

I. MATERIALS

A. ENCLOSURE

THE SINGLE DOOR PAD MOUNT ENCLOSURE SHALL BE APPROXIMATELY 28" HIGH, 18" WIDE, AND 8 3/4" DEEP. THE CABINET AND DOOR SHALL BE MADE OF 14GA TYPE 304 STAINLESS STEEL WITH A 14 GA. STAINLESS STEEL CONTINUOUS WELDED HINGE. THE ENCLOSURE SHALL HAVE A NATURAL MILL FINISH. A CLOSED CELL NEOPRENE GASKET SHALL BE AROUND THE ENTIRE DOOR FOR WATER INTEGRITY. THE FLANGE MOUNTING DISCONNECT OPERATOR SHALL BE STAINLESS STEEL OR CHROME PLATED FOR NEMA 4X APPLICATION, CAPABLE OF BEING LOCKED IN EITHER POSITION WITH A DUAL COVER INTERLOCK MECHANISM. THE CABINET & DOOR SHALL HAVE A GROUNDING LUG. THE ENCLOSURE SHALL MEET OR EXCEED THE REQUIREMENTS OF A NEMA 4X RATING AND SHALL BE U.L. LISTED AND LABELED FOR TYPE 4X. THE CABINET SHALL HAVE A 5" X 12" OPENING CENTERED IN THE BOTTOM WITH FOUR 3/4" MOUNTING HOLES TO ACCEPT 5/8" THREADED STUDS FROM CONTROLLER BASE, SHOWN ON SHEET 4.

B. PADMOUNT CONTROLLER BASE

THE ENCLOSURE BASE SHALL BE 18" HIGH, 18" WIDE, 8 3/4" DEEP AT THE TOP AND 15" DEEP AT THE BOTTOM. THE BASE SHALL HAVE A 5" X 12" OPENING CENTERED IN THE TOP & A 8" X 12" OPENING CENTERED IN THE BOTTOM. THE BASE SHALL BE MADE FROM 14GA. 304 STAINLESS STEEL. THE BASE SHALL (MEET OR EXCEED THE REQUIREMENTS OF NEMA 4X RATING AND SHALL BE U.L. LISTED) BE ATTACHED TO ENCLOSURE WITH THREADED 5/8" STAINLESS STEEL STUDS WELDED IN PLACE & MATCH ENCLOSURE BOLT PATTERN. THE ENCLOSURE AND BASE SHALL BE NATURAL FINISH. THE ENCLOSURE SHALL BE A CENTRAL SYSTEMS CONTROLS CORP. (MFG# 20026031000), DEWSBURY INC. (MFG# 60310002002) OR APPROVED INTERCHANGEABLE EQUAL.

C. CONTROL PANEL

1. 100 AMPERE, 3 POLE, 600 VOLT, (CUTLER HAMMER) SINGLE THROW DISCONNECT SWITCH WITH 100 AMP TIME DELAY FUSES, COOPER SHORTING BUSS WITH LUG FOR #2 COOPER 7 STRAND CONDUCTOR (SEE SHEET 2)
2. NEMA RATED 100 AMP, 3 POLE, 600 VOLT, CONTACTOR WITH 120 VOLT OPERATING COIL, CONTROL TRANSFORMER, TYPE SBE, 480/120 VOLTS, 60 CYCLE, .2 KVA AND 2 AMP CONTROL FUSE HOLDER ON SECONDARY SIDE AND 1 AMP ON PRIMARY SIDE.
3. ALL FUSES TO BE TYPE H. (BLADE FUSES)
4. INTERNAL MOUNTED HAND, OFF, AUTO SELECTOR SWITCH.
5. INSULATED SOLID COPPER NEUTRAL BUS CAPABLE OF TERMINATING THE SPECIFIED NUMBER AND SIZE WIRES.
6. TERMINAL BLOCK SHALL BE PROVIDED FOR PHOTOELECTRIC RELAY CONNECTION. BLOCK SHALL ACCEPT #10 COPPER WIRES AND SHALL BE BUSSMAN 14002-3 OR APPROVED EQUAL.
7. THE CONDUCTORS BETWEEN THE FUSE DISCONNECT AND THE CONDUCTOR SHALL BE 7 STRAND COPPER #4, 600 VOLT TYPE THW. ALL OTHER CONDUCTORS SHALL BE 7 STRAND COPPER #12, 600V TYPE MTW.
8. THE CONTROLLER SHALL BE WIRED AS SHOWN ON SHEET 2.
9. THE CONTROLLER SHALL BE ASSEMBLED WITH STANDARD HARDWARE FOR EASE OF MAINTENANCE.
10. THE CONTROL PANEL SHALL BE CENTRAL SYSTEMS & CONTROLS CORP. MFG. # 20026031042, DEWSBURY INC. # 60310422002 OR APPROVED INTERCHANGEABLE EQUAL.
11. LIGHTNING/SURGE ARRESTOR SHALL BE INSTALLED INTERNALLY ON THE CONTROL PANEL.
12. THE MOUNTING PANEL SIZE SHALL BE 25" X 15".
13. THE CONTROLLER SHALL BE FUSED ACCORDING TO THE LOAD AMPERAGE ON THE TABLE BELOW. FUSE REDUCERS SHALL BE USED IF NECESSARY.

