

STREET LIGHT LEGEND

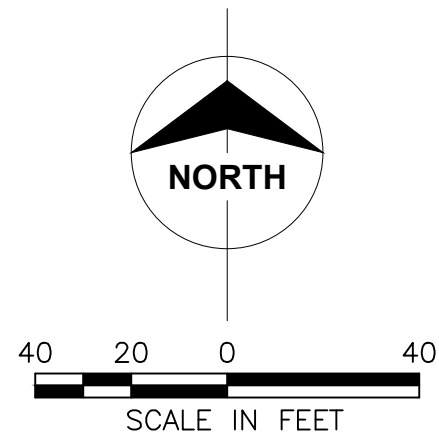
MODOT SPECIFIC SYMBOLS

- 250 W LUMINAIRE
- 400 W LUMINAIRE
- PULL BOX PREFORMED TYPE 1
- PULL BOX PREFORMED TYPE 2

CITY SPECIFIC SYMBOLS

- 250W HPS COBRA-HEAD LUMINAIRE W/ 30' POLE
- 400W HPS COBRA-HEAD LUMINAIRE W/ 40' POLE
- JUNCTION BOX. TYPE 1
- JUNCTION BOX. TYPE 2
- CLASS 1 PULL BOX
- POLE NUMBER
- POLE
- CIRCUIT
- CONTROLLER ID

- POWER SUPPLY
- CONTROLLER, LIGHTING
- CONTROLLER, LIGHTING (EXISTING)
- WOOD POST
- POWER SOURCE
- JUNCTION BOX
- PULL BOX CONCRETE TYPE 1
- CONDUIT, RIGID (TRENCH)
- CONDUIT, RIGID (MEDIAN)
- CONDUIT, RIGID (EXISTING)
- CONDUIT, RIGID (PUSHED)
- CONDUIT, RIGID (BRIDGE)
- CABLE-CONDUIT (EXISTING)
- CABLE-CONDUIT WITH CIRCUIT NO.
- BOX NUMBER



