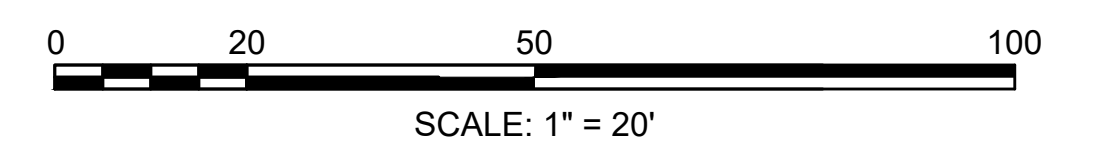
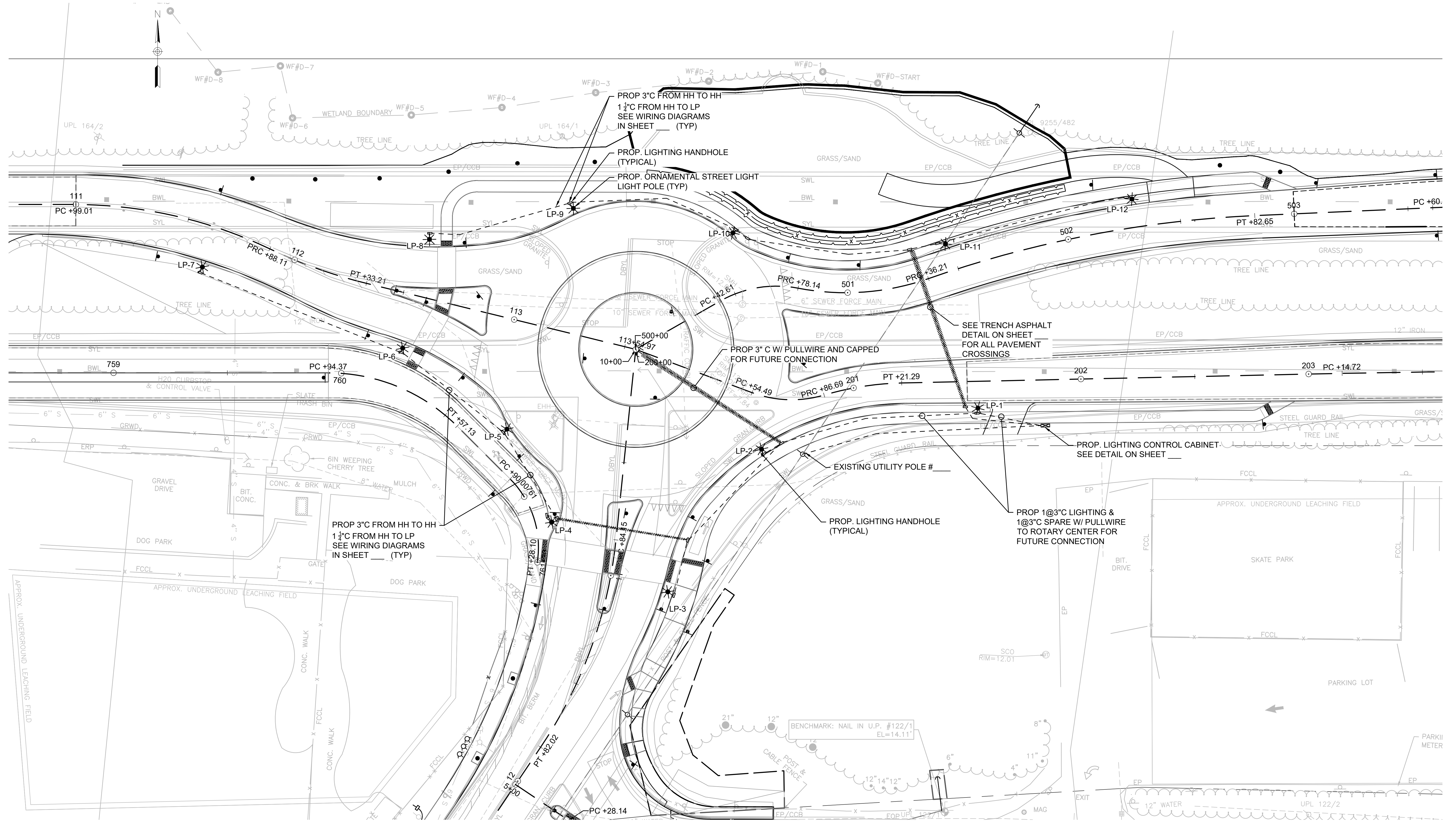


