

SECTION 16000 - ELECTRICAL REQUIREMENTS

PART 1 - GENERAL

1.1 - SUMMARY

- A. THE ABBREVIATION 'G.C.' SHALL REFER TO THE GENERAL CONTRACTOR IN THESE ELECTRICAL DRAWINGS AND SPECIFICATIONS.
B. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND ALL OTHER SPECIFICATION SECTIONS, APPLY TO THIS AND THE OTHER SECTIONS OF DIVISION 16.
C. THE CONTRACTOR FOR THIS WORK IS REQUIRED TO READ THE SPECIFICATIONS AND REVIEW DRAWINGS FOR ALL DIVISIONS OF WORK AND IS RESPONSIBLE FOR THE COORDINATION OF THEIR WORK AND THE WORK OF THEIR SUBCONTRACTOR'S WITH ALL DIVISIONS OF WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THEIR SUBCONTRACTORS WITH A COMPLETE SET OF BID DOCUMENTS.
D. REFER TO RESPONSIBILITY MATRIX ON THE ELECTRICAL DRAWINGS FOR INFORMATION REGARDING RESPONSIBILITY OF WORK AND ITEMS WHICH MAY AFFECT BID.
E. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LICENSES, PERMITS, INSPECTIONS, AND FEES REQUIRED OR RELATED TO HIS WORK.
F. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE PROVIDED EVEN THOUGH NOT SPECIFICALLY MENTIONED IN BOTH. ANY MATERIAL OR LABOR WHICH IS NEITHER SHOWN ON THE DRAWINGS NOR CALLED FOR IN THE SPECIFICATIONS, AND IS NECESSARY TO COMPLETE THE WORK OF WHICH IS USUALLY INCLUDED IN WORK OF SIMILAR CHARACTER, SHALL BE PROVIDED AS PART OF THE CONTRACT.
G. WHERE THE DRAWINGS OR SPECIFICATIONS CALL FOR ITEMS WHICH EXCEED CODES OR THE LANDLORD'S TENANT CRITERIA, THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE SYSTEM WITH THE MORE STRINGENT REQUIREMENTS AS DESIGNED AND DESCRIBED ON THESE DRAWINGS, UNLESS NOTED OTHERWISE.
H. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE LANDLORD, POWER COMPANY, OWNER, OR THE G.C., SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CLOSELY COORDINATE THE ENTIRE INSTALLATION WITH LANDLORD, POWER COMPANY AND THE G.C.'S CONSTRUCTION MANAGER AS REQUIRED.

1.2 - RELEVANT CODES AND CRITERIA

- A. ALL WORK SHALL BE PERFORMED IN A NEAT AND PROFESSIONAL MANNER AND CONFORM TO THE LATEST ADOPTED EDITION OF THE FOLLOWING:
1) NATIONAL ELECTRICAL CODE
2) STATE CODES
3) LOCAL CODES AND ORDINANCES
4) HEALTH AND SAFETY CODES
5) NFPA
6) UNDERWRITERS LABORATORIES
7) ENERGY CODES
8) LANDLORD'S CRITERIA
9) ALL OTHER APPLICABLE CODES AND REQUIREMENTS
B. CONTRACTOR SHALL INQUIRE INTO AND COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS. CONTRACTOR SHALL INCLUDE ANY CHANGES REQUIRED BY CODES IN THE BID AND IF THESE CHANGES ARE NOT INCLUDED IN THE BID, THEY MUST BE QUALIFIED AS A SEPARATE LINE ITEM IN THE BID. AFTER CONTRACT IS ISSUED, NO ADDITIONAL COST DUE TO CODE ISSUES SHALL BE REIMBURSED BY THE OWNER TO THE CONTRACTOR.
C. UNLESS SPECIFICALLY NOTED OTHERWISE, MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW, UNDERWRITERS LABORATORIES LISTED AND LABELED AND SIZED IN CONFORMITY WITH REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, STATE AND LOCAL CODES, WHICHEVER IS MORE STRINGENT.