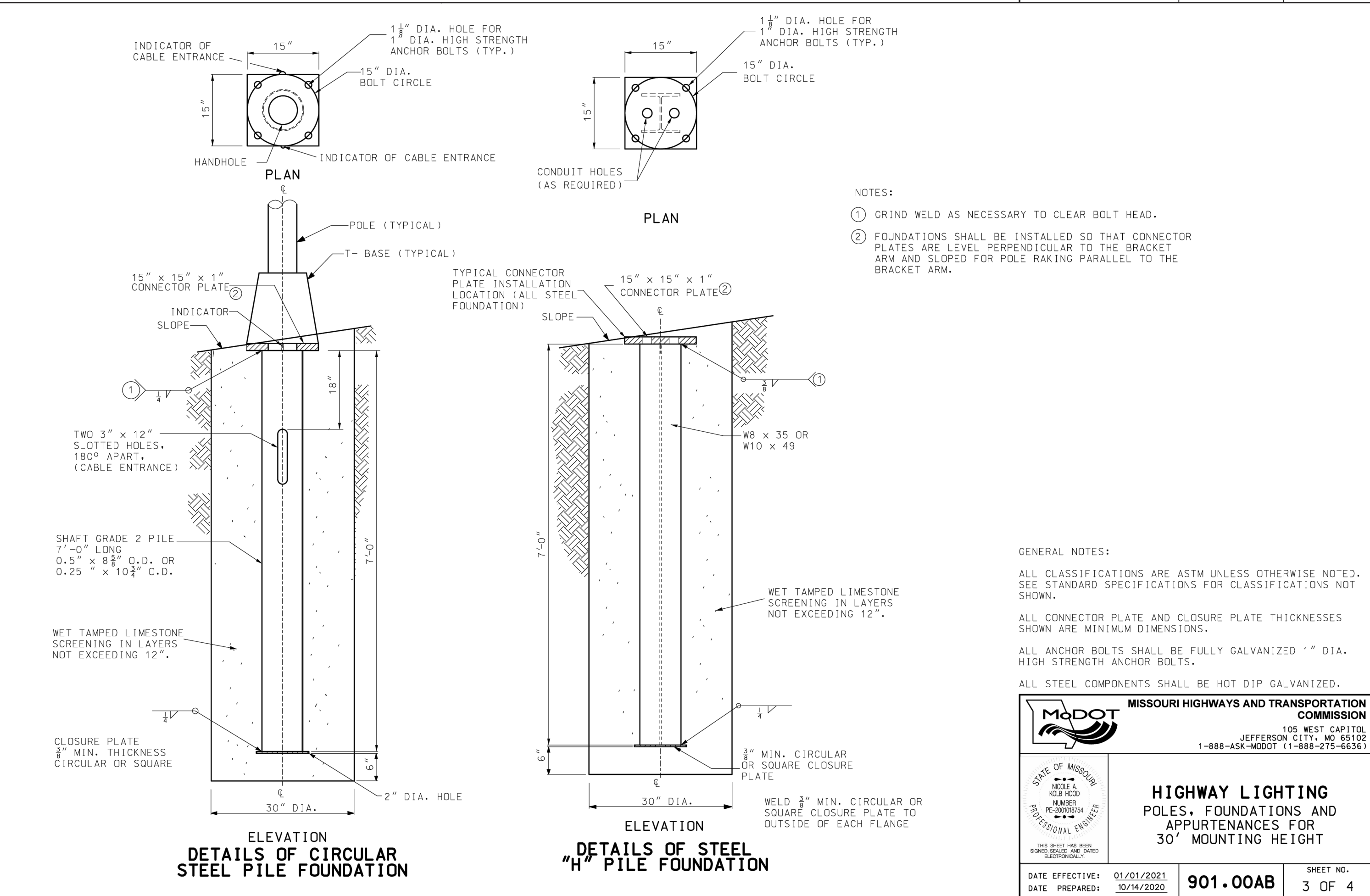
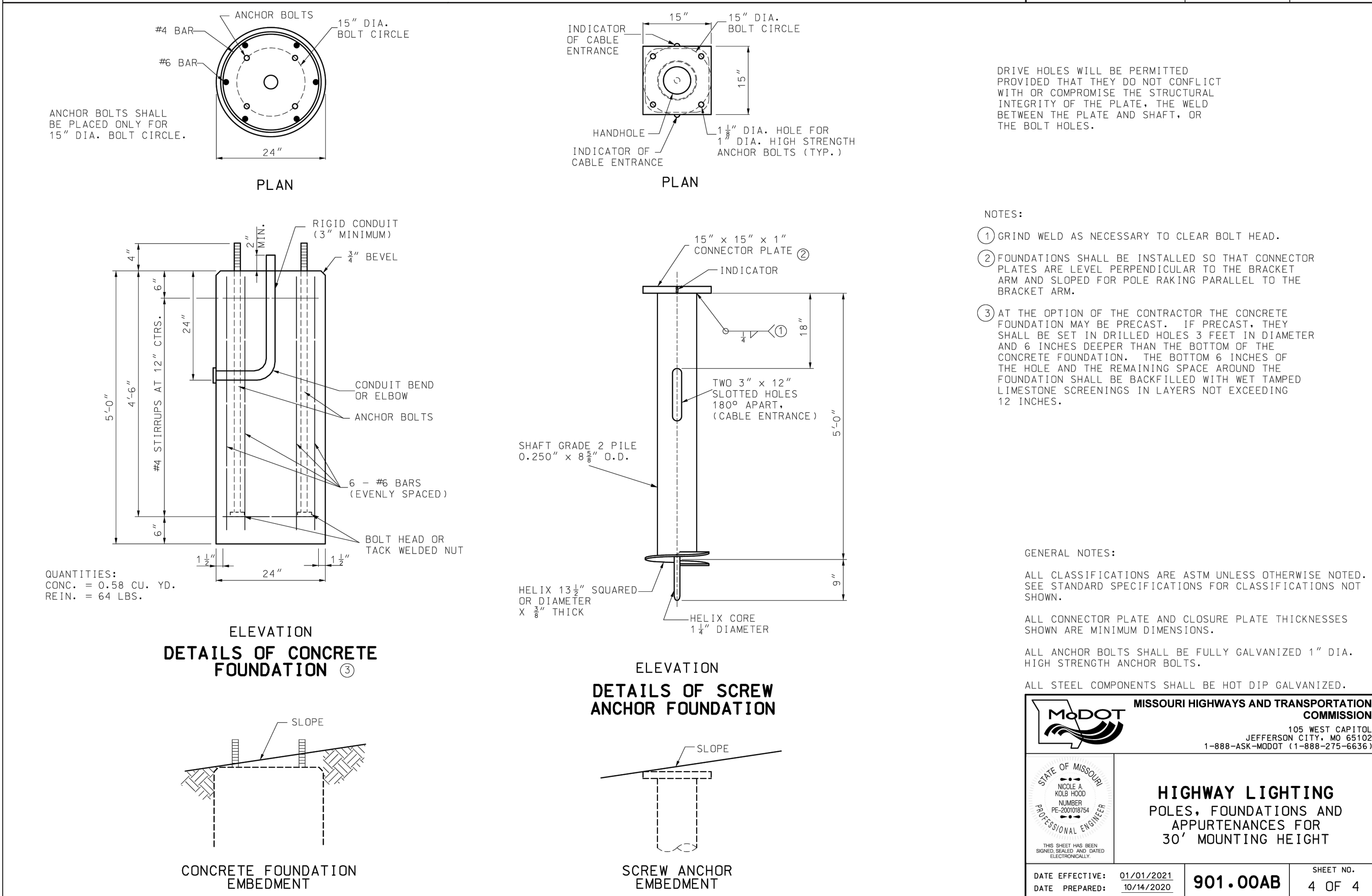
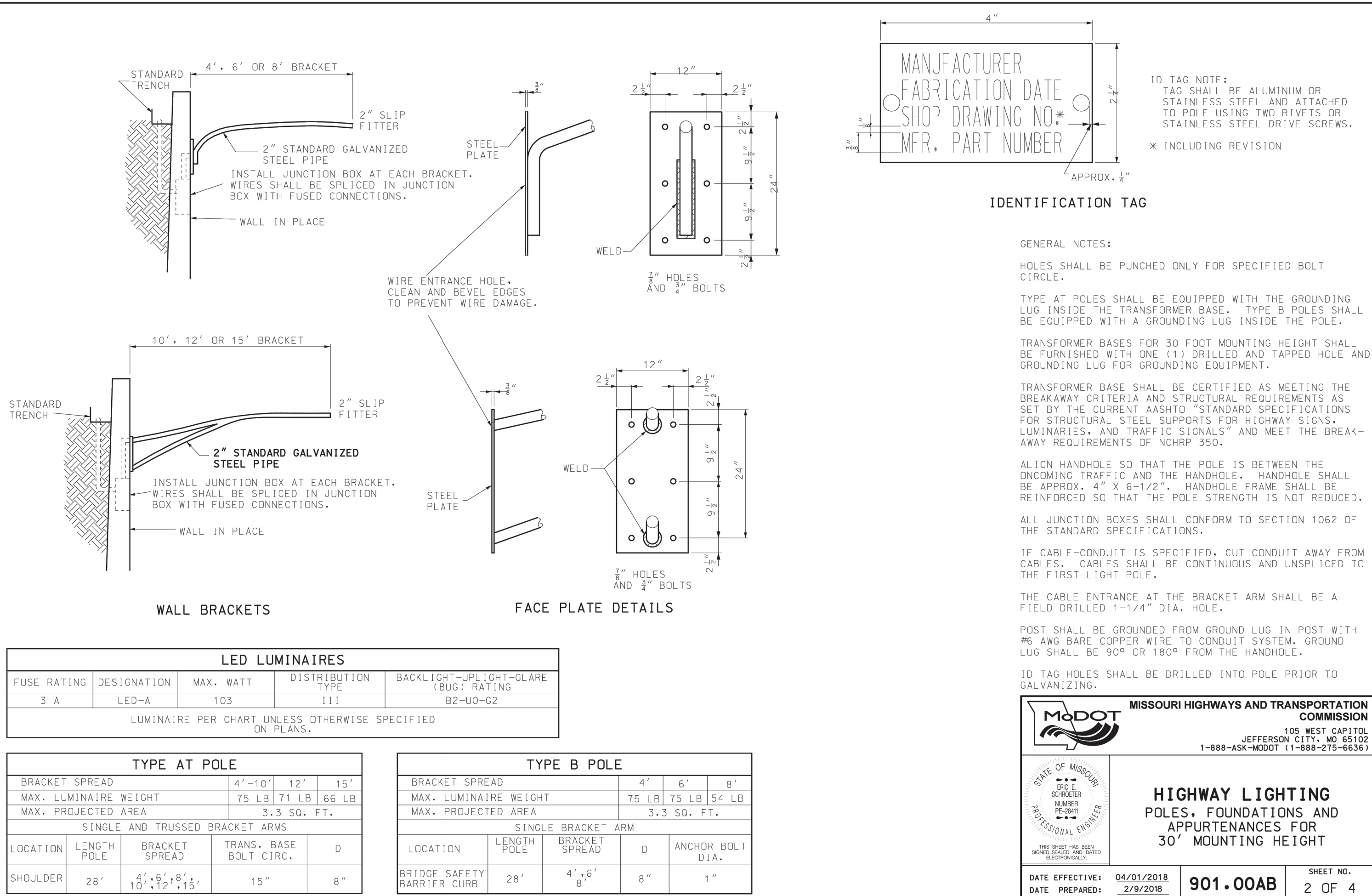
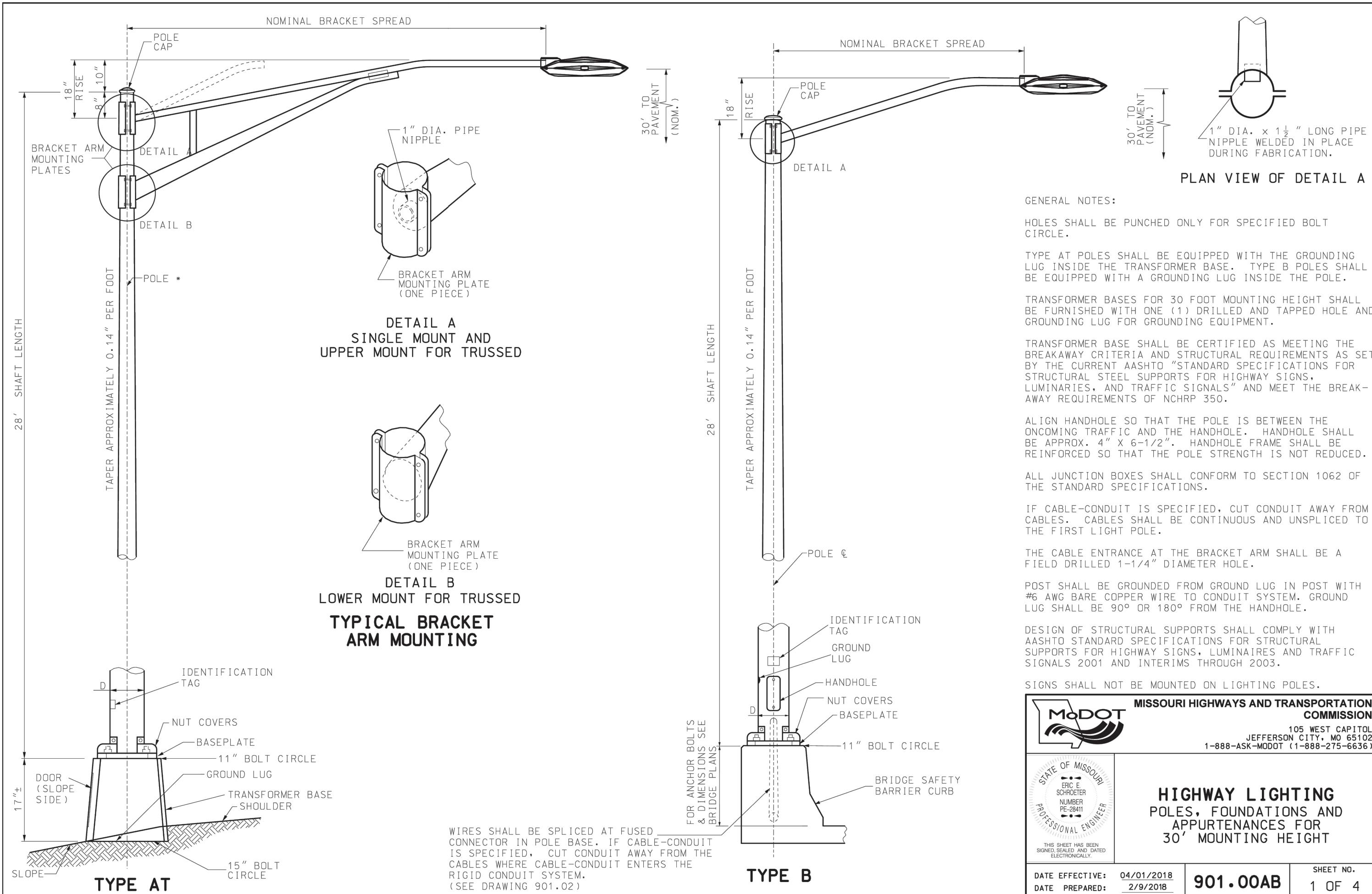
- THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS (APPROVED BY MODOT) AND ONE (1) COPY OF THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATION AT THE JOB SITE AT ALL TIMES.
- CONSTRUCTION OF THE IMPROVEMENTS SHOWN OR IMPLIED BY THIS SET OF DRAWINGS SHALL NOT BE INITIATED OR ANY PART OF THEREOF UNDERTAKEN UNTIL THE DIRECTOR OF PUBLIC WORKS OR HIS DESIGNEE IS NOTIFIED OF SUCH INTENT, AND ALL REQUIRED AND PROPERLY EXECUTED BONDS AND CONTRACT AGREEMENTS ARE RECEIVED AND APPROVED BY MODOT. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR OF THE EXACT CONSTRUCTION SCHEDULE SO THAT THE INSPECTIONS OF THE STREET LIGHT INSTALLATION CAN BE MADE.
- THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE MISSOURI DEPARTMENT OF TRANSPORTATION STREET LIGHTING STANDARD DRAWINGS: SL-1 THROUGH SL-5
- ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE MISSOURI DEPARTMENT OF TRANSPORTATION.
- ALL TRAFFIC CONTROL IN CONJUNCTION WITH THE STREET LIGHTING CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE MODOT'S STANDARD DRAWINGS SHEET "TYPICAL TRAFFIC CONTROL FOR STREET LIGHTING CONSTRUCTION".
- THE CONTRACTOR SHALL, BY HIS OWN INVESTIGATION, AND PRIOR TO COMMENCING WORK, SATISFY HIMSELF AS TO THE SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED. NO ADDITIONAL PAYMENTS WILL BE MADE FOR EXCAVATION OF ROCK AND BACKFILL MATERIALS
- EXISTING UNDERGROUND (U/G), OVERHEAD (O.H.) UTILITIES, AND DRAINAGE STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL CONTRACTOR TO EXACTLY LOCATE EACH UTILITY BEFORE ACTUAL CONSTRUCTION, AND BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES, WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES. IN ADDITION, THE CONTRACTOR SHALL AVOID DISRUPTION OF SERVICES PROVIDED BY THE UTILITIES AND SHALL INSURE THAT PROPER CLEARANCES (OVERHEAD AND UNDERGROUND) ARE MAINTAINED FOR THE DURATION OF CONSTRUCTION. SEE COVER SHEET FOR UTILITY COMPANY CONTACT INFORMATION.
- THE CONTRACTOR SHALL STAKE THE LOCATION OF ALL STREET LIGHTING POLES, CONTROL STATIONS, AND JUNCTION OR PULL BOXES TO BE INSTALLED. THE ENGINEER OR HIS DESIGNEE SHALL INSPECT THE STAKING PRIOR TO ANY EXCAVATION AND/OR CONSTRUCTION. MINOR RELOCATION OF EQUIPMENT TO AVOID CONFLICTS MAYBE ALLOWED WITH THE APPROVAL OF THE ENGINEER OR HIS DESIGNEE.
- ALL STREET LIGHT POLES, CONDUIT, JUNCTION OR PULL BOXES, AND CONTROL STATIONS SHALL BE LOCATED WITHIN THE STATE'S RIGHT-OF-WAY OR GENERAL UTILITY EASEMENTS.
- SCREW-IN ANCHOR FOUNDATIONS HAVE BEEN ASSUMED FOR ALL AREAS. IN THE EVENT A SCREW-IN ANCHOR MAY NOT BE INSTALLED, THEN THE CONTRACTOR MAY AT HIS OWN OPTION, INSTALL THE SCREW-IN ANCHOR WITHIN A PRE-DRILLED HOLE, OR POUR A CONCRETE FOUNDATION. NO CHANGE IN PAYMENT SHALL BE MADE FOR FOUNDATION SUBSTITUTIONS. ALL PRE-DRILLED HOLES SHALL BE BACKFILLED WITH FLOWABLE BACKFILL. ALL CONDUIT TRENCHES SHALL BE BACKFILLED WITH EARTH OR AB-3 AND PROPERLY COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS. THE TOP 4" TO 6" OF BACKFILL SHALL BE TOPSOIL.
- FACTORY CONDUIT BENDS (PVC 90-DEGREE ELBOWS) SHALL BE INSTALLED INTO ALL POLE BASES, JUNCTION BOXES, PULL BOXES, AND CONTROL STATIONS. COUPLINGS SHALL BE USED TO TRANSITION BETWEEN HDPE AND PVC CONDUITS.