LOAD AMPERAGE	FUSE SIZE	FUSE REDUCER
1-12	15 A	BUSS #216
13-25	30 A	BUSS #216
26-37	45 A	BUSS #616
38-50	60 A	BUSS #616
51-66	80 A	N/A
67-83	100 A	N/A

D. PRECAST MOUNTING PAD

THE PRECAST REINFORCED CONCRETE MOUNTING PAD SHALL BE 28" X 27" X 6" WITH AN 8" X 12" OPENING IN THE CENTER FOR THE CONDUIT. THREADED INSERTS FOR 3/4" BOLTS SHALL BE CAST INTO THE PAD TO FIT THE BOLT PATTERN OF THE CABINET.

E. GROUNDING

THE GROUNDING ELECTRODE (GROUND ROD) SHALL BE 1/2" X 10' COPPER CLAD. THE CONDUCTOR TO THE GROUNDING ELECTRODE SHALL BE #6 AWG BARE SOLID COPPER.

F. CONDUIT

ALL CONDUIT SHALL BE 2" NON-METALLIC SCHEDULE 40 PVC INSTALLED AS SPECIFIED IN MIS-15.

G. PHOTO ELECTRIC RELAY

THE PHOTO ELECTRIC RELAY SHALL BE CADMIUM SULPHIDE WITH A LOCKING TYPE RECEPTACLE. THE RELAY SHALL BE POLE MOUNTED AND OPERATE AT 120 VOLTS. THE TURN ON AND OFF LEVELS SHALL BE ADJUSTABLE FOR 0.3 TO 6.0 FOOT CANDLES. THE PHOTO ELECTRIC RELAY SHALL BE GENERAL ELECTRIC, TORK, LUMATROL OR AN APPROVED EQUAL. THE CONTROL WIRE SHALL BE TYPE USE, RHH, OR RHW #12 SEVEN STRAND COPPER.

II. INSTALLATION

THE CONTROL SITE SHALL BE LOCATED WITHIN THE UTILITY EASEMENT CLOSE TO THE SERVICE TRANSFORMER OR PEDESTAL AND AS DIRECTED BY THE ENGINEER. DWG # 01S0108 THE PRECAST PAD SHALL BE PLACED ON COMPACTED SOIL DIRECTLY OVER THE CONDUIT WITHIN 5' OF THE TRANSFORMER OR PEDESTAL. THE PAD MUST BE LEVEL. SAND MAY BE USED, IF NECESSARY, TO LEVEL THE PAD.

THE GROUND ROD SHALL BE DRIVEN THROUGH THE WINDOW OF THE PAD. THE #6 GROUNDING ELECTRODE SHALL BE ATTACHED TO THE GROUND BAR. THE ENCLOSURE SHALL BE BONDED TO THE GROUNDING ELECTRODE SYSTEM WITH #8 CONDUCTOR FROM THE GROUND BAR TO THE GROUNDING LUG OF THE ENCLOSURE. BEFORE THE ENCLOSURE AND BASE ARE SET, THE WINDOW IN THE PAD SHALL BE FILLED WITH A CONCRETE MIX. THE CONCRETE SHALL BE RUFF FINISHED TO ASSURE A SEAL AROUND THE CONDUIT AND THE GROUND ROD. THE ENCLOSURE AND EXTENSION BASE SHALL BE ATTACHED TO THE PAD WITH STAINLESS STEEL BOLTS AND WASHERS.

A. POWER SERVICE

THE CONTRACTOR SHALL INSTALL TWO #4 5KV CABLES (MIS_14) FROM THE LINE TERMINALS OF THE CONTROL PANEL TO POWER COMPANY'S SERVICE TRANSFORMER POLE MOUNT OR PEDESTAL LEAVING 6 FT '+ OF CABLE COILED FOR CONNECTION BY THE POWER COMPANY. THE NEUTRAL CABLE SHALL BE CLEARLY MARKED WITH WHITE STRIPE AND WHITE TAPE.

