

GENERAL SPECIFICATION STANDARDS

DIVISION 8 - DOORS AND WINDOWS

08110 - HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL
1.01 SECTION INCLUDES
 A. NON-FIRE-RATED STEEL DOORS AND FRAMES.
1.02 SUBMITTALS
 A. PRODUCT DATA: MATERIALS AND DETAILS OF DESIGN AND CONSTRUCTION, HARDWARE LOCATIONS, REINFORCEMENT TYPE AND LOCATIONS, ANCHORAGE AND FASTENING METHODS, AND FINISHES: AND ONE COPY OF REFERENCED GRADE STANDARD.
 B. SHOP DRAWINGS: DETAILS OF EACH OPENING, SHOWING ELEVATIONS, GLAZING, FRAME PROFILES, AND IDENTIFYING LOCATION OF DIFFERENT FINISHES, IF ANY.
 C. INSTALLATION INSTRUCTIONS: MANUFACTURER'S PUBLISHED INSTRUCTIONS, INCLUDING ANY SPECIAL INSTALLATION INSTRUCTIONS RELATING TO THIS PROJECT.
 D. MANUFACTURER'S CERTIFICATE: CERTIFICATION THAT PRODUCTS MEET OR EXCEED SPECIFIED REQUIREMENTS.
1.03 QUALITY ASSURANCE
 A. MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING THE PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE.
 B. MAINTAIN AT THE PROJECT SITE A COPY OF ALL REFERENCE STANDARDS DEALING WITH INSTALLATION.
1.04 DELIVERY, STORAGE, AND HANDLING
 A. STORE IN ACCORDANCE WITH NAAMM HMMMA 840.
 B. PROTECT WITH RESILIENT PACKAGING: AVOID HUMIDITY BUILD-UP UNDER COVERINGS: PREVENT CORROSION.
PART 2 PRODUCTS
2.01 MANUFACTURERS
 A. STEEL DOORS AND FRAMES:
 1. ASSA ABLOY CECO, CURRIES, OR FLEMING: WWW.ASSAABLOYDSS.COM.
 2. REPUBLIC DOORS: WWW.REPUBLICDOOR.COM.
 3. STEELCRAFT, AN ALLEGION BRAND: WWW.ALLEGION.COM.
2.02 DOORS AND FRAMES
 A. REQUIREMENTS FOR ALL DOORS AND FRAMES:
 1. ACCESSIBILITY: COMPLY WITH ANSI/ICC A117.1.
 2. DOOR TOP CLOSURES: FLUSH WITH TOP OF FACES AND EDGES.
 3. DOOR EDGE PROFILE: BEVELED ON BOTH EDGES.
 4. DOOR TEXTURE: SMOOTH FACES.
 5. GLAZED LIGHTS: NON-REMOVABLE STOPS ON NON-SECURE SIDE: SIZES AND CONFIGURATIONS AS INDICATED ON DRAWINGS.
 6. HARDWARE PREPARATION: IN ACCORDANCE WITH BHMA A156.115, WITH REINFORCEMENT WELDED IN PLACE, IN ADDITION TO OTHER REQUIREMENTS SPECIFIED IN DOOR GRADE STANDARD.
 7. GALVANIZING FOR UNITS IN WET AREAS: ALL COMPONENTS HOT-DIPPED ZINC-IRON ALLOY-COATED (GALVANNEALED), MANUFACTURER'S STANDARD COATING THICKNESS.
 8. FINISH: FACTORY PRIMED, FOR FIELD FINISHING.
2.03 STEEL DOORS
 B. EXTERIOR DOORS:
 1. GRADE: ANSI A250.8 LEVEL 2, PHYSICAL PERFORMANCE LEVEL B, MODEL 1, FULL FLUSH.
 2. CORE: POLYSTYRENE FOAM.
 3. GALVANIZING: ALL COMPONENTS HOT-DIPPED ZINC-IRON ALLOY-COATED (GALVANNEALED) IN ACCORDANCE WITH ASTM A653/A653M, WITH A60/ZF180 COATING.
 4. INSULATING VALUE: U-VALUE OF 0.50, WHEN TESTED IN ACCORDANCE WITH ASTM C1363.
 5. WEATHERSTRIPPING: INTEGRAL, RECESSED INTO DOOR EDGE OR FRAME.
2.04 STEEL FRAMES
 A. GENERAL:
 1. COMPLY WITH THE REQUIREMENTS OF GRADE SPECIFIED FOR CORRESPONDING DOOR.
 2. FINISH: PAINT.
 3. FRAMES WIDER THAN 48 INCHES (1200 MM): REINFORCE WITH STEEL CHANNEL FITTED TIGHTLY INTO FRAME HEAD, FLUSH WITH TOP.
 B. EXTERIOR DOOR FRAMES: FACE WELDED, SEAMLESS WITH JOINTS FILLED.
 1. GALVANIZING: ALL COMPONENTS HOT-DIPPED ZINC-IRON ALLOY-COATED (GALVANNEALED) IN ACCORDANCE WITH ASTM A653/A653M, WITH A60/ZF180 COATING.
 2. WEATHERSTRIPPING: INTEGRAL, RECESSED INTO DOOR EDGE OR FRAME.
2.05 ACCESSORY MATERIALS
 A. MECHANICAL FASTENERS FOR CONCEALED METAL-TO-METAL CONNECTIONS: SELF-DRILLING, SELF-TAPPING, STEEL WITH ELECTROPLATED ZINC FINISH.
 B. SILICONE RUBBERS: FITTED INTO DRILLED HOLE: 3 ON STRIKE SIDE OF SINGLE DOOR, 3 ON CENTER MULLION OF PAIRS, AND 2 ON HEAD OF PAIRS WITHOUT CENTER MULLIONS.
 C. TEMPORARY FRAME SPREADERS: PROVIDE FOR ALL FACTORY-OR SHOP-ASSEMBLED FRAMES.
2.06 FINISH MATERIALS
 A. PRIMER: RUST-INHIBITING, COMPLYING WITH ANSI A250.10, DOOR MANUFACTURER'S STANDARD.
 B. BITUMINOUS COATING: ASPHALT EMULSION OR OTHER HIGH-BUILD, WATER-RESISTANT, RESILIENT COATING.
PART 3 EXECUTION
3.01 EXAMINATION
 A. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK INCLUDING OPENING SIZES AND TOLERANCES ARE ACCEPTABLE.
3.02 PREPARATION
 A. COAT INSIDE OF FRAMES TO BE INSTALLED IN MASONRY OR TO BE GROUTED, WITH BITUMINOUS COATING, PRIOR TO INSTALLATION.
3.03 INSTALLATION
 A. INSTALL IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFIED DOOR GRADE STANDARD AND NAAMM HMMMA 840.
 B. COORDINATE FRAME ANCHOR PLACEMENT WITH WALL CONSTRUCTION.
 C. GROUT FRAMES IN MASONRY CONSTRUCTION, USING HAND TROWEL METHODS: BRACE FRAMES SO THAT PRESSURE OF GROUT BEFORE SETTING WILL NOT DEFORM FRAMES.
 D. COORDINATE INSTALLATION OF HARDWARE.
3.04 TOLERANCES
 A. CLEARANCES BETWEEN DOOR AND FRAME: AS SPECIFIED IN ANSI A250.8.
 B. MAXIMUM DIAGONAL DISTORTION: 1/16 IN MEASURED WITH STRAIGHT EDGE, CORNER TO CORNER.
3.05 ADJUSTING
 A. ADJUST FOR SMOOTH AND BALANCED DOOR MOVEMENT.

08410 - ALUMINUM-FRAMED ENTRANCES

PART 1 - GENERAL
1.01 SUMMARY
 A. THIS SECTION INCLUDES ALUMINUM STOREFRONT ENTRANCES, DOOR HARDWARE AND COMPONENTS.
 a. MEDIUM STYLE, 3-1/2" VERTICAL FACE DIMENSION, 1-3/4" DEPTH, HIGH TRAFFIC APPLICATIONS FOR ENTRANCES.
 b. 2.5" x 5" FRAMING FOR WINDOWS: BRONZE ANODIZED FINISH
1.02 PERFORMANCE REQUIREMENTS
 A. GENERAL PERFORMANCE: ALUMINUM-FRAMED STOREFRONT SYSTEM SHALL WITHSTAND THE EFFECTS OF THE FOLLOWING PERFORMANCE REQUIREMENTS WITHOUT EXCEEDING PERFORMANCE CRITERIA OR FAILURE DUE TO DEFECTIVE MANUFACTURE, FABRICATION, INSTALLATION, OR OTHER DEFECTS IN CONSTRUCTION:
 a. DESIGN WIND LOADS: PER STRUCTURAL DRAWINGS
1.03 SUBMITTALS
 A. PRODUCT DATA: INCLUDE CONSTRUCTION DETAILS, MATERIAL DESCRIPTIONS, AND FABRICATION METHODS, DIMENSIONS OF INDIVIDUAL COMPONENTS AND PROFILES, HARDWARE, FINISHES, AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF ALUMINUM-FRAMED ENTRANCE DOOR INDICATED.
 B. SHOP DRAWINGS: INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, HARDWARE, AND ATTACHMENTS TO OTHER WORK, OPERATIONAL CLEARANCES AND INSTALLATION DETAILS.
 C. PRODUCT APPROVALS
 D. OTHER ACTION SUBMITTALS:
 1. ENTRANCE DOOR HARDWARE SCHEDULE: PREPARED BY OR UNDER THE SUPERVISION OF SUPPLIER, DETAILING FABRICATION AND ASSEMBLY OF ENTRANCE DOOR HARDWARE, AS WELL AS PROCEDURES AND DIAGRAMS, COORDINATE FINAL ENTRANCE DOOR HARDWARE SCHEDULE WITH DOORS, FRAMES, AND RELATED WORK TO ENSURE PROPER SIZE, THICKNESS, HAND, FUNCTION, AND FINISH OF ENTRANCE DOOR HARDWARE.

1.04 PROJECT CONDITIONS
 A. FIELD MEASUREMENTS: VERIFY ACTUAL DIMENSIONS OF SLIDING ALUMINUM-FRAMED GLASS DOOR OPENINGS BY FIELD MEASUREMENTS BEFORE FABRICATION AND INDICATE FIELD MEASUREMENTS ON SHOP DRAWINGS.
1.05 WARRANTY
 A. MANUFACTURER'S WARRANTY: SUBMIT, FOR OWNER'S ACCEPTANCE, MANUFACTURER'S STANDARD WARRANTY.
PART 2 - PRODUCTS
2.01 MANUFACTURERS
 A. KAWNEER COMPANY INC.
 B. YKK, Inc.
 C. SUBSTITUTIONS AS APPROVD. BY SUBMITTAL OF ALTERNATE PRODUCT
 1. THE DOOR STILE AND RAIL FACE DIMENSIONS OF THE 350 ENTRANCE DOOR WILL BE AS FOLLOWS

VERTICAL STILE	TOP RAIL	BOTTOM RAIL
3-1/2"	3-1/2"	10"

 2. MAJOR PORTIONS OF THE DOOR MEMBERS TO BE 0.125" NOMINAL IN THICKNESS AND GLAZING MOLDING TO BE 0.05" THICK.
 3. GLAZING GASKETS SHALL BE EITHER EPDM ELASTOMERIC EXTRUSIONS OR A THERMOPLASTIC ELASTOMER.
 4. PROVIDE ADJUSTABLE GLASS JACKS TO HELP CENTER THE GLASS IN THE DOOR OPENING.
 B. SUBSTITUTIONS:
 1. PRODUCT LITERATURE AND DRAWINGS: SUBMIT PRODUCT LITERATURE AND DRAWINGS MODIFIED TO SUIT SPECIFIC PROJECT REQUIREMENTS AND JOB CONDITIONS.
 2. SUBSTITUTION ACCEPTANCE: ACCEPTANCE WILL BE IN WRITTEN FORM, EITHER AS AN ADDENDUM OR MODIFICATION, AND DOCUMENTED BY A FORMAL CHANGE ORDER SIGNED BY THE OWNER AND CONTRACTOR.
2.02 MATERIALS
 A. ALUMINUM EXTRUSIONS: ALLOY AND TEMPER RECOMMENDED BY ALUMINUM-FRAMED GLASS DOOR MANUFACTURER FOR STRENGTH, CORROSION RESISTANCE, AND APPLICATION OF REQUIRED FINISH AND NOT LESS THAN 0.090" WALL THICKNESS AT ANY LOCATION FOR THE MAIN FRAME AND SASH MEMBERS.
 B. FASTENERS: ALUMINUM, NONMAGNETIC STAINLESS STEEL OR OTHER MATERIALS TO BE NON-CORROSIVE AND COMPATIBLE WITH SLIDING ALUMINUM-FRAMED GLASS DOOR MEMBERS, TRIM HARDWARE, ANCHORS, AND OTHER COMPONENTS.
 C. ANCHORS, CLIPS, AND ACCESSORIES: ALUMINUM, NONMAGNETIC STAINLESS STEEL, OR ZINC-COATED STEEL OR IRON COMPLYING WITH ASTM B 633 FOR SC 3 SEVERE SERVICE CONDITIONS OR OTHER SUITABLE ZINC COATING: PROVIDE SUFFICIENT STRENGTH TO WITHSTAND DESIGN PRESSURE INDICATED.
 D. WEATHER SEALS: PROVIDE WEATHER STRIPPING WITH INTEGRAL BARRIER FIN OR FINS OF SEMI-RIGID, POLYPROPYLENE SHEET OR POLYPROPYLENE-COATED MATERIAL. COMPLY WITH AAMA 701 / 702
2.03 GLAZING
 A. GLAZING: AS SPECIFIED IN DIVISION 08800 SECTION "GLAZING."
 B. GLAZING GASKETS: MANUFACTURER'S STANDARD COMPRESSION TYPES: REPLACEABLE, EXTRUDED EPDM RUBBER.
 C. SPACERS AND SETTING BLOCKS: MANUFACTURER'S STANDARD ELASTOMERIC TYPE.
 D. BOND-BREAKER TAPE: MANUFACTURER'S STANDARD TFE-FLUOROCARBON OR POLYETHYLENE MATERIAL TO WHICH SEALANTS WILL NOT DEVELOP ADHESION.
2.04 HARDWARE
 A. GENERAL: PROVIDE MANUFACTURER'S STANDARD HARDWARE FABRICATED FROM ALUMINUM, STAINLESS STEEL, OR OTHER CORROSION-RESISTANT MATERIAL COMPATIBLE WITH ALUMINUM DESIGNED TO SMOOTHLY OPERATE, TIGHTLY CLOSE, AND SECURELY ALUMINUM-FRAMED ENTRANCE DOORS.
2.05 FABRICATION
 A. FABRICATE ALUMINUM-FRAMED GLASS ENTRANCE DOORS IN SIZES INDICATED. INCLUDE A COMPLETE SYSTEM FOR ASSEMBLING COMPONENTS AND ANCHORING DOORS.
2.06 FINISHES, GENERAL
 A. COMPLY WITH AAMA-APFA "ANODIC FINISHES/PAINTED ALUMINUM" FOR RECOMMENDATIONS FOR APPLYING AND DESIGNATING FINISHES.
 B. APPEARANCE OF FINISHED WORK: VARIATIONS IN APPEARANCE OF ABUTTING OR ADJACENT PIECES ARE ACCEPTABLE IF THEY ARE WITHIN ONE-HALF OF THE RANGE OF APPROVED SAMPLES. NOTICEABLE VARIATIONS IN THE SAME PIECE ARE NOT ACCEPTABLE. VARIATIONS IN APPEARANCE OF OTHER COMPONENTS ARE ACCEPTABLE IF THEY ARE WITHIN THE RANGE OF APPROVED SAMPLES AND ARE ASSEMBLED OR INSTALLED TO MINIMIZE CONTRAST.
2.07 ALUMINUM FINISHES
 A. FINISH DESIGNATIONS PREFIXED BY AA COMPLY WITH THE SYSTEM ESTABLISHED BY THE ALUMINUM ASSOCIATION FOR DESIGNATING ALUMINUM FINISHES.
PART 3 - EXECUTION
3.01 EXAMINATION
 A. EXAMINE OPENINGS, SUBSTRATES, STRUCTURAL SUPPORT, ANCHORAGE, AND CONDITIONS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF WORK. VERIFY ROUGH OPENING DIMENSIONS, LEVELNESS OF SILL PLATE AND OPERATIONAL CLEARANCES. EXAMINE WALL FLASHINGS, VAPOR RETARDERS, WATER AND WEATHER BARRIERS, AND OTHER BUILT-IN COMPONENTS TO ENSURE A COORDINATED, WEATHER TIGHT SLIDING DOOR INSTALLATION.
 1. MASONRY SURFACES: VISIBLY DRY AND FREE OF EXCESS MORTAR, SAND, AND OTHER CONSTRUCTION DEBRIS.
 2. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
3.02 INSTALLATION
 A. COMPLY WITH DRAWINGS, SHOP DRAWINGS, AND MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLING ALUMINUM SWING ENTRANCE DOORS, HARDWARE, ACCESSORIES, AND OTHER COMPONENTS.
 B. INSTALL ALUMINUM SWING ENTRANCE DOORS LEVEL, PLUMB, SQUARE, TRUE TO LINE, WITHOUT DISTORTION OR IMPEDING THERMAL MOVEMENT, ANCHORED SECURELY IN PLACE TO STRUCTURAL SUPPORT, AND IN PROPER RELATION TO WALL FLASHING AND OTHER ADJACENT CONSTRUCTION.
 C. SET SILL THRESHOLD IN BED OF SEALANT, AS INDICATED, FOR WEATHER TIGHT CONSTRUCTION.
 D. SEPARATE ALUMINUM AND OTHER CORRODIBLE SURFACES FROM SOURCES OF CORROSION OR ELECTROLYTIC ACTION AT POINTS OF CONTACT WITH OTHER MATERIALS.
3.03 FIELD QUALITY CONTROL
 A. MANUFACTURER'S FIELD SERVICES: UPON OWNER'S WRITTEN REQUEST, PROVIDE PERIODIC SITE VISIT BY MANUFACTURER'S FIELD SERVICE REPRESENTATIVE.
3.04 ADJUSTING, CLEANING, AND PROTECTION
 A. CLEAN ALUMINUM SURFACES IMMEDIATELY AFTER INSTALLING ALUMINUM FRAMED STOREFRONTS. AVOID DAMAGING PROTECTIVE COATINGS AND FINISHES. REMOVE EXCESS SEALANTS, GLAZING MATERIALS, DIRT, AND OTHER SUBSTANCES.
 B. CLEAN GLASS IMMEDIATELY AFTER INSTALLATION. COMPLY WITH GLASS MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR FINAL CLEANING AND MAINTENANCE. REMOVE NONPERMANENT LABELS, AND CLEAN SURFACES.
 C. REMOVE AND REPLACE GLASS THAT HAS BEEN BROKEN, CHIPPED, CRACKED, ABRADED, OR DAMAGED DURING CONSTRUCTION PERIOD.

08800 - GLAZING

PART 1 GENERAL
1.01 SECTION INCLUDES
 A. GLASS, GLAZING COMPOUNDS AND ACCESSORIES.
1.02 SUBMITTALS
 A. PRODUCT DATA ON GLASS TYPES: PROVIDE STRUCTURAL, PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS: SIZE LIMITATIONS, SPECIAL HANDLING OR INSTALLATION REQUIREMENTS.
 B. PRODUCT DATA ON GLAZING COMPOUNDS: PROVIDE CHEMICAL, FUNCTIONAL, AND ENVIRONMENTAL CHARACTERISTICS, LIMITATIONS, SPECIAL APPLICATION REQUIREMENTS. IDENTIFY AVAILABLE COLORS.
1.03 QUALITY ASSURANCE
 A. PERFORM WORK IN ACCORDANCE WITH GANA GLAZING MANUAL AND FGMA SEALANT MANUAL FOR GLAZING INSTALLATION METHODS.
PART 2 PRODUCTS
2.01 GLAZING TYPES
 A. HIGH IMPACT RATED GLASS: ASTM C 1172 - STANDARD SPECIFICATION FOR LAMINATED ARCHITECTURAL FLAT GLASS: 2009
 THICKNESS: 9/16 INCH, TWO 1/4" SHEETS LAMINATED WITH PVB INTERLAYER
 CLEAR: CLASS 1 (CLEAR); U.N.O.
2.02 GLASS MATERIALS
 A. FLOAT GLASS MANUFACTURERS:
 1. GUARDIAN INDUSTRIES CORP: WWW.SUNGUARDGLASS.COM.
 2. PILKINGTON NORTH AMERICA INC: WWW.PILKINGTON.COM/NA.
 3. PPG INDUSTRIES, INC: WWW.PPGID.EASCAPES.COM
 B. FLOAT GLASS: ALL GLAZING IS TO BE FLOAT GLASS UNLESS OTHERWISE INDICATED.
 1. ANNEALED TYPE: ASTM C1036, TYPE I, TRANSPARENT FLAT, CLASS 1 CLEAR, QUALITY 3 (GLAZING SELECT).
 2. HEAT-STRENGTHENED AND FULLY TEMPERED TYPES: ASTM C1048.
 3. TINTED TYPES: COLOR AND PERFORMANCE CHARACTERISTICS AS INDICATED.
 4. THICKNESSES: AS INDICATED: FOR EXTERIOR GLAZING COMPLY WITH SPECIFIED REQUIREMENTS FOR WIND LOAD DESIGN REGARDLESS OF SPECIFIED THICKNESS.
2.03 GLAZING COMPOUNDS
 A. MANUFACTURERS:
 1. BOSTIK INC: WWW.BOSTIK-US.COM.
 2. PECORA CORPORATION: WWW.PECORA.COM.
 3. BASF CONSTRUCTION CHEMICALS-BUILDING SYSTEMS: WWW.BUILDINGSYSTEMS.BASF.COM.
2.04 GLAZING ACCESSORIES
 A. SETTING BLOCKS: NEOPRENE, 80 TO 90 SHORE A DUROMETER HARDNESS, ASTM C864 OPTION I, LENGTH OF 0.1 INCH FOR EACH SQUARE FOOT OF GLAZING OR MINIMUM 4 INCH X WIDTH OF GLAZING RABBIT SPACE MINUS 1/16 INCH X HEIGHT TO SUIT GLAZING METHOD AND PANE WEIGHT AND AREA.
 B. SPACER SHIMS: NEOPRENE, 50 TO 60 SHORE A DUROMETER HARDNESS, ASTM C 864 OPTION I, MINIMUM 3 INCH LONG X ONE HALF THE HEIGHT OF THE GLAZING STOP X THICKNESS TO SUIT APPLICATION, SELF ADHESIVE ON ONE FACE.
 C. GLAZING TAPE: PREFORMED BUTYL COMPOUND WITH INTEGRAL RESILIENT TUBE SPACING DEVICE: 10 TO 15 SHORE A DUROMETER HARDNESS: COILED ON RELEASE PAPER: BLACK COLOR.
 D. GLAZING GASKETS: RESILIENT SILICONE EXTRUDED SHAPE TO SUIT GLAZING CHANNEL RETAINING SLOT: ASTM C864 OPTION I: T.B.D. COLOR.
 E. GLAZING CLIPS: MANUFACTURER'S STANDARD TYPE.
PART 3 EXECUTION
3.01 EXAMINATION
 A. VERIFY THAT OPENINGS FOR GLAZING ARE CORRECTLY SIZED AND WITHIN TOLERANCE.
 B. VERIFY THAT SURFACES OF GLAZING CHANNELS OR RECESSES ARE CLEAN, FREE OF OBSTRUCTIONS THAT MAY IMPEDE MOISTURE MOVEMENT, WEEPS ARE CLEAR, AND READY TO RECEIVE GLAZING.



