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Meredith Cebelak
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NASHVILLE, TN 37201
MEREDITH CEBELAK, P.E. NO. 119802

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
SIGNATURE SHEET	SIGN1
ITS SCOPE AND NOTES	ITS-1
ABBREVIATIONS, PLANS LEGEND AND STANDARD TRAFFIC OPERATIONS DRAWINGS.....	ITS1-A
ITS QUANTITIES	ITS-2
ITS DETAILS.....	ITS-3-ITS19
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YEAR	PROJECT NO.	SHEET NO.
2022	NH-1-40-5(146)	ITS-SIGN1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNATURE
SHEET

SCOPE OF WORK

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COMPLETE CONSTRUCTION, INTERGRATION AND TESTING OF THE I-40/DONELSON PIKE INTERCHANGE INTELLIGENT TRANSPORTATION SYSTEM (ITS) AS SHOWN IN THE CONTRACT DOCUMENTS, PLANS AND THE SPECIAL PROVISION (SP)725.

THE SMARTWAY ITS DESIGN WITHIN THIS PROJECT COVERS APPROXIMATELY 1.52 MILES OF ROADWAY WITH FIBER OPTIC COMMUNICATIONS AND DEVICES AS DETAILED IN THE SP AND IN THE DESIGN PLANS. THE PROJECT WILL INCLUDE NEW FIBER OPTIC BACKHAUL, 3 RADAR DETECTION SENSORS (RDS) TO BE REMOVED AND RELOCATED, 3 NEW COLOR DYNAMIC MESSAGE SIGNS (DMS) TO BE REPLACED, AND 2 NEW CLOSED CIRCUIT TELEVISION (CCTV) CAMERAS TO THE EXISTING ITS SYSTEM. THE INTENT OF THE PROJECT IS TO PROVIDE CONTINUOUS FIBER COMMUNICATION CONNECTIVITY THROUGH THE PROJECT LIMITS ON I-40 TYING INTO EXISTING FIBER AT THE PROJECT LIMITS. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING EXISTING SYSTEM ACTIVE DURING THE CONSTRUCTION OF NEW OR RELOCATED DEVICES.

ALL THE EQUIPMENT PROVIDED SHALL COMPLY WITH THE APPLICABLE INDUSTRY APPROVED STANDARDS FOR THE SUBSYSTEMS AND COMMUNICATIONS NETWORK. USE OF APPROVED INDUSTRY STANDARDS AND THE NATIONAL TRANSPORTATION COMMUNICATIONS FOR ITS PROTOCOLS (NTCIP) SHALL BE REQUIRED FOR THE DMS AND CCTV DEVICES.

THE CONTRACTOR IS RESPONSIBLE FOR THE CONFIGURATION AND INTERFACE OF ALL NEW COMMUNICATIONS LINKS TO EXISTING COMMUNICATIONS LINKS. THE COMPLETE SYSTEM MUST BE FULLY INTEGRATED WITH THE SYSTEM CURRENTLY INSTALLED.

INDEX OF SHEETS

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GENERAL NOTES

MISCELLANEOUS

1. THE LOCATION OF ALL PROPOSED EQUIPMENT TO BE INSTALLED SHALL BE CONSIDERED TO BE APPROXIMATE. ADJUSTMENTS IN THE FIELD MAY BECOME NECESSARY. VARIATIONS FROM THE PROPOSED LOCATIONS MUST BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND RECEIVE APPROVAL BY THE PROJECT ENGINEER PRIOR TO INSTALLATION OR CONSTRUCTION.
2. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH OTHER CONTRACTORS IN THE WORK AREA. CONFLICTS WILL BE HANDLED AT THE DISCRETION OF THE ENGINEER.
3. THE CONTRACTOR SHALL PROVIDE AS BUILT DRAWINGS OF ALL EQUIPMENT PLACED AS PART OF THIS CONTRACT. (SEE SP 725)
4. ALL DEVICE LOCATIONS REPRESENT THE CENTER LOCATION FOR THE MOUNTING POLE UNLESS NOTED OTHERWISE.
5. ALL REMOVED FIELD AND TMC EQUIPMENT SHALL BE TURNED OVER TO TDOT REGION 3.

CONDUIT

1. PROPOSED CONDUIT LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY FIELD CONDITIONS UPON APPROVAL OF ENGINEER.
2. ALL ELECTRICAL WORK AND POWER SERVICE DUCT SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE "NATIONAL ELECTRICAL CODE", "NATIONAL ELECTRIC SAFETY CODE", LOCAL BUILDING CODES, AND TO THE REQUIREMENTS OF TDOT AND ALL UTILITIES INVOLVED.
3. FIBER OPTIC PULL BOX SHALL NOT CONTAIN ELECTRICAL CONDUIT OR CONDUCTORS. ELECTRICAL CONDUIT AND CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL PULL BOXES.
4. CONDUITS SHALL BE INSTALLED AT A MINIMUMN FOUR (4) FEET BEHIND EXISTING AND PROPOSED GUARDRAIL POSTS. WHEN NO GUARDRAL IS INSTALLED, CONDUITS SHALL BE INSTALLED A MINIMUM OF EIGHT (8) FEET CLEAR OF THE EDGE OF THE PAVED SHOULDER, UNLESS DIRECTED OTHERWISE BY THE ENGINEER PRIOR TO CONSTRUCTION.
5. CONDUCTORS IN PULL BOXES AND EQUIPMENT ENCLOSURES SHALL BE NEATLY ARRANGED AND LABELED WITH APPROVED CABLE TIES, IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICE AND AS NOTED ON THE PLANS.
6. THE CONTRACTOR SHALL COIL ADDITIONAL CABLE IN THE BOTTOMS OF CABINETS AND WITHIN PULL BOXES AS SPECIFIED ON THE DETAIL SHEETS.
7. CONDUIT AND PULL BOXES SHOWN ON THESE PLANS ARE DIAGRAMMATIC. ACTUAL ROUTING OR CONDUIT RUNS SHALL CONFORM TO FIELD CONDITIONS. THE CONTRACTOR SHALL MARK CONDUIT ROUTES FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL INSTALL A DETECTOR METALIZED "BURIED CABLE" WARNING TAPE CONTINUOUSLY ALONG THE TRENCH TWELVE (12) INCHES ABOVE THE CONDUIT. THE COST OF THE TAPE IS TO BE INCLUDED IN OTHER CONDUIT-RELATED ITEM NUMBERS AND WILL NOT BE PAID FOR SEPARATELY.
9. MULTIPLE RUNS OF CONDUIT/INNER DUCT SHALL BE PLACED IN THE SAME TRENCH AS SHOWN ON DETAIL SHEETS.
10. ALL CONDUIT ROUTES UNDERNEATH ASPHALT AND/OR CONCRETE ROADWAYS SHALL BE BORED.DIRECTIONALLY DRILLED, OR VIA OTHER METHODS NOT REQUIRING OPEN TRENCHING. NO OPEN TRENCHING WILL BE ALLOWED IN ASPHALT OR CONCRETE UNLESS SPECIFICALLY STATED AS SO ON THE PLANS. BORES/DIRECTIONAL DRILLS SHOULD BE AS CLOSE TO PRACTICAL TO PERPENDICULAR TO THE ROADWAY CENTERLINE

ITS


1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND TDOT REGION 3 TMC AT LEAST TWO (2) WEEKS PRIOR TO ACTIVITIES PERTAINING TO THE REMOVAL OF AN EXISTING ITS EQUIPMENT AND COORDINATE WTH TDOT REGION 3 TMC REGARDING ANY DEVICES WHICH ARE TO BE RETAINED BY TDOT FOR FUTURE USE.
2. COORDINATE WITH TDOT REGION 3 TMC REGARDING WHICH THREE (3) DMS CITED FOR REMOVAL ARE TO BE EARMARKED TO BE RETAINED BY TDOT FOR FUTURE USE. THE IDENTIFIED ITS EQUIPMENT SHALL BE STORED AT THE CONTRACTOR'S FACILITY POST REMOVAL FOR THE DURATION OF THE CONSTRUCTION PROJECT. POST COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL DELIVER THE ITS EQUIPMENT TO A TDOT FACILITY AT NO ADDITIONAL COST TO TDOT.
3. THE CONTRACTOR SHALL KEEP THE TDOT SMARTWAY COMMUNICATIONS BACKBONE ON THE NORTH SIDE OF I-40 OPERATIONAL THROUGHOUT THE ENTIRE DURATION OF THE CONSTRUCTION BY MAINTAINING THE EXISTING FIBER UNTIL THE PROPOSED FIBER HAS BEEN INSTALLED AND IS OPERATIONAL.
4. THE CONTRACTOR SHALL PROVIDE TEMPORARY ITS CONNECTION TO THE CCTV AND RDS WTHIN THE CONSTRUCTION LIMITS AS NECESSARY TO MAINTAIN FULLTIME OPERATION OF THE EXISTING TDOT SMARTWAY SYSTEM.
5. PRIOR TO ANY WORK RESULTING IN LOSS OF COMMUNICATION TO ANY EXISTING FIELD DEVICES, THE CONTRACTOR SHALL CONTACT THE TDOT REGION 3 TMC (615-350-4540) FOR APPROVAL. AT A MINIMUM, ALL EXISTING FIELD DEVICES SHALL BE ONLINE AND OPERATIONAL DURING THE HOURS OF 6-9 AM AND 3-7 PM MONDAY THROUGH FRIDAY.
6. IF EXISTING ITS OR SIGNAL EQUIPMENT IS DAMAGED DURING WORK ACTIVITIES, THESE ITEMS WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THIS INCLUDES BUT IS NOT LIMITED TO FIBER OPTIC CABLE, CABINET EQUIPMENT, AND EDGE DEVICES.

ELECTRICAL (POWER SUBSYSTEM)

1. TDOT ITS REQUIRES THE SIZING OF AN UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM TO BE ABLE TO PROVIDE 2 HOURS OF RUN TIME FOR EACH LOAD SUPPORTED. LOADS SUPPORTED ON THIS PROJECT ARE THE CABINETS THAT POWER AND HOUSE THE ITS EQUIPMENT CONTROLLED AND ENERGIZED AT EACH CABINET. THE CONTRACTOR SHALL PROVIDE THE CABINET VENDOR WITH A LIST OF ALL THE LOADS TO BE POWERED AT EACH ITS CABINET. THE UPS VENDOR SHALL PERFORM LOAD CALCULATIONS BASED ON THE LOADS AT EACH CABINET TO SELECT A UPS UNIT SIZED AS CAPABLE OF POWERING THESE LOADS FOR A MINIMUM OF 2 HOURS UNDER TEMPERATURE EXTREMES THAT ARE TYPICAL OF THE AREA OF THE SITE WHERE THESE UNITS ARE BEING INSTALLED. THE VENDOR SHALL PROVIDE FOR SUBMITTAL APPROVAL, CABINET INTERNAL WIRING AND LOAD CALCULATIONS. AS WELL AS CABINET LAYOUT SHOWING THE UPS UNIT PHYSICALLY SIZED ADEQUATELY TO FIT WITHIN THE CABINET SPACES AVAILABLE. ALL CALCULATIONS AND LAYOUTS, WIRING, AND OVERCURRENT PROTECTION SHALL MEET NEC, BE UL LISTED AND BE ADEQUATE FOR THE WEATHER CONDITIONS TYPICALLY TO BE EXPECTED AT EACH CABINET SITE. SHOULD THERE BE ANY CHANGES IN THE CONFIGURATION OF EACH CABINET, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE CABINET VENDOR FOR ANY ADJUSTMENTS REQUIRED TO THE SIZES OF THE CABINETS OR THE UPS AS REQUIRED TO MEET ANY NEW LOAD DEMANDS.
2. OUTDOOR POWER EQUIPMENT SHALL BE RATED PER LOCATION AND ENVIRONMENT EXPOSURE SUCH AS TO MEET NEC.
3. POWER EQUIPMENT SHALL BE INSTALLED IN AREAS TO AVOID WET LOCATIONS. ALL CONNECTIONS AND EQUIPMENT SHALL BE PROTECTED FROM MOISTURE AND WATER INTRUSION.
4. ELECTRICAL PULL BOXES/HANDHOLES SHALL BE MIN. 300' SEPARATED FROM EACH OTHER. LOCATIONS AT BASE OF POLES AND EQUIPMENT SHALL INCLUDE A PULL BOX/HANDHOLE INDEPENDENT OF DISTANCE TO PREVIOUS HANDHOLE/MANHOLE. THE CONTRACTOR SHALL PROVIDE FOR ALL POWER EQUIPMENT TO INCLUDE VANDAL RESISTANT MECHANISMS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-1

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2/24/2022

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS SCOPE
AND NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-1A

ABBREVIATIONS
LIST OF ITS ABBREVIATIONS

AC	ACRE	G.M.	GROUND-MOUNTED
ASSY(S).	ASSEMBLY(IES)	HAR	HIGHWAY ADVISORY RADIO
AUX.	AUXILIARY	INFO.	INFORMATION
A.W.G.	AMERICAN WIRE GUAGE	ITS	INTELLIGENT TRANSPORTATION SYSTEM
CCTV	CLOSED-CIRCUIT TELEVISION	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
COMM.	COMMUNICATIONS	N.T.S.	NOT TO SCALE
DET.	DETECTOR	PB	PULL BOX
DMS	DYNAMIC MESSAGE SIGN	PTZ	PAN, TILT AND ZOOM
DOT	DEPARTMENT OF TRANSPORTATION	RDS	RADAR DETECTION SYSTEM
E.O.P.	END OF PROJECT	R.G.S.	RIGID GALVANIZED STEEL
E.O.T.L.	EDGE OF TRAVEL LANE	SCH.	SCHEDULE
F	FIBER(S)	SHLD.	SHOULDER
F.O.	FIBER OPTIC	S.M.	SINGLE MODE
		SP	SPECIAL PROVISIONS
		TMC	TRANSPORTATION MANAGEMENT CENTER

TDOT STANDARD TRAFFIC OPERATIONS DRAWINGS		
DWG. NO	REVISION DATE	STANDARD TITLE
SIGNALS		
T-SG-10	7/11/17	MAST ARM POLES AND STRAIN POLES FOUNDATION DETAILS
LIGHTING AND UTILITY POLES		
T-FO-2		FIBER OPTIC UNDERGROUND ENTRANCE DETAILS
T-FO-4		FIBER OPTIC PULL BOX, CABINET & POLE DETAILS

CABLE/CONDUIT LABELS	
EXAMPLE	DESCRIPTION
COND. BANK (TYPE 4) (290')	INDICATES TYPE 4 CONDUIT BANK TO CONTAIN FOUR (4) HIGH-DENSITY POLYETHYLENE CONDUITS.LENGTH OF EACH CONDUIT IS 290 LINEAR FEET.
2" CONDUIT W/BANK (290')	INDICATES ONE (1) 2" CONDUIT TO BE INSTALLED IN SAME TRENCH AS CONDUIT BANK. LENGTH OF CONDUIT IS 290 LINEAR FEET.
2" CONDUIT BORED W/BANK (290')	INDICATES ONE (1) 2" CONDUIT TO BE INSTALLED IN SAME BORE AS CONDUIT BANK. LENGTH OF CONDUIT IS 290 LINEAR FEET.
3-#6 AWG POWER (3 @ 290')	INDICATES THREE (3) #6 AMERICAN WIRE GAUGE POWER CABLES TO BE INSTALLED IN CONDUIT. LENGTH OF EACH POWER CABLE IS 290 LINEAR FEET.

CONDUIT/CABLE 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.

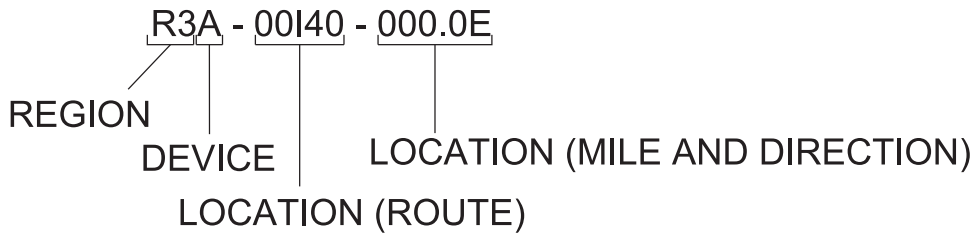
PLANS LEGEND

PROPOSED TYPE D PULL BOX		LABEL FOR PULL BOX TYPE(S)	
PROPOSED TYPE E PULL BOX		EXISTING CLOSED CIRCUIT TELEVISION CAMERA	
EXISTING PULL BOX			
PROPOSED TYPE C PULL BOX		PROPOSED CLOSED CIRCUIT TELEVISION CAMERA	
PROPOSED TYPE A CABINET		EXISTING DYNAMIC MESSAGE SIGN	
PROPOSED TYPE B CABINET		PROPOSED DYNAMIC MESSAGE SIGN	
EXISTING ELECTRICAL DEMARCATION POINT		EXIST. RADAR DETECTOR SYSTEM	
PROPOSED DEMARCATION		PROPOSED RADAR DETECTOR SYSTEM	
PROPOSED POWER CONDUIT		EXISTING ELECTRICAL CONDUIT	
PROPOSED COMMUNICATION CONDUIT		EXISTING COMMUNICATION CONDUIT	
2" CONDUIT			
ENCASED CONDUIT BANK			

ITS LEGEND NOTE

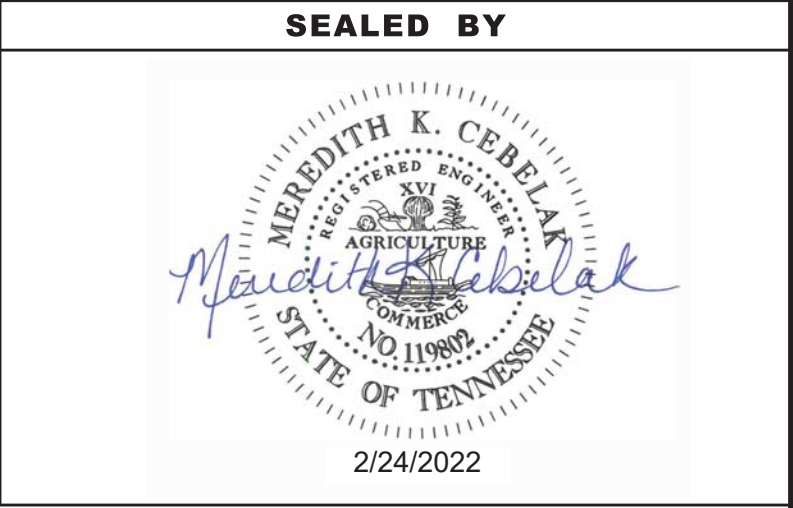
ALL DEVICE SYMBOLS ARE FOR GRAPHICAL REPRESENTATION ONLY AND ARE NOT TO SCALE, CENTER OF DEVICE IS INDICATED ON PLANS BY STATION AND OFFSET.

DEVICE NAMING



DEVICE NAMING

A	CCTV
E	DMS
G	RDS



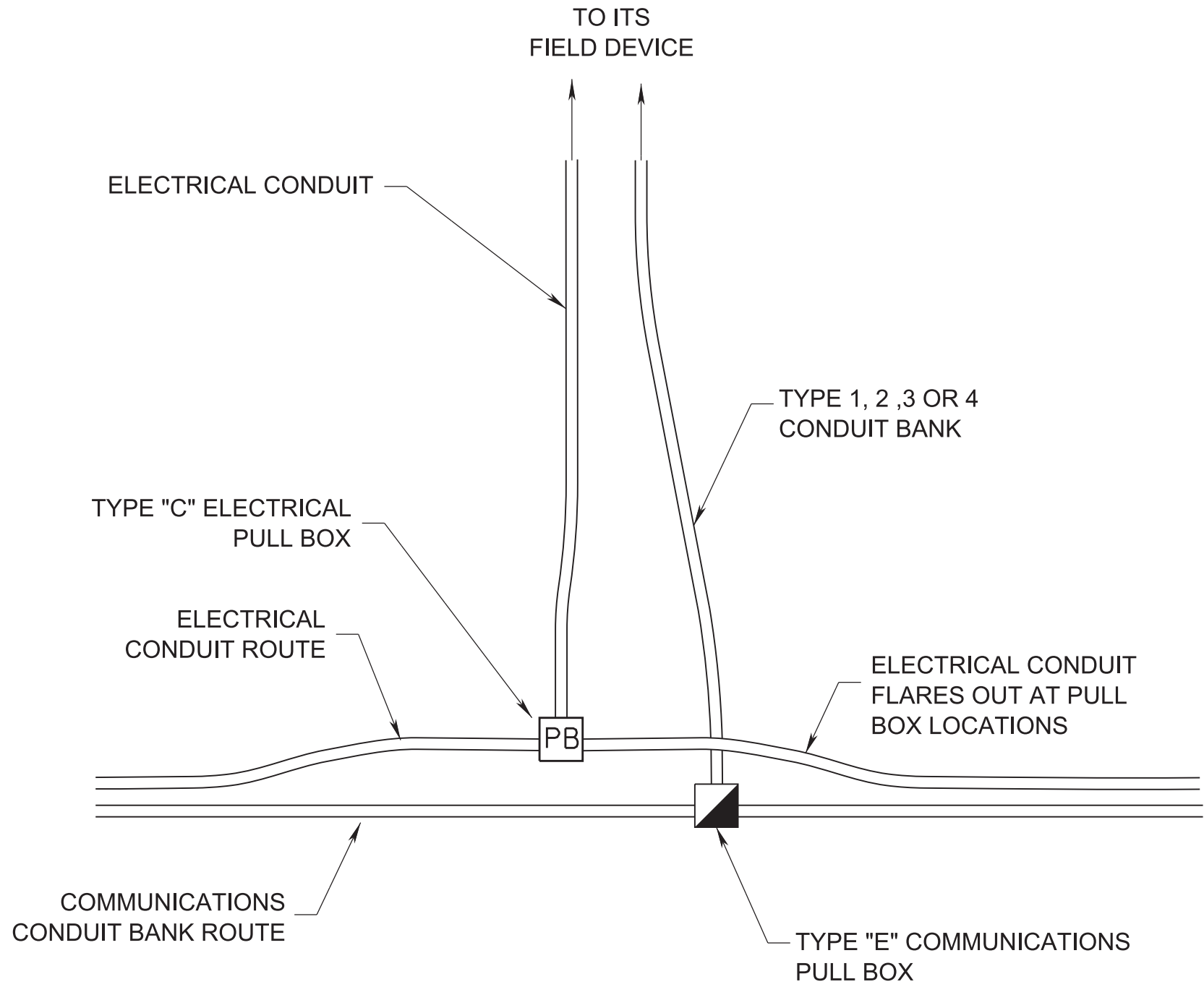
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ABBREVIATIONS,
PLANS LEGEND
AND STANDARD TRAFFIC
OPERATIONS DRAWINGS

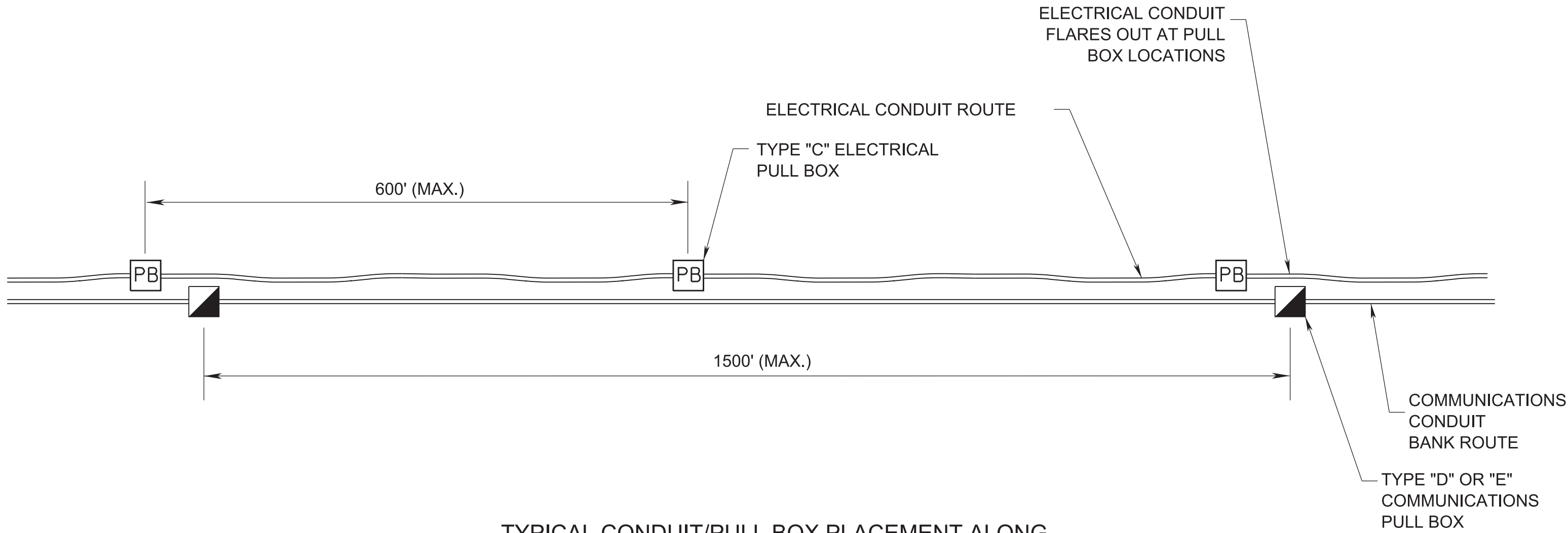
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ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY 19008-2195-44
725-20.02	CCTV POLE & FOUNDATION (80FT POLE W/LWRNG DVICE)	EACH	2
725-20.06	CCTV MAINTENANCE WORKPAD	EACH	2
725-20.43	PULL BOX (TYPE C)	EACH	10
725-20.44	PULL BOX (TYPE D)	EACH	22
725-20.45	PULL BOX (TYPE E)	EACH	7
725-20.54	CABLE (1/C #8 AWG.)	L.F.	321
725-20.55	CABLE (1/C #6 AWG.)	L.F.	10146
725-20.71	ELECTRICAL CONNECTION	LS	1
725-20.91	CCTV CAMERA SYSTEM (PAN TILT & ZOOM)	EACH	1
725-20.96	CCTV CAMERA SYSTEM REMOVE AND RELOCATE	EACH	1
725-21.02	DYNAMIC MESSAGE SIGN (MULTI-COLOR)	EACH	3
725-21.04	DYNAMIC MESSAGE SIGN REMOVAL	EACH	3
725-21.11	NETWORK SWITCH (TYPE A)	EACH	1
725-21.14	NETWORK CONFIGURATION	EACH	1
725-21.44	DEMARCATON SITE (UNDERGROUND POWER)	EACH	1
725-21.85	UNINTERRUPTIBLE POWER SUPPLY	EACH	1
725-21.92	SOLAR POWER FOR RDS	EACH	1
725-21.93	RADAR DETECTION SYSTEM REMOVE & RELOCATE	EACH	3
725-22.22	CONDUIT BANK (TYPE 2)	L.F.	67
725-22.24	CONDUIT BANK (TYPE 4)	L.F.	12767
725-22.25	CONDUIT BANK (TYPE 4, ENCASED)	L.F.	1405
725-22.32	CONDUIT BANK BORED (TYPE 2)	L.F.	200
725-22.34	CONDUIT BANK BORED (TYPE 4)	L.F.	486
725-22.44	CONDUIT BANK IN ROCK (TYPE 4)	L.F.	600
725-22.71	2IN CONDUIT	L.F.	203
725-22.74	2IN CONDUIT W/BANK	L.F.	3035
725-22.75	2IN CONDUIT BORED W/BANK	L.F.	292
725-23.01	ITS CABLE MARKER	EACH	44
725-23.10	FIBER OPTIC CABLE (72 F)	L.F.	9016
725-23.21	FIBER OPTIC DROP CABLE (12 F)	L.F.	642
725-23.25	FIBER OPTIC CLOSURE (72 F)	EACH	2
725-23.26	FIBER OPTIC CLOSURE (12 F)	EACH	3
725-23.28	FIBER OPTIC SPLICE FUSION	EACH	156
725-23.31	FIBER OPTIC DROP PANEL (12 F)	EACH	1
725-24.02	CABINET (TYPE B)	EACH	1
725-24.25	UNSCHEDULED MAINTENANCE LABOR	HOURL	80
725-24.31	SPARE PARTS	LS	1
725-24.41	BURN-IN PERIOD	LS	1
725-24.51	SYSTEM INTEGRATION	LS	1
725-24.55	AS-BUILT PLANS	LS	1

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	2022	NH-I-40-5(146)	ITS-3



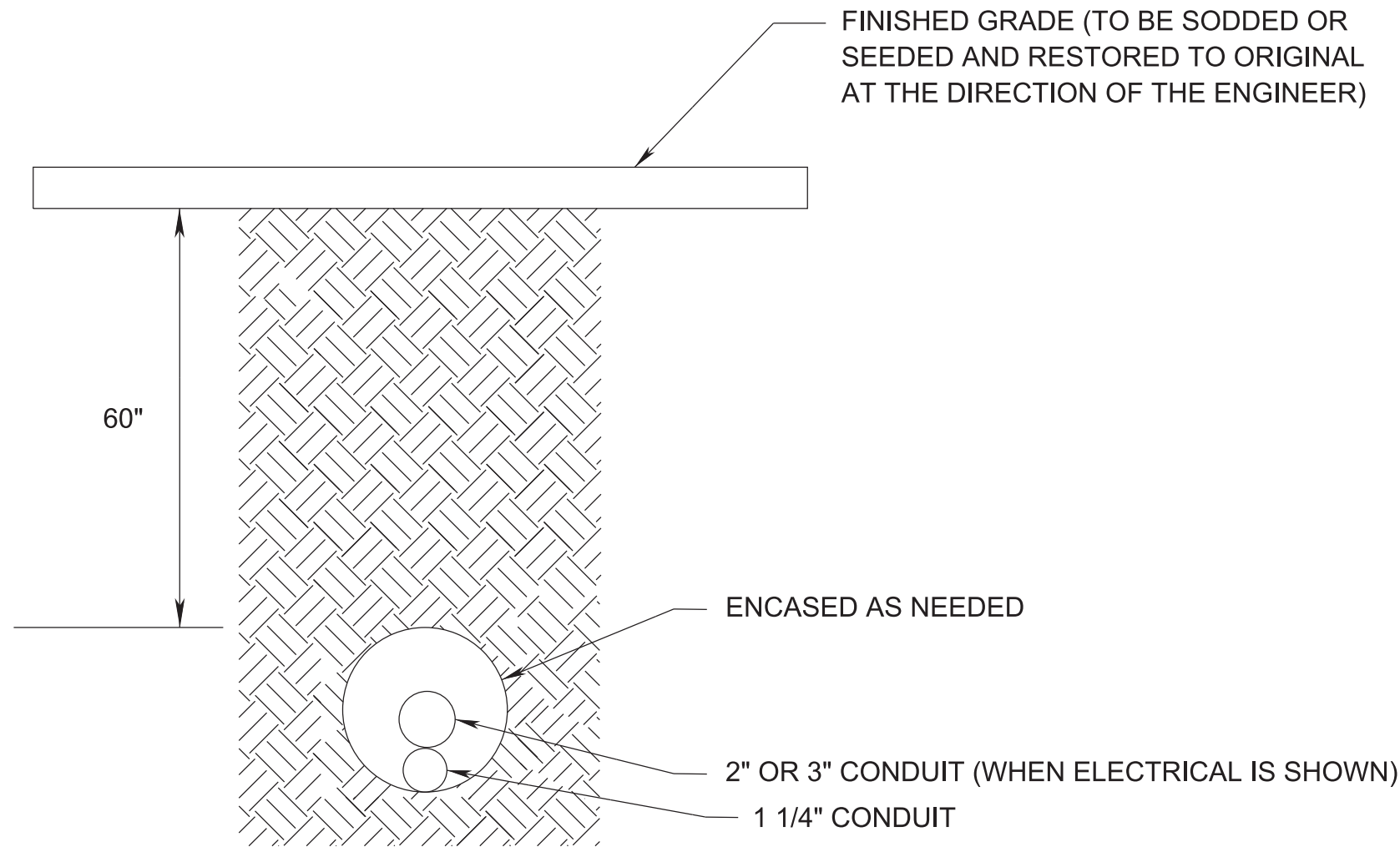
TYPICAL CONDUIT/PULL BOX PLACEMENT AT ITS FIELD DEVICE
N.T.S.



