

GENERAL NOTES:

- 1. BIDDERS SHALL CAREFULLY EXAMINE THE ENTIRE SCOPE OF WORK. BIDDERS SHALL MAKE ALL INVESTIGATIONS NECESSARY TO BE THOROUGHLY INFORMED ABOUT THE WORK, REQUIRED SCHEDULING, PLACING AND USING THE NECESSARY EQUIPMENT AND MATERIALS, AND SPECIAL METHODS INVOLVED IN COMPLETION OF ALL WORK IN ACCORDANCE WITH THE PROJECT DRAWINGS AND PROJECT DOCUMENTS. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF CONTRACTUAL OBLIGATIONS NOR JUSTIFY ADDITIONAL COMPENSATION.
2. BEFORE STARTING ANY WORK, THE CONTRACTOR SHALL EXAMINE THE COMPLETE SET OF DRAWINGS FOR ALL TRADES. VERIFY ALL DIMENSIONS, SPACE REQUIREMENTS AND POINTS OF CONNECTION FOR ALL EQUIPMENT, MAKE MINOR ADJUSTMENTS NECESSARY TO AVOID CONFLICTS WITH EXISTING STRUCTURES AND THE WORK OF OTHER TRADES. CONTRACTOR SHALL VERIFY PURCHASED EQUIPMENT DIMENSIONS MATCH DESIGN DIMENSIONS PRIOR TO PURCHASE AND INSTALLATION. LAYOUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE ADJUSTED BY CONTRACTOR TO ACCOMMODATE EQUIPMENT REQUIREMENTS OF INSTALLATION. CONTRACTOR SHALL OBTAIN MANUFACTURER'S SUBMITTALS FROM THE MANUFACTURER FOR CONTRACTOR PURCHASED EQUIPMENT AND FROM THE OWNER FOR ALL OF THE OWNER FURNISHED EQUIPMENT PRIOR TO LAYOUT AND INSTALLATION.
3. CONTRACTOR SHALL CONFINE SERVICE INTERRUPTION TO PERIODS SCHEDULED BY CONTRACTOR AND APPROVED BY THE OWNER. ANY REQUIREMENTS FOR INTERRUPTION OR DISCONNECTION OF SERVICE SHALL BE REQUESTED IN WRITING FROM OWNER MANAGEMENT AT LEAST 14 DAYS PRIOR TO SCHEDULED INTERRUPTION. CONTRACTOR SHALL PROVIDE POWER FOR ALL WORK RELATED ACTIVITY AND ASSIST OWNER WITH PROVIDING TEMPORARY POWER FOR LOADS AFFECTED BY A POWER OUTAGE. CONTRACTOR SHALL SUPPLY LOW VOLTAGE CABLING AND CONNECTORS FOR TEMPORARY POWER FROM SUBSTATION TO POINT OF CONNECTION TO EQUIPMENT AS NECESSARY TO SUPPLY TEMPORARY POWER.
4. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING AND NEW EQUIPMENT AND FACILITIES FROM DAMAGE DURING CONSTRUCTION. CONTRACTOR SHALL, AT CONTRACTOR'S EXPENSE, REPAIR OR REPLACE ALL NEW AND EXISTING EQUIPMENT AND FACILITIES DAMAGED BY THE CONTRACTOR OR ASSIGNS DURING CONSTRUCTION.
5. CONTRACTOR SHALL SCHEDULE ALL REQUIRED INSPECTIONS INCLUDING OWNER REQUIRED FIRE INSPECTIONS. EACH INSPECTION SHALL BE COMPLETED BEFORE PROCEEDING WITH THE NEXT STAGE OF WORK. CONTRACTOR SHALL CORRECT, AT HIS OWN EXPENSE, ITEMS UNACCEPTABLE TO THE OWNER.
