

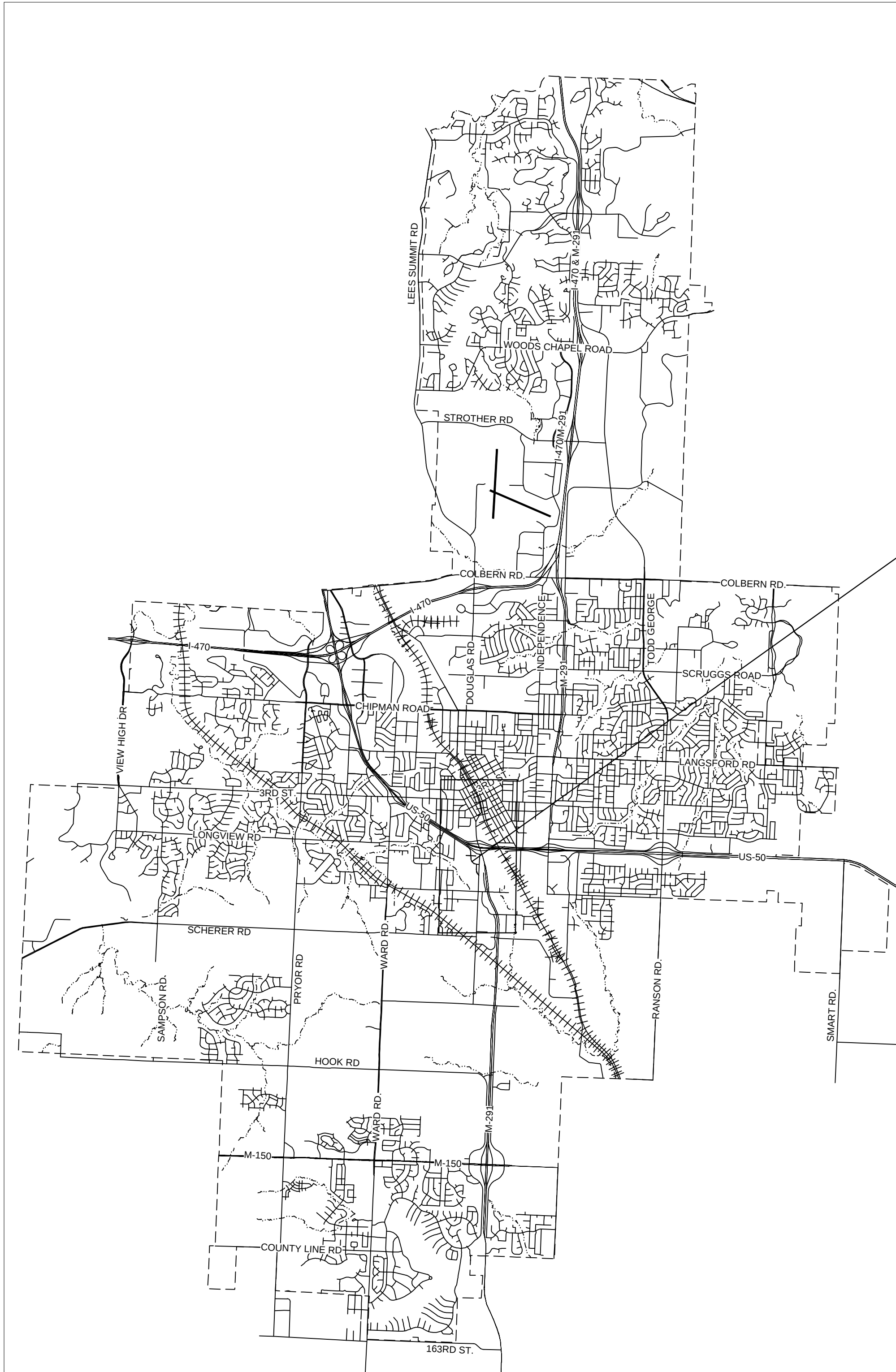
Drawing name: K:\KAC_T\0208132012 - Oldham Village Signal\CAD\Parashets8 - COVER SHEET.dwg Feb 28, 2025 6:34am By: Clara Hoggatt
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CITY OF LEE'S SUMMIT, MISSOURI

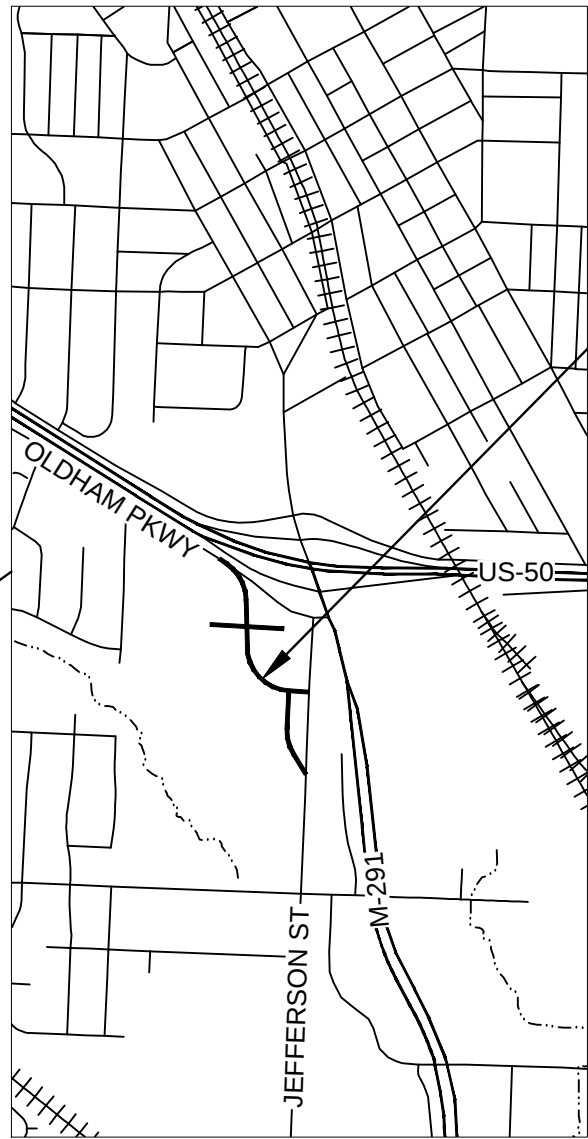
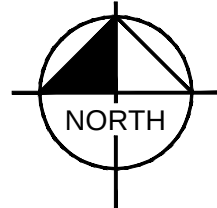
PUBLIC WORKS DEPARTMENT

STREET LIGHTING INSTALLATION

OLDHAM PARKWAY AND JEFFERSON STREET



LOCATION MAP
(NOT TO SCALE)



PROJECT LOCATION

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9	POLE BASE DETAILS
10	BOX AND CONDUIT DETAILS
11	POWER SUPPLY DETAILS
12	ELECTRICAL DETAILS

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CONSOLIDATED COMMUNICATIONS JOHN CASTILOW, 913-322-9785 JOHN.CASTILOW@EVERFASTFIBER.COM	CITY WATER UTILITIES 816-969-1940
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LSR7 - FIBER KINZIE WOODERSON, 816-986-1050 KINZIE.WOODERSON@LEESUMMIT.K12.MO.US	CITY FIBER - ITS DEPARTMENT BRYAN HALL, 816-969-1234
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SPECTRUM KEVIN STEELE KEVIN.STEELE@CHARTER.COM	

NOTE:

KNOWN UNDERGROUND UTILITIES IN THE VICINITY OF THE WORK ARE SHOWN ON THESE PLANS, ALTHOUGH OTHERS MAY EXIST. THE LOCATIONS SHOWN ARE BELIEVED TO BE REASONABLY CORRECT, BUT DO NOT PURPORT TO BE ABSOLUTELY SO. BEFORE STARTING WORK, THE CONTRACTOR SHALL GIVE NOTICE TO AND OBTAIN INFORMATION FROM EACH OWNER AND OPERATOR OF EXISTING UNDERGROUND FACILITIES IN ACCORDANCE WITH THE MISSOURI UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION STATUTE (RSMO CHAPTER 319.015 - 319.050).



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SCALE: AS NOTED

DESIGNED BY: JJW

DRAWN BY: LCJ

CHECKED BY: JJW

COVER SHEET

OLDHAM PARKWAY &
JEFFERSON STREET
STREET LIGHTING
LEE'S SUMMIT, MO. 64086

ORIGINAL ISSUE:
02/28/2025

KHA PROJECT NO.
268132012

SHEET NUMBER
1

Drawing name: K:\KAC_T\PT0268132012 - Oldham Village Signal\CAD\Parasheets\11 - LIGHTING PLAN.dwg ELECTRICAL LEGEND AND NOTES Feb 28, 2025 4:55am By: Clara Hoggett
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GENERAL NOTES

1. 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.

2. SCREW- IN ANCHOR FOUNDATIONS HAVE BEEN ASSUMED FOR ALL AREAS, UNLESS OTHERWISE NOTED IN THE PLANS. 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.

3. FACTORY CONDUIT BENDS (PVC 90- DEGREE ELBOWS) SHALL BE INSTALLED INTO ALL POLE BASES, JUNCTION BOXES, PULL BOXES, AND POWER SUPPLIES. COUPLINGS SHALL BE USED TO TRANSITION BETWEEN HDPE AND PVC CONDUITS.

4. GALVANIZED RIGID STEEL (GRS) 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.

5. CONTRACTOR SHALL INSTALL A 3" PVC (SCHEDULE 40) CONDUIT WITH POWER CABLE TO THE BASE OF THE SECONDARY SERVICE POINT. CONTRACTOR SHALL COORDINATE SECONDARY SERVICE CONNECTION WITH THE ELECTRICAL UTILITY COMPANY.

6. BRACKET ARMS SHALL BE ORIENTED PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED ON THE PLANS.

7. ALL SPLICES TO THE DISTRIBUTION CABLE SHALL BE MADE WITH 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.

8. ALL DISTRIBUTION CABLES IN JUNCTION BOXES, PULL BOXES, AND POWER SUPPLIES SHALL BE LABELED WITH ROUND ALUMINUM IDENTIFICATION TAGS ATTACHED TO THE CABLES WITH COPPER WIRE. THE POWER SUPPLY AND CIRCUIT NUMBER SHALL BE STAMPED OR ENGRAVED ON EACH TAG.

9. ALL GROUNDING REQUIREMENTS AND NATIONAL ELECTRIC CODE REQUIREMENTS SHALL BE MET FOR THE STREET LIGHTING INSTALLATION TO PREVENT ANY HAZARDS TO THE PUBLIC.

10. ALL EXISTING STREET LIGHTING EQUIPMENT TO BE USED IN PLACE (UIP)
- 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 THE CITY) WITH MATERIALS EQUAL OR BETTER THAN THE EXISTING MATERIAL.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE REMOVAL OF EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER(S).

12. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO MINIMIZE THE DOWNTIME OF ANY EXISTING STREET LIGHTING SYSTEMS TO BE MODIFIED.

13. ANY EQUIPMENT DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR' S EXPENSE.

14. THE CONTRACTOR SHALL BE REQUIRED TO ATTACH STREET ADDRESSES AND IDENTIFICATION NUMBERS ON THE POWER SUPPLY CABINETS, AND ATTACH THE IDENTIFICATION AND POLE NUMBERS ON EACH STREET LIGHT POLE AS INDICATED IN THE CITY' S STANDARD DRAWINGS. THE LETTERS AND NUMERALS WILL BE PROVIDED BY THE CITY.

PROJECT SPECIFIC NOTES

1. SEE OLDHAM VILLAGE CONSTRUCTION PLANS FOR ROADWAY ALIGNMENT INFORMATION.
2. STREET LIGHT POLES TO BE CENTERED 3' BEHIND BACK OF CURB OR 1' BEHIND BACK OF SIDEWALK WHERE SIDEWALK IS ADJACENT TO CURB.
3. ALL TRAFFIC CONTROL DURING CONSTRUCTION SHALL COMPLY WITH CITY STANDARDS.

STREET LIGHTING QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	EXISTING STREET LIGHT POLE AND LUMINAIRE RELOCATED	5	EA
2	STREET LIGHT POLE (P30S)	8	EA
3	STREET LIGHT POLE (P40S)	12	EA
4	6' BRACKET ARM	13	EA
5	10' BRACKET ARM	2	EA
6	15' BRACKET ARM	5	EA
7	SCREW-IN FOUNDATION (B30)	13	EA
8	SCREW-IN FOUNDATION (B40S)	12	EA
9	CLASS 2 LED LUMINAIRE	20	EA
10	TYPE 1 JUNCTION BOX	1	EA
11	TYPE 2 JUNCTION BOX	1	EA
12	CLASS 1 PULL BOX	1	EA
13	4-CIRCUIT LIGHTING POWER SUPPLY	1	EA
14	2" HDPE CONDUIT	4,100	LF
15	3" HDPE CONDUIT	25	LF
16	3" PVC CONDUIT	120	LF
17	#2 POWER CABLE	400	LF
18	#8 DISTRIBUTION CABLE	13,500	LF
19	#10 POLE AND BRACKET CABLE	3,600	LF
20	BREAK AWAY NON-FUSED CONNECTOR	25	EA
21	BREAK AWAY FUSED CONNECTOR	50	EA
22	MULTI-TAP CONNECTORS	75	EA
22	TRAFFIC CONTROL	1	LS

STREETLIGHTING LEGEND

PROPOSED

- CLASS 2 LED COBRA-HEAD LUMINAIRE W/ 30' POLE
- CLASS 2 LED COBRA-HEAD LUMINAIRE W/ 40' POLE
- CLASS 1 PULL BOX
- TYPE 1 JUNCTION BOX
- TYPE 2 JUNCTION BOX
- PAD MOUNTED POWER SUPPLY (SHADED AREA INDICATES PHOTOCCELL ORIENTATION) (NORTH OR EAST)
- ELECTRICAL SERVICE
- CONDUIT

EXISTING

- LED COBRA-HEAD LUMINAIRE W/ 30' POLE
- CLASS 1 PULL BOX
- JUNCTION BOX
- PAD MOUNTED CONTROL CENTER (SHADED AREA INDICATES PHOTOCCELL ORIENTATION) (NORTH OR EAST)
- ELECTRICAL SERVICE
- CONDUIT

LIGHTING DESIGN CALCULATIONS AND CRITERIA:

OLDHAM PARKWAY

MINIMUM AVERAGE MAINTAINED ILLUMINANCE (TARGET) - 1.1
AVERAGE MAINTAINED ILLUMINANCE (ACTUAL) - 1.27

UNIFORMITY RATIO (TARGET) - 4.00
UNIFORMITY RATIO (ACTUAL) - 2.12

JEFFERSON STREET

MINIMUM AVERAGE MAINTAINED ILLUMINANCE (TARGET) - 1.1
AVERAGE MAINTAINED ILLUMINANCE (ACTUAL) - 1.17

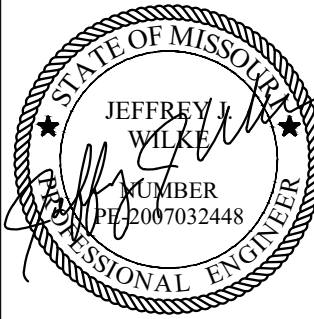
UNIFORMITY RATIO (TARGET) - 4.00
UNIFORMITY RATIO (ACTUAL) - 1.67

DESIGN LUMINAIRE MODEL
ARCH-M-PA2-100-740-U-T3

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SCALE: AS NOTED
DESIGNED BY: JMW
DRAWN BY: LCJ
CHECKED BY: JMW



GENERAL NOTES

OLDHAM PARKWAY &
JEFFERSON STREET
STREET LIGHTING
LEE'S SUMMIT, MO. 64086

ORIGINAL ISSUE:
02/28/2025

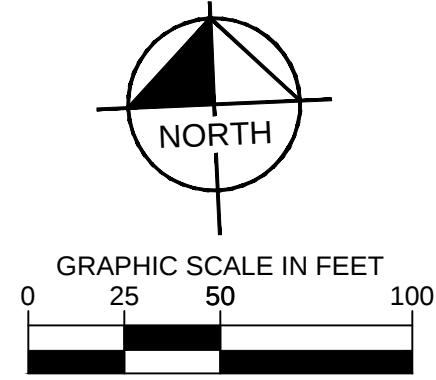
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268132012

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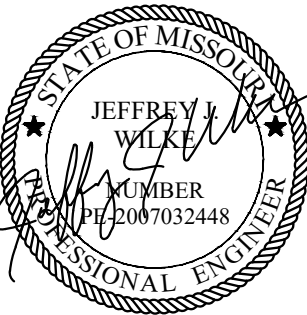
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BOX NO.	STATION	OFFSET	BOX TYPE
2	15+00.0	31.5' RT	TYPE 2 JUNCTION BOX
1	15+00.0	44.0' LT	CLASS I PULL BOX

POLE NO.	STATION	OFFSET	POLE TYPE	BASE TYPE	BRACKET ARM LENGTH	LED LUMINAIRE
A-1-2	11+14.2	32.8' RT	P30S	B30	6'	CLASS 2
A-1-1	14+60.7	31.5' RT	P40S	B40S	6'	CLASS 2
A-2-1	16+75.0	52.0' RT	P40S	B40S	10'	CLASS 2
A-2-2	18+37.0	52.0' RT	P40S	B40S	10'	CLASS 2
A-2-3	19+52.5	62.3' RT	P40S	B40S	6'	CLASS 2
A-2-4	20+74.3	64.0' RT	P40S	B40S	15'	CLASS 2
A-2-5	22+80.4	64.0' RT	P40S	B40S	15'	CLASS 2
A-2-6	24+57.6	64.0' RT	P40S	B40S	15'	CLASS 2
A-3-1	15+72.0	44.0' LT	P40S	B40S	6'	CLASS 2
A-3-2	17+32.0	44.0' LT	P40S	B40S	6'	CLASS 2
A-3-3	19+26.4	44.0' LT	P40S	B40S	6'	CLASS 2
A-3-4	21+07.9	49.0' LT	P40S	B40S	15'	CLASS 2
A-3-5	22+90.0	49.0' LT	P40S	B40S	15'	CLASS 2



SCALE:	AS NOTED
DESIGNED BY:	JJW
DRAWN BY:	LCJ
CHECKED BY:	JJW



**OLDHAM PARKWAY &
JEFFERSON STREET
STREET LIGHTING**
LEE'S SUMMIT, MO, 64086

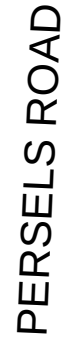
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SCHEDULE OF JUNCTION/PULL BOXES			
BOX NO.	STATION	OFFSET	BOX TYPE
3	5+29.8	21.0' RT	TYPE I JUNCTION BOX

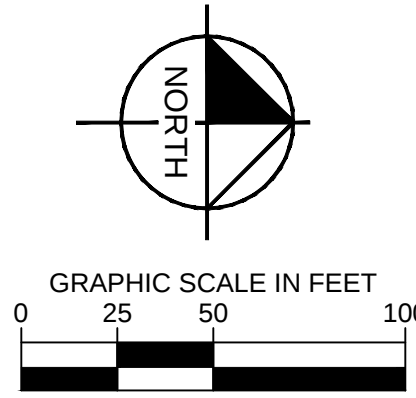
SCHEDULE OF POLES						
POLE NO.	STATION	OFFSET	POLE TYPE	BASE TYPE	BRACKET ARM LENGTH	LUMINAIRE TYPE
5I06-1-9	2+20.2	21.0' RT	P30S*	B30	6'*	150W LED*
5I06-1-8	3+80.0	21.0' RT	P30S*	B30	6'*	150W LED*
5I06-1-7	5+34.0	25.0' LT	P30S*	B30	6'*	150W LED*
5I06-1-6	6+83.5	31.0' LT	P30S*	B30	6'*	150W LED*
5I06-1-5	8+19.7	29.9' LT	P30S*	B30	6'*	150W LED*

*EXISTING EQUIPMENT TO BE RELOCATED



CONSTRUCTION NOTES:

1. REMOVE AND RELOCATE EXISTING STREET LIGHT POLES AND LUMINAIRES:
5106-1-5
5106-1-6
5106-1-7
5106-1-8
5106-1-9
2. REMOVE EXISTING LIGHTING DISTRIBUTION CABLES NORTH OF POLE
5106-1-4. CONNECT NEW DISTRIBUTION CABLES TO EXISTING CABLES IN
POLE BASES TO EXISTING CABLES IN POLE BASE. INSTALL NEW MULTI-TAP
CONNECTORS IN POLE BASE.

