 - A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
 - B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
- (12) THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.
- (13) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:
 - A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
 - B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

- C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.
- (14) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 15 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER RUNS WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE
- (15) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H: 1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

TRENCHING

- (1) RAIN WATER WHICH COLLECTS IN THE TRENCH SHALL BE PUMPED INTO A DEWATERING STRUCTURE OR SEDIMENT FILTER BAG AND MAINTAINED.
- (2) SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF STOCKPILED SOIL. TRENCHING ACROSS WET WEATHER CONVEYANCES SHALL BE DONE DURING NO FLOW CONDITIONS AND STABILIZED BY THE END OF THE WORK DAY.
- (3) IT IS THE RESPONSIBILITY OF THE CONTRACTOR INSTALLER TO PROTECT FROM EROSION EXPOSED EARTH RESULTING FROM THEIR OPERATIONS AND TO PROVIDE FOR CONTAINMENT OF SEDIMENT THAT MAY RESULT FROM THEIR WORK. PRIOR TO BEGINNING WORK, ADEQUATE MEASURES MUST BE IN PLACE TO TRAP ANY SEDIMENT THAT MAY TRAVEL OFF-SITE IN THE EVENT OF RAIN. DURING THE PROGRESSION OF THEIR WORK, EXPOSED EARTH AREAS SHALL BE STABILIZED AS SOON AS POSSIBLE TO PREVENT EROSION. AT NO TIME SHALL EXPOSED EARTH RESULTING FROM THEIR OPERATIONS HAVE UNPROTECTED ACCESS TO FLOWING OFF-SITE AND ENTERING WATERS OF THE STATE/U.S.
- (4) FOR THE INSTALLATION OF BURIED CONDUIT (PIPES AND CABLES), TRENCHES SHALL BE BACKFILLED DAILY AS CONSTRUCTION PROCEEDS. BACKFILLED TRENCHES SHALL BE SEEDED AND MULCHED OR SODDED DAILY IF POSSIBLE, BUT NO LATER THAN SEVEN DAYS AFTER BEING BACKFILLED. ANY TEMPORARY SPOIL OF EXCAVATED EARTH SHALL BE LOCATED WITHIN TDOT EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES OR RECEIVE SEPARATE EPSC MEASURES. IF TRENCHES ARE NOT BACKFILLED OVERNIGHT, APPROPRIATE EPSC MEASURES WILL BE INSTALLED BY THE STATE UTILITY CONTRACTOR UNTIL SUCH TIME AS THE TRENCH IS BACKFILLED.
- (5) TRENCHES FORMED FOR THE INSTALLATION OF BURIED CONDUIT MAY CAUSE STORM WATER RUNOFF TO CONCENTRATE AT THE TRENCH LINE. ADDITIONAL EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) MEASURES MAY BE REQUIRED TO BE INSTALLED AS APPROVED BY THE TDOT PROJECT ENGINEER.
- (6) IN REGARD TO EROSION PREVENTION AND SEDIMENT CONTROL (EPSC), TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) REGULATIONS APPLY TO THE STATE UTILITY CONTRACTORS IN THIS PROJECT, THEREFORE, THE STATE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STORM WATER POLLUTIONS PREVENTION PLANS (SWPPP). THE STATE CONTRACTOR IS RESPONSIBLE FOR EPSC MEASURES RELATED TO UTILITY CONSTRUCTION INCLUDED IN THE STATE CONTRACT WORK.



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SPECIAL NOTES

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ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1)	201-01 CLEARING AND GRUBBING	LS	1
	203-01 ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	100
(2)	209-03.21 FILTER SOCK (12 INCH)	L.F.	1,300
(16)	209-05 SEDIMENT REMOVAL	C.Y.	100
(2)	209-08.03 TEMPORARY SILT FENCE (WITHOUT BACKING)	L.F.	1,280
(2)	209-09.01 SANDBAGS	BAG	384
(2)	209-20.03 POLYETHYLENE SHEETING (6 MIL. MINIMUM)	S.Y.	1,600
(16)	209-40.33 CATCH BASIN PROTECTION (TYPE D)	EACH	10
(16)	209-40.34 CATCH BASIN PROTECTION (TYPE E)	EACH	10
(16)	621-03.03 24" TEMPORARY DRAINAGE PIPE	L.F.	40
	705-02.02 SINGLE GUARDRAIL (TYPE 2)	L.F.	1,135
	705-04.03 GUARDRAIL TERMINAL (TYPE 13)	EACH	4
	705-04.07 TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	3
(16)	709-05.05 MACHINED RIP-RAP (CLASS A-3)	TON	404
	711-05.01 REMOVAL & DISPOSAL OF CONCRETE MEDIAN BARRIER	L.F.	50
(3)	712-01 TRAFFIC CONTROL	LS	1
(3)	712-02.02 INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	2,400
(3)	712-02.36 REMOVE AND RELOCATE PORTABLE BARRIER RAIL	L.F.	4,800
(3)	712-04.01 FLEXIBLE DRUMS (CHANNELIZING)	EACH	80
(3)	712-06 SIGNS (CONSTRUCTION)	S.F.	680
(3)	712-08.03 ARROW BOARD (TYPE C)	EACH	4
(3)	712-08.01 UNIFORMED POLICE OFFICER	DOLL	2,400
(3)	713-16.01 CHANGEABLE MESSAGE SIGN UNIT	EACH	2
(3)	713-16.02 TRUCK MOUNTED IMPACT ATTENUATOR (W/FLASHING ARROW BOARD)	EACH	1
	714-08.09 LIGHT STANDARDS (25 FT POLE HEIGHT)	EACH	5
(5)	714-08.10 LIGHT STANDARDS (30 FT POLE HEIGHT)	EACH	9
(5)	714-08.11 LIGHT STANDARDS (35 FT POLE HEIGHT)	EACH	4
(5)	714-08.12 LIGHT STANDARDS (40 FT POLE HEIGHT)	EACH	1
	717-01 MOBILIZATION	LS	1
(5)	725-20.02 CCTV POLE & FOUNDATION (80FT POLE W/LWRNG DVICE)	EACH	12
	725-20.07 CCTV POLE & FOUNDATION (80FT POLE W/DUAL LWRING DVICE)	EACH	2
(5)	725-20.03 LOWERING TOOL FOR CAMERA LOWERING DEVICE	EACH	2
(4)(5)	725-20.22 STEEL OVERHEAD SIGN STRUCTURE (SPANS 51 FT TO 70 FT)	EACH	1
(4)(5)	725-20.23 STEEL OVERHEAD SIGN STRUCTURE (SPANS 71 FT TO 90 FT)	EACH	2
(5)	725-20.43 PULL BOXES (TYPE C)	EACH	85
(5)	725-20.44 PULL BOX (TYPE D)	EACH	59
(5)	725-20.45 PULL BOX (TYPE E)	EACH	82
(5)	725-20.55 CABLE (1/C # 6 AWG)	L.F.	9,825
(5)	725-20.56 CABLE (1/C # 4 AWG)	L.F.	15,030
(5)	725-20.57 CABLE (1/C # 2 AWG)	L.F.	9,435
(9)	725-20.71 ELECTRICAL CONNECTION	LS	1
(5)	725-20.81 RADIO & ANTENNA (TYPE A)	EACH	4
(5)	725-20.82 RADIO & ANTENNA (TYPE B)	EACH	3
(5)(12)	725-20.91 CCTV CAMERA SYSTEM (PAN TILT & ZOOM)	EACH	16
(5)	725-21.01 DYNAMIC MESSAGE SIGN	EACH	3
(5)	725-21.11 NETWORK SWITCH (TYPE A)	EACH	17
(5)	725-21.21 TERMINAL SERVER	EACH	9
	725-21.32 CAT 6 CABLE	L.F.	380
(5)	725-21.43 DEMARCATION SITE (OVERHEAD POWER)	EACH	18
(5)	725-21.44 DEMARCATION SITE (UNDERGROUND POWER)	EACH	1
(7)	725-21.47 DEMARCATION POINT CUTOVER	EACH	2
(11)	725-21.48 DEMARCATION POINT RISER ASSEMBLY	EACH	19
(5)	725-21.71 TRANSFORMER (TYPE A)	EACH	15
(5)	725-21.72 TRANSFORMER (TYPE B)	EACH	6
(5)	725-21.91 RADAR DETECTION SYSTEM	EACH	20
(5)	725-21.96 RDS COMM CABLE	L.F.	18,845
(5)	725-21.97 SOLAR POWER FOR RDS	EACH	5
(5)(15)	725-22.21 CONDUIT BANK (TYPE 1)	L.F.	2,295
(5)(15)	725-22.22 CONDUIT BANK (TYPE 2)	L.F.	265
(5)(15)	725-22.24 CONDUIT BANK (TYPE 4)	L.F.	75,080

ESTIMATED ROADWAY QUANTITIES (CONT.)			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(5)(15)	725-22.31 CONDUIT BANK BORED (TYPE 1)	L.F.	1,030
(5)(15)	725-22.34 CONDUIT BANK BORED (TYPE 4)	L.F.	5,245
(5)(15)	725-22.50 DMS CONDUIT BANK	L.F.	300
(5)	725-22.61 STRUCTURE CONDUIT BANK (TYPE 1)	L.F.	235
(5)	725-22.62 STRUCTURE CONDUIT BANK (TYPE 2)	L.F.	1,255
(5)	725-22.64 STRUCTURE CONDUIT BANK (TYPE 4)	L.F.	6,250
(5)	725-22.71 2IN CONDUIT (PVC)	L.F.	24,430
(5)	725-22.72 2IN CONDUIT BORED	L.F.	1,700
(5)	725-22.73 2IN STRUCTURE CONDUIT	L.F.	1,950
(5)	725-23.01 ITS CABLE MARKER	EACH	210
(5)	725-23.10 FIBER OPTIC CABLE (72F)	L.F.	125,035
(5)	725-23.22 FIBER OPTIC DROP CABLE (6F)	L.F.	3,956
(5)	725-23.26 FIBER OPTIC CLOSURE (12F)	EACH	18
(5)	725-23.28 FIBER OPTIC SPLICE FUSION	EACH	70
(5)	725-23.29 FIBER OPTIC TERMINATION CABINET	EACH	5
(5)	725-23.31 FIBER OPTIC DROP PANEL (12F)	EACH	16
(5)	725-24.01 CABINET (TYPE A)	EACH	15
(5)	725-24.02 CABINET (TYPE B)	EACH	19
(5)(10)	725-24.03 CABINET (TYPE C)	EACH	4
(6)	725-24.11 ITS COMMUNICATIONS HUB (HUB B)	LS	1
(6)	725-24.12 ITS COMMUNICATIONS HUB (TMC)	LS	1
(5)	725-24.25 UNSHEDULED MAINTENANCE LABOR	HOUR	100
(5)	725-24.31 SPARE PARTS	LS	1
(5)	725-24.41 BURN-IN PERIOD	LS	1
(5)	725-24.51 SYSTEM INTEGRATION	LS	1
(5)	725-24.55 AS-BUILT PLANS	LS	1
(5)	725-24.61 TRAINING	LS	1
(16)	740-10.03 GEOTEXTILE (TYPE III)(EROSION CONTROL)	S.Y.	2,030
(16)	740-11.02 TEMPORARY SEDIMENT TUBE 12IN (DESCRIPTION)	L.F.	1,110
(8)	801-01 SEEDING (WITH MULCH)	UNIT	21
(16)	801-03 WATER (SEEDING & SODDING)	M.G.	2
(16)	803-01 SODDING (NEW SOD)	S.Y.	200
(16)	805-12.02 EROSION CONTROL BLANKET (TYPE II)	S.Y.	200

- (1) ITEM INCLUDES ALL REQUIRED CLEARING, GRUBBING, REMOVAL, AND DISPOSAL OF ALL VEGETATION AND DEBRIS FOR PROPER CONDUIT, POLE, AND DEVICE INSTALLATION AND OPERATION.
- (2) SEE TDOT STANDARD FOR EROSION CONTROL NOTES AND STANDARDS.
- (3) ALL REQUIRED TRAFFIC CONTROL DEVICES MUST MEET TDOT AND MUTCD STANDARDS.
- (4) ITEM INCLUDES SIGN STRUCTURE, FOUNDATION, CATWALK, AND ALL RELATED INCIDENTAL ITEMS, INCLUDING PAVEMENT REPAIR FOR FOOTING IN MEDIAN.
- (5) REFER TO TECHNICAL SPECIAL PROVISION 725 FOR DESCRIPTION AND SPECIFICATION OF ITEM.
- (6) ITEM SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR MAKING CONNECTIONS OF NEW SYSTEM TO EXISTING FIBER OPTIC SYSTEM. ITEMS INCLUDE, BUT ARE NOT LIMITED TO, NECESSARY FIBER OPTIC JUMPER CABLES AND OTDR TESTING OF EXISTING FIBER OPTIC CABLE, WHICH SHALL BE TESTED PRIOR TO CONNECTING NEW FIBER OPTIC NETWORK INSTALLED BY CONTRACTOR TO APPROPRIATE CHANNELS. CONTRACTOR SHALL COORDINATE OTDR TESTING OF EXISTING CABLE WITH ENGINEER AND TMC OPERATIONS PERSONNEL.
- (7) ITEM INCLUDES COORDINATION AND MATERIAL NEEDED TO UPDRAGE EXISTING ELECTRICAL DEMARCATION POINT FROM 120V SINGLE-PHASE SERVICE TO 240V SINGLE-PHASE SERVICE.
- (8) ITEM SHALL ONLY BE USED AT LOCATIONS APPROVED BY ENGINEER.
- (9) ITEM SHALL BE USED FOR COORDINATION WITH LOCAL POWER COMPANY AND SHALL INCLUDE ALL MATERIAL NEEDED TO PROVIDE ELECTRICAL DEMARCATION POINT.
- (10) TRANSFORMER IS 120V TO 24V DC TRANSFORMER FOR SUPPLYING POWER TO RDS.
- (11) ITEM INCLUDES ALL MATERIAL NEEDED FOR SUPPLYING ELECTRICAL SERVICE TO ITS EQUIPMENT. ITEMS INCLUDE, BUT ARE NOT LIMITED TO, WOOD POLE, CONDUIT RISER WITH WEATHER HEAD, METER BOX (WHERE REQUIRED) AND MAIN DISCONNECT BOX.
- (12) ITEM INCLUDES REMOVAL OF EXISTING OVERHEAD SIGN STRUCTURE. EXISTING STATIC SIGN SHALL BE REMOVED AND STORED FOR FUTURE INSTALLATION ON DMS SIGN STRUCTURE.
- (13) ITEM INCLUDES INSTALLATION OF EXISTING STATIC SIGNS ON NEW DMS SIGN STRUCTURE.
- (14) THIS ITEM ALSO INCLUDES THE VIDEO ENCODER AS SPECIFIED IN SECTION 16 OF THE TSP MANUAL.
- (15) ITEM NUMBER IS TO BE USED FOR ALL SOIL TYPES. NO ADDITIONAL COST WILL BE GIVEN FOR TRENCHING OR BORING IN ROCK. COST OF BORING AND TRENCHING IN ROCK SHOULD BE INCLUDED IN COST OF ITEMS PER FT.
- (16) SEE SUB-SECTION 209-07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE AND REPLACEMENTS



TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2A

ESTIMATED ROADWAY QUANTITIES BY SHEET																													
ITEM NO.	DESCRIPTION	UNIT	SHEET NO.																								SHEET TOTAL		
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26				
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	413				473																				886		
705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	2				1																				3		
705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH	2																								2		
714-08.09	LIGHT STANDARDS (25 FT POLE HEIGHT)	EACH								1		1	1	1	1												5		
714-08.10	LIGHT STANDARDS (30 FT POLE HEIGHT)	EACH					1									1				1		1	1	1	1	1	9		
714-08.11	LIGHT STANDARDS (35 FT POLE HEIGHT)	EACH							1		1								1		1						4		
714-08.12	LIGHT STANDARDS (40 FT POLE HEIGHT)	EACH																1									1		
725-20.02	CCTV POLE AND FOUNDATION (80 FT POLE W/ LWRNG DEVICE)	EACH	1				1	1					1			1				1				1			8		
725-20.07	CCTV POLE & FOUNDATION (80FT POLE W/DUAL LWRNG DVICE)	EACH					1													1							2		
725-20.22	STEEL OVERHEAD SIGN STRUCTURE (SPANS 51 FT TO 70 FT)	EACH	1																								1		
725-20.23	STEEL OVERHEAD SIGN STRUCTURE (SPANS 71 FT TO 90 FT)	EACH						1																			1		
725-20.43	PULL BOXES (TYPE C)	EACH	5				3	4			2		2		3		6				3			2			30		
725-20.44	PULL BOX (TYPE D)	EACH	2	1	2	4	3			1	3	1	2	3	1				1	2	4			2	1	1	2	1	37
725-20.45	PULL BOX (TYPE E)	EACH	3	2	4	7					1	1	2	3	2				3	3	4	3	3	2	2		45		
725-20.55	CABLE (1/C # 6 AWG)	L.F.								450			630		1,020		5,055				1,410			765			9,330		
725-20.56	CABLE (1/C # 4 AWG)	L.F.																									0		
725-20.57	CABLE (1/C # 2 AWG)	L.F.	3,510				4,425	900																			8,835		
725-20.58	CABLE (1/C #1/0 AWG)	L.F.																									0		
725-20.71	ELECTRICAL CONNECTION	EACH	1				1	1			1		1		1		1			1			1				9		
725-20.81	RADIO & ANTENNA (TYPE A)	EACH							1						1				1			1					4		
725-20.82	RADIO & ANTENNA (TYPE B)	EACH													1		1				1						3		
725-20.91	CCTV CAMERA SYSTEM (PAN TILT & ZOOM)	EACH	1				2	1				1	1		1		1				2			1			11		
725-21.01	DYNAMIC MESSAGE SIGN	EACH	1					1																			2		
725-21.11	NETWORK SWITCH (TYPE A)	EACH	2				1	2			1	1	1		1		1				1			1			12		
725-21.21	TERMINAL SERVER	EACH					1	1					1		1		1				1			1		1	9		
725-21.32	CAT 6 CABLE	L.F.																									0		
725-21.94	RADAR DETECTION SYSTEM	EACH					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20		
725-21.96	RDS COMM CABLE	L.F.					1,520					775	1,315	1,105	825	1,565	1,770			1,475	965		1,310	1,185	1,110	490	2,905	530	18,845
725-21.97	SOLAR POWER FOR RDS	EACH							1						1				1	1			1				5		
725-22.21	CONDUIT BANK TYPE 1	L.F.	205					220			275	245														330	250	1,525	
725-22.22	CONDUIT BANK TYPE 2	L.F.										115						150										265	
725-22.24	CONDUIT BANK TYPE 4	L.F.	1,245	2,665	3,170	3,375							1,475	2,215	2,650	1,740	2,405	2,675	1,590	2,135	2,780	2,790	2,945	2,200	120		38,175		
725-22.24	CONDUIT BANK BORED (TYPE 4)	L.F.		70	300	565								320	385		255	140	705	745			120	620			4,225		
725-22.31	CONDUIT BANK BORED (TYPE 1)	L.F.																								475	295	770	
725-22.32	CONDUIT BANK BORED (TYPE 2)	L.F.																									0		
725-22.50	DMS CONDUIT BANK	L.F.	100					100																			200		
725-22.61	STRUCTURE CONDUIT BANK (TYPE 1)	L.F.																									0		
725-22.62	STRUCTURE CONDUIT BANK (TYPE 2)	L.F.						235				500						520									1,255		
725-22.64	STRUCTURE CONDUIT BANK (TYPE 4)	L.F.	420				810							205	350	1,005											2,790		
725-22.71	2 IN CONDUIT	L.F.					965	280			140		200		205		950				330			255			3,325		
725-22.72	2IN CONDUIT BORED	L.F.					480								115		145				230						970		
725-22.73	2IN STRUCTURE CONDUIT	L.F.															520										520		
725-23.01	ITS CABLE MARKER	EACH	9	3	6	15	5			3	4	5	4	10	3	15	4	5	11	3	3	7	3	3	2	1	124		
725-23.10	FIBER OPTIC CABLE (72F)	L.F.	1,680	3,185	4,370	7,225	1,205	2,995	3,045	3,340	3,540	3,740	4,475	3,195	3,920	3,465	3,535	4,080	3,380	3,390	3,460	3,270	3,350	1,200		75,045			
725-23.22	FIBER OPTIC DROP CABLE (6F)	L.F.	425				110	1,355			375		50		110										1		2,426		
725-23.26	FIBER OPTIC CLOSURE (12F)	EACH	1				1	1		1	1	1		1		1				1			1		2	12			
725-23.28	FIBER OPTIC SPLICE FUSION	EACH	8				4	8		4	4	4		4		4				4			4			48			
725-24.01	CABINET (TYPE A)	EACH					1			1		1	1	1		1			1			1	1	1	1	1	15		
725-24.02	CABINET (TYPE B)	EACH	1				1	1	1	1					1		1			1	1		1				13		
725-24.03	CABINET (TYPE C)	EACH	1				1	1																			3		

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES
BY SHEET

SHEET 1 OF 2

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2B

ESTIMATED ROADWAY QUANTITIES BY SHEET (CONT.)

ITEM NO.	DESCRIPTION	UNIT	SHEET NO.																	SHEET TOTAL	TOTAL		
			27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43			44	45
705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.		249																		249	1,135
705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH		1																		1	4
705-04.07	TAN ENERGY ABSORBING TERM (NCHRP 350, TL3)	EACH		1																		1	3
714-08.09	LIGHT STANDARDS (25 FT POLE HEIGHT)	EACH																				0	5
714-08.10	LIGHT STANDARDS (30 FT POLE HEIGHT)	EACH																				0	9
714-08.11	LIGHT STANDARDS (35 FT POLE HEIGHT)	EACH																				0	4
714-08.12	LIGHT STANDARDS (40 FT POLE HEIGHT)	EACH																				0	1
725-20.02	CCTV POLE AND FOUNDATION (80 FT POLE W/ LOWERING DEVICE)	EACH			1			1	1				1									4	12
725-20.07	CCTV POLE & FOUNDATION (80FT POLE W/DUAL LWRNG DVCE)	EACH																				0	2
725-20.22	STEEL OVERHEAD SIGN STRUCTURE (SPAN 56')	EACH																				0	1
725-20.23	STEEL OVERHEAD SIGN STRUCTURE (SPAN 79')	EACH		1																		1	2
725-20.43	PULL BOXES (TYPE C)	EACH		3	6	6	2	4	7			3	3	3		2	4	5	5	2		55	85
725-20.44	PULL BOX (TYPE D)	EACH		3	3	1	1	4	3	2	2	1	1					1				22	59
725-20.45	PULL BOX (TYPE E)	EACH			2	2	3	4	3	3	2	1	2	3	2	2	2	2	3	1		37	82
725-20.55	CABLE (1/C # 6 AWG)	L.F.		495																		495	9,825
725-20.56	CABLE (1/C # 4 AWG)	L.F.						3,225	8,625			3,180										15,030	15,030
725-20.57	CABLE (1/C # 2 AWG)	L.F.			600																	600	9,435
725-20.71	ELECTRICAL CONNECTION	EACH		1	1				1			1										4	13
725-20.81	RADIO & ANTENNA (TYPE A)	EACH																				0	4
725-20.82	RADIO & ANTENNA (TYPE B)	EACH																				0	3
725-20.91	CCTV CAMERA SYSTEM	EACH			1			1	1			1										4	15
725-21.01	DYNAMIC MESSAGE SIGN	EACH		1																		1	3
725-21.11	NETWORK SWITCH (TYPE A)	EACH		1				1	1			1										4	16
725-21.21	TERMINAL SERVER	EACH																				0	9
725-21.32	CAT 6 CABLE	L.F.																				380	380
725-21.94	RADAR DETECTION SYSTEM	EACH																				0	20
725-21.96	RDS COMM CABLE	L.F.																				0	18,845
725-21.97	SOLAR POWER FOR RDS	EACH																				0	5
725-22.21	CONDUIT BANK TYPE 1	L.F.		590	180																	770	2,295
725-22.22	CONDUIT BANK TYPE 2	L.F.																				0	265
725-22.24	CONDUIT BANK TYPE 4	L.F.			1,300	2,605	2,540	1,690	2,450	2,545	2,600	2,225	2,680	2,680	2,825	2,550	2,665	2,415	2,565	570		36,905	75,080
725-22.24	CONDUIT BANK TYPE 4 BORED	L.F.			490				190	205	135											1,020	5,245
725-22.31	CONDUIT BANK TYPE 1 BORED	L.F.		260																		260	1,030
725-22.50	DMS CONDUIT BANK	L.F.		100																		100	300
725-22.61	STRUCTURE CONDUIT BANK TYPE 1	L.F.						235														235	235
725-22.62	STRUCTURE CONDUIT BANK TYPE 2	L.F.																				0	1,255
725-22.64	STRUCTURE CONDUIT BANK TYPE 4	L.F.				190	170	925	310		240	390	130					430				2,785	5,575
725-22.71	2" CONDUIT	L.F.		155	1,460	2,605	145	820	2,315			1,050	1,480	1,400		915	2,665	2,625	2,565	905		21,105	24,430
725-22.72	2" CONDUIT BORED	L.F.			400								140									730	1,700
725-22.73	2" STRUCTURE CONDUIT	L.F.				190	170	235	310									525				1,430	1,950
725-23.01	CABLE MARKER	EACH		5	6	4	6	9	12	5	4	4	5	6	2	5	2	6	3	2		86	210
725-23.10	FO CABLE, 72F	L.F.			2,550	3,245	3,510	3,565	3,800	3,450	3,475	3,015	3,260	3,280	3,225	2,950	3,065	3,645	3,185	770		49,990	125,035
725-23.22	FIBER OPTIC DROP CABLE (6F)	L.F.		975				335	110			110										1,530	3,956
725-23.26	FO CLOSURE, 12F	EACH		1				1	1			1		1						1		6	18
725-23.28	FO SPLICE, FUSION	EACH		4				4	4			4		4						2		22	70
725-24.01	CABINET (TYPE A)	EACH																				0	15
725-24.02	CABINET (TYPE B)	EACH			2			1	1			1		1								6	19
725-24.03	CABINET (TYPE C)	EACH		1																		1	4

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES
BY SHEET

SHEET 2 OF 2

GUARDRAIL TABULATIONS										
DEVICE TYPE AND NO.	SHEET NO.	ROADWAY	STA.	LENGTH OF EXST. G.R. FROM DEVICE TO END (FT.)	G.R. REMOVED (PAY ITEM NO. 706-01) (FT.)	LENGTH OF PAY ITEM NO. 705-02.02 (FT.)	TYPE 38 G.R. END TREATMENT (PAY ITEM NO. 705-04.07) (EA.)	TYPE 13 G.R. END TREATMENT (PAY ITEM NO. 705-04.03) (EA.)	LENGTH AT BRIDGE ENDS (PAY ITEM NO. 705-01.01) (FT.)	NOTES
D.M.S. #59	4	I-65	50+15	—	0	413	2	2	0	
C.C.T.V. CAMERA #155	8	I-65	387+00	—	0	473	0	1	0	TIE TO HARPETH R. BRDG. END.
D.M.S. #62	37	I-65	1018+00	—	0	249	1	1	0	
TOTALS					0	1,135	3	4	0	



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

GUARDRAIL
 TABULATIONS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2D

CLOSED-CIRCUIT TELEVISION (C.C.T.V.) CAMERA MOUNTING TABLE										
DEVICE NO.	SHEET NO.	ROADWAY	STA.	LT. / RT.	DIST. FROM E.O.T.L. (FT.)	POLE HT. (FT.)	LOWERING DEVICE (EA.)	SPREAD SPECTRUM RECEIVER (EA.)	SPREAD SPECTRUM TRANSMITTER LOCATION(S)	NOTES
150	4	I-65	47+15	RT.	40'	80'	1	0	—	APPROX 800' S. OF S.R. 106 UNDERPASS BRDG. END.
151	7	I-65	125+00	RT.	—	80'	1	1	R.D.S. #470	APPROX. 15' E. OF I-65 OVERPASS BRDG. END. CO-LOCATE WITH C.C.T.V. CAMERA #167.
155	8	I-65	387+00	RT.	—	80'	1	1	R.D.S. #478	4' BEHIND G.R. APPROX. 160' N. OF HARPETH R. BRDG. END. CO-LOCATE WITH R.D.S. #479.
156	11	I-65	466+66	RT.	—	—	1	0	—	CO-LOCATE WITH EXST. CITY OF FRANKLIN C.C.T.V. CAMERA.
157	12	I-65	489+00	LT.	40'	80'	1	0	—	APPROX 570' S. OF M.M. 66.
158	14	I-65	539+85	LT.	—	80'	1	1	R.D.S. #485	50' FROM MCEWEN DR. E.O.T.L. 50' FROM RAMP E.O.T.L.
159	16	I-65	593+80	RT.	80'	80'	1	1	R.D.S. #488	APPROX 150' N. OF COOL SPGS. BLVD. OVERPASS.
160	19	I-65	662+66	LT.	40'	80'	1	1	R.D.S. #491	APPROX 75' S. OF END OF CONC. BARRIER.
161	22	I-65	729+60	LT.	40'	80'	1	0	—	APPROX 840' S. OF M.M. 70.6.
163	29	S.R. 840	1501+86	LT.	40'	80'	1	0	—	APPROX 50' W. OF S.R. 6 OVERPASS.
165	32	S.R. 840	1581+50	LT.	—	80'	1	0	—	4' BEHIND G.R. APPROX 20' E. OF TOM ANDERSON RD. UNDERPASS BRDG. END.
166	33	S.R. 840	1612+15	RT.	—	80'	1	0	—	APPROX 20' S. OF S.R. 106 UNDERPASS.
167	7	S.R. 840	1650+00	RT.	40'	—	—	—	—	APPROX. 15' E. OF I-65 OVERPASS BRDG. END. CO-LOCATE WITH C.C.T.V. CAMERA #151.
168	36	S.R. 840	1695+00	LT.	40'	80'	1	0	—	APPROX 700' E. OF EXT 31 EXT DIRECTION SIGN.
BRENT-1	19	I-65	662+66	LT.	—	80'	1	0	—	CITY OF BRENTWOOD CAMERA ON TDOT POLE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

C.C.T.V.
MOUNTING
TABLE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2E

RADAR DETECTION SYSTEM (R.D.S.) MOUNTING TABLE												
DEVICE NO.	SHEET NO.	RWY.	STA.	LT. / RT.	DIST. BEHIND E.O.T.L. (FT.)	POLE HT. (FT.)	NO. OF LANES DETECTED	MOUNTING HEIGHT ABOVE ROAD (FT.)	SOLAR POWER (EA.)	SPREAD SPECTRUM TRANSMITTER (EA.)	SPREAD SPECTRUM RECEIVER LOCATION	NOTES
469	7	I-65	128+00	LT.	40'	30'	6	33'	0	0	—	APPROX 250' N. OF S.R. 840 OVERPASS.
479	8	I-65	387+00	LT.	—	—	8	15'	0	0	—	4' BEHIND G.R. APPROX 160' N. OF HARPETH R. BRDG.
480	9	I-65	411+00	RT.	50'	35'	8	39'	0	0	—	APPROX 75' S. OF EXIT 65 1 MI. SIGN.
481	10	I-65	435+00	LT.	—	25'	8	15'	0	0	—	4' BEHIND G.R. APPROX 675' S. OF M.M. 65.
482	11	I-65	461+00	LT.	40'	35'	8	33'	1	0	—	APPROX 380' N. OF GORE.
483	12	I-65	483+00	LT.	—	25'	8	15'	0	0	—	4' BEHIND G.R. APPROX 1,170' S. OF M.M. 66.
484	13	I-65	505+00	LT.	—	25'	8	15'	1	0	—	4' BEHIND G.R. APPROX 60' N. OF EXIT 65 ½ MI. SIGN.
485	14	I-65	535+85	LT.	—	25'	8	15'	1	1	C.C.T.V. #158	4' BEHIND G.R. APPROX 30' S. OF HIGH-MAST LUMINAIRE.
486	15	I-65	560+66	LT.	—	25'	8	15'	1	0	—	4' BEHIND G.R. APPROX 170' N. OF EXIT 67 EXIT DIRECTION SIGN.
487	16	I-65	582+70	LT.	40'	30'	8	33'	0	0	—	APPROX 50' S. OF EXIT 67 SPECIFIC SERVICE SIGN.
488	17	I-65	617+50	LT.	40'	40'	8	33'	1	1	C.C.T.V. #159	APPROX 270' N. OF EXIT 64B EXIT DIRECTION SIGN.
489	18	I-65	637+25	LT.	40'	35'	8	33'	1	0	—	APPROX 400' S. OF BAKER'S BRDG. AVE. OVERPASS.
490	19	I-65	665+00	LT.	40'	30'	8	33'	0	0	—	APPROX 210' N. OF S.R. 441 W.B.L. OVERPASS.
491	20	I-65	690+00	LT.	40'	35'	8	33'	0	1	C.C.T.V. #160	APPROX 170' N. OF EXIT 69 EXIT DIRECTION SIGN.
492	21	I-65	715+00	LT.	40'	30'	8	33'	0	0	—	APPROX 150' S. OF M.M. 70.2.
493	22	I-65	737+25	LT.	40'	30'	8	33'	0	0	—	APPROX 75' S. OF M.M. 70.6.
494	23	I-65	768+40	LT.	40'	30'	8	33'	0	0	—	APPROX 150' S. OF M.M. 71.2.
495	24	I-65	800+95	LT.	40'	30'	8	33'	0	0	—	APPROX 50' S. OF EXIT 71 EXIT DIRECTION SIGN.
496	25	I-65	826+00	LT.	40'	30'	8	33'	0	0	—	APPROX 250' S. OF EXIT 71 SIGN.
497	26	I-65	851+95	LT.	—	30'	8	33'	0	0	—	4' BEHIND G.R. APPROX 100' S. OF EXIT 71 1 MI. SIGN.



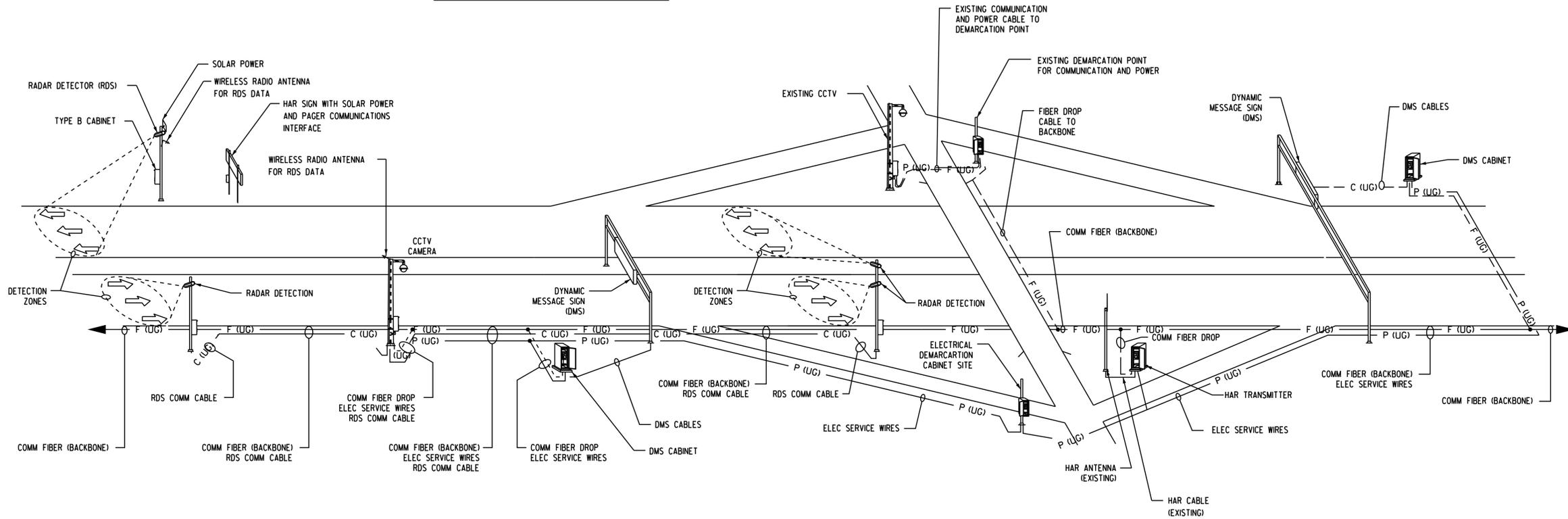
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

R.D.S.
MOUNTING
TABLE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2F

NOTE:
THIS SYSTEM SCHEMATIC IS INTENDED AS A HIGH LEVEL OVERVIEW ONLY. REFER TO THE TECHNICAL SPECIAL PROVISIONS AND OTHER PLAN SHEETS FOR SPECIFIC DETAILS AND QUANTITIES.

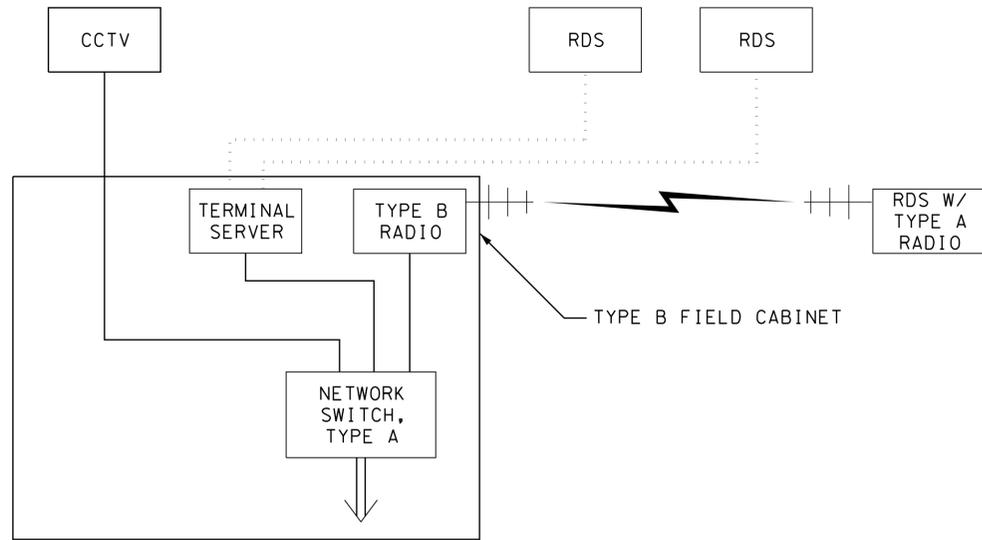
CABLE LEGEND	
— F (UG) —	COMM FIBER (BACKBONE)
- - F (UG) - -	COMM FIBER DROP
—●—	FIBER SPLICE CLOSURE
— C (UG) —	RDS COMM CABLE
— P (UG) —	ELEC SERVICE WIRES
- - C (UG) - -	DMS CABLES



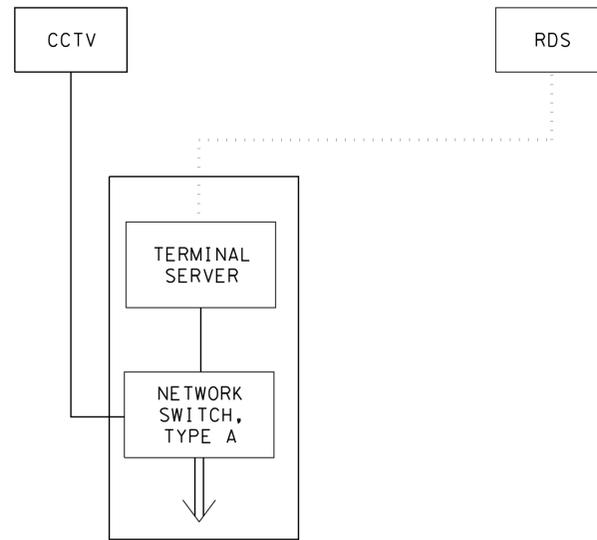
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIELD
EQUIPMENT
OVERVIEW
N.T.S.

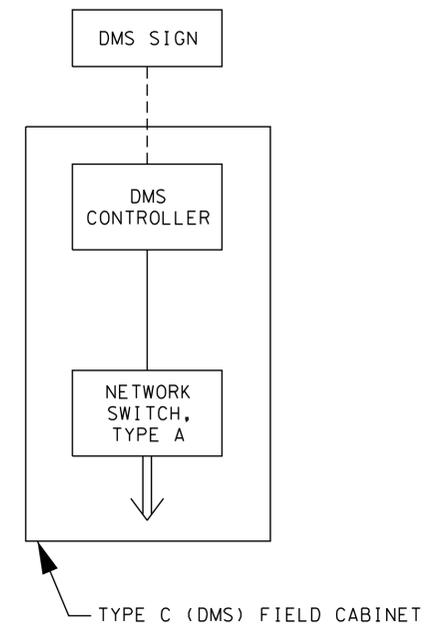
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	26



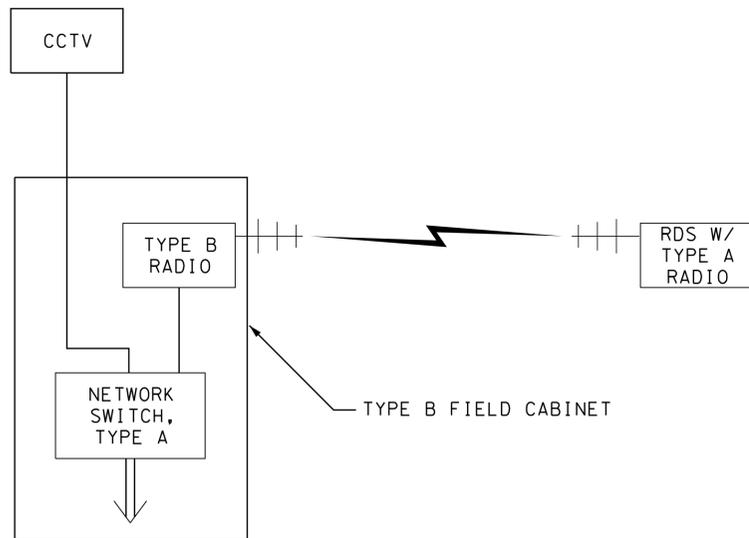
TYPICAL CCTV WITH SPREAD SPECTRUM AND HARWIRED RDS SITES



TYPICAL CCTV WITH ONLY ONE HARDWIRED RDS SITE



TYPICAL DMS SITE



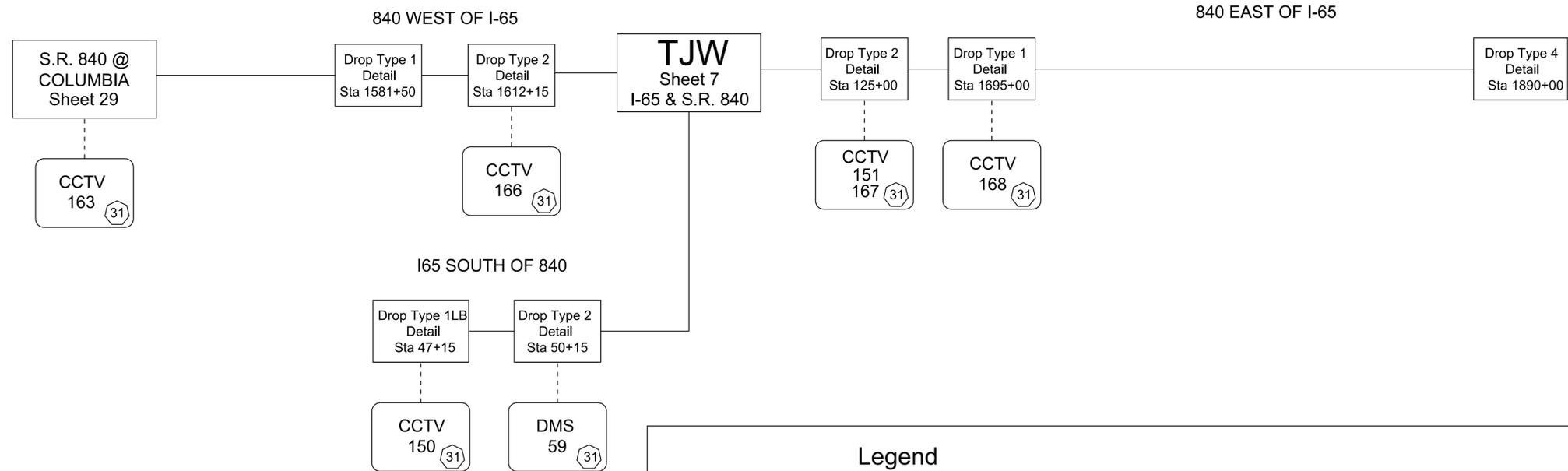
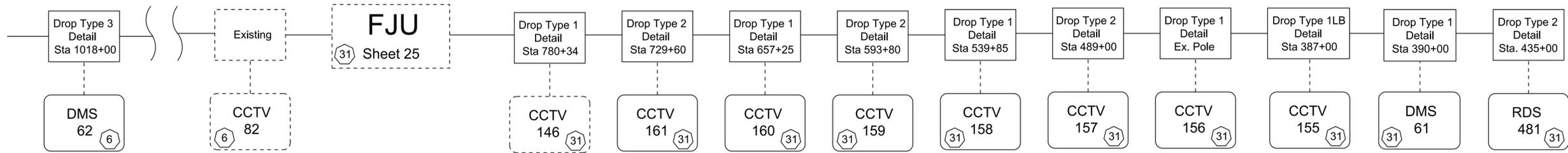
TYPICAL CCTV WITH ONLY SPREAD SPECTRUM RDS SITES

LEGEND

- SERIAL DATA COMMUNICATION (TWISTED PAIR) (RS422, RS485)
- ETHERNET 10/100/1000 BASE TX (CAT 6 CABLE)
- ==== OPTICAL ETHERNET 1000 BASE FX (SINGLE MODE FIBER)
- MANUFACTURER SPECIFIC CABLES
- [Solid Box] PROPOSED EQUIPMENT
- [Dashed Box] EXISTING EQUIPMENT



TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2J



Legend

Type E Pull Box with splice closure		Existing Type E Pull Box with splice closure	
Equipment Cabinet with Preterminated Drop		Existing Equipment Cabinet with Preterminated Drop	
Trunk Cable			
Drop Cable			
Channel Number			
Reel End Splice			



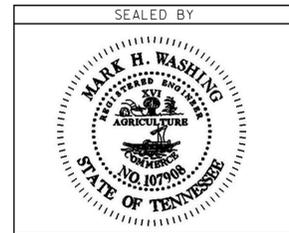
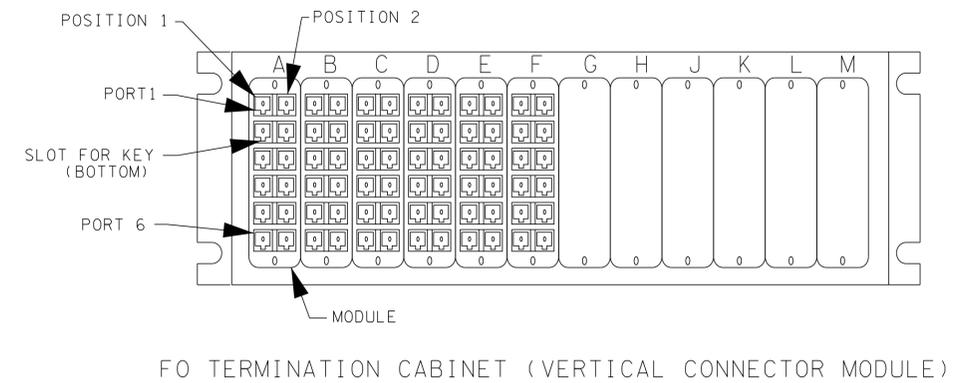
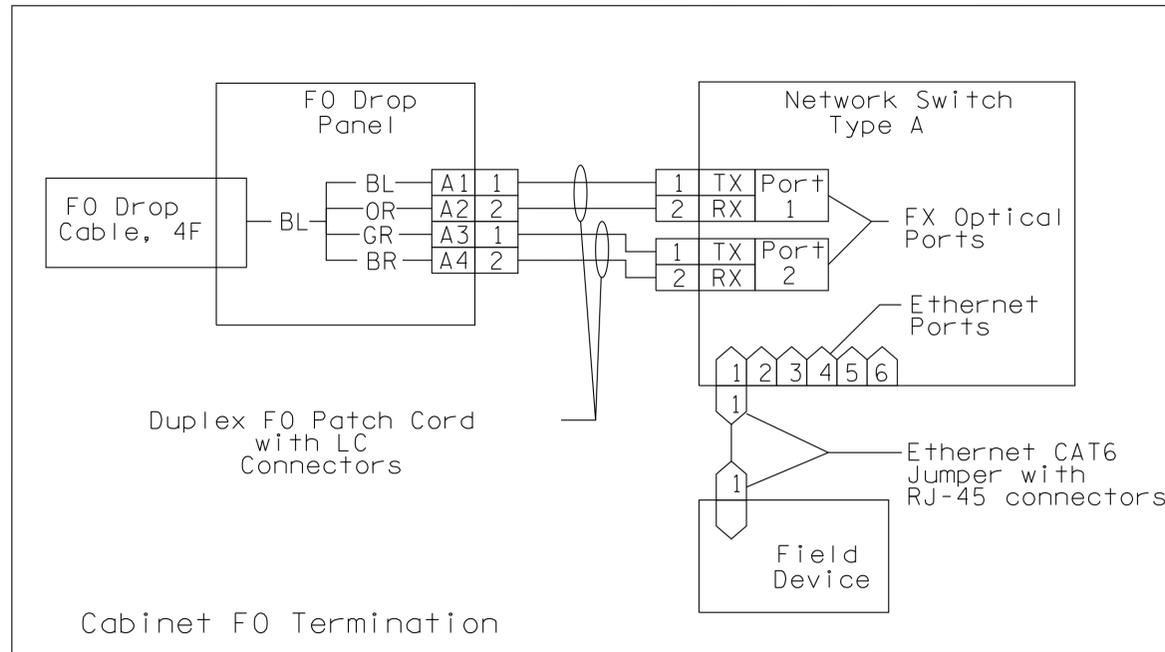
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER OPTIC
SPLICING
DETAILS