6. CONTRACTOR SHALL REVIEW BELOW GRADE AND ABOVE GRADE INSTALLATION REQUIREMENTS WITH THE OWNER AND ENGINEER BEFORE STARTING ANY WORK. CONTRACTOR SHALL INSTALL ALL ITEMS IN ACCORDANCE WITH ALL PROJECT DOCUMENTS AND DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NEW MATERIAL AND EQUIPMENT AS REQUIRED TO PRODUCE A COMPLETE AND OPERABLE SYSTEM.
7. CONTRACTOR SHALL NOTIFY DIG ALERT OR UNDERGROUND SERVICE ALERT AND OWNER FACILITIES MANAGEMENT PRIOR TO ANY DIGGING, UNDERGROUND FEATURES, PIPING OR FOUNDATIONS MAY EXIST IN THE AREA DESIGNATED FOR THE NEW ELECTRICAL AND STRUCTURAL WORK. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UNDERGROUND ITEMS AND PROVIDE SURFACE MARKING/IDENTIFICATION BEFORE EXCAVATION. CONTRACTOR TO PERFORM POT-HOLING OF PROPOSED LOCATIONS FOR UNDERGROUND UTILITIES INCLUDING DUCTBANK AND MANHOLES TO ESTABLISH SUITABLE LOCATIONS. ALL DIGGING SHALL PROCEED WITH CAUTION. WORK ON OR ABOUT ENERGIZED DUCT BANKS AND EXISTING UNDERGROUND UTILITIES SHALL BE BY HAND. TRENCHING AND SHORING SHALL BE SUPERVISED BY A COMPETENT PERSON IN ACCORDANCE WITH THE CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (DOSH) REQUIREMENTS AND PROJECT DOCUMENTS.
8. ALL GRADING SHALL BE IN ACCORDANCE WITH THE PLANS AND APPLICABLE REQUIREMENTS OF THE GRADING CODE OF THE LOCAL JURISDICTION AND PROVISIONS OF THE CALIFORNIA BUILDING CODE (CBC). ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE CALIFORNIA ELECTRIC CODE (CEC), CALIFORNIA BUILDING CODE (CBC), ALL LOCAL CODES, ORDINANCES AND THE OCCUPATIONAL SAFETY HEALTH ACT (OSHA).
9. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE CALIFORNIA ELECTRIC CODE (CEC), CALIFORNIA BUILDING CODE (CBC), ALL LOCAL CODES, ORDINANCES AND THE CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (DOSH).
10. ALL ELECTRICAL MATERIALS SHALL BE NEW AND UNDERWRITERS LABORATORY (UL) LISTED AND RATED FOR THE INTENDED USE.
11. ALL CIRCUIT CONDUCTORS OPERATING AT 600V OR LESS SHALL BE STRANDED COPPER WITH 600V THHN/THWN INSULATION.
12. MINIMUM LOW VOLTAGE CONDUCTOR SIZE IS 12 AWG UNLESS OTHERWISE NOTED.
13. MINIMUM CONDUIT SIZE IS 3/4 INCH (1 INCH CONDUIT BELOW GRADE) UNLESS OTHERWISE NOTED.
14. ELECTRICAL METALLIC TUBING AND FLEXIBLE METAL CONDUIT MAY BE USED FOR INDOOR CONCEALED WORK AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE. EMT SHALL NOT BE USED OUTDOORS OR IN WET LOCATIONS.
15. WHERE CONDUIT IS EXPOSED AND LESS THAN 10 FEET ABOVE FINISHED FLOOR OR OUTDOORS AND WET LOCATIONS, RIGID GALVANIZED STEEL CONDUIT SHALL BE USED. ALL EXPOSED UNDERGROUND RISER BENDS SHALL BE RIGID GALVANIZED STEEL.
