



**INTERIOR EQUIPMENT LAYOUT**  
FOR WIRING DIAGRAM SEE SHEET 2 (OF 2) IN THIS SERIES

**ITEM DESCRIPTION**

- ① METER HOUSING, MILBANK U8949.
- ② SECONDARY SURGE ARRESTERS, 2 POLE, 650 VOLT. (JOSLYN Z2-650-0)
- ③ MAIN PANELBOARD, 480/240 VOLT, 1 PHASE, 3 WIRE, 2 SECTION, 200 AMP, 2 POLE MAIN CIRCUIT BREAKER 65,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY. EATON PANELBOARD TYPE POW-R-LINE 3a IN A NEMA 1 ENCLOSURE, WITH CIRCUIT BREAKERS PER SCHEDULE ON PLANS. DOOR HINGES ON RIGHT SIDE.
- ④ LIGHTING CONTACTOR, 480 VOLT, 200 AMP, 2 POLE, 120 VOLT CONTROL, WITH RELAY FOR 2 WIRE CONTROL, (MAGNECRAFT W389ACX-9) ONE NORMALLY OPEN AND ONE NORMALLY CLOSED AUXILIARY CONTACTS, CONTROL LINE FUSE, IN A NEMA 1 ENCLOSURE, SQUARE-D CLASS 8903, TYPE PB.
- ⑤ SECONDARY BREAKER, 15 AMPERE TRIP, 120 VOLT, SINGLE POLE, 65,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY IN A NEMA 1 SURFACE MOUNTED ENCLOSURE.
- ⑥ STEP DOWN TRANSFORMER, 1500 VA, 480 VOLT PRIMARY, 120 VOLT SECONDARY, SINGLE PHASE, 60 HERTZ, DRY TYPE, NEMA 3R ENCLOSURE. (JEFFERSON 411-0081-000)
- ⑦ SINGLE POLE, 15 AMPERE SWITCH, IN A NEMA 1 ENCLOSURE (WITH ITEM 8), RATED AT 120-277 VAC. (HUBBELL 1201)
- ⑧ LAMP HOLDER 660W, 600V, MOUNTED ON A NEMA 1 ENCLOSURE (WITH ITEM 7), W/25W, 120V INCANDESCENT LAMP. (LEVITON 8829)
- ⑨ HAND-OFF-AUTO SELECTOR SWITCH WITH LEGEND PLATE. MOUNTED IN THE COVER OF ITEM 18. (SQ D 9001KS43BH13)
- ⑩ 5/8" x 10'-0" GROUND ROD IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, DRIVEN EXTERNAL TO THE FOUNDATION.
- ⑪ GROUND BUS MOUNTED IN PANELBOARD ENCLOSURE.
- ⑫ PHOTO ELECTRIC CONTROL SWITCH, (TORK 500IS) WITH RECEPTACLE (MODEL 2421).
- ⑬ NEMA TYPE 3R STAINLESS STEEL ENCLOSURE WITH DRIP SHIELD AND STAINLESS STEEL HARDWARE. ENCLOSURE SHALL CONFORM TO J.I.C. STANDARDS WITH CELLULAR NEOPRENE GASKETED DOORS, ALL SEAMS CONTINUOUSLY WELDED, 10 GAUGE STAINLESS STEEL BODY, REMOVABLE STEEL (PAINTED WHITE) PANEL INSIDE THE BACK AND A FACTORY INSTALLED DRIP SHIELD. THE ENCLOSURE SHALL HAVE CONTINUOUS HINGED DOORS MEETING IN THE CENTER, OVERLAPPED AND GASKETED, WITH NO CENTERPOST. AN OIL TIGHT KEY LOCKING HANDLE WITH 3 POINT LATCH SHALL BE PROVIDED (FURNISH 6 KEYS). EACH END OF THE ENCLOSURE SHALL HAVE A SCREENED, GASKETED VENTILATING LOUVER AND THE TOP OF THE ENCLOSURE SHALL HAVE A VENTILATOR. INTERNAL CONDUIT SHALL HAVE LOCKNUTS, INSULATING BUSHING AND CONDULET FITTINGS AS REQUIRED. INTERNAL WIRING SHALL BE XLP INSULATED NEC TYPE RHH/RHW-2. PROVIDE A WIRING DIAGRAM IN A PRINT POCKET ON THE INSIDE OF THE CABINET DOOR.
- ⑭ INTERNAL CONTROL WIRING SHALL BE #12 AWG, STRANDED, XLP INSULATED NEC TYPE RHH/RHW-2 RATED 600 VOLT, WITH SUITABLE COLOR CODING TO BE APPROVED BY THE ENGINEER BEFORE CONSTRUCTION.
- ⑮ 200 WATT, 120 VOLT CABINET HEATER WITH INTEGRAL THERMOSTAT. HOFFMAN CATALOG NO. DAH2001A.
- ⑯ SERVICE SAFETY SWITCH, 200 AMP, 600 VOLT, NON-FUSED, NEMA 4X STAINLESS STEEL ENCLOSURE.
- ⑰ NEMA TYPE 1, 8"x6"x4" JUNCTION BOX & COVER WITHOUT KNOCKOUTS. ITEM 9 IS MOUNTED IN THE COVER.
- ⑱ INTERNAL CONDUIT AND FITTINGS SHALL BE 3/4" MINIMUM.
- ⑲ 8"x8" WIREWAY WITH 3-3" NIPPLES.

**NOTES:**

- 1. PROVIDE METER HOUSING WHEN SERVICE PEDESTAL IS NOT PROVIDED.
- 2. 6'-0" MAXIMUM HEIGHT ABOVE GRADE.
- 3. TO UTILITY SERVICE AS INDICATED ON PLANS WHEN SERVICE PEDESTAL IS NOT PROVIDED.
- 4. 3/4" PVC CONDUIT IN CONCRETE, SEE FOUNDATION DETAILS.
- 5. CADWELD NO. 2 BARE COPPER GROUND CABLE TO GROUND ROD.
- 6. TO SERVICE PEDESTAL AS INDICATED ON PLANS.
- 7. CONDUIT AND CABLE BETWEEN METER FITTING AND DISCONNECT SWITCH ROUTED BETWEEN CONTROL CONSOLE AND CONCRETE FOUNDATION, WHEN A METER HOUSING IS REQUIRED. CONDUIT AND CABLE SHALL BE THE SAME AS THE SERVICE.

CONTRACT 60I31 SHEET 960 OF 963  
SHEET 1 OF 2

*Paul Kovacs*  
APPROVED... CHIEF ENGINEER... DATE 2-7-2012...

DATE	REVISIONS
2-7-2012	MODIFY ENCLOSURE DIMENSIONS, REVISED NOTES AND ITEM DESCRIPTIONS

**Illinois Tollway**  
*Open Roads for a Faster Future*

OUTDOOR CONTROL  
CONSOLE DETAILS

STANDARD H6-01