

08 - ELECTRICAL- ILLUMINATION INDEX OF DRAWINGS

[illegible][illegible]

--

TRANSPORTATION PRINCIPAL ENGINEER

SIGNATURE BLOCK: 

DESIGNER/DRAFTER: MSB CHECKED BY: JA

LASTED SAVED BY: Mark.Bear FILE NAME: C:\Users\mark.bear\State of Connecticut\0151-0340 - Design\Illumination\Contract_Plans\ILL-01.dgn
PLOTTED DATE: 8/14/2025



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:	
----------------	--

REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

TOWN(S):

WATERBURY

DRAWING TITLE: **ELECTRICAL -**

ELECTRICAL - ILLUMINATION INDEX OF DRAWINGS

PROJECT NO.:	
--------------	--

0151-0340

DRAWING NO.:
ILL-01

SHEET NO.:

08.01

GENERAL NOTES

- 1)

THE CONTRACTOR SHALL ORGANIZE THE WORK SO THAT ANY PORTION OF THE ROADWAY WHICH HAS EXISTING ILLUMINATION AND IS OPEN FOR USE REMAINS LIGHTED. THE LIGHTING MAY CONSIST OF: 1) EXISTING LIGHTING, 2) NEW LIGHTING, 3) TEMPORARY LIGHTING, OR ANY COMBINATION OF THE ABOVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STAGE THE INSTALLATION OF NEW LIGHTING AND SERVICE CABINETS SO THAT ALL ROADWAYS WITH EXISTING ILLUMINATION ARE CONTINUOUSLY LIGHTED. IF IT IS NECESSARY TO INSTALL TEMPORARY POLES, LIGHTS OR CIRCUITRY, THAT WORK SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO INSTALLATION, AND WILL BE PAID FOR AT THE BID UNIT PRICE FOR THESE ITEMS. THE CONTRACTOR SHALL INSTALL TEMPORARY ILLUMINATION UNITS AT A UNIFORM SPACING NOT TO EXCEED 180'. WHERE NECESSARY, PRE-ASSEMBLED AERIAL CABLE SHALL BE INSTALLED TO MAINTAIN THE CONTINUITY OF THE LIGHTING CIRCUITS. GUY WIRES AND ANCHORS SHALL BE INSTALLED ON ALL LIGHT POLES SUBJECTED TO AERIAL CABLE ATTACHMENT. THE CONTRACTOR SHALL MAINTAIN ALL LIGHTING THROUGHOUT THE DURATION OF THE PROJECT. SEE SECTION 10.00.14 FOR SPECIFIC REQUIREMENTS.
- 2)

ALL ELECTRICAL WORK SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, CONNECTICUT STANDARD SPECIFICATIONS, AND WHERE APPLICABLE, UTILITY COMPANY REGULATIONS.
- 3)

CONDUCTORS SHALL BE COPPER, INSULATION TYPE XHHW AND RATED FOR 600 VOLTS. INSULATION SHALL BE COLORED CROSS LINKED POLYETHELENE (XLP). THREE PHASE CIRCUIT COLORS SHALL BE AS FOLLOWS: BLUE, BLACK, RED. SINGLE PHASE COLORS SHALL BE BLACK, RED AND WHITE.
- 4)

INSTALL ONE NUMBER 8 BARE COPPER GROUNDING CONDUCTOR THROUGHOUT ALL LIGHTING CIRCUITS.
- 5)

LOCATION OF EXISTING ILLUMINATION ON PLANS IS APPROXIMATE. FOR EXISTING ILLUMINATION SEE THE FOLLOWING STATE PROJECTS: 151-246 AND 151-312
- 6)

THE CONTRACTOR SHALL ABIDE BY THE CONNDOT LOCKOUT/TAGOUT PROCEDURES WHEN ACCESS TO A CIRCUIT IS REQUIRED. THE CONTRACTOR SHALL CONTACT THE DISTRICT 4 ELECTRICAL SUPERVISOR AT TELEPHONE (203) 264-9590, WHEN ACCESS TO A CIRCUIT IS REQUIRED.
- 7)

IN AREAS WHERE EXISTING LIGHT STANDARDS ARE TO BE REMOVED, EXISTING UNDERGROUND CABLE IN DUCT OR NON-METALLIC SHEATHED CABLE WHICH WILL NO LONGER BE USED, SHALL BE DISCONNECTED AND ABANDONED IN PLACE.
- 8)

WHERE EXISTING R.M.C. IS TO BE RE-USED, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING CONDUCTORS WITHIN THE CONDUIT.
- 9)

PRIOR TO TRENCHING THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AND CONNDOT DISTRICT 4 ELECTRICAL MAINTENANCE (203) 264-9590 TO HAVE ALL EXISTING UNDERGROUND ELECTRICAL FACILITIES PROPERLY MARKED OUT INCLUDING BUT NOT LIMITED TO: TRAFFIC SIGNAL AND INTERCONNECT CABLES, INCIDENT MANAGEMENT SYSTEM AND FIBER OPTIC CABLES, AND EXISTING ILLUMINATION CIRCUITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ALL EXISTING FACILITIES DAMAGED BY THE TRENCHING OPERATION.
- 10)

LIGHT STANDARD FOUNDATIONS SHALL BE INSTALLED AS FOLLOWS (DISTANCE TO CENTERLINE OF POLE) OR AS INDICATED ON THE PLANS.

B - 2' BEHIND GUIDE RAIL OR 4' FROM EDGE OF PAVEMENT WHERE NO GUIDERAIL IS PRESENT

C - ANCHOR BASE MOUNTED ON BRIDGE WALL
- 11)

ALL CONDUCTOR SPLICES IN CONCRETE HANDHOLES AND JUNCTION BOXES SHALL BE MADE WITH INSULATED SUBMERSIBLE CONNECTORS.
- 12)

QUANTITY OF "EXISTING HANDHOLES TO BE REMOVED" AS INDICATED ON PLANS IS APPROXIMATE. ADDITIONAL "NON-DOCUMENTED" HANDHOLES MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL REMOVE ALL EXISTING HIGHWAY LIGHTING HANDHOLES WHICH ARE NOT TO BE RE-USED AS INDICATED ON THE PLANS.
- 13)

ALL PVC CONDUIT SHALL BE SCHEDULE 80. ALL FIBERGLASS CONDUIT SHALL BE STANDARD WALL (0.070" THICK). CONDUIT CAPS TO BE INSTALLED ON ALL SPARE PVC CONDUITS.
- 14)

LIGHT STANDARDS WITH BRACKETS AND LUMINAIRES SHALL BE DESIGNED TO WITHSTAND A WIND SPEED OF 90 MPH.
- 15)

TAPE ALL UNUSED AND DISCONNECTED CONDUCTORS.
- 16)

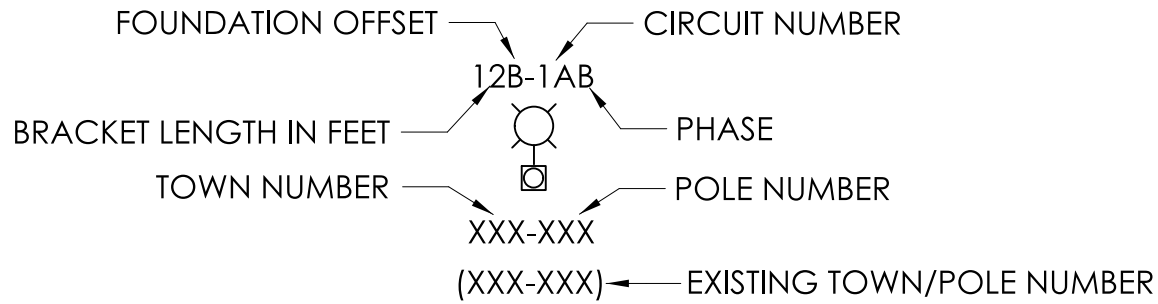
THE EXISTING LIGHTING CABINET IS LOCATED ON MEADOW STREET AND IS 480 VOLT, 3 PHASE, 3 WIRE.
- 17)

PAYMENT OF THE MONTHLY ENERGY BILL FOR THE PROPOSED STREETLIGHT TO BE INSTALLED ON EXISTING UTILITY POLE NO. 63615 LOCATED AT THE INTERSECTION OF SOUTH MAIN STREET WITH MCMAHON STREET AND MARKET SQUARE SHALL BE THE RESPONSIBILITY OF THE CTDOT. PAYMENT OF THE MONTHLY ENERGY BILL FOR THE PROPOSED STREETLIGHT TO BE INSTALLED ON EXISTING UTILITY POLE NO. 3833 LOCATED AT THE INTERSECTION OF WEST LIBERTY STREET AND BENEDICT STREET SHALL BE THE RESPONSIBILITY OF THE CITY OF WATERBURY.
- 18)

THE CONTRACTOR SHALL CONTACT THE EVERSOURCE WATERBURY REPRESENTATIVE 30 DAYS IN ADVANCE TO COORDINATE ELECTRIC SERVICE HOOK-UP AND REMOVAL.

ABBREVIATIONS

RMC	RIGID METAL CONDUIT
FGC	FIBERGLASS CONDUIT
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
CIJB	CAST IRON JUNCTION BOX
U.O.N.	UNLESS OTHERWISE NOTED
CCHH	CONCRETE HANDHOLE
E.O.R.	EDGE OF ROADWAY
E.O.P.	EDGE OF PAVEMENT
MBR	METAL BEAM RAIL



TYPICAL ILLUMINATION UNIT

PROPOSED ILLUMINATION LEGEND

	ALUMINUM LIGHT STANDARD (TRANSFORMER BASE) AND FOUNDATION (TYPE 1)
	ALUMINUM LIGHT STANDARD (ANCHOR BASE)
	LED ROADWAY LUMINAIRE - TYPE 2 (18,000* LUMEN, TYPE II DIST., FULL-CUTOFF, 35' MOUNTING HEIGHT)
	CONCRETE HANDHOLE (TYPE I)
	18" X 12" X 8" CAST IRON JUNCTION BOX
	SERVICE ENTRANCE AND CABINET - TYPE 1
	RMC RISER CONDUIT
	CABLE IN DUCT (3 #2 CONDUCTORS, 1 #8 BARE GND.)
	2" RMC IN STRUCTURE WITH 3 #2, 1 #8 GND.
	2½" PVC (SCHED. 80) UNDER ROADWAY (3 #2, 1 #8 BARE GND., (U.O.N.))
	2½" PVC (SCHED. 80) IN TRENCH (3 #2, 1 #8 BARE GND., (U.O.N.))
	SURFACE MOUNTED CONDUIT - TYPE AND SIZE AS INDICATED

