

ELECTRICAL SPECIFICATIONS		
PART 1 - GENERAL		
1.01	COORDINATION OF TRADES: SCHEDULE AND COORDINATE WORK WITH THAT OF OTHER DIVISIONS AND SECTIONS.	
1.02	GUARANTEE IN WRITING THE ELECTRICAL INSTALLATION, AND ALL WORK UNDER THIS SECTION, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER AGAINST ALL EVIDENCE OF IMPERFECT WORKMANSHIP OR FAILURE OR MALFUNCTION OF MATERIALS.	
PART 2 - PRODUCTS		
2.01	MATERIALS AND EQUIPMENT	
A.	MATERIAL FURNISHED UNDER THIS CONTRACT, UNLESS OTHERWISE NOTED, SHALL BE NEW, FREE FROM DEFECTS AND SHALL CONFORM WITH THE STANDARDS OF UL.	
B.	VOLTAGE, AMPERE, AND OTHER RATINGS OF EQUIPMENT SHALL BE SUITABLE FOR USE INTENDED. DISCONNECT SWITCHES SHALL BE PROPERLY HORSEPOWER RATED AND SUITABLE FOR VOLTAGE AND AMPERE RATING OF LOAD.	
C.	THE DRAWINGS GENERALLY INDICATES THE RACEWAY SIZE, THE NUMBER, SIZE, AND INSULATION TYPE OF CONDUCTORS TO BE PROVIDED AND INSTALLED. WHERE THESE ITEMS DO NOT MEET MINIMUM APPLICABLE CODES, FOR EQUIPMENT BEING SERVED, COMPLY AS REQUIRED AT NO ADDITIONAL COST.	
2.02	RACEWAYS	
A.	GALVANIZED RIGID CONDUIT (GRC); INCLUDING ELBOWS AND COUPLINGS.	
B.	INTERMEDIATE METAL CONDUIT (IMC); INCLUDING ELBOWS AND COUPLINGS.	
C.	ELECTRIC METALLIC TUBING (EMT) WITH FITTINGS OF PRESSED STEEL OR MALLEABLE IRON, COMPRESSION TYPE (IN WET AREAS ONLY) WITH INSULATED THROATS.	
D.	RIGID NON-METALLIC CONDUIT: (PVC) U.L. LABELED SCHEDULE 40 P.V.C.	
2.03	DEVICE AND JUNCTION BOXES: INCLUDE PLASTER RINGS, COVERS, AND KO SEALS AS REQUIRED.	
2.04	WIRE AND CABLE: UNLESS OTHERWISE NOTED, WIRE AND CABLE SHALL BE SOFT DRAWN, ANNEALED COPPER, WIRE SIZES NO. 8 AND LARGER AND CONDUCTORS SERVING MOTORS AND SUBJECT TO VIBRATIONS SHALL BE STRANDED CABLE. INSULATION TO BE THWN/THHN, JACKETED 90C INSULATED WIRE. PROVIDE WIRE COLOR IDENTIFICATION: NEUTRAL WIRE - WHITE, LIVE WIRE - BLACK, RED, BLUE ON 120/208 VOLT SYSTEM; NEUTRAL WIRE - GREY, LIVE WIRE - BROWN, ORANGE YELLOW ON 277/480 VOLT SYSTEM; GROUND - GREEN.	
2.05	ADDED PANELS TO BE PANELBOARDS - LOAD CENTERS ARE NOT ACCEPTABLE UNLESS SPECIFICALLY APPROVED.	
2.06	SERVICE ENTRANCE AND DISTRIBUTION GEAR BY G.E., SQUARE "D" OR CUTLER HAMMER OR SIEMENS ONLY. INTERIOR PANELBOARDS SHALL BE RECESSED WITH FLANGE/REMOVABLE SCREW-ON COVER. SURFACE MOUNTED PANELBOARDS OR HINGED/FLUSH COVERS ARE NOT ALLOWED.	
2.11	SWITCHBOARDS: COPPER BUSSING WITH FULL CAPACITY NEUTRAL.	
