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# SITE

SHELL BUILDING  
FOR A DOLLAR TREE STORE  
N HWY 19 & CR 44  
EUSTIS, FL 32726

OWNER	ARCHITECT
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**GOVERNMENTAL AGENCIES**

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The diagram illustrates various symbols used in architectural drawings for identification and reference. These symbols are organized into two columns, each with a list of descriptions to its right.

**Left Column Symbols:**

- ELEVATION NUMBER:** A circle with a horizontal line through its center.
- SHEET NUMBER:** A circle with a horizontal line through its center.
- DETAIL, SECTION OR OR PLAN NUMBER:** A circle with a horizontal line through its center.
- WALL SECTION NUMBER, BUILDING SECTION LETTER:** A circle with a horizontal line through its center.
- SHEET NUMBER:** A circle with a horizontal line through its center.
- DETAIL NUMBER:** A circle with a horizontal line through its center.
- SHEET NUMBER:** A circle with a horizontal line through its center.
- NOTE NUMBER:** A square with a horizontal line through its center.
- WINDOW NUMBER:** A hexagon with a horizontal line through its center.
- DOOR NUMBER:** A circle with a horizontal line through its center.

**Right Column Symbols:**

- REVISION NUMBER:** A triangle with a horizontal line through its center.
- INTERIOR FINISH NUMBER:** A circle with a horizontal line through its center.
- EXTERIOR FINISH NUMBER, INTERIOR PARTITION:** A diamond with a horizontal line through its center.
- ROOM NAME:** A rectangle with a horizontal line through its center.
- ROOM NUMBER:** A rectangle with a horizontal line through its center.

**Center Symbol:**

- NEW COLUMN GRID NUMBER OR LETTER:** A circle with a horizontal line through its center.

**Bottom Symbol:**

- ELEV. DATUM POINT:** A circle with a horizontal line through its center.

BUILDING CODE:	2017 FBC
PLUMBING CODE:	2017 FPC
ELECTRICAL CODE:	2014 NATIONAL ELECTRICAL CODE
MECHANICAL CODE:	2017 FMC
FIRE & LIFE SAFETY CODE:	2017 FPFC
ENERGY CODE:	2017 FL ENERGY CC
ACCESSIBILITY:	2014 FBC - ACCESSIBLE
CONSTRUCTION CLASSIFICATION:	TYPE II-B - UNPROTECTED
FIRE SPRINKLER SYSTEM:	NO. PER FBC 903.2.7: A FIRE SPRINKLER SYSTEM IS NOT REQUIRED IF TOTAL BUILDING AREA IS LESS THAN 12,000 S.F.
TOTAL GROSS BUILDING AREA = 10,050 S.F.	
(ALLOWED AREA FOR TYPE II-B = 12,500 S.F.)	
ALLOWED BUILDING HEIGHT = 65 FT.	
<u>BUILDING AREAS:</u>	
BUILDING TOTAL (GROSS):	10,050 SQ. FT.
SALES AREA (NET):	7,815 SQ. FT.
STOCKROOM (NET):	1,411 SQ. FT.
OFFICE (NET):	80 SQ. FT.
OCCUPANCY GROUP:	MERCANTILE
OCCUPANCY LOAD:	
SALES:	7,815 S.F. / 30 = 260 OCCUPANTS
STOCKROOM (ACCESSORY OCCUPANCY S-1):	1,411 S.F. / 300 = 5 OCCUPANTS
OFFICE (BUSINESS)	80 S.F. / 100 = 1 OCCUPANT
TOTAL:	266 OCCUPANTS

EGRESS WIDTH REQUIRED: 266 OCCUPANTS X 0.2"/OCCUPANT = 53"

EGRESS WIDTH PROVIDED:

DOOR N1 @ 6'-0" = 68"
DOOR N2 @ 6'-0" = 68"
DOOR N3 @ 3'-0" = 34"
<b>TOTAL WIDTH = 170"</b>

**PLUMBING FIXTURES**

266 OCCUPANTS / 2 = 133 OF EACH SEX

<u>FIXTURE:</u>	<u>REQUIRED</u>	<u>PROVIDED</u>
	1	2
DRINKING FOUNTAIN (1/1000)		
	MEN WOMEN	MEN WOMEN
WATER CLOSET (1/500)	1 1	1 1
LAVATORY (1/750)	1 1	1 1

**WIND CATEGORY SPEED:**

RISK CATEGORY II = **140 MPH (ULT.)/108 MPH (ASD)**

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- A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL DRAWINGS AND SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL, PRIOR TO SUBMITTING A BID. REPORT ANY DISCREPANCIES TO ARCHITECT OR ENGINEER PRIOR TO BID.
- B. IT IS THE CONTRACTOR'S RESPONSIBILITY UPON RECEIVING DRAWINGS AND EXISTING INFORMATION PROVIDED BY THE OWNER AS WELL AS NON-INVASIVE SITE VISITS. THE MEASURED DRAWINGS INCLUDE ONLY THOSE ELEMENTS AND SYSTEMS EXPOSED TO VIEW AND HAVE NOT BEEN FIELD VERIFIED. THE CONSTRUCTION DOCUMENTS HAVE BEEN PRODUCED WITHOUT THE BENEFIT OF KNOWLEDGE OF THE EXACT EXISTING STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS.
- C. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING BUILDING ELEMENTS AND SYSTEMS, FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND SATISFY THEMSELVES AS TO THE NATURE AND SCOPE OF THE WORK. REVIEW THE CONTRACT DOCUMENTS AND NOTIFY THE ARCHITECT OF ANY CONFLICTS AND/OR DISCREPANCIES PRIOR TO BID. THE SUBMISSION OF A BID WILL BE EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR SUBSEQUENT DISCOVERY OF DISCREPANCIES, OMISSIONS, OR OTHER DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD AN EXAMINATION BEEN MADE, WILL NOT BE ALLOWED.
- D. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ARCHITECT OF ANY DISCREPANCIES ENCOUNTERED ON THE PLANS OR IN EXISTING SITE CONDITIONS PRIOR TO SUBMISSION OF A BID.
- E. CONTRACTOR, DURING PRE-BID SITE VISIT, SHALL TAKE NOTICE OF ANY VISUALLY APPARENT CODE VIOLATIONS AND ALLOW IN HIS/HER BID FOR CORRECTING SUCH VIOLATIONS.
- F. CONTRACTORS ARE CAUTIONED TO COORDINATE ITEMS IN THEIR SCOPE OF WORK WITH OTHER TRADES.
- G. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS AND/OR DISCREPANCIES DISCOVERED DURING DEMOLITION AND CONSTRUCTION PHASES OF THE PROJECT.
- H. THESE NOTES APPLY TO ALL SHEETS.

CATEGORY	MANUFACTURER	APPROVAL#	EXPIRATION
STOREFRONT	KAWNEER TRIFAB VG 451T	FL 7237-R8	12-31-2011
DOORS-STIRFRNT	KAWNEER TRIFAB VG 451T	FL 7237-R8	12-31-2011
DOORS-STEEL	REPUBLIC DL416 SERIES-SINGLE	FL 15869-R3	
DOORS-STEEL	REPUBLIC DL416 SERIES-DOUBLE	FL 15869-R3	
EIFS/STUCCO	STO CORP.	FL 20110-R1	12-31-2011

1. METAL BUILDING DETAILS ARE PROVIDED TO SHOW DESIGN INTENT ONLY. PRE-ENGINEERED METAL BUILDING (PEMB) SHALL DETERMINED FINAL DETAILS PROVIDE INTENT INDICATED.
2. REFER TO THE PEMB DOCUMENTS AND SHOP DRAWINGS FOR PROJECT SPECIFIC DETAILS.
3. G.C SHALL COORDINATE PROJECT SPECIFIC METAL BUILDING DETAILS WITH OTHER ELEMENTS OF THE WORK.
4. THE ARCHITECTURAL PLANS ASSUMED AN 8" DEPTH FOR THE PEMB STRUCTURE WITH 1/8" METAL STUDS FURNISHING AT THE INTERIOR WALLS. THERE SHALL BE PROJECTIONS OF COLUMNS AT THE SALES FLOOR WALLS WHERE NECESSARY. LOCATION AND/OR SIZE OF THE INTERIOR METAL STUDS MUST BE ADJUSTED IN ORDER TO CONCEAL THE COLUMNS. ALSO, DEPENDING ON THE DEPTH OF THE GIRTS, THE SIZE OF THE STUDS MAY BE REQUIRED TO BE REDUCED.

1. MONUMENT SIGN, AWNINGS & CANOPIES, SIGNAGE AND DUMPSTER ENCLOSURE WILL REQUIRE SEPARATED PERMITS.

The site plan illustrates the proposed development layout. Key features include:

- POPEYES Building:** A U-shaped structure with an area of 2,686 SF and FFE = 74.00.
- DOLLAR TREE Building:** A rectangular structure measuring 75' x 134' with an area of 10,050 S.F. and FFE = 74.20.
- Parking Lots:** Multiple parking areas are shown, some numbered (e.g., 5, 6, 7, 8, 9, 10).
- Wet Detention Pond:** Located on the left side of the plan.
- Easements:** Various easements are indicated, including "DRAINAGE EASEMENT", "DRAINAGE ACCESS EASEMENT FOR POA MAINTENANCE", "CROSS ACCESS EASEMENT", "ACCESS EASEMENT DEDICATED TO CITY OF EUSTIS", and "10' LANDSCAPE BUFFER (TYP)".
- Landscaping:** Areas designated for landscaping are shown with hatching patterns.
- Frontage Road:** Labeled as "EX. FRONTAGE ROAD (TO REMAIN)" along the right edge.
- Orientation:** A north arrow is located in the bottom right corner.

NORTH

SECTION 16000 – ELECTRICAL SPECIFICATIONS

GENERAL

I. GENERAL

- A. THE CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR & EQUIP. NECESSARY TO COMPLETELY INSTALL ELECTRICAL & RELATED WORK INDICATED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.

II. CODE

- A. ALL EQUIPMENT, WIRING AND THE ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.), O.S.H.A. REQUIREMENTS, LIFE SAFETY CODE AND ALL APPLICABLE LOCAL AND STATE LAWS AND ORDINANCES.
- B. THE CONTRACTOR SHALL PAY ALL INSPECTION FEES AND PURCHASE ALL PERMITS REQUIRED FOR THIS WORK.

III. LOCATION OF EQUIPMENT

- A. THE CONTRACTOR SHALL NOTE THAT THE ELECTRICAL DRAWINGS ARE INTENDED TO INDICATE ONLY THE EXTENT DIAGRAMMATICALLY, GENERAL CHARACTER AND LOCATION OF THE WORK. WORK INTENDED, BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE FURNISHED AND INSTALLED COMPLETE BY THIS CONTRACTOR AT HIS EXPENSE.
- B. THE CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS, AND SHALL THOROUGHLY REVIEW ALL DRAWINGS, SPECIFICATIONS AND POSSIBLE ADDENDA PRIOR TO BIDING ON THIS WORK. NO EXTRAS TO HIS CONTRACT WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT.

IV. ROUGH-IN

- A. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH SHOP DRAWINGS, FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED PRIOR TO ROUGH-IN.
- B. REFER TO EQUIPMENT SPECIFICATIONS IN DIVISIONS 2 THROUGH 15 FOR ROUGH-IN REQUIREMENTS.

V. INSTALLATION

- A. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A NEAT AND FIRST CLASS MANNER, LEVEL AND PLUMB, AND SECURELY SUPPORTED. THE ENTIRE INSTALLATION, AND MANNER OF INSTALLATION SHALL MEET THE COMPLETE SATISFACTION OF THE OWNER'S REPRESENTATIVE OR IT SHALL BE REMOVED AND REWORKED AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- B. ALL WIRING SHALL BE IN CONDUIT. THE USE OF E.N.T., BX, NM, ETC. OR PRE-MANUFACTURED CABLE ASSEMBLIES OR ALUMINUM WIRE WILL NOT BE PERMITTED. CO-ORDINATE CONNECTION OF ELECTRICAL SYSTEMS WITH UTILITIES AS INDICATED ON THE DRAWINGS.

VI. CUTTING AND PATCHING

- A. ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- B. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR CUTTING AND PATCHING WORK THAT IS NECESSITATED BY ILL- TIMED, DEFECTIVE OR NON-CONFORMING INSTALLATIONS.
- C. CONTRACTOR SHALL VERIFY TRANSPORT LOCATION AND METERING SCHEME WITH LOCAL UTILITY CO.

