New Storage Facility

ALAMEDA COUNTY MOSQUITO ABATEMENT CENTER

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element lone architecture

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constitute the original and unpublished work of be duplicated, used, or disclosed without the

OUTLINE SPECS ARCHITECT OF RECORD **GENERAL NOTES** PROJECT DATA CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID. ANY DISCREPANCIES IDENTIFIED ON ARCHITECT OF RECORD: CARLOS CASTILLO, C34699 SCOPE OF WORK: NOTE: SPECIFIC MANUFACTURERS AND PRODUCTS ARE GIVEN FOR PURPOSES OF DESCRIBING LEVEL OF QUALITY THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. OR DESIGN. PROPOSED SUBSTITUTIONS WILL BE CONSIDERED PER PROJECT MANUAL REQUIREMENTS CONSTRUCT NEW 1,115 SF STORAGE BUILDING ON SITE, BUILDING TO BE USED TO SHELTER (2) IF DURING CONSTRUCTION OF THE WORK, ANY DISCREPANCIES, ERRORS, OR CONFLICTS ON THE DRAWINGS OR OWNER SHALL NOTIFY BUILDING OFFICIAL IN WRITING IF ARCHITECT OF RECORD IS CHANGED OR SUBSTITUTED. 600 GALLON FISH TANKS AS WELL AS STORAGE FOR THE FISHERY EQUIPMENT SPECIFICATIONS ARE DISCOVERED, NOTIFY THE ARCHITECT IMMEDIATELY FOR INSTRUCTIONS FOR RESOLUTION **DIVISION 1 - GENERAL** DEFERRED APPROVAL ITEMS SHALL FIRST BE SUBMITTED TO THE ARCHITECT OF RECORD FOR REVIEW AND CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY UNFORESEEN CONDITIONS NOT SHOWN ON DRAWINGS COORDINATION AND FOLLOWING COMPLETION OF ARCHITECT'S REVIEW SHALL BE SUBMITTED TO CITY AND/OR 1. DEBRIS DIVERSION 65% MINIMUM OF CONSTRUCTION WASTE SHALL BE DIVERTED FROM LANDFILLS TO OCCUPANCY GROUP: FIRE DEPARTMENT FOR APPROVAL, SUBMITTALS SENT TO THE CITY FOR APPROVAL SHALL BEAR THE INCLUDING: BUILDING STRUCTURAL ELEMENTS, SUPPORTS, SHEAR WALLS, AND OTHER ESSENTIAL BUILDING RECYCLING FACILITIES, OR RE-PURPOSING, CONTRACTOR TO PROVIDE DOCUMENTATION ARCHÍTECT'S REVIEW STAMP WITH NO EXCEPTIONS TAKEN. TO ENFORCING AGENCY FOR PRE-APPROVAL OF WASTE MANAGEMENT PLAN. REFER TO 1,115 SF / 300 SF/OCC = 4 OCCUPANTS NUMBER OF OCCUPANTS: 2. CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY AT ALL TIMES AND SHALL PROVIDE FOR SAFE PASSAGE AROUND ALL WORK AREAS. TYPE OF CONSTRUCTION: Y-B, NON - SPRÍNKLED REFER TO SHEET GREEN BLDG SHEETS GB1, GB2 AND GB3 FOR CALIFORNIA GREEN 2. GREEN BUILDING REQ. 3. ADJACENT PREMISES WILL BE OCCUPIED DURING CONSTRUCTION. CONTRACTOR SHALL SCHEDULE ALL NOISY BUILDING MANDATORY REQUIREMENTS OPERATIONS WITH OWNER AND TENANTS. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ABATE, NEW BUILDING AREA: MANDATORY MEASURES 4. CONTRACTOR SHALL REPAIR ALL EXISTING FACILITIES AND CONDITIONS DAMAGED AS A RESULT OF THEIR <u>CITY OF HAYWARD:</u> NEW BUILDING SHALL COMPLY WITH CITY OF HAYWARD REACH CODE ORDINANCE #22-11 **DIVISION 4 - MASONRY** 5. CONTRACTOR SHALL REMOVE ALL RUBISH FROM SITE, ITEMS NOTED TO BE SALVAGED SHALL BE DELIVERED STANDARD CONCRETE 8X8XI6 PRECISION UNITS, STANDARD COLOR, CMU SHALL BE MANUFACTURED WITHIN 500 TO LOCATION DESIGNATED BY OWNER. PROVIDE DAILY CLEAN-UP OF CONSTRUCTION AREA. INSTALLED INSULATING MATERIAL SHALL HAVE BEEN CERTIFIED BY THE MANUFACTURER TO COMPLY WITH MILES OF THE PROJECT SITE AND SHALL CONTAIN MIN 60% RECYCLED PRE-CONSUMER MASONRY UNITS THE CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL, TITLE 20, CHAPTER 4, ARTICLE 3, 6. CONTRACTOR SHALL PROVIDE ALL DEMOLITION, SAUCUTTING, EXCAVATING, SHORING, ETC. AS REQUIRED TO PROVIDE NEW WORK AS SHOWN. 2. ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING **DIVISION 5 - METALS** AND SMOKE DENSITY REQUIREMENTS OF SECTIONS 2602 AND 101 OF TITLE 24, PART 2. 1. ALL WORK SHALL CONFORM TO APPLÍCABLE STATE, LOCAL, REGIONAL, AND FEDERAL CODES, LAWS, AND ORDINANCES, INCLUDING: 3. ALL EXTERIOR JOINTS AND OPENINGS IN THE BUILDING THAT ARE OBSERVABLE SOURCES OF AIR 1, EXT, METAL FABRICATIONS ALL EXTERIOR METAL FABRICATIONS TO BE HOT DIPPED GALVANIZED OR POWDER INDEX OF DRAWINGS 2022 CALIFORNIA BUILDING CODE (CBC) LEAKAGE SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED OR OTHERWISE SEALED. COATED MATCHING PAINT COLOR 2022 CALIFORNIA MECHANICAL CODE (CMC) 2022 CALIFORNIA PLUMBING CODE (CPC) 4. SITE CONSTRUCTED DOORS, WINDOWS AND SKYLIGHT SHALL BE CAULKED BETWEEN THE UNIT AND THE 2022 CALÍFORNIA ELECTRICAL CODE (CEC) BUILDING, AND SHALL BE WEATHERSTRIPPED (EXCEPT FOR UNFRAMED GLASS DOORS AND FIRE DOORS). 2022 CALÍFORNIA FIRE CODE (CFC) DIVISION 7 - THERMAL AND MOISTURE PROTECTION 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL-GREEN) MANUFACTURED DOORS AND WINDOWS SHALL HAVE AIR INFILTRATION RATES NOT EXCEEDING THOSE ARCHITECTURAL MECHANICAL / PLUMBING 2022 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SHOWN IN TABLE NUMBER 1-E, OF THE STANDARDS, MANUFACTURED FENESTRATION PRODUCTS MUST BE TITLE SHEET NOTES, LEGEND AND SHEET INDEX LABELED FOR U-VALUE ACCORDING TO NFRC PROCEDURES. 1. SINGLE PLY ROOFING GAF SINGLE PLY TPO ROOFING, EVERGUARD EXTREME TPO, 60 MIL. ACCESSIBILITY STANDARDS 2022 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 72 - NATIONAL FIRE ALARM CODE MP2.0 PLUMBING PLANS SINGLE PLY WHITE COOL ROOF TPO MEMBRANE MECHANICALLY ACCESSIBILITY STANDARDS 2022 ADA MECHANICAL PLANS 6. DEMISING WALLS IN NONRESIDENTIAL BUILDINGS: FASTENED, 1/2" CLASS I GYPSUM CORE ROOF BOARD (DENSDECK PRIME OSHA REACH CODE CHECKLIST MP4Ø PLUMBING SITE PLAN THE OPAQUE PORTIONS OF FRAMED DEMISING WALLS IN NONRESIDENTIAL BUILDINGS SHALL HAVE SOLAR READY COMP CERT INSULATION WITH AN INSTALLED R-VALUE OF NO LESS THAN R-11 BETWEEN FRAMING MEMBERS. 8. ALL MATERIALS SHALL BE INSTALLED PER THEIR MANUFACTURER'S RECOMMENDATIONS. GREEN BUILDING STANDARDS GB2 AT PLASTER ON FRAMING: 2 LAYERS GRADE 'D' BUILDING PAPER GREEN BUILDING STANDARDS ELECTRICAL 4. WRB 9. DETAILS NOT SHOWN ON DRAWINGS SHALL BE CONSTRUCTED TO MATCH SIMILAR CONDITIONS THAT ARE GREEN BUILDING STANDARDS SHOWN, SPECIFIED, OR EXISTING. FIRST LAYER OF WRAP SHOULD BE INSTALLED IN SHINGLED WEATHERLAP NOTES, SYMBOLS AND SHEET INDEX FASHION AND BE FULLY APPLIED PRIOR TO INSTALLATION OF SECOND LAYER FLOOR PLAN / SLAB PLAN E2.Ø POWER AND SIGNAL PLAN 10. DIMENSIONS ARE GIVEN TO FACE OF STUD, OR FACE OF FINISH, OR CENTERLINE OF INDIVIDUAL ELEMENTS AS WEATHERLAP AND STAGGER SECOND LAYER BOTH HORIZONTALLY AND E3.Ø LIGHTING PLAN EXISTING ACCESSIBLE TOILET ROOMS VERTICALLY OVER THE FIRST LAYER. REF. CLG PLAN / ROOF PLAN ELECTRICAL SITE PLAN EXTERIOR ELEVATIONS SINGLE LINE DIAGRAM AND SCHEDULES 11. INSTALL SOLID BLOCKING BEHIND ALL WALL MOUNTED EQUIPMENT, FIXTURES, HARDWARE, ACCESSORIES, TYP., W.R. GRACE YYCOR PLUS OR EQUAL, PROVIDE SASM SADDLES AND SHEET 5. SASM TITLE 24 INTERIOR BUILDING SECTIONS / DOOR SCHEDULE INCLUDING BUT NOT LIMITED TO LAVATORIES, GRAB BARS, TOILET PARTITIONS, SHELVING, METAL SADDLES AS AT ALL PARAPET INTERSECTIONS AND ROOF TO WALL TITLE 24 EXTERIOR 12. CONTRACTOR SHALL COORDINATE INSTALLATION OF ALL UTILITIES WITH UTILITY COMPANIES. W.R. GRACE ULTRA: AT ROOF RELATED FLASHINGS AND UNDER METAL COPINGS, OR STRUCTURAL AT OTHER HIGH TEMPERATURE AREAS, PROVIDE GRACE ULTRA, (HIGH TEMP \$A\$M) 13. HOURS OF CONSTRUCTION SHALL BE VERIFIED WITH CITY BUILDING & POLICE DEPARTMENTS. GENERAL NOTES MATERIAL NOTES AND SPECS 14. DO NOT SCALE DRAWINGS, IF DIMENSIONS ARE NOT SHOWN OR DIMENSIONAL DISCREPANCIES ARE IDENTIFIED EXTERIOR APPLICATIONS (NON-TRAFFIC) - PROVIDE DOW CORNING 190 / 195 OR GE'S 6. SEALANTS SC1.3 GENERAL DETAILS ON THE DRAWINGS, NOTIFY THE ARCHITECT PRIOR TO PROCEEDING. SILPRUF SILICONE SEALANT. CMU SECTIONS AND DETAILS SC1.5 CMU SECTIONS AND DETAILS 15. PROVIDE TYPE AND QUANTITY OF FIRE EXTINGUISHERS AS REQUIRED BY FIRE DEPARTMENT HAVING JURISDICTION. EXTERIOR APPLICATIONS (FOOT TRAFFIC) - PROVIDE SIKA'S SIKAFLEX-2C SL FOUNDATION AND ROOF PLAN 16. CONTRACTOR SHALL PROVIDE ALL TEMPORARY FENCING AND CONTROLS REQUIRED TO CONDUCT SAFE APPLICATIONS IN CONTACT WITH MEMBRANE WATERPROOFING AND FLASHINGS SHALL BE PASSAGE OF PEDESTRIANS, AUTOMOBILES AND DELIVERY VEHICLES ON OR AROUND CONSTRUCTION AREAS. COMPATIBLE WITH WATERPROOFING PRODUCTS AS APPROVED IN WRITING FROM THE WATERPROOFING MANUFACTURER. 17. CONTRACTOR SHALL TAKE MEASURES NECESSARY TO ABATE DUST AND NOISE AS A RESULT OF CONSTRUCTION SYMBOLS & ABBREVIATIONS PROJECT DIRECTORY OPERATIONS. CONTRACTOR SHALL KEEP ADJACENT PROPERTY, PUBLIC AND PRIVATE STREETS CLEAN. SEE 7. COLLAR FLASHING PROVIDE QUICK FLASH PIPE COLLAR AT PIPE AND ELECTRICAL BOX PENETRATIONS CONDITION OF APPROVAL 17/COA2 THROUGH THE EXTERIOR SIDING AND WRB PER WRB MANUFACTURER'S RECOMMENDATIONS 18. CONTRACTOR SHALL TAKE MEASURES NECESSARY TO CONTROL PESTS AND VERMIN. ANY EVIDENCE OF ALL SHEET METAL FLASHING JOINTS SHALL BE MECHANICALLY FASTENED AND SHEET METAL FLASHING TERMITE INFESTATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. MECHANICAL/PLUMBING: SOLDERED UNLESS NOTED OTHERWISE OWNER: CONTROL JØINT DETAIL REFERENCE NUMBER 19. NOT USED EXISTING GRACE BITUTHENE 4000 BELOW GRADE WATERPROOFING W/ PROTECTION BOARD AT ALAMEDA CO. MOSQUITO ABATEMENT 9. WATERPROOFING BELDEN CONSULTING ENGINEERS SHEET NUMBER 20. NOT USED EXPANSION JOINT AREAS WHERE ADJACENT GRADE IS ABOVE FINISH FLOOR 4457 WILLOW RD., STE 100 FIRE RETARDANT TREATED 23187 CONNECTICUT ST. 21. NOT USED PLEASANTON, CA 94588 $\langle 2 \rangle$ DOOR AND HARDWARE (N) HAYWARD, CA 94545 ATTN: JOEL MANZANÌLLO 22. NOT USED RELOCATED ATTN: RYAN CLAUSNITZER PH: 925.621.5316 PRESSURE TREATED DOUGLAS FIR **DIVISION 8 - DOORS AND WINDOWS** WINDOW AND HARDWARE 23. CONTRACTOR SHALL PROVIDE ALL CODE REQUIRED ACCESS PANELS, ACCESS DOORS, OPENINGS NEEDED TO SERVICE AIR VENT AND REPAIR EQUIPMENT AND APPLIANCES, INCLUDING: CLEANING OF HEATING SURFACES, REPLACE FILTERS, BLOWERS, RAIN WATER LEADER SHEET NOTE REFERENCE ARCHITECT: **ELECTRICAL** MOTORS, BURNERS, CONTROLS, AND VENT CONNECTIONS: LUBRICATION OF MOVING PARTS: ADJUSTMENT AND CLEANING OF DOORS AND HARDWARE REFER TO DOOR SCHEDULE SHEET A4.1 BURNERS, PILOTS, AND THE PROPERT FUNCTIONING OF EXPLOSION VENTS, FIRE DAMPERS WHERE PROVIDED. UNLESS UNLESS NOTED OTHERWISE UNO. ELEMENT ONE ARCHITECTURE BELDEN CONSULTING ENGINEERS OTHERWISE SPECIFIED, NOT LESS THAN 30 INCHES IN DEPTH, WIDTH AND HEIGHT OF WORKING SPACE SHALL BE PROVIDED. MASONRY OPENING 4457 WILLOW RD., STE 100 23990 CLAWITER RD. ROLL-UP DOOR OVERHEAD 610 SERIES, ELECTRIC OPERATOR WITH CAW NON-INSULATE SLATS. CLEAR CLR. HAYWARD, CA 94545 PLEASANTON, CA 94588 ATTN: GERRY NICOL ATTN: NESTOR 25. BUILDING SIGNAGE IS NOT A PART OF THIS PERMIT. SIGNAGE DESIGN PACKAGE SHALL BE SUBMITTED TO AGENCIES HAVING YELUX, OR EQUAL. 24"X28" FLAT, CURB MOUNTED, THERMALLY EFFICIENT MAXIMUM 3. SKYLIGHTS PH: 925.621.5319 PH. 510.334.6728 P-1 COLOR REFERENCE--SEE COLOR GALVANIZED SHEET METAL EM: GNICOL@ELEMENT-I.COM LEGEND, SHEET A4 DOWN SPOUT 26. THE CONTRACTOR SHALL PROVIDE A MINIMUM ONE (1) YEAR WARRANTY, ON ALL WORK AND MATERIALS PROVIDED OVERFLOW DRAIN STARTING AT THE DATE OF COMPLETION AS INDICATED IN THE CONTRACT BETWEEN THE OWNER AND CONTRACTOR REFER STRUCTURAL **DIVISION 9 - FINISHES** ROOF DRAIN TO SPECIFICATIONS AND PLANS FOR ADDITIONAL WARRANTY AND MAINTENANCE REQUIREMENTS, WHERE OCCURS. GUTTER DRAIN FBA STRUCTURAL ENGINEERS FLOOR DRAIN PREP AS REQIORED. 2 COATS, TYP, COLOR PER OWNER OR MATCH ADJACENT SURFACE 1675 SABRE STREET 1. PAINT 27. CONTRACTOR SHALL MAINTAIN ON SITE AT ALL TIMES, ALL APPROVED CURRENT DRAWINGS INCLUDING ALL REVISIONS AND FACE OF STUD OR CONCRETE BLOCK FIRE SPRINKLER RISER HAYWARD, CA 94545 WEATHER RESISTANT BARRIER ATTN: ADAM O'DEA 28, THE ARCHITECT WILL NOT HAVE CONTROL OVER OR CHARGE OF AND WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS CENTERLINE OF COLUMN OR STRUCTURAL GRID SELF-ADHESIVE SHEET MEMBRANE SASM PH: 650222,3498 METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH **DIVISION 10 - SPECIALTIES** EM: ADAM@FBAENGINEERS.COM THE WORK, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY. THE ARCHITECT WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE ARCHITECT FIRE EXTINGUISHER PROVIDE 2410BC FIRE EXTINGUISHER ON BRACKET @ +40" ABOVE FINISH FLOOR TO WILL NOT HAVE CONTROL OR CHARGE OF AND WILL NOT BE RESPONSIBLE FOR ACTS OR OMISSIONS OF THE CONTRACTOR, VICINITY MAP OPERABLE PART, PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED AND SHALL BE SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PRESONS PERFORMING PORTIONS OF THE WORK. (NOT TO SCALE) MOUNTED ON A WALL OR POST AT EACH USABLE STAIRWAY AND SUCH THAT THE TRAVEL 29. UPON RECEIPT OF CITY APPROVED DRAWINGS, CONTRACTOR SHALL REVIEW ALL DOCUMENTS AND NOTIFY DISTANCE TO ANY EXTINGUISHER DOES NOT EXCEED 15 FEET. DATE ARCHITECT IMMEDIATELY OF ANY MARK-UPS, REDLINES, OR REVISIONS TO THESE DRAWINGS MADE BY CITY OR LOCAL AGENCIES DURING THE PLAN CHECK PROCESS. 2/3/23 1st City Submittal W Winton Ave Russell City W Winton Ave 30. GENERAL CONTRACTOR IS RESPONSIBLE FOR ACCESS TO JOB SITE FROM PUBLIC WAY AS REQUIRED FOR CONSTRUCTION. 1 4/7/23 | City PC Response THIS MAY INCLUDE BUT NOT LIMITED TO GRAVEL ACCESS ROADS AND TRUCK WASH-OFF FACILITIES Southland Mall 31. CONTRACTOR SHALL COMPLETE ALL WORK IN A NEAT, WORKMAN LIKE AND PROFESSIONAL MANNER. 2 5/12/23 City PC Resp #2 32. CONTRACTOR SHALL COORDINATE ALL TRADES NECESSARY TO COMPLETE THE WORK OUTLINED IN THESE DOCUMENTS. 33. THE AMERICANS WITH DISABILITIES ACT (ADA) REQUIRES THE REMOVAL OF ARCHITECTURAL BARRIERS IN EXISTING FACILITIES WHERE SUCH REMOVABLE IS READILY ACHIEVABLE, THE CLIENT ACKNOWLEDGES THAT THE DEFINITION OF "READILY ACHIEVABLE" CONTAINED IN THE ADA IS FLEXIBLE AND SUBJECT TO INTERPRETATION ON A CASE BY CASE BASIS, THE REQUIREMENTS OF THE ADA WILL THEREFORE BE SUBJECT TO VARIOUS AND POSSIBLY CONTRADICTORY INTERPRETATIONS. THE DESIGN PROFESSIONAL WILL USE HIS OR HER REASONABLE PROFESSIONAL EFFORTS AND JUDGMENT TO INTERPRET REFERENCE APPLICABLE ADA REQUIREMENTS AND TO ADVISE THE CLIENT AS TO THE MODIFICATIONS TO THE CLIENT'S FACILITY THAT MAY NORTH Uni Tile & Marble BE REQUIRED TO COMPLY WITH THE ADA, SUCH INTERPRETATION AND ADVICE WILL BE BASED ON WHAT IS KNOWN ABOUT ADA