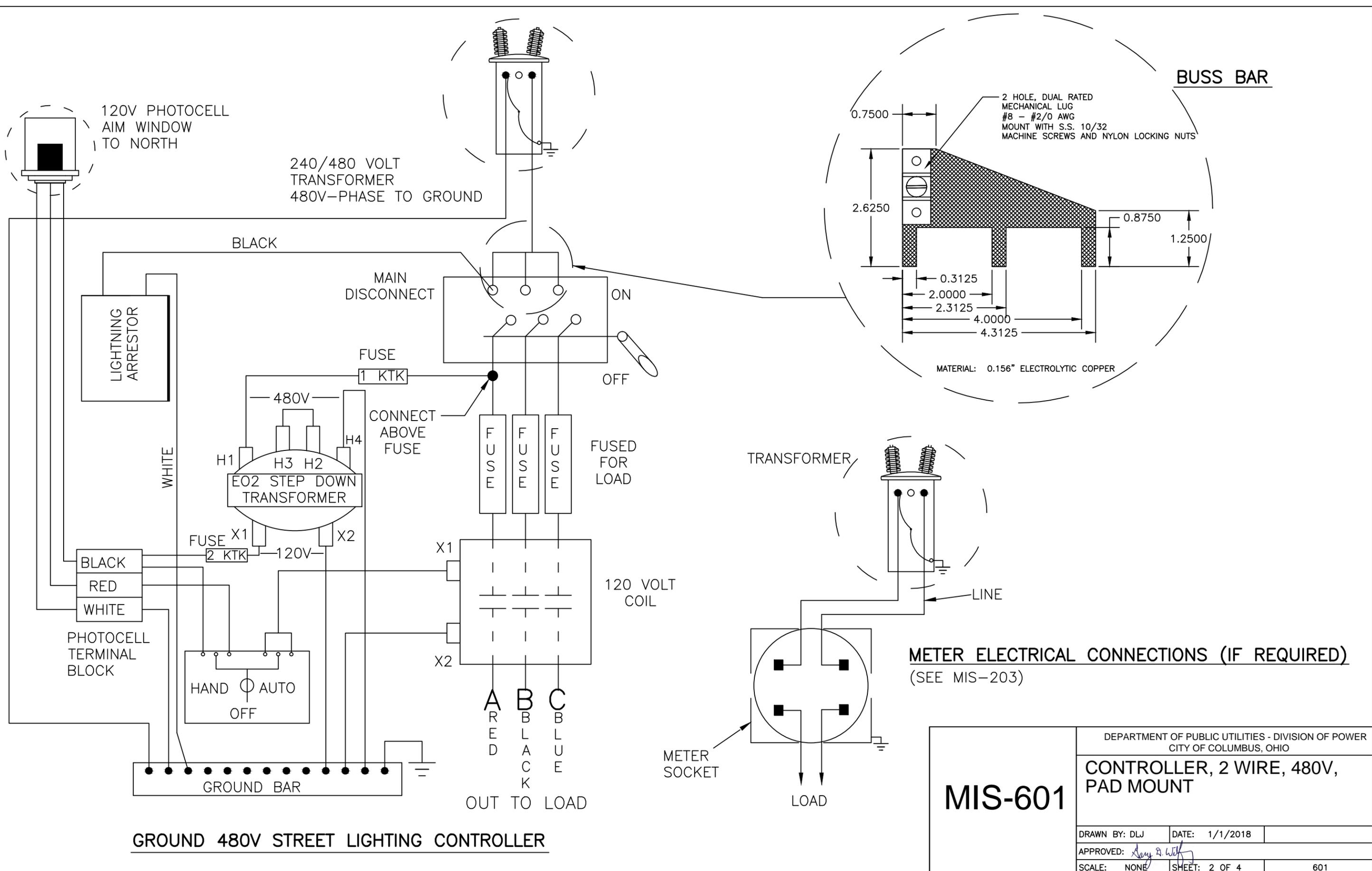
B. PHOTO ELECTRIC CONTROL

THE PHOTO ELECTRIC CONTROL SHALL BE MOUNTED ON TOP OF THE FIRST LIGHT STANDARD OF THE CIRCUIT. THE THREE CONTROL WIRES SHALL BE INSTALLED IN THE SAME 2" CONDUIT AS CIRCUIT.

