

F-H-A REGION	STATE	PROJECT	
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LAKE COUNTY
LAK-20-5.60

GENERAL NOTES

SPECIFICATIONS

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 713 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET OF THESE PLANS.

PLAN SPECIFICATION REFERENCES

REFERENCES TO ITEM 625 AND 713 IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS S625 AND S713.

S625.03 - GENERAL

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

CLEVELAND ELECTRIC ILLUMINATING CO.
P.O. BOX 5000
CLEVELAND, OHIO 44101

LIGHTING REQUIREMENTS:

- (1) 480 VOLTS, 2 WIRE GROUNDED NEUTRAL (CONTROLLED).
- (2) AVERAGE INITIAL ILLUMINATION INTENSITY:
 - A) MAINLINE-1.2 F.C.
 - B) CROSS STREETS-1.2 F.C.
- (3) UNIFORMITY RATIO OF 4:1 OR BETTER.

625.07-713.11 LUMINAIRES AS PER PLAN

25,000 LUMEN HORIZONTAL STYLE B LUMINAIRES, DESIGNED FOR USE WITH 250 WATT HIGH PRESSURE SODIUM LAMPS, SHALL HAVE SINGLE RATED 480 VOLT, 250 WATT INTEGRAL REGULATOR BALLASTS. STYLE B LUMINAIRES SHALL BE GENERAL ELECTRIC M-400, WESTINGHOUSE QV-25, MCGRAW-EDISON "UNISTYLE-400," OR EQUAL APPROVED BY THE ENGINEER.

LIGHT POLE ANCHOR BOLTS FOR BRIDGES

ANCHOR BOLTS FOR MOUNTING LIGHT POLES ON BRIDGES SHALL CONFORM TO THE REQUIREMENTS OF S713.01 AND DETAILS SHOWN ON THE PLANS AND STANDARD DRAWINGS, OR THE APPROVED SHOP DRAWINGS, FOR THE RESPECTIVE POLES TO BE PLACED THEREON. PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH SET OF THE SIZE REQUIRED AND NECESSARY TO INSTALL ONE POLE, AND THIS PAYMENT SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING AND PLACING THE BOLTS.

CONDUIT ON STRUCTURES

EXPANSION FITTINGS FOR CONDUIT ON STRUCTURES SHALL BE OZ TYPE AX, CROUSE-HINDS TYPE XJ-4, APPLETON TYPE XJ-4, OR EQUAL APPROVED BY THE ENGINEER, FOR BRIDGE NO. LAK-20-0575. EACH EXPANSION FITTING SHALL HAVE A COPPER EXTERNAL BONDING JUMPER.

HIGH VOLTAGE TEST

A HIGH VOLTAGE DIRECT CURRENT TEST, AS DESCRIBED IN SUPPLEMENTAL SPECIFICATION 839, SHALL BE PERFORMED ON ALL DISTRIBUTION CABLE SYSTEMS TO BE INSTALLED ON THIS PROJECT. THE TEST SHALL NOT BE PERFORMED UNTIL AFTER ALL NEW CONSTRUCTION, SUCH AS GUARD RAIL, FENCE, SIGN SUPPORTS, ETC., IN THE IMMEDIATE VICINITY OF THE LOCATION OF THE CABLE RUN BEING TESTED, HAS BEEN COMPLETED. THE TESTING REQUIREMENTS OF S625.22 (b) ARE HEREBY WAIVED FOR THOSE CIRCUITS ON WHICH THE HIGH VOLTAGE TEST IS TO BE PERFORMED.

CONNECTOR KITS

AT THE OPTION OF THE CONTRACTOR, TYPE IX CABLE CONNECTIONS MAY BE SUBSTITUTED WHERE TYPE II OR III CABLE CONNECTIONS ARE SPECIFIED IN HAND HOLES OR TRANSFORMER BASES OF LIGHT POLES.

