

I. MATERIALS

A. ENCLOSURE

THE SINGLE DOOR PAD MOUNT ENCLOSURE SHALL BE 28" HIGH, 18" WIDE, AND 8 3/4" DEEP. THE CABINET AND DOOR SHALL BE MADE FROM 14GA. TYPE 304 STAINLESS STEEL, WITH A 14 GA. STAINLESS STEEL CONTINUOUS WELD HINGE. THE ENCLOSURE SHALL HAVE A NATURAL 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 THE ON OR OFF POSITION WITH A DUAL COVER INTERLOCK MECHANISM. THE CABINET & DOOR SHALL HAVE AN EQUIPMENT 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, (SEE SHEET 3 OF 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. #20026031000, DEWSBURY INC. #60310002000 OR APPROVED EQUAL.

C. CONTROL PANEL

- 1) 100 AMPERE, 3 POLE, 600 VOLT, SINGLE THROW SERVICE DISCONNECT SWITCH WITH PROVISION FOR 100 AMP CLASS H TIME DELAY FUSES, COPPER SHORTING BUSS WITH LUG FOR #2 COPPER 7 STRAND MIN.
- 2) NEMA RATED 100 AMPERE, 3 POLE, 600 VOLT, CONTACTOR WITH 120 VOLT OPERATING COIL, CONTROL TRANSFORMER, TYPE SBE, 480/120 VOLTS, 60 CYCLE, 0.2 KVA AND 2 AMP CONTROL FUSE HOLDER SHALL BE ON SECONDARY SIDE AND 1AMP ON PRIMARY SIDE.
- 3) ALL FUSES TO BE TYPE H. (BLADE FUSES)
- 4) INTERNAL MOUNTED HAND, OFF, AUTO SELECTOR SWITCH.

- 5) INSULATED SOLID COOPER GROUND 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 WIRE
- 7) THE CONDUCTORS BETWEEN THE FUSE DISCONNECT SHALL BE 7 STRAND COPPER #4, 600V TYPE THW OR XHHW-2. ALL OTHER CONDUCTORS SHALL BE 7 STRAND COPPER #12, 600V TYPE MTW.
- 8) THE CONTROLLER SHALL BE WIRED AS SHOWN ON SHEET 2 OF 4.
- 9) THE CONTROLLER SHALL BE ASSEMBLED WITH STANDARD HARDWARE FOR EASE OF MAINTENANCE.
- 10) THE CONTROL PANEL SHALL BE CENTRAL SYSTEMS CORP #20026031042, DEWSBURY INC. #60310422002 OR APPROVED 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
1-12	15 A
13-25	30 A
26-37	45 A
38-50	60 A
51-66	80 A
67-83	100 A

MIS-603	DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO		
	CONTROLLER, 3 WIRE, 480V, PAD MOUNT		
	DRAWN BY: JOHN	DATE: 1/1/2018	
	APPROVED: <i>Amy A. Wilk</i>		
SCALE: NONE	SHEET: 1 OF 5	603	

D. 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. THE MOUNTING PAD SHALL BE PRECAST WITH THE DIMENSIONS SHOWN ON DRAWING 01S0106.

E. THE GROUND ROD SHALL BE 1/2" DIA X 10' COPPER CLAD. THE GROUNDING ELECTRODE WIRE (WIRE TO THE GROUND ROD) SHALL BE #6 AWG BARE SOLID COPPER AND SHALL BE ATTACHED TO THE GROUND BAR. THE ENCLOSURE SHALL BE BONDED TO THE GROUNDING ELECTRODE SYSTEM WITH A #8 600V CONDUCTOR FROM THE GROUND BAR TO THE GROUNDING LUG OF THE ENCLOSURE.

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

G. 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.

I. THE METER IS FM2S BY ITRON PART#SS1S1D ATTACHED TO SINGLE POSITION METER SOCKET BY ANCHOR PART#URS1304-E. THE METER ONLY WILL BE SUPPLIED AND INSTALLED BY THE DIVISION OF POWER.