2.12	120/208 VOLT AND 277/480 VOLT PANELBOARDS: 3 PHASE, 4 WIRE, COPPER BUS, COMPOSED OF AN ASSEMBLY OF BOLT-IN-PLACE MOLDED CASE CIRCUIT BREAKERS WITH THERMAL AND MAGNETIC TRIP AND TRIP FREE POSITION SEPARATE FROM EITHER ON OR OFF POSITIONS.	
2.13	SAFETY SWITCHES: FUSED, HEAVY DUTY, HORSEPOWER RATED.	
2.14	STARTERS, CONTACTORS AND CONTROL DEVICES: PROVIDE AS SHOWN AND AS REQUIRED BY CODE. FURNISH COMPLETE WITH PILOT LIGHTS, AUXILIARY CONTACTS, PUSH BUTTONS, HAND-OFF-OFF SWITCHES, CONTROL DEVICES, AND OVERLOAD RELAYS. THERMAL OVERLOADS TO BE SIZED PER MANUFACTURERS RECOMMENDATIONS. AMBIENTLY COMPENSATE ALL HEATERS EXPOSED TO HIGH TEMPERATURE OR INSTALLED OUTSIDE AS NEEDED.	
2.16	NAMEPLATES: PROVIDE BLACK LAMCROID NAMEPLATES WITH 3/16" HIGH WHITE ENGRAVED LETTERS ON PANELS, SWITCHBOARDS, MAINS AND SUBMAINS, DISTRIBUTION EQUIPMENT, REMOTE SAFETY SWITCHES, CIRCUIT BREAKERS, TIME SWITCHES, CONTACTORS, AND STARTERS. EACH DISCONNECTING MEANS SHALL BE LEGIBLY MARKED TO INDICATE ITS PURPOSE UNLESS LOCATION AND ARRANGED SO THE PURPOSE IS EVIDENT. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED, AS PER ARTICLE 110.22 (A) 2017 NEC.	
2.17	WIRING DEVICES	
A.	HUBBELL OR COMPARABLE LEVITON OR BRYANT: WHITE AND GREY IN COLOR - AS NOTED ON DRAWINGS OR PER ARCHITECT. 15 AMP DEVICES ALLOWED ONLY WHEN SPECIFICALLY DENOTED ON ELECTRICAL CONSTRUCTION DRAWINGS.	
B.	TOGGLE SWITCHES: SINGLE POLE - HUBBELL 1221-20A, 120/277V, THREE WAY - HUBBELL 1223-20A, 120/277V, FOUR WAY - HUBBELL 1224-20A, 120/277V.	
C.	RECEPTACLES: DUPLEX GROUNDING TYPE, SPECIFICATION GRADE, 125 VOLT, 20 AMPERES, SINGLE PHASE, HUBBELL NO. 5262 OR COMPARABLE.	
D.	GROUND FAULT INTERRUPTER TYPE RECEPTACLE: DUPLEX GROUNDING TYPE, SPECIFICATION GRADE, 125 VOLT, 20 AMPERES, SINGLE PHASE, 5 ma GROUND TRIP, FEED THROUGH CONSTRUCTION.	
2.18	DEVICE PLATES: LEXAN (STA-KLEEN), SMOOTH FINISH IN STAINLESS STEEL - AS NOTED ON PLANS. MULTI-GANG OUTLET PLATES SHALL BE USED FOR MULTI-GANG BOXES.	
2.19	NOT USED.	
2.20	LIGHTING FIXTURES	
A.	ALL INTERIOR / BUILDING MOUNTED LIGHTING PROVIDED BY PX AND INSTALLED BY E.C.	
B.	ALL EXTERIOR SITE LIGHTING IS PROVIDED AND INSTALLED BY E.C.	
PART 3 - EXECUTION		
3.01	GENERAL INSTALLATION	
A.	THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN A NEAT, APPROVED, FINISHED, AND SAFE MANNER.	