VII. ELECTRICAL SUBMITTALS

- A. REFER TO THE CONDITIONS OF THE CONTRACT (GENERAL AND SUPPLEMENTARY) AND DIVISION 1 SECTION -SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES FOR SUBMITTAL DEFINITIONS, REQUIREMENTS AND PROCEDURES.
- B. IN ADDITION TO THE REQUIREMENTS OF DIVISION 1.
1. THE FOLLOWING APPLIES TO SUBMITTALS OF THIS DIVISION: 1. NO ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN THE PROJECT UNTIL SUBMITTALS HAVE BEEN ACCEPTABLY REVIEWED BY THE OWNERS REPRESENTATIVE AND STAMPED ACCORDINGLY.
2. MAKE ALL ELECTRICAL SUBMITTALS AT ONE TIME AND WITHIN FOURTEEN (14) CALENDAR DAYS OF OWNER'S "NOTICE TO PROCEED"TO THE GENERAL CONTRACTOR.
3. SUBMIT SIX (6) COMPLETE SETS TO OWNER'S REPRESENTATIVE. ONE SET SHALL REMAIN WITH THE OWNER'S REPRESENTATIVE, ONE SET SHALL BE DELIVERED TO THE OWNER AND THE OTHERS WILL BE RETURNED TO THE CONTRACTOR TO DISTRIBUTE AS REQUIRED.
4. IF ANY ITEM IN THE SUBMITTAL IS "NOT ACCEPTABLE" FOR ANY REASON, IT SHALL AUTOMATICALLY VOID THE ENTIRE SET. CONTRACTOR SHALL RE-SUBMIT AS REQUIRED TO OBTAIN ACCEPTANCE OF ALL ITEMS.
5. EACH SET SHALL BE BOUND AND INDEXED INTO GROUPS SUCH AS FIXTURES, PANELS, WIRING DEVICES, DISCONNECT SWITCHES, ETC..
6. EACH SET SHALL BE IDENTICAL.
7. SUBMITTALS OF CUT SHEET AND TECHNICAL DATA SHALL BE MADE ON THE FOLLOWING ITEMS - LIGHTING EQUIPMENT, PANELS, WIRING DEVICES, DISCONNECT SWITCHES, MOTOR STARTERS, TRANSFORMERS. ALL SUBMITTALS SHALL BE ORIGINALS, COPIES OF CUT SHEETS ARE NOT ACCEPTABLE.
8. IN CASE OF DISCREPANCIES BETWEEN SETS OF SUBMITTALS, THE SET RETAINED BY THE OWNER'S REPRESENTATIVE SHALL HAVE PRECEDENCE.

VIII. IDENTIFICATION NAMEPLATES

- A. FURNISH AND INSTAL NAMEPLATES ON ALL ITEMS OF ELECTRICAL EQUIPMENT. NAMEPLATES SHALL BE MADE FROM WHITE ENGRAVING STOCK WITH BLACK LETTERS AND BLACK FOUR EDGE BEVEL. WORDING SHALL SUITABLY DESCRIBE ITEMS AND NAMEPLATES SHALL BE ATTACHED USING PROPER SIZE AND TYPE STAINLESS STEEL BOLTS. GLUE ON, TAPE ON OR TAPE TYPE NAMEPLATES ARE NOT ACCEPTABLE.

IX. WARRANTIES

- A. GUARANTEE ALL ELECTRICAL SYSTEM MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE AND PROPERLY CORRECT LATENT DEFECTS ARISING WITHIN THIS PERIOD UPON NOTIFICATION BY THE OWNER'S REPRESENTATIVE WITHOUT ADDITIONAL COMPENSATION

XI. CLEANING

- A. REGULARLY REMOVE REFUSE AND DEBRIS ACCUMULATING FROM ELECTRICAL CONSTRUCTION AND PRIOR TO ACCEPTANCE OF THIS WORK, LEAVE THE PREMISES "BROOM CLEAN" INSOFAR AS AFFECTED BY ELECTRICAL WORK.
- B. CLEAN ALL LIGHT FIXTURES, LAMPS AND LENSES AND PANELBOARD INTERIORS PRIOR TO FINAL ACCEPTANCE.

XII. TEST AND ADJUSTMENT

- A. FURNISH ALL LABOR, INSTRUMENTS, AND OTHER SERVICES REQUIRED FOR COMPLETE AND SATISFACTORY TEST AND ADJUSTMENT OF ELECTRICAL SYSTEMS AND RELATED WORK FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
1. CHECK ALL MOTORS AND ROTATING EQUIPMENT FOR PROPER ROTATION.
2. TEST ALL FEEDERS WITH MEGGER PRIOR TO ENERGIZING TO ASSURE CODE RESISTANCE IS MET.
3. CHECK ALL FUSES AND OVERLOADS FOR PROPER SIZING.
4. CHECKING OF ALL ELECTRICAL POWER AND CONTROL WIRING, INTERLOCKS, ETC., RELATED TO MECHANICAL INSTALLATIONS TO DETERMINE THAT ALL WIRING IS CORRECT.
5. ALL EQUIPMENT FURNISHED BY THIS CONTRACTOR WHICH TEST PROVE TO BE DEFECTIVE OR OPERATING IMPROPERLY SHALL BE REMEDIED BY THIS CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

RACEWAYS

I. RACEWAYS

- A. EXTENT OF RACEWAY WORK IS INDICATED DIAGRAMMATICALLY ON THE DRAWINGS AND IN THE SCHEDULES.
1. WHEN SIZE IS NOT INDICATED ON PLANS, CONDUIT SHALL BE SIZED FOR CONDUCTORS IN ACCORDANCE WITH TABLES 3(A)(B)(C), CHAPTER 9 OF THE N.E.C..
2. THE ROUTING AND METHOD OF INSTALLATION OF ALL CONDUITS SHALL BE CO-ORDINATED SO AS NOT TO INTERFERE WITH OTHER EQUIPMENT INSTALLATIONS AND SHALL MEET WITH THE COMPLETE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
3. THE USE IF INTERMEDIATE METAL CONDUIT (IMC), ELECTRICAL NON-METALLIC TUBING (ENT), ARMORED CABLE (AC), METAL CLAD CABLE (MC), OR MANUFACTURED CABLE ASSEMBLIES SHALL NOT BE INCORPORATED INTO THE WORK.
4. USE ONLY THE TYPES OF RACEWAYS SPECIFIED HERE IN.

- B. TYPES OF RACEWAYS SPECIFIED IN THIS SECTION INCLUDE THE FOLLOWING:
1. ELECTRICAL METALIC TUBING (EMT); MINIMUM TRADE SIZE 1/2".
2. FLEXIBLE METAL CONDUIT. MINIMUM TRADE SIZE 1/2".
3. LIQUID- TIGHT FLEXIBLE METAL CONDUIT (SEALTIGHT) MINIMUM TRADE SIZE 1/2".
4. RIGID METAL CONDUIT. MINIMUM TRADE SIZE 1/2". 5. RIGID NONMETALLIC CONDUIT (PVC). SCHEDULE 40, MINIMUM TRADE SIZE 1/2".
- C. FITTINGS
1. FITTINGS FOR EMT SHALL BE STEEL SET SCREW OR COMPRESSION TYPE WITH FACTORY INSTALLED INSULATED THROAT CONNECTORS. DIE CAST OR POT METAL FITTINGS ARE NOT ACCEPTABLE.
2. FITTINGS FOR FLEXIBLE CONDUIT SHALL BE STEEL OR CAST IRON.
3. FITTINGS FOR RIGID CONDUIT SHALL BE STEEL THREADED TYPE.
4. FITTINGS FOR PVC SHALL BE SCHEDULE 40 GLUE-ON TYPE.

II. INSTALLATION OF RACEWAYS

- A. ALL CONDUITS SHALL BE INSTALLED CONCEALED, EXCEPT IN EQUIPMENT ROOM, CHASES OR AS INDICATED ON THE DRAWINGS. ALL CONDUITS, EXPOSED AND CONCEALED SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING LINES AND SHALL BE GROUPED TOGETHER AS MUCH AS POSSIBLE, EVEN ABOVE LAY-IN CEILINGS.
- B. A SEPARATE GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL RUNS. WHERE SIZES LARGER THAN #12 AWG ARE REQUIRED BY THE NEC, THE CONDUCTOR SHALL BE SIZED AS INDICATED IN THE NEC. ALL GROUNDING CONDUCTORS SHALL HAVE A GREEN OUTER COVERING, OR GREEN MARKING TAPE OVER THEIR ENTIRE EXPOSED LENGTHS. MECHANICALLY FASTEN TOGETHER METAL CONDUITS, ENCLOSURES, AND RACEWAYS FOR CONDUCTORS TO FORM A CONTINUOUS ELECTRICAL CONDUCTOR. CONNECT TO ELECTRICAL BOXES, FITTINGS AND CABINETS TO PROVIDE ELECTRICAL CONTINUITY AND FIRM MECHANICAL ASSEMBLY.
- D. AVOID USE OF DISSIMILAR METALS THROUGH SYSTEM TO ELIMINATE POSSIBILITY OF ELECTROLYSIS.
- E. INSTALL EXPANSION FITTINGS IN RACEWAYS EVERY 200' LINEAR RUN OR WHEREVER STRUCTURAL EXPANSION JOINTS ARE CROSSED.
- F. PROVIDE NYLON PULL CORD IN ALL EMPTY CONDUITS.
- G. CONDUIT INSTALLATION
1. USE RIGID METAL CONDUIT FOR ALL WEATHER EXPOSED WORK, FOR ALL STUB-UPS IN KITCHEN AREA, FOR ALL ROOF PENETRATIONS THROUGH PLATE FLUGS AND FOR FREEZER/ COOLER PENETRATIONS.
2. USE E.M.T. FOR ALL INTERIOR CONCEALED AND FOR EXPOSED WORK NOT SUBJECT TO MECHANICAL INJURY.
3. USE P.V.C. FOR ALL UNDERGROUND WORK OR WORK INSTALLED IN CONCRETE.
4. USE RIGID METAL CONDUIT ELBOW AT STUP-UP LOCATIONS.
5. USE FLEXIBLE METAL CONDUIT FROM OUTLET BOXES TO RECESSED LIGHTING FIXTURE AND FINAL 24" OF CONNECTION TO ITEMS SUBJECT TO MOVEMENT OR VIBRATION.
6. USE LIQUID-TIGHT FLEXIBLE CONDUIT FOR FINAL 24" CONNECTION TO ITEMS WHERE SUBJECT TO ONE OR MORE OF THE FOLLOWING CONDITIONS:
- a. EXTERIOR LOCATION.
- b. MOIST OR HUMID ATMOSPHERE WHERE CONDENSATE CAN BE EXPECTED TO ACCUMULATE.
- c. CORROSIVE ATMOSPHERE.
- d. SUBJECTED TO WATER SPRAY OR DRIPPING OIL, WATER OR GREASE.
- e. FINAL CONNECTION TO ROTATING OR VIBRATING EQUIPMENT.
7. CUT CONDUITS STRAIGHT, PROPERLY REAM AND CUT THREADS FOR HEAVY WALL CONDUIT DEEP AND CLEAN.
8. FIELD BEND CONDUIT WITH BENDERS DESIGNED FOR THE PURPOSE SO AS NOT TO DISTORT NOR WARP INTERNAL DIAMETER.

CONDUCTORS

I. CONDUCTORS

- A. ALL WIRE SHALL BE COPPER WITH THWN INSULATION.
- B. THE USE OF ARMORED , BX, NM, OR ANY MANUFACTURED CABLE ASSEMBLY (EXCEPT MC) SHALL NOT BE INCORPORATED INTO THE WORK.
- C. MC CABLE SHALL BE ACCEPTABLE FOR USE ON ALL 20 AMP 120V BREAKER CIRCUITS, ALL CIRCUITS 30 AMPS AND ABOVE AND AL 208 VOLTS SHALL BE IN RACEWAY.
- D. ALL WIRING SHALL BE IN CONDUIT.
- E. COLOR CODING OF CONDUCTORS SHALL BE AS FOLLOWS:
1. 120/208V SYSTEMS: PHASE A- BLACK, PHASE B- RED, PHASE C- BLUE, NEUT. - WHITE, GND. - GREEN.
2. 277/480V SYSTEM: PHASE A - YELLOW, PHASE B - BROWN, PHASE C - ORANGE, NEUT. - NATURAL GRAY, GND. - GREEN.
- F. AWG #10 AND SMALLER SHALL BE SOLID. AWG #8 AND LARGER SHALL BE STRANDED.

II. WIRE CONNECTIONS

- A. ALL FEEDER AND SUB-FEEDER WIRING CONNECTIONS SHALL BE MADE WITH COMPRESSION CONNECTORS BY SQUARE D OR ACCEPTABLE EQUIVALENT.
- B. ALL BRANCH WIRING CONNECTIONS SHALL BE 3M SCOTCH LOCK CONNECTORS OR ACCEPTABLE EQUIVALENT.
- C. WHERE CABLE CONNECTIONS REQUIRE INSULATION, SCOTCH #33, ELECTRICAL TAPE SHALL BE USED FOR WRAPPING.

BOXES AND FITTINGS

I. BOXES AND FITTINGS

- A. EXTENT OF ELECTRICAL BOX AND ASSOCIATED FITTING WORK IS INDICATED BY DRAWINGS AND SCHEDULES.

II. OUTLET BOXES

- A. CEILING: 4" SQUARE, 2-1/8" DEEP FOR EXPOSED OR FURRED WORK; 3" DEEP FOR BOXES POURED IN CONCRETE. PROVIDE CONCRETE POUR BOXES OF THE TYPE SPECIALLY DESIGNED FOR THE APPLICATION. PROVIDE PLASTER RINGS WHERE REQUIRED.
- B. WALL: 4" SQUARE, 2- 1/8" DEEP BOXES; PROVIDE EXTENSION RINGS OR COVERS OF SUFFICIENT DEPTH TO BRING COVERS FLUSH WITH THE FINISHED SURFACE.
- C. MASONRY: FOR FLUSH MOUNTED BOXES IN EXPOSED MASONRY OR TILE, PROVIDE COVERS WITH SQUARE CORNERS ON THE RAISED PORTION AND WITH SUFFICIENT DEPTH TO TRIM OUT FLUSH WITH FINISHED SURFACE.
- D. EXPOSED AND KITCHEN EQUIPMENT: PROVIDE FS OR FD BOXES WITH SUITABLE WEATHERPROOF COVERS.

III. PULL AND JUNCTION BOXES

- A. PROVIDE BOXES WHERE REQUIRED TO FACILITATE THE PULLING OF WIRES OR CABLES. BOXES SHALL BE IN ACCORDANCE WITH ARTICLE 376 OF N.E.C..