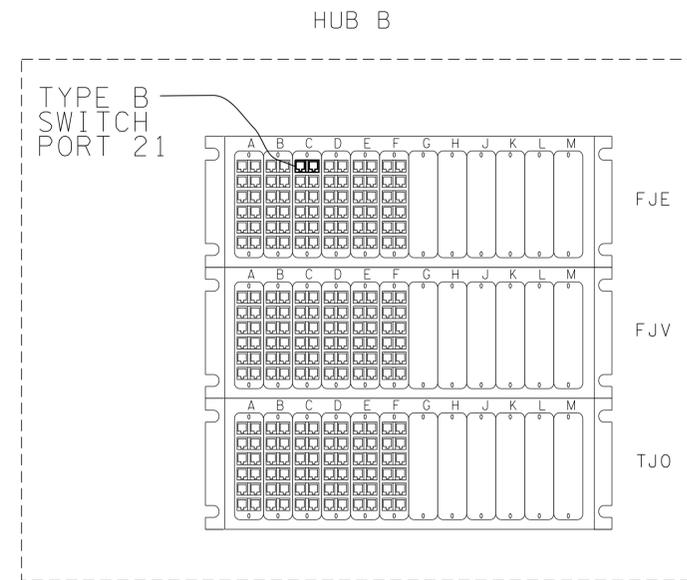
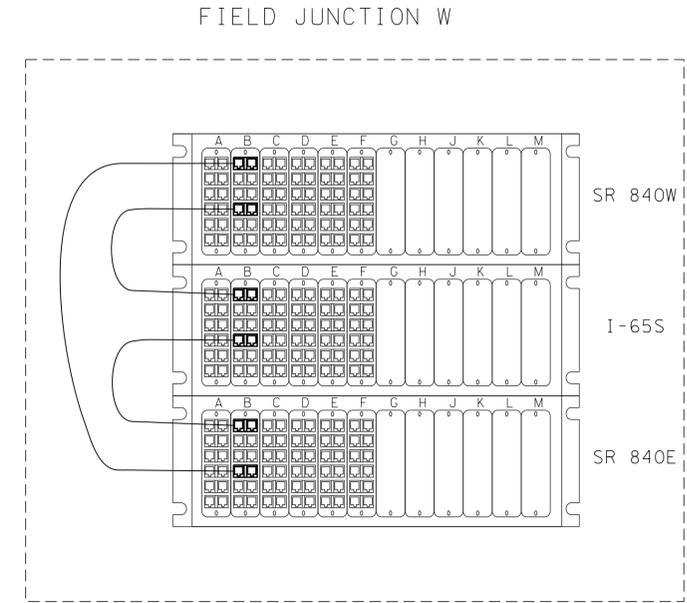
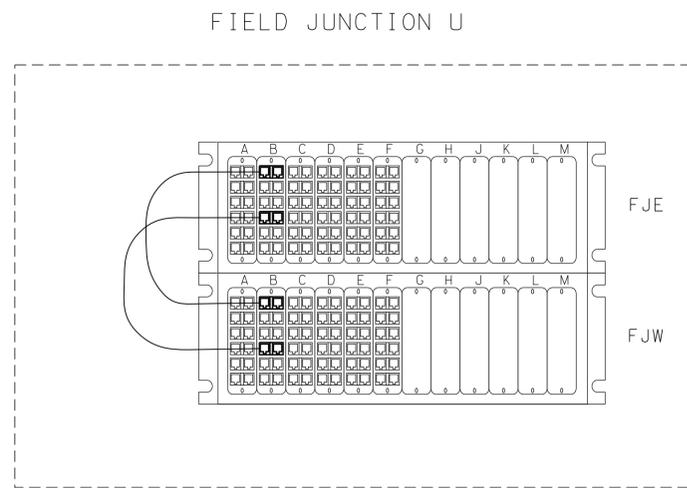
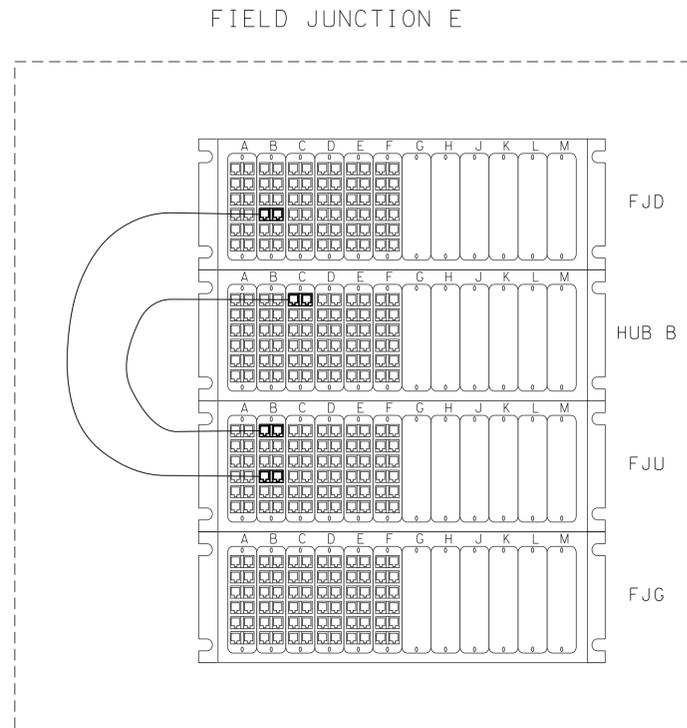
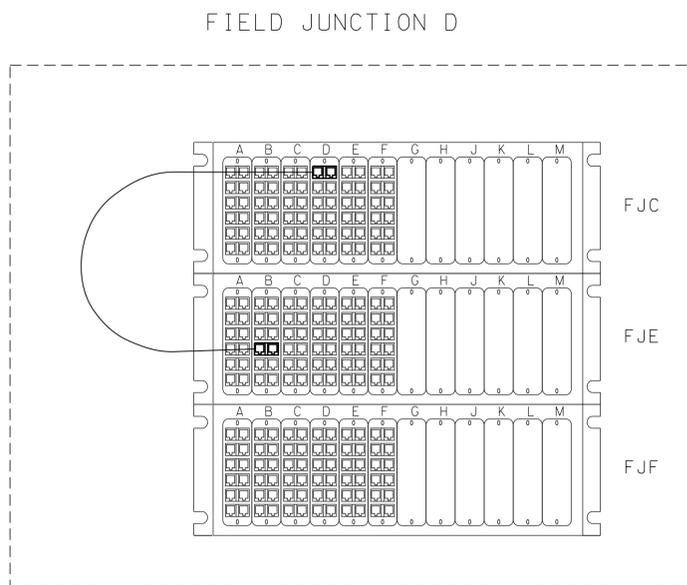
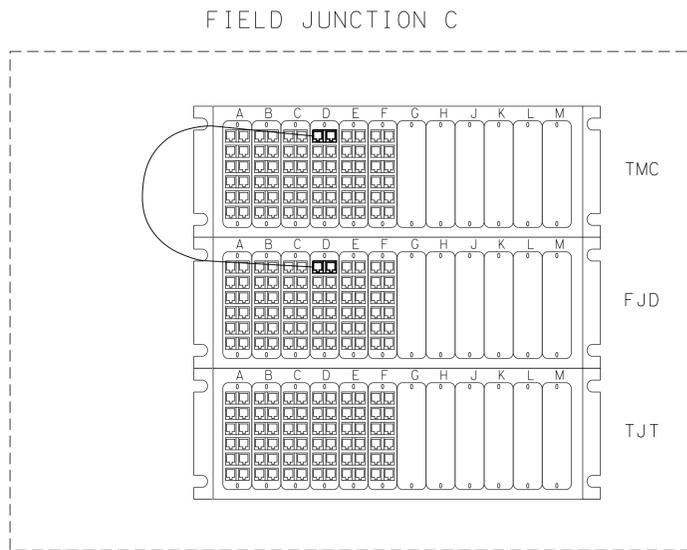
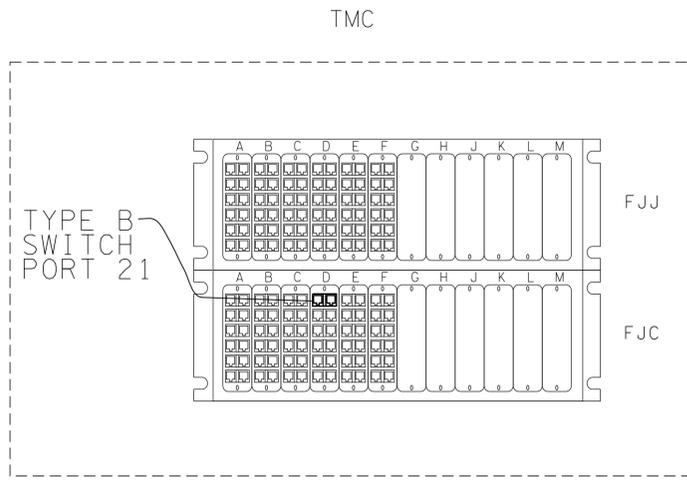
CABLE IDENTIFICATION				
CABLE ID	BEGINNING POINT		END POINT	
	Hub or Junction	Rack Position	Hub or Junction	Rack Position
TMC - FJC	TRAFFIC MANAGEMENT CENTER	TMC-2	FIELD JUNCTION C	FJC-1
HUBB - FJE	HUB B	HUBB-1	FIELD JUNCTION E	FJE-2
FJC - FJD	FIELD JUNCTION C	FJC-2	FIELD JUNCTION D	FJD-1
FJD - FJE	FIELD JUNCTION D	FJD-2	FIELD JUNCTION E	FJE-1
FJE - FJU	FIELD JUNCTION E	FJE-3	FIELD JUNCTION U	FJU-1
FJU-FJW	FIELD JUNCTION U	FJU-2	FIELD JUNCTION W	FJW-1 (FUTURE)

FIBER OPTIC TERMINATION CABINET JUMPER ASSIGNMENTS															
FIBER OPTIC TERMINATION CABINET					TO	FIBER OPTIC TERMINATION CABINET					NETWORK SWITCH		ORIGIN	CHANNEL	DESTINATION
CABLE	FDC	MODULE	PORT	CHANNEL		CABLE	FDC	MODULE	PORT	MODULE	PORT				
TMC-FJC	TMC-2	D	1	CHANNEL 31	=					FSP	21	TMC	CHANNEL 31	HUB-B PORT 21	
TMC-FJC	FJC-1	D	1	CHANNEL 31	=	FJC-FJD	FJC-2	D	1			TMC	CHANNEL 31	HUB-B PORT 21	
FJC-FJD	FJC-2	D	1	CHANNEL 31	X	FJD-FJE	FJD-1	D	1			TMC	CHANNEL 31	HUB-B PORT 21	
FJD-FJE	FJD-2	B	4	CHANNEL 31	X	FJE-FJU	FJE-1	B	4			TMC	CHANNEL 31	HUB-B PORT 21	
HUBB-FJE	FJE-2	C	1	CHANNEL 31	X	FJE-FJU	FJE-3	B	1			TMC	CHANNEL 31	HUB-B PORT 21	
FJE-FJU	FJU-1	B	1	CHANNEL 31	X	FJU-FJW	FJU-2	B	1			TMC	CHANNEL 31	HUB-B PORT 21	
FJU-FJW	FJU-2	B	4	CHANNEL 31	X	FJE-FJU	FJU-1	B	4			TMC	CHANNEL 31	HUB-B PORT 21	
SR 840 E	FJW-2	B	4	CHANNEL 31	X	I-65 S	FJW-3	B	1			TMC	CHANNEL 31	HUB-B PORT 21	
I-65 S	FJW-1	B	4	CHANNEL 31	X	SR 840 W	FJW-2	B	1			TMC	CHANNEL 31	HUB-B PORT 21	
SR 840 E	FJW-4	B	4	CHANNEL 31	X	SR 840E	FJW-1	B	1			TMC	CHANNEL 31	HUB-B PORT 21	
HUBB-FJE	HUBB-1	C	1	CHANNEL 31	X					FSP	21	TMC	CHANNEL 31	END OF CIRCUIT	

=	DUPLEX JUMPER
X	DUPLEX JUMPER CROSS CONNECT



TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2M



NOTE: 1. SEE SHEET 2F FOR LOCATION OF FIELD JUNCTION CABINETS
2. CONTRACTOR TO COORDINATE WITH TDOT IT DEPARTMENT TO VERIFY SWITCH PORT LOCATIONS AND OPTICS.



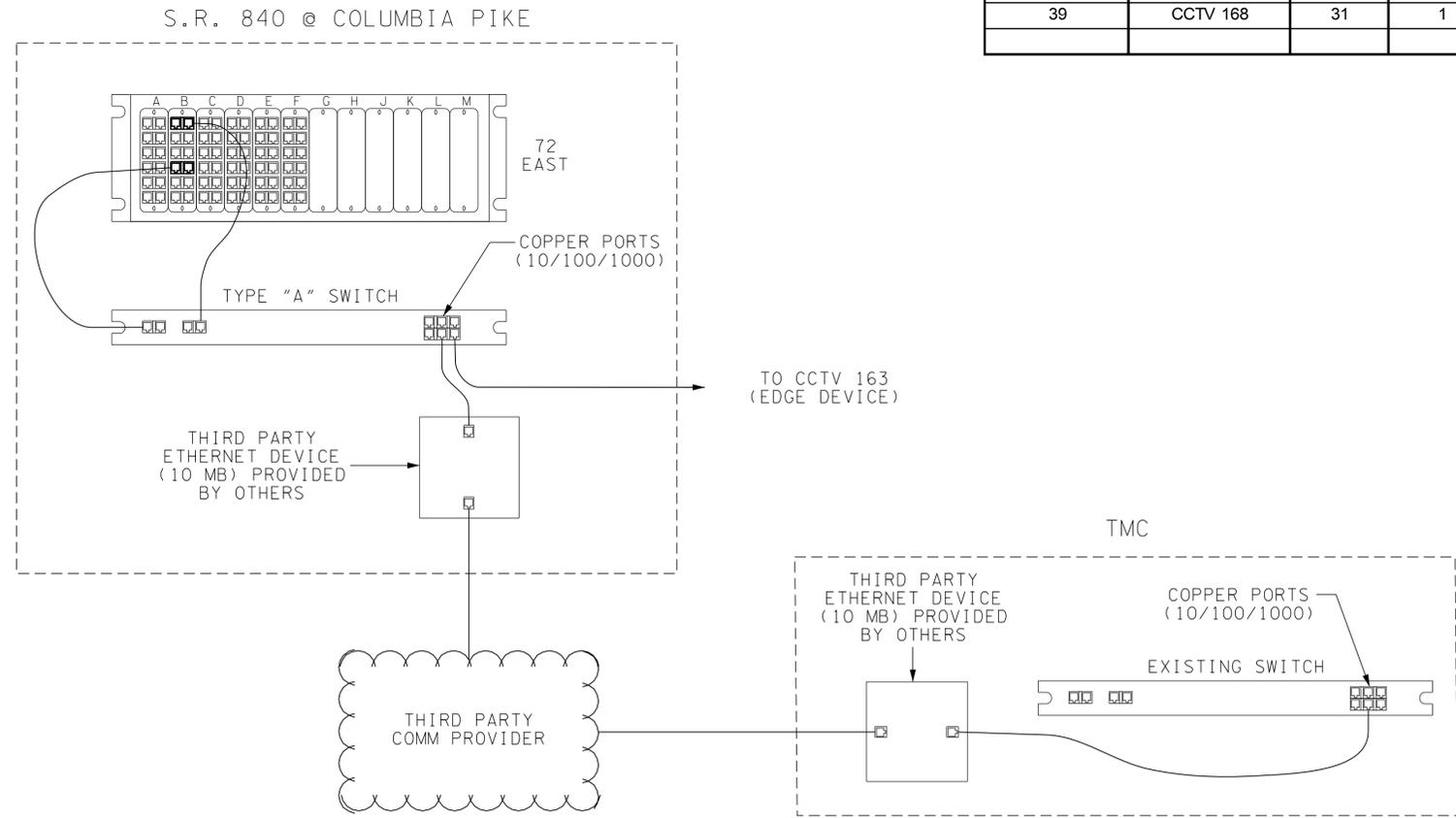
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FIBER JUMPER
ROUTING
DIAGRAMS

N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2N

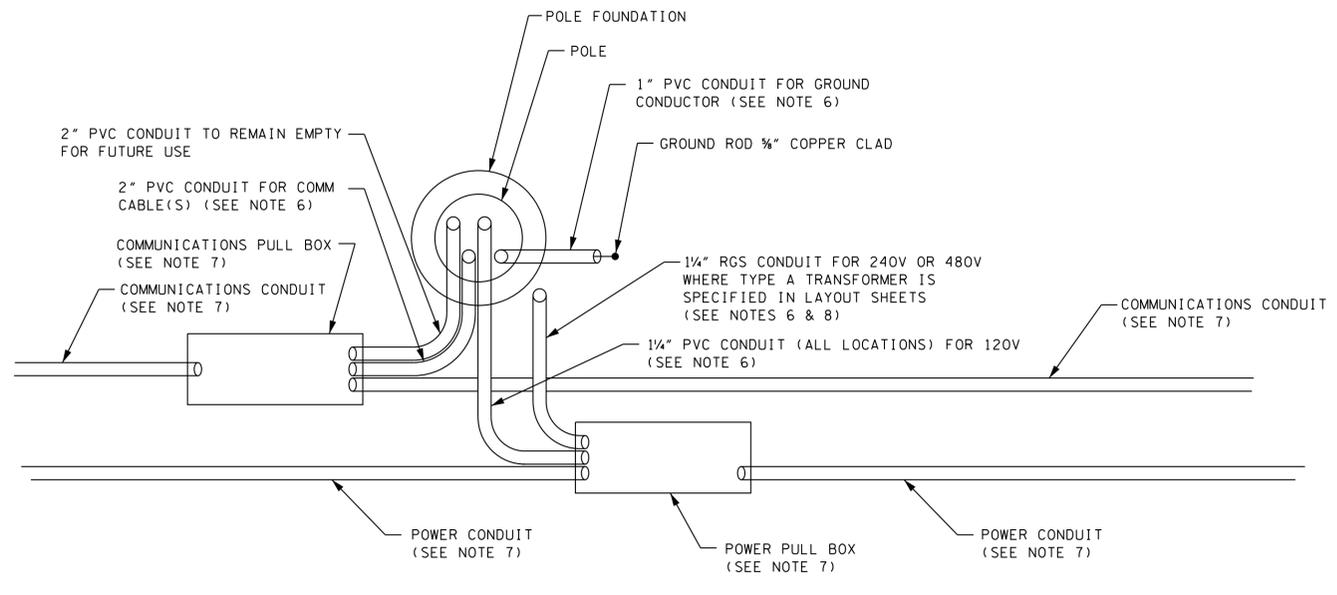
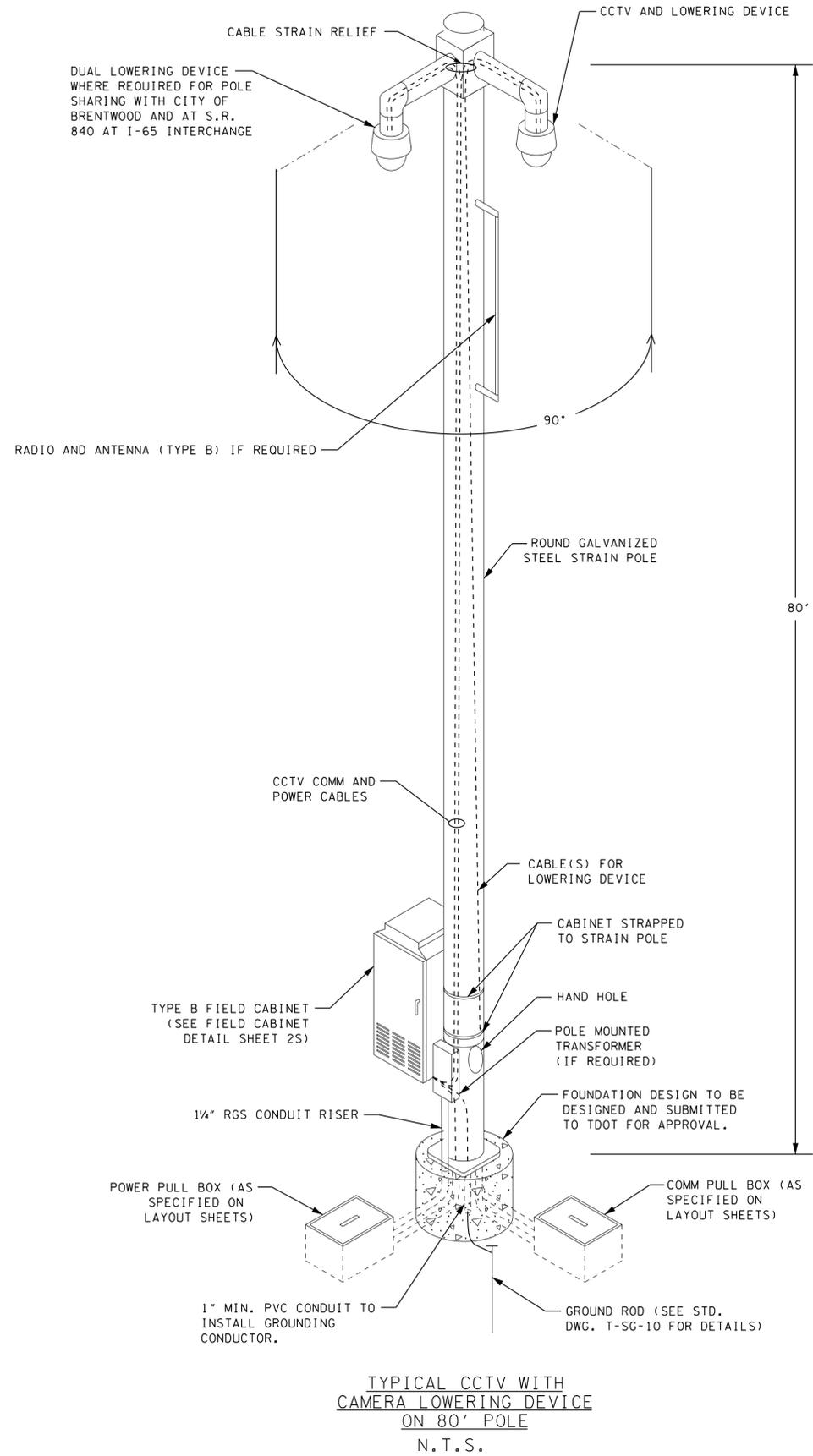
Network Switch Locations W/Supported Equipment										
Sheet Number	Switch Location	Channel	Drop Type	Station	DMS	CCTV	CCTV	RDS	RDS	RDS
4	CCTV 150	31	1LB	47+15		150				
4	DMS 59	31	2	50+15	59					
7	CCTV 151	31	2	125+00		151	167	469	470	
8	CCTV 155	31	1LB	387+00		155		478	479	480
8	DMS 61	31	1	390+00	61					
10	RDS 481	31	2	435+00				481		
11	CCTV 156	31	1			156		482		
12	CCTV 157	31	2	489+00		157		483	484	
14	CCTV 158	31	1	539+85		158		485	486	
16	CCTV 159	31	2	593+80		159		487	488	
19	CCTV 160	31	1	657+25		160		489	490	491
22	CCTV 161	31	2	729+60		161		492	493	
24	CCTV 146	31	1	780+34		146		494		
28	DMS 62	31	3	1018+00	62					
32	CCTV 163	31	1	1501+86		163				
35	CCTV 165	31	1	1581+50		165				
36	CCTV 166	31	2	1612+15		166				
39	CCTV 168	31	1	1695+00		168				



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

S.R. 840
COMMUNICATIONS
DEMARC AND
NETWORK SWITCH
LOCATIONS
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2P



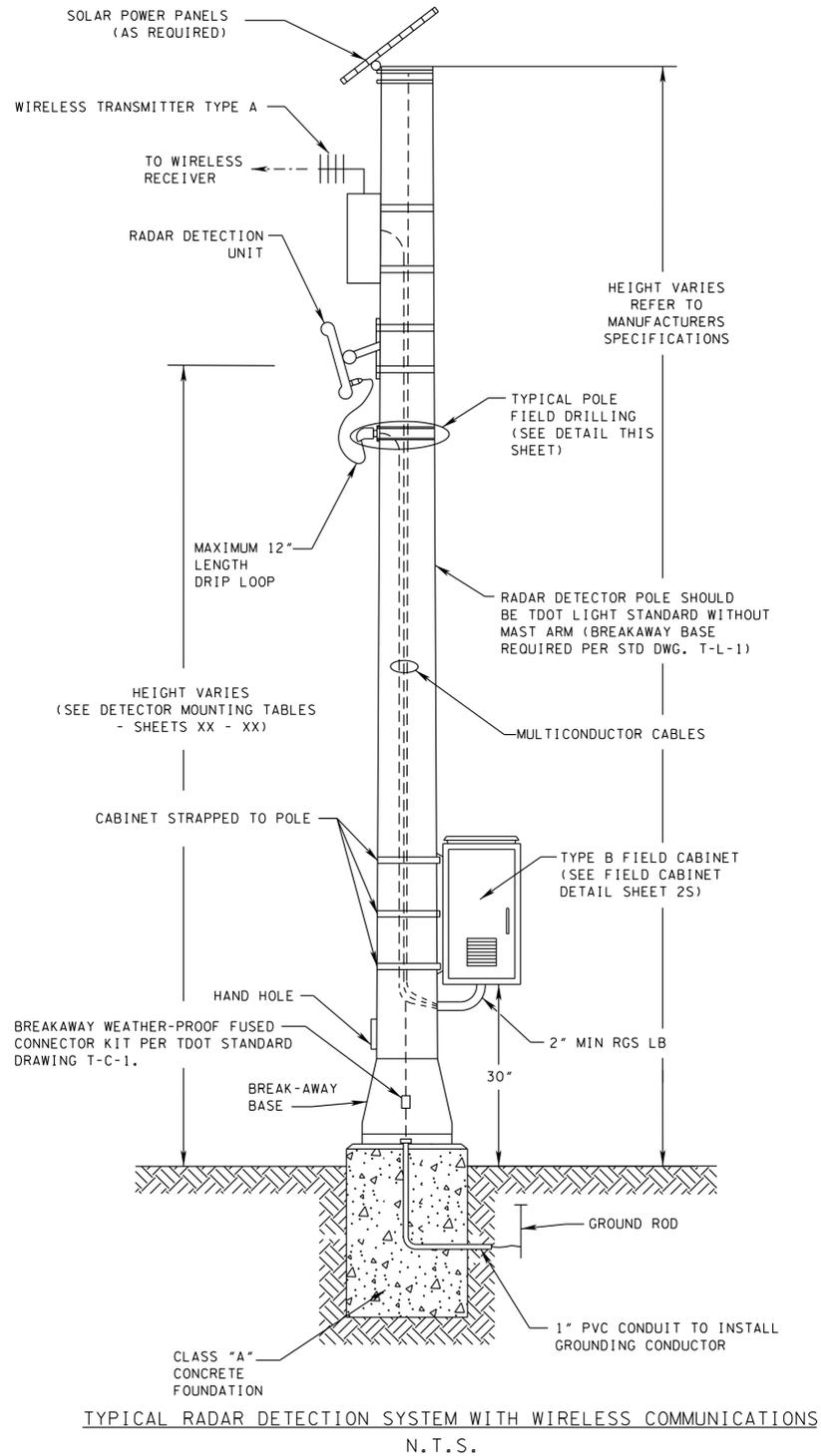
- NOTES:**
1. THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF LAYOUT/SHOP DRAWINGS OF THE POLE AND ITS COMPONENTS (INCLUDING THE PLAN OF ATTACHMENT) TO TDOT STRUCTURES FOR REVIEW AND APPROVAL. TWO (2) EXTRA SETS SHALL BE SUBMITTED TO THE ENGINEER. ALL DRAWINGS SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE.
 2. ALL EQUIPMENT CONNECTIONS SHALL BE MADE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOUNDATION DESIGN AND SHALL SUBMIT TWO (2) COPIES OF THE DESIGN CALCULATIONS TO TDOT STRUCTURES FOR REVIEW AND APPROVAL. ONE (1) EXTRA SET SHALL BE SUBMITTED TO THE ENGINEER. THE TOP OF THE FOUNDATION SHALL NOT PROJECT OVER 4" MAX. ABOVE THE GROUND LINE. ALL DESIGN CALCULATIONS SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE.
 4. SUPPORTS AND FOUNDATIONS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. FOUNDATIONS AND ATTACHMENTS SHALL BE DESIGNED BY THE CONTRACTOR AS SPECIFIED ABOVE AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE. SEE SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS AND DRAWINGS FOR FURTHER INFORMATION.
 5. LOWERING DEVICE WIRES SHALL NOT COME INTO CONTACT WITH COMMUNICATION CABLES OR EACH OTHER.
 6. ALL CONDUIT BETWEEN PULL BOXES AND THE POLE FOUNDATION SHALL BE INCLUDED IN THE COST OF OTHER PAY ITEMS AND SHALL NOT BE MEASURED SEPARATELY FOR PAYMENT.
 7. CONDUIT AND PULL BOXES AS SPECIFIED AND TABULATED ON THE LAYOUT SHEETS.
 8. BOND RGS CONDUIT TO POLE GROUND ROD.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

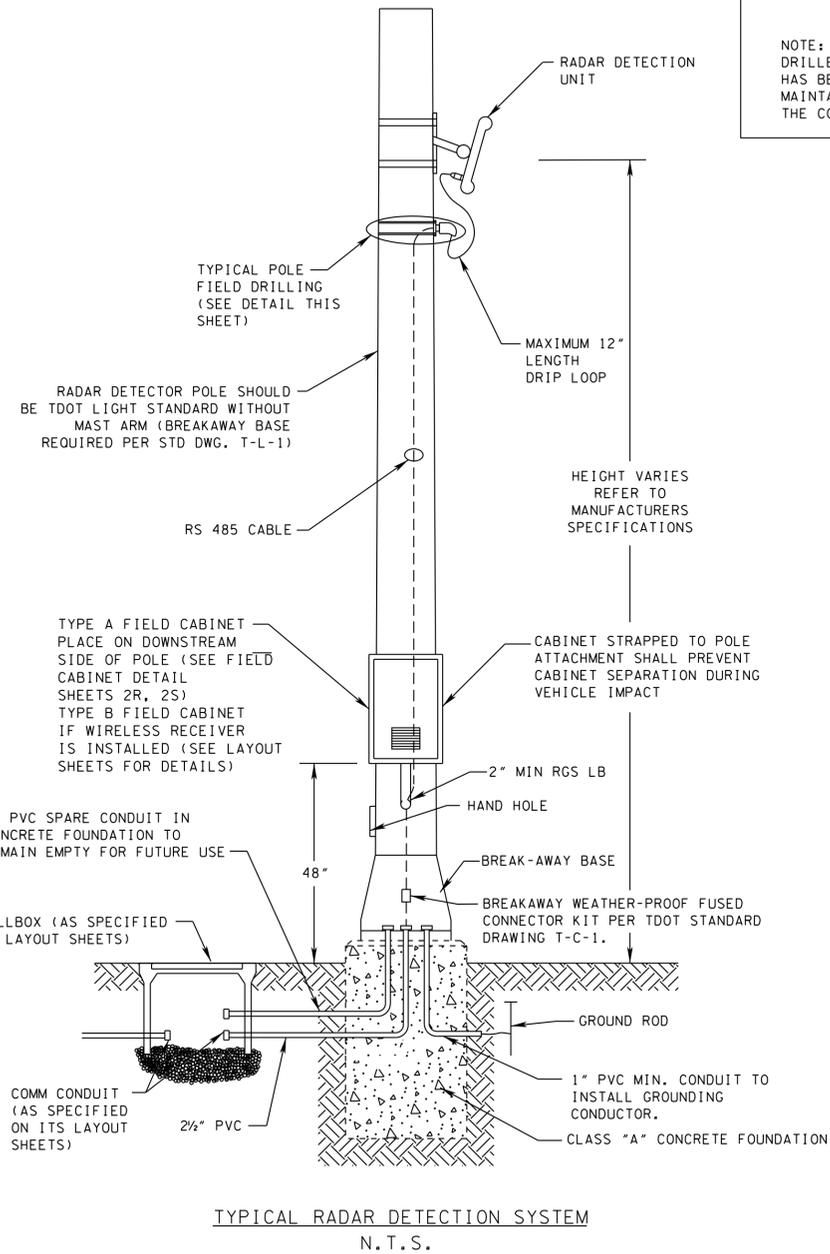
TYPICAL CCTV DETAIL
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	20

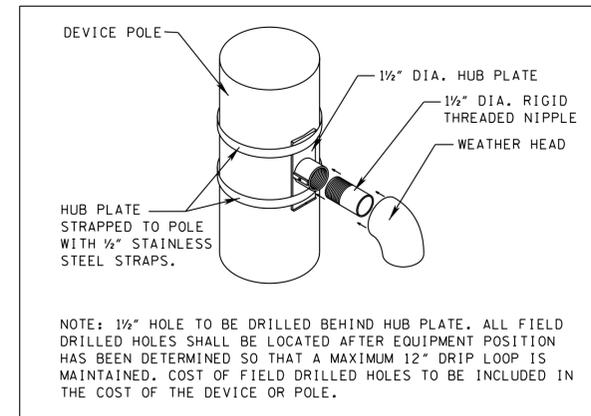


NOTES:

1. THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF LAYOUT/SHOP DRAWINGS OF ALL COMPONENTS (INCLUDING THE PLAN OF ATTACHMENT) TO THE ENGINEER FOR REVIEW AND APPROVAL. ALL DRAWINGS SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE.
2. ALL EQUIPMENT CONNECTIONS SHALL BE MADE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER.



3. SUPPORTS AND FOUNDATIONS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOUNDATION DESIGN AND SHALL SUBMIT FOUR (4) COPIES OF THE DESIGN CALCULATIONS TO THE ENGINEER FOR HIS APPROVAL. THE TOP OF THE FOUNDATION SHALL NOT PROJECT OVER 4" MAX. ABOVE THE GROUND LINE. ALL FOUNDATION DESIGNS SHALL BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE.



TYPICAL POLE FIELD DRILLING
N.T.S.

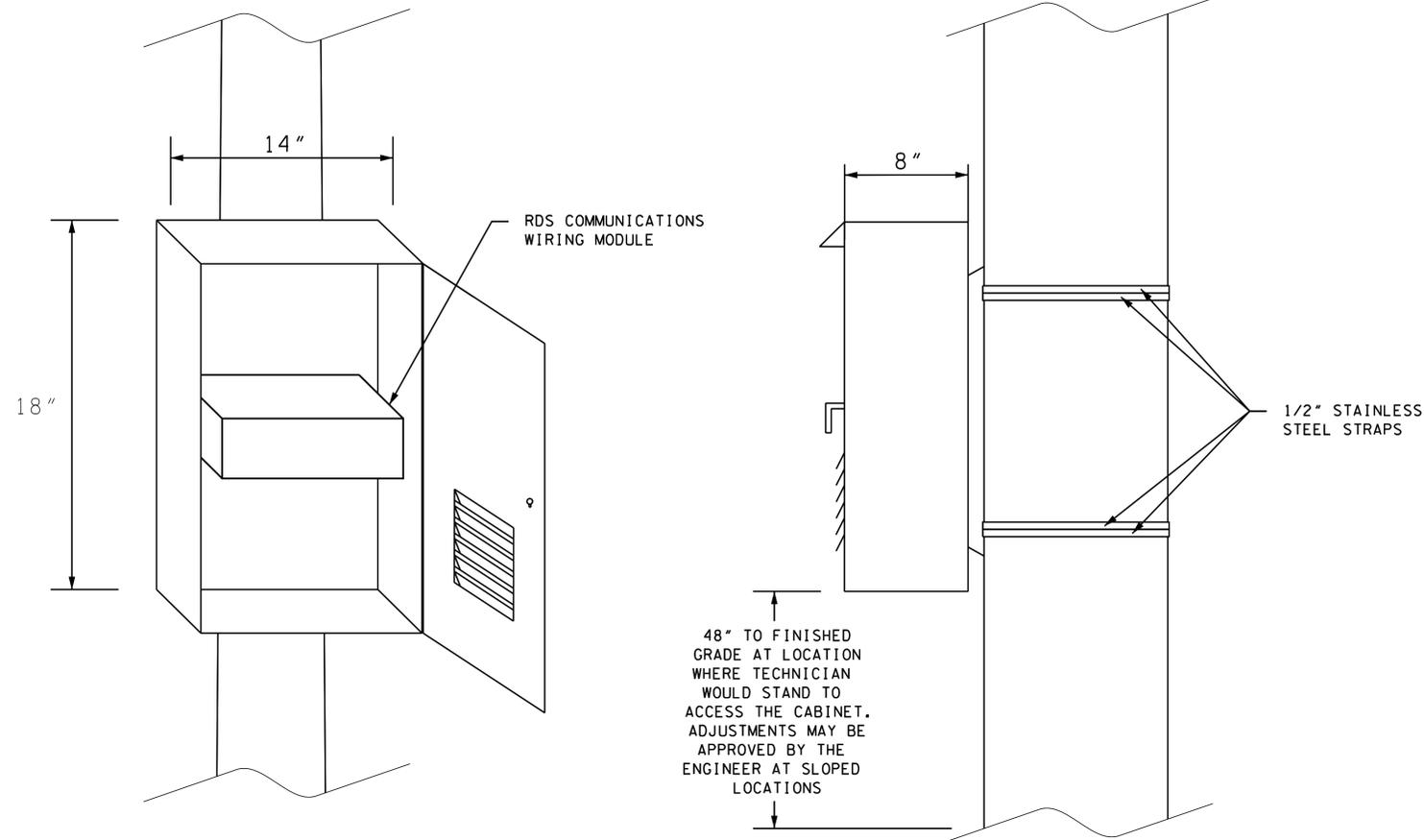


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**RADAR
DETECTION
DETAILS**

N.T.S.

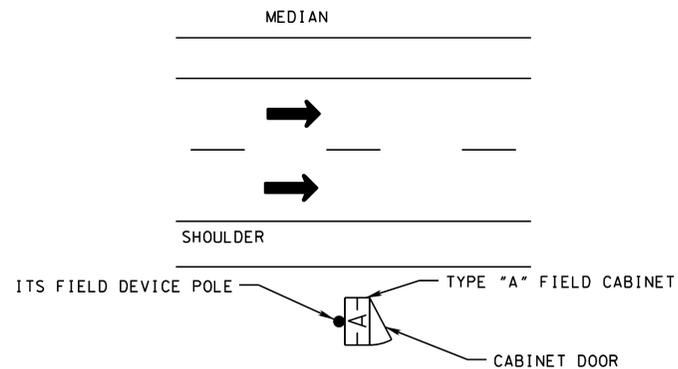
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2R



FRONT VIEW

SIDE VIEW ATTACHED TO POLE

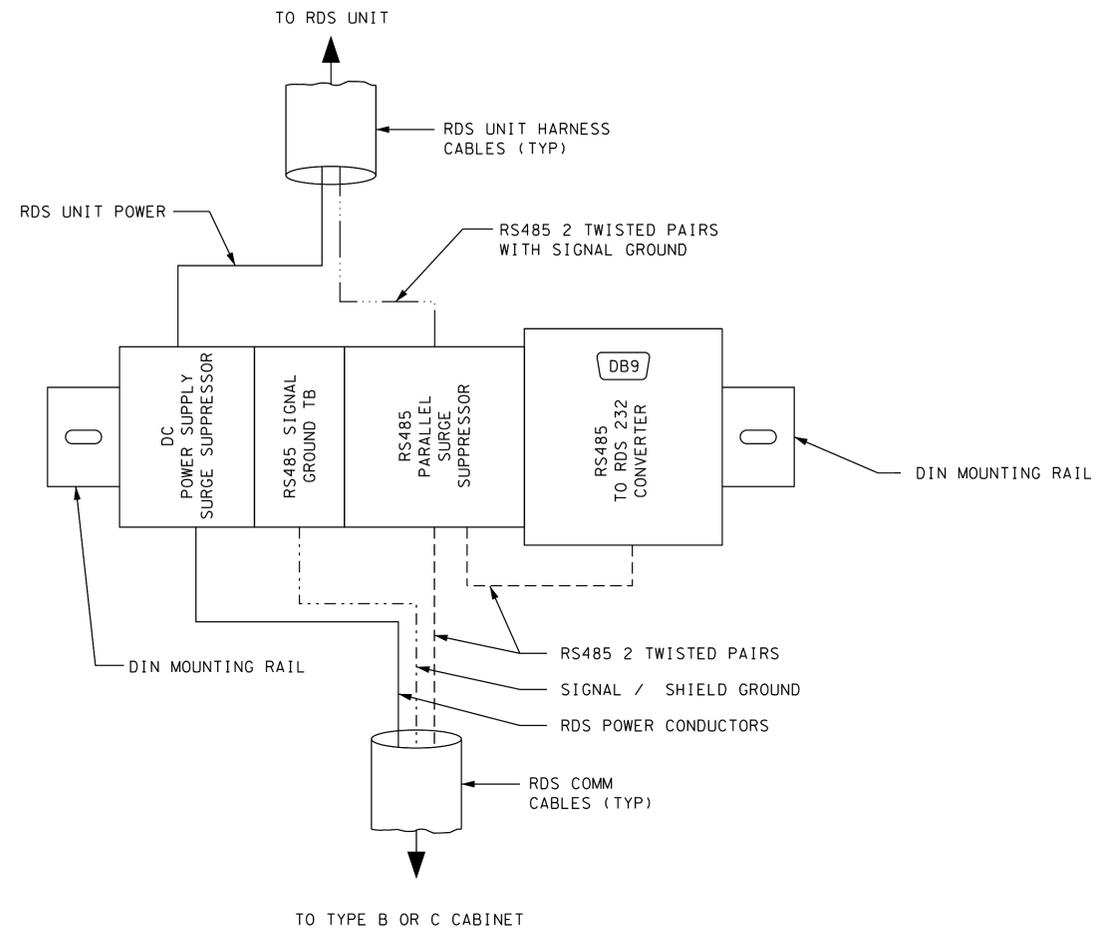
TYPE "A" FIELD CABINET
N.T.S.



DETAIL: PLAN VIEW OF TYPE "A" FIELD CABINET ORIENTATION
N.T.S.

NOTES:

1. FIELD CABINETS ARE ATTACHED TO A NUMBER OF DIFFERENT DEVICES (PROPOSED STRAIN POLES, PROPOSED UTILITY POLES, PROPOSED SPAN SIGN SUPPORTS, EXISTING LIGHT POLES, EXISTING SPAN OR CANTILEVER SIGN SUPPORTS). REFER TO THE ITS LAYOUT SHEETS FOR INDIVIDUAL SITE REQUIREMENTS.
2. ATTACHMENTS TO BREAKAWAY POLES SHALL PREVENT CABINET SEPARATION IN THE EVENT OF VEHICLE IMPACT.
3. CABINETS SHALL BE LABELED WITH "TDOT ITS" AND DEVICE TYPE AND NUMBER. CABINET DIMENSIONS ARE NOMINAL MINIMUMS. SEE SPECIAL PROVISIONS FOR MORE CABINET DETAILS.



RDS COMM WIRING MODULE
N.T.S.

LEGEND	
-----	SIGNAL GROUND
-----	RS485 2 TWISTED PAIRS
-----	RS485 2 TWISTED PAIRS WITH SIGNAL GROUND
-----	SIGNAL / SHIELD GROUND
-----	RDS POWER CONDUCTORS

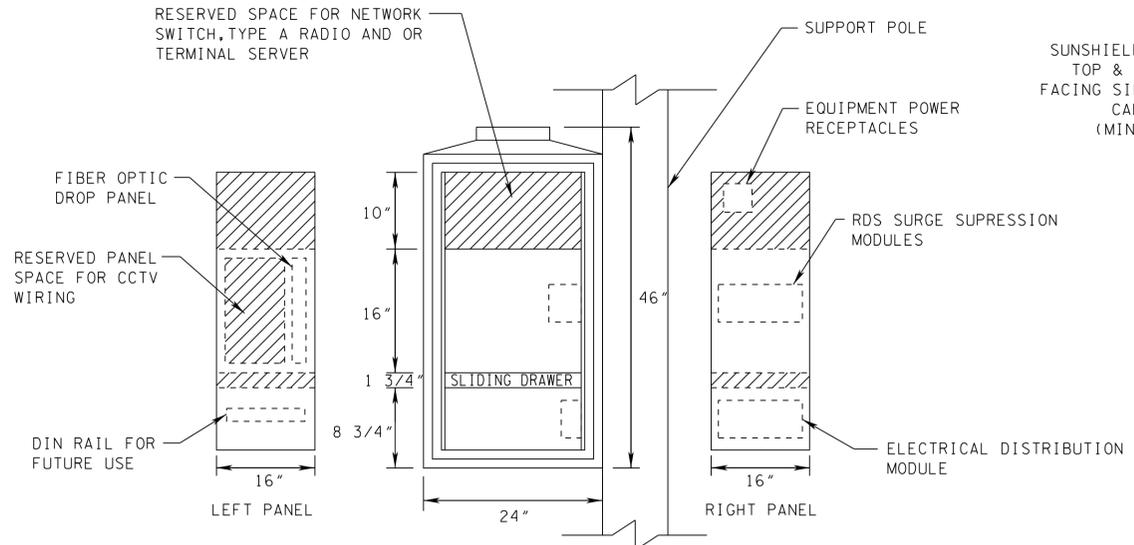


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
CABINET
DETAILS

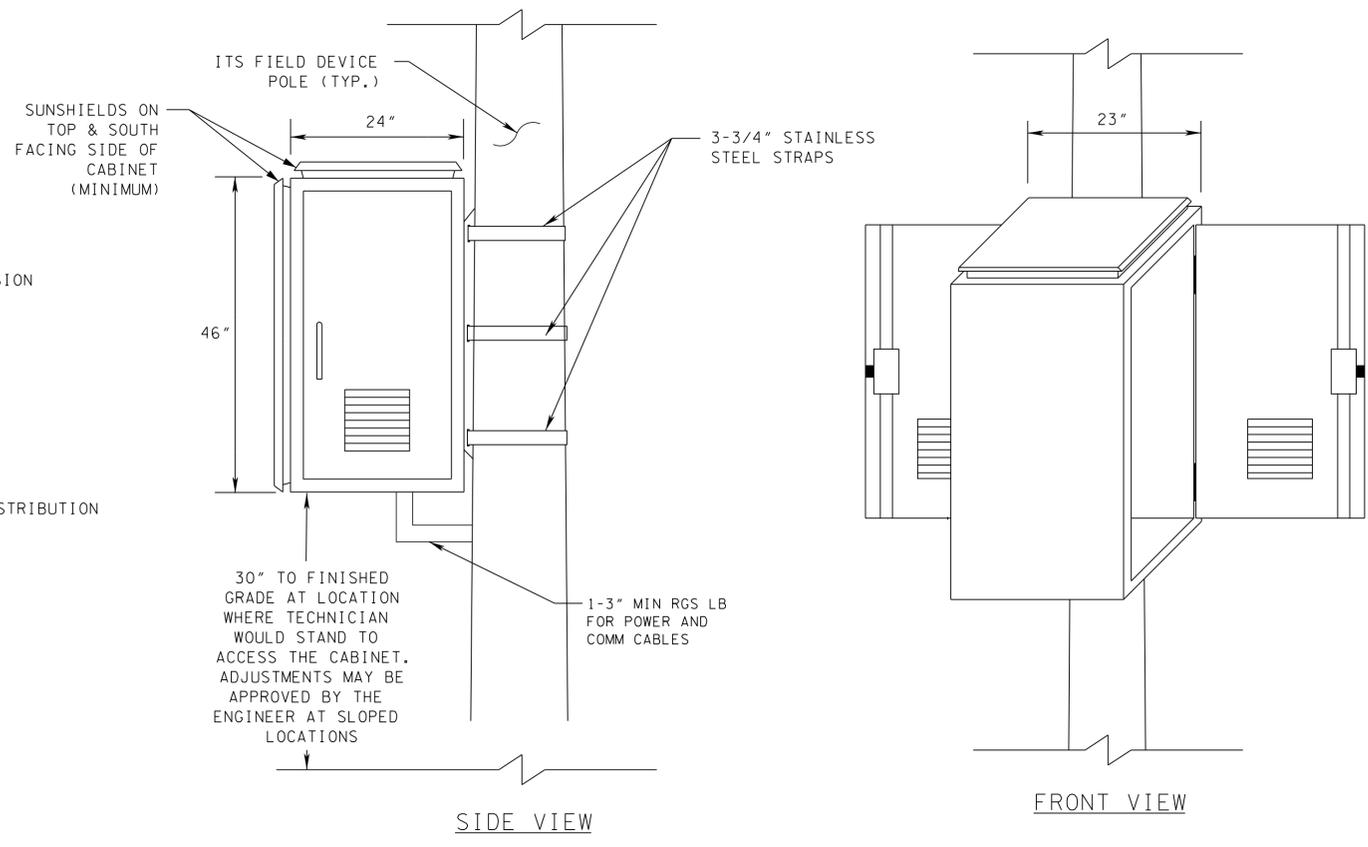
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2S



NOTES:
1. ALL DIMENSIONS AND SCALE ARE APPROXIMATE.