B.	INSPECT AND MAKE TIGHT ALL CONNECTIONS FOR ALL EQUIPMENT, INCLUDING FACTORY CONNECTIONS. TORQUE ALL CONNECTIONS PER MANUFACTURER'S RECOMMENDATIONS.	
C.	LIGHTING FIXTURES INSTALLED AND USED FOR LIGHTING DURING CONSTRUCTION SHALL BE RELAMPED WITH NEW LAMPS JUST PRIOR TO FINAL COMPLETION OF THE PROJECT.	
D.	INSTALL SEISMIC RESTRAINT DEVICES FOR ALL CEILING MOUNTED EQUIPMENT, I.E. LAY-IN FIXTURES. PROVIDE GRID CLIPS AND #12 SLACK WIRES FROM FIXTURE CORNERS TO STRUCTURE.	
E.	ALL DISCONNECT SWITCHES SHALL BE LOCATED WITHIN ACCESSIBLE HEIGHTS.	
3.02	RACEWAYS	
A.	INSTALL COMPLETE RACEWAY SYSTEMS FOR ALL ELECTRICAL CONDUCTORS INCLUDING TELEPHONE, SIGNAL, CONTROL, AND OTHER SYSTEMS.	
B.	UNLESS OTHERWISE NOTED, INSTALL ALL RACEWAYS CONCEALED. WHERE IT IS NOT FEASIBLE TO CONCEAL RACEWAYS, INSTALL AS DIRECTED BY ARCHITECT.	
C.	INSTALL EXPOSED RACEWAYS TO RUN PARALLEL OR AT RIGHT ANGLES TO STRUCTURAL BUILDING LINES WITH NEAT BENDS AND NEATLY OFFSET INTO TERMINATIONS.	
D.	IN EMPTY RACEWAY PROVIDE AND INSTALL A NO. 14 NYLON DRAG LINE.	
E.	INSTALL RACEWAYS WITH APPROVED HEAVY DUTY SUPPORTS, STRAPS, HANGERS, CONNECTORS, AND COUPLINGS AS REQUIRED TO MAINTAIN AN APPROVED INSTALLATION.	
F.	NOT USED.	
H.	MINIMUM CONDUIT SIZE TO BE 3/4" U.N.O.	
3.03	GALVANIZED RIGID CONDUIT (GRC): ALL RACEWAYS SHALL BE GRC EXCEPT AS NOTED. CONDUIT, ELBOWS, AND STANDARD COUPLINGS SHALL BE HOT DIPPED GALVANIZED RIGID STEEL. IF PARTITIONS OR WALLS ARE SOLID CONCRETE OR ARE GROUTED SOLID WITH CONCRETE OR MORTAR, RIGID STEEL CONDUIT SHALL BE USED.	
3.04	INTERMEDIATE METAL CONDUIT (IMC): USE RACEWAY AND APPROVED FITTINGS WHERE PERMITTED BY APPLICABLE CODES AND REGULATIONS. MAY BE USED IN LIEU OF RIGID STEEL CONDUIT, WHERE INSTALLED ABOVE FINISH GRADE AND ABOVE CONCRETE SLABS ON GRADE.	
3.05	ELECTRIC METALLIC TUBING (EMT): EMT MAY BE USED WHERE CONCEALED IN AREAS ABOVE CEILINGS, FURRED SPACES, PARTITIONS OR WALLS. ALSO MAY BE EXPOSED, WHEN NOT IN HAZARDOUS AREAS, AREAS SUBJECT TO PHYSICAL DAMAGE, OR WHEN DIRECTLY EXPOSED TO RAIN OR WASH-DOWN.	
3.06	FLEXIBLE METAL CONDUIT (FLEX): USE FLEXIBLE CONDUITS FOR CONNECTIONS TO MOTORS, WHERE SUBJECT TO MOVEMENT OR VIBRATION, AND LIQUID TIGHT WHERE EXPOSED TO MOISTURE OR OIL.	
3.07	RIGID NONMETALLIC CONDUIT (PVC) SCHEDULE 40 MAY BE INSTALLED FOR DIRECT BURIAL RACEWAYS WHERE INSTALLED WITH MINIMUM COVERAGE PER NEC TABLE 300.5. ALL UNDERGROUND BENDS SHALL BE GRC.	
3.08	OUTLET, PULL AND JUNCTION BOXES	
A.		