IV. ACCESSORIES

- A. PROVIDE CORROSION-RESISTANT KNOCKOUT CLOSURES, CONDUIT LOCKNUTS AND MALLEABLE IRON CONDUIT BUSHINGS, OFFSET CONNECTORS, OF TYPES AND SIZES, TO SUIT RESPECTIVE INSTALLATION REQUIREMENTS AND APPLICATIONS.

V. INSTALLATION OF BOXES AND FITTINGS

- A. POSITION RECESSED OUTLET BOXES ACCURATELY TO ALLOW FOR SURFACE FINISH THICKNESS.
- B. FASTEN ELECTRICAL BOXES FIRMLY AND RIGIDLY TO SUBSTRATES OR STRUCTURAL SURFACES TO WHICH ATTACHED OR SOLIDLY EMBED ELECTRICAL BOXES IN CONCRETE OR MASONRY.

VI. LOCATIONS OF OUTLETS

- A. IN GENERAL THE VARIOUS OUTLETS ARE TO BE LOCATED AT THE FOLLOWING HEIGHTS ABOVE FINISHED FLOOR TO THE CENTER LINE OF BOX, UNLESS NOTED OTHERWISE AT AN INDIVIDUAL OUTLET ON THE DRAWINGS:
1. WALL SWITCHES (VERT. MTD.) 48"
2. RECEPTACLES (VERT. MTD.) 18"
3. PHONE OUTLETS (VERT. MTD.) 18"
4. OUTLETS ABOVE COUNTERS (HORIZ. MTD.) 6" ABOVE BACKSPASH.
- B. OUTLET MOUNTING HEIGHTS INDICATED ON THE DRAWINGS AT OUTLETS TAKE PRECEDENCE. REFER TO DRAWINGS FOR DETAILS OF OTHER EQUIPMENT MOUNTING HEIGHTS. MOUNTING HEIGHTS FOR FLUSH OUTLETS IN BLOCK WALLS MAY BE CHANGED FOR INSTALLATION. CONSULT OWNER'S REPRESENTATIVE IN FIELD PRIOR TO ANY SUCH INSTALLATION.

CONNECTIONS FOR EQUIPMENT

I. CONNECTIONS FOR EQUIPMENT

- A. GENERAL: FOR EACH ELECTRICAL CONNECTION INDICATED PROVIDE COMPLETE ASSEMBLY OF MATERIALS, INCLUDING BUT NOT NECESSARILY LIMITED TO, PRESSURE CONNECTORS, TERMINALS (LUGS), ELECTRICAL INSULATING TAPE, HEAT-SHRINKABLE INSULATING TUBING, CABLE TIES, SOLDERLESS WIRE-NUTS, AND OTHER ITEMS AND ACCESSORIES AS NEEDED TO COMPLETE SPLICES AND TERMINATIONS OF TYPES INDICATED.

WIRING DEVICES

I. WIRING DEVICES

- A. THE EXTENT OF WIRING DEVICE WORK IS INDICATED BY THE DRAWINGS AND SCHEDULES.
- B. PROVIDE WIRING DEVICES WHICH ARE U.L. LISTED AND LABELED. II. ACCEPTABLE MANUFACTURERS
- A. HARVEY HUBBELL CO.
- B. GENERAL ELECTRIC CO.
- C. LEVITON MFG. CO.

III. FABRICATED WIRING DEVICES

- A. SWITCHES SHALL BE 20 AMP. 120/277 VOLT RATED, HUBBELL #1221 - IVORY OR BROWN.
- B. RECEPTACLES SHALL BE 20 AMP 125 VOLT RATED, HUBBELL #5362 - IVORY OR BROWN. FOR OTHER APPLICATIONS REFER TO THE DRAWINGS.
- C. PROVIDE SMOOTH FINISH PLATES FOR ALL DEVICES WITH APPROPRIATE MOUNTING ARRANGEMENTS FOR GAUGED DEVICES. FOR TELEPHONE AND COMPUTER/AMX AND MICROPHONE OUTLETS PROVIDE BUSHED HOLE COVER PLATES. PLATES SHALL BE IVORY, BROWN OR GRAY STAINLESS STEEL.
1. CROWN STAINLESS STEEL PLATES FOR SERVICE AREAS, KITCHEN STORAGE AND RESTROOMS.
2. IVORY PLATES FOR ALL OTHER AREAS EXCEPT BROWN PLATES ON WOOD OR DARK SURFACES.
3. IVORY DEVICES WHERE 302 STAINLESS STEEL OR IVORY PLATES ARE USED.
4. BROWN DEVICES WHERE BROWN PLATES ARE USED.

MOTOR DISCONNECTS

I. DISCONNECT SWITCHES

- A. ACCEPTABLE MANUFACTURERS
1. SQUARE D COMPANY
2. SIEMENS
- B. HEAVY-DUTY SAFETY SWITCHES: PROVIDE SURFACE MOUNTED, HEAVY DUTY TYPE, SHEET STEEL ENCLOSED SWITCHES, OF TYPES, SIZES AND WITH ELECTRICAL CHARACTERISTICS INDICATED: INCORPORATING QUICK-MAKE QUICK-BREAK TYPE SWITCHES: SWITCH BLADE SHALL BE VISIBLE IN OFF POSITION WITH THE DOOR OPEN. EQUIP. WITH OPERATING HANDLE WHICH IS INTERGRAL PART OF ENCLOSURE BASE AND WHOSE OPERATING POSITION IS CLEARLY INDICATED AND IS PADLOCKABLE IN THE OFF POSITION. CONSTRUCT CURRENT CARRYING PARTS OF HIGH-CONDUCTIVITY COPPER AND SILVER-TUNGSTEN TYPE SWITCH CONTACTS. PROVIDE NEMA TYPE 3R ONLY.

PANELBOARDS

I. DESCRIPTION OF WORK

- A. TYPES OF PANELBOARDS FOR THIS PROJECT ARE AS FOLLOWS:
1. 120/208V-3 PHASE 4W-5W; SQ. D "N000" AS SCHEDULED.

II. ACCEPTABLE MANUFACTURERS

1. SQUARE D CO. (BOLT ON BREAKERS)
2. SIEMENS (BOLT ON BREAKERS)
3. GENERAL ELECTRIC (BOLT ON BREAKERS)
4. WESTINGHOUSE (BOLT ON BREAKERS)

III. PANELBOARDS

- A. PROVIDE DEAD-FRONT SAFETY CONSTRUCTED FACTORY-ASSEMBLED CIRCUIT BREAKER TYPE PANELBOARDS IN SIZES AND RATINGS AS INDICATED. EQUIP. WITH PANELBOARD UNIT DEVICE, OF TYPES, RATINGS AND CHARACTERISTICS INDICATED. BUSS STRUCTURE AND MAIN LUGS OR MAIN BREAKER SHALL HAVE CURRENT RATINGS AS SHOWN ON THE PANELBOARD SCHEDULE, SUCH RATINGS SHALL BE ESTABLISHED BY TEST CONDUCTED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES STANDARD UL 67. THE USE OF CONDUCTOR DIMENSIONS WILL NOT BE ACCEPTED IN LIEU OF ACTUAL HEAT TEST. BUS BAR CONNECTIONS TO THE BRANCH CIRCUIT BREAKERS SHALL BE "PHASE-SEQUENCE" TYPE. THREE-PHASE, FOUR WIRE BUSSING SHALL BE SUCH THAT ANY THREE ADJACENT SINGLE-POLE BREAKERS ARE INDIVIDUALLY CONNECTED TO EACH OF THE THREE DIFFERENT PHASES IN SUCH A MANNER THAT TWO OR THREE-POLE BREAKERS CAN BE INSTALLED AT ANY LOCATION. ALL CURRENT CARRYING PARTS OF THE BUSS ASSEMBLY SHALL BE PLATED COPPER WITH CONDUCTIVITY OF NOT LESS THAN 98%.
- B. PANELBOARD ENCLOSURE: PROVIDE GALVANIZED SHEET STEEL CABINET TYPE ENCLOSURES, IN SIZES AND NEMA TYPES AS INDICATED, CODE GAUGE MINIMUM 16-GAUGE THICKNESS. CONSTRUCT WITH MULTIPLE KNOCKOUTS AND WIRING GUTTERS. PROVIDE FRONTS WITH ADJUSTABLE TRIM CLAMPS, AND DOORS WITH FLUSH LOCKS AND KEYS, ALL PANELBOARD ENCLOSURES KEYED ALIKE, WITH CONCEALED PIANO DOOR HINGES. EQUIP WITH INTERIOR CIRCUIT DIRECTORY FRAME, AND CARD WITH CLEAR PLASTIC COVERING. PROVIDE BAKED GRAY ENAMEL FINISH OVER A RUST INHIBITOR COATING. PROVIDE ENCLOSURES FABRICATED BY SAME MANUFACTURER AS PANELBOARDS. MINIMUM DEPTH OF 5-3/4" & MINIMUM WIDTH OF 20" FOR "N000" PANELS.

LIGHTING FIXTURES

I. LIGHTING FIXTURES

- A. HANDLE LIGHTING FIXTURES CAREFULLY TO PREVENT DAMAGE, BREAKING AND SCORING. DO NOT INSTALL DAMAGED FIXTURES OR COMPONENTS, REPLACE WITH NEW.
- B. STORE LIGHTING FIXTURES IN A CLEAN DRY PLACE. PROTECT FROM WEATHER, DIRT, FUMES, WATER CONSTRUCTION DEBRIS AND PHYSICAL DAMAGE.
- C. SHIP FIXTURES FACTORY ASSEMBLED, WITH PARTS REQUIRED FOR A COMPLETE INSTALLATION.
- D. FLUORESCENT BALLAST SHALL BE CLASS P, LOW-ENERGY RAPID START SOUND RATED A.
- E. PROVIDE HID LAMP BALLAST CAPABLE OF OPERATING LAMP TYPES WITH RATINGS INDICATED, REACTOR TYPE, HIGH POWER FACTOR CORE AND COIL ASSEMBLY ENCAPSULATED IN NON MELT RESIN, INSTALL CAPACITOR OUTSIDE BALLAST ENCASPULATION FOR EASY FIELD REPLACEMENT.
- F. PROVIDE FLUORESCENT LAMPS OF TYPES INDICATED.
- G. PROVIDE HID LAMPS IN WATTAGES AND TYPES INDICATED.
- H. PROVIDE INCANDESCENT LAMPS IN THE SIZES AND RATED AS INDICATED AND 130 VOLT RATED.
- I. PROVIDE FIXTURES AND/OR FIXTURE OUTLET BOXES WITH HANGERS TO PROPERLY SUPPORT FIXTURE WEIGHT.
- J. INSTALL FLUSH MOUNTED FIXTURES TO ELIMINATE LIGHT LEAKAGE BETWEEN FRAME AND FINISHED SURFACE.
- K. AT DATE OF SUBSTANTIAL COMPLETION REPLACE LAMPS IN ALL FIXTURES WHICH ARE OBSERVED TO BE INOPERATIVE OR NOTICEABLY DIMMED AFTER CONTRACTORS USE AS JUDGED BY THE OWNER'S REPRESENTATIVE

Sheet List Table

Sheet Number	Sheet Title
	Electrical
E0.0	ELECTRICAL SPECIFICATIONS
E1.0	ELECTRICAL SITE PLAN
E2.0	ELECTRICAL PLAN – LIGHTING
E3.0	ELECTRICAL PLAN – POWER
E4.0	ELECTRICAL DETAILS
E5.0	ELECTRICAL PANEL SCHEDULES AND RISER