PROJECT SITE

INTERPRETATIONS AT THE TIME THE SERVICE IS RENDERED. THE DESIGN PROFESSIONAL, HOWEVER, CANNOT AND DOES NOT WARRANT OR GUARANTEE THAT THE CLIENT'S FACILITY WILL FULLY COMPLY WITH INTERPRETATIONS OF ADA REQUIREMENTS BY

34. PROVIDE KNOX BOX AT LOCATION SPECIFIED BY FIRE DEPT. CONTACT LOCAL FIRE DEPT. FOR ORDERING INFORMATION 35. PROJECT ARCHITECT OR ENGINEER SHALL REVIEW ALL DEFERRED DRAWINGS, PLACE A SHOP DRAWING REVIEWED STAMP ON

36. CONTRACTOR SHALL INSTALL FIRE BLOCKING IN CONCEALED AREAS AS REQUIRED IN ALL NEW CONSTRUCTION (INCLUDING FURRED WALL ELEMENTS). BLOCKING SHALL BE LOCATED AT ALL FLOOR LEVELS, CEILING LEVELS AND AT 10-FOOT

UNINTENDED INTRUSION OF WATER INTO THE BUILDING STRUCTURE OR INTERIOR SPACE. THE GENERAL CONTRACTOR IS TO

38. PRIOR TO UNDERTAKING ANY DEMOLITION OR REMOVAL OF EXISTING BUILDING MATERIAL FROM THE JOB SITE, THE GENERAL CONTRACTOR SHALL OBTAIN THE REQUIRED APPROVALS AND OR PERMITS FROM THE LOCAL AGENCIES MONITORING AIR QUALITY AND THE PRESENCE OF HAZARDOUS MATERIALS FOR THE PLANNED DEMOLITION AND CONSTRUCTION WORK.

31. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETED BUILDING THAT DOES NOT ALLOW THE

PROVIDE LABOR AND MATERIALS TO FIND AND REPAIR ANY CONDITIONS ALLOWING THE INTRUSION OF WATER.

EACH SHEET, THEN SUBMIT THE DOCUMENTS TO THE BUILDING DEPT. FOR THEIR REVIEW AND APPROVAL

REGULATORY BODIES OR COURT DECISIONS.

