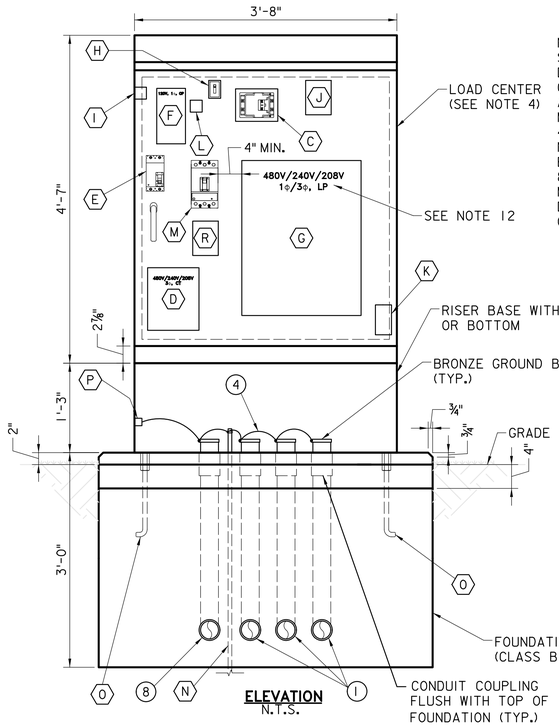
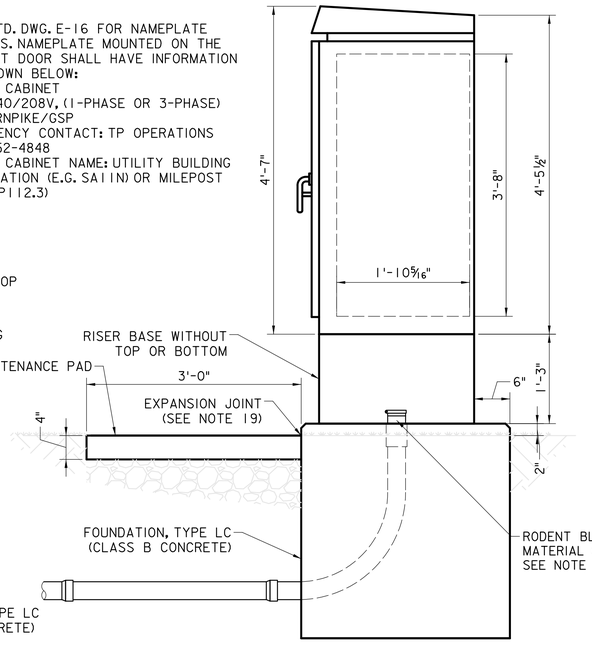
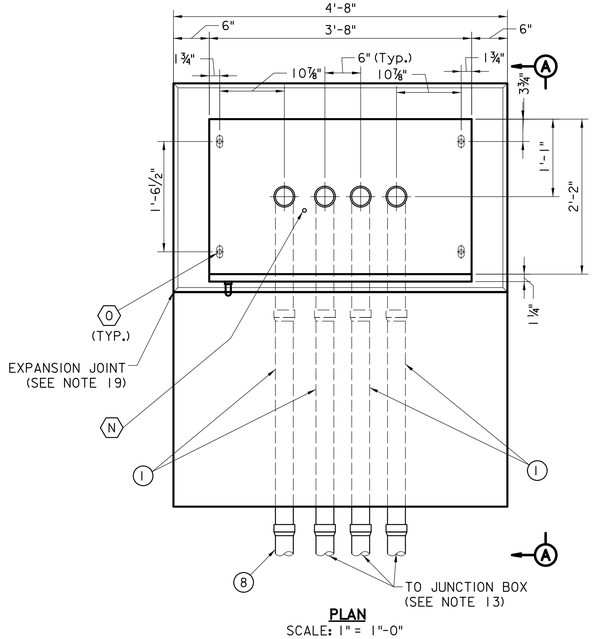


ELEVATION
N.T.S.



SECTION A–A
SCALE: 1" = 1'-0"



PLAN
SCALE: 1" = 1'-0"

NJTA LOAD CENTER TYPE G AND FOUNDATION

LEGEND

(A) METER SOCKET AND METER: METER SOCKET SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS APPROVED BY THE UTILITY COMPANY. METER SHALL BE FURNISHED AND INSTALLED BY THE UTILITY COMPANY. METER SHALL BE SIZED APPROPRIATELY AS SHOWN BELOW:
240/480V SERVICE, 200A, 1-PHASE
120/240V SERVICE, 100A, 1-PHASE
208Y/120V SERVICE, 100A, 3 PHASE

(B) MAIN CIRCUIT BREAKER-SERVICE DISCONNECT: 1-PHASE, 2 POLE, MOLDED CASE CIRCUIT BREAKER, LABELED WITH "MAIN". CIRCUIT BREAKER ENCLOSURE SHALL BE NEMA 1 RATED. CIRCUIT BREAKER SHALL BE AS SHOWN BELOW, SIZE AS PER CONTRACT PLANS.