PROVINCETOWN
SHANK PAINTER ROAD & ROUTE 6

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	153	293

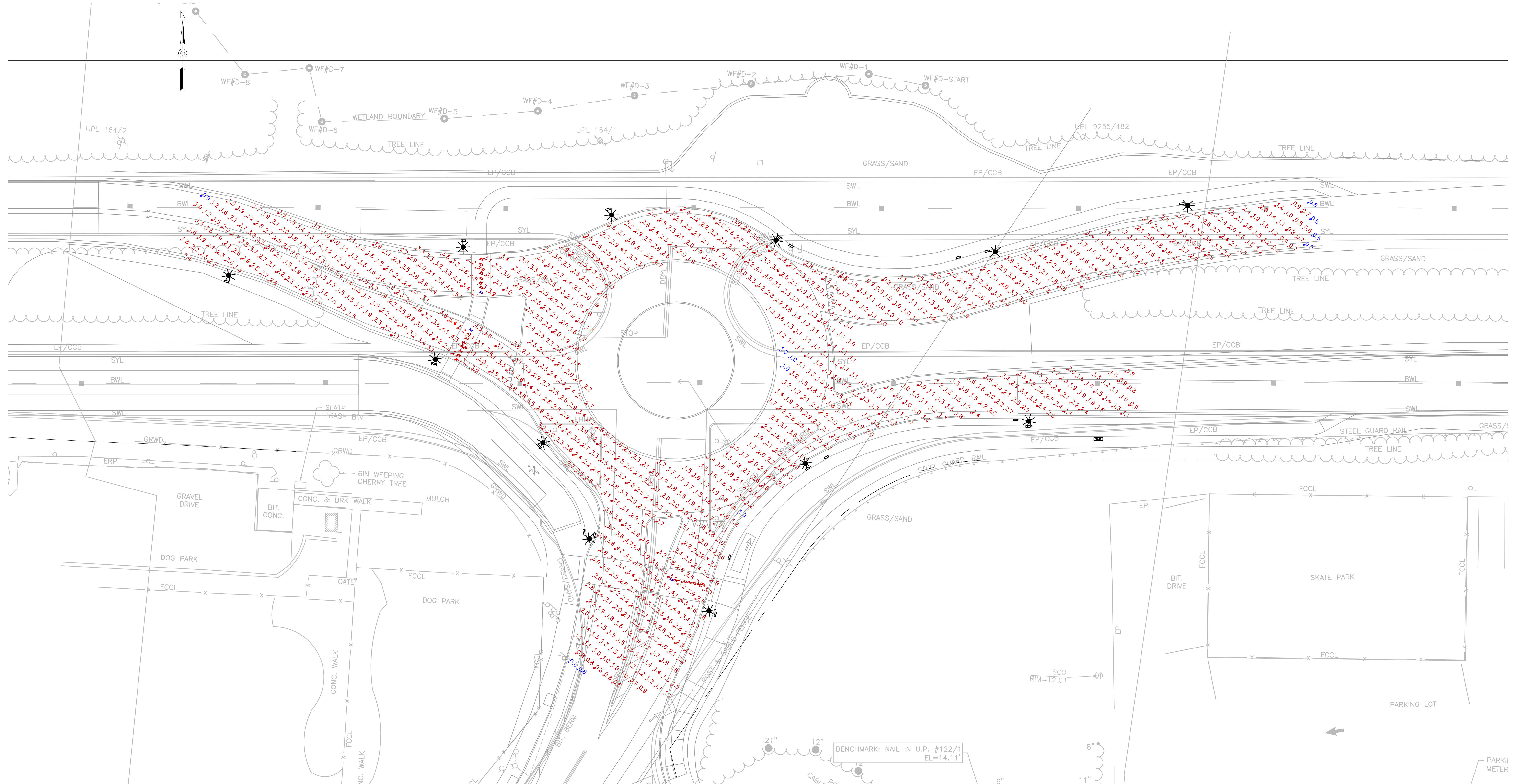
PROJECT FILE NO. 608744
LIGHTING PLAN



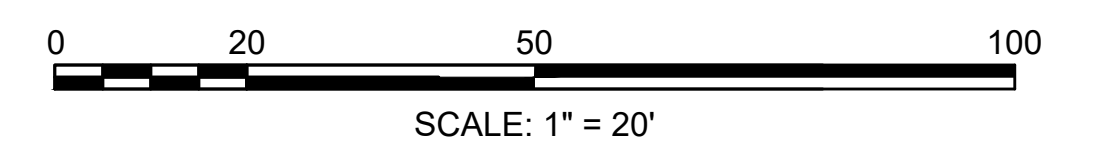
PROVINCETOWN
SHANK PAINTER ROAD & ROUTE 6

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	154	293
PROJECT FILE NO. 608744			

LIGHTING PHOTOMETRIC



Statistics							Schedule									
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Symbol	QTY	BUG	Manufacturer	Description	Catalog	Number Lamps	Lumens	LLF	Input Power
ROTARY	+	2.4 fc	4.7 fc	1.0 fc	4.7:1	2.4:1	☀	12	B2-U0-G3	COOPER LIGHTING SOLUTIONS	TRADITIONAIRE LED DOWNLIGHT LUMINAIRE (1) 70 CRI, 3000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS	UTLD-PA1-100-730-U-T4W4		9,356	0.9	96
SOUTH APPROACH	+	2.3 fc	4.6 fc	0.6 fc	7.7:1	3.8:1										
SOUTH CROSSWALK VERT	+	4.8 fc	6.9 fc	3.5 fc	2.0:1	1.4:1										
SOUTH CROSSWALK VERT	+	4.5 fc	6.8 fc	2.9 fc	2.3:1	1.6:1										
WEST APPROACH	+	2.4 fc	5.4 fc	0.9 fc	6.0:1	2.7:1										
WEST CROSSWALK VERT	+	7.1 fc	10.1 fc	5.3 fc	1.9:1	1.3:1										
WEST CROSSWALK VERT	+	6.8 fc	9.7 fc	4.7 fc	2.1:1	1.4:1										
EAST APPROACH	+	1.8 fc	4.0 fc	0.5 fc	8.0:1	3.6:1										



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	155	293
PROJECT FILE NO.		608744	

LIGHTING DETAILS - 01

Project	PROVINCETOWN	Catalog #	UTLD-PA1-100-730-U-T4W-BK	Type	
Prepared by	SPECLINES	Notes		Date	



Streetworks
UTLD Traditionaire

Decorative Post Top Luminaire

Typical Applications
Outdoor • Parking Lots • Walkways • Roadways • Building Areas

Product Certifications



Product Features



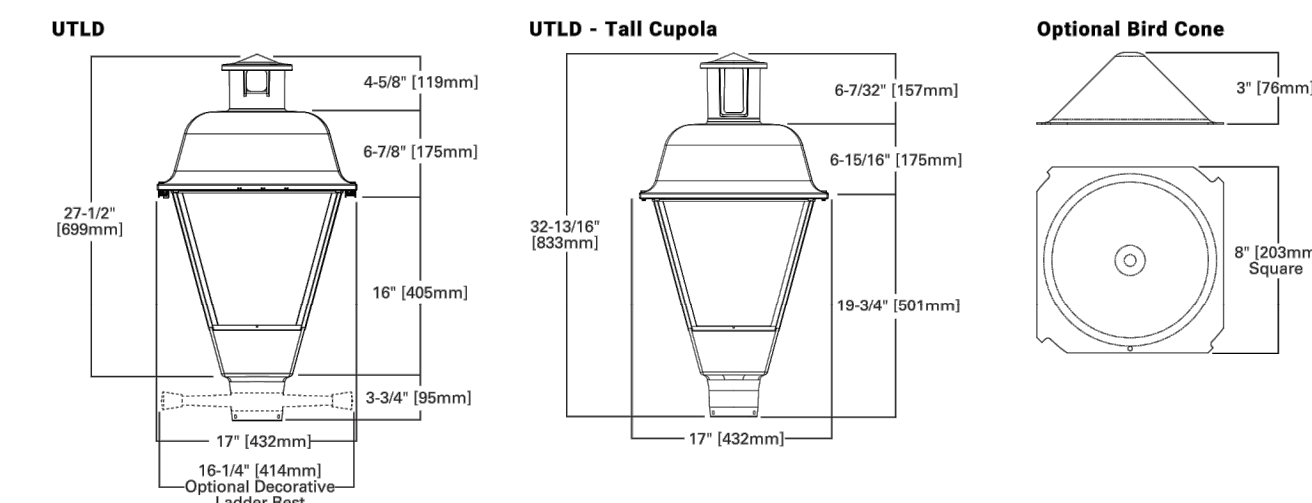
Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Energy and Performance Data page 3