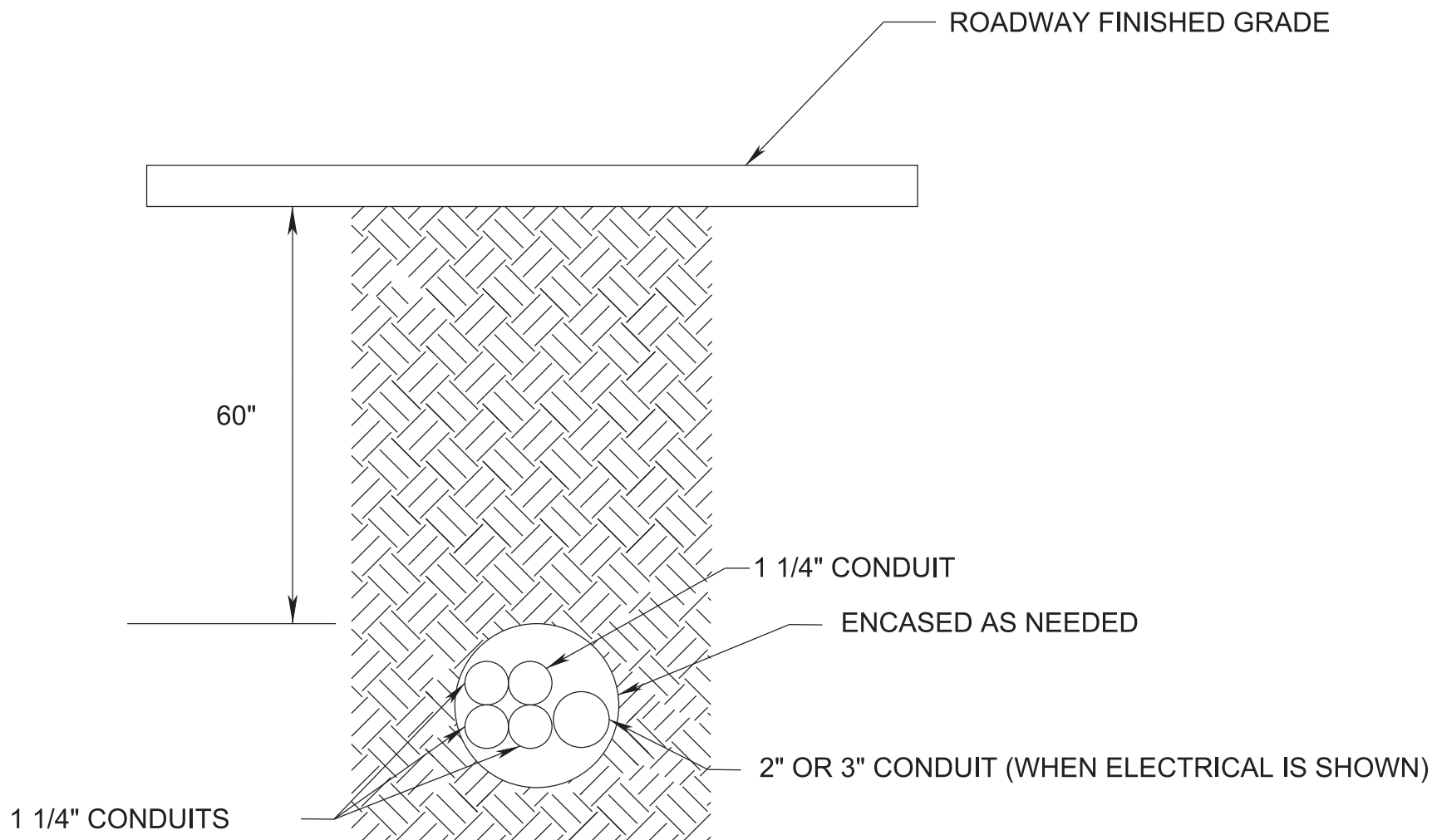
TYPICAL CONDUIT/PULL BOX PLACEMENT ALONG
FIBER OPTIC COMMUNICATIONS TRUNK LINE
N.T.S.

CONDUIT ROUTING NOTES:

1. COMMUNICATIONS AND ELECTRICAL CONDUIT MAY SHARE THE SAME TRENCH. HOWEVER THEY SHALL NEVER SHARE THE SAME PULL BOXES. SEPARATE PULL BOXES ARE REQUIRED FOR EACH CONDUIT SYSTEM.
2. COMMUNICATIONS AND ELECTRICAL CONDUIT ROUTES MUST FLARE OUT AS SHOWN IN DETAILS ABOVE AT LOCATIONS WHERE PULL BOXES ARE TO BE INSTALLED TO PROVIDE SUFFICIENT ROOM FOR PULL BOX CONSTRUCTION.
3. THE SPACING BETWEEN PULL BOXES SHALL BE 600 FT MAXIMUM FOR ELECTRICAL CONDUIT ROUTES AND 1500' MAXIMUM FOR THE COMMUNICATIONS TRUNK LINE (AS DEPICTED ON THE ITS PLAN SHEETS).




CONDUIT BANK BORED (TYPE 1)
N.T.S.
ONE 1 1/4" COMMUNICATIONS CONDUIT WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK BORED (TYPE 4)
N.T.S.
FOUR 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY

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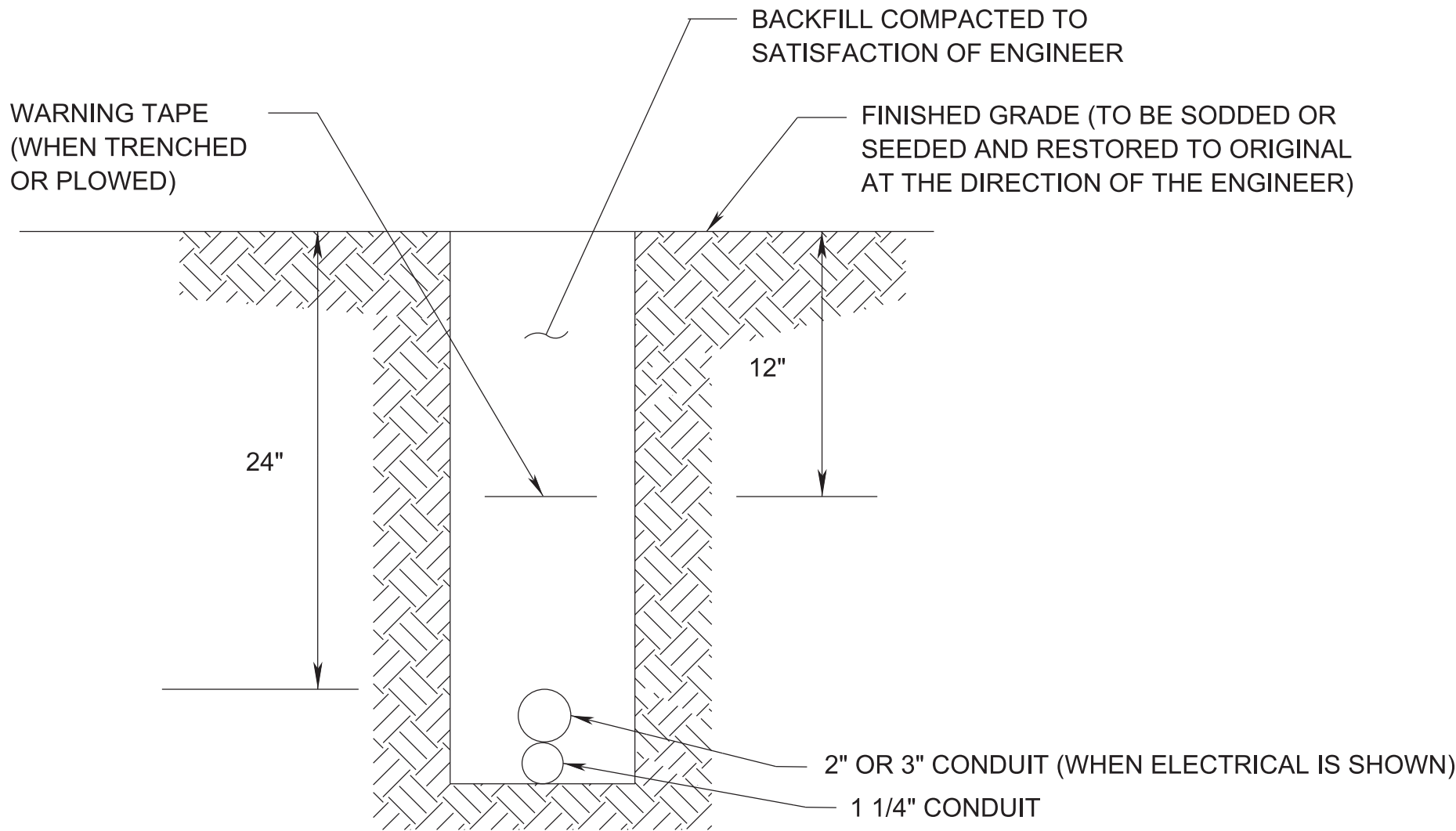


2/24/2022

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL CONDUIT
TRENCHING AND
BORE DETAILS

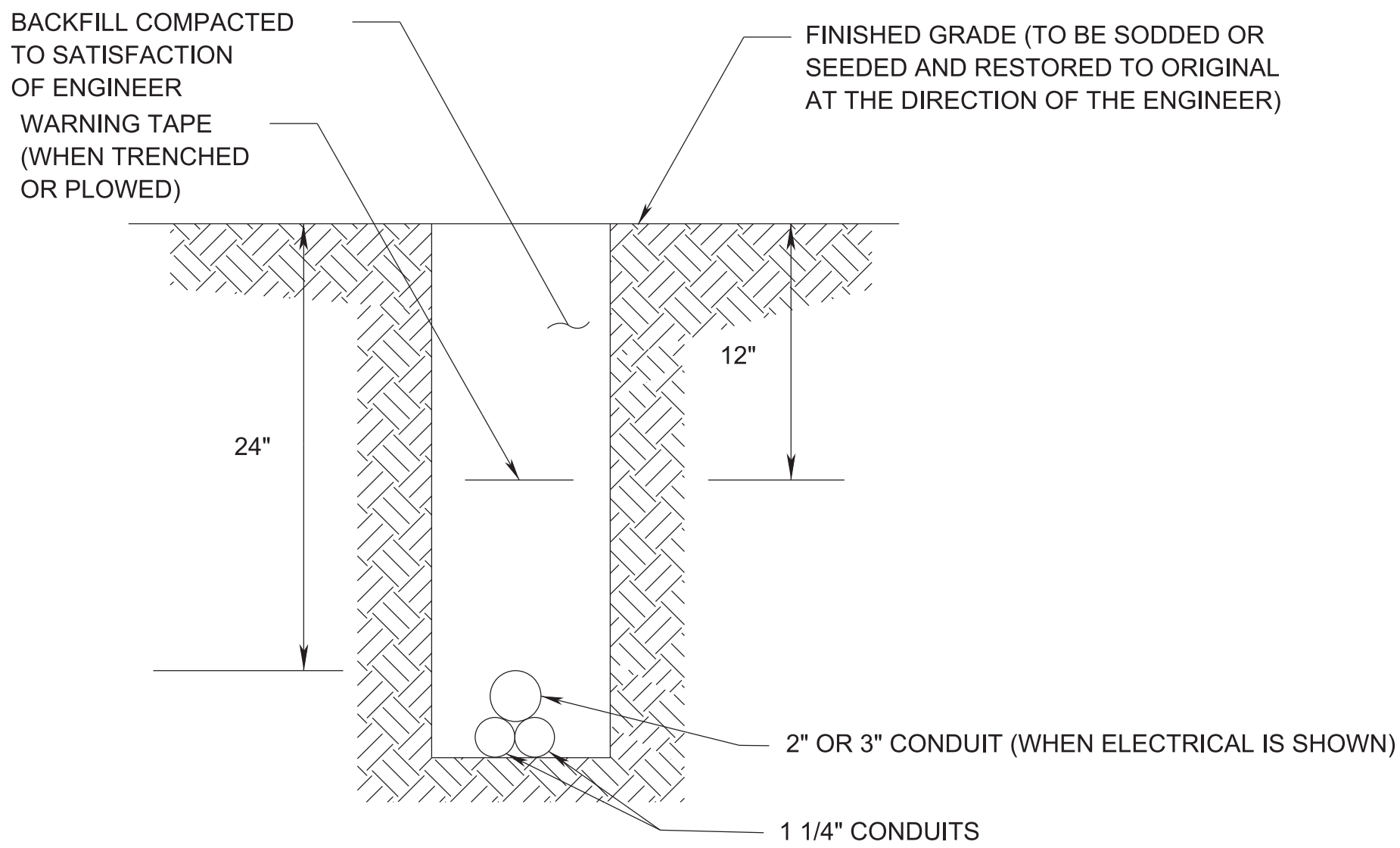
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CONDUIT BANK TYPE 1

N.T.S.

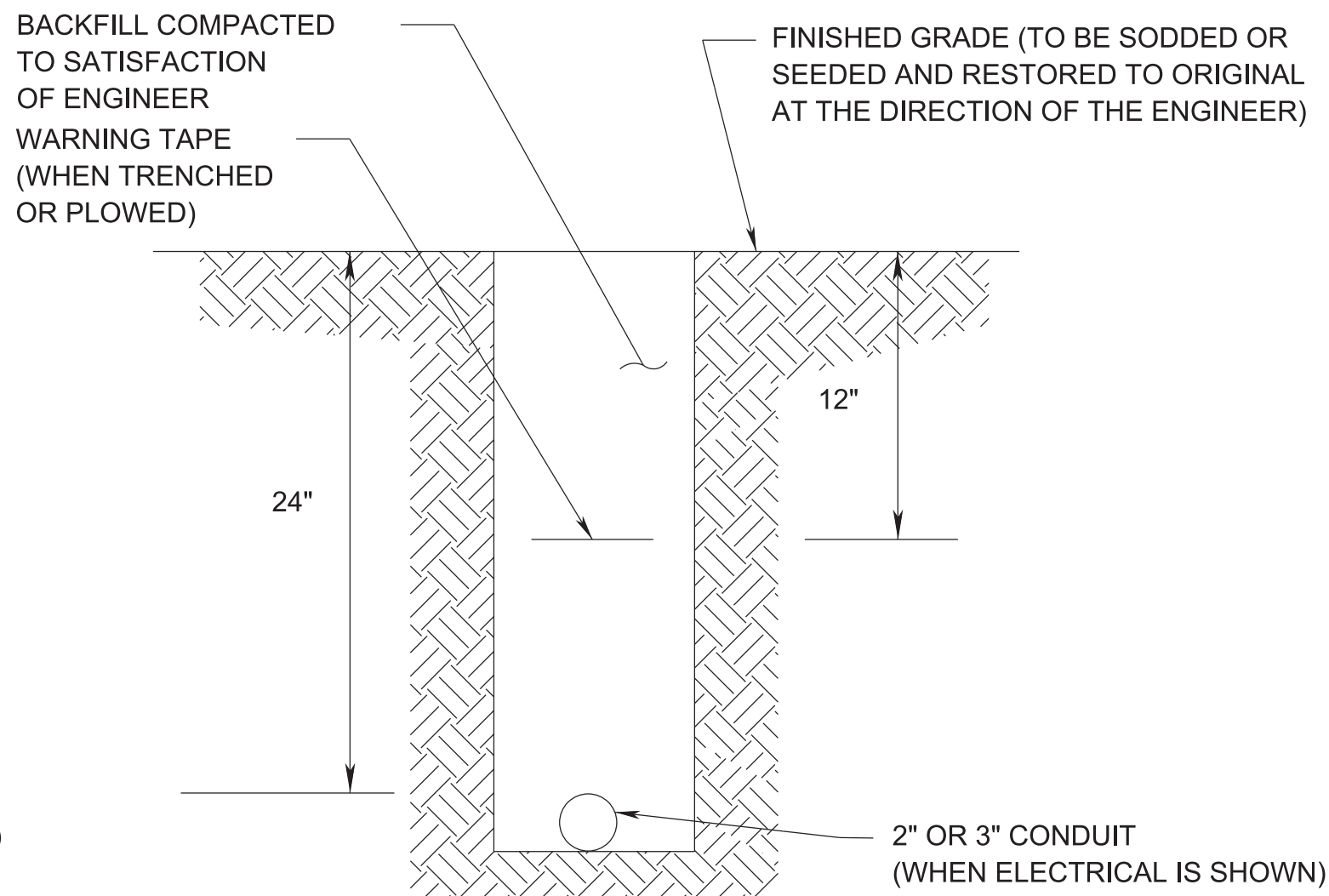
ONE 1 1/4" COMMUNICATIONS CONDUIT WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 2

N.T.S.

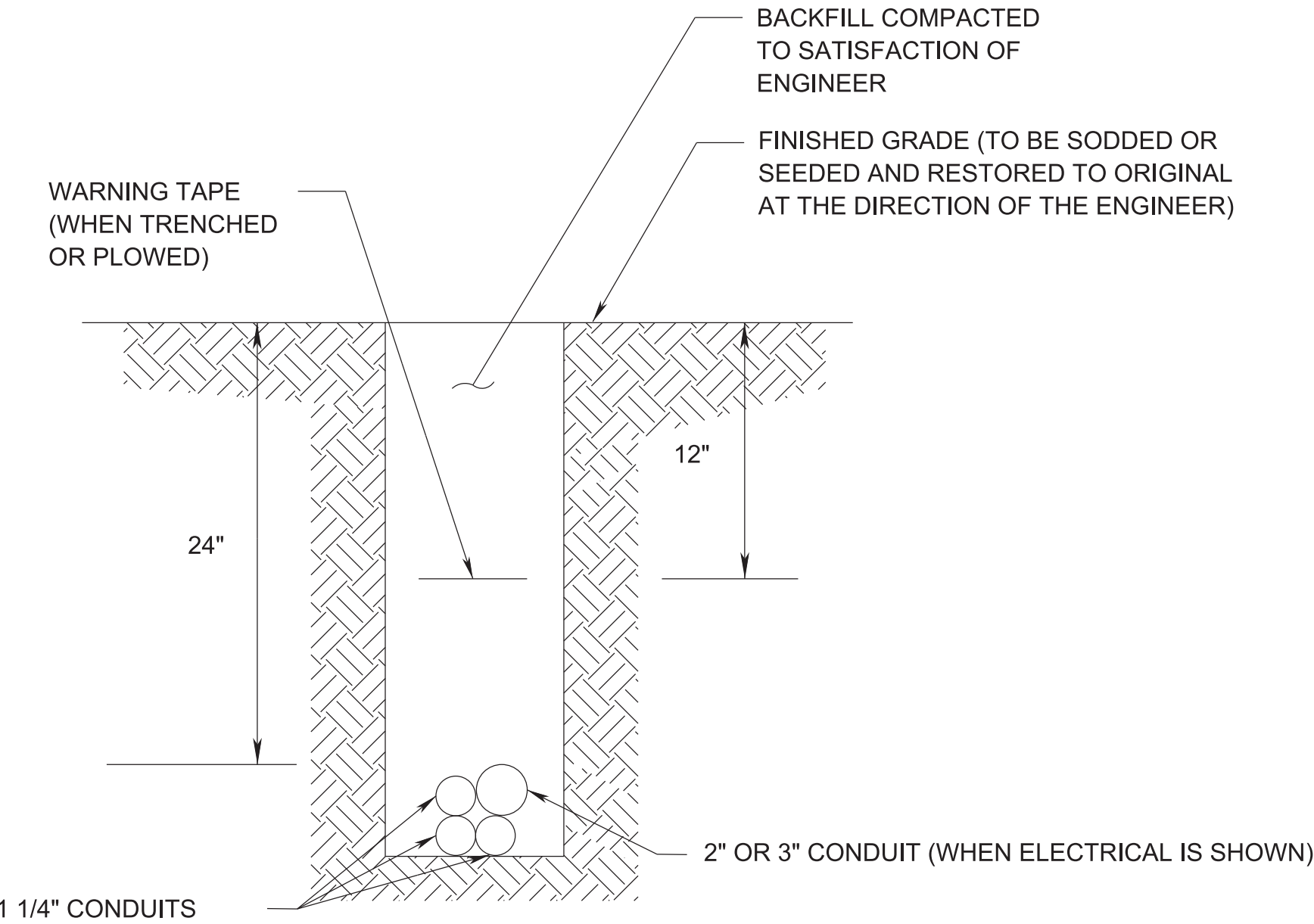
TWO 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



2" OR 3" CONDUIT

N.T.S.

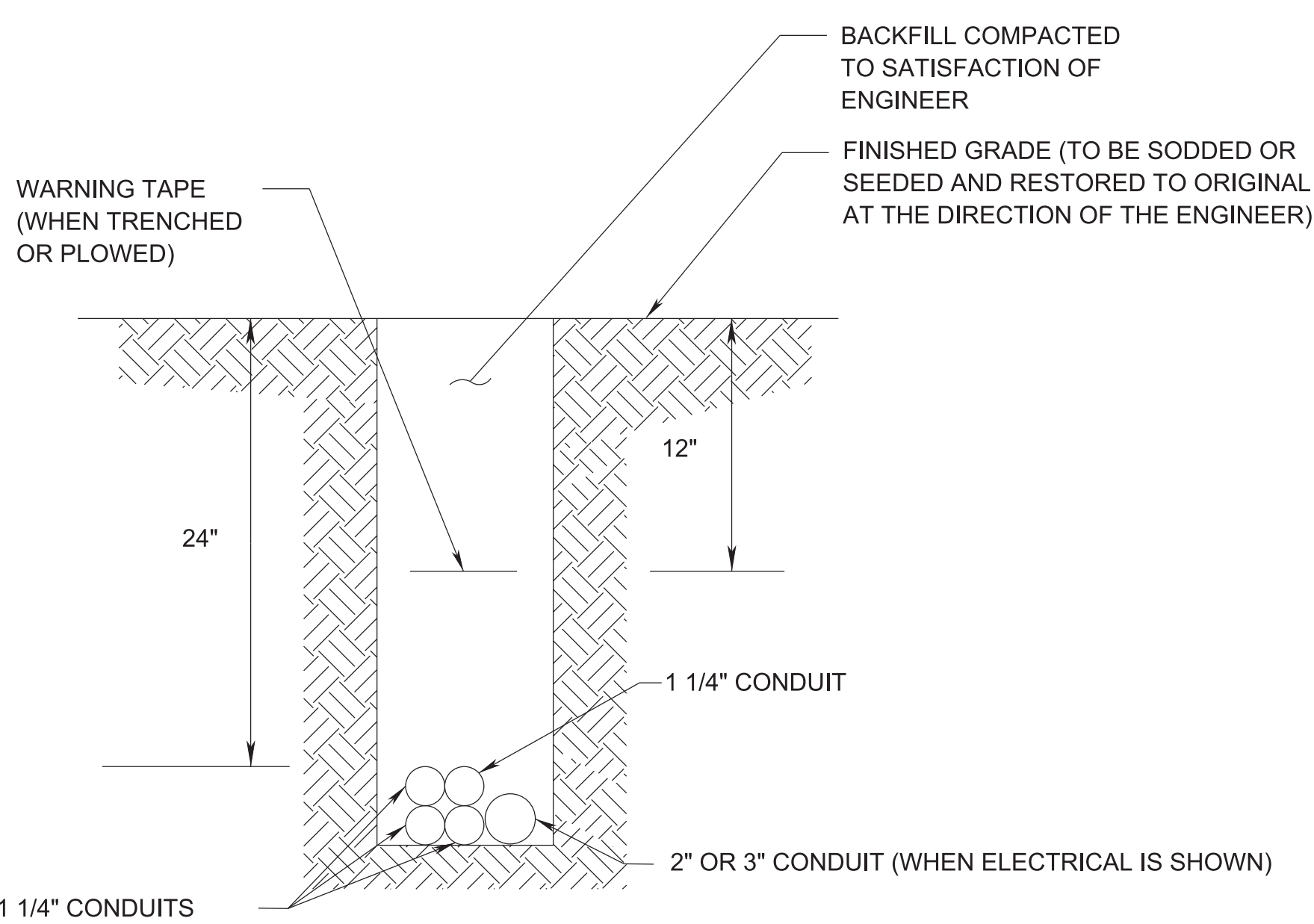
ONE 2" OR 3" CONDUIT



CONDUIT BANK TYPE 3

N.T.S.