INTERVALS BOTH VERTICAL & HORIZONTAL

COVER

College

MT. EDEN

SOUTHGATE

3187 Connecticut St,

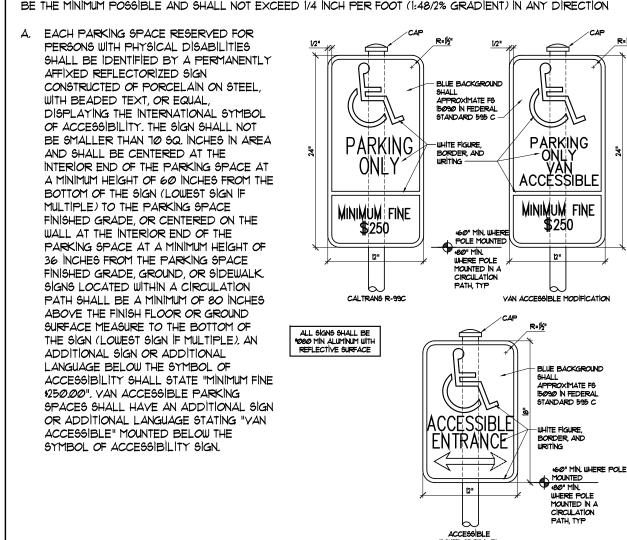
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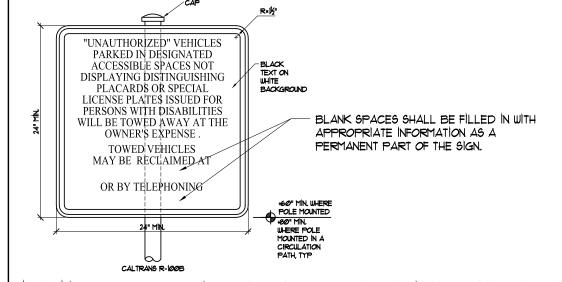
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144 INCHES WIDE MINIMUM AND SERVED BY AN ACCESS AISLE 60 INCHES WIDE MINIMUM AND SHALL BE DESIGNATED AS "VAN ACCESSIBLE" EXCEPTION: VAN PARKING SPACES SHALL BE PERMITTED TO BE 108 INCHES WIDE MINIMUM WHERE THE ACCESS AISLE IS 96 INCHES WIDE MINIMUM

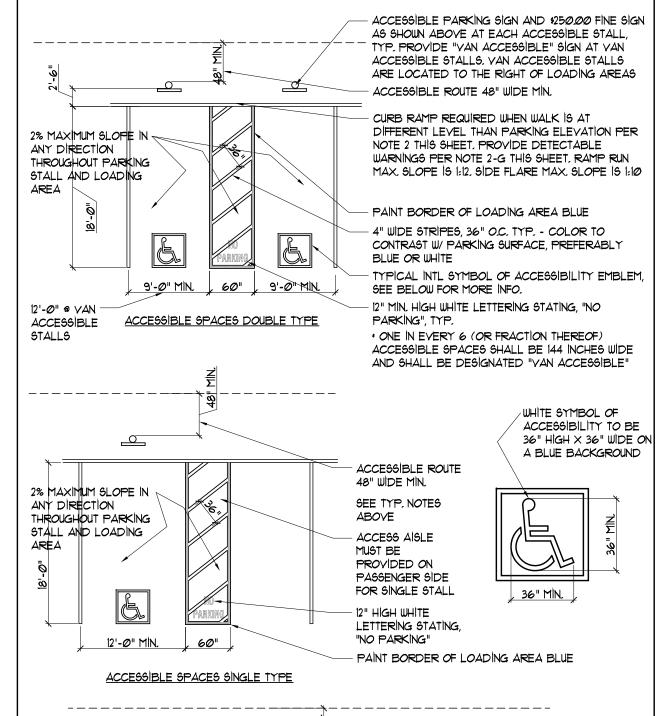
SURFACE SLOPES OF PARKING SPACES AND ACCESS AIGLE(S) FOR PERSONS WITH PHYSICAL DISABILITIES SHALL



B. AN ADDITIONAL SIGN SHALL BE POSTED EITHER 1) IN A CONSPICUOUS PLACE AT EACH ENTRANCE TO AN OFF-STREET PARKING FACILITY OR 2) POSTED IMMEDIATELY ADJACENT TO ON-SITE ACCESSIBLE PARKING AND VISIBLE FROM EACH PARKING SPACE. THE SIZE OF THE SIGN SHALL NOT BE LESS THAN IT INCHES WIDE × 22 INCHES HIGH WITH LETTERING NOT LESS THAN 1 INCH IN HEIGHT, WHICH CLEARLY STATES THE FOLLOWING:



IN ADDITION TO THE ABOVE REQUIREMENTS, THE SURFACE OF EACH PARKING SPACE SHALL HAVE A SURFACE IDENTIFICATION OF THE INTERNATIONAL SYMBOL OF ACCESSIBILITY, 36" WIDE BY 36" INCHES HIGH MINIMUM, IN WHITE ON A BLUE BACKGROUND. THE CENTERLINE OF THE SYMBOL OF ACCESSIBILITY SHALL BE A MAXIMUM OF 6 INCHES FROM THE CENTERLINE OF THE PARKING SPACE, ITS SIDE PARALLEL TO THE LENGTH OF THE PARKING SPACE, AND IT'S LOWER CORNER AT, OR LOWER SIDE ALIGNED WITH, THE END OF THE PARKING SPACE LENGTH.



ACCESSIBLE ROUTE 48" WIDE MIN. 2% MAXIMUM SLOPE IN ALSO SEE TYP. ANY DIRECTION NOTES ABOVE THROUGHOUT PARKÌNG STALL AND LOADING 12'-Ø" @ VAN ACCESSIBLE STALL-PAINT BORDER OF LOADING AREA BLUE 2" HÌGH WHÌTE

ACCESSIBLE SPACE, DOUBLE DIAGONAL 1 NOTES: THE ACCESS AISLES FOR VAN ACCESSIBLE PARKING SPACES TO BE PLACED ON THE SIDE OPPOSITE THE DRIVER'S SIDE WHEN THE VEHICLE IS GOING FORWARD INTO THE PARKING SPACE (I.E., THE PASSENGER SIDE OF THE VEHICLE)

98" MIN. VERTICAL CLEARANCE IS PROVIDED AT THE PARKING SPACE AND

ALONG AT LEAST ONE VEHICLE ACCESS ROUTE TO SUCH SPACES FROM SITE

<u>CURB RAMPS</u>

ENTRANCE(S) AND EXIT(S)

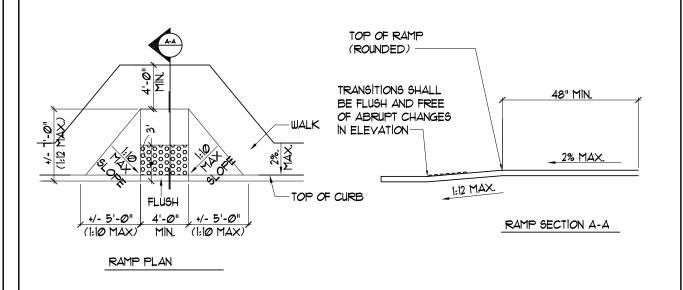
- CURB RAMPS SHALL BE CONSTRUCTED AT EACH CORNER OF STREET INTERSECTIONS AND WHERE A PEDESTRIAN WAY CROSSES A CURB. THE PREFERRED AND RECOMMENDED LOCATION FOR CURB RAMPS IS IN THE CENTER OF THE CROSSWALK OF EACH STREET CORNER. WHERE IT IS NECESSARY TO LOCATE A CURB RAMP IN THE CENTER OF THE CURB RETURN AND THE STREET SURFACES ARE MARKED TO IDENTIFY PEDESTRIAN CROSSWALKS, THE LOWER END OF THE CURB RAMP SHALL TERMINATE WITHIN SUCH CROSSWALKS.
- B. CURB RAMPS SHALL BE A MINIMUM OF 4 FEET IN WIDTH AND SHALL LIE GENERALLY IN A SINGLE SLOPED PLANE WITH A MINIMUM OF SURFACE WARPING AND CROSS SLOPE.
- ;. BUILT-UP CURB RAMPS SHALL BE LOCATED SO THAT THEY DO NOT PROJECT INTO VEHICULAR TRAFFIC LANES. D. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS EXCLUDING ANY FLARED SIDES,
- THE SLOPE OF CURB RAMPS SHALL NOT EXCEED I VERTICAL TO 12 HORIZONTAL. THE SLOPE OF THE FANNED OR FLARED SIDES OF CURB RAMPS SHALL NOT EXCEED 1 VERTICAL TO 10 HORIZONTAL GRADIENT (10%).
- A LEVEL LANDING OF 4 FEET DEEP SHALL BE PROVIDED AT THE UPPER END OF EACH CURB RAMP OVER ITS FULL WIDTH TO PERMIT SAFE EGRESS FROM THE RAMP SURFACE,
- ALL CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE. DETECTABLE WARNING SHALL EXTEND 36 INCHES IN THE DIRECTION OF TRAVEL AND THE FULL DEPTH OF THE CURB RAMP, EXCLUDING THE FLARED SIDES DETECTABLE WARNINGS SHALL BE YELLOW AND COLOR SHALL APPROXIMATE FS 33538 OF SAE (AMS-STD 595-A DETECTABLE WARNINGS SHALL PROVIDE A 10% MINIMUM VISUAL CONTRAST WITH ADJACENT WALKING SURFACES PER CBC 11B-705.1.1.3.2.

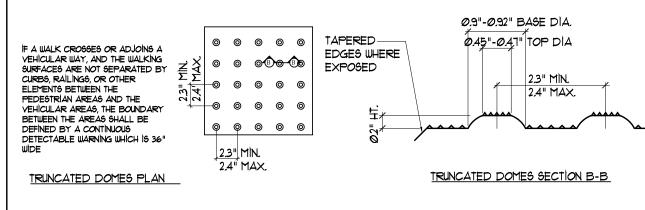
DETECTABLE WARNING SURFACES SHALL BE DURABLE, SLIP-RESISTANT MATERIAL AND CONSIST OF RAISED TRUNCATED DOMES WITH A BASE DIAMETER OF 0.9 INCHES MINIMUM AND 0.92 INCHES MAXIMUM AND A TOP DIAMETER OF 0.45 INCHES MINIMUM AND 0.41 INCHES MAXIMUM, A HEIGHT OF 0.2 INCHES AND A CENTER-TO-CENTER SPACING OF 2.3 INCHES MINIMUM AND 2.4 INCHES MAXIMUM IN COMPLIANCE WITH FIGURE CBC

CALIFORNIA CODE OF REGULATIONS (CCR.) TITLE 24, PART I, CHAPTER 5, ARTICLES 2, 3, AND 4. THE SURFACE OF EACH CURB RAMP AND ITS FLARED SIDES SHALL BE STABLE, FIRM, AND SLIP RESISTANT. CURB RAMPS SHALL BE LOCATED OR PROTECTED TO PREVENT THEIR OBSTRUCTION BY PARKED CARS.

ONLY APPROVED DSA-AC DETECTABLE WARNING PRODUCTS SHALL BE INSTALLED AS PROVIDED IN THE

IF DIAGONAL CURB RAMPS HAVE RETURN CURBS OR OTHER WELL-DEFINED EDGES, SUCH EDGES SHALL BE PARALLEL TO THE DIRECTION OF PEDESTRIAN FLOW. THE BOTTOM OF DIAGONAL CURB RAMPS SHALL HAVE 48 INCHES MINIMUM CLEAR SPACE, IF DIAGONAL CURB RAMPS ARE PROVIDED AT MARKED CROSSINGS. THE 48 INCH CLEAR SPACE SHALL BE WITHIN THE MARKINGS. IF DIAGONAL CURB RAMPS HAVE FLARED SIDES, THEY SHALL ALSO HAVE AT LEAST A 24 INCH LONG SEGMENT OF STRAIGHT CURB LOCATED ON EACH SIDE OF THE CURB RAMP AND WITHIN THE MARKED CROSSING.