GENERAL NOTES

1. THE ELECTRICAL DRAWINGS, SPECIFICATIONS AND GENERAL NOTES DESCRIBE THE SCOPE OF WORK AND THE DOCUMENTS SHALL BE USED FOR THE PURPOSE OF BIDDING, BUILDING DEPARTMENT REVIEW, AND TO SECURE THE NECESSARY CONSTRUCTION PERMIT ONLY.

2. BRANCH CIRCUITING AND WIRE COUNT MAY NOT BE INDICATED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE TO COMPLETE THE BRANCH CIRCUIT WIRING IN ACCORDANCE WITH PLAN NOTES AND AS PERMITTED BY AUTHORITY. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS AS A PART OF RECORD DRAWING SUBMITTAL TO ARCHITECT AND AUTHORITY HAVING JURISDICTION (AHJ).

3. ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH BOTH THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL ORDINANCES / AMENDMENTS. WHERE CONFLICTS ARISE, THE MOST STRINGENT REQUIREMENT SHALL TAKE PRECEDENCE.

4. ALL ELECTRICAL EQUIPMENT SHOWN IS NEW, CONTRACTOR FURNISHED AND INSTALLED, UNLESS OTHERWISE NOTED. IF CONTRACTOR PROPOSES TO SUBSTITUTE SPECIFIC EQUIPMENT SPECIFIED, A REQUEST FOR CONSIDERATION SHALL BE SUBMITTED TO THE OWNER AND ENGINEER PRIOR TO THE BID IN WRITING. ALL SUBSTITUTIONS MUST BE REVIEWED BY THE ENGINEER. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTIONS WILL BE IMPLEMENTED WITHOUT THE APPROVAL OF THE ENGINEER OR RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE, AT HIS OWN EXPENSE, FOR ANY CHANGE RESULTING FROM HIS PROPOSED SUBSTITUTIONS WHICH AFFECT OTHER PARTS OF HIS OWN WORK, OR SUBSTITUTIONS WHICH AFFECT THE WORK OF OTHER CONTRACTORS.

5. THE ELECTRICAL DRAWINGS, CONDUIT RUNS, WIRING AND ELECTRICAL INFORMATION ARE DIAGRAMMATIC ONLY. DO NOT SCALE THE ELECTRICAL DRAWINGS TO DETERMINE THE EXACT LOCATION OF EQUIPMENT OR OUTLETS. COORDINATE WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.

6. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL LIGHTING FIXTURES, CEILING MOUNTED OUTLETS AND EQUIPMENT.

7. ALL DEVICE MOUNTING HEIGHTS AND EXACT LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND ELEVATIONS PRIOR TO ROUGH-IN. MOUNTING HEIGHT SHALL BE MEASURED FROM FINISH FLOOR TO THE CENTERLINE OF ALL ELECTRICAL DEVICES OR OUTLETS.

8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY TYPES OF CEILING SYSTEM. FIXTURES LOCATED IN DAMP OR WET LOCATIONS SHALL BE LISTED AND LABELED FOR USE IN SUCH LOCATIONS. CONTRACTOR SHALL PROVIDE ALL REQUIRED TRIMS AND HARDWARE TO ACCOMMODATE CEILING TYPE.