1.3 - SUBMITTALS

- A. STRUCTURAL CALCULATIONS AND SHOP DRAWINGS OF POWER STRUT SYSTEMS
1) SUBMIT STRUCTURAL CALCULATIONS FOR STRUT SYSTEM FOR APPROVAL BY THE PROJECT ENGINEER. CALCULATIONS MAY INCLUDE, BUT ARE NOT LIMITED TO:
a. DESCRIPTION OF DESIGN CRITERIA
b. STRESS AND DEFLECTION ANALYSIS
c. SELECTION OF POWERSTRUT FRAMING MEMBERS, FITTING AND ACCESSORIES
d. SEISMIC BRACING
2) SUBMIT ALL SHOP/ASSEMBLY DRAWINGS NECESSARY TO COMPLETELY INSTALL THE STRUT SYSTEM IN COMPLIANCE WITH THE CONTRACT DRAWINGS.
3) SUBMIT ALL PERTINENT MANUFACTURER'S PUBLISHED DATA.
B. RECORD DRAWINGS
1) CONTRACTOR SHALL MAINTAIN ONE COPY OF DRAWINGS ON THE JOB SITE TO RECORD DEVIATIONS FROM CONTRACT DRAWINGS, SUCH AS:
a. LOCATION OF JUNCTION BOXES AND RECEPTACLES
b. REVISIONS, ADDENDUMS, AND CHANGE ORDERS
c. SIGNIFICANT DEVIATIONS MADE NECESSARY BY FIELD CONDITIONS, APPROVED EQUIPMENT SUBSTITUTIONS, AND CONTRACTOR'S COORDINATION WITH OTHER TRADES.
2) AT COMPLETION OF PROJECT AND BEFORE FINAL APPROVAL, THE CONTRACTOR SHALL MAKE ANY FINAL CORRECTIONS TO DRAWINGS AND CERTIFY THE ACCURACY OF EACH PRINT BY SIGNATURE THEREON. ONE COPY OF DRAWINGS STAMPED "NOT TO BE PLACED IN AS-BUILT DRAWING TUBE" SHALL BE REMOVED FROM THE AS-BUILT DRAWING TUBE.
C. DISCREPANCIES IN DOCUMENTS
1) DRAWINGS (PLANS, SPECIFICATIONS AND DETAILS) ARE DIAGNOSTIC AND INDICATE THE GENERAL LOCATION AND INTENT OF ELECTRICAL SYSTEMS WHERE DRAWINGS, EXISTING SITE CONDITIONS, SPECIFICATIONS, OTHER TRADES CONFLICT OR ARE UNCLEAR, ADVISE THE G.C. IN WRITING PRIOR TO SUBMITTAL OF BID. OTHERWISE, THE G.C.'S CONSTRUCTION MANAGER'S INTERPRETATION OF CONTRACT DOCUMENTS OR CONDITIONS SHALL BE FINAL WITH NO ADDITIONAL COMPENSATION PERMITTED.
2) THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SUBJECT TO CHANGE. THE G.C. SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ADDITIONAL COST.
D. SUBSTITUTIONS

WHERE TRADE NAMES AND MANUFACTURERS ARE USED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE EXACT EQUIPMENT SHALL BE USED AS A MINIMUM FOR THE BASE BID. IF PROPOSED SUBSTITUTIONS MUST BE PRE-QUALIFIED, LISTED IN THE CONTRACTOR'S BID AND HAVE A COST SAVINGS OF AT LEAST \$500 PER TYPE OF EQUIPMENT. ONLY MANUFACTURERS CONSIDERED AS AN EQUAL OR BETTER IN ALL ASPECTS TO THAT SPECIFIED WILL BE REVIEWED. ALL SUBSTITUTIONS ARE SUBJECT TO APPROVAL IN WRITING, THROUGH SHOP DRAWINGS PROCESS BY THE G.C.'S CONSTRUCTION MANAGER PRIOR TO ACCEPTANCE. G.C. INC. RESERVES THE RIGHT TO REJECT ANY PROPOSED SUBSTITUTIONS. THE USE OF ANY UNAUTHORIZED EQUIPMENT SHALL BE SUBJECT TO REMOVAL AND

REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

- 2) ELECTRICAL CONTRACTOR SHALL SUBMIT SUBSTITUTION REQUESTS TO THE G.C.'S CONSTRUCTION MANAGER FOR APPROVAL. SUBMISSIONS SHALL BE MADE EARLY ENOUGH IN PROJECT TO ALLOW FOUR (4) WORKING DAYS FOR THE G.C.'S CONSTRUCTION MANAGER'S REVIEW WITHOUT CAUSING DELAYS OR CONFLICTS TO THE JOB'S PROGRESS. SUBMITTALS SHALL BEAR THE STAMP OF THE G.C.'S OFFICE AND SUB-CONTRACTOR SHOWING THAT HE HAS REVIEWED AND CONFIRMED THAT THE SUBMITTALS ARE IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS OR INDICATE WHERE EXCEPTIONS HAVE BEEN TAKEN.

1.4 - QUALITY ASSURANCE

- A. FURNISH TO THE G.C.'S CONSTRUCTION MANAGER ALL CERTIFICATES OF INSPECTION AND FINAL INSPECTION APPROVAL AT COMPLETION OF PROJECT.

1.5 - PROJECT SITE/CONDITIONS

- A. TEMPORARY LIGHT AND POWER
1) CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY WIRING AND RELATED GROUND FAULT INTERRUPTION PROTECTION FOR LIGHT AND POWER FOR ALL CONTRACTORS AND IS RESPONSIBLE FOR ITS REMOVAL.
2) THE G.C. SHALL PAY FOR ALL ELECTRICITY PRIOR TO STORE MERCHANDISING AND INCLUDE COST IN BID.
B. SITE VISIT/INSPECTION
1) CONTRACTOR IS RESPONSIBLE FOR SCHEDULING THE COMPLETION AND INSPECTION OF THIS WORK AND THE WORK OF THIS SUBCONTRACTOR TO COMPLY WITH THE G.C.'S SCHEDULE AND THE PROJECT COMPLETION DATE.
2) CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID TO DETERMINE CONDITIONS AFFECTING THE WORK ANY ITEMS WHICH ARE NOT COVERED IN THE BID DOCUMENTS OR ANY PROPOSED SUBSTITUTIONS SHALL BE LISTED SEPARATELY AND QUALIFIED IN THE CONTRACTOR'S BID. SUBMITTAL OF BID SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS AND ANY MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY IN PERFORMANCE OF WORK.
3) FIELD VERIFY THE EXACT TYPE, SIZE, LOCATION, REQUIREMENTS, ETC. OF EXISTING POWER AND TELEPHONE FACILITIES PRIOR TO SUBMISSION OF BID.

1.6 - WARRANTY

- A. THIS CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORK PROVIDED UNDER HIS CONTRACT AND SHALL MAKE GOOD, REPAIR OR REPLACE AT HIS OWN EXPENSE, ANY DEFECTIVE WORK, MATERIAL, OR EQUIPMENT WHICH MAY BE DISCOVERED WITHIN A PERIOD OF 12 MONTHS FROM THE DATE OF ACCEPTANCE (IN WRITING) OF THE INSTALLATION BY THE G.C.'S CONSTRUCTION MANAGER/ENGINEERING MANAGER. EXTENDED WARRANTIES ARE SPECIFIED WITH INDIVIDUAL EQUIPMENT.
B. THE OWNER SHALL PROVIDE A COMPLETE 12-MONTH WARRANTY FOR ALL PARTS ON EQUIPMENT PROVIDED BY THE OWNER AND ITS VENDORS. CONTRACTOR SHALL NOT BEAR ADDITIONAL WARRANTIES BEYOND A COMPLETE WORKING SYSTEM, AND AS SUCH, NO ADDITIONAL MONIES SHOULD BE INCLUDED IN THE BID.