Quick Facts

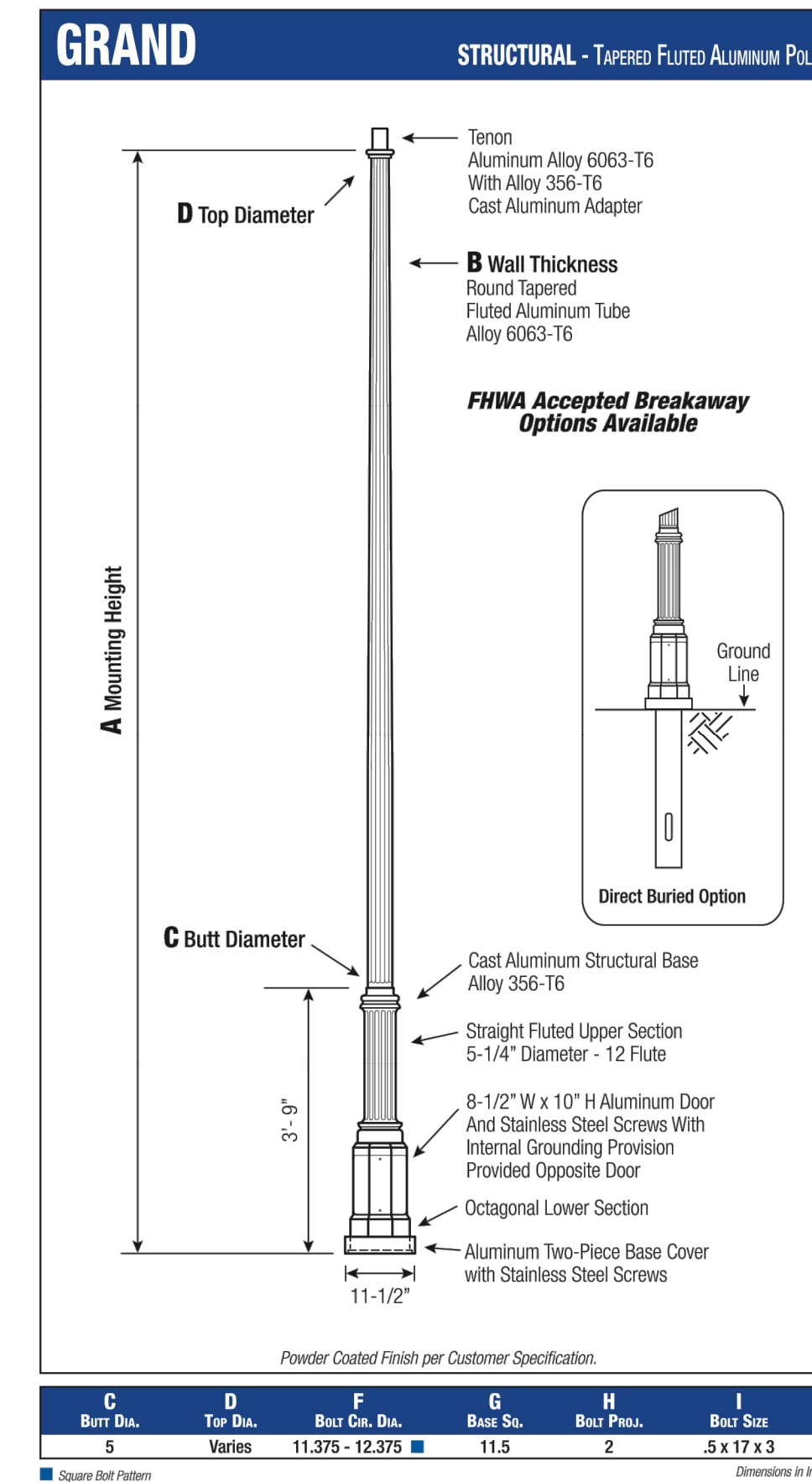
- Replaces up to 250W equivalent HID
- Asymmetric & Symmetric distributions
- 0-10V dimming driver standard
- UL 1449/MOV surge protection available
- 3G vibration rated

Dimensional Details



PS506054EN page 1
June 28, 2021 8:24 AM

POLE HEIGHT 16' / CAT NO. GRS-16 - TF-12-BA



WARNING: Do not install light pole without luminaire.

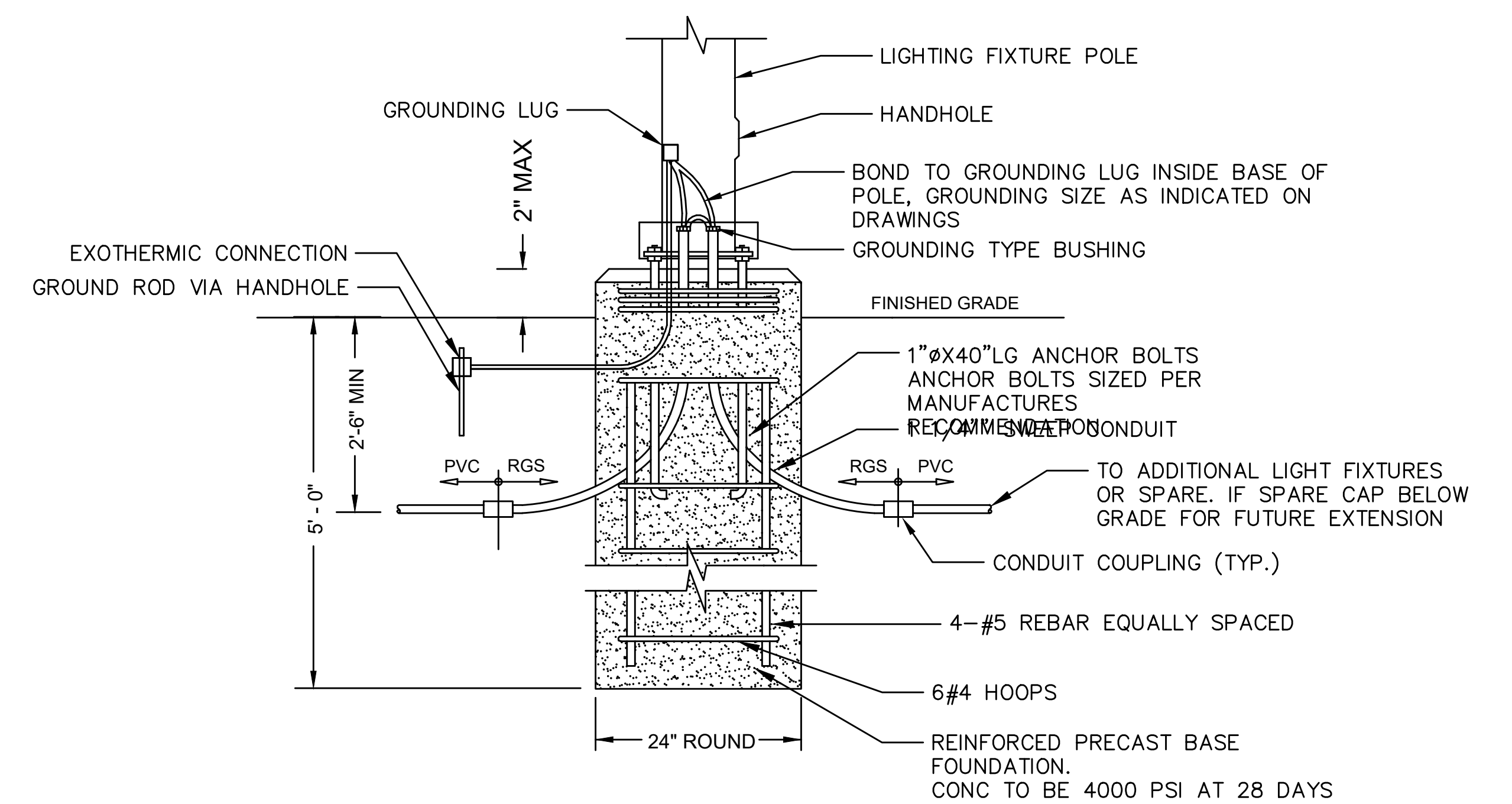
www.hapro.com hapro 1 of 2

Base
Cast Aluminum, 1-Piece Structural Pedestal Base of Alloy 356 per ASTM B221 or D108. The base shall have an access door with cast aluminum cover and stainless steel attaching hardware. An internal grounding provision will be provided opposite the access door.

Pole
The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft shall be joined to the structural base by means of a complete circumferential weld in accordance with AWS Specification D1.2. The assembly shall be full-length heat-treated after weld to produce a T6 temper.

Anchorage
Anchorage Kit will include four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M514-90 Grade 55, Ten inches (10") of threaded end will be galvanized per ASTM A153. Also will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers all components Galvanized Steel. A bolt circle template will be provided.

Vibration Damper
When determined necessary by Hapro, a Vibration Damper will be factory installed inside the pole shaft. Customer specification of the damper is available.