9. ALL RECESSED LIGHTING FIXTURES, PANELBOARDS, SWITCHES, ETC., MOUNTED IN FIRE RATED STRUCTURES SHALL BE ENCLOSED WITH AN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATING AS THE STRUCTURE. SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS, FLOORS, ETC. TO MAINTAIN THE FIRE RATING. FURNISH AND INSTALL FIRE RATED ENCLOSURE FOR ALL EQUIPMENT PENETRATING INTO FIRE RATED ENVELOPS, SPACES ETC.

10. PORTIONS OF THE CEILING SYSTEMS MAY BE INACCESSIBLE, THEREFORE, THE CONTRACTOR SHALL STRATEGICALLY LOCATE ACCESS BOXES, ETC., WHICH SHALL BE READILY ACCESSIBLE. ALL LIGHTING FIXTURE WIRING, BALLASTS, J-BOXES, ETC. SHALL BE ACCESSIBLE FROM FIXTURE OPENING.

11. ALL WIRING AND ELECTRICAL EQUIPMENT SERVING MECHANICAL AND PLUMBING EQUIPMENT SHALL BE IN ACCORDANCE WITH MECHANICAL AND PLUMBING SPECIFICATIONS AND ASSOCIATED DRAWINGS. CONTRACTOR SHALL OBTAIN THE REQUIRED MECHANICAL AND PLUMBING DRAWINGS AND PROVIDE ALL EQUIPMENT, RACEWAYS, WIRING, FITTINGS, ETC., AS INDICATED ON CONSTRUCTION DOCUMENTS.

12. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED. VERIFY ELECTRICAL CHARACTERISTICS AND U.L. LISTING PRIOR TO CONNECTION.

13. THE CONTRACTOR SHALL VERIFY THE LOAD AND INPUT VOLTAGE OF ALL PROVIDED EQUIPMENT TO MATCH LOAD INPUT OF ALL EQUIPMENT BEING SUBSTITUTED.

14. ELECTRICAL OUTLETS ON OPPOSITE SIDES OF FIRE RATED WALLS AND PARTITIONS MUST BE SEPARATED BY DISTANCE OF 24 IN. HORIZONTALLY, IN ACCORDANCE WITH I.B.C. SEC. 711.3.2. OPENINGS IN FIRE RATED WALLS MUST BE FIRE STOPPED.

15. PROVIDE AN ADDITIONAL JUNCTION BOX EXTENSION RING (SIZE AS REQUIRED) WHERE THE NUMBER OF CONDUCTORS EXCEEDS THE MAXIMUM ALLOWED FOR A GIVEN JUNCTION POINT OR OUTLET.

16. CONDUCTORS SHALL BE COPPER THHN/THWN 600 VOLT INSULATION UNLESS OTHERWISE NOTED. USE PROPER TEMPERATURE RATING OF CONDUCTORS BASED ON THE AMBIENT AIR TEMPERATURE WHERE CONDUCTORS ARE BEING USED. HIGHER AMPACITY CONDUCTOR AND LARGER RACEWAY SHALL BE PROVIDED TO OFFSET THE AMPACITY CORRECTION FACTORS AS INDICATED IN NEC ARTICLE 310 AND ELSEWHERE IN CODE.

17. ALL LIGHTING FIXTURES PROVIDED BY PANDA EXPRESS INSTALLED BY GC UNLESS NOTED OTHERWISE.

18. DO ALL DRILLING, CUTTING, AND/OR CHANNELING AS REQUIRED FOR ELECTRICAL WORK INDICATED OR HEREIN SPECIFIED. ALL HOLES, CURBS, ETC., IN FLOORS, CEILINGS AND WALLS SHALL BE PATCHED, UNLESS INDICATED OTHERWISE. PAINT ALL EXPOSED ELECTRICAL RACEWAYS, CABINETS, ENCLOSURES AND FITTING TO MATCH IN COLOR TO ADJACENT SURFACES IN FINISHED AREAS. (PROTECT UL LISTINGS LABELS FROM PAINT).