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GENERAL SPECIFICATIONS
PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH

Sheet No.
GS.2

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GENERAL SPECIFICATION STANDARDS

DIVISION 9 - FINISHES

09260 GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL
1.01 SECTION INCLUDES
A. PERFORMANCE CRITERIA FOR GYPSUM BOARD ASSEMBLIES.
B. GYPSUM WALLBOARD.
C. JOINT TREATMENT AND ACCESSORIES.
D. TEXTURED FINISH SYSTEM.
1.02 REFERENCE STANDARDS
A. ASTM C840 - STANDARD SPECIFICATION FOR APPLICATION AND FINISHING OF GYPSUM BOARD. 2011.
B. GA-216 - APPLICATION AND FINISHING OF GYPSUM BOARD. GYPSUM ASSOCIATION. 2013.
1.04 SUBMITTALS
A. PRODUCT DATA: PROVIDE DATA ON METAL FRAMING, GYPSUM BOARD, ACCESSORIES, AND JOINT FINISHING SYSTEM.
1.05 QUALITY ASSURANCE
A. INSTALLER QUALIFICATIONS: COMPANY SPECIALIZING IN PERFORMING GYPSUM BOARD APPLICATION AND FINISHING, WITH MINIMUM 5 YEARS OF DOCUMENTED EXPERIENCE.

PART 2 PRODUCTS
2.01 GYPSUM BOARD ASSEMBLIES
A. PROVIDE COMPLETED ASSEMBLIES COMPLYING WITH ASTM C840 AND GA-216.
2.02 METAL FRAMING MATERIALS
A. MANUFACTURERS - METAL FRAMING, CONNECTORS, AND ACCESSORIES:
1. CLARKWESTERN DIETRICH BUILDING SYSTEMS LLC: WWW.CLARKDIETRICH.COM.
2. MARINO: WWW.MARINOWARE.COM.
3. PHILLIPS MANUFACTURING COMPANY: WWW.PHILLIPSMFG.COM.
B. NON-LOADBEARING FRAMING SYSTEM COMPONENTS: ASTM C645 GALVANIZED SHEET STEEL, OF SIZE AND PROPERTIES NECESSARY TO COMPLY WITH ASTM C754 FOR THE SPACING INDICATED, WITH MAXIMUM DEFLECTION OF WALL FRAMING OF L/240 AT 5 PSF.
1. FURRING: Z SHAPED, MINIMUM DEPTH OF 1.5 INCH.

2.03 BOARD MATERIALS
A. MANUFACTURERS - GYPSUM-BASED BOARD:
1. AMERICAN GYPSUM: WWW.AMERICANGYPSUM.COM.
2. GEORGIA-PACIFIC GYPSUM: WWW.GPGGYPSUM.COM.
3. LAFARGE NORTH AMERICA INC: WWW.LAFARGENORTHAMERICA.COM.
B. GYPSUM WALLBOARD: PAPER-FACED GYPSUM PANELS AS DEFINED IN ASTM C1396/C1396M. SIZES TO MINIMIZE JOINTS IN PLACE. ENDS SQUARE CUT.
1. APPLICATION: USE FOR VERTICAL SURFACES AND CEILINGS, UNLESS OTHERWISE INDICATED.
2. THICKNESS:
a. VERTICAL SURFACES: 5/8 INCH. MOISTURE RESISTANT WHERE INDICATED
C. PAPER-FACED PRODUCTS:
a. AMERICAN GYPSUM: EAGLEROC REGULAR GYPSUM WALLBOARD AND FIREBLOC TYPE X GYPSUM WALLBOARD.
b. GEORGIA-PACIFIC GYPSUM: TOUGHROCK, TOUGHROCK FIREGUARD, AND TOUGHROCK FIREGUARD C GYPSUM WALLBOARD.
c. LAFARGE NORTH AMERICA INC: REGULAR DRYWALL AND FIRECHECK TYPE X AND TYPE C.

2.04 ACCESSORIES
A. FINISHING ACCESSORIES: ASTM C1047, GALVANIZED STEEL OR ROLLED ZINC, UNLESS OTHERWISE INDICATED.
3. TYPES: AS DETAILED OR REQUIRED FOR FINISHED APPEARANCE.
B. JOINT MATERIALS: ASTM C475 AND AS RECOMMENDED BY GYPSUM BOARD MANUFACTURER FOR PROJECT CONDITIONS.
1. TAPE: 2 INCH WIDE, CREASED PAPER TAPE FOR JOINTS AND CORNERS, EXCEPT AS OTHERWISE INDICATED.
2. READY-MIXED VINYL-BASED JOINT COMPOUND.
C. TEXTURED FINISH MATERIALS: LATEX-BASED COMPOUND PLAIN.
D. SCREWS FOR ATTACHMENT TO STEEL MEMBERS LESS THAN 0.03 INCH IN THICKNESS, TO WOOD MEMBERS, AND TO GYPSUM BOARD: ASTM C1002: SELF-PIERCING TAPPING TYPE: CADMIUM-PLATED FOR EXTERIOR LOCATIONS.
E. SCREWS FOR ATTACHMENT TO STEEL MEMBERS FROM 0.033 TO 0.112 INCH IN THICKNESS: ASTM C954: STEEL DRILL SCREWS FOR APPLICATION OF GYPSUM BOARD TO LOADBEARING STEEL STUDS.
F. NAILS FOR ATTACHMENT TO WOOD MEMBERS: ASTM C514.

PART 3 EXECUTION
3.01 EXAMINATION
A. VERIFY THAT PROJECT CONDITIONS ARE APPROPRIATE FOR WORK OF THIS SECTION TO COMMENCE.
3.02 FRAMING INSTALLATION
A. METAL FRAMING: INSTALL IN ACCORDANCE WITH ASTM C754 AND MANUFACTURER'S INSTRUCTIONS.
3.04 BOARD INSTALLATION
A. COMPLY WITH ASTM C 840, GA-216, AND MANUFACTURER'S INSTRUCTIONS. INSTALL TO MINIMIZE BUTT END JOINTS, ESPECIALLY IN HIGHLY VISIBLE LOCATIONS.
B. SINGLE-LAYER NON-RATED: INSTALL GYPSUM BOARD IN MOST ECONOMICAL DIRECTION, WITH ENDS AND EDGES OCCURRING OVER FIRM BEARING.
C. EXPOSED GYPSUM BOARD IN INTERIOR WET AREAS: SEAL JOINTS, CUT EDGES, AND HOLES WITH WATER-RESISTANT SEALANT.
D. INSTALLATION ON METAL FRAMING: USE SCREWS FOR ATTACHMENT OF ALL GYPSUM BOARD
3.05 INSTALLATION OF TRIM AND ACCESSORIES
A. CONTROL JOINTS: PLACE CONTROL JOINTS CONSISTENT WITH LINES OF BUILDING SPACES AND AS INDICATED.
B. CORNER BEADS: INSTALL AT EXTERNAL CORNERS, USING LONGEST PRACTICAL LENGTHS.
3.06 JOINT TREATMENT
A. FINISH GYPSUM BOARD IN ACCORDANCE WITH LEVELS DEFINED IN ASTM C840, AS FOLLOWS:
1. LEVEL 4: WALLS AND CEILINGS TO RECEIVE PAINT FINISH OR WALL COVERINGS, UNLESS OTHERWISE INDICATED.
B. TAPE, FILL, AND SAND EXPOSED JOINTS, EDGES, AND CORNERS TO PRODUCE SMOOTH SURFACE READY TO RECEIVE FINISHES.
1. FEATHER COATS OF JOINT COMPOUND SO THAT CAMBER IS MAXIMUM 1/32 INCH.
3.07 TEXTURE FINISH
A. APPLY FINISH TEXTURE COATING BY MEANS OF SPRAYING APPARATUS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND TO MATCH APPROVED SAMPLE.

09900 - PAINTS AND COATINGS

PART 1 GENERAL
1.01 SECTION INCLUDES
A. SCOPE: FINISH ALL INTERIOR AND EXTERIOR SURFACES EXPOSED TO VIEW, UNLESS FULLY FACTORY-FINISHED AND UNLESS OTHERWISE INDICATED.
B. DO NOT PAINT OR FINISH THE FOLLOWING ITEMS:
1. ITEMS FULLY FACTORY-FINISHED UNLESS SPECIFICALLY SO INDICATED. MATERIALS AND PRODUCTS HAVING FACTORY-APPLIED PRIMERS ARE NOT CONSIDERED FACTORY FINISHED.
2. ITEMS INDICATED TO RECEIVE OTHER FINISHES.
3. ITEMS INDICATED TO REMAIN UNFINISHED.
4. FIRE RATING LABELS, EQUIPMENT SERIAL NUMBER AND CAPACITY LABELS, AND OPERATING PARTS OF EQUIPMENT.
5. FLOORS, UNLESS SPECIFICALLY SO INDICATED, GLASS, CONCEALED PIPES, DUCTS, AND CONDUITS.

1.02 REFERENCE STANDARDS
A. ASTM D16 - STANDARD TERMINOLOGY FOR PAINT, RELATED COATINGS, MATERIALS, AND APPLICATIONS.
1.03 SUBMITTALS
A. PRODUCT DATA: PROVIDE DATA ON ALL FINISHING PRODUCTS, INCLUDING VOC CONTENT.
B. SAMPLES: SUBMIT TWO PAPER CHIP SAMPLES, 2X2 INCH IN SIZE ILLUSTRATING RANGE OF COLORS AND TEXTURES AVAILABLE FOR EACH SURFACE FINISHING PRODUCT SCHEDULED.
C. MAINTENANCE MATERIALS: FURNISH THE FOLLOWING FOR OWNER'S USE IN MAINTENANCE OF PROJECT.
1. EXTRA PAINT AND COATINGS: 1 GALLON OF EACH COLOR. STORE WHERE DIRECTED.
2. LABEL EACH CONTAINER WITH COLOR IN ADDITION TO THE MANUFACTURER'S LABEL.
1.04 QUALITY ASSURANCE
A. MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING THE PRODUCTS SPECIFIED, WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE.

1.05 DELIVERY, STORAGE, AND HANDLING
A. DELIVER PRODUCTS TO SITE IN SEALED AND LABELED CONTAINERS. INSPECT TO VERIFY ACCEPTABILITY.
B. CONTAINER LABEL: INCLUDE MANUFACTURER'S NAME, TYPE OF PAINT, BRAND NAME, LOT NUMBER, BRAND CODE, COVERAGE, SURFACE PREPARATION, DRYING TIME, CLEANUP REQUIREMENTS, COLOR DESIGNATION, AND INSTRUCTIONS FOR MIXING AND REDUCING.
C. PAINT MATERIALS: STORE AT MINIMUM AMBIENT TEMPERATURE OF 45 DEGREES F AND A MAXIMUM OF 90 DEGREES F, IN VENTILATED AREA, AND AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS.
1.06 FIELD CONDITIONS
A. DO NOT APPLY MATERIALS WHEN SURFACE AND AMBIENT TEMPERATURES ARE OUTSIDE THE TEMPERATURE RANGES REQUIRED BY THE PAINT PRODUCT MANUFACTURER.
B. FOLLOW MANUFACTURER'S RECOMMENDED PROCEDURES FOR PRODUCING BEST RESULTS, INCLUDING TESTING OF SUBSTRATES, MOISTURE IN SUBSTRATES, AND HUMIDITY AND TEMPERATURE LIMITATIONS.
C. PROVIDE LIGHTING LEVEL OF 80 FT CANDLES MEASURED MID-HEIGHT AT SUBSTRATE SURFACE.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. PROVIDE ALL PAINT AND COATING PRODUCTS USED IN ANY INDIVIDUAL SYSTEM FROM THE SAME MANUFACTURER. NO EXCEPTIONS.
B. PAINTS:
1. COLOR WHEEL PAINT, A COMEX GROUP COMPANY: WWW.COLORWHEEL.COM.
2. BENJAMIN MOORE & CO: WWW.BENJAMINMOORE.COM.
3. SHERWIN-WILLIAMS COMPANY: WWW.SHERWIN-WILLIAMS.COM.

2.02 PAINTS AND COATINGS - GENERAL

A. PAINTS AND COATINGS: READY MIXED, UNLESS INTENDED TO BE A FIELD-CATALYZED COATING.
1. PROVIDE PAINTS AND COATINGS OF A SOFT PASTE CONSISTENCY, CAPABLE OF BEING READILY AND UNIFORMLY DISPersed TO A HOMOGENEOUS COATING, WITH GOOD FLOW AND BRUSHING PROPERTIES, AND CAPABLE OF DRYING OR CURING FREE OF STREAKS OR SAGS.
2. SUPPLY EACH COATING MATERIAL IN QUANTITY REQUIRED TO COMPLETE ENTIRE PROJECTS WORK FROM A SINGLE PRODUCTION RUN.
3. DO NOT REDUCE, THIN, OR DILUTE COATINGS OR ADD MATERIALS TO COATINGS UNLESS SUCH PROCEDURE IS SPECIFICALLY DESCRIBED IN MANUFACTURER'S PRODUCT INSTRUCTIONS.
B. PRIMERS: WHERE THE MANUFACTURER OFFERS OPTIONS ON PRIMERS FOR A PARTICULAR SUBSTRATE, USE PRIMER CATEGORIZED AS "BEST" BY THE MANUFACTURER.
C. COLORS: TO BE SELECTED FROM MANUFACTURER'S FULL RANGE OF AVAILABLE COLORS.
1. SELECTION TO BE MADE BY OWNER AFTER AWARD OF CONTRACT.
2. ALLOW FOR MINIMUM OF THREE COLORS FOR EACH SYSTEM, UNLESS OTHERWISE INDICATED.
3. IN FINISHED AREAS, FINISH PIPES, DUCTS, CONDUIT, AND EQUIPMENT THE SAME COLOR AS THE WALL/CEILING THEY ARE MOUNTED ON/UNDER.

2.03 PAINT SYSTEMS - EXTERIOR

A. PAINT GE-OP-3L - PLASTER, OPAQUE, LATEX, 3 COAT:
1. ONE COAT OF LATEX PRIMER SEALER.
2. FLAT: TWO COATS OF LATEX.
D. PAINT ME-OP-3L - FERROUS METALS, UNPRIMED, LATEX, 3 COAT:
1. ONE COAT OF LATEX PRIMER.
2. SEMI-GLOSS: TWO COATS OF LATEX ENAMEL.
E. PAINT ME-OP-2L - FERROUS METALS, PRIMED, LATEX, 2 COAT:
1. TOUCH-UP WITH RUST-INHIBITIVE PRIMER RECOMMENDED BY TOP COAT MANUFACTURER.
2. SEMI-GLOSS: TWO COATS OF LATEX ENAMEL.
F. 2.04 PAINT SYSTEMS - INTERIOR
A. PAINT MI-OP-3L - FERROUS METALS, UNPRIMED, LATEX, 3 COAT:
1. ONE COAT OF LATEX PRIMER.
2. SEMI-GLOSS: TWO COATS OF LATEX ENAMEL.
B. SEMI-GLOSS: TWO COATS OF LATEX ENAMEL.
E. PAINT GI-OP-3L - GYPSUM BOARD/PLASTER, LATEX, 3 COAT:
1. ONE COAT OF ALKYD PRIMER SEALER.
2. EGGSHELL: TWO COATS OF LATEX ENAMEL.

2.05 ACCESSORY MATERIALS

A. ACCESSORY MATERIALS: PROVIDE ALL PRIMERS, SEALERS, CLEANING AGENTS, CLEANING CLOTHS, SANDING MATERIALS, AND CLEAN-UP MATERIALS REQUIRED TO ACHIEVE THE FINISHES SPECIFIED WHETHER SPECIFICALLY INDICATED OR NOT. COMMERCIAL QUALITY.
B. PATCHING MATERIAL: LATEX FILLER.
C. FASTENER HEAD COVER MATERIAL: LATEX FILLER.

PART 3 EXECUTION

3.01 EXAMINATION
A. VERIFY THAT SURFACES ARE READY TO RECEIVE WORK AS INSTRUCTED BY THE PRODUCT MANUFACTURER.
B. EXAMINE SURFACES SCHEDULED TO BE FINISHED PRIOR TO COMMENCEMENT OF WORK. REPORT ANY CONDITION THAT MAY POTENTIALLY AFFECT PROPER APPLICATION.
3.02 PREPARATION
A. CLEAN SURFACES THOROUGHLY AND CORRECT DEFECTS PRIOR TO COATING APPLICATION.
B. PREPARE SURFACES USING THE METHODS RECOMMENDED BY THE MANUFACTURER FOR ACHIEVING THE BEST RESULT FOR THE SUBSTRATE UNDER THE PROJECT CONDITIONS.
C. REMOVE OR MASK SURFACE APPURTENANCES, INCLUDING ELECTRICAL PLATES, HARDWARE, LIGHT FIXTURE TRIM, ESCUTCHEONS, AND FITTINGS, PRIOR TO PREPARING SURFACES OR FINISHING.
D. SEAL SURFACES THAT MIGHT CAUSE BLEED THROUGH OR STAINING OF TOPCOAT.
E. WOOD DOORS TO BE FIELD-FINISHED: SEAL WOOD DOOR TOP AND BOTTOM EDGE SURFACES WITH CLEAR SEALER.

10536 - AWNINGS AND CANOPIES

PART 1 GENERAL
1.01 SECTION INCLUDES
A. ALUMINUM FRAMING AND FITTINGS.
B. COVERING MATERIAL WHERE REQUIRED.
1.02 REFERENCE STANDARDS
A. ASTM B210 - STANDARD SPECIFICATION FOR ALUMINUM AND ALUMINUM-ALLOY DRAWN SEAMLESS TUBES 2012.
1.03 DESIGN REQUIREMENTS
A. AWNING MATERIALS, ASSEMBLY AND ATTACHMENTS TO RESIST STRUCTURAL LOADS, POSITIVE AND NEGATIVE WIND DESIGN LOADS PER STRUCTURAL DRAWINGS
1.04 SUBMITTALS
A. PRODUCT DATA: PROVIDE DATA ON AWNING COVERING AND ATTACHMENT DEVICES TO FRAMING SYSTEM.
B. SHOP DRAWINGS: INDICATE AWNING PROFILES, SIZES, CONNECTION ATTACHMENTS, ANCHORAGE, SIZE AND TYPE OF FASTENERS, GRAPHIC IMAGES, PATTERNS, AND ACCESSORIES.
C. SAMPLES, COVERING: SUBMIT 12 X 12 INCH SAMPLE OF PERFORATED METAL COVERING
D. PROVIDE WINDLOAD CALCULATIONS SIGNED AND SEALED BY MANUFACTURERS REGISTERED ENGINEER.

PART 2 PRODUCTS

2.01 ALUMINUM FRAMING SYSTEM
A. FRAMING:
1. 1 1/2" SQUARE TUBING X 1/8" THICK FOR AWNINGS
2. 2" SQUARE TUBING X 1/8" THICK FOR CANOPIES
B. FITTINGS: WALL BRACKETS, CAST ALUMINUM.
C. FASTENERS: FLUSH COUNTERSUNK GALVANIZED STEEL SCREWS OR BOLTS CONSISTENT WITH DESIGN OF SYSTEM.
2.02 COVERING MATERIALS
A. PERFORATED PRE-FINISHED METAL W/ 1/4" HOLES AT 11/16" O.C. WHERE NOTED AWNINGS
B. PRE-FINISHED SHEET ALUMINUM FOR CANOPY.
2.03 FABRICATION - FRAMING
A. FIT AND SHOP ASSEMBLE COMPONENTS IN LARGEST PRACTICAL SIZES, FOR DELIVERY TO SITE.
B. FABRICATE COMPONENTS WITH JOINTS TIGHTLY FITTED AND SECURED.
2.04 FABRICATION - COVERING
A. MANUFACTURE COVERING IN ONE PIECE WHEREVER POSSIBLE, SIZED AND CONFIGURED TO SUIT FRAMING.

