

FHWA REGION	STATE	PROJECT
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35-H
101

LAKE COUNTY
LAK-306-6.15

GENERAL NOTES

F. ACCESSORIES. PROVIDE ALL ACCESSORIES REQUIRED TO ERASE TAPE, PREPARE/RECORD TAPE MESSAGES, INNERCONNECT WITH TELEPHONE COMPANY SUPPLIED EQUIPMENT, AND GENERALLY REQUIRED TO MAKE A COMPLETE AND OPERABLE INSTALLATION WITHOUT ADDITIONAL PURCHASES BY OWNER. ACCESSORIES SHALL INCLUDE BUT NOT BE LIMITED TO:

1. ADCOR P/N TC-4 CONNECTOR CORD.
2. ADCOR MODEL BE-1 BULK TAPE ERASER OR EQUIVALENT.
3. ADCOR ASP-100 PROGRAMMER OR EQUIVALENT.
4. MICROPHONE IF NOT PART OF ASP-100 UNIT.
5. TWO TAPES (NORMAL AND SPARE).
6. PACKAGE OF COTTON SWABS.
7. TAPEHEAD CLEANER, BOTTLE OF, AMPEX NO. 7010110.

G. INSTRUCTION MANUALS. PROVIDE A QUANTITY OF SIX (6) INSTRUCTION/MAINTENANCE MANUALS COMPLETE WITH ELECTRICAL SCHEMATIC DRAWINGS AS PART OF APPROVAL DOCUMENTATION TO ENGINEER. THESE WILL BE RETAINED AS OWNER'S PERMANENT INSTRUCTION BOOKS.

H. APPROVAL DOCUMENTS. SUBMIT SIX COPIES OF ENCLOSURE AND PANEL LAYOUT DRAWINGS SHOWING BOTH AUTODIALER/SUPERVISOR COMPONENTS AND TELEPHONE COMPANY SUPPLIED COMPONENTS LOCATED THEREON. DRAWINGS SHALL BE CLEARLY DIMENSIONED. "SPACE ONLY" PROVISION FOR TELEPHONE COMPANY COMPONENTS ON DRAWING IS NOT ACCEPTABLE.

I. PROGRAMMING. CONTRACTOR SHALL PROGRAM AUTOMATIC DIALER/SUPERVISOR WITH MESSAGES AND TELEPHONE NUMBERS PROVIDED BY OWNER. CONTRACTOR SHALL DEMONSTRATE PROGRAMMING PROCEDURES TO OWNER'S PERSONNEL.

J. TEST. CONTRACTOR SHALL DEMONSTRATE SATISFACTORY OPERATION OF THE SYSTEM WITH STAGED ALARMS IN ENGINEER'S PRESENCE AND TO HIS SATISFACTION.

32. FUSES

A. FURNISH AND INSTALL ALL FUSES AS FOLLOWS:

1. ALL FUSES ABOVE 600 AMPERES SHALL BE BUSSMAN "HI CAP" OR SHAWMUT "AMP TRAP FORM 480" FOR 600 VOLTS OR LESS UNLESS OTHERWISE NOTED.
2. ALL FUSES 600 AMPERES AND BELOW, PROTECTING MOTOR AND TRANSFORMER CIRCUITS SHALL BE BUSSMAN "LO-PEAK" OR SHAWMUT "AMP-TRAP DUAL ELEMENT" AT 600 VOLTS OR LESS UNLESS OTHERWISE NOTED.
3. ALL FUSES 600 AMPERES AND BELOW, PROTECTING CIRCUIT BREAKERS SHALL BE BUSSMAN "LIMITRON" OR SHAWMUT "AMP-TRAP CLASS K-1".

B. ALL FUSES SHALL BE UL LISTED.

C. PROVIDE THREE SPARE FUSES OF EACH CLASS, TYPE AND VOLTAGE USED IN ANY EQUIPMENT SUPPLIED UNDER THIS CONTRACT IN ADDITION TO A FULL COMPLEMENT OF FUSES IN THE EQUIPMENT ITSELF. FUSES SHALL BE MOUNTED IN FUSE CLIPS WHICH ARE IN TURN MOUNTED ON A SPARE FUSE BOARD.