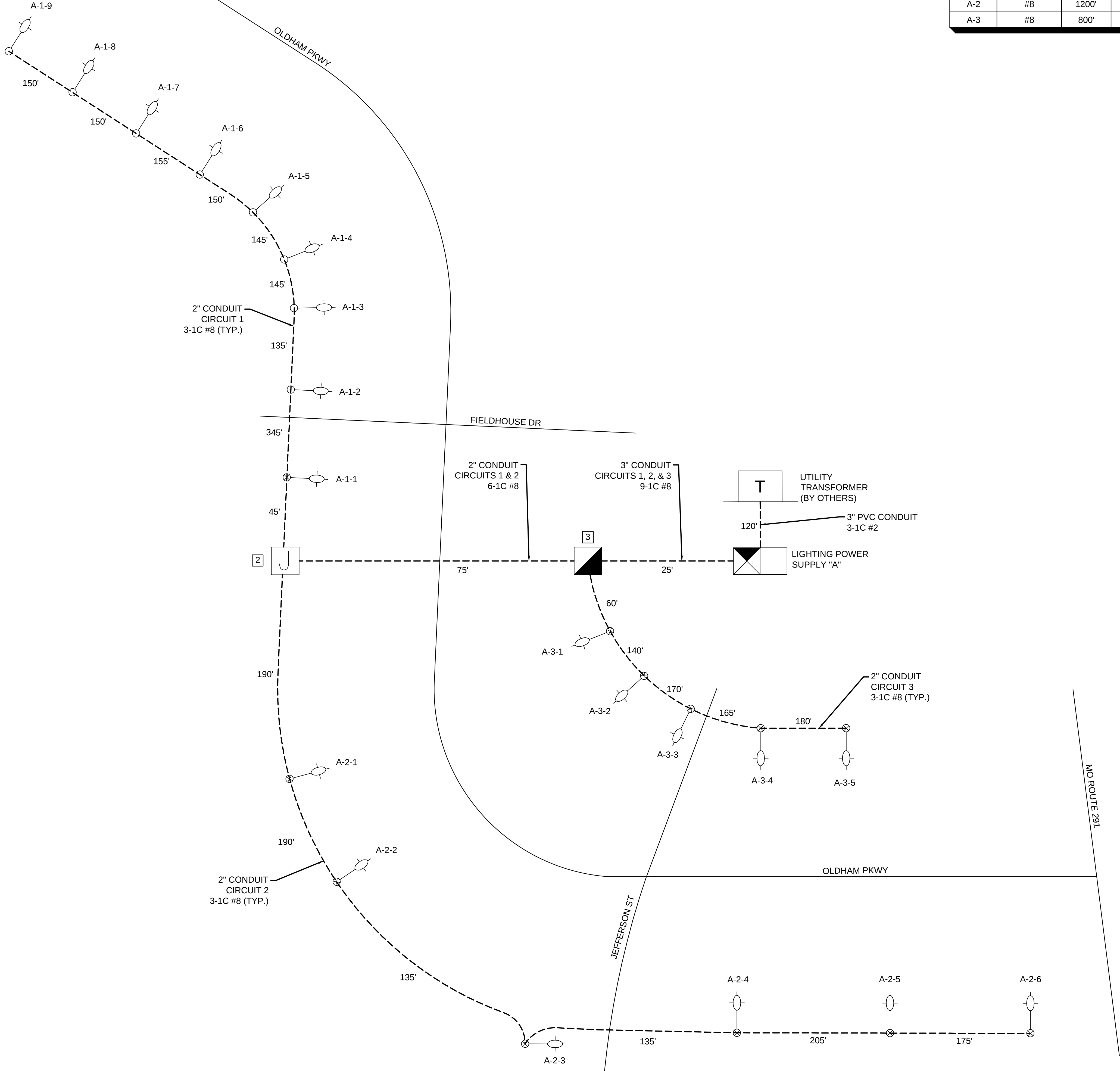


MATCHLINE SEE SHEET 4

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Drawing name: K:\KAC_T\PT0268132012 - Oldham Village Signal\CAD\Parasheets\11 - LIGHTING PLAN.dwg ELECTRICAL RISER DIAGRAM 1 Feb 28, 2025 6:58am by: Clara Hoggett

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CIRCUIT SUMMARY TABLE						
CIRCUIT	CONDUCTOR SIZE	CIRCUIT LENGTH	INPUT AMPERAGE	PERCENT VOLTAGE DROP	CIRCUIT ASSIGNMENT AT POWER SUPPLY	CIRCUIT BREAKER TRIP RATING
A-1	#8	1600'	3.75	2.43%	3 & 4	15A
A-2	#8	1200'	2.50	1.27%	5 & 6	15A
A-3	#8	800'	2.08	0.63%	7 & 8	15A



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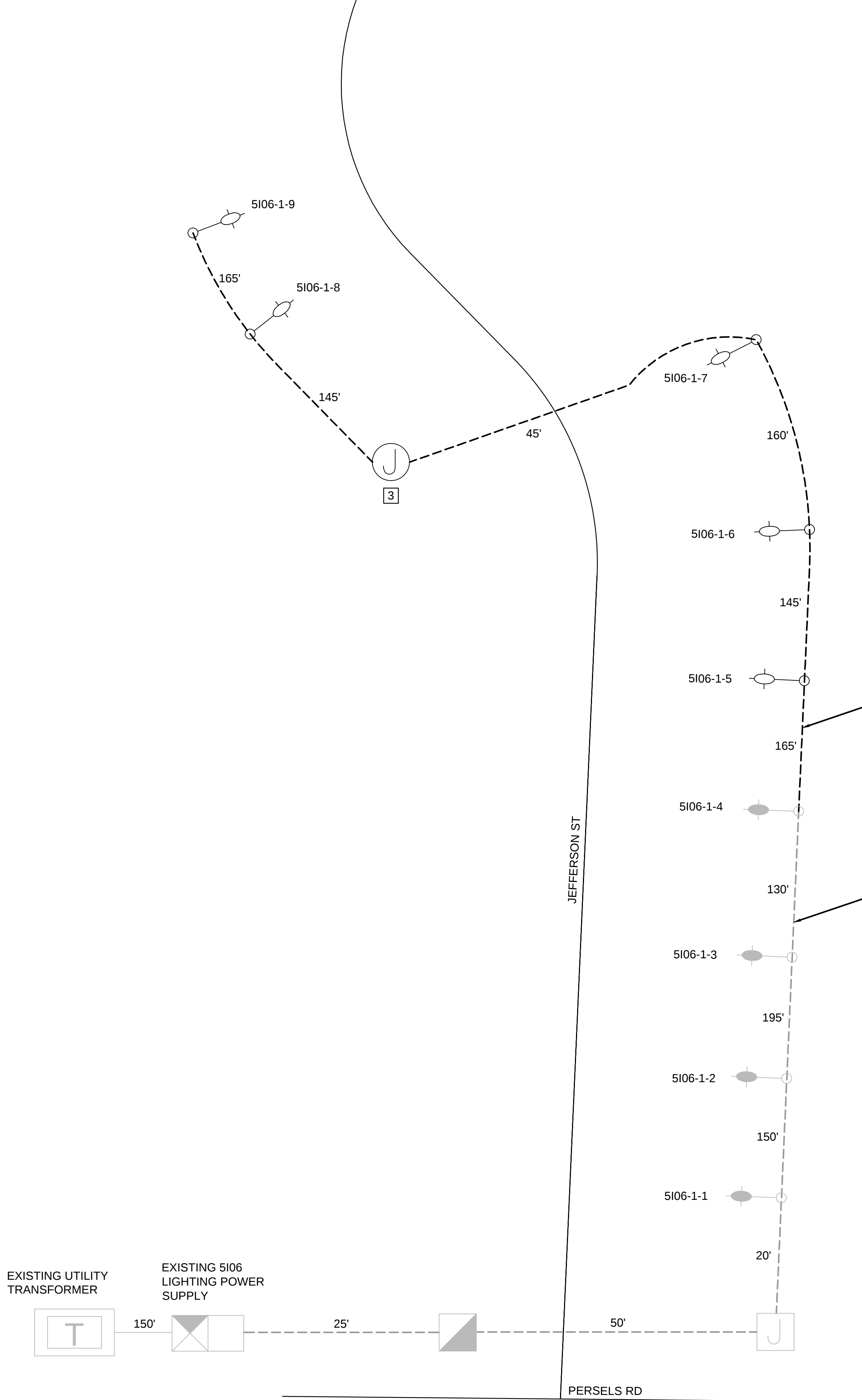
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DRAWN BY: LCJ
CHECKED BY: JKW

WIRING DIAGRAM

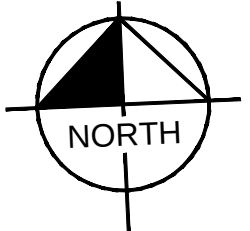
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JEFFERSON STREET
STREET LIGHTING
LEE'S SUMMIT, MO. 64086

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Drawing name: K:\KAC_T\0208132012 - Oldham Village Signal\CAD\Parasheets\11 - LIGHTING PLAN.dwg ELECTRICAL RISER DIAGRAM 2 Feb 28, 2025 6:58am by: Celia Hoggett
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CIRCUIT SUMMARY TABLE						
CIRCUIT	CONDUCTOR SIZE	CIRCUIT LENGTH	INPUT AMPERAGE	PERCENT VOLTAGE DROP	CIRCUIT ASSIGNMENT AT POWER SUPPLY	CIRCUIT BREAKER TRIP RATING
1	#8	1400'	4.58	2.07%	3,4	15A



NOT TO SCALE

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DESIGNED BY:	JW
DRAWN BY:	LCJ
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WIRING
DIAGRAM

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JEFFERSON STREET
STREET LIGHTING
LEE'S SUMMIT, MO. 64086

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SHEET NUMBER

Drawing name: K:\K4C_T\0208132012 - Oldham Village Signal\CAD\Drawings\12 - STREET LIGHT POLE DETAILS.dwg Layout1 Feb 28, 2025 7:00am by: Chris Hogsett
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STREET LIGHT POLE, BRACKET ARM, AND BREAK-AWAY BASE

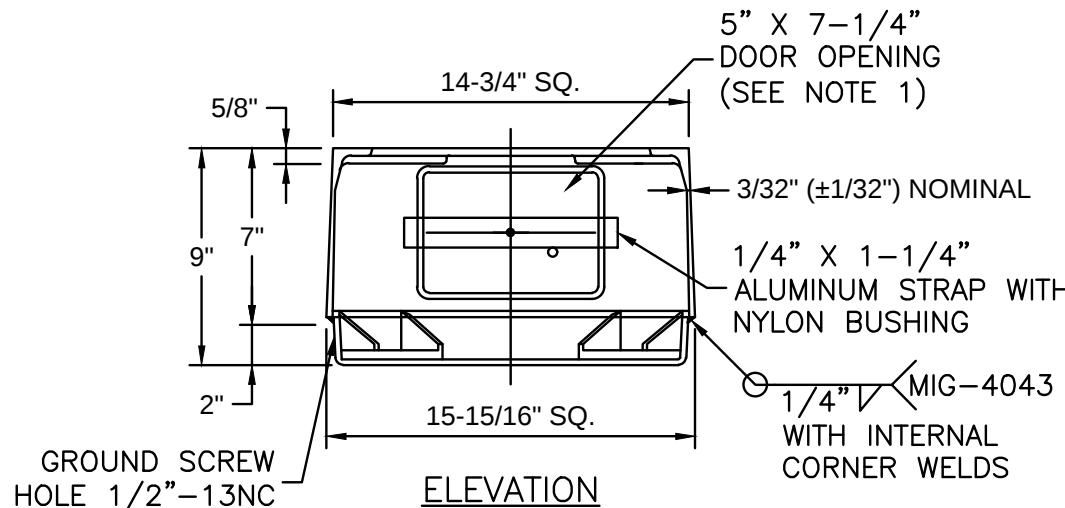
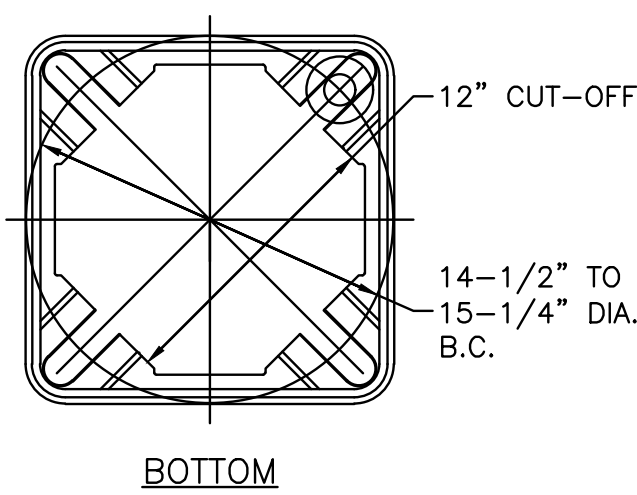
POLE TYPE	MOUNTING HEIGHT (A)	BRACKET ARMS		POLE SHAFT				SHOE BASE	ANCHOR BOLTS		
		LENGTH (B)		BASE O.D.	TOP O.D.	MIN. WALL THICKNESS	SHAFT LENGTH (C)	BOLT CIRCLE (BC)	DIAMETER	LENGTH	HOOK
		ARM 1	ARM 2								
P12	12'	—	—	6"	3"	0.156"	12'–0"	9.5"	0.75" 10NC	25"	3"
P14	14'	—	—	6"	3"	0.156"	14'–0"	9.5"	0.75" 10NC	25"	3"
P30S	30'	6' or 10'	—	8"	6"	0.188"	26'–6" ±2"	11.0"	1.00" 8NC	36"	4"
P30D	30'	6' or 10'	6' or 10'	8"	6"	0.219"	26'–6" ±2"	11.0"	1.00" 8NC	36"	4"
P40S	40'	6', 10' or 15'	—	8"	6"	0.219"	36'–6" ±2"	11.5"	1.00" 8NC	36"	4"
P40D	40'	6', 10' or 15'	6', 10' or 15'	10"	6"	0.219"	36'–6" ±2"	14.5"	1.00" 8NC	48"	4"

NOTES:

- ALL POLES, ARMS, AND MISCELLANEOUS EQUIPMENT SHALL CONFORM TO THESE DETAILS AND AS SPECIFIED BY THE LATEST CITY STANDARD SPECIFICATIONS.
- POLE SHAFT SHALL HAVE A SATIN GROUND FINISH.
- ALL HARDWARE (BOLTS, NUTS, WASHERS BUT NOT INCLUDING ANCHOR BOLTS) NOT OTHERWISE SPECIFICALLY DESIGNATED IN THE SPECIFICATIONS OR DETAILS SHALL BE 300-SERIES STAINLESS STEEL CONFORMING TO ASTM A193 OR A194.
- ANCHOR BOLTS SHALL BE USED WITH CONCRETE BASES. ANCHOR BOLTS SHALL BE STEEL WITH 50,000 PSI MINIMUM YIELD; TOP 10" MIN. GALVANIZED; INCLUDING 8 NUTS AND 8 FLAT WASHERS GALVANIZED TO ASTM A153 STANDARDS. GALVANIZED HEX HEAD BOLTS (SEE POLE FOUNDATION SHEET) SHALL BE USED WITH SCREW-IN ANCHOR BASES. 4 BOLTS, 4 NUTS AND 8 FLAT WASHERS TO PROVIDED WITH EACH ANCHOR.
- ALL WELDING IS TO BE DONE WITH 4043 WELD WIRE. ALL ARMS AND SHAFTS ARE TO BE HEAT-TREATED TO T6 TEMPER AFTER WELDING.
- ANCHOR BOLTS SHALL PROJECT ABOVE THE CONCRETE BASE AS PER MANUFACTURER'S RECOMMENDED PRACTICES, 2½" TO 3".
- THE ALUMINUM STREET LIGHT POLE ASSEMBLY, INCLUDING ANCHORAGE AND LUMINAIRE, SHALL COMPLY WITH THE LATEST CITY STANDARD SPECIFICATIONS AND THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD WIND LOADING.
- ALL POLES AND ARMS SHALL BE CLEARLY IDENTIFIED BY THE MANUFACTURER'S NAME, ABBREVIATION, OR SYMBOL ENGRAVED ON THE SHAFT, SHOE BASE, HAND HOLE, OR OTHER MEANS SUCH AS TO BE READILY VISIBLE AFTER INSTALLATION.