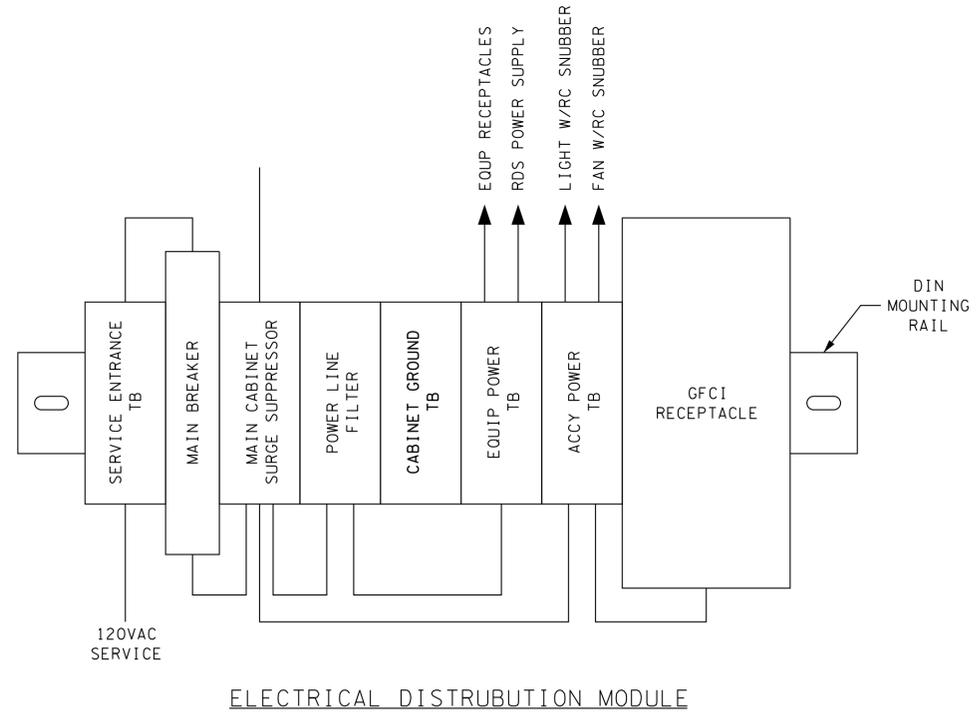
TYPE "B" FIELD CABINET LAYOUT
N.T.S.



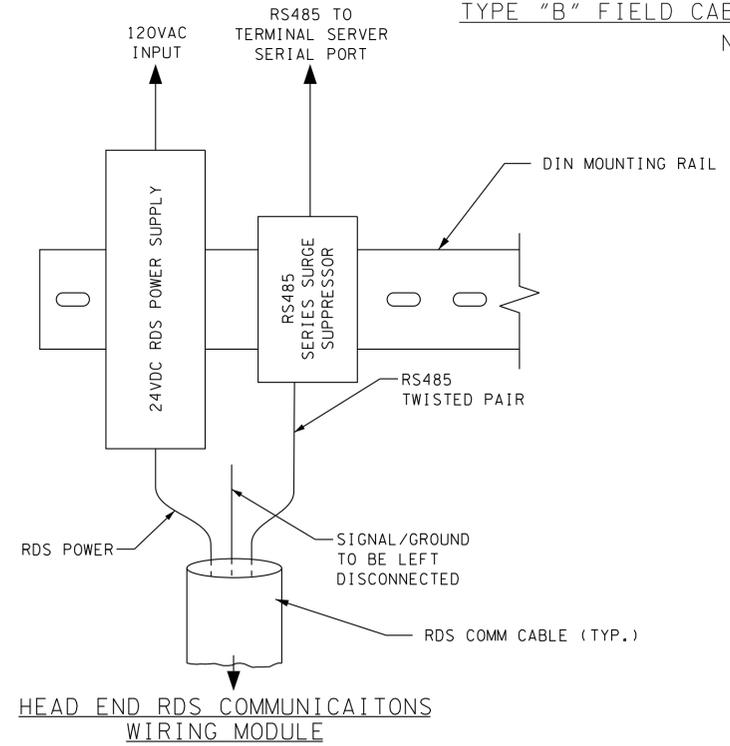
SIDE VIEW

FRONT VIEW

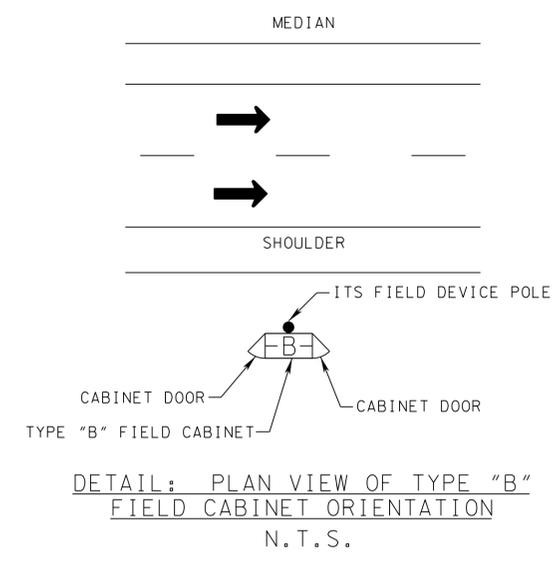
TYPE "B" FIELD CABINET (46" x 24" x 23")
N.T.S.



ELECTRICAL DISTRIBUTION MODULE



HEAD END RDS COMMUNICATIONS WIRING MODULE



DETAIL: PLAN VIEW OF TYPE "B" FIELD CABINET ORIENTATION
N.T.S.

- NOTES:
- FIELD CABINETS ARE ATTACHED TO A NUMBER OF DIFFERENT DEVICES (PROPOSED STRAIN POLES, PROPOSED UTILITY POLES, PROPOSED SPAN SIGN SUPPORTS, EXISTING LIGHT POLES, EXISTING SPAN OR CANTILEVER SIGN SUPPORTS). REFER TO THE ITS LAYOUT SHEETS AND DETAIL SHEETS FOR INDIVIDUAL SITE REQUIREMENTS.
 - CABINETS SHALL BE LABELED "TDOT ITS" WITH DEVICE NAME, TYPE, AND NUMBER. CABINET DIMENSIONS ARE NOMINAL MINIMUMS SEE SPECIAL PROVISIONS FOR MORE CABINET DETAILS.
 - SUBMIT ANY VARIATION OF THE RDS WIRING MODULE TO THE ENGINEER FOR APPROVAL.

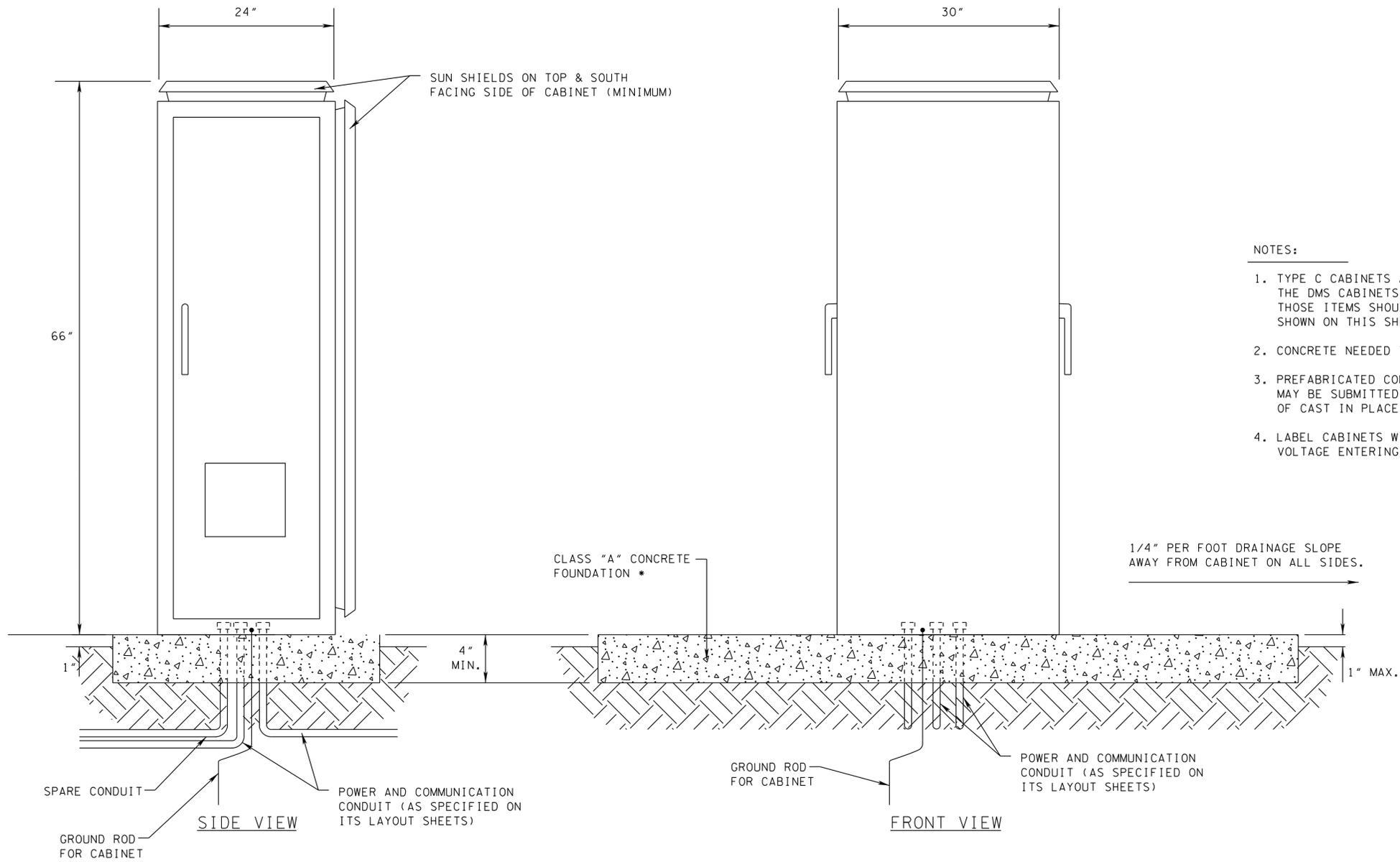


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

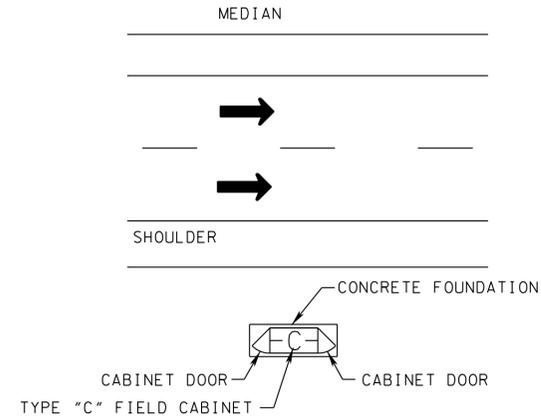
TYPICAL
CABINET
DETAILS

N.T.S.

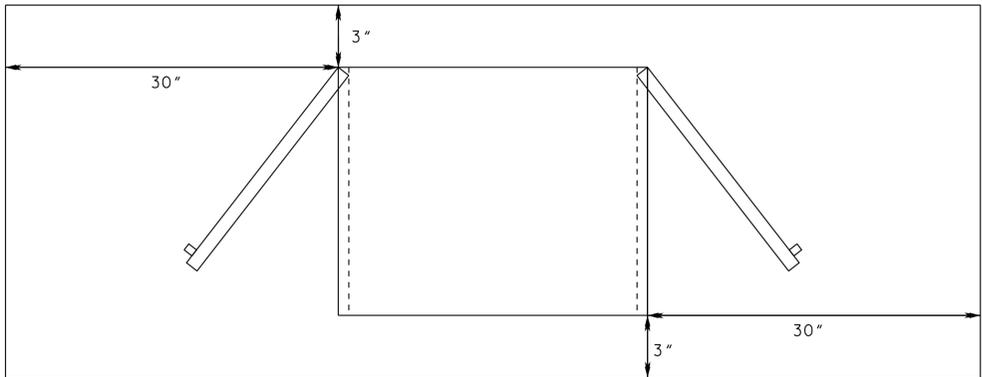
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2T



- NOTES:
1. TYPE C CABINETS ARE NOT MEASURED AND PAID SEPARATELY. THE DMS CABINETS WHICH ARE INCLUDED IN THE COST OF THOSE ITEMS SHOULD FOLLOW THE INSTALLATION REQUIREMENTS SHOWN ON THIS SHEET, FOR TYPE C CABINETS.
 2. CONCRETE NEEDED TO FORM PAD MAY VARY BASED ON SLOPE.
 3. PREFABRICATED CONCRETE OR POLYMER CONCRETE CABINET BASES MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER. FOR USE IN LIEU OF CAST IN PLACE FOUNDATIONS
 4. LABEL CABINETS WITH "TDOT ITS" WITH DEVICE NAME, NUMBER, AND WITH VOLTAGE ENTERING. SEE SPECIAL PROVISIONS FOR MORE CABINET DETAILS.



DETAIL: PLAN VIEW OF TYPE "C" FIELD CABINET ORIENTATION
N.T.S.



TOP VIEW
TYPE "C" FIELD CABINET (66"x24"x30")
N.T.S.

* NOTE: OVERALL PAD DIMENSIONS MAY VARY ACCORDING TO CABINET SIZE.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

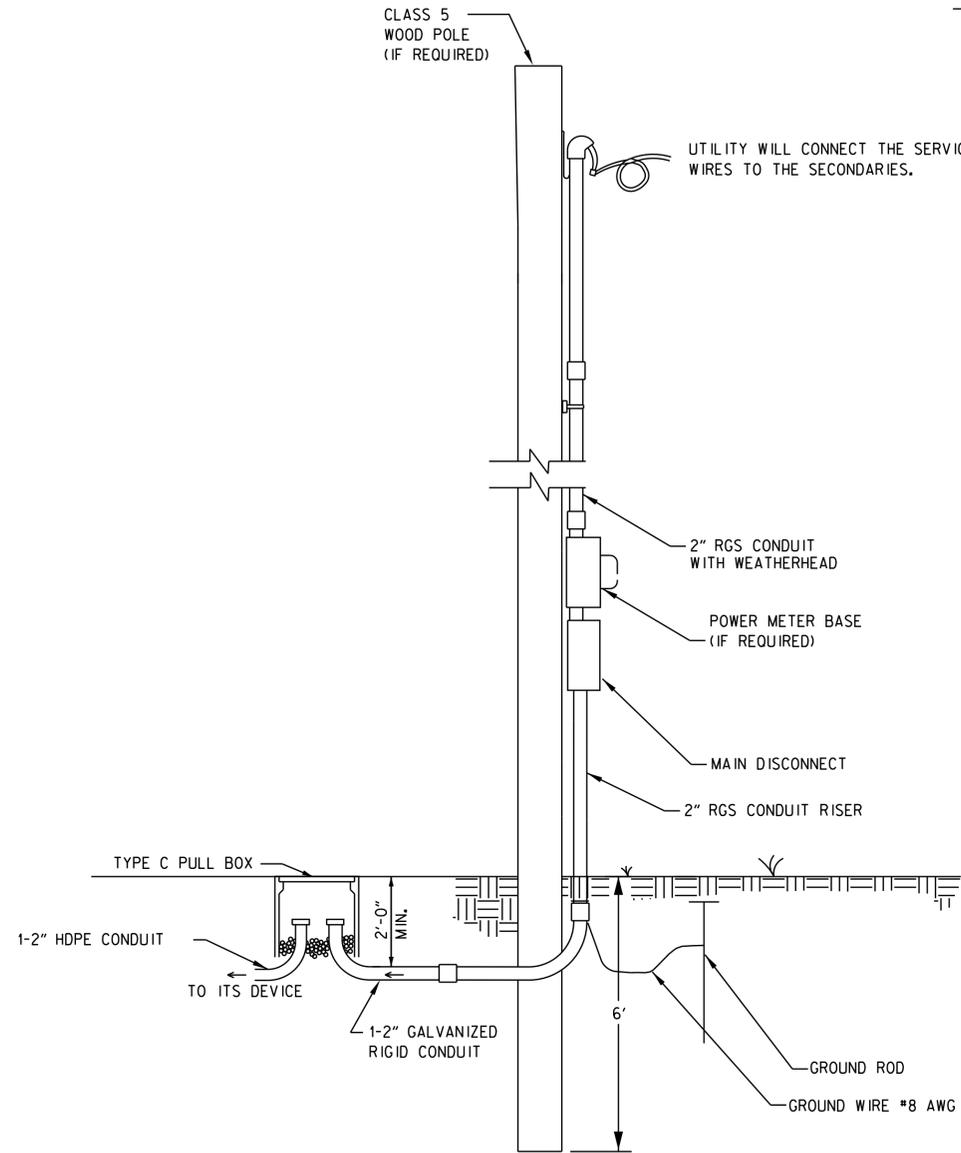
TYPICAL
CABINET
DETAILS

N.T.S.

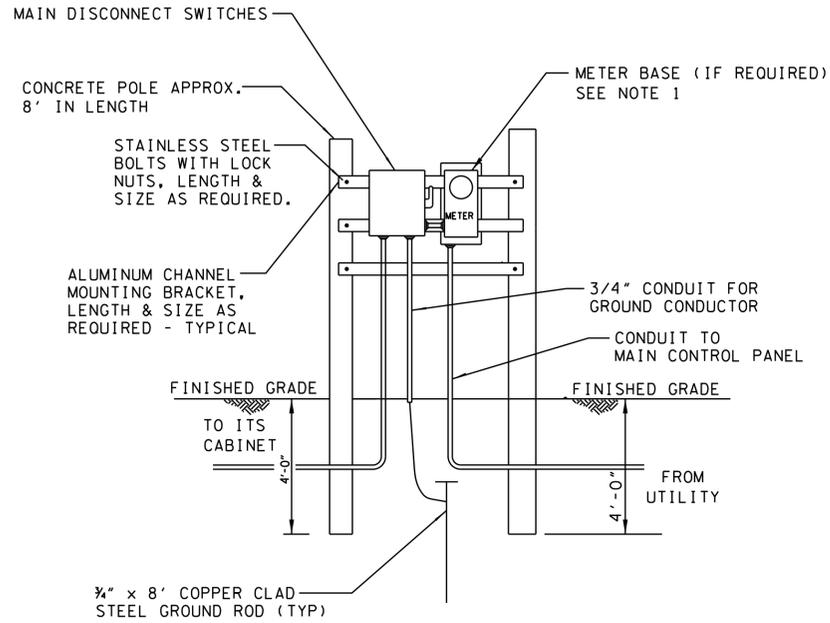
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2U

TYPICAL NEW ELECTRICAL DEMARCATION LAYOUT

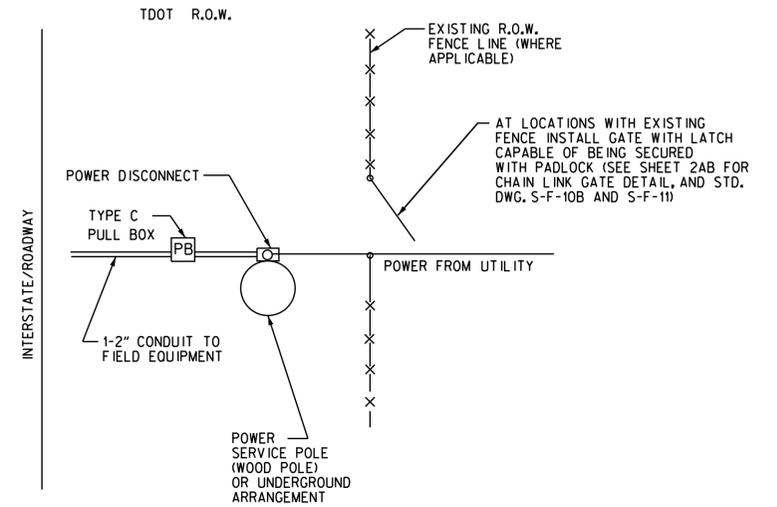
THESE DEMARCATION POINTS ARE SHOWN AS  IN PLANS.



OVERHEAD DEMARCATION ARRANGEMENT
N.T.S.



UNDERGROUND DEMARCATION ARRANGEMENT
N.T.S.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DEMARCATION POINT DETAILS
N.T.S.

GENERAL NOTES:

- CONTACT POWER CO. ENGINEER FOR THE LOCATION OF CONDUIT ON POLE PRIOR TO CONSTRUCTION.
- ENTIRE INSTALLATION MUST MEET OR EXCEED ALL LOCAL AND NATIONAL ELECTRICAL CODES.
- SERVICE WIRE SHALL ENTER DISCONNECT SWITCH PRIOR TO CABINET HOME RUN.
- FOR LOCATION OF POWER SERVICE POLE SEE PLAN SHEETS.
- CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE AGENCIES TO OBTAIN 911 STREET ADDRESSES FOR EACH DEMARCATION POINT.

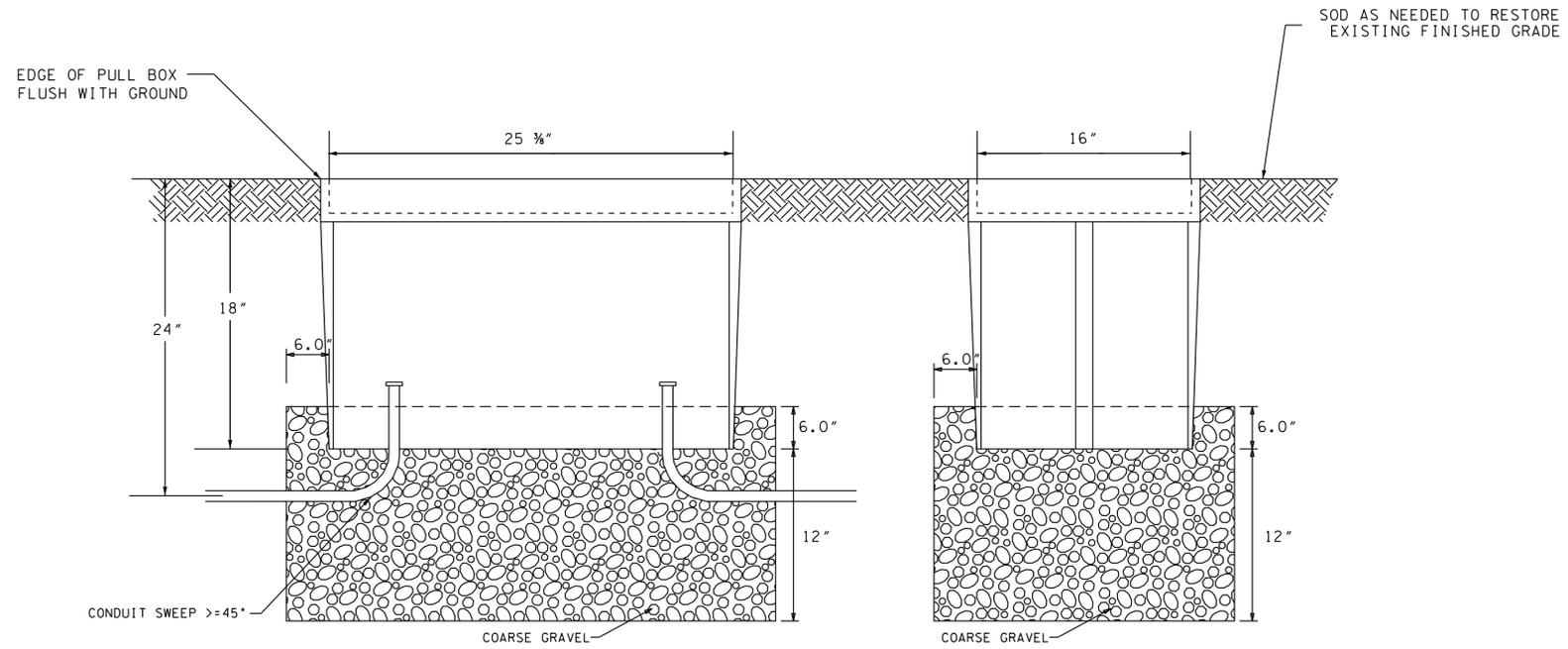
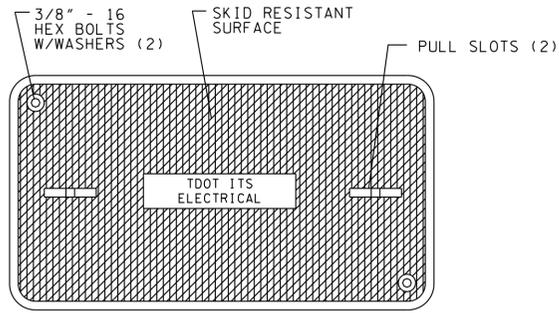
POWER POLE NOTES:

- ATTACH CONDUIT TO WOOD POLE. MAXIMUM DISTANCE BETWEEN FASTENERS IS 5'.
- INSTALL CONDUCTORS THROUGH THE WEATHERHEAD, WITH A MINIMUM OF 10' OF CONDUCTORS OUT OF THE WEATHERHEAD, COILED AT TOP OF POLE.
- ATTACH RIGID METAL CONDUIT TO POLE GROUNDING SYSTEM WITH #8 BARE COPPER WIRE.

DEMARCATION NOTES:

- GATE SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON SHEET 2AB. FOR EACH NEW GATE INSTALLED, THE CONTRACTOR SHALL PROVIDE A SOLID WEATHERPROOF LOCK AND 36" OF CHAIN. ALL LOCKS SHALL BE KEYED ALIKE. THE LOCK AND CHAIN SHALL BE CONSIDERED INCIDENTAL TO THE PRICE OF THE GATE.
- CONTRACTOR SHALL INSTALL METER BASES FOR ALL DEMARCATION POINTS. CONTRACTOR SHALL COORDINATE WITH POWER COMPANY TO ENSURE THE CORRECT METER BASE IS USED.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2V



TYPE C PULL BOX ASSEMBLY

N.T.S.

SHOWN AS



TYPE C PULL BOX NOTES

1. ALL CONDUITS SHALL ENTER BOTTOM OF PULL BOX
2. ALL CONDUITS SHALL BE TERMINATED WITH A TERMINATOR KIT
3. REFER TO THE TECHNICAL SPECIAL PROVISION (TSP) 725 SECTION 3 PULL BOXES, FOR PULL BOX REQUIREMENTS AND INSTALLATION INFORMATION.

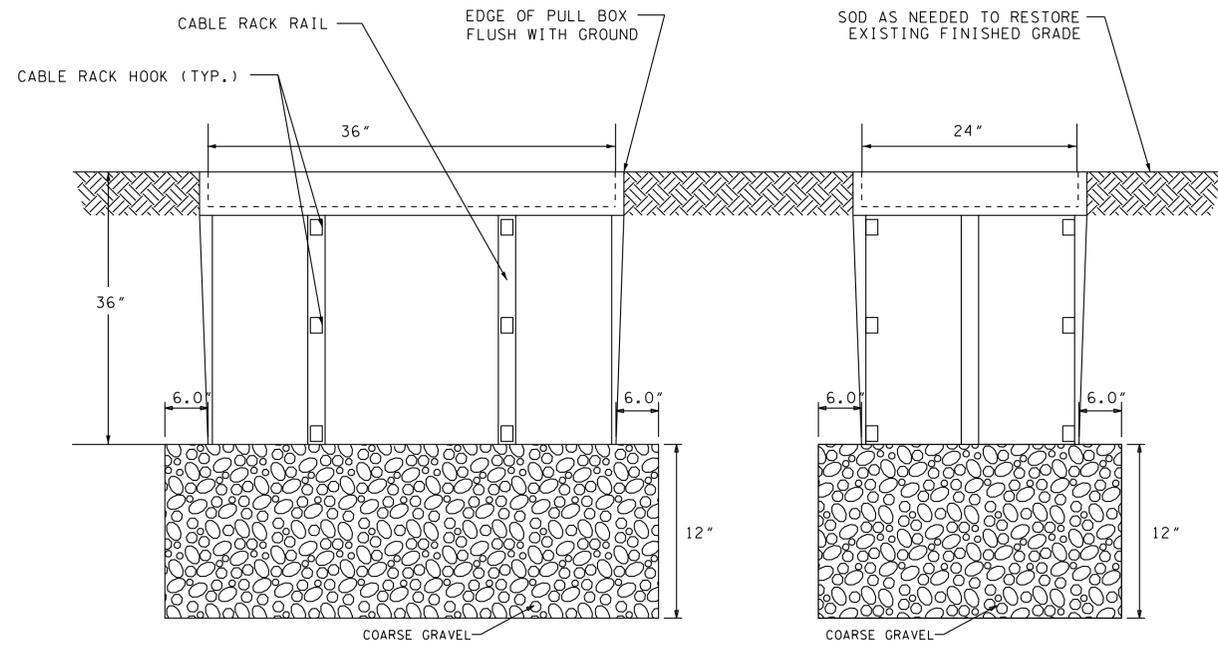
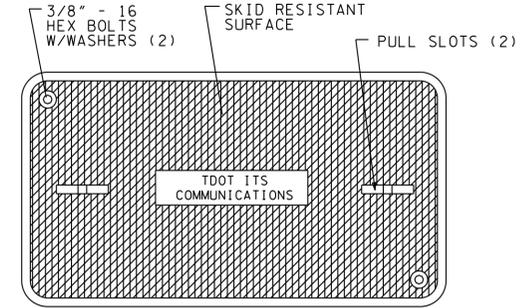
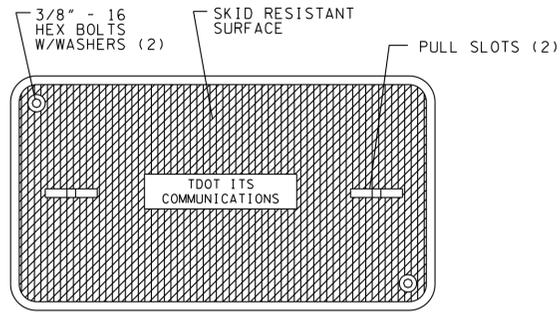


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ELECTRICAL
PULLBOX
DETAILS

N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2W



TYPE D PULL BOX ASSEMBLY

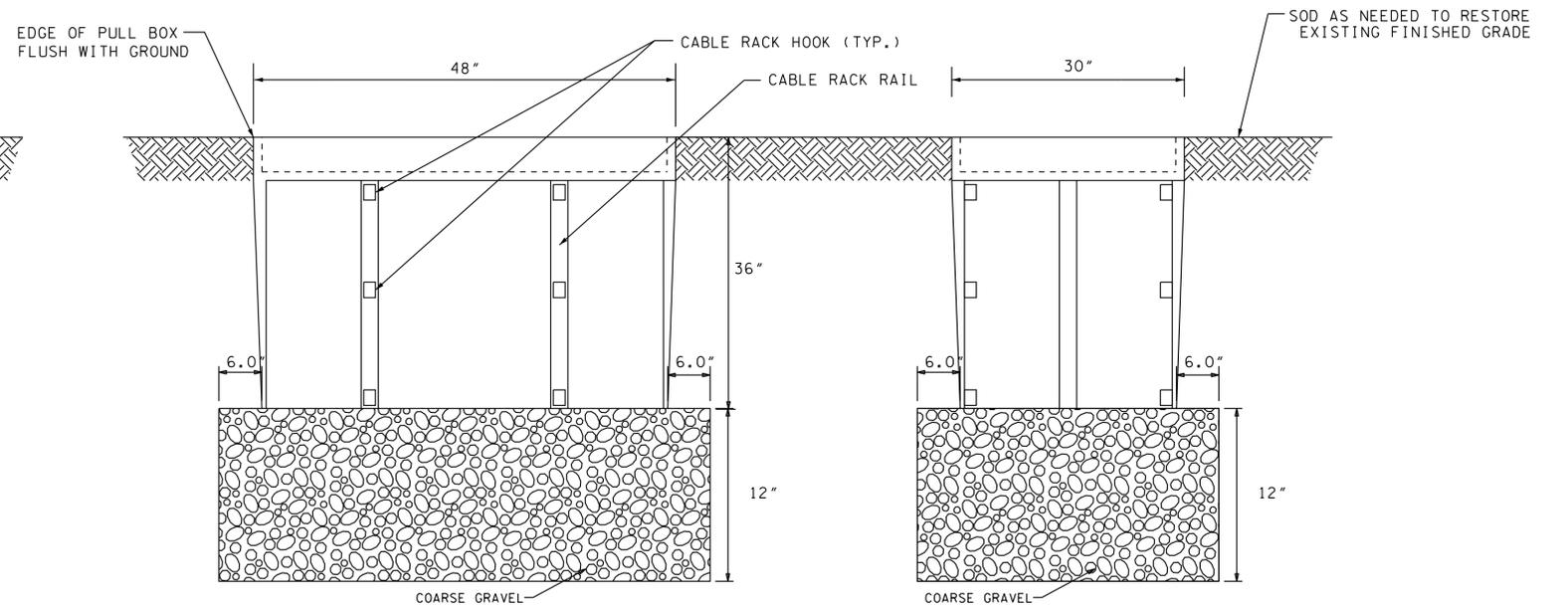
N.T.S.

SHOWN AS



TYPE D PULL BOX NOTES

1. ALL CONDUITS SHALL ENTER SIDE OF PULL BOX
2. ALL CONDUIT HOLES ARE TO BE CUT BY CONTRACTOR
3. ALL CONDUITS SHALL BE TERMINATED WITH A TERMINATOR KIT
4. REFER TO THE TECHNICAL SPECIAL PROVISION (TSP) 725 SECTION 3 PULL BOXES, FOR PULL BOX REQUIREMENTS AND INSTALLATION INFORMATION.



TYPE E PULL BOX ASSEMBLY

N.T.S.

SHOWN AS



TYPE E PULL BOX NOTES

1. ALL CONDUITS SHALL ENTER SIDE OF PULL BOX
2. ALL CONDUIT HOLES ARE TO BE CUT BY CONTRACTOR
3. ALL CONDUITS SHALL BE TERMINATED WITH A TERMINATOR KIT
4. REFER TO THE TECHNICAL SPECIAL PROVISION (TSP) 725 SECTION 3 PULL BOXES, FOR PULL BOX REQUIREMENTS AND INSTALLATION INFORMATION.



STATE OF TENNESSEE
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COMMUNICATION
PULLBOX
DETAILS

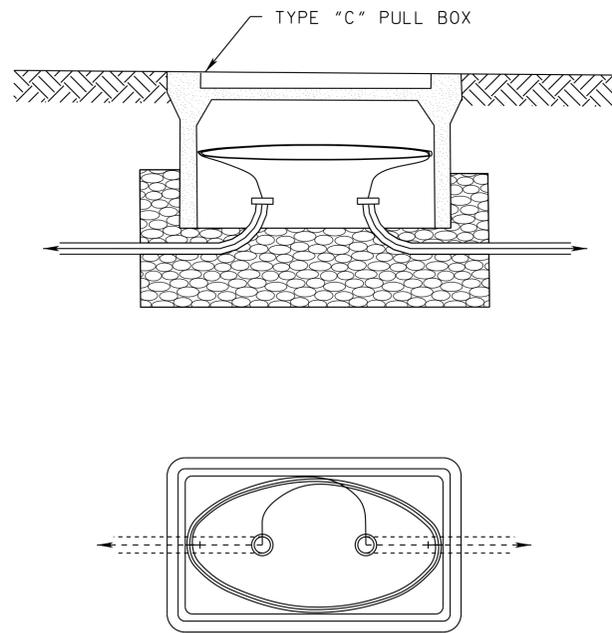
N.T.S.

TYPICAL CABLE COIL INSTALLATION GUIDE
(FEET OF COIL LENGTH PER ENTERING CABLE)

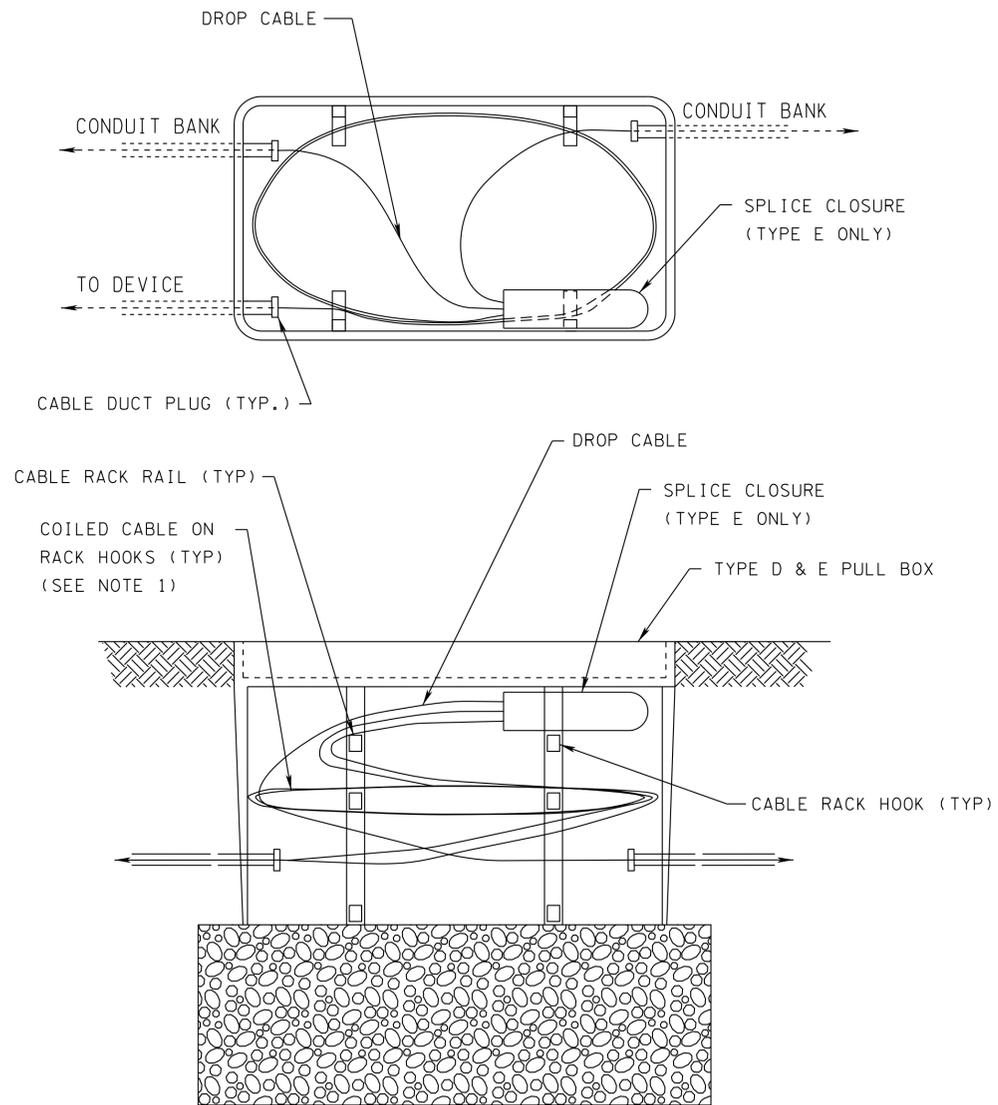
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2X

CABLE TYPE	TYPE "C" PULL BOX	TYPE "D" PULL BOX ON TRUNK	TYPE "D" PULL BOX ON DROP	TYPE "E" PULL BOX
FIBER OPTIC CABLES (TRUNK)		50		200
FIBER OPTIC CABLES (DROP)			25	100
ELECTRICAL SERVICE CONDUCTORS	10			
VDS LEAD-IN CABLE			10	
RDS COMM CABLE		20	20	20
DMS COMM CABLE			10	

NOTE: SEE TSP 725 FOR ADDITIONAL INFORMATION



CABLE MANAGEMENT IN TYPE "C" PULL BOX
N.T.S.



CABLE MANAGEMENT IN TYPE D & E PULL BOX
N.T.S.

- NOTES: 1. FIBER TRUNK AND DROP CABLE SHALL BE COILED TOGETHER. EACH RDS COMM CABLE SHALL BE COILED SEPARATELY AND SUPPORTED ON RACK HOOKS.
2. CONDUIT MAY ENTER THE LONG SIDE OF THE PULL BOX WHEN FIELD CONDITIONS WARRANT

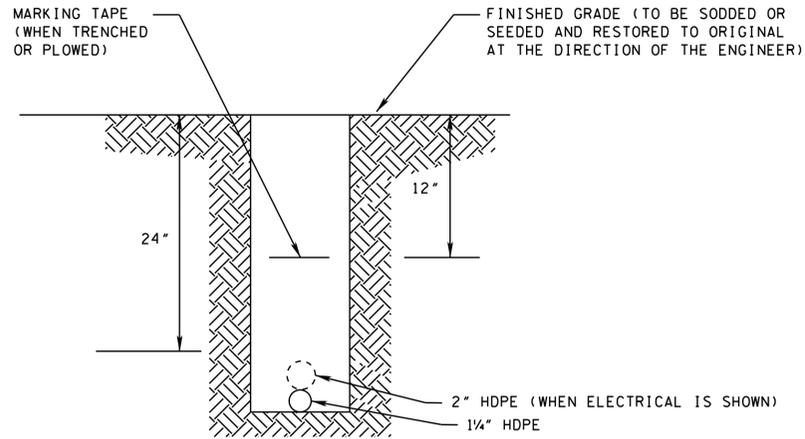


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CABLE
MANAGEMENT
DETAILS

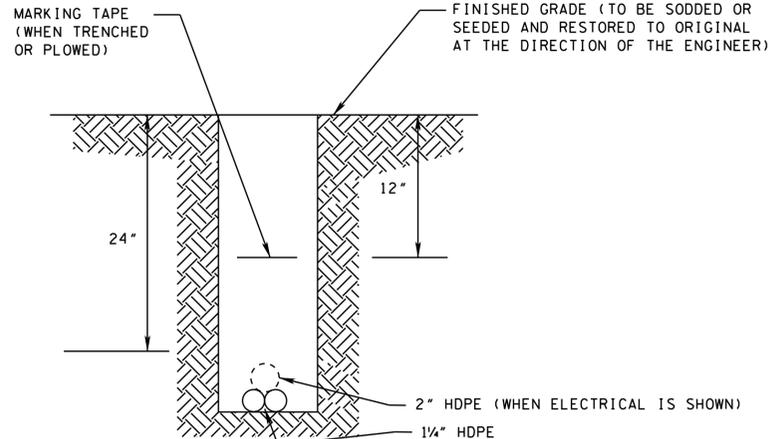
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2Y



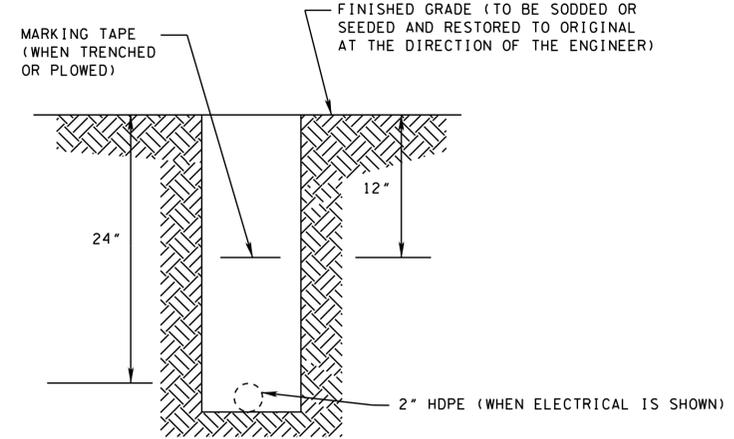
CONDUIT BANK TYPE 1
N.T.S.

ONE 1/4" HDPE COMMUNICATIONS CONDUIT WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



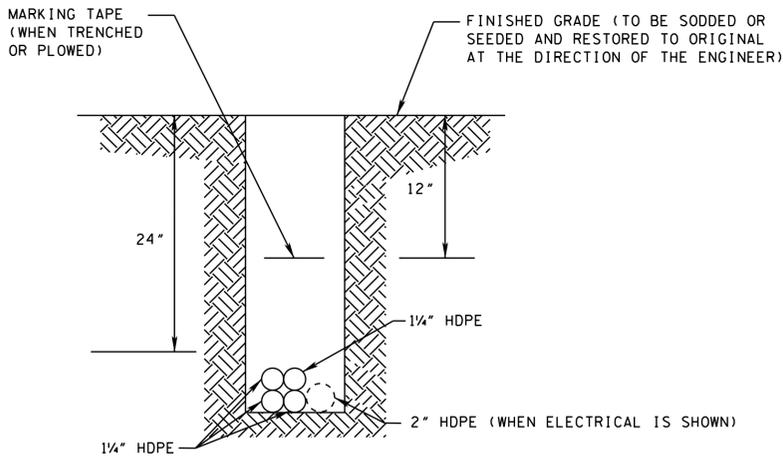
CONDUIT BANK TYPE 2
N.T.S.

TWO 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



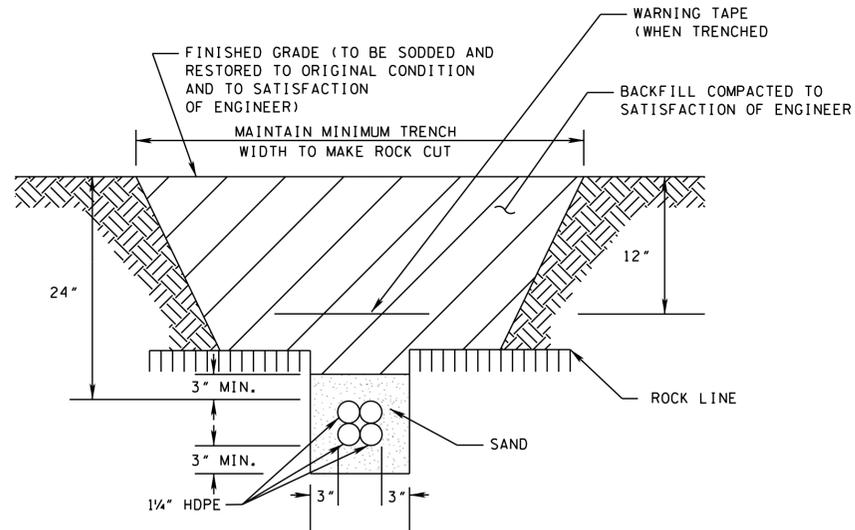
1-2" CONDUIT
N.T.S.