16. WHERE CONDUITS ARE INSTALLED BELOW GRADE WITH CONCRETE ENCASUREMENT SCHEDULE 40 PVC CONDUIT SHALL BE USED UNLESS OTHERWISE NOTED. PVC CONDUIT SHALL ONLY BE USED FOR RISERS OR RISER BENDS WHERE COMPLETELY ENCLOSED AND NOT SUBJECT TO PHYSICAL DAMAGE.
17. ALL CONDUIT RUNS WITH FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL CONTAIN EQUIPMENT GROUNDING CONDUCTOR(S). SIZED IN ACCORDANCE WITH THE CEC. WHERE DRAWINGS INDICATE A MINIMUM SIZE GROUND CONDUCTOR, THE DRAWING REQUIREMENT SHALL PREVAIL. CONDUIT AND RACEWAYS SHALL NOT BE USED AS THE EQUIPMENT GROUNDING CONDUCTOR.
18. CONTRACTOR SHALL PROVIDE EQUIPMENT AND LABOR NECESSARY TO MOVE THE OWNER FURNISHED EQUIPMENT FROM STORAGE TO THE INSTALLATION LOCATION. CONTRACTOR SHALL ALSO PROVIDE ALL EQUIPMENT AND LABOR NECESSARY TO DELIVER ITEMS REMOVED FROM SERVICE, AND IDENTIFIED TO BE DELIVERED TO THE OWNER, TO AN OWNER'S LOCATION.
19. THE DRAWINGS ARE DIAGRAMMATIC, CONDUIT ROUTINGS, CONDUIT BENDS, SUPPORT AND UNDEFINED DETAILS SHALL BE INSTALLED IN ACCORDANCE WITH CALIFORNIA ELECTRICAL CODE REQUIREMENTS AND SHALL BE DETERMINED BY CONTRACTOR AS A NECESSARY PART OF THE CONTRACTOR'S WORK. CONTRACTOR TO PERFORM POT-HOLING OF PROPOSED LOCATIONS FOR DUCTBANK AND MANHOLES TO ESTABLISH SUITABLE DEPTH AND ROUTE TO AVOID INTERFERENCE WITH EXISTING UTILITIES AND OTHER UTILITIES TO BE INSTALLED AS PART OF THIS PROJECT.
20. CONTRACTOR SHALL SUBMIT A PROJECT "REQUEST FOR INFORMATION"(RFI) FOR ALL PROPOSED CHANGES TO THE SCOPE OF WORK TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO PERFORMING ANY WORK THAT DEVIATES FROM THE PROJECT REQUIREMENTS. WORK COMPLETED BY THE CONTRACTOR BUT NOT APPROVED IN ADVANCE BY THE OWNER SHALL BE CORRECTED AT CONTRACTOR'S EXPENSE. ALL APPROVED CHANGES SHALL BE IDENTIFIED ON RECORD SET OF DRAWINGS WHICH ARE TO BE DELIVERED TO THE OWNER AT COMPLETION OF WORK. RECORD DRAWINGS SHALL BE MAINTAINED ON THE JOB SITE AND BE AVAILABLE FOR REVIEW AND REFERENCE BY THE OWNER AT ALL TIMES.
21. WHERE MATERIAL LISTS ARE PROVIDED FOR THE PROJECT, THE LISTS ARE INTENDED TO IDENTIFY CRITICAL ITEMS TO MAINTAIN DESIGN INTEGRITY AS TO LEVEL, CLASS AND QUALITY OF THE MATERIAL. THE LISTS ARE NOT INTENDED TO BE ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND PURCHASE AND INSTALL ALL ADDITIONAL MATERIALS NECESSARY FOR A COMPLETE INSTALLATION OF THE PROJECT INCLUDING CONSUMABLES.