19. EMERGENCY LIGHTING SHALL BE PROVIDED PER N.C.B.C. PROVIDE ADDITIONAL EMERGENCY ILLUMINATION AS REQUIRED BY AUTHORITIES HAVING JURISDICTIONS. CIRCUIT TO UNIT EQUIPMENT EMERGENCY LIGHTING SHALL COMPLY WITH NEC ART. 700.12F

20. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING CRITERIA.

FIXED EQUIPMENT ON GRADE:	33% OF OPERATING WEIGHT
FIXED EQUIPMENT ON STRUCTURE:	50% OF OPERATING WEIGHT
EMERGENCY POWER AND COMMUNICATION & EQUIPMENT ON GRADE:	50% OF OPERATING WEIGHT
EMERGENCY POWER AND COMMUNICATION ON STRUCTURE:	75% OF OPERATING WEIGHT

FOR FLEXIBLE MOUNTED EQUIPMENT DOUBLE THE ABOVE VALUES. SIMULTANEOUS VERTICAL FORCE - USE 1/3 HORIZONTAL FORCE.

CONDUIT, BUSDUCT, CABLE TRAY, WIREWAYS, ETC., SHALL BE BRACED IN ACCORDANCE WITH "GUIDELINES", PUBLISHED BY SMACNA AND PPC.

21. ALL PRE-WIRED EQUIPMENT MUST BE LISTED AND LABELED BY AN APPROVED TESTING AGENCY PER ARTICLE 110.3 (A AND B) OF THE 2017 NEC.

22. THE DETERMINATION OF TERMINATION PROVISIONS OF EQUIPMENT SHALL BE BASED ON 110.14(C) (1) (A) OR (C) (1) (B). UNLESS THE EQUIPMENT IS LISTED AND MARKED OTHERWISE, CONDUCTOR AMPACITIES USED IN DETERMINING EQUIPMENT TERMINATION PROVISIONS SHALL BE BASED ON TABLE 310.15(B) (16) AS APPROPRIATELY MODIFIED BY 310.15 (B) (7) OF THE 2017 NEC.

23. GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL. GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL SHALL BE PROVIDED AS REQUIRED IN 210.8 (A) THROUGH (D). THE GROUND-FAULT CIRCUIT-INTERRUPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION, AS PER THE 2017 NEC.