II. INSTALLATION

THE CONTROL SITE SHALL BE LOCATED WITHIN THE UTILITY EASEMENT CLOSE TO THE TRANSFORMER (PAD OR POLE MOUNT) AS DIRECTED BY THE PROJECT. DWG # 01S0108 THE PRE CAST PAD SHALL BE PLACED ON COMPACTED SOIL DIRECTLY OVER THE CONDUIT CLOSE TO THE TRANSFORMER. THE PAD MUST BE LEVEL. THE GROUND ROD SHALL BE DRIVEN THROUGH THE WINDOW OF THE PAD. THE #6 BARE COPPER GROUND WIRE SHALL BE ATTACHED TO THE NEUTRAL BAR AND TO GROUND ROD. ADDITIONAL GROUND WIRE SHALL BE INSTALLED FROM THE GROUND BAR TO CONTROL PANEL GROUND LUG. PERFORM ELECTRICAL TESTS AS PROVIDED IN SECTION 1001.18 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS BOOK. BEFORE THE ENCLOSURE AND BASE ARE SET, THE WINDOW IN THE PAD SHALL BE FILLED WITH A 3000 PSI 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. 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.

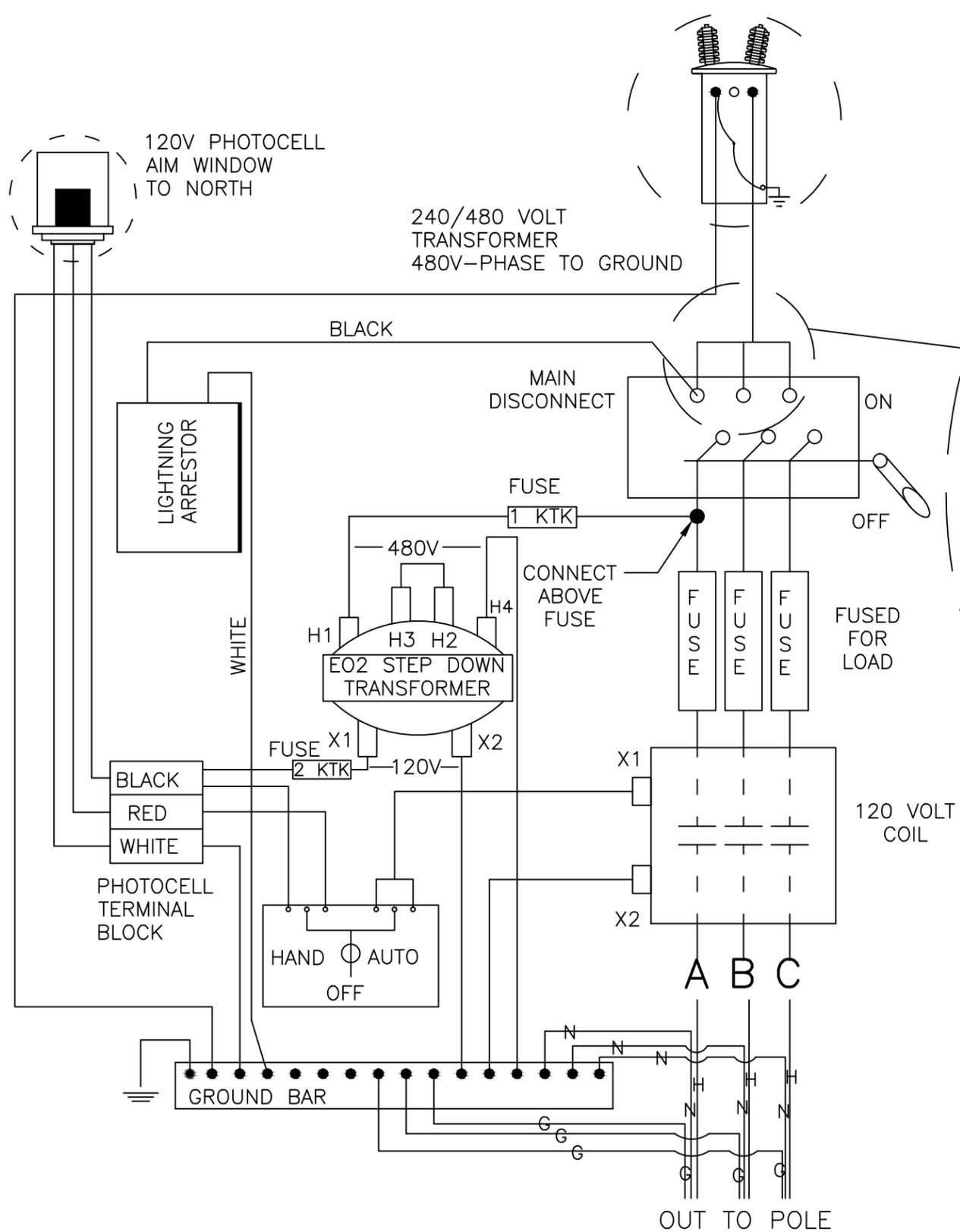
B. THE METER IS FM2S BY ITRON PART#SS1S1D ATTACHED TO SINGLE POSITION METER SOCKET BY ANCHOR PART#URS1304-E. ALL ASSEMBLY SHALL BE INSTALLED ON HINGE SIDE OF CONTROLLER. THE METER AND METER ASSEMBLY SHALL BE INSTALLED PRIOR TO ENERGIZING THE CONTROLLER.