MATERIAL DATA

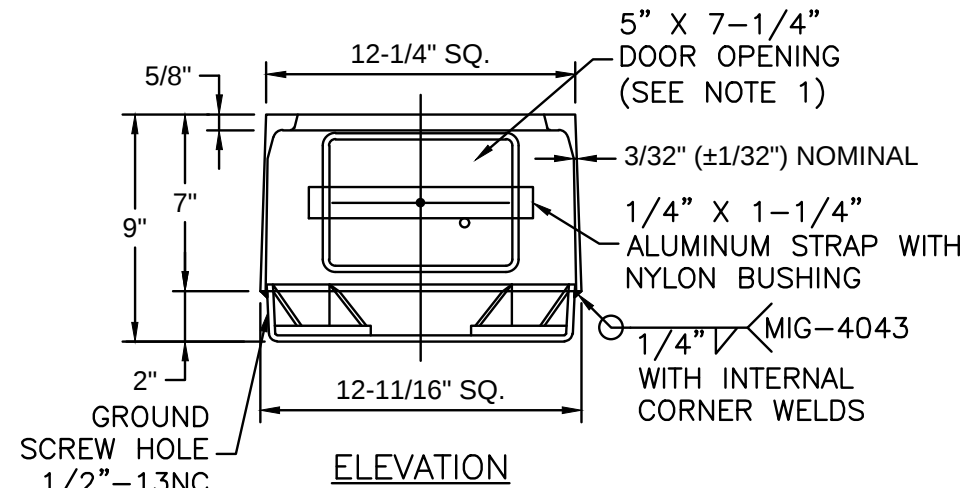
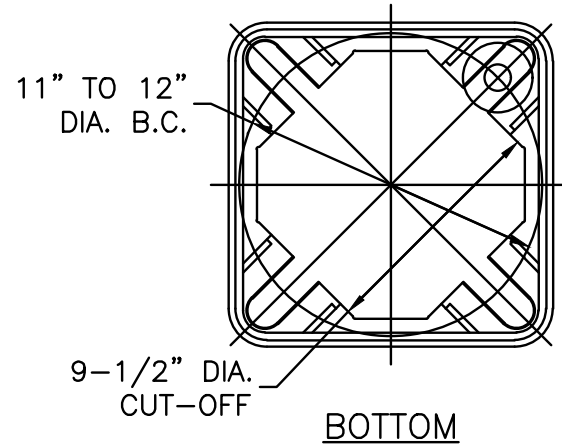
COMPONENT	ALUMINUM ALLOY DESIGNATION	SPECIFICATION
SHOE BASE	356-T6, CAST	ASTM B26 OR B108
BREAKAWAY BASE	356-T6, CAST	ASTM B108
BOLT COVERS	356 OR 360, CAST	ASTM B26 OR B108
POLE SHAFT	6063-T6, EXTRUDED	ASTM B221 OR B241
GROUND LUG	6061-T5 OR 6063-T6, PLATE	ASTM B221
REINFORCED HANDHOLE FRAME	356-T6 OR 6061-T6	ASTM B26, B108 OR B221
HANDHOLE COVER	6063-T6	ASTM B209, B221 OR B241
BRACKET ARM & TUBING PIPES	6063-T6	ASTM B221, B241 OR B249
BRACKET ARM MOUNTING PLATES	6061-T6 OR 6063-T6 EXTRUDED	ASTM B221
BRACKET ARM STRUT & ARM CONNECTOR	AU6061-T6 OR 6063-T6 EXTRUDED	ASTM B221, B241 OR B249
POLE CAP	356, CAST	ASTM B26 OR B108
ANCHOR BOLTS	N/A	GALVANIZED PER ASTM A153



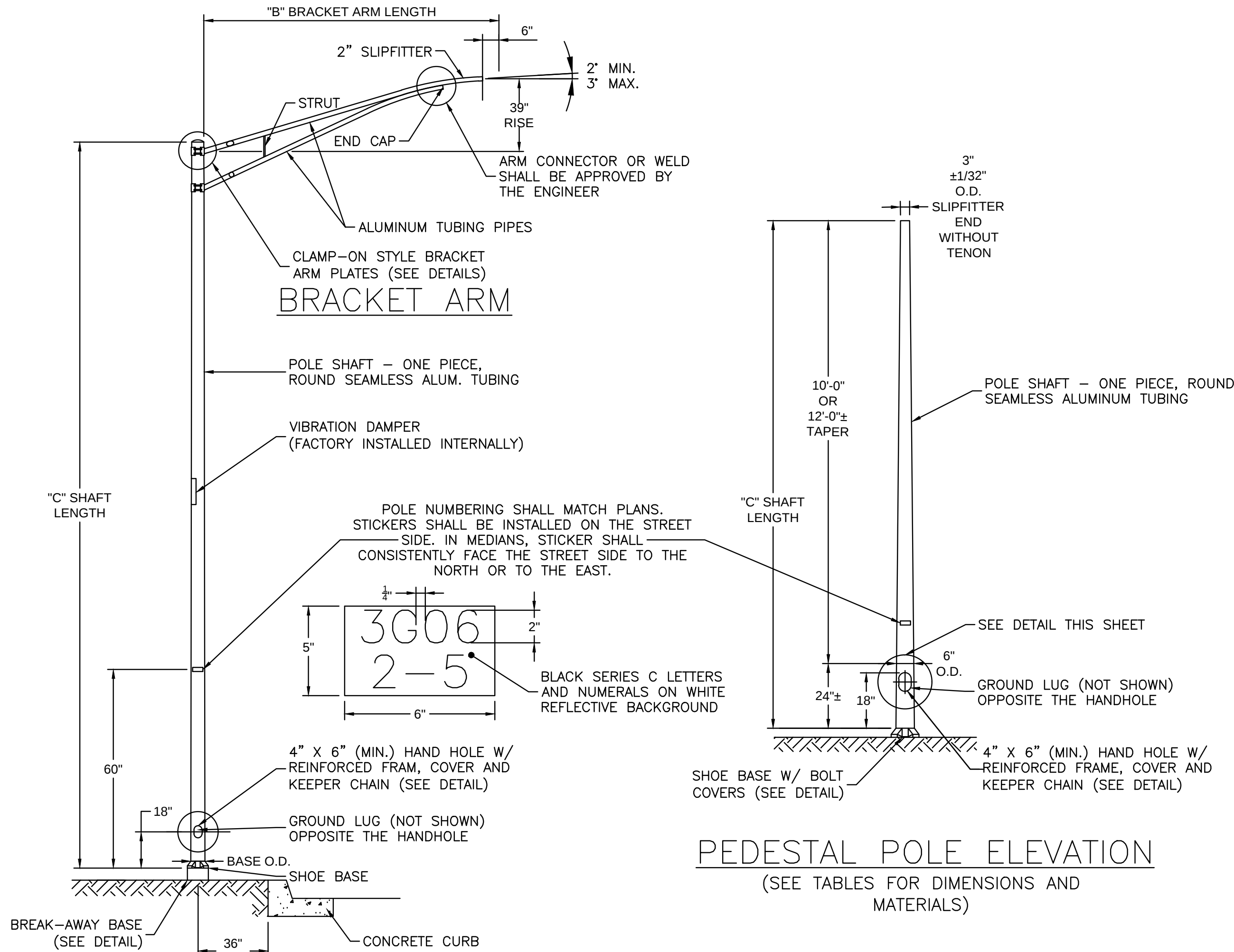
15" BREAK-AWAY BASE

NOTES:

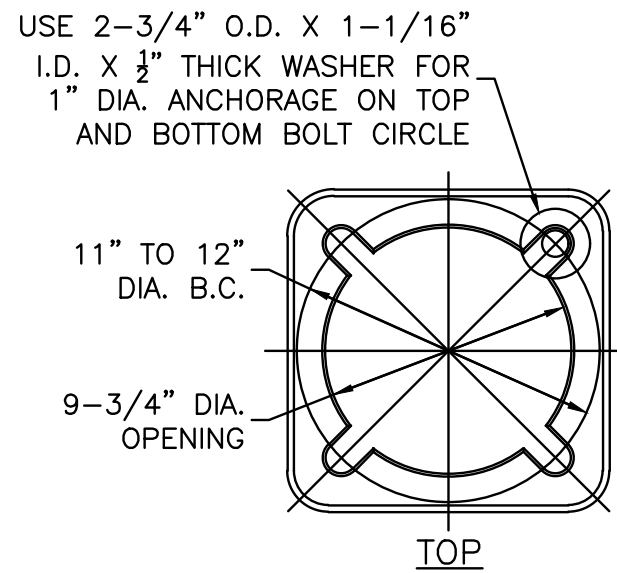
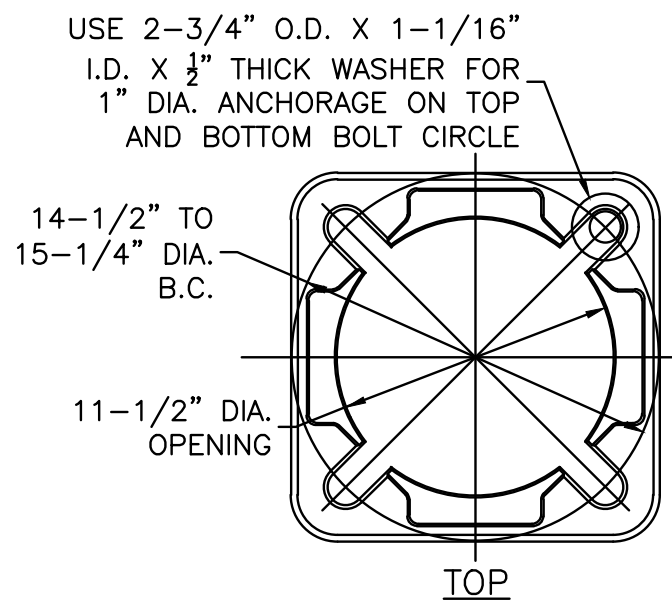
- DOOR SHALL BE ON THE SAME SIDE OF THE POLE AS THE HAND HOLE.
- BASE CONFORMS TO BREAKAWAY CRITERIA OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (1994).



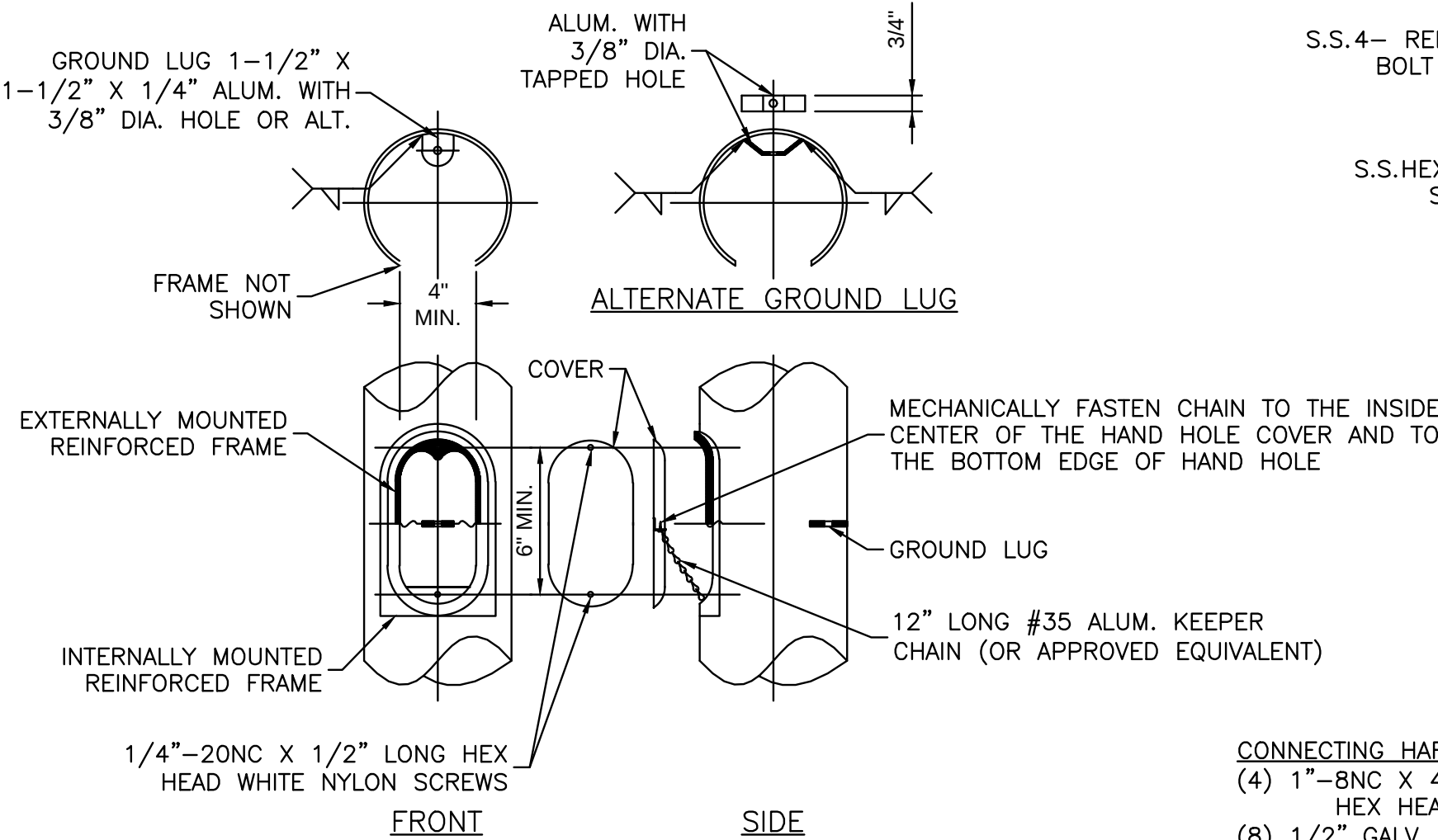
11" BREAK-AWAY BASE



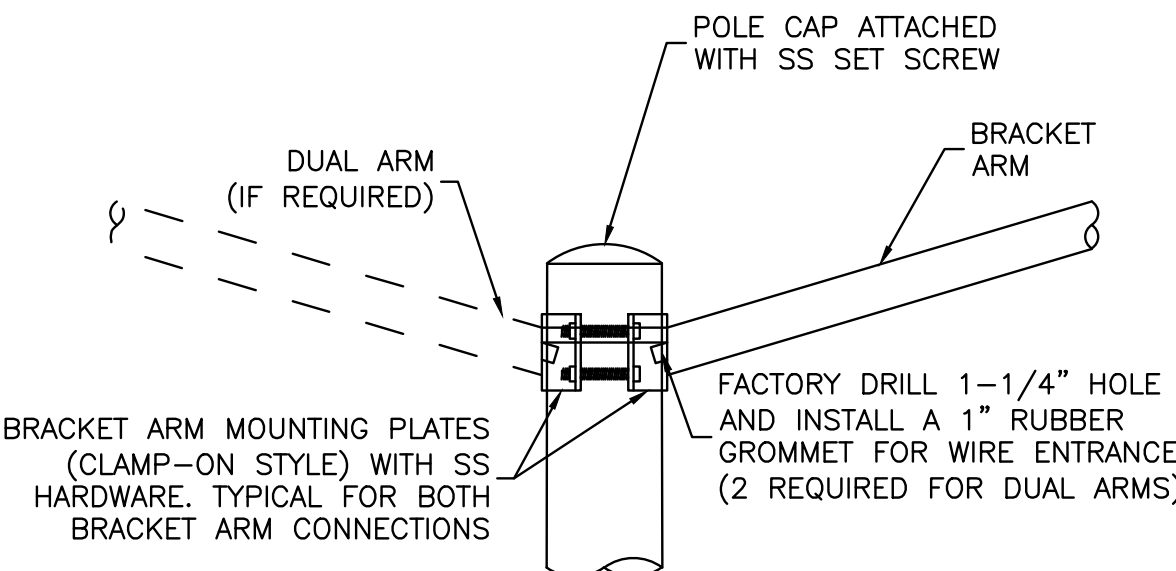
POLE ELEVATION (SEE TABLES FOR DIMENSIONS AND MATERIALS)



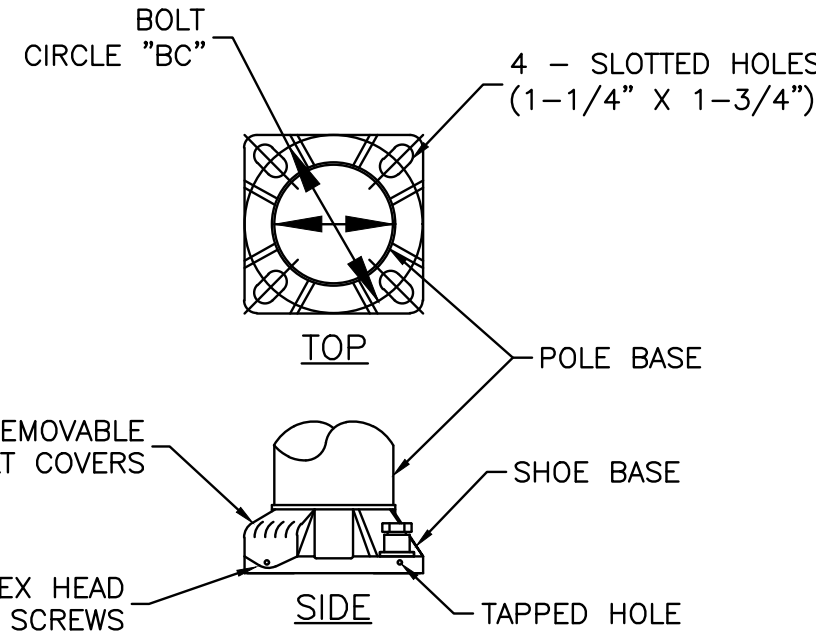
PEDESTAL POLE ELEVATION (SEE TABLES FOR DIMENSIONS AND MATERIALS)