TESTS AND IDENTIFICATION

- 22. CONTRACTOR OR CONTRACTOR'S APPROVED TESTING AGENCY SHALL TEST ALL CIRCUIT ELEMENTS IN ACCORDANCE WITH THE PROJECT SPECIFICATION PRIOR TO ENERGIZATION AND PERFORM ALL PRE-COMMISSIONING AND SYSTEM COMMISSIONING TESTING INCLUDED IN THE PROJECT SPECIFICATION AND AS RECOMMENDED BY MANUFACTURERS. CONTRACTOR SHALL PROVIDE TEST RESULT DOCUMENTATION TO THE OWNER AS REQUIRED IN THE PROJECT SPECIFICATION. ALL COSTS FOR TESTING AND COMMISSIONING SHALL BE INCLUDED IN THE BID PRICE. COMMISSIONING TESTS SHALL INCLUDE ALL NEW EQUIPMENT, ALL EXISTING EQUIPMENT AND CIRCUIT CABLES MODIFIED, RELOCATED OR ALTERED DURING THIS PROJECT, AND ALL CONTROLS AND SOFTWARE PROGRAMS.
23. ACCEPTANCE TESTING SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATION, NETA ATS, AND MANUFACTURER'S REQUIREMENTS. TESTING REQUIRED TO BE PERFORMED BY AN INDEPENDENT TESTING AGENCY ACCEPTABLE TO THE OWNER WHERE REQUIRED IN THE PROJECT DOCUMENTS.
24. CONTRACTOR SHALL PROVIDE AND INSTALL ENGRAVED NAMEPLATES WITH EQUIPMENT ID AND CIRCUIT ID PER SPECIFICATION SECTION 16030 AND IN ACCORDANCE WITH PROJECT DOCUMENTS.
25. CONTRACTOR SHALL PROVIDE AND INSTALL ENGRAVED "DANGER-HIGH VOLTAGE" WARNING SIGNS ON ALL EQUIPMENT LOCATIONS RATED OVER 600V INCLUDED IN PROJECT SCOPE OF WORK INCLUDING BUT NOT LIMITED TO SF6 SWITCHES, OIL SWITCHES, CIRCUIT BREAKERS, SUBSTATIONS, TRANSFORMERS, LOAD INTERRUPTER SWITCHES, (INCLUDING BACK SIDE OF SWITCHGEAR, DOORS), PULLBOXES AND COVERS, BUILDINGS, GATES AND DOORS.
26. PRIOR TO CABLE INSTALLATION AND AFTER INSTALLATION OF ALL NEW CONDUITS, CONTRACTOR SHALL MANUDEL, REMOVE ALL INTERFERENCE TO CABLE INSTALLATION AND CLEAN ALL CONDUITS INCLUDED IN THE PROJECT SCOPE OF WORK AND IN ACCORDANCE WITH PROJECT DOCUMENTS.
27. CONTRACTOR SHALL PROVIDE AND INSTALL 1/4" NYLON FLAT TAPE PULL ROPES WITH FOOTAGE MARKERS IN ALL SPARE CONDUITS IN ACCORDANCE WITH PROJECT DOCUMENTS. CONTRACTOR SHALL IDENTIFY CONDUIT "OTHER END" FOR ALL CONDUITS AT ALL CONDUIT OPENINGS IN MANHOLES, PULLBOXES AND AT EQUIPMENT WITH PERMANENT INDELIBLE MARKER.
28. THE EXISTING SWITCHGEAR CIRCUIT BREAKERS, OIL FILLED TRANSFORMERS, OIL FUSED CUTOUPS AND PLC CABLE MAY CONTAIN OIL, LEAD, ASBESTOS AND OTHER MATERIALS THAT WILL REQUIRE SPECIAL HANDLING AND DISPOSAL. THE CONTRACTOR IS RESPONSIBLE FOR PROPER IDENTIFICATION AND DISPOSAL IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. ALL OIL AND OTHER HAZARDOUS MATERIALS SHALL BE REMOVED FROM APPARATUS AND TRANSFERRED TO DOT APPROVED 55 GALLON DRUMS. AN OIL SAMPLE SHALL BE TAKEN FROM EACH DRUM AND TESTED FOR PCB CONTAMINATION PRIOR TO REMOVAL OF THE DRUMS FROM THE FACILITY. ALL COSTS FOR TESTING AND DISPOSAL OF OIL, CABLE AND EQUIPMENT SHALL BE INCLUDED IN THE CONTRACTORS BID.
29. INSTALLATION OF ELECTRICAL EQUIPMENT SHALL INCLUDE ALL MEASURES NECESSARY FOR COMPLIANCE TO EARTHQUAKE DESIGN CRITERIA TABLE ON THIS DRAWING INCLUDING ANCHOR BOLTS AND CROSS BRACING WHERE REQUIRED. FOLLOW MANUFACTURER'S DETAILS AND INSTRUCTIONS FOR SEISMIC DESIGN CATEGORY LISTED.

EARTHQUAKE DESIGN CRITERIA table with columns: EARTHQUAKE DESIGN, OCCUPANCY CATEGORY, SEISMIC IMPORTANCE FACTOR, SEISMIC DESIGN CATEGORY, LOCATION, SITE COEFFICIENTS, MAPPED SPECTRAL RESPONSE ACCELERATIONS, SPECTRAL RESPONSE COEFFICIENTS.

DEFERRED SUBMITTALS

THE CONTRACTOR SHALL SUBMIT PLANS, DETAILS AND CALCULATIONS FOR ALL DEFERRED ITEMS TO THE ENGINEER OF RECORD, THE OWNER AND THE AUTHORITY HAVING JURISDICTION (AHJ) FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

DEFERRED SUBMITTAL ITEMS LISTED BELOW SHALL BE DESIGNED BY OTHERS. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT MANAGER AND AHJ FOR COMPLIANCE SUBMITTAL APPROVALS.