EXISTING ILLUMINATION LEGEND

	FOUNDATION MOUNTED LIGHT STANDARD
	PARAPET MOUNTED LIGHT STANDARD
	EXISTING LIGHT STANDARD, FOUNDATION, AND LUMINAIRE TO BE REMOVED
	EXISTING BRIDGE MOUNTED LIGHT STANDARD AND LUMINAIRE TO BE REMOVED - CAP CONDUIT STUB-UP WHERE UN-USED
	UNDERDECK LUMINAIRE (PENDANT MOUNTED) - NOTE: LOCATION AS SHOWN IS APPROXIMATE
	CONCRETE HANDHOLE TO REMAIN
	CONCRETE HANDHOLE TO BE REMOVED
	CAST IRON JUNCTION BOX
	RMC UNDER ROADWAY OR IN TRENCH *
	SURFACE MOUNTED 1" FGC (WITH 3 #10)
	RMC CAST IN PARAPET WALL *
	SURFACE MOUNTED RMC *
	CABLE IN DUCT IN TRENCH (U.O.N.) *
	RMC RISER *

* NOTE: EACH EXISTING LIGHTING CIRCUIT CONSISTS OF 3 #2 & 1 #8 BARE GROUND WIRE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

DESIGNER/DRAFTER: MSB

CHECKED BY: JA

CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:

REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

TOWN(S):

WATERBURY

DRAWING TITLE:

GENERAL NOTES AND
LEGEND

PROJECT NO.:

0151-0340

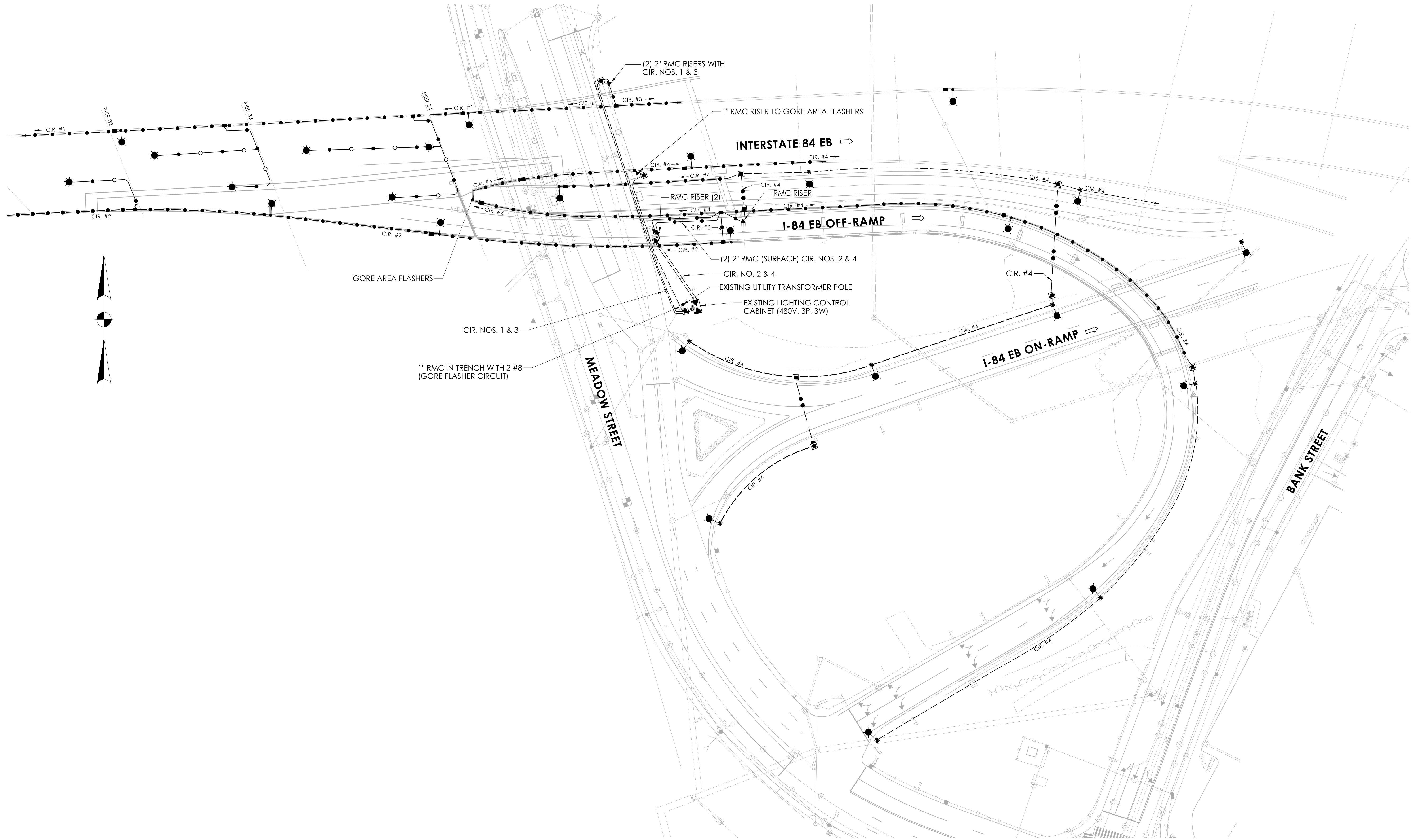
DRAWING NO.:

ILL-02

SHEET NO.:

08.02

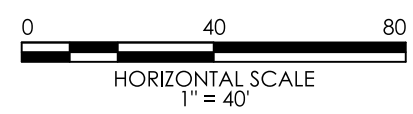
LASTED SAVED BY: Mark Bear FILE NAME: C:\Users\mark.bear\State of Connecticut\0151-0340 - Design\illumination\Contract_Plans\ILL-02.dgn
PLOTTED DATE: 8/14/2025



REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:

DESIGNER/DRAFTER: MSB
CHECKED BY: JA



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

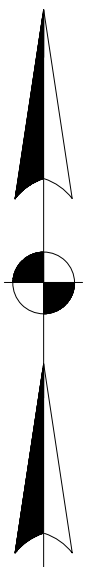
PROJECT TITLE:
REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

TOWN(S):
WATERBURY

DRAWING TITLE:
**ILLUMINATION - EXISTING
CONDITIONS**

PROJECT NO.:
0151-0340

DRAWING NO.:
ILL-03
SHEET NO.:
08.03



SIGNATURE BLOCK:

DESIGNER/DRAFTER: MSB CHECKED BY: JA



PROJECT TITLE:

REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

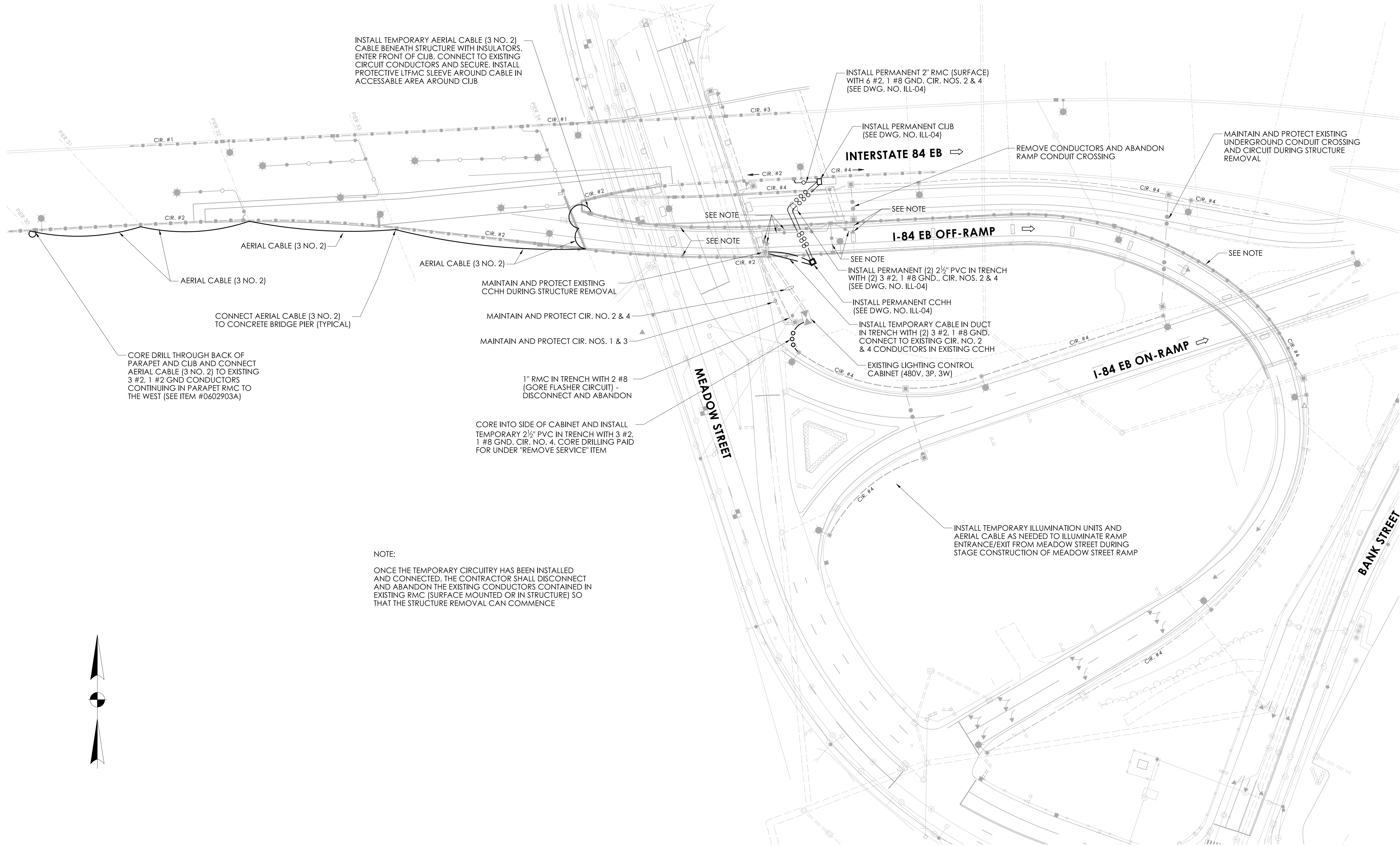
TOWN(S):

WATERBURY

DRAWING TITLE:

**PERMANENT
ILLUMINATION PLAN**

PROJECT NO.:	DRAWING NO.:
0151-0340	ILL-04
	SHEET NO.:
	08.04



NOTE:

ONCE THE TEMPORARY CIRCUITRY HAS BEEN INSTALLED AND CONNECTED, THE CONTRACTOR SHALL DISCONNECT AND ABANDON THE EXISTING CONDUCTORS CONTAINED IN EXISTING RMC (SURFACE MOUNTED OR IN STRUCTURE) SO THAT THE STRUCTURE REMOVAL CAN COMMENCE

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:	
DESIGNER/DRAFTER: MSB	CHECKED BY: JA