GENERAL NOTES

1. ALL WORK SHOWN SHALL COMPLY WITH ALL NATIONAL, STATE AND LOCAL CODES, ORDINANCES, ETC.
2. SEE LUMINAIRE SCHEDULE E2.0 FOR INFORMATION.
3. EXIT SIGNS AND EMERGENCY LIGHTS SHALL HAVE THEIR OWN SELF-CONTAINED STANDBY BATTERY POWER SUPPLY. IF LOCAL CODE REQUIRES A DIRECT TAP BEFORE ANY CIRCUIT BREAKERS THEN INCORPORATE INTO THE FEEDER DIAGRAM.
4. PROVIDE EMERGENCY LIGHTING TO MEET THE REQUIRED FOOT CANDLE LEVEL PER LOCAL CODE.
5. LUMINAIRES INSTALLED IN CONTINUOUS ROWS SHALL BE GROUNDED WITH A CONDUCTOR ROUTED FROM LUMINAIRE TO LUMINAIRE, MOUNTED TO EACH WITH GROUNDING LUG OR SCREW. ALIGNING CLIPS ARE NOT ACCEPTABLE. LUMINAIRE GROUNDING SHALL BE INSTALLED IN COMPLIANCE WITH NATIONAL ELECTRICAL CODE, ARTICLE 410-21.
6. CEILING LIGHTS ARE TO BE WIRED TO THE BAR JOIST MEMBERS AT THE DIAGONAL CORNERS.
7. COORDINATE LIGHTING WITH SPRINKLER & MECHANICAL DRAWINGS AS APPLICABLE.
8. REFERENCE TO HEIGHT OF OUTLET OR RECEPTACLE SHALL BE MEASURED FROM FINISHED FLOOR TO CENTER OF OUTLET OR RECEPTACLE.
9. ALL RECEPTACLES SHALL BE GROUNDING TYPE.
10. ALL RECEPTACLES AND SWITCHES SHALL HAVE TWO (2) REVOLUTIONS OF ELECTRICAL TAPE (SCOTCH 33+) OVER ALL THE TERMINALS, TO PREVENT ACCIDENTAL CONTACT WITH THE JUNCTION BOX OR OUTLET BOX.
11. CONDUIT SIZE TO BE PER NEC. PVC CONDUIT AND FITTINGS ARE ACCEPTABLE ONLY BELOW SUBBASE MATERIAL OF GROUND BEARING FLOOR SLABS WHERE SUCH USE IS ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION.
12. CONDUIT SHALL BE ELECTRICAL METALLIC TUBING (EMT), RIGID STEEL (SIZE PER NEC), OR MC CABLE WHERE ALLOWED BY CODE. WHERE MC CABLE IS USED, PROPER SECUREMENT AND SUPPORT (AT INTERVALS NOT EXCEEDING 6 FEET) SHALL BE FOLLOWED PER NEC ART. 330.
13. ELECTRICAL CONTRACTOR TO PROVIDE JUNCTION BOX AND CONDUIT STUB-UP ABOVE CEILING FOR ALL LOW VOLTAGE CABLING.
14. DIMENSION IS FROM FINISHED WALL, SEE ARCHITECTURAL FOR WALL THICKNESS.
15. FIELD COORDINATE EXACT LOCATION OF OUTLETS AS DETERMINED BY THE ACTUAL FURNITURE LAY OUT. VERIFY WITH FIXTURE PLAN.
16. COORDINATE WITH OTHER DISCIPLINES FOR ELECTRICAL REQUIREMENTS OF EQUIPMENT NOT SHOWN ON DETAILS (I.e. ROOF-TOP UNITS, UNIT HEATERS, FANS, ETC.).
17. CONTRACTOR IS REQUIRED TO INSTALL STANDARD RECEPTACLES FOR CIRCUITS DEDICATED TO SPECIFIC EQUIPMENT. SUBJECT TO THE APPROVAL OF CODE ENFORCING AGENCY.
18. ALL 125V, SINGLE PHASE 15 AMP AND 20 AMP RATED RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED IN NECART 210.8 (B)(1) – (B) SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION.
19. SERVICE CONDUCTORS ARE DESIGNED BASED ON THE SERVICE DISTANCE OF 100' TO MEET THE 2% VOLTAGE DROP PER NEC. IF SERVICE CONDUCTOR IS BETWEEN:
- 100' TO 150' – E.C. SHALL INCREASE THE CONDUCTOR BY ONE SIZE(S) LARGER THAN DESIGN
- 150' TO 200' – E.C. SHALL INCREASE THE CONDUCTOR BY TWO SIZE(S) LARGER THAN DESIGN
- 200' TO 250' – E.C. SHALL INCREASE THE CONDUCTOR BY THREE SIZE(S) LARGER THAN DESIGN
20. BRANCH CONDUCTORS ARE DESIGNED BASED ON A DISTANCE OF 100' TO MEET THE 3% VOLTAGE DROP PER NEC. IF BRANCH CONDUCTOR IS BETWEEN:
- 100' TO 150' – E.C. SHALL INCREASE THE CONDUCTOR BY ONE SIZE(S) LARGER THAN DESIGN
- 150' TO 200' – E.C. SHALL INCREASE THE CONDUCTOR BY TWO SIZE(S) LARGER THAN DESIGN
- 200' TO 250' – E.C. SHALL INCREASE THE CONDUCTOR BY THREE SIZE(S) LARGER THAN DESIGN
21. E.C. IS TO VERIFY WITH LOCAL AHJ FOR REQUIREMENT OF EXTERIOR EMERGENCY EGRESS LIGHTING AND ADJUST BID TO INCORPORATE AS NEEDED.
22. A.I.C OF PANELS AND SERVICE ENTRANCE EQUIPMENT IS BASED ON TYPICAL TRANSFORMER SPECIFICATIONS. CONTRACTOR SHALL FIELD VERIFY EXACT UTILITY A.I.C RATING AND MAKE EQUIPMENT ADJUSTMENTS AS REQUIRED IN THE FIELD AT NO EXTRA COST TO OWNER. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY FIELD CHANGES BASED ON UTILITY EQUIPMENT DATA.

FIELD VERIFY ALL CONDITIONS

NOTE! AS NOTED IN THE SPECIFICATIONS, ALL WIRING LAYOUTS, PIPING LAYOUTS AND DUCT LAYOUTS ARE SCHEMATIC. EXACT LOCATIONS SHALL BE DETERMINED BY THE CONSTRUCTION AND STRUCTURE OF THE BUILDING AND SHALL BE VERIFIED AND COORDINATED IN THE FIELD. EACH TRADE CONTRACTOR SHALL VERIFY WITH THE GENERAL CONTRACTOR THAT HE HAS THOROUGHLY REVIEWED AND COORDINATED ALL LOCATIONS AND ROUTINGS WITH ALL OTHER TRADES PRIOR TO FABRICATION OF CONDUITS, DUCTS, OR PIPING, AND START OF INSTALLATION OF SAME (INCLUDING SPRINKLER PIPING WHEN PRESENT ON JOB). ANY INSTALLATION OR CONSTRUCTION CONFLICTS WHICH OCCUR IN THE FIELD SHALL BE RESOLVED BY THE TRADE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ARCHITECT AND AT NO EXPENSE TO THE OWNER, ARCHITECT AND/OR GENERAL CONTRACTOR.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

LEGEND (NOT ALL SYMBOLS ARE USED WITHIN THIS SET OF DRAWINGS)

LIGHTING

- EXIT LIGHT (HATCHING DENOTES FACE)
- SURFACE MOUNTED OR RECESSED EMERGENCY LIGHTING FIXTURE
- SWITCH WITH PILOT LIGHT
- MOTOR RATED SWITCH
- TOGGLE SWITCH
- OCCUPANCY SENSOR

POWER

- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE
- QUADRAPLEX RECEPTACLE
- CEILING MOUNTED RECEPTACLE
- SHADING IN RECEPTACLE DENOTES ABOVE COUNTER
- IG – DENOTES ISOLATED GROUND TYPE
- GFI – DENOTES GFCI PROTECTED TYPE
- SPECIAL PURPOSE RECEPTACLE (AS NOTED)
- TELEPHONE OUTLET
- DATA OUTLET
- VOICE/DATA COMBINATION OUTLET
- JUNCTION BOX
- SYMBOL IN SQUARE DENOTES FLOORMOUNTED
- MOTOR, FAN, PUMP OR AIR CONDITIONING UNIT
- PANELBOARD
- DISCONNECT SWITCH, RATING AS NOTED.

FIRE ALARM

- FIRE ALARM PULL STATION NOM. 42" A.F.F. PER ADA
- FIRE ALARM AUDIO/VISUAL STATION 80" A.F.F. PER ADA
- FIRE ALARM VISUAL STATION 80" A.F.F. PER ADA
- FIRE ALARM AUDIO STATION 80" A.F.F. PER ADA
- REMOTE INDICATOR LIGHT/TEST SWITCH FOR DUCT SMOKE DETECTORS
- DUCT SMOKE DETECTOR WITH REMOTE INDICATOR LIGHTS AND TEST SWITCH
- SMOKE DETECTOR
- FLOW SWITCH
- TAMPER SWITCH
- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL

ABBREVIATIONS

- WP WEATHERPROOF
- AFF ABOVE FINISHED FLOOR
- UNO UNLESS NOTED OTHERWISE
- GFI GROUND FAULT INTERRUPT
- O.C ON CENTER
- ETR EXISTING TO REMAIN

STANDARD MOUNTING HEIGHTS

A.F.F (IN.)	DESCRIPTION
84"	AUDIBLE APPLIANCES
48"	ALARMS
48"	ANNUNCIATOR PANELS
84"	CLOCK OUTLETS (CENTERLINE)
48"	CONTROLS (CENTERLINE)
80"	EXIT SIGNS (WALL MOUNTED, BOTTOM)
60"	FIRE ALARM ANNUNCIATOR PANEL (DISPLAY)
120"	FIRE ALARM BELL (EXTERIOR)
60"	FIRE ALARM CONTROL PANEL/UNIT (DISPLAY)
36"	INTERCOM (AREA ONLY)
48"	INTERCOMS
72"	PANELS/PANELBOARDS (TOP)
48"	PULL STATIONS (HANDLE)
144"	PHOTOCELLS
18"	RECEPTACLES (CENTERLINE)
24"	RECEPTACLES (EXTERIOR)
26"	RECEPTACLES (GARAGES)
48"	RECEPTACLES IN EQUIPMENT ROOMS
48"	REMOTE INDICATING LIGHT (EQUIPMENT ROOMS)
CEILING	REMOTE INDICATING LIGHT (FINISHED AREAS)
48"	SAFETY SWITCHES
48"	STARTERS
48"	SWITCHES (CENTERLINE)
1048",1036"	TELEPHONES (PUBLIC)
18"	TELEPHONE DATA OUTLETS (CENTERLINE)
6"	TELEPHONE TERMINAL BOARD (BOTTOM)
18"	TELEVISION OUTLETS
84"	VISIBLE APPLIANCES (CENTERLINE)

INTERPLAN

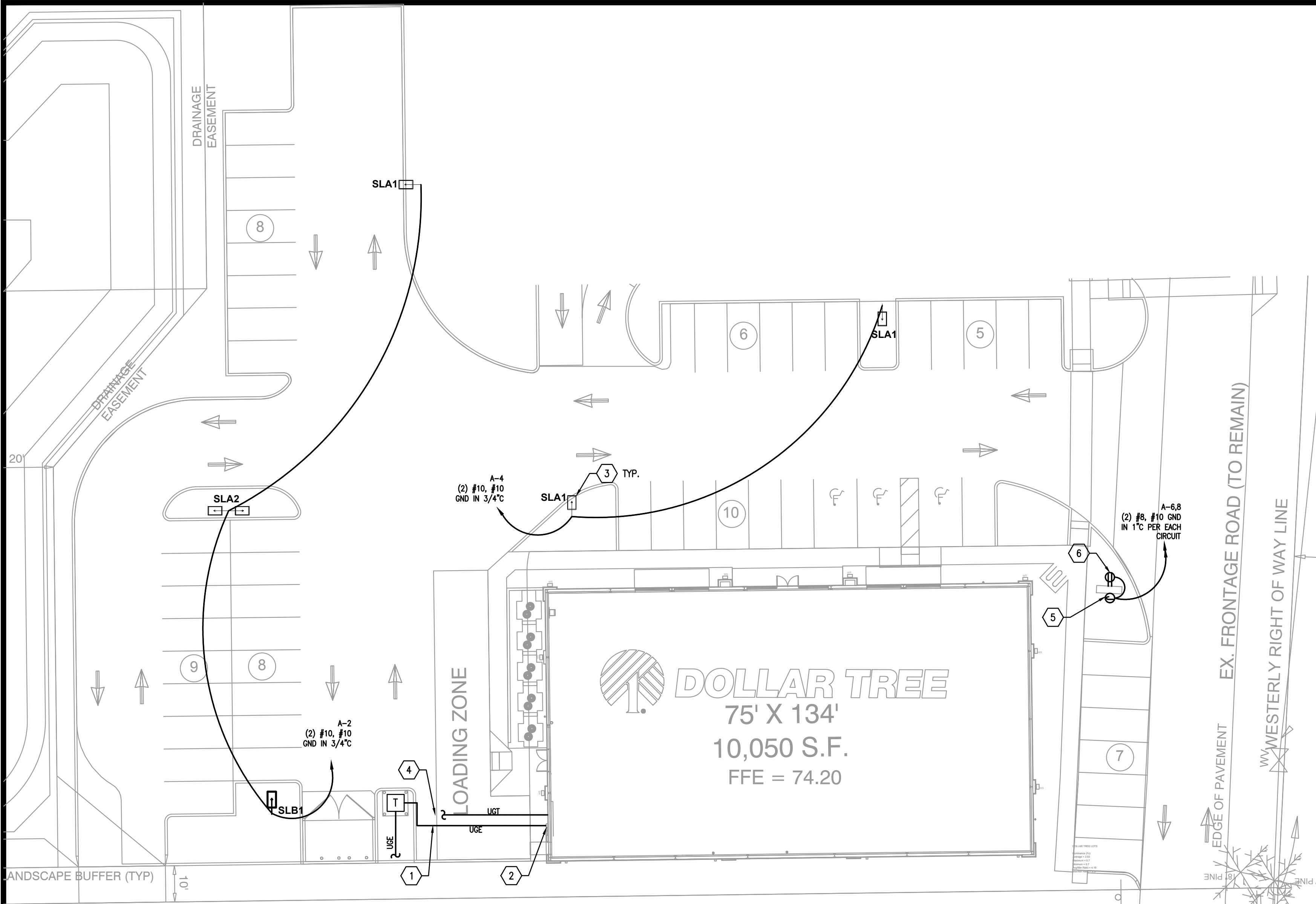
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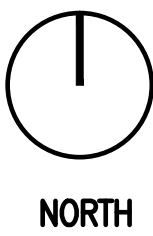
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ELECTRICAL SITE PLAN

1"=20'



Landreth Luminaire Schedule											
Label	Qty	Symbol	Arrangement	[MANUFAC]	Description	LLF	Lum. Lumens	Lum. Watts	Total Watts	Cutoff Class	BUG Rating
SLA1	3		SINGLE	Lithonia Lighting	DSX0 LED P6 40K T3M MVOLT XPA DBLXD; POLE MOUNTED @ 25' AFG	1.000	15975	119	134	N.A.	B3-U0-G3
SLA2	1		BACK-BACK	Lithonia Lighting	DSX0 LED P6 40K T3M MVOLT XPA DBLXD; POLE MOUNTED @ 25' AFG	1.000	15975	119	268	N.A.	B3-U0-G3
SLB1	1		SINGLE	Lithonia Lighting	DSX1 LED P9 40K T3M MVOLT XPA HS DBLXD; POLE MOUNTED @ 25' AFG	1.000	27597	115	241	N.A.	B3-U0-G4