D. PROVIDE AND INSTALL A SPARE FUSE BOARD. BOARD SHALL BE 4' X 6' X 3/4" PLYWOOD, SANDED AND PAINTED WHITE. MOUNT ALL SPARE FUSE HOLDER BLOCKS ON BOARD. IN ADDITION, PROVIDE KEY HANGERS FOR ALL EQUIPMENT LOCKS. MOUNT ALL PERMANENT PERMITS IN GLASS FRAMES AND HANG FRAMES ON FUSE BOARD. PROVIDE LAMICOID NAMEPLATES IDENTIFYING ALL FUSES AND KEYS. PROVIDE KEYS WITH RINGS AND MATCHING LABELS. MOUNT SMALL SPECIAL MAINTENANCE TOOLS OF ANY TRADE WITH IDENTIFYING LABELS ON FUSE BOARD. RESERVE SPACE FOR OWNER'S MAINTENANCE CHECK LISTS (3-8 1/2" X 11" SHEETS).

E. MOUNT FUSE BOARD NEXT TO FUSIBLE SERVICE ENTRANCE SWITCH.

33. ARCHITECTURAL TREATMENT

A. BUILDING EXTERIOR TREATMENT

THERE SHALL BE NO CONDUIT RUN EXPOSED, ATTACHED TO, OR VISIBLE FROM THE EXTERIOR OF THE BUILDING EXCEPT FOR THE SERVICE ENTRANCE CONDUIT. ALL DEVICE BOXES OPENING TO THE OUTSIDE OF THE BUILDING

SHALL BE RECESSED. ALL WIRING DEVICES AND FIXTURES SHALL BE FLUSH WITH BUILDING WALLS. LEVELOMETER TUBING SHALL ENTER BUILDING UNDERGROUND THROUGH CAULKED METAL SLEEVING AND THEN UP TO OPERATING FLOOR.

B. BUILDING INTERIOR TREATMENT

CONDUIT AND BOXES MAY BE RUN EXPOSED (PREFERRED). CONDUIT SHALL BE RUN PARALLEL TO BUILDING SURFACES. PROVIDE CONDUIT BODIES (UNILETS) TO MAKE TURNS WHERE CONDUIT BENDS WOULD OTHERWISE FALL IN WALLS. KEEP ALL LOWER LEVEL WIRING ON CEILING TO REDUCE DAMAGE IN CASE OF WELL FLOODING. BUILDING SURFACE PENETRATIONS SHALL EITHER BE BY CORE DRILLING OR PRE-PLANNED SLEEVE INSERTS. IN EITHER CASE, CAULK PENETRATIONS THOROUGHLY. PAINT ALL CONDUIT AND BOXES AFTER INSTALLATION IN ACCORDANCE WITH PAINTING SPECIFICATION.

C. SERVICE ENTRANCE CONDUIT

RUN SERVICE ENTRANCE CONDUIT ON CEILING OUT TO RISER POLE.

D. FINISH REPAIR

DAMAGE TO FACTORY-APPLIED FINISH COATING AND PAINT SYSTEMS MAY BE REPAIRED WITH TOUCH-UP PAINT FURNISHED BY THE FACTORY ONLY WHEN SPECIFICALLY PERMITTED BY THE ENGINEER. EXTENSIVE DAMAGE OR DOUBTFUL FIELD REPAIRS SHALL BE REPAIRED BY COMPLETELY RE-COATING THE ITEM, PANEL, ETC., TO THE SATISFACTION OF THE ENGINEER.