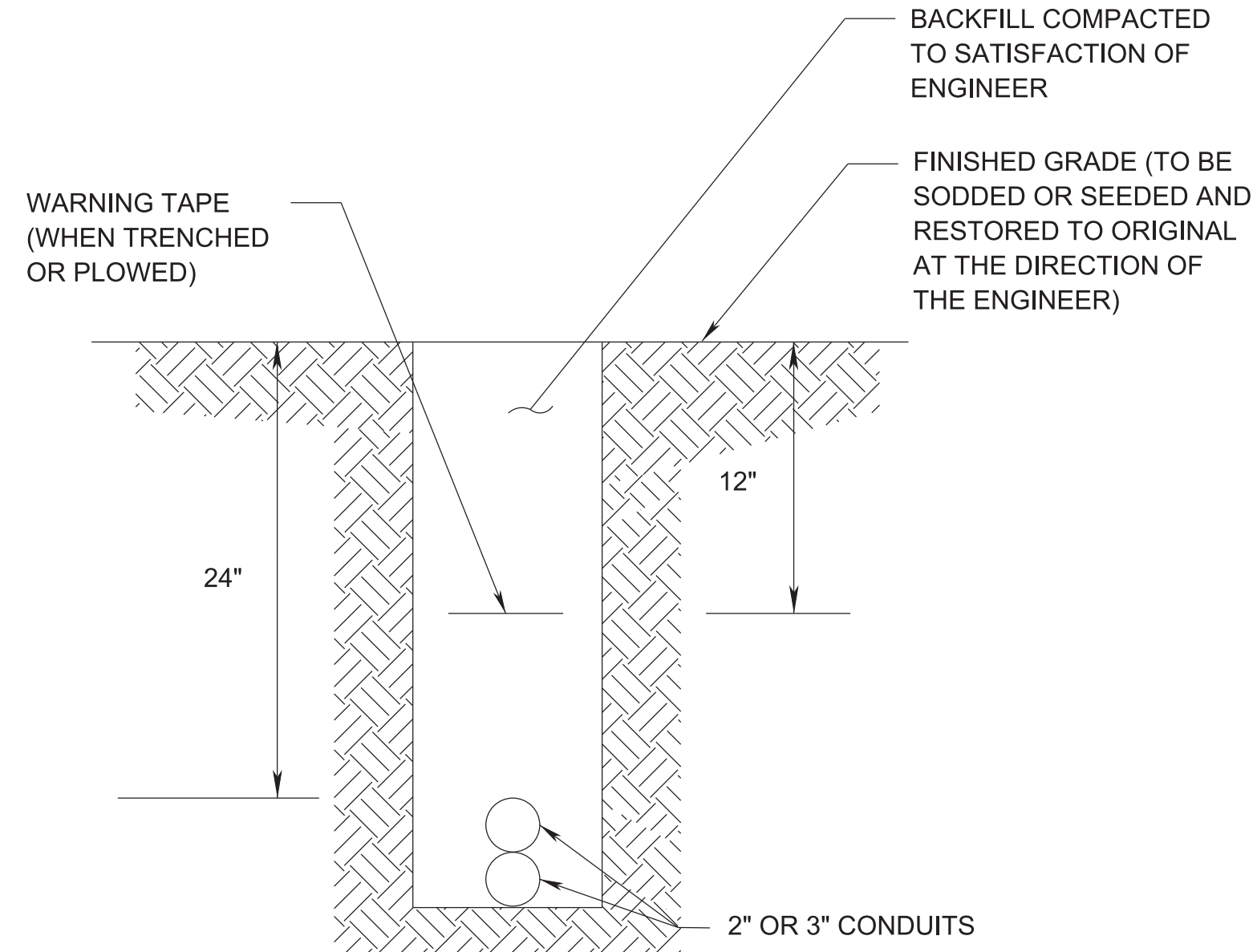
THREE 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



CONDUIT BANK TYPE 4

N.T.S.

FOUR 1 1/4" COMMUNICATIONS CONDUITS WITH
OR WITHOUT ONE 2" OR 3" ELECTRICAL CONDUIT
WHICH IS PAID SEPARATELY



MULTIPLE 2" OR 3" CONDUITS

N.T.S.

TWO 2" OR 3" CONDUITS

CONDUIT COLORS

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

- A. CONDUIT BANK TYPE 1:
- GREEN DROP FIBER AND/OR RDS CABLE
- B. CONDUIT BANK TYPE 2:
- GREEN DROP FIBER AND/OR RDS CABLE
- WHITE RDS CABLE SECOND DROP FIBER OR SPARE
- C. CONDUIT BANK TYPE 3:
- GREEN DROP FIBER AND/OR RDS CABLE
- BLUE RDS CABLE OR SECOND DROP FIBER
- WHITE SECOND RDS CABLE OR SPARE
- D. CONDUIT BANK TYPE 4:
- ORANGE TRUNK FIBER CABLE
- BLUE RDS CABLE OR DROP FIBER
- WHITE SPARE OR SECOND RDS CABLE
- BROWN SPARE
- E. 2" OR 3" ELECTRICAL CONDUIT:
- GREY ELECTRICAL WIRE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-4

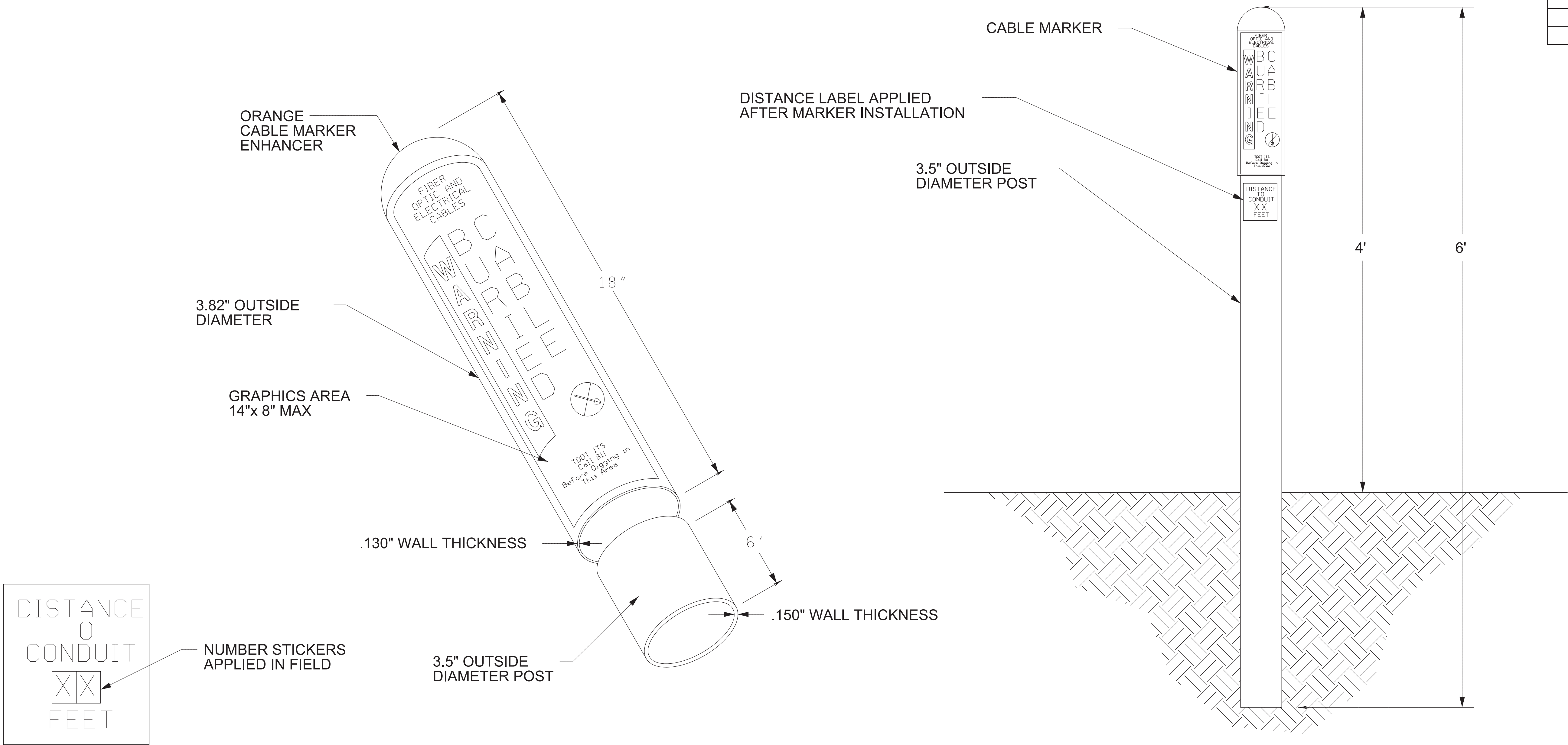
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
CONDUIT AND
TRENCHING
DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-6



PRE-PRINTED DISTANCE LABEL

DETAIL VIEW OF CABLE MARKER

N.T.S.

TYPICAL INSTALLATION OF CABLE MARKER

N.T.S.

NOTES:

- THE CONTRACTOR SHALL REQUEST FROM TDOT THE APPROPRIATE TELEPHONE NUMBER TO INCLUDE ON THE CABLE MARKER LABEL PRIOR TO FABRICATION.
- ALL CABLE MARKER LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. THE PROPOSED SCHEDULE FOR INSTALLING THE CABLE MARKERS SHALL ALSO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- AFTER THE CABLE MARKERS ARE INSTALLED, THE DISTANCE TO CONDUIT LABELS SHALL BE APPLIED.
- INSTALL CABLE MARKERS AT THE FOLLOWING LOCATIONS:
 - WITHIN 30 FEET LATERALLY EVEN WITH EACH PULL BOX, OR ADJACENT PULL BOXES, ON CONDUIT RUNS PARALLEL TO THE ROADWAY. IF DISTANCE BETWEEN PULL BOXES IS GREATER THAN 650 FEET, ONE ADDITIONAL CABLE MARKER SHALL BE PLACED AT THE MIDPOINT BETWEEN THE ADJACENT PULL BOXES, WITHIN 30 FEET LATERALLY OF THE CONDUIT ROUTE. ADDITIONAL CABLE MARKERS SHALL BE PLACED SUCH THAT NO DISTANCE BETWEEN CABLE MARKERS SHALL BE GREATER THAN 650 FEET.
 - DIRECTLY BESIDE ANY PULL BOX THAT IS ON THE INTERIOR OF AN INTERCHANGE.
 - AT EACH END OF ANY BORE UNDER A ROADWAY, DIRECTLY BESIDE THE PULL BOXES.
 - ANY ADDITIONAL LOCATIONS DIRECTED BY THE ENGINEER.

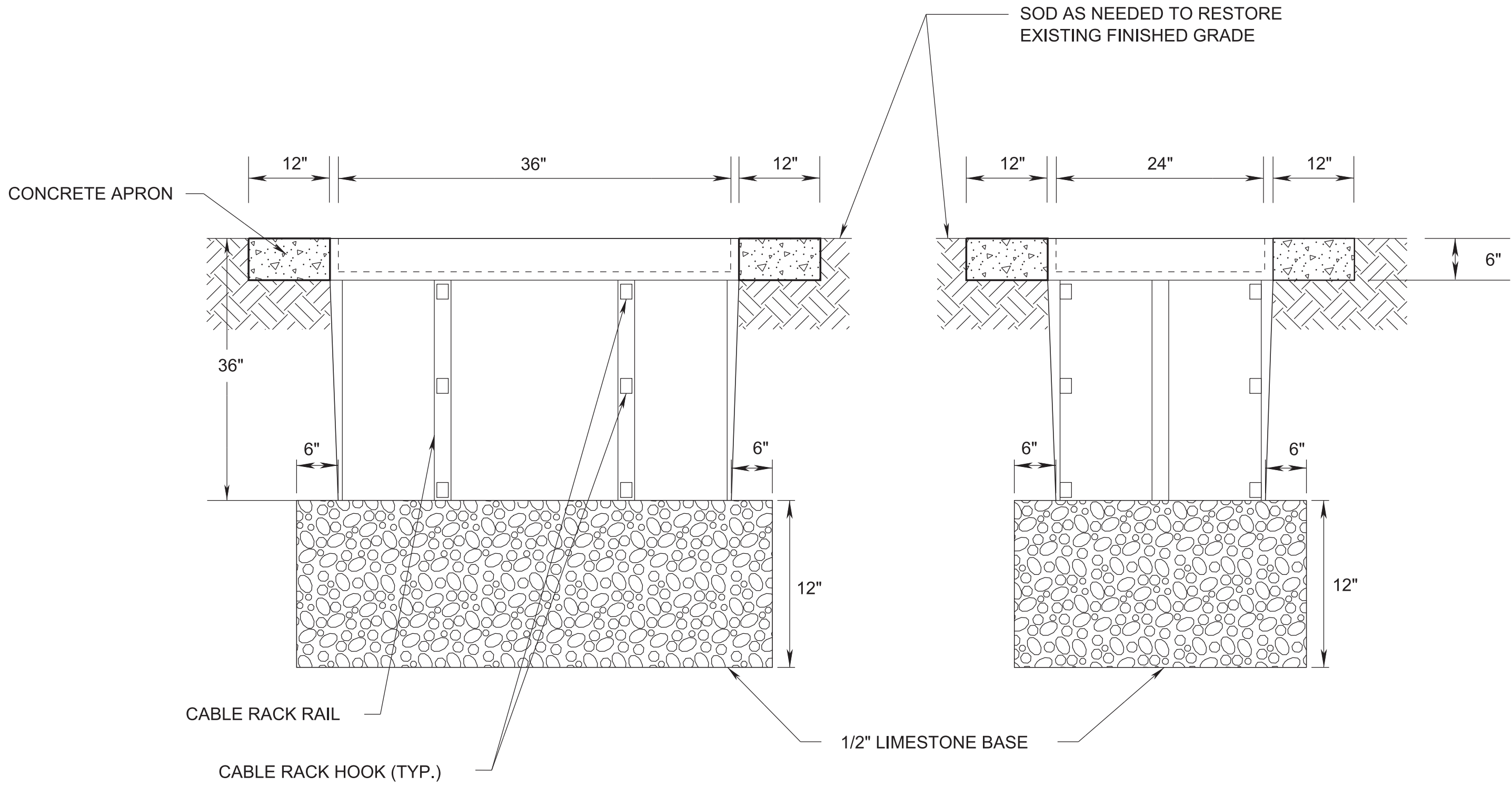
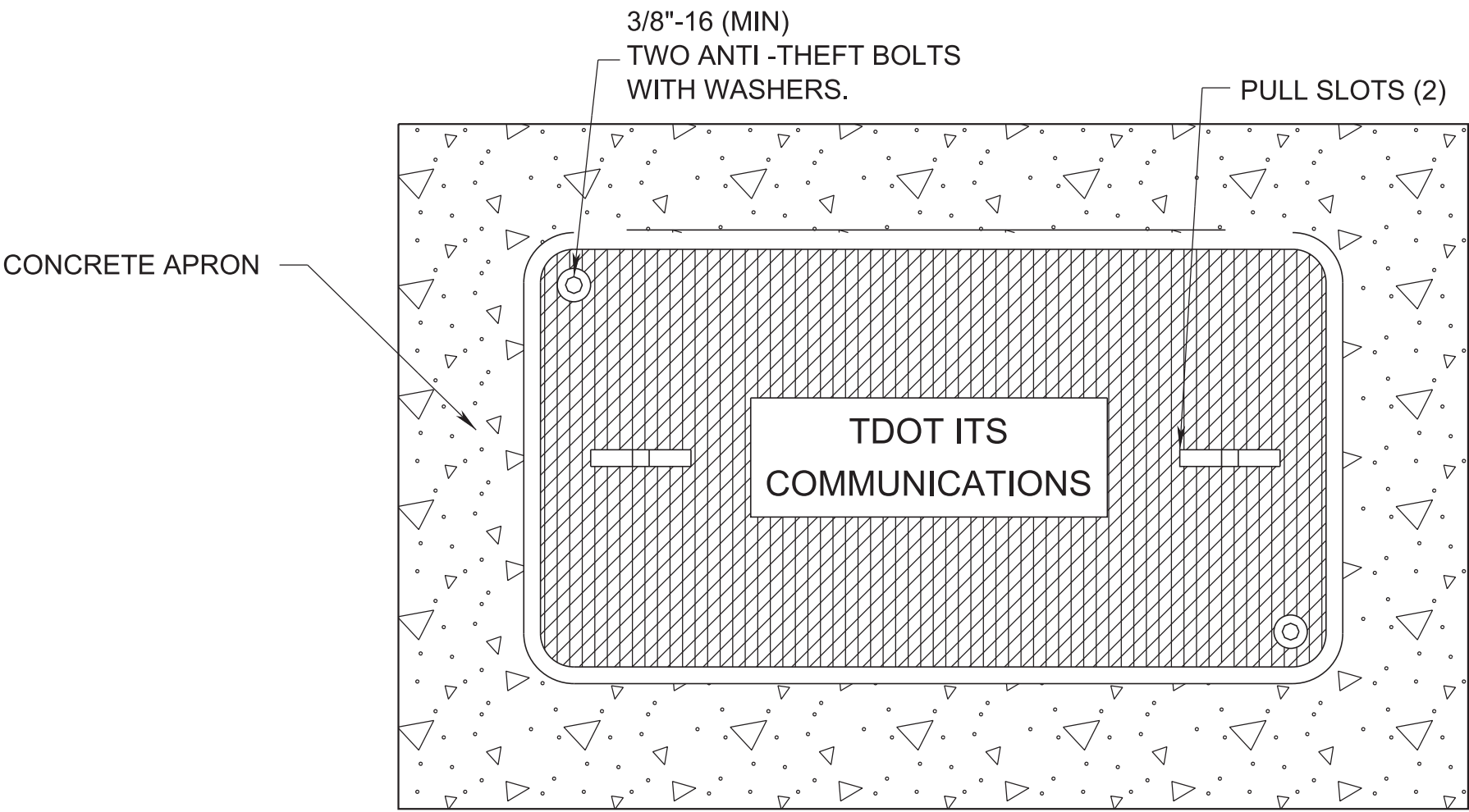
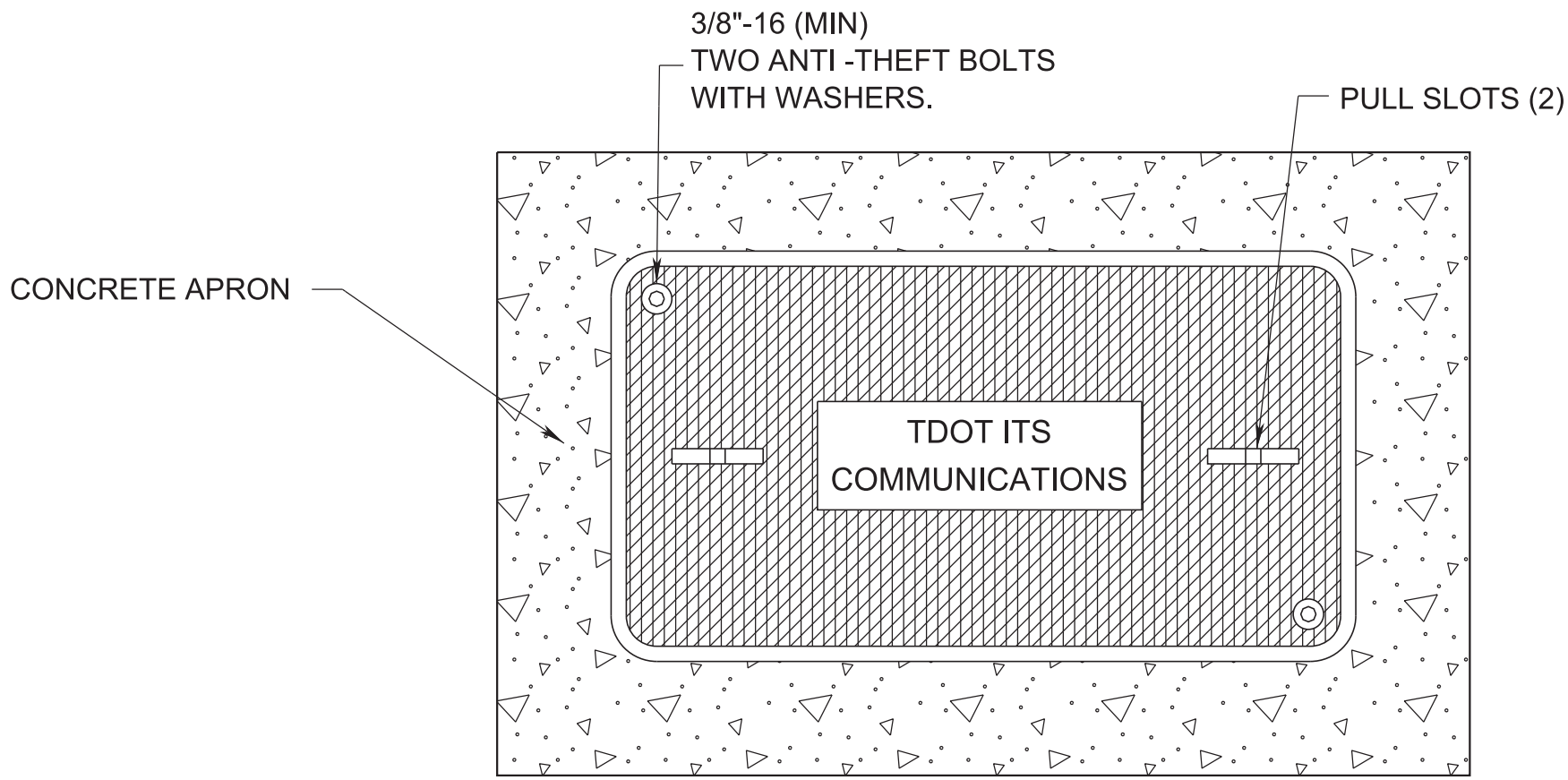
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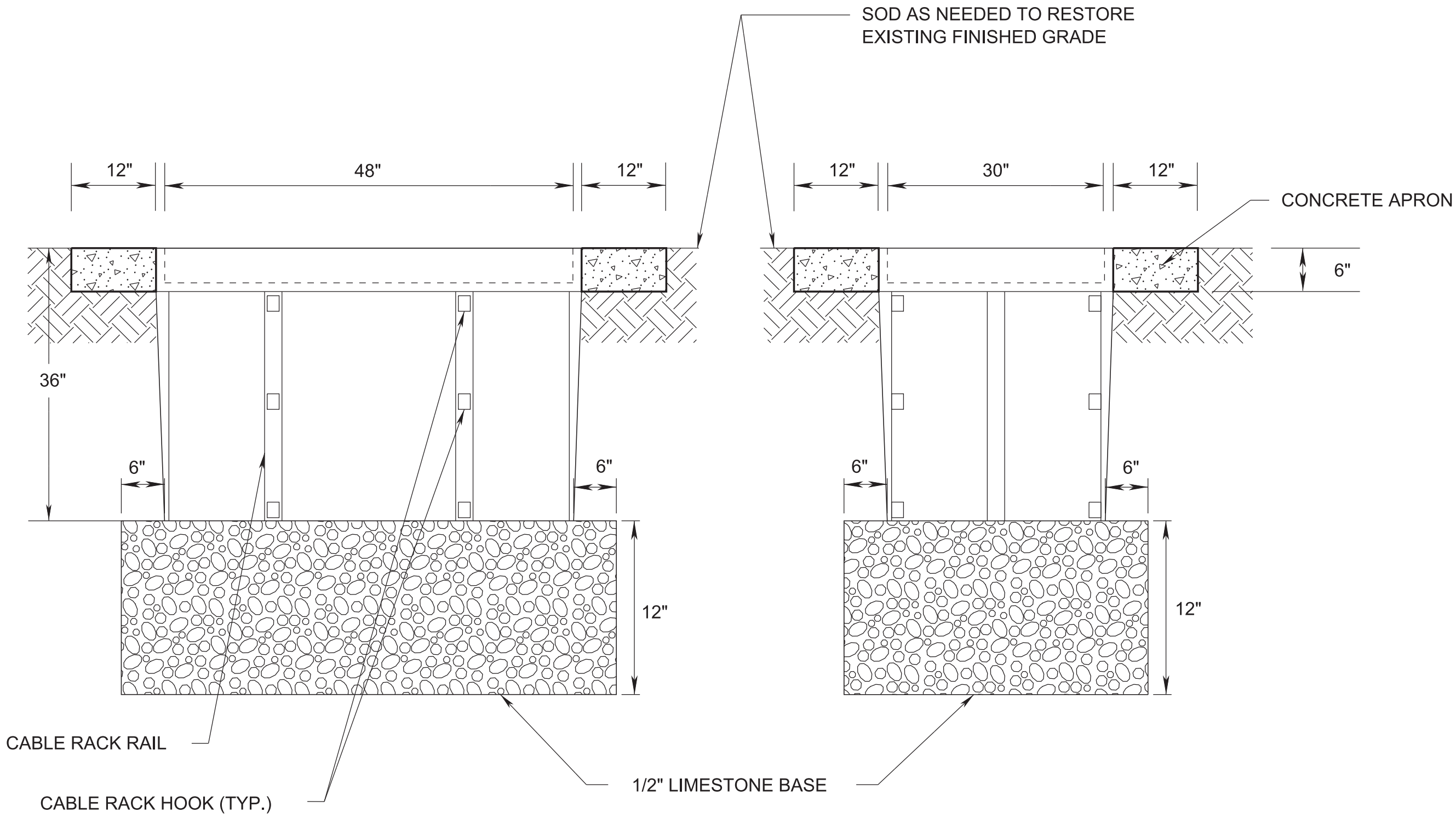
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL CABLE
MARKER DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-7



TYPE "D" PULL BOX ASSEMBLY
N.T.S.



TYPE "E" PULL BOX ASSEMBLY
N.T.S.