ONE 2" HDPE ELECTRICAL CONDUIT



CONDUIT BANK TYPE 4
N.T.S.

FOUR 1/4" HDPE COMMUNICATIONS CONDUITS WITH OR WITHOUT ONE 2" HDPE ELECTRICAL CONDUIT WHICH IS PAID SEPARATELY



CONDUIT BANK IN ROCK
N.T.S.

CONDUIT COLORS

ALL CONDUIT USED ON THIS PROJECT SHALL CONFORM TO THE COLOR SCHEME AND USE DESCRIBED BELOW:

CONDUIT BANK TYPE 1: GREEN (DROP FIBER OR RDS COMM)

CONDUIT BANK TYPE 2: GREEN (DROP FIBER OR RDS COMM)
WHITE (RDS COMM, 2ND DROP FIBER OR SPARE)

CONDUIT BANK TYPE 3: GREEN (DROP FIBER OR RDS COMM)
BLUE (RDS COMM OR 2ND DROP FIBER)
WHITE (2ND RDS COMM OR SPARE)

CONDUIT BANK TYPE 4: ORANGE (TRUNK FIBER CABLE)
BLUE (RDS COMM OR DROP FIBER)
WHITE (SPARE OR 2ND RDS COMM)
BROWN (SPARE)

2" ELECTRICAL CONDUIT: GREY (ELECTRICAL WIRE)

NOTES:

- ROCK LINE WILL VARY. ROCK EXCAVATION TO BE INCLUDED IN CONDUIT BANK.
- WHERE ROCK IS FOUND TRENCH MUST CONTAIN MINIMUM 3" SAND COVER OVER CONDUIT THEN 9" BACK FILL WITH SOIL FREE OF ROCKS OR OTHER FOREIGN MATTER. THE REMAINDER OF THE TRENCH MAY BE BACK-FILLED WITH EXISTING MATERIAL REMOVED FROM THE TRENCH PROVIDED NO STONES ARE GREATER THAN #2 STONE.
- DETAILS FOR CONDUIT BANKS APPEAR AS TRENCHED INSTALLATION FOR GRAPHICAL PURPOSES ONLY. AS DESCRIBED IN SECTION 2, TSP 725 CONDUIT BANKS IN EARTH MAY BE TRENCHED, PLOWED, HORIZONTAL DIRECTIONAL BORED, OR DRILLED.

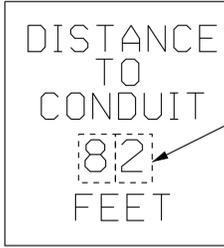


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**TRENCHING
DETAILS**

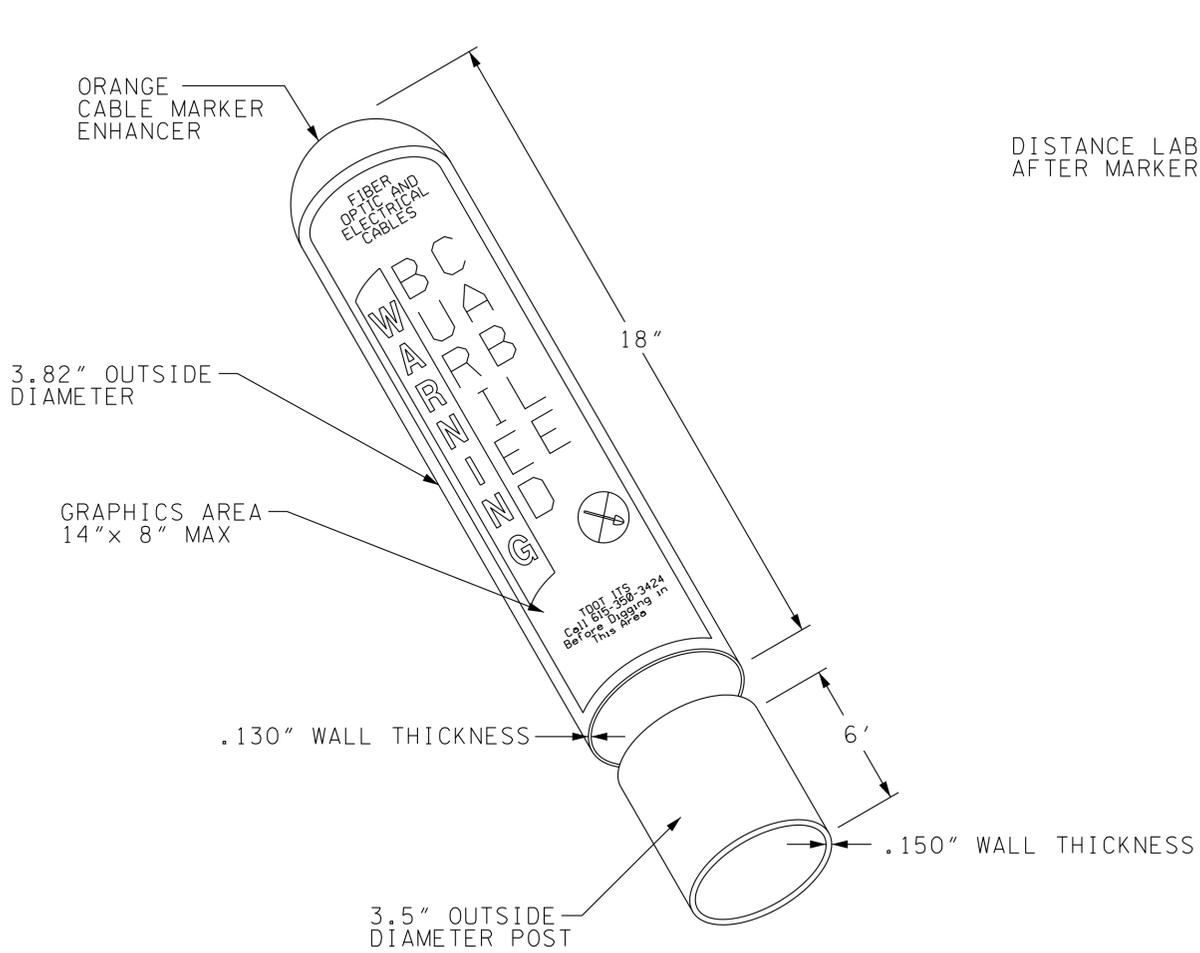
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	22

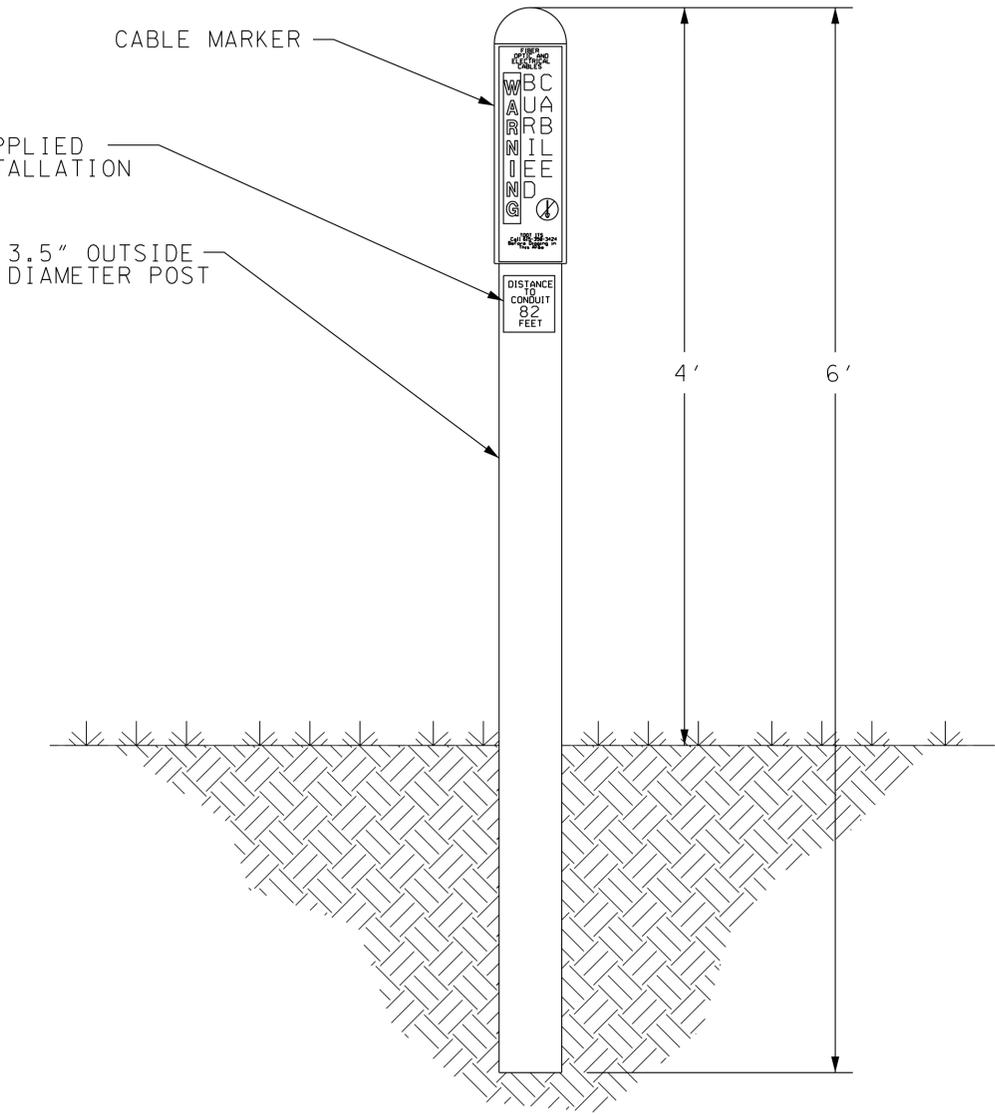


NUMBER STICKERS APPLIED IN FIELD

PRE PRINTED DISTANCE LABEL



DETAIL VIEW OF CABLE MARKER
 N.T.S.



TYPICAL INSTALLATION OF CABLE MARKER
 N.T.S.

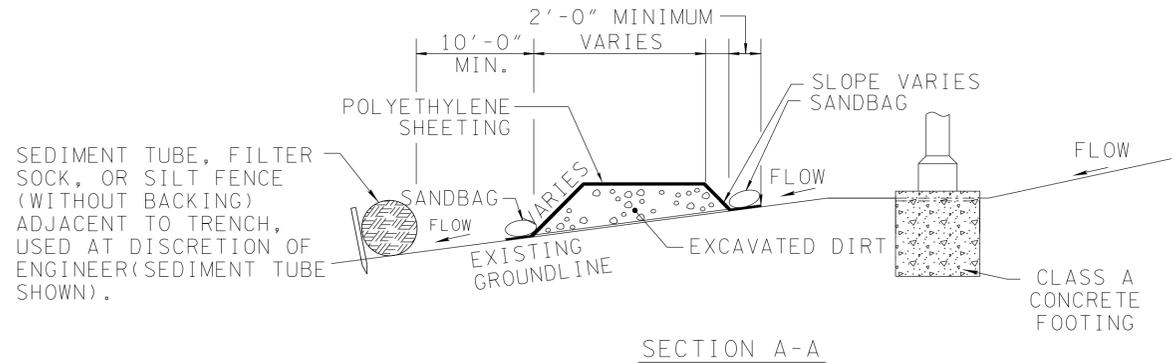
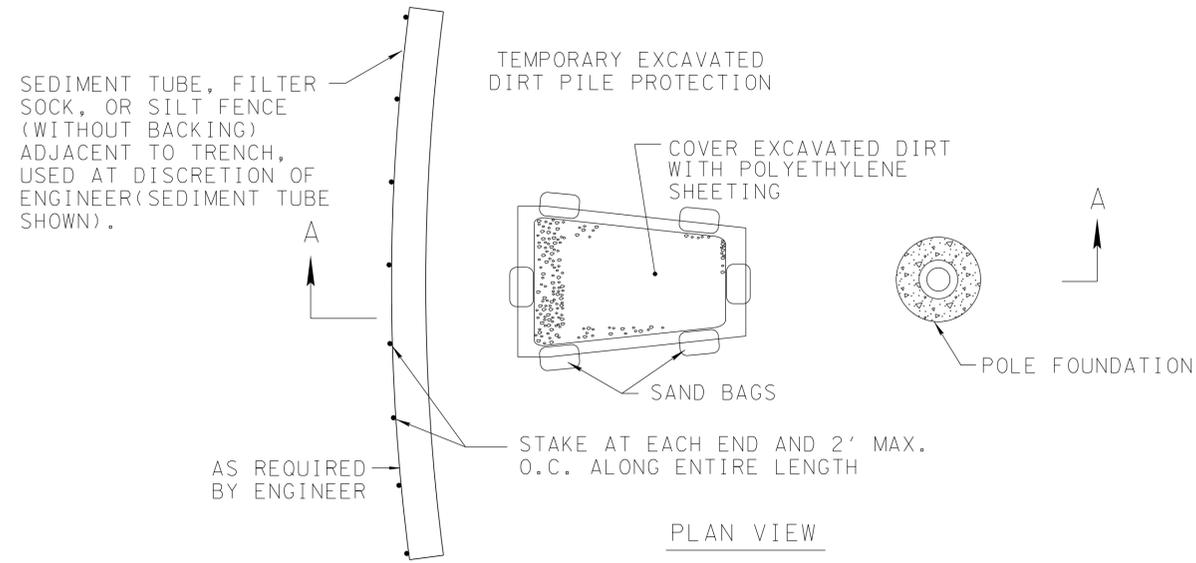


STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

CABLE MARKER DETAILS
 N.T.S.

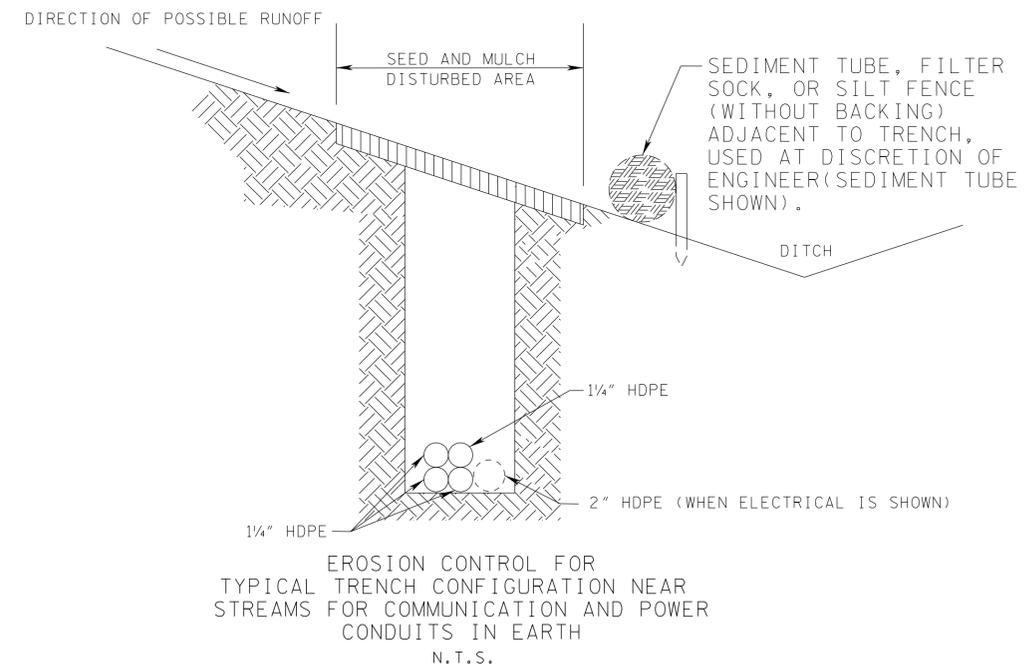
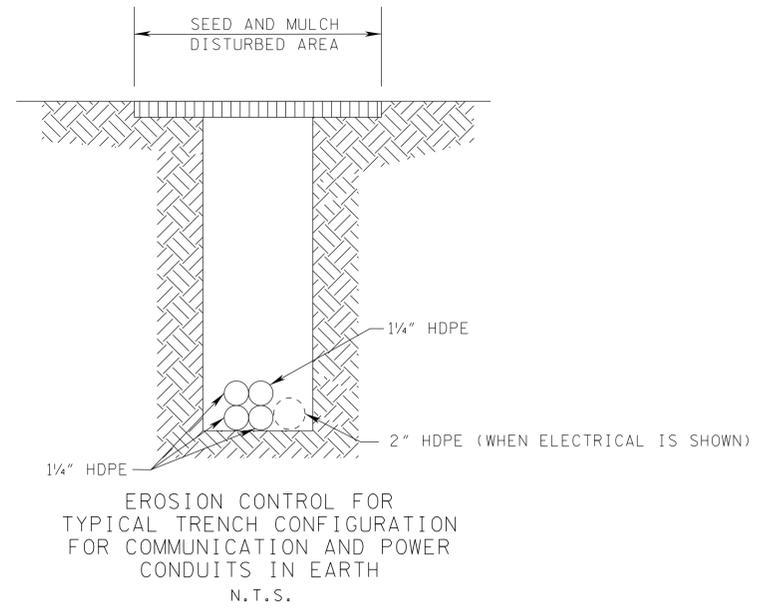
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-I-098-3(26)	2AA

POLE OR SIGN FOUNDATION EROSION CONTROL



APPROXIMATE QUANTITIES (PER EACH POLE)			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
740-11.02	TEMPORARY SEDIMENT TUBE 12IN (EPSC)	L.F.	30
209-09.01	SANDBAGS	BAG	6
209-20.03	POLYETHYLENE SHEETING (6 MIL MINIMUM)	SQUARE YARD	25

APPROXIMATE QUANTITIES (PER EACH DMS SIGN FOUNDATION)			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
740-11.02	TEMPORARY SEDIMENT TUBE 12IN (EPSC)	L.F.	30
209-09.01	SANDBAGS	BAG	6
209-20.03	POLYETHYLENE SHEETING (6 MIL MINIMUM)	SQUARE YARD	90



NOTES:

- EROSION CONTROL DEVICES SHALL BE PLACED IMMEDIATELY AFTER AREA IS DISTURBED AND SHALL REMAIN IN PLACE UNTIL LOCATION IS STABILIZED WITH VEGETATION.
- THESE TYPICAL DETAILS WILL BE USED AT THE DISCRETION OF THE ENGINEER BASED ON THE LOCATION AND DURATION OF THE DISTURBED AREAS. IF THE FOUNDATION IS IN A LOCATION WHERE RUNOFF IS NOT AN ISSUE, THE LOCATION MAY NOT REQUIRE THE USE OF THESE TEMPORARY EROSION CONTROL MEASURES, BUT WILL STILL REQUIRE PERMANENT SEED AND MULCH.
- EXCAVATED DIRT THAT IS NOT NEEDED FOR BACKFILL SHALL BE REMOVED IMMEDIATELY AFTER EXCAVATION.
- ALL OPEN TRENCHES TO BE BACKFILLED IMMEDIATELY AFTER CONDUIT INSTALLATION AND SEED AND MULCH PLACED DOWN OVER THE TRENCHED AREA.
- IF CONDUIT IS PLOWED, THE NEED FOR PERMANENT SEED AND MULCH WILL BE DETERMINED BY THE ENGINEER BASED ON THE AMOUNT OF DISTURBED SOIL.
- THE CHOICE OF SOD, SEEDING WITH EROSION CONTROL BLANKET, SEEDING WITH STRAW SHALL BE AT THE DISCRETION OF THE ENGINEER FOR ALL CASES WHERE STABILIZATION IS REQUIRED.
- DUE TO THE NATURE OF THE WORK, CONSTRUCTION EXITS SHOULD BE FIELD LOCATED BY THE ENGINEER.

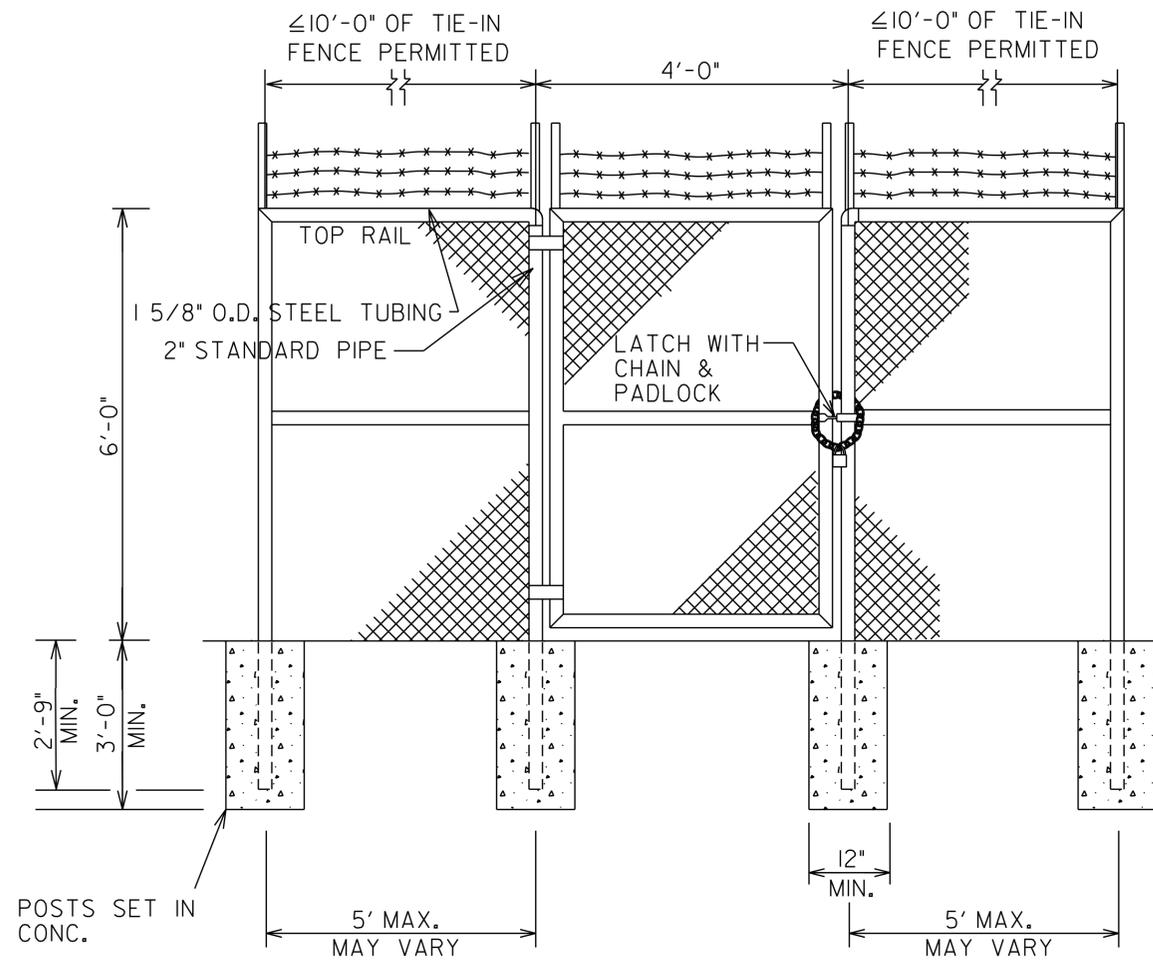


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAILS

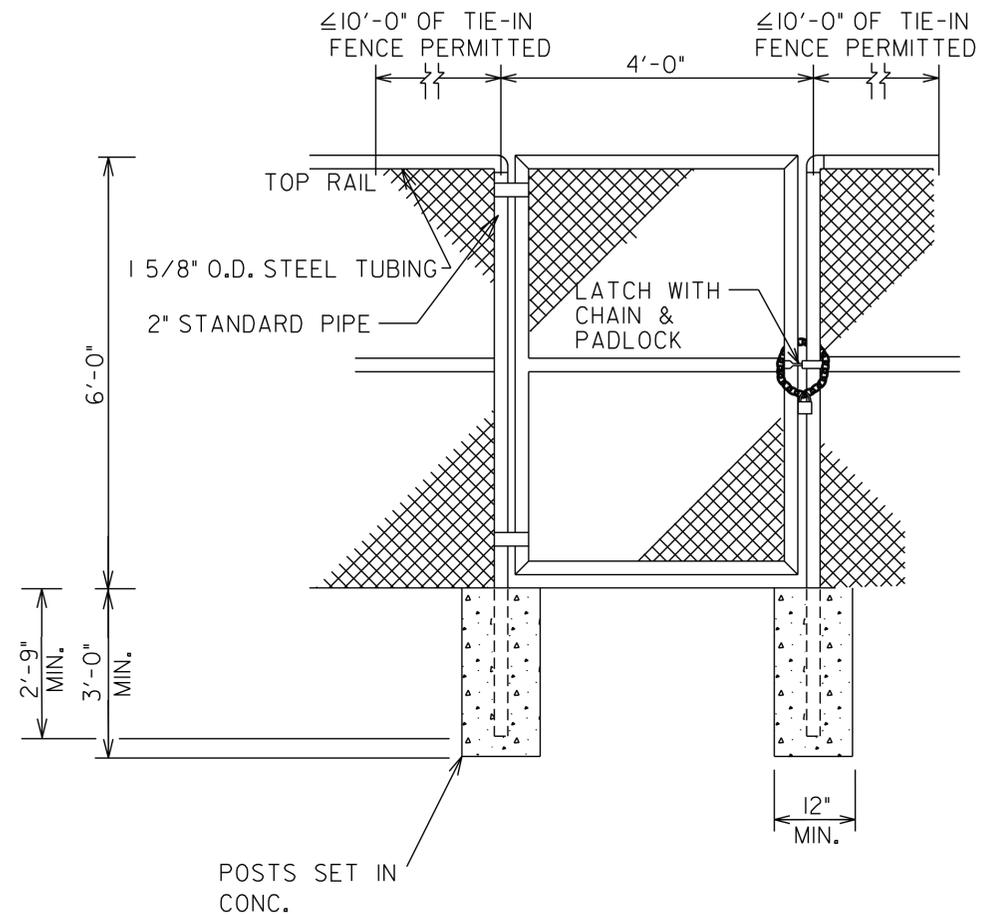
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2AB



CHAIN LINK FENCE WALK GATE (6' x 4')
WITH BARBED WIRE

1. FENCE WALK GATE SHALL BE A TUBULAR STEEL FRAME 6' HIGH AND 4' LONG WITH CHAIN LINK FILLER WITHIN THE GATE FRAME.
2. WALK GATE : THE WALK GATE SHALL CONSIST OF MATERIALS USED IN TDOT'S STANDARD RIGHT-OF-WAY CHAIN LINK FENCE S-F-10, WITH GATE POSTS (END POST) BEING THE STANDARD 2" POST.
3. THE GATE, END POSTS, CHAIN, AND ALL MATERIALS NECESSARY TO INSTALL THE GATE AS SHOWN SHALL BE INCLUDED IN PRICE BID.



CHAIN LINK FENCE WALK GATE (6' x 4')

4. GATES SHALL BE INSTALLED AT THE LOCATIONS INDICATED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. THE GATE SHALL BE INSTALLED BETWEEN AND FASTENED TO PROPERLY SPACED GATE POSTS, WHICH SHALL BE SET IN THE GROUND A FULL 33". THE POSTS AND BRACES SHALL BE SET IN CONCRETE BASES WHICH SHALL BE AT LEAST 12" IN DIAMETER AND SHALL EXTEND 3' OR MORE BELOW THE SURFACE OF THE GROUND. SEE TDOT STANDARD DRAWING S-F-10B FOR CONSTRUCTION OF CHAIN LINK FENCE.
5. GATES WILL BE SECURED WITH 3' OF CHAIN AND PAD LOCK. COST TO BE INCLUDED IN GATE BID ITEM.
6. IN LOCATIONS WHERE THE EXISTING FENCE IS A DIFFERENT HEIGHT THAN 6', THE GATE SHALL BE THE SAME HEIGHT AS THE EXISTING FENCE AND SHALL BE PAID AT THE SAME UNIT PRICE AS THE 6' GATE.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

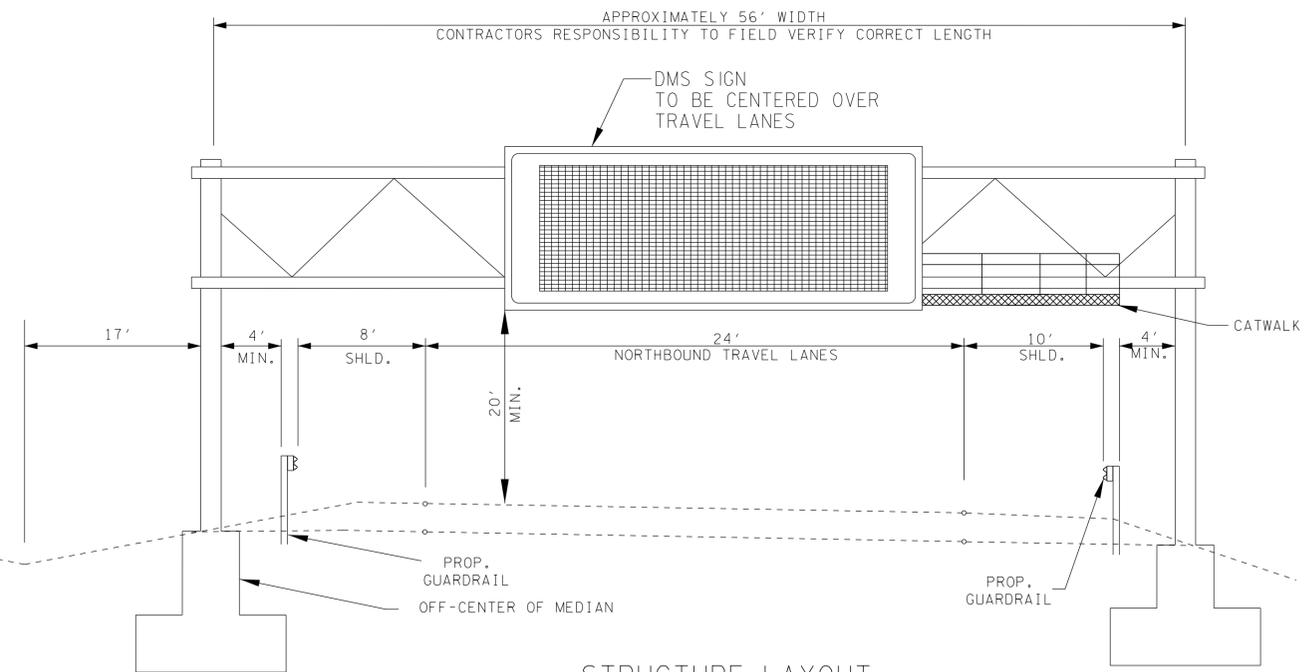
UTILITY
COMPANY
ACCESS GATE

N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2AC

DMS STRUCTURE NOTES:

- SIGN STRUCTURE, SUPPORTS, CATWALK AND FOOTINGS ARE ALL SCHEMATIC AND FOR ILLUSTRATIVE PURPOSES ONLY.
- THE CONTRACTOR SHALL DESIGN THE OVERHEAD SIGN STRUCTURE WITH CONNECTIONS, FOUNDATIONS, AND THE CATWALK. THE CATWALK SHALL BE DESIGNED FROM THE OUTSIDE EDGE OF SHOULDER TO THE DMS SIGN.
- MATERIAL USED MAY BE ALUMINUM OR STEEL, BUT MUST BE FULLY COMPATIBLE WITH DMS BODY.
- THE DESIGN SHALL BE IN ACCORDANCE WITH THE LATEST "AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" INCLUDING THE MAXIMUM DEAD LOAD DEFLECTION CRITERIA. THE DESIGN WIND SPEED SHALL BE 90 MPH.
- THE STRUCTURE SHALL BE DESIGNED, FABRICATED AND CONSTRUCTED EXPRESSLY TO SUPPORT AND BE COMPATIBLE WITH THE DYNAMIC MESSAGE SIGN DESCRIBED IN THE DESIGN SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL SUBMIT 2 SETS OF CALCULATIONS AND 4 SETS OF SHOP DRAWINGS FOR ALL ITEMS ASSOCIATED WITH THE DESIGN, MANUFACTURING, CONSTRUCTION AND INSTALLATION OF THE STRUCTURE, INCLUDING ITS ATTACHMENTS AND FOUNDATIONS TO TDOT DIVISION OF STRUCTURES. THE FIRST PAGE OF EACH SET OF DESIGN CALCULATIONS AND EACH PAGE OF THE SHOP DRAWINGS SHALL BEAR THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE.
- THE CONTRACTOR SHALL DETERMINE THE ACTUAL LENGTH OF THE SUPPORT COLUMNS AND WIDTH OF THE STRUCTURE ON THE BASIS OF THE EXISTING FIELD CONDITIONS. ALL DIMENSIONS NOTED ON THIS DRAWING ARE APPROXIMATE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE DESIGNING STRUCTURES.
- MATERIAL CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR HIS APPROVAL 30 DAYS PRIOR TO THE STRUCTURE ERECTION.
- SEE SHEETS 2AG FOR DETAILS OF SIGN STRUCTURE MOUNTED ON CONCRETE MEDIAN BARRIER.
- SEE SPECIAL PROVISIONS AND SHEETS 2AF AND 2AG FOR FURTHER STRUCTURAL REQUIREMENTS.
- CONTRACTOR SHOULD REVIEW GENERAL NOTES NUMBER 5,6,7,8 AND 9 AND SPECIAL NOTE # 13 ON SHEET 1D CONCERNING UNDERGROUND UTILITIES BEFORE CONSTRUCTION OF DMS STRUCTURES.



STRUCTURE LAYOUT
 STA. 50+15 I-65 NB
 SHEET 4



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

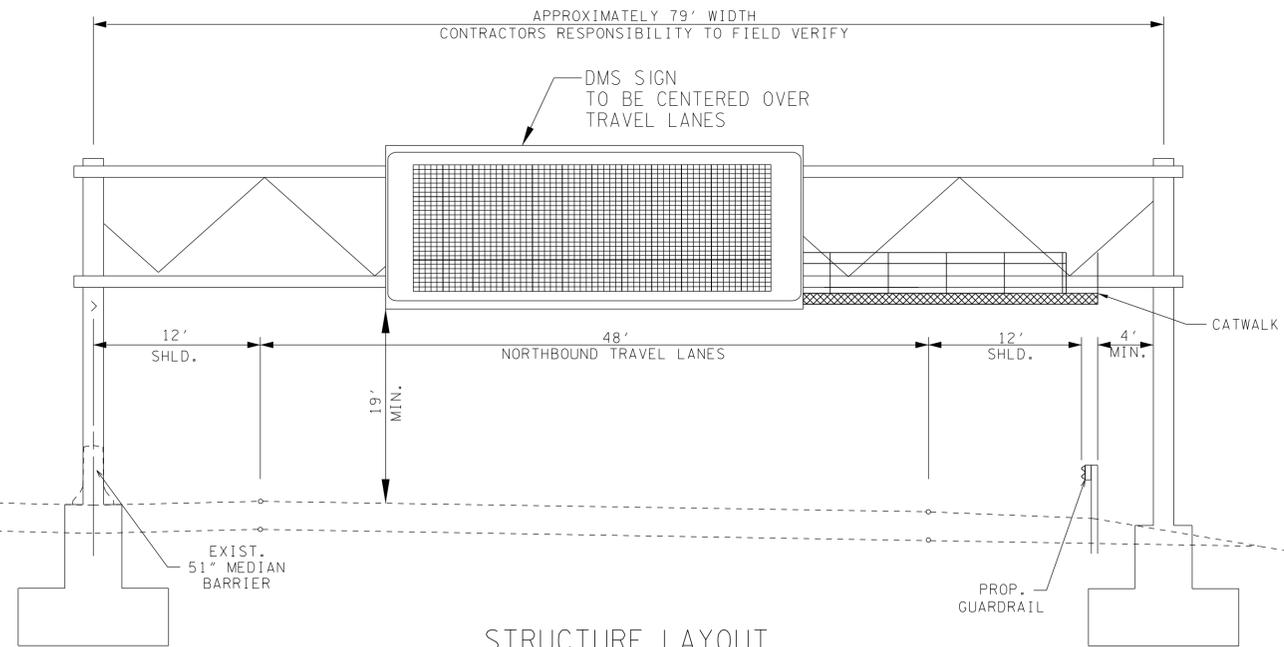
DYNAMIC
 MESSAGE SIGN
 CROSS SECTIONS

N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2AD

DMS STRUCTURE NOTES:

- SIGN STRUCTURE, SUPPORTS, CATWALK AND FOOTINGS ARE ALL SCHEMATIC AND FOR ILLUSTRATIVE PURPOSES ONLY.
- THE CONTRACTOR SHALL DESIGN THE OVERHEAD SIGN STRUCTURE WITH CONNECTIONS, FOUNDATIONS, AND THE CATWALK. THE CATWALK SHALL BE DESIGNED FROM THE OUTSIDE EDGE OF SHOULDER TO THE DMS SIGN.
- MATERIAL USED MAY BE ALUMINUM OR STEEL, BUT MUST BE FULLY COMPATIBLE WITH DMS BODY.
- THE DESIGN SHALL BE IN ACCORDANCE WITH THE LATEST "AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" INCLUDING THE MAXIMUM DEAD LOAD DEFLECTION CRITERIA. THE DESIGN WIND SPEED SHALL BE 90 MPH.
- THE STRUCTURE SHALL BE DESIGNED, FABRICATED AND CONSTRUCTED EXPRESSLY TO SUPPORT AND BE COMPATIBLE WITH THE DYNAMIC MESSAGE SIGN DESCRIBED IN THE DESIGN SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL SUBMIT 2 SETS OF CALCULATIONS AND 4 SETS OF SHOP DRAWINGS FOR ALL ITEMS ASSOCIATED WITH THE DESIGN, MANUFACTURING, CONSTRUCTION AND INSTALLATION OF THE STRUCTURE, INCLUDING ITS ATTACHMENTS AND FOUNDATIONS TO TDOT DIVISION OF STRUCTURES. THE FIRST PAGE OF EACH SET OF DESIGN CALCULATIONS AND EACH PAGE OF THE SHOP DRAWINGS SHALL BEAR THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE.
- THE CONTRACTOR SHALL DETERMINE THE ACTUAL LENGTH OF THE SUPPORT COLUMNS AND WIDTH OF THE STRUCTURE ON THE BASIS OF THE EXISTING FIELD CONDITIONS. ALL DIMENSIONS NOTED ON THIS DRAWING ARE APPROXIMATE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE DESIGNING STRUCTURES.
- MATERIAL CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR HIS APPROVAL 30 DAYS PRIOR TO THE STRUCTURE ERECTION.
- SEE SHEETS 2AG FOR DETAILS OF SIGN STRUCTURE MOUNTED ON CONCRETE MEDIAN BARRIER.
- SEE SPECIAL PROVISIONS AND SHEETS 2AF & 2AG FOR FURTHER STRUCTURAL REQUIREMENTS.
- CONTRACTOR SHOULD REVIEW GENERAL NOTES NUMBER 5,6,7,8 AND 9 AND SPECIAL NOTE # 13 ON SHEET 1D CONCERNING UNDERGROUND UTILITIES BEFORE CONSTRUCTION OF DMS STRUCTURES.



STRUCTURE LAYOUT
 STA. 390+00 I-65 NB
 SHEET #8



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

DYNAMIC
 MESSAGE SIGN
 CROSS SECTIONS

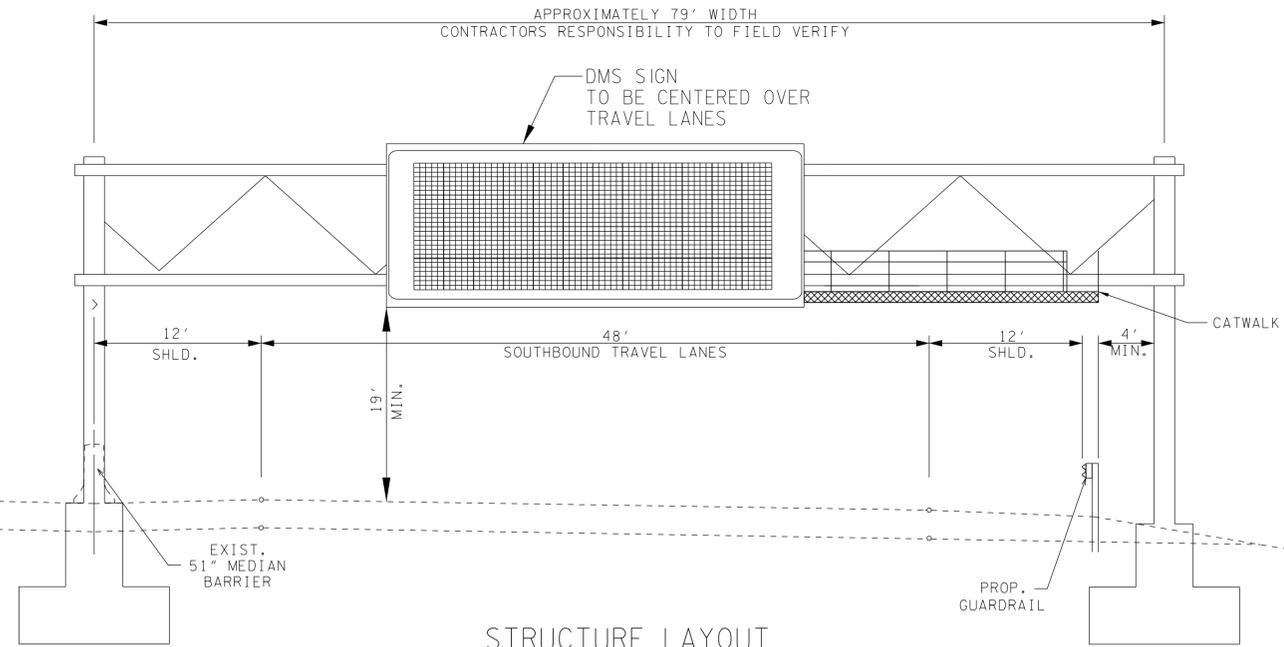
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2AE

DMS STRUCTURE NOTES:

- SIGN STRUCTURE, SUPPORTS, CATWALK AND FOOTINGS ARE ALL SCHEMATIC AND FOR ILLUSTRATIVE PURPOSES ONLY.
- THE CONTRACTOR SHALL DESIGN THE OVERHEAD SIGN STRUCTURE WITH CONNECTIONS, FOUNDATIONS, AND THE CATWALK. THE CATWALK SHALL BE DESIGNED FROM THE OUTSIDE EDGE OF SHOULDER TO THE DMS SIGN.
- MATERIAL USED MAY BE ALUMINUM OR STEEL, BUT MUST BE FULLY COMPATIBLE WITH DMS BODY.
- THE DESIGN SHALL BE IN ACCORDANCE WITH THE LATEST "AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" INCLUDING THE MAXIMUM DEAD LOAD DEFLECTION CRITERIA. THE DESIGN WIND SPEED SHALL BE 90 MPH.
- THE STRUCTURE SHALL BE DESIGNED, FABRICATED AND CONSTRUCTED EXPRESSLY TO SUPPORT AND BE COMPATIBLE WITH THE DYNAMIC MESSAGE SIGN DESCRIBED IN THE DESIGN SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL SUBMIT 2 SETS OF CALCULATIONS AND 4 SETS OF SHOP DRAWINGS FOR ALL ITEMS ASSOCIATED WITH THE DESIGN, MANUFACTURING, CONSTRUCTION AND INSTALLATION OF THE STRUCTURE, INCLUDING ITS ATTACHMENTS AND FOUNDATIONS TO TDOT DIVISION OF STRUCTURES. THE FIRST PAGE OF EACH SET OF DESIGN CALCULATIONS AND EACH PAGE OF THE SHOP DRAWINGS SHALL BEAR THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER FROM THE STATE OF TENNESSEE.
- THE CONTRACTOR SHALL DETERMINE THE ACTUAL LENGTH OF THE SUPPORT COLUMNS AND WIDTH OF THE STRUCTURE ON THE BASIS OF THE EXISTING FIELD CONDITIONS. ALL DIMENSIONS NOTED ON THIS DRAWING ARE APPROXIMATE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE DESIGNING STRUCTURES.
- MATERIAL CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR HIS APPROVAL 30 DAYS PRIOR TO THE STRUCTURE ERECTION.
- SEE SHEETS 2AG FOR DETAILS OF SIGN STRUCTURE MOUNTED ON CONCRETE MEDIAN BARRIER.
- SEE SPECIAL PROVISIONS AND SHEETS 2AF & 2AG FOR FURTHER STRUCTURAL REQUIREMENTS.
- CONTRACTOR SHOULD REVIEW GENERAL NOTES NUMBER 5,6,7,8 AND 9 AND SPECIAL NOTE # 13 ON SHEET 1D CONCERNING UNDERGROUND UTILITIES BEFORE CONSTRUCTION OF DMS STRUCTURES.