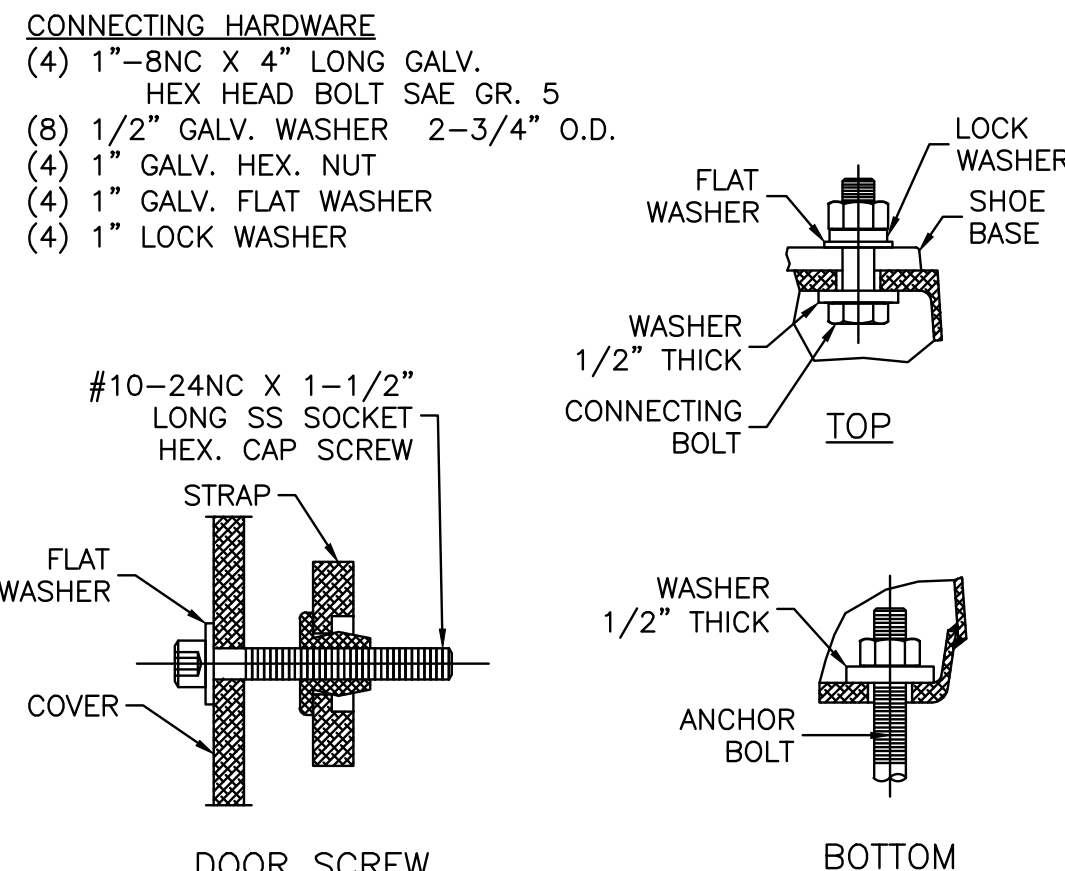
HAND HOLE



BRACKET ARM MOUNTING



SHOE BASE



BREAK-AWAY BASE ANCHORAGE

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MISSOURI

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STREET LIGHT
STANDARD DETAILS

POLE DETAILS

POLE
DETAILS

OLDHAM PARKWAY &
JEFFERSON STREET
STREET LIGHTING
LEE'S SUMMIT, MO. 64066

Drawn By: KHA
Checked By:
Date: 02/2025

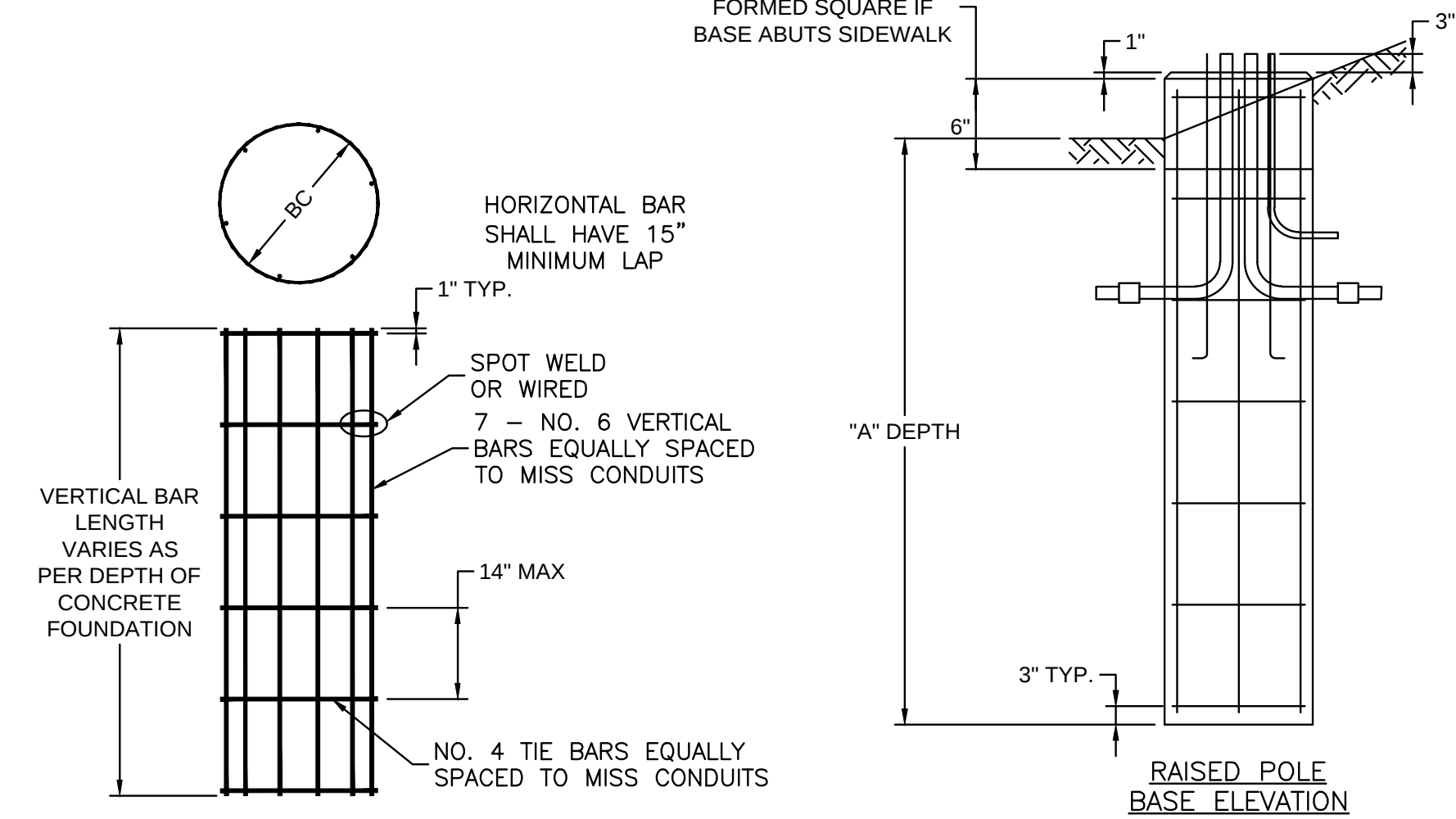
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ORIGINAL ISSUE:
02/28/2025
KHA PROJECT NO.
268132012
SHEET NUMBER

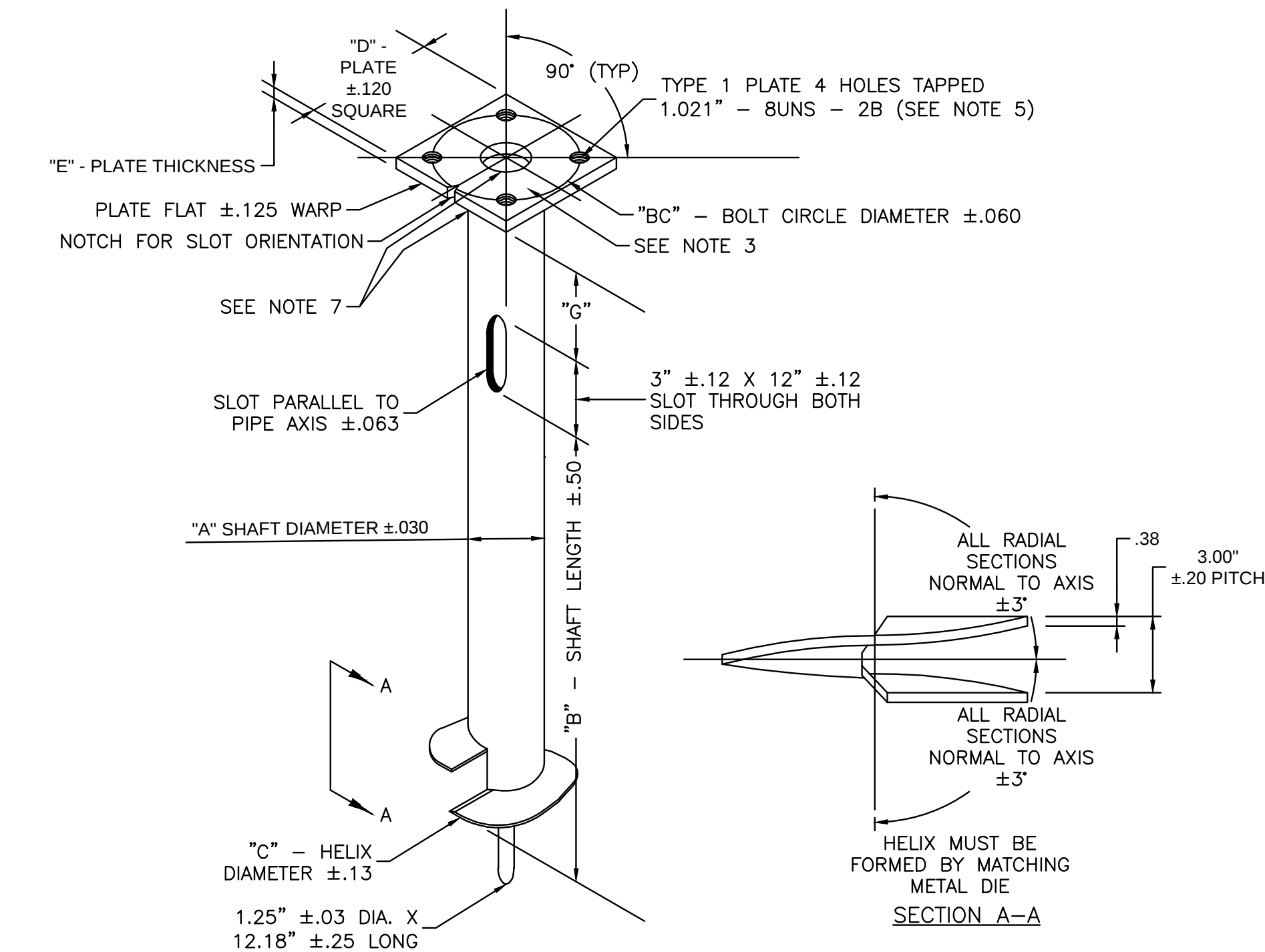
Drawing name: K:\K4C_T\PI0268132012 - Oldham Village Signal\CAD\Drawings\13 - STREET LIGHT POLE BASE DETAILS.dwg Layout1 Feb 28, 2025 7:01am by: Clara Hogstad
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POLE TYPE	BRACKET ARM	DEPTH (A)	BOLT CIRCLE (BC)
P12	---	48"	9.5"
P14	---	48"	9.5"
P30S OR P30D	SINGLE OR DUAL	72"	11.0"
P40S	SINGLE	94"	11.5"
P40D	DUAL	94"	14.5"



REBAR CAGE DETAIL

BASE TYPE	POLE TYPE	MINIMUM TORQUE RATING (LBS. FT.)	MAXIMUM TORQUE RATING (LBS. FT.)	SHAFT DIA. (A)	SHAFT LENGTH (B)	HELIX DIA. (C)	PLATE SIZE (D)	PLATE THICKNESS (E)	BOLT CIRCLE (BC)	SLOT LOCATION (G)
B12	P12	2,000	15,000	6"	48"	12"	10"	0.75"	9.5"	12"
B14	P14	2,000	15,000	6"	48"	12"	10"	0.75"	9.5"	12"
B30	P30S & P30D	2,000	15,000	6"	60"	12"	12"	1.0"	11.0"	18"
B40S	P40S	2,000	20,000	8"	60"	14"	12"	1.0"	11.5"	18"
B40D	P40D	2,000	20,000	8"	60"	14"	15"	1.25"	14.5"	18"



SCREW-IN ANCHOR BASE DETAILS

NOTES:

1. FINISH: HOT DIP GALVANIZE PER ASTM-A153 (LATEST REVISION).
2. BASEPLATE TO BE PERPENDICULAR TO SHAFT AXIS ($\pm 1^\circ$) AND HOLE AND CONCENTRIC ($\pm .188$ I.D. FIM) TO SHAFT AXIS.
3. ALL BASES SHALL BE IDENTIFIED BY THE MANUFACTURER'S INITIALS AND THE ANCHOR TYPE (1 OR 2) PERMANENTLY STAMPED INTO THE TOP PLATE WITH $1/2"$ LETTERS., THE JULIAN DATE OF MANUFACTURE SHALL BE PERMANENTLY STAMPED IN $1/4"$ NUMERALS.
4. PILOT POINT AND SHAFT AXES TO BE CONCENTRIC ($\pm .125$ FIM) AND IN LINE ($\pm 2^\circ$).
5. TAP $1"$ HOLES ON THE SPECIFIED BOLT CIRCLE PERPENDICULAR TO THE BASEPLATE. CLEAN AND CHASE THE THREADS AFTER HOT-DIP GALVANIZING SO THAT A BOLT MAY BE INSTALLED.
6. PREHEAT (ROOM TEMPERATURE 70°F), TUMBLEBLAST, HANDGRIND, AND CLEAN BASEPLATE, HELIX, AND CORE ON ALL WELD AREAS.
7. FLAME CUT IRREGULARITIES PERMISSIBLE:
 - (1) VALLEYS NOT TO EXCEED $3/32$ IN. BELOW NOMINAL SURFACE LEVEL.
 - (2) PEAKS OR POSITIVE IRREGULARITIES NOT TO EXCEED $1/32$ IN. ABOVE NOMINAL SURFACE LEVEL OR INTERSECTIONS OF NOMINAL SURFACES.
8. MANUFACTURER TO HAVE IN EFFECT INDUSTRY RECOGNIZED WRITTEN QUALITY CONTROL FOR ALL MATERIALS AND MANUFACTURING PROCESSES.
9. ALL MATERIAL IS TO BE NEW, UNUSED AND MILL TRACEABLE MEETING THE FOLLOWING SPECIFICATIONS:

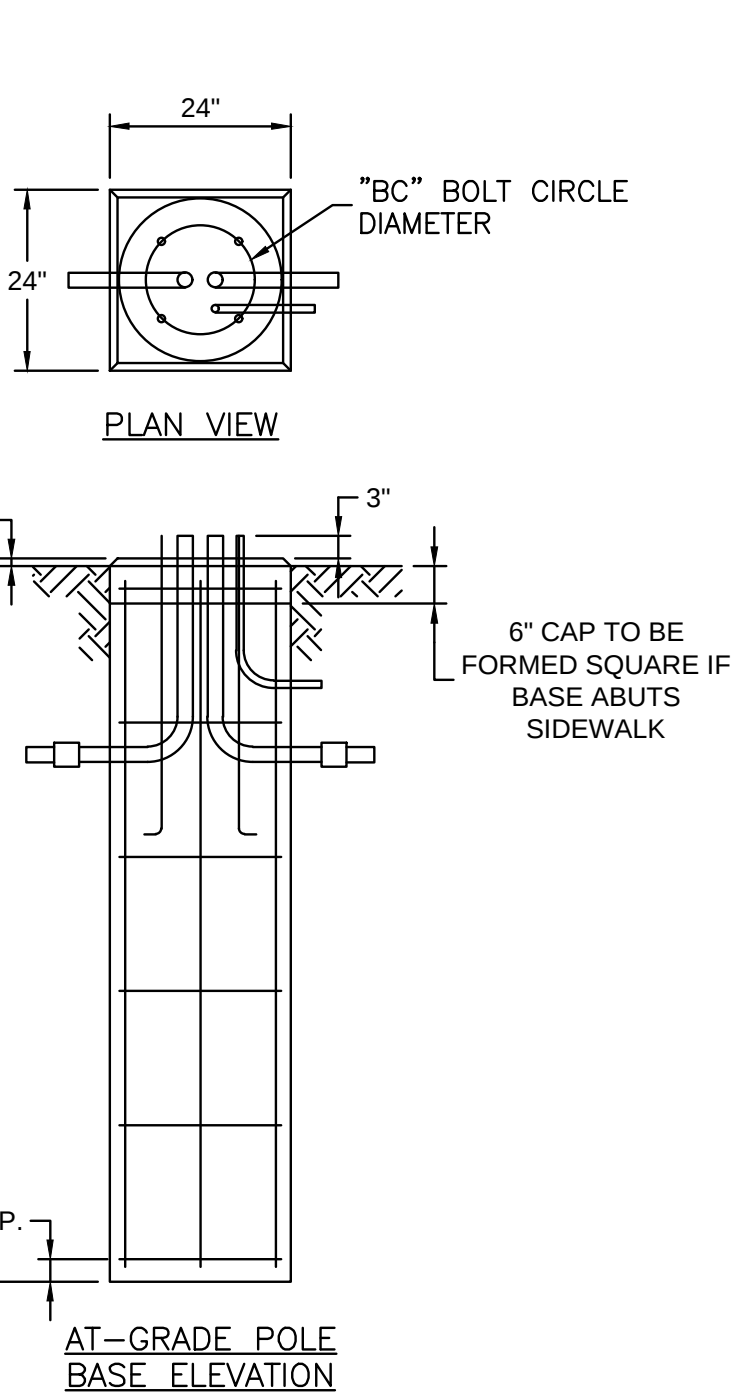
BASEPLATE: ASTM A36--(LATEST REVISION) HOT ROLLED STEEL PLATE (CONFORM TO AASHTO TECHNICAL BUL. #270).

SHAFT: STEEL PIPE PILES, SEAMLESS OR STRAIGHT WELDED, GRADE 2 PER ASTM A252. ALTERNATE MATERIAL: PIPE TYPE E OR S, GRADE B PER ASTM A53.