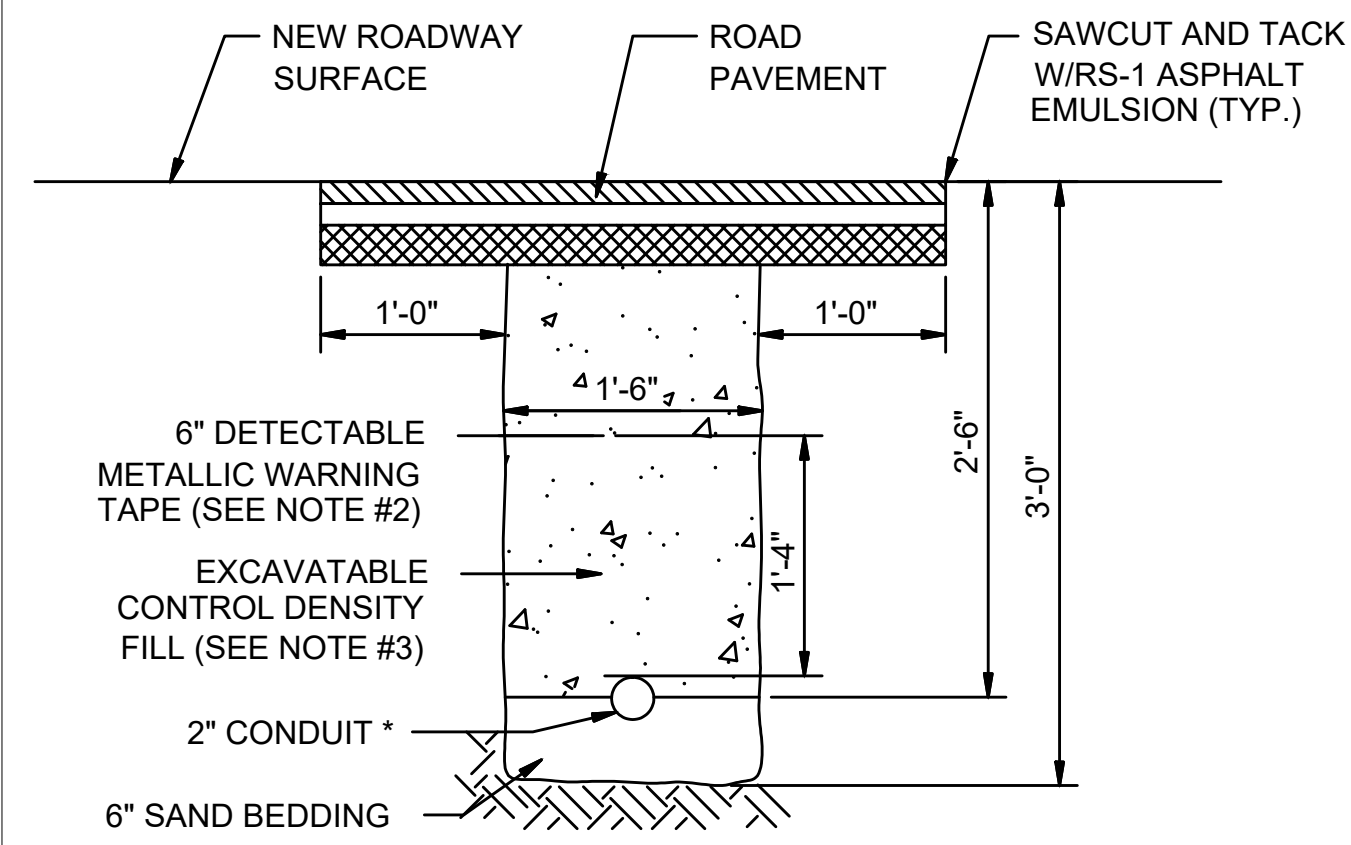


LIGHT POLE BASE DETAIL SD3.010

NOT TO SCALE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	156	293
PROJECT FILE NO.		608744	

LIGHTING DETAILS - 02



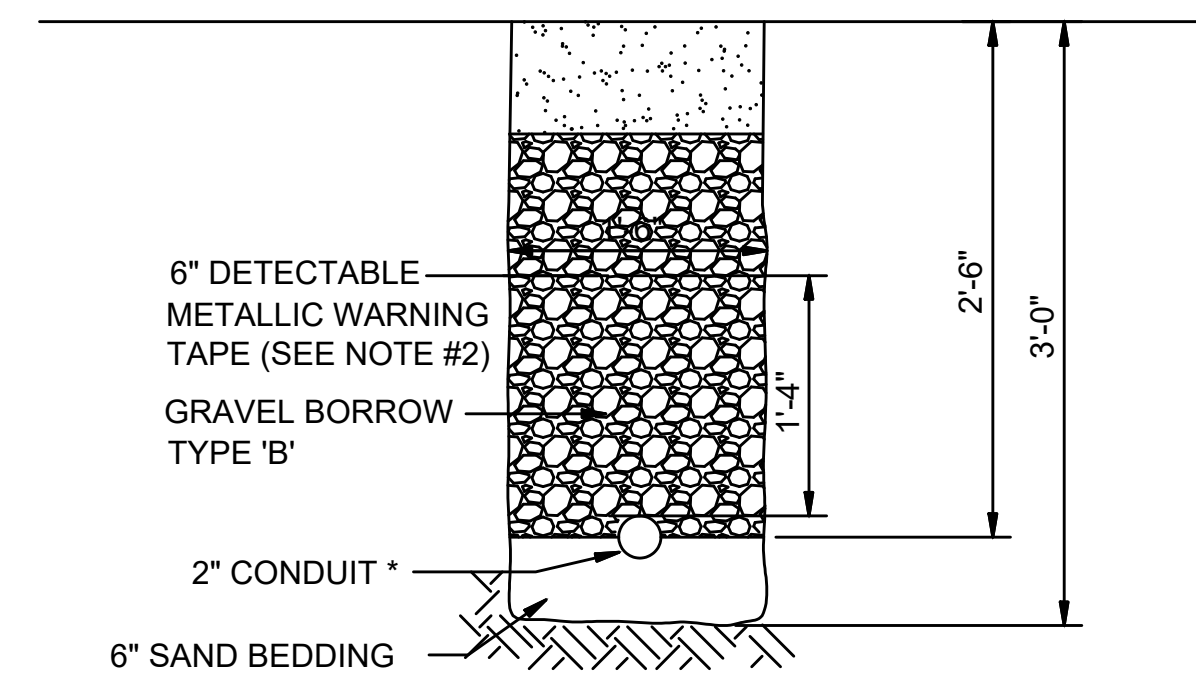
* = UNLESS OTHERWISE NOTED ON PLANS

NOTES:

1. SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL) WITH PULL ROPE.
2. WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.
3. CONTROL DENSITY FILL SHALL MEET THE REQUIREMENTS OF SUBSECTION M4.08.0 AND SHALL BE USED WHEN CROSSING EXISTING PAVEMENT.
4. SERVICE CONNECTION TO LIGHTING CONTROL BOX SHALL BE PER NGRID STANDARDS AND SPECIFICATIONS.