C. 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.

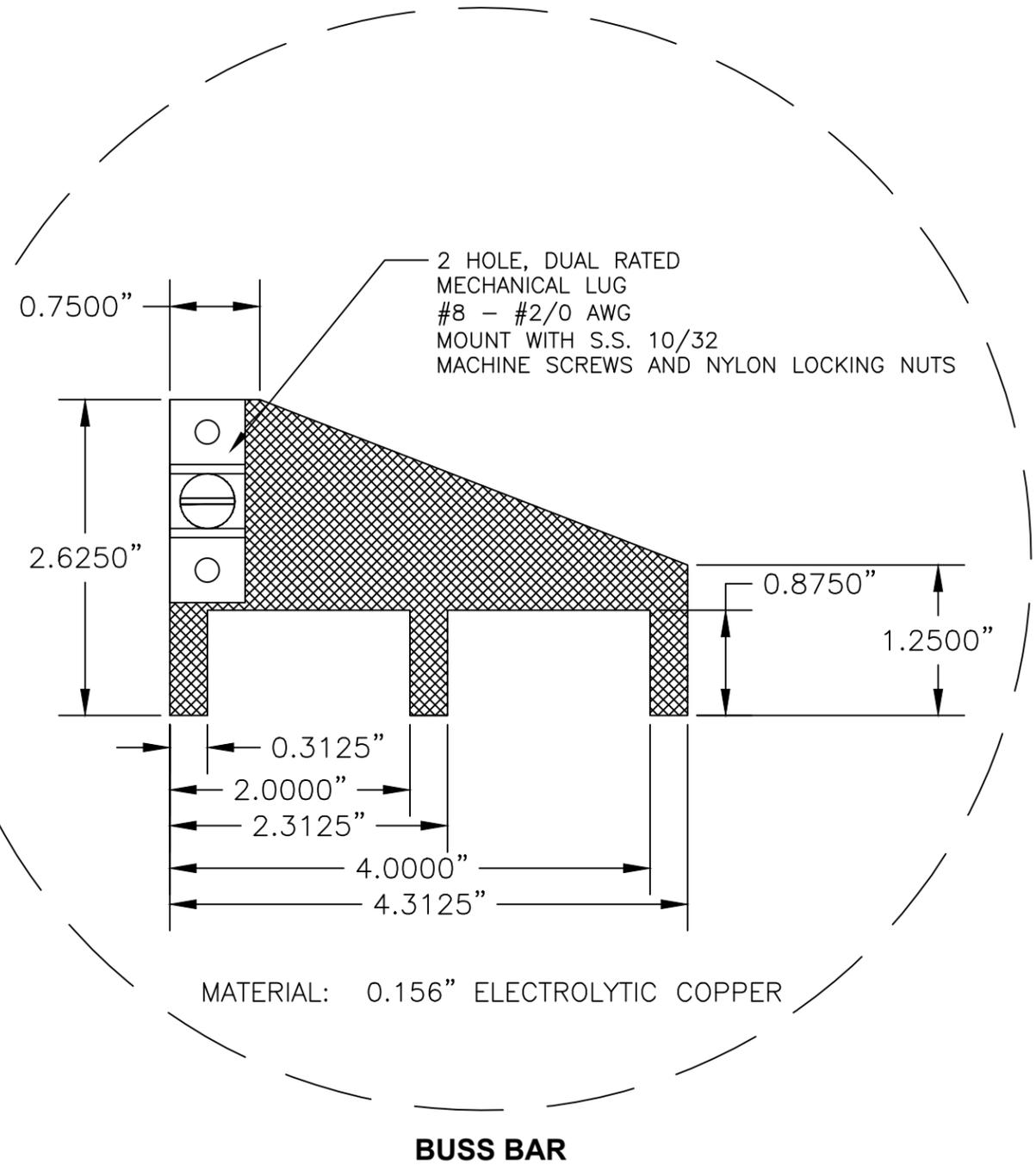
III. BASIS OF PAYMENT

ITEM	UNIT	DESCRIPTION
MIS-603	EACH	CONTROLLER, 3 WIRE, 480V, PAD MOUNT

MIS-603	DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO		
	CONTROLLER, 3 WIRE, 480V PAD MOUNT		
	DRAWN BY: JOHN	DATE: 1/1/2018	
	APPROVED: <i>John R. Wilfong</i>		
SCALE: NONE	SHEET: 2 OF 5	603	