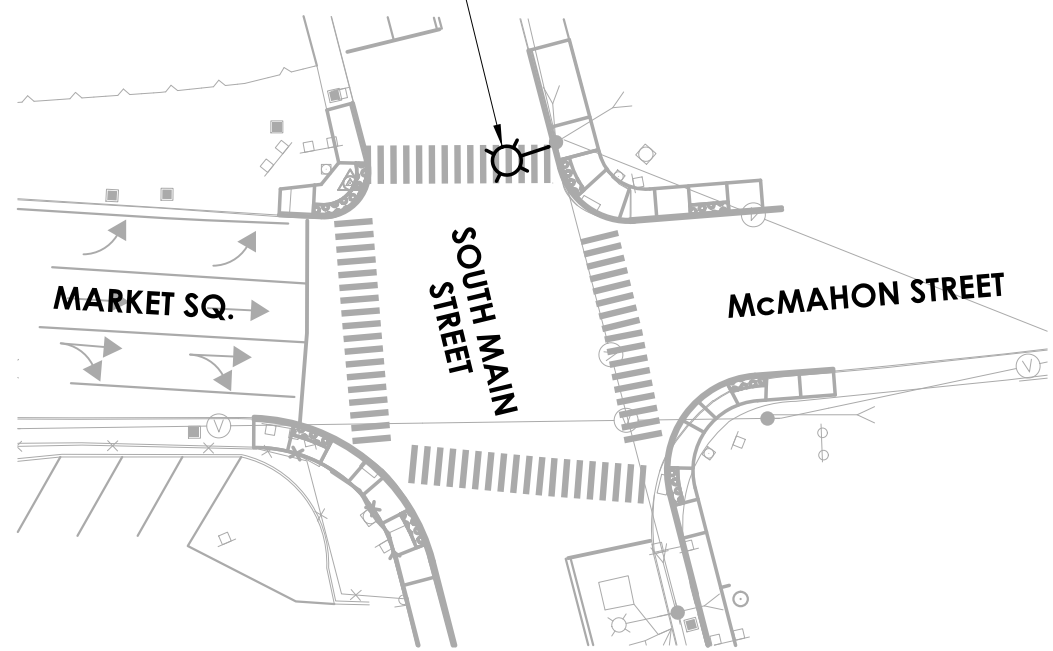
PROJECT TITLE:	REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP
----------------	--

TOWN(S):	WATERBURY
----------	-----------

DRAWING TITLE:	TEMPORARY ILLUMINATION
----------------	------------------------

PROJECT NO.:	0151-0340
DRAWING NO.:	ILL-05
SHEET NO.:	08.05

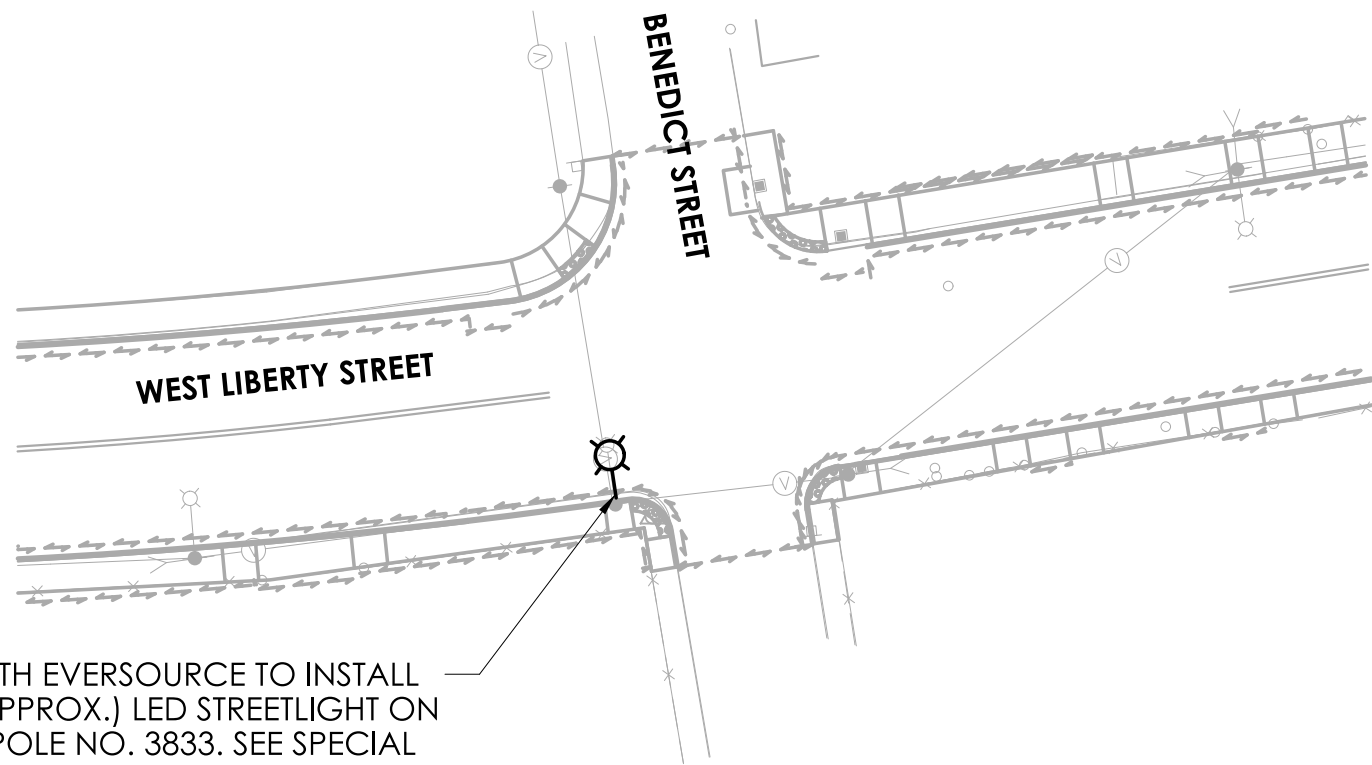
COORDINATE WITH EVERSOURCE TO INSTALL 13,000 LUMEN (APPROX.) LED STREETLIGHT ON EXISTING UTILITY POLE NO. 63615. SEE SPECIAL PROVISION FOR ITEM NO. 1500006A. SEE NOTE BELOW



CROSSWALK ILLUMINATION NOTE:

PAYMENT OF THE MONTHLY ENERGY BILL FOR THE PROPOSED STREETLIGHT TO BE INSTALLED ON EXISTING UTILITY POLE NO. 63615 LOCATED AT THE INTERSECTION OF SOUTH MAIN STREET WITH MCMAHON STREET AND MARKET SQUARE SHALL BE THE RESPONSIBILITY OF THE CTDOT.

CROSSWALK ILLUMINATION AT THE INTERSECTION OF SOUTH MAIN STREET WITH MCMAHON STREET & MARKET SQUARE

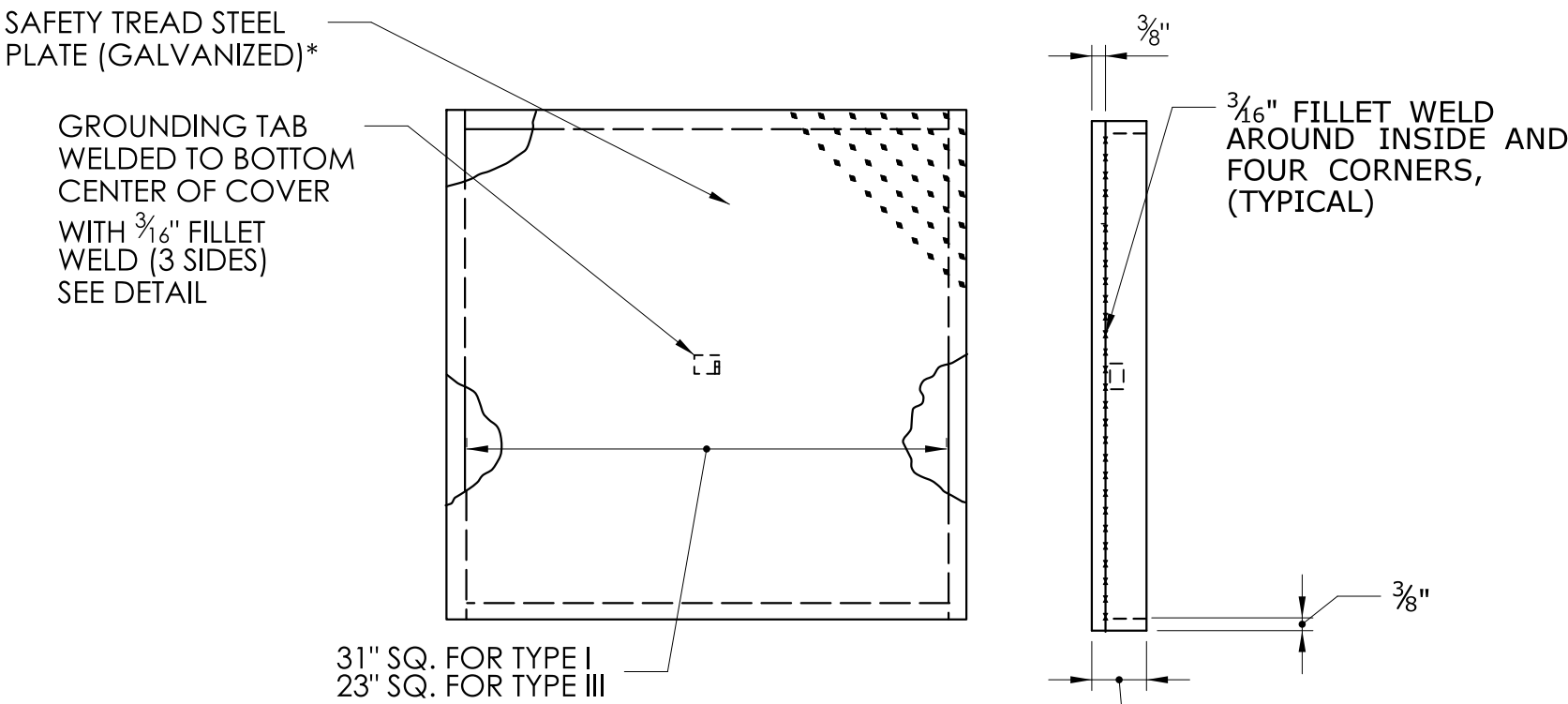
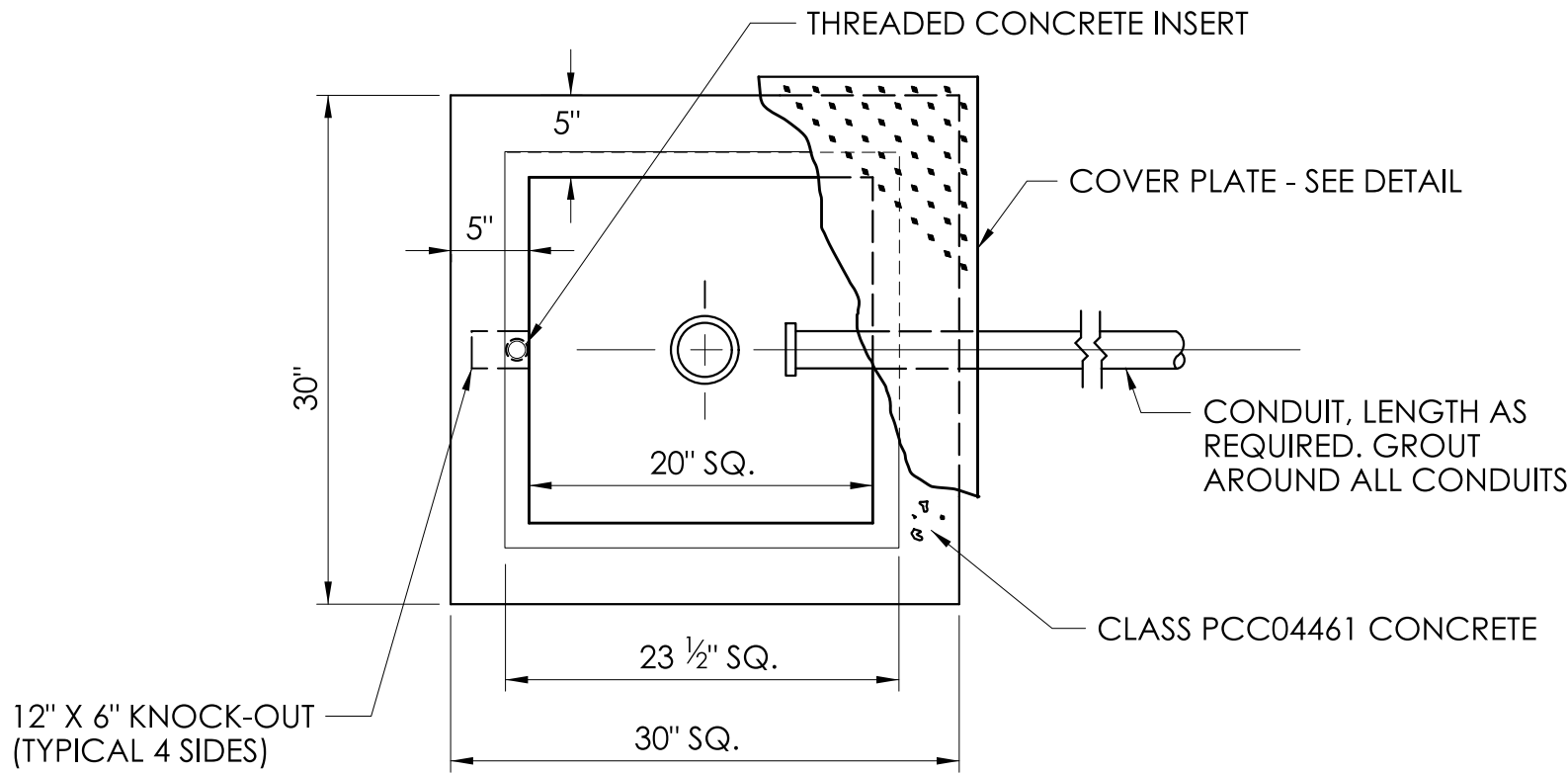