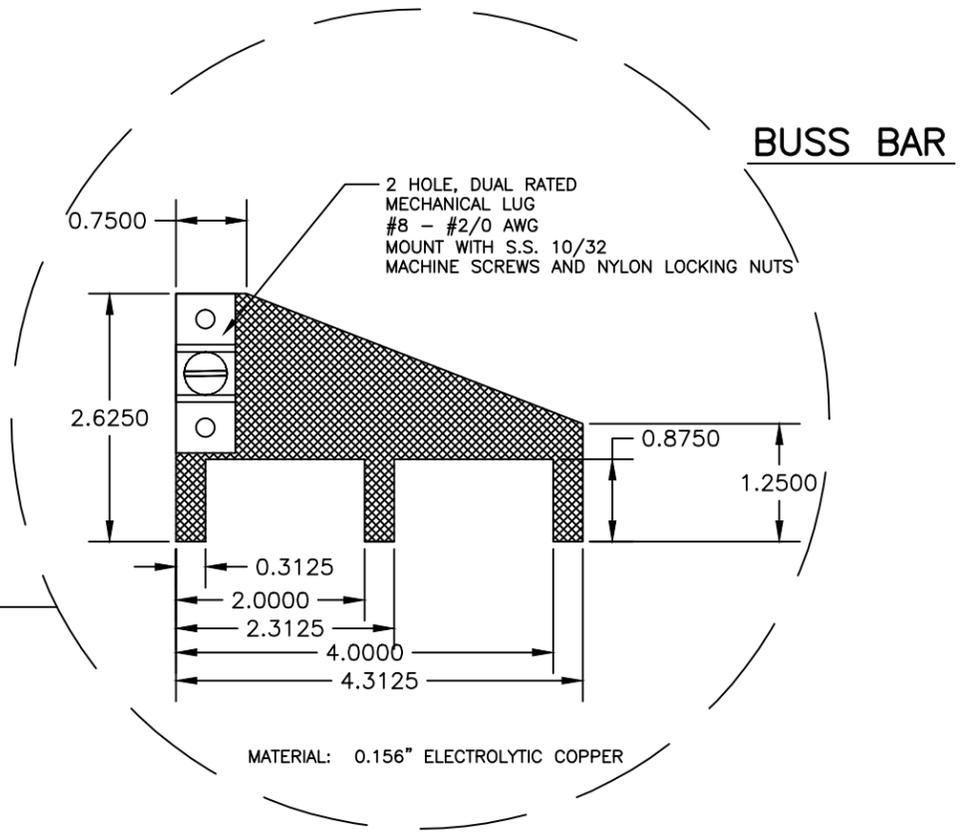
III. BASIS OF PAYMENT

ITEM	UNIT	DESCRIPTION
MIS-601	EACH	CONTROLLER, 2 WIRE, 480V, PAD MOUNT

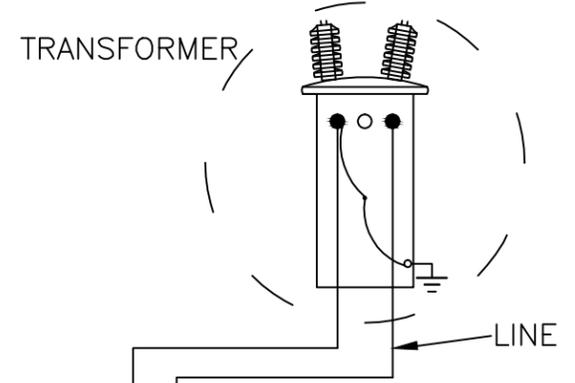
MIS-601	DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO		
	CONTROLLER, 2 WIRE, 480V, PAD MOUNT		
	DRAWN BY: BEN	DATE: 1/1/2018	
	APPROVED: <i>[Signature]</i>		
SCALE: NONE	SHEET: 1 OF 4	601	