GROUND 480V STREET LIGHTING CONTROLLER

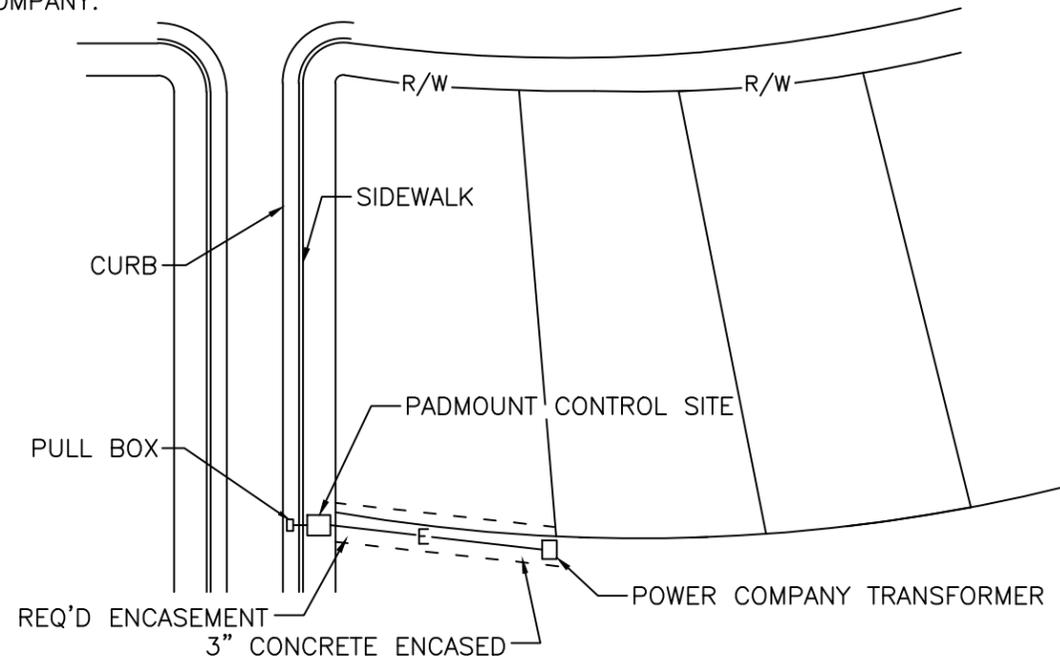


BUSS BAR

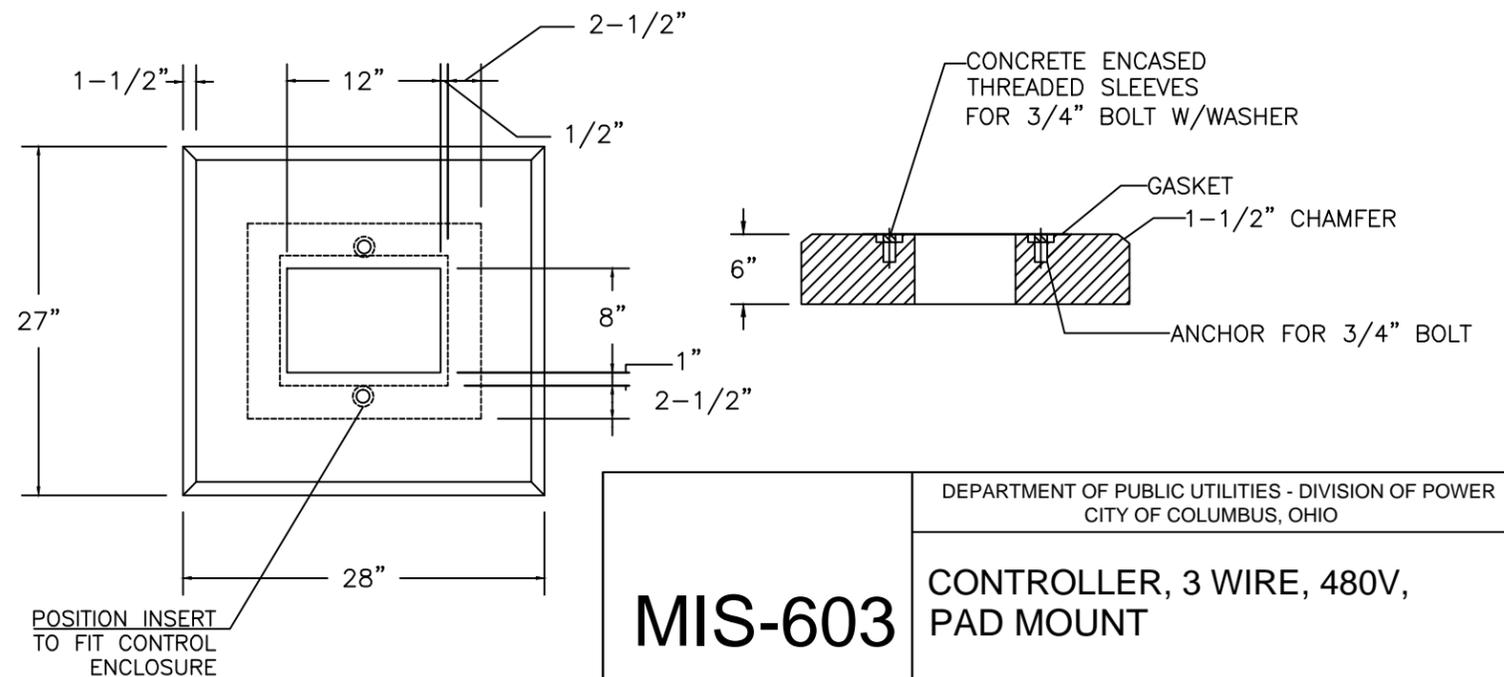
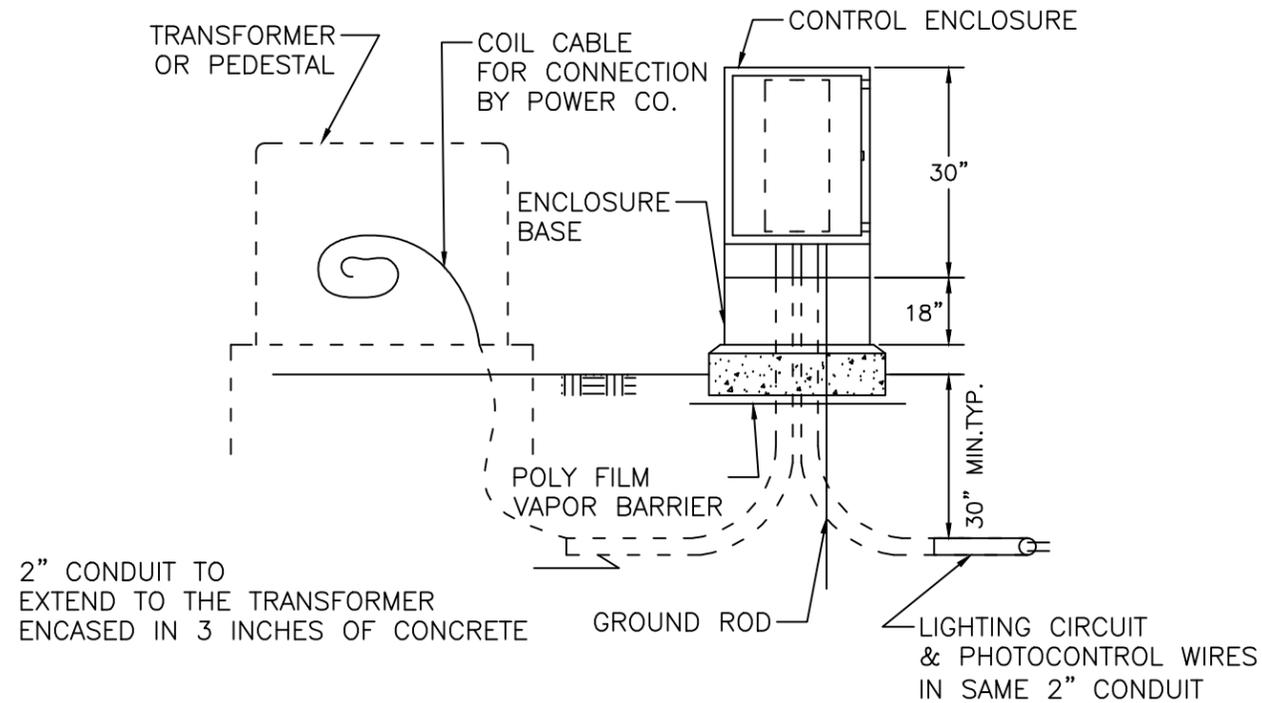