PART 2 - PRODUCTS

2.1 - EQUIPMENT

- A. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, INCIDENTALS AND DETAILS NECESSARY TO PROVIDE COMPLETE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS.
B. FURNISH AND INSTALL EQUIPMENT THAT IS RATED FOR AVAILABLE FAULT CURRENT LEVELS.
C. FURNISH AND INSTALL "CABLE LIMITERS" IF NECESSARY TO LIMIT FAULT CURRENT.

PART 3 - EXECUTION

3.1 - PHASING REQUIREMENTS

- A. FOR ANY PHASED STORE CONSTRUCTION, THIS CONTRACTOR IS TO INCLUDE IN HIS BID ALL NECESSARY ELECTRICAL SERVICE CHANGES REQUIRED TO KEEP THE OPERATING PHASE OF THE STORE'S ELECTRICAL SERVICE IN OPERATION. CONTRACTOR MUST SCHEDULE WITH THE G.C.'S CONSTRUCTION MANAGER AND LANDLORD (A) WIRING ONE WEEK PRIOR TO ANY SHUT DOWN OF THE POS, CASH REGISTERS, ELECTRICAL TELEPHONE OR FIRE ALARM SYSTEMS. ADVISE THE G.C. AT TIME OF BID IF ANY CONFLICTS EXIST.

3.2 - DEMOLITION

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE DEMOLITION OF EXISTING WORK AND THE DEMOLITION PROVIDED BY THE G.C. COORDINATE WITH THE G.C. ANY EXISTING EQUIPMENT REQUIRED TO BE LEFT INTACT.
B. CONTRACTOR SHALL VERIFY SCOPE OF WORK WITH THE G.C. FOR THE REMOVAL OF ALL EXISTING PONDING, FIRE ALARM SYSTEM, SWITCHGEAR, PITCH POCKETS AND EQUIPMENT ETC. UNLESS CONTRACTOR MEET WITH THE LANDLORD AND THE G.C. TO VERIFY THE LANDLORD APPROVED ABANDONED EQUIPMENT, CONDUIT AND SWITCHGEAR PRIOR TO REMOVAL. PITCH POCKETS SHALL BE REMOVED AND THE ROOF PATCHED, AS REQUIRED BY THE LANDLORD. ALL EXISTING ITEMS IN THE SPACE OR ON THE ROOF NOT APPLICABLE TO THE NEW WORK MUST BE REMOVED AND ROOF/WALL/FLOOR PATCHED/REPAIRED TO LIKE NEW CONDITION. EXISTING ABANDONED CONDUIT OR EQUIPMENT IN THE FLOOR, EMBEDDED IN CONCRETE, OR OTHERWISE INACCESSIBLE, ARE TO BE CUT OFF AND SEALED BELOW OR WITH FLOOR OR WALL LEVEL WHEN THEY ARE NOT TO BE REUSED IN THIS PROJECT. IF REQUIRED BY LANDLORD OR CODES, ABANDONED CONDUIT MUST BE REMOVED TO POINT OF ORIGIN. CONFIRM EXTENT OF DEMOLITION WITH THE G.C. PRIOR TO BID AND INCLUDE COSTS IN BID AS DIRECTED BY THE G.C.

3.3 - SLEEVES

- A. THIS CONTRACTOR SHALL PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH ITS RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND 4" ABOVE THE FLOOR.
B. ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS AND/OR FLOORS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL, SO AS TO RETAIN THEIR FIRE RATING.
C. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS AND PARTITIONS SHALL BE STANDARD WEIGHT STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS, THROUGH SUSPENDED CEILINGS, OR FOR CONCEALED VERTICAL CONDUIT, SLEEVES SHALL BE NO 22 U.S.G GALVANIZED STEEL MINIMUM.