VOLTAGE DROP CALCULATIONS															
CIRCUIT		VOLTS (L-N)	VOLTS (L-L)	PHASE	AMPS	CIRCUIT WIRES	SYSTEM p.f.	WIRE SIZE (AWG or kcmil)	WIRE TYPE	CONDUIT TYPE	ONE-WAY LENGTH (FT.)	INCREMENTAL VOLTAGE DROP (volts)	INCREMENTAL VOLTAGE DROP (%)	TOTAL V.D. FROM SOURCE (volts)	TOTAL V.D. AT LOAD (%)
FROM	TO	(10)	(10 or 30)	(1=10, 3=30)	(per ckt wire)	(# in parallel)			(CU, AL)	(STL,PVC,AL)					
TRANSFORMER	DISC SW.		208	3	277.0	2	0.90	350	CU	PVC	66	0.82	0.4%	0.82	0.4%
PHL"A*	MONUMENT SIG	120		1	10.0	1	0.90	8	CU	PVC	250	3.62	3.0%	3.62	3.0%

GENERAL NOTES

- VERIFY WITH LOCAL AUTHORITIES AND UTILITIES THAT OWNER'S SIGNS, POLES, AND THEIR APPURTENANCES ARE NOT LOCATED ON OR OVER ANY EASEMENT OR MUNICIPAL RIGHT OF WAY.
- SITE WORK, UTILITY, AND ROADWAY INFORMATION ARE TAKEN FROM BOUNDARY AND TOPO SURVEY SITE PLANS. REFER TO C-DRAWINGS.
- MINIMUM CONDUIT SIZE SHALL BE 3/4". MINIMUM CONDUCTOR SIZE SHALL BE #10AWG COPPER UNLESS OTHERWISE NOTED.
- REFER TO BUILDING ELECTRICAL DRAWINGS FOR EXTERIOR LIGHTING CONTROL.
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ONLY NEW AND U.L. LABELED ELECTRICAL EQUIPMENT, UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS.
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL CONTACT ALL UTILITIES FOR VERIFICATION AND IDENTIFICATION OF ALL UNDERGROUND RUNS, PRIOR TO SITE TRENCHING ("CALL BEFORE YOU DIG").
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70), AND THE LIFE SAFETY CODE (NFPA 101), AS ADOPTED AND/ OR AMENDED BY STATE AND LOCAL AUTHORITIES HAVING JURISDICTION.
- FOR WORK UNDER THIS DIVISION, ELECTRICAL CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATIONS OF ALL UTILITY SERVICE RUNS, ORIGINATIONS, TERMINATIONS AND ANY INSTALLATION REQUIREMENTS (i.e. ELECTRICAL, TELEPHONE, WATER, GAS, SEWAGE, ETC.), AS RELATED TO THIS JOB, OR THEREBY EFFECTED.
- E.C. TO VERIFY VOLTAGE DROP IN SITE LIGHTING CIRCUITS.

KEYED NOTES

- PROVIDE SECONDARY CONDUITS FROM UTILITY TRANSFORMER TO CT/METER MOUNTED ON BUILDING EXTERIOR. VERIFY EXACT REQUIREMENTS WITH LOCAL UTILITY COMPANY PRIOR TO INSTALLATION.
- PROVIDE METER ON BUILDING EXTERIOR PER LOCAL UTILITY COMPANY REQUIREMENTS.
- SEE POLE BASE DETAIL ON CIVIL SITE PLAN SHEET SL1 FOR ADDITIONAL INFORMATION. SEE SL1 FOR LIGHTING SPECIFICATIONS. ALL SITE LIGHTING CONDUIT IS TO BE UNDERGROUND.
- PROVIDE ONE 4" UNDERGROUND PVC CONDUIT WITH PULL STRING PER TELEPHONE UTILITY COMPANY'S SPECIFICATIONS AND REQUIREMENTS FOR TELEPHONE SERVICE. COORDINATE EXACT ROUTING AND STUB-UP LOCATION WITH THE TELEPHONE UTILITY COMPANY AND CLEARLY MARK STUB-UP LOCATION. STUB-UP LOCATIONS INDICATED ARE BASED ON INFORMATION THAT WAS AVAILABLE DURING DESIGN. SUBMIT A LINEAL FOOT UNIT PRICE WITH THE BID FOR ADDITIONAL CONDUIT, OF EACH SIZE AND TYPE INDICATED, IN THE EVENT THE FINAL UTILITY COMPANY DIRECTED STUB-UP LOCATION DIFFERS FROM WHAT IS INDICATE.
- VERIFY EXACT LOCATION WITH OWNER FOR MONUMENT SIGN. PROVIDE WEATHERPROOF JUNCTION BOX AND 20A TOGGLE SWITCH 18" AFG FOR MAINTENANCE DISCONNECT SWITCH FOR MAIN I.D. SIGN.
- PROVIDE GFCI TYPE WEATHERPROOF RECEPTACLE MOUNTED ON MAIN SIGN SUPPORT +14" AFG. THIS RECEPTACLE SHALL NOT BE SWITCHED. (BYPASS THE CONTACTOR AND SIGN'S DISCONNECT SWITCH.)

FAULT CURRENT CALCULATION

TRANSFORMER SIZE (KVA)	225
TRANSFORMER Z (%)	1.6
"C" FACTOR (#350 COND.)	22,737
NUMBER OF CONDUCTORS PER PHASE	2
LINE TO LINE VOLTAGE	208
LINE TO NEUTRAL VOLTAGE	120
LENGTH OF SERVICE	66
$I = \frac{225 \times 1000}{1.73 \times 208} = 625$	
$I_{(sco)} = \frac{625 \times 100}{1.60} = 39,034$	
$F = \frac{39,034 \times 1.73 \times 66}{2 \times 22,737 \times 208} = 0.47$	
$M = \frac{1}{1+0.47} = \frac{1}{1.47} = 0.68$	
$I_{sc} \text{ AT SERVICE DISCONNECT} = 39,034 \times 0.68 = 26,522$	

SERVICE EQUIPMENT RATING = 42,000

ANY CHANGES TO THE SUPPLY POWER, OR INTERNAL ELECTRICAL SYSTEM, THAT COULD CAUSE THIS UTILITY FURNISHED OR CALCULATED VALUE TO INCREASE, SHALL BE EVIDENCE THAT A QUALIFIED PERSON REPEAT THE CALCULATIONS AND MAKE ADJUSTMENTS TO THE SYSTEM IF REQUIRED. (AFTER REVISIONS, CHANGE THIS LABEL TO REFLECT REVISED DATA AND NEW DATE.) PLACE ON A VISIBLE SURFACE OF THE SERVICE ENTRANCE DISCONNECT. USE A LABEL THAT HAS MINIMUM 1/8" HIGH LETTERING AND SUITABLE FOR THE ENVIRONMENT AT THE LOCATION.

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NO DATE REMARKS

REVISIONS

SHELL BUILDING  
for DOLLAR TREE

N HWY 19 & CR 44  
EUSTIS, FL

PROJECT NO: 2018.0328  
DATE: 08-27-2018

E1.0  
ELECTRICAL SITE PLAN

CHECKED: ---- DRAWN: MW

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NO DATE REMARKS  
REVISIONS

SHELL BUILDING  
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N HWY 19 & CR 44  
EUSTIS, FL

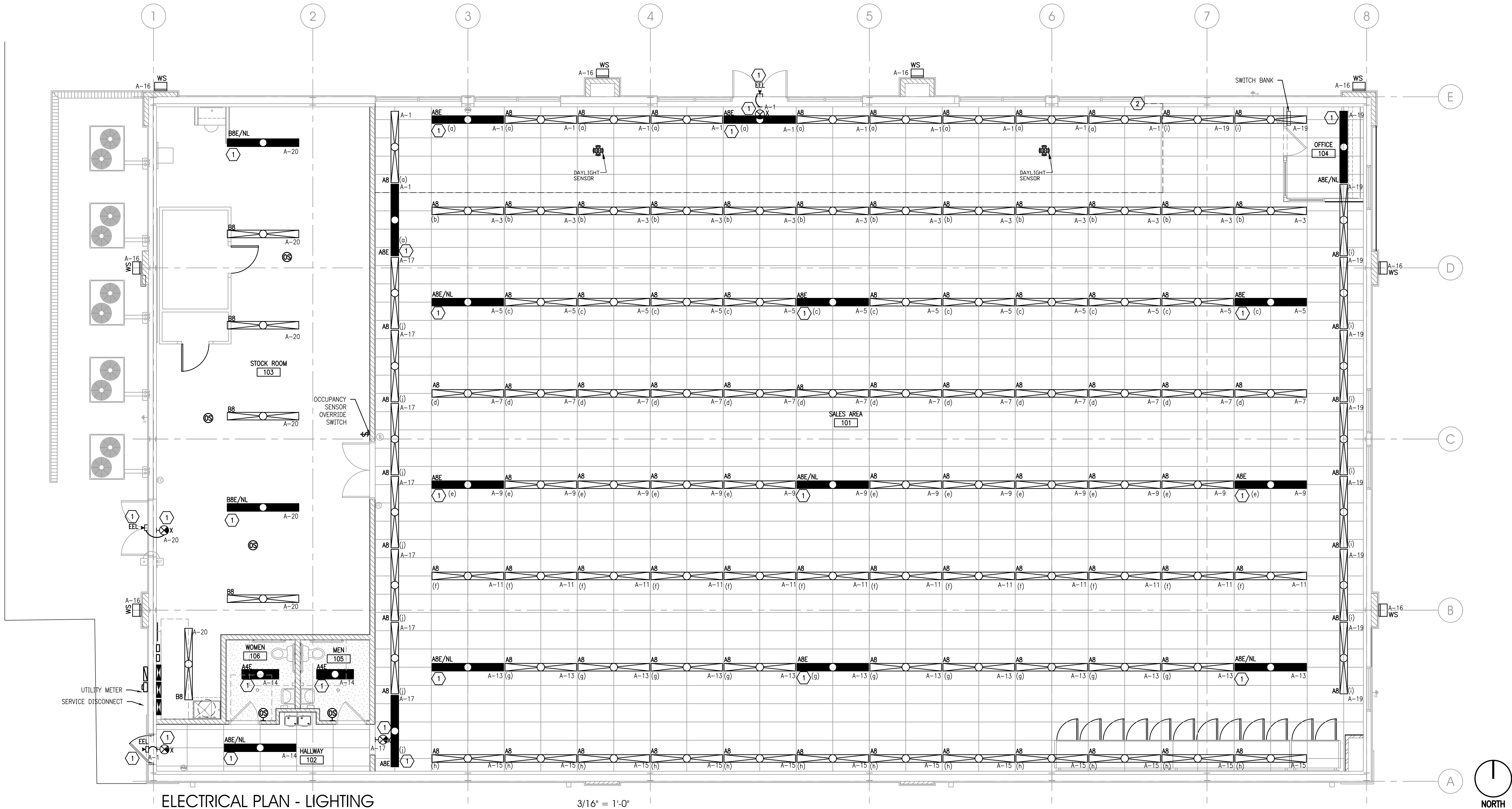
PROJECT NO: 2018.0328  
DATE: 08-27-2018

E2.0

ELECTRICAL PLAN -  
LIGHTING

CHECKED: --- DRAWN: MW

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ELECTRICAL PLAN - LIGHTING

3/16" = 1'-0"

LIGHTING FIXTURE LIGHTING						
MARK	MANUFACTURER	CATALOG NUMBER	LAMP DATA			DESCRIPTION
			QTY.	TYPE	WATTS	
A4	LITHONIA	ZL1F-L48-4500LM-MVOLT-35 K-BOCR-WH	1	LED	MULTI 39	RECESSED LED 4 FT. STRIP WITH 0-10V DIMMING STANDARD
A4E	LITHONIA	ZL1F-L48-4500LM-MVOLT-35 K-BOCR-E7W-WH	1	LED	MULTI 39	RECESSED LED 4 FT. STRIP, 0-10V DIMMING STANDARD WITH 7W EMERGENCY BATTERY BACK UP
A8	LITHONIA	ZL1F-L96-9000LM-MVOLT-35 K-BOCR-WH	1	LED	MULTI 77	RECESSED LED 8 FT. STRIP WITH 0-10V DIMMING STANDARD
A8E	LITHONIA	ZL1F-L96-9000LM-MVOLT-35 K-BOCR-E7W-WH	1	LED	MULTI 77	RECESSED LED 8 FT. STRIP, 0-10V DIMMING STANDARD WITH 7W EMERGENCY BATTERY BACK UP
B8	LITHONIA	ZL1F-L96-9000LM-MVOLT-35 K-BOCR-WH-HC36	1	LED	MULTI 77	SUSPENDED LED 8 FT. STRIP WITH 0-10V DIMMING STANDARD, 36" HANGER CHAIN
B8E	LITHONIA	ZL1F-L96-9000LM-MVOLT-35 K-BOCR-E7W-WH-HC36	1	LED	MULTI 77	SUSPENDED LED 8 FT. STRIP, 0-10V DIMMING STANDARD WITH 7W EMERGENCY BATTERY BACK UP, 36" HANGER CHAIN
X	LITHONIA	LOW-S-W-SINGLE FACE-R-120/277	1	LED	MULTI 0.62	WALL LED EXIT WHITE SIGN WITH RED LETTERS-DUAL VOLTAGE
EEL	LITHONIA	ELA NX N0806 WELN-618RD	1	8WPAR36	120 8	WALL SURFACE MOUNTED EXTERIOR EMERGENCY LIGHT.
WS	LITHONIA	DSW1-LED-10C-1000-40K- T1M-D08D	1	LED	MULTI 116.4	WALL LED WALL MOUNTED LUMINAIRE 40K TO BE MOUNTED IN DARK BRONZE COLOR Ø12" AFG.