NOTES:

THE TYPE D AND E PULL BOXES SHALL MEET THE FOLLOWING REQUIREMENTS:

- PULL BOX COVER SHALL BE PRECAST COMPOSITE POLYMER CONCRETE PRODUCT.
- PULL BOXES AND COVERS SHALL BE SINGLE-STACK OPEN-BOTTOM ASSEMBLIES CONFIGURED AS SHOWN IN PLANS.
- PULL BOX SHALL MEET OR EXCEED CURRENT ANSI/SCTE 77 TIER 22 LOADING REQUIREMENTS.
- PULL BOX SHALL MEET CURRENT NEC STANDARDS FOR HANDHOLE ENCLOSURES.
- PULL BOX COVER SHALL BE LABELED (TDOT ITS COMMUNICATIONS).
- EACH PULL BOX SHALL COME EQUIPPED WITH 4 CABLE RACKS & 12 RACK HOOKS. THE CABLE RACKS SHALL BE A MIN. OF 24" & RACK HOOKS SHALL BE A MIN. OF 7" IN LENGTH. THE CABLE RACKS AND RACK HOOKS SHALL BE HOT-DIPPED GALVANIZED STEEL.
- TYPE D AND E PULL BOXES SHALL ONLY BE USED FOR COMMUNICATIONS CONDUIT/CABLING.
- GPS COORDINATES OF EACH PULL BOX WILL BE RECORDED IN THE AS-BUILT PLANS TO BE TURNED IN WITH THIS PROJECT.
- UNUSED CONDUIT SHALL BE STUBBED OUT AND CAPPED TO PRESERVE FOR FUTURE USE.
- CONDUIT SHALL ENTER TYPE "D" AND "E" PULL BOXES THROUGH THE SIDEWALL.
- HOLES ALONG THE SIDEWALLS SHALL BE CUT BY THE CONTRACTOR.
- ALL TYPE D AND E PULL BOXES SHALL HAVE 12" WIDE (MIN.) X 6" DEEP CONCRETE APRONS

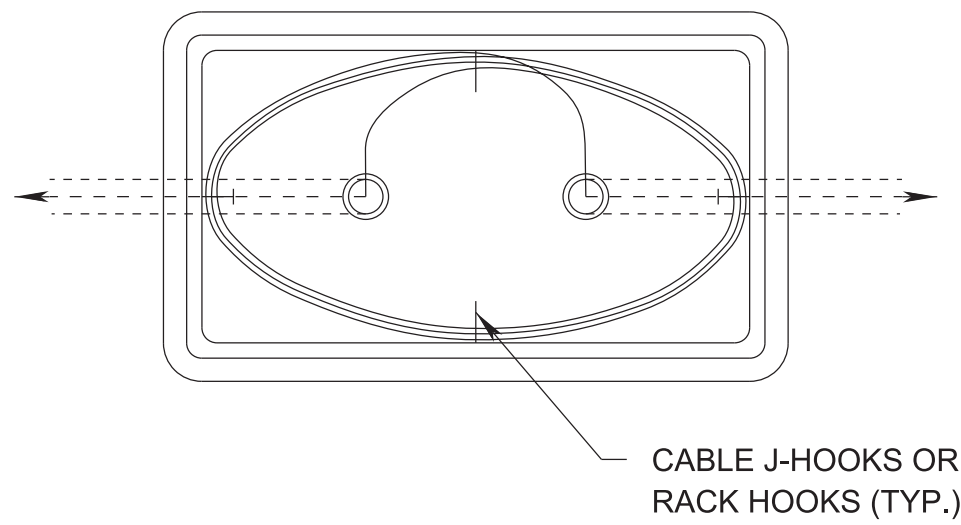
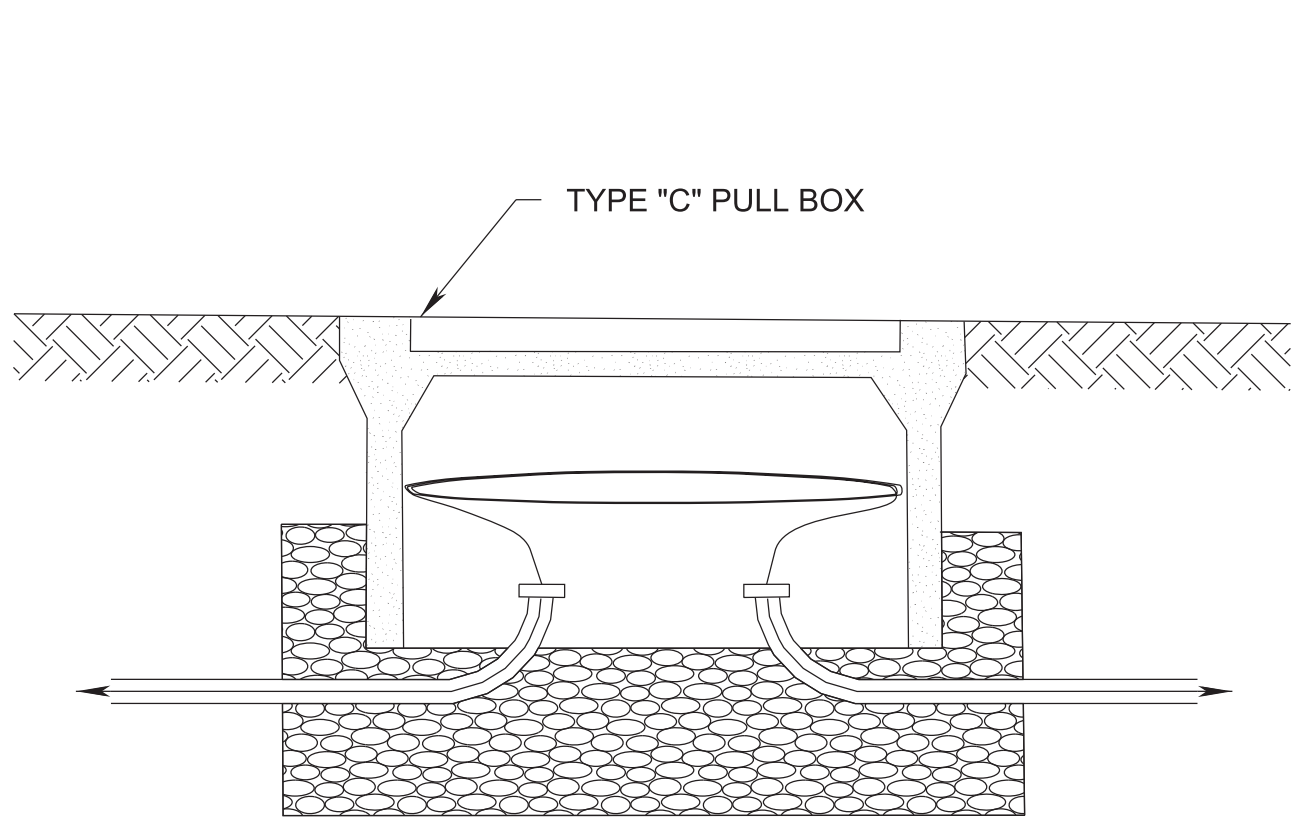
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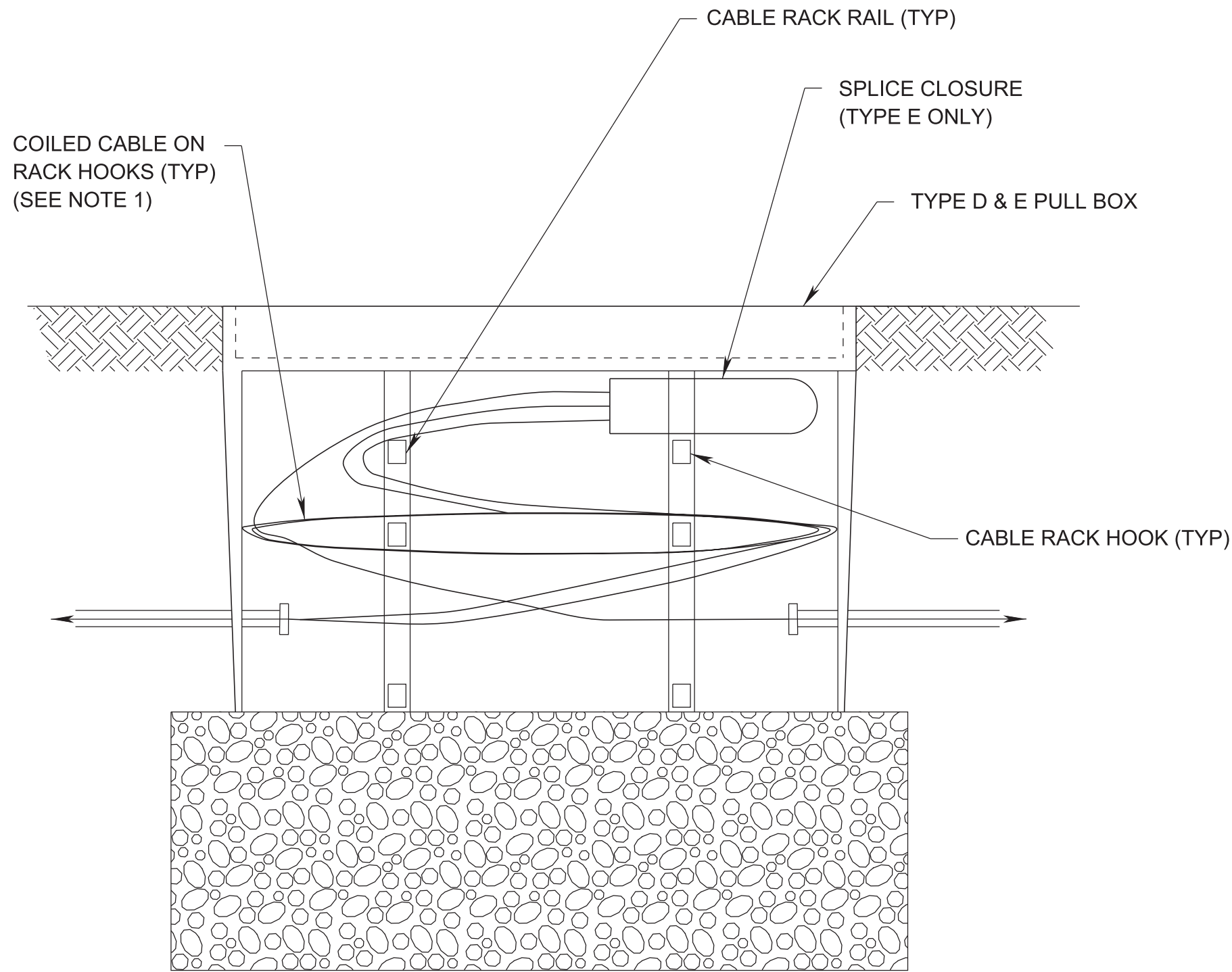
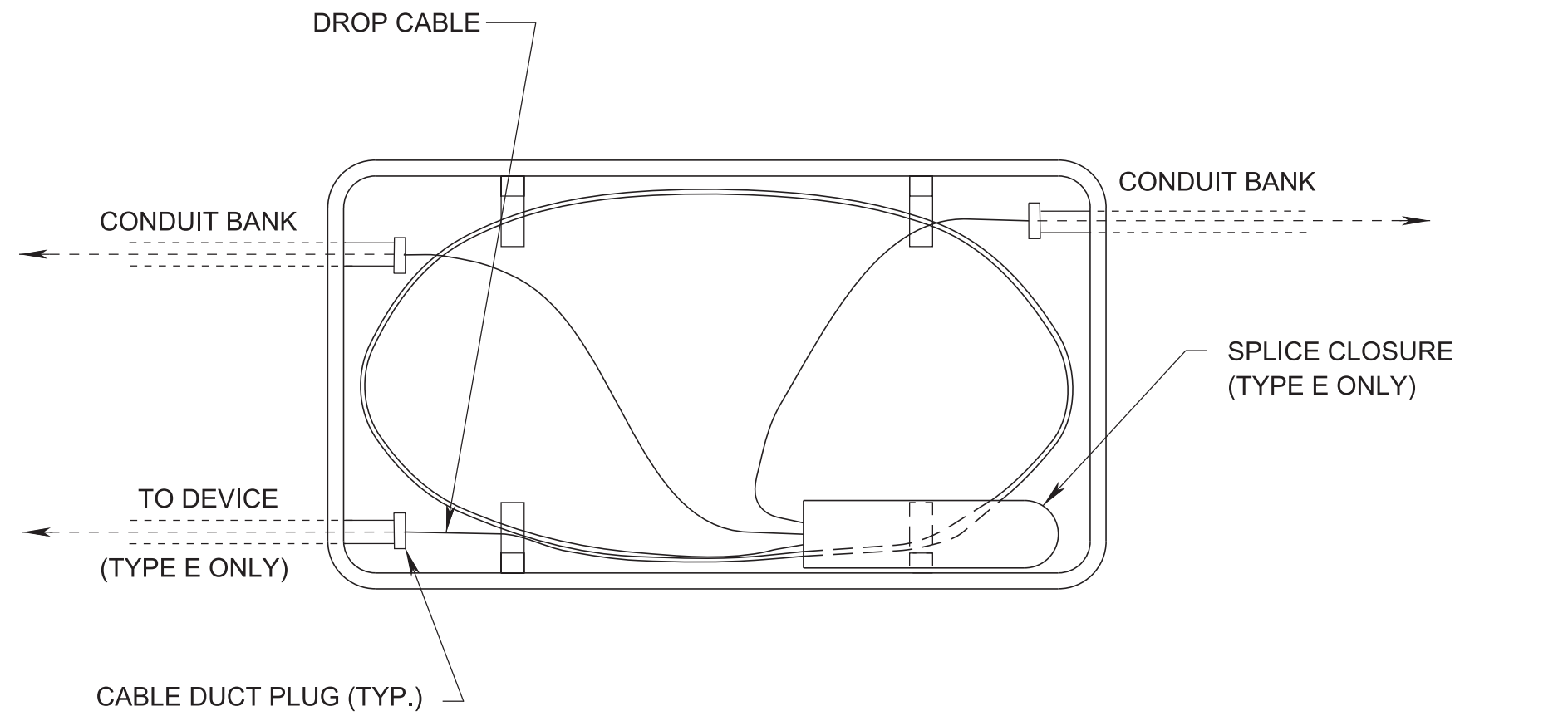
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPE D & E PULL BOX
DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-9



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



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

NOTES

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

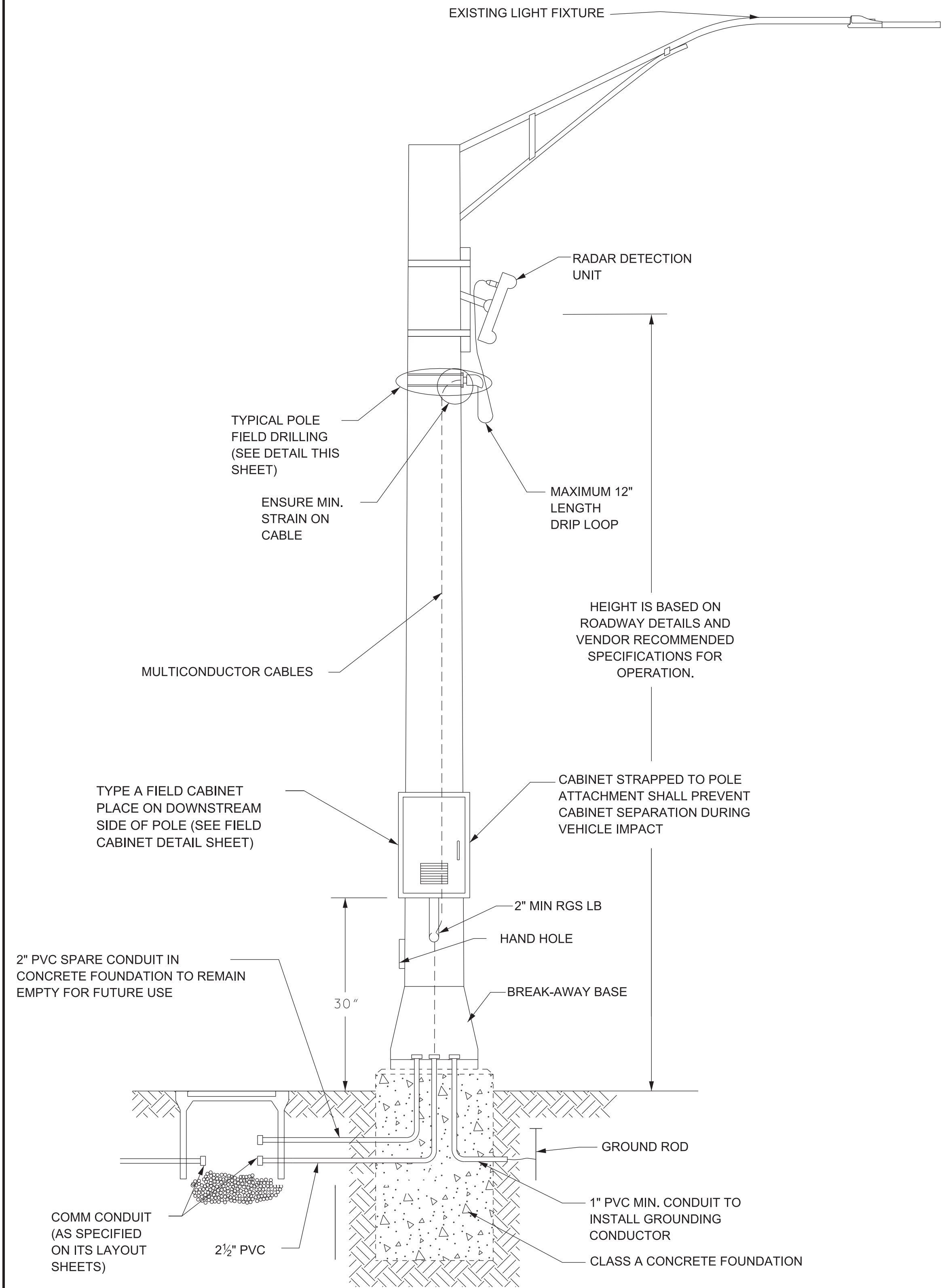
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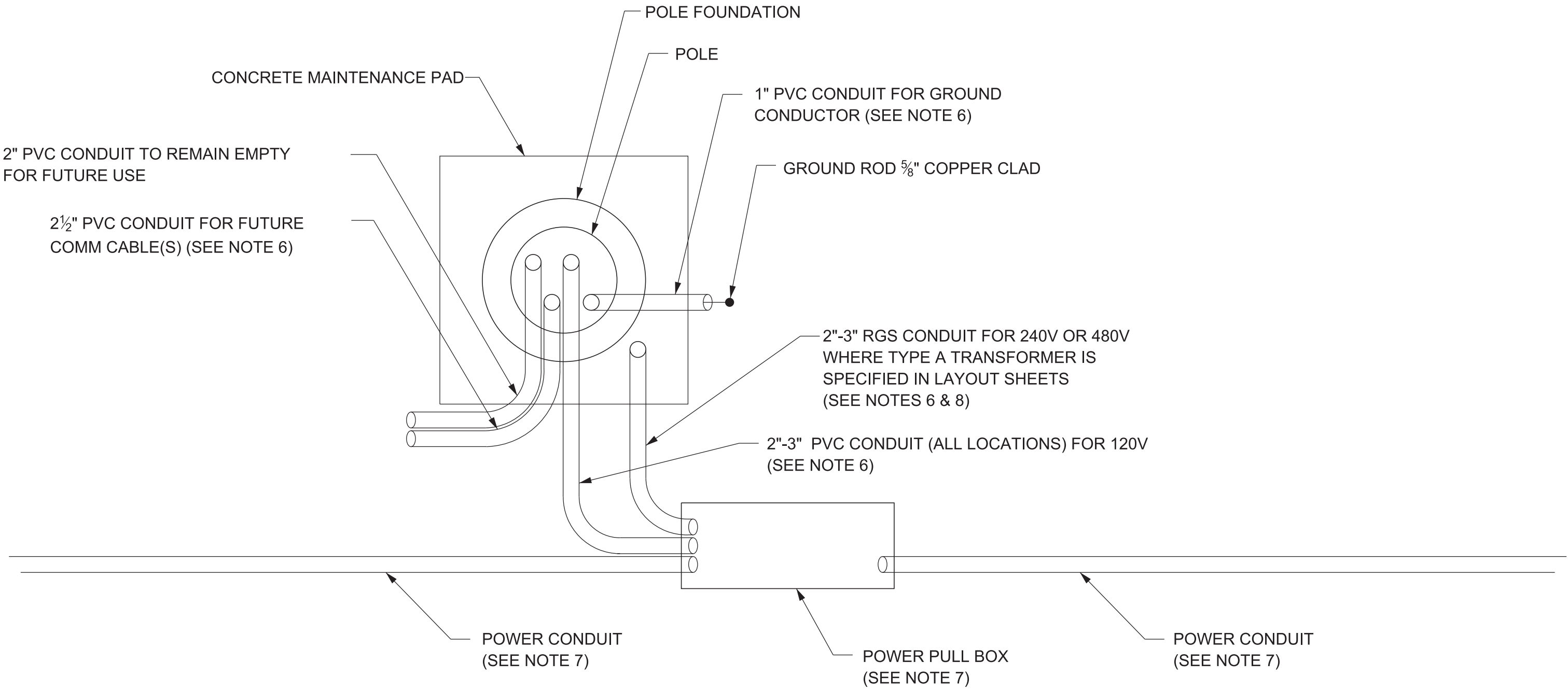
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
CABLE
MANAGEMENT
DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-10



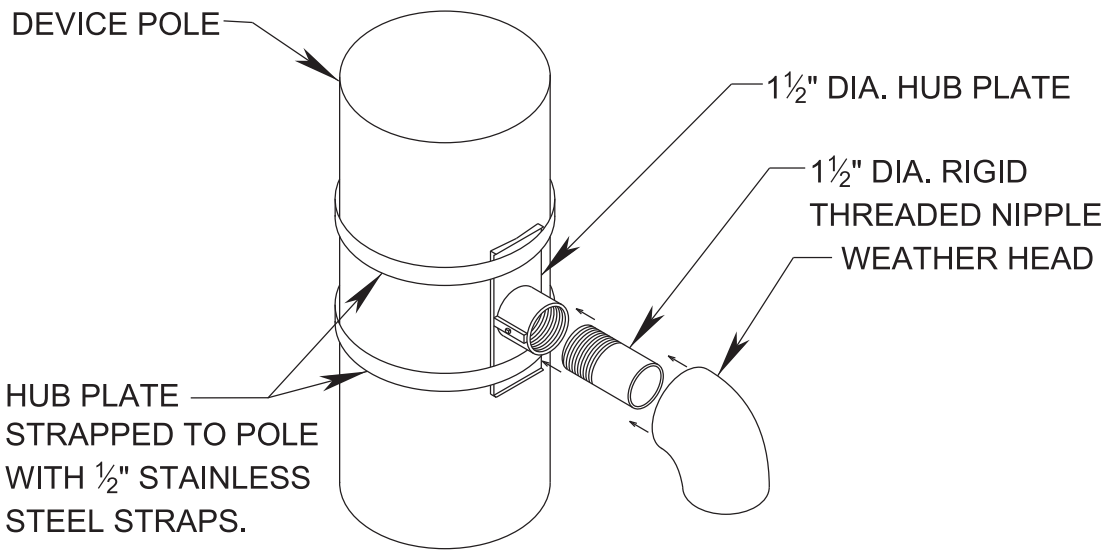
TYPICAL RADAR DETECTION SYSTEM ON LIGHT-POLE
N.T.S.



TYPICAL CONDUIT AT NEW POLE FOUNDATIONS
N.T.S.

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.
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 FOUR (4) COPIES OF THE DESIGN CALCULATIONS TO TDOT STRUCTURES FOR REVIEW AND APPROVAL. TWO (2) EXTRA SET SHALL BE SUBMITTED TO THE ENGINEER. THE TOP OF THE FOUNDATION SHALL NOT PROJECT OVER 4" MAX. ABOVE THE FINISHED GRADE.
4. SUPPORTS AND FOUNDATIONS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. FOUNDATIONS AND ATTACHMENTS SHALL BE DESIGNED BY THE CONTRACTOR AS SPECIFIED ABOVE. SEE SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS AND DRAWINGS FOR FURTHER INFORMATION.
5. 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.
6. CONDUIT AND PULL BOXES AS SPECIFIED AND TABULATED ON THE LAYOUT SHEETS.
7. BOND RGS CONDUIT TO POLE GROUND ROD.
8. CONCRETE MOWING PAD COST INCLUDED IN THE COST OF RDS POLE INSTALLATION.
9. GPS COORDINATES OF EACH RDS WILL BE RECORDED IN THE AS-BUILT PLANS TO BE TURNED IN WITH THIS PROJECT.



NOTE: 1 1/2" HOLE TO BE DRILLED BEHIND HUB PLATE. ALL FIELD DRILLED HOLES SHALL BE LOCATED AFTER EQUIPMENT POSITION HAS BEEN DETERMINED SO THAT A MAXIMUM 12" DRIP LOOP IS MAINTAINED. COST OF FIELD DRILLED HOLES TO BE INCLUDED IN THE COST OF THE DEVICE OR POLE.

TYPICAL POLE FIELD DRILLING

DETECTOR MOUNTING TABLE													
DETECTOR NO.	TYPE	SHEET	STATION	# OF LANES DETECTED	SETBACK FROM EOTL (FT)	DET. MOUNTING* HEIGHT ABOVE ROADWAY (FT)	POLE HEIGHT (FT)	SOLAR POWER	SPREAD SPECTRUM TRANSMITTER	SPREAD SPECTRUM RECEIVER LOCATION	SPRED SPECTRUM RECEIVER	RECEIVING SS TRANSMISSION FROM STATION	NOTES
R3G-00I40-216.2E (EX. #329)	RADAR	ITS-22	1038+72	5	EXIST.	29	EXIST.	1	EXIST.	1025+55	EXIST.		RELOCATED RDS #329
R3G-00I40-216.4W (EX. #330)	RADAR	ITS-26	1055+72	5	EXIST.	33	EXIST. CCTV POLE						RELOCATED RDS #330
R3G-00I40-217.0W (EX. #332)	RADAR	ITS-26	1076+53	4	30	20	80' CCTV POLE						RELOCATED RDS #332

NOTE: HEIGHT PROVIDED IS FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY ATTACHMENT HEIGHT WITH VENDOR SPECIFICATION.