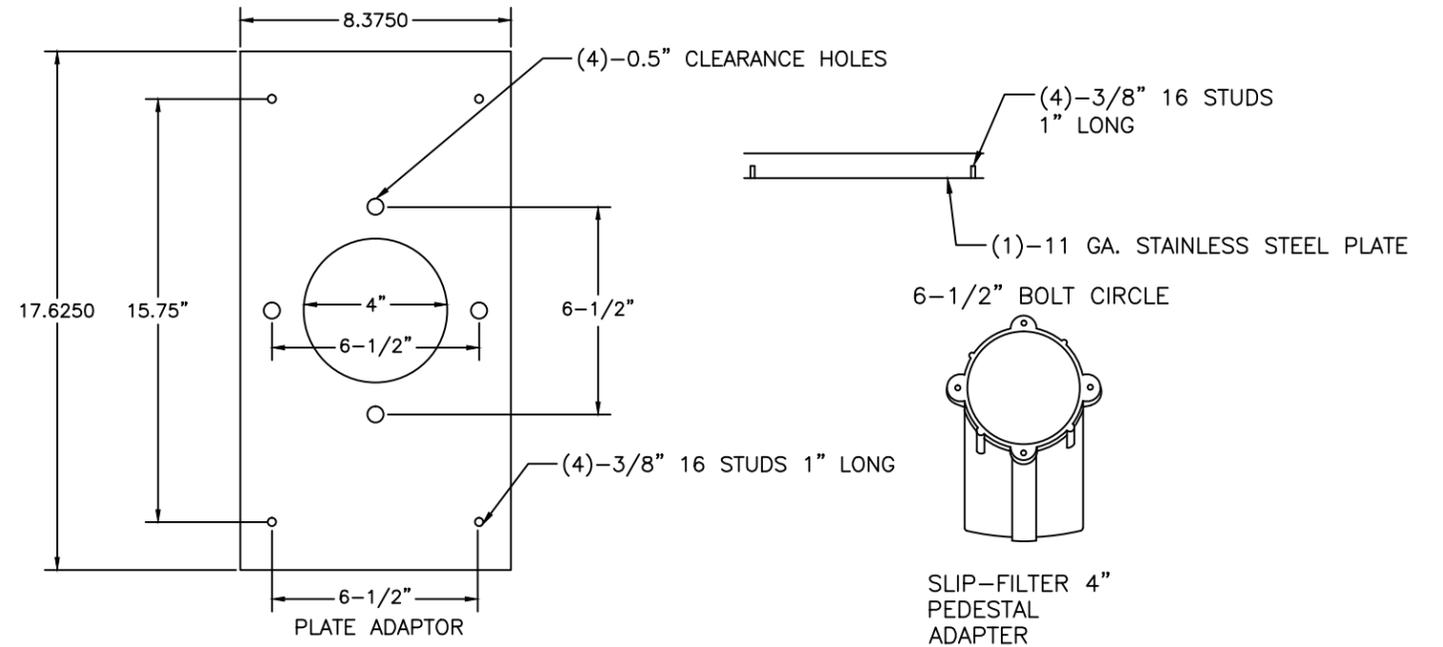
<h1>MIS-603</h1>				DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO			
				CONTROLLER, 3 WIRE, 480V, PAD MOUNT			
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APPROVED: <i>Amy R. Wilfong</i>							
SCALE: NONE		SHEET: 3 OF 5				603	