3) walks and sidewalks

- A. WALKS AND SIDEWALKS SHALL BE A MINIMUM OF 4 FEET IN WIDTH,
- B. THE RUNNING SLOPE OF A WALKING SURFACE SHALL NOT BE STEEPER THAN 1:20, THE CROSS SLOPE OF A WALKING SURFACE SHALL NOT EXCEED 1:48.
- . WHEN THE SLOPE IN THE DIRECTION TRAVEL EXCEEDS 1:20 IT SHALL COMPLY WITH THE PROVISIONS FOR
- PEDESTRIAN RAMPS.
- D. FLOOR AND GROUND SURFACES SHALL BE STABLE, FIRM, AND SLIP-RESISTANT.
- E. WALKS, SIDEWALKS AND PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. FOR GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE ARES, GRID OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2 INCH IN THE DIRECTION OF TRAFFIC FLOW.
- CHANGES IN LEVEL OF 1/4 INCH SHALL BE PERMITTED TO BE VERTICAL AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. WHEN CHANGES IN LEVEL GREATER THAN 1/2 INCH ARE NECESSARY, COMPLY WITH THE REQUIREMENTS FOR
- G. WALKS SHALL BE PROVIDED WITH A LEVEL AREA NOT LESS THAN 60 INCHES BY 60 INCHES AT A DOOR OR GATE THAT SWINGS TOWARDS THE WALK, AND NOT LESS THAN 48 INCHES WIDE BY 44 INCHES DEEP THAT A DOOR OR GATE THAT SWINGS AWAY FROM THE WALK, SUCH WALKS SHALL EXTEND 24 INCHES TO THE SIDE OF THE STRIKE EDGE OF A DOOR OR GATE THAT SWINGS TOWARD THE WALK.
- H. ALL WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE LEVEL AREAS OF AT LEAST 5 FEET IN LENGTH AT
- IF A WALK CROSSES OR ADJOINS A VEHICULAR WAY, AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS OR OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND VEHICULAR AREAS, THE BOUNDARY BETWEEN THE AREAS SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH IS 36 INCHES WIDE, CONSISTING OF TRUNCATED DOMES. (SEE DETAIL AT NOTE 2).

(4) RAMPS

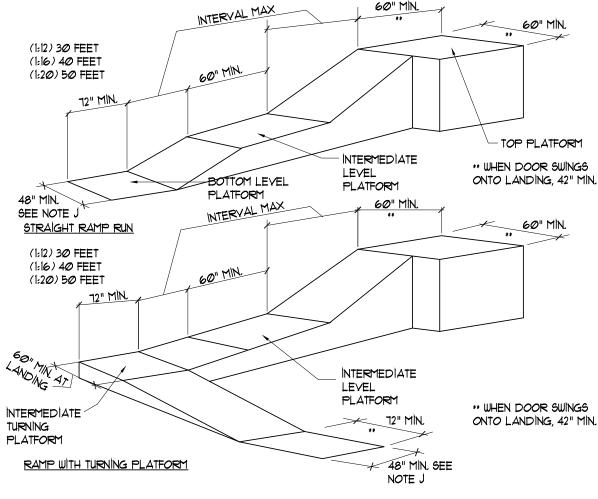
LETTERING STATING,

"NO PARKÍNG"

- A. ANY PATH OF TRAVEL SHALL BE CONSIDERED A RAMP IF ITS SLOPE IS GREATER THAN 1:20 (1:12 MAXIMUM), CROSS SLOPE OF RAMPS SHALL NOT BE STEEPER THAN 1:48,
- B. RAMP RISE SHALL BE 30 INCHES MINIMUM.
- ALL RAMPS SHALL HAVE HANDRAILS ON BOTH SIDES, AT DOOR LANDINGS, HANDRAILS ARE NOT REQUIRED ON RAMP RUNG LESS THAN 6 INCHES IN RISE OF 12 INCHES IN LENGTH, CURB RAMPS DO NOT REQUIRE HANDRAILS.
- D. HANDRAILS MAY PROJECT INTO THE REQUIRED CLEAR WIDTH OF THE RAMP AT EACH SIDE 3 1/2 INCHES MAXIMUM AT THE HANDRAIL HEIGHT,
- HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE RAMP, HANDRAILS SHALL BE 34 TO 38 INCHES ABOVE THE RAMP SURFACE AND EXTEND A MINIMUM OF 12" BEYOND THE TOP AND BOTTOM OF THE RAMP. RAMPS SHALL HAVE LANDINGS AT THE TOP AND BOTTOM OF EACH RUN, LANDING CLEAR WIDTH SHALL BE AT
- LEAST AS WIDE AS THE WIDEST RAMP RUN LEADING TO THE LANDING, TOP LANDINGS SHALL BE 60 INCHES WIDE MINIMUM AND 60 INCHES LONG MINIMUM. G. BOTTOM LANDINGS SHALL EXTEND 12 INCHES MINIMUM IN THE DIRECTION OF RAMP RUN.
- H. IF A DOOR SWINGS ONTO A LANDING, THE DOOR, WHEN FULLY OPEN, SHALL NOT REDUCE THE REQUIRED RAMP LANDING BY MORE THAN 3 INCHES, DOORS IN ANY POSITION SHALL NOT REDUCE THE MINIMUM DIMENSION OF THE RAMP LANDING TO LESS THAN 42 INCHES.
- RAMPS THAT CHANGE DIRECTIONS BETWEEN RUNS AT LANDINGS SHALL HAVE A CLEAR LANDING 60 INCHES MINIMUM BY 12 INCHES MINIMUM IN THE DIRECTION OF DOWNWARD TRAVEL FROM THE UPPER RAMP RUN.
- RAMPS SHALL BE NOT LESS THAN 48 INCHES WIDE. CLEAR WIDTH OF RAMPS IN RESIDENTIAL USES SERVING

AN OCCUPANT LOAD OF 50 OR LESS SHALL BE 36 INCHES MINIMUM BETWEEN HANDRAÎLS.

- K. SURFACES OF RAMPS SHALL BE SLIP RESISTANT.
- EDGE PROTECTION SHALL BE PROVIDED ON EACH SIDE OF RAMP RUNS AND EACH SIDE OF RAMP LANDINGS. EDGE PROTECTION SHALL NOT BE REQUIRED ON RAMPS THAT ARE NOT REQUIRED TO HAVE HANDRAILS. EDGE PROTECTION SHALL NOT BE REQUIRED ON THE SIDES OF RAMPS LANDINGS HAVING A VERTICAL DROP OFF OF 1/2 INCH MAXIMUM WITHIN 10 INCHES HORIZONTALLY OF THE MINIMUM LANDING AREA.
- A CURB 2 INCHES HIGH MINIMUM OR BARRIER SHALL BE PROVIDED WHICH PREVENTS THE PASSAGE OF A 4 INCH DIAMETER SPHERE, THE CURB OR BARRIER SHALL PROVIDE A CONTINUOUS AND UNINTERRUPTED BARRIER ALONG THE LENGTH OF THE RAMP.



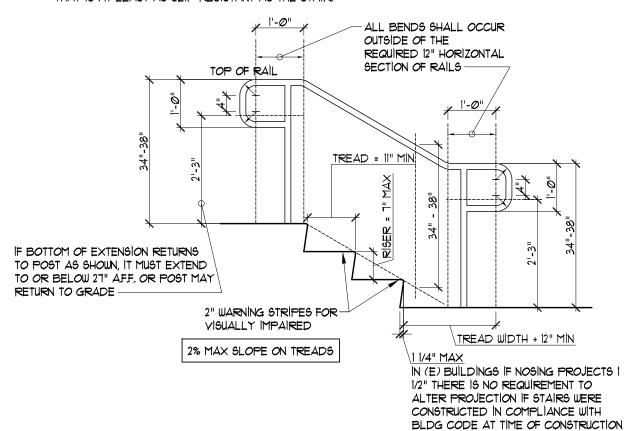
ALL RAMPS MUST MEET HANDRAIL AND CURB REQUIREMENTS

5 STAIRS

- A STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE, HANDRAIL GRIPPING SURFACES WITH A CIRCULAR CROSS-SECTION SHALL HAVE AN OUTSIDE DIAMETER OF 1 1/4 INCHES MINIMUM AND 2 INCHES MAXIMUM, AND SHALL BE 1 1/2 INCHES CLEAR MINIMUM FROM THE WALL, HANDRAILS SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS AND SHALL HAVE ROUNDED EDGES
- B. RISERS SHALL BE UNIFORM IN HEIGHT AND 4 INCHES HIGH MINIMUM AND 7 INCHES HIGH MAXIMUM. TREADS SHALL BE II INCHES DEEP MINIMUM. OPEN RISERS ARE NOT PERMITTED.
- C. STAIR TREADS SHALL BE STABLE, FIRM, AND SLIP RESISTANT.

INTERIOR STAIRS SHALL HAVE THE UPPER APPROACH AND LOWER TREAD MARKED BY A STRIPE PROVIDING CLEAR VISUAL CONTRAST. EXTERIOR STAIRS SHALL HAVE THE UPPER APPROACH AND ALL TREADS MARKED BY A STRIPE PROVIDING CLEAR VISUAL CONTRAST.

STRIPE SHALL BE A MINIMUM 2 INCHES WIDE TO A MAXIMUM OF 4 INCHES WIDE PLACED PARALLEL TO, AND NOT MORE THAN I INCH FROM, THE NOSE OF THE STEP OR UPPER APPROACH. THE STRIP SHALL EXTEND THE FULL WIDTH OF THE STEP OR UPPER APPROACH AND SHALL BE OF MATERIAL THAT IS AT LEAST AS SLIP RESISTANT AS THE STAIR.



- A. WHEN SIGNS IDENTIFY PERMANENT ROOMS AND SPACES OF A BUILDING OR SITE, THEY SHALL COMPLY WITH SECTIONS 1 THROUGH 5 BELOW.
- B. WHEN SIGNS DIRECT TO OR GIVE INFORMATION ABOUT PERMANENT ROOMS AND SPACES OF A BUILDING OR SITE, THEY SHALL COMPLY WITH SECTIONS 1 & 2 BELOW.
- WHEN SIGNS IDENTIFY, DIRECT OR GIVE INFORMATION ABOUT ACCESSIBLE ELEMENTS AND FEATURES (INCLUDING EXITING), THEY SHALL COMPLY WITH SECTION 1 & FIGURE 6A, BELOW.
- 1. FINISH & CONTRAST. CHARACTERS, SYMBOLS & THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH, CHARACTERS & SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A
- 2. PROPORTIONS, CHARACTERS ON SIGNS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I",
- 3. RAISED CHARACTERS & PICTORIAL SYMBOL SIGNS.

OF 6" (152mm) MINIMUM IN HEIGHT.

- a. CHARACTER TYPE, CHARACTER ON SIGNS SHALL BE RAISED 1/32" (0.8mm) MIN, AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE, (SEE ITEM 4 BELOW).
- b. CHARACTER SIZE, RAISED CHARACTERS SHALL BE MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTERS AND BE A MIN. OF 5/8" (15.9mm) AND A MAX. OF 2" (51mm) HIGH BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I".
- PICTORIAL SYMBOL SIGNS (PICTOGRAMS), PICTORIAL SYMBOL SIGNS (PICTOGRAMS) SHALL BE ACCOMPANIED BY THE VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM, THE PICTOGRAM SHALL HAVE A FIELD HEIGHT
- d. CHARACTER PLACEMENT, CHARACTERS AND BRAILLE SHALL BE IN HORIZONTAL FORMAT, BRAILLE SHALL BE PLACED A MIN. OF 3/8" & MAX. OF 1/2" DIRECTLY BELOW THE TACTILE CHARACTERS FLUSH LEFT OR CENTERED, WHEN TACTILE TEXT IS MULTI-LINED, ALL BRAILLE SHALL BE PLACED TOGETHER BELOW ALL LINES OF
- 4. BRAILLE, CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE IS REQUIRED IN OTHER PORTIONS OF THESE STANDARDS. DOTS SHALL BE 1/10" (2.5mm) ON CENTER IN EACH CELL WITH 3/10" (7.6mm) BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS, DOTS SHALL BE RAISED A MIN, OF 1/40" (0.6mm) AND A MAX, OF 0.037" (0.9mm) ABOVE THE BACKGROUND, BRAILLE DOTS SHALL BE DOMED OR ROUNDED.
- 5. MOUNTING LOCATION & HEIGHT, WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE OF A SINGLE DOOR OR DOUBLE DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF, WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF

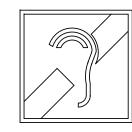
TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS, MOUNTING LOCATION SHALL BE DETERMINED SO THAT A PERSON MAY APPROACH WITHIN 3" (76mm) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR



INTERNATIONAL SYMBOL OF ACCESSIBILITY # PROFILE IN WHITE ON BLUE BACKGROUND



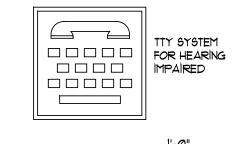
DIRECTIONAL ARROW WHERE NEEDED TO PROVIDE DIRECTION OF ACCESSIBLE PATH



LISTENING FOR HEARING IMPAIRED <u>PICTOGRAMS</u>

1/32", UPPER CASE, SANS SERIF OR SIMPLE

SERIF TYPE AND SHALL BE ACCOMPANIED



EXIT

D. EACH GRADE LEVEL EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A RAISED CHARACTER AND GRADE 2 BRAILLE TACTILE SIGN WITH THE WORD "EXIT." SEE PLANS FOR LOCATIONS.

E. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF A STAIRWAY OR RAMP SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE FOLLOWING WORDS AS APPROPRIATE: LETTERS AND NUMERALS SHALL BE RAISED



BY GRADE II BRAILLE F. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE-LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE OR AN EXIT PASSAGEWAY SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE."

EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREA TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO HAVE A VISUAL EXIT SIGN SHALL BY IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE."

G. EACH EXIT DOOR THROUGH A HORIZONTAL EXIT SHALL BE IDENTIFIED BY A SIGN WITH THE WORDS "TO EXIT."

(7) **DOORS**

- A. LATCHES AND LOCK SETS: PROVIDE LEVER TYPE, PUSH-PULL OR PANIC TYPE HARDWARE CENTERED A MINIMUM OF 34 INCHES AND A MAXIMUM OF 44 INCHES ABOVE FINISH FLOOR.
- B. MAXIMUM FORCE TO OPERATE DOORS SHALL BE 5 LBS PRESSURE. FIRE DOORS SHALL BE MAX 15 LBS OPERATING PRESSURE AND SHALL BE APPROVED BY ENFORCING AGENCY.
- THRESHOLDS: THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOOR WAY, CHANGE IN LEVEL BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2, (SEE FIGURE 1A).

LEVEL FLOOR OR LANDING: THERE SHALL BE A LEVEL AND CLEAR AREA ON EACH SIDE OF AN EXIT DOOR. THE LEVEL AREA SHALL BE AS SHOWN IN FIGURE 1A. THE SPACE BETWEEN TWO CONSECUTIVE DOOR OPENINGS (VESTIBULE) SHALL PROVIDE 48 INCHES OF CLEAR SPACE FROM ANY DOOR OPENING INTO SUCH SPACE (SEE FIGURE 1A).

D. DOOR WIDTH & HEIGHT: 3 FEET WIDE AND 6 FEET 8 INCHES HIGH, CLEAR WIDTH: 32 INCHES MINIMUM WITH DOOR OPEN 90 DEG. MEASURED FROM THE FACE OF THE DOOR TO THE OPPOSITE STOP.

E. THE BOTTOM OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE FOR A MIN OF 10" ABOVE THE FLOOR TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOT-REST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.

F. DOOR HARDWARE SHOULD BE OPERABLE WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQ'D TO ACTIVATE OPERABLE PARTS SHALL BE 5LBS MAX. 2022 CBC 11B-4042.7 \$ 11B-309.4

G. DOORS EQUIPPED WITH CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEG., THE TIME REQUIRED TO MOVE THE DOOR TO THE DOOR TO A POSITION OF 12 DEG FORM THE LATCH 16 5 SECONDS MIN. 2022 CBC 11B-40428

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REVISIONS DATE DESCRIPTION

2/3/23 1st City Submittal 4/7/23 | City PC Response

5/12/23 City PC Resp #2

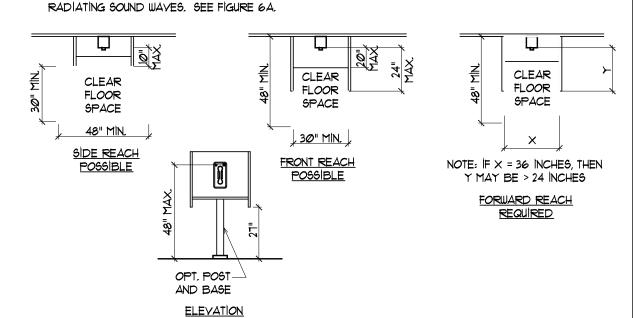
ACCESSIBILITY

COMPLIANCE

Job #:

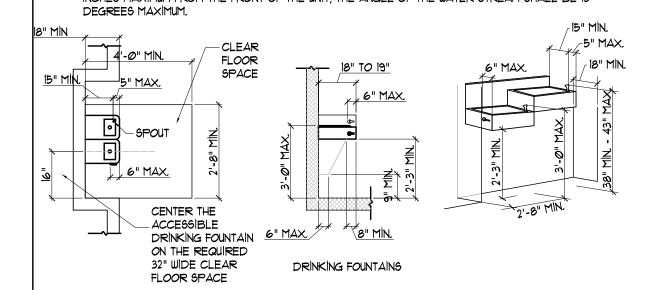
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- 9) <u>ELECTRICAL</u> ELECTRICAL RECEPTACLES (30 AMPS OR LESS) AND COMMUNICATION RECEPTACLES SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX AND NO LESS THAN 15" MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX TO FINISH FLOOR OR WORKING PLATFORM
- B. SWITCHES AND CONTROLS FOR LIGHTS, APPLIANCES, COOLING, HEATING AND VENTILATING EQUIPMENT SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX AND NO LESS THAN 15" MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX TO FINISH FLOOR OR WORKING PLATFORM
- C. FIRE ALARM INITIATING DEVICES SHALL BE NO SHORTER THAN 42 INCHES AND NO HIGHER THAN 48 INCHES ABOVE THE FLOOR, GROUND OR SIDEWALK.
- . AT ONE OR MORE SINGLE TELEPHONE UNITS OR ONE BANK OF TELEPHONES (2 OR MORE ADJACENT TELEPHONE UNITS), AT LEAST 50% OF TELEPHONE UNITS, BUT NOT LESS THAN I PER FLOOR OR LEVEL, SHALL BE WHEELCHAIR ACCESSIBLE.
- B. A CLEAR FLOOR OR GROUND SPACE AT LEAST 30 INCHES BY 48 INCHES THAT ALLOWS EITHER A FORWARD OR PARALLEL APPROACH BY A PERSON USING A WHEELCHAIR SHALL BE PROVIDED AT WHEELCHAIR ACCESSIBLE TELEPHONES, BASES, ENCLOSURES, AND FIXED SEATS SHALL NOT IMPEDE APPROACHES BY PEOPLE WHO USE A WHEELCHAIR, WHERE A PARALLEL APPROACH IS PROVIDED, THE DISTANCE FROM THE EDGE OF THE TELEPHONE ENCLOSURE TO THE FACE OF THE TELEPHONE UNIT SHALL BE 10 INCHES MAXIMUM
- C. THE HIGHEST OPERABLE PART OF THE TELEPHONE SHALL BE NO HIGHER THAN 48 INCHES FOR BOTH FORWARD REACH AND SIDE REACH.
- D. TELEPHONE EQUIPMENT FOR HEARING IMPAIRED PERSONS, ALL PUBLIC TELEPHONES SHALL BE EQUIPPED WITH A VOLUME CONTROL, VOLUME CONTROL TELEPHONES SHALL BE EQUIPPED WITH A RECEIVER THAT GENERATES A MAGNETIC FIELD IN THE AREA OF THE RECEIVER CAP. SUCH TELEPHONES SHALL BE CAPABLE OF A GAIN ADJUSTABLE UP TO 20 dB MINIMUM. FOR INCREMENTAL VOLUME CONTROL, PROVIDE AT LEAST ONE INTERMEDIATE STEP OF 12 dB OF GAIN MINIMUM. PUBLIC TELEPHONES WITH VOLUME CONTROL SHALL BE HEARING AID COMPATIBLE AND SHALL BE IDENTIFIED BY A SIGN CONTAINING A DEPICTION OF A TELEPHONE HANDSET WITH



1) DRINKING FOUNTAINS

- A. THE SPOUT SHALL BE LOCATED 15" MIN, FROM THE VERTICAL SUPPORT AND 5" MAX, FROM THE FRONT EDGE OF THE UNIT. THE FLOW OF WATER SHALL BE ACTIVATED BY A MANUALLY OPERATED SYSTEM THAT IS FRONT MOUNTED OR SIDE MOUNTED AND LOCATED WITHIN SIX INCHES OF THE FRONT EDGE OF THE FOUNTAIN OR AN AUTOMATIC ELECTRONICALLY CONTROLLED DEVICE. SPOUT OUTLET SHALL BE 36 INCHES MAXIMUM ABOVE FINISH FLOOR OR GROUND
- B. A SECOND DRINKING FOUNTAIN SHALL BE PROVIDED WITH A SPOUT HEIGHT OF 38" MIN. AND 43" MAX, FOR PEOPLE WHO HAVE DIFFICULTY BENDING OR STOOPING.
- C. THE SPOUT SHALL PROVIDE A FLOW OF WATER AT LEAST 4 INCHES HIGH, THE ANGLE OF THE WATER STREAM SHALL BE MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE UNIT, WHERE SPOUTS ARE LOCATED LESS THAN 3 INCHES FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 30 DEGREES MAXIMUM. WHERE SPOUTS ARE LOCATED BETWEEN 3 INCHES AND 5 INCHES MAXIMUM FROM THE FRONT OF THE UNIT, THE ANGLE OF THE WATER STREAM SHALL BE 15



(12) <u>sanitary facilities</u>

- A. GEOMETRIC SYMBOLS
 - NOTE: ALL SINGLE ACCOMMODATION SANITARY FACILITIES ARE TO BE DESIGNATED "ALL GENDER" DOORWAYS LEADING TO MEN'S MULTIPLE ACCOMMODATION SANITARY FACILITIES SHALL BE IDENTIFIED BY AN EQUILATERAL TRIANGLE 1/4 INCH THICK WITH EDGES 12 INCHES LONG AND VERTEX POINTING UPWARD, WOMEN'S MULTIPLE ACCOMMODATION SANITARY FACILITIES SHALL BE IDENTIFIED BY A CIRCLE 1/4 INCH THICK WITH EDGES, 12 INCHES IN DIAMETER. NO BRAILLE TO BE INSTALLED ON DOOR FACES, ALL LETTERS AND NUMBERS ON DOOR FACES SHALL BE FLUSH WITH BACKGROUND.
 - "ALL GENDER" SANİTARY FACİLİTİES SHALL BE İDENTİFİED BY A CİRCLE 1/4 İNCH THİCK, 12 İNCH DIAMETER, WITH A 1/4 INCH THICK TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12 INCH DIAMETER, EDGES SHALL BE EASED OR ROUNDED AT 1/16 INCH MINIMUM, OR CHAMFERED AT 1/8 INCH MAXIMUM, VERTICES SHALL BE RADIUSED BETWEEN 1/8 INCH MINIMUM AND 1/4 INCH MAXIMUM, NO BRAILLE TO BE INSTALLED ON DOOR FACES, ALL LETTERS AND NUMBERS ON DOOR FACES SHALL BE
 - GEOMETRIC (CIRCLE AND TRIANGLE) SYMBOLS ON SANITARY DOORS SHALL BE CENTERED ON THE DOOR AT A HEIGHT OF 58 INCHES MINIMUM AND 60 INCHES MAXIMUM AND THEIR COLOR AND CONTRAST SHALL BE DISTINCTLY DIFFERENT FROM THE COLOR AND CONTRAST OF THE DOOR.
 - 4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE ON THE SIGN ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. THE BORDER DIMENSION OF THIS PICTOGRAM SHALL BE A MINIMUM OF 6" IN HEIGHT.
- . RAISED LETTERS SHALL BE PROVIDED IN CONFORMANCE WITH SECTION 11B-7032 AND SHALL BE ACCOMPANIED BY BRAILLE IN CONFORMANCE WITH SECTION 11B-703.3, TACTILE SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE OF A SINGLE DOOR OR DOUBLE DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF, WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR

TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS, MOUNTING LOCATION SHALL BE DETERMINED SO THAT A PERSON MAY APPROACH WITHIN 3" (16mm) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

- CHARACTER TYPE, CHARACTER ON SIGNS SHALL BE RAISED 1/32" (0.8mm) MIN. AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2
- CHARACTER SIZE. RAISED CHARACTERS SHALL BE MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTERS AND BE A MIN. OF 5/8" (15,9mm) AND A MAX. OF 2" (51mm) HIGH BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I",
- PICTORIAL SYMBOL SIGNS (PICTOGRAMS). PICTORIAL SYMBOL SIGNS (PICTOGRAMS) SHALL BE ACCOMPANIED BY THE VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM, THE PICTOGRAM SHALL HAVE A FIELD HEIGHT OF 6" (152mm)

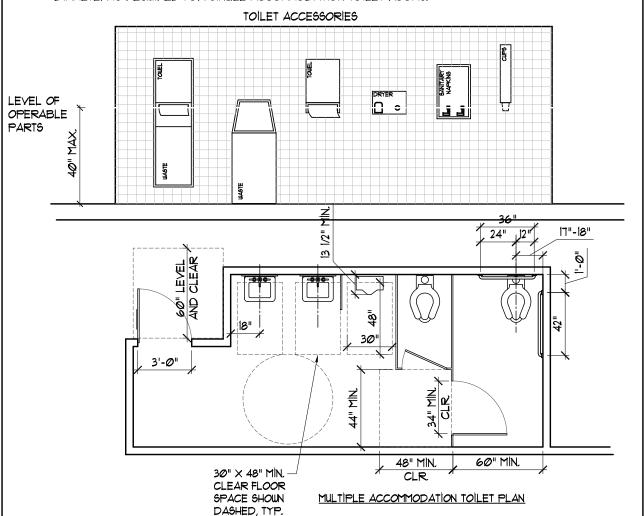
42" GRAB BAR

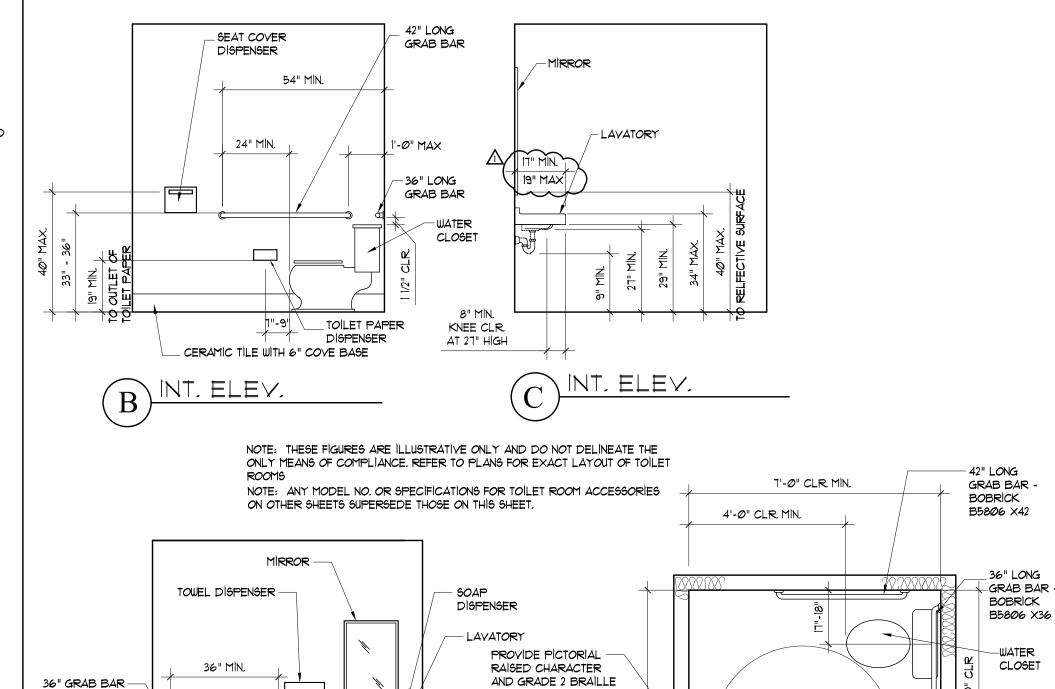
TOILET PAPER

DISPENSER -

WATER CLOSET

- B. ACCESSIBLE COMPARTMENT DOORS SHALL BE EQUIPPED WITH AN AUTOMATIC CLOSING DEVICE. THE INSIDE AND OUTSIDE OF THE COMPARTMENT DOOR SHALL BE EQUIPPED WITH A LOOP OR U-SHAPED HANDLE IMMEDIATELY BELOW THE LATCH. THE LATCH SHALL BE FLIP-OVER STYLE, SLIDING, OR OTHER HARDWARE NOT REQUIRING THE USER TO GRASP OR TWIST.
- WATER CLOSET: FLUSH CONTROLS ARE TO BE HAND OPERABLE WITH A MINIMUM OPERATING FORCE OF 5 LB/F OR AUTOMATIC, THE HANDLE SHALL BE 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR AND IS TO BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET EXCEPT IN AMBULATORY ACCESSIBLE
- URINALS: PROVIDE URINALS WITH A RIM 17 INCHES MAXIMUM ABOVE THE FINISH FLOOR, URINALS SHALL BE 13 1/2 INCHES DEEP MINIMUM MEASURED FROM THE OUTER FACE OF THE URINAL RIM TO THE BACK OF THE FIXTURE, FLUSH CONTROLS ARE TO BE HAND OPERABLE WITH A MINIMUM OPERATING FORCE OF 5 LB/F OR AUTOMATIC. THE HANDLE SHALL BE 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR.
- LAYATORY: PROVIDE A CLEARANCE OF AT LEAST 29 INCHES FROM THE FLOOR TO THE BOTTOM OF THE APRON WITH KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30 INCHES WIDE TO 8 INCHES MINIMUM DEPTH AT THE TOP. PROVIDE FOR THE CLEARANCE AT LEAST 30 INCHES WIDE, TO 9 INCHES ABOVE THE FLOOR AND 17 INCHES DEEP FROM THE FRONT OF THE LAVATORY, PROVIDE A CLEAR FLOOR SPACE 30 INCHES X 48 INCHES IN FRONT OF LAVATORY, THE CLEAR SPACE MAY EXTEND INTO KNEE AND TOE SPACE UNDERNEATH THE LAVATORY. INSULATE HOT WATER AND DRAIN PIPES UNDER LAVATORIES. NO SHARP OR ABRASIVE SURFACES ARE ALLOWED UNDER LAVATORIES. FAUCET CONTROLS ARE REQUIRED TO BE OPERABLE WITH ONE HAND AND CANNOT REQUIRE GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE NECESSARY TO OPERATE CONTROLS IS NOT TO EXCEED 5 LB/F.
- ACCESSORIES: WHERE TOWEL, SANITARY NAPKIN AND WASTE RECEPTACLES AND SIMILAR DISPENSING AND DISPOSAL FIXTURES ARE PROVIDED, AT LEAST ONE OF EAC LOCATED WITH ALL OPERABLE PARTS, INCLUDING COIN SLOTS, WITHIN 40 INCHES FROM THE
- a. MOUNT MIRRORS WITH THE BOTTOM EDGE OF REFLECTIVE SURFACE NO MORE THAN 40 INCHES FROM THE FINISH FLOOR...
- b. LOCATE TOILET TISSUE DISPENSERS ON THE WALL WITHIN 1"-9" INCHES OF THE FRONT EDGE OF THE TOILET SEAT MEASURED TO THE CENTERLINE OF THE DISPENSER THE OUTLET SHALL BE 19" MINIMUM ABOVE THE FINISH FLOOR
- ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED FOR GRAB BARS WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 LBS IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE, THE STRUCTURAL STRENGTH OF GRAB BARS, FASTENERS, AND MOUNTING DEVICES SHALL MEET THE SPECIFICATIONS OF THE AMERICAN DISABILITIES ACT AND THE STATE OF CALIFORNIA TITLE 24.
- SINGLE RESTROOM ACCOMMODATION: A CLEAR FLOOR SPACE OF AT LEAST 60 INCHES IN DIAMETER IS REQUIRED FOR SINGLE ACCOMMODATION TOILET ROOMS.





SIGNS NEXT TO DOOR ON ?

WALL PER A.D.A.

REQUIREMENTS

TO OPERABLE

REFLECTIVE

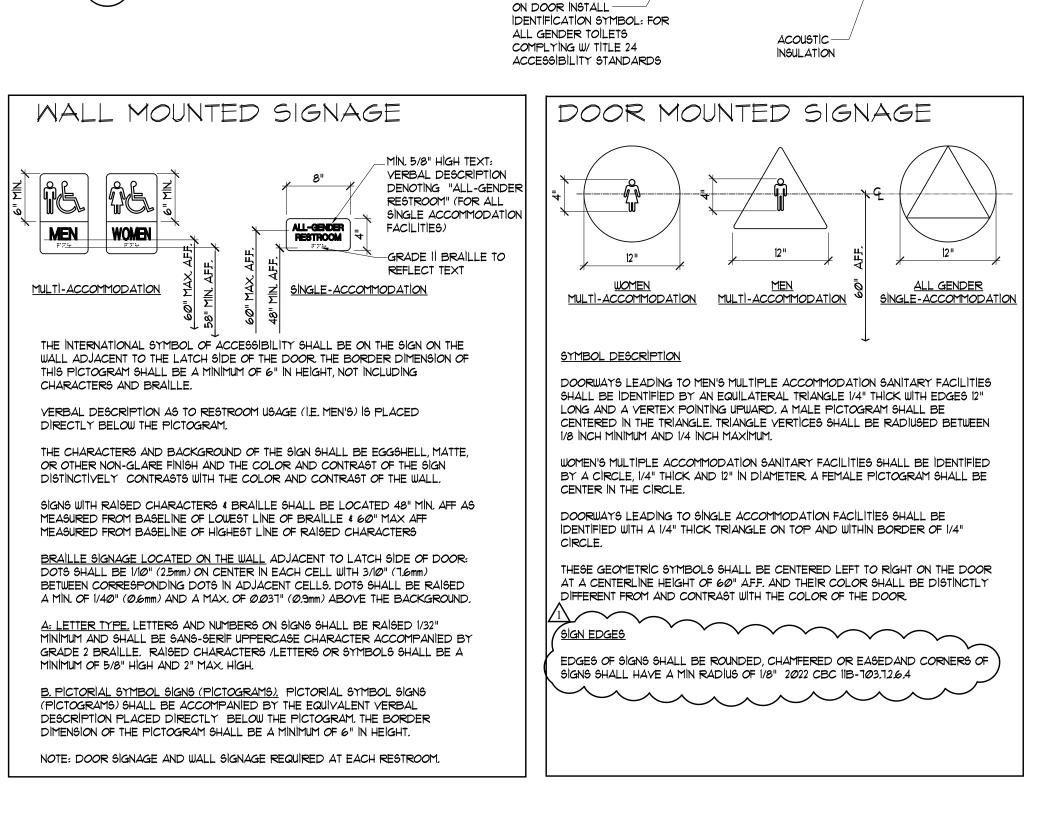
SURFACE OF

OF DISPENSER OR

PARTS

- INSULATE HOT WATER SUPPLY,

DRAIN, AND P-TRAP



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TOWEL

DISP. -

B2621

LAVATORY

BOBRICK

REVISIONS

REV# DATE DESCRIPTION /\ 2/3/23 |1st City Submittal /2\ |5/12/23| City PC Resp #2

ACCESSIBILITY COMPLIANCE

rint Date:



REACH CODE CHECKLIST

FOR NEW NON-RESIDENTIAL BUILDINGS This includes offices, hotels and motels, and all other non-residential buildings

The Reach Code is a local ordinance adopted in Hayward which modifies the CA Building Code (CalGreen) to reduce natural gas use in new construction. The Reach Code also amends CalGreen to expand the requirements for parking spaces for Electric Vehicle (EV) charging. For new residential buildings, please use the Reach Code Checklist for Residential Buildings. For checklists, background information and the full text of the Reach Code, please see the City of Hayward website here: https://www.hayward-ca.gov/reach-code

PART 1: ELECTRIFICATION (EITHER CHECKLIST 1A OR CHECKLIST 1B MUST BE COMPLETED)

CHECKLIST 1A: ALL-ELECTRIC APPROACH

- WHERE ALL-ELECTRIC INFRASTRUCTURE IS INSTALLED, THE DESIGN FOR THE BUILDING SHALL INCLUDE THE FOLLOWING:
- (Check each item as you confirm it in the plans)
- All-electric end uses
- No fuel gas (such as natural gas or propane) appliances (use heat pumps for water heaters and HVAC)
- No fuel gas meters, piping or infrastructure Compliance with CalGreen and CA Energy Code

CHECKLIST 1B: ELECTRIC READINESS APPROACH

- WHERE FUEL GAS INFRASTRUCTURE IS INSTALLED, THE DESIGN FOR THE BUILDING SHALL INCLUDE THE FOLLOWING:
- ☐ Sufficient electrical capacity to facilitate future full building electrification (including reserved circuit breakers, electrical conduit, subpanels, panels, switchboards, and transformers)
- ☐ Physical space for future electric heating appliances (including equipment footprint and associated ducting)
- ☐ Construction documents must depict plans for electrification infrastructure and appliances.
- ☐ Compliance with CalGreen and CA Energy Code

PART 2: EV CHARGING READINESS

CHECKLIST 2A – OFFICES

Is the new building an office? If you checked "yes," complete checklist below. If you checked "no," continue to CHECKLIST 2B for hotels and motels, or CHECKLIST 2C for all other use buildings.