PART 3 EXECUTION

3.01 EXAMINATION
A. VERIFY THAT WALL SUBSTRATE ANCHORS ARE ACCEPTABLE AND ARE READY TO RECEIVE WORK.
3.02 INSTALLATION - FRAMING
A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. INSTALL COMPONENTS PLUMB AND LEVEL, ACCURATELY FITTED, FREE FROM DISTORTION OR DEFECTS.
3.03 INSTALLATION - COVERING
A. INSTALL COVERING OVER FRAMING MEMBERS, STRETCHED TAUT WITHOUT CREASES OR FOLDS.
B. ATTACH COVERING AND FASTEN SECURELY.

10523 - FIRE EXTINGUISHERS AND ACCESSORIES

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. FIRE EXTINGUISHERS:
1. ANSUL, INC.: WWW.ANSUL.COM.
2. PYRO-CHEM: WWW.PYROCHEM.COM.
3. J.L INDUSTRIES, INC.: WWW.JLINDUSTRIES.COM.
B. FIRE EXTINGUISHER ACCESSORIES:
1. ANSUL, INC.: WWW.ANSUL.COM.
2. J.L INDUSTRIES, INC.: WWW.JLINDUSTRIES.COM.
3. LARSEN'S MANUFACTURING CO: WWW.LARSENSMFG.COM.
2.02 FIRE EXTINGUISHERS
A. FIRE EXTINGUISHERS - GENERAL: COMPLY WITH PRODUCT REQUIREMENTS OF NFPA 10 AND APPLICABLE CODES, WHICHEVER IS MORE STRINGENT.
1. PROVIDE EXTINGUISHERS LABELED BY UL FOR THE PURPOSE SPECIFIED AND INDICATED.
B. FE-36 TYPE FIRE EXTINGUISHERS: STAINLESS STEEL TANK, WITH PRESSURE GAUGE.
1. CLASS: A:B:C.
2. SIZE: 10 POUND.
3. SIZE AND CLASSIFICATION AS SCHEDULED.
2.03 ACCESSORIES
A. EXTINGUISHER BRACKETS: FORMED STEEL, CHROME-PLATED.

PART 3 EXECUTION

3.01 EXAMINATION
A. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK.
B. VERIFY ROUGH OPENINGS FOR CABINET ARE CORRECTLY SIZED AND LOCATED.
3.02 INSTALLATION
A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



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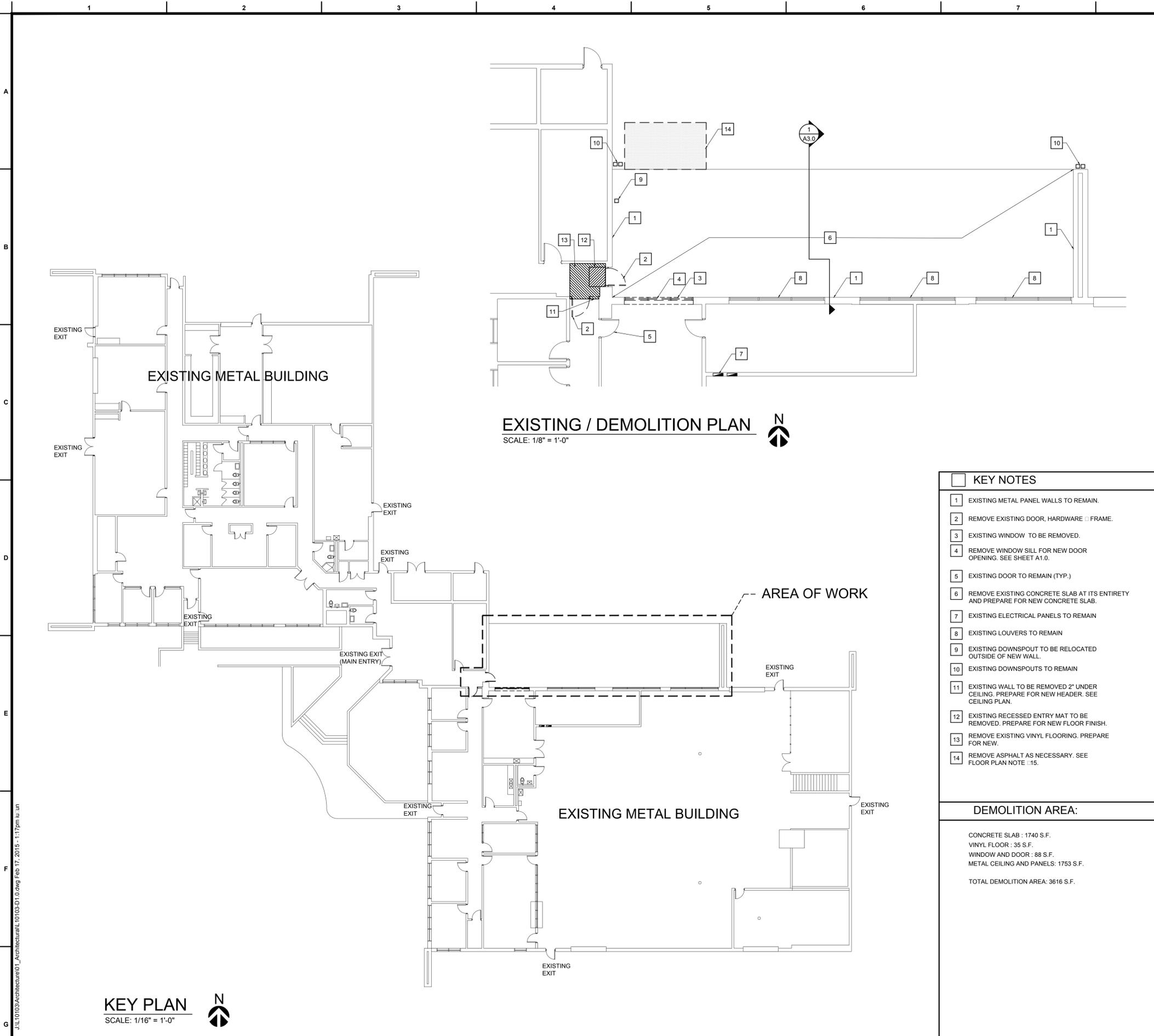
Table with columns for I.I.U., L.I.U., and Job No. (L10103).

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GENERAL SPECIFICATIONS
PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH

Sheet No.
GS.3

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EXISTING / DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

KEY PLAN
SCALE: 1/16" = 1'-0"

- KEY NOTES**
- 1 EXISTING METAL PANEL WALLS TO REMAIN.
 - 2 REMOVE EXISTING DOOR, HARDWARE & FRAME.
 - 3 EXISTING WINDOW TO BE REMOVED.
 - 4 REMOVE WINDOW SILL FOR NEW DOOR OPENING. SEE SHEET A1.0.
 - 5 EXISTING DOOR TO REMAIN (TYP.)
 - 6 REMOVE EXISTING CONCRETE SLAB AT ITS ENTIRETY AND PREPARE FOR NEW CONCRETE SLAB.
 - 7 EXISTING ELECTRICAL PANELS TO REMAIN
 - 8 EXISTING LOUVERS TO REMAIN
 - 9 EXISTING DOWNSPOUT TO BE RELOCATED OUTSIDE OF NEW WALL.
 - 10 EXISTING DOWNSPOUTS TO REMAIN
 - 11 EXISTING WALL TO BE REMOVED 2" UNDER CEILING. PREPARE FOR NEW HEADER. SEE CEILING PLAN.
 - 12 EXISTING RECESSED ENTRY MAT TO BE REMOVED. PREPARE FOR NEW FLOOR FINISH.
 - 13 REMOVE EXISTING VINYL FLOORING. PREPARE FOR NEW.
 - 14 REMOVE ASPHALT AS NECESSARY. SEE FLOOR PLAN NOTE 115.

DEMOLITION AREA:

CONCRETE SLAB : 1740 S.F.
VINYL FLOOR : 35 S.F.
WINDOW AND DOOR : 88 S.F.
METAL CEILING AND PANELS: 1753 S.F.

TOTAL DEMOLITION AREA: 3616 S.F.

GENERAL DEMOLITION REQUIREMENTS

THE FOLLOWING REQUIREMENTS FOR DEMOLITION, CUTTING AND PATCHING APPLY TO ALL WORK WHICH IS ALTERED, WHETHER SUCH WORK IS NEW, EXISTING, RENOVATED OR REPLACED:

PRIOR TO DEMOLITION, CUTTING AND PATCHING, THE CONTRACTOR SHALL LOCATE AND DISCONNECT UTILITY SERVICES AND ELECTRICAL / MECHANICAL SYSTEMS, OR TEMPORARILY CAP OFF SUCH SERVICES TO THE AFFECTED AREAS. GIVE NOTICE TO, AND COORDINATE WITH UTILITY COMPANIES. OBTAIN WRITTEN APPROVAL FROM, AND COOPERATE WITH OTHER PARTIES WHO MAY BE AFFECTED BY INTERRUPTION OF SERVICES.

CLEARLY MARK THE AREAS AND LIMITS OF DEMOLITION, CUTTING AND PATCHING. IF FEASIBLE, PRE-CUT THE LINE OF SEPARATION BETWEEN AREAS OF DEMOLITION AND AREAS TO BE PRESERVED. UTILIZE DEMOLITION AND CUTTING TECHNIQUES WHICH ARE LEAST LIKELY TO DAMAGE SURROUNDING OR ADJOINING WORK. WHERE FEASIBLE, USE HAND TOOLS AND SMALL POWER TOOLS THAT ARE DESIGNED FOR SAWING AND GRINDING, NOT HAMMERING OR CHOPPING. DO NOT USE EXPLOSIVES.

STRUCTURAL REQUIREMENTS: DO NOT CUT AND PATCH STRUCTURAL WORK IN A MANNER WHICH WILL REDUCE LOAD-CARRYING CAPACITY OR LOAD-DEFLECTION RATIO. WHERE STRUCTURAL WORK MUST BE CUT, PROVIDE ADEQUATE TEMPORARY SUPPORT (BRACING AND/OR SHORING) TO RESIST VERTICAL, LATERAL AND DYNAMIC LOADS IN THE ENTIRE TRIBUTARY AREA OF THE AFFECTED STRUCTURAL MEMBERS. WHERE REQUIRED, ENGAGE A LICENSED STRUCTURAL ENGINEER TO DESIGN SHORING / BRACING SYSTEMS AND JOINT OR CONNECTION DETAILS.

OPERATIONAL AND SAFETY LIMITATIONS: DO NOT CUT AND PATCH OPERATIONAL ELEMENTS OR SAFETY RELATED COMPONENTS IN A MANNER WHICH WILL REDUCE INTENDED PERFORMANCE OR SAFETY FACTOR, OR WHICH WILL RESULT IN INCREASED MAINTENANCE OR REDUCED OPERATIONAL LIFE.

VISUAL REQUIREMENTS: DO NOT CUT AND PATCH WORK IN A MANNER WHICH WILL RESULT IN LESSENING OF THE AESTHETIC QUALITIES OF THE BUILDING OR SITE, OR THAT WILL RESULT IN VISUAL EVIDENCE OF CUT AND PATCH WORK. WHERE REQUIRED, EXTEND FINISH MATERIALS OVER ENTIRE UNBROKEN SURFACE AREAS AFFECTED BY CUT AND PATCH WORK. REMOVE AND REPLACE CUT AND PATCH WORK WHICH DOES NOT MEET VISUAL REQUIREMENTS.

PROTECTION: PROTECT OTHER WORK DURING CUTTING AND PATCHING OPERATIONS TO PREVENT DAMAGE. PROVIDE PROTECTION OF ALL WORK FROM ADVERSE WEATHER CONDITIONS. WHERE OPENINGS ARE CREATED IN ROOF OR EXTERIOR WALLS, PROVIDE TEMPORARY ENCLOSURE OF SUCH OPENINGS ON A DAILY BASIS, AND WHENEVER ADVERSE WEATHER THREATENS OR EXISTS.

DEMOLITION NOTES

1. THESE DRAWINGS WERE PREPARED BASED ON INFORMATION ATTAINED FROM A SITE SURVEY. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS IN FIELD PRIOR TO DEMOLITION. NOTIFY THIS OFFICE IN CASE OF DISCREPANCIES ASAP.
2. ALL MEASUREMENTS INDICATED ON THE PLAN SHALL BE VERIFIED ON THE ACTUAL CONDITION. ANY DISCREPANCY IN THE MEASUREMENT SHALL BE REPORTED TO THE ARCHITECT BEFORE THE START OF DEMOLITION.
3. DO NOT SCALE DRAWINGS. ALL MEASUREMENTS INDICATED ON THE PLAN SHALL BE VERIFIED ON THE ACTUAL CONDITION. ANY DISCREPANCY IN THE MEASUREMENT SHALL BE REPORTED TO THE ARCHITECT BEFORE THE START OF DEMOLITION.
4. DEMOLITION IS TO BE EXECUTED SO AS NOT TO DISTURB EXISTING STRUCTURAL ROOFING SYSTEMS, AND OTHER AREAS THAT ARE INTENDED TO REMAIN INTACT. VERIFY ALL CONSTRUCTION TO BE REMOVED THAT IS NOT INTEGRAL TO STRUCTURAL SYSTEM PRIOR TO DEMOLITION.
5. ALL DIMENSIONS SHOWN AS EXISTING SHOULD BE FIELD VERIFIED BY CONTRACTOR PRIOR TO DEMOLITION. VERIFY ALL DEMOLITION WORK WITH NEW CONSTRUCTION INSTALLATION DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
6. ELECTRICAL DEMOLITION NOTE: REMOVE ALL ELECTRICAL LIGHTS, OUTLETS, WIRING AND CONDUITS. CAP LINES AT MAIN DISTRIBUTION PANEL. FIELD VERIFY ELECTRICAL DEMOLITION WITH CONTRACTOR.
7. DEMOLITION CONTRACTOR TO COORDINATE WITH ARCHITECT. REVIEW ALL CONSTRUCTION DOCUMENTS TO DETERMINE THE EXTENT OF DEMOLITION WORK. BECOME FAMILIAR WITH THEM THOROUGHLY BEFORE PERFORMING ANY DEMOLITION WORK. BY THE ACT OF STARTING DEMOLITION, THE CONTRACTOR WILL BE DEEMED TO HAVE COMPLIED WITH THE FOREGOING, TO HAVE ACCEPTED SUCH CONDITIONS, AND TO HAVE MADE THE NECESSARY ALLOWANCES IN PREPARING HIS BID.
8. VERIFY DISPOSITION OF ALL FURNISHINGS, MILLWORK, LIGHTING FIXTURES, ETC. TO BE REMOVED w/ OWNER. ALL ITEMS TO BE DISPOSED SHALL BE DISPOSED OF OFF-SITE AND IN AN EXPEDITIOUS MANNER.
9. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AS REQUIRED TO MAINTAIN STRUCTURAL STABILITY OF THE EXISTING STRUCTURE DURING ALL PHASES OF CONSTRUCTION.
10. PROTECT FROM DAMAGE DURING CONSTRUCTION ALL EXISTING WALLS, FLOORS, CEILINGS, ETC. THAT ARE TO REMAIN. CONTRACTOR TO PATCH & REPAIR ANY DAMAGED PORTIONS OF THE EXISTING BUILDING AS REQUIRED TO MATCH THE EXISTING ADJACENT CONSTRUCTION FINISHES.
11. THIS PLAN INDICATES A GENERAL SCOPE OF WORK TO BE PERFORMED AND DOES NOT RELIEVE THE CONTRACTOR TO COMPLETE THE BUILDING MODIFICATIONS AS SHOWN AND REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO PLUMBING, ELECTRICAL & HVAC WORK.
12. IF CONTRACTOR ENCOUNTERS ANY HAZARDOUS MATERIALS DURING DEMOLITION OR CONSTRUCTION, HE SHALL IMMEDIATELY SUSPEND WORK & NOTIFY THE ARCHITECT BEFORE PROCEEDING.
13. THE SUB-CONTRACTOR SHALL FIELD VERIFY THE EXTENT OF DEMOLITION. THE WORK INCLUDES, BUT IS NOT LIMITED TO THE DEMOLITION AND REMOVAL OF ANY WALLS, COUNTERS, FURNITURE, BULKHEADS, DOORS, PLUMBING, MECHANICAL AND ELECTRICAL ITEMS INCLUDING CONDUITS AND DUCTWORK AS SHOWN ON THE DRAWINGS OR AS REQUIRED TO COMPLETE THE INSTALLATION OF THE NEW WORK FOR A COMPLETE JOB.
14. ALL DEMOLITION SHALL BE CARRIED OUT IN A SAFE MANNER & IN STRICT ACCORDANCE WITH OSHA REGULATIONS.
15. REMOVE ANY SINKS, WATER CLOSETS, URINALS, LAVATORIES, FLOOR DRAINS, NOTED ON DRAWINGS AS WELL AS ALL ASSOCIATED PLUMBING ACCESSORIES. CAP, PLUG ALL ABANDONED SUPPLY & WASTE LINES. PATCH & SEAL ALL FLOOR PENETRATIONS. SEE MECHANICAL & PLUMBING DRAWINGS FOR DETAILED DEMOLITION NOTES.
16. WHEN UTILITIES ARE REMOVED, CAP & SEAL A MINIMUM OF 8" BELOW FINISH FLOOR OR A MINIMUM OF 12" ABOVE FINISH CEILING.
17. THE CONTRACTOR MAY DETERMINE THAT THE COST OF REMOVAL & REPLACEMENT OF EXISTING WALLS IS LESS EXPENSIVE THAN KEEPING EXISTING WALLS. IT IS THE CONTRACTOR'S PREROGATIVE TO DEMO EXISTING WALLS AT NO ADDITIONAL EXPENSE TO THE OWNER.
18. CONTRACTOR TO FIELD VERIFY SUBSTRATES BELOW FLOOR FINISHES FOR ANY CONDITIONS THAT MAY AFFECT THE COST OF INSTALLATION OF THE SPECIFIED MATERIAL.
19. CLEAN & LEVEL FLOOR AS REQUIRED IN DEMO OR SPECIFIED AREAS CONTRACTOR TO DISPOSE OF ANY ITEMS THE OWNER DETERMINES ARE NOT ACCEPTABLE FOR RE-USE.



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DEMOLITION PLAN

PORCH ENCLOSURE FOR

COMMUNITY SUSTAINABILITY DEPARTMENT

CITY OF LAKE WORTH

Sheet No.
D1.0

- KEY NOTES**
- 1 EXISTING METAL PANEL FASCIA TO REMAIN.
 - 2 EXISTING METAL SOFFIT TO BE REMOVED.
 - 3 EXISTING LIGHT FIXTURES TO BE REMOVED. REMOVE ALL ELECTRICAL CONDUITS AND WIRING.
 - 4 EXISTING SPRINKLER HEADS TO BE TURNED UP. G.C. TO SUBMIT SHOP DRAWINGS FOR SUB-PERMIT.
 - 5 EXISTING WINDOW TO BE REMOVED.
 - 6 REMOVE WINDOW SILL FOR NEW DOOR OPENING. SEE SHEET A1.0.
 - 7 EXISTING LOUVERS TO REMAIN (TYP.)
 - 8 RELOCATE EXISTING SECURITY CAMERA. COORDINATE LOCATION WITH OWNER.
 - 9 EXISTING METAL PANEL WALLS TO REMAIN. CLEAN FROM ANY DIRT AND EXCESSIVE RUST.
 - 10 EXISTING LIGHTS TO REMAIN (TYP.)
 - 11 EXISTING GUTTER AND DOWNSPOUTS TO REMAIN (TYP. U.N.O.)
 - 12 2X2 EXISTING LIGHT FIXTURE TO BE RELOCATED. SEE SHEET A1.1
 - 13 EXISTING ACOUSTICAL CEILING SYSTEM TO REMAIN.
 - 14 EXISTING LOUVER TO BE REMOVED. G.C. TO INVESTIGATE AREA THAT LOUVER SERVES PRIOR TO START ANY WORK AND REPORT TO ARCHITECT. SEE SHEET A2.0 AND MECHANICAL DRAWINGS FOR NEW LOUVER AND DUCTS.

GENERAL DEMOLITION REQUIREMENTS

THE FOLLOWING REQUIREMENTS FOR DEMOLITION, CUTTING AND PATCHING APPLY TO ALL WORK WHICH IS ALTERED, WHETHER SUCH WORK IS NEW, EXISTING, RENOVATED OR REPLACED:

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CLEARLY MARK THE AREAS AND LIMITS OF DEMOLITION, CUTTING AND PATCHING. IF FEASIBLE, PRE-CUT THE LINE OF SEPARATION BETWEEN AREAS OF DEMOLITION AND AREAS TO BE PRESERVED. UTILIZE DEMOLITION AND CUTTING TECHNIQUES WHICH ARE LEAST LIKELY TO DAMAGE SURROUNDING OR ADJOINING WORK. WHERE FEASIBLE, USE HAND TOOLS AND SMALL POWER TOOLS THAT ARE DESIGNED FOR SAWING AND GRINDING, NOT HAMMERING OR CHOPPING. DO NOT USE EXPLOSIVES.

STRUCTURAL REQUIREMENTS: DO NOT CUT AND PATCH STRUCTURAL WORK IN A MANNER WHICH WILL REDUCE LOAD-CARRYING CAPACITY OR LOAD-DEFLECTION RATIO. WHERE STRUCTURAL WORK MUST BE CUT, PROVIDE ADEQUATE TEMPORARY SUPPORT (BRACING AND/OR SHORING) TO RESIST VERTICAL, LATERAL AND DYNAMIC LOADS IN THE ENTIRE TRIBUTARY AREA OF THE AFFECTED STRUCTURAL MEMBERS. WHERE REQUIRED, ENGAGE A LICENSED STRUCTURAL ENGINEER TO DESIGN SHORING / BRACING SYSTEMS AND JOINT OR CONNECTION DETAILS.