GROUND 480V STREET LIGHTING CONTROLLER



BUSS BAR



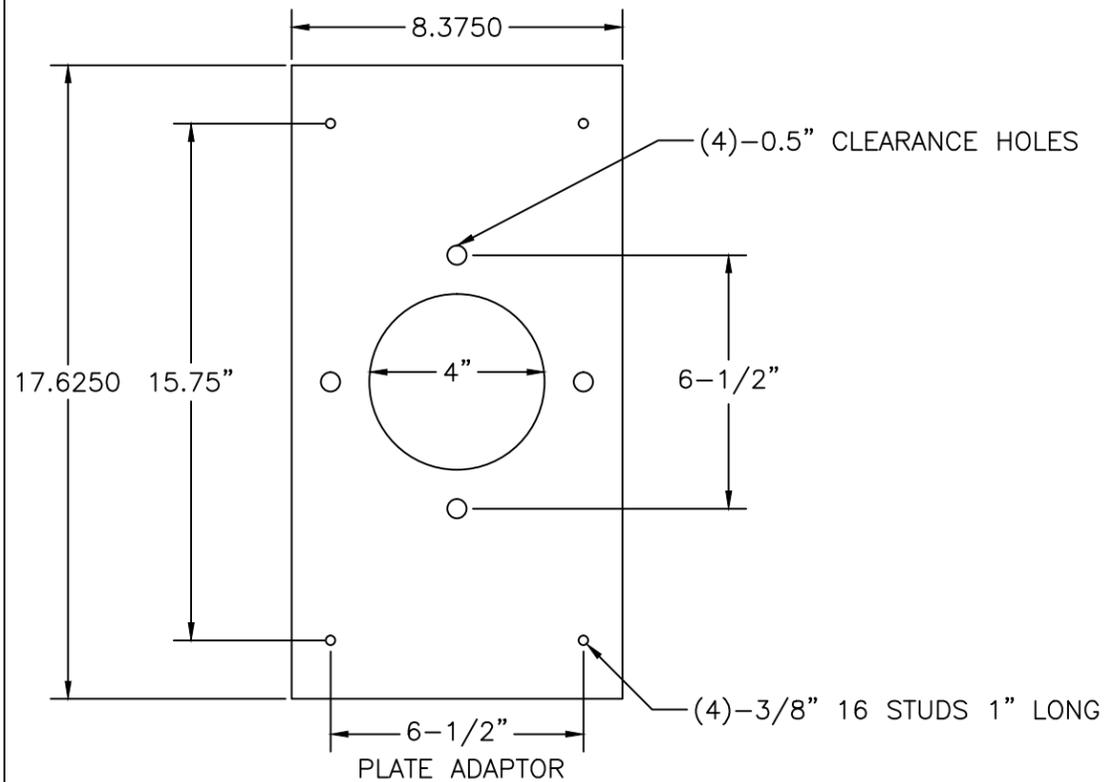
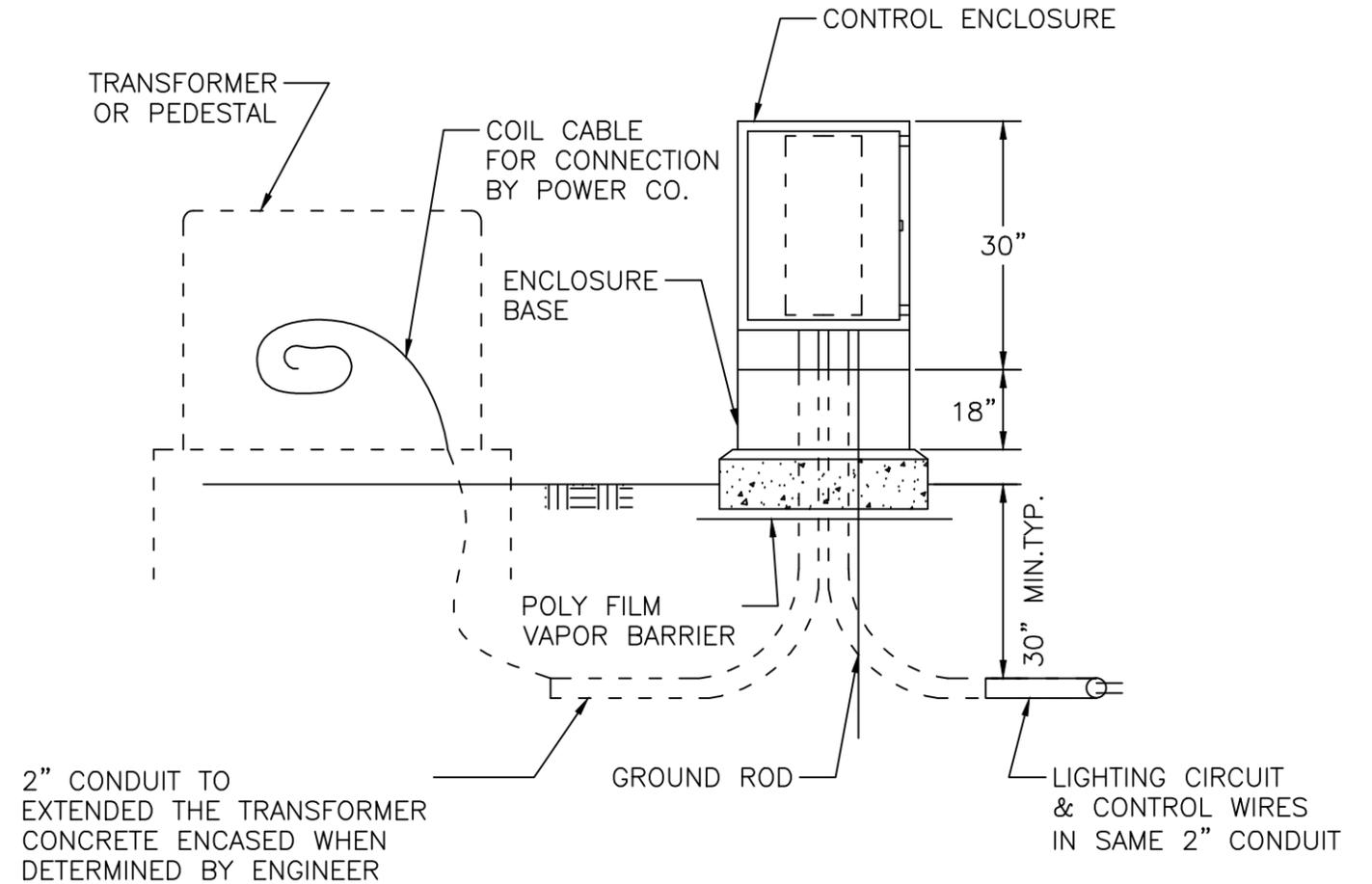
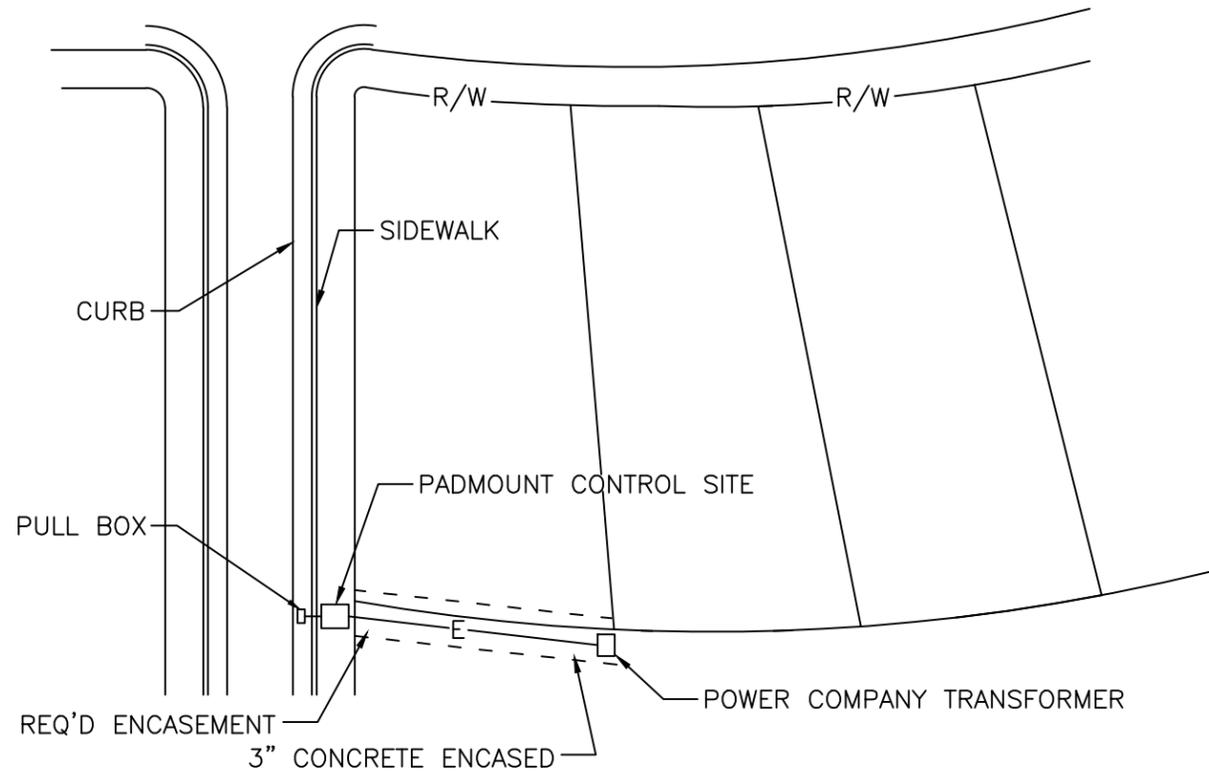
METER ELECTRICAL CONNECTIONS (IF REQUIRED)
(SEE MIS-203)