34. MANUFACTURER'S DRAWINGS

A. SUBMIT TO THE ENGINEER FOR HIS REVIEW AND APPROVAL, SIX (6) COPIES OF ALL DOCUMENTS AND DATA REQUESTED ELSEWHERE IN THESE SPECIFICATIONS AND MANUFACTURER'S DRAWINGS FOR THE FOLLOWING ITEMS:

1. LIGHTING AND POWER PANELS
2. SWITCHES AND FUSES
3. WIRING DEVICES AND PLATES
4. LIGHTING FIXTURES AND CONTROLS
5. TRANSFORMERS
6. MOTOR CONTROL CENTERS
7. GENERATOR SETS AND ACCESSORIES
8. AUTOMATIC TRANSFER SWITCHES
9. LEVEL SENSORS
10. PUMP CONTROL PANELS
11. CAPACITORS
12. PUMP MOTOR NAMEPLATE DATA (ABSOLUTELY COMPLETE)

B. THOROUGHLY REVIEW EACH SUBMITTAL AND INDICATE THE EXACT ITEM TO BE FURNISHED. EACH SUBMITTAL SHALL BE STAMPED WITH THE CONTRACTOR'S APPROVAL BEFORE SUBMITTING TO THE ENGINEER.

C. ENGINEER'S REVIEW OF MANUFACTURER'S DRAWINGS OR SCHEDULES SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS MANUFACTURER'S DRAWINGS OR SCHEDULES AND DEVIATION FROM ENGINEER'S DRAWINGS OR SPECIFICATIONS.

D. AT THE COMPLETION OF JOB, BEFORE FINAL PAYMENT IS MADE, THE CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF MANUFACTURER'S "AS-BUILT" DRAWINGS.

35. SWITCHES

A. FURNISH AND INSTALL NEMA HEAVY DUTY FUSIBLE AND NON-FUSIBLE SAFETY SWITCHES WHERE SHOWN ON THE DRAWINGS, IN CONFORMANCE WITH CODE REQUIREMENTS. SWITCHES SHALL BE WALL MOUNTED IN NEMA 12 ENCLOSURES FOR INDOOR USE AND NEMA 3R

ENCLOSURES FOR OUTDOOR USE, UNLESS OTHERWISE NOTED. SWITCHES SHALL HAVE THE AMPACITY, VOLTAGE, NUMBER OF POLES, HORSE POWER RATING, SOLID NEUTRAL, GROUNDING KIT, AND FUSE CLIPS REQUIRED FOR THE SERVICE AND USE CONCERNED.

B. MOUNT SWITCHES ON STAND OFF SPACERS TO PROVIDE MINIMUM 1/4" AIR SPACE IF MOUNTED ON OUTSIDE WALLS OR ANY WALL BELOW GRADE.

C. IF FREE STANDING MOUNTING STANDS ARE REQUIRED, FABRICATE AS SPECIFIED ELSEWHERE IN THESE SPECIFICATIONS.

36. COMPLETENESS

A. IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE FURNISHED.

B. THE LOCATION OF OUTLETS, AND SWITCHES SHOWN ON THE DRAWINGS IS APPROXIMATE, AND THE ENGINEER SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR SWITCHES BEFORE THEY ARE INSTALLED WITHOUT ADDITIONAL COST.

C. THE CONTRACTOR, INsofar AS THE WORK IS CONCERNED, SHALL AT ALL TIMES KEEP THE PREMISES IN A NEAT AND ORDERLY CONDITION, AND AT THE COMPLETION OF THE WORK SHALL PROPERTY CLEAN UP AND CART AWAY DEBRIS AND EXCESS MATERIALS.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER FINAL WRITTEN ACCEPTANCE BY THE OWNER.

PUMP STATION, MISCELLANEOUS

FIRE EXTINGUISHERS:

TWO FIRE EXTINGUISHERS SHALL BE FURNISHED AND INSTALLED AT THE LOCATIONS SHOWN. THEY SHALL BE PORTABLE, CARBON DIOXIDE TYPE, TEN POUNDS EACH CAPACITY, MOUNTED WITH WALL BRACKETS, AND SHALL BE UNDERWRITERS LABORATORIES APPROVED, RATED 5B.

ENERGY CONSERVATION:

THIS STRUCTURE IS EXEMPT FROM THE ENERGY CONSERVATION REQUIREMENTS OF THE OHIO ADMINISTRATIVE CODE UNDER SECTION 101.3 OF THE "CODE" REFERENCED IN OAC 4101.2-20-02(A) AND (B), AS IT IS NOT A STRUCTURE DESIGNED FOR HUMAN OCCUPANCY.