

REPLACE EXISTING 120VAC BRANCH CIRCUIT CONDUCTORS WITH 1 #8 THWN, 1 #8 THWN NEUTRAL (WHITE), 1 #8 GND (GREEN) AND INSTALL IN EXISTING 3.5" CONDUIT. DISTANCE TO LOAD CENTER IS APPROXIMATELY 150'. CONTRACTOR SHALL FIELD VERIFY ACTUAL CABLE LENGTHS & ADJUST AS APPLICABLE.

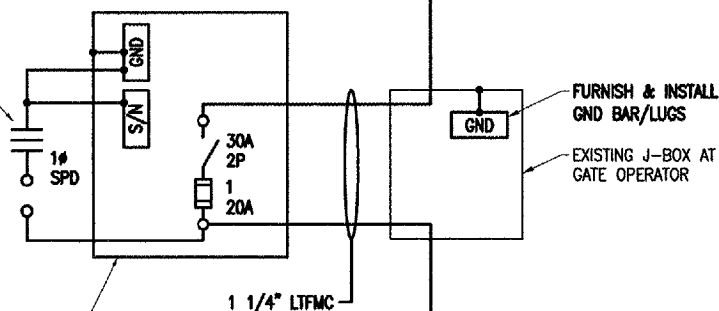
EXISTING CKT BKR

EXISTING FEEDER CIRCUIT IN CONDUIT & WIREWAY. FURNISH & INSTALL #6 EQUIPT GND WIRE WITH EXISTING FEEDER CIRCUIT FROM ORIGIN OF FEEDER TO LOAD CENTER.

FURNISH & INSTALL EQUIPT GND BAR

EXISTING SQUARE D QO LOAD CENTER AT FIRE STATION

UL LISTED PER UL 1449, AC SURGE PROTECTOR SUITABLE FOR 120 VAC, 1PH, 2 WIRE PLUS GROUND SYSTEM WITH SURGE CURRENT RATING OF 40 KA (MIN.), 8x20 MICROSECOND WAVE, AND STATUS INDICATION LIGHTS IN A WEATHERPROOF HOUSING, JOSLYN MODEL 1260-21, OR APPROVED EQUAL. MAINTAIN LEADS AS SHORT & AS STRAIGHT AS POSSIBLE. INSTALL AT SAFETY SWITCH WHERE LUGS ARE RATED FOR 2 CONDUCTORS, OR PROVIDE SPLIT BOLT CONNECTORS IN EXISTING J-BOX & CONNECT AT J-BOX.

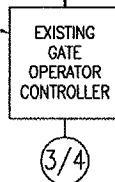


FURNISH & INSTALL GND BAR/LUGS
EXISTING J-BOX AT GATE OPERATOR

FURNISH & INSTALL 30 AMP, 2 POLE, 240 VAC, U.L. LISTED, HEAVY DUTY FUSIBLE SAFETY SWITCH IN A NEMA 4X STAINLESS STEEL ENCLOSURE, SQUARE D CLASS 3110, CAT. NO. H221DS WITH SOLID NEUTRAL KIT & EQUIPT GND BAR, OR APPROVED EQUAL. PROVIDE 1 UL LISTED CLASS RK5 FUSE AS MANUFACTURED BY BUSSMANN, SIZED AS REQUIRED FOR THE RESPECTIVE GATE OPERATOR IN ACCORDANCE WITH THE GATE OPERATOR MANUFACTURER'S RECOMMENDATIONS AND PER THE REQUIREMENTS OF NEC. INCLUDE 1 SPARE FUSE OF THE SAME SIZE AND TYPE. LOCATE SAFETY SWITCH NEAR GATE OPERATOR AND PROVIDE STAINLESS STEEL STRUT SUPPORT WITH CORROSION RESISTANT HARDWARE. NOTE SAFETY SWITCH SHALL NOT BE USED AS A SPLICE BOX OR A PULL BOX.

1 #10 THWN, 1 #10 NEUTRAL,
1 #10 GND IN 3/4" LTFMC

EXISTING GATE OPERATOR FEDERAL APD MODEL 23-7661 SERIAL NO. 2959-9245, 115 VAC, 60 HZ, 1PH, 12 AMPS, 3/4 HP



BOND GND ROD TO GATE OPERATOR FRAME WITH #6 AWG BARE STRANDED COPPER CONDUCTOR. CONNECTION TO GND ROD SHALL BE EXOTHERMIC WELD. CONNECTION TO GATE OPERATOR FRAME SHALL BE WITH A TWO-HOLE TONGUE COMPRESSION LUG BOLTED TO THE FRAME. BOND EQUIPT. GND WIRE TO FRAME TO ENSURE CONTINUITY TO GND ROD.

FURNISH & INSTALL 3/4" x 10'L U.L. LISTED COPPERCLAD GND ROD. CORE PAVEMENT TO INSTALL GROUND ROD ADJACENT TO GATE OPERATOR. TOP OF GND ROD SHALL BE 6" OR LESS ABOVE GRADE TO MINIMIZE DISTURBANCE TO PAVEMENT.

ELECTRICAL NOTES

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
- CONTRACTOR SHALL COORDINATE NEW WORK AND ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE USER PERSONNEL & THE AIRPORT MANAGER.
- ALL EQUIPMENT NOT LABELED AS EXISTING IS NEW.
- PROVIDE A WEATHERPROOF ENGRAVED PHENOLIC OR PLASTIC LEGEND PLATE FOR THE SAFETY SWITCH AT THE RESPECTIVE GATE OPERATOR LABELED "FIRE STATION GATE, 120 VAC, FED FROM FIRE STN LOAD CENTER".
- FURNISH AND INSTALL A #12 AWG EQUIPMENT GROUND WIRE FROM THE GATE OPERATOR TO THE CARD READER UNIT IN THE EXISTING CONTROL WIRING CONDUIT.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
- EXISTING LTFMC (LIQUID TIGHT FLEXIBLE METAL CONDUIT) AT THE GATE OPERATOR IS IN POOR CONDITION. REPLACE ALL EXISTING LTFMC WITH NEW. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6 SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO GATE OPERATORS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. DO NOT INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED.
- WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM AT109200.

WORK SHOWN ON THIS SHEET IS FOR BID ALTERNATE NO. 2

FIRE STATION GATE ELECTRICAL ONE LINE

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REVISION	DATE	BY

MT. VERNON AIRPORT

 MT. VERNON, ILLINOIS
 I.L. PROJ.: MWN-3539
 A.I.P. PROJ.: 3-17-0074-B12

HE Project No. 819-08RWYD	Revision E-610.DWG	Scale NONE	Date 12/16/05
LAYOUT	KNL	12/02/05	12/14/05
DRAWN	MV	12/02/05	
REVIEWED	CAH		

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RUNWAY 15-33
 P.F.C. OVERLAY
 FIRE STATION GATE
 ELECTRICAL ONE LINE