TYPE I THROUGH TYPE VII CABLE CONNECTIONS IN PULL BOXES, JUNCTION BOXES, AND OTHER ENCLOSURES BELOW GROUND MAY BE ACCOMPLISHED BY THE USE OF EITHER OF THE FOLLOWING:

1. A SLEEVE OR TEE CABLE CONNECTOR CONFORMING TO THE GENERAL REQUIREMENTS OF STYLE "S" OR "H", OR OTHER CONNECTING DEVICE APPROVED BY THE ENGINEER. THE CONNECTOR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND THE CONNECTION SHALL BE SEALED AND WATERPROOFED WITH A HI-DIELECTIC COMPOUND SUCH AS "AQUA SEAL" AS MANUFACTURED BY KEARNY, THE SCOTCH #2200 COMPOUND AS MANUFACTURED BY THE 3M COMPANY, THE EQUAL AS MANUFACTURED BY BLACKBURN, OR EQUAL APPROVED BY THE ENGINEER. THE SEALING MATERIAL SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS TO MAKE A WATERTIGHT CONNECTION. CONNECTIONS NOT ACCOMPLISHED IN-LINE OR IN TEE FORM SHALL BE ADDITIONALLY PROTECTED BY USE OF HI-DIELECTIC PVC, OR OTHER APPROVED MATERIAL, BOTH WITH AN APPROVED FASTENING DEVICE.
2. A PREASSEMBLED KIT, AS MANUFACTURED BY JOY OR BUSSMAN, OR APPROVED EQUAL, WITH A WATERPROOF OR WATER-TIGHT RATING ACCEPTABLE TO THE ENGINEER.

ITEM S625 - PAD MOUNTED CONTROL CENTER

THIS ITEM OF WORK SHALL INCLUDE FURNISHING AND CONSTRUCTION OF A PAD MOUNTED CONTROL CENTER AS DETAILED ON SHEET NUMBER 6.

THE CABINET SHALL BE A SINGLE DOOR ENCLOSURE OF NEMA TYPE 4 WATERTIGHT CONSTRUCTION WITH NEMA 3 RAINSHIELD OF 0.075" (14 GAGE) AISI 302-304 STAINLESS STEEL. ALL SEAMS SHALL BE CONTINUOUSLY WELDED AND GROUND SMOOTH AND POLISHED. BODY AND DOOR STIFFENERS SHALL BE PROVIDED. THE DOOR SHALL HAVE A CONTINUOUS HINGE ON ONE SIDE AND BE GASKETED. THREE POINT LATCHING SHALL BE PROVIDED AND THE HANDLE SHALL BE ARRANGED FOR PADLOCKING.

ALL CONDUIT SHALL ENTER THE ENCLOSURE BODY BY MEANS OF WATERTIGHT CONDUIT HUBS.

A 20 AMPERE BY-PASS SWITCH RATED AT 240 VOLTS, COMPLETE WITH #10 AWG WIRE, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THE POWER COMPANY WILL MAKE THE FINAL CONNECTION TO THE SWITCH FOR MANUAL BY PASS CONTROL OF THEIR LIGHTING CONTROLLER.

THE FOUNDATION FOR THIS CONTROL CENTER SHALL BE ACCORDING TO SUPPLEMENTAL SPECIFICATION 842.20, EXCEPT THAT EXCAVATION BY EARTH AUGER SHALL NOT BE REQUIRED.

ANCHOR BOLTS SHALL BE 1/2" X 14" STAINLESS STEEL MACHINE BOLTS WITH WASHERS AND NUTS. A 2 INCH SQUARE WASHER SHALL BE PLACED OVER EACH BOLT PRIOR TO THE CONCRETE POUR. SPACING AND PLACEMENT OF ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH THE ENCLOSURE MANUFACTURERS DIMENSIONS.

ALL OTHER PROVISIONS OF SUPPLEMENTAL SPECIFICATIONS S625.19 AND S713.20 SHALL BE COMPLIED WITH, EXCEPT THAT A PHOTO-ELECTRIC CELL WILL NOT BE REQUIRED.

THE LUMP SUM BID PRICE FOR "ITEM S625 - PAD MOUNTED CONTROL CENTER" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A COMPLETE AND ACCEPTED LIGHTING CONTROL CENTER.

THE CONTRACTOR SHALL INSTALL TWO LAMPS INSIDE THE ENCLOSURE. THE TWO 50 WATT 300 VOLT A.C. LAMPS IN PORCELAIN SOCKETS WITH METAL LAMP GUARDS SHALL BE INSTALLED IN SERIES TO OPERATE AT 240 VOLTS FOR INCREASED LAMP LIFE.