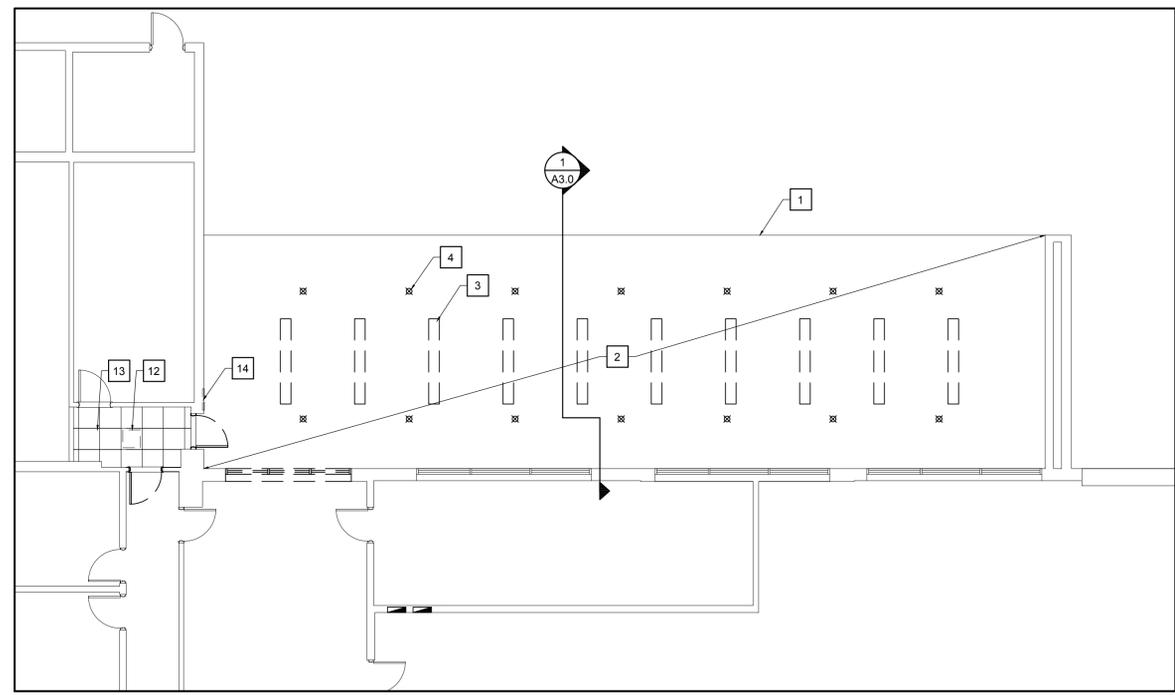
OPERATIONAL AND SAFETY LIMITATIONS: DO NOT CUT AND PATCH OPERATIONAL ELEMENTS OR SAFETY RELATED COMPONENTS IN A MANNER WHICH WILL REDUCE INTENDED PERFORMANCE OR SAFETY FACTOR, OR WHICH WILL RESULT IN INCREASED MAINTENANCE OR REDUCED OPERATIONAL LIFE.

VISUAL REQUIREMENTS: DO NOT CUT AND PATCH WORK IN A MANNER WHICH WILL RESULT IN LESSENING OF THE AESTHETIC QUALITIES OF THE BUILDING OR SITE, OR THAT WILL RESULT IN VISUAL EVIDENCE OF CUT AND PATCH WORK. WHERE REQUIRED, EXTEND FINISH MATERIALS OVER ENTIRE UNBROKEN SURFACE AREAS AFFECTED BY CUT AND PATCH WORK. REMOVE AND REPLACE CUT AND PATCH WORK WHICH DOES NOT MEET VISUAL REQUIREMENTS.

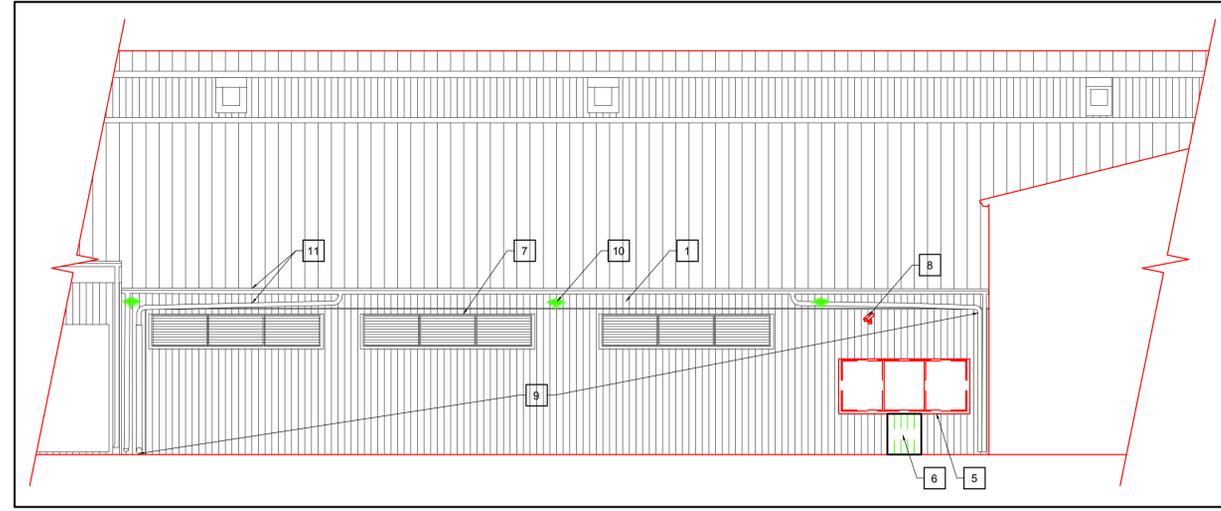
PROTECTION: PROTECT OTHER WORK DURING CUTTING AND PATCHING OPERATIONS TO PREVENT DAMAGE. PROVIDE PROTECTION OF ALL WORK FROM ADVERSE WEATHER CONDITIONS. WHERE OPENINGS ARE CREATED IN ROOF OR EXTERIOR WALLS, PROVIDE TEMPORARY ENCLOSURE OF SUCH OPENINGS ON A DAILY BASIS, AND WHENEVER ADVERSE WEATHER THREATENS OR EXISTS.

DEMOLITION NOTES

1. THESE DRAWINGS WERE PREPARED BASED ON INFORMATION ATTAINED FROM A SITE SURVEY. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS IN FIELD PRIOR TO DEMOLITION. NOTIFY THIS OFFICE IN CASE OF DISCREPANCIES ASAP.
2. ALL MEASUREMENTS INDICATED ON THE PLAN SHALL BE VERIFIED ON THE ACTUAL CONDITION. ANY DISCREPANCY IN THE MEASUREMENT SHALL BE REPORTED TO THE ARCHITECT BEFORE THE START OF DEMOLITION.
3. DO NOT SCALE DRAWINGS. ALL MEASUREMENTS INDICATED ON THE PLAN SHALL BE VERIFIED ON THE ACTUAL CONDITION. ANY DISCREPANCY IN THE MEASUREMENT SHALL BE REPORTED TO THE ARCHITECT BEFORE THE START OF DEMOLITION.
4. DEMOLITION IS TO BE EXECUTED SO AS NOT TO DISTURB EXISTING STRUCTURAL ROOFING SYSTEMS, AND OTHER AREAS THAT ARE INTENDED TO REMAIN INTACT. VERIFY ALL CONSTRUCTION TO BE REMOVED THAT IS NOT INTEGRAL TO STRUCTURAL SYSTEM PRIOR TO DEMOLITION.
5. ALL DIMENSIONS SHOWN AS EXISTING SHOULD BE FIELD VERIFIED BY CONTRACTOR PRIOR TO DEMOLITION. VERIFY ALL DEMOLITION WORK w/ NEW CONSTRUCTION INSTALLATION DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
6. ELECTRICAL DEMOLITION NOTE: REMOVE ALL ELECTRICAL LIGHTS, OUTLETS, WIRING AND CONDUITS. CAP LINES AT MAIN DISTRIBUTION PANEL. FIELD VERIFY ELECTRICAL DEMOLITION WITH CONTRACTOR.
7. DEMOLITION CONTRACTOR TO COORDINATE. REVIEW ALL CONSTRUCTION DOCUMENTS. DETERMINE THE EXTENT OF DEMOLITION WORK. BECOME FAMILIAR WITH THEM THOROUGHLY BEFORE PERFORMING ANY DEMOLITION WORK. BY THE ACT OF STARTING DEMOLITION, THE CONTRACTOR WILL BE DEEMED TO HAVE COMPLIED WITH THE FOREGOING, TO HAVE ACCEPTED SUCH CONDITIONS, AND TO HAVE MADE THE NECESSARY ALLOWANCES IN PREPARING HIS BID.
8. VERIFY DISPOSITION OF ALL FURNISHINGS, MILLWORK, LIGHTING FIXTURES, ETC. TO BE REMOVED w/ OWNER. ALL ITEMS TO BE DISPOSED SHALL BE DISPOSED OFF-SITE AND IN AN EXPEDITIOUS MANNER.
9. CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AS REQUIRED TO MAINTAIN STRUCTURAL STABILITY OF THE EXISTING STRUCTURE DURING ALL PHASES OF CONSTRUCTION.
10. PROTECT FROM DAMAGE DURING CONSTRUCTION ALL EXISTING WALLS, FLOORS, CEILINGS, ETC. THAT ARE TO REMAIN. CONTRACTOR TO PATCH. REPAIR ANY DAMAGED PORTIONS OF THE EXISTING BUILDING AS REQUIRED TO MATCH THE EXISTING ADJACENT CONSTRUCTION FINISHES.
11. THIS PLAN INDICATES A GENERAL SCOPE OF WORK TO BE PERFORMED AND DOES NOT RELIEVE THE CONTRACTOR TO COMPLETE THE BUILDING MODIFICATIONS AS SHOWN AND REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO PLUMBING, ELECTRICAL HVAC WORK.
12. IF CONTRACTOR ENCOUNTERS ANY HAZARDOUS MATERIALS DURING DEMOLITION OR CONSTRUCTION, HE SHALL IMMEDIATELY SUSPEND WORK. NOTIFY THE ARCHITECT BEFORE PROCEEDING.
13. THE SUB-CRONTACTOR SHALL FIELD VERIFY THE EXTENT OF DEMOLITION. THE WORK INCLUDES, BUT IS NOT LIMITED TO THE DEMOLITION AND REMOVAL OF ANY WALLS, COUNTERS, FURNITURE, BULKHEADS, DOORS, PLUMBING, MECHANICAL AND ELECTRICAL ITEMS INCLUDING CONDUITS AND DUCTWORK AS SHOWN ON THE DRAWINGS OR AS REQUIRED TO COMPLETE THE INSTALLATION OF THE NEW WORK FOR A COMPLETE JOB.
14. ALL DEMOLITION SHALL BE CARRIED OUT IN A SAFE MANNER. IN STRICT ACCORDANCE WITH OSHA REGULATIONS.
15. REMOVE ANY SINKS, WATER CLOSETS, URINALS, LAVATORIES, FLOOR DRAINS, NOTED ON DRAWINGS AS WELL AS ALL ASSOCIATED PLUMBING ACCESSORIES. CAP, PLUG ALL ABANDONED SUPPLY WASTE LINES. PATCH. SEAL ALL FLOOR PENETRATIONS. SEE MECHANICAL PLUMBING DRAWINGS FOR DETAILED DEMOLITION NOTES.
16. WHEN UTILITIES ARE REMOVED, CAP. SEAL A MINIMUM OF 8" BELOW FINISH FLOOR OR A MINIMUM OF 12" ABOVE FINISH CEILING.
17. THE CONTRACTOR MAY DETERMINE THAT THE COST OF REMOVAL. REPLACEMENT OF EXISTING WALLS IS LESS EXPENSIVE THAN KEEPING EXISTING WALLS. IT IS THE CONTRACTOR'S PREROGATIVE TO DEMO EXISTING WALLS AT NO ADDITIONAL EXPENSE TO THE OWNER.
18. CONTRACTOR TO FIELD VERIFY SUBSTRATES BELOW FLOOR FINISHES FOR ANY CONDITIONS THAT MAY AFFECT THE COST OF INSTALLATION OF THE SPECIFIED MATERIAL.
19. CLEAN LEVEL FLOOR AS REQUIRED IN DEMO OR SPECIFIED AREAS CONTRACTOR TO DISPOSE OF ANY ITEMS THE OWNER DETERMINES ARE NOT ACCEPTABLE FOR RE-USE.



EXISTING / DEMOLITION CEILING PLAN
SCALE: 1/8" = 1'-0"



EXISTING / DEMOLITION ELEVATION
SCALE: 1/8" = 1'-0"



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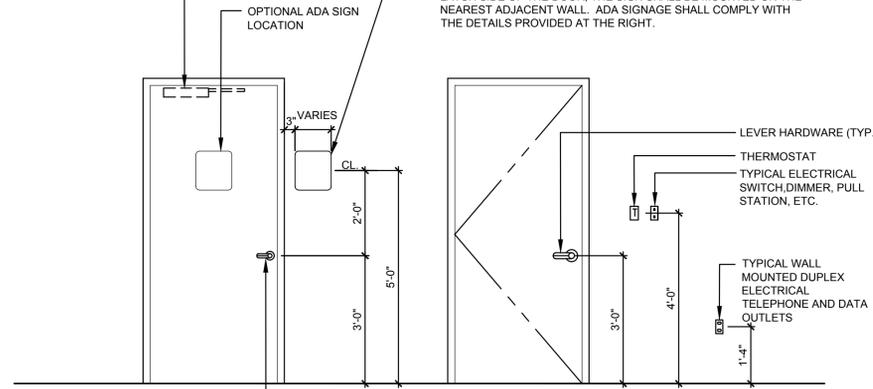
DEMOLITION CEILING PLAN AND ELEVATION
PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH

Sheet No.
D2.0

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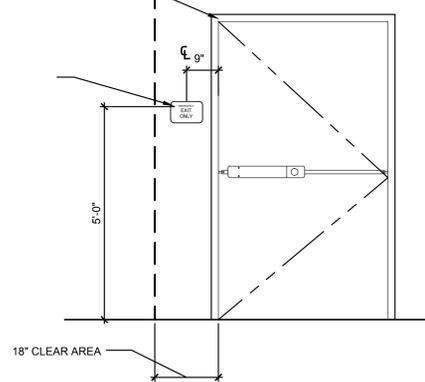
MISC. ADA REQUIREMENTS

DOOR CLOSERS SWEEP PERIOD SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90°, THE DOOR WILL TAKE AT LEAST 5 SECONDS TO MOVE TO A POINT 3 IN. FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR. ADJUST FOR 5 LB. MAX FORCE FOR INTERIOR DOORS; AND 8.5 FOR EXTERIOR DOORS (PER FBC 2010 404.2)



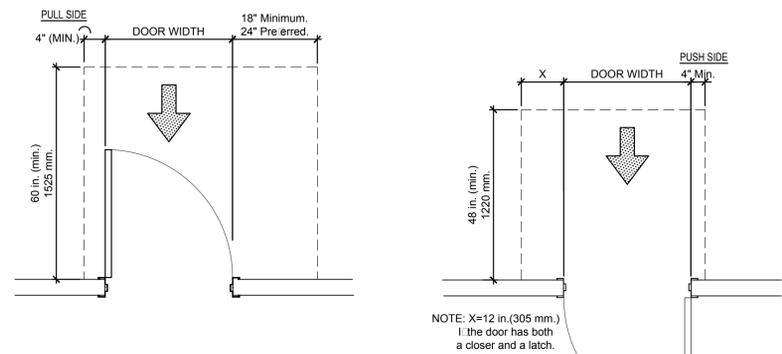
DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE MOUNTED AT 36" (914 mm) ABOVE FINISH FLOOR.

LATCH SIDE OF DOOR
TACTILE "EMERGENCY EXIT ONLY" SIGN RE: DETAIL ON THIS SHEET



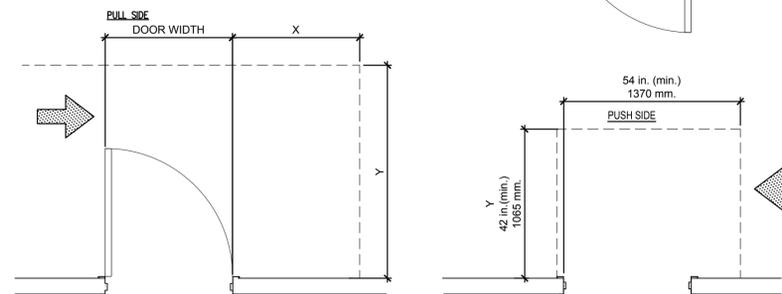
18" CLEAR AREA

MANEUVERING CLEARANCE AT DOORS



NOTE: X=12 in. (305 mm.)
i. the door has both a closer and a latch.

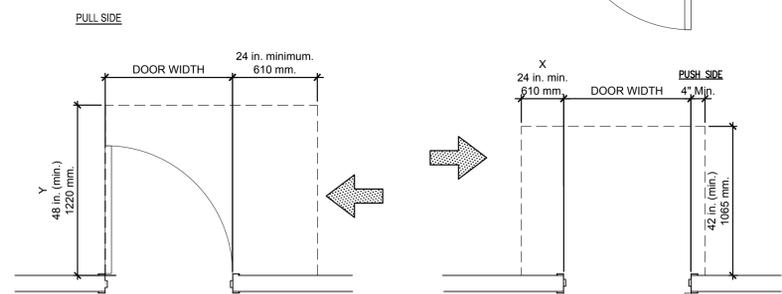
FRONT APPROACHES SWINGING - DOORS



NOTE: X=36 in. (915 mm)
i. Y=60 in. (1525 mm)
X=42 in. (1065 mm)
i. Y=54 in. (1370 mm)

HINGE-SIDE APPROACHES - SWINGING DOORS

NOTE: Y=48 in. (1220 mm)
minimum i. the door has both a closer and a latch.



NOTE: Y=54 in. (1370 mm.)
i. the door has a closer.

LATCH-SIDE APPROACHES SWINGING-DOORS

NOTE: Y=48 in. (1220 mm.)
i. the door has a closer.

SIGNAGE LEGEND

HANDICAP SIGNAGE MOUNTED WITHIN 8" OF JAMB ON STRIKE SIDE

1. REQUIRED ACCESSIBLE ELEMENTS SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AT THE FOLLOWING LOCATIONS

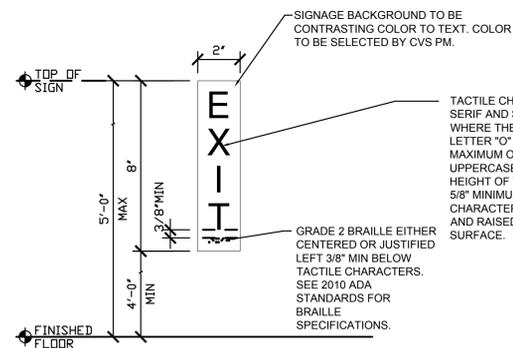
-ACCESSIBLE ENTRANCES WHERE NOT ALL ENTRANCES ARE ACCESSIBLE.

-EMERGENCY EXITS THAT ARE ACCESSIBLE.

2. TACTILE SIGNAGE SHALL BE LOCATED ON THE WALL TO THE DOOR'S LATCH SIDE AT A HEIGHT OF 60" AFF TO THE BASELINE OF THE HIGHEST TACTILE CHARACTER. SIGNS MAY BE PLACED ON THE NEAREST ADJACENT WALL WHEN THERE IS NO WALL SPACE ON THE LATCH SIDE.

3. CHARACTER AND SYMBOLS OF SIGNS SHALL BE IN CONTRAST WITH THEIR BACKGROUND AND SHALL BE EGGSHELL, MATTE, OR OTHER NON-GLARE MATERIALS OR FINISHES.

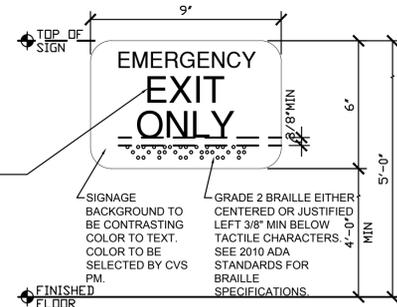
4. ACCESSIBLE SIGNAGE SHALL USE GRADE II BRAILLE AND MUST COMPLY WITH ANSI A117.1 SECTION 703.4.



SIGNAGE BACKGROUND TO BE CONTRASTING COLOR TO TEXT. COLOR TO BE SELECTED BY CVS PM.

TACTILE CHARACTERS SHALL BE SANS SERIF AND SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 55% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I" AND WHERE THE HEIGHT OF THE UPPERCASE LETTER "I" IS 5/8" MINIMUM AND 2" MAXIMUM. CHARACTERS SHALL BE ALL UPPERCASE AND RAISED 1/32" MINIMUM FROM SIGN SURFACE.

GRADE 2 BRAILLE EITHER CENTERED OR JUSTIFIED LEFT 3/8" MIN BELOW TACTILE CHARACTERS. SEE 2010 ADA STANDARDS FOR BRAILLE SPECIFICATIONS.



SIGNAGE BACKGROUND TO BE CONTRASTING COLOR TO TEXT. COLOR TO BE SELECTED BY CVS PM.

GRADE 2 BRAILLE EITHER CENTERED OR JUSTIFIED LEFT 3/8" MIN BELOW TACTILE CHARACTERS. SEE 2010 ADA STANDARDS FOR BRAILLE SPECIFICATIONS.