NB I-65



STRUCTURE LAYOUT
 STA. 1018+00 I-65 SB
 SHEET #27

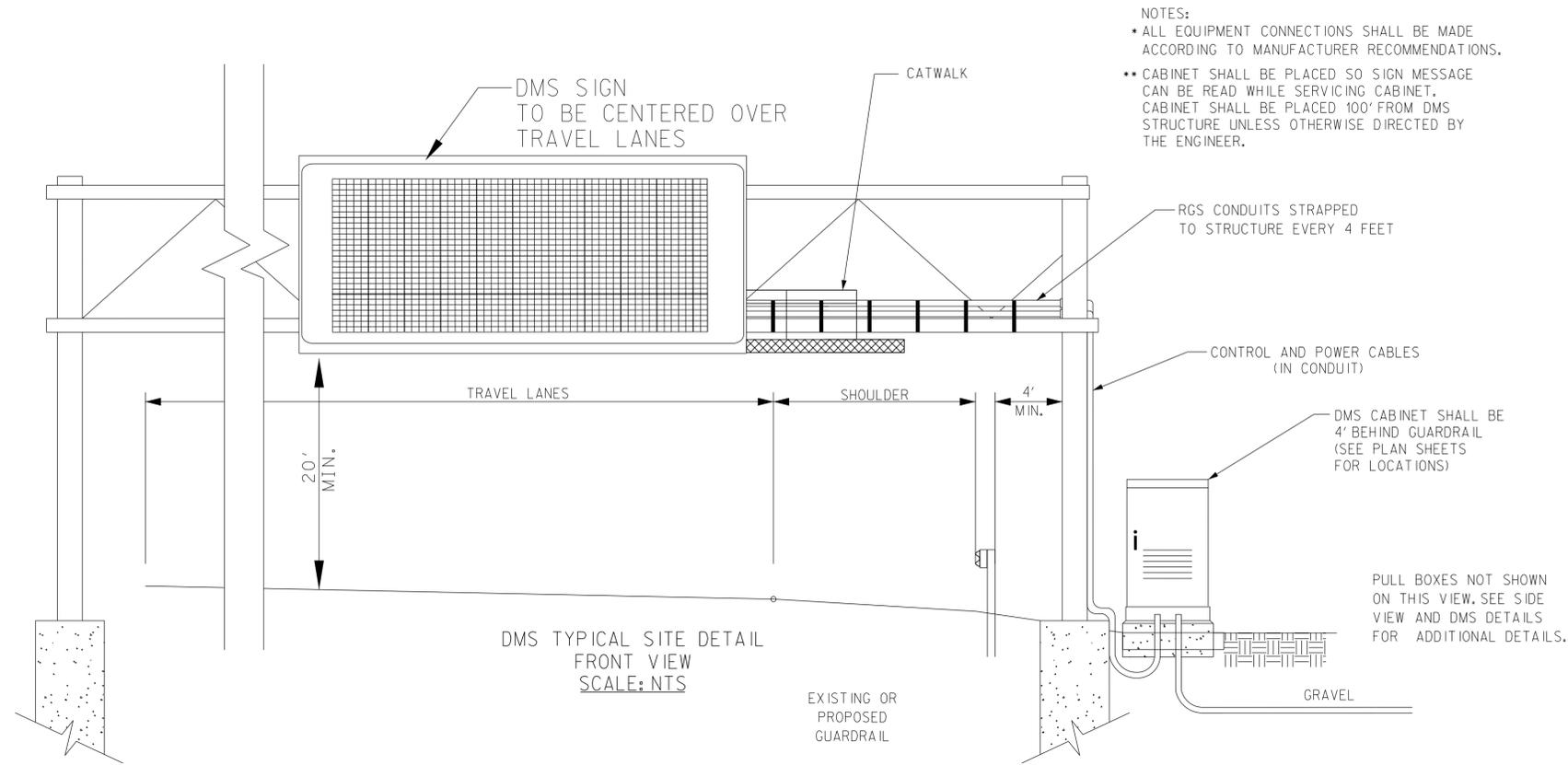


STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

DYNAMIC
 MESSAGE SIGN
 CROSS SECTIONS

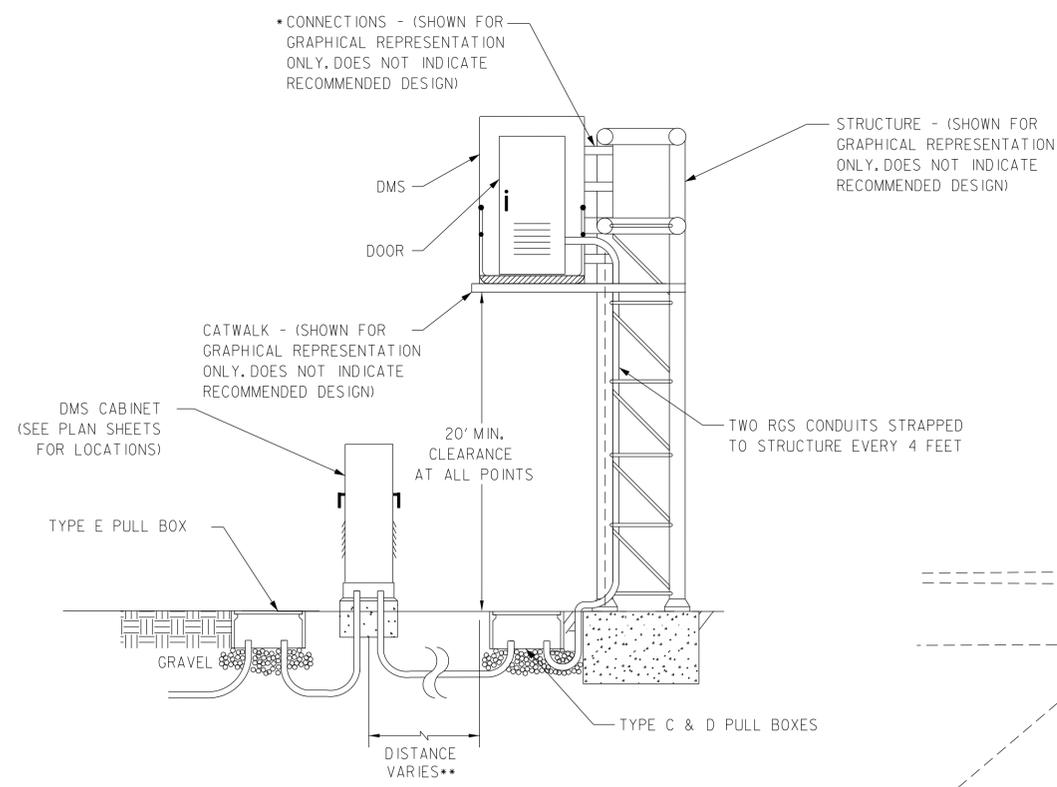
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2AF



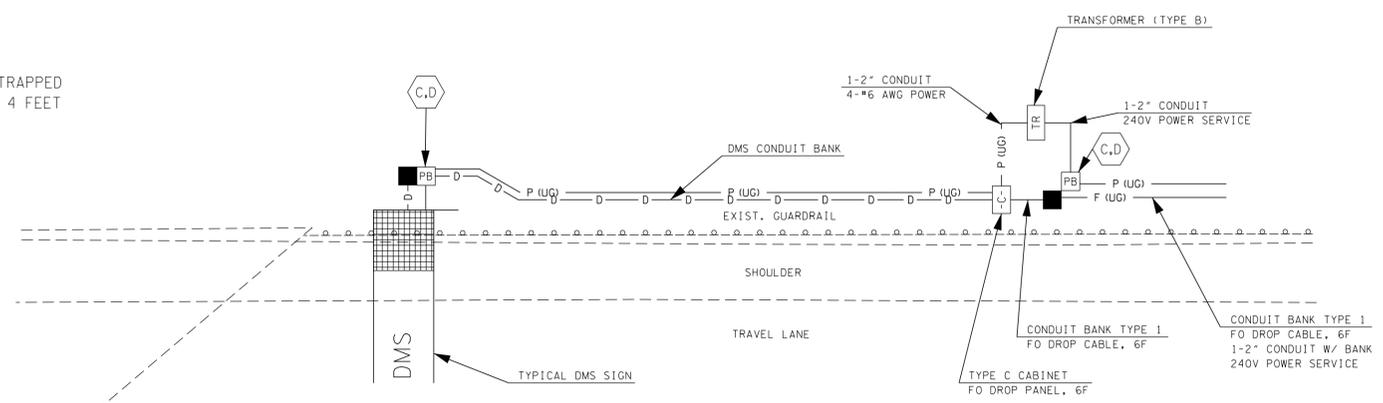
NOTES:
 * ALL EQUIPMENT CONNECTIONS SHALL BE MADE ACCORDING TO MANUFACTURER RECOMMENDATIONS.
 ** CABINET SHALL BE PLACED SO SIGN MESSAGE CAN BE READ WHILE SERVICING CABINET. CABINET SHALL BE PLACED 100' FROM DMS STRUCTURE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

DMS TYPICAL SITE DETAIL
FRONT VIEW
SCALE: NTS



DMS SITE DETAIL
SIDE VIEW
SCALE: NTS

- STRUCTURE NOTES:
1. PROVISIONS FOR WIRING AS WELL AS FOR GROUNDING MUST BE PROVIDED. (FOR GROUNDING DETAILS SEE STD DWG. T-S-15)
 2. UPRIGHT SHALL BE FURNISHED WITH A 1/2" BNC GROUND NUT WELDED TO THE OUTSIDE EDGE OF THE BASE.
 3. ANCHOR BOLT MATERIAL SHALL CONFORM TO REQUIREMENTS OF ASTM F1554. THE ANCHOR BOLT SHALL BE GALVANIZED ON THE THREADED END (GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM-A153). BOLTS SHALL BE FURNISHED WITH TWO GALVANIZED HEX NUTS AND WASHERS.
 4. FOR FURTHER STRUCTURE INFORMATION, SEE TECHNICAL SPECIAL PROVISION 725.



NOTE: ELECTRICAL TRANSFORMERS SHALL BE LOCATED BETWEEN 15 AND 25 FEET FROM THE TYPE C CABINET.

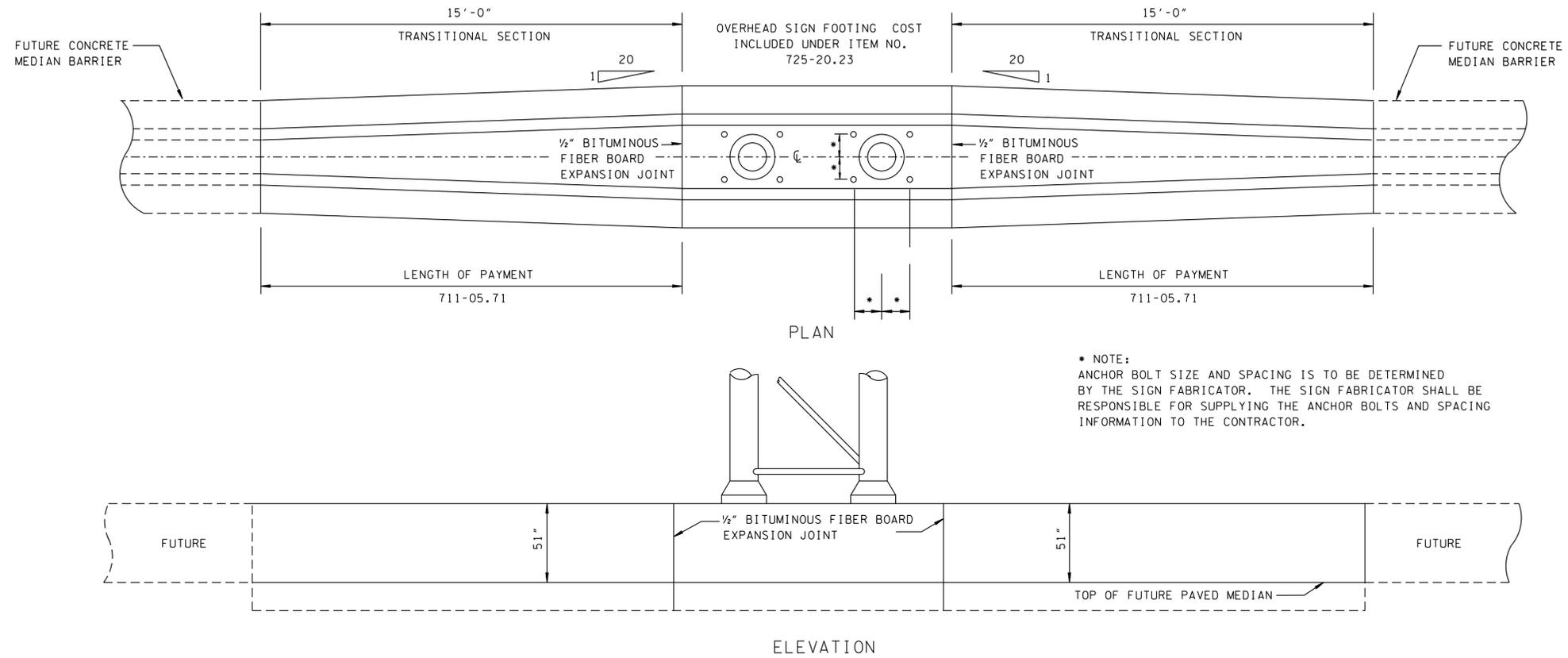
TYPICAL DMS WIRING DETAIL
SCALE: NTS



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DYNAMIC
MESSAGE SIGN
SITE LAYOUT
N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	2AG



51" SINGLE SLOPE CONCRETE BARRIER WALL

REFER TO STRUCTURES DIVISION STANDARD STD-1-3SS,
S-SSMB-2 AND S-SSMB-4 FOR MORE DETAILS

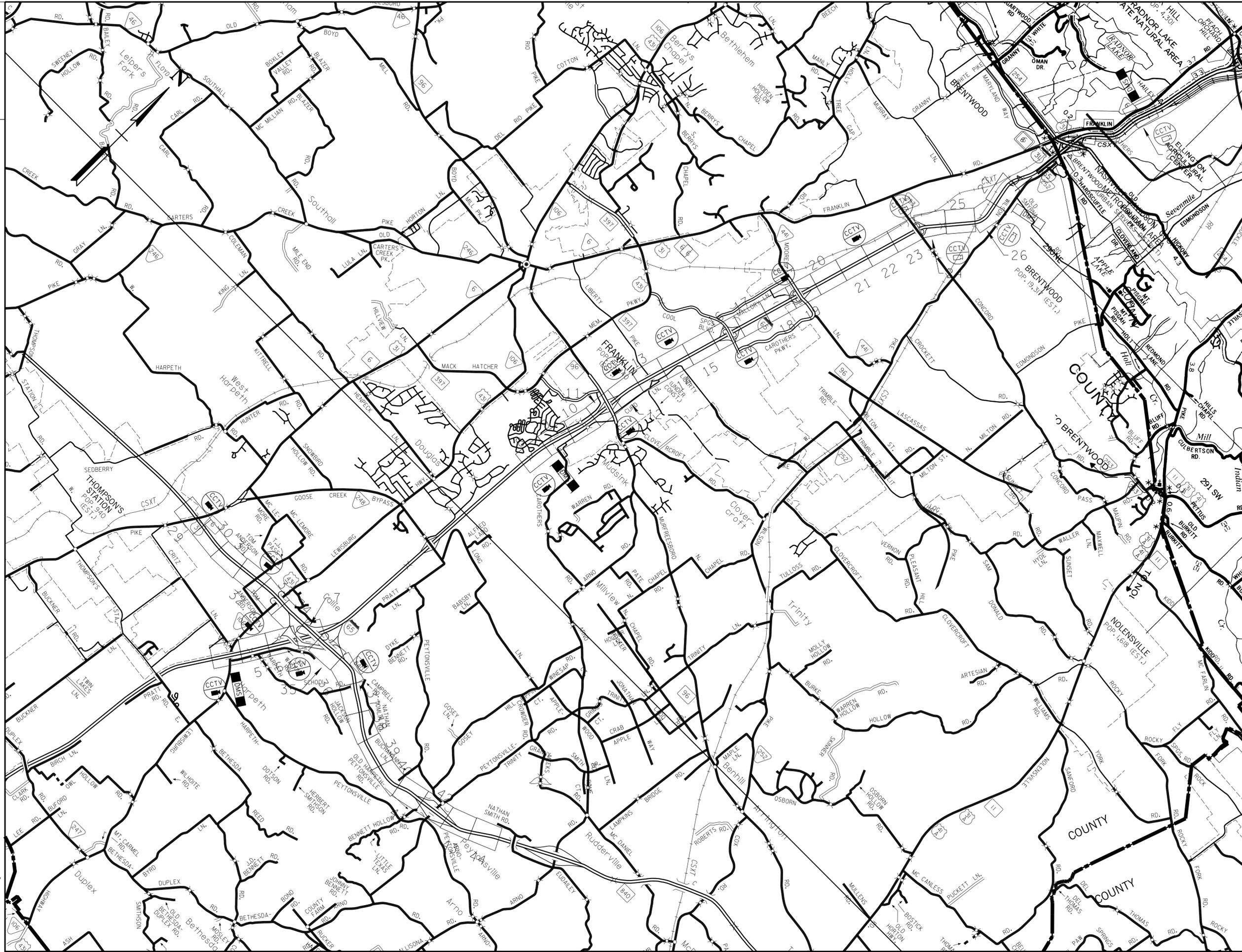


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STRUCTURAL
SUPPORT DETAIL
FOR DMS SIGN

N.T.S.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	3



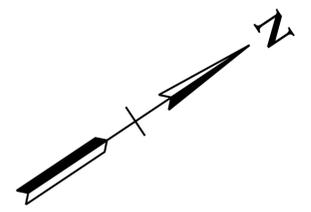
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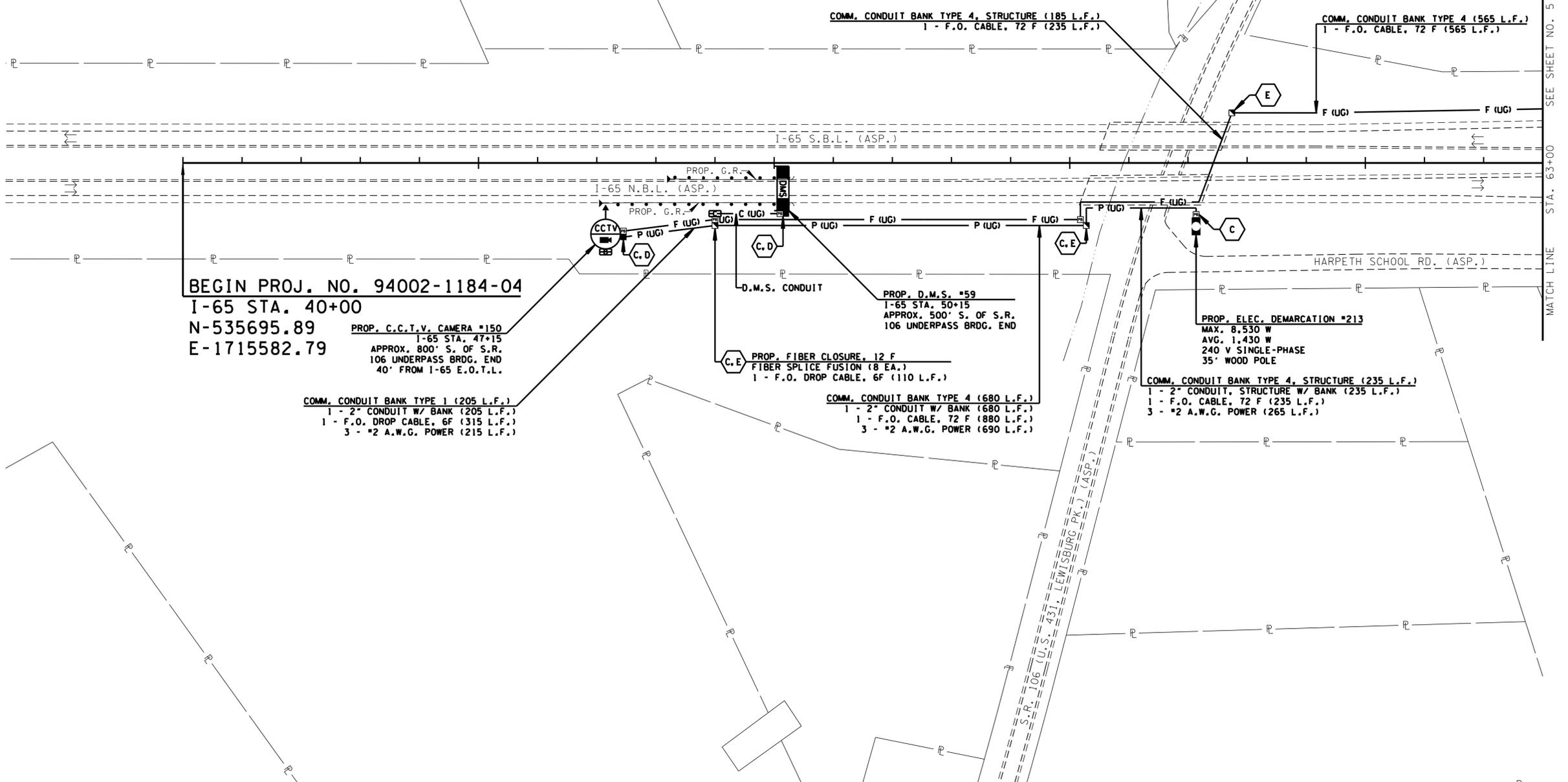
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SHEET KEY
AND I.T.S.
LAYOUT
SCALE: 1" = 4,000'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	4



40 45 50 55 60



SEE SHEET NO. 5
STA. 63+00
MATCH LINE

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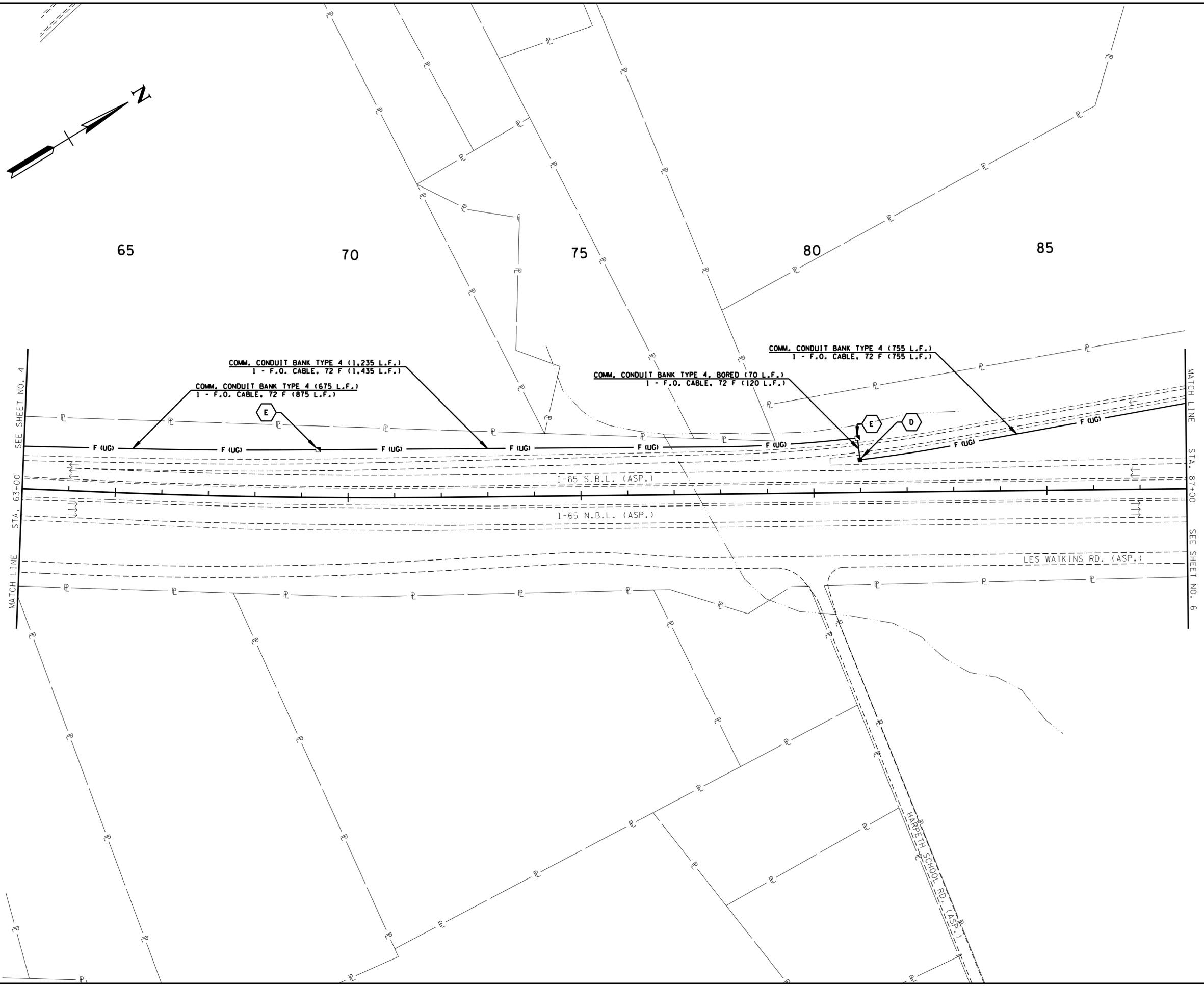
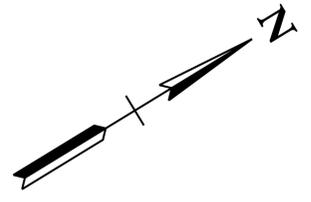


COORDINATES ARE NAD/83(1995),
ARE DATUM ADJUSTED BY THE
FACTOR OF 1.000084 AND TIED TO
THE TGRN. ALL ELEVATIONS ARE
REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 40+00 TO 63+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	5



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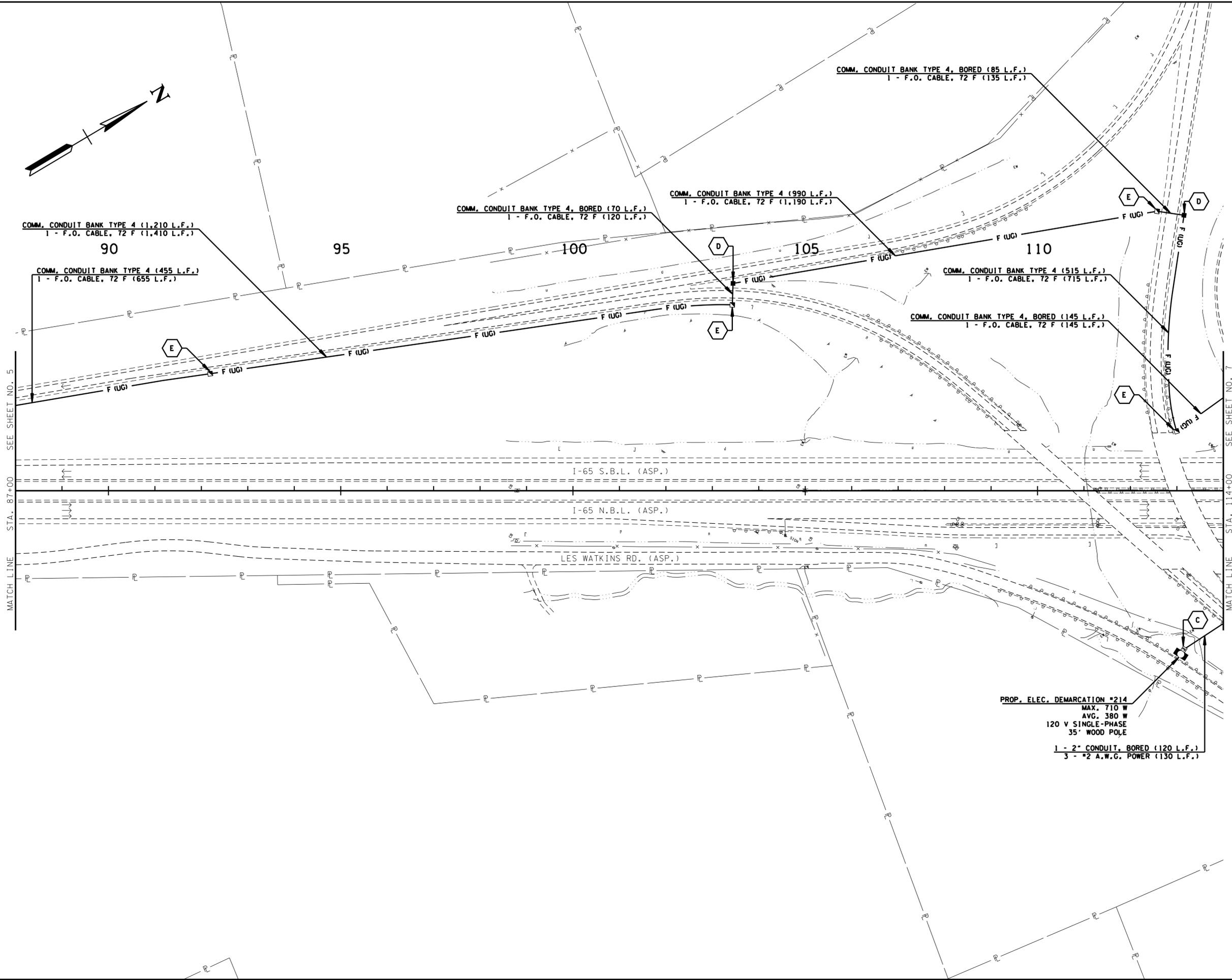


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
 I-65
 STA. 63+00 TO 87+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	6



PROP. ELEC. DEMARCATION #214
MAX. 710 W
AVG. 380 W
120 V SINGLE-PHASE
35' WOOD POLE
1 - 2" CONDUIT, BORED (120 L.F.)
3 - #2 A.W.G. POWER (130 L.F.)

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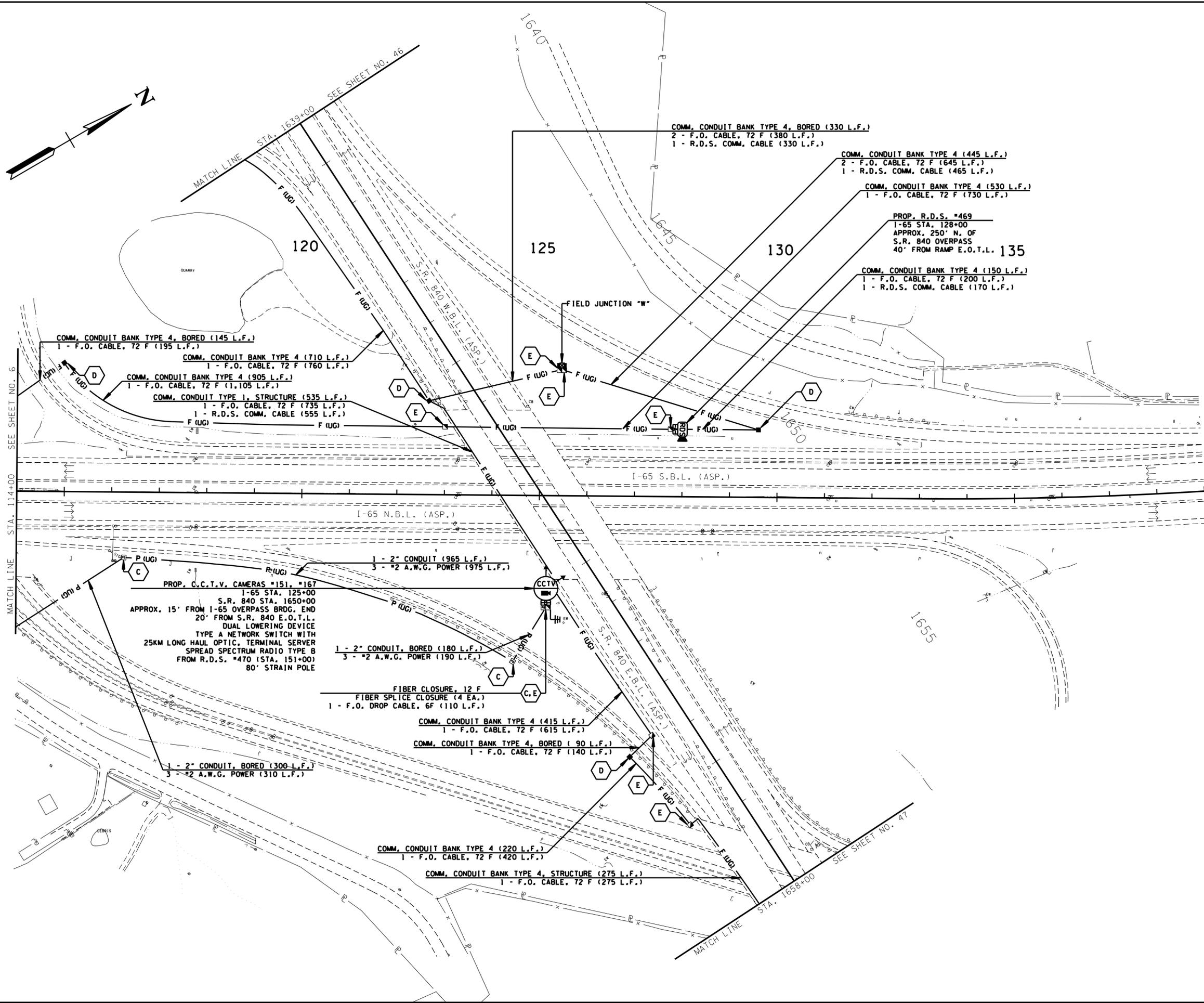


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 87+00 TO 114+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	7



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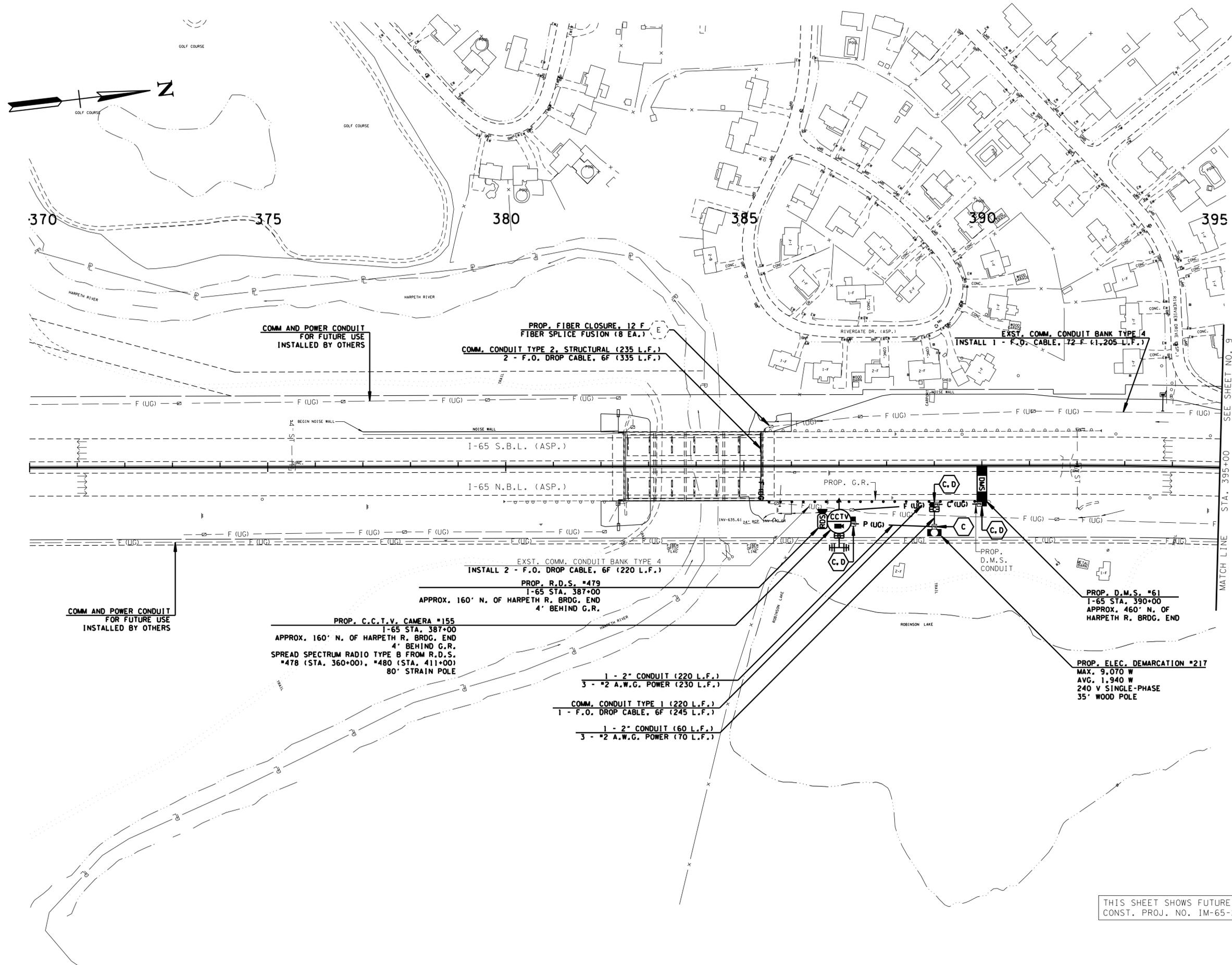


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
 I-65
 STA. 114+00 TO 139+00
 SCALE: 1" = 100'

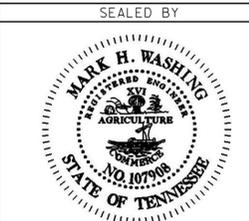
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	8



MATCH LINE STA. 395+00 SEE SHEET NO. 9

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CONST. PROJ. NO. IM-65-2(95).

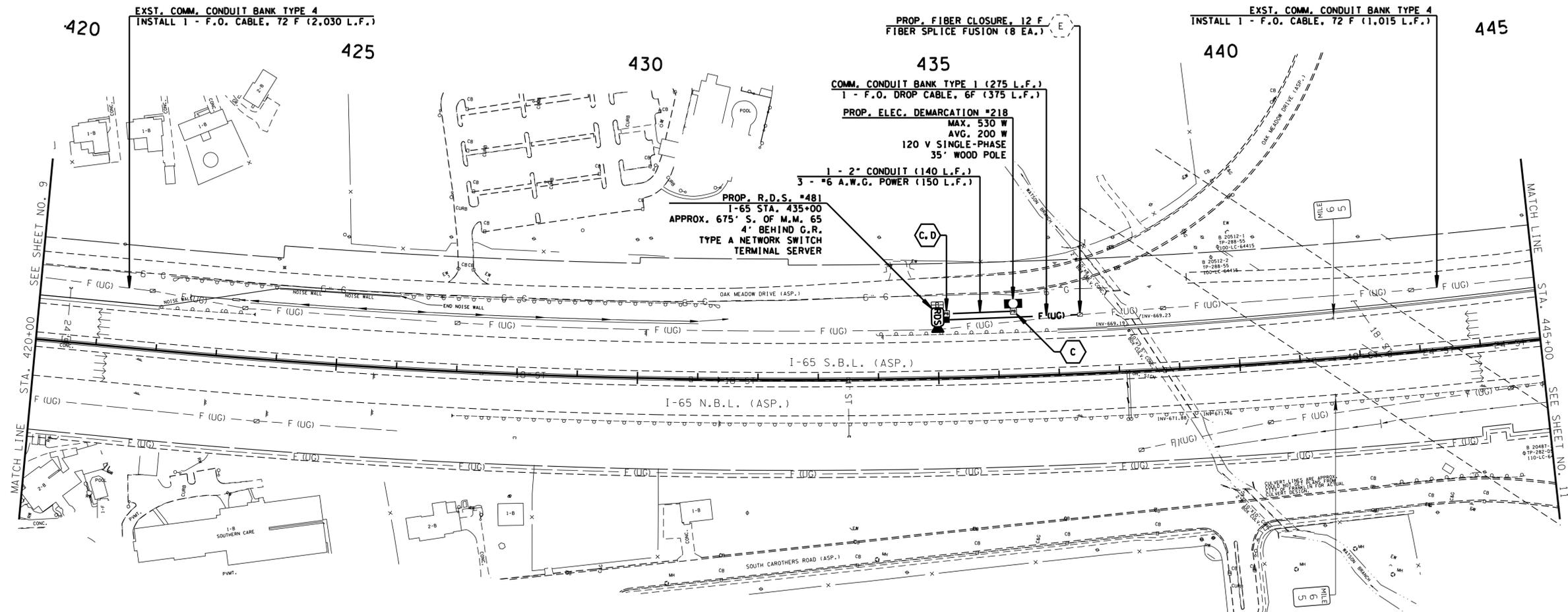


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 370+00 TO 395+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	10



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 CONST. PROJ. NO. IM-65-2(95).

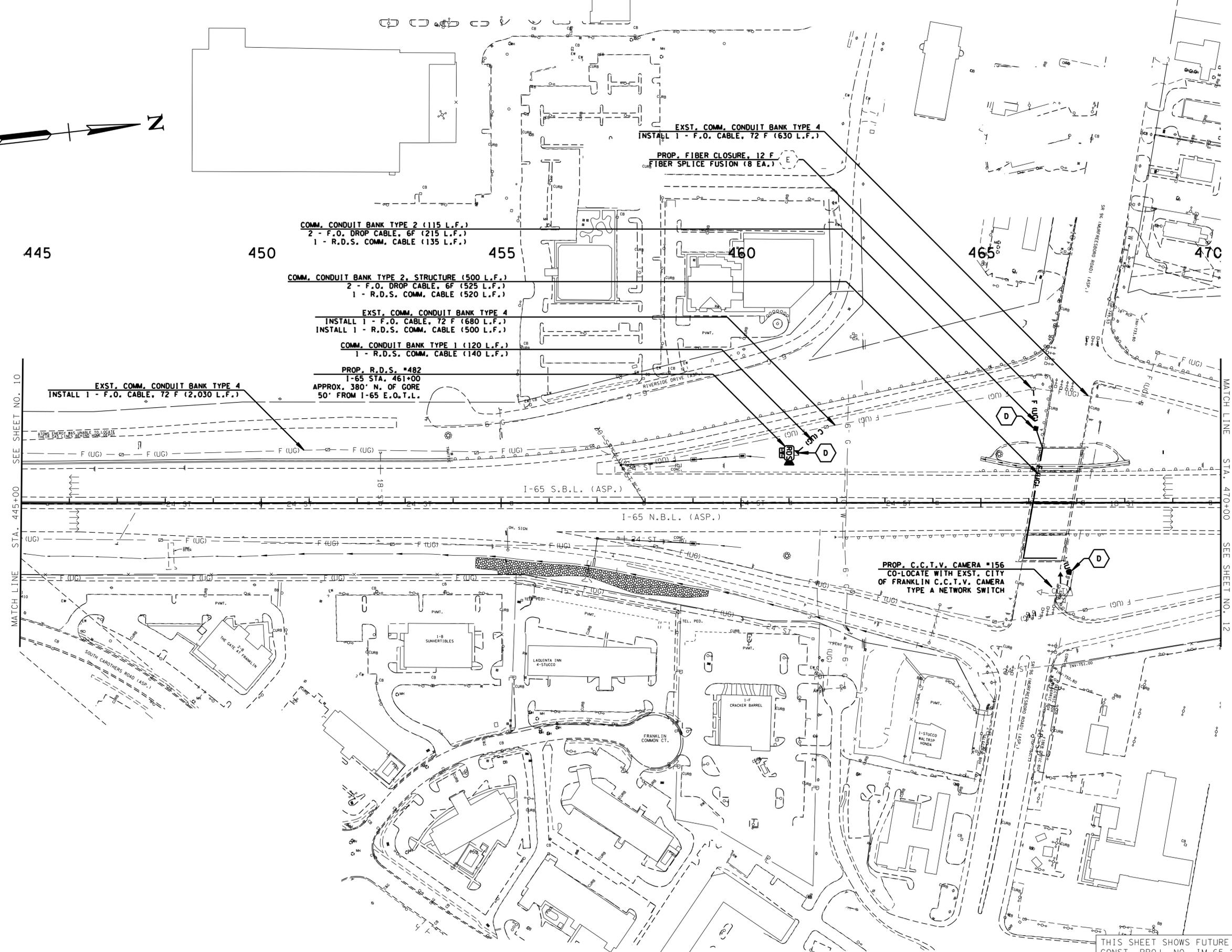


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 I-65
 STA. 420+00 TO 445+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	11



445

450

455

460

465

470

MATCH LINE STA. 445+00 SEE SHEET NO. 10

MATCH LINE STA. 470+00 SEE SHEET NO. 12

COMM. CONDUIT BANK TYPE 2 (115 L.F.)
2 - F.O. DROP CABLE, 6F (215 L.F.)
1 - R.D.S. COMM. CABLE (135 L.F.)

COMM. CONDUIT BANK TYPE 2, STRUCTURE (500 L.F.)
2 - F.O. DROP CABLE, 6F (525 L.F.)
1 - R.D.S. COMM. CABLE (520 L.F.)

EXST. COMM. CONDUIT BANK TYPE 4
INSTALL 1 - F.O. CABLE, 72 F (680 L.F.)
INSTALL 1 - R.D.S. COMM. CABLE (500 L.F.)

COMM. CONDUIT BANK TYPE 1 (120 L.F.)
1 - R.D.S. COMM. CABLE (140 L.F.)

PROP. R.D.S. #482
I-65 STA. 461+00
APPROX. 380' N. OF GORE
50' FROM I-65 E.O.T.L.

EXST. COMM. CONDUIT BANK TYPE 4
INSTALL 1 - F.O. CABLE, 72 F (2,030 L.F.)

EXST. COMM. CONDUIT BANK TYPE 4
INSTALL 1 - F.O. CABLE, 72 F (630 L.F.)

PROP. FIBER CLOSURE, 12 F
FIBER SPLICE FUSION (8 EA.)

PROP. C.C.T.V. CAMERA #156
CO-LOCATE WITH EXST. CITY
OF FRANKLIN C.C.T.V. CAMERA
TYPE A NETWORK SWITCH

THIS SHEET SHOWS FUTURE
CONST. PROJ. NO. IM-65-2(95).