GENERAL NOTES

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NOT TO SCALE

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<div> <div> NOTICE THESE DRAWINGS ARE SUBJECT TO APPROVAL BY THE BUILDING DEPARTMENT, FIRE MARSHAL, UTILITY COMPANY AND OTHER AUTHORITIES HAVING JURISDICTION (AHJ), BY THE ACT OF SUBMITTING A BID PROPOSAL FOR WORK, THE CONTRACTOR INDICATES THAT HE OR SHE HAS REVIEWED THE PLANS THOROUGHLY AND ACCEPTED FULL RESPONSIBILITY OF PLAN CORRECTIONS AND ASSOCIATED CONSTRUCTION COSTS REQUIRED BY AHJ. </div> <div> 4/25/22 </div> </div>													
<div> <div> MC CABLE SHALL NOT BE USED. PREWIRED MC CABLE WHIPS FROM LIGHTING FIXTURES ARE ACCEPTABLE WHEN SUPPLIED WITH THE FIXTURE AND NO LONGER THAN 72". </div> <div> ELECTRICIAN TO PROVIDE STAINLESS STEEL COVER PLATES FOR ALL LOW VOLTAGE OUTLETS. </div> <div> IF PROVIDED UNDER SLAB ALL UNDERGROUND CONDUIT SHALL BE 12" BELOW FINISHED GRADE. </div> </div>													
<div> <div> ELECTRICAL SYMBOLS LIST </div> <div> NOTE: ALL DIMENSIONS GIVEN ARE TO DEVICE CENTERLINES. CONTRACTOR TO COORDINATE ALL INSTALLATIONS. </div> <table> <tr> <th>POWER DISTRIBUTION</th><th>RECEPTACLES & COMMUNICATIONS OUTLETS</th></tr> <tr> <td> <div> SINGLE-POLE SWITCH, MANUAL MOTOR STARTER </div> <div> J-BOX (WITH FLEX CONNECTION TO EQUIPMENT.) </div> <div> DISCONNECT SWITCH, WITH RATING AS SHOWN ON PLANS </div> <div> COMBINATION DISCONNECT SWITCH / MOTOR STARTER FURNISHED BY ELECTRICAL CONTRACTOR. </div> <div> BRANCH CIRCUITRY CONCEALED IN WALL OR CEILING WITH ADDITIONAL #12 INSULATED GND. U.N.O. HACHURES INDICATE NUMBER OF CURRENT CARRYING CONDUCTORS. 'X' INDICATES ADDITIONAL INSULATED, ISOLATED GROUND CONDUCTORS. </div> <div> BRANCH CIRCUITRY HOMERUN TO PANEL AS NOTED ON PLANS </div> <div> INDICATES EXTERIOR UNDERGROUND WIRE RUNS. </div> </td><td> <div> DUPLEX CONVENIENCE OUTLET, 20A, 125V, MTD @ 18" A.F.F. U.N.O. </div> <div> SIMPLEX CONVENIENCE OUTLET, 20A, 125V, MTD @ 18" A.F.F. U.N.O. </div> <div> ISOLATED GROUND SIMPLEX CONVENIENCE OUTLET (ORANGE), 20A, 125V., MTD @ +18" A.F.F. </div> <div> DUPLEX CONVENIENCE OUTLET MOUNTED 3" ABOVE COUNTERTOP BACKSPLASH OR APPROXIMATELY 44" A.F.F. </div> <div> GFCI DUPLEX CONVENIENCE OUTLET, 20A, 125V, 5 mA TRIP, MTD @ 18" A.F.F. U.N.O. </div> <div> GFCI DUPLEX CONVENIENCE OUTLET MOUNTED 3" ABOVE COUNTERTOP BACKSPLASH OR APPROXIMATELY 44" A.F.F. </div> <div> TELEPHONE OUTLET. PROVIDE FLUSH J-BOX @ + 18" AFF U.N.O W/ 1" CONDUIT W/ PULL WIRE TO MANAGER'S STATION. 