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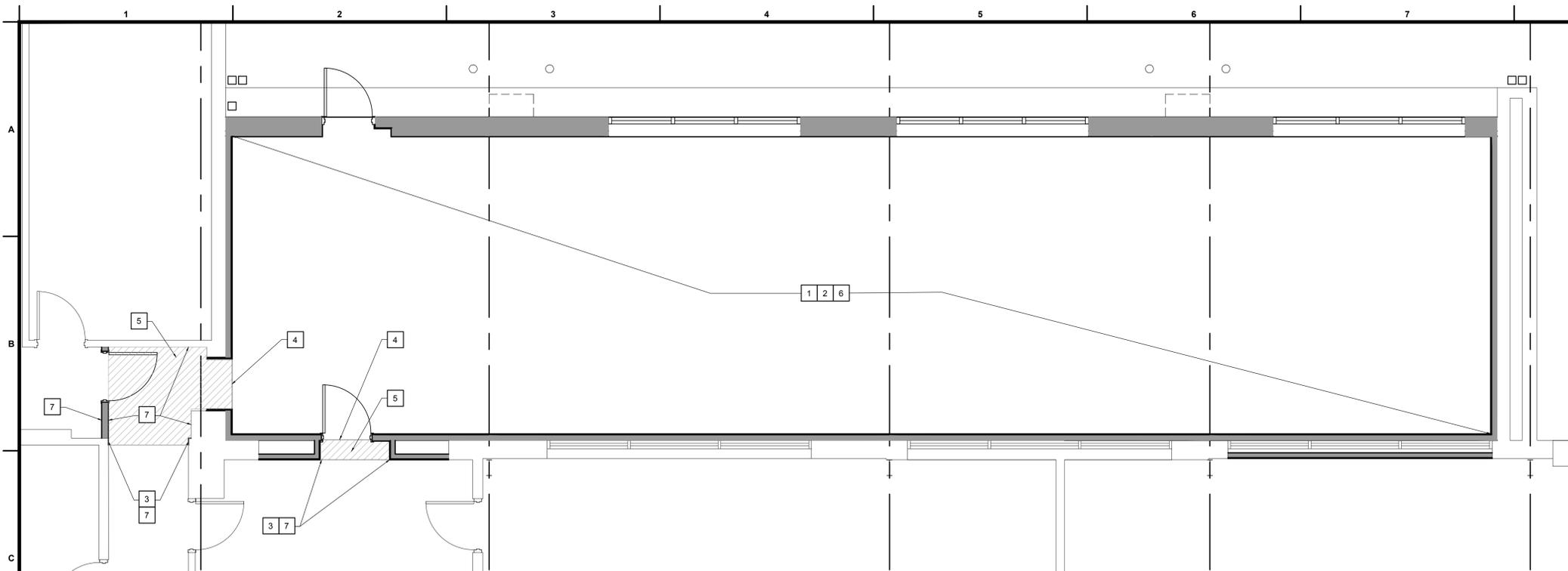
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ADA REQUIREMENTS
PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH

Sheet No.
AO.1



GENERAL NOTES

1. THE PLAN LOCATION OF FIXTURES AND EQUIPMENT AND ARE INTENDED TO CONVEY THE GENERAL INTENT OF THE WORK IN SCOPE AND LAYOUT. THEY ARE NOT INTENDED TO SHOW IN MINUTE DETAIL FOR EVERY AND ALL OF THE ACCESSORIES INTENDED FOR THE PURPOSE OF EXECUTION OF THE WORK, BUT IT IS UNDERSTOOD THAT SUCH DETAILS ARE PART OF THIS WORK.
2. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN A NEAT AND FIRST CLASS WORKMANLIKE MANNER. THE ARCHITECT RESERVES THAT RIGHT TO DIRECT THE REMOVAL AND REPLACEMENT OF ANY ITEM, IN HIS OPINION THAT DOES NOT PRESENT AN ORDERLY AND REASONABLY NEAT OR WORKMANLIKE APPEARANCE. THE REMOVAL AND REPLACEMENT SHALL BE DONE WHEN DIRECTED BY THE GENERAL CONTRACTOR AND WITHOUT ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL COMPLY WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS TO THE EXTENT PRINTED INFORMATION IS MORE DETAILED OR STRINGENT THAN REQUIREMENTS CONTAINED DIRECTLY IN THE PLANS.
4. PATCH AND REPAIR ALL AREAS AFFECTED BY RENOVATION TO MAINTAIN THE INTENDED USE AND IN FULL SATISFACTION OF SPECIFICATIONS AND WARRANTIES OF (AFFECTED ITEMS) MANUFACTURER.
5. CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO FABRICATIONS AND CONSTRUCTION. CONTRACTOR SHALL NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO FABRICATIONS AND CONSTRUCTION.

KEY NOTES

- 1 NEW CONCRETE FLOOR TO HAVE P-2 FINISH
- 2 ALL WALLS TO BE PAINTED P-1, UNLESS NOTED OTHERWISE.
- 3 WALL PAINTED TO MATCH EXISTING WALL COLOR.
- 4 PROVIDE TRANSITION STRIPS AT ALL FINISH JOINTS
- 5 NEW VINYL TILE TO MATCH EXISTING IN HATCHED AREA
- 6 PROVIDE NEW VINYL BASE - VB-1
- 7 PROVIDE NEW VINYL BASE - VB-1 (COLOR TO MATCH EXISTING)

FINISH FLOOR PLAN
SCALE: 1/8" = 1'-0"



INTERIOR FINISH SCHEDULE					
TAG	MATERIAL / DESCRIPTION	MFR.	STYLE/ CAT. NO.	COLOR	NOTES
PAINTS / SEALANTS					
[P1]	PAINT	BENJAMIN MOORE	876	ATRIUM WHITE (AKA ALABASTER)	ECO SPEC WB N374, 2 COATS.
[P2]	CONCRETE SEALER	THE EUCLID CHEMICAL CO.	EUCLID DIAMOND HARD	CLEAR	2 COATS
VINYL					
[V1]	RUBBER WALL BASE	BURKEMERCER	4GL CDVE	527 CLAY	

INTERIOR FINISH NOTES:

1. ALL INTERIOR FLOORING FINISHES SHALL CONFORM TO A CLASS 1 RATING WHEN TESTED PER ASTM E 684, AND A MAXIMUM SPECIFIC OPTICAL DENSITY OF 450 OR LESS WHEN TESTED PER ASTM E 662.
2. ALL INTERIOR WALL FINISHES SHALL CONFORM TO A CLASS A FLAME SPREAD RATING AND A MAXIMUM DEVELOPING RATING OF 450.
3. ALL ACOUSTICAL CEILINGS SHALL CONFORM TO A MAXIMUM FLAME SPREAD INDEX OF 25 AND A MAXIMUM SMOKE DEVELOPED INDEX OF 50.
4. ALL PAINTS SHALL BE LOW V.O.C.
5. PROVIDE V1 BASE AT ALL NEW WALLS. MATCH EXISTING WALL BASE COLOR IN EXISTING SPACES.
6. PROVIDE SAMPLES OF FINISHES FOR OWNER'S APPROVAL.

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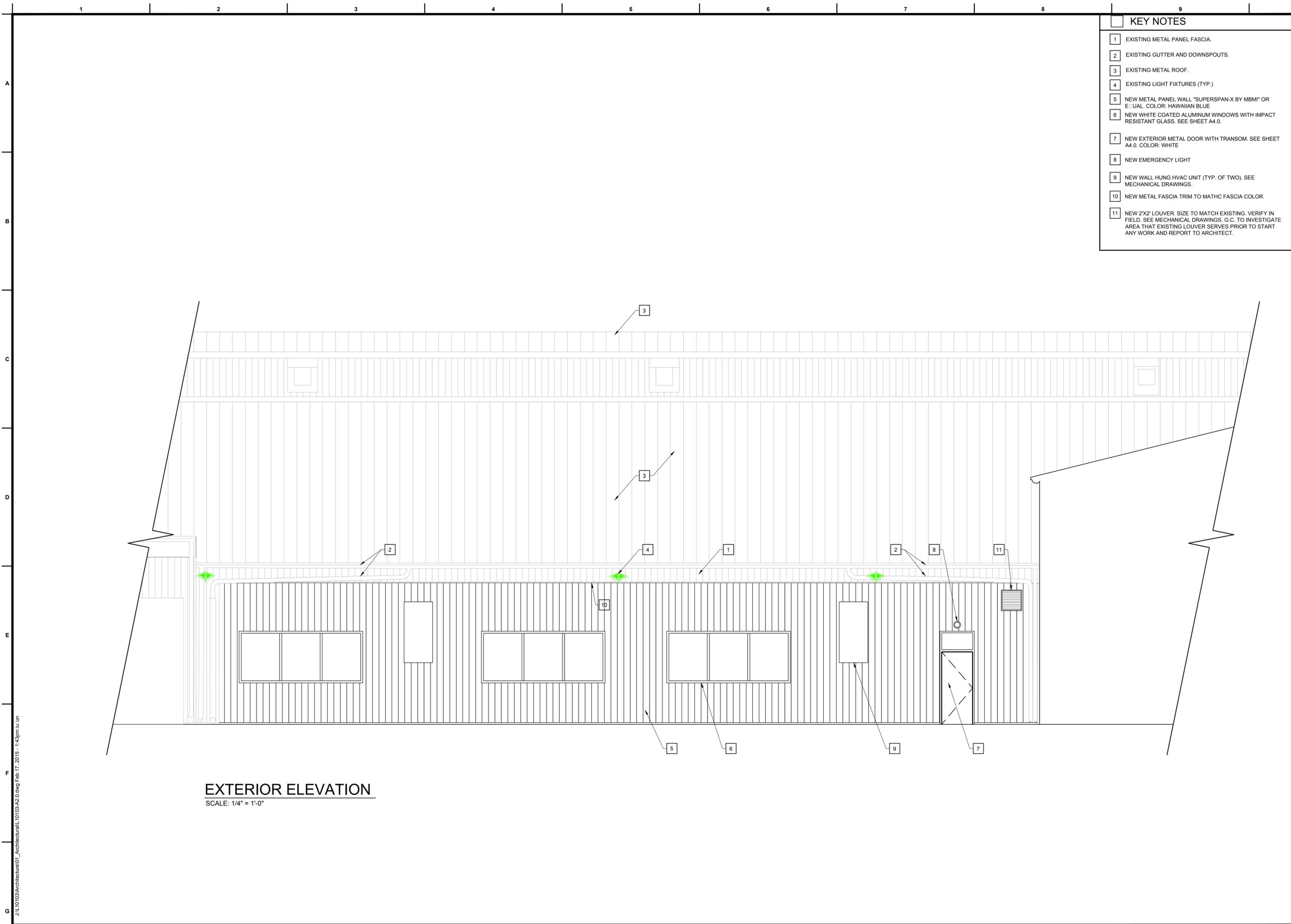
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FINISH PLAN AND SCHEDULES
PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH

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- KEY NOTES**
- 1 EXISTING METAL PANEL FASCIA.
 - 2 EXISTING GUTTER AND DOWNSPOUTS.
 - 3 EXISTING METAL ROOF.
 - 4 EXISTING LIGHT FIXTURES (TYP.)
 - 5 NEW METAL PANEL WALL "SUPERSPAN-X BY MBMI" OR EQUAL. COLOR: HAWAIIAN BLUE
 - 6 NEW WHITE COATED ALUMINUM WINDOWS WITH IMPACT RESISTANT GLASS. SEE SHEET A4.0.
 - 7 NEW EXTERIOR METAL DOOR WITH TRANSOM. SEE SHEET A4.0. COLOR: WHITE
 - 8 NEW EMERGENCY LIGHT
 - 9 NEW WALL HUNG HVAC UNIT (TYP. OF TWO). SEE MECHANICAL DRAWINGS.
 - 10 NEW METAL FASCIA TRIM TO MATCH FASCIA COLOR.
 - 11 NEW 2'X2' LOUVER. SIZE TO MATCH EXISTING. VERIFY IN FIELD. SEE MECHANICAL DRAWINGS. G.C. TO INVESTIGATE AREA THAT EXISTING LOUVER SERVES PRIOR TO START ANY WORK AND REPORT TO ARCHITECT.

EXTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



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By	Revision	No.	Date
		1	02/13/15
		2	L'10'103

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EXTERIOR ELEVATION
PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH

Sheet No.
A2.0

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By		Date	No.
Revision		Date	No.

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FOUNDATION PLAN AND SECTIONS

**PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH**

FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

PLAN NOTES:

- BPX DENOTES STEEL COLUMN BASE PLATE (SEE SCHEDULE)
- SCX DENOTES STEEL COLUMN (SEE SCHEDULE)
- FRAGMATIC FOUNDATION 6" THICK W/ 6" THICKENED EDGES. PROVIDE PROVIDE 10 MIL VAPOR BARRIER.
- ELEVATIONS SHOWN ARE REFERENCE ELEVATIONS ONLY. WITH THE TOP OF GROUND LEVEL FINISH FLOOR REFERENCE ELEVATION = 0'-0". SEE APPROVED ARCHITECTURAL PLANS FOR ACTUAL ELEVATIONS.
- _____ DENOTES TOP REINFORCEMENT.

FOUNDATION SCHEDULE

MARK	WIDTH X LENGTH	MIN. DEPTH	REINFORCEMENT	REMARKS	REFERENCE ELEV. TOP OF FOOTING
F1	2'-6" X CONT.	11"	(3) #5 CONT. #4 @ 12" O.C. (3) #5 CONT.	THICKENED EDGE CONT. FOOTING	0'-0"
F2	3'-0" X 3'-0"	11"	(3) #5 CONT. (3) #5	THICKENED EDGE SPREAD FOOTING	0'-0"
F3	6" X CONT.	11"	(2) #5 CONT.	THICKENED EDGE CONT. FOOTING	0'-0"

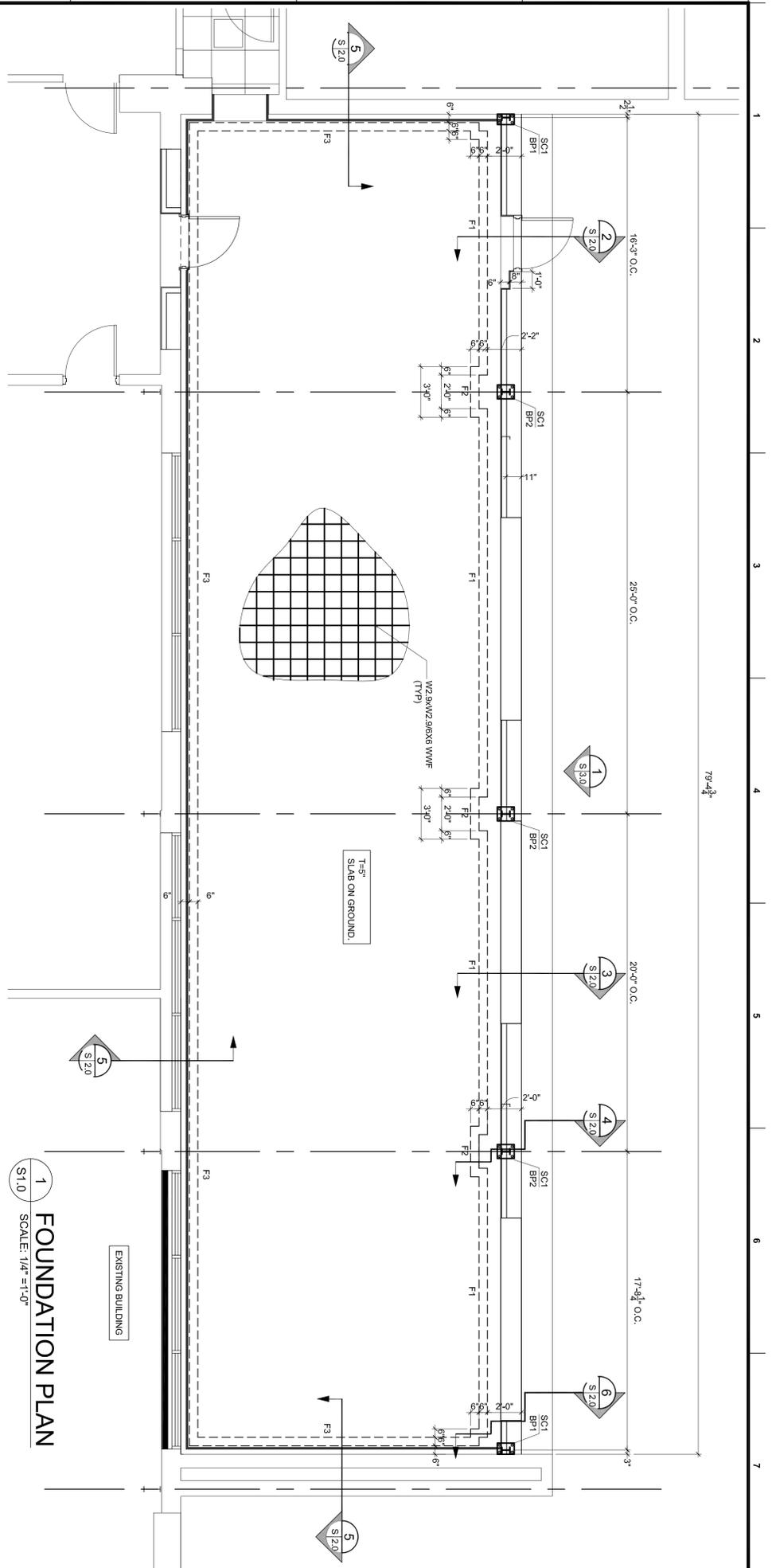
BASE PLATE SCHEDULE

MARK	BASE PLATE	ANCHOR BOLTS	REMARKS
BP1	8" X 8"	1" DIA. A307	10'-4"
BP2	12" X 10"	1" DIA. A307	10'-4"

ALL BASE PLATE ANCHOR BOLTS SHALL BE ASTM A307

STEEL COLUMN SCHEDULE

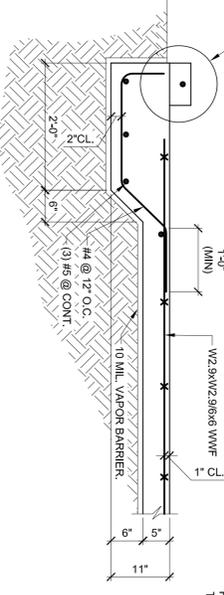
MARK	SHAPE	MATERIAL
SC1	WB6X25	A992 / Fy = 50 ksi



1 FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

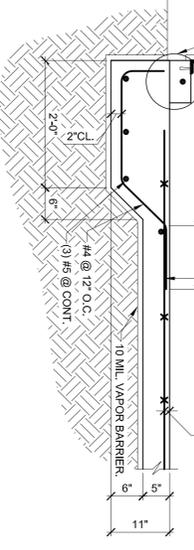
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2 SECTION

SCALE: 3/4" = 1'-0"

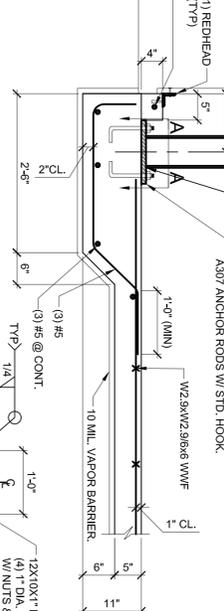
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3 SECTION

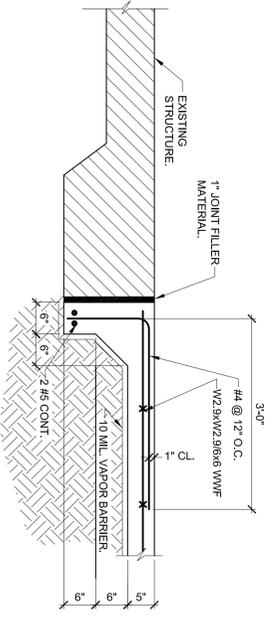
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REFER TO DETAIL S 7 & 8
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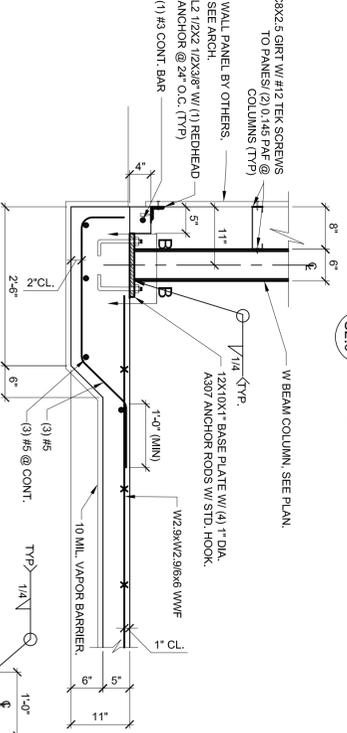
4 SECTION

SCALE: 3/4" = 1'-0"



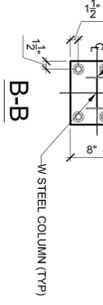
5 SECTION

SCALE: 3/4" = 1'-0"

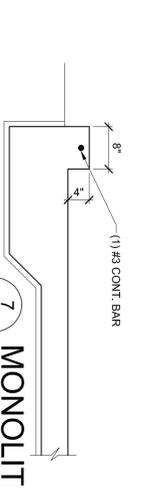


6 SECTION

SCALE: 3/4" = 1'-0"