## GENERAL NOTES

- REFER TO SHEET E0.0 FOR GENERAL NOTES AND SPECIFICATIONS.
- REFER TO E4.0 FOR TIME CLOCK DETAILS.

## KEYED NOTES

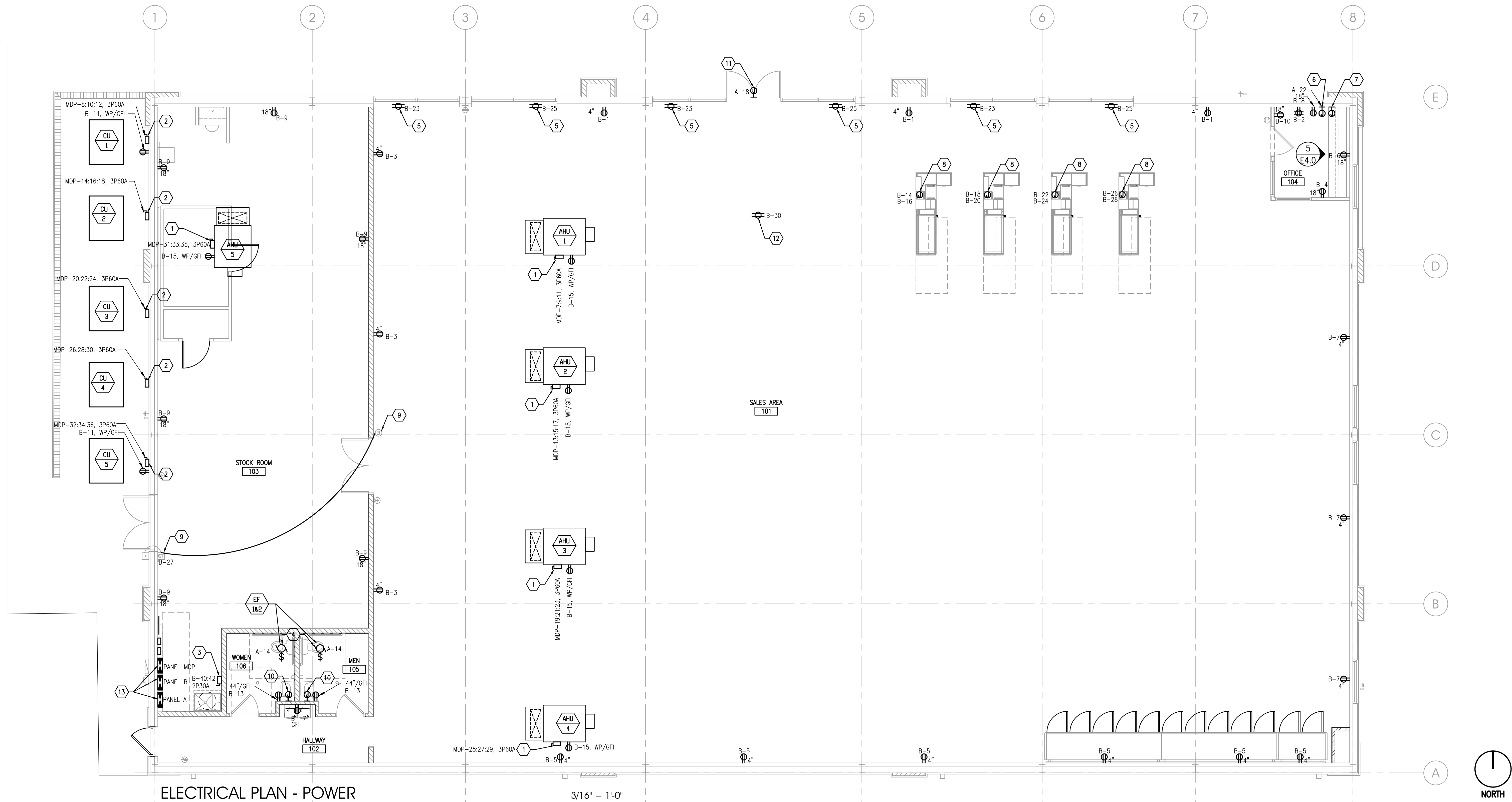
- EXIT SIGNS, EMERGENCY BATTERY PACKS AND NIGHT LIGHTS ARE TO BE CONNECTED TO LOCAL LIGHTING CIRCUIT AHEAD OF ANY SWITCHING OR CONTROL.
- LINE DENOTING 10' FROM THE VERTICAL GLAZING FOR PRIMARY DAYLIGHT ZONE.

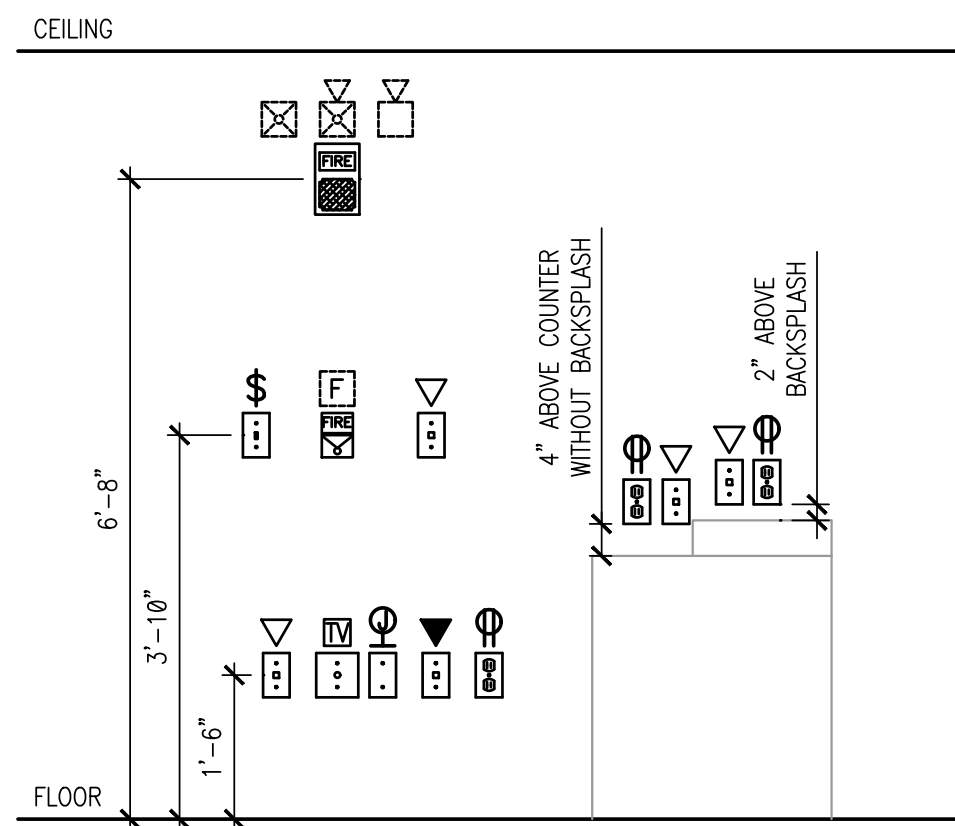
SEAL:

**THIS DOCUMENT IS NOT  
FOR REGULATORY  
APPROVAL, PERMITTING,  
OR CONSTRUCTION.**NO DATE REMARKS  
REVISIONS**SHELL BUILDING  
for DOLLAR TREE**N HWY 19 & CR 44  
EUSTIS, FLPROJECT NO: 2018.0328  
DATE: 08-27-2018**E3.0**