COORDINATE WITH EVERSOURCE TO INSTALL 13,000 LUMEN (APPROX.) LED STREETLIGHT ON EXISTING UTILITY POLE NO. 3833. SEE SPECIAL PROVISION FOR ITEM NO. 1500006A. SEE NOTE BELOW

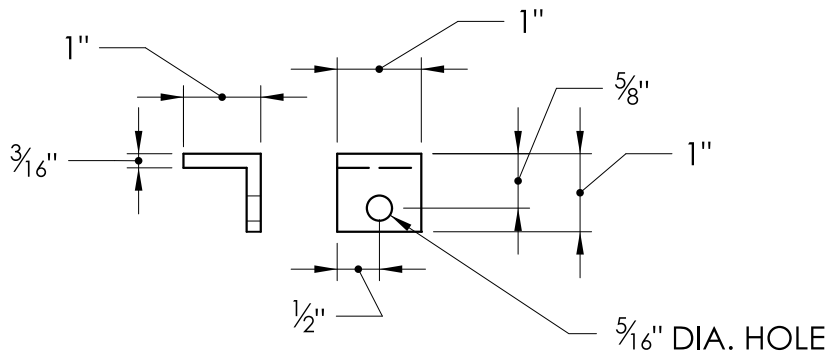
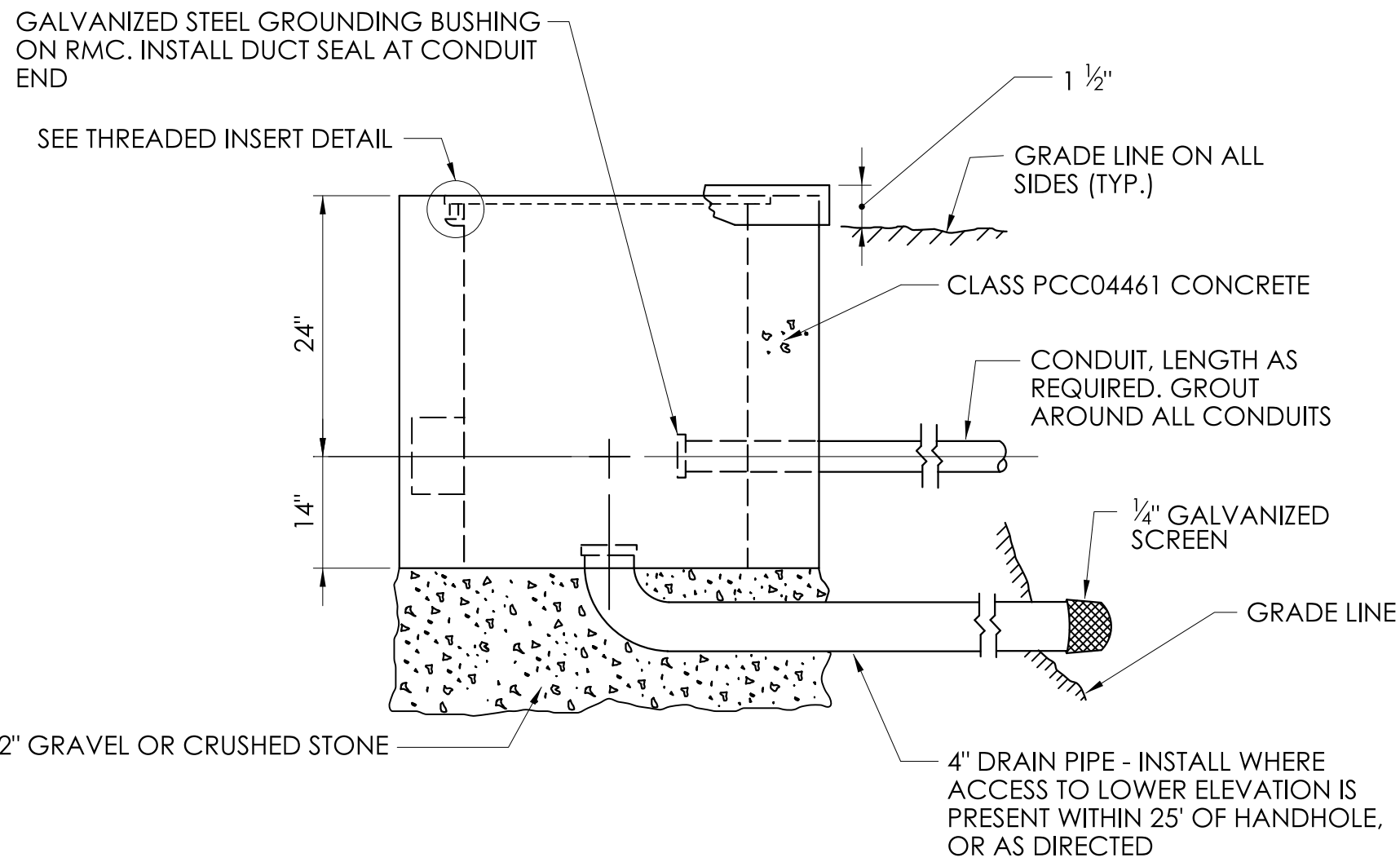
CROSSWALK ILLUMINATION NOTE:

PAYMENT OF THE MONTHLY ENERGY BILL FOR THE PROPOSED STREETLIGHT TO BE INSTALLED ON EXISTING UTILITY POLE NO. 3833 LOCATED AT THE INTERSECTION OF WEST LIBERTY STREET AND BENEDICT STREET SHALL BE THE RESPONSIBILITY OF THE CITY OF WATERBURY.