- GALVANIZED RIGID STEEL (RGS) CONDUIT IS TO BE USED IF CONDUIT IS TO BE INSTALLED ON A STRUCTURE. ALL GRS CONDUITS THAT ARE TO BE USED SHALL BE CLEANED BY THE CONTRACTOR WITH A MANDREL PRIOR TO INSTALLATION OF CABLE.
- CONTRACTOR SHALL INSTALL A 2-1/2" PVC (SCHEDULE 40) CONDUIT WITH PULL STRING TO THE BASE OF THE SECONDARY SERVICE. CONTRACTOR SHALL COORDINATE SECONDARY SERVICE HOOK-UP WITH THE ELECTRICAL UTILITY COMPANY.
- BRACKET ARMS SHALL BE ORIENTED PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED ON THE PLANS.
- ALL SPLICES TO THE DISTRIBUTION CABLE SHALL BE MADE WITHIN JUNCTION BOXES, PULL BOXES, OR POLE BASES USING REQUIRED CONNECTORS. SPLICES WILL ONLY BE ALLOWED IN JUNCTION OR PULL BOXES WHERE A CIRCUIT BRANCHES. ALL SPLICES IN BOXES SHALL BE PROTECTED WITH A WATERPROOF RESIN SPLICE KIT.
- ALL DISTRIBUTION CABLES IN JUNCTION BOXES, PULL BOXES, AND CONTROL STATIONS SHALL BE LABELED WITH ROUND ALUMINUM IDENTIFICATION TAGS ATTACHED TO THE CABLES WITH COPPER WIRE. THE CONTROL STATION AND CIRCUIT NUMBER SHALL BE STAMPED OR ENGRAVED ON EACH TAG.
- ALL GROUNDING REQUIREMENTS AND NATIONAL ELECTRIC CODE REQUIREMENTS SHALL BE MET FOR THE STREET LIGHTING INSTALLATION TO PREVENT ANY HAZARDS TO THE PUBLIC.
- ALL EXISTING STREET LIGHTING EQUIPMENT TO BE USED IN PLACE (U.I.P.) UNLESS OTHERWISE NOTED. DAMAGE TO ANY EXISTING STREET LIGHTING EQUIPMENT DUE TO THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE EQUIPMENT SHALL BE REPLACED OR REPAIRED (AS DIRECTED BY MODOT) WITH MATERIALS EQUAL OR BETTER THAN THE EXISTING MATERIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE REMOVAL OF EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER(S). THE CONTRACTOR SHALL REMOVE, DISASSEMBLE, AND DELIVER SALVAGEABLE EQUIPMENT PER THE INSTRUCTIONS IN THE SPECIAL PROVISIONS OR AS DISCUSSED AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR LOSS OF SALVAGEABLE EQUIPMENT.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO MINIMIZE THE DOWNTIME OF THE EXISTING STREET LIGHTING SYSTEMS TO BE MODIFIED.
- ALL EXISTING CURB AND GUTTER, SIDEWALK, PAVEMENT, DRAINAGE STRUCTURES, AND IRRIGATION SYSTEMS DAMAGED DURING THE STREET LIGHTING CONSTRUCTION SHALL BE REPLACED TO MEET OR EXCEED THE ORIGINAL CONDITION, UNLESS OTHERWISE DIRECTED. GRASSY AREAS WHICH WERE ORIGINALLY SODDED SHALL BE RE-SODDED. ALL RESTORATION WORK WILL BE AT THE CONTRACTOR'S EXPENSE, AND SHALL BE ACCEPTABLE TO THE ENGINEER OR THEIR DESIGNEE.
- ANY EQUIPMENT DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE REQUIRED TO ATTACH STREET ADDRESSES AND IDENTIFICATION NUMBERS ON THE CONTROL STATION STATION CABINETS, AND ATTACH THE IDENTIFICATION AND POLE NUMBERS ON EACH STREET LIGHT POLE AS INDICATED IN THE MODOT'S STANDARD DRAWINGS. THE LETTERS AND NUMERALS WILL BE PROVIDED BY MODOT.
- SUBSTANTIAL COMPLETION OF THE STREET LIGHT SYSTEM SHALL BE DEFINED AS ALL COMPONENTS OF THE SYSTEM FULL OPERATIONAL. SUBSTANTIAL COMPLETION SHALL ALLOW FOR TESTING OF THE SYSTEM.
- FINAL ACCEPTANCE OF THE STREET LIGHT SYSTEM SHALL BE DEFINED AS FINAL WRITTEN APPROVAL AND STREET LIGHT SYSTEM FULLY OPERATIONAL FOR A TIME PERIOD OF FIFTEEN (15) DAYS, WITHOUT ANY PROBLEM, AS NOTED IN THE SPECIFICATIONS. CONTRACTOR SHALL PROVIDE MARKED UP AS-BUILT PLANS PRIOR TO FINAL ACCEPTANCE BY MODOT.