TRENCH DETAIL (ASPHALT)

NOT TO SCALE



* = UNLESS OTHERWISE NOTED ON PLANS

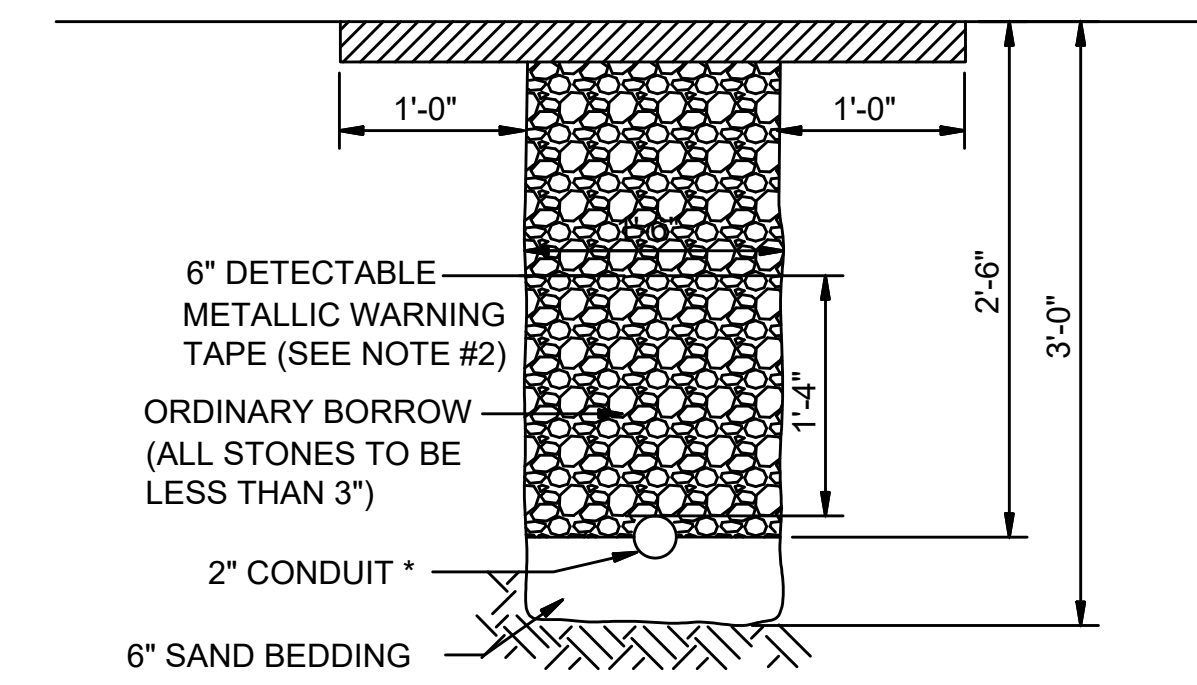
** = BACKFILL DEEMED SUITABLE CAN BE USED AS BACKFILL WITH THE APPROVAL OF THE ENGINEER

NOTES:

1. SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL) WITH PULL ROPE.
2. WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.

TRENCH DETAIL (CONCRETE SIDEWALK)

NOT TO SCALE



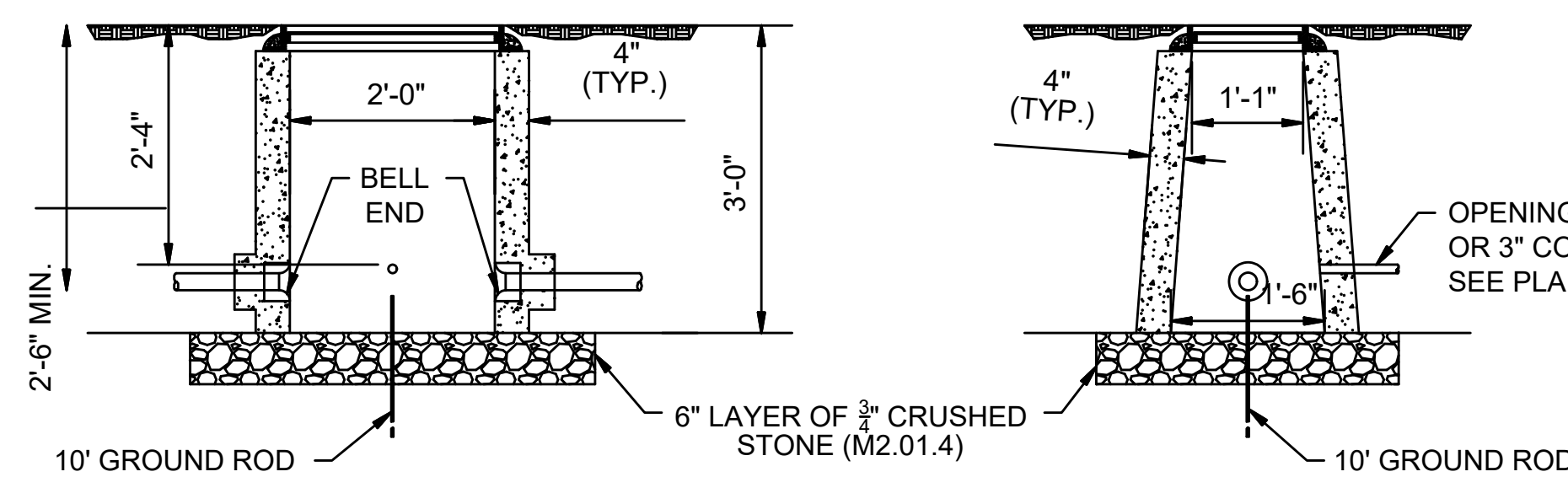
* = UNLESS OTHERWISE NOTED ON PLANS

NOTES:

1. SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL) WITH PULL ROPE.
2. WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.