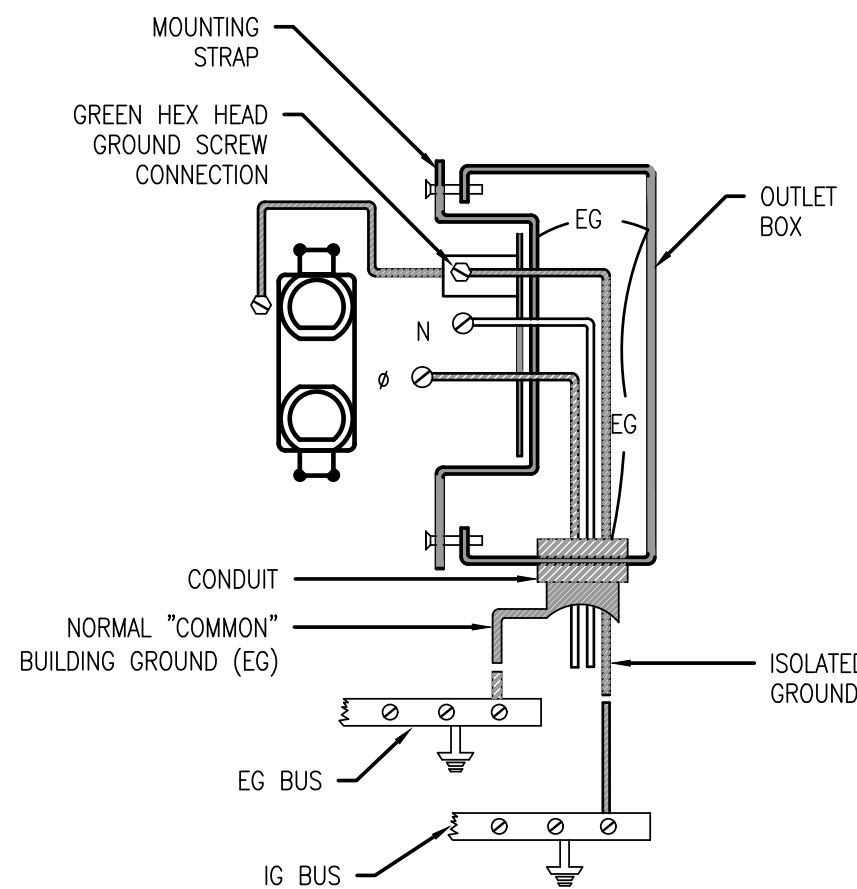
ELECTRICAL PLAN - POWER

CHECKED: ---- DRAWN: MW

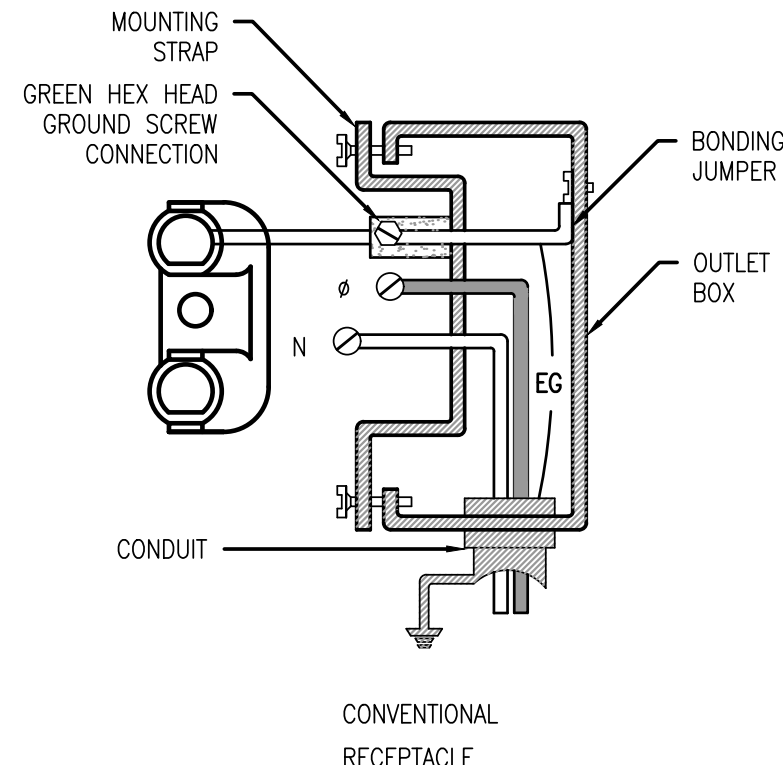




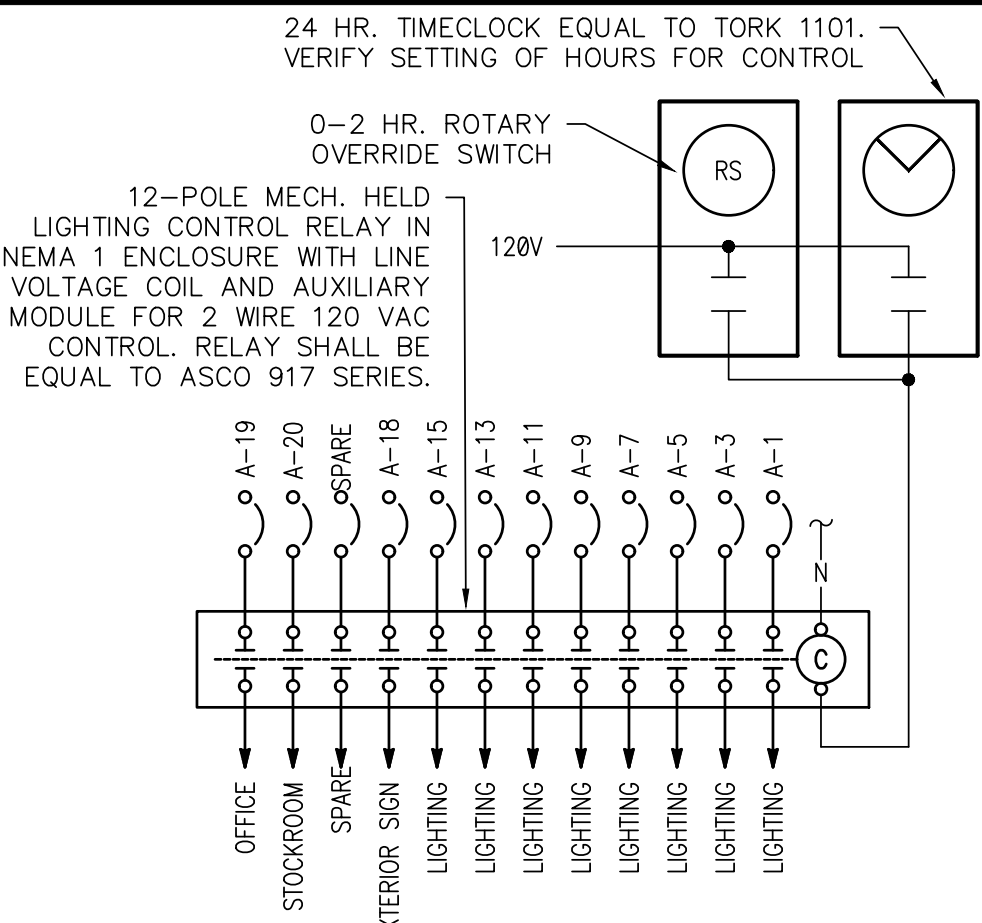
1 TYPICAL MOUNTING HEIGHTS  
NTS



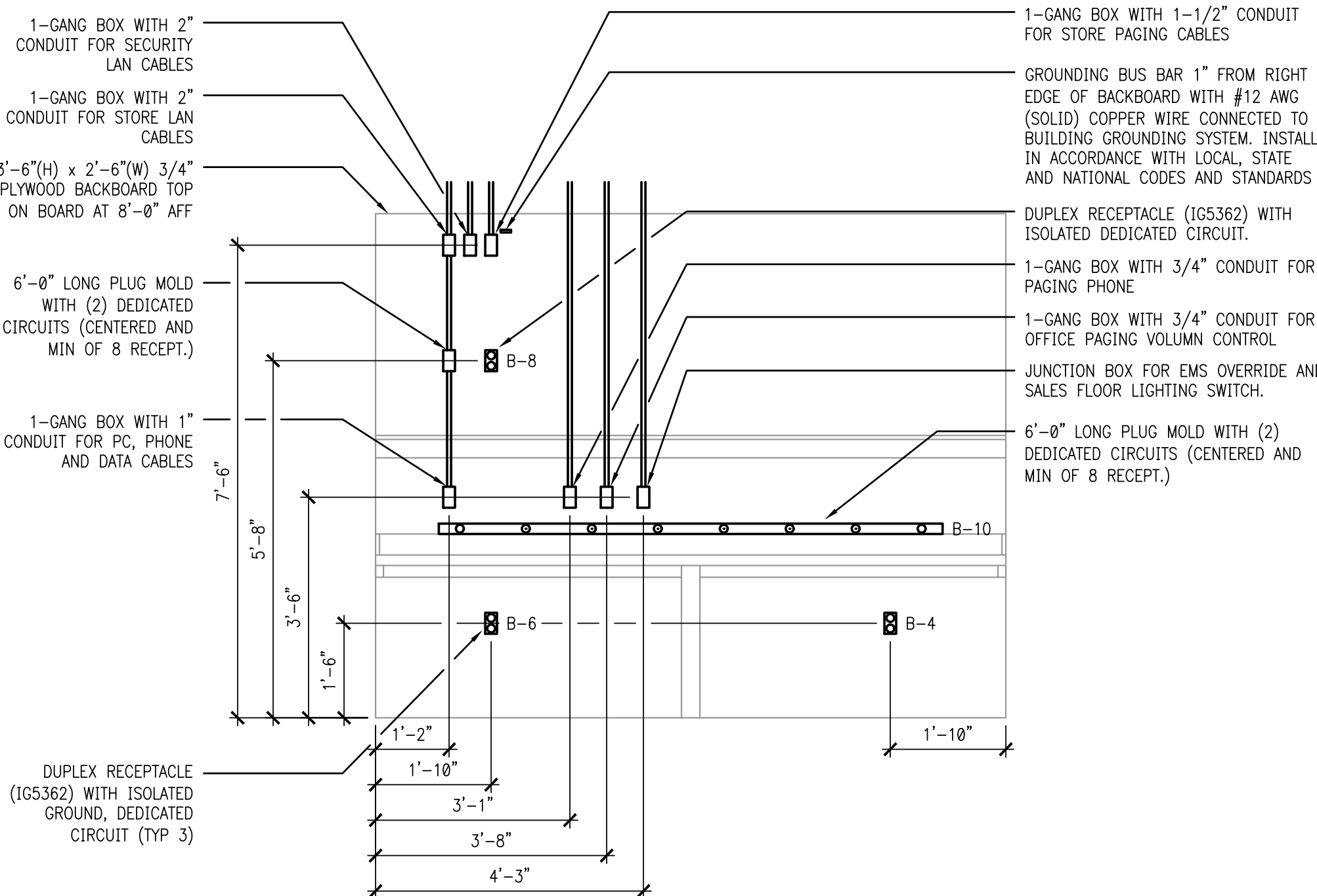
2 ISOLATED GROUND RECEPTACLE  
NTS



3 CONVENTIONAL RECEPTACLE  
NTS



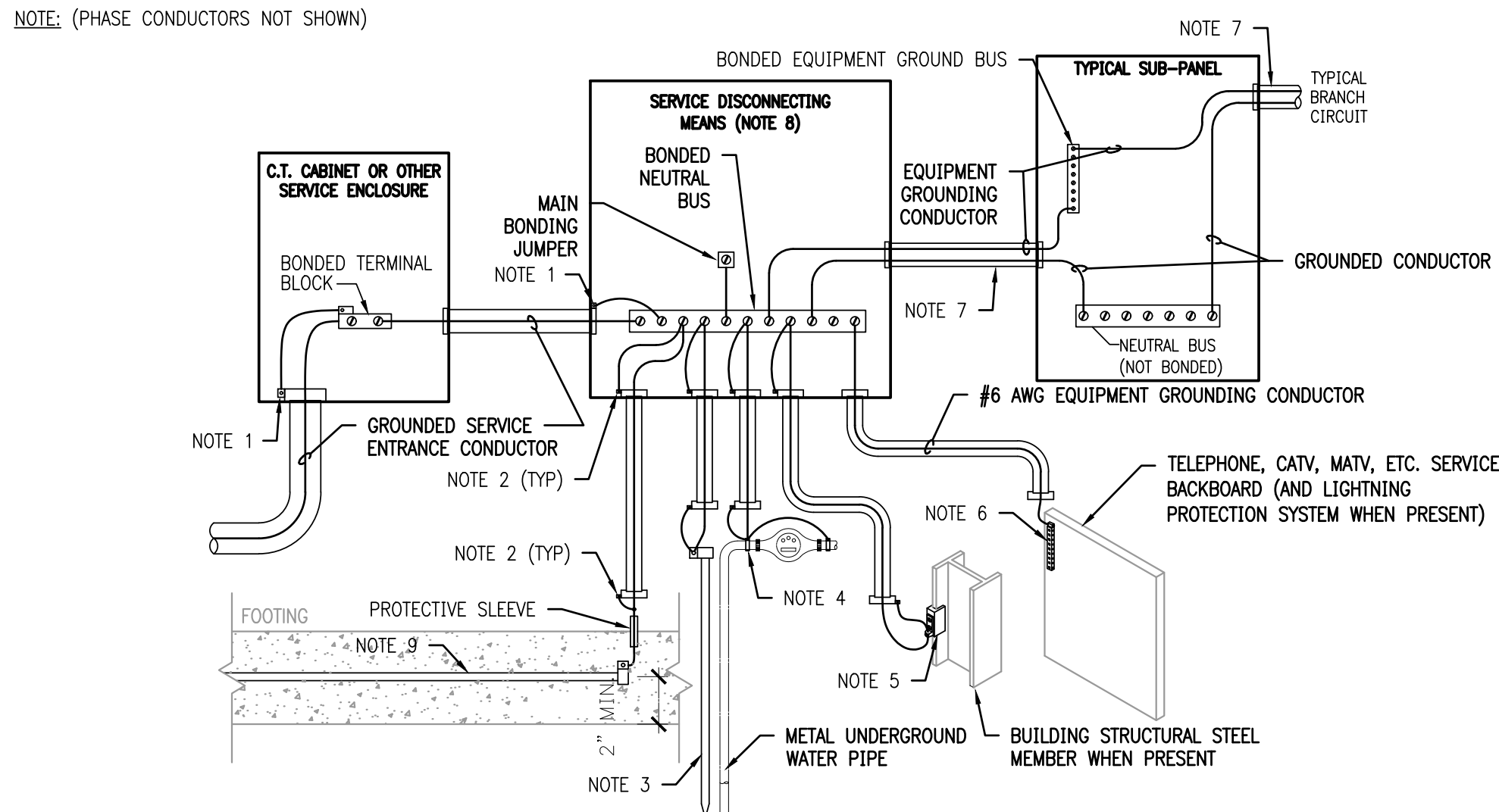
4 DETAIL - INTERIOR LIGHTING CONTROL  
NTS



NOTE:  
ALL CONDUIT SHALL BE INSTALLED INSIDE WALL TO EXTEND 6" ABOVE SALES FLOOR CEILING. ALL CONDUIT STUBS SHALL BE FINISHED WITH CONNECTOR/BUSHING AND HAVE PULL STRINGS INSTALLED. ALL CONDUIT AND BOXES ARE DIMENSIONED TO CENTERLINE. CONTRACTOR SHALL LABEL TOP OF CONDUIT TO MATCH LABELS ON JACKS/JUNCTIONS BELOW.

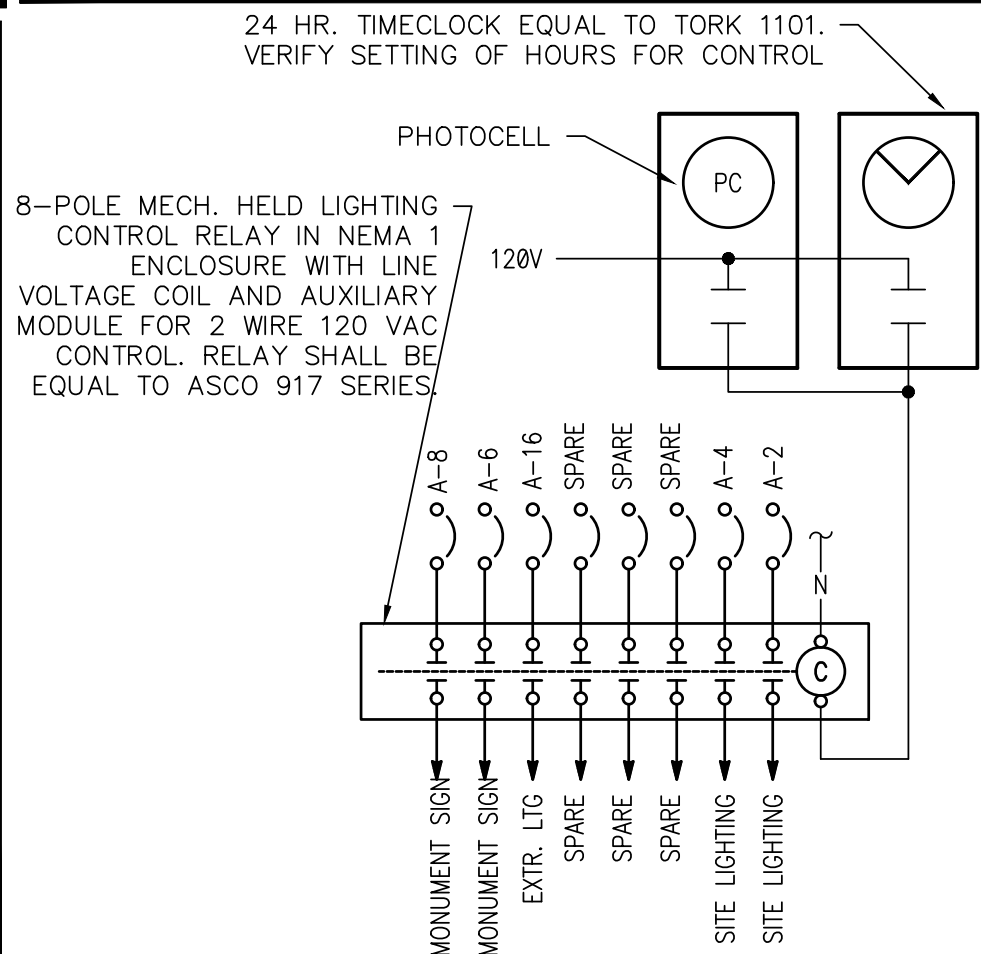
NOTE:  
CONTRACTOR SHALL LABEL ALL PHONE JACKS/JUNCTIONS AS PER ELEVATION.