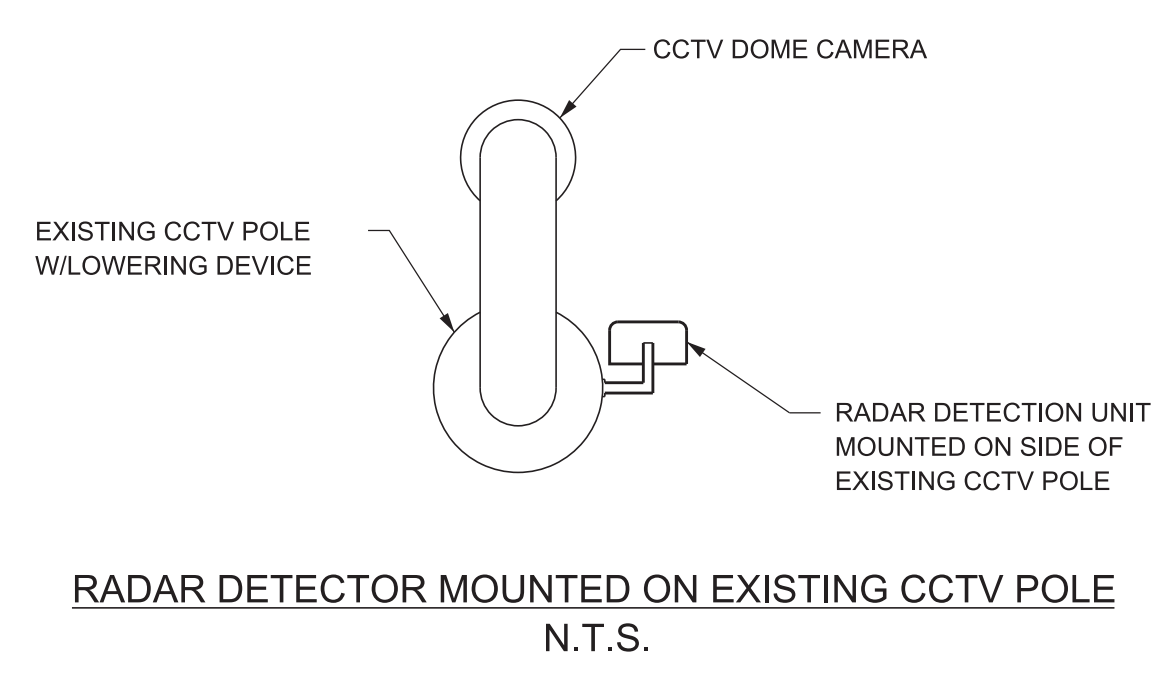
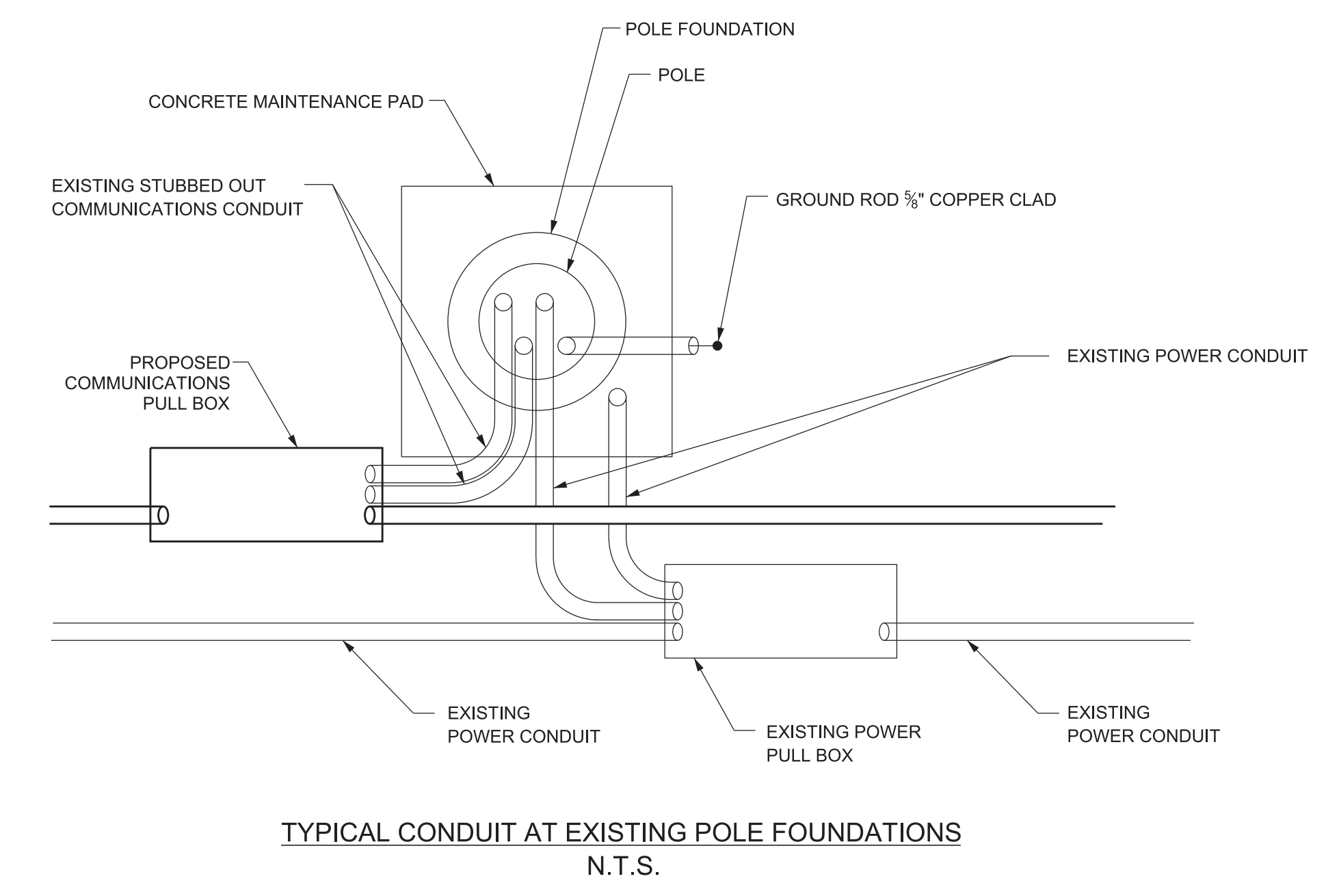
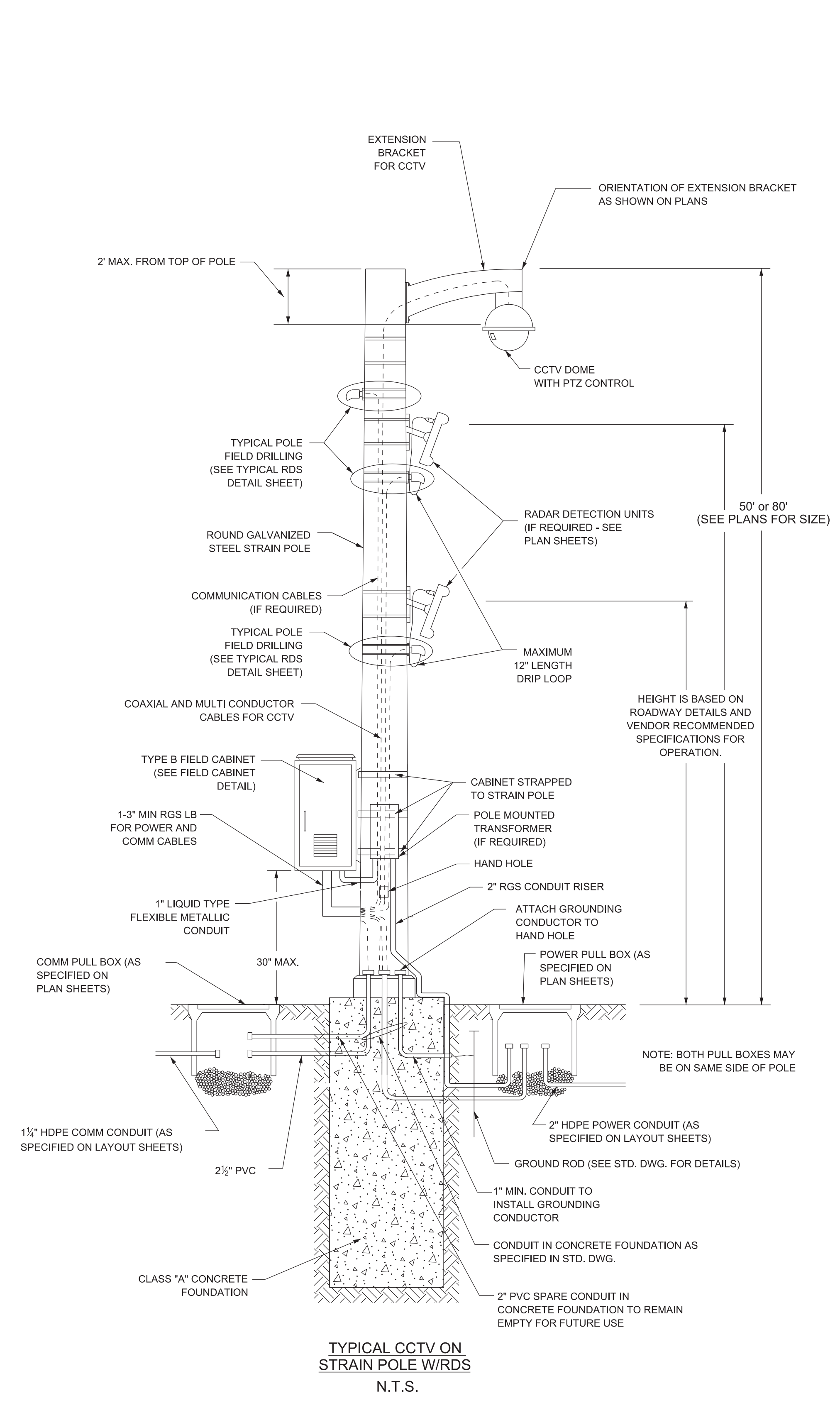
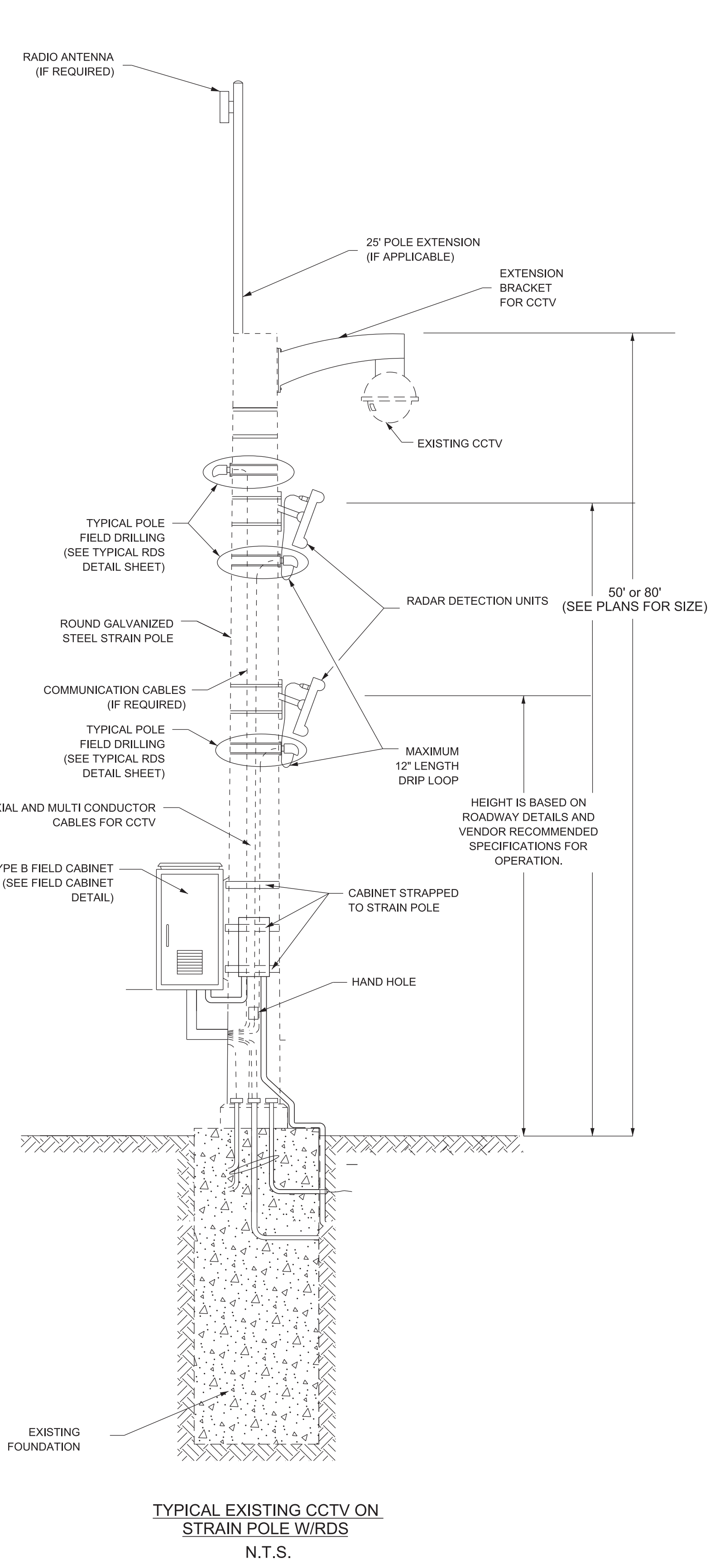
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
RDS DETAIL
ON LIGHT-POLE

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-11



- 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.
 2. ALL EQUIPMENT CONNECTIONS SHALL BE MADE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER.
 3. LOWERING DEVICE WIRES SHALL NOT COME INTO CONTACT WITH COMMUNICATION CABLES.
 4. ALL CONDUIT BETWEEN PULL BOXES AND THE POLE FOUNDATION SHALL BE INCLUDED IN THE COST OF OTHER PAY ITEMS AND SHALL BE NOT BE MEASURED SEPARATELY FOR PAYMENT.
 5. CONDUIT AND PULL BOXES AS SPECIFIED AND TABULATED ON THE PLAN SHEETS
 6. BOND RGS CONDUIT TO POLE GROUND ROD.
 7. CONCRETE MAINTENACE PAD COST INCLUDED IN THE COST OF CCTV POLE INSTALLATION.
 8. GPS COORDINATES OF EACH CCTV WITH RDS WILL BE RECORDED IN THE AS-BUILT PLANS TO BE TURNED IN WITH THIS PROJECT.

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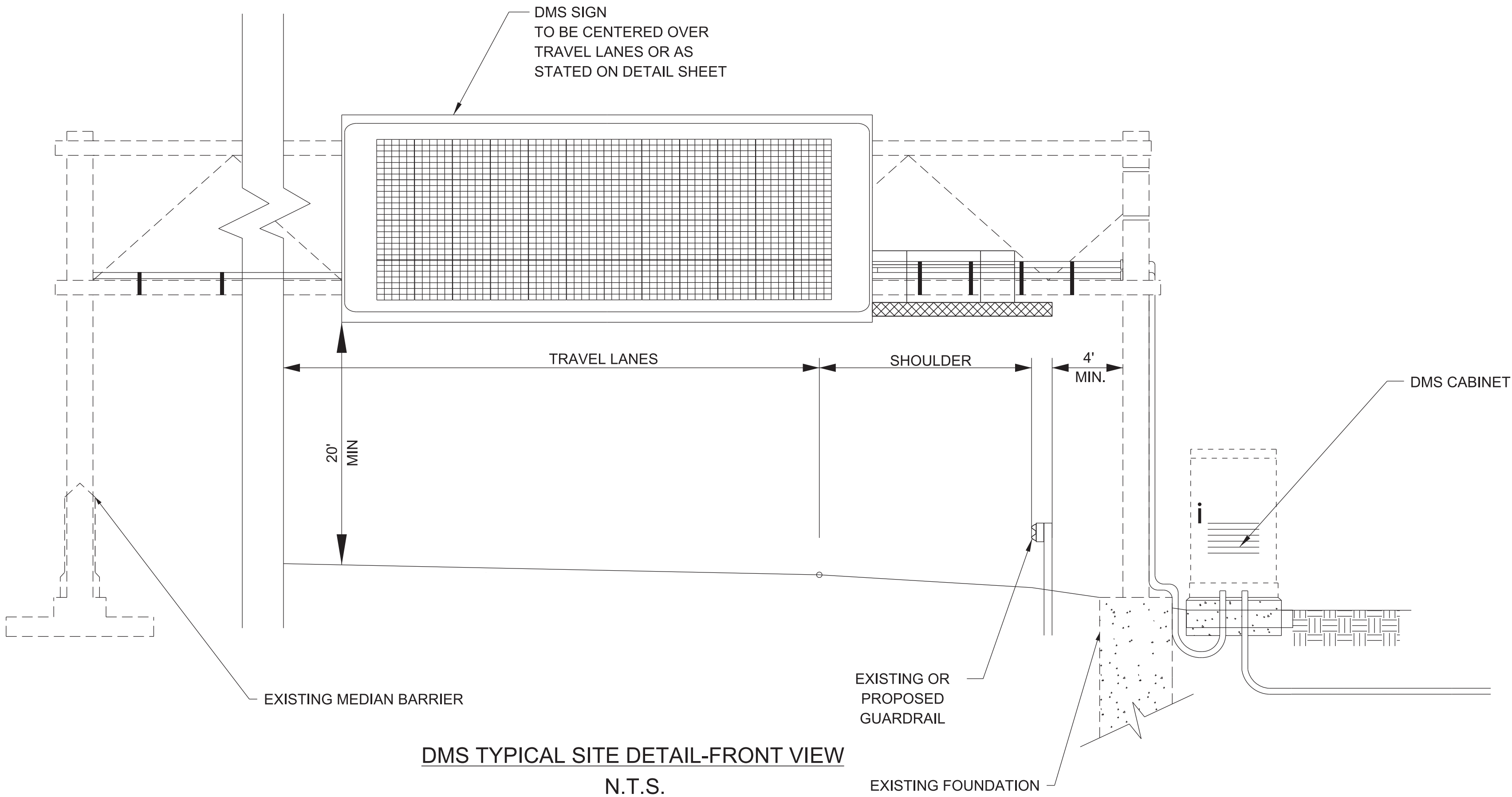
HEREDITH K. CEBALAK
REGISTERED ENGINEER
NO. 11987
STATE OF TENNESSEE
2/24/2022

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
CCTV AND
CCTV WITH
RDS DETAIL

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-12

NOTES:
* ALL EQUIPMENT CONNECTIONS SHALL BE MADE
ACCORDING TO MANUFACTURER RECOMMENDATIONS.



STRUCTURE NOTES:
1. PROVISIONS FOR WIRING AS WELL AS FOR GROUNDING MUST
BE PROVIDED. (FOR GROUNDING DETAILS SEE STD DWG.)

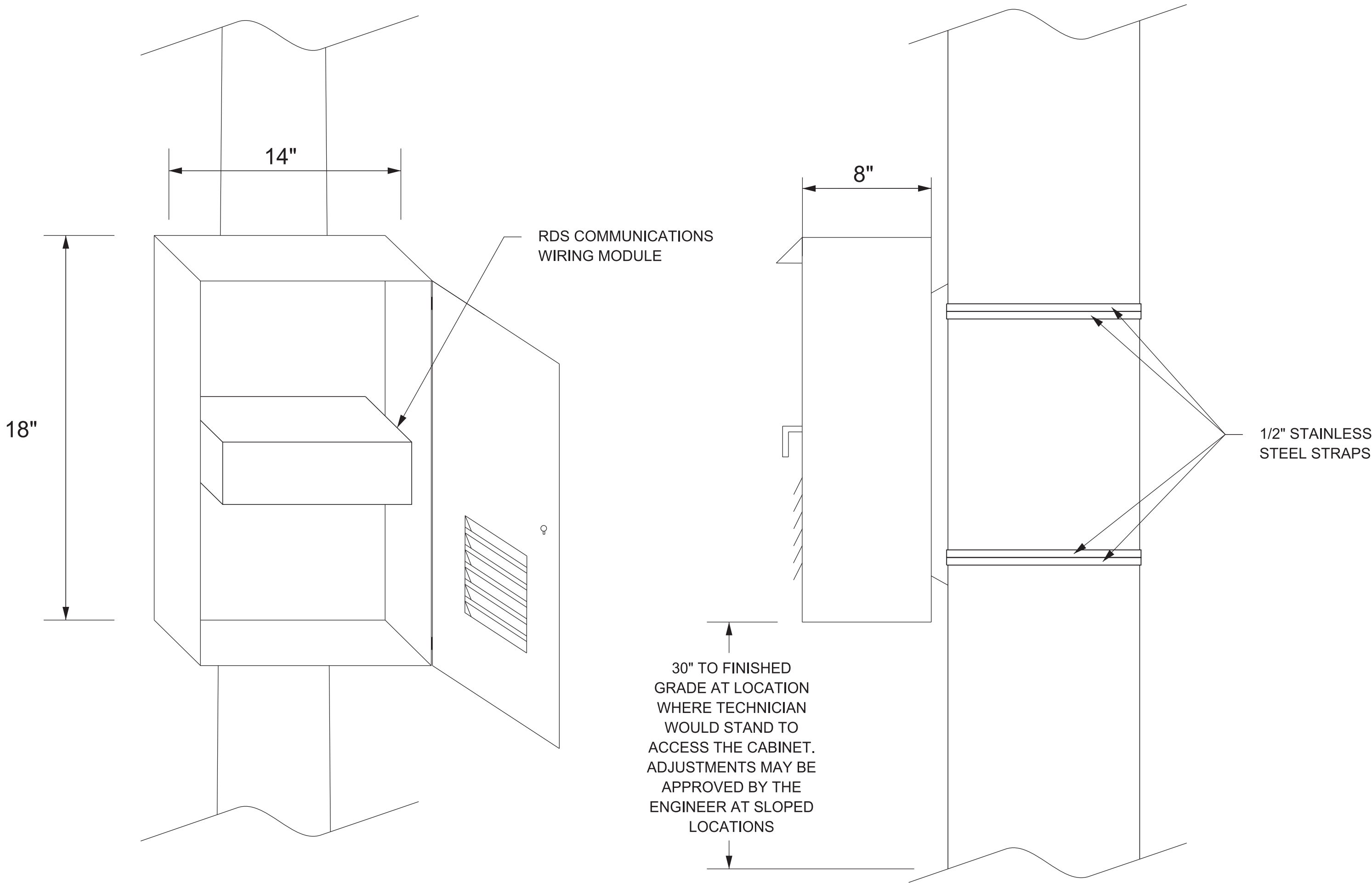


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL DMS SITE
REPLACEMENT DETAIL

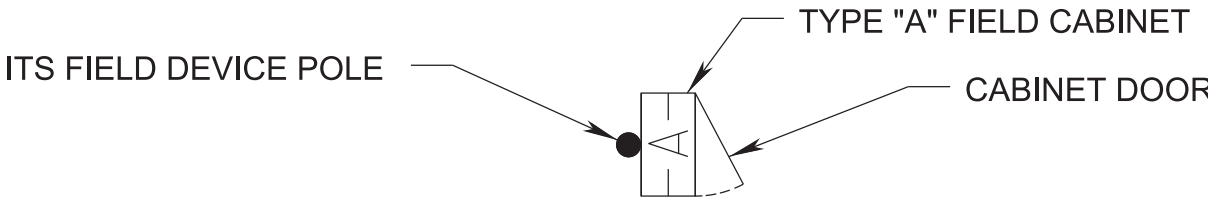
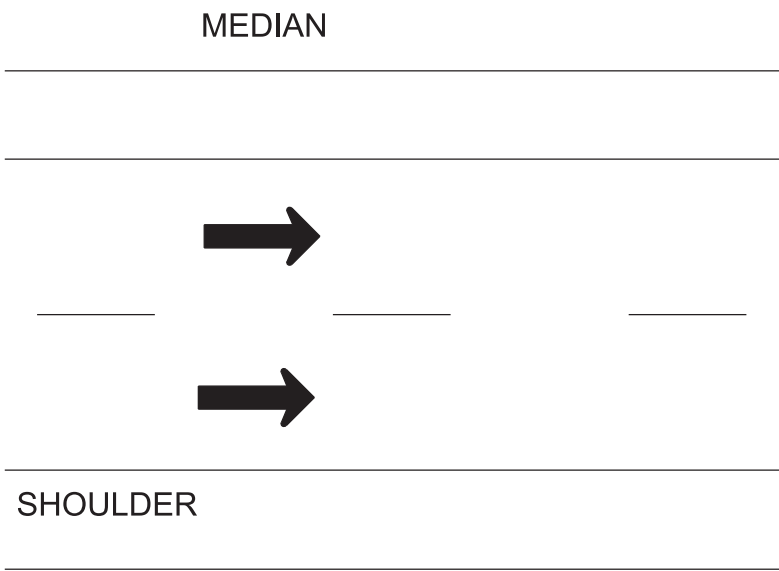
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-13



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 UPRIGHTS (PROPOSED STRAIN POLES, PROPOSED UTILITY POLES, PROPOSED SPAN SIGN SUPPORTS, EXISTING LIGHT POLES, EXISTING SPAN OR CANTILEVER SIGN SUPPORTS). REFER TO THE ITS PLAN SHEETS FOR INDIVIDUAL SITE REQUIREMENTS.
2. CABINETS SHALL BE LABELED WITH "TDOT ITS" AND DEVICE TYPE AND NUMBER. CABINET DIMENSIONS ARE NOMINAL MINIMUMS. SEE SPECIAL PROVISIONS FOR MORE CABINET DETAILS.

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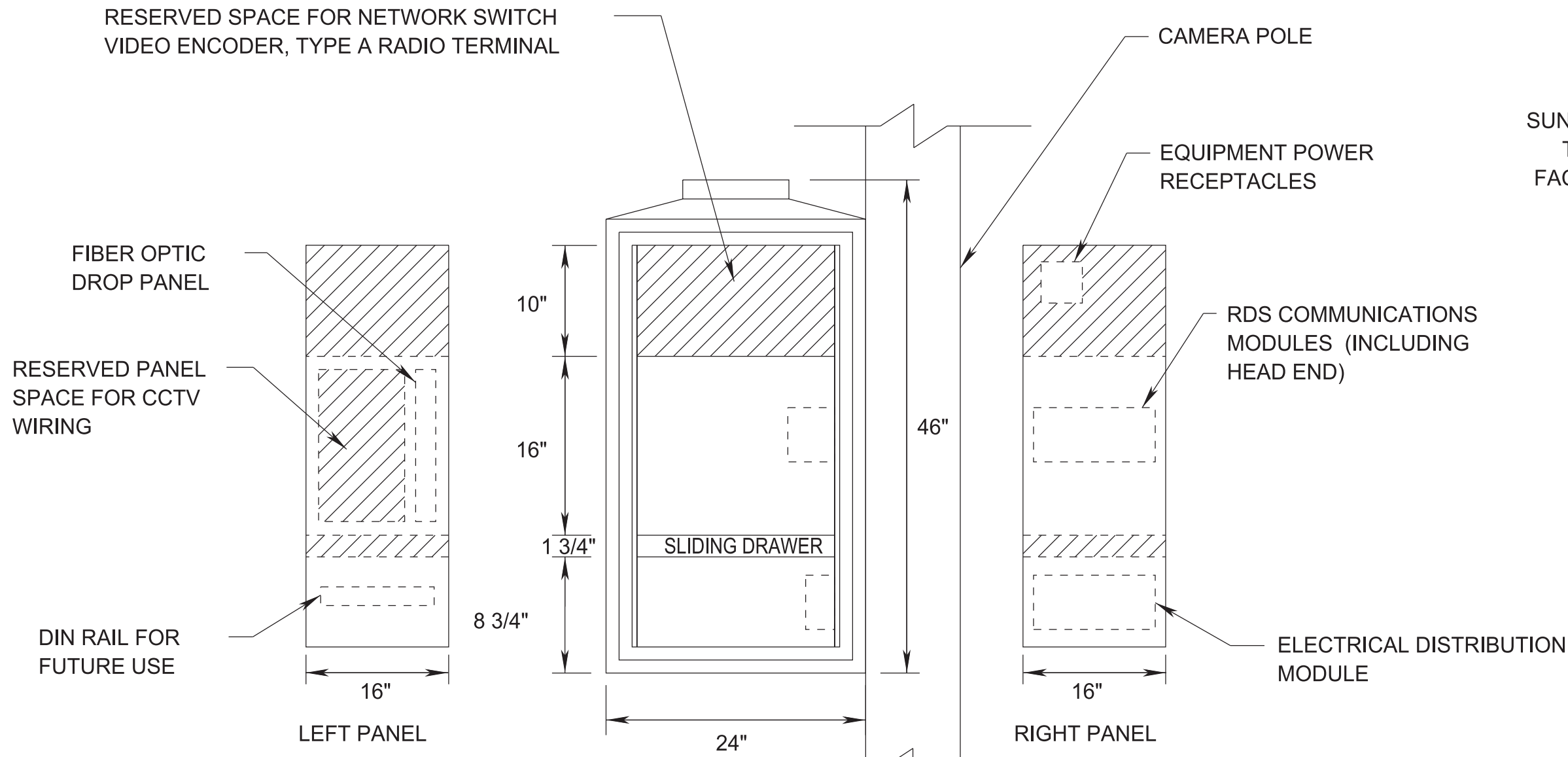


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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL FIELD
CABINET DETAILS
TYPE A