100A MAIN CIRCUIT BREAKER RATINGS:
120/240V: 25K A.I.C.
240/480V: 35K A.I.C.
208Y/120V: 35K A.I.C.

200A MAIN CIRCUIT BREAKER RATINGS:
120/240V: 25K A.I.C.
240/480V: 35K A.I.C.

(C) MAIN CONTACTOR: 2 POLE, 120V COIL, 100A FRAME WITHOUT ENCLOSURE, TYPE AS SHOWN BELOW:
120/240V CONTACTOR
240/480V CONTACTOR
120/208V CONTACTOR

(D) CONTROL TRANSFORMER: 1-PHASE, 3 WIRES, 3KVA DRY TYPE TRANSFORMER WITH MOUNTING LUGS FOR OUTDOOR USE. CONTROL TRANSFORMER SHALL BE 480V-120/240V (REQUIRED ONLY FOR 240/480V SERVICE).

(E) CONTROL CIRCUIT BREAKER: 2 POLE, 100A FRAME, 20A TRIP, AND BOLT ON TYPE CIRCUIT BREAKER WITHOUT ENCLOSURE. CIRCUIT BREAKER SHALL BE AS SHOWN BELOW:
120/240V: 10K A.I.C.
240/480V: 18K A.I.C.
120/208V: 10K A.I.C.

(F) CONTROL PANELBOARD: 1-PHASE, 3 WIRES, 120V, 70A MAIN LUG WITH (4) 1-POLE SPACES, WITH ENCLOSURE.

(G) LIGHTING PANELBOARD: SOLID GROUNDABLE NEUTRAL PANELBOARD SHALL BE NEMA 3R AS SHOWN BELOW:

120/240V: (18) 1-POLE SPACES WITHOUT ENCLOSURE, 100A MLO, SINGLE PHASE, 3 WIRE
240/480V: (18) 1-POLE SPACES WITHOUT ENCLOSURE, 125A MLO, SINGLE PHASE, 3 WIRE
120/208V: (18) 1- POLE SPACES WITHOUT ENCLOSURE, 100A MLO, 3 PHASE, 4 WIRE

NOTE:
SEE STD. DWG. E-16 FOR NAMEPLATE DETAILS. NAMEPLATE MOUNTED ON THE CABINET DOOR SHALL HAVE INFORMATION AS SHOWN BELOW:
METER CABINET
480/240/208V, (1-PHASE OR 3-PHASE)
NJ TURNPIKE/GSP
EMERGENCY CONTACT: TP OPERATIONS
800-352-4848
METER CABINET NAME: UTILITY BUILDING DESIGNATION (E.G. SA11N) OR MILEPOST (E.G. MP112.3)

LEGEND CONTINUED:

(H) BYPASS SWITCH: PHOTOELECTRIC CONTROL BYPASS SWITCH, SPST, 20A, 120V, HEAVY DUTY TOGGLE SWITCH.

(I) PHOTOCELL UNIT: SINGLE POLE, 120V, 1800VA. PHOTOCELL SHALL BE MOUNTED THRU CONTROL CABINET (120 V) WITH GASKETED LEXAN LENS, FACING NORTH AND SHALL NOT BE AFFECTED BY ARTIFICIAL LIGHTS.

(J) THERMOSTAT: 120V LINE, 500W, OPERATING RANGE FROM 40°F TO 70°F, WEATHER PROOF TYPE - FS BOX.

(K) STRIP HEATER: 120V, 500W, CHROME STEEL SHEATH FOR TEMPERATURE UP TO 1200°F (MAX), 1½" WIDE TERMINALS AT ONE END.

(L) DUPLEX RECEPTACLE: 120V, 20A HEAVY DUTY DUPLEX RECEPTACLE GFCI TYPE WITH GROUNDING LUG IN WEATHER PROOF TYPE-FS BOX.

(M) SECONDARY CIRCUIT BREAKER: 2-POLE, 100A, 3 WIRES, WITHOUT ENCLOSURE. CIRCUIT BREAKER SHALL AS SHOWN BELOW:
120/240V: 10KA.I.C.
240/480V: 18KA.I.C.
FOR 3-PHASE , 208V, 100A FRAME, 100A TRIP, WITHOUT ENCLOSURE, BREAKER

(N) COPPER GROUND ROD: ¾" DIA. X 10FT LONG. SEE NOTE 5.