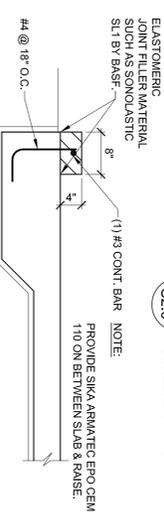


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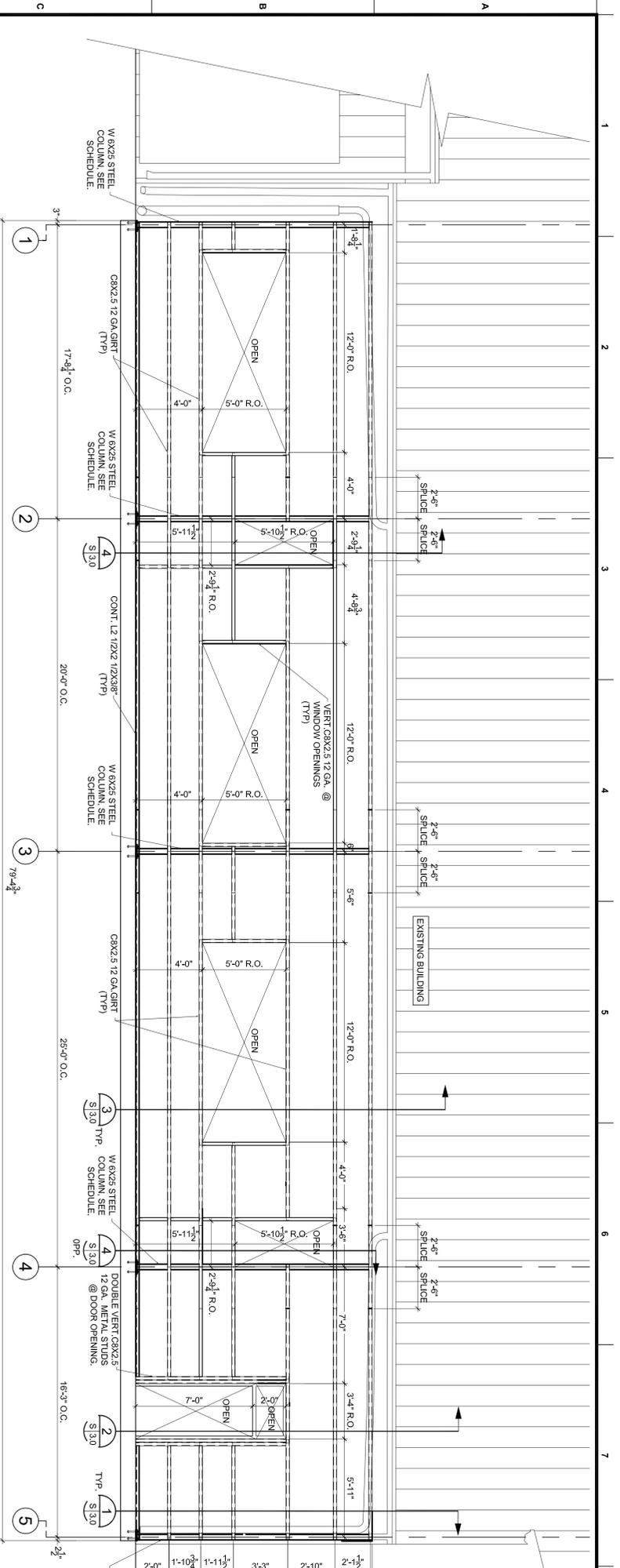
7 MONOLITHICALLY DETAIL

SCALE: 3/4" = 1'-0"

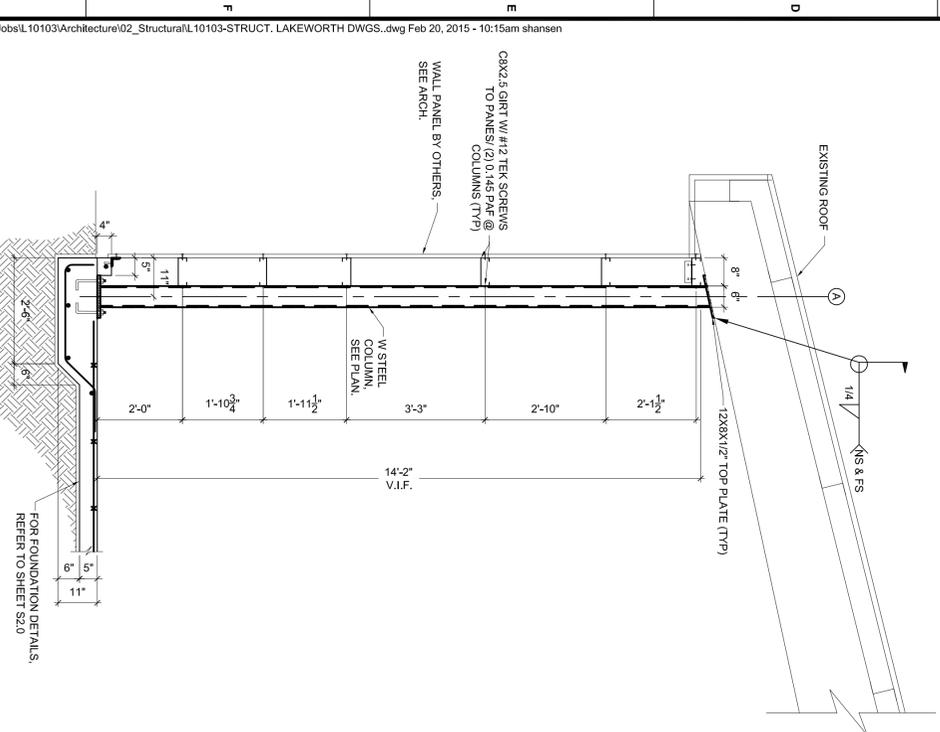


8 NON-MONOLITHICALLY DETAIL

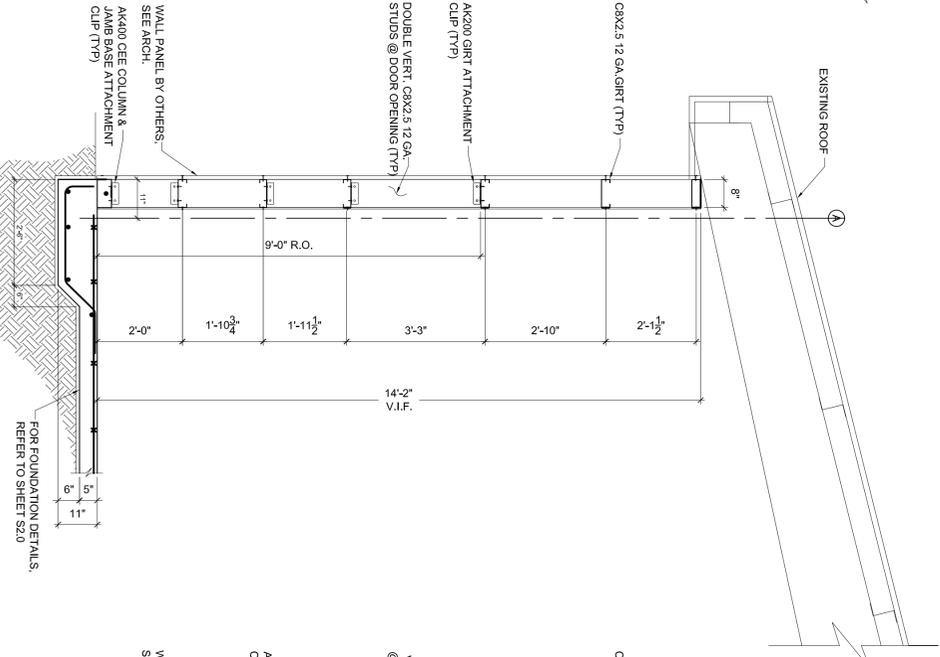
SCALE: 3/4" = 1'-0"



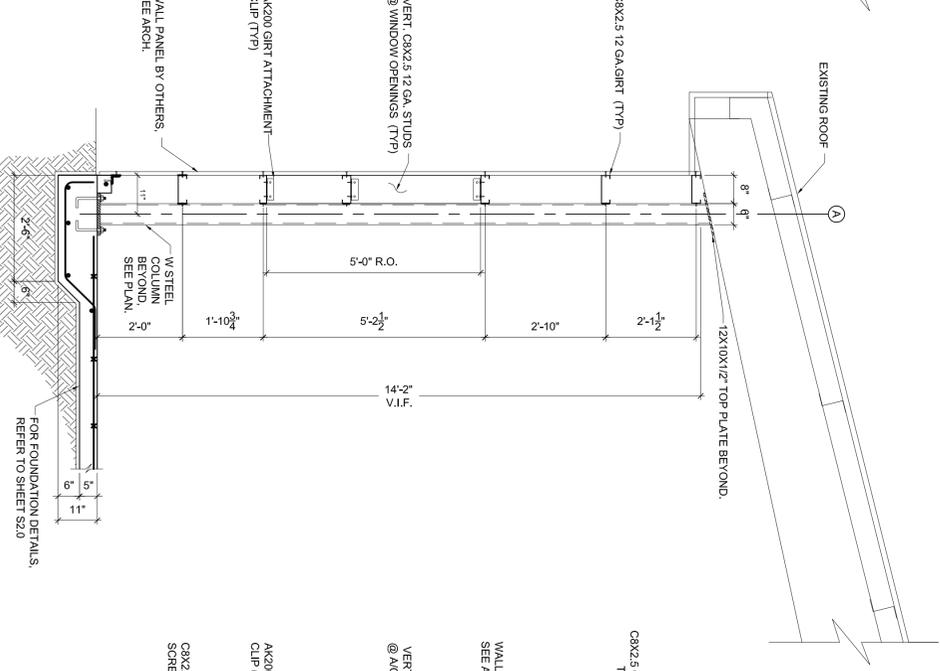
1 BUILDING ELEVATION
SCALE: 1/4" = 1'-0"



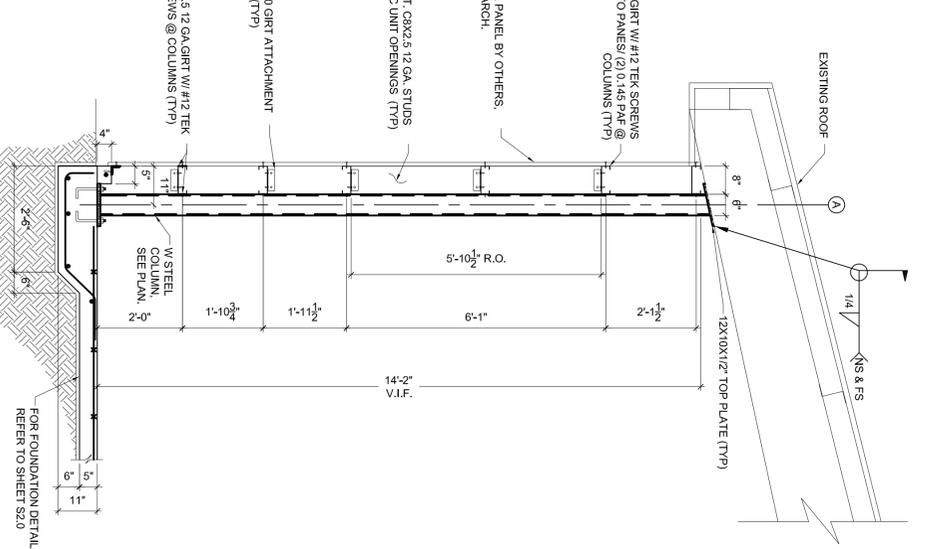
2 TYP. WALL SECTION
SCALE: 1/2" = 1'-0"



2 WALL SECTION AT DOORWAY
SCALE: 1/2" = 1'-0"



3 WALL SECTION AT WINDOW
SCALE: 1/2" = 1'-0"



4 WALL SECTION AT A/C UNIT
SCALE: 1/2" = 1'-0"

BLDG. ELEVATION AND SECTIONS

**PORCH ENCLOSURE FOR
COMMUNITY SUSTAINABILITY DEPARTMENT
CITY OF LAKE WORTH**

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Checked by: J.M.O.
Approved by: J.M.O.
Scale:
Date: 02/13/15
Job No.: L10103
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Sheet No.
S3.0

SECTION 15000 - MECHANICAL GENERAL CONDITIONS
1.01 REQUIREMENTS
A. PROVISIONS OF GENERAL REQUIREMENTS SHALL COVER ALL WORK UNDER THIS SECTION. MECHANICAL PLANS, PLUMBING PLANS, GENERAL PLANS, STRUCTURAL PLANS, AND ALL ASSOCIATED SPECIFICATIONS ARE PART OF THIS SPECIFICATION. IN CASE OF ANY DISCREPANCIES BETWEEN THIS SECTION AND THE GENERAL CONDITIONS, THE GENERAL CONDITIONS SHALL APPLY.
1.02 DRAWINGS
A. THE MECHANICAL DRAWINGS SHOW THE SCOPE AND THE GENERAL ARRANGEMENT OF ALL PIPING, EQUIPMENT AND APPURTENANCES AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION, SITE CONDITIONS, AND THE WORK OF OTHER TRADES WILL PERMIT. DISCUSS CONFLICTS WITH ARCHITECT/ENGINEER.
1.03 CODES AND STANDARDS
ALL MATERIAL AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS.
1.04 SUBSTITUTION CHAIRSE
A. EACH ITEM SPECIFIED HEREIN SHALL REQUIRE PRIOR APPROVAL OF THE ARCHITECT OR OWNER FOR ANY SUBSTITUTIONS. IF ANY CONTRACTOR WISHES TO BID ON ANY EQUIPMENT OTHER THAN THE MANUFACTURERS LISTED, HE SHALL REQUEST WRITTEN APPROVAL OF SAID EQUIPMENT AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO BID DATE.
1.05 INSTALLATION AND ARRANGEMENT
A. CONTRACTOR SHALL VISIT THE SITE OF THIS PROJECT BEFORE SUBMITTING A PROPOSAL ON THIS WORK, AND SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS. FAILURE ON HIS PART TO DO THIS WILL NOT BE CAUSE FOR EXTRAS AFTER THE CONTRACT IS SIGNED, BY REASON OF UNFORESEEN CONDITIONS.
1.06 DUCTWORK
A. THE CONTRACTOR SHALL INSTALL THE SIZE OF THE DUCTWORK AS SHOWN ON THE PLANS. IF THE DUCT DIMENSION NEEDS CHANGING, SUBMIT WRITTEN REQUEST TO THE ARCHITECT.
1.07 DRAWINGS BY CONTRACTOR
A. SEE SUBMITTALS.
B. RECORD (AS-BUILT) DRAWINGS - THE CONTRACTOR SHALL FURNISH TO THE OWNER A COMPLETE SET OF REPRODUCIBLE TRACINGS SHOWING THE LOCATION AND SIZING OF PIPING FOR THE HVAC AND PLUMBING SYSTEMS. PIPING SIZES, REROUTING, ETC. FOR BOTH UNDER FLOOR AND ABOVE CEILING PIPING SHALL BE SHOWN. ALSO PROVIDE A REPRODUCIBLE TRACING OF THE SITE PLAN SHOWING SANITARY SEWER, STORM SEWER, DOMESTIC COLD WATER, AND NATURAL GAS PIPING TO THE BUILDING. IN ADDITION TO THESE DRAWINGS, A COMPLETE SET OF APPROVED SHOP DRAWINGS AND TEMPERATURE CONTROL DRAWINGS SHALL BE INCLUDED IN THIS SET OF DRAWINGS.
1.08 EQUIPMENT AND MATERIALS
ALL MATERIALS SHALL BE NEW AND SHALL BEAR THE MANUFACTURERS NAMES, TRADE NAME AND THE UL LABEL IN EVER CASE WHERE A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR MATERIAL. THE EQUIPMENT TO BE FURNISHED UNDER EACH SECTION OF THE SPECIFICATIONS SHALL BE ESSENTIALLY THE STANDARD PRODUCT OF A UNITED STATES MANUFACTURER, MANUFACTURED IN THE U.S.A., REGULARLY ENGAGED IN THE PRODUCTION OF THE REQUIRED TYPE OF EQUIPMENT, AND SHALL BE THE MANUFACTURERS LATEST AND APPROVED DESIGN.
A. DELIVERY AND STORAGE: EQUIPMENT AND MATERIALS SHALL BE DELIVERED TO THE SITE AND STORED IN ORIGINAL CONTAINERS, SUITABLY SHELTERED FROM THE ELEMENTS, BUT READILY ACCESSIBLE FOR INSPECTION UNTIL INSTALLED. ALL ITEMS SUBJECT TO MOISTURE DAMAGE (SUCH AS CONTROLS, MOTORS, AND ELECTRICAL EQUIPMENT) SHALL BE STORED IN DRY, HEATED SPACES.
B. EQUIPMENT AND MATERIALS OF THE SAME GENERAL TYPE SHALL BE OF THE SAME MAKE THROUGHOUT THE WORK TO PROVIDE UNIFORM APPEARANCE, OPERATION AND MAINTENANCE.
1.09 IDENTIFICATION FOR MECHANICAL EQUIPMENT
A. IDENTIFICATION FOR MECHANICAL EQUIPMENT SHALL BE PROVIDED AND FURNISHED USING ITEM NUMBERS AND NOMENCLATURE AS SHOWN ON THE MECHANICAL DRAWINGS, OR PER OWNER'S DIRECTION. NAMEPLATES SHALL BE BLACK WITH WHITE BACKGROUND AND SHALL HAVE 1" OR 1/2" IF SPACE IS TOO SMALL. PLATES SHALL BE ADHESIVE BACKED OR BE RIVETED TO EQUIPMENT.
B. ITEMS TO BE IDENTIFIED AND NOMENCLATURE USED SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL.
1.10 AIR SYSTEMS, AIR DISTRIBUTION TEST AND BALANCE
A. THIS SPECIFICATION IS TO INCLUDE AIR BALANCE TESTS FOR ALL AIR MOVING SYSTEMS. REFER TO THE PLANS FOR SCHEDULES LISTING AIR QUANTITIES, PRESSURE DROPS, AND TEMPERATURES.
B. THE CONTRACTOR SHALL BALANCE, ADJUST, AND TEST AIR MOVING EQUIPMENT AND AIR DISTRIBUTION AND/OR EXHAUSTING SYSTEMS AS HEREIN SPECIFIED. ALL INSTRUMENTS USED SHALL BE ACCURATELY CALIBRATED AND MAINTAINED IN GOOD WORKING ORDER.
C. UPON THE COMPLETION OF THE AIR CONDITIONING SYSTEM, THE CONTRACTOR SHALL PERFORM THE FOLLOWING TESTS, COMPLETE THE TEST DATA, AND SUBMIT TWO (2) COPIES OF THE COMPLETE TEST DATA TO THE GENERAL CONTRACTOR FOR FORWARDING TO THE ARCHITECT AND OWNER FOR EVALUATION AND APPROVAL.
D. TESTING PROCEDURE* THE CONTRACTOR SHALL PERFORM THE FOLLOWING TEST, AND BALANCE SYSTEM IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.
1. ADJUST ALL MAIN SUPPLY, RETURN AND EXHAUST AIR DUCTS TO PROPER DESIGN CFM.
2. TEST AND ADJUST EACH DIFFUSER, GRILLE, AND REGISTER TO WITHIN 5% OF DESIGN REQUIREMENTS.
3. EACH GRILLE, DIFFUSER, AND REGISTER SHALL BE IDENTIFIED AS TO LOCATION AND AREA.
4. SIZE, TYPE, AND MANUFACTURER OF DIFFUSERS, GRILLES, REGISTERS, AND ALL TESTED EQUIPMENT SHALL BE IDENTIFIED AND LISTED. MANUFACTURERS ON ALL EQUIPMENT SHALL BE USED TO MAKE REQUIRED CALCULATIONS.
5. READINGS AND TESTS OF DIFFUSERS, GRILLES, AND REGISTERS SHALL INCLUDE REQUIRED CFM AND TEST RESULTANT CFM AFTER ADJUSTMENTS.
6. ALL DIFFUSERS, GRILLES, AND REGISTERS SHALL BE ADJUSTED TO MINIMIZE DRAFTS IN ALL AREAS.
1.11 EQUIPMENT START-UP AND TESTING
A. OPERATING TEST BY CONTRACTOR: THE CONTRACTOR SHALL PROVE THE OPERATION OF THE MECHANICAL AND ELECTRICAL SYSTEMS. AT LEAST TEN DAYS NOTICE SHALL BE GIVEN PRIOR TO SUCH TESTS.
B. SHOULD ANY ITEM OF THE SYSTEMS FAIL TO PERFORM IN AN APPROVED MANNER, THIS TEST SHALL BE REPEATED UNTIL THE OPERATING TEST IS APPROVED.
1.12 OPERATING AND MAINTENANCE MANUALS
A. PROVIDE TWO MANUALS FOR OPERATION AND MAINTENANCE OF MECHANICAL EQUIPMENT, ONE FOR OWNER AND ONE TO THE ARCHITECT.

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SPECIFICATIONS
PORCH ENCLOSURE FOR COMMUNITY SUSTAINABILITY DEPARTMENT CITY OF LAKE WORTH
Sheet No. SP-1



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SPECIFICATIONS
PORCH ENCLOSURE FOR COMMUNITY SUSTAINABILITY DEPARTMENT CITY OF LAKE WORTH
Sheet No. SP-1

SECTION 16000 - ELECTRICAL GENERAL CONDITIONS

1.01 GENERAL REQUIREMENTS
A. THIS PORTION OF THE WORK IS PART OF TOTAL PROJECT AND ALL PROVISIONS OF THE PROJECT GENERAL REQUIREMENTS, CONDITIONS OF THE CONTRACT, SUPPLEMENTARY CONDITIONS AND ALL OTHER CONTRACT DOCUMENTS SHALL ALSO APPLY TO THIS SECTION OF THE PROJECT. ALL PLANS AND SPECIFICATIONS ARE TO BE A PART OF THE TOTAL PROJECT AND ALL CONTRACTORS ARE HEREBY DIRECTED TO THESE PLANS AND SPECIFICATIONS FOR THE TOTAL SCOPE OF THE WORK. ANY DISCREPANCY OR DIFFERENCES BETWEEN ANY OF THESE PLANS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR INTERPRETATION.