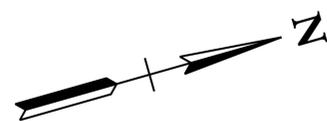
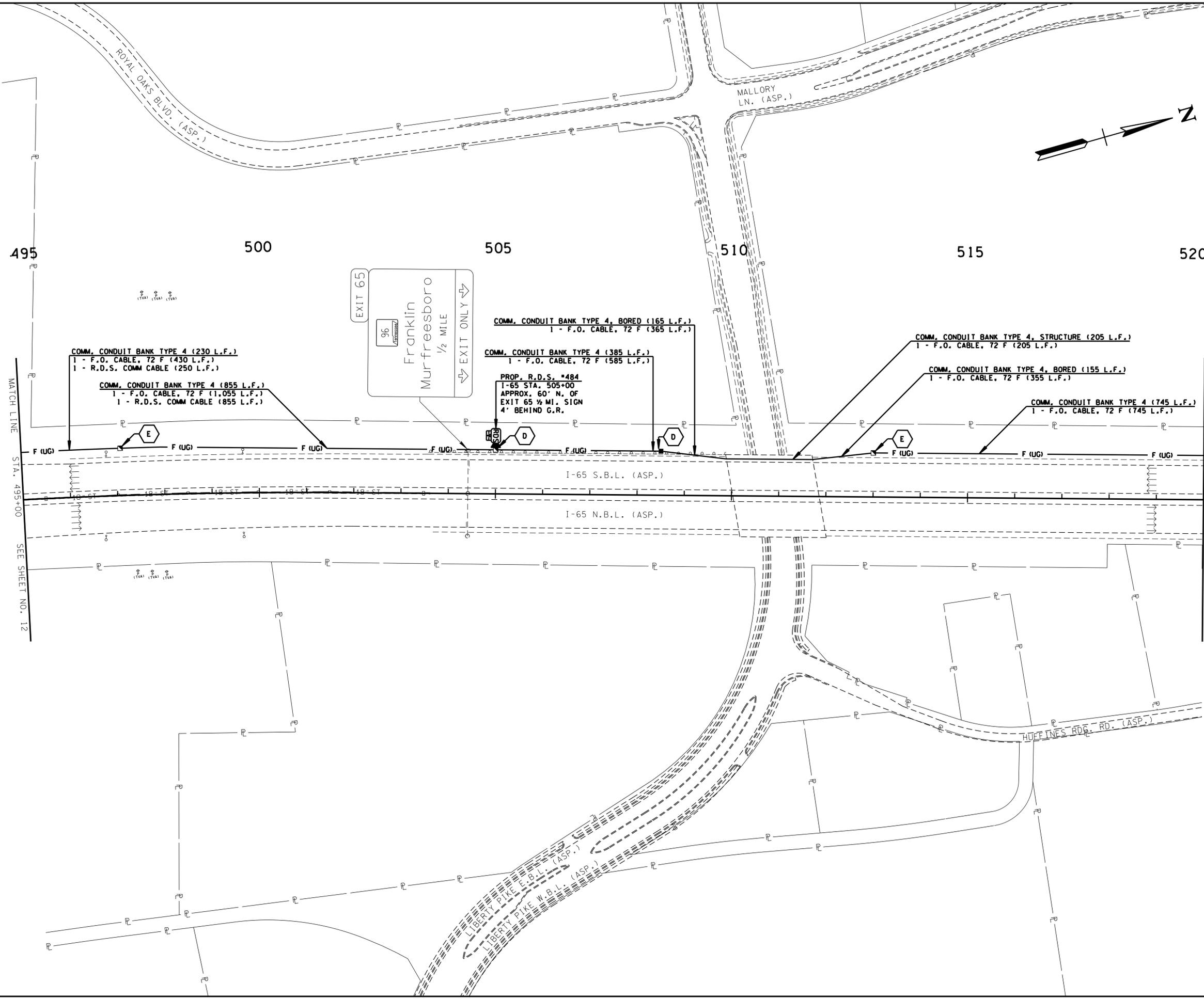


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 445+00 TO 470+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	13



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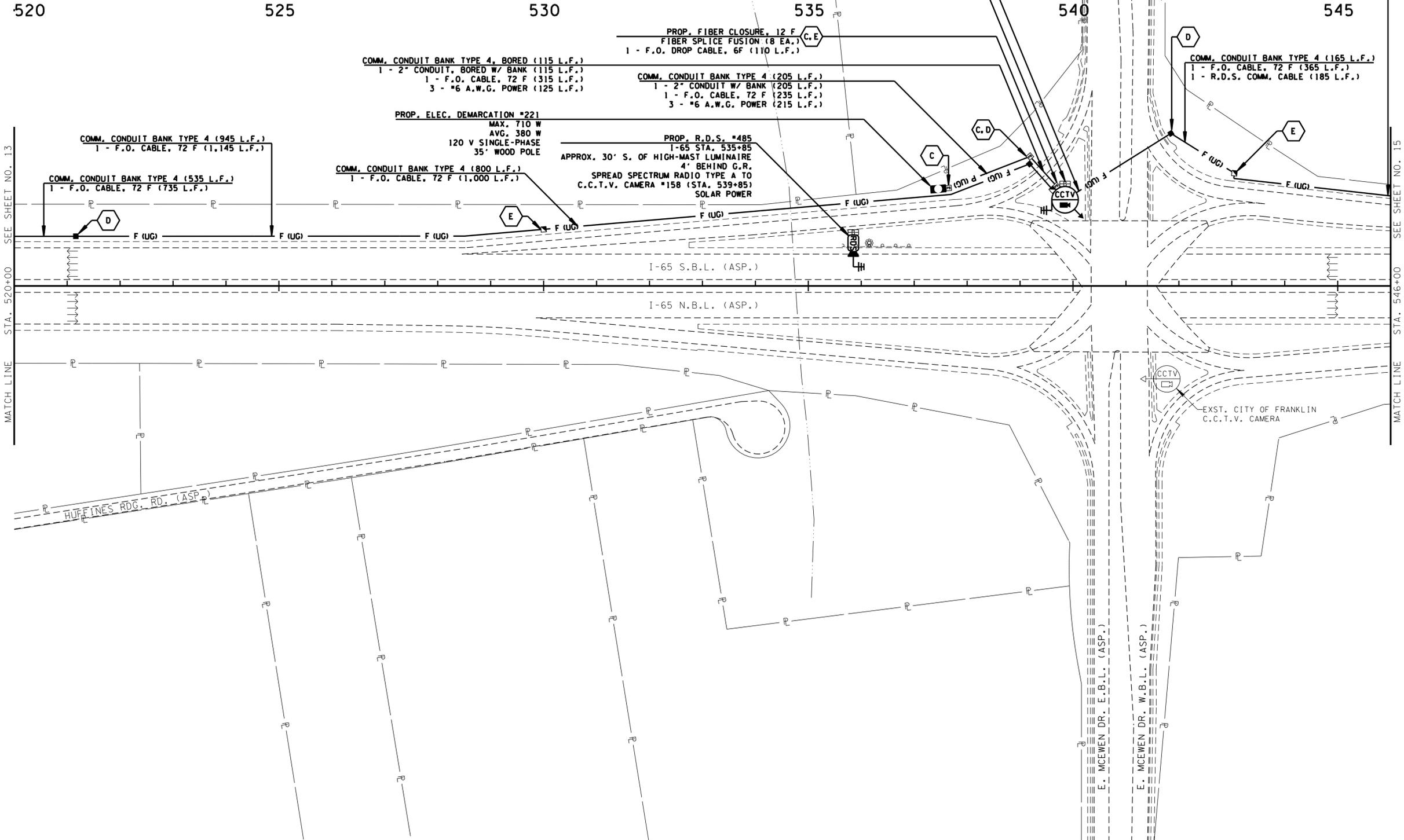
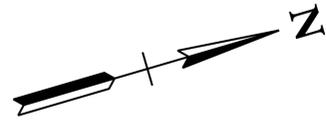


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**I.T.S.
LAYOUT**
I-65
STA. 495+00 TO 520+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	14

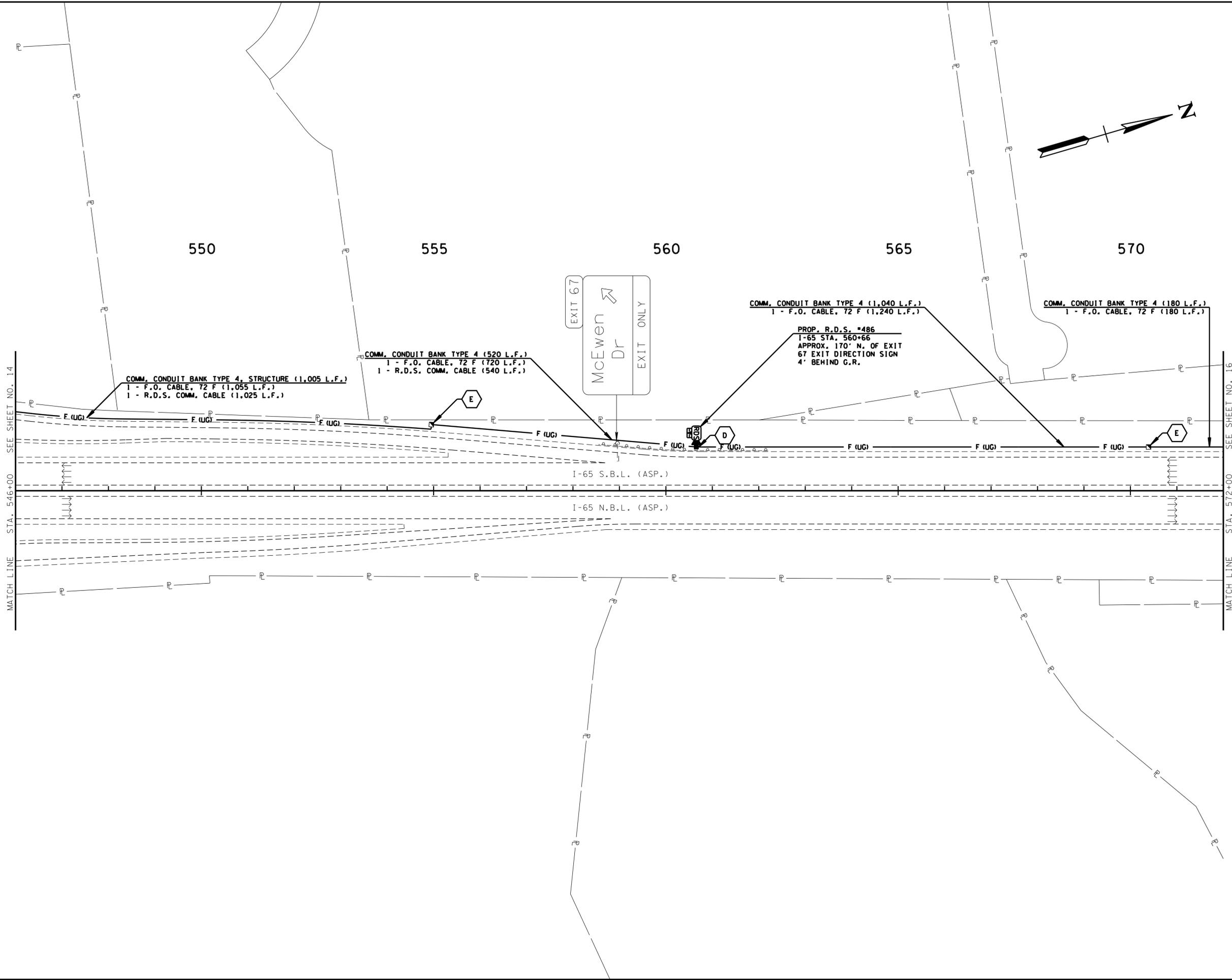


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 520+00 TO 546+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	15



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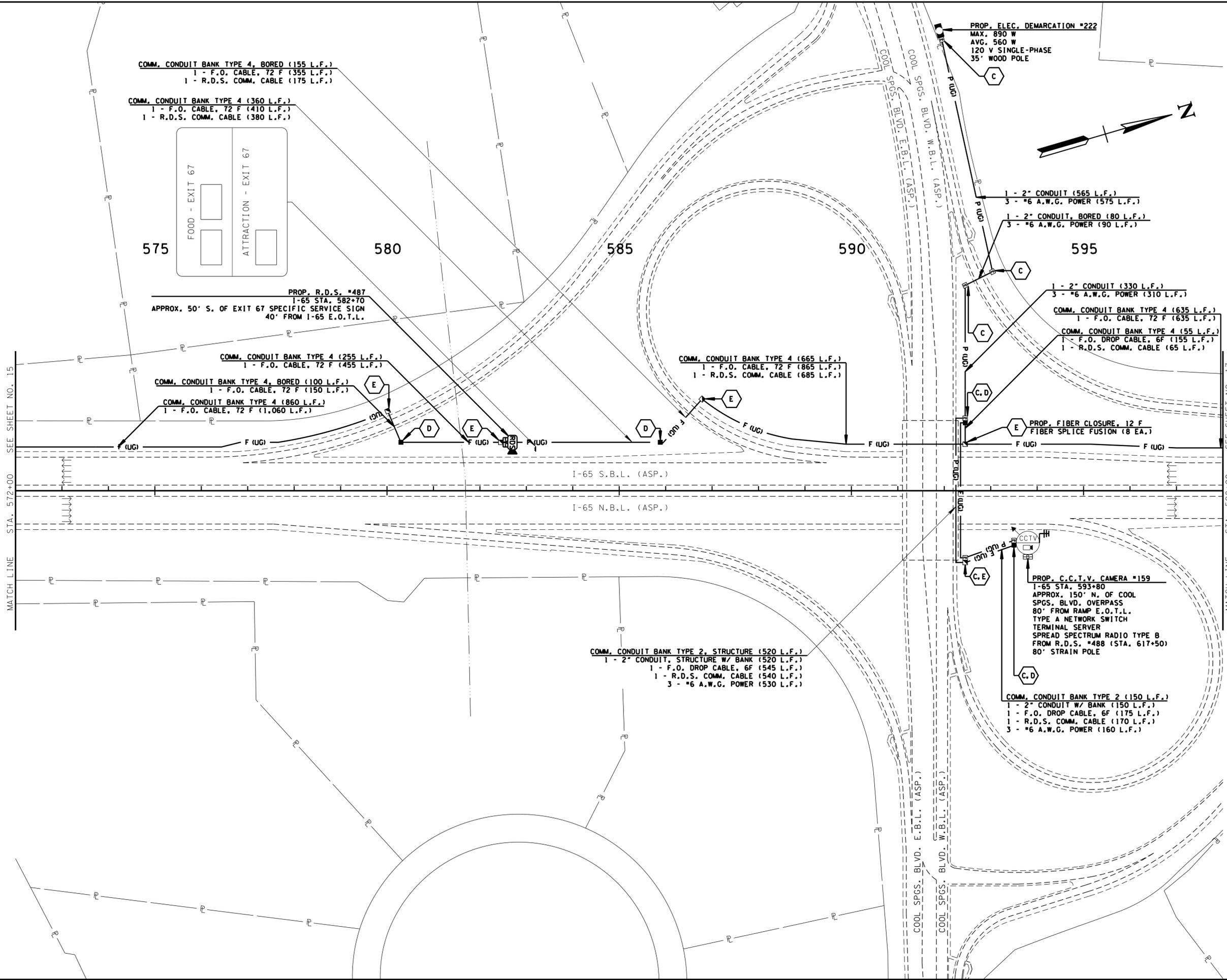


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 546+00 TO 572+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	16



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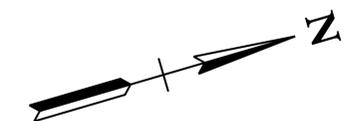
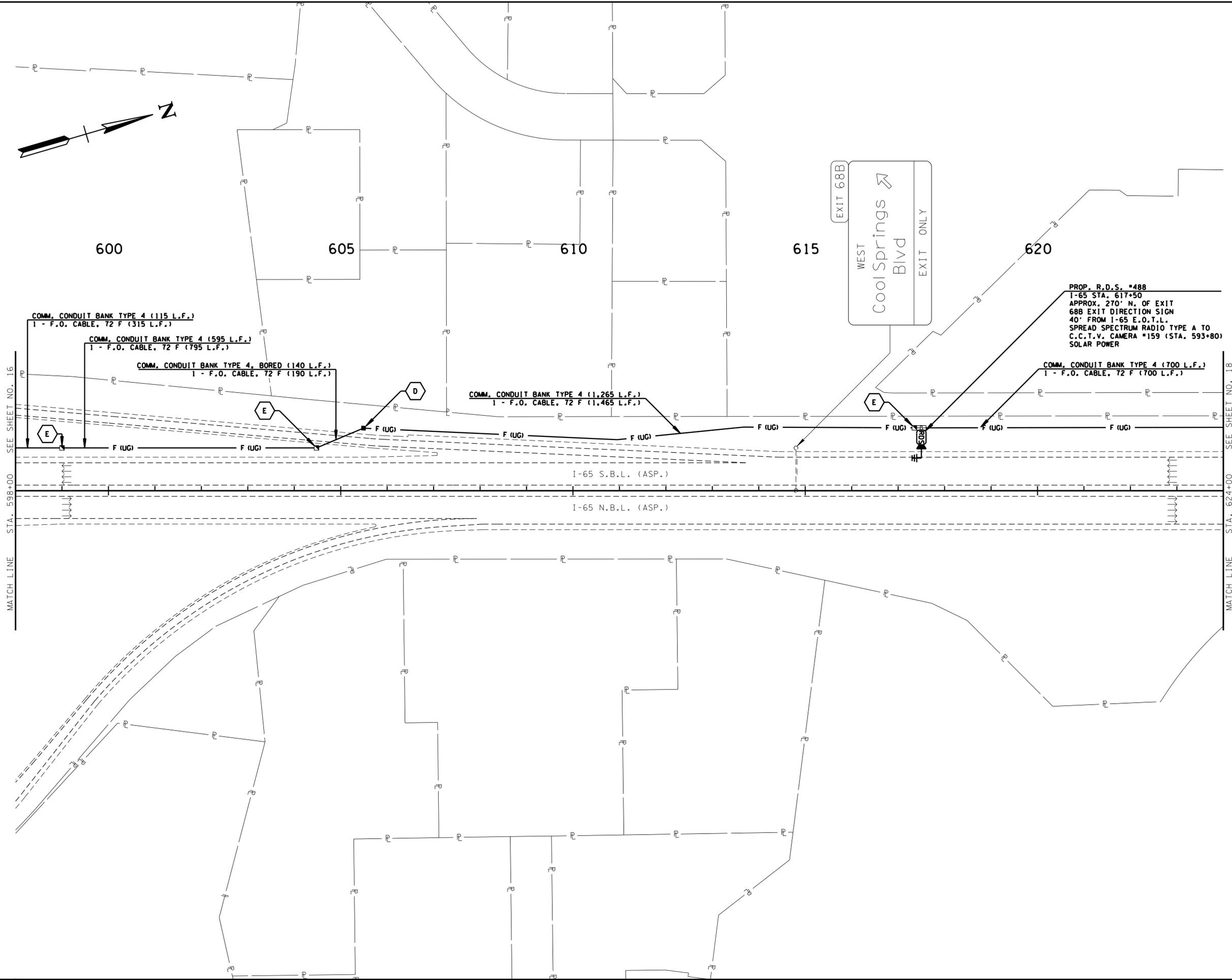


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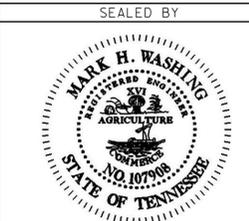
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 572+00 TO 598+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	17



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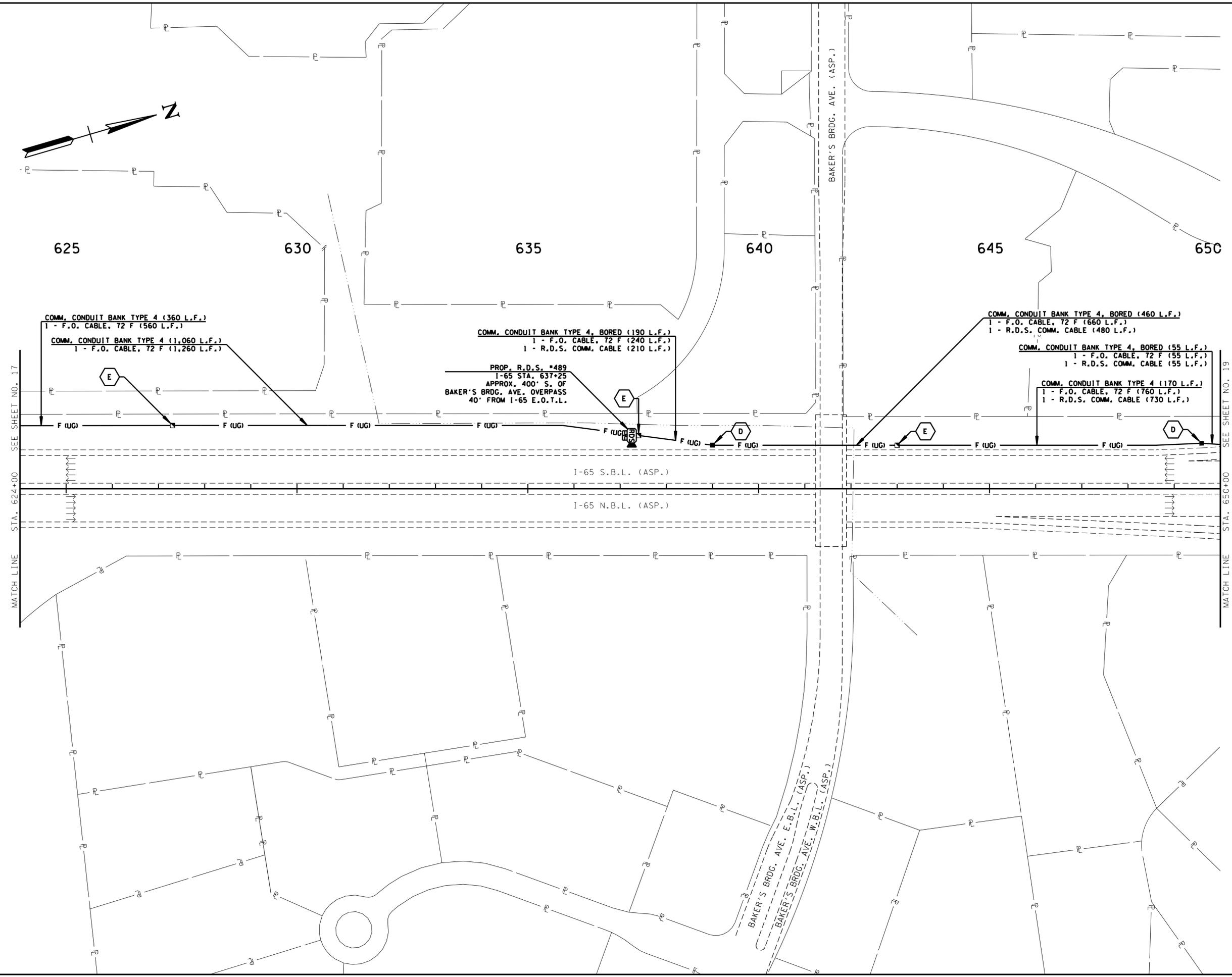
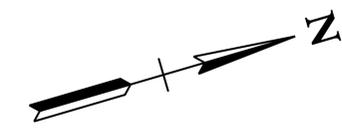


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 598+00 TO 624+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	18



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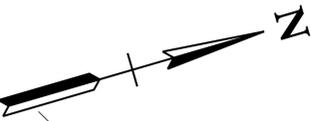
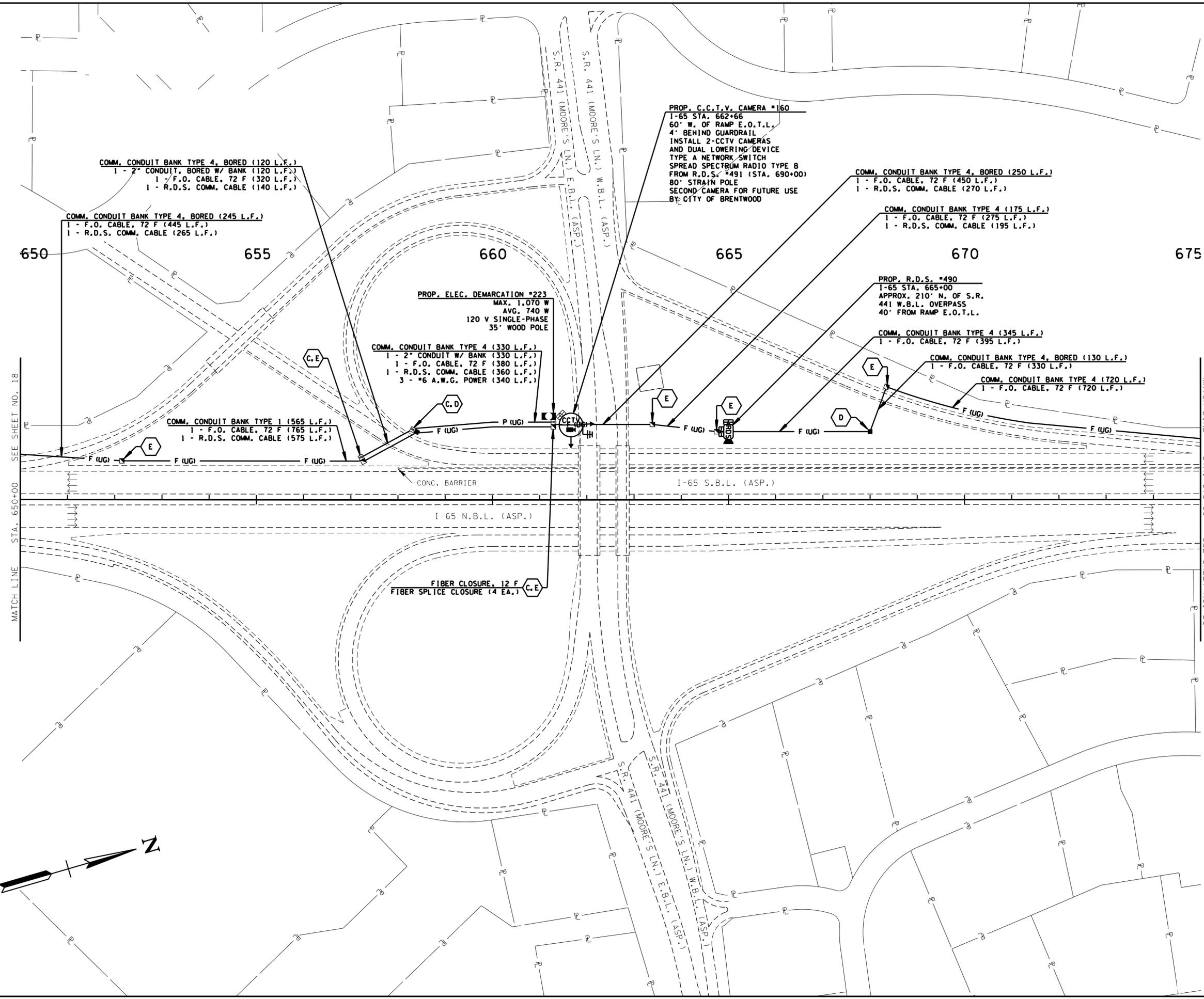


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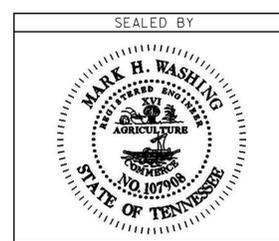
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 I-65
 STA. 624+00 TO 650+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	19



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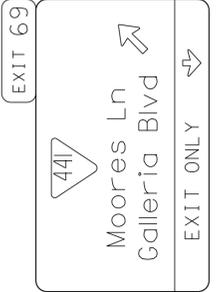
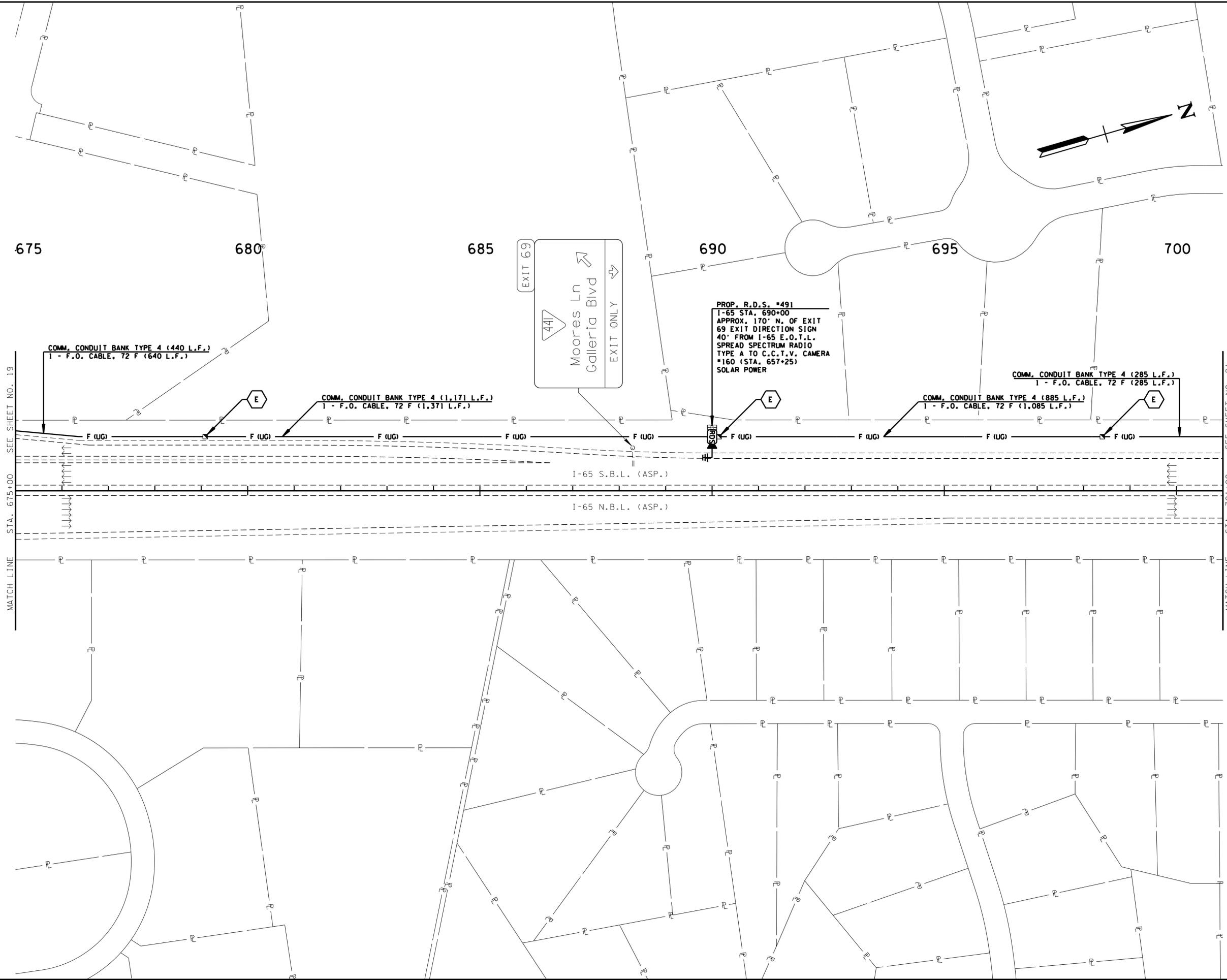


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**I.T.S.
LAYOUT**
I-65
STA. 650+00 TO 675+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	20



PROP. R.D.S. #491
I-65 STA. 690+00
APPROX. 170' N. OF EXIT
69 EXIT DIRECTION SIGN
40' FROM I-65 E.O.T.L.
SPREAD SPECTRUM RADIO
TYPE A TO C.C.T.V. CAMERA
#160 (STA. 657+25)
SOLAR POWER

COMM. CONDUIT BANK TYPE 4 (440 L.F.)
1 - F.O. CABLE, 72 F (640 L.F.)

COMM. CONDUIT BANK TYPE 4 (1,171 L.F.)
1 - F.O. CABLE, 72 F (1,371 L.F.)

COMM. CONDUIT BANK TYPE 4 (285 L.F.)
1 - F.O. CABLE, 72 F (285 L.F.)

COMM. CONDUIT BANK TYPE 4 (885 L.F.)
1 - F.O. CABLE, 72 F (1,085 L.F.)

I-65 S.B.L. (ASP.)
I-65 N.B.L. (ASP.)

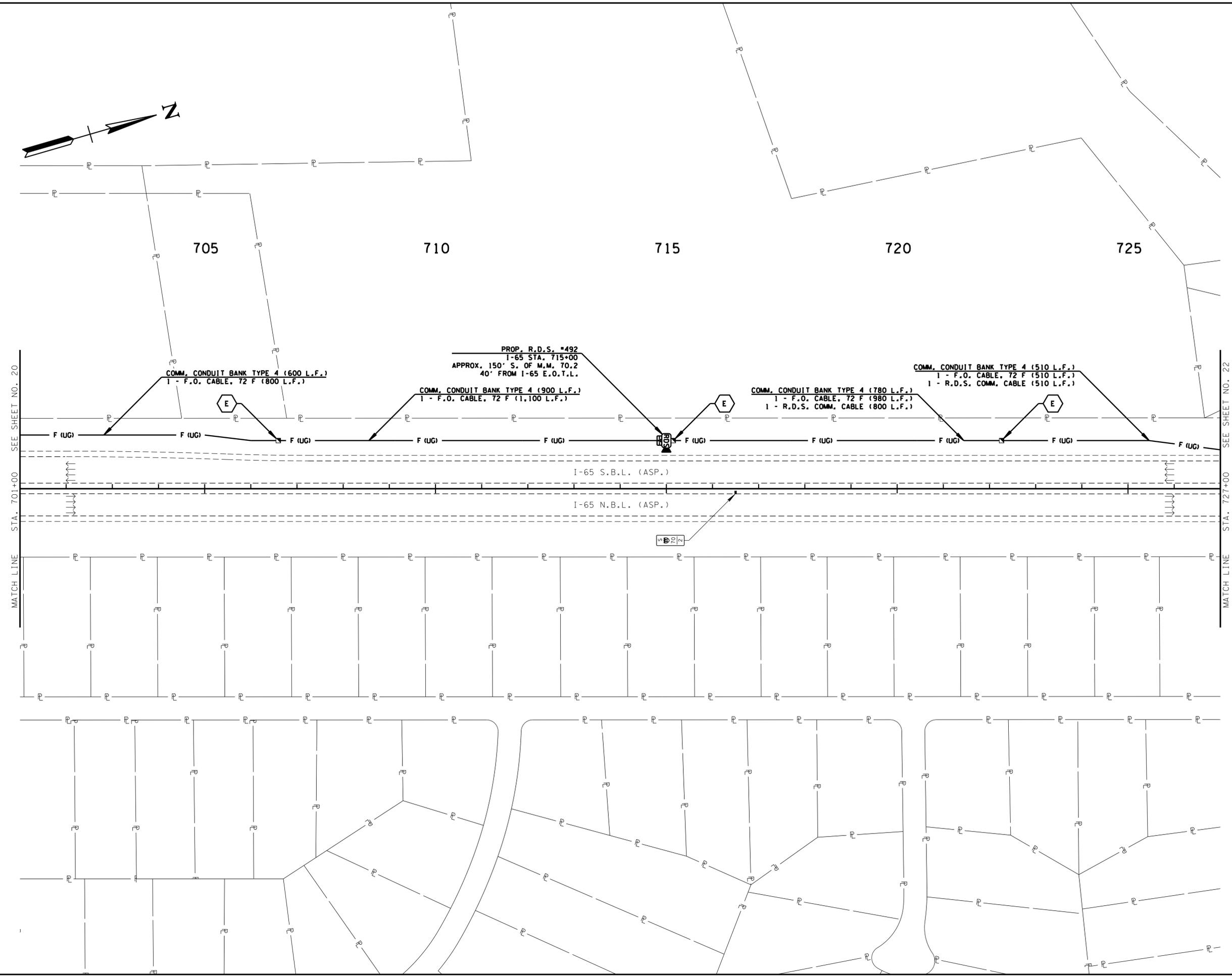
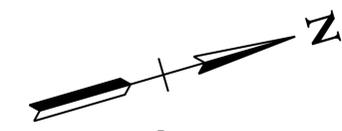


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 675+00 TO 701+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	21



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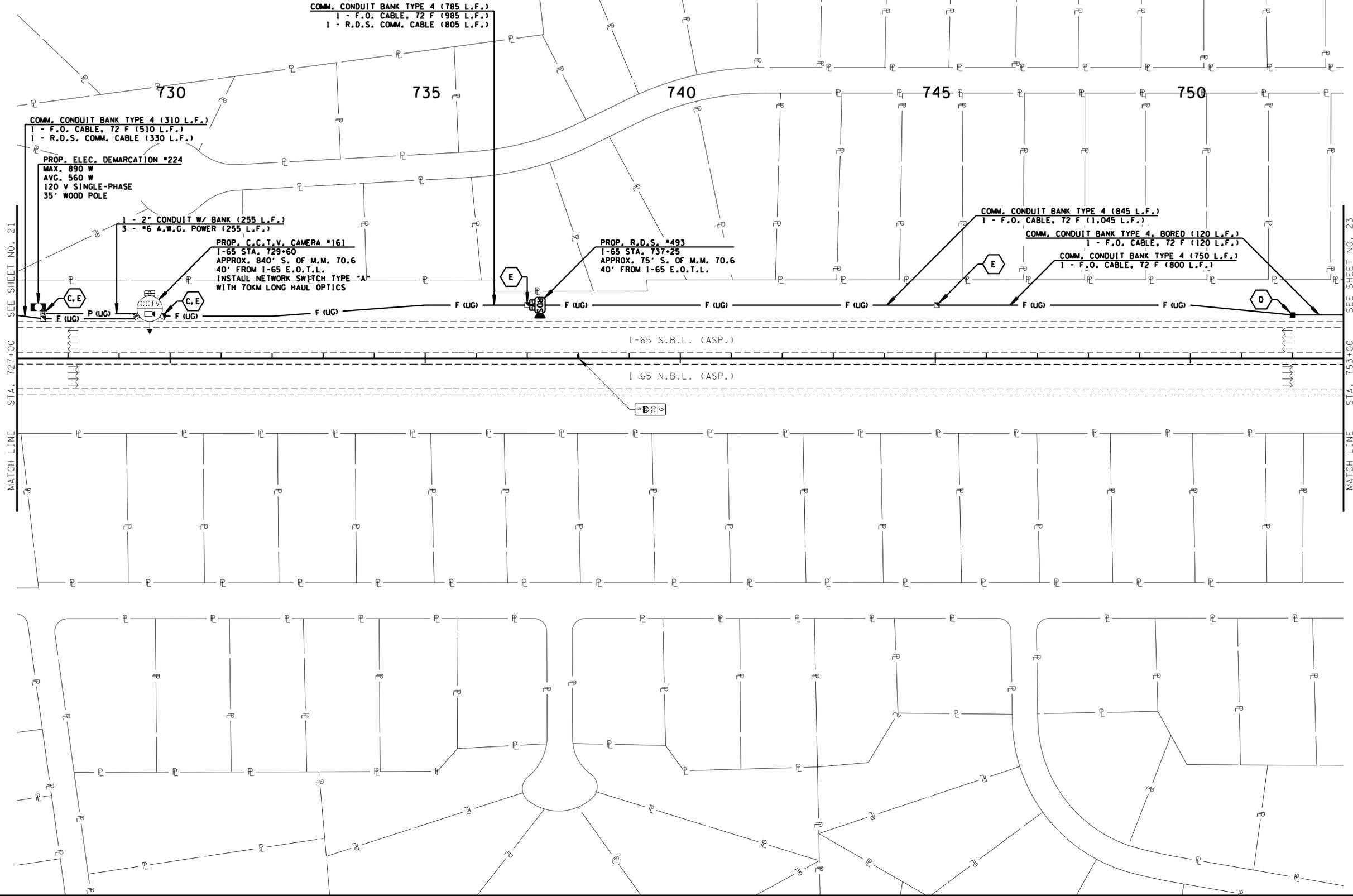
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT

I-65
 STA. 701+00 TO 727+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	22



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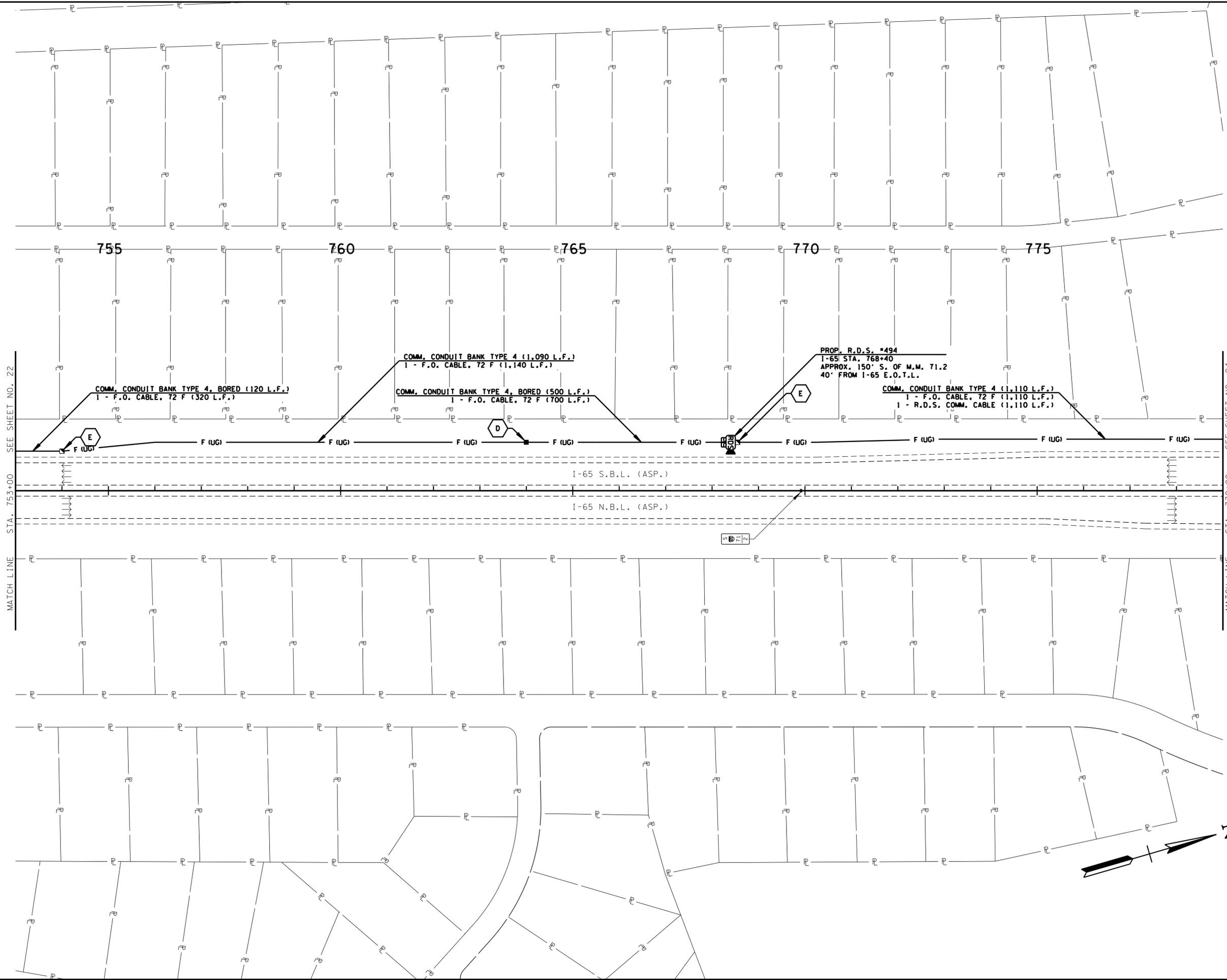


COORDINATES ARE NAD/83(1995),
ARE DATUM ADJUSTED BY THE
FACTOR OF 1.000084 AND TIED TO
THE TRN. ALL ELEVATIONS ARE
REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 727+00 TO 753+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	23



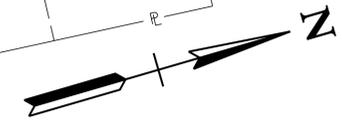
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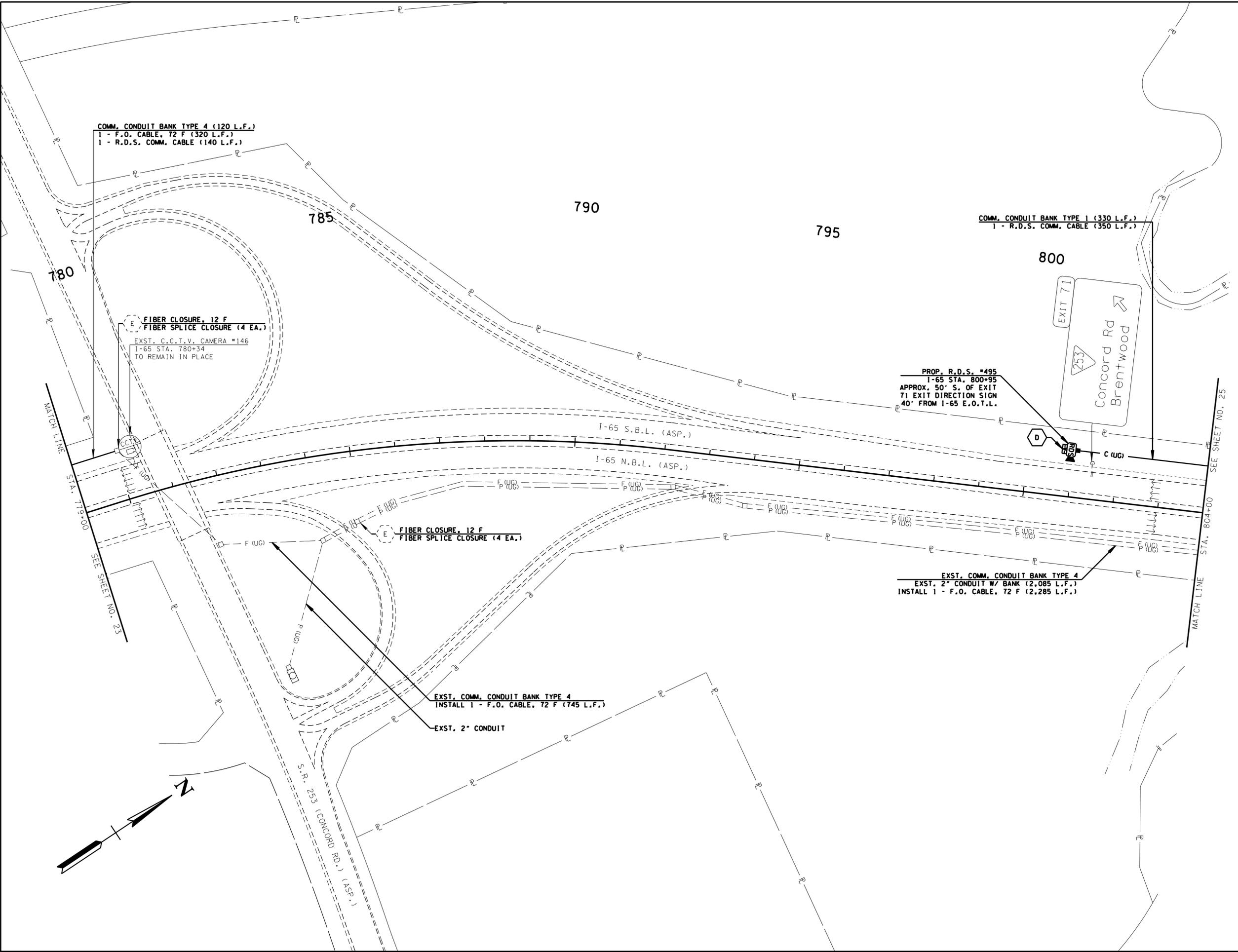
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 I-65
 STA. 753+00 TO 779+00
 SCALE: 1" = 100'



TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	24



COMM. CONDUIT BANK TYPE 4 (120 L.F.)
1 - F.O. CABLE, 72 F (320 L.F.)
1 - R.D.S. COMM. CABLE (140 L.F.)

FIBER CLOSURE, 12 F
FIBER SPLICE CLOSURE (4 EA.)

EXST. C.C.T.V. CAMERA #146
I-65 STA. 780+34
TO REMAIN IN PLACE

COMM. CONDUIT BANK TYPE 1 (330 L.F.)
1 - R.D.S. COMM. CABLE (350 L.F.)

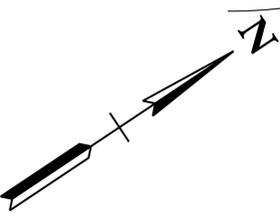
PROP. R.D.S. #495
I-65 STA. 800+95
APPROX. 50' S. OF EXIT
71 EXIT DIRECTION SIGN
40' FROM I-65 E.O.T.L.

FIBER CLOSURE, 12 F
FIBER SPLICE CLOSURE (4 EA.)

EXST. COMM. CONDUIT BANK TYPE 4
EXST. 2" CONDUIT W/ BANK (2,085 L.F.)
INSTALL 1 - F.O. CABLE, 72 F (2,285 L.F.)

EXST. COMM. CONDUIT BANK TYPE 4
INSTALL 1 - F.O. CABLE, 72 F (745 L.F.)

EXST. 2" CONDUIT



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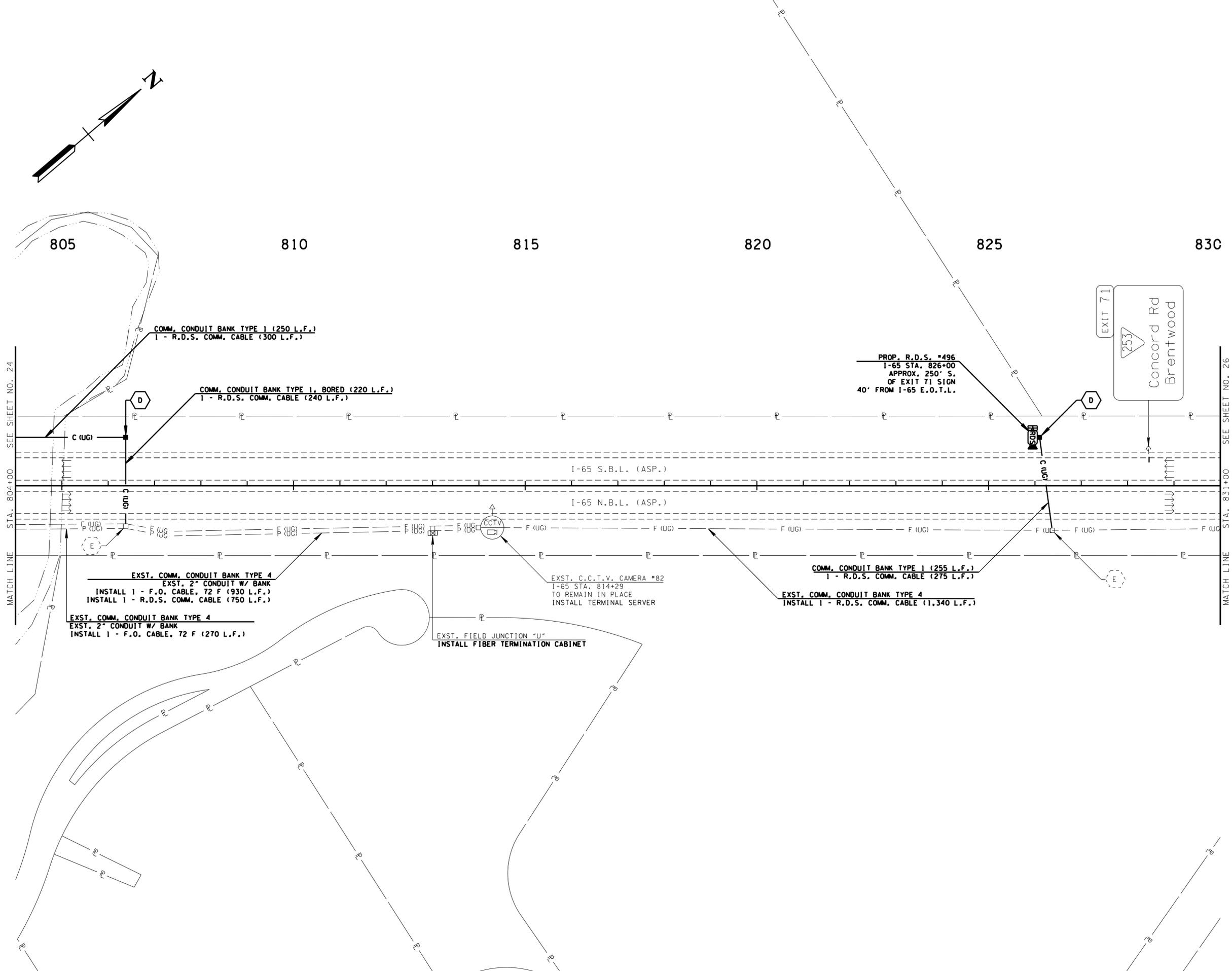


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 779+00 TO 804+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	25



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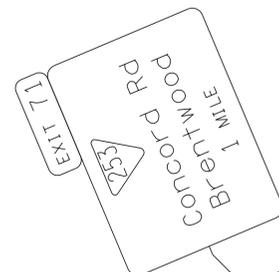
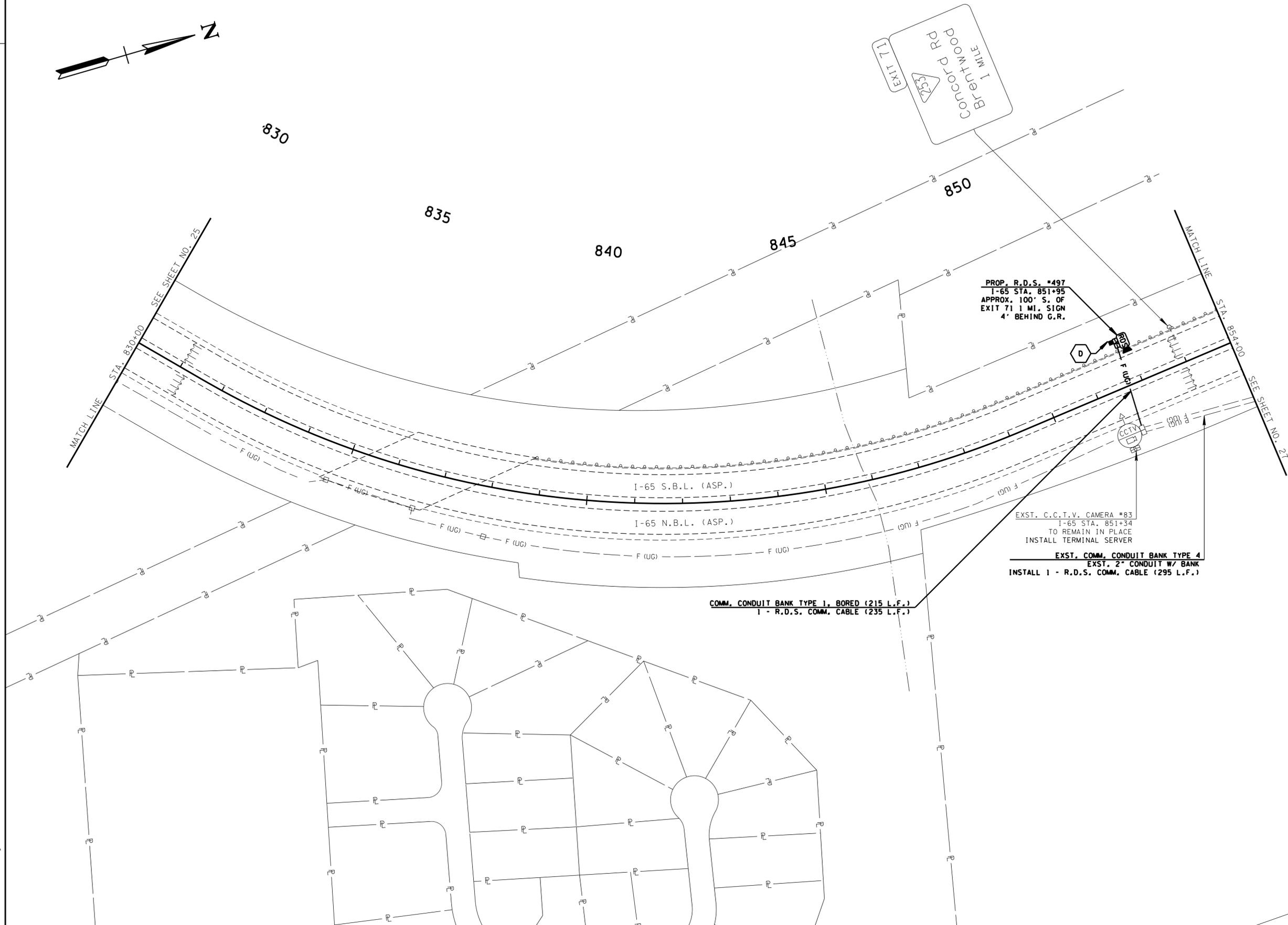


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 804+00 TO 831+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	26



PROP. R.D.S. #497
I-65 STA. 851+95
APPROX. 100' S. OF
EXIT 71 1 MI. SIGN
4' BEHIND G.R.