'w' SUBSCRIPT INDICATES WALL PHONE AT 54" AFF. </div> <div> DATA OUTLET. PROVIDE FLUSH J-BOX @ + 18" A.F.F. U.N.O W/ 1" CONDUIT WITH PULL WIRE TO MANAGER'S STATION. </div> <div> COMBINATION TEL/DATA OUTLET. PROVIDE FLUSH J-BOX @ + 18" AFF U.N.O W/ 1" CONDUIT WITH PULL WIRE TO MANAGER'S STATION. </div> <div> T.V. SYSTEM DATA OUTLET. PROVIDE FLUSH J-BOX @ + 18" A.F.F. U.N.O W/ 1" CONDUIT WITH PULL WIRE TO MANAGER'S STATION. WHEN SHOWN ADJACENT RECEPTACLE, MOUNT AT RECEPTACLE HEIGHT. REFER TO RECEPTACLE FOR MOUNTING HEIGHT. </div> <div> SPECIAL PURPOSE RECEPTACLE MTD. @ 18" A.F.F. U.N.O., AMPERAGE AND PHASE AS NOTED ON PLANS, NEMA CONFIGURATION AS REQ'D. </div> <div> ISOLATED GROUND DUPLEX CONVENIENCE OUTLET (ORANGE), 20A, 125V., MTD @ +18" A.F.F. </div> <div> DOUBLE DUPLEX CONVENIENCE OUTLETS UNDER COMMON COVER </div> <div> ISOLATED DOUBLE DUPLEX CONVENIENCE OUTLETS (ORANGE) 20A, 125V. </div> <div> SPEAKER </div> </td></tr> <tr> <th>LIGHTING & LIGHTING CONTROLS</th><th></th></tr> <tr> <td> <div> LIGHTING FIXTURE. SUBSCRIPT LETTER DENOTES FIXTURE TYPE AS DESCRIBED IN LIGHT FIXTURE SCHEDULE. </div> <div> SINGLE-POLE SWITCH @ 44" A.F.F. U.N.O. LOWER CASE LETTER DENOTES FIXTURE CONTROL. 300V. 20A. </div> <div> LEVITON Renoir II WALLBOX DIMMER - SINGLE-POLE SWITCH @ 44" A.F.F. U.N.O. LOWER CASE LETTER DENOTES FIXTURE CONTROL. 120V. BALLAST 0-10V </div> <div> OCCUPANCY SENSOR SWITCH WITH OFF CONTROL, AND ADJUSTABLE SETTINGS FOR TIME OFF DELAY, FOOTCANDLE LEVEL, AND MASKING. WATTSTOPPER OR EQUAL, MOUNT AT 44" A.F.F. U.N.O. USE PW-100 FOR OFFICES/CONF/ETC. </div> <div> LEVITON PROVOLT 05C20-MDW DIMMING DAYLIGHT SENSOR FOR SIDELIT DAYLIGHTING ZONES. LOCATE AND INSTALL PER MANUFACTURERS INSTRUCTIONS. ALL CONTROLS SHALL COMPLY WITH LOCAL ENERGY CODE REQUIREMENTS. PROVIDE LOCAL MANUAL SWITCH AS SHOWN IN THE LIGHTING PLAN FOR ON / OFF CONTROL </div> </td><td></td></tr> <tr> <th>ABBREVIATIONS</th><th>FIRE ALARM</th></tr> <tr> <td> <div> <div> A AMPERES AL ALUMINUM A.F.F. ABOVE FINISHED FLOOR A.F.G. ABOVE FINISHED GRADE C. CONDUIT C/B CIRCUIT BREAKER CU. COPPER DISC. DISCONNECT F. FUSE GFI GROUND FAULT CURRENT INTERRUPTER GND. GROUND H.P. HORSE POWER K 1000 E.C. ELECTRICAL CONTRACTOR G.C. GENERAL CONTRACTOR </div> <div> M.C.B. MAIN CIRCUIT BREAKER M.L.O. MAIN LUGS ONLY MTD. MOUNTED P. POLE SW. SWITCH T.M.B. TELEPHONE MOUNTING BOARD TYP. TYPICAL U.N.O. UNLESS NOTED OTHERWISE V. VOLTS W. WIRE W.P. WEATHERPROOF TRANSFORMER Ø PHASE </div> </div> </td><td> <div> MANUAL PULL STATION WITH KEYED RESET. MOUNT UNIT AT 44" A.F.F. ALIGN WITH LIGHT SWITCH IF APPLICABLE. </div> <div> XENON STROBE UNIT MOUNTED AT 80" A.F.F. OR 6" BELOW CEILING (WHICHEVER IS LOWER). MUST MEET OR EXCEED A.D.A. REQUIREMENTS. </div> <div> COMBINATION XENON STROBE AND HORN/CHIME UNIT MOUNTED AT 80" A.F.F. OR 6" BELOW CEILING (WHICHEVER IS LOWER). UNIT MUST MEET OR EXCEED A.D.A. REQUIREMENTS. </div> <div> FIRE ALARM CONTROL PANEL. MOUNT TOP OF UNIT AT 72" A.F.F. </div> <div> FIRE ALARM ANNUNCIATION PANEL. 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