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.



TYPICAL CONTROL SITE PLAN



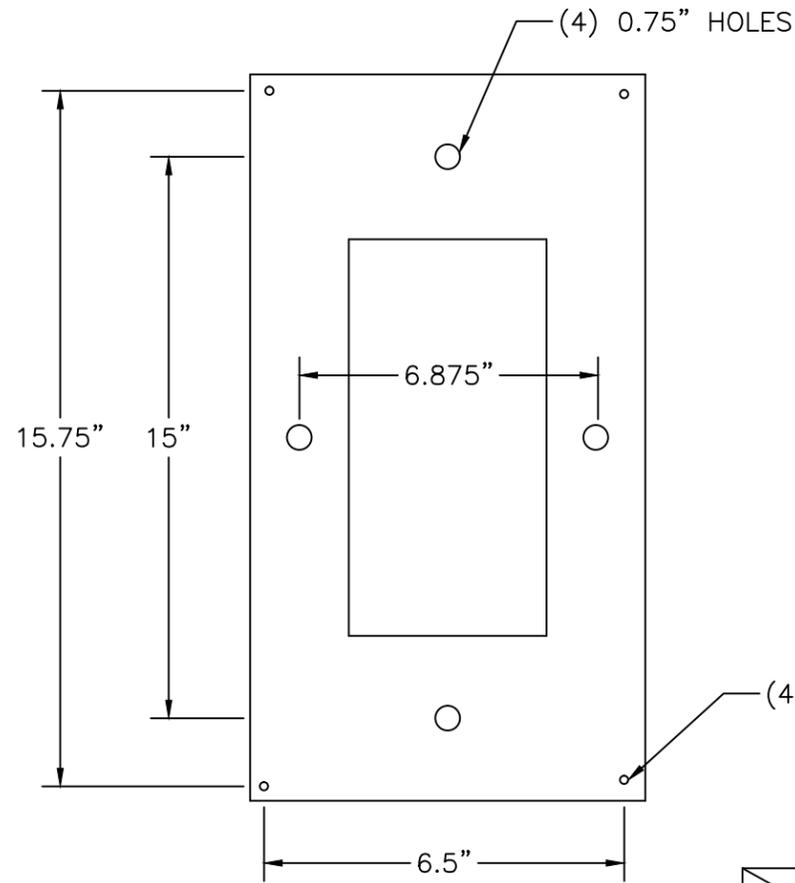
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DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER
CITY OF COLUMBUS, OHIO