5 OFFICE ELEVATION  
NTS



- GROUNDING DETAIL NOTES:
1. ALL METAL CONDUITS ENCLOSING ANY SERVICE CONDUCTORS SHALL BE FITTED WITH A "BONDING BUSHING". SIZE THE JUMPER PER NEC.
  2. ALL METAL CONDUITS ENCLOSING ANY GROUNDING ELECTRODE CONDUCTOR SHALL BE FITTED WITH A "BONDING BUSHING" AT EACH END. SIZE THE JUMPER PER NEC.
  3. PROVIDE AT LEAST ONE SUPPLEMENTAL GROUNDING ELECTRODE PER NEC IN THE FORM OF A 10'-0" x 3/4" COPPER CLAD GROUND ROD INSTALLED PER CURRENT NEC REQUIREMENTS.
  4. CONNECT TO THE BUILDING'S METAL UNDERGROUND WATER PIPE WITHIN 5'-0" OF ITS ENTRANCE INTO THE BUILDING AND JUMPER ANY WATER METER PER NEC REQUIREMENTS.
  5. IF STRUCTURAL STEEL MEMBER IS AVAILABLE, BOND IT TO THE SERVICE USING A UL LISTED IRREVERSIBLE CLAMP OR WELDED LUG.
  6. PROVIDE AN EQUIPMENT GROUND BAR AND ATTACH IT TO THE PHONE BOARD.
  7. ALL BRANCH CIRCUIT AND FEEDER CONDUITS ARE TO HAVE AN INSULATED EQUIPMENT GROUNDING CONDUCTOR REGARDLESS OF THE CONDUIT MATERIAL.
  8. WHEN THE SERVICE CONSISTS OF MULTIPLE DISCONNECTING MEANS IN SEPARATE ENCLOSURES, CONNECT A TAP CONDUCTOR FROM THE MAIN GROUNDING ELECTRODE CONDUCTOR TO EACH DISCONNECTING MEANS. SIZE THIS TAP BASED ON THE LARGEST SERVICE CONDUCTOR IN THAT SERVICE DISCONNECT ENCLOSURE.
  9. PROVIDE A GROUNDING ELECTRODE ENCASED IN AT LEAST 2" OF CONCRETE AND LOCATED NEAR THE BOTTOM OF A CONCRETE FOUNDATION OR FOOTING THAT IS IN DIRECT CONTACT WITH EARTH. GROUNDING ELECTRODE SHALL CONSIST OF AT LEAST 20'-0" OF ONE OR MORE BARE OR ZINC GALVANIZED OR OTHER ELECTRICALLY CONDUCTIVE COATED STEEL REINFORCING BARS OR RODS OF NOT LESS THAN 1/2" IN DIAMETER OR AT LEAST 20'-0" OF #4 AWG BARE COPPER CONDUCTOR.

6 MAIN SERVICE ENTRANCE GROUND CONNECTIONS  
N.T.S



6 DETAIL - EXTERIOR LIGHTING CONTROL  
NTS

UPDATED: 8/22/2018 2:51 pm ISSUED FOR: APPROVAL		PANEL MDP																																
LOCATION: KITCHEN VOLTAGE: 208Y/120V TRIM: FLUSH						MAIN: 600A MLO SYSTEM: 3ø, 4W BUS RATING 600A						CONN. LOAD: 145.3 KVA FEED: TOP GROUND BUS: YES																						
CKT	LOAD SERVED	COND	PHASE	NEUT	GND	BKR	DMD	L1	L2	L3	DMD	BKR	COND	PHASE	NEUT	GND	LOAD SERVED	CKT																
1	PANEL A	SEE RISER DIAGRAM				150/3	SF	5811	5758	5741	SF	100/3	SEE RISER DIAGRAM				PANEL B	2																
3	"						SF	8758	8741	8780	SF						"	4																
5	"						SF	6280			SF						"	6																
7	AHU-1	3/4"	#8	-	#10	35/3	A	4164	4164	4164	A	45/3	3/4"	#8	-	#10	CU-1	8																
9	"	"	#8				A	3240	3240	3240	A			#8			"	10																
11	"	"	#8				A		4164	4164	A			#8			"	12																
13	AHU-2	3/4"	#8	-	#10	35/3	A	4164	4164	4164	A	45/3	3/4"	#8	-	#10	CU-2	14																
15	"	"	#8				A	3240	3240	3240	A			#8			"	16																
17	"	"	#8				A		4164	4164	A			#8			"	18																
19	AHU-3	3/4"	#8	-	#10	35/3	A	4164	4164	4164	A	45/3	3/4"	#8	-	#10	CU-3	20																
21	"	"	#8				A	3240	3240	3240	A			#8			"	22																
23	"	"	#8				A		4164	4164	A			#8			"	24																
25	AHU-4	3/4"	#8	-	#10	35/3	A	4164	4164	4164	A	45/3	3/4"	#8	-	#10	CU-4	26																
27	"	"	#8				A	3240	3240	3240	A			#8			"	28																
29	"	"	#8				A		4164	4164	A			#8			"	30																
31	AHU-5	3/4"	#8	-	#10	35/3	A	4164	4164	4164	A	45/3	3/4"	#8	-	#10	CU-5	32																
33	"	"	#8				A	3240	3240	3240	A			#8			"	34																
35	"	"	#8				A		4164	4164	A			#8			"	36																
37	SPARE	-	-	-	-	20/3	-	-	-	-	-	20/1	-	-	-	-	SPARE	38																
39	"	-	-	-	-	-	-	-	-	-	-	20/1	-	-	-	-	SPARE	40																
41	"	-	-	-	-	-	-	-	-	-	-	20/1	-	-	-	-	SPARE	42																
INTERRUPT RATING: 42,000 AIC								47491	48776	49041	FROM: UTILITY TRANSFORMER																							
LOADS (IN VA )		CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	LOADS		CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	REMAINING CONTINUOUS LOADS		0	1.25	0	REMAINING NON-CONTINUOUS LOADS		1500	1.0	1500	RECEPTS REMAINING		2240	0.5	1120	SPACE HEATING		0	0.0	0	AIR CONDITIONING		111060	1.0	111060
LIGHTING		16508	1.25	20635	NON-SEASONAL MOTORS		1000	1.0	1000	LARGEST MOTOR		0	0.25	0	WATER HEATING		3000	1.0	3000	KITCHEN EQUIP.		0	1.0	0	TOTAL CONNECTED LOAD		145.3 KVA	403.6	AMPS	MIN. FEEDER/PANEL CAP.		148.3 KVA	412	AMPS
OVERALL DEMAND FACTOR		1.02																																

Note 1. Feeder size: SEE RISER DIAGRAM

UPDATED: 8/6/2018 1:47 pm ISSUED FOR: APPROVAL										PANEL A																													
LOCATION: STOCK ROOM VOLTAGE: 208Y/120V TRIM: FLUSH										MAIN: 225A MLO SYSTEM: 3ø, 4W BUS RATING 225A										CONN. LOAD: 18 KVA FEED: TOP GROUND BUS: YES																			
CKT	LOAD SERVED	COND	PHASE	NEUT	GND	BKR	DMD	L1	L2	L3	DMD	BKR	COND	PHASE	NEUT	GND	LOAD SERVED	CKT																					
1	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	775			L	20/1	3/4"	#10	#10	#10	LIGHTING - SITE	2																					
3	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	1152	924	924	L	20/1	3/4"	#10	#10	#10	LIGHTING - SITE	4																					
5	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	1200	924	1200	L	20/1	1"	#8	#8	#10	MONUMENT SIGN	6																					
7	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	924	924	1200	L	20/1	1"	#8	#8	#10	MONUMENT SIGN	8																					
9	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	800	924	600	N	20/1	1/2"	#12	#12	#12	INTERIOR TIME CLOCK	10																					
11	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	800	924	600	N	20/1	1/2"	#12	#12	#12	EXTERIOR TIME CLOCK	12																					
13	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	924	924	600	L	20/1	1/2"	#12	#12	#12	RESTROOM/HALLWAY LIGHTING	14																					
15	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	155	924	932	L	20/1	1/2"	#12	#12	#12	LIGHTING-EXTERIOR	16																					
17	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	847	924	693	L	20/1	3/4"	#12	#12	#12	LIGHTING - BUILDING SIGN	18																					
19	SALES AREA LIGHTING	1/2"	#12	#12	#12	20/1	L	539	924	1200	L	20/1	1/2"	#12	#12	#12	STOCK ROOM LIGHTING	20																					
21	SPARE	-	-	-	-	20/1	-	-	300	-	N	20/1	1/2"	#12	#12	#12	OFFICE PLUG MOLD	22																					
23	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	24																					
25	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	26																					
27	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	28																					
29	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	30																					
31	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	32																					
33	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	34																					
35	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	36																					
37	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	38																					
39	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	40																					
41	SPARE	-	-	-	-	20/1	-	-	-	-	-	20/1	-	-	-	-	SPARE	42																					
INTERRUPT RATING: 42,000 AIC										6511	5756	5741	FROM: PANEL MDP																										
LOADS (IN VA )		CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	LOADS		CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	REMAINING CONTINUOUS LOADS		0	1.25	0	REMAINING NON-CONTINUOUS LOADS		1500	1.0	1500	RECEPTS TO 10 KVA		16508	1.25	20635	RECEPTS REMAINING		0	0.5	0	SPACE HEATING		0	0.0	0	AIR CONDITIONING		0	1.0	0
NON-SEASONAL MOTORS						LARGEST MOTOR				TOTAL CONNECTED LOAD		18	KVA	50	AMPS	MIN. FEEDER/PANEL CAP.		22.1	KVA	61.5	AMPS	OVERALL DEMAND FACTOR		1.23															

Note 1. Feeder size: SEE RISER DIAGRAM

UPDATED: 8/6/2018 1:47 pm ISSUED FOR: APPROVAL		PANEL B																																					
LOCATION: STOCK ROOM VOLTAGE: 208Y/120V TRIM: FLUSH										MAIN: 100A MLO SYSTEM: 3ø, 4W BUS RATING 100A										CONN. LOAD: 16.2 KVA FEED: TOP GROUND BUS: YES										ISOLATED GROUND BUS: YES									
CKT	LOAD SERVED	COND	PHASE	NEUT	GND	BKR	DMD	L1	L2	L3	DMD	BKR	COND	PHASE	NEUT	GND	LOAD SERVED	CKT																					
1	RECEPTACLES - SALES	1/2"	#12	#12	#12	20/1	R	540 180			R	20/1	1/2"	#12	#12	#12	TELEPHONE BOARD	2																					
3	RECEPTACLES - SALES	1/2"	#12	#12	#12	20/1	R	540 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - OFFICE	4																					
5	RECEPTACLES - SALES	1/2"	#12	#12	#12	20/1	R	540 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - OFFICE	6																					
7	RECEPTACLES - SALES	1/2"	#12	#12	#12	20/1	R	540 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - OFFICE	8																					
9	RECEPTACLES - STOCK ROOM	1/2"	#12	#12	#12	20/1	R	540 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - OFFICE	10																					
11	RECEPTACLES - EXTERIOR GFI	1/2"	#12	#12	#12	20/1	R	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - EMPLOYEE AREA	12																					
13	RECEPTACLES - RESTROOM GFI	1/2"	#12	#12	#12	20/1	R	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	14																					
15	RECEPTACLES - AHU	1/2"	#12	#12	#12	20/1	R	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	16																					
17	WATER COOLER	1/2"	#12	#12	#12	20/1	K	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	18																					
19	SPARE	--	--	--	--	20/1	--	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	20																					
21	SPARE	--	--	--	--	20/1	--	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	22																					
23	RECEPTACLES - SHOW WINDOW	1/2"	#12	#12	#12	20/1	R	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	24																					
25	RECEPTACLES - SHOW WINDOW	1/2"	#12	#12	#12	20/1	R	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	26																					
27	RECEPTACLE - DOORBELL	1/2"	#12	#12	#12	20/1	R	360 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - CHECKSTAND	28																					
29	SPARE	--	--	--	--	20/1	--	1500 180			R	20/1	1/2"	#12	#12	#12	RECEPTACLE - SALES AREA CEILING	30																					
31	SPARE	--	--	--	--	20/1	--	1500 180			R	20/1	1/2"	#12	#12	#12	SPARE	32																					
33	SPARE	--	--	--	--	20/1	--	1500 180			R	20/1	1/2"	#12	#12	#12	SPARE	34																					
35	SPARE	--	--	--	--	20/1	--	1500 180			R	20/1	1/2"	#12	#12	#12	SPARE	36																					
37	SPARE	--	--	--	--	20/1	--	1500 180			R	20/1	1/2"	#12	#12	#12	SPARE	38																					
39	SPARE	--	--	--	--	20/1	--	1500 180			R	20/1	1/2"	#12	#12	#12	WATER HEATER	40																					
41	SPARE	--	--	--	--	20/1	--	1500 180			R	20/1	1/2"	#12	#12	#12	"	42																					
INTERRUPT RATING: 42,000 AIC										3980 6000 6280			FROM: PANEL MDP																										
LOADS (IN VA )		CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	LOADS		CONNECTED	DEMAND FACTOR	MINIMUM FEEDER	REMAINING CONTINUOUS LOADS		0		1.25	0																								
LIGHTING		0	1.25	0	NON-SEASONAL MOTORS		0	1.0	1000	REMAINING		0		1.0	0																								
RECEPTS TO 10 KVA		10000	1.0	10000	LARGEST MOTOR		0	0.25	0	NON-CONTINUOUS LOADS		0		1.0	0																								
RECEPTS REMAINING		2240	0.5	1120						TOTAL LOADS		0		1.0	0																								
SPACE HEATING		0	0	0	WATER HEATING		3000	1.0	3000	TOTAL CONNECTED LOAD		16.2		KVA	45.1 AMPS																								
AIR CONDITIONING		0	1.0	0	KITCHEN EQUIP.		0	1.0	0	MIN. FEEDER/PANEL CAP.		15.1		KVA	42 AMPS																								
												OVERALL DEMAND FACTOR		0.93																									