STANDARD CONSTRUCTION DRAWING HL-3

POLE BASE DETAILS SHOWN ON THIS DRAWING ARE ESSENTIALLY FOR GALVANIZED STEEL POLES. FOR ALUMINUM DESIGNS, OR OTHER PERMITTED STEEL MATERIAL DESIGNS, VARIATIONS FROM THESE DETAILS WILL BE ACCEPTABLE, AS APPROVED BY THE ENGINEER.

SIDEWALK PULL BOX, AS PER PLAN

THE SIDEWALK PULL BOX FURNISHED AND INSTALLED ON THIS PROJECT SHALL BE THE TYPE II JUNCTION BOX AS DETAILED ON STANDARD CONSTRUCTION DRAWING HL-4, DATED 1-21-76 AND SPECIFIED IN SUPPLEMENTAL SPECIFICATION S713.10.

EACH STEEL PLATE COVER SHALL HAVE A BRASS OR STAINLESS STEEL PLATE APPROXIMATELY 1/32 INCH IN THICKNESS AND NOT LESS THAN 2 INCHES IN WIDTH BY 10 INCHES IN LENGTH WITH THE WORD "ELECTRIC" ETCHED, ENGRAVED, OR DIE-STAMPED THEREON IN LETTERS APPROXIMATELY 5/8 INCHES WIDE BY 1-1/4 INCHES HIGH, RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO THE STEEL PLATE COVER.

PAYMENT FOR "ITEM S625-SIDEWALK PULL BOX, AS PER PLAN" SHALL BE MADE FOR EACH PULL BOX INSTALLED, INCLUDING THE AGGREGATE, COMPLETE IN PLACE AND ACCEPTED.

ESTIMATED QUANTITIES

AN ESTIMATED QUANTITY OF "60 LIN. FT. OF 605, 4-INCH SHALLOW PIPE UNDERDRAINS" IS PROVIDED IN THE LIGHTING GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN PROVIDING POSITIVE DRAINAGE FOR PULL BOXES IN FILL AREAS. IT IS INTENDED THAT ALL PULL BOXES IN THESE AREAS BE PROVIDED WITH SUCH DRAINAGE, PROVIDED THE LENGTH OF UNDERDRAIN NECESSARY TO OBTAIN A SATISFACTORY OUTFALL DOES NOT EXCEED 20 FEET APPROXIMATELY. A PERFORATED PVC PIPE OR CONDUIT MATERIAL APPROVED BY THE ENGINEER MAY BE USED IN THE CONSTRUCTION OF THIS ITEM.

S713.02 - ELECTRICAL CABLES

IN LIEU OF THE REQUIREMENTS LISTED UNDER S713.02, PARAGRAPHS 2(A) AND 2(B), ALL CABLE TO BE USED FOR 300 AND 600 VOLT SERVICE SHALL BE UL TYPE RHH, OR RHW, OR RHH/RHW AND FURTHER MEET THE REQUIREMENTS OF UL TYPE USE.

ALL SINGLE CONDUCTOR CABLES TO BE USED FOR 300 AND 600 VOLT SERVICE SHALL NOT HAVE A SEPARATE OUTER COVERING.

LIGHT POLES

THE REQUIREMENTS OF S713.01, PARAGRAPH 2(A) REQUIRING CIRCULAR CROSS SECTIONS FOR POLE SHAFTS IS HEREBY WAIVED. THE CROSS SECTION OF THE SHAFT MAY BE CIRCULAR OR MULTISIDED (WITH NO LESS THAN 8 SIDES) AND THE DIAMETERS OR ACROSS THE FLAT DIMENSIONS MEASURED AT ANY POINT ALONG THE LONGITUDINAL AXIS SHALL NOT VARY FROM EACH OTHER MORE THAN 3/16 INCH. THE CROSS SECTION OF THE BRACKET ARMS SHALL BE COMPATIBLE WITH THAT OF THE POLE. ALL OTHER REQUIREMENTS OF S713.01 SHALL APPLY.

844. - PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE PADLOCKS EQUAL TO MASTER NO. 4 BKA OR WILSON BOHANNAN 660A AND SHALL BE KEYPED ALIKE TO 81060. PAYMENT WILL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

S625.03 - GENERAL

IN ADDITION TO THE ARTICLES OF THIS SPECIFICATION THE CONTRACTOR SHALL CONTACT THE POWER SUPPLYING AGENCY PRIOR TO PERFORMING ANY WORK ON OR NEAR ANY OF THEIR PROPERTY.