3.4 - HANGERS

- A. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS ANGLE IRON, WIRE, UNISTRUT, C-CLAMPS WITH RETAINING CLIPS, CHANNELS, HANGER RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK.
B. HANGERS SHALL BE FASTENED TO BUILDING STEEL, CONCRETE, OR MASONRY, BUT NOT TO OTHER CONDUIT OR PIPING. HANGERS UPPER ATTACHMENT MUST BE SUPPORTED FROM THE TOP OF THE BAR JOIST. HANGING FROM METAL DECK IS NOT PERMITTED. WHERE INTERFERENCES OCCUR, IN ORDER TO SUPPORT CONDUIT, THE CONTRACTOR MUST INSTALL

TRAPEZE TYPE HANGERS OR SUPPORTS WHICH SHALL BE LOCATED WHERE THEY DO NOT INTERFERE WITH ACCESS TO FIRE DAMPERS, VALVES, JUNCTION BOXES, ACCESS DOORS, OTHER EQUIPMENT SERVICE REQUIREMENTS AND/OR OTHER TRADES. HANGER TYPES AND INSTALLATION METHODS ARE SUBJECT TO LANDLORD CRITERIA.

END OF SECTION 16000

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 - SUMMARY

- A. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS, TRANSPORTATION, AND FACILITIES NECESSARY FOR, REASONABLY IMPLIED AND INCIDENTAL TO, THE FURNISHING, INSTALLATION, COMPLETION AND TESTING OF ALL THE WORK FOR THE ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS, CALLED FOR IN THE SPECIFICATIONS, AND AS REQUIRED BY JOB CONDITIONS, TO INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
1) A COMPLETE ELECTRICAL DISTRIBUTION SYSTEM INCLUDING THE INSTALLATION OF OWNER PROVIDED PANELBOARDS, SAFETY AND DISCONNECT SWITCHES, MOTOR STARTERS, LIGHTING CONTRACTORS, LIGHTING AND TRANSFORMERS. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO INCLUDE IN HIS BID FOR PROVIDING SERVICE EQUIPMENT NECESSARY FOR TIE-IN TO LANDLORD'S DISTRIBUTION EQUIPMENT OR TO OBTAIN SERVICE FROM LOCAL UTILITY COMPANY.
B. ALL POWERSTRUT METAL FRAMING MATERIAL, FITTING AND SPECIFIED, RELATED ACCESSORIES (STRUT SYSTEM) AS INDICATED ON THE CONTRACT DRAWINGS PROVIDE ALL LABOR, SUPERVISION, ENGINEERING, AND FABRICATION REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL DISTRIBUTION SYSTEM AND ITS SUPPORT AND INFRASTRUCTURE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
C. CONTRACTOR MUST ALSO INCLUDE IN BID ALL NECESSARY MATERIALS REQUIRED TO COMPLETE THE SYSTEM INCLUDING, BUT NOT LIMITED TO, FEEDERS, BRANCH CIRCUITS, JUNCTION BOXES, OUTLET BOXES, WIRING DEVICES, COVERPLATES, CONDUITS, ETC.
D. METERING AND CURRENT TRANSFORMERS AS REQUIRED BY DRAWINGS, THE OWNER'S COMPANY, AND/OR LANDLORD.
E. THE WIRING OF MECHANICAL EQUIPMENT AS OUTLINED ON THE BID SET DRAWINGS AND IN THE SPECIFICATIONS. WORK SHALL INCLUDE WIRING OF ALL STARTERS, DISCONNECTS, AND POWER WIRING OF MECHANICAL EQUIPMENT EXCEPT AS SPECIFICALLY NOTED OTHERWISE.
F. INSTALLATION OF LIGHT FIXTURES AND LAMPS AS SHOWN ON THE DRAWINGS INCLUDING ALL DEVICES, EQUIPMENT, ETC. REQUIRED FOR MOUNTING.
G. A COMPLETE CONDUIT SYSTEM FOR TELEPHONE/DATA INCLUDING TERMINAL BOARD, BRANCH CONDUITS, OUTLET BOXES, PULL WIRES, GROUND CONDUCTORS, COVER PLATES, ETC. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.
H. A COMPLETE EMERGENCY AND EXIT LIGHTING SYSTEM AS SHOWN ON THE DRAWINGS.
I. TEMPORARY SERVICES AS INDICATED IN THE SPECIFICATIONS INCLUDING ITS REMOVAL.
J. FINAL CONNECTIONS TO SIGNALS, COMMERCIAL LIGHTING, CASE LIGHTING, ETC AS SHOWN ON DRAWINGS.
K. INSTALLATION AND WIRING OF AMPLIFIERS, CONDUIT AND FINAL CONNECTIONS FOR AUDIO SYSTEM AS SHOWN ON DRAWINGS.
L. SMOKE AND ALARM WIRING, DEVICES AND CONDUIT, AS SHOWN OR DESCRIBED ON DRAWINGS. THIS IS NECESSARY TO MEET LANDLORD, STATE, LOCAL, INSURANCE AND FIRE DEPARTMENT REQUIREMENTS.
M. INSTALLATION OF CONDUITS STUBBED TO ABOVE CEILING FOR HVAC/LIGHTING CONTROL PANELS. ALSO, ANY ADDITIONAL CONDUIT FOR HVAC CONTROL EQUIPMENT WHERE PLENUM RATED CABLES ARE NOT PERMITTED.
N. WORK NOT INCLUDED:
1) THE FOLLOWING ITEMS OF ELECTRICAL CONSTRUCTION ARE NOT INCLUDED IN THIS CONTRACT:
a. 24 VOLT TEMPERATURE CONTROL WIRING UNLESS NOTED OTHERWISE.
b. TELEPHONE INSTRUMENTS AND WIRING UNLESS NOTED OTHERWISE.
c. DATA LINES WIRING UNLESS NOTED OTHERWISE.
D. BEFORE STARTING WORK, CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, FIRE PROTECTION, MECHANICAL AND PLUMBING PLANS, SHOP DRAWINGS AND SPECIFICATIONS TO SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF THE ELECTRICAL SYSTEM, MATERIALS AND EQUIPMENT WITH OTHER CONTRACTORS TO AVOID INTERFERENCES AND CONFRONTATIONS.