- 1. DISTRIBUTION SWITCHBOARDS
2. NON-STRUCTURAL ELECTRICAL ELEMENTS PERMANENTLY ATTACHED TO THE STRUCTURE AND THEIR SUPPORTS AND ATTACHMENTS.

CONSTRUCTION SUPERVISION

POJOAQUE PUEBLO SERVICES WILL DIRECT AND CONTROL DEMOLITION, CONSTRUCTION, INSTALLATION SEQUENCE AND SCHEDULE AS WELL AS TEMPORARY POWER REQUIREMENTS.

DEMOLITION

- 1. INFORMATION GIVEN ON THE DRAWINGS ABOUT EXISTING INSTALLATIONS HAS BEEN OBTAINED FROM THE BEST SOURCES AVAILABLE BUT CANNOT BE GUARANTEED ACCURATE IN ALL RESPECTS. VERIFY ALL SUCH INFORMATION BEFORE PROCEEDING WITH ANY NEW WORK THAT MAY BE AFFECTED.
2. CONTRACTOR IS TO REMOVE EXISTING EQUIPMENT AND SYSTEMS AS INDICATED ON THE DRAWINGS.
3. EXCEPT AS SPECIFICALLY INDICATED OTHERWISE, ALL ELECTRICAL MATERIALS AND EQUIPMENT REMOVED FROM THE EXISTING INSTALLATION IN THE COURSE OF PERFORMING THE INDICATED WORK AND NOT TO BE REUSED SHALL BE TREATED AS FOLLOWS:
A. ALL CIRCUIT BREAKERS, PANELS, STARTERS, AND CONTRACTORS COMPLETE WITH MOUNTING ACCESSORY AND RELATED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE.
B. ALL CONDUITS, CONDUCTORS, OUTLET BOXES, FITTINGS AND OTHER ELECTRICAL DEVICES SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE REMOVED FROM THE SITE.
C. ALL OTHER ITEMS REMOVED SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE OR DISPOSED OF AS DIRECTED BY THE OWNER'S REPRESENTATIVE. COORDINATE WITH THE FACILITIES MANAGER.
4. CLEAN ALL REMAINING ITEMS THAT ARE TO BE REUSED OR ARE TO REMAIN. CONDUITS THAT ARE TO BE REUSED SHALL BE CLEANED PRIOR TO INSTALLATION OF NEW CONDUCTORS.
5. CONTRACTOR SHALL PROTECT EXISTING EQUIPMENT AND STRUCTURES NOT INCLUDED IN THE DEMOLITION. ANY DAMAGE TO NEW OR EXISTING EQUIPMENT AND FACILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

EQUIPMENT

- 1. CONTRACTOR SHALL PROVIDE MANUFACTURER'S PRODUCT DATA, SHOP DRAWINGS, CALCULATIONS AND CERTIFICATIONS FOR CLIENT REVIEW PRIOR TO FABRICATION OF THE EQUIPMENT.
2. ALL EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS AND GUIDELINES APPROVED BY THE AUTHORITY HAVING JURISDICTION.
3. INSTALLATION OF THE EQUIPMENT SHALL INCLUDE ALL MEASURES NECESSARY FOR CONFORMANCE TO EARTHQUAKE DESIGN CRITERIA TABLE ON THIS DRAWING INCLUDING ANCHOR BOLTS AND CROSS BRACING WHERE REQUIRED. FOLLOW MANUFACTURER'S DETAILS AND INSTRUCTIONS FOR THE SEISMIC DESIGN CATEGORY LISTED.

SCHEDULE SEQUENCE

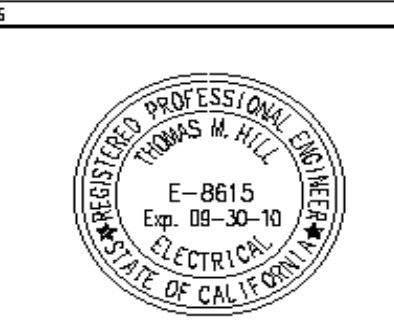
- 1. CONTRACTOR SHALL ARRANGE AND SEQUENCE THE WORK SO AS TO MINIMIZE INTERRUPTION TO BUILDING ELECTRICAL SYSTEMS. POWER OUTAGES SHALL BE SCHEDULED AND MEET THE FOLLOWING CONDITIONS:
A. WITH WRITTEN OWNER PERMIT TWO WEEKS IN ADVANCE OF INTERRUPTION
B. CONTRACTOR PROVIDES WRITTEN STEP-BY-STEP SHUTDOWN AND CUTOVER PROCEDURE APPROVED BY OWNER'S REPRESENTATIVE
C. SHUTDOWN IS SCHEDULED AT OFF-HOURS OR WEEKENDS AS APPROVED BY THE OWNER'S REPRESENTATIVE.
2. FOR OUTAGES LONGER THAN FOUR HOURS, TEMPORARY POWER MAY BE REQUIRED