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- ☐ A minimum of 20% of parking spaces shall be provided with a Level 2 Ready and Electric Vehicle Charging Station (EVCS) (see definitions of Level 2 EV Ready and EVCS in 'DEFINITIONS' section below).
- ☐ A minimum of 50% of parking spaces shall be provided with a Level 2 Ready and EVCS or are Level 2 EV
- ☐ Automatic Load Management Systems (ALMS) shall be permitted to reduce load when multiple vehicles are

CHECKLIST 2B – HOTELS AND MOTELS

- 🗆 YES 🏻 🛣 NO Is the new building a hotel or a motel?
- If you checked "yes," complete checklist below. If you checked "no," continue to CHECKLIST 2A for offices, or CHECKLIST 2C for all other non-residential buildings.
- ☐ A minimum of 15% of parking spaces shall be provided with a Level 2 Ready and EVCS.
- ☐ A minimum of 40% of parking spaces shall be provided with a Low Power Level 2 Ready and EVCS or are Low
- ☐ ALMS shall be permitted to reduce load when multiple vehicles are charging.

<u>CHECKLIST 2C – OTHER NON-RESIDENTIAL BUILDINGS</u>

- Is the new building non-residential other than an office, hotel, or motel?

 ✓ YES □ NO If you checked "yes," complete checklist below. If you checked "no," see previous checklists.
- A minimum of 10% of parking spaces shall be provided with a Level 2 Ready and EVCS. ☐ A minimum of 20% of parking spaces shall be provided with a Level 2 Ready and EVCS or are Level 2 EV
- ☐ ALMS shall be permitted to reduce load when multiple vehicles are charging.

DEFINITIONS:

- 'Automatic Load Management Systems (ALMS).' A control system designed to manage load across one or more electric vehicle supply equipment (EVSE), circuits, or panels, and share electrical capacity and/or automatically manage power at each connection point. ALMS systems must be designed to deliver no less than 3.3 kVa (208/240 volt, 16-ampere) to each EV Capable, EV Ready, or EVCS space served by the ALMS, and meet the requirements of California Electrical Code, Article 625. The connected amperage to the building site for the EV charging infrastructure shall not be lower than the required connected amperage per California Green Building Standards Code, Title 24 Part 11.
- 'Direct Current Fast Charging (DCFC).' A parking space provided with electrical infrastructure that meets the following conditions:
- A minimum of 48 kVa (480 volt, 100-ampere) capacity wiring.
- o Electric vehicle supply equipment (EVSE) located within three (3) feet of the parking spsace providing a minimum capacity of 80-ampere.
- 'Electric Vehicle Charging Station (EVCS).' A parking space that includes installation of electric vehicle supply equipment (EVSE) at an EV Ready Space. An EVCS space may be used to satisfy EV Ready space requirements. EVSE shall be installed in accordance with the California Electrical Code, Article 625.

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• 'Level 2 EV Capable.' A parking space provided with electrical infrastructure that meets the following

- o Conduit that links a listed electrical panel with sufficient capacity to a junction box or receptacle located within three (3) feet of a parking space.
 - o The conduit shall be designed to provide at least 8.3 kVa (208/240 volt, 40-ampere) per parking space. Conduit shall have a minimum nominal trade size of 1 inch inside diameter and may be sized for multiple circuits as allowed by California Electrical Code. Conduit shall be installed at a minimum in spaces that will be inaccessible after construction, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits, and such additional elements deemed necessary by the Building Official. Construction documents shall indicate future completion of conduit from the panel to the parking space, via the installed inaccessible conduit.
- o The electrical panel shall reserve a space for a 40-ampere overcurrent protective device space(s) for EV charging, labeled in the panel directory as "EV CAPABLE."
- o Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.
- The parking space shall contain signage with at least a 12" font adjacent to the parking space indicating the space is EV Capable.
- 'Level 2 EV Ready.' A parking space that is served by a complete electric circuit with the following requirements:
- o A minimum of 8.3 kVa (208/240 Volt, 40-ampere) capacity wiring. • A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3) feet of the parking space. If Electric Vehicle Supply Equipment (EVSE) is provided the minimum capacity of
- the EVSE shall be 30-ampere. • 'Low Power Level 2 EV Ready.' A parking space that is served by a complete electric circuit with the following
- o A minimum of 4.1 kVa (208/240 Volt, 20-ampere) capacity wiring.
- A receptacle labeled "Electric Vehicle Outlet" or electric vehicle supply equipment located within three (3)
- feet of the parking space. If EVSE is provided the minimum capacity of the EVSE shall be 16-ampere. o Conduit oversized to accommodate future 'Level 2 EV Ready' (208/240 Volt, 40-ampere) at each parking

PART 3: EXCEPTIONS FOR NON-RESIDENTIAL BUILDINGS

The building may be exempt from the EV Charging Readiness requirements under the following conditions:

1. If there is no local utility power supply, or the local utility is unable to supply adequate power. 2. If a building permit applicant provides documentation detailing that the increased cost of utility service or on-site transformer capacity would exceed an average of \$4,500 per parking space, the applicant shall

provide EV infrastructure up to a level that would not exceed this cost for utility service or on-site

transformer capacity. 3. Spaces accessible only by automated mechanical car parking systems are excepted from providing EV charging infrastructure.

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4. One Direct Current Fast Charging (DCFC) station may be substituted for up to five (5) EVCS to meet the EV charging readiness requirements. Where ALMS serve DCFC stations, the power demand from the DCFC shall be prioritized above Level 2 spaces.

4-6-2023

PART 4: SIGNATURE LINE

Gerry Nicol, Element One Architecture This form has been completed by:

Gerry Nicol Signature

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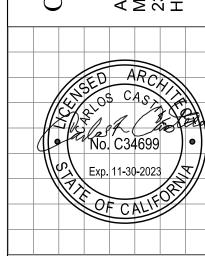
Permit Center Hours: Please see website for operating hours

element one

architecture

23990 clawiter road hayward, california 94545 tel. 650.420.1075

All drawings and written material appearing herein constitute the original and unpublished work of element one architecture and the same may not be duplicated, used, or disclosed without the



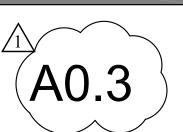
REVISIONS

REV # DATE DESCRIPTION 2/3/23 1st City Submittal 1 4/7/23 City PC Response 5/12/23 City PC Resp #2

REACH CHECKLIST

00000

rint Date: date





		01
П	Provided PV system and battery storage sized per 140.10/ 170.2 (g and h)	The project has included an installed PV system and battery storage system per requirements in $140.10/170.2$ (g and h) as documented in Table J.
11	Exception to PV and Battery: Not enough Solar Access Roof Area	The total of all available Solar Access Roof Area(s) of the project site is less than three percent of the conditioned floor area adocumented in Table J.
×	Exception to PV and Battery: Required PV < 4kW	The required PV system size is less than 4 kW dc as documented in Table J
	Exception to PV and Battery: No contiguous Solar Access Roof Area	The Solar Access Roof Area(s) of the project site contains less than 80 contiguous square feet as documented in Table J.
	Exception to PV and Battery: Can't meet snow load	The project has a roof design where the enforcement authority has verified it is not possible for the PV system, including panels, modules, components, supports, and attachments to the roof structure, to meet ASCE 7-16 Chapter 7, Snow Loads.
	Exception to PV and Battery: Multi-tenant without VNEM or Community Solar	The project is a multi-tenant building in an area where a load serving entity does not provide either a Virtual Net Metering (VNEM) or community solar program.
Ü	The prescriptive PV/battery requirement has be	een traded off using the performance compliance approach as documented on the PRF Certificate of Compliance form.
ompl	iance with Solar Thermal Water Heating Require	ements in 170.2(d)3C (Multifamiily and hotel/ motel occupancies only)
-,	8.51	01
		ily occupancy with a gas or propane central water-heating system (serves 2+ dwelling units) and includes a permanently instal with 170.2(d)3C and Reference Residential Appendix RA4, as documented in Table H.
	Compliance meets Exception 2 to solar ready re	equirements in 110.10(b).

Generated Date/Time:

Report Version: 2022.0.000

Date Prepared:

Documentation Software: Energy Code Ace

Compliance ID: 107841-0523-0003

2023-05-15T03:28:03-04:00

³As specified by CBC Section 503.1.4.

		Schema Version: rev 20220101	Report Generated: 2023-05-15 00:28:04
	STATE OF CALIFORNIA Solar And Battery		CALIFORNIA ENERGY COMMISSION
-	CERTIFICATE OF COMPLIANCE		NRCC-SAB-E
-	Project Name: New Storage Building for ACMAD	Report Page:	(Page 3 of 7)

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

			the applicable	lubi	e referenced be	low.					
one	Installe	Installed PV System		Installed SWH System				Smart Tstat and Alternative EE Measure		Compliance Results	
02	03		04		05		06		07	08	
osignated rea (ft²)	Minimum DC			1	Required Minimum Solar Savings Fraction	<=	Designed/Rat ed Solar Savings Fraction	OR	JA5 Compliant Thermostat Specified?	Alternative Energy Efficiency Measure	COMPLIES
	(See Ta	ables	G or J)		(See Table H)			(See Table I)			
160 OF	R	<=		OR	123	<=		OR			
Roof plan. Detail 2/A2.1 Location in construction documents showing the location for inverters and metering equipment and a pathway for the routing of conduit/ plumbing to the electrical service/ water heating system per \$110.10(c).									a pathway	COMPLIES	
	O2 Signated ea (ft²) 160 OR	O2 OR Signated ea (ft²) OR OR OR OR OR OR OR OR OR OR OR OR OR	O2 Signated ea (ft²) OR OR Required Minimum DC Power Rating (Watts) (See Tables 160 OR Location in construction	O2 Signated ea (ft²) OR Required Minimum DC Power Rating (Watts) (See Tables G or J) Location in construction documents show	O2 OR Signated ea (ft²) OR OR Power Rating (Watts) (See Tables G or J) OR OR OR OR OR OR OR OR OR OR OR OR OR	O2 Signated ea (ft²) OR Required Minimum DC Power Rating (Watts) (See Tables G or J) CSee Location in construction documents showing the location for the content of the	O2 Signated ea (ft²) OR Required Minimum DC Power Rating (Watts) (See Tables G or J) OS Required Minimum Solar Savings Fraction (See Tables G or J) OR CSee Tables G or J) OR CSee Tables G or J) OR CSee Tables G or J) OR CSee Tables G or J)	O2 Signated ea (ft²) OR Required Minimum DC Power Rating (Watts) (See Tables G or J) OR OR OR OR OR OR OR OR OR OR OR OR OR	O2 Signated ea (ft²) OR Required Minimum DC Power Rating (Watts) (See Tables G or J) OR CSee Tables G or J) OS Required Minimum Solar Savings Fraction (See Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H) OR CSee Table H)	O2 OR Required Minimum DC Power Rating (Watts) (See Tables G or J) OR OR OR OR OR OR OR OR OR OR OR OR OR	O2 O3 OR Required Minimum DC ea (ft²) OR (See Tables G or J) OR OR CSee Tables G or J OS OR OS OR OS OR OS OR OS OS OS OS OS OS OS OS OS OS OS OS OS

Battery storage system design meets the minimum requirements in Joint Appendix JA12 and the minimum energy (kWh)/ power (kW) capacity per					
Table J.	Not Applicable				
D. EXCEPTIONAL CONDITION					
D. EXCEL HOUAE COMBINION	•				

E. ADDITIONAL REMARKS	
This table is includes remarks made by the permit applicant to the Authority Having Jurisdic	tion.