BOX NUMBER	ALIGNMENT	STATION	OFFSET	PULL BOX DESCRIPTION
CS1	BLUE PARKWAY	10+16.74	32.50	CONTROL STATION
JB1	BLUE PARKWAY	12+67.31	24.00	TYPE 1 JUNCTION BOX
JB2	BLUE PARKWAY	12+67.31	24.00	TYPE 1 JUNCTION BOX
JB3	NE CONNECTION	0+73.60	22.14	TYPE 1 JUNCTION BOX
JB4	NE CONNECTION	0+73.77	24.22	TYPE 1 JUNCTION BOX
JB5	SW CONNECTION	0+62.45	24.66	TYPE 1 JUNCTION BOX
JB6	SW CONNECTION	0+62.45	20.52	TYPE 1 JUNCTION BOX
JB7	BLUE PARKWAY	20+44.47	24.00	TYPE 1 JUNCTION BOX
JB8	BLUE PARKWAY	20+44.53	23.99	TYPE 1 JUNCTION BOX

POLE NUMBER	ALIGNMENT	STATION	OFFSET	LUM.	POLE HT. (FT.)	BRACKET ARM LEN. (FT.)
1	BLUE PARKWAY	11+91.96	23.80	LED A	30	10
2	BLUE PARKWAY	12+73.55	23.80	LED A	30	10
3	BLUE PARKWAY	14+21.47	23.80	LED A	30	10
4	BLUE PARKWAY	14+84.49	71.14	LED A	30	6
5	BLUE PARKWAY	14+96.56	49.05	LED A	30	6
6	NE CONNECTION	0+71.57	21.93	LED A	30	10
7	SW CONNECTION	0+61.07	20.50	LED A	30	10
8	BLUE PARKWAY	16+16.14	59.84	LED A	30	6
9	BLUE PARKWAY	16+18.92	93.05	LED A	30	6
10	BLUE PARKWAY	17+44.35	23.80	LED A	30	10
11	BLUE PARKWAY	19+36.26	23.80	LED A	30	10
12	BLUE PARKWAY	20+47.12	23.80	LED A	30	10