B. THE ELECTRICAL DRAWINGS SHOW THE SCOPE AND THE GENERAL ARRANGEMENT OF ALL ELECTRICAL, EQUIPMENT, AND WIRING DEVICES AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION, SITE CONDITIONS, AND AS THE WORK OF OTHER TRADES PERMITS. THE ELECTRICAL DRAWINGS ARE DIAGRAMS AND NOT DIMENSIONAL DRAWINGS. THE ELECTRICAL DRAWINGS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL, STRUCTURAL, OR MECHANICAL DRAWINGS, AND CONVERSELY THE SAME; HOWEVER, EACH DRAWING IS INTENDED TO SUPPLEMENT THE OTHERS, AND THE INTERPRETATION OF THE DRAWINGS SHALL BE SUCH THAT THE ELECTRICAL, STRUCTURAL, MECHANICAL, OR ELECTRICAL DETAILS ARE IN ACCORDANCE WITH THE DIMENSIONS, DIMENSIONS, WHERE SHOWN, SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS, WHEN NO FIGURES OR DIMENSIONS ARE NOTED, THE DRAWINGS SHALL BE ACCURATELY FOLLOWED. IN THE EVENT CERTAIN DETAILS AND ITEMS NECESSARY FOR THE COMPLETE BUILDING AND TO OBTAIN THE DESIRED RESULTS ARE OMITTED FROM THE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST INSTRUCTIONS IN WRITING. THE ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS SHOWN ON ALL OF THE DRAWINGS. GENERAL AND STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING THE WORK AND SHALL ARRANGE HIS WORK ACCORDINGLY.

C. IN THE EVENT CERTAIN DISCREPANCIES ARE DISCOVERED BETWEEN PLANS AND SPECIFICATIONS AFTER BIDDING HAS TAKEN PLACE, THE INTERPRETATION OF THE INTENDED FUNCTION WILL BE BY THE OWNER. THE CONTRACTOR SHALL BEAR THE COST OF DETERMINING AND INSTALLING THE REQUIRED MATERIAL SO AS TO PROVIDE A COMPLETE AND WORKING SYSTEM.

1.02 SUBSTITUTION CLAUSE

A. EACH ITEM SPECIFIED HEREIN SHALL REQUIRE PRIOR APPROVAL OF THE ARCHITECT FOR ANY SUBSTITUTIONS. IF ANY CONTRACTOR WISHES TO BID ON ANY EQUIPMENT OTHER THAN THE MANUFACTURERS LISTED, HE SHALL REQUEST IN WRITING APPROVAL OF SAID EQUIPMENT AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO THE DATE OR AS SET FORTH IN THE ARCHITECTURAL SPECIFICATIONS. ARCHITECTURAL SPECIFICATIONS TAKE PRECEDENCE. ALL ITEMS SUBMITTED FOR PRIOR APPROVAL SHALL BE FOUND IN A BINDER AND ARRANGED AS OUTLINED IN SECTION 16000, 1.07 PARAGRAPHS B, C, & D.

1.03 SCOPE

ALL LABOR, MATERIAL, SERVICES AND SKILLED SUPERVISION NECESSARY FOR CONSTRUCTION, ERECTION, INSTALLATION, AND CONNECTION OF ALL CIRCUITS AND ELECTRICAL EQUIPMENT SPECIFIED HEREIN OR SHOWN ON DRAWINGS, IN FIRST CLASS MANNER. DELIVER TO OWNER UPON COMPLETION READY FOR USE IN ALL RESPECTS, THE FOLLOWING COMPLETE ELECTRICAL SYSTEM:

- 1. COMPLETE SECONDARY SERVICES AND BRANCH CIRCUIT WIRING
2. COMPLETE EQUIPMENT WIRING
3. ALL LIGHTING FIXTURES COMPLETE WITH LAMPS AS SPECIFIED HEREIN
4. TELEPHONE CONDUIT SYSTEM & PULL STRING
5. FIRE ALARM AND WIRING OF DEVICES INDICATED
6. ALL CONTROL WIRING FOR TEMPERATURE CONTROLS
7. ALL TEMPORARY WIRING FOR LIGHTS AND POWER DURING CONSTRUCTION
8. AUTOMATION WIRING FOR ALL EQUIPMENT SPECIFIED UNDER MECHANICAL SECTION
9. ALL EMPTY RACEWAYS AS SHOWN ON PLANS WITH PULL STRING
10. PUBLIC ADDRESS OR MUSIC SYSTEMS
11. RELOCATION OF ANY EXISTING ELECTRICAL EQUIPMENT AS REQUIRED

1.04 CODES AND STANDARDS

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS, LATEST EDITION OF THE NEC, AND UTILITY COMPANY REGULATIONS. IN NO CASE WILL WORK OR MATERIALS INFERIOR TO THESE SPECIFICATIONS BE ACCEPTED EVEN IF PERMITTED BY CODE.

A. IN CASES OF DIFFERENCE BETWEEN BUILDING CODES, SPECIFICATIONS, STATE LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS AND THE CONTRACT DOCUMENTS, THE MOST STRINGENT WILL GOVERN.

1.05 COORDINATION

A. THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE REQUIREMENTS OF THESE SPECIFICATIONS, AND ALSO WITH THE REQUIREMENTS OF THE OTHER DIVISIONS AND WITH ALL OF THE DRAWINGS FOR THE ENTIRE PROJECT. THE ELECTRICAL WORK SHALL BE ACCOMPLISHED ON SUCH A SCHEDULE AND IN SUCH A MANNER AS NOT TO DELAY NOR INTERFERE WITH OTHER CONSTRUCTION WORK.

B. THE CONTRACTOR SHALL PROMPTLY REPORT TO THE OWNER ANY DELAY OR DIFFICULTIES ENCOUNTERED IN THE INSTALLATION OF HIS WORK WHICH MIGHT PREVENT PROMPT AND PROPER INSTALLATION OF HIS WORK OR MAKE IT UNSAFE TO CONNECT OR REIZE THE WORK OF OTHERS. HIS FAILURE TO SO REPORT SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK OF THE CONTRACTOR AS BEING FIT AND PROPER FOR THE RECEPTION OF HIS WORK.

C. THE CONTRACTOR SHALL CAREFULLY LAY OUT HIS WORK ON THE PREMISES AND MAKE PROPER PROVISION FOR THE OTHER WORK. OFFSETS SHALL BE MADE WHEREVER IT IS NECESSARY TO CLEAR FINISH ROOMS, STRUCTURAL MEMBERS, OR OTHER OBSTRUCTIONS. THE CONTRACTOR SHALL CAREFULLY PLAN HIS WORK SO AS TO MINIMIZE THE NUMBER OF OFFSETS REQUIRED.

D. THE CONTRACTOR SHALL ALSO CAREFULLY COORDINATE THE LOCATION OF ALL EQUIPMENT CONDUIT RUNS, FLOOR AND WALL PENETRATIONS, ETC., WITH THE LOCATION OF THE DRAWINGS FOR THE ENTIRE PROJECT AND OTHER SECTIONS OF THESE SPECIFICATIONS. ANY WORK INSTALLED BY THE CONTRACTOR WITHOUT CONSIDERING EQUIPMENT, DUCTWORK, PIPING, ETC., OF OTHER TRADES, SHALL BE CHANGED OR RELOCATED AS REQUIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THIS INCLUDES ALL ELECTRICAL DEVICES, SWITCHES, RECEPTACLES, PHONE/COMMUNICATION OUTLETS, ETC. THAT ARE MOUNTED IN WALLS ABOVE OR ABOVE CABINETS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY FINAL LOCATION AND MOUNTING HEIGHTS WITH ARCHITECTURAL CASEWORK/INTERIOR ELEVATIONS/DETAILS. WHERE APPLICABLE, THE CONTRACTOR SHALL ALSO VERIFY WITH THE OWNER OR OWNER'S REPRESENTATIVE FOR ANY SPECIFIC CONDITIONS OR REQUIREMENTS FOR ELECTRICAL DEVICES MENTIONED ABOVE.

E. ALL ELECTRICAL SERVICE AND TELEPHONE SERVICE REQUIREMENTS SHALL BE COORDINATED BY THE CONTRACTOR AS SHOWN ON PLANS AND CONFORMED WITH THE UTILITY COMPANY BY THE CONTRACTOR TO ENSURE THAT UTILITIES ARE ACCEPTED BY THE UTILITY COMPANY IT CONCERNS.

1.06 INSTALLATION AND ARRANGEMENT

A. THE CONTRACTOR SHALL ARRANGE CONDUITS, RACEWAYS AND ELECTRICAL EQUIPMENT TO PERMIT READY ACCESS TO COMPONENTS AND TO CLEAR THE OPENING TO SWINNING AND OVERHEAD DOORS AND OF ACCESS PANELS. THIS ALSO INCLUDES THE INSTALLATION OF ALL SERVICE DISCONNECTS AT MECHANICAL EQUIPMENT. THE CONTRACTOR SHALL MOUNT SERVICE DISCONNECTS ON AN ADJACENT WALL OR NON-REMOVABLE PANELS TO ALLOW REMOVABLE PANELS TO BE REMOVED FOR FUTURE SERVICING OF EQUIPMENT.

1.07 TEMPORARY LIGHT AND POWER

A. THE CONTRACTOR SHALL PROVIDE TEMPORARY FEEDERS OF SUFFICIENT CAPACITY FROM LOCAL BUILDING SERVICES OR FROM THE LOCAL UTILITY COMPANY AS APPLICABLE TO TAKE CARE OF THE ELECTRICAL REQUIREMENTS FOR THE BUILDING DURING CONSTRUCTION. BASE TEMPORARY LIGHTS ON 200 WATT LAMPS PER 1,000 SQUARE FEET FLOOR SPACE. MOTORS UP TO 1/2 HP, 120 VOLT ONLY PROVIDED FOR, INSTALL SUFFICIENT WIRING AND OUTLETS TO INSURE PROPER LIGHTING CORRIDORS. NECESSARY TRANSFORMERS, METERS, CABLES, PROTECTIVE DEVICES, ETC. PROVIDED AS REQUIRED. PROVIDE SUFFICIENT NUMBER OF OUTLETS SO THAT EXTENSION CORDS OF NOT OVER 50 FT. WILL REACH ALL WORK REQUIRING LIGHT AND POWER. CONTRACTORS OF OTHER TRADES TO FURNISH THEIR OWN EXTENSION CORDS AND LAMPS AND SHALL PAY FOR THE COST OF WIRING OF CONSTRUCTION OFFICES USED BY THEM. GENERAL CONTRACTOR TO PAY FOR THE COST OF ENERGY CONSUMED BY ALL TRADES, INCLUDING THE COST OF LAMP REPLACEMENT. ANY TEMPORARY WIRING OF SPECIAL NATURE FOR LIGHT SHALL BE PAID FOR BY THE CONTRACTOR USING SAME. TEMPORARY CONNECTIONS SHALL BE SAFE AND IN ACCORDANCE WITH NEC AND OSHA.

1.08 RECORD DRAWINGS ("AS-BUILTS")

A. RECORD DRAWINGS - THE CONTRACTOR SHALL FURNISH TO THE OWNER AND ARCHITECT RECORD DRAWINGS SHOWING CONDUIT SYSTEMS WHERE APPLICABLE. CONDUIT SIZES, ROUTING, ETC., FOR UNDER FLOOR CONDUITS SHALL BE SHOWN. ALSO PROVIDE A REPRODUCIBLE TRACING OF THE SITE PLAN SHOWING POWER, TELEPHONE, CABLE, TV, SITE LIGHTING, ETC. IN ADDITION TO THESE DRAWINGS, A COMPLETE SET OF DRAWINGS FOR FIRE ALARM AND COMMUNICATION SYSTEM.

B. TYPEWRITTEN OR NEATLY HAND WRITTEN PANEL SCHEDULES SHALL BE PROVIDED FOR PANELBOARDS INCLUDING THE LOADS SERVED AND THE CORRECT BRANCH CIRCUIT NUMBER, AS INSTALLED. ALSO LEAVE LEGIBLE CIRCUIT CARD IN POCKET OF BREAKER PANEL DOOR.

1.09 EQUIPMENT AND MATERIALS

ALL MATERIALS SHALL BE NEW AND SHALL BEAR THE MANUFACTURER'S NAME, TRADE NAME AND THE LABEL IN EVERY CASE WHERE A STANDARD HAS BEEN ESTABLISHED FOR THE PARTICULAR MATERIAL. THE EQUIPMENT TO BE FURNISHED UNDER EACH SECTION OF THE SPECIFICATIONS SHALL BE ESSENTIALLY THE STANDARD PRODUCT OF A UNITED STATES OF AMERICA MANUFACTURER REGULARLY ENGAGED IN THE PRODUCTION OF THE REQUIRED TYPE OF EQUIPMENT AND SHALL BE THE MANUFACTURER'S LATEST AND APPROVED DESIGN.

A. DELIVERY AND STORAGE: EQUIPMENT AND MATERIALS SHALL BE DELIVERED TO THE SITE AND STORED IN ORIGINAL CONTAINERS, SUITABLY SHELTERED FROM THE ELEMENTS, BUT READILY ACCESSIBLE FOR INSPECTION UNTIL INSTALLED. ALL ITEMS SUBJECT TO MOISTURE DAMAGE SHALL BE STORED IN DRY, HEATED SPACES.

B. EQUIPMENT AND MATERIALS OF THE SAME GENERAL TYPE SHALL BE OF THE SAME MAKE THROUGH THE WORK TO PROVIDE UNIFORM APPEARANCE, OPERATION AND MAINTENANCE.

C. PROTECTION OF WORK: THE CONTRACTOR SHALL TAKE PRECAUTIONS AT ALL TIMES TO PROPERLY PROTECT THE ELECTRICAL EQUIPMENT FROM DAMAGE. UNINSTALLED EQUIPMENT SHALL REMAIN CRATED AND COVERED WITH CANVAS OR HEAVY PLASTIC TARPAPLANS UNTIL INSTALLED. EQUIPMENT THAT IS BEING INSTALLED, OR HAS BEEN INSTALLED, SHALL BE PROTECTED AGAINST DIRT, WATER, OIL, GREASE, AND OTHER CONTAMINANTS. WEATHER, THEFT, AND CHEMICAL OR MECHANICAL DAMAGE. ALL DAMAGED EQUIPMENT SHALL BE REPAIRED AND/OR REPLACED. AT THE COMPLETION OF THE WORK, ALL FIXTURES, EQUIPMENT, AND MATERIALS SHALL BE THOROUGHLY CLEANED AND POLISHED. THE CONTRACTOR SHALL REPAIR AND CORRECT ALL DAMAGE AND DEFECTS WHICH DEVELOP BEFORE THE WORK IS ACCEPTED BY THE OWNER.

D. SAFETY WARNING SIGNS SHALL BE FURNISHED AND INSTALLED AT ALL ELECTRICAL EQUIPMENT AND SWITCHGEAR.
E. DIMENSIONS: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACES AND DIMENSIONS. THIS INCLUDES THE PROVISIONS FOR CONNECTIONS, AND SHALL FURNISH AND INSTALL SIZES AND SHAPES OF EQUIPMENT SO THAT THE FINAL INSTALLATION SHALL SUIT THE TRUE INTENT AND MEANING OF THE DRAWINGS AND SPECIFICATIONS.

1.10 EQUIPMENT ACCESSORIES

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT, ACCESSORIES, CONNECTIONS, AND INCIDENTAL ITEMS NECESSARY TO FULLY COMPLETE THE WORK, READY FOR USE, OCCUPANCY AND OPERATION BY THE OWNER.

A. WHERE EQUIPMENT REQUIRING DIFFERENT ARRANGEMENT OF CONNECTIONS FROM THOSE SHOWN OR APPROVED IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL THE EQUIPMENT TO OPERATE PROPERLY AND IN HARMONY WITH THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL MAKE ALL INCIDENTAL CHANGES IN HEATERS, PANELBOARD, CONDUIT, WIRING, ETC. HE SHALL PROVIDE ANY ADDITIONAL MOTORS, CONTROLLERS, AND OTHER ADDITIONAL EQUIPMENT REQUIRED FOR THE PROPER OPERATION OF THE SYSTEM RESULTING FROM THE SELECTION OF EQUIPMENT, INCLUDING ALL REQUIRED CHANGE IN AFFECTED TRADES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LOCATION OF ROUGH-IN AND CONNECTIONS. SUCH CHANGES SHALL BE MADE AT NO INCREASE IN THE CONTRACT AMOUNT OR ADDITIONAL COST TO THE OTHER TRADES.

B. ANCHORS, BOLTS, AND SCREWS: SECURELY FASTEN CONDUIT STRAPS, CUTOFF SWITCHES, ETC., TO WALLS, SLABS, ETC., WITH CADMIUM PLATED SCREWS AND ACKERMAN-JOHNSON LEAD ONCH ANCHORS, EXPANSION BOLTS OR APPROVED EQUIT ANCHORS, FITTED IN HOLES DRILLED WITH STAR DRILL, AND FOR MORE SEVERE SERVICES, USE LEAD ONCH ANCHOR BOLTS OR APPROVED MANUFACTURER. FOR EXPOSED WORK, USE CADMIUM PLATED BOLTS. WOOD PLUGS WILL NOT BE ACCEPTED.

1.11 ELECTRICAL WORKMANSHIP

WHEREVER EQUIPMENT REQUIRING ELECTRICAL CONNECTION IS SPECIFIED, ALL WORKMANSHIP AND MATERIALS SHALL CONFORM WITH THE REQUIREMENTS OF THE ELECTRICAL SECTION OF THE SPECIFICATIONS. ALL DISCONNECT SWITCHES, STARTERS, PUSH BUTTON STATIONS, AND HAND-OFF AUTO SWITCHES SHALL BE FURNISHED, INSTALLED AND WIRED BY THE CONTRACTOR EXCEPT WHERE LISTED SPECIFICALLY TO BE FURNISHED WITH THE ITEM OF EQUIPMENT IT CONTROLS, IN WHICH CASE THE CONTRACTOR SHALL MOUNT AND WIRE COMPLETELY. ADDITIONAL DISCONNECTS REQUIRED BY ELECTRICAL CODE SHALL BE FURNISHED, INSTALLED AND CONNECTED UNDER THE ELECTRICAL SECTION OF THE SPECIFICATIONS.

A. COORDINATION: THE CONTRACTOR SHALL CHECK THE MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS TO ASSURE THE PROPER LOCATION AND ELECTRICAL SERVICE CHARACTERISTICS TO THE INDIVIDUAL OUTLETS SERVING MECHANICAL AND ELECTRICAL EQUIPMENT AND SHALL REQUEST APPROVAL OF ANY REQUIRED MODIFICATION TO SUIT THE ACTUAL EQUIPMENT TO BE FURNISHED.

B. IDENTIFICATION FOR ELECTRICAL EQUIPMENT AND CIRCUITS SHALL BE PROVIDED AND FURNISHED UNDER THIS SECTION, USING ITEM NUMBERS AND NOMENCLATURE AS SHOWN ON THE ELECTRICAL DRAWINGS, OR AS INSTRUCTED BY THE ARCHITECT.

1. ALL SWITCHGEAR, DISTRIBUTION PANELBOARDS, TRANSFORMERS, PANELBOARDS, DISCONNECTS, ASSOCIATED MOTOR STARTERS, CONTACTORS, AND TIME CLOCKS FURNISHED BY THE CONTRACTOR SHALL BE IDENTIFIED, BY NAMEPLATES INDICATING DESIGNATED LEGEND, VOLTAGE AND PHASE AND SHALL BE SECURELY FASTENED TO THE EQUIPMENT.

1.12 SYSTEM OPERATING TESTS

A. NECESSARY TESTS AND ADJUSTMENTS: ALL NECESSARY TESTS AND ADJUSTMENTS FOR THE PROPER OPERATION OF THE ELECTRICAL SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR WITH INSTRUMENTS FURNISHED BY HIM FOR THIS PURPOSE. THE TEST RESULTS SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT FOR REVIEW AND APPROVAL.

1.13 INSTRUCTIONS TO OWNER

THE CONTRACTOR SHALL INSTRUCT THE OPERATING PERSONNEL OF THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF ALL ELEMENTS OF THE ELECTRICAL SYSTEMS.

1.14 OPERATING AND MAINTENANCE MANUALS

SPARE PARTS LISTS, OPERATING INSTRUCTIONS, MANUFACTURER'S RECOMMENDED PREVENTATIVE MAINTENANCE INSTRUCTIONS AND SPECIFICATIONS SHEETS FOR EACH ITEM OF THE ELECTRICAL EQUIPMENT SHALL BE SUBMITTED IN TRIPPLICATE, BY THE CONTRACTOR AT THE PAY APPLICATION FOR 75% COMPLETION. ALL PAYMENT REQUEST OVER 75% WILL BE DENIED UNTIL THIS INFORMATION IS RECEIVED.

SECTION 16111 - CONDUITS

1.01 GENERAL

A. ALL WIRES AND CABLES SHALL BE RUN IN CONDUIT, WHICH SHALL BE STANDARD HEAVY WALL, INTERMEDIATE, OR ELECTRIC METALLIC TUBING (EMT), RIGID PVC CONDUIT MAY BE USED FOR UNDERGROUND WORK IF APPROVED BY LOCAL CODE.