EXIST. C.C.T.V. CAMERA #83
I-65 STA. 851+34
TO REMAIN IN PLACE
INSTALL TERMINAL SERVER

EXIST. COMM. CONDUIT BANK TYPE 4
EXIST. 2" CONDUIT W/ BANK
INSTALL 1 - R.D.S. COMM. CABLE (295 L.F.)

COMM. CONDUIT BANK TYPE 1, BORED (215 L.F.)
1 - R.D.S. COMM. CABLE (235 L.F.)

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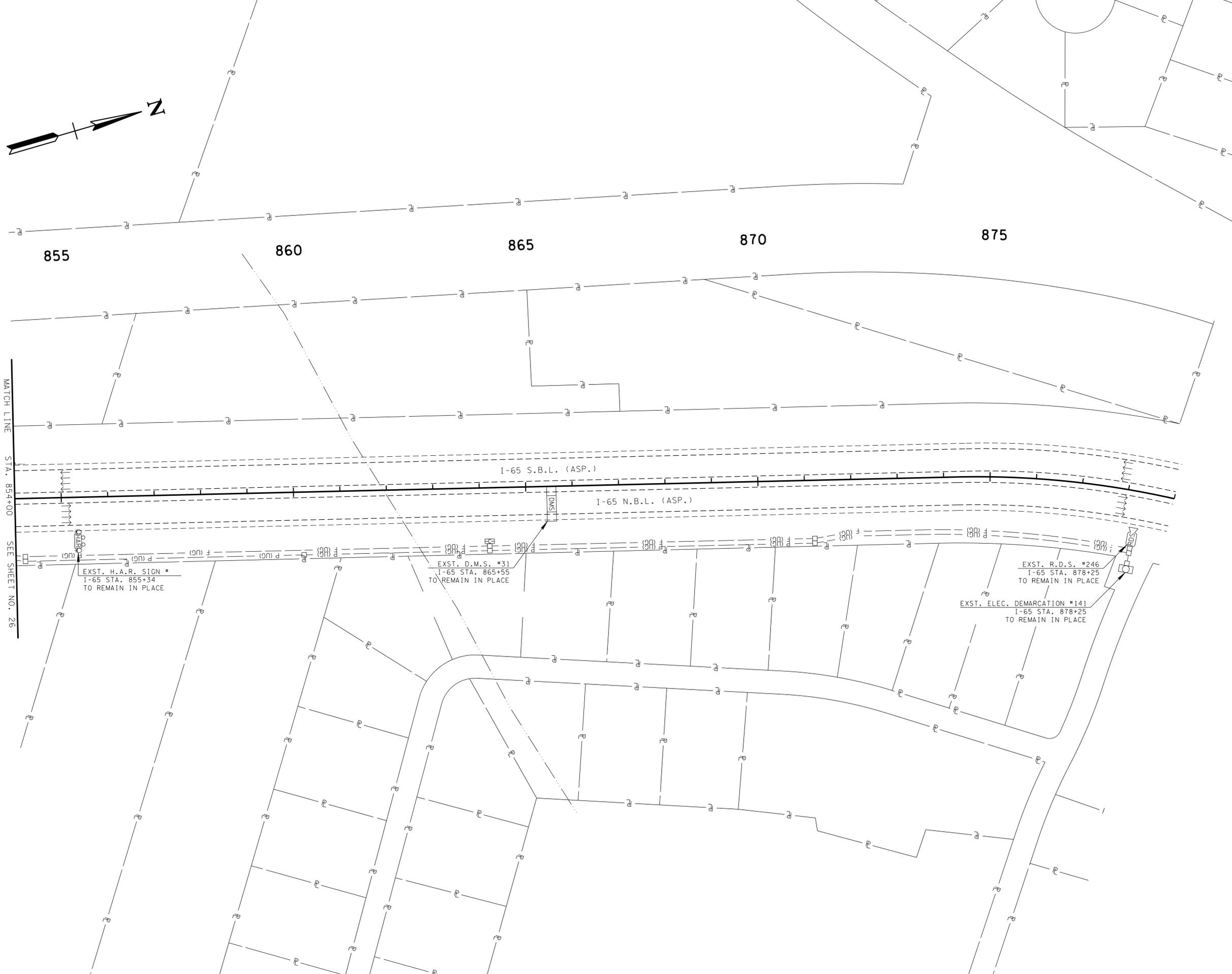


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**I.T.S.
LAYOUT**
I-65
STA. 830+00 TO 854+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	27



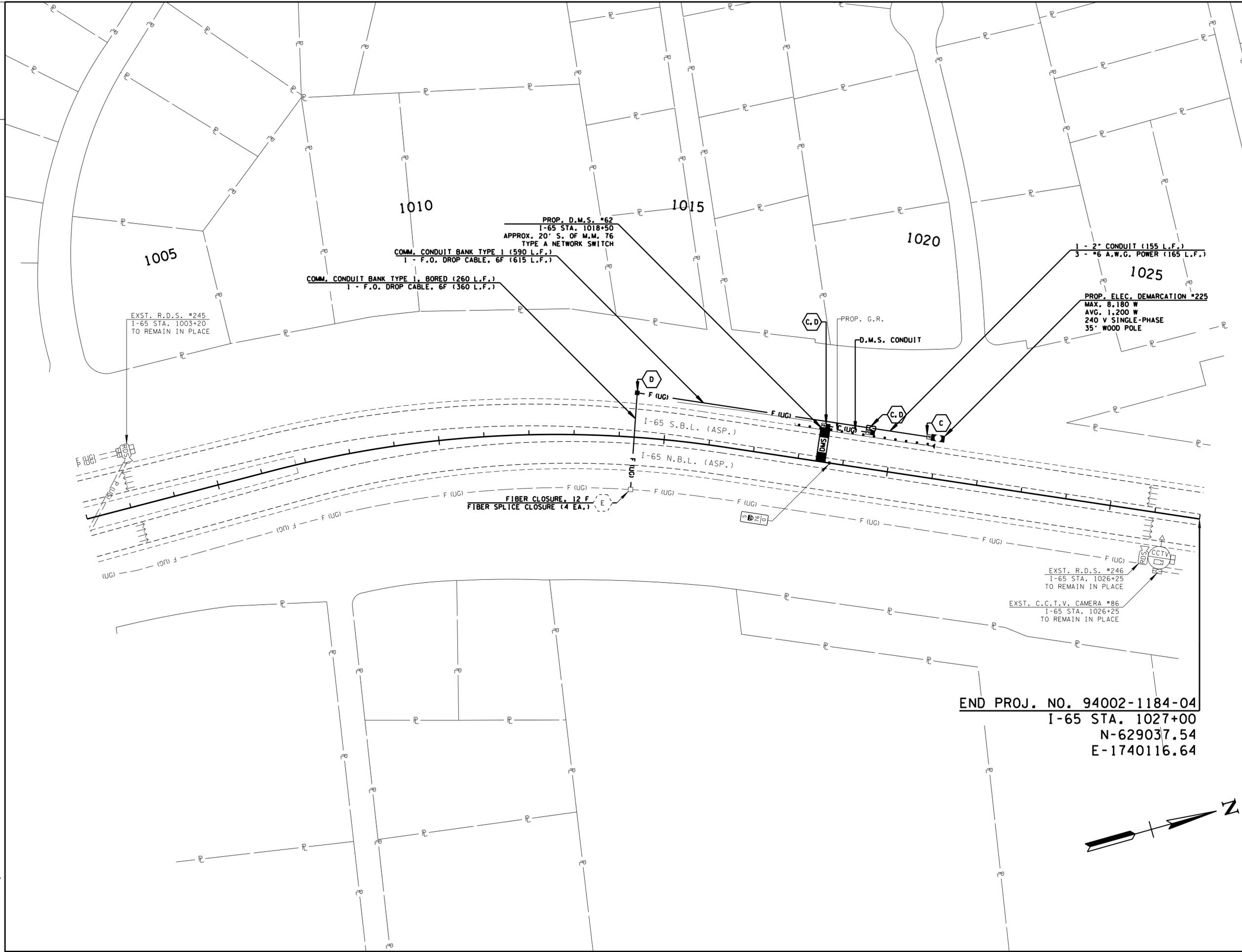
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 854+00 TO 879+00
SCALE: 1" = 100'

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	28



1005

1010

1015

1020

1025

EXST. R.D.S. #245
I-65 STA. 1003+20
TO REMAIN IN PLACE

PROP. D.M.S. #62
I-65 STA. 1018+50
APPROX. 20' S. OF M.M. 76
TYPE A NETWORK SWITCH

COMM. CONDUIT BANK TYPE 1, BORED (260 L.F.)
1 - F.O. DROP CABLE, 6F (360 L.F.)

COMM. CONDUIT BANK TYPE 1 (590 L.F.)
1 - F.O. DROP CABLE, 6F (615 L.F.)

1 - 2" CONDUIT (155 L.F.)
3 - #6 A.W.G. POWER (165 L.F.)

PROP. ELEC. DEMARCATION #225
MAX. 8,180 W
AVG. 1,200 W
240 V SINGLE-PHASE
35' WOOD POLE

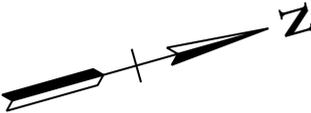
PROP. G.R.
D.M.S. CONDUIT

FIBER CLOSURE, 12 F.
FIBER SPLICE CLOSURE (4 EA.)

EXST. R.D.S. #246
I-65 STA. 1026+25
TO REMAIN IN PLACE

EXST. C.C.T.V. CAMERA #86
I-65 STA. 1026+25
TO REMAIN IN PLACE

END PROJ. NO. 94002-1184-04
I-65 STA. 1027+00
N-629037.54
E-1740116.64



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
I-65
STA. 1002+00 TO 1027+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	29



1490

1495

1500

1505

1510

COMM. CONDUIT BANK TYPE 1 (180 L.F.)
 1 - 2" CONDUIT W/ BANK (180 L.F.)
 1 - CATEGORY 5 CABLE (200 L.F.)
 3 - #2 A.W.G. POWER (200 L.F.)

COMMUNICATIONS DEMARCATION POINT
 PAD MOUNTED TYPE "B" CABINET
 INSTALL 1-72F TERMINATION CABINETS
 INSTALL TYPE "A" NETWORK SWITCH

PROP. ELEC. DEMARCATION #227
 MAX. 880 W
 AVG. 400 W
 240 V SINGLE-PHASE
 35' WOOD POLE

PROP. C.C.T.V. CAMERA #163
 S.R. 840 STA. 1501+86
 APPROX. 50' W. OF
 S.R. 6 OVERPASS
 40' FROM S.R. 840 E.O.T.L.
 TYPE A NETWORK SWITCH
 80' STRAIN POLE
 TRANSFORMER, TYPE A

S.R. 840 W.B.L. (ASP.)

S.R. 840 E.B.L. (ASP.)

COMM. CONDUIT BANK TYPE 4, BORED (255 L.F.)
 1 - 2" CONDUIT, BORED W/ BANK (255 L.F.)
 1 - F.O. CABLE, 72 F (465 L.F.)

COMM. CONDUIT BANK TYPE 4 (650 L.F.)
 1 - 2" CONDUIT W/ BANK (650 L.F.)
 1 - F.O. CABLE, 72 F (850 L.F.)

COMM. CONDUIT BANK TYPE 4 (650 L.F.)
 1 - 2" CONDUIT W/ BANK (650 L.F.)
 1 - F.O. CABLE, 72 F (850 L.F.)

COMM. CONDUIT BANK TYPE 4, BORED (145 L.F.)
 1 - 2" CONDUIT W/ BANK (145 L.F.)
 1 - F.O. CABLE, 72 F (195 L.F.)

COMM. CONDUIT BANK TYPE 4, BORED (90 L.F.)
 1 - 2" CONDUIT W/ BANK (90 L.F.)
 1 - F.O. CABLE, 72 F (190 L.F.)

MATCH LINE STA. 1514+00 SEE SHEET NO. 30



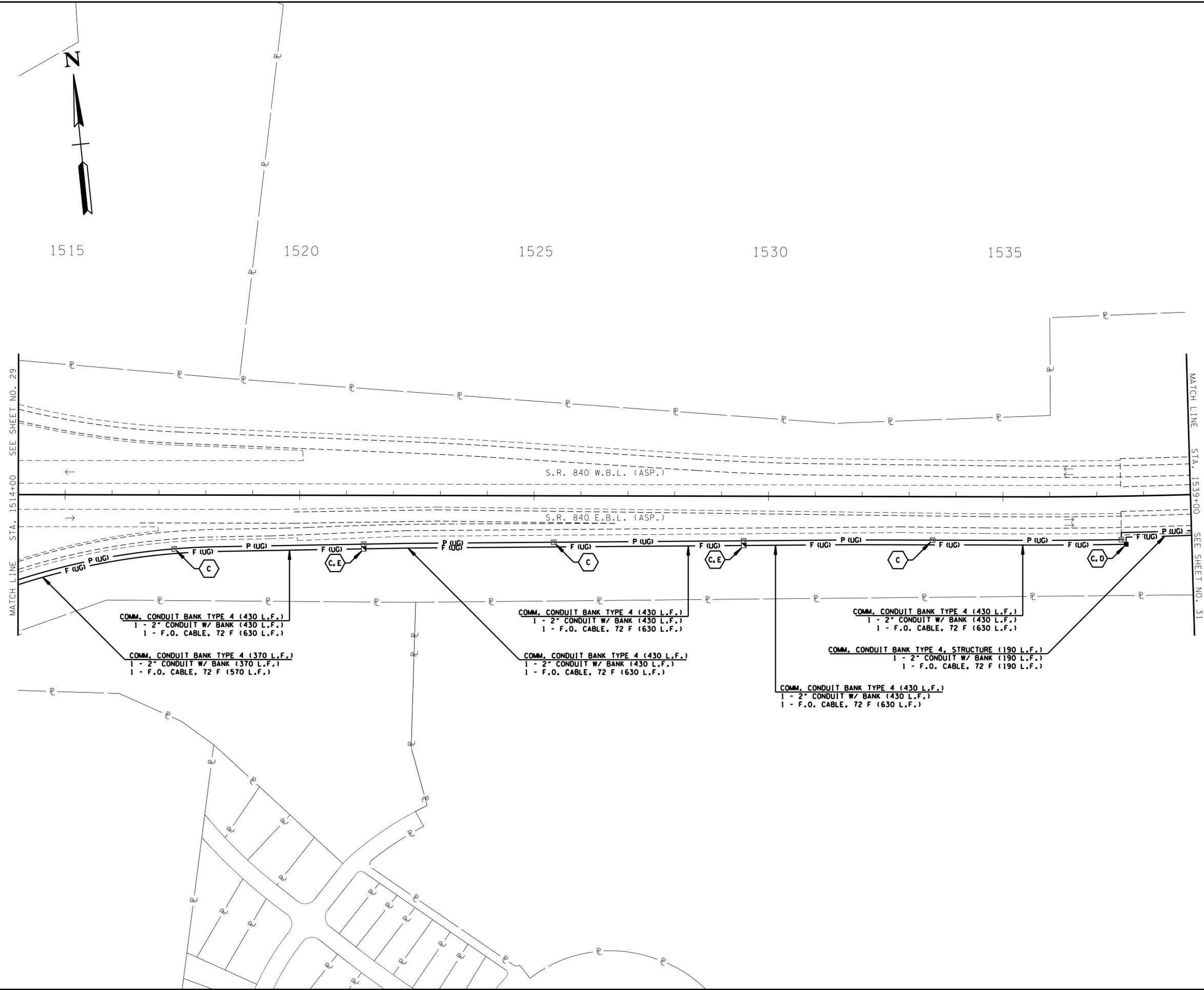
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT

S.R. 840
 STA. 1488+00 TO 1514+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	30



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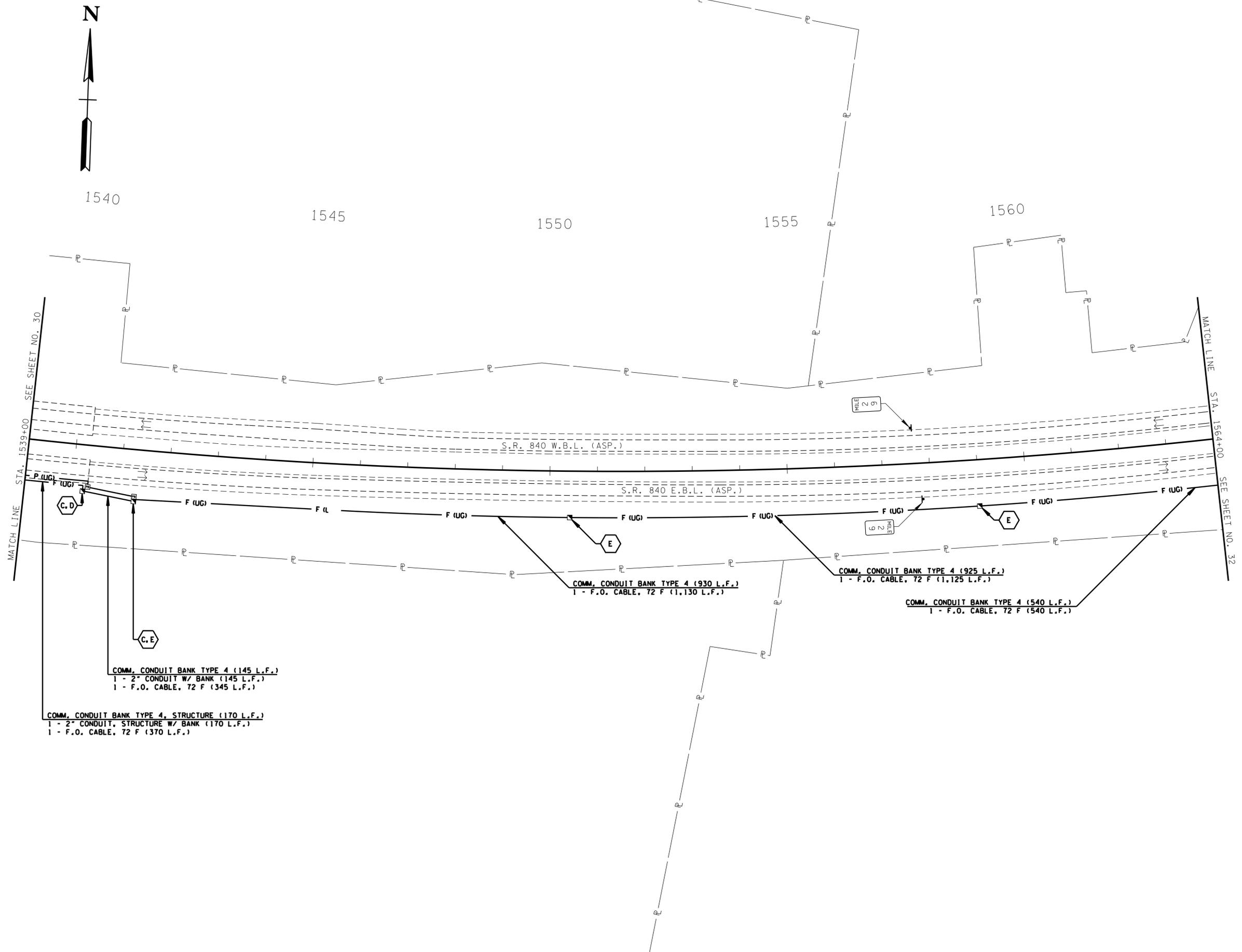


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
S.R. 840
STA. 1514+00 TO 1539+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	31



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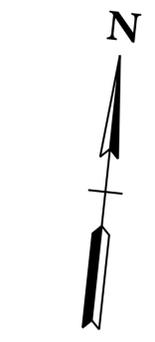
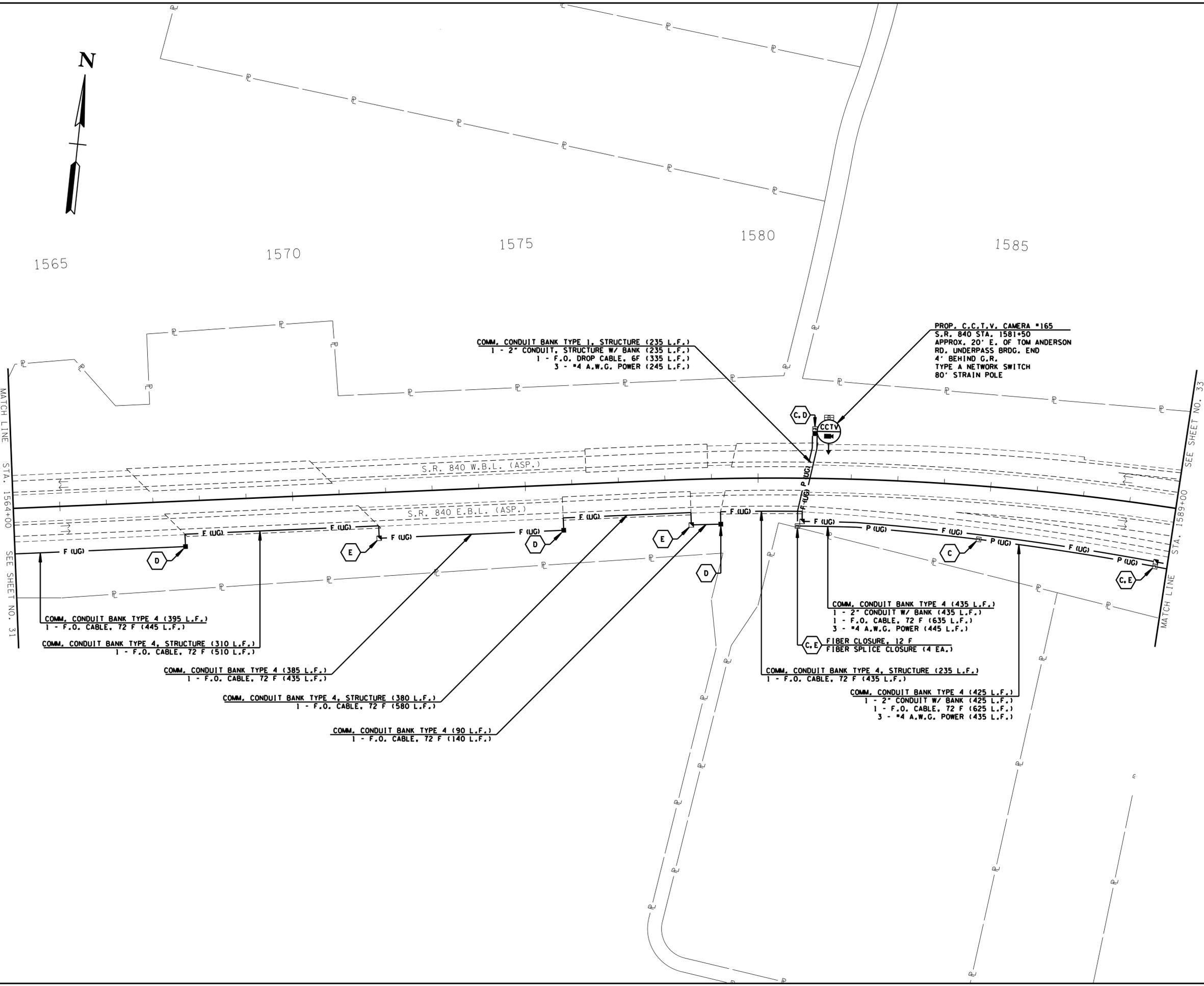


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 S.R. 840
 STA. 1539+00 TO 1564+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	32



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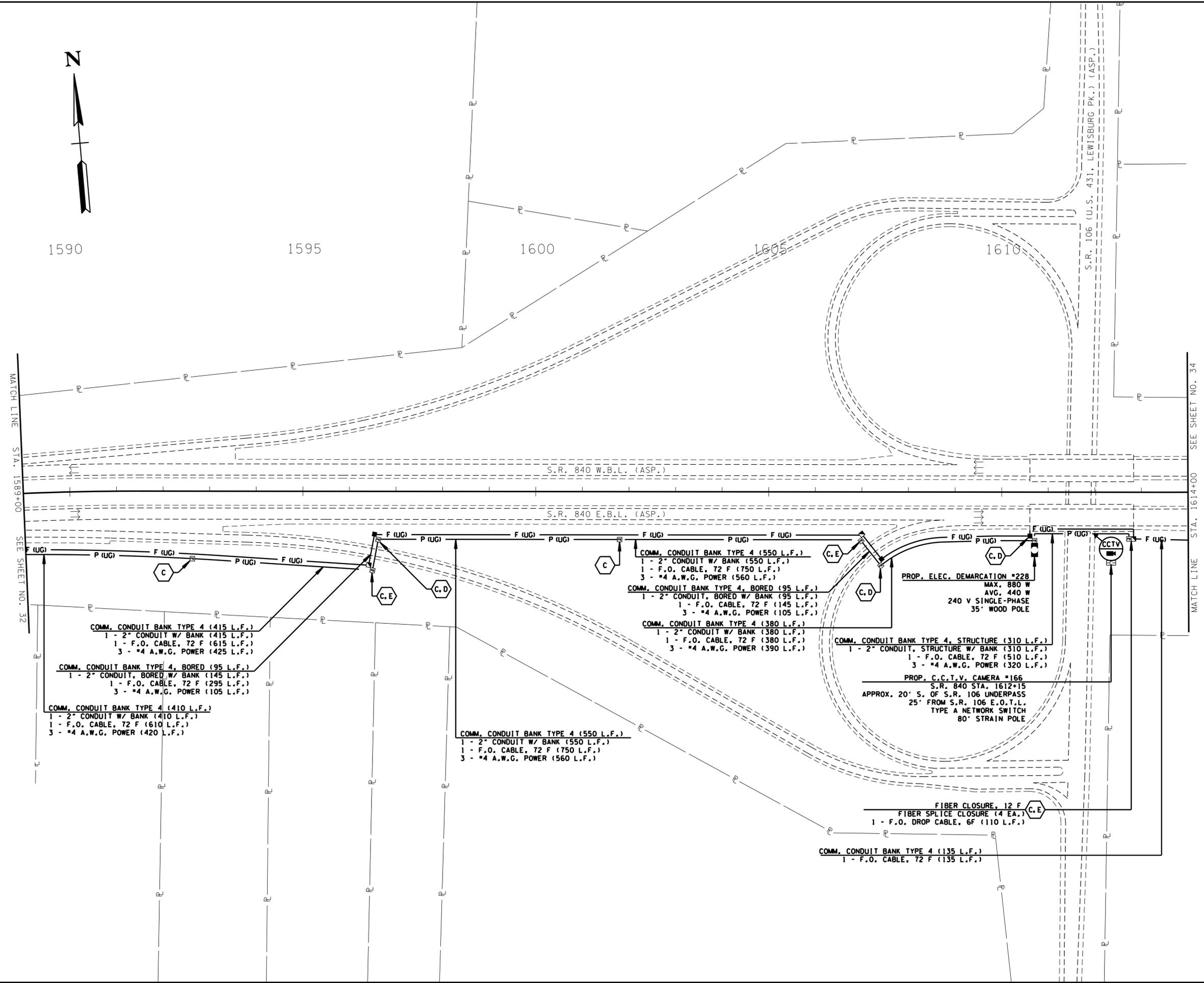


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
S.R. 840
STA. 1564+00 TO 1589+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	33



1590

1595

1600

1605

1610

MATCH LINE STA. 1589+00 SEE SHEET NO. 32

MATCH LINE STA. 1614+00 SEE SHEET NO. 34

COMM. CONDUIT BANK TYPE 4 (415 L.F.)
1 - 2" CONDUIT W/ BANK (415 L.F.)
1 - F.O. CABLE, 72 F (615 L.F.)
3 - #4 A.W.G. POWER (425 L.F.)

COMM. CONDUIT BANK TYPE 4, BORED (95 L.F.)
1 - 2" CONDUIT, BORED W/ BANK (145 L.F.)
1 - F.O. CABLE, 72 F (295 L.F.)
3 - #4 A.W.G. POWER (105 L.F.)

COMM. CONDUIT BANK TYPE 4 (410 L.F.)
1 - 2" CONDUIT W/ BANK (410 L.F.)
1 - F.O. CABLE, 72 F (610 L.F.)
3 - #4 A.W.G. POWER (420 L.F.)

COMM. CONDUIT BANK TYPE 4 (550 L.F.)
1 - 2" CONDUIT W/ BANK (550 L.F.)
1 - F.O. CABLE, 72 F (750 L.F.)
3 - #4 A.W.G. POWER (560 L.F.)

COMM. CONDUIT BANK TYPE 4 (550 L.F.)
1 - 2" CONDUIT W/ BANK (550 L.F.)
1 - F.O. CABLE, 72 F (750 L.F.)
3 - #4 A.W.G. POWER (560 L.F.)

COMM. CONDUIT BANK TYPE 4, BORED (95 L.F.)
1 - 2" CONDUIT, BORED W/ BANK (95 L.F.)
1 - F.O. CABLE, 72 F (145 L.F.)
3 - #4 A.W.G. POWER (105 L.F.)

COMM. CONDUIT BANK TYPE 4 (380 L.F.)
1 - 2" CONDUIT W/ BANK (380 L.F.)
1 - F.O. CABLE, 72 F (380 L.F.)
3 - #4 A.W.G. POWER (390 L.F.)

COMM. CONDUIT BANK TYPE 4, STRUCTURE (310 L.F.)
1 - 2" CONDUIT, STRUCTURE W/ BANK (310 L.F.)
1 - F.O. CABLE, 72 F (510 L.F.)
3 - #4 A.W.G. POWER (320 L.F.)

PROP. C.C.T.V. CAMERA #166
S.R. 840 STA. 1612+15
APPROX. 20' S. OF S.R. 106 UNDERPASS
25' FROM S.R. 106 E.O.T.L.
TYPE A NETWORK SWITCH
80' STRAIN POLE

PROP. ELEC. DEMARCATION #228
MAX. 880 W
AVG. 440 W
240 V SINGLE-PHASE
35' WOOD POLE

FIBER CLOSURE, 12 F
FIBER SPLICE CLOSURE (4 EA.)
1 - F.O. DROP CABLE, 6F (110 L.F.)

COMM. CONDUIT BANK TYPE 4 (135 L.F.)
1 - F.O. CABLE, 72 F (135 L.F.)

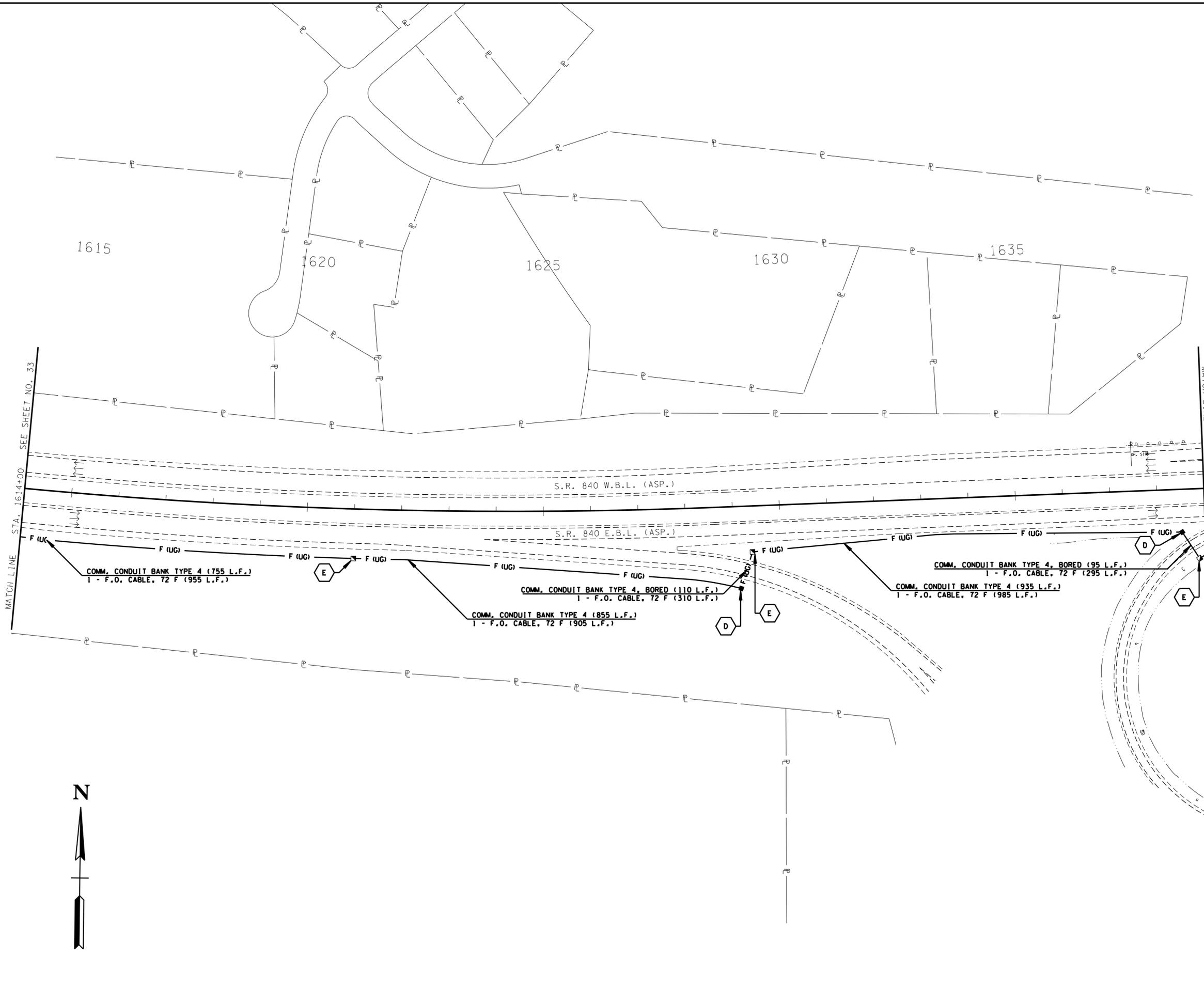


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
S.R. 840
STA. 1589+00 TO 1614+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	34



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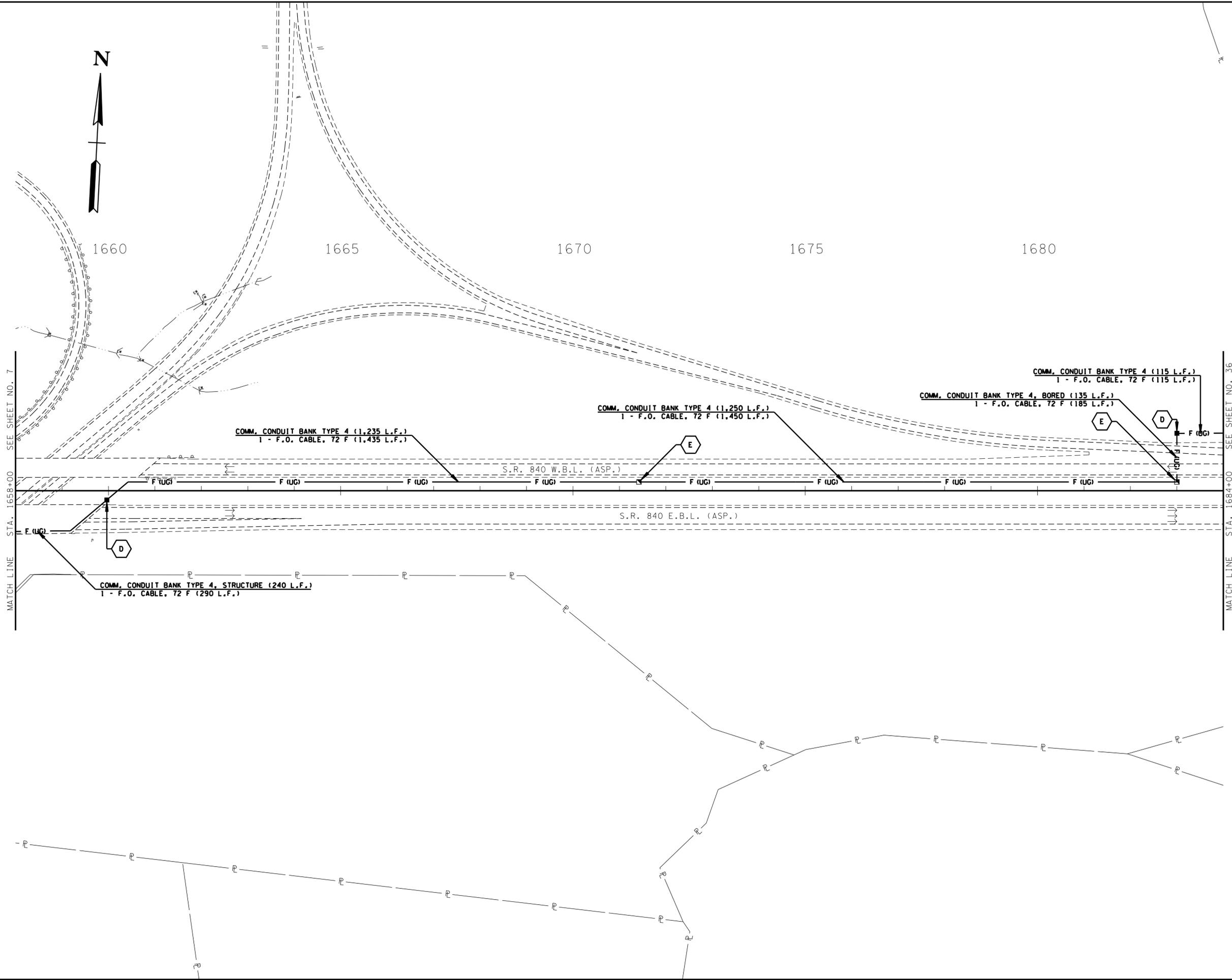


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 S.R. 840
 STA. 1614+00 TO 1639+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	35



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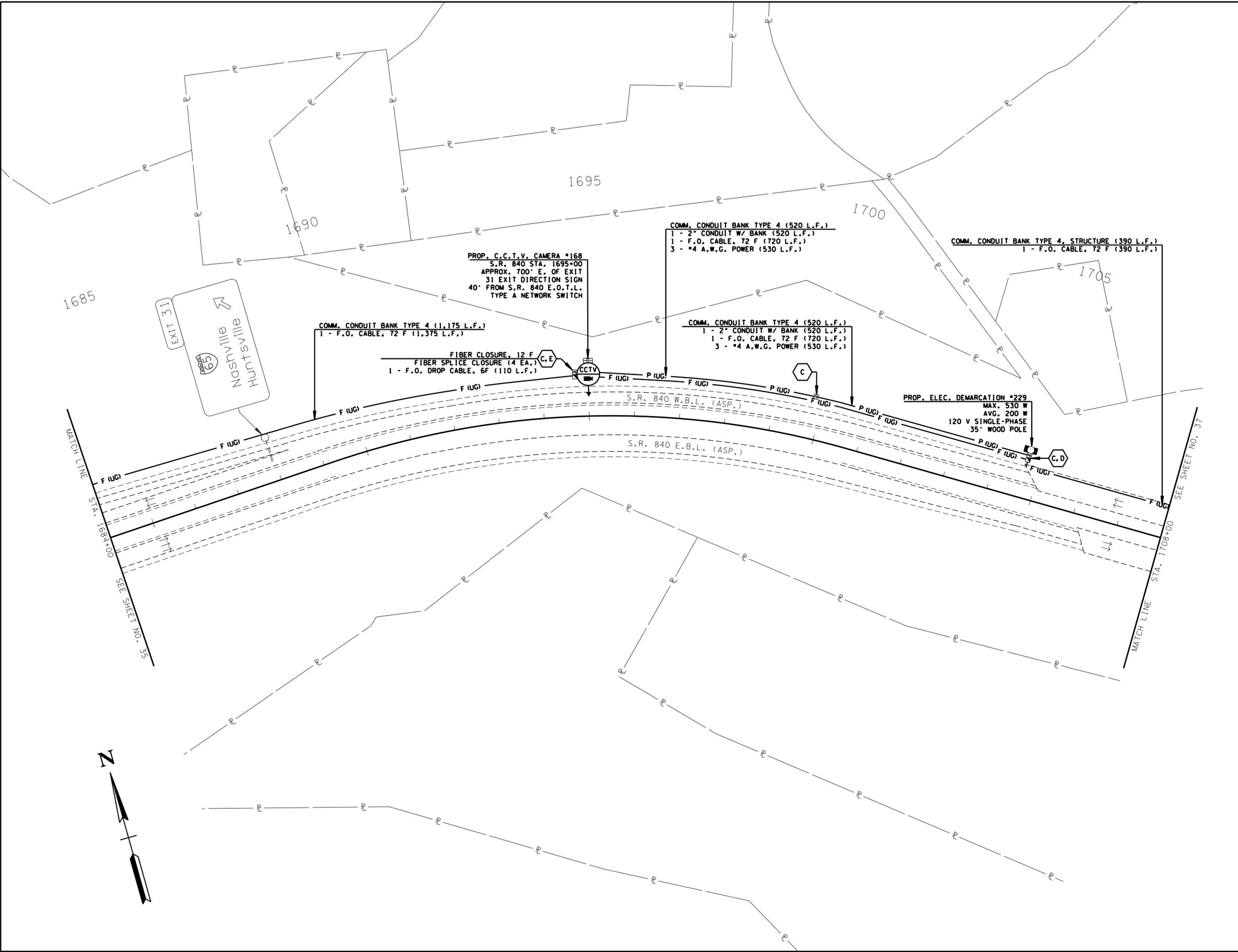


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 S.R. 840
 STA. 1658+00 TO 1684+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	36

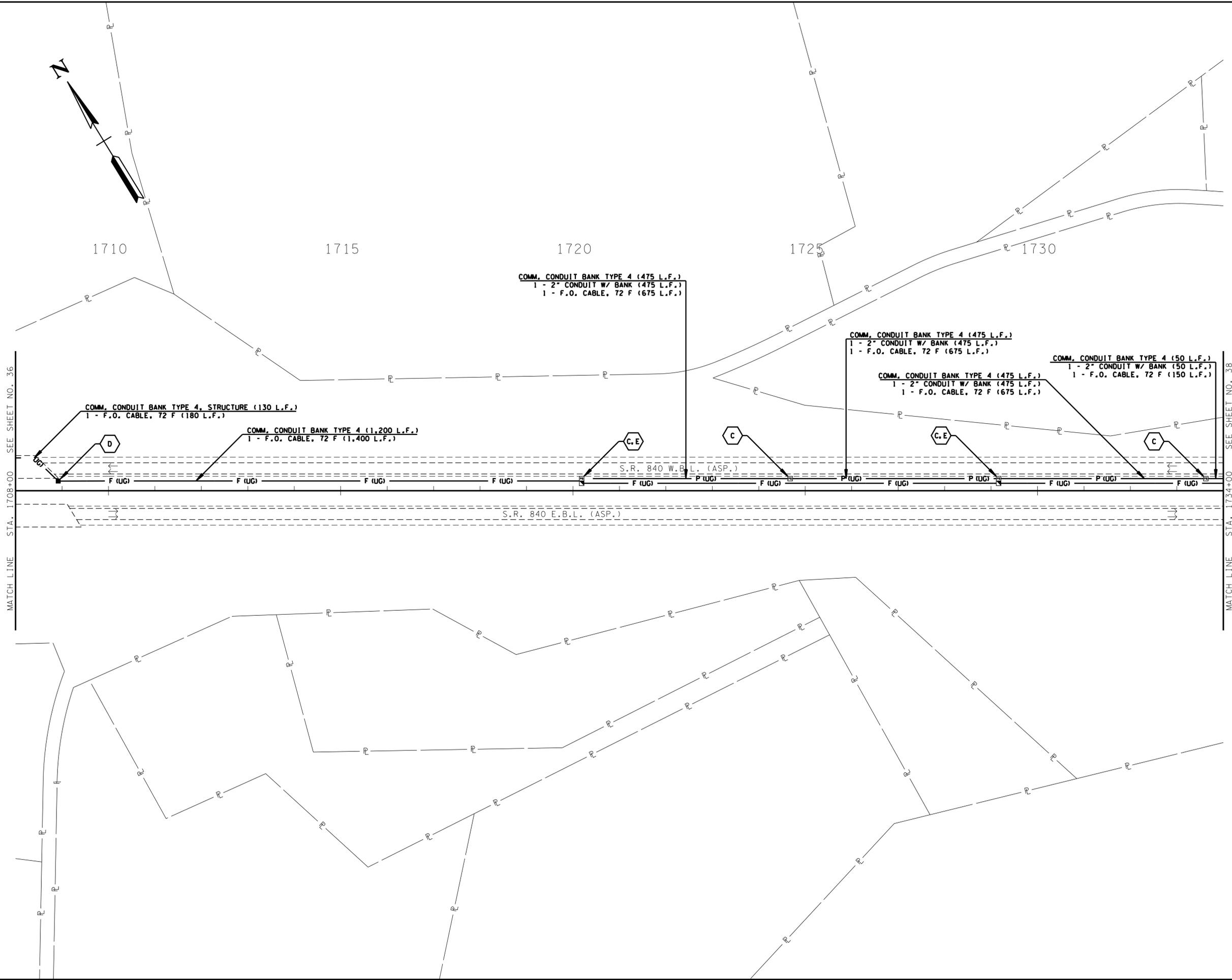


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
S.R. 840
STA. 1684+00 TO 1708+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	37