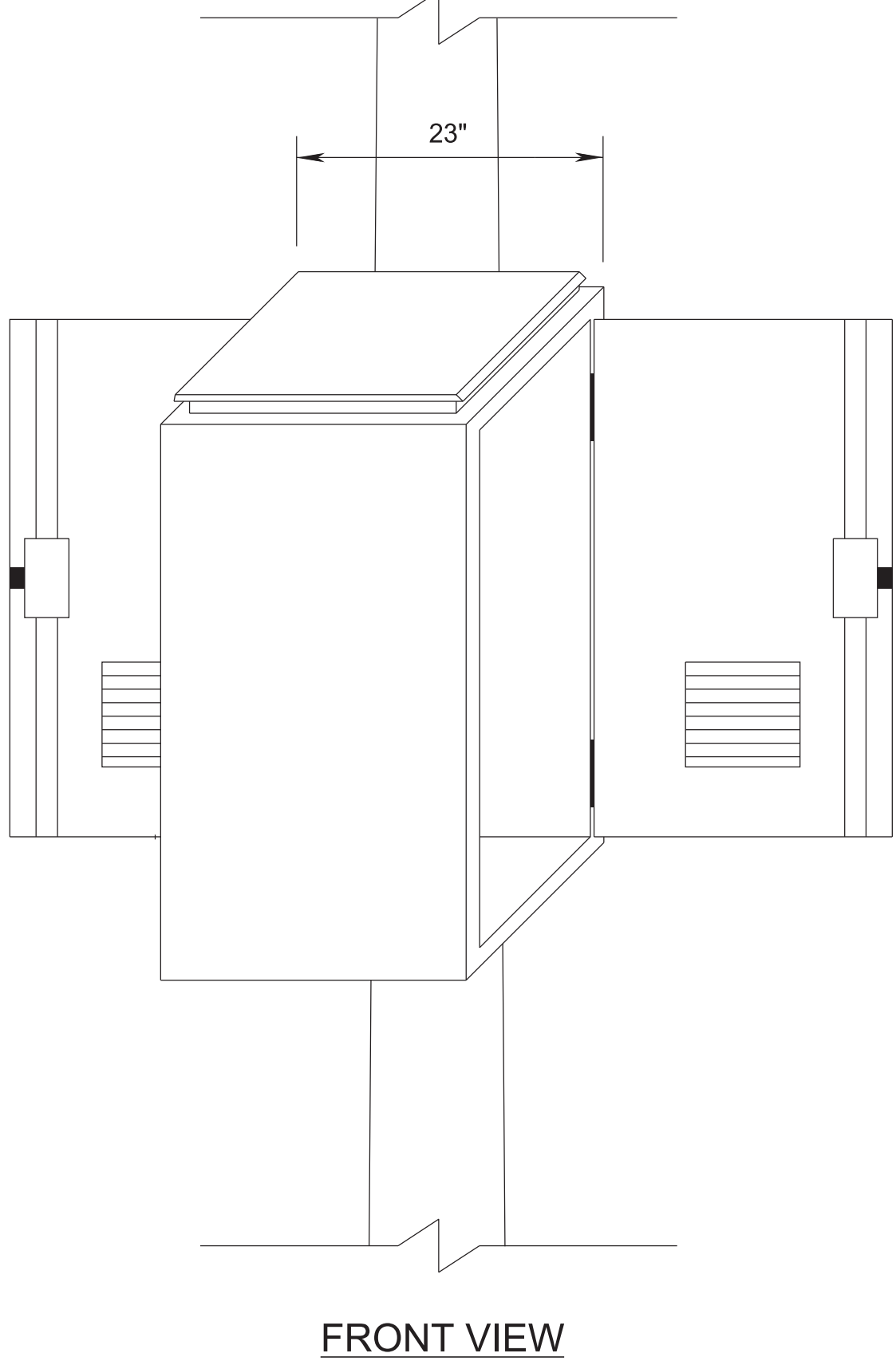
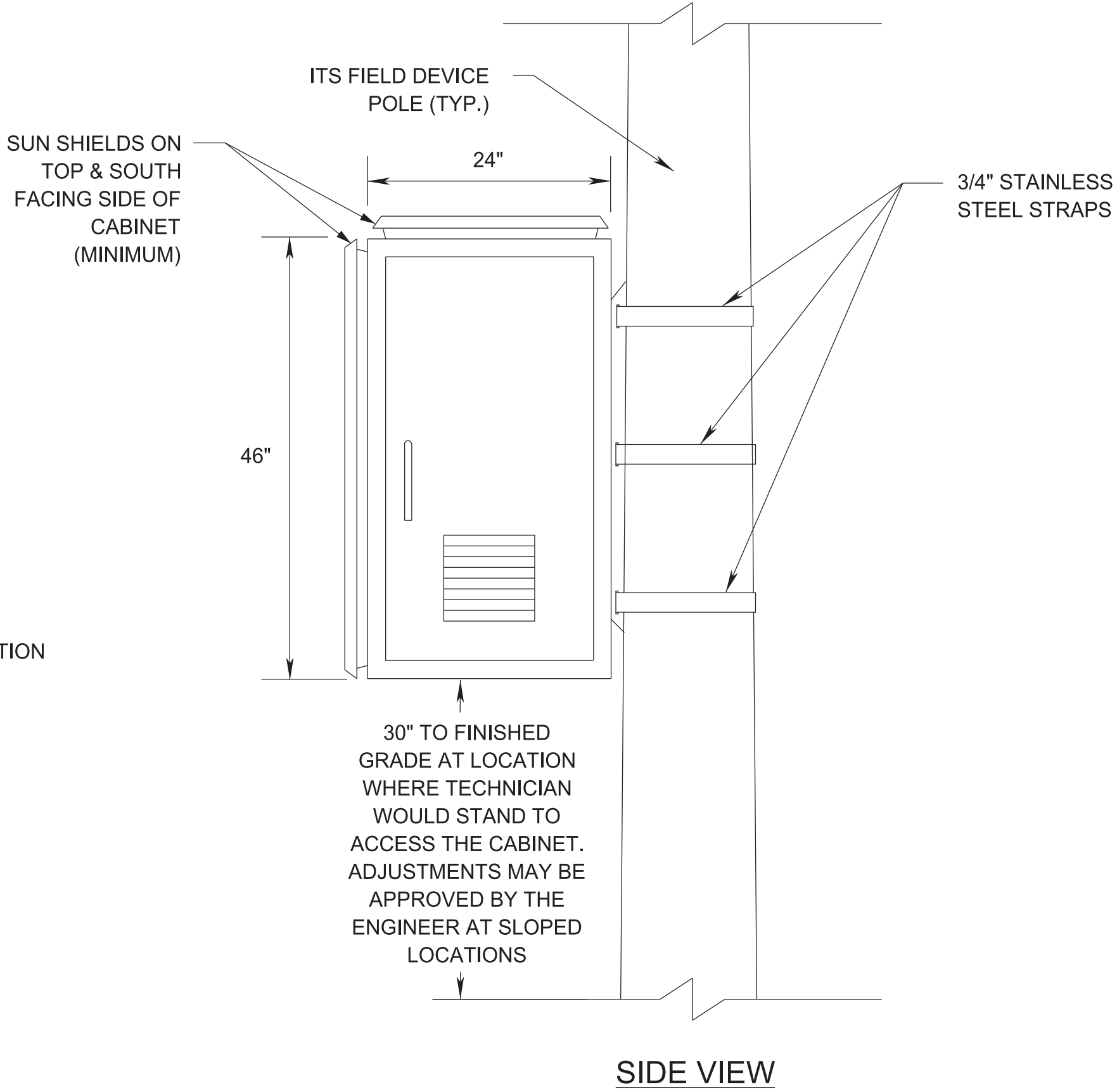
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-14



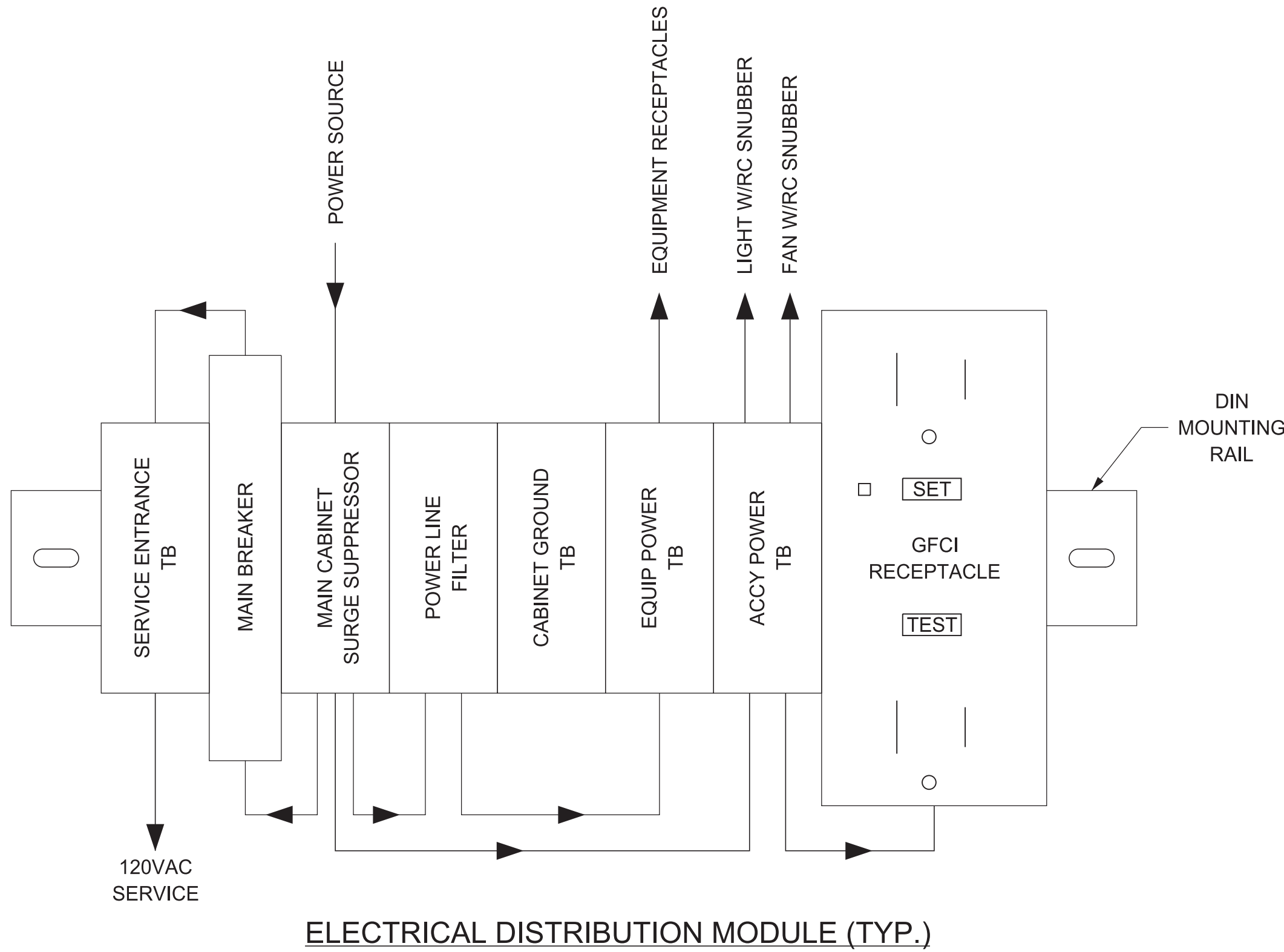
NOTES:

1. ALL DIMENSIONS AND SCALE ARE APPROXIMATE.

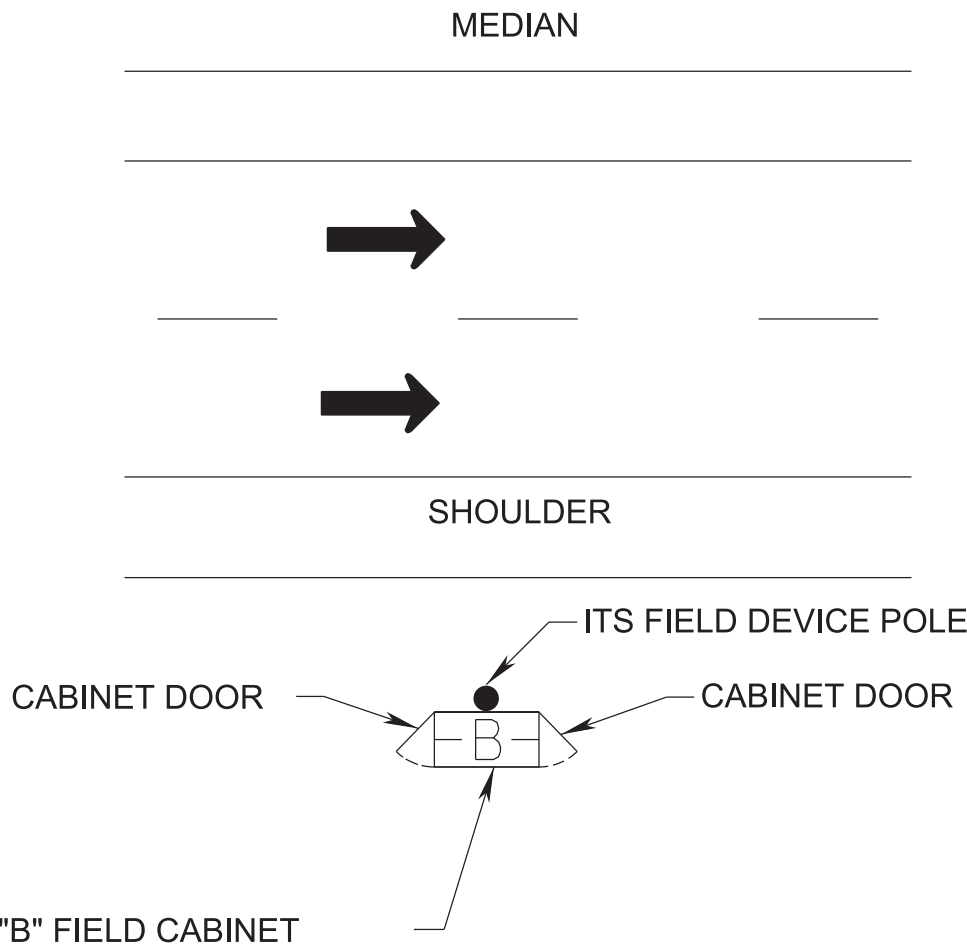
TYPE "B" FIELD CABINET LAYOUT FOR CCTV
N.T.S.



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



- NOTES:
1. FIELD CABINETS ARE ATTACHED TO A NUMBER OF DIFFERENT UPRIGHTS (PROPOSED STRAIN POLES, PROPOSED UTILITY POLES). REFER TO THE ITS PLAN SHEETS AND DETAIL SHEETS FOR INDIVIDUAL SITE REQUIREMENTS.
 2. CABINETS SHALL BE LABELED "TDOT ITS" WITH DEVICE NAME, TYPE, AND NUMBER. CABINET DIMENSIONS ARE NOMINAL MINIMUMS SEE SPECIAL PROVISIONS FOR MORE CABINET DETAILS.
 3. CABINET INSTALLATION INFORMATION CAN BE FOUND IN TDOT SPECIFICATIONS PROVISION 725.
 4. CABINET DOORS SHALL OPEN AWAY FROM TRAFFIC.



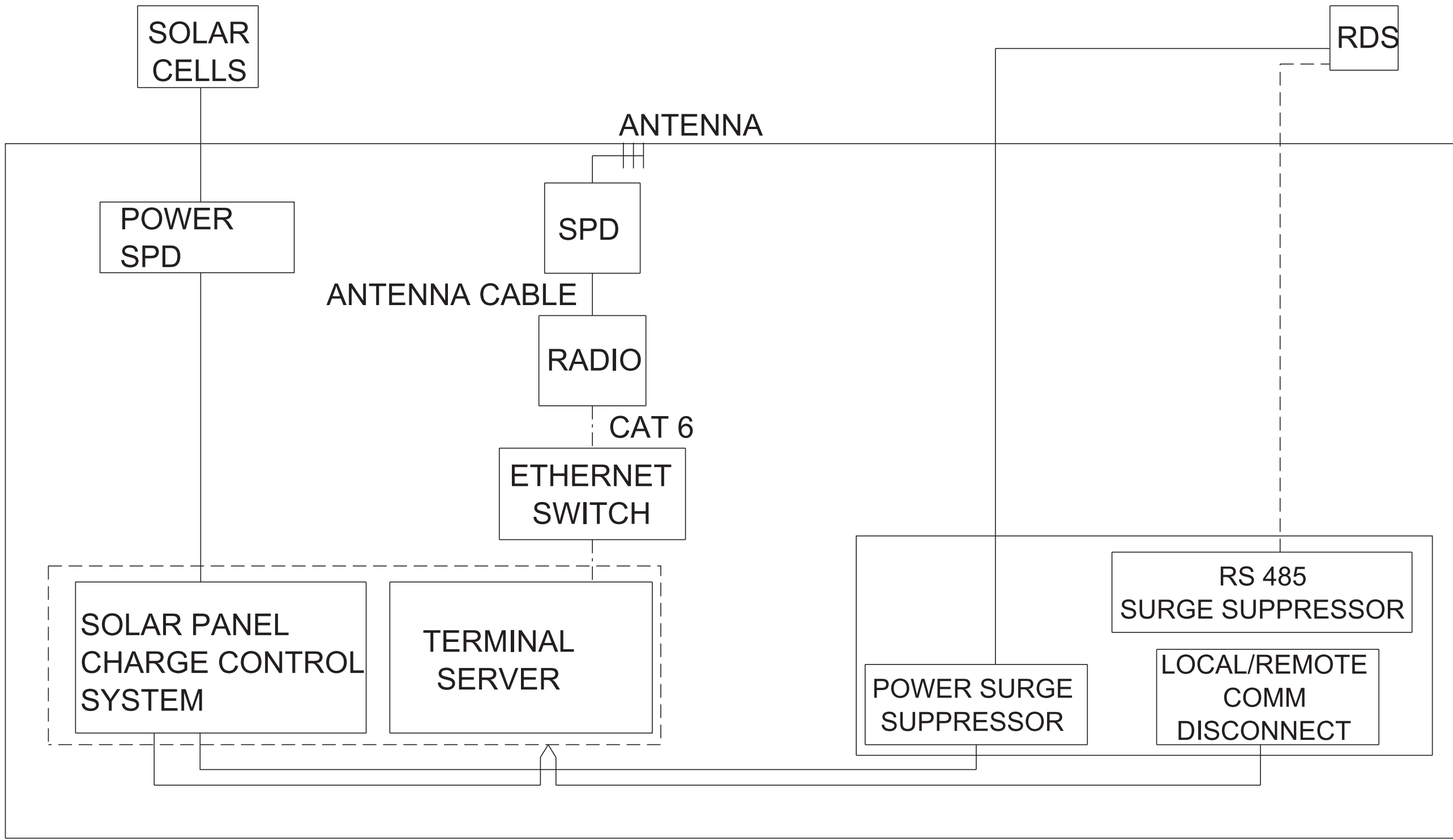
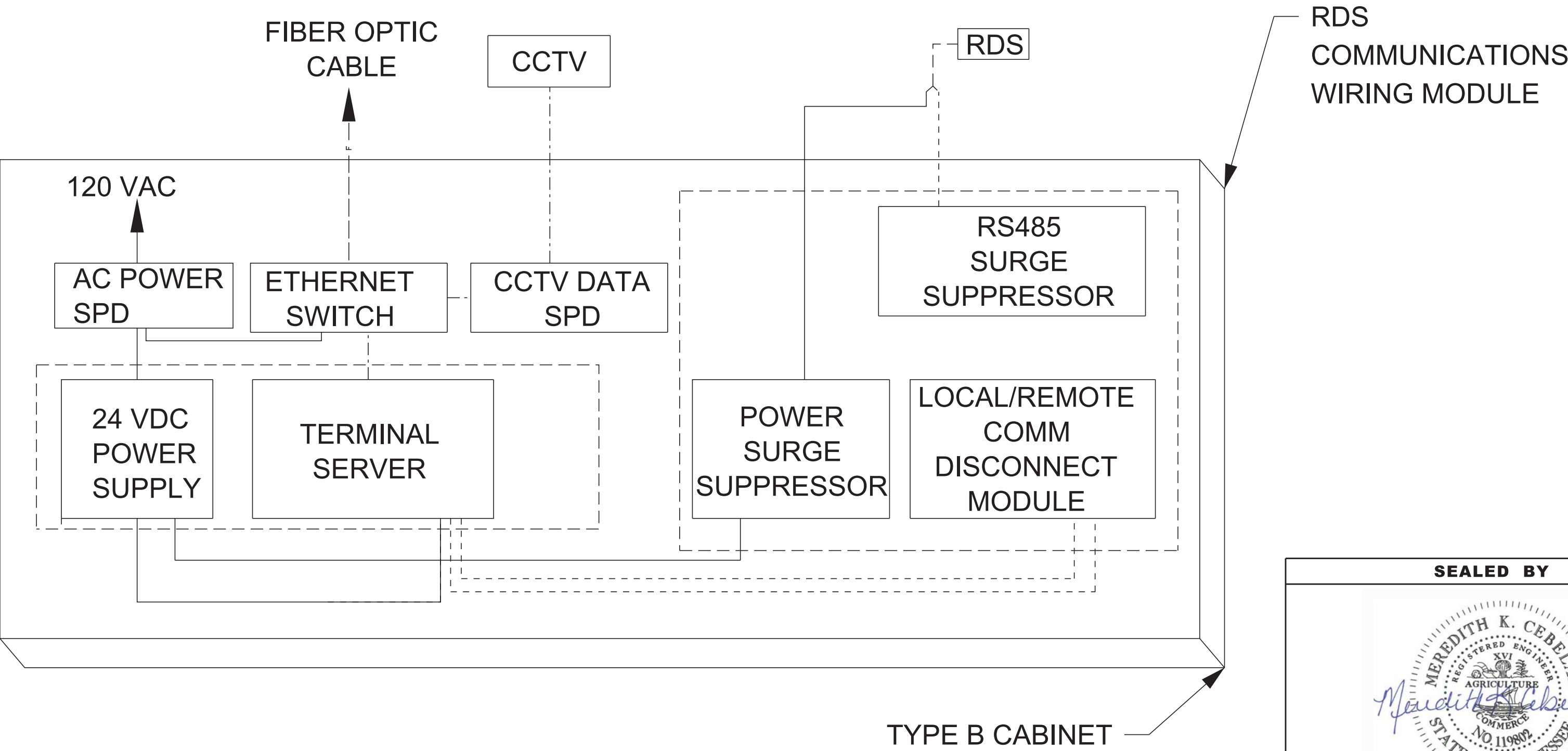
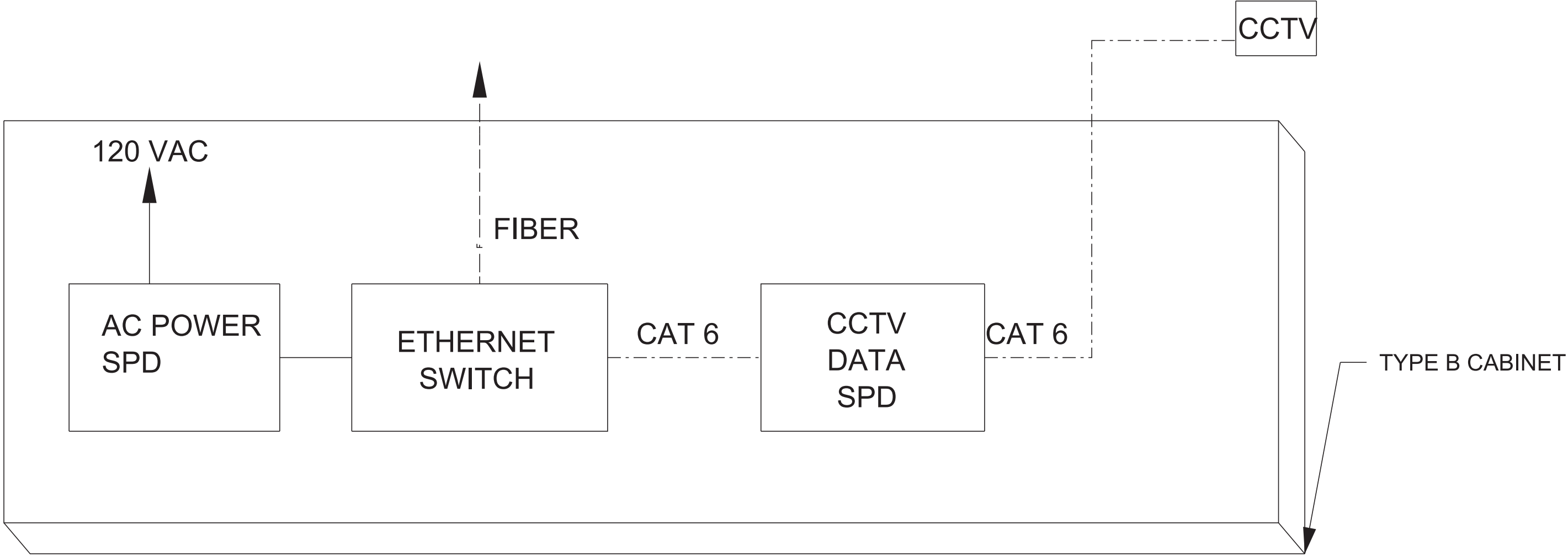
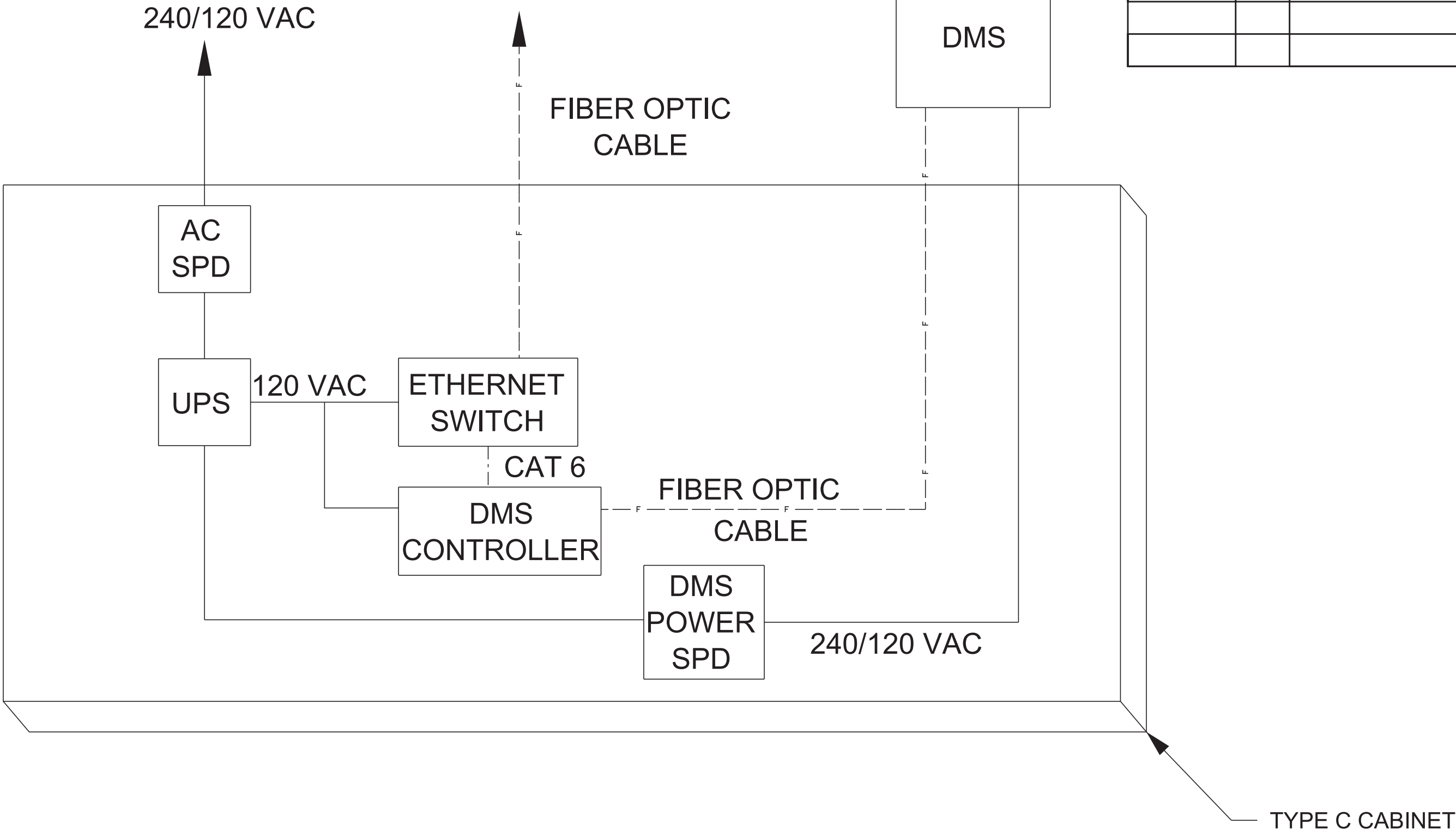
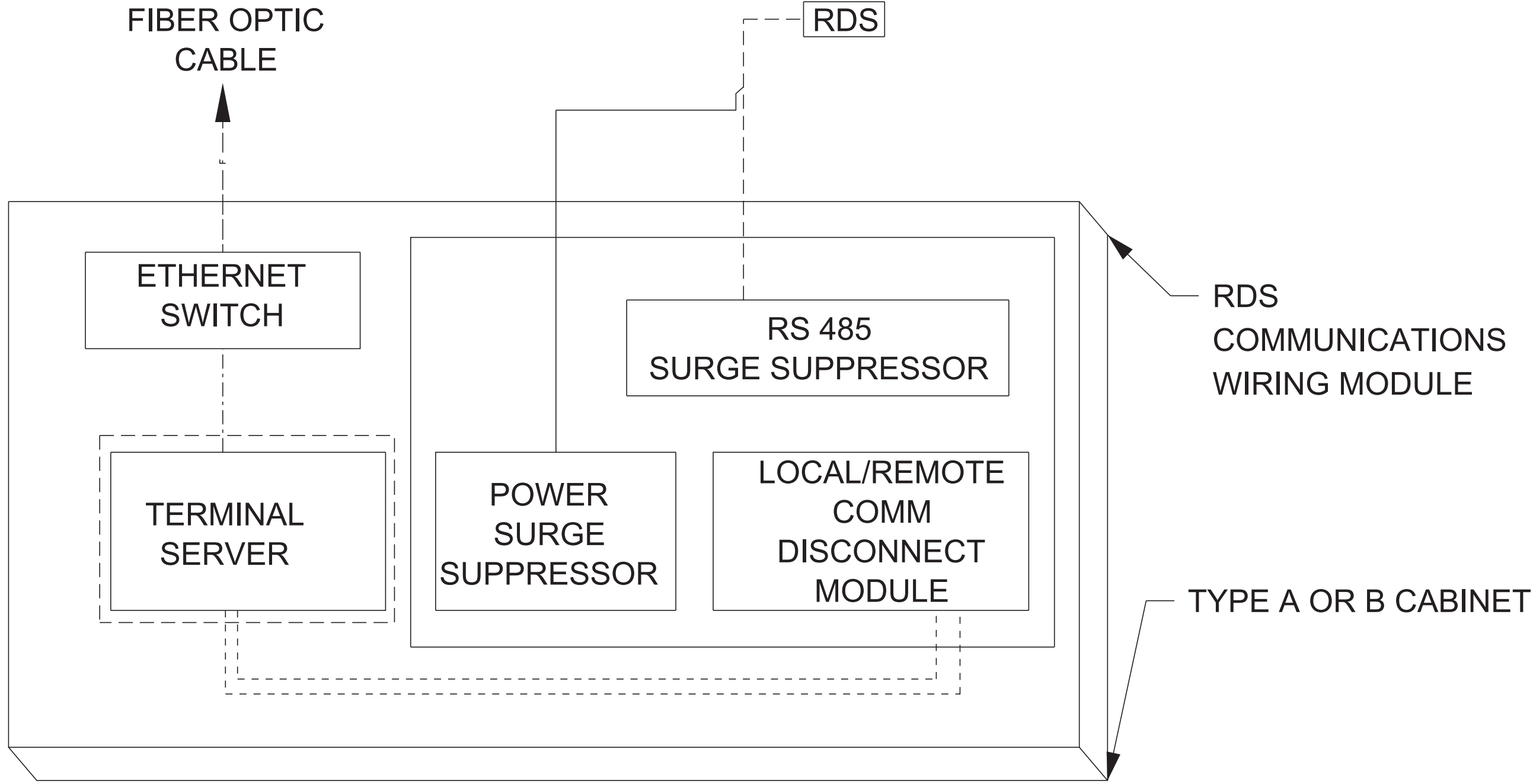
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION