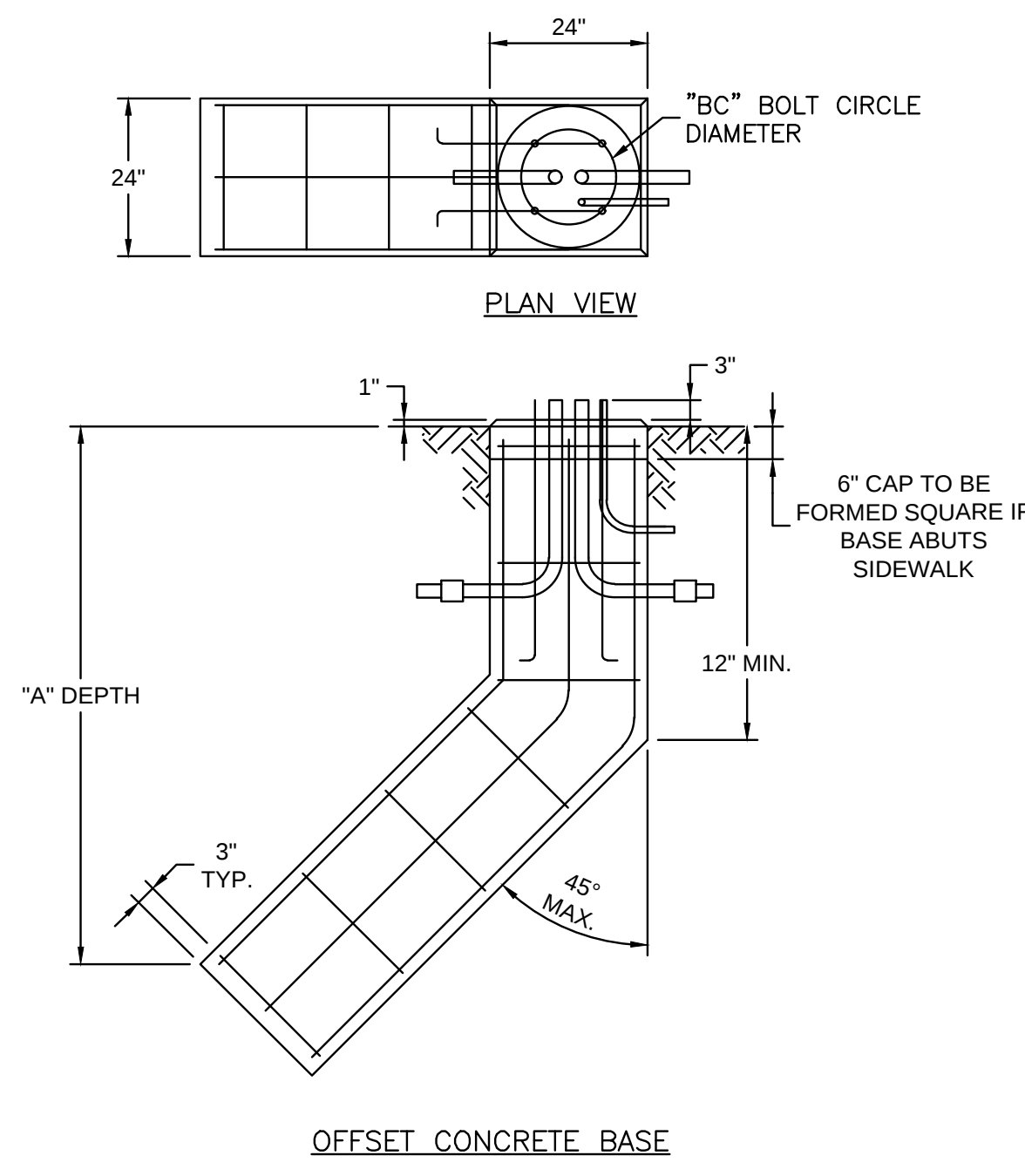
HELIX: ASTM A635--(LATEST REVISION) HOT ROLLED STEEL PLATE

PILOT POINT: ASTM A575--(LATEST REVISION) HOT ROLLED STEEL

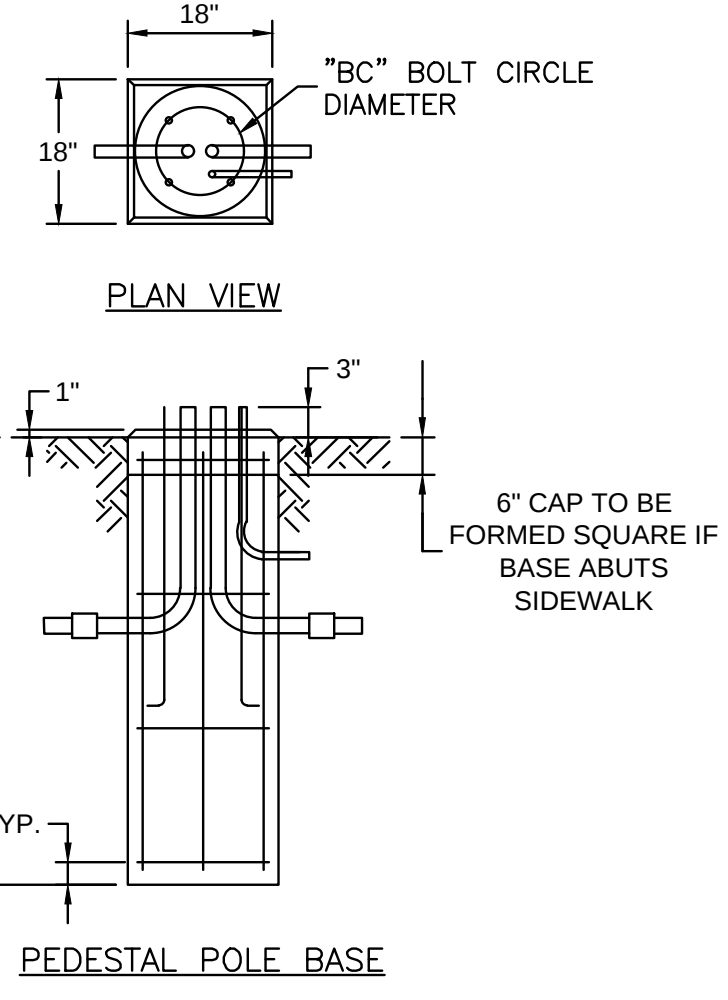
BOLT: ASTM A325 OR GRADE 5 SAE J429 - $1"$ DIAMETER HOT DIP GALVANIZED HEX HEAD BOLT. BOLT SHALL INCLUDE ONE EACH LOCK AND FLAT WASHER.
10. THE DESIGN AND PERFORMANCE INTEGRITY OF THE FOUNDATION SHALL BE VERIFIED BY FULL-SCALE TESTS BY QUALIFIED ENGINEERS INDEPENDENT OF THE MANUFACTURER. CERTIFIED TEST REPORTS SHALL BE PROVIDED UPON REQUEST.
11. FLAME CUT NOTCH OR PROJECTION WILL BE ON THE BASE PLATE TO INDICATE SLOT ORIENTATION.



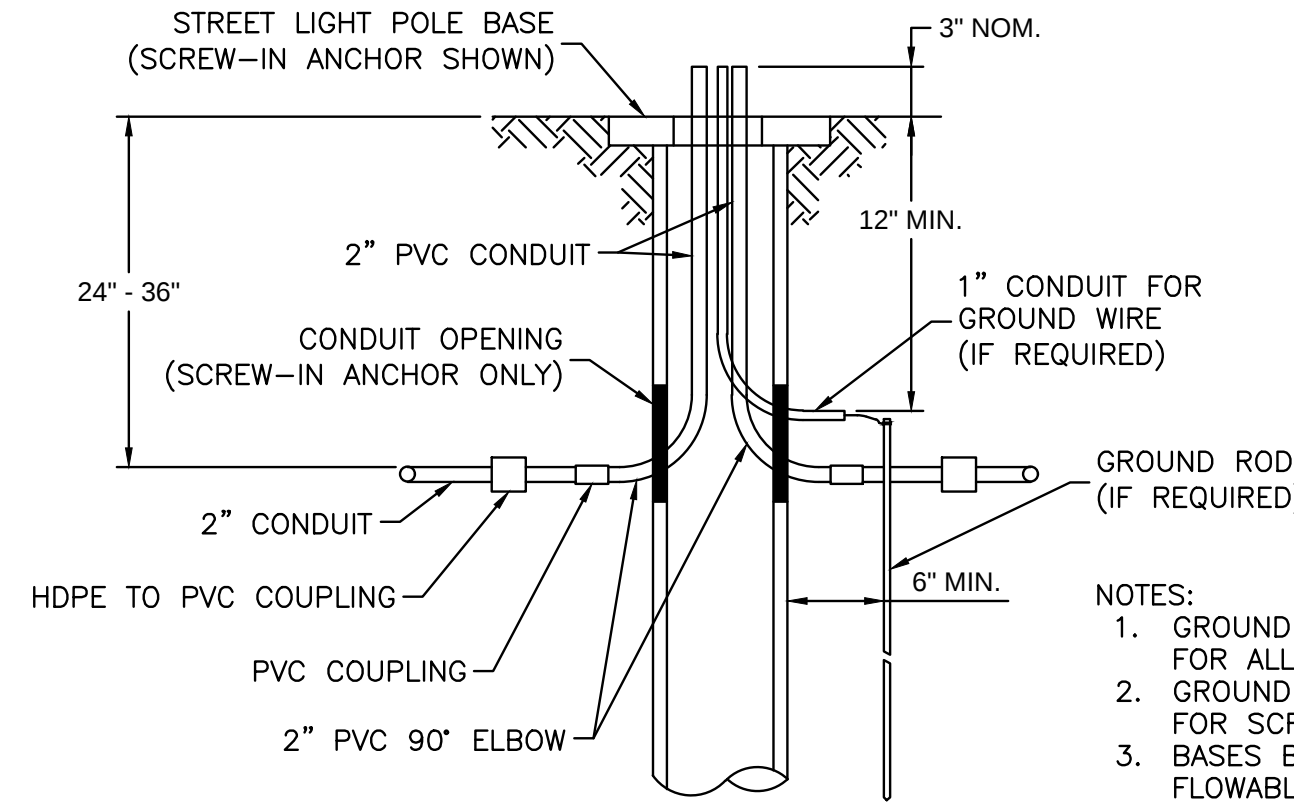
CONCRETE BASE DETAILS



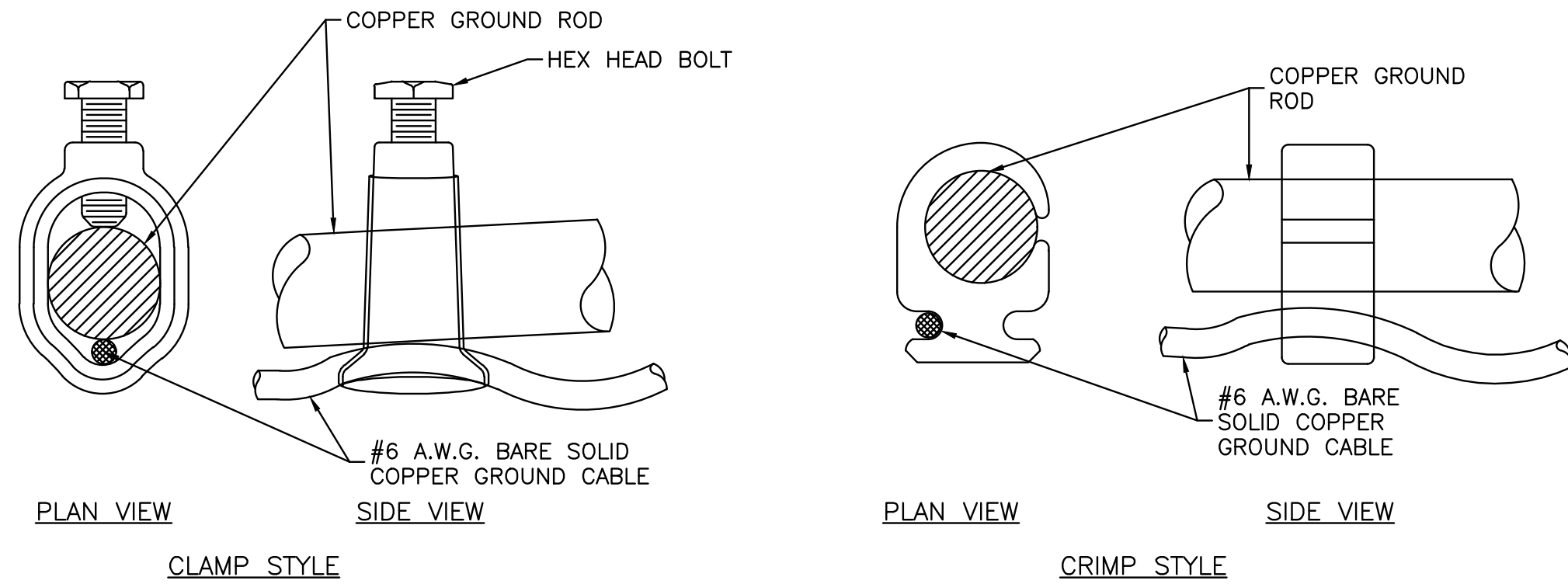
OFFSET CONCRETE BASE



PEDESTAL POLE BASE



CONDUIT ENTRANCE AND GROUNDING



GROUND ROD CONNECTION DETAILS

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STREET LIGHT
STANDARD DETAILS

POLE BASE DETAILS

POLE BASE
DETAILS

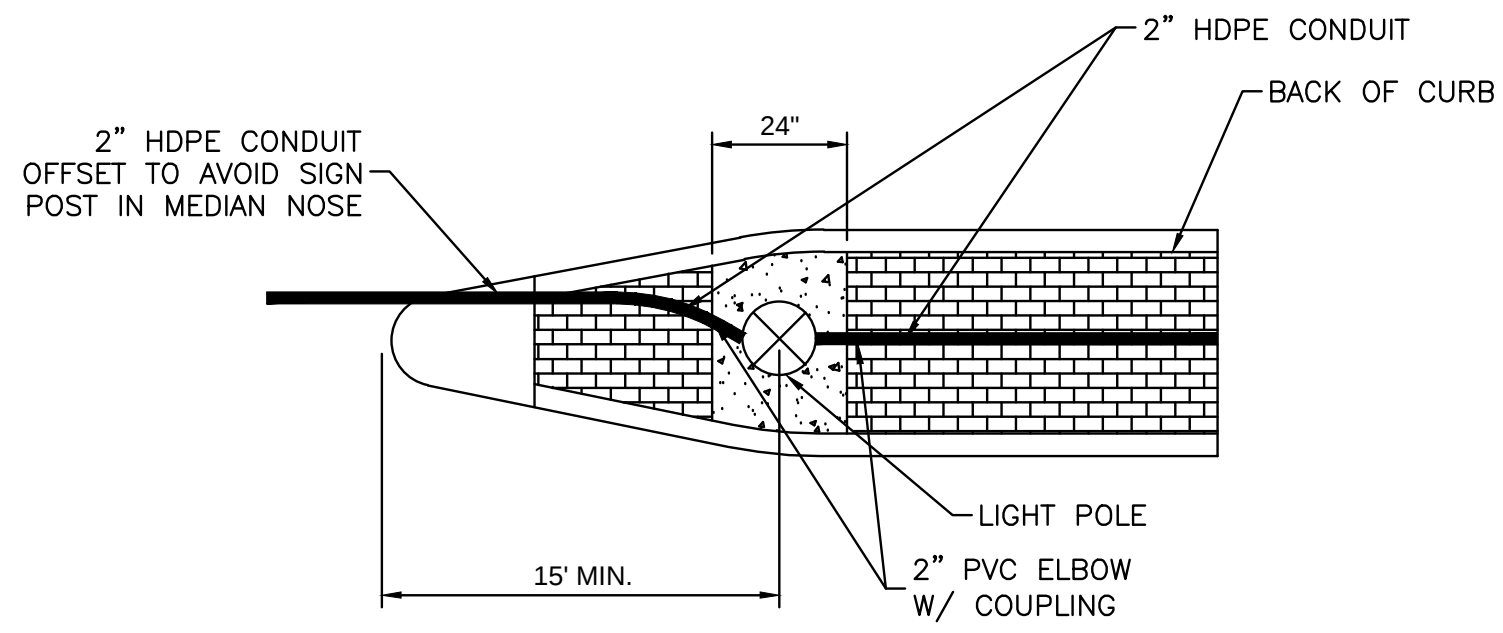
OLDHAM PARKWAY &
JEFFERSON STREET
STREET LIGHTING
LEE'S SUMMIT, MO. 64066

Drawn By: KHA
Checked By:
Date: 02/2025

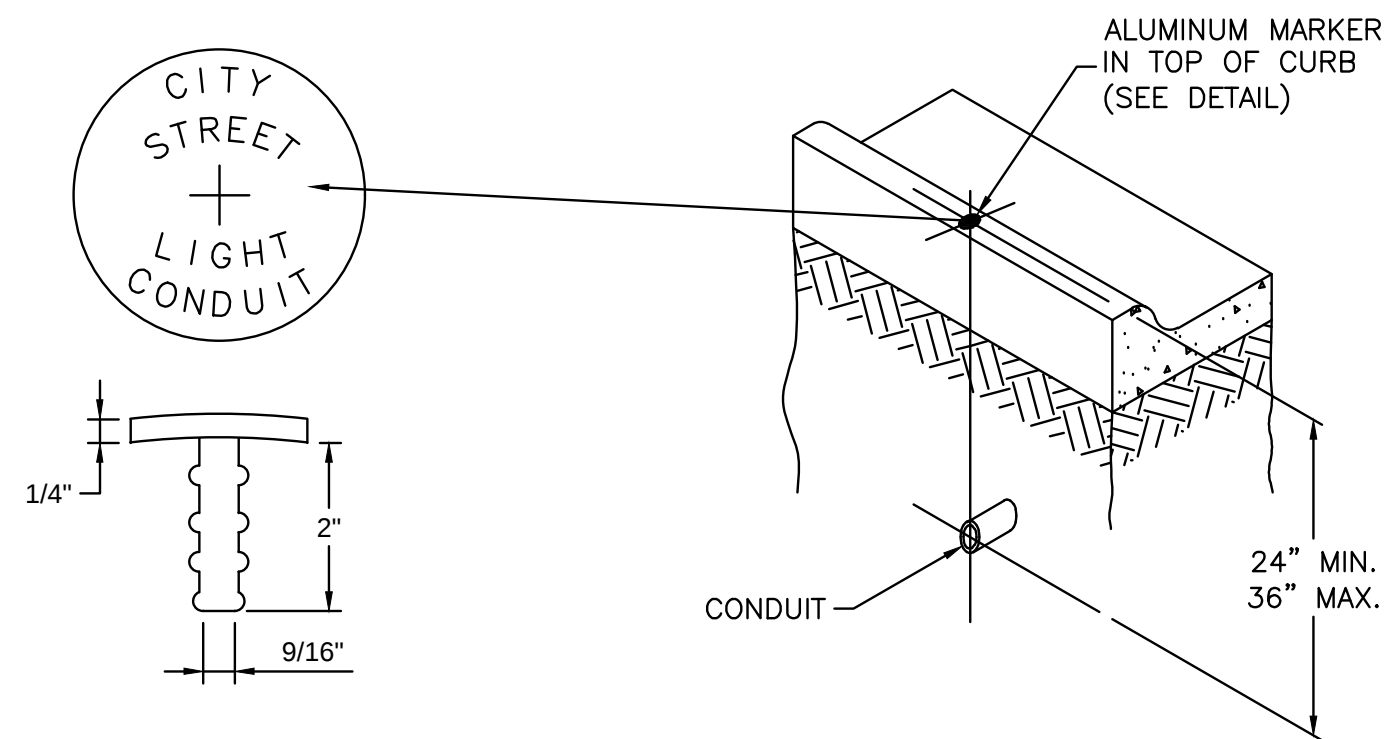
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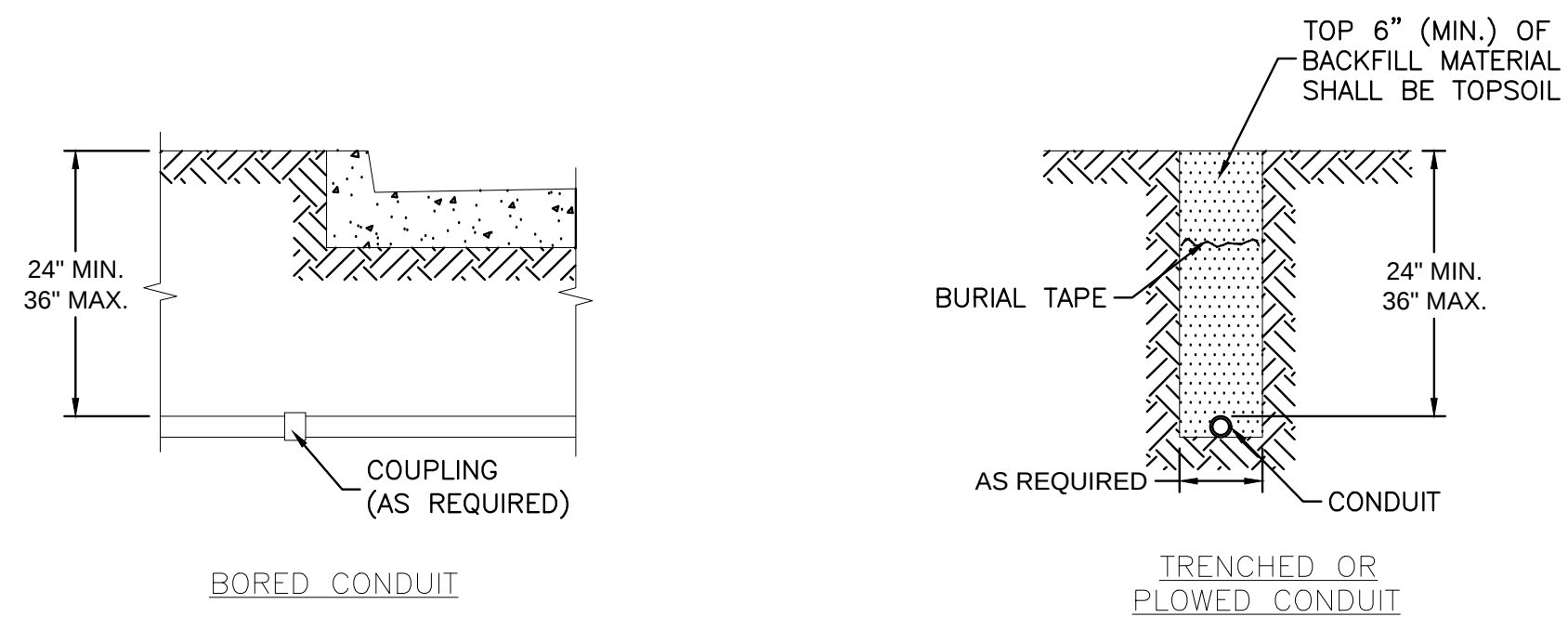
STREET LIGHT POLE IN MEDIAN