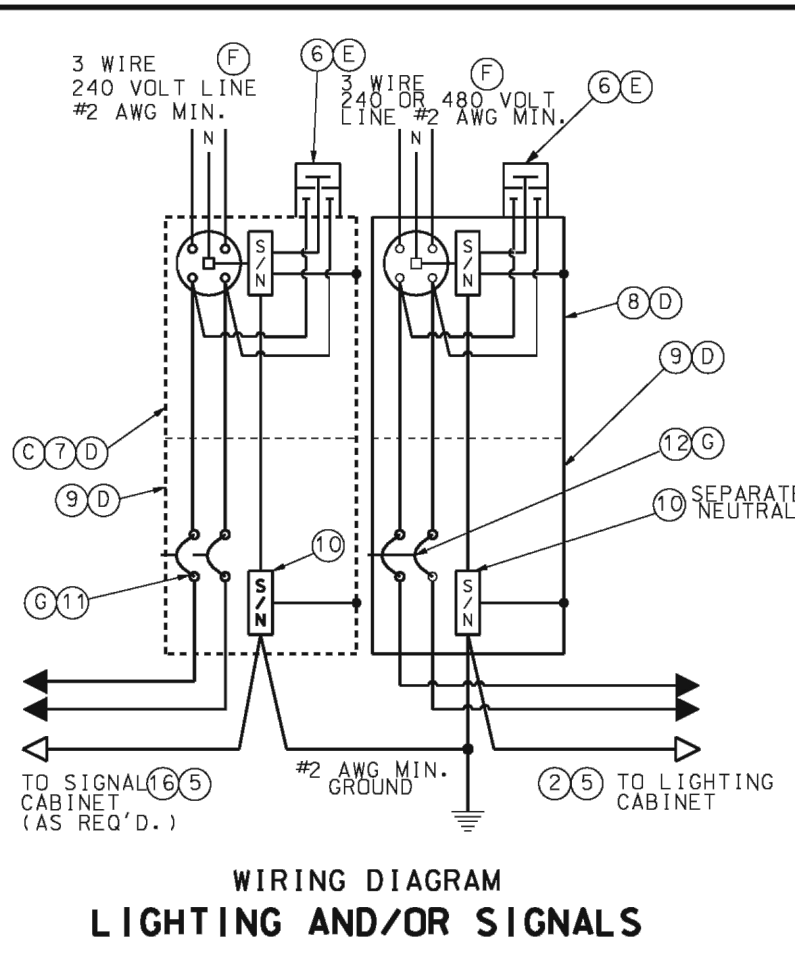
REVISIONS	NO.	DATE	DESCRIPTION
	1		
	2		
	3		
	4		
	5		
	6		