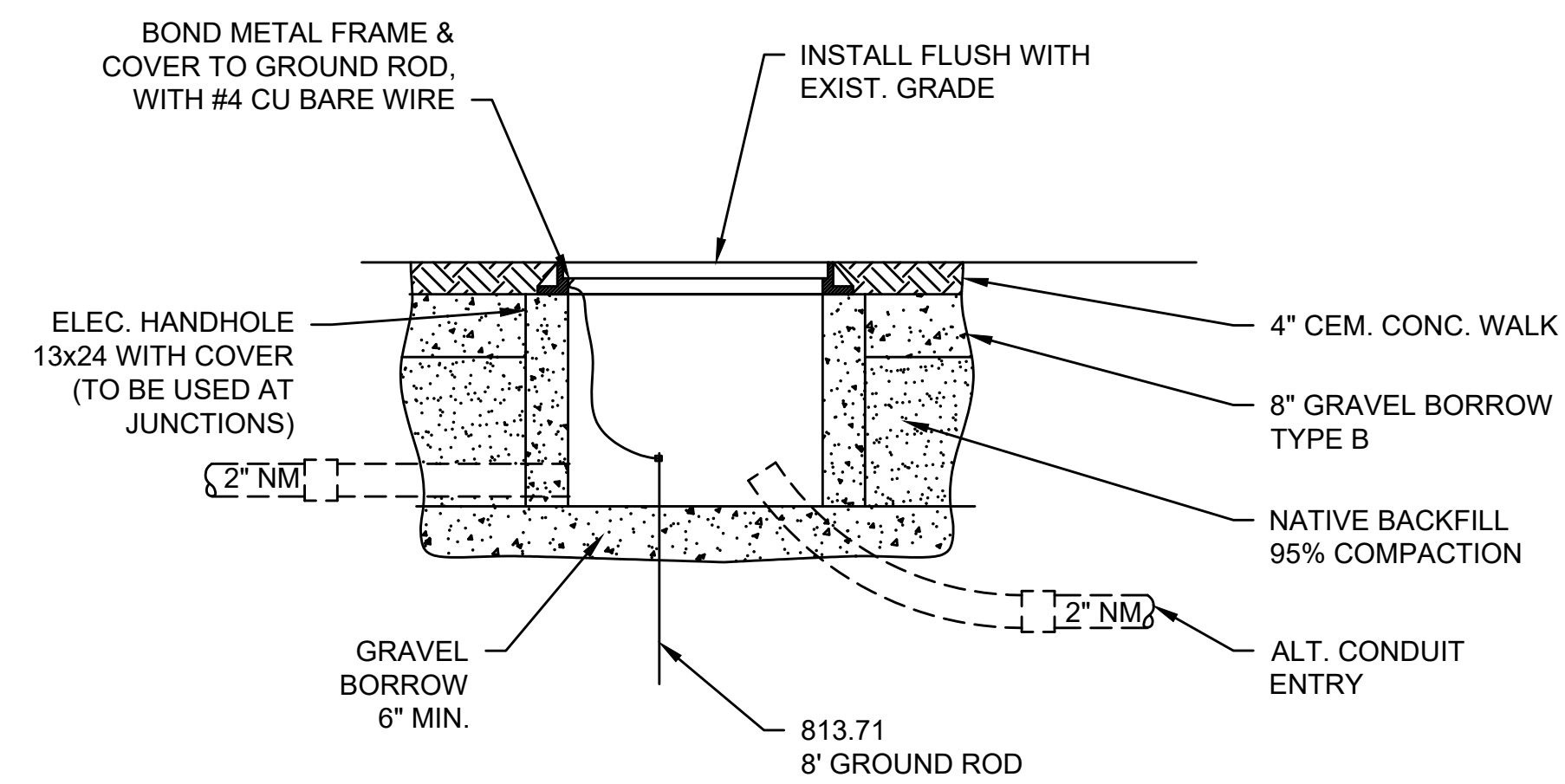
TRENCH DETAIL (GRASS)

NOT TO SCALE



SECTIONS THROUGH ELECTRIC HANDHOLE (SD2.022)

NOT TO SCALE

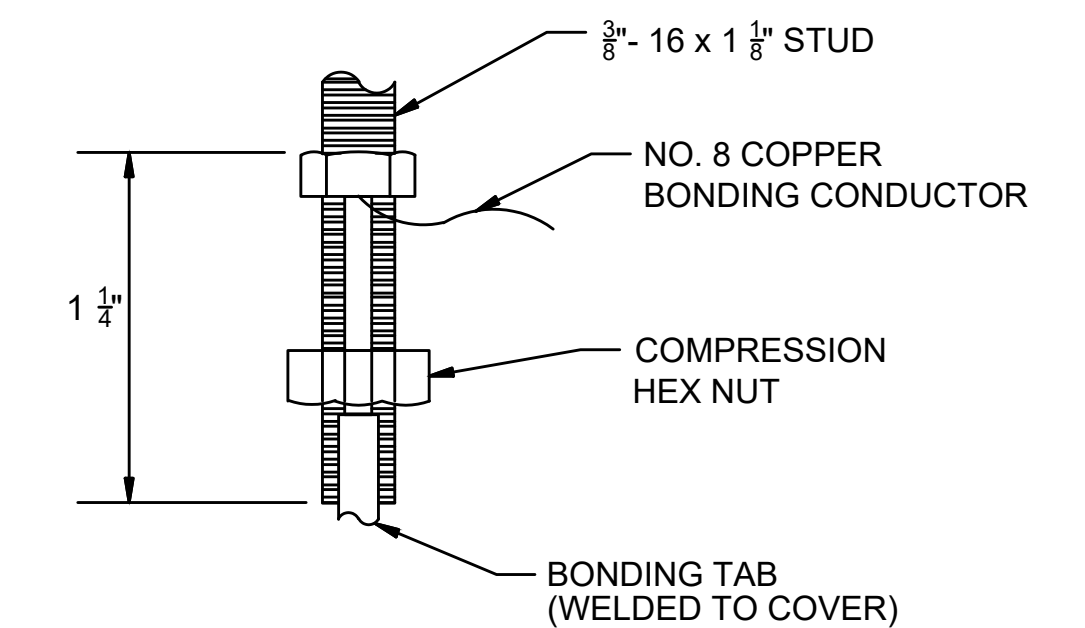


NOTES:

1. HANDHOLE ORIENTATION TO BE SUCH THAT ALL SUPPLY DUCTS ENTER ON SAME SHORT SIDE.
2. SIZE AND NUMBER OF CONDUITS AS REQUIRED.
3. CONDUIT LOCATIONS SHOWN ARE TYPICAL.
4. CEMENT SIDEWALK SHOWN. FOR OTHER SURFACE TREATMENTS, SEE CONSTRUCTION DETAILS SHEET.

HANDHOLE INSTALLATION DETAIL

NOT TO SCALE



NOTES:

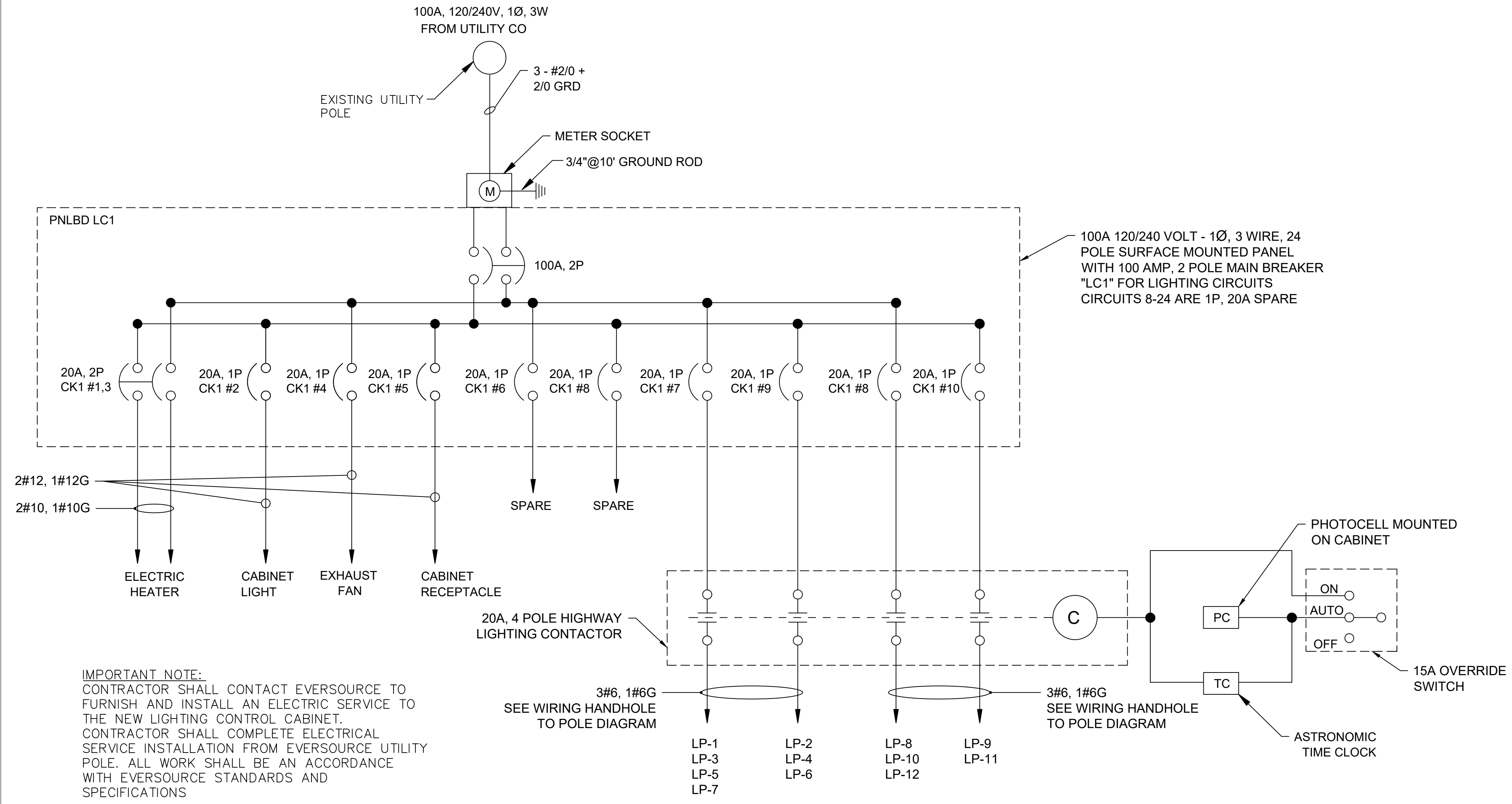
1. BONDING POST CONNECTOR SHALL BE LONG STUD TYPE WHICH WILL ACCOMMODATE A DOUBLE CONDUCTOR INSTALLATION.
2. ATTACH 3 FOOT LENGTH OF NO. 8 COPPER BONDING CONDUCTOR FROM BONDING POST CONNECTOR INSTALLED ON COVER TO BONDING POST CONNECTOR INSTALLED ON FRAME.
3. ATTACH FREE END OF BONDING CONDUCTOR ROUTED THROUGH CONDUIT SYSTEM TO BONDING POST CONNECTOR INSTALLED IN THE FRAME.
4. LUG SHALL BE EITHER COPPER OR BRASS.