CONDUIT MARKING DETAIL

NOTES:

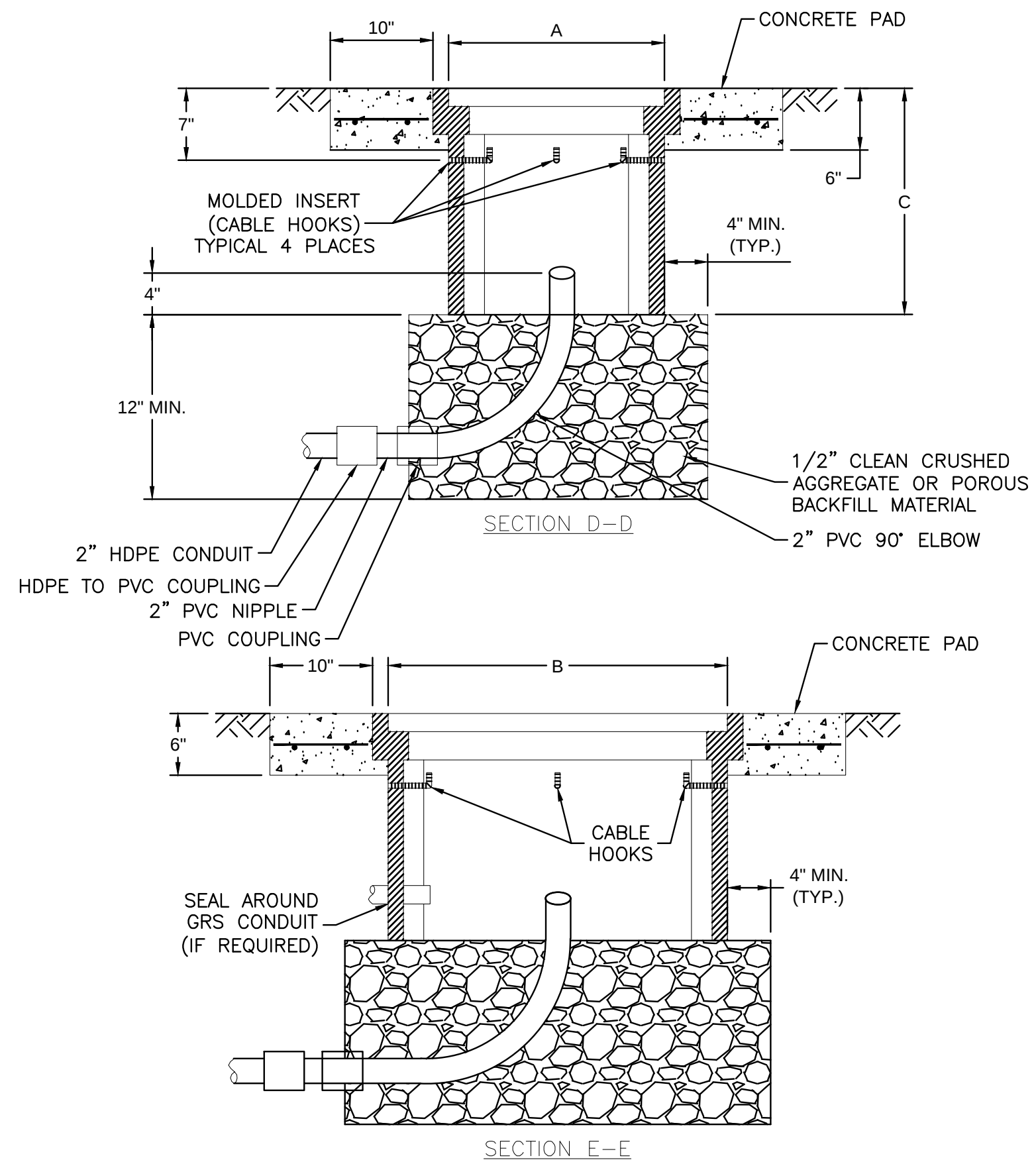
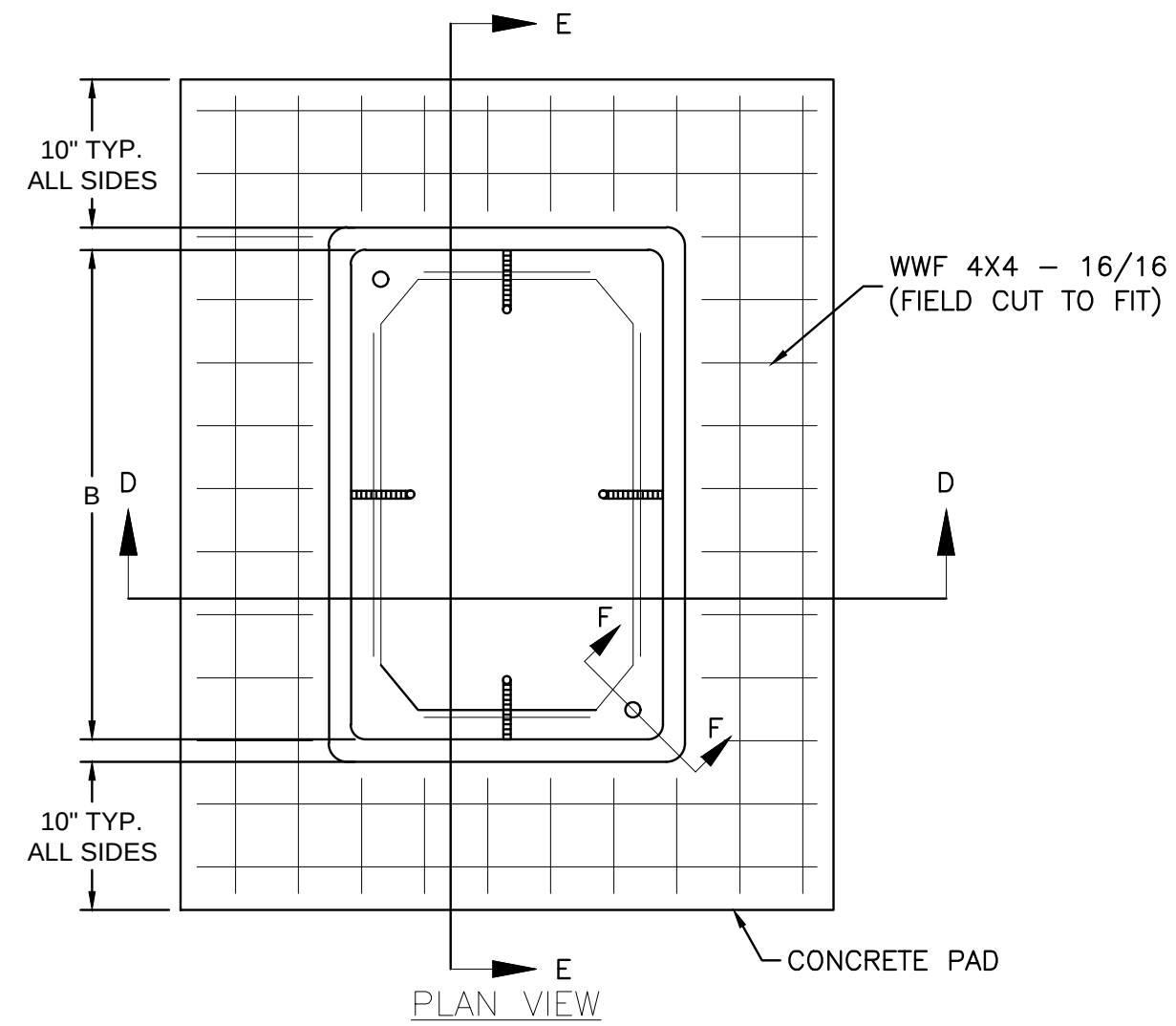
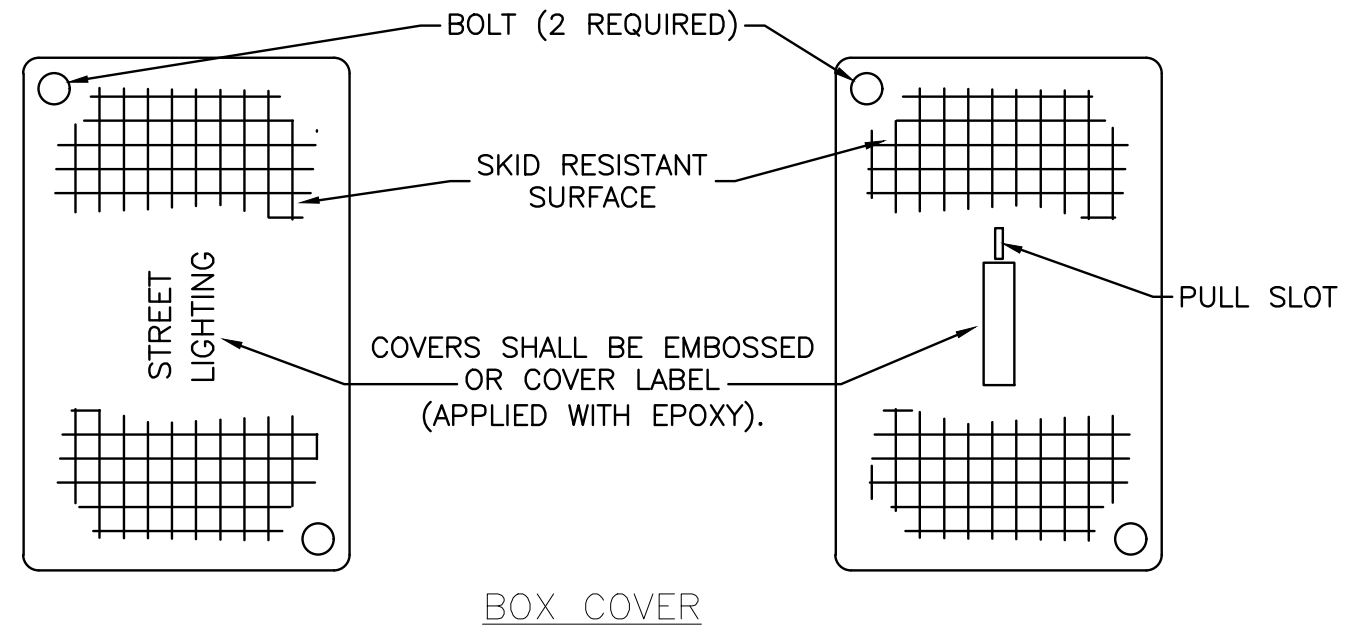
1. AN ALUMINUM MARKER SHALL BE PLACED IN THE TOP OF THE CURB DIRECTLY OVER THE CONDUIT.
2. MARKERS SHALL BE INSTALLED BY DRILLING THE CURB AND EXPOXYING THE MARKER IN PLACE. IF INSTALLED IN A SIDEWALK OR CURB RAMP, THE TOP OF THE MARKER SHALL BE FLUSH WITH THE CONCRETE SURFACE.
3. NO DIRECT PAYMENT SHALL BE MADE FOR CONDUIT MARKERS; THEY ARE SUBSIDIARY TO THE INSTALLATION OF CONDUIT.



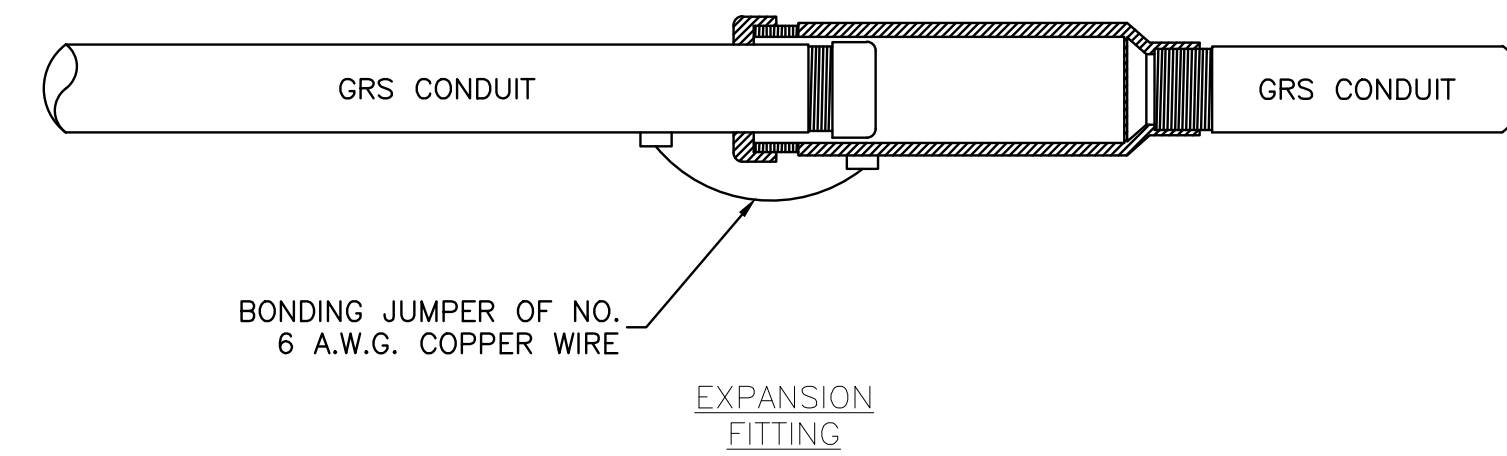
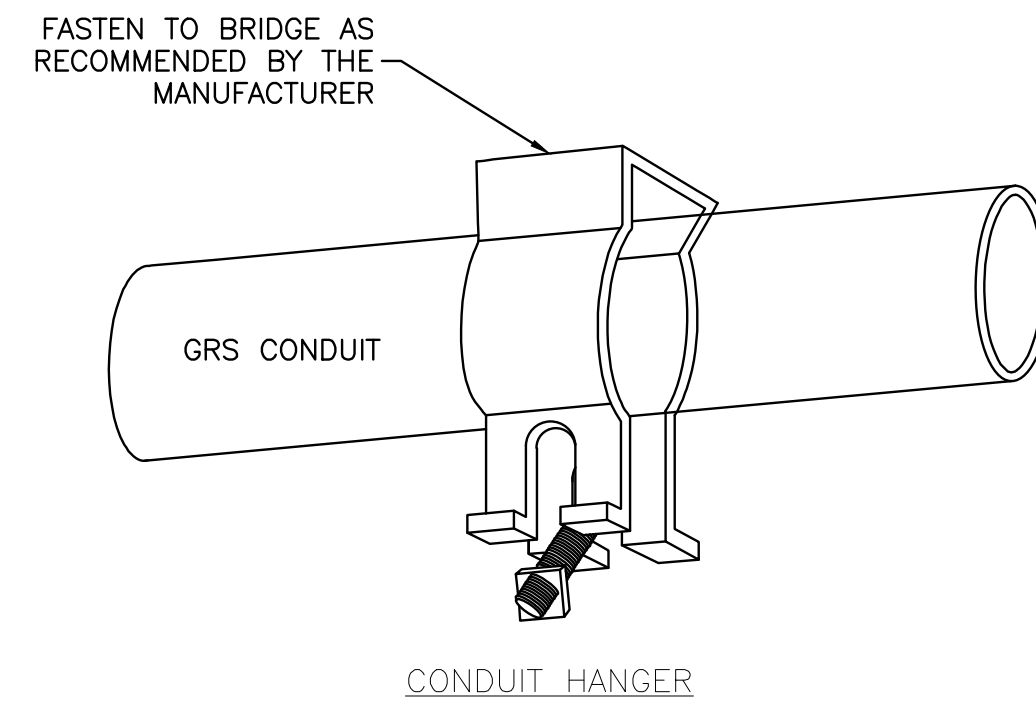
CONDUIT LOCATIONS

NOTES:

1. BACKFILL UNDER PAVED SURFACES SHALL BE FLOWABLE FILL.
2. THE CONDUIT SHALL NOT BE COVERED UNLESS INSPECTED AND APPROVED BY THE CITY ENGINEER, SO AS TO ENSURE PROPER DEPTH, CORRECT CONDUIT MATERIAL, AND PROPER CONDUIT END TREATMENT.