LIST OF MATERIALS	
ITEM	DESCRIPTION
1	SERVICE POLE 30' MIN., CLASS 4 WOOD, CONTRACTOR PROVIDED, MODOT OWNED*
2	#2 AWG MIN. CABLE, 600 VOLT *
3	SERVICE ENTRANCE HEAD
4	GUY CABLE, AS REQUIRED
5	RIGID CONDUIT, 2" MIN., WITH PREFORMED ELBOWS
6	LIGHTNING ARRESTER, VALVE TYPE, 2 POLE, 650 VOLT
7	METER SOCKET, 200 AMP, FOR SIGNALS
8	METER SOCKET, 200 AMP, FOR LIGHTING
9	LOCKING, RAINTIGHT, NEMA 4 SERVICE DISCONNECT BOX
10	INSULATED, GROUNDABLE NEUTRAL WIRE, 200 AMP MINIMUM
11	SIGNAL BREAKERS, SINGLE POLE, 40A MIN. TYPE A OR B *
12	LIGHTING BREAKER, 2 POLE, 240 VOLT, 100A, TYPE A OR B
13	1/2" METAL CONDUIT
14	#2 AWG MIN. GROUND WIRE
15	GROUND ROD, 3/4" x 8' MIN.
16	#8 AWG MIN. CABLE, 600 VOLT *
17	CLASS B CONCRETE, 0.92 C.Y. ±
18	THREADED CONDUIT HUB WITH SEALING WASHERS
19	WEATHERPROOF ADHESIVE LABEL (LIGHTING), VINYL RAISED LETTERING (OR EQUIVALENT, SEE DETAIL)
20	WEATHERPROOF ADHESIVE LABEL (SIGNALS), VINYL RAISED LETTERING (OR EQUIVALENT, SEE DETAIL)
21	W6 x 9 OR W6 x 15 GALVANIZED POST
22	#2 AWG MIN. CABLE, 600 VOLT
23	RIGID CONDUIT, 2" MINIMUM
*	SEE PLANS



- NOTES:
- SERVICE POLE SHALL BE GUYED WHEN SPAN OF OVERHEAD SERVICE WIRE EXCEEDS 50 FEET.
  - INCREASE 1 FOOT FOR EACH 5 FEET ABOVE 30 FEET.
  - SERVICE DISCONNECT BOXES AND METER BOXES SHALL BE ALUMINUM OR STAINLESS STEEL. ALL HARDWARE, HINGES, CATCHES, ETC. SHALL BE STAINLESS STEEL. METER SOCKET FOR SIGNALS OR LIGHTING AND OTHER EQUIPMENT AND MATERIALS SHALL BE U.L. APPROVED AND CONFORM TO THE REQUIREMENTS OF THE UTILITY COMPANY OR MUNICIPALITY PROVIDING POWER.
  - SCHEMATIC DIAGRAM SHALL BE MOUNTED ON INSIDE OF CABINET DOOR.
  - UTILITY COMPANY SHALL DECIDE IF LIGHTNING ARRESTERS ARE TO BE CONNECTED ON THE LOAD OR LINE SIDE OF THE METER. THE UTILITY COMPANY SHALL ALSO DECIDE IF THE LIGHTNING ARRESTER IS TERMINATED IN THE METER OR DISCONNECT CABINET. IF TERMINATED IN THE DISCONNECT CABINET, IT SHALL BE INSTALLED ON THE DISCONNECT CABINET.
  - LIGHTING SYSTEM VOLTAGE OF 240 VOLTS OR 480 VOLTS AS SHOWN ON THE PLANS.
  - BREAKERS SHALL CONFORM TO SEC. 901.4 OF THE STANDARD SPECIFICATIONS.
  - IF SUBSURFACE CONDITIONS EXIST WHICH PROHIBIT THE PLACEMENT OF THE GROUND ROD IN A VERTICAL POSITION, THE ROD MAY BE DRIVEN AT AN OBLIQUE ANGLE NOT TO EXCEED 45 DEGREES FROM VERTICAL OR BURIED IN A TRENCH AT LEAST 30 IN. DEEP. CONNECTION TO GROUND ROD SHALL BE CAWLED.