(O) ANCHOR BOLT ASSEMBLY: (SEE E-35)

(P) COPPER GROUND LUG: ⅜" BOLT SIZE, #8 AWG GROUND WIRE, TIN PLATED WITH INSPECTION HOLE, LUG SHALL HAVE RED COLOR DYE.

(Q) METER DISCONNECT: 480V, 3-WIRE, SINGLE THROW, NON-FUSIBLE SAFETY SWITCH WITH LOCK ON OPTION. SWITCH SHALL BE INSTALLED INSIDE STAINLESS STEEL NEMA 4X ENCLOSURE. SWITCH AND ENCLOSURE SHALL BE AS SHOWN BELOW, SIZE AS PER CONTRACT PLANS.

100A SERVICE 200A SERVICE

(R) SURGE PROTECTIVE DEVICE: 240V/480V 50KV PER PHASE SURGE PROTECTIVE DEVICE.

(S) POWER DISTRIBUTION BLOCKS: NEUTRAL AND THREE PHASES, PRE-WIRED FROM LOAD SIDE OF BREAKERS TO TOP SIDE OF BLOCKS.

(T) UTILITY BREAKER: 200A 3-POLE CIRCUIT BREAKER LABELED "UTILITY", 80% RATED 35KAIC AT 480VAC

(U) GENERATOR BREAKER: 200A 3-POLE CIRCUIT BREAKER LABELED "GENERATOR", 80% RATED 35KAIC AT 480VAC

(V) SINGLE POLE RECEPTACLES: 200A CAM-TYPE SINGLE POLE MALE RECEPTACLES. GENERATOR FEMALE PLUGS NOT INCLUDED. NUMBER OF PLUGS DEPENDS ON INCOMING SYSTEM.

(1) THREE (3) 3" RIGID METALLIC CONDUIT WITH BRONZE GROUND BUSHINGS, COUPLINGS AND EXTENSION CONDUIT STUBS, AS REQUIRED.

(2) 3" RIGID METALLIC CONDUIT (INCOMING SERVICE) SHALL HAVE 4 #2 AWG WIRES. CONTRACTOR SHALL LEAVE WIRE COIL 10 FT. UP THE POLE FOR UTILITY CONNECTION AND SHALL SEAL TOP OF CONDUIT ON THE POLE. SEE NOTE 2.

(3) 3" PVC SCH-40. (METER CABINET TO MANUAL TRANSFER SWITCH)

(4) #8 BARE GROUND WIRE TO THE RIGID METALLIC BRONZE CONDUIT BUSHING, CABINET AND GROUND ROD W/APPROVED CONNECTOR.

(5) 3" RIGID METALLIC CONDUIT WITH INCOMING SERVICE WIRES (SEE NOTE 17).

(6) 2" RIGID METALLIC CONDUIT WITH 4 #2 AWG.

(7) 3" LIQUIDTITE FLEX METALLIC CONDUIT (LFMC) WITH 4 #2 AWG OR AS SPECIFIED ON THE CONTRACT PLANS. (TO LOAD CENTER)

(8) 3" RIGID METALLIC CONDUIT WITH BRONZE GROUND BUSHINGS, COUPLINGS AND EXTENSION CONDUIT STUBS, AS REQUIRED TO TRANSFER SWITCH AND GENERATOR DOCKING STATION.