1.2 - RELEVANT CODES AND CRITERIA

- A. WORK SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS:
1) NATIONAL ELECTRICAL CODE
2) STATE CODES
3) LOCAL CODES AND ORDINANCES
4) HEALTH AND SAFETY CODES
5) NFPA
6) UNDERWRITERS LABORATORIES
7) ENERGY CODES
8) LANDLORD'S CRITERIA
9) ALL OTHER APPLICABLE CODES AND REQUIREMENTS
10) AMERICAN IRON AND STEEL INSTITUTE (AISI)
11) AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

1.3 - SUBMITTALS

- A. REFER TO SPECIFICATION SECTION 16000.

1.4 - QUALITY ASSURANCE

- A. ELECTRICAL COMPONENTRY
1) ALL MATERIAL IS TO BE DELIVERED TO THE WORK SITE IN ORIGINAL FACTORY PACKAGING TO AVOID DAMAGE TO THE FINISH.
2) UPON DELIVERY TO THE WORK SITE, ALL COMPONENTS SHALL BE PROTECTED FROM THE ELEMENTS BY A SHELTER OR OTHER COVERING.
B. POWER STRUT SYSTEM
1) INSTALLER'S QUALIFICATIONS:
a. INSTALLER MUST BE POWERSTRUT/UNISTRUT/B-LINE/SUPERSTRUT/VERSABAR REPRESENTATIVE/INSTALLER WITH NOT LESS THAN 5 YEARS EXPERIENCE IN THE INSTALLATION OF STRUT SYSTEMS.
b. ALL STRUT SYSTEM COMPONENTS MUST BE SUPPLIED BY A SINGLE MANUFACTURER.