TYPICAL FIELD
CABINET DETAILS
TYPE B

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-15



LEGEND	
—————	12-24 VDC
-----	RS 485
-----	RDS COMM CABLE (COMPOSITE CABLE): TWO SHIELDED PAIR #22 WITH SHIELD/SIGNAL GROUND AND TWO #14 POWER CONDUCTORS
- - - - -	FIBER OPTIC CABLE
.....	CAT 6

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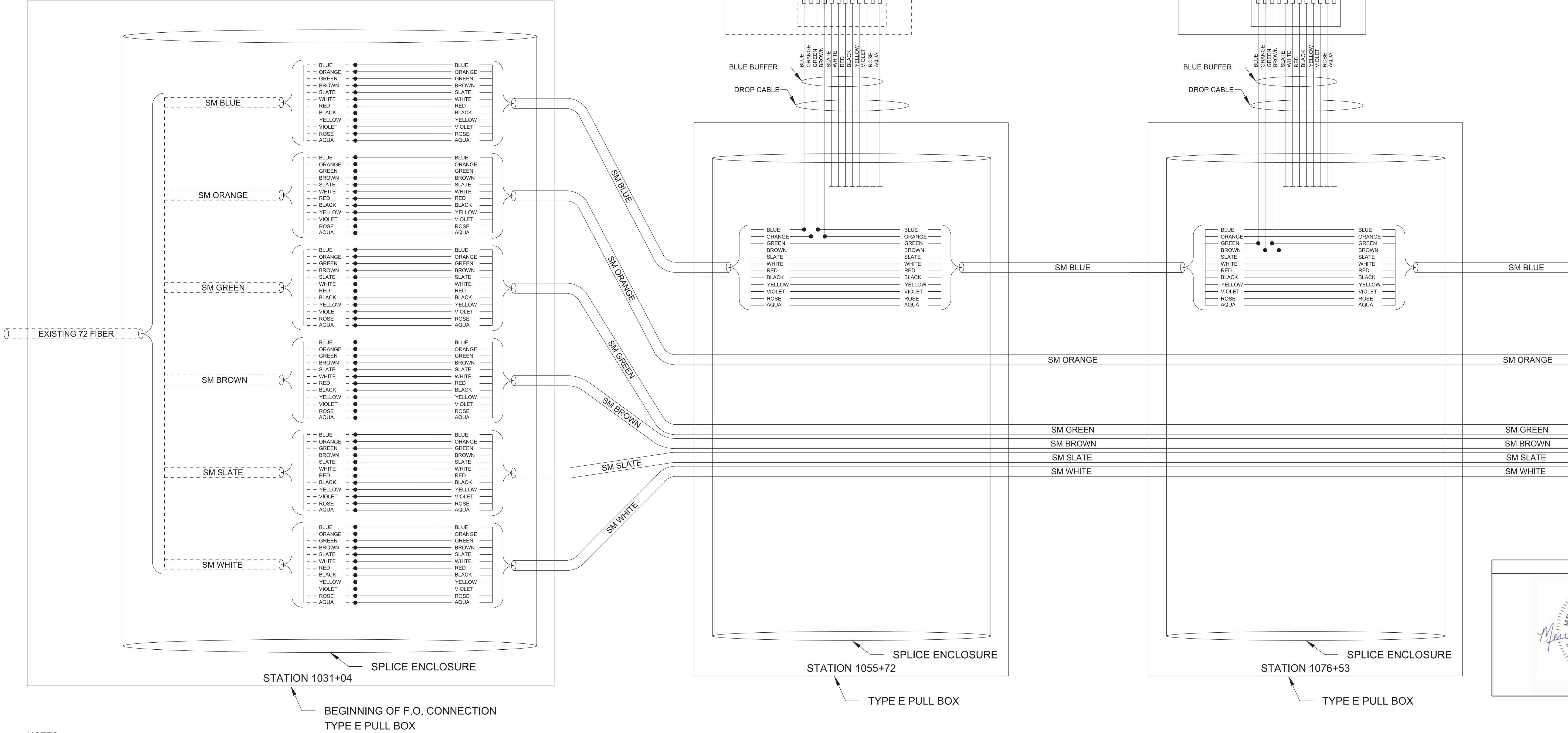
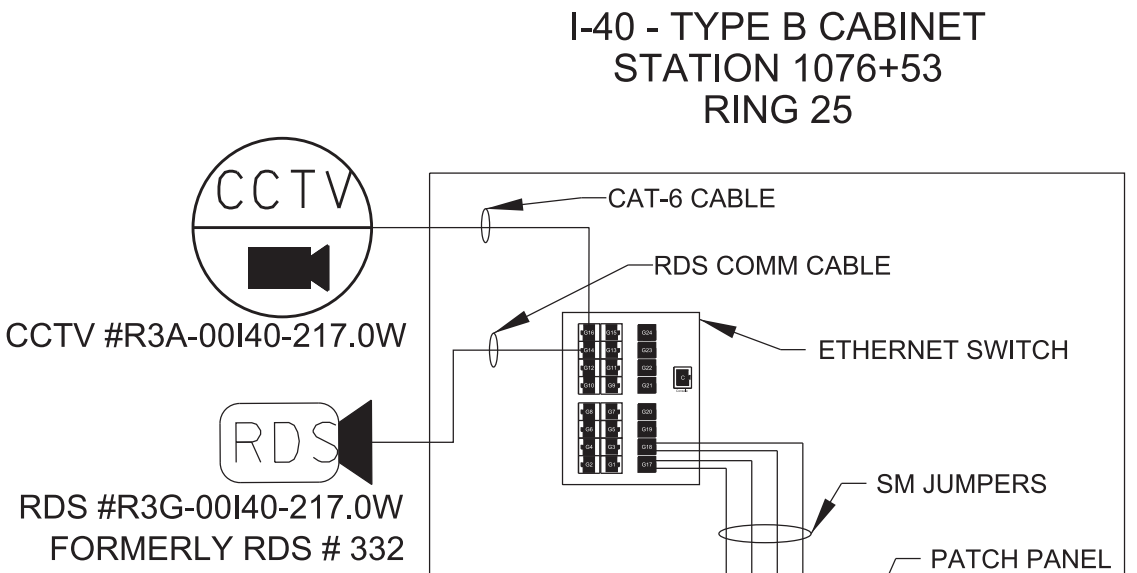
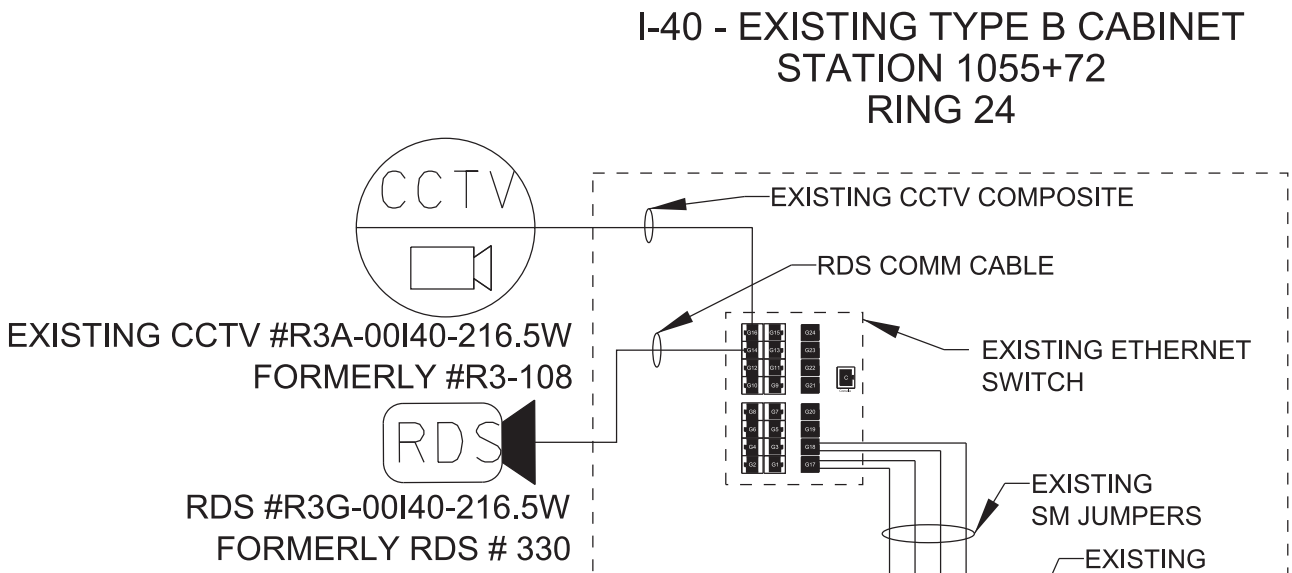


2/24/2022

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL RDS, CCTV
AND DMS
CABINET
SCHEMATIC

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-16



- NOTES:
1. REEL-TO-REEL CABLES ARE FUSION SPLICED COLOR-TO-COLOR.
 2. DARK FIBERS COILED WHEN TERMINATED.
 3. CONTRACTOR TO COORDINATE WITH TDOOT PRIOR TO ANY WORK THAT CONNECTS TO EXISTING FIBER OPTIC CABLE.
 4. CONTRACTOR RESPONSIBLE FOR CONNECTING FIBER OPTIC JUMPERS TO FIELD SWITCHES WITH CORRECT TRANSMIT AND RECEIVE CIRCUIT PAIRS.

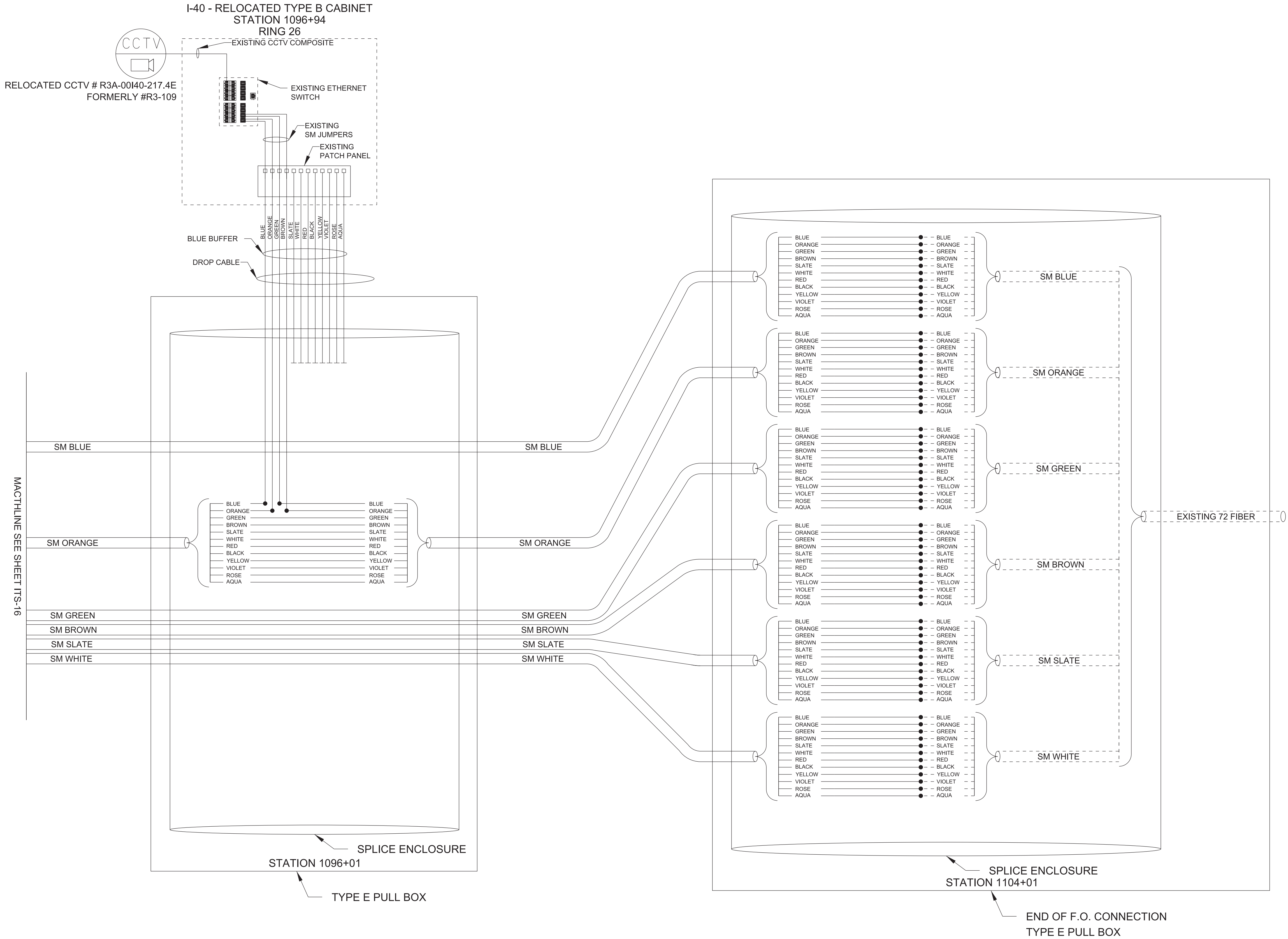
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DEPARTMENT OF TRANSPORTATION

SPLICING DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-17



NOTES:

1. REEL-TO-REEL CABLES ARE FUSION SPLICED COLOR-TO-COLOR.
2. DARK FIBERS COILED WHEN TERMINATED.
3. CONTRACTOR TO COORDINATE WITH TDOT PRIOR TO ANY WORK THAT CONNECTS TO EXISTING FIBER OPTIC CABLE.
4. CONTRACTOR RESPONSIBLE FOR CONNECTING FIBER OPTIC JUMPERS TO FIELD SWITCHES WITH CORRECT TRANSMIT AND RECEIVE CIRCUIT PAIRS.

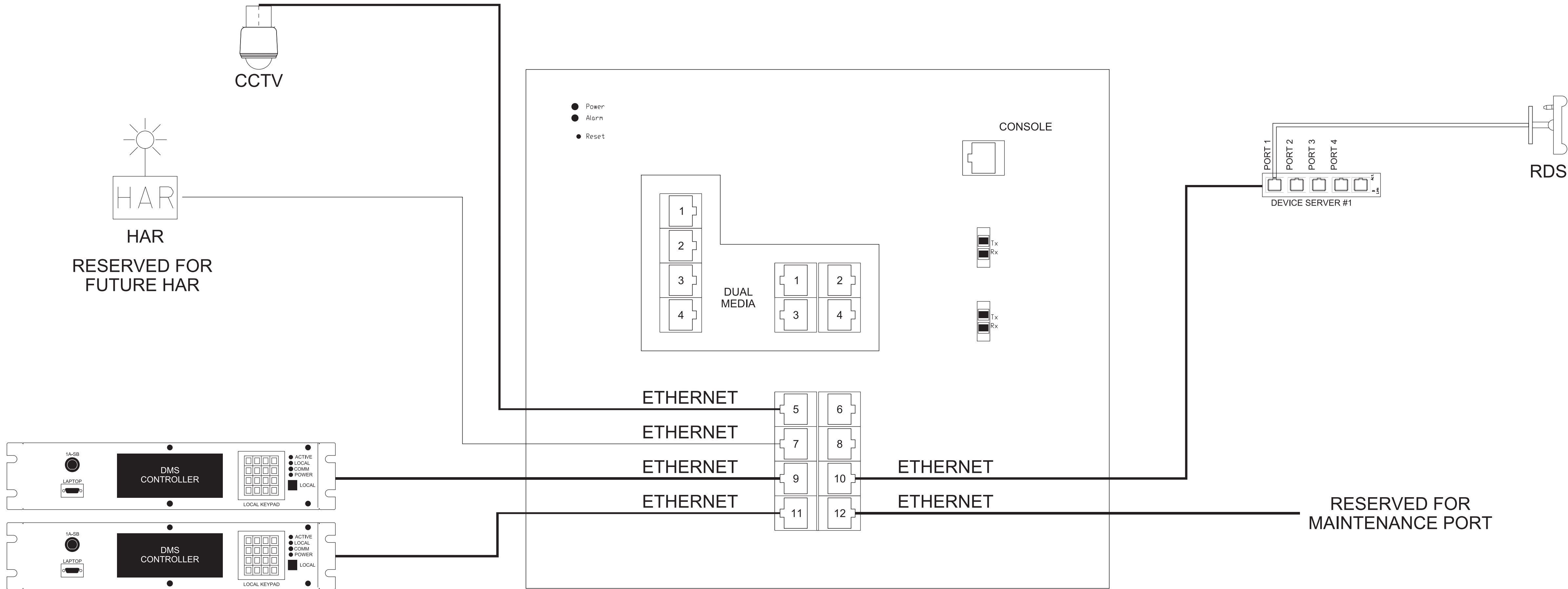
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DEPARTMENT OF TRANSPORTATION

SPLICING DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-18



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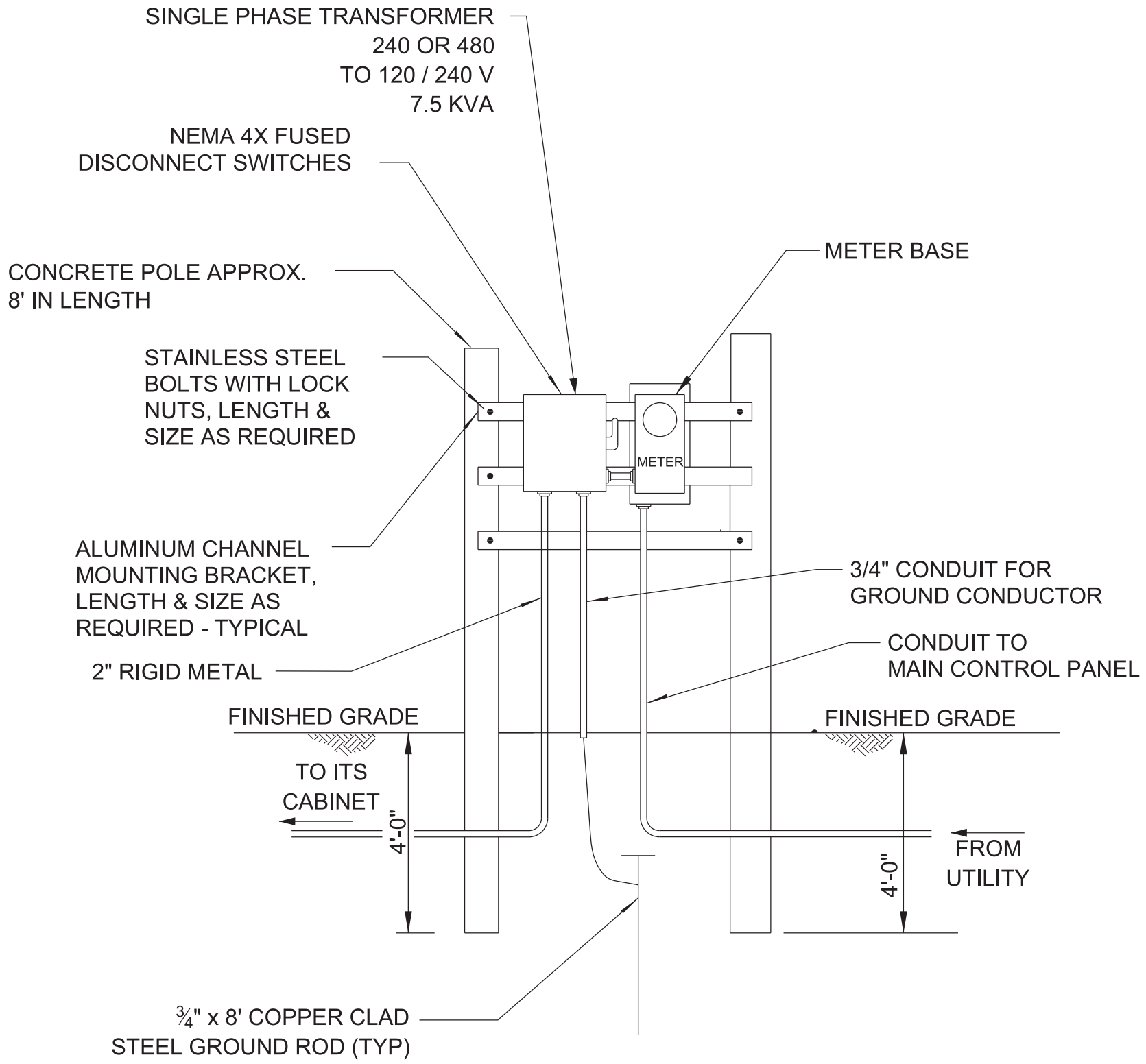


2/24/2022

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL FIELD SWITCH
PORT ASSIGNMENT
DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-3(164)	ITS-19



UNDERGROUND DEMARCATION ARRANGEMENT

N.T.S.

NOTES:

1. ALL EQUIPMENT CONNECTIONS SHALL BE MADE ACCORDING TO MANUFACTURER RECOMMENDATIONS AND APPROVED BY THE ENGINEER.
2. COORDINATE ELECTRICAL SERVICE CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANIES AS NOTED ON THE PLANS. SEE SPECIAL NOTES FOR FURTHER GUIDANCE.
3. THERE SHALL BE A MINIMUM 40-INCH SEPARATION BETWEEN POWER AND COMMUNICATION WEATHERHEADS.
4. ENTIRE INSTALLATION MUST MEET OR EXCEED ALL LOCAL AND NATIONAL ELECTRICAL CODES.
5. LOCATIONS OF PULL BOXES SHOWN IN ABOVE DETAILS ARE GENERIC. REFER TO INDIVIDUAL ITS LAYOUT SHEETS FOR RECOMMENDED LOCATIONS.
6. METER BASES ARE REQUIRED FOR ALL ELECTRICAL DEMARCATION SITES AND SHALL BE PROVIDED BY THE CONTRACTOR.
7. THE ELECTRICAL AND COMMUNICATIONS CABLES THAT RUN TO THE INDIVIDUAL ITS FIELD CABINETS ARE CALLED OUT ON THE INDIVIDUAL ITS LAYOUT SHEETS.
8. A DRIP LOOP SHALL BE APPLIED TO ALL CABLING ENTERING A WEATHERHEAD.
9. WOOD POLE CLASS, HEIGHT, BURIAL DEPTH, AND GUYING REQUIREMENTS SHALL BE DETERMINED BASED UPON LENGTH OF AERIAL FEED AND MEET LOCAL AND NATIONAL ELECTRICAL CODES.
10. CONTRACTOR TO COORDINATE THE SIZE AND TYPE OF ELECTRICAL SERVICE CABLES WITH THE APPROPORATE UTILITY COMPANIES.