MIS-601

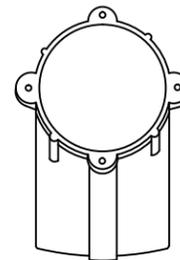
DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO		
CONTROLLER, 2 WIRE, 480V, PAD MOUNT		
DRAWN BY: DLJ	DATE: 1/1/2018	
APPROVED: <i>Andy A. Wilfong</i>		
SCALE: NONE	SHEET: 2 OF 4	601

NOTES:

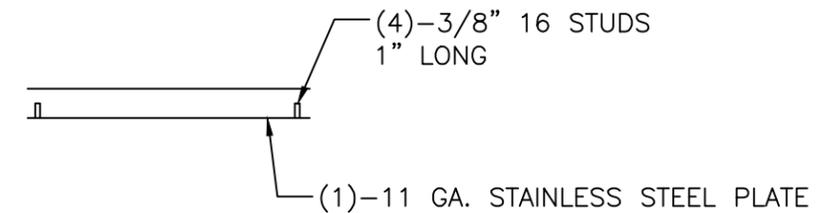
1. CONCRETE PAD SHALL BE 2" BACK OF SIDEWALK.
2. CONCRETE PAD SHALL BE 10" OFF THE EDGE OF ROADWAY WHEN NO SIDEWALKS EXIST.
3. TRANSFORMER EXACT LOCATION SHALL BE COORDINATED WITH THE SUPPLYING ELECTRIC COMPANY.