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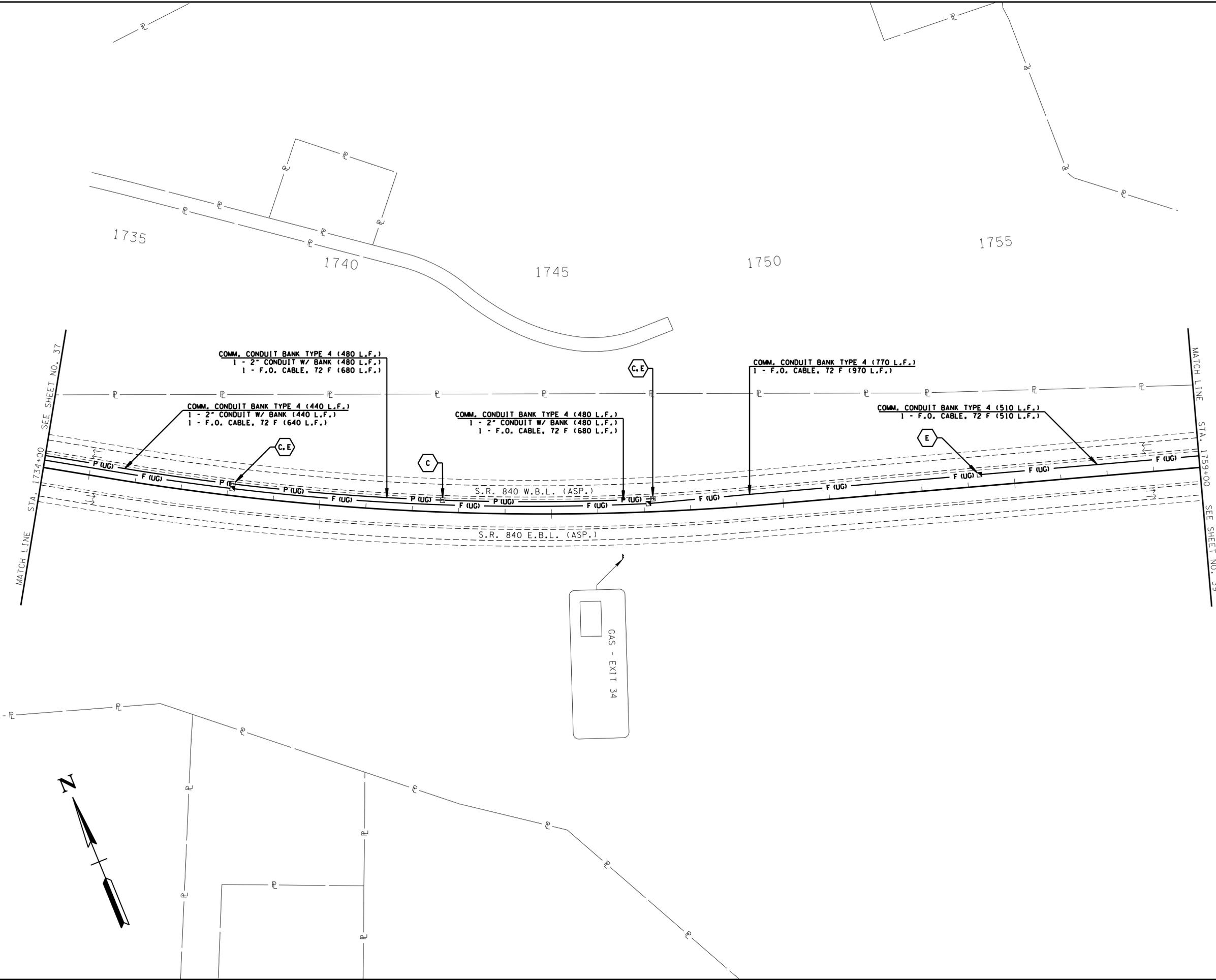


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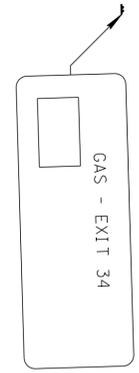
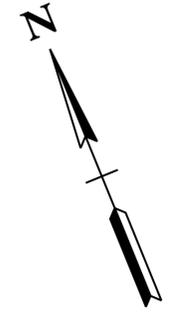
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
S.R. 840
STA. 1708+00 TO 1734+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	38



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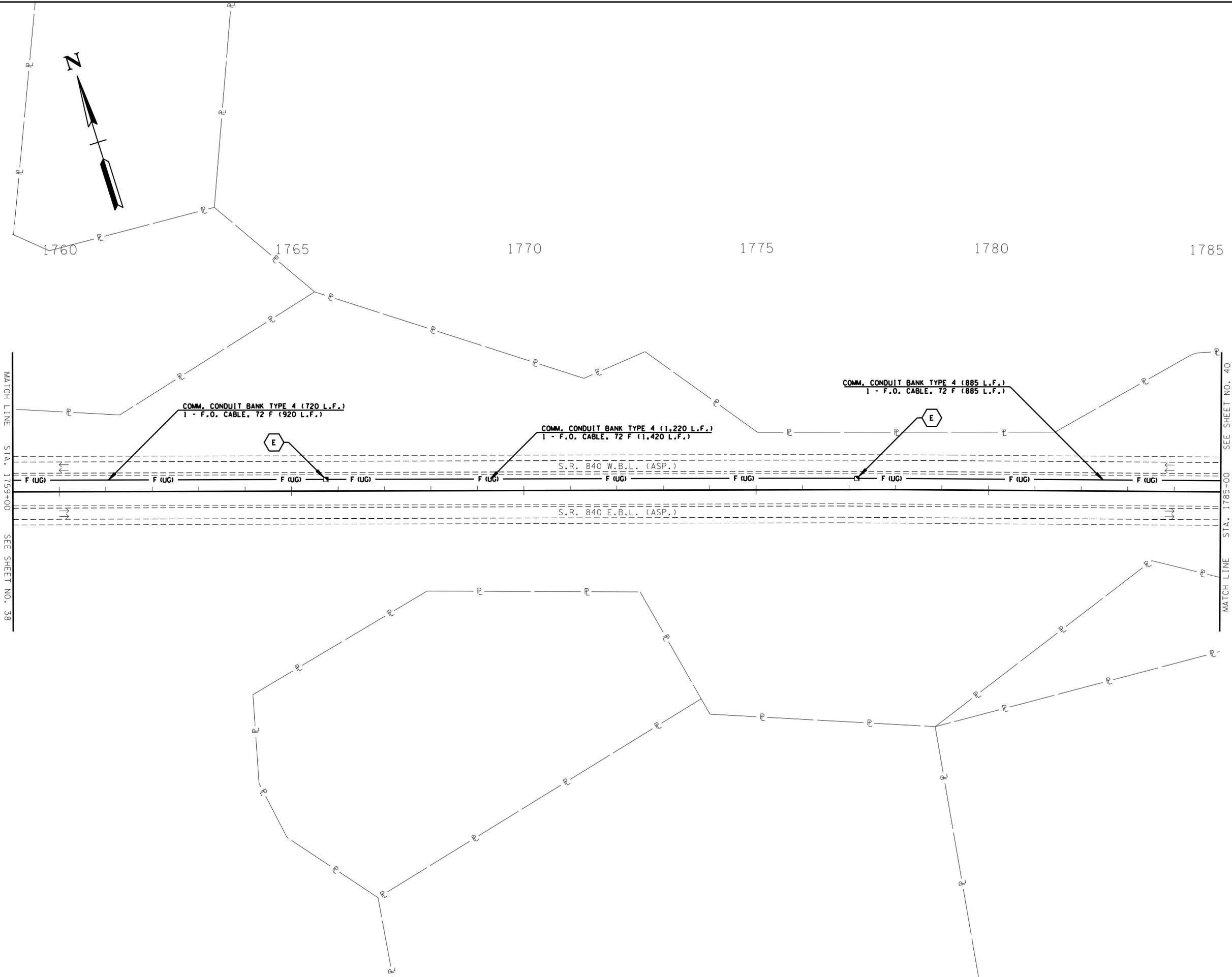
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 S.R. 840
 STA. 1734+00 TO 1759+00
 SCALE: 1" = 100'

TENNESSEE D.O.T.
 DESIGN DIVISION
 FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	39



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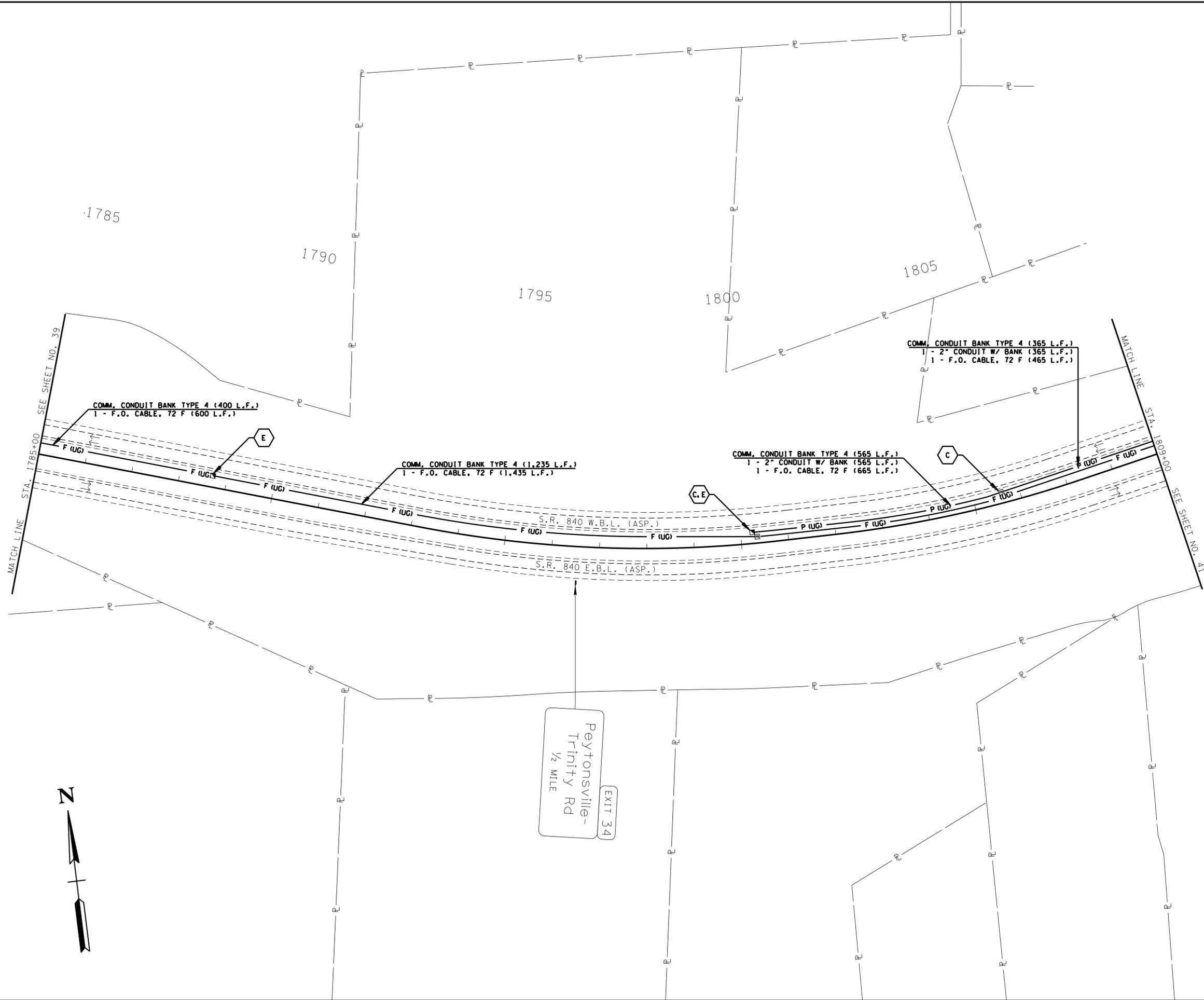


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 S.R. 840
 STA. 1759+00 TO 1785+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	40



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EXIT 34
Peytonsville-
Trinity Rd
1/2 MILE



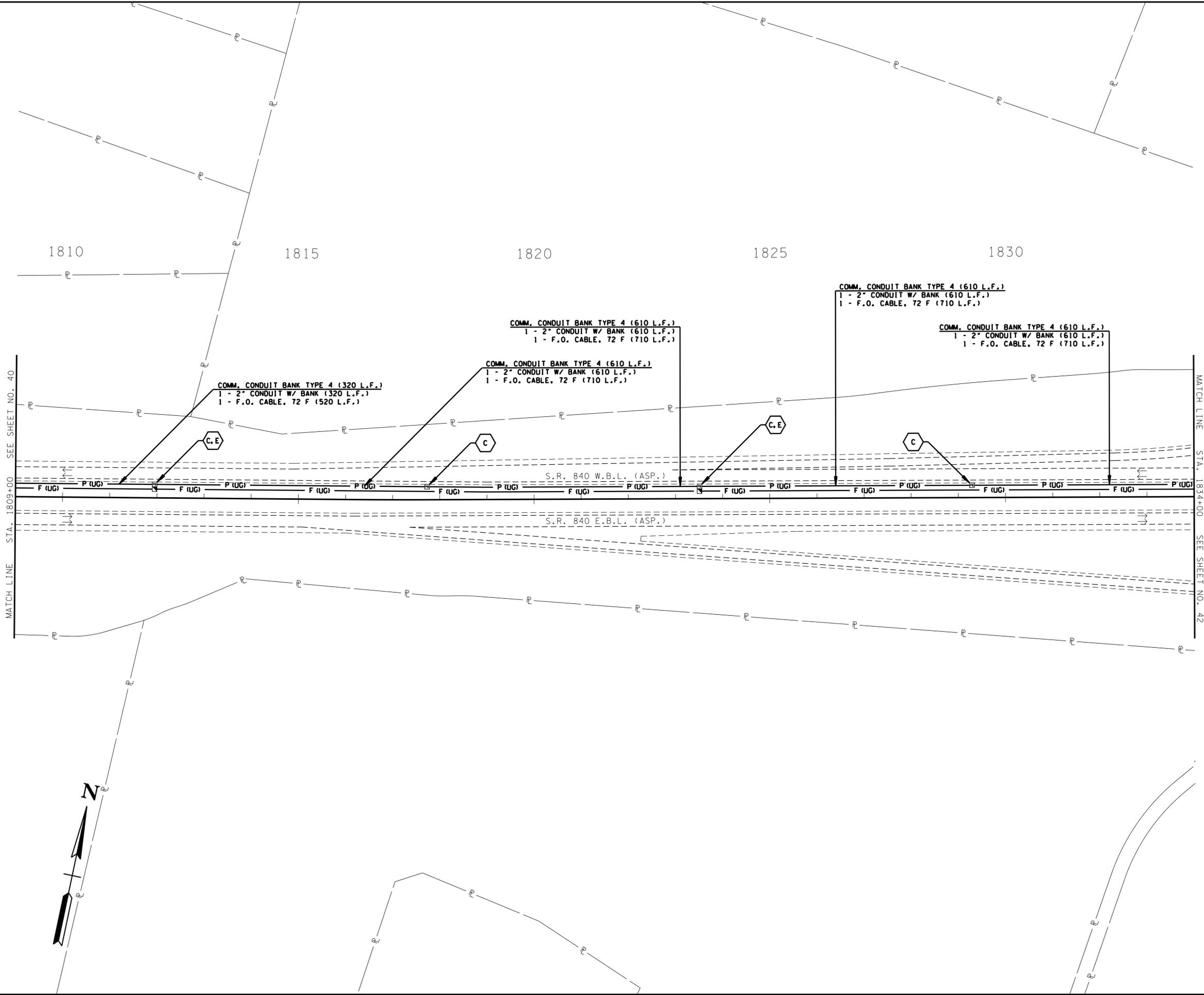
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

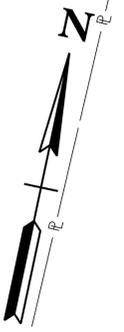
I.T.S.
LAYOUT
S.R. 840
STA. 1785+00 TO 1809+00
SCALE: 1" = 100'

TENNESSEE D.O.T.
 DESIGN DIVISION
 FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	41



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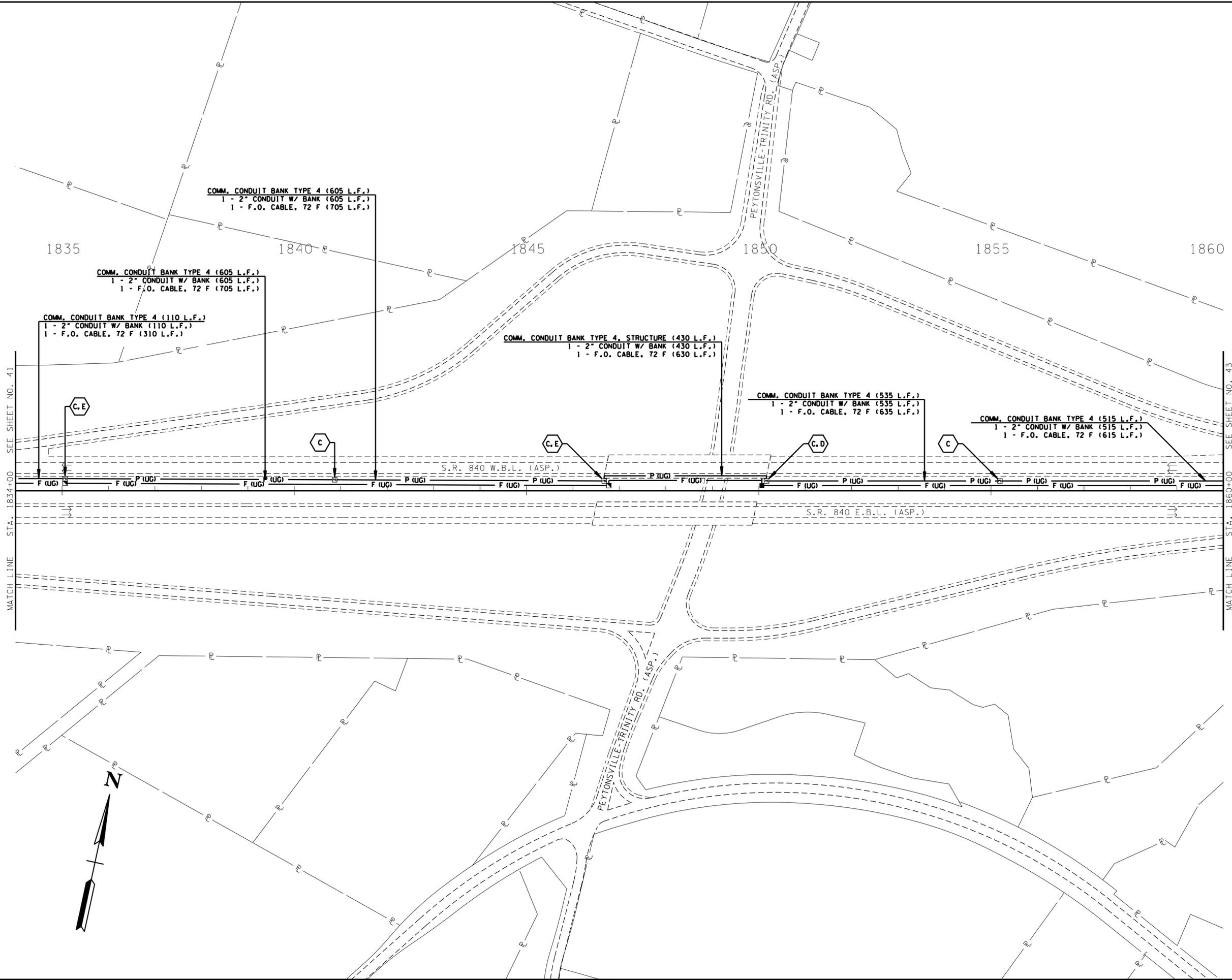


COORDINATES ARE NAD/83(1995),
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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
 S.R. 840
 STA. 1809+00 TO 1834+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	42



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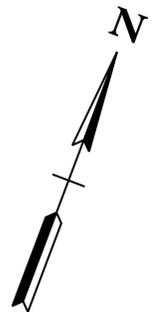


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
S.R. 840
STA. 1834+00 TO 1860+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	43



1860

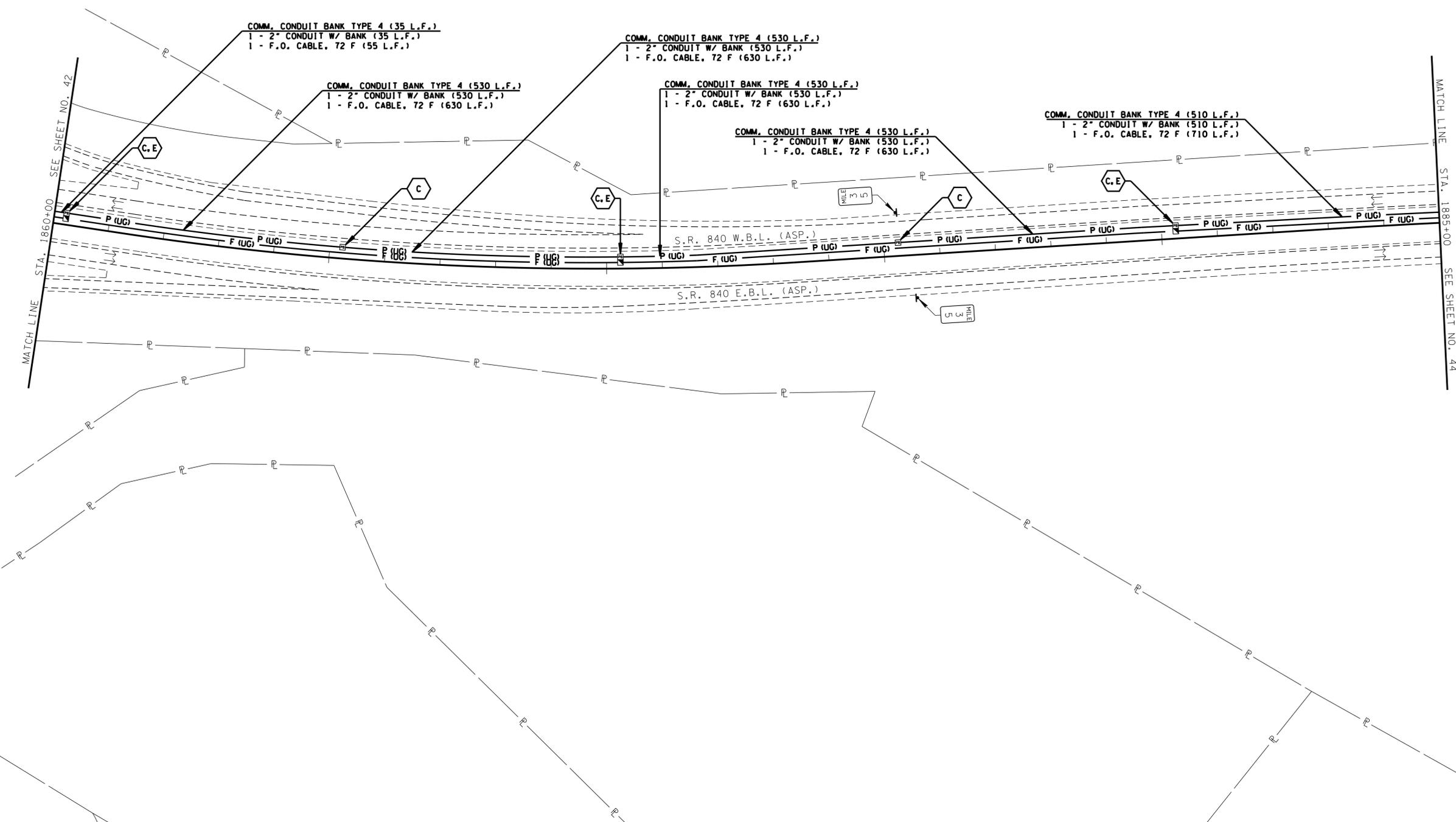
1865

1870

1875

1880

1885



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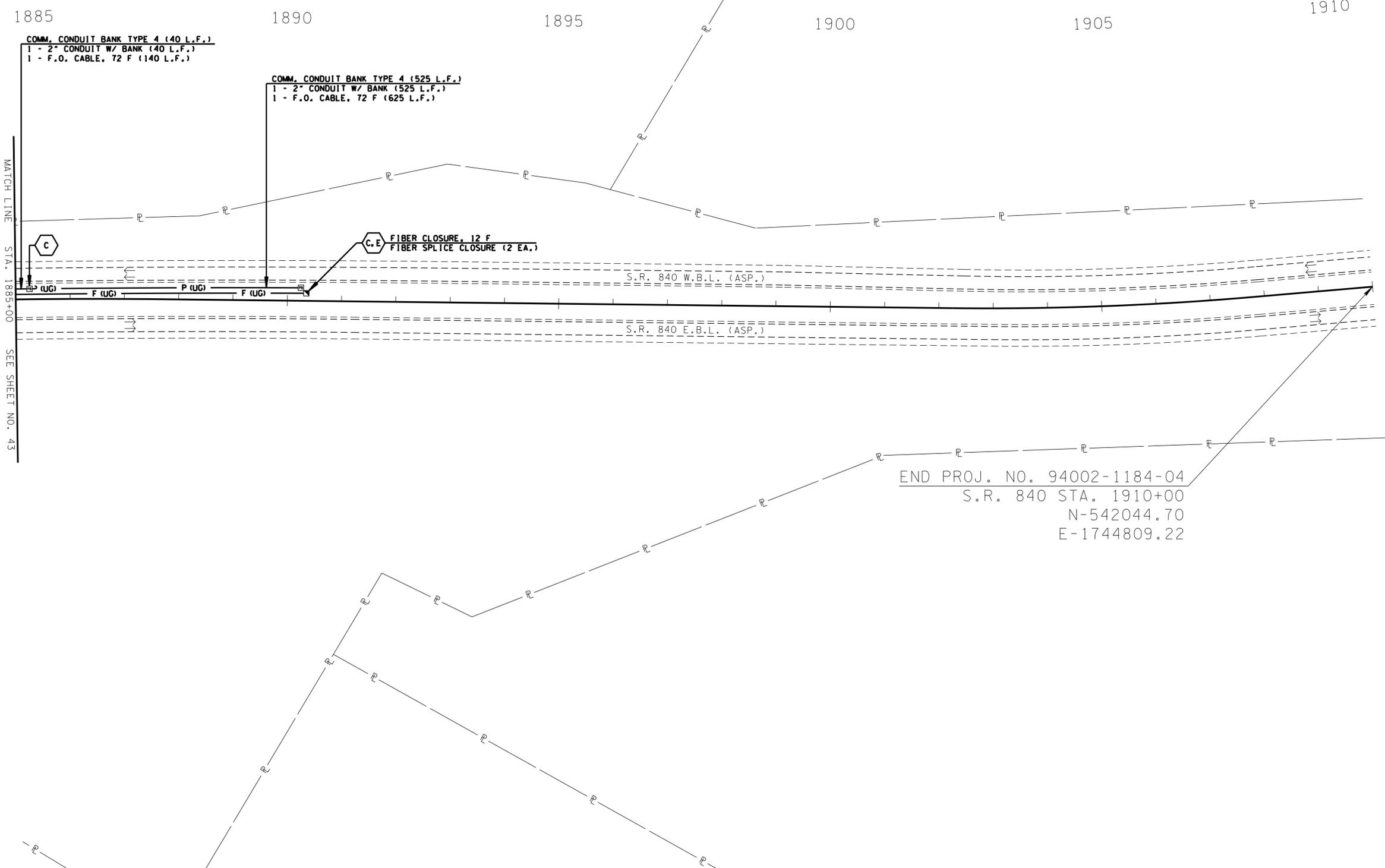


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

I.T.S.
LAYOUT
S.R. 840
STA. 1860+00 TO 1885+00
SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	44



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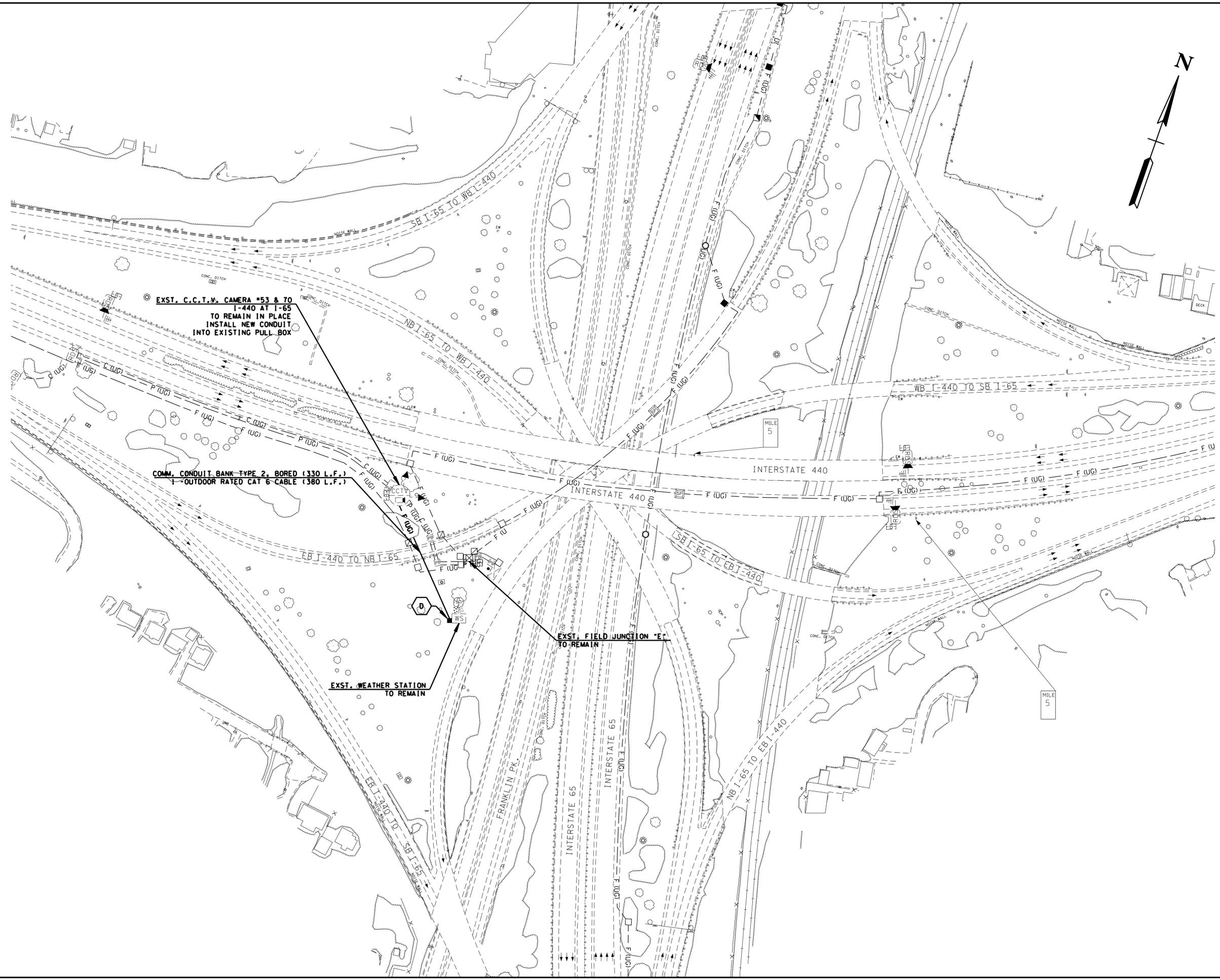
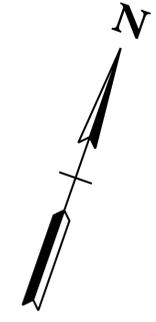


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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 S.R. 840
 STA. 1885+00 TO 1910+00
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	45



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STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

I.T.S.
 LAYOUT
 I-440 AT I-65
 SCALE: 1" = 100'

TRAFFIC CONTROL PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	46

INTRODUCTION

THIS PROJECT SHALL BE CONSTRUCTED IN A MANNER TO LIMIT THE IMPACT ON TRAFFIC. MUCH OF THE WORK IN THIS PROJECT CAN BE PERFORMED BEYOND THE SHOULDERS OF THE ROADWAY. HOWEVER, SOME WORK WILL REQUIRE SHOULDER CLOSURES AND/OR LANE CLOSURES.

THIS PROJECT WILL CONSIST OF A LARGE NUMBER OF SHORT TERM WORK LOCATIONS WITHIN THE OVERALL PROJECT LIMITS. THE CONTRACTOR WILL BE ALLOWED TO WORK AT DIFFERENT LOCATIONS WITHIN THE PROJECT LIMITS; THEREFORE, EACH WORK LOCATION SHOULD BE SIGNED AS A SEPARATE WORK ZONE. ADVANCE SIGNING SHOULD BE PLACED AS NEEDED FOR EACH WORK ZONE WHEN WORKING CONDITIONS ARE PRESENT. ADVANCE SIGNING IS NOT NEEDED FOR THE OVERALL PROJECT LIMITS.

FOR THE PURPOSE OF THIS PROJECT, ANY NECESSARY LANE CLOSURES WHICH ARE UNDER CONSTRUCTION DURING THE SAME TIME PERIOD AND ARE WITHIN ONE (1) MILE OF EACH OTHER AND IN THE SAME DIRECTION OF TRAFFIC SHALL BE TREATED AND SIGNED AS ONE WORK ZONE.

EXCEPT AS NOTED IN THIS PLAN AND THE SPECIFICATIONS, THE PHASING OF WORK IS AT THE CONTRACTOR'S DISCRETION. THE CONTRACTOR IS RESPONSIBLE FOR PHASING THE WORK IN A MANNER THAT FITS THE SCHEDULE AND ALSO LIMITS THE DURATION OF IMPACT ON TRAFFIC. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN AT THE PRE-CONSTRUCTION MEETING WHICH OUTLINES THE PROPOSED PHASING, A SCHEDULE OF WORK, AND TRAFFIC CONTROL PROCEDURES THROUGHOUT THE PROJECT.

THIS TRAFFIC CONTROL PLAN IS NOT INTENDED TO SUPERCEDE OR RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND TDOT STANDARDS.

GENERAL NOTES

- ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- IF THE CONTRACTOR MOVES OFF THE PROJECT OR OFF AN INDIVIDUAL WORK LOCATION, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS THIRTY (30) FEET SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC. UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO BE PARKED WITHIN THIRTY (30) FEET OF AN OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS THIRTY (30) FEET SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- THE CONTRACTOR IS CAUTIONED THAT THERE MAY BE ACTIVE CONSTRUCTION PROJECTS IN THE AREA. IF SO, COORDINATION WILL BE REQUIRED WITH THE ADJOINING CONTRACTOR THROUGH THE ENGINEER TO AVOID CONFLICTS IN MAINTAINING TRAFFIC AND SIGNING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY CROSSEOVERS, DETOURS, PAVEMENTS, PAVEMENT MARKINGS, SIGNS AND OTHER TRAFFIC CONTROL DEVICES CALLED FOR IN THESE PLANS AND ANY OTHER ITEMS THAT MAY BE CALLED FOR AT A LATER DATE, 24 HOURS A DAY, SEVEN DAYS A WEEK, UNTIL COMPLETION OF THE PROJECT TO INSURE PROPER OPERATION. THE CONTRACTOR SHALL ASSIGN A MINIMUM OF ONE PERSON AS TRAFFIC CONTROL REPRESENTATIVE AND THE ENGINEER SHALL ASSIGN A MINIMUM OF ONE PERSON AS TRAFFIC CONTROL REPRESENTATIVE. THESE PEOPLE SHALL BE IN CHARGE OF THE PROJECT FOR CONTINUOUS MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES. THESE PEOPLE SHALL BE ON THE PROJECT AND BE CAPABLE OF BEING CONTACTED 24 HOURS A DAY, SEVEN DAYS A WEEK AND SHALL HAVE SUFFICIENT AUTHORITY TO ORDER WORK STOPPAGES AND IMMEDIATE REVISIONS TO SIGNING AND OTHER NECESSARY TRAFFIC CONTROL DEVICES AS APPROVED BY THE ENGINEER.
- CHANNELIZING DEVICES IN WORK AREAS SHALL BE INSTALLED IN ACCORDANCE TO "PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES" FOUND IN PLANS UNLESS OTHERWISE DIRECTED.
- THE CONTRACTOR SHALL PROVIDE PORTABLE BARRIER RAIL AND CRASH CUSHIONS AS CONDITIONS WARRANT.
- VERTICAL PANELS SHALL BE MOUNTED ON PORTABLE BARRIER RAIL IN ACCORDANCE WITH TDOT STANDARD ROADWAY DRAWINGS. VERTICAL PANELS SHALL ALSO BE USED AT LOCATIONS WHERE OUTSIDE SHOULDERS ARE BEING USED BY TRAFFIC.
- THE CONTRACTOR SHALL COVER ANY SIGNS, EITHER EXISTING, PERMANENT, OR TEMPORARY, WHICH DO NOT PROPERLY APPLY TO THE CURRENT TRAFFIC PHASING, AND SHALL MAINTAIN THE COVERING UNTIL THE SIGNS ARE APPLICABLE OR ARE REMOVED.
- THE CONTRACTOR SHALL RELOCATE ANY SIGNS, EITHER EXISTING OR TEMPORARY, AS NECESSARY TO PROPERLY APPLY TO THE CURRENT TRAFFIC PHASING. NO INDIVIDUAL PAYMENT SHALL BE MADE FOR THE TEMPORARY RELOCATION OF EXISTING SIGNS AS THESE WILL BE INCLUDED IN THE LUMP SUM PRICE BID FOR TRAFFIC CONTROL (712-01)
- THE CONTRACTORS VEHICLES SHALL ALWAYS MOVE WITH AND NOT AGAINST THE FLOW OF TRAFFIC. VEHICLES SHALL LEAVE WORK AREAS IN A MANNER WHICH WILL NOT BE HAZARDOUS TO OR INTERFERE WITH NORMAL TRAFFIC. VEHICLES SHALL NOT PARK OR STOP EXCEPT WITHIN WORK AREAS DESIGNATED BY THE ENGINEER.
- TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED IN PROPER CONDITION THROUGHOUT THE LENGTH OF THE PROJECT.
- ALL SIGNING FOR SHORT DURATION (LESS THAN 60 MINUTES) AND SHORT TERM (1-12 DAYLIGHT HOURS) WORK SHALL BE INSTALLED IN A TEMPORARY MANNER AND SHALL ONLY BE IN PLACE WHILE CONSTRUCTION ACTIVITIES ARE OCCURRING. THIS TEMPORARY SIGNING CANNOT REMAIN IN PLACE OVERNIGHT UNLESS NIGHT WORK IS IN PROGRESS.
- THE CONTRACTOR SHALL PROVIDE PORTABLE CHANGEABLE MESSAGE SIGNS FOR TRAFFIC CONTROL PURPOSES. PLACEMENT AND MESSAGES DURING CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER. IN THE EVENT OF MECHANICAL AND/OR ELECTRICAL FAILURE IN THE MESSAGE BOARD, IT SHALL BE REPAIRED OR REPLACED WITHIN TWENTY-FOUR (24) HOURS.

SPECIAL NOTES

- TRAFFIC SHALL BE MAINTAINED AND DEVICES INSTALLED IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PART 6, TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE TENNESSEE STANDARD ROADWAY DRAWINGS.
- ANY ADDITIONAL SIGNS DEEMED NECESSARY BY THE ENGINEER SHALL BE FURNISHED, INSTALLED AND PAID FOR UNDER THE APPROPRIATE BID ITEM.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL NOTES

N.T.S.

TRAFFIC CONTROL PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	NH-1-098-3(26)	47

ROAD CLOSURES

LANE CLOSURES WILL BE ALLOWED WHENEVER ENCROACHMENT INTO THE TRAVEL LANE (i.e. WITHIN TWO FEET OF TRAVEL LANE) IS NECESSARY. LANE CLOSURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE APPROPRIATE TRAFFIC CONTROL PLAN DETAIL OR TDOT STANDARD DRAWING.

MOMENTARY STOPPING OF TRAFFIC ON THE INTERSTATE, WILL BE PERMITTED DURING SIGN STRUCTURE INSTALLATIONS. THE FOLLOWING 'SPECIAL' SIGNS SHALL BE ERECTED IN THE DIRECTION AFFECTED BY THESE OPERATIONS:

1. "BE PREPARED TO STOP" PLACED ON THE INSIDE AND OUTSIDE SHOULDERS AT LOCATIONS IN ADVANCE OF STRUCTURE AS DIRECTED BY THE ENGINEER.
2. "PERIODIC ROAD CLOSINGS (30 MIN. MAX) 00/00/00" PLACED ON THE INSIDE AND OUTSIDE SHOULDERS ONE HALF MILE IN ADVANCE OF STRUCTURE, ONE WEEK PRIOR TO THE WORK.
3. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL ALSO BE USED AS DIRECTED BY THE ENGINEER.

TWO (2) UNIFORM POLICE OFFICERS WITH MARKED POLICE CARS SHALL BE PRESENT DURING THESE ACTIVITIES TO GRADUALLY SLOW TRAFFIC TO A STOP. ADDITIONAL OFFICERS MAY BE IN POSITION TO HALT TRAFFIC AT RAMP INTERSECTIONS WHEN NECESSARY. CLOSURES SHALL BE LIMITED TO 30 MINUTE MAXIMUM PERIODS WITHIN ANY ONE HOUR PERIOD AT NIGHT BETWEEN 11:00 PM AND 5:00 AM, OR ON SUNDAY MORNINGS UP UNTIL 9:00 AM. THE NECESSARY LIGHTING FOR NIGHTTIME WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM FOR TRAFFIC CONTROL. PAYMENT FOR UNIFORM OFFICERS DURING TOTAL ROAD CLOSURES SHALL ALSO BE INCLUDED IN LUMP SUM BID ITEM FOR TRAFFIC CONTROL.

ROAD CLOSURE MESSAGE BOARDS NEED TO BE IN PLACE AS SOON AS THE ENGINEER APPROVES THE CLOSURE. REQUEST MUST BE MADE AT LEAST 2 WEEKS BEFORE THE CLOSURE.

MESSAGE BOARDS NEED TO SAY THE FOLLOWING ON THE DAYS LEADING UP TO THE CLOSURE:

"EXPECT CLOSURES 00/00/00 TIME AND LOCATION"

BOARDS SHOULD BE PLACED BEFORE THE PREVIOUS EXIT TO ALLOW MOTORISTS TO EXIT.

LANE CLOSURES

LANE CLOSURES WILL BE ALLOWED WHENEVER ENCROACHMENT INTO THE TRAVEL LANE (i.e. WITHIN TWO FEET OF TRAVEL LANE) IS NECESSARY. LANE CLOSURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE APPROPRIATE TRAFFIC CONTROL PLAN DETAIL OR TDOT STANDARD DRAWING.

1. LANES CLOSURES SHALL ONLY OCCUR DURING THE HOURS OF - 8 PM TO 5 AM - EXCEPT AS NOTED FOR THE DMS INSTALLATION
2. THE CONTRACTOR SHALL NOT BE ALLOWED TO INTERRUPT TRAFFIC FLOW ON ANY INTERSTATE AND SHALL MAINTAIN THE EXISTING NUMBER OF LANES OF TRAFFIC IN EACH DIRECTION ON THE FOLLOWING DATES:
 - OFFICIAL STATE HOLIDAYS (SEE TDOT STANDARD SPECIFICATIONS FOR SPECIFIED DAYS).
 - FRIDAY 6:00 A.M. UNTIL TUESDAY 7:00 P.M. IF A STATE HOLIDAY OCCURS OR IS OBSERVED ON MONDAY.
 - THURSDAY AT 6:00 A.M. UNTIL MONDAY MORNING AT 7:00 A.M. IF A HOLIDAY IS OBSERVED ON FRIDAY.
 - OTHER "SPECIAL EVENT" DAYS AS DIRECTED BY THE ENGINEER.
3. ALL LANE CLOSURES SHALL BE APPROVED BY THE ENGINEER.
4. THE CONTRACTOR SHALL SUBMIT ANY LANE CLOSURE REQUESTS FOR TDOT APPROVAL PRIOR TO THE SCHEDULED REGIONAL LANE CLOSURE MEETING THE WEEK BEFORE ANY LANE CLOSURE IS NEEDED.

SHOULDER CLOSURES

IN AREAS OF CONSTRUCTION WITHIN FIFTEEN (15) FEET OF THE EDGE OF THE TRAVEL LANE, THE SHOULDER SHALL BE CLOSED.

1. EXCEPT FOR THE DMS WORK DESCRIBED BELOW, NO ADDITIONAL SHOULDER CLOSURES ARE ALLOWED IN EITHER DIRECTION DURING THE A.M. PEAK (6-9 A.M.) AND P.M. PEAK (3-7 P.M.).

TRAFFIC CONTROL DURING DMS SIGN WORK

THE DYNAMIC MESSAGE SIGNS WILL REQUIRE THE CONSTRUCTION OF SIGN FOOTINGS IN THE MEDIAN WITH THE REPLACEMENT OF THE EXISTING MEDIAN BARRIER. THE CONSTRUCTION OF THESE FOOTINGS AND THE RECONSTRUCTION OF THE MEDIAN BARRIER MAY REQUIRE SHORT TERM LANE CLOSURES. ALL LANE CLOSURES SHALL CONFORM TO THE APPROPRIATE TDOT STD. DWG. AND THE CURRENT EDITION OF THE MUTCD. IN ADDITION, THE FOLLOWING REQUIREMENTS MUST BE MET:

1. ALL MEDIAN WORK WHICH REQUIRES AN INTERIOR LANE CLOSURE SHALL BE PERFORMED DURING WEEKENDS 8:00 PM FRIDAY NIGHT TO 5:00 AM MONDAY MORNING. ALL LANES MUST BE REOPENED BY 5:00 AM MONDAY MORNING. IF ALL FOUNDATION WORK AND BARRIER RECONSTRUCTION WORK IS NOT COMPLETED BY 5:00 AM MONDAY MORNING, A FULL SHOULDER CLOSURE WITH PORTABLE BARRIER RAIL SHALL BE IN PLACE BY 5:00 A.M. MONDAY MORNING. ALL FOUNDATION AND MEDIAN WORK AT A PARTICULAR LOCATION MUST BE COMPLETED IN NO MORE THAN 4 CONSECUTIVE WEEKENDS.
2. MOMENTARY STOPPING OF TRAFFIC WILL BE PERMITTED DURING SIGN INSTALLATIONS AS NOTED PREVIOUSLY.

OTHER DMS FOUNDATIONS: ALL OTHER SIGN FOUNDATIONS NOT INSTALLED IN THE MEDIAN SHALL BE CONSTRUCTED IN A MANNER TO MINIMIZE THE DISRUPTION OF TRAFFIC. SHORT TERM SINGLE LANE CLOSURES WILL BE PERMITTED AS DESCRIBED ABOVE; HOWEVER, THE FOOTINGS SHOULD BE INSTALLED UTILIZING ONLY A SHOULDER CLOSURE WHERE POSSIBLE. ALL LANE CLOSURES SHALL CONFORM TO ALL TDOT STANDARD DRAWINGS AND THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

GENERAL COMMENTS

LANE CLOSURES WILL BE ALLOWED WHENEVER ENCROACHMENT INTO THE TRAVEL LANE (i.e. WITHIN TWO FEET OF TRAVEL LANE) IS NECESSARY. LANE CLOSURES SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE APPROPRIATE TRAFFIC CONTROL PLAN DETAIL OR TDOT STANDARD DRAWING.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL NOTES

N. T. S.