BONDING LUG

NOT TO SCALE

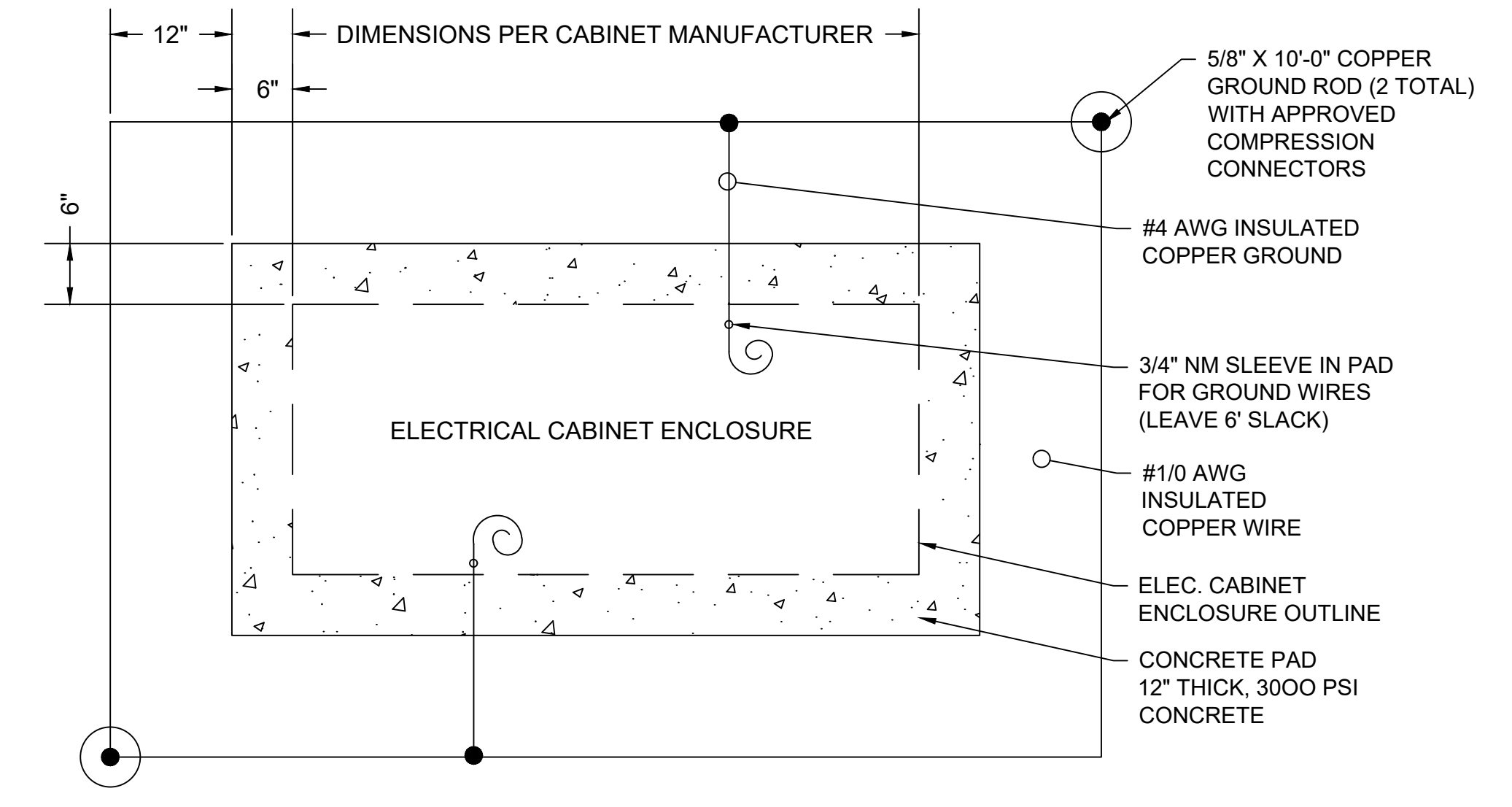
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	157	293
PROJECT FILE NO.		608744	