6-1/2" BOLT CIRCLE

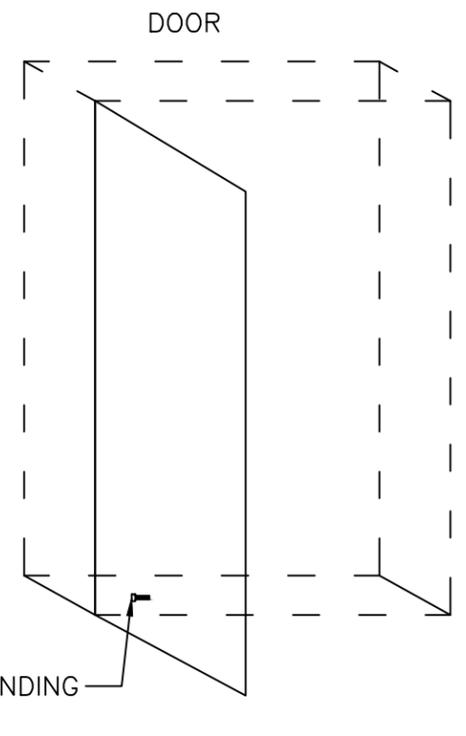
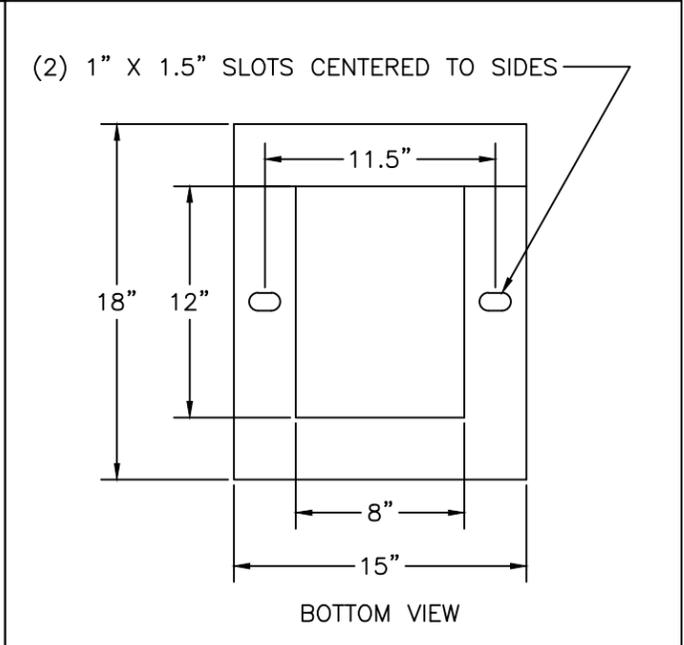
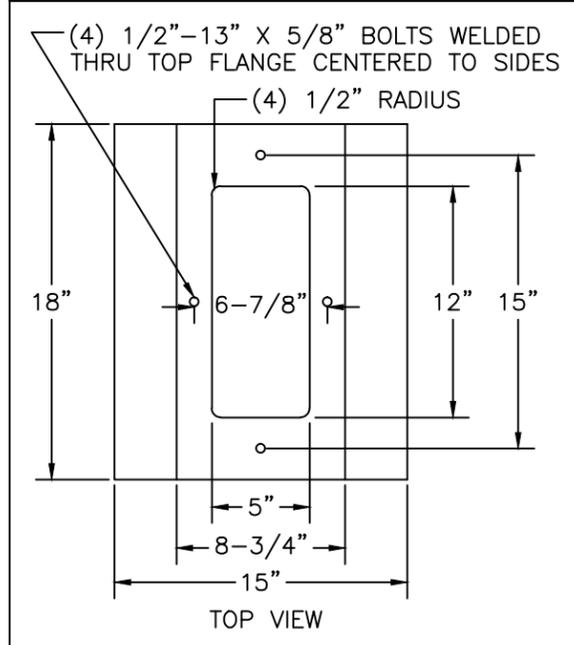
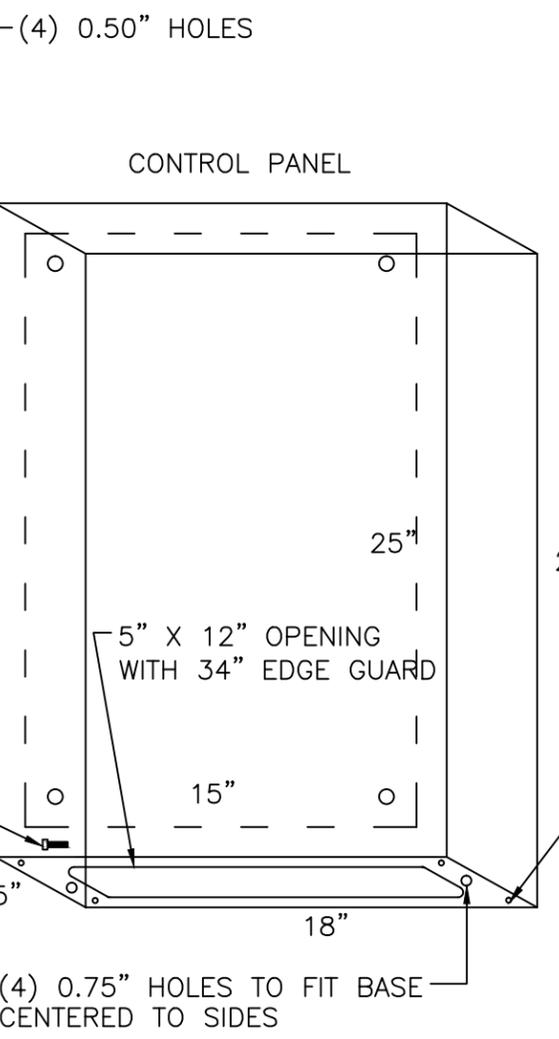
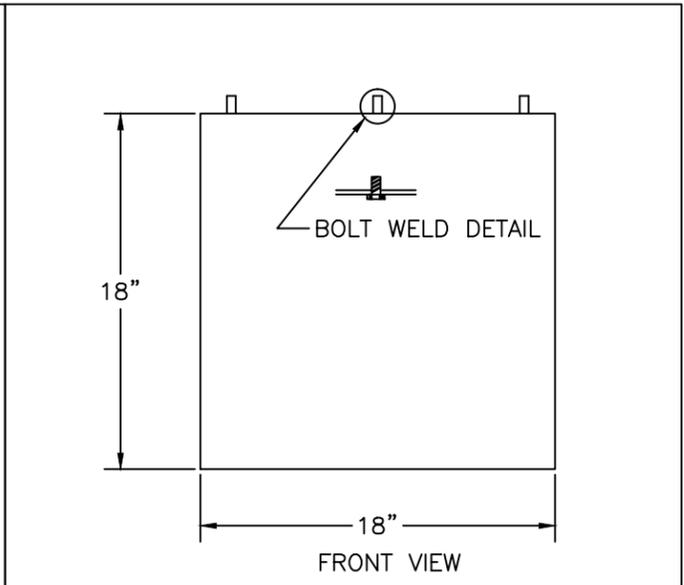
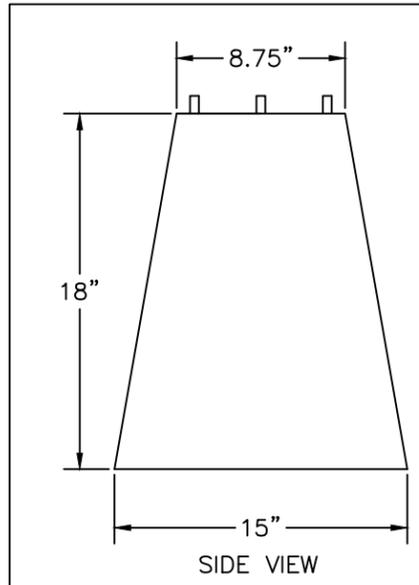
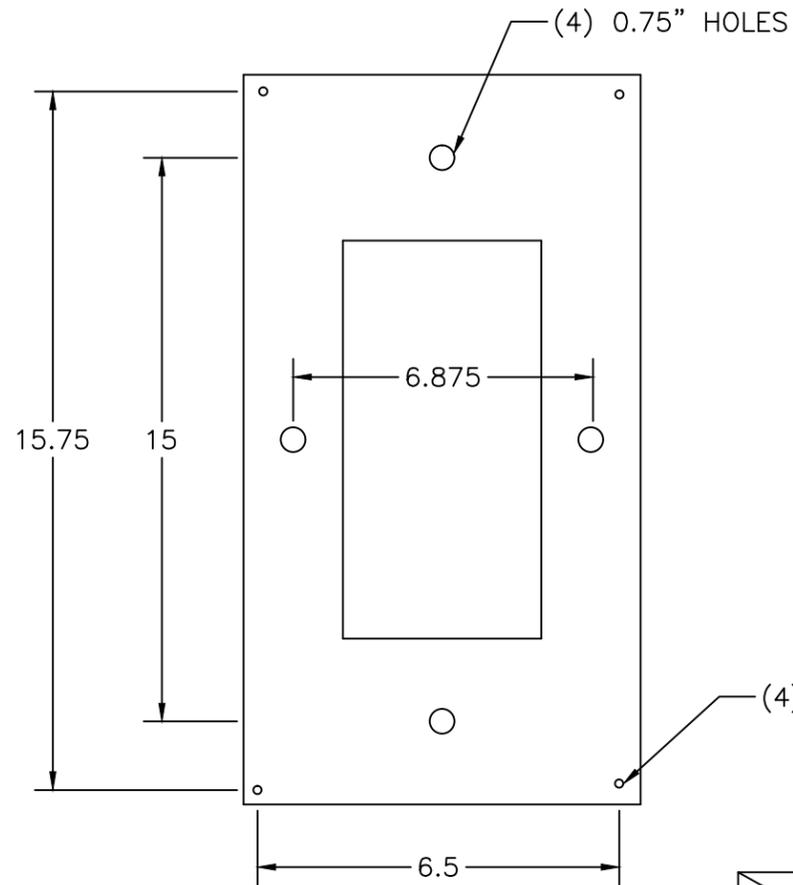


SLIP-FILTER 4"
PEDESTAL ADAPTER



MIS-601	DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO		
	CONTROLLER, 2 WIRE, 480V PAD MOUNT		
	DRAWN BY: BEN	DATE: 1/1/2018	
APPROVED: <i>[Signature]</i>			
SCALE: NONE	SHEET: 3 OF 4	601	

BOTTOM OF ENCLOSURE



GROUNDING STUD

(4) 0.50" HOLES TO FIT PEDESTAL PLATE

MIS-601

DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER
CITY OF COLUMBUS, OHIO

CONTROLLER, 2 WIRE, 480V,
PAD MOUNT

DRAWN BY: BEN	DATE: 1/1/2018	
APPROVED: <i>Ben A. Wilfong</i>		
SCALE: NONE	SHEET: 4 OF 4	601