PULL OR JUNCTION BOX DETAILS



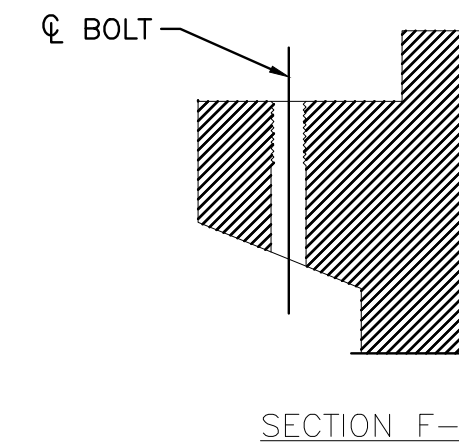
GRS CONDUIT DETAILS

NOTES:

1. ALL CONDUITS INSTALLED ABOVE GROUND SHALL BE GRS.
2. CONDUIT ATTACHED TO BRIDGES SHALL HAVE EXPANSION FITTINGS INSTALLED AT EACH END OF THE BRIDGE AND AT EACH EXPANSION JOINT ON THE BRIDGE.
3. ALL GRS CONDUITS SHALL BE ELECTRICALLY BONDED BY A GROUNDING BUSHING AND GROUND WIRE AS DETAILED.
4. INSTALL THE CONDUIT AND CONNECTOR ASSEMBLY TO PERMIT A 1/2" MINIMUM LONGITUDINAL TRAVEL IN EITHER DIRECTION.

NUMBER OF ENTERING/EXITING CONDUITS	BOX TYPE	MINIMUM BOX DIMENSIONS		
		A	B	C
1 - 2	TYPE 1 JUNCTION BOX	12"	12"	12"
3 - 4	TYPE 2 JUNCTION BOX	12"	18"	12"
> 4	CLASS 1 PULL BOX	17"	30"	22"

ALL DIMENSIONS SHOWN ARE NOMINAL



NOTES:

1. LIFT OPENING REQUIRED ON ALL COVERS.
2. PREFORMED BOX WALLS MAY BE EITHER FLARED OR VERTICAL. THE BOTTOM OF BOXES SHALL BE OPEN TO BELOW.
3. IF AN EXTENSION IS USED WITH A PREFORMED BOX, THE LIP OF THE EXTENSION MAY BE INTERIOR OR EXTERIOR. THE EXTENSION SHALL BE COMPATIBLE AND FROM THE SAME MANUFACTURER.
4. CABLE HOOKS ARE TO BE INCLUDED WITH CLASS 1 PULL BOXES ONLY.
5. A CLASS 1 PULL BOX SHALL BE INSTALLED ADJACENT TO EACH 4-CIRCUIT POWER SUPPLY.

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Project:	STREET LIGHT STANDARD DETAILS
Sheet Name:	BOX AND CONDUIT DETAILS

Drawn By: KHA
Checked By:
Date: 02/2025

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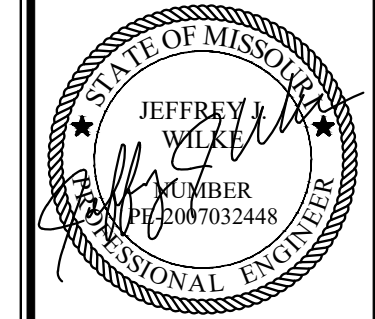
SL-3

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SCALE:	AS NOTED
DESIGNED BY:	JJW
DRAWN BY:	LCJ
CHECKED BY:	JJW



BOX AND CONDUIT DETAILS

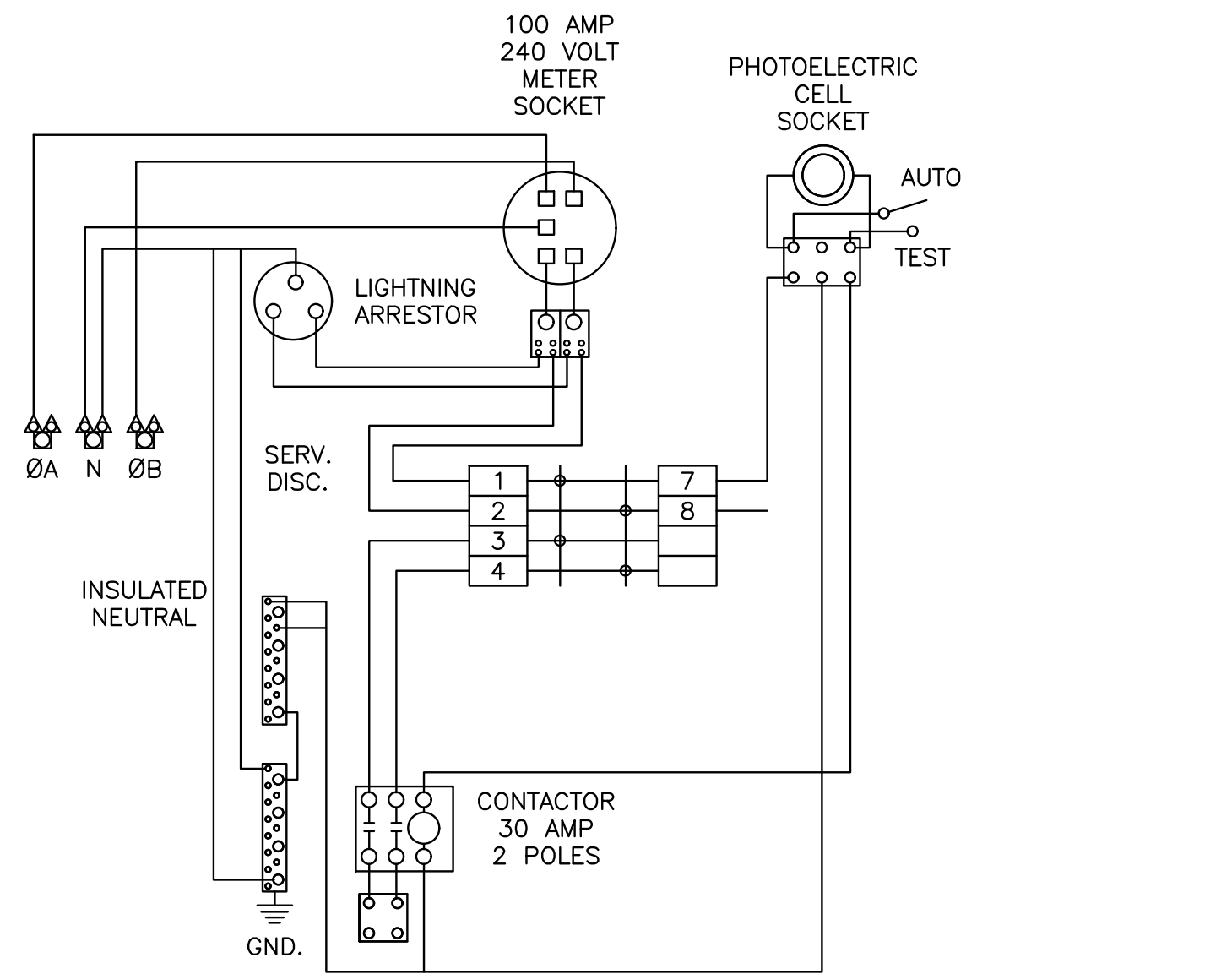
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LEE'S SUMMIT, MO. 64086

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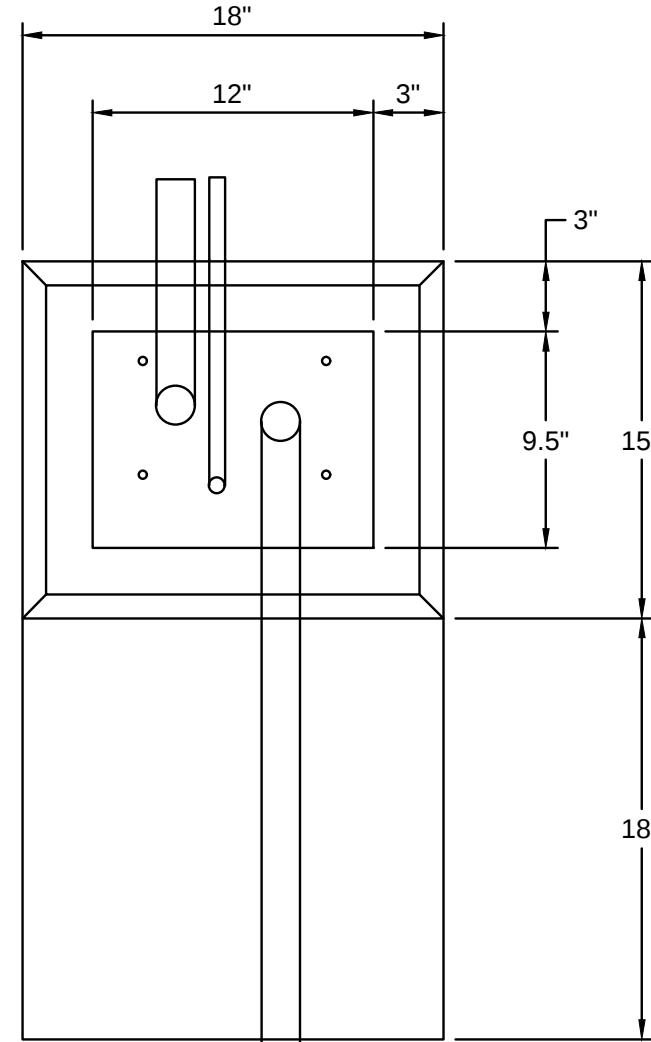
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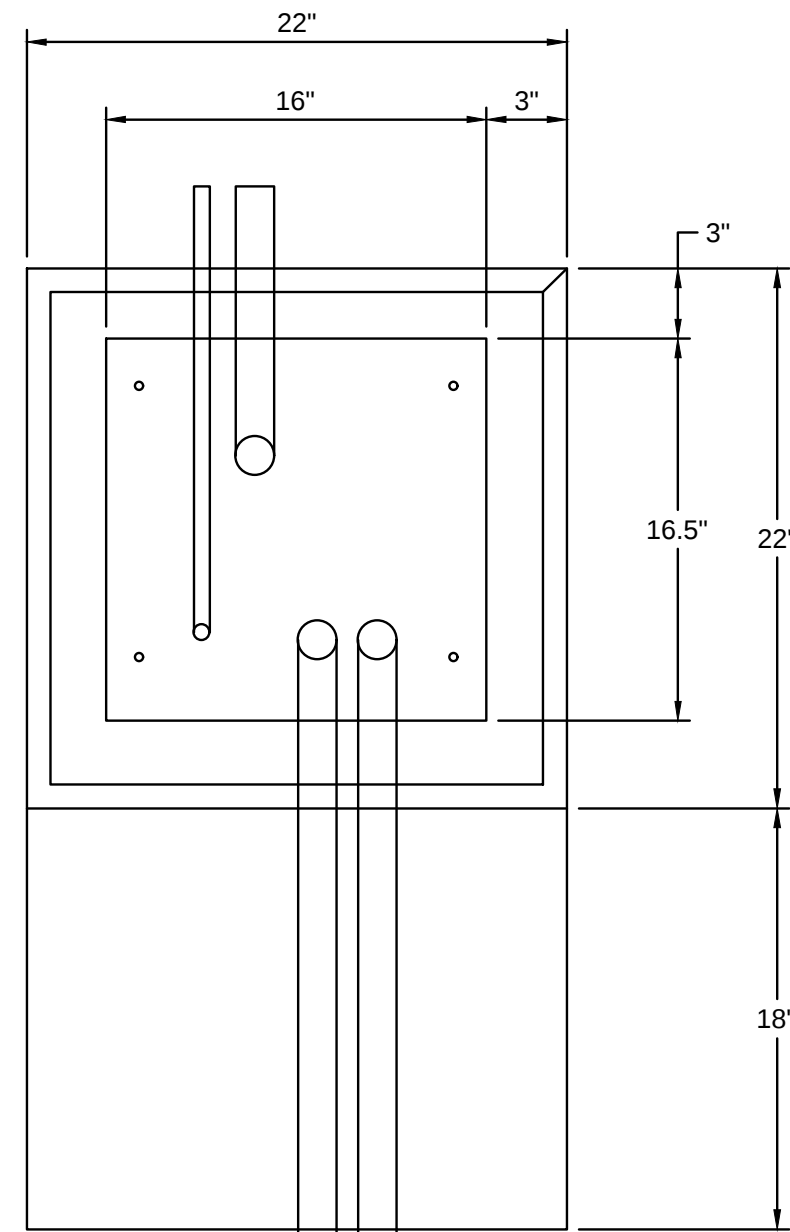
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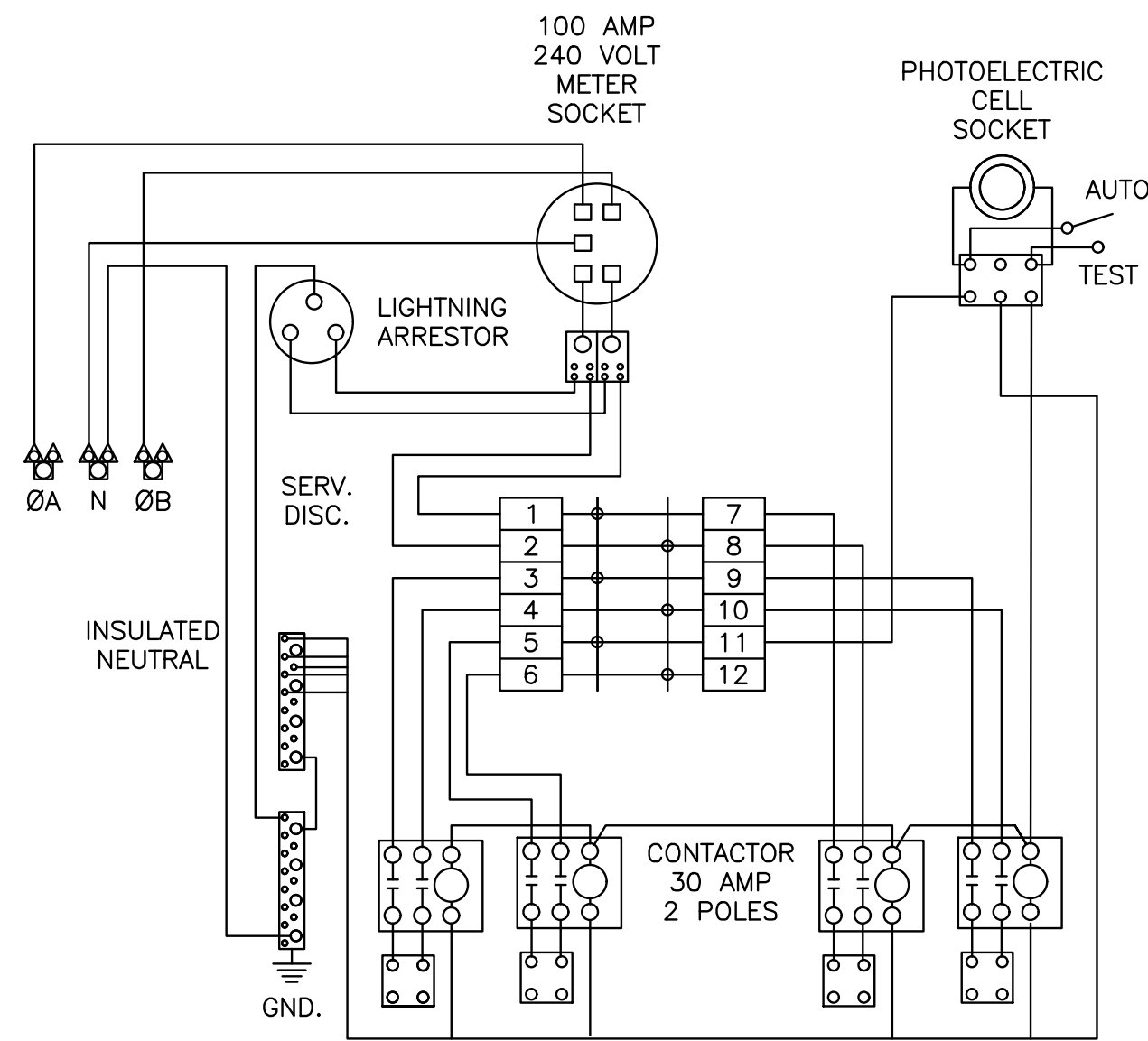
WIRING SCHEMATIC