LIGHTING DETAILS - 03

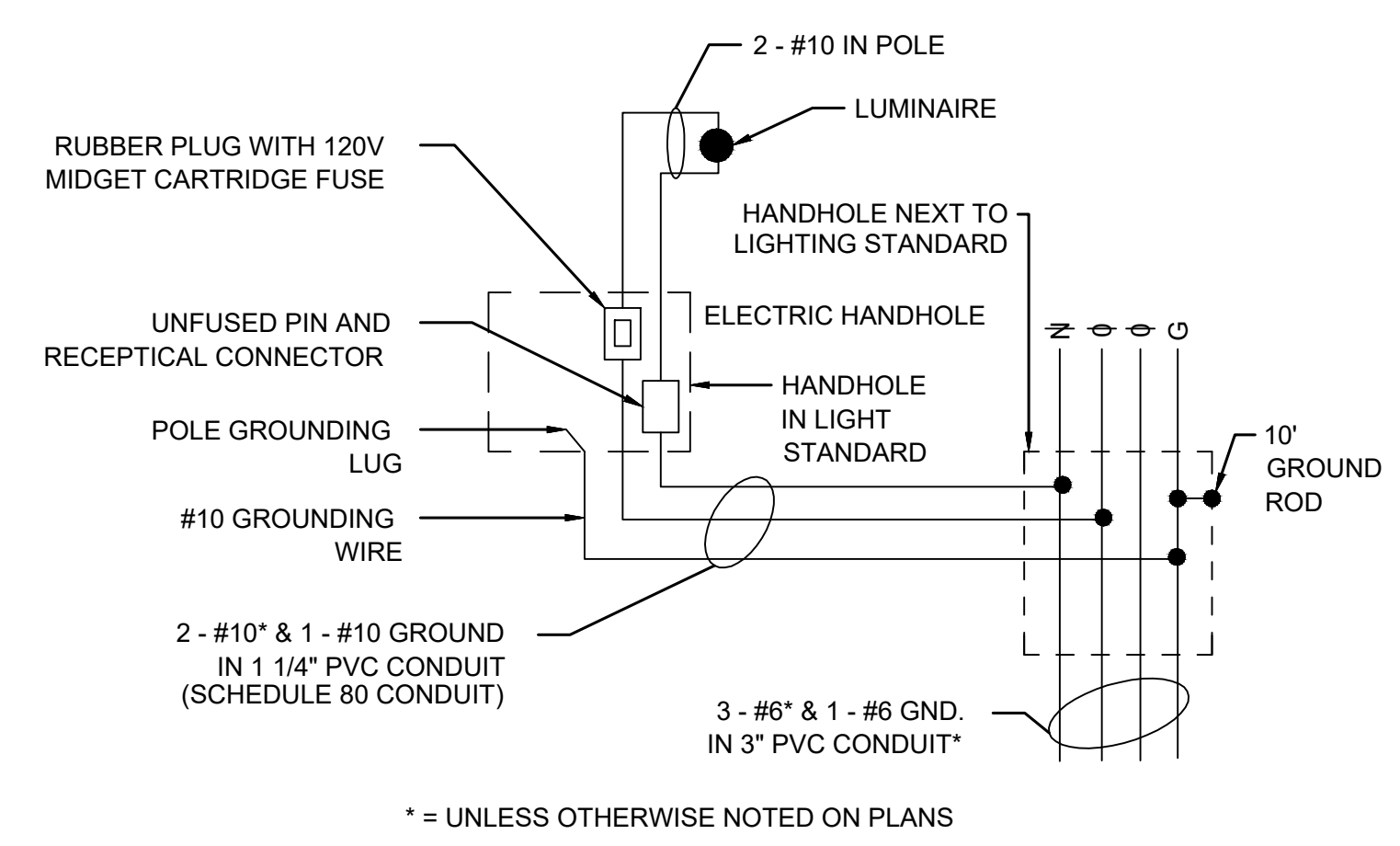


IMPORTANT NOTE:
CONTRACTOR SHALL CONTACT EVERSOURCE TO FURNISH AND INSTALL AN ELECTRIC SERVICE TO THE NEW LIGHTING CONTROL CABINET. CONTRACTOR SHALL COMPLETE ELECTRICAL SERVICE INSTALLATION FROM EVERSOURCE UTILITY POLE. ALL WORK SHALL BE IN ACCORDANCE WITH EVERSOURCE STANDARDS AND SPECIFICATIONS

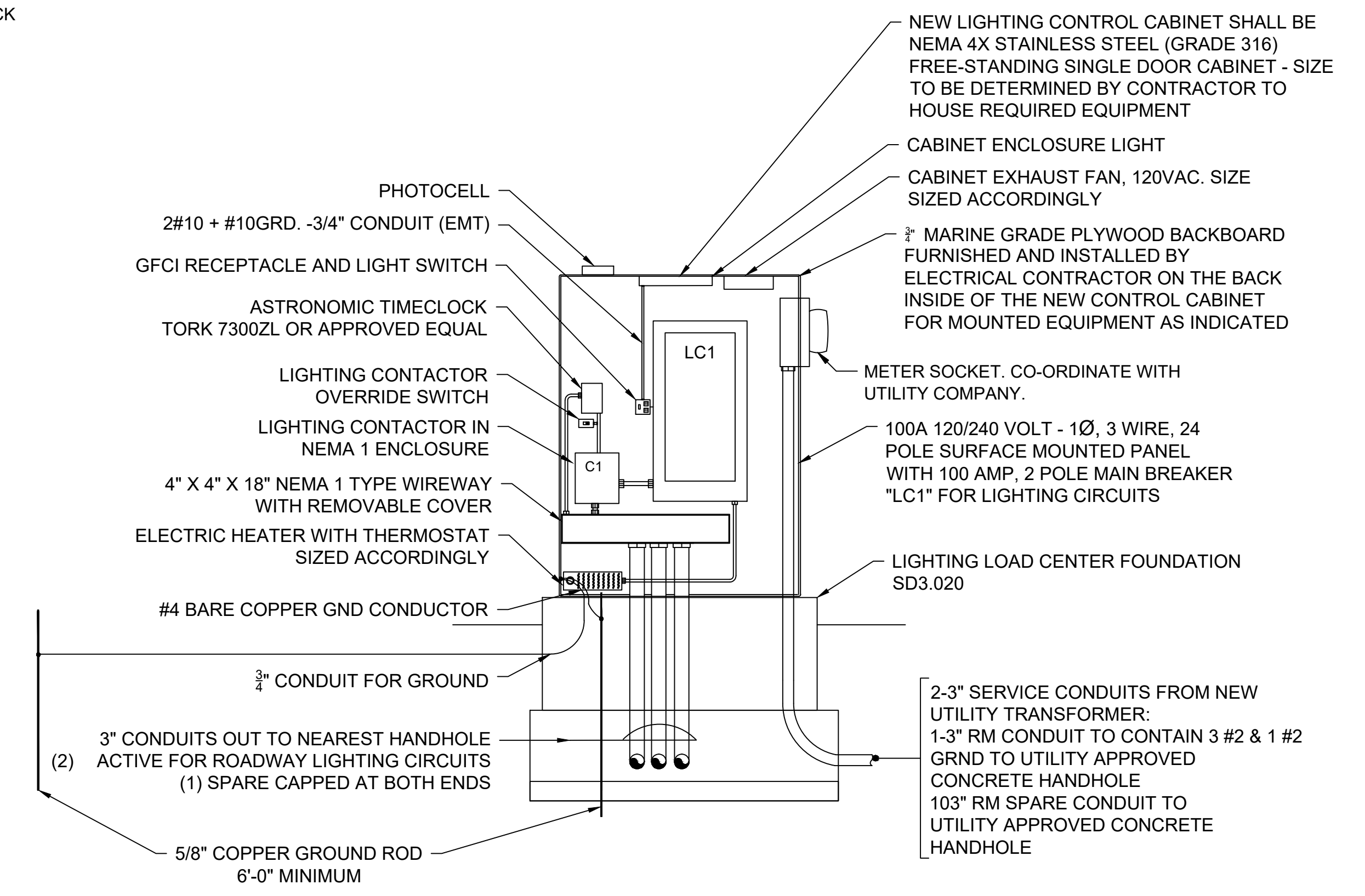
LIGHTING CONTROL CABINET WIRING DIAGRAM
NOT TO SCALE



ELECTRICAL CABINET FOUNDATION DETAIL
NOT TO SCALE



WIRING DIAGRAM FROM HANDHOLE TO POLE
NOT TO SCALE



LIGHTING LOAD CENTER DETAIL
NOT TO SCALE