GENERAL NOTES:

FOR CABLE TYPES AND INSTALLATION, SEE STANDARD SPECIFICATIONS.

THE POWER SUPPLY ASSEMBLY TYPE IS SHOWN ON THE PLANS OR IS DESIGNATED IN THE CONTRACT.

THE UTILITY COMPANY SHALL BE NOTIFIED IN WRITING 30 DAYS PRIOR TO DATE SERVICE WILL BE REQUIRED.

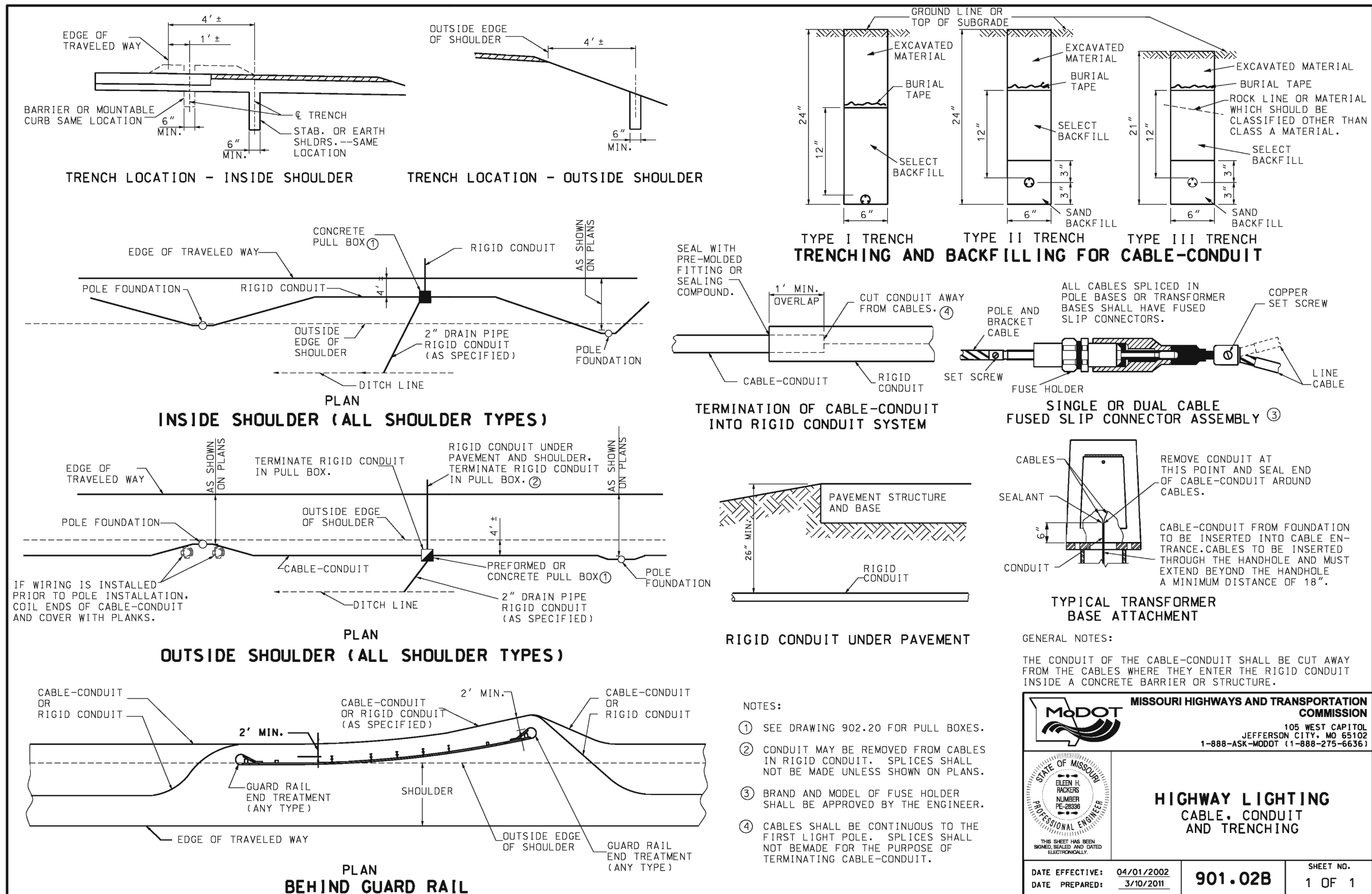
WHERE SIGNAL OR LIGHTING POWER ONLY IS DESIGNATED, OMIT ITEMS NOT REQUIRED.

ALL OPENINGS IN ANY SERVICE BOX OR METER BOX SHALL BE COVERED AND SEALED WITH LIFETIME SILICONE CAULK.