CROSSWALK ILLUMINATION AT THE INTERSECTION OF WEST LIBERTY STREET WITH BENEDICT STREET



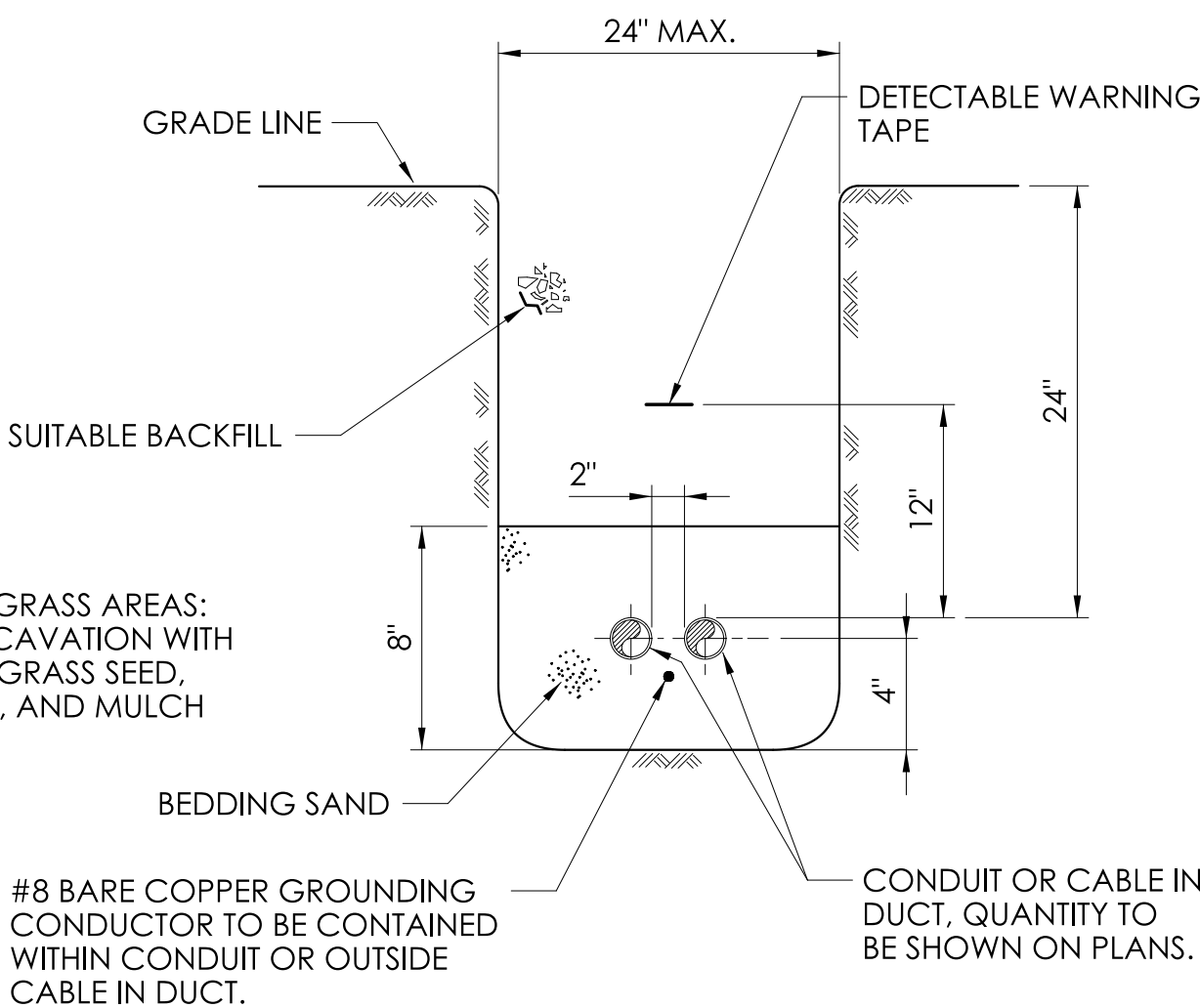
OVERLAP TYPE COVER



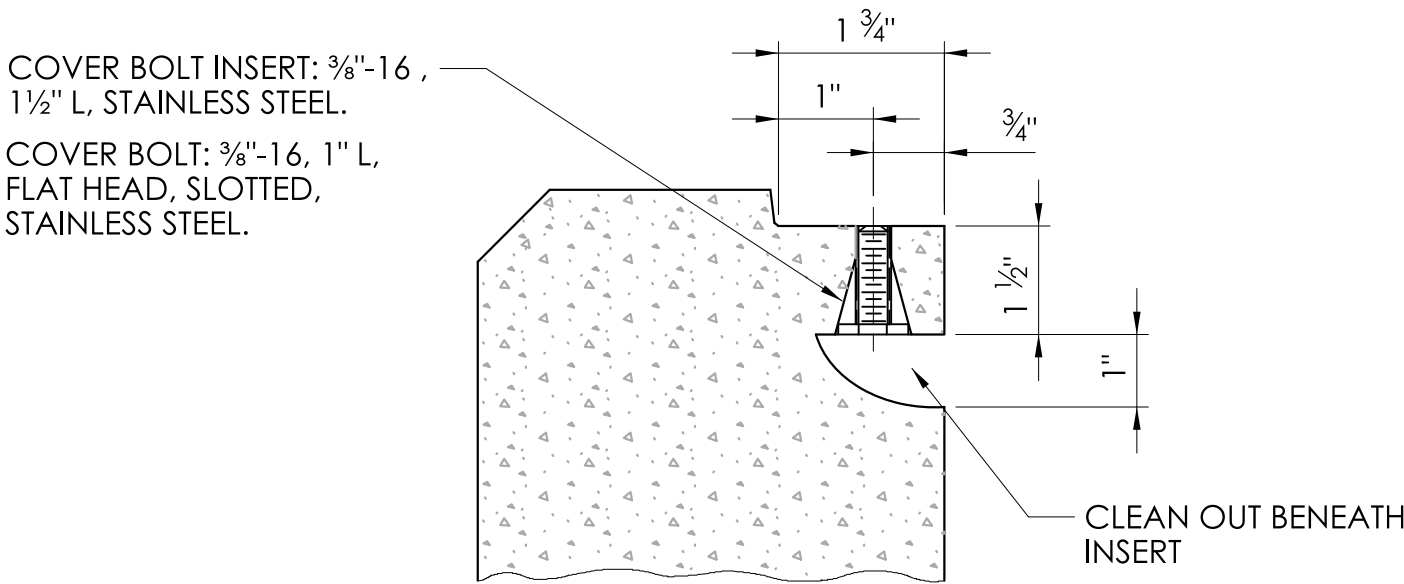
NOTE:
ATTACH 72" LENGTH OF NO. 8 GROUND WIRE TO GROUNDING TAB WITH ONE HOLE LUG, 1/4" x 3/4" LG. SST HEX HEAD BOLT, AND SST FLAT WASHER. ATTACH FREE END OF GROUND WIRE TO NO. 8 BARE GROUND WIRE IN HANDHOLE.

STEEL GROUNDING TAB

CONCRETE HANDHOLE - TYPE I



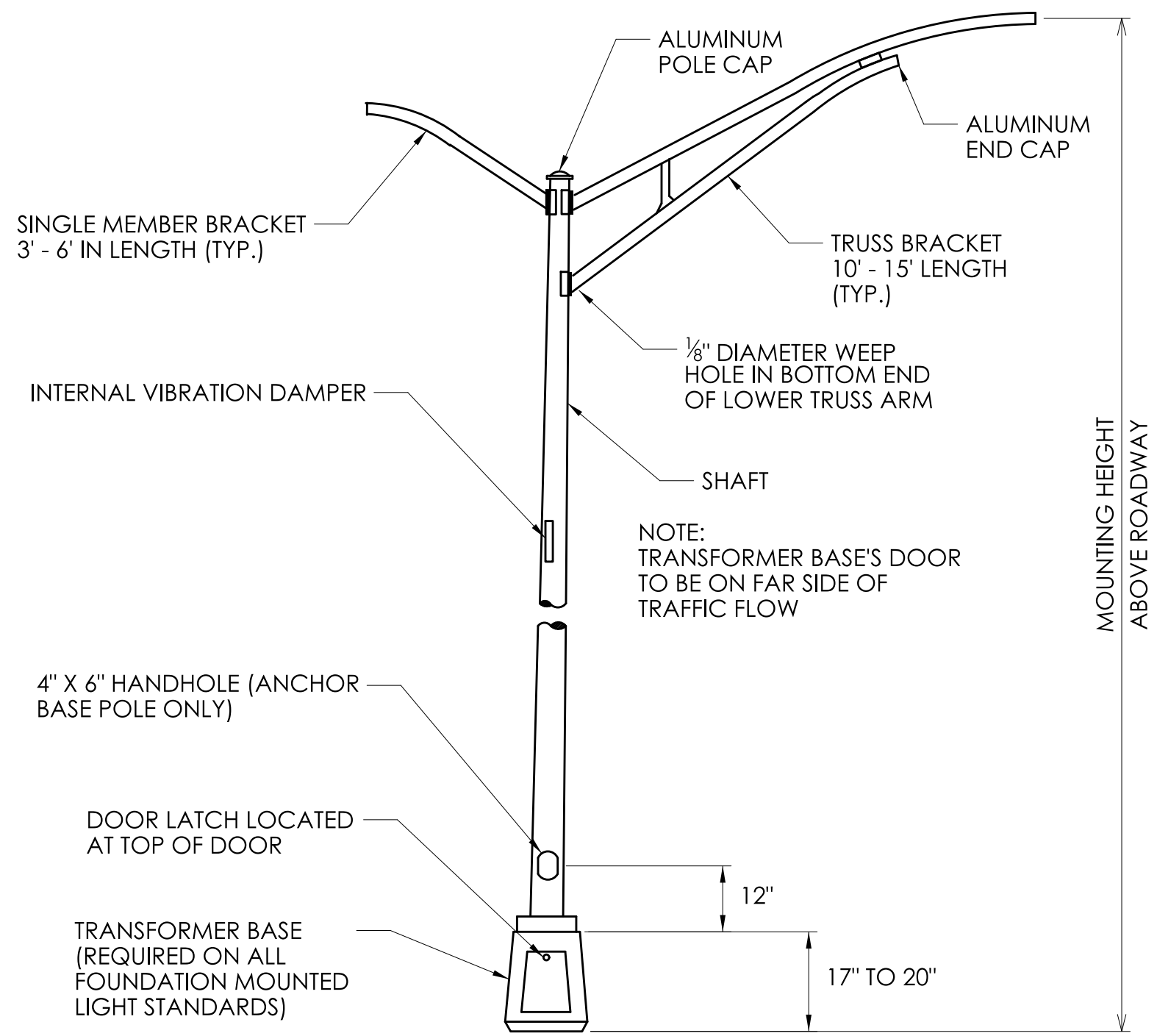
BURIED CONDUIT OR CABLE IN DUCT



THREADED INSERT

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK: 		NO SCALE	 CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP	TOWN(S): WATERBURY	DRAWING TITLE: CROSSWALK LIGHTING, CONCRETE HANDHOLE AND CONDUIT IN TRENCH	PROJECT NO.: 0151-0340	DRAWING NO.: ILL-06	
DESIGNER/DRAFTER: MSB CHECKED BY: JA								SHEET NO.: 08.06	



ALUMINUM LIGHT STANDARD

ALUMINUM LIGHT STANDARD - DIMENSION TABLE							
MOUNTING HEIGHT	BRACKET LENGTH	SHAFT DIAMETER		SHAFT WALL THICKNESS	BASE TYPE	ANCHOR BOLT SIZE	BOLT CIRCLE DIAMETER
		BOTTOM	TOP				
35'	6'	8"	6"	0.188"	TRANSFORMER	1" X 40"	15"
35'	10'	8"	6"	0.250"	ANCHOR	1" X 40"	11"

LIGHT STANDARD NOTES:

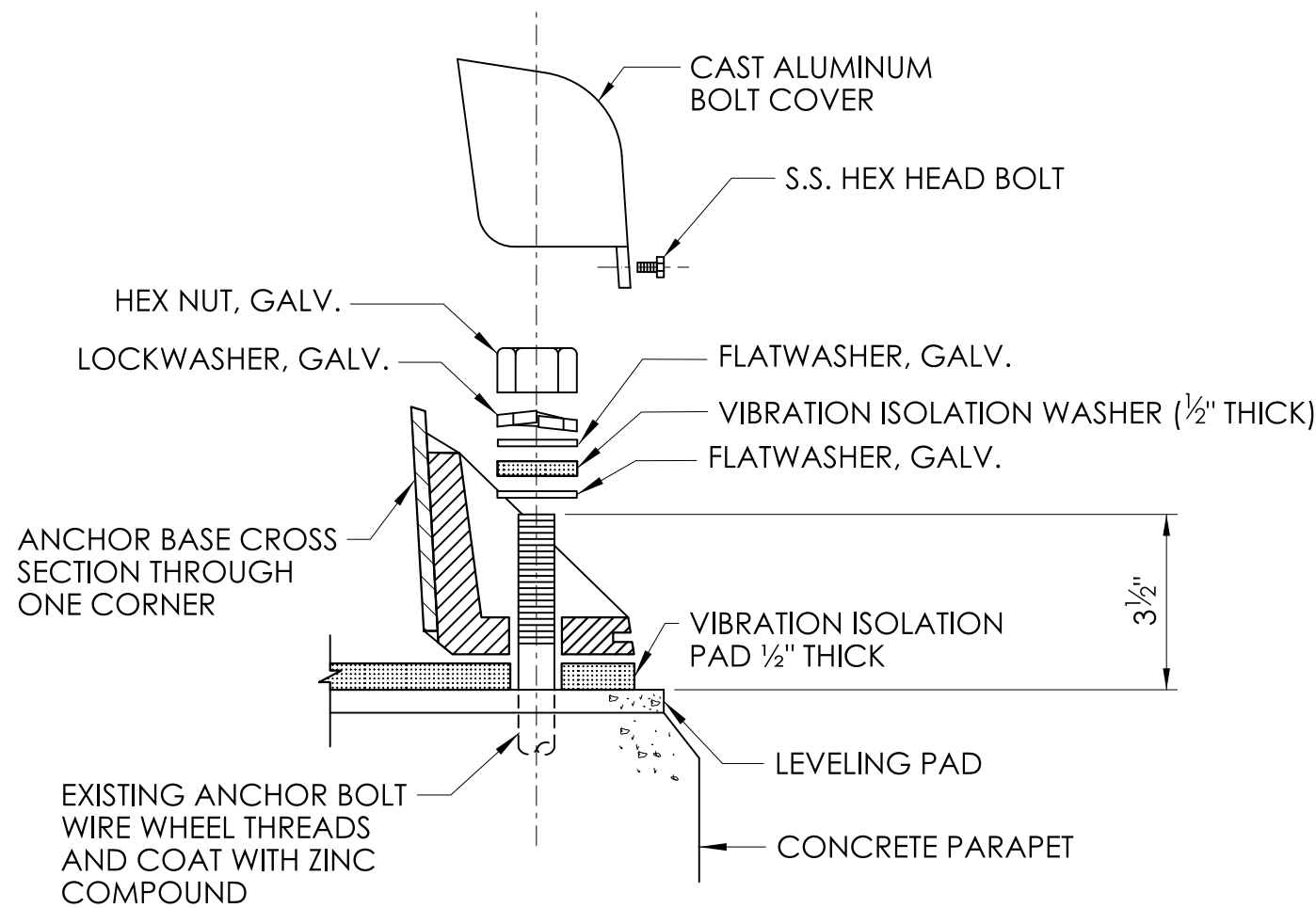
- 1) ALUMINUM ALLOY SHALL BE 6063, T6 TEMPER.

2) BOLT CIRCLE SHOWN IS FOR ANCHOR BASE BOTTOM OR TRANSFORMER BASE BOTTOM (WHICHEVER IS APPLICABLE).

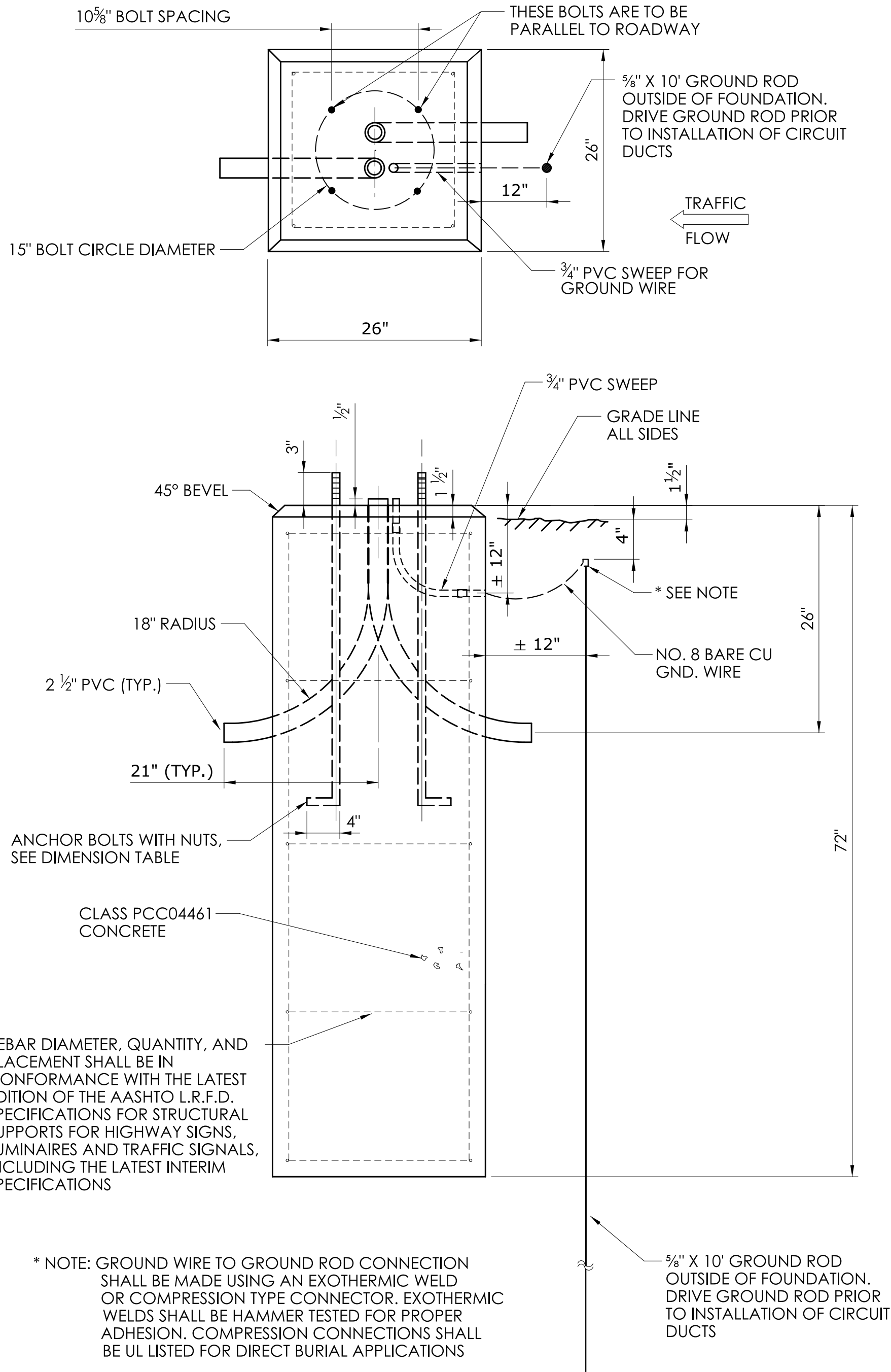
3) TO BE DESIGNED TO AASHTO "STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" FOR 90 M.P.H. WINDS.

4) WELDING DESIGN AND FABRICATION SHALL CONFORM TO THE LATEST EDITION OF THE ANSI/AWS D1.2. STRUCTURAL WELDING CODE - ALUMINUM.
- 5) FOR BASE CONNECTION WELDS, FABRICATION INSPECTION AND TESTING SHALL BE PERFORMED AS NECESSARY PRIOR TO ASSEMBLY, DURING ASSEMBLY, DURING WELDING, AND AFTER WELDING, TO ENSURE THAT MATERIALS AND WORKMANSHIP MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. FABRICATION INSPECTION AND TESTING IS THE RESPONSIBILITY OF THE CONTRACTOR. VERIFICATION INSPECTION AND TESTING IS THE PREROGATIVE OF THE ENGINEER (CONNDOT).

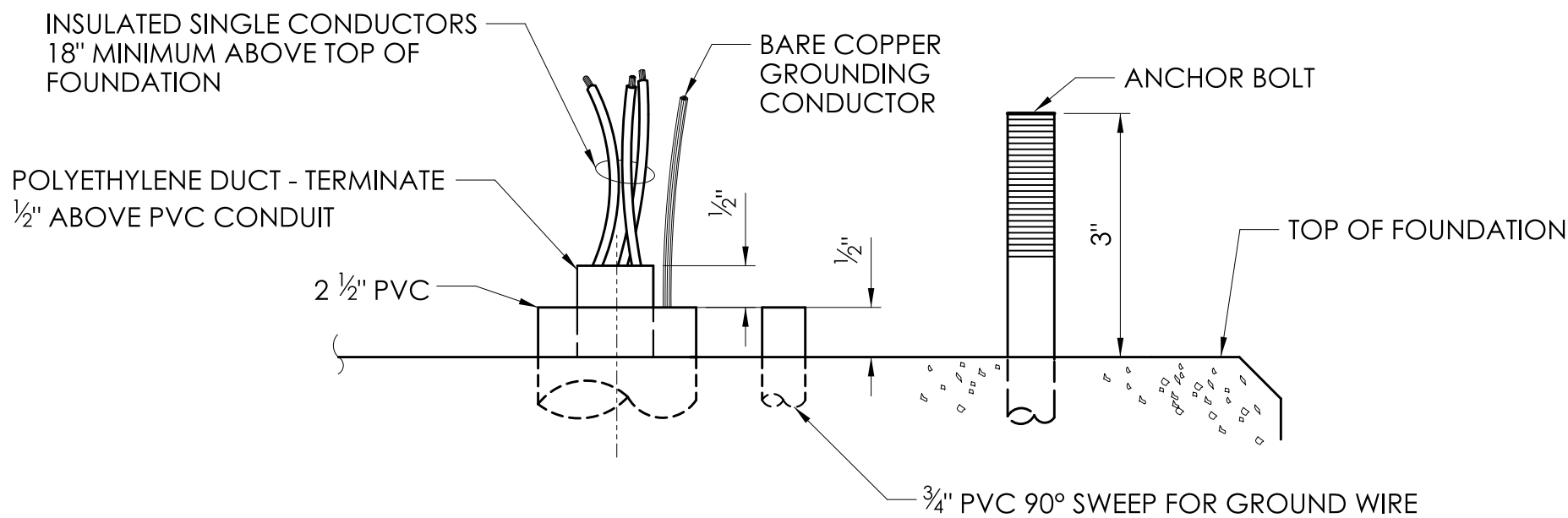
6) NON-DESTRUCTIVE TESTING FOR ALUMINUM SHALL BE AS FOLLOWS: A RANDOM 25% OF ALL BASE CONNECTION WELDS SHALL BE INSPECTED IN ACCORDANCE WITH ASTM E-165 STANDARD PRACTICE FOR LIQUID PENETRANT INSPECTION METHOD.