1.02 PRODUCTS

- A. RIGID CONDUIT: THICK WALL HOT-DIPPED GALVANIZED, ASA STANDARD SPECIFICATION NO. C80-1, ENAMELED INSIDE AND OUT JOINTS SHALL BE WATER TIGHT THREADED TYPE WITH APPROVED SEALANT APPLIED TO MALE THREADS.
B. ELECTRIC METALLIC TUBING (EMT): ELECTRO-GALVANIZED, ANSI STANDARD SPECIFICATION NO. C80-3, ENAMELED INSIDE AND OUT. FITTINGS SHALL BE ALL STEEL COMPRESSION TYPE AS MANUFACTURED BY T & B.
C. RIGID STEEL AND EMT CONDUITS AS MANUFACTURED BY YOUNGSTOWN, TRIANGLE, GENERAL ELECTRIC, NATIONAL, REPUBLIC, OR ALLED.
D. SCHEDULE 40 PVC CONDUIT, USED FOR UNDERGROUND INSTALLATION, SHALL BE AT LEAST 2 FEET BELOW FINISH GRADE. ALL JOINTS SHALL BE WATER TIGHT. WHERE STUBBED UP THROUGH FLOOR, SLAB OR ABOVE GRADE, A 90° RIGID GALVANIZED ELBOW SHALL BE USED WITH RIGID GALVANIZED STUB UP TO 2 INCHES ABOVE GRADE. A BARE GROUND WIRE TO MEET CODE REQUIREMENTS SHALL BE INSTALLED WITH ALL CIRCUITS PULLED INTO PVC CONDUITS. CONDUIT SHALL BE AS MANUFACTURED BY CARLON. JOINT SEALANT SHALL BE AS PER MANUFACTURER'S RECOMMENDATION FOR SPECIAL PAPER.

E. CONDUIT SUPPORTS: ALL CONDUITS SHALL BE SECURED IN PLACE WITH APPROVED STRAPS, HANGER, OR CLAMPS PER NEC. NO WIRE SUPPORT WILL BE ALLOWED.

F. FLEXIBLE CONDUIT: CONDUIT CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT SHALL BE MADE WITH 1/2-INCH MAXIMUM OF TYPE U.S. GRAY ULTIM AND TIGHT NEOPRENE JACKETED FLEXIBLE CONDUIT AS MANUFACTURED BY ANACONDA. FITTINGS SHALL BE LIQUID TIGHT INSULATED THROAT TYPE AS MANUFACTURED BY T, B, & B. NO WIRE SUPPORT WILL BE PERMITTED.

1.03 INSTALLATION

- A. CONDUITS INSTALLED IN OR UNDER CONCRETE OR BELOW GRADE SHALL BE THICK WALL PVC (SCH. 40) OR RIGID STEEL. IF REQUIRED BY LOCAL CODES, SERVICE CONDUITS EXPOSED SHALL BE RIGID STEEL.
B. ALL POWER AND LIGHTING CONDUITS IN BUILDING SHALL BE EMT UNLESS OTHER TYPE IS REQUIRED BY LOCAL CODES.
C. USE FACTORY ELBOWS FOR 1 1/2" CONDUIT AND LARGER.
D. WHERE FLEXIBLE CONDUIT IS USED FROM OUTLET BOXES TO LIGHTING FIXTURES, USE 1/2" INCH FLEXIBLE METAL CONDUIT WITH AN APPROVED GROUNDING CONNECTION. MC CABLE WITH APPROVED GROUNDING CONDUCTOR IS ALLOWED.
E. QUANTITY OF CONDUCTORS IN CONDUIT, PER NEC.
F. REAM AND CLEAN CONDUIT BEFORE INSTALLATION AND PLUG OPENINGS AND BOXES TO KEEP THEM CLEAN DURING CONSTRUCTION.
G. ALL EXPOSED CONDUIT SHALL RUN NEATLY AT RIGHT ANGLES, PLUMB AND PARALLEL TO WALLS. ALON CONDUIT TERMINATIONS AT PANELBOARDS, SWITCHBOARDS, JUNCTION BOXES, ETC., AND INSTALL PLUMBS. PROVIDE SUPPORTS AS REQUIRED TO HOLD ALIGNMENT.
H. CONDUITS SHALL BE NEATLY GROUPED WHERE SEVERAL LINES FOLLOW A PARALLEL COURSE. THEY SHALL BE WALL SUPPORTED, USING RING OR TRAPEZ-TYPE HANGERS, PERFORATED STRAP HANGERS OR TWISTED WIRE SHALL NOT BE ACCEPTED. HANGERS SHALL BE INSTALLED ON ALL CONDUIT RUNS AND SHALL NOT EXCEED 8'-0" ON CENTER.

SECTION 16120 - WIRES AND CABLES

1.01 GENERAL

A. ALL WIRES SHALL BE NEW SOFT DRAWN, ANNEALED COPPER HAVING CONDUCTIVITY NOT LESS THAN 98% OF PURE COPPER AND WITH 600V THERMO-PLASTIC INSULATION. WIRE SHALL CONFORM TO THE LATEST REQUIREMENT OF THE NEC, MEET ASME AND ANSI SPECIFICATIONS AND SHALL BE STANDARD AWG SIZE.

1.02 PRODUCTS

- A. LIGHTING AND RECEPTACLE, BRANCH MOTOR POWER AND PANEL FEEDERS CIRCUITS SHALL HAVE TYPE THHN/THWN/ATM (UP TO 3) INSULATION BUILDING WIRE. ALL CONDUCTORS INSTALLED IN DAMP OR WET LOCATIONS OR UNDER GRADE SHALL HAVE INSULATION MEETING NEC. ALL WIRING INSTALLED IN HIGH-TEMPERATURE AREAS SHALL HAVE TYPE AVA INSULATION.
B. ALL STRANDED CONDUCTORS SHALL BE FURNISHED WITH FINISHED FORGED COPPER CONNECTING LUGS, DRILLED OR REAMED THE FULL DIAMETER OF BASE CONDUCTORS.

C. ALL MAINS AND FEEDERS ARE TO RUN THE ENTIRE LENGTH IN CONTINUOUS PIECES WITHOUT JOINTS OR SPLICES. JOINTS IN BRANCH CIRCUITS SHALL OCCUR ONLY AT OUTLETS AND J BOXES WITH NO SPLICES OR TAPS IN CONDUITS.
D. PHASE COLORS PER ELECTRICAL STANDARDS.
E. AC, MC, BX CABLES PERMITTED AS ALLOWED BY LOCAL CODE. MC CABLE ALLOWED FOR TERMINATING LIGHTING FIXTURES IN SUSPENDED CEILING.

SECTION 16130 - OUTLET BOXES

1.01 GENERAL

A. EACH OUTLET SHALL BE PROVIDED WITH A ONE-PIECE, STAMPED ELECTRO-GALVANIZED STEEL OUTLET BOX PROVIDED WITH 3/8-INCH MALLEABLE IRON FIXTURE STUDS AND BOX HANGERS WHERE REQUIRED.

1.02 PRODUCTS

- A. LIGHTING OUTLETS SHALL BE STANDARD 4-INCH OUTLET BOXES PROVIDED WITH 1/2-INCH MALLEABLE IRON FIXTURE STUDS AND BOX HANGERS WHERE REQUIRED.
B. SWITCH AND RECEPTACLE OUTLETS LOCATED IN WALLS SHALL BE STANDARD SINGLE OR GANGED 4-INCH BOXES WITH COVERS AS REQUIRED FOR CONCEALED WORK.
C. BOXES SHALL BE MANUFACTURED BY APPLETON ELECTRIC CO., UNIVERSAL, RACO, NATIONAL ELECTRIC PRODUCTS, OR STEEL CITY.

SECTION 16131 - PULL AND JUNCTION BOXES

1.01 GENERAL

A. FURNISH AND INSTALL JUNCTION OR PULL BOXES IN THE RACEWAY SYSTEM WHERE NECESSARY TO FACILITATE CONDUCTOR INSTALLATION.

1.02 PRODUCTS

A. ALL BOXES SHALL BE MADE OF GALVANIZED STEEL, GAUGE AND PHYSICAL SIZE AS REQUIRED BY THE NEC FOR THE NUMBER AND SIZE OF CONDUITS AND CONDUCTORS INVOLVED. BOXES SHALL HAVE REMOVABLE SCREW COVERS FOR INSTALLATION AS INDICATED ON THE PLANS.

1.03 INSTALLATION

A. BOX SHALL BE SECURELY MOUNTED WITH SUPPORTS INDEPENDENT OF THE CONDUITS ENTERING OR LEAVING THE BOXES.

SECTION 16140 - WIRING DEVICES

1.01 GENERAL

A. PROVIDE EACH SWITCH AND RECEPTACLE OUTLET UNLESS OTHERWISE NOTED OR HEREIN SPECIFIED WITH UNDERWRITER'S APPROVED SPECIFICATION GRADE DEVICES AS LISTED BELOW:

1.02 PRODUCTS

CATALOG NUMBERS ARE HARVEY HUBBELL CO., UNLESS NOTED OTHERWISE.

- A. WALL SWITCHES: 120/277V, 20A S.P. ROCKER SWITCH, 120/277V WITH PILOT LIGHT 2121 IL
S.P. ROCKER SWITCH, 120/277V WITH PILOT LIGHT 2123 IL
SLIDING DIMMER SWITCH, 1000W FRACTIONAL H.P. (MAM. MOTOR STARTER) AS11103 35311A
B. RECEPTACLES: TYPE DUPLX 125V/15A (5-15R) 5252-1
W.P. DUPLX 125V/15A 5252 W/ DUPLX LIFT COVER AS INDICATED ON PLANS
GFO TYPE GF5252-1

C. DEVICE PLATES: ALL SWITCHES AND RECEPTACLES SHALL BE EQUIPPED WITH SMOOTH NYLON PLATES. WHERE UNITS ARE GROUPED TOGETHER, THEY SHALL BE UNDER ONE COMMON PLATE. COLOR PER ARCHITECTURAL SPECIFICATIONS. PLATES SHALL BE STAINLESS STEEL IN ALL KITCHEN AREAS OF RESTAURANTS.
D. THE ABOVE SPECIFIED DEVICES ARE HUBBELL AND CONSTITUTE THE QUALITY AND TYPE OF DEVICES. COMPARABLE DEVICES AS MANUFACTURED BY P & S, WOODHEAD, & ARROW HART WILL BE ACCEPTABLE.

1.03 INSTALLATION

- A. MOUNT SWITCHES 48" ABOVE FLOOR TO CENTERLINE OF BOX.
B. COORDINATE SWITCH MOUNTING LOCATION WITH DETAILS.
C. IN GENERAL, MOUNT WALL RECEPTACLES 12" ABOVE FLOOR.

SECTION 16170 - DISCONNECT SAFETY SWITCHES

1.01 GENERAL

A. PROVIDE AND INSTALL ALL CIRCUIT DISCONNECT SWITCHES AS INDICATED ON PLANS AND SPECIFIED HEREIN

1.02 PRODUCTS

- A. DISCONNECT SWITCHES SHALL BE TYPE H.D. HEAVY DUTY, QUICK-MAKE QUICK-BREAK HORSEPOWER RATED, AND IN NEMA-1 ENCLOSURE. UNITS IN OUTDOOR LOCATIONS SHALL BE NEMA-3R ENCLOSURES.
B. UNITS SHALL HAVE VISIBLE CIRCUIT CONDITION IDENTIFICATION AND SHALL BE COVER INTERLOCKED. PROVISIONS SHALL BE MADE FOR PADLOCKING THE HANDLE IN THE "OFF" OR "ON" POSITION.
C. ALL FUSED UNITS SHALL BE EQUIPPED WITH FUSETRON CARTRIDGE FUSES AS MANUFACTURED BY BUSSMAN MANUFACTURING.
D. ALL SWITCHES THROUGHOUT SHALL BE OF THE SAME MANUFACTURER AND SHALL HAVE U.L. LABEL. UNITS SHALL BE AS MANUFACTURED BY GENERAL ELECTRIC, SQUARE "D", EATON OR SIEMENS.

SECTION 16401 - TEMPORARY ELECTRICAL SERVICES

1.01 GENERAL

A. CONTRACTOR SHALL HAVE RESPONSIBILITY FOR THE BASIC TEMPORARY WIRING, ALONG WITH MAINTENANCE THROUGHOUT THE DURATION OF THE PROJECT. BASIC TEMPORARY WIRING SHALL INCLUDE LIGHTING, POWER AND WIRING REQUIREMENTS FOR TEMPORARY CONSTRUCTION USE. IT IS NOT TO FORESEE ALL THE USAGE FOR TEMPORARY; HOWEVER, THE BASIC ITEMS SHOULD BE INVOLVED AND IF ADDITIONAL POWER OR LIGHTING IS REQUIRED, THEN THOSE REQUIRING SAME SHALL MAKE PROVISIONS FOR TEMPORARY LIGHTING AS REQUIRED TO PERFORM THEIR OWN WORK.

1.02 PRODUCTS

- A. ALL UTILITY CHARGES OR ELECTRICAL USE SHALL BE PAID BY OTHERS.
B. THE CHARGES BY THE UTILITY COMPANY FOR PROVIDING SERVICE CONNECTIONS SHALL BE INCORPORATED AS A PART OF THESE SPECIFICATIONS AND SHALL BE PAID BY THE ELECTRICAL CONTRACTOR.
C. THE TEMPORARY SERVICE SHALL BE 200 AMPERE, 1 PHASE, 3 WIRE MINIMUM IN LOCATIONS AS REQUIRED. THE ELECTRICAL SERVICE AND SERVICING EQUIPMENT SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE REQUIREMENTS OF THE SERVICING UTILITY COMPANY.
D. RECEPTACLES SHALL BE SPACES SO THAT ALL PARTS OF THE WORK AREA MAY BE REACHED BY A 50-FOOT EXTENSION CORD FOR 120 VOLT APPLIANCES, AND 100 FOOT EXTENSION CORD FOR 208 VOLT OR 240 VOLT EQUIPMENT. DISTANCES FOR LENGTH OF EXTENSION CORDS SHALL BE MEASURED HORIZONTALLY ALONG FLOOR LINES. THESE APPLIANCE CIRCUITS SHALL BE LIMITED TO 20 AMPERE.

1.03 INSTALLATION

- A. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, MAINTAINING, AND REMOVING THE TEMPORARY LIGHTING AND POWER WIRING AS HEREIN DESCRIBED. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ONLY THIS AMOUNT OF WORK AND IF ADDITIONAL TEMPORARY WIRING IS REQUIRED BY ANY CONTRACTOR, THEN THE COST OF SAME SHALL BE BORNE BY THOSE REQUIRING ADDITIONAL WIRING.
B. ADEQUATE LIGHTING SHALL BE PROVIDED IN PASSAGEWAYS AND STAIRWAYS. ARTIFICIAL ILLUMINATION, WHEN REQUIRED, SHALL BE AS PER O.S.H.A. REQUIREMENTS.
C. PROVIDE GROUND-FAULT CIRCUIT PROTECTION IN ACCORDANCE WITH N.E.C.

SECTION 16450 - GROUNDING

1.01 GENERAL

A. THE IDENTIFIED (WHITE) NEUTRAL AND THE COMPLETE CONDUIT SYSTEM SHALL BE EFFECTIVELY GROUNDING PER ARTICLE 250 OF NEC. IDENTIFIED NEUTRAL SHALL BE RUN IN CONDUIT WITH OTHER CONDUCTORS AND SHALL BE INSULATED COPPER.

1.02 PRODUCTS

A. ALL GROUNDING CONDUCTORS SHALL BE GREEN AND INDICATED WHEN REQUIRED AS MARKED ON CONDUIT RUNS. THE GROUND WIRE SHALL BE INSULATED COPPER. GROUNDING CLAMPS SHALL BE OF THE APPROVED TYPE AND GROUND CONNECTIONS SHALL BE SUCH THAT RESISTANCE WILL NOT INCREASE WITH PASSAGE OF TIME. MAXIMUM GROUND RESISTANCE SHALL NOT EXCEED 5 OHMS.

C. ALIGNMENT

1. ALIGN LUMINAIRES AND CLEAN DIFFUSERS PRIOR TO FINAL ACCEPTANCE.

1.03 INSTALLATION

A. FOLLOWING ARE INCLUDED AS REQUIRED GROUNDING: ELECTRIC SERVICE, ITS EQUIPMENT AND ENCLOSURES; JOINTS IN BRANCH CIRCUITS; NEUTRAL OR IDENTIFIED CONDUCTORS OF WIRING SYSTEM; MAIN SWITCH, POWER AND LIGHTING PANELBOARDS, TRANSFORMERS, NONCURRENT-CARRYING METAL PARTS OF FIXED EQUIPMENT SUCH AS MOTORS, STARTERS, CONTROLLERS AND LIGHTING FIXTURES.

SECTION 16471 - PANELBOARDS

1.01 GENERAL

A. CONTRACTOR SHALL FURNISH AND INSTALL ALL DISTRIBUTION POWER AND LIGHTING PANELBOARDS AS HEREIN AFTER DESCRIBED AND AS SCHEDULED ON PLANS. ALL PANELBOARDS SHALL BE DEAD-FRONT TYPE, MANUFACTURED IN ACCORDANCE WITH THE LATEST NEMA STANDARDS AND BEAR THE UL LABEL.

1.02 PRODUCTS

A. PANELBOARDS SHALL BE MOUNTED IN CODE GAUGE GALVANIZED SHEET STEEL CABINETS WITH A 4-INCH MINIMUM GUTTER SPACE ON ALL SIDES. CABINETS SHALL BE EQUIPPED WITH ADJUSTABLE MOUNTING STUDS AND TRIM CLAMPS. FRONTS TO INCLUDE PAINTED STEEL FRAME, SEMI-CONCEALED HINGED DOOR WITH FLUSH CHROME-PLATED COMBINATION CYLINDER LOCK AND CATCH, ALL KEYS ALIKE. DOOR SHALL BE EQUIPPED WITH DIRECTORY FRAME AND CARDS COMPLETELY IDENTIFIED OUT FOR PROPER BRANCH CIRCUIT IDENTIFICATION AND PLASTIC COVER. PANEL FRONTS SHALL BE FINISHED WITH ONE COAT OF BONDERIZED, ONE COAT OF PRIMER AND SURFACER, AND ONE COAT OF GRAY LAQUER FINISH.

B. PANEL INTERIORS SHALL BE RIGIDLY MOUNTED ON STEEL SUPPORTS WITH SELF-SUPPORTING BUS-BAR STRUCTURE ON INSULATING BASES. ALL INDIVIDUAL BRANCHES SHALL BE REMOVABLE WITHOUT DISTURBING ADJACENT UNITS, BUSSING OR CONNECTORS. BRANCHES SHALL BE CHANGEABLE WITHOUT ALTERING BUSSING. ALL TERMINALS SHALL BE OF THE SOLDERLESS ANTI-TURN TYPE SUITABLE FOR COPPER OR ALUMINUM WIRE. BRANCHES SHALL BE ARRANGED FOR BUSES TO MAINTAIN SEQUENCE PHASING.

C. BRANCHES: SHALL COMPLY WITH FOLLOWING: MOLDED CASE BREAKERS SHALL BE DEION TYPE, WITH QUICK-MAKE, QUICK-BREAK MECHANISM FOR MANUAL AND AUTOMATIC OPERATION; THE UNITS INVERSE TIME TYPE CHARACTERISTICS SHALL BE BY METALLIC TRIPPING ELEMENT WITH MAGNETIC THREE-POLE UNITS SHALL HAVE COMMON TRIP. ALL UNITS SHALL BE OF THE INDICATING TYPE PROVIDING ON/OFF AND TRIPPED POSITIONS OF THE HANDLE.

D. 120/230 VOLT PANELBOARDS: 1 PHASE, 3 WIRE, SOLID NEUTRAL DESIGN WITH SEQUENCE STYLE BUSSING AND FULL CAPACITY NEUTRAL, COMPOSED OF AN ASSEMBLY OF BOLT-IN-PLACE MOLDED CASE AUTOMATIC AIR CIRCUIT BREAKERS WITH THERMAL AND MAGNETIC TRIP AND TRIP FREE POSITION SEPARATE FROM EITHER "ON" OR "OFF" POSITIONS. PROVIDE COMMON SIMULTANEOUS TRIP FOR 1 AND 2 POLE BREAKERS. PROVIDE INTERRUPTING RATINGS AS REQUIRED BY LOCAL UTILITY.

E. BUS BARS SHALL BE 98% COPPER. PROVIDE ALTERNATE BID FOR ALUMINUM BUS BARS.

F. PANELS SHALL BE MANUFACTURED BY SQUARE D COMPANY, G.E., EATON OR SIEMENS.

1.03 INSTALLATION

- A. PANELS SHALL BE SECURELY MOUNTED TO WALLS OR RECESSED CAVITIES.
B. PANEL PANELS SHALL BE EQUIPPED WITH BLANK COVERS.

SECTION 16501 - LAMPS

1.01 GENERAL

A. PROVIDE AND INSTALL ITEMS AS LISTED ON LIGHTING FIXTURE SCHEDULE ON PLANS.

1.02 SUBMITTALS

A. SUBMIT PRODUCT DATA IN ACCORDANCE WITH SECTION 16000

1.03 ACCEPTABLE MANUFACTURERS

A. MANUFACTURER: GENERAL ELECTRIC, SYLVANIA, PHILLIPS LIGHTING COMPANY, OSRAM.

1.04 INSTALLATION

- A. INSTALL LAMPS PER MANUFACTURER'S INSTRUCTIONS.
B. LAMPS BROKEN OR BURNED OUT DURING THE CONSTRUCTION SHALL BE REPLACES WITHOUT COST TO THE CUSTOMER.

SECTION 16510 - INTERIOR BUILDING LIGHTING

1.01 WORK INCLUDED