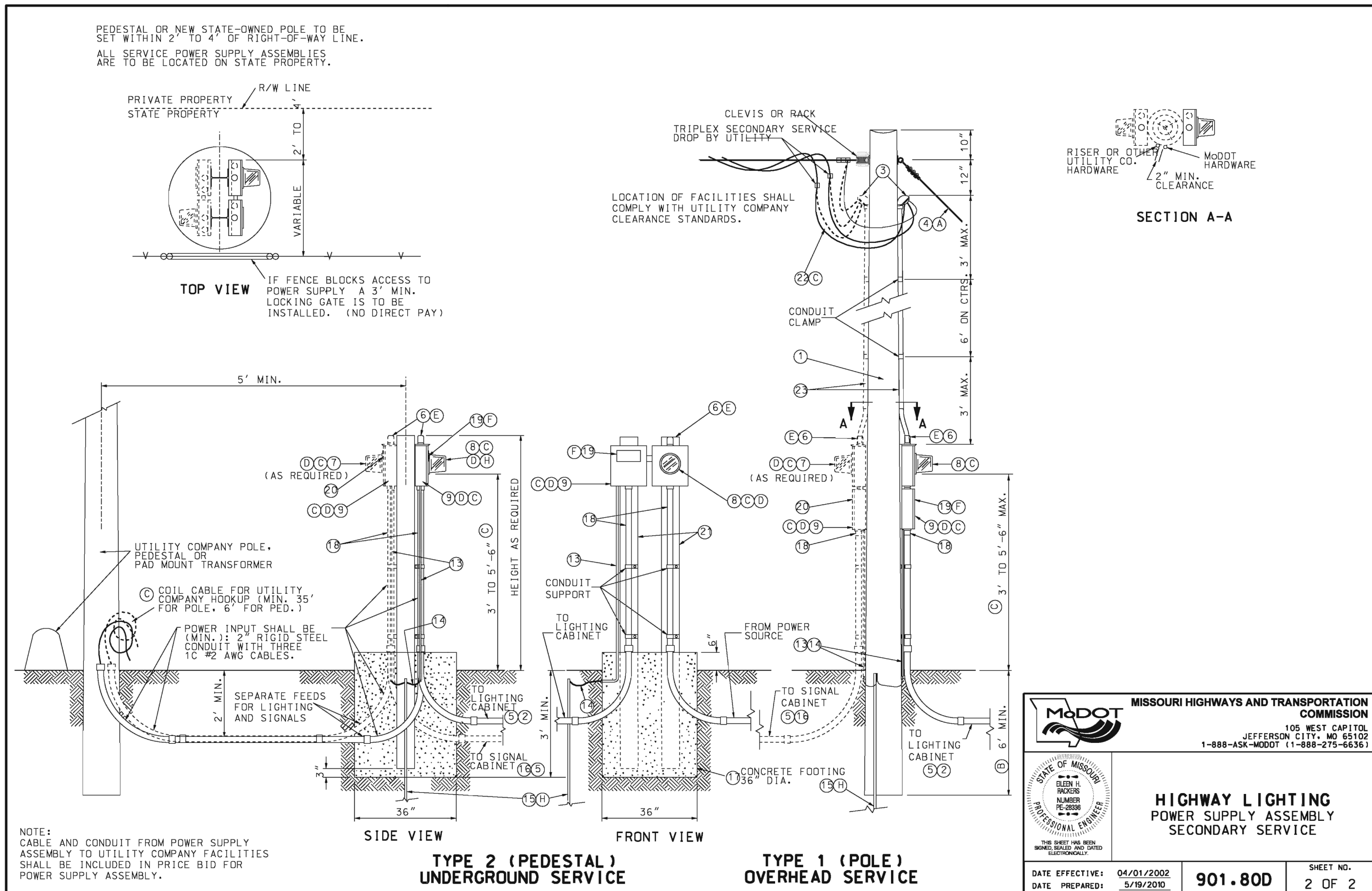
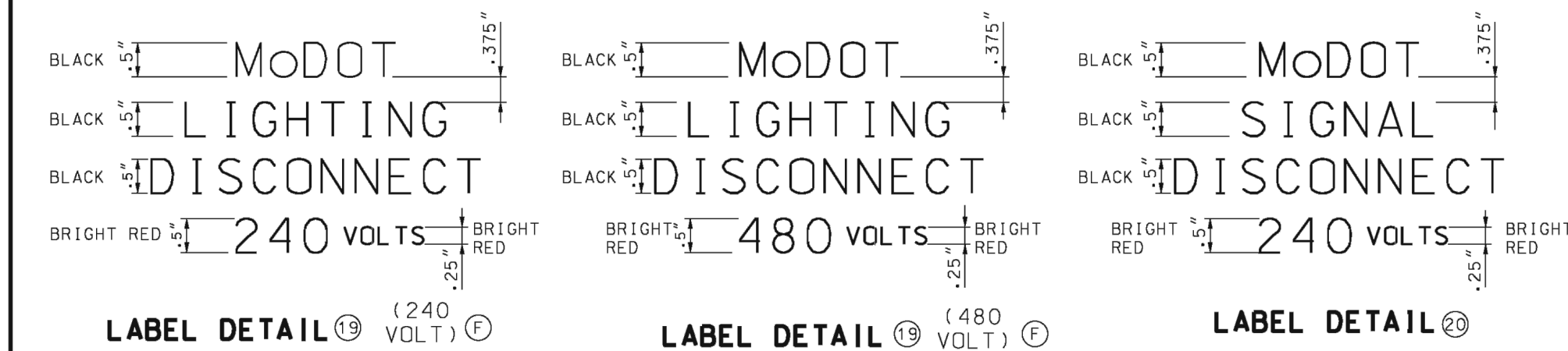
ALL MATERIALS REQUIRED AS SHOWN ON DRAWING, INCLUDING CABLE AND CONDUIT FROM POWER SUPPLY ASSEMBLY TO UTILITY COMPANY FACILITIES, SHALL BE INCLUDED IN UNIT BID PRICE FOR POWER SUPPLY ASSEMBLY.

<b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
<b>HIGHWAY LIGHTING POWER SUPPLY ASSEMBLY SECONDARY SERVICE</b>	
DATE EFFECTIVE: 04/01/2002	SHEET NO. 1 OF 2
DATE PREPARED: 3/19/2019	901.80D

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



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<b>HIGHWAY LIGHTING POWER SUPPLY ASSEMBLY SECONDARY SERVICE</b>	
DATE EFFECTIVE: 04/01/2002	SHEET NO. 2 OF 2
DATE PREPARED: 3/19/2019	901.80D

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