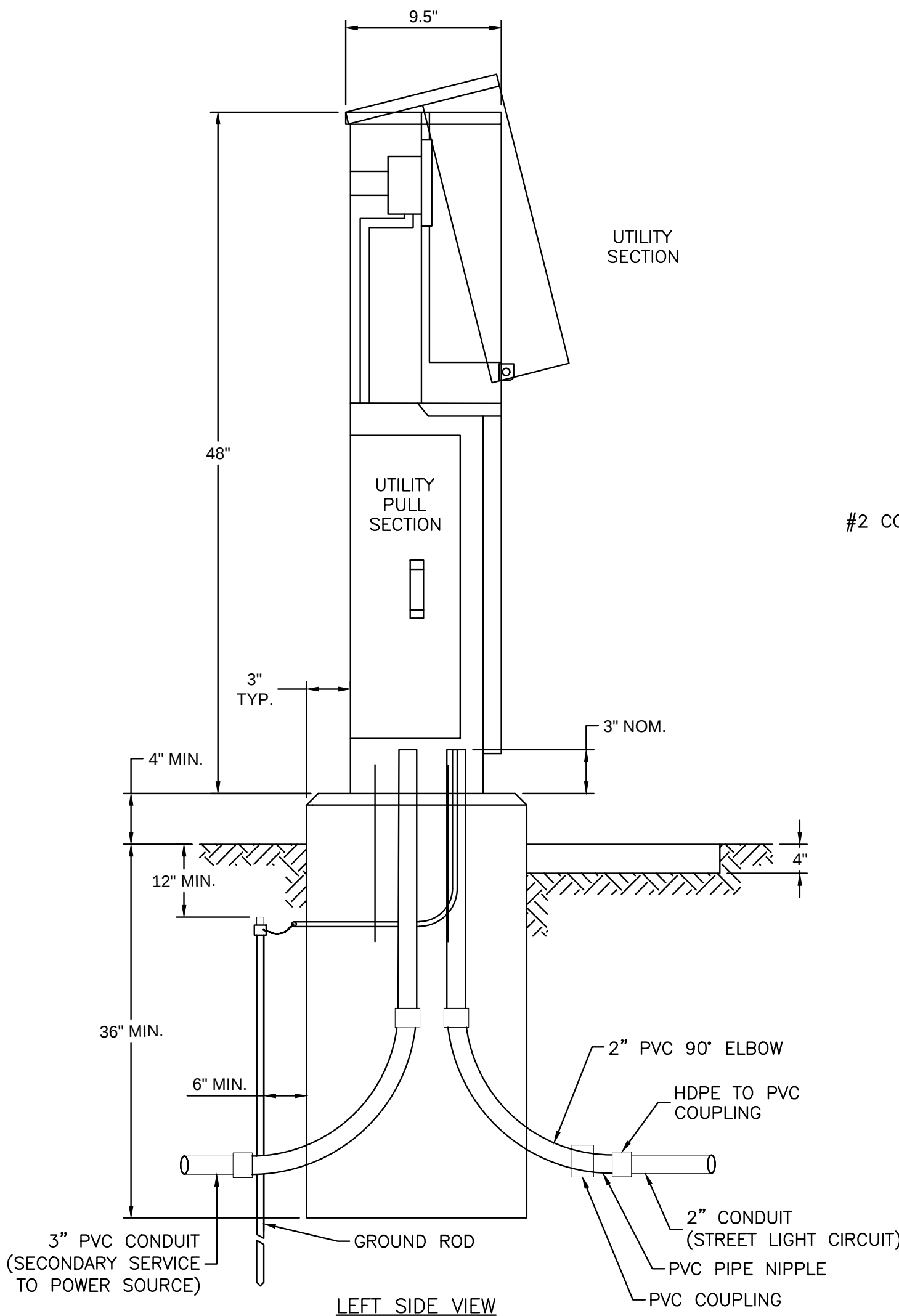
PLAN VIEW



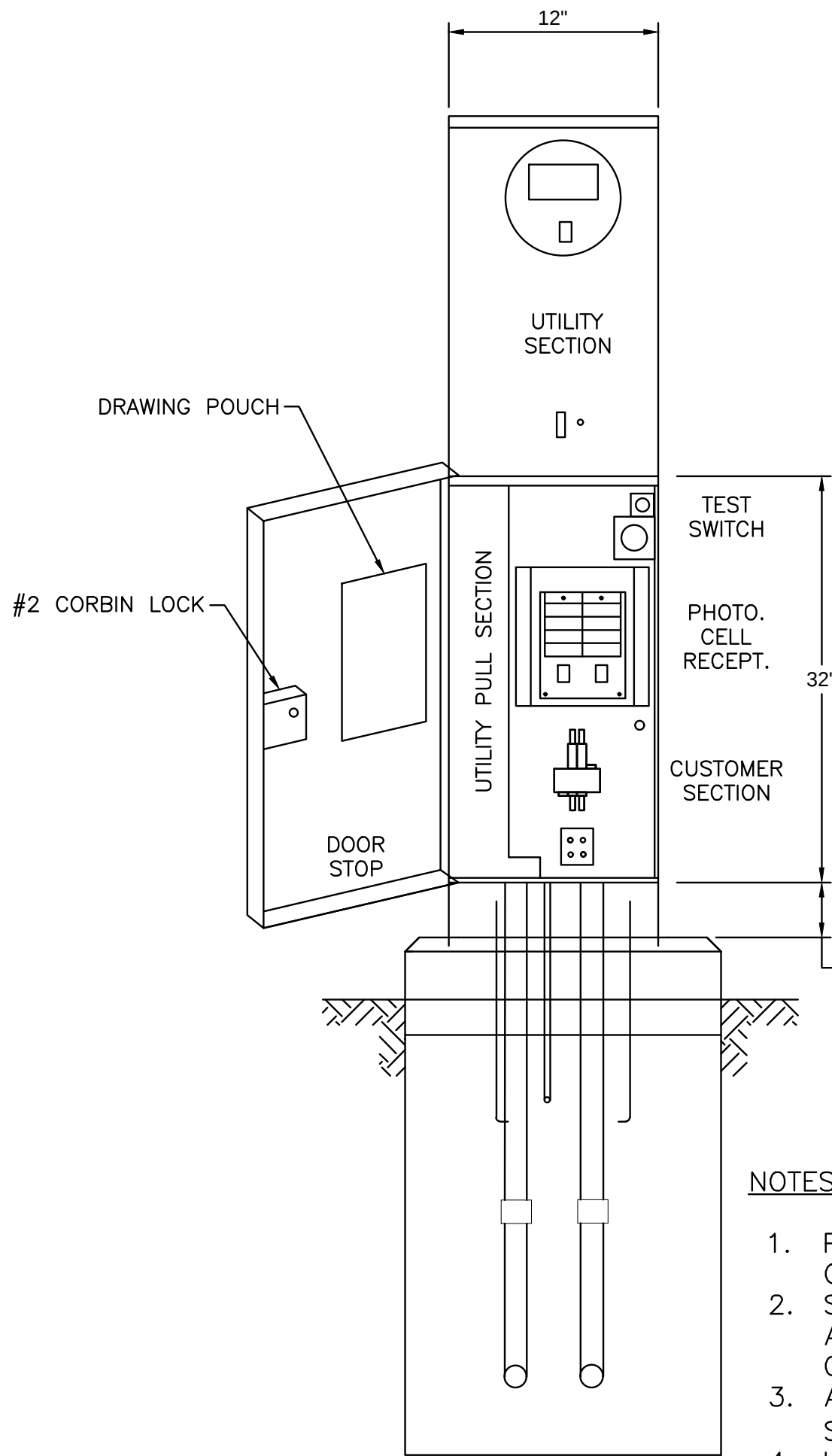
PLAN VIEW



WIRING SCHEMATIC

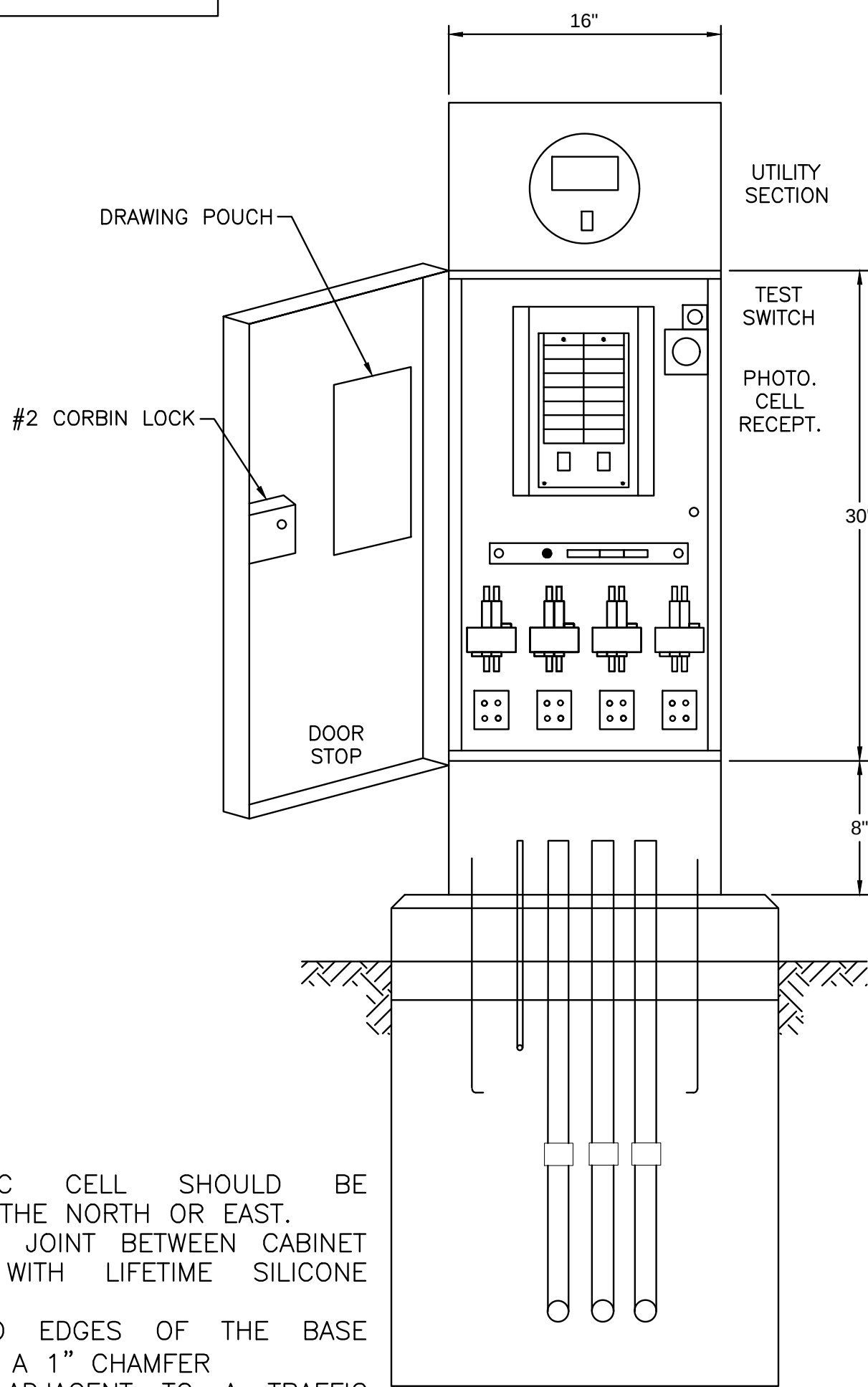


LEFT SIDE VIEW



FRONT VIEW

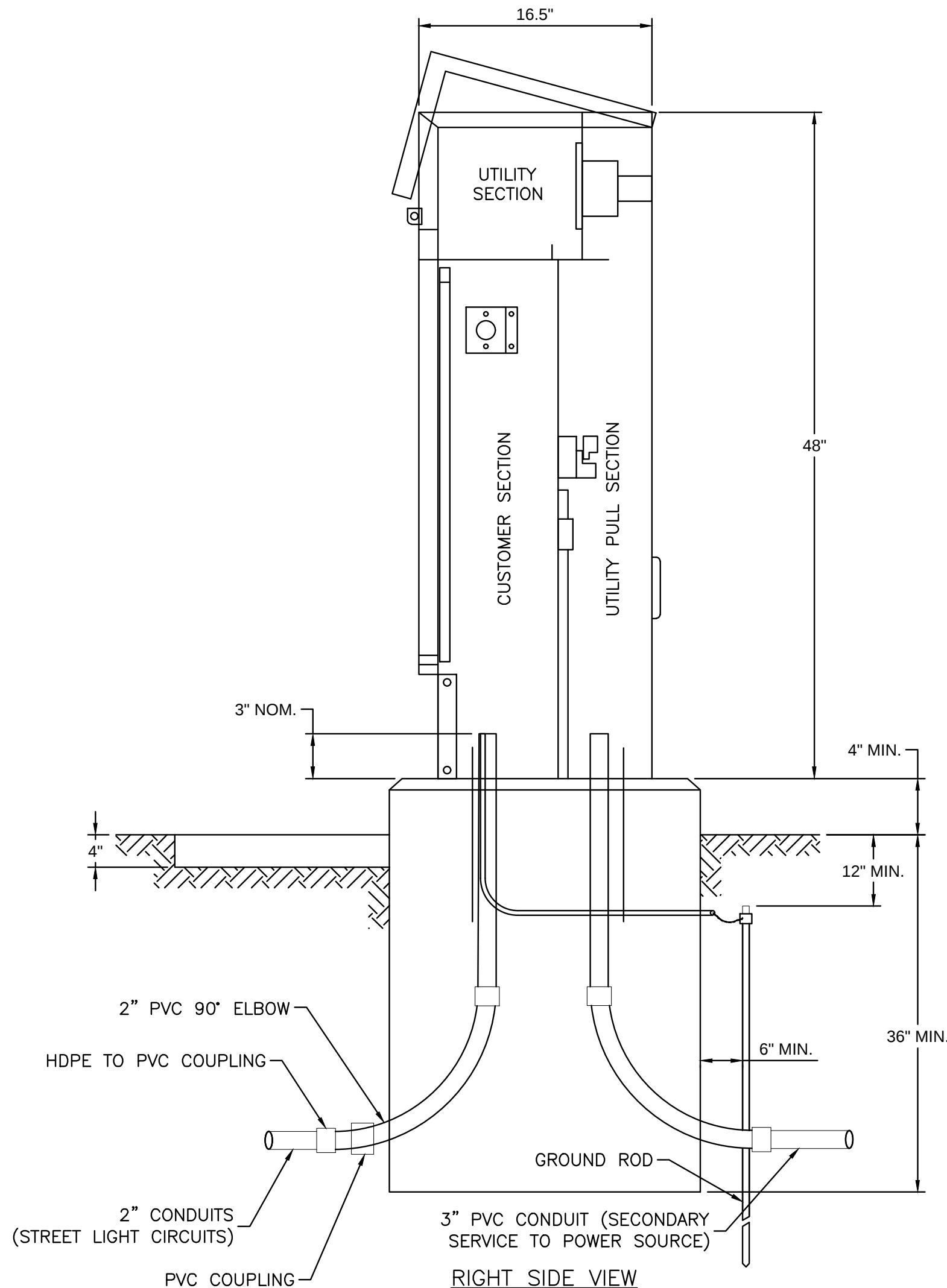
FUSED CONTRACTORS ARE NOT PERMITTED



FRONT VIEW

NOTES:

1. PHOTOELECTRIC CELL SHOULD BE ORIENTED TO THE NORTH OR EAST.
2. SEAL AROUND JOINT BETWEEN CABINET AND BASE WITH LIFETIME SILICONE CAULK.
3. ALL EXPOSED EDGES OF THE BASE SHOULD HAVE A 1" CHAMFER
4. IF BASE IS ADJACENT TO A TRAFFIC SIGNAL CONTROLLER, RAISED PORTION OF BASE (ABOVE FINISHED GRADE) SHOULD BE CONSTRUCTED TO THE SAME HEIGHT AS THE SIGNAL CONTROLLER BASE.
5. THE STREET ADDRESS WITH THE POWER SUPPLY NUMBER BELOW IT SHOULD BE LABELED ON THE UPPER PORTION OF THE CABINET FACING THE STREET. THE CITY WILL SUPPLY STICKERS FOR THE CONTRACTOR TO INSTALL.



RIGHT SIDE VIEW

1 - CIRCUIT POWER SUPPLY

4 - CIRCUIT POWER SUPPLY

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STREET LIGHT
STANDARD DETAILS

POWER SUPPLY
DETAILS

OLDHAM PARKWAY &
JEFFERSON STREET
STREET LIGHTING
LEE'S SUMMIT, MO. 64086

Drawn By: KHA
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Date: 02/2025

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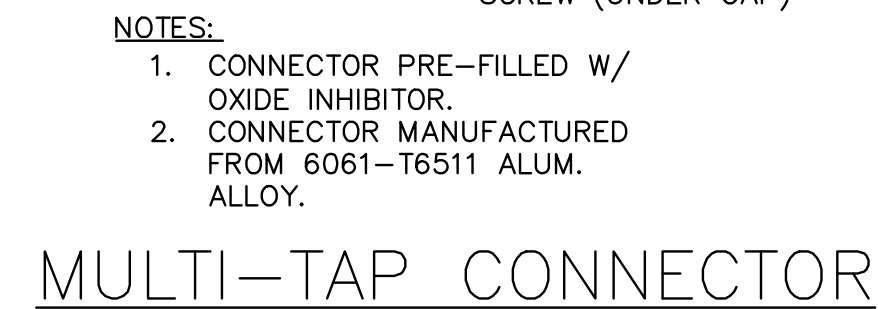
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(F) BREAK AWAY FUSED ELECTRICAL CONNECTOR WITH 8 AMP FUSE

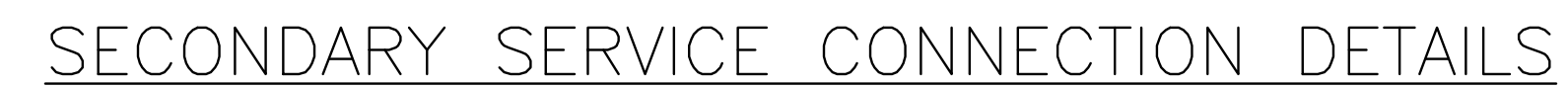
(N) BREAK AWAY NON-FUSED ELECTRICAL CONNECTOR WITH GROUND "SLUG"

1. WHEN LOOKING AT THE HAND HOLE OPENING ON THE POLE, RED CABLES SHALL BE RUN TO THE LUMINAIRE ON THE RIGHT-HAND SIDE OF THE POLE, AND BLACK CABLES SHALL BE RUN TO THE LUMINAIRE ON THE LEFT-HAND SIDE OF THE POLE.
2. THE SPECIFIED CABLE SLACK SHALL BE PROVIDED ON EACH SIDE OF THE FUSED AND NON-FUSED CONNECTORS.
3. ADDITIONAL SLACK SHALL BE PROVIDED FOR THE DISTRIBUTION CABLE SUCH THAT THERE IS AT LEAST 12" OF SLACK AT THE TOP OF THE MULTI-TAP CONNECTORS ARE NO LESS THAN 12" AND NO MORE THAN 3" ABOVE THE TOP OF THE HAND HOLE OPENING.



NOTES:

1. FUSE REMAINS IN "LOAD SIDE" AFTER BREAK AWAY.
2. GROUND "SLUG" REMAINS IN "LINE SIDE" AFTER BREAK AWAY.



1. CONTRACTOR SHALL INSTALL A CONDUIT STUB 24" TO 6" ABOVE GROUND AT UTILITY POLES. CONDUIT SHALL BE STUBBED TO THE SIDE OF THE POLE THAT WILL ALLOW A DIRECT RUN UP THE POLE TO THE TRANSFORMER WITHOUT CROSSING OTHER UTILITY LINES OR CABLES. THE END OF THE CONDUIT SHALL BE CAPPED.
2. CONTRACTOR SHALL INSTALL CONDUIT IN A TRENCH TO WITHIN 24" OF PEDESTALS OR PAD MOUNT TRANSFORMERS AND LEAVE A 36" x 36" x 36" ACCESS HOLE IN THE GROUND. CONTRACTOR SHALL KEEP OPEN TRENCH COVERED AND PROMPTLY BACKFILL ACCESS HOLE WHEN SERVICE IS COMPLETED.

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STREET LIGHTING

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