1.5 - PROJECT SITE/CONDITIONS

- A. REFER TO SPECIFICATION SECTION 16000.

1.6 - WARRANTY

- A. ELECTRICAL COMPONENTRY
1) REFER TO SPECIFICATION SECTION 16000.
B. POWER STRUT SYSTEM
1) SEPARATE GUARANTEES SHALL BE ISSUED FROM THE ERECTOR AND MANUFACTURER, VALID FOR A PERIOD OF 1 CALENDAR YEAR, AGAINST ANY DEFECTS THAT MAY ARISE FROM THE INSTALLATION OR MANUFACTURE OF THE STRUT SYSTEM COMPONENTS.

PART 2 - PRODUCTS

2.1 - MANUFACTURERS

- A. WIRING
1) WIRE CONNECTORS:
a. WIRE CONNECTORS SHALL BE "SCOTCH LOCK" FOR #8 AWG WIRE AND SMALLER AND SHALL BE T & B "RIGHT" #6 AND LARGER.
B. WIRING DEVICES
1) SINGLE POLE SWITCHES: 20AMP - 120-277V: HUBBELL "HBL-1221"
2) THREE WAY SWITCHES: 20AMP - 120-277V: HUBBELL "HBL-1223"
3) DUPLEX RECEPTACLES: 20AMP - 125V: HUBBELL CR20BLKTR, CR20GRYTR, CR20WHTR
4) ISOLATED GROUND RECEPTACLES: 20AMP - 125V: HUBBELL CR20BLKTR, CR20GRYTR, CR20WHTR
5) GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLES: 20AMP - 125V: HUBBELL "GF5352"
C. DEVICE COVERPLATES
1) PASS AND SEYMOUR SERIES "TP" BY EAGLE ELECTRIC MFG.CO. EXCEPT FOR THE FOLLOWING BRANDS:
a. OLD NAVY: HUBBELL S SERIES OR PASS AND SEYMOUR SL SERIES, STAINLESS STEEL (AS INDICATED ON DRAWINGS).
D. SAFETY AND DISCONNECT SWITCHES
1) GENERAL ELECTRIC CR101/CR1062 MANUAL MOTOR STARTERS, LESS OVERLOAD PROTECTION HEATERS, ARE TO BE USED AS A DISCONNECTING MEANS ONLY WHERE INDICATED ON DRAWINGS FOR FRACTIONAL HORSEPOWER MOTORS ABOVE 1-1/2 HP AT 120 VOLTS AND 2 HP AT 240 VOLTS THAT DO NOT REQUIRE AUXILIARY CONTROL.
2) MOTORS THAT ARE BELOW THE 1-1/2 HP AT 120 VOLTS, 2 HP AT 240 VOLTS, WATER HEATER AND ROLLING GRILLE ARE TO BE PROVIDED WITH HUBBELL "HBL-1221, OR 1222" AC SWITCH.
E. MOTOR STARTERS
1) GENERAL ELECTRIC.
F. GROUNDING CLAMPS
1) PENN-UNION "GPL" TYPE.
G. DRY TYPE TRANSFORMERS
1) GENERAL ELECTRIC.
H. PANELBOARDS
1) GENERAL ELECTRIC.
I. FIRE ALARM CONTROL PANEL
1) SILENT KNIGHT INTELLIKNIGHT 580B (NOT ALLOWED IN NEW YORK CITY).
2) FIRELITE MS-9200 SERIES.
J. POWER STRUT SYSTEM
1) POWERSTRUT, B-LINE, VERABAR, OR UNISTRUT.