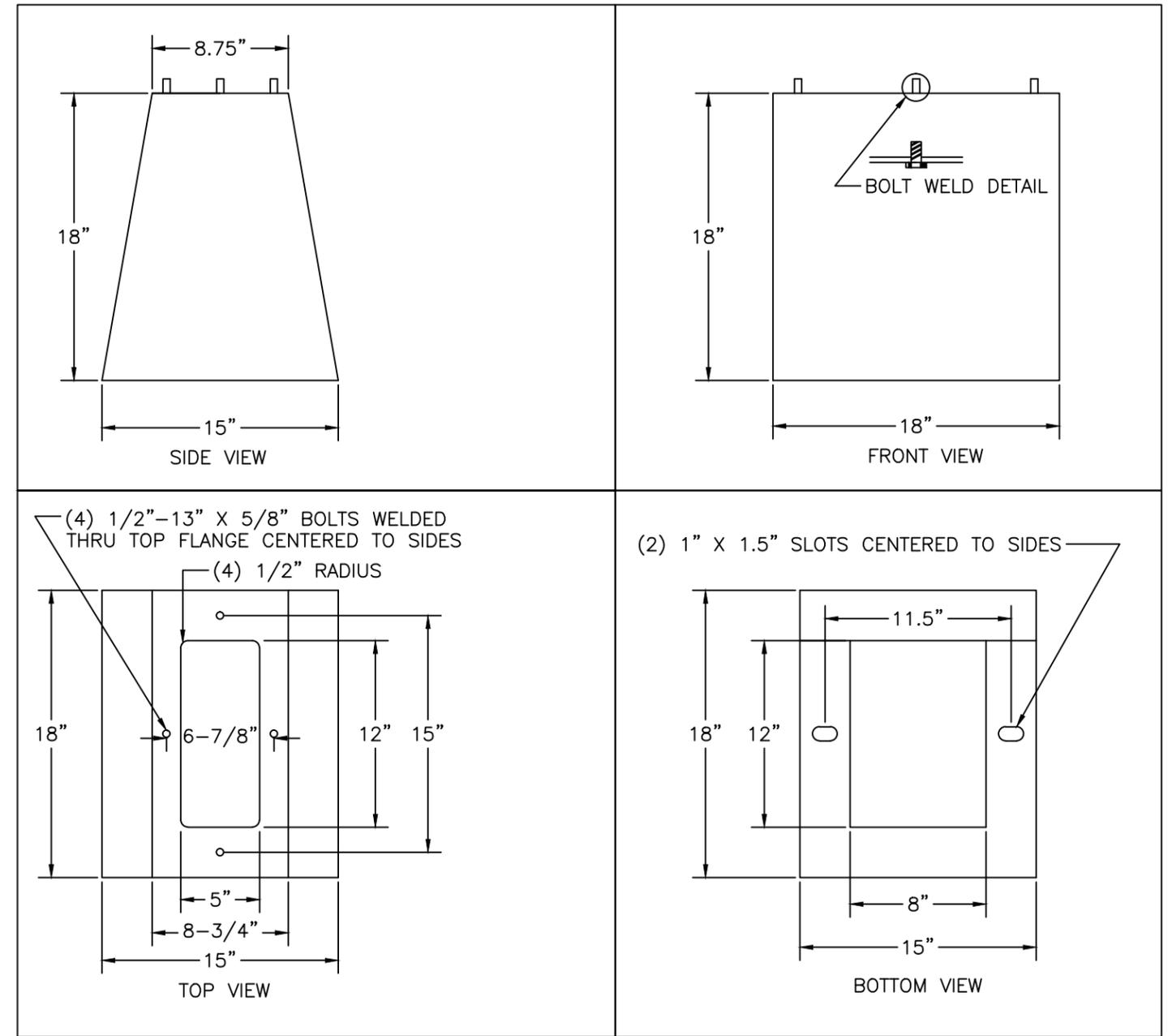
**CONTROLLER, 3 WIRE, 480V,
PAD MOUNT**

DRAWN BY: JOHN	DATE: 1/1/2018	
APPROVED: <i>Amy A. Wilk</i>		
SCALE: NONE	SHEET: 4 OF 5	603

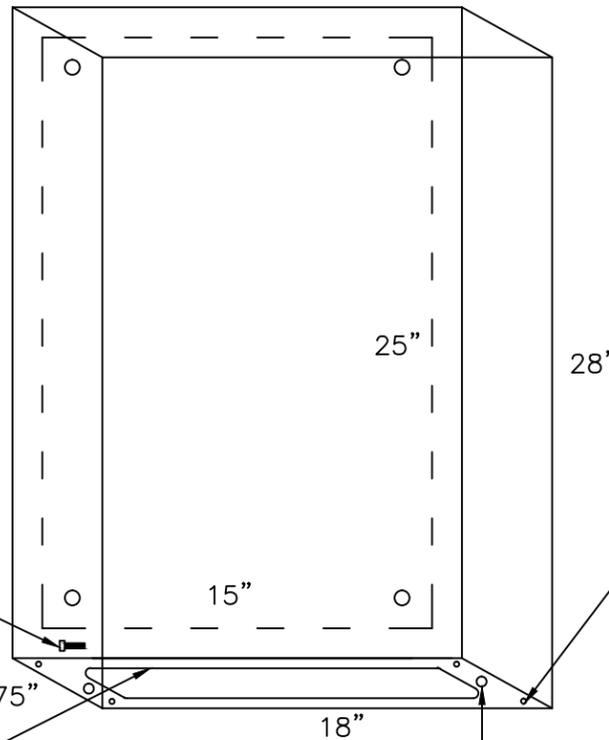
BOTTOM OF ENCLOSURE



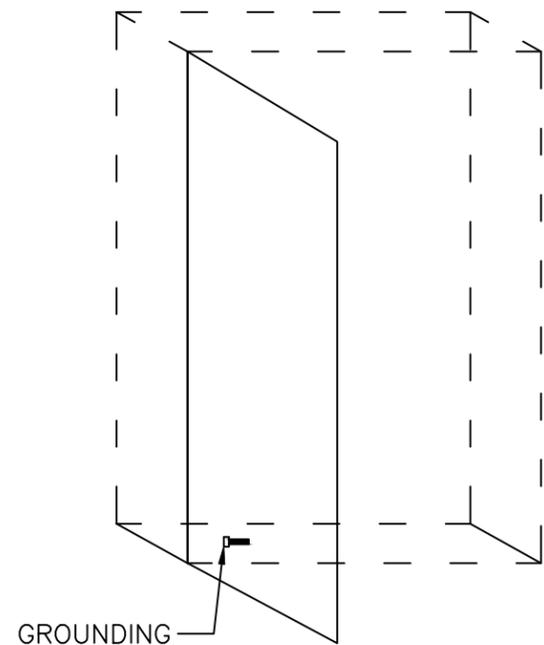
ENCLOSURE BASE



CONTROL PANEL



DOOR



5" X 12" OPENING WITH 34" EDGE GUARD

(4) 0.75" HOLES TO FIT BASE CENTERED TO SIDES

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CITY OF COLUMBUS, OHIO

CONTROLLER, 3 WIRE, 480V,
PAD MOUNT

DRAWN BY: JOHN DATE: 1/1/2018

APPROVED: *John A. Wilk*

SCALE: NONE SHEET: 5 of 5

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