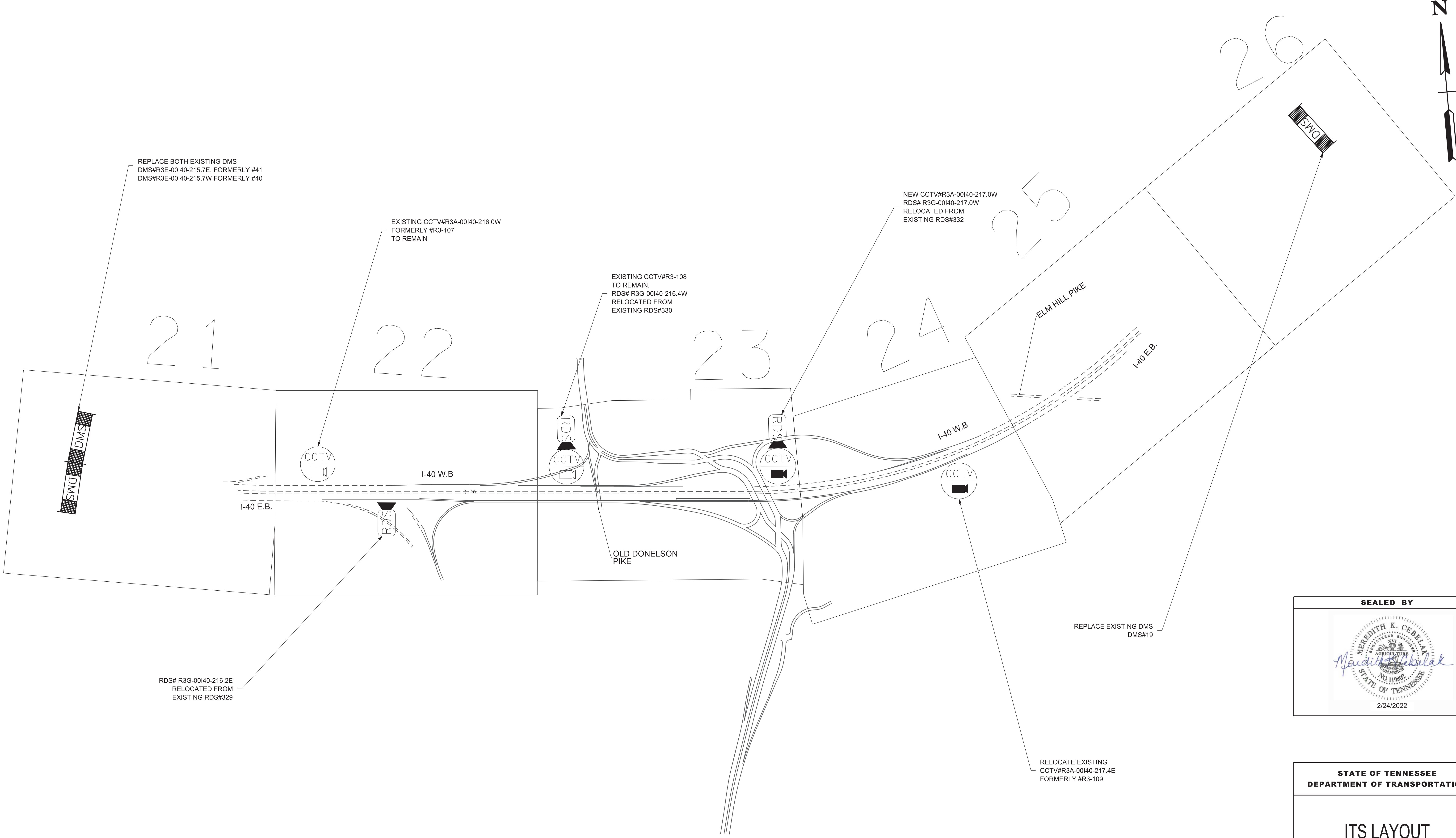
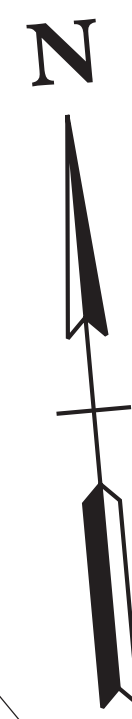
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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TYPICAL
DEMARCATION
SITE
DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-20



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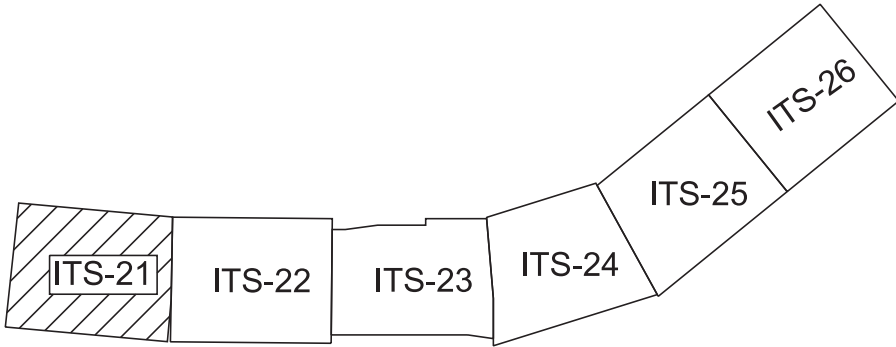
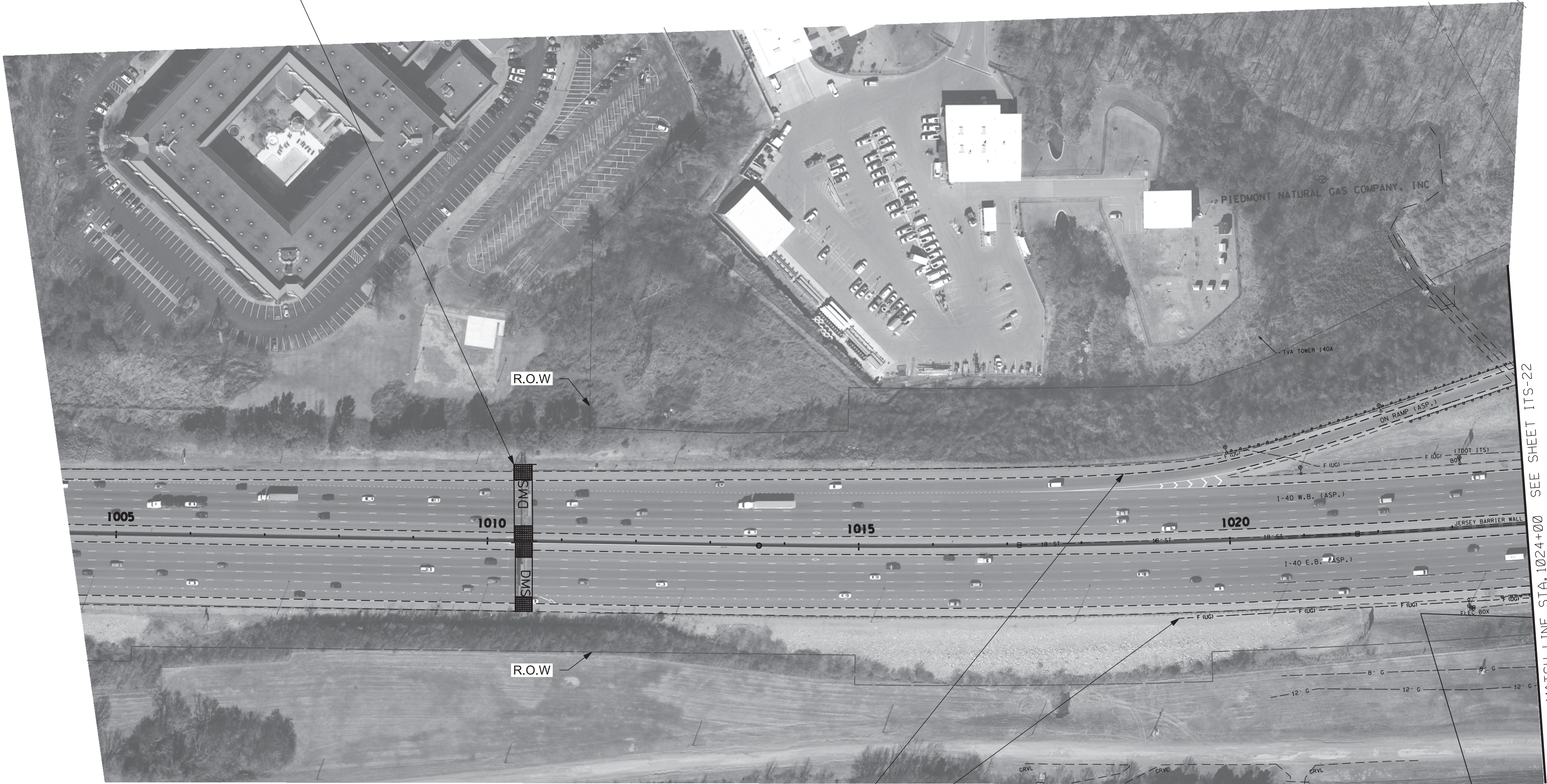
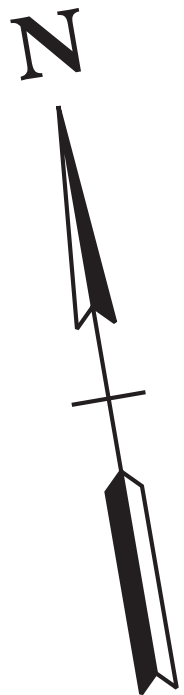
2/24/2022

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS LAYOUT
KEY SHEET

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-21

REMOVE EXISTING DMS #R3E-00140-215.7E & #R3E-00140-215.7W
FORMERLY 40(EB) & 41(WB), DMS WIRING, DMS
CONTROLLER, AND DMS COMMUNICATIONS INTERFACE.
INSTALL COLOR DMS IN PLACE INCLUDING DMS WIRING, DMS
CONTROLLER, AND DMS COMMUNICATIONS INTERFACE.



SHEET INDEX



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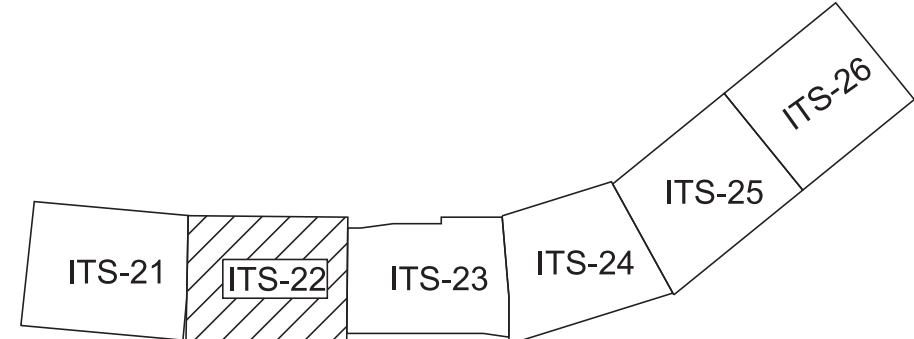
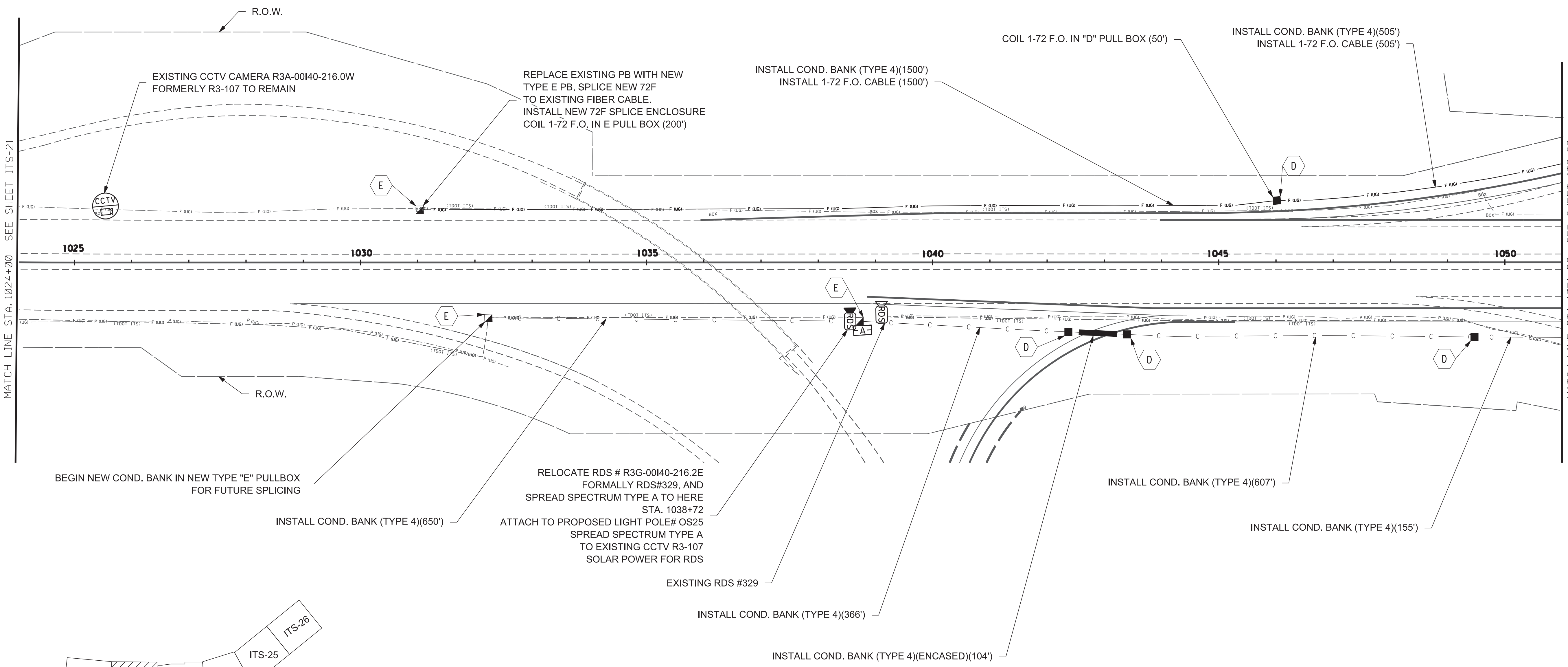
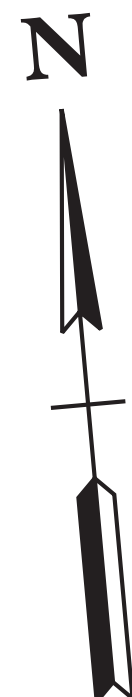
2/24/2022

COORDINATES ARE NAD/83(1995),
ARE DATUM ADJUSTED BY THE
FACTOR OF 1.00006 AND TIED TO
THE TGRN. ALL ELEVATIONS ARE
REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS PLANS
STA. 1005+00 TO STA.1024+00
SCALE: 1"=100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-22



SHEET INDEX



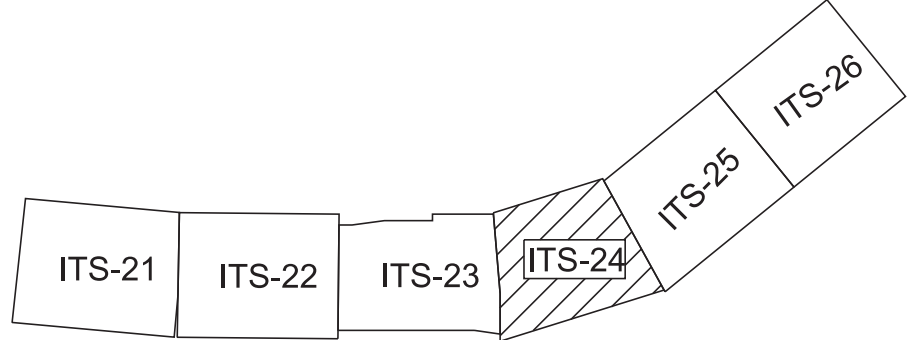
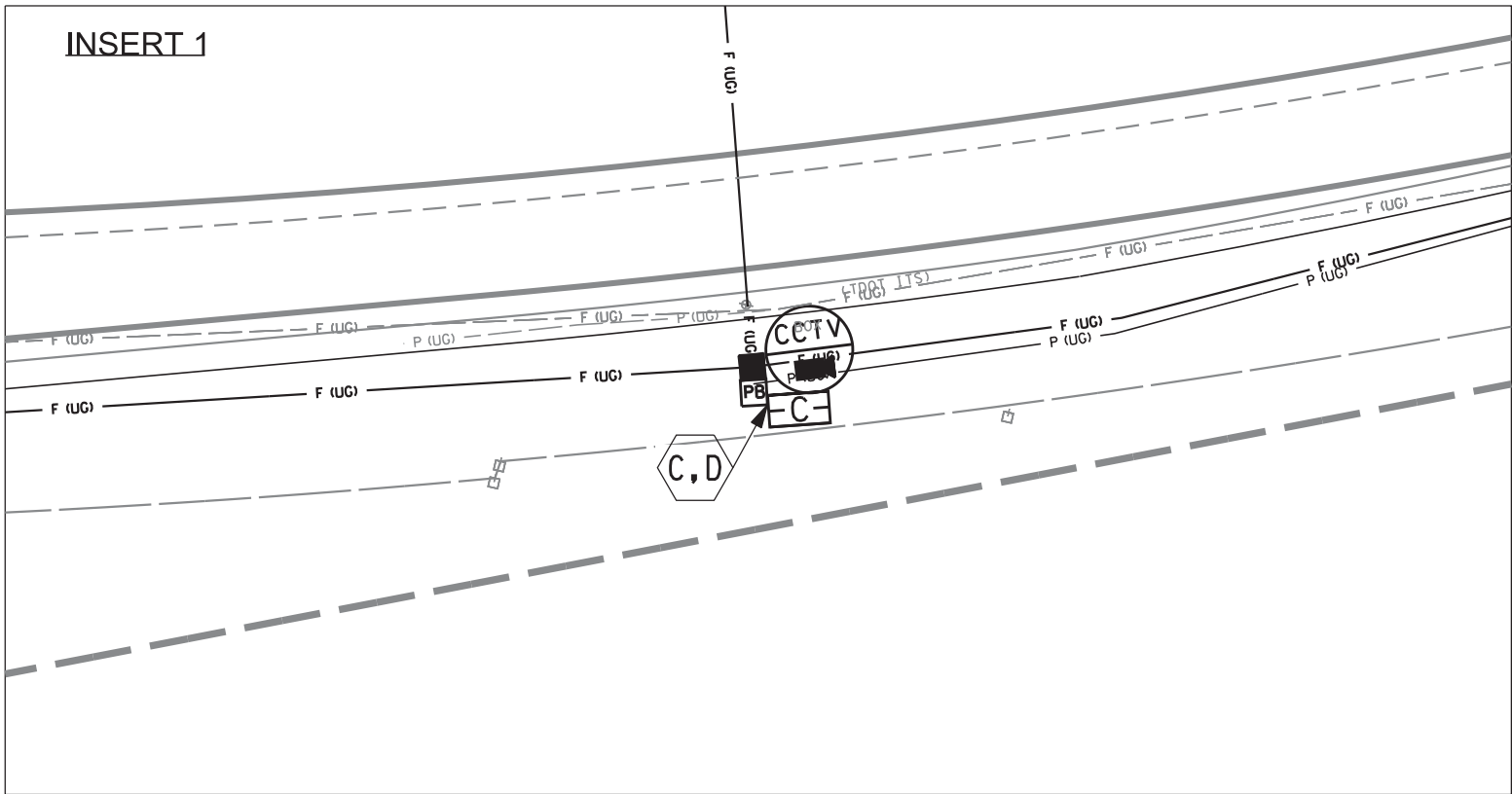
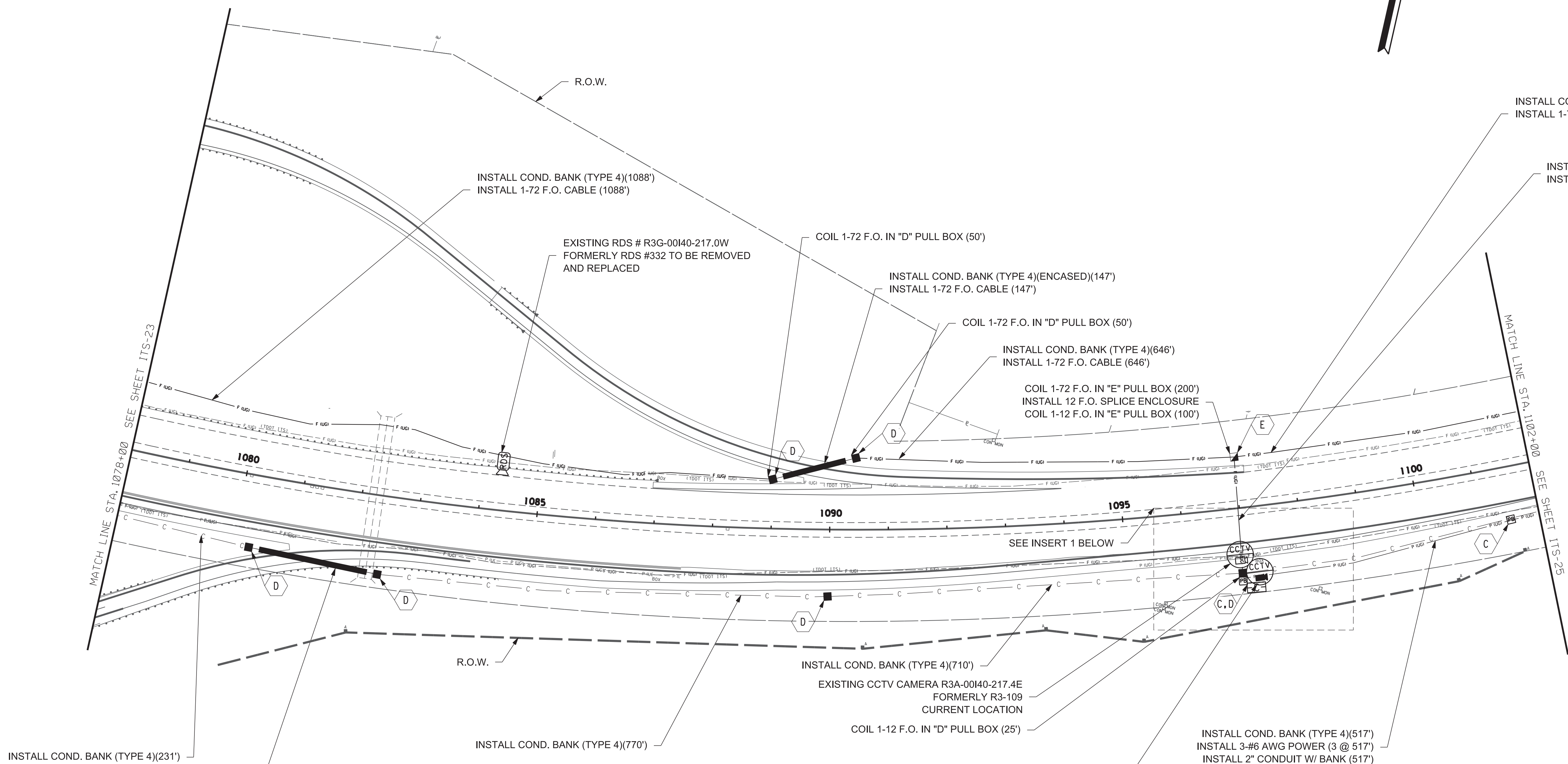
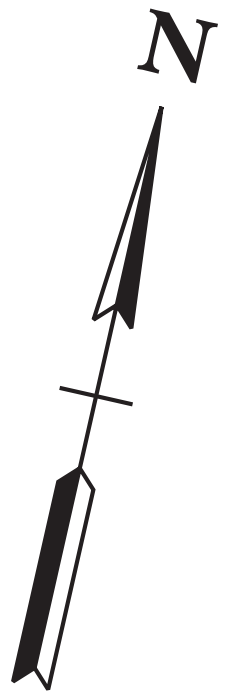
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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS PLANS
STA.1024+00 TO STA.1051+00
SCALE: 1"=100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-24



SEALED BY

2/24/2022

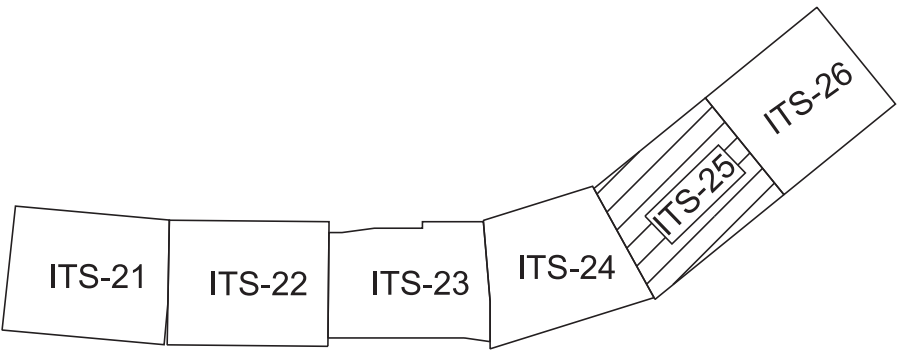
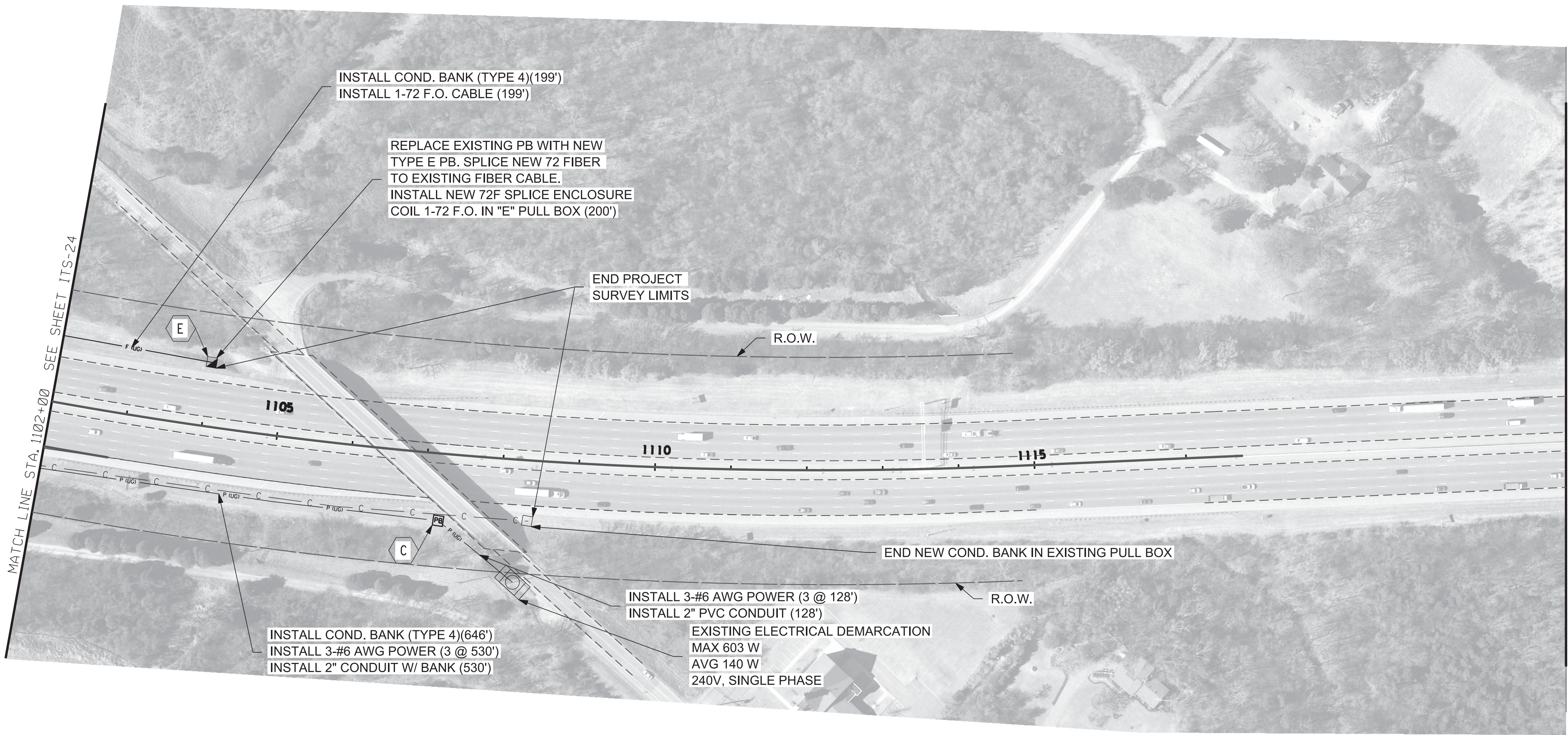
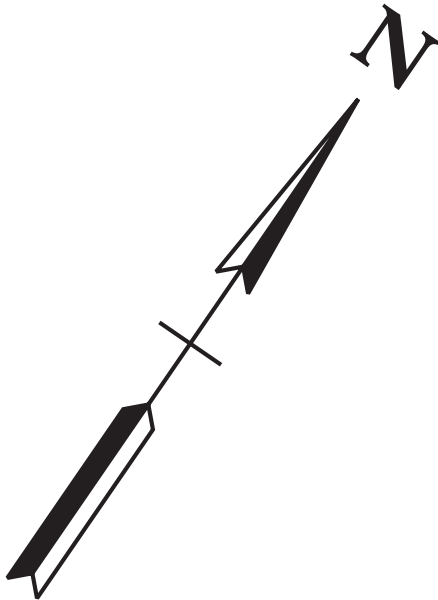
COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS PLANS
STA.1078+00 TO STA.1102+00
SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-25



SHEET INDEX



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2/24/2022

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

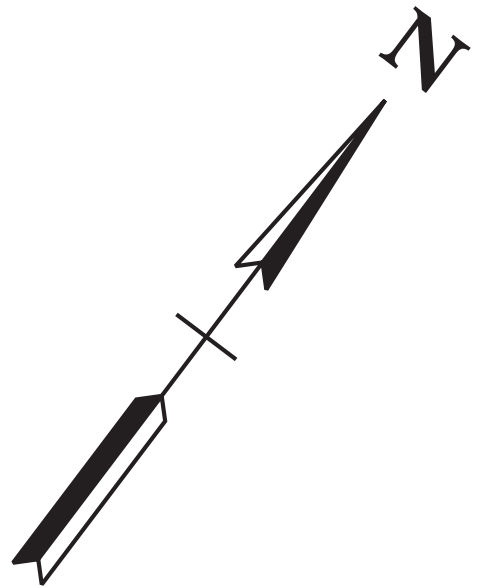
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS PLANS

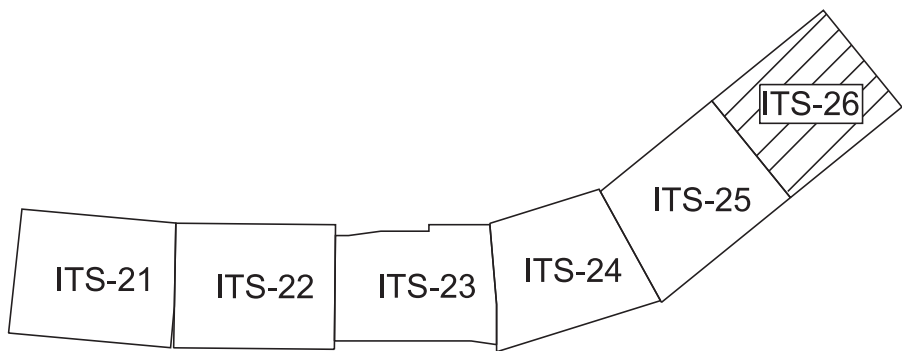
STA.1102+00 TO E.O.P.

SCALE: 1"=100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2022	NH-I-40-5(146)	ITS-26



REMOVE EXISTING DMS# R3E-00I40-218.1W FORMERLY #19(WB), DMS WIRING, DMS CONTROLLER, AND DMS COMMUNICATIONS INTERFACE. INSTALL COLOR DMS IN PLACE INCLUDING DMS WIRING, DMS CONTROLLER, AND DMS COMMUNICATIONS INTERFACE.



SHEET INDEX



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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.00006 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ITS PLANS

SCALE: 1"=100'