ANCHOR BASE LIGHT STANDARD MOUNTING HARDWARE



LIGHT STANDARD FOUNDATION - TYPE I



CABLE IN DUCT TERMINATION AT LIGHT STANDARD BASE

REV.	DATE	REVISION DESCRIPTION

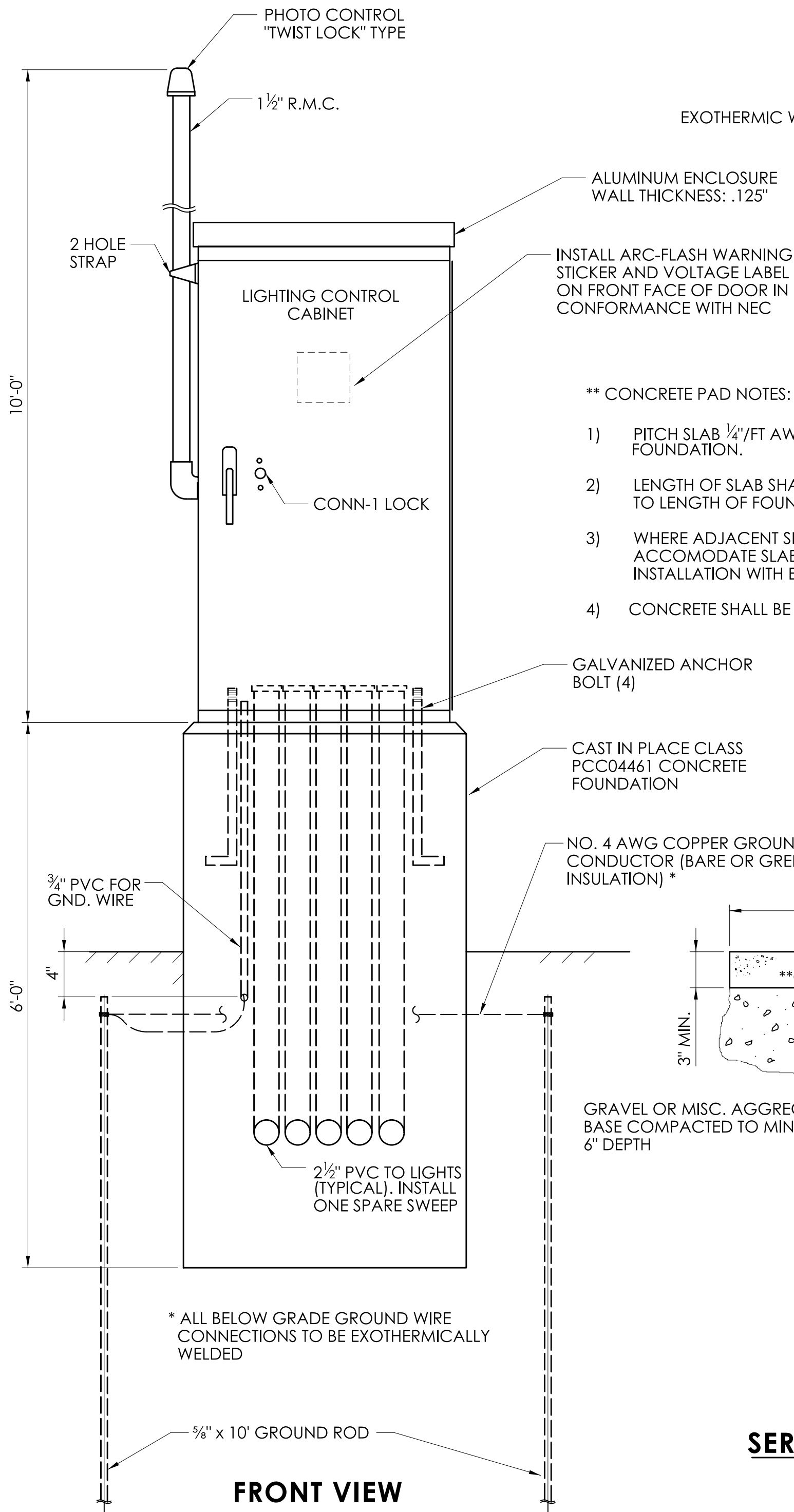


DRAWING NO.:
ILL-08

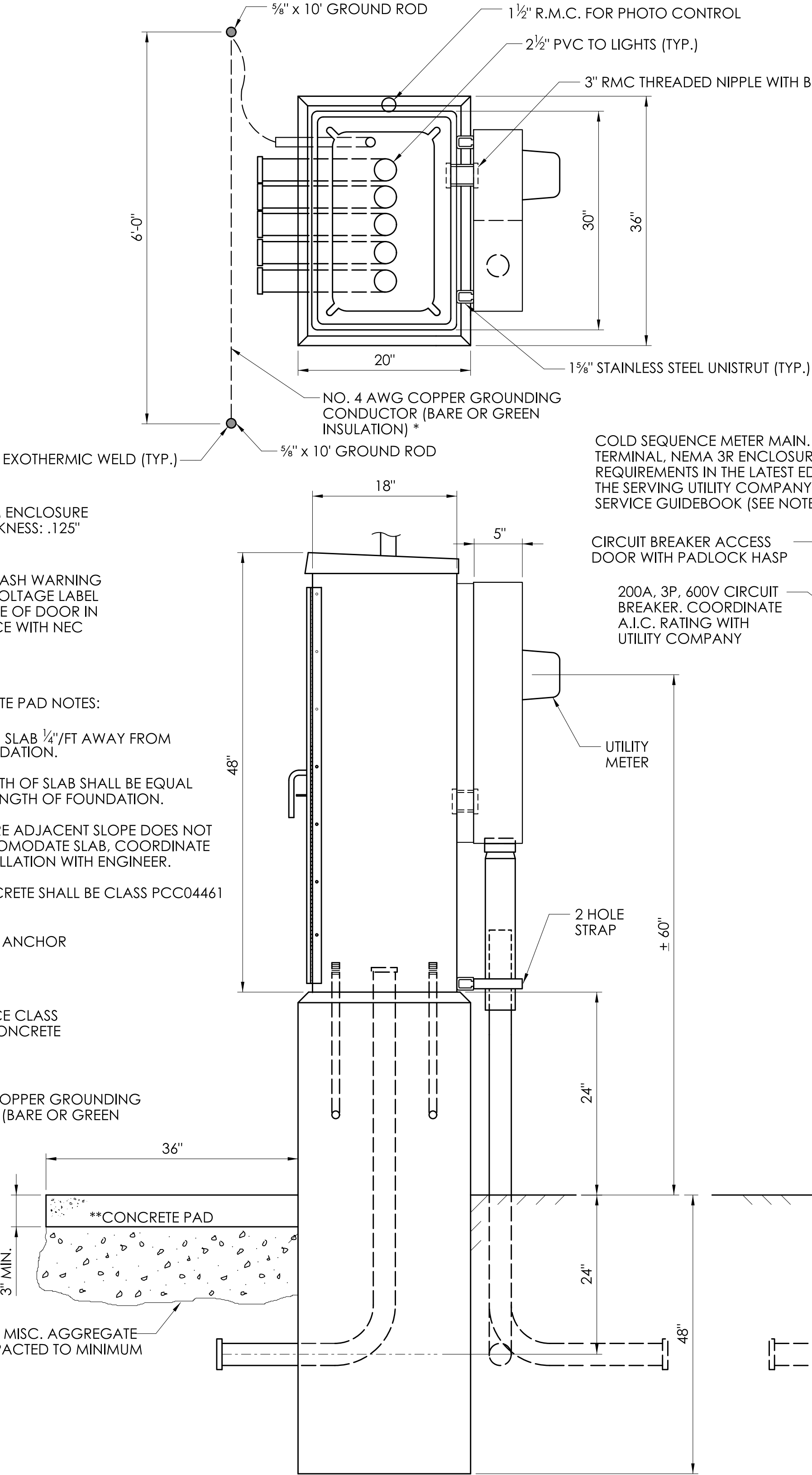
SHEET NO.:
08.08

NOTES:

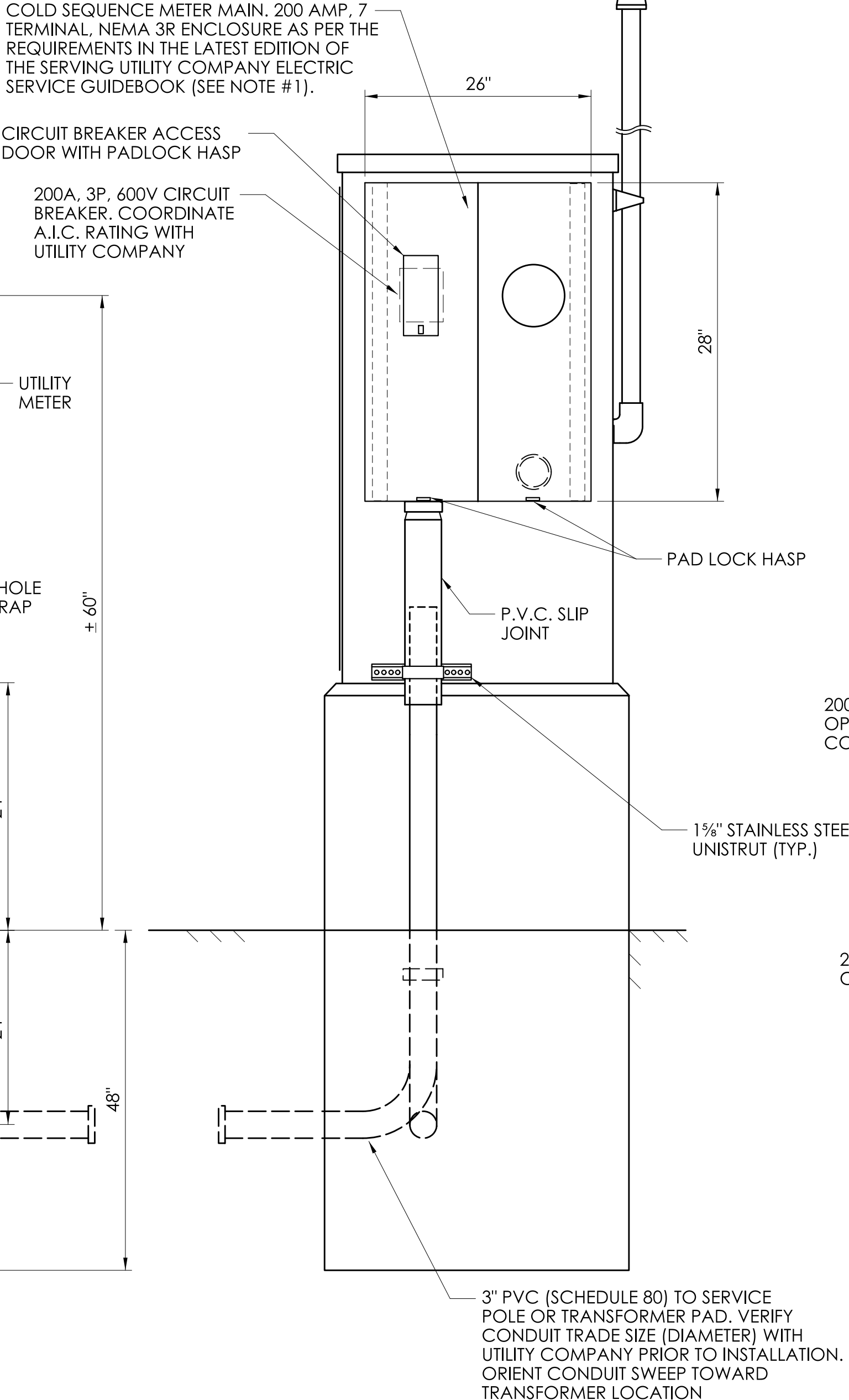
- 1) UTILITY SERVICE AND METER INSTALLATION SHALL FOLLOW THE LATEST GUIDELINES OF THE SERVING UTILITY COMPANY AS FOLLOWS:
- EVERSOURCE: "INFORMATION & REQUIREMENTS FOR ELECTRIC SERVICE SUPPLY BELOW 600 VOLTS".
- UNITED ILLUMINATING: "GUIDEBOOK OF REQUIREMENTS FOR ELECTRIC SERVICE".
- 2) ALL PVC CONDUIT SHALL BE SCHEDULE 80.
- 3) FOUNDATION SHALL BE CAST-IN-PLACE CLASS PCC04461 CONCRETE AND PROPERLY SIZED FOR THE APPROVED CABINET DIMENSIONS.
- 4) ALL WORK AND MATERIALS SHOWN ON THIS DRAWING TO BE PAID FOR UNDER THE ITEM FOR "SERVICE ENTRANCE AND CABINET - TYPE 1"
- 5) EXOTHERMIC WELDS SHALL BE HAMMER TESTED FOR PROPER ADHESION.