NOTES

1. ALL INTERCONNECTIONS BETWEEN DEVICES SHALL BE BY MEANS OF OPEN WIRING PROPERLY FASTENED TO BACK BOARD WITH APPROVED INSULATED TYPE CLAMP ASSEMBLY.
2. FOR SERVICE RUN LONGER THAN 300 FEET, WIRE SIZE SHALL BE AS PER THE CONTRACT DRAWINGS.
3. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A DETAILED LAYOUT OF ALL INTERNAL DEVICES, BASED ON THE ACTUAL DIMENSIONS OF PROPOSED EQUIPMENT AND ENCLOSURES.
4. THE CONTRACTOR SHALL SUPPLY AND INSTALL A LOAD CENTER AND A METER CABINET. THE LOAD CENTER SHALL BE SINGLE DOOR WITH RISER BASE (15"Hx44"Wx 26"D). BOTH CABINETS SHALL HAVE ALUMINUM BACK PANEL, NEMA 3R RATED AND MADE FROM 0.125" ALUMINUM (5052-H32). LOAD CENTER SHALL HAVE SLAM LOCK WITH CORBIN #2 KEY. METER CABINET SHALL HAVE "POLICE SLAM LATCH" WITH SKELETON KEY. CONTRACTOR SHALL PROVIDE MANUFACTURER'S SHOP DRAWING FOR THE CABINETS TO THE ENGINEER FOR APPROVAL.
5. PROVIDE GROUND ROD (¾"X10FT LONG) AT ALL CABINETS AND TYPE C JUNCTION BOX. GROUND ROD SHALL BE INSTALLED WITH THE PAD POUR; IT SHALL BE STUBBED-UP 4" IN THE BOTTOM OF THE CABINETS FOR CONNECTION. SEE SPECIFICATIONS IN SECTION 918.
6. MAINTENANCE PAD SHALL HAVE A LOW-DEGREE SLOPE AWAY FROM THE LOAD CENTER CABINET FOUNDATION.
7. 0.025 GAUGE ALUMINUM NAMEPLATE WITH DIE STAMPED BLACK LETTERS AND NUMBERS SHALL BE INSTALLED ON EACH CABINET DOOR. NAMEPLATE SHALL HAVE STAINLESS STEEL RIVET TYPE SCREW TO MOUNT IT ON THE CABINET. INSTALL NAMEPLATE 8" BELOW TOP OF CABINET.
8. LOCATION OF MTS AND METER CABINET FOUNDATION, SIZE, NUMBER AND DIRECTION OF CONDUIT RUN SHALL BE TAKEN FROM THE CONTRACT ELECTRICAL PLANS FOR THE AREA WHERE REQUIRED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.
9. TERMINATE ALL METAL CONDUITS WHEN ENTERING ENCLOSURES WITH LOCKNUT AND BONDING BUSHINGS. ALL OTHER CONDUITS SHALL BE PROVIDED WITH BONDING BUSHINGS.
10. THE CONTRACTOR SHALL SUBMIT A REINFORCING STEEL DESIGN LAYOUT FOR THE CABINETS FOUNDATION AS PART OF THE SHOP DRAWING SUBMISSION FOR APPROVAL BY ENGINEER.
11. ANCHORAGE OF CABINET ENCLOSURE SHALL BE AS PER CABINET MANUFACTURER'S DETAILS.
12. THE CONTRACTOR SHALL LABEL ALL EQUIPMENTS WITH VOLTAGE AND THEIR USE. (I.E. 240/480V, 1-PHASE, LP ETC.)
13. CONTRACTOR SHALL EXTEND THREE (3) 3" RIGID METALLIC CONDUITS TO THE TYPE C JUNCTION BOX.
14. THE CONDUIT CONFIGURATION SHOWN IS FOR ONE TYPE C JUNCTION BOX. IF SPECIFIED IN THE CONTRACT PLANS, THE CONTRACTOR SHALL INSTALL TWO (2) ROWS OF CONDUITS INSTEAD OF THREE (3) CONDUITS ACROSS.
15. SEE E-35 FOR THE LOAD CENTER WIRING DIAGRAM.
16. COLD SEQUENCE SHOWN FOR THE SAFETY SWITCH WITH "LOCK ON" OPTION BEFORE THE METER FOR 480V SERVICE. COLD SEQUENCE SAFETY SWITCH SHALL BE INSTALLED ONLY FOR 480V SERVICE. CONTRACTOR SHALL COORDINATE THE REQUIREMENTS OF COLD SEQUENCE VS HOT SEQUENCE WITH THE UTILITY COMPANY AND SHALL ADJUST LOCATION OF THE SAFETY SWITCH ACCORDINGLY. LABEL SWITCH "480 VOLT METER DISCONNECT". CONDUITS, CONDUIT FITTINGS, AND COUPLINGS SHOULD NOT INTERFERE WITH DISCONNECT SWITCH ENCLOSURE DOOR.
17. USE 3" TO 2" CONDUIT REDUCING FITTING, AND 2" RIGID METALLIC CONDUIT FOR INSTANCES WHEN DISCONNECT SWITCH IS NOT INSTALLED AND CONDUITS ENTERS THE METER PAN DIRECTLY.
18. CONDUITS, CONDUIT FITTINGS, AND COUPLINGS SHOULD NOT INTERFERE WITH DISCONNECT SWITCH ENCLOSURE DOOR.
19. CONSTRUCT THE MAINTENANCE PAD WITH AN EXPANSION JOINT IN-LINE WITH THE POINT WHERE THE PAD MAKES A 90° BEND AROUND THE LOAD CENTER FOUNDATION.
20. ALL OPEN CONDUIT TERMINATIONS SHALL HAVE RODENT BLOCKING MATERIAL INSTALLED. SEE DETAILS ON STANDARD DRAWING E-16.

0 1/2 1 2 3 4
ORIGINAL SIZE IN INCHES

REV.	DESCRIPTION	DATE
0	REISSUED DRAWING	09/21

NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE
GARDEN STATE PARKWAY
STANDARD DRAWINGS

TYPE G LOAD CENTER
DETAILS - 1

OFFICE OF THE CHIEF ENGINEER
NEW JERSEY TURNPIKE AUTHORITY
WOODBRIDGE, NEW JERSEY

STANDARD DRAWING
E-34

CONTRACT NO. SHEET NO. OF