THE FOLLOWING LIST IS IN ADDITION TO THOSE ABBREVIATIONS DEFINED ON OTHER DRAWINGS

Table with columns: ABBREVIATION, ABBREVIATION, and ABBREVIATION. Lists various electrical symbols and their meanings such as AMPERE, ALTERNATING CURRENT, AMPERES INTERRUPTING CAPACITY, etc.



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REPAIR HVAC BUILDING 1408

As-Built Drawings

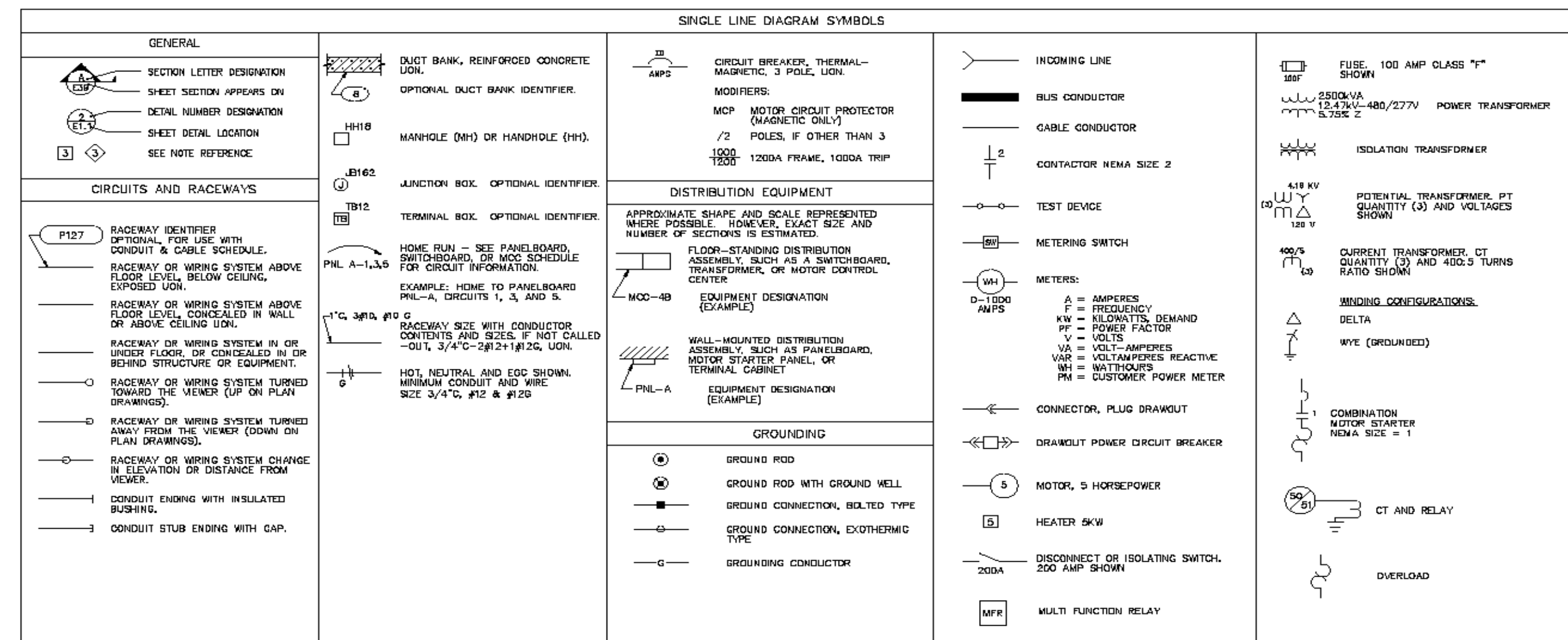


Table with columns: NO., DATE, DESCRIPTION, and DRAWN BY. Lists drawing revisions and details.

NOTES AND LEGEND