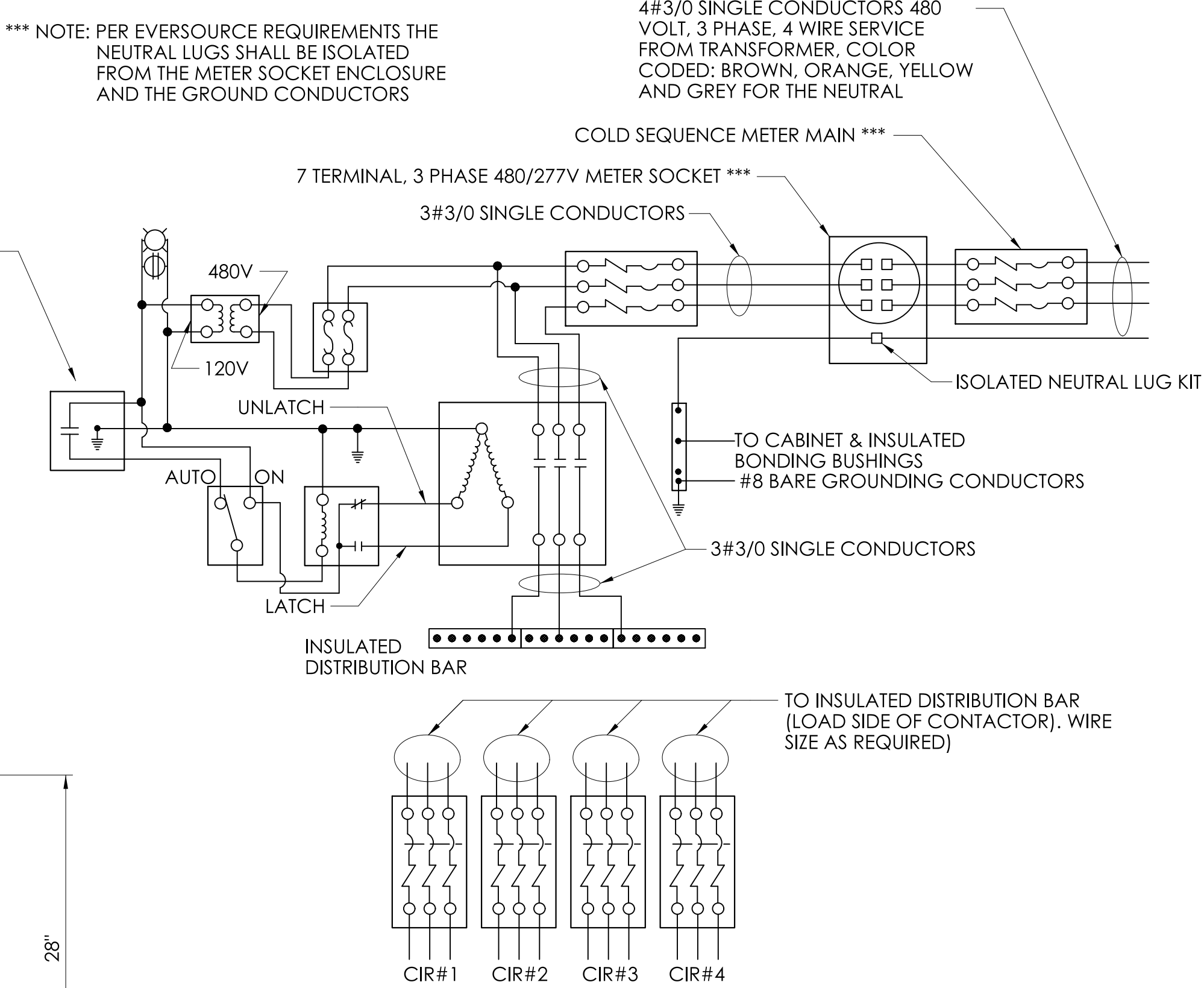
FRONT VIEW



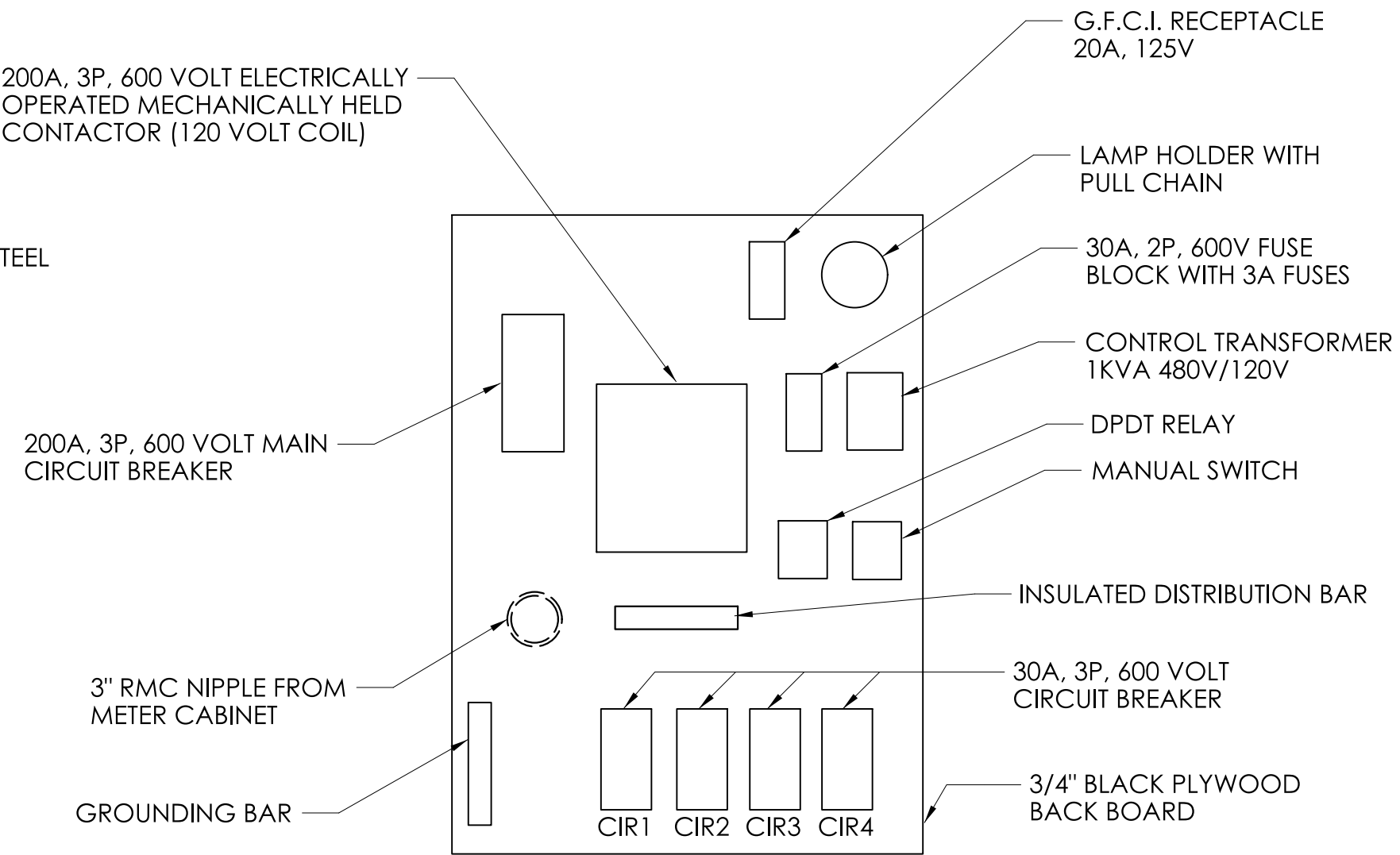
SERVICE ENTRANCE AND CABINET TYPE I



BACK VIEW



WIRING DIAGRAM



PANEL LAYOUT - SERVICE CABINET

REV.	DATE	REVISION DESCRIPTION

SIGNATURE BLOCK:
DESIGNER/DRAFTER: MSB
CHECKED BY: JA

NO SCALE



CONNECTICUT
DEPARTMENT OF
TRANSPORTATION

PROJECT TITLE:
REMOVAL OF I-84 EASTBOUND EXIT 21 OFF-RAMP

TOWN(S):
WATERBURY

DRAWING TITLE:
SERVICE ENTRANCE AND
CABINET - TYPE 1

PROJECT NO.:
0151-0340

DRAWING NO.:
ILL-09
SHEET NO.:
08.09