2.2 - EQUIPMENT

- A. CONDUIT
1) CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUITS SERVING ALL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, LIGHTING, RECEPTACLES, HEATING, AIR CONDITIONING, PLUMBING EQUIPMENT, TELEPHONE, DATA, SPEAKERS, AND ELECTRICAL EQUIPMENT.
2) ALL CONDUITS SHALL BE GALVANIZED IMC OR EMT UNLESS OTHERWISE SPECIFIED IN SPECIFICATIONS OR ON DRAWINGS. ALL CONDUIT IS TO BE UL LABELED, EMT CONNECTORS SHALL BE STEEL COMPRESSION OR SET SCREW TYPE. CONDUIT UNDER SLAB ON GRADE SHALL BE RIGID STEEL, OR SCHEDULE 40 PVC WITH RIGID STEEL ELLS WHERE PERMITTED BY LANDLORD OR CODE.
3) MINIMUM SIZE OF CONDUIT SHALL BE 1/2" (IF ACCEPTABLE BY THE LANDLORD AND LOCAL CODE OFFICIALS) AND 3/4" FOR ALL IN/UNDER FLOOR CONDUIT.
4) CONDUIT SHALL BE CONCEALED EXCEPT FOR UNFINISHED AREAS, SUCH AS EQUIPMENT ROOMS. EXPOSED CONDUIT SHALL BE ALLOWED ONLY AS NOTED ON PLAN AND AS APPROVED BY THE G.C.'S CONSTRUCTION MANAGER. PAINTING OF CONDUITS, NOTED ON DRAWINGS OR SPECIFICATIONS WILL BE BY THE G.C.
5) SUPPORT ALL CONDUIT, INCLUDING SEISMIC AND SWAY BRACING, IN ACCORDANCE WITH THE NEC AND LOCAL CODES.
6) ALL CONDUITS MUST BE SIZED PER NEC AND LOCAL CODES.
B. OUTLET BOXES
1) ALL OUTLET BOXES SHALL BE GALVANIZED PRESSED STEEL OF THE STANDARD KNOCKOUT TYPE. NO ROUND OUTLET BOXES SHALL BE PERMITTED, EXCEPT AS SPECIFICALLY NOTED ON DRAWINGS. CONCEALED BOXES SHALL NOT BE LESS THAN 4" SQUARE AND 1-1/2" DEEP, WITH PLASTER RINGS.
2) ALL KNOCKOUT BOXES, UPON WHICH LIGHTING FIXTURES ARE TO BE INSTALLED, SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS.
3) EXTERIOR BOXES SHALL BE CAST RUST-RESISTING METAL WITH GASKETED COVERS.
4) INSTALL BOXES RIGIDLY FROM BUILDING STRUCTURE AND SUPPORT INDEPENDENTLY OF THE CONDUIT SYSTEM. ALSO PROVIDE SUITABLE BOX EXTENSIONS TO EXTEND BOXES TO FINISHED FACES OF FLOORS, CEILINGS, WALLS, ETC. ALL OUTLET BOXES SHALL BE PROVIDED WITH CADDY "QUICK-MOUNT BOX SUPPORT" TO MINIMIZE THE DEFLECTION THAT OCCURS WHEN PLUGGING/UNPLUGGING INTO THESE DEVICES.

NEW STORE

OLD NAVY

G.P.I.N.C. CORPORATION ARCHITECTURE HARRISBURG STREET SAN FRANCISCO, CA 94105

REPS. ID: 000054156

STORE NUMBER: 4458 STORE LOCATION: VINELAND VINELAND AVENUE 8231 VINELAND AVENUE SUITE 2151 ORLANDO, FLORIDA 32821

DESIGN TYPE: P3 GENERATION: 17Q12 PROTOTYPE DATE: 07/18/16 OPENING: 2017

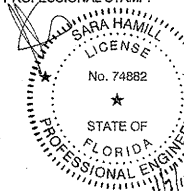
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State of Registration: FLORIDA Firm Registration No. 26645 EEA Project No. 20160949

PROFESSIONAL STAMP:



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