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 107841-0523-0003 Report Generated: 2023-05-15 00:28:04

Solar And								CALIFORNIA	A ENERGY C	
CERTIFICATE O		E Building for A	CMAD	[D.	port Page:					NRCC-SAB-E
Froject Name.	New Storage	Building for A	CWAD		te Prepared:				2023-05-15T0	<u> </u>
				•	-					
This table demon met. Each subare setback and path	pleted if the pr strates that th a must be sho way requirem	e project has d wn on a roof p ents. Requirem	designated the minimu lan or documented in	omply with <u>\$110.10(b)1B</u> . N Im area required for the Alla construction documents. Th on pathways must also be i	ocated Solar Zo e solar zones n	ne, and also th nust also comp	nat the require ly with fire cod	ments for Solar Zo le requirements, i	one Subareas h including, but n	ave been ot limited to,
Required Minin						9.0				
01	02	03 Total New or	04 Minimum Solar	05	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	06 lar Zone Areas >= 70% Solar A		Minimum Solar Zone Based or Potential Zone (0.5 x (Total Potential Zone)) (ft²)		08
Minimum Solar Zone Area Calculation Method	Total New or Added Roof Area (ft ²)	Added Roof Area	Zone Based on Total or Added Roof Area (0.15 x (Roof-Skylt))	Method/ Tools Used to Determine Annual Solar Access for Potential Zones	Low-Sloped	Steep-Sloped Area (> 2:12 pitch) Oriented 90 ° - 300 ° (ft²)				Required Minimum Solar Zone Area (ft²)
Total New or Added Roof Area	1076	32	156.6							156.6
Designated Sola	ar Zone Suba	reas								
09	10	11	12	13	14	15	16	17	18	19
Subarea Name or Tag	Building Plan Reference	Roof or Overhang Slope (Low <= 2:12 pitch) (Steep > 2:12 pitch)	Is Steep-Sloped Roof or Overhang between 90 and 300 degrees?	Subarea Complies with Title 24, Part 9	Solar Zone Subarea Free of Obstructions per §110.10(b)3	Subarea is Required Distance from Potential Obstructions per \$110.10(b)3 B	Is the Smallest Dimension 5 feet or greater?	Min. Area Required per Subarea (ft²)	Designated Area (ft²)	Subarea Complies?
Proposed Solar Zone	Sheet A2.1 - Roof Plan	Low slope		Yes	Yes	Yes	Yes	80	160	COMPLIES
STATE OF CALIFO	rgy Efficiency	Standards - 20	22 Nonresidential Cor	npliance Report Ver	Date/Time: sion: 2022,0.00 ersion: rev 2022				Software: Ener ance ID: 10784 erated: 2023-05	1-0523-0003
Solar And								CALIFORNIA	A ENERGY C	
CERTIFICATE O			CMAD	ln.	nest Deser					NRCC-SAB-
Project Name:	New Storage	e Building for A	CMAD		eport Page: ate Prepared:				2023-05-15T0	(Page 5 of 7 3:28:03-04:00
the electrical servation that the servation of the servat	ruction docum vice/ water he field is used to	ating system p	er <u>§110.10(c)</u> . ow the percentage of c	ers and metering equipmen Innual solar access was dete ed on the roof or any other i	ermined per <u>§1</u>	10.10(b)1B. So	lar access is th	e ratio of solar ins		ng shade to

H. PERMANENTLY INSTALLED SOLAR HOT WATER SYSTEMS	
This section does not apply to this project.	
I. SMART THERMOSTATS AND ALTERNATIVE EFFICIENCY MEASURE FOR SOLAR READY EXCEPTION	

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: 107841-0523-0003 Report Generated: 2023-05-15 00:28:04

STATE OF CALIFORNIA		
Solar And Battery		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE		NRCC-SAB-E
Project Name: New Storage Building for ACMAD	Report Page:	(Page 6 of 7)
	Date Prepared:	2023-05-15T03:28:03-04:00

	s table documents compliance with prescriptive photovoltaic and battery system requirements in 140.10/170.2(g and h). Unless the project meets one of the listed exceptions, or des-off PV in an energy model using performance path, 140.10/170.2(g and h) requires installed photovoltaic and battery systems for newly constructed buildings. The installed PV									
systems must meet th	tems must meet the minimum requirements in Joint Appendix 11.									
Photovoltaic (PV) Sys	otovoltaic (PV) System									
01	02	03	04	05	06	07	08			
Occupancy	Conditioned Floor Area (ft²)	Area of New Roof ¹ (ft ²)	Roof Area < 70% Solar Access ² (ft ²)	Plansheet or Document showing Solar Access Calculations	Occupied Roof Area ³ (ft ²)	Solar Access Roof Area (SARA) (ft²)	Min Size of PV Syste Required (kWdc)			
				Total Min S	ze PV System Required	for all Spaces (kWdc):				
					Total Size PV Sys	tem in Design (kWdc):				
other newly construct ² Solar access must be	es the area of the buildin ted structures on the site determined using CEC of ca.gov/programs-and-to	that are compatible was pproved solar access co	ith supporting a PV syste alculation tools found at	em per Title 24, Part 2 :	Section 1511.2.	covered parking areas	, carports, and all			

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included Table E. Additional Remarks and ExceptionalConditionMessageCCSABE += UserChangedSelectionInCl. These documents must be provided to the building inspector during construction and can be found online
Form /Title

NRCI-SAB-01-E - Must be submitted for all buildings that must comply with solar readiness or PV/Battery requirements.	
L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE	
There are no forms required for this project.	

Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000	Compliance ID: 107841-0523-0003
	Schema Version: rev 20220101	Report Generated: 2023-05-15 00:28:04

Solar And Battery	CALIFORNIA ENERGY C
CERTIFICATE OF COMPLIANCE	
Project Name: New Storage Building for ACMAD	Report Page:
Project Address:	Date Prepared: 2023-05-15T0
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
I certify that this Certificate of Compliance documentation is a	ccurate and complete.
Documentation Author Name:	Documentation Author Signature:
Gerry Nicol	Gerry Nicol
Company:	Signature Date: 5-15-2023
Element One Architecture	
Address: 23990 Clawiter Rd	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Hayward, CA 94545	Phone: 510.334.6728
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California	4
 The information provided on this Certificate of Compliance is true and corr 	
	ot responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
 The energy features and performance specifications, materials, componen of Title 24, Part 1 and Part 6 of the California Code of Regulations. 	rs, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to
 The building design features or system design features identified on this Ce plans and specifications submitted to the enforcement agency for approva 	rtificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance	shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for

certify that this Certificate of Compliance documentation is accurate a	nd complete.	
Occumentation Author Name:	Documentation Author Signature:	
Serry Nicol	Gerry I	Nicol
ompany:	Signature Date: 5-15-2023	
lement One Architecture		
ddress: 23990 Clawiter Rd	CEA/ HERS Certification Identification (if app	licable):
ity/State/Zip: Hayward, CA 94545	Phone: 510.334.6728	
RESPONSIBLE PERSON'S DECLARATION STATEMENT		
certify the following under penalty of perjury, under the laws of the State of California:		
 The information provided on this Certificate of Compliance is true and correct. I am eligible under Division 3 of the Business and Professions Code to accept responsibil 	ity for the building design or system design identified on this	s Certificate of Compliance (responsible designer)
The energy features and performance specifications, materials, components, and manuf of Title 24, Part 1 and Part 6 of the California Code of Regulations.		
 The building design features or system design features identified on this Certificate of Co plans and specifications submitted to the enforcement agency for approval with this buil 	ding permit application.	
I will ensure that a completed signed copy of this Certificate of Compliance shall be mad inspections. I understand that a completed signed copy of this Certificate of Compliance	is required to be included with the documentation the build	der provides to the building owner at occupancy.
esponsible Designer Name: Carlos Castillo	Responsible Designer Signature: Carlos Ca	astillo
ompany: Element One Architecture	Date Signed: 5-15-2023	
ddress: 23990 Clawiter Rd	License: C34699	
ity/State/Zip: Hayward, CA 94545	Phone: 650.346.5806	
Registration Number:	Generated Date/Time:	Documentation Software: Energy Code Ace

All drawings and written material appearing herein constitute the original and unpublished work of element one architecture and the same may not be duplicated, used, or disclosed without the

element one

architecture

hayward, california 94545 tel. 650.420.1075

OWNER: REVISIONS

REV# DATE DESCRIPTION 2/3/23 1st City Submittal 4/7/23 City PC Response 5/12/23 City PC Resp #2

SOLAR READY COMPLIANCE

Job #: 00000

California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

CHAPTER 3 **GREEN BUILDING SECTION 301 GENERAL** 301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7. 301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no 301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only: Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 et seq. for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for **301.3.2 Waste Diversion.** The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work. 301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC) 301.5 HEALTH FACILITIES. (see GBSC) **SECTION 302 MIXED OCCUPANCY BUILDINGS** 302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy. **SECTION 303 PHASED PROJECTS** 303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply. **303.1.1 Initial Tenant improvements.** The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations. **ABBREVIATION DEFINITIONS:** Department of Housing and Community Development California Building Standards Commission Division of the State Architect, Structural Safety OSHPD Office of Statewide Health Planning and Development Low Rise High Rise Additions and Alterations CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES DIVISION 5.1 PLANNING AND DESIGN **SECTION 5.101 GENERAL** The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the nvironmental quality of the site and respect the integrity of adjacent properties. SECTION 5.102 DEFINITIONS The following terms are defined in Chapter 2 (and are included here for reference) CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire. LOW-EMITTING AND FUEL EFFICIENT VEHICLES. Eligible vehicles are limited to the following: 1. Zero emission vehicle (ZEV), enhanced advanced technology PZEV (enhanced AT ZEV) or transitional zero emission vehicles (TZEV) regulated under CCR, Title 13, Section 1962. 2. High-efficiency vehicles, regulated by U.S. EPA, bearing a fuel economy and greenhouse gas rating od 9 oe 0 as regulated under 40 CFR Section 600 Subpart D. NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors. VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing. Note: Source: Vehicle Code, Division 1, Section 668 **ZEV.** Any vehicle certified to zero-emission standards. SECTION 5.106 SITE DEVELOPMENT 5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE **OF LAND.** Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures: **5.106.1.1 Local ordinance**. Comply with a lawfully enacted storm water management and/or erosion control **5.106.1.2** Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs. Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following: a. Scheduling construction activity during dry weather, when possible. . Preservation of natural features, vegetation, soil, and buffers around surface waters. c. Drainage swales or lined ditches to control stormwater flow. . Mulching or hydroseeding to stabilize disturbed soils. Erosion control to protect slopes. Protection of storm drain inlets (gravel bags or catch basin inserts). Perimeter sediment control (perimeter silt fence, fiber rolls). Sediment trap or sediment basin to retain sediment on site. Stabilized construction exits. Wind erosion control. Other soil loss BMPs acceptable to the enforcing agency. 2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following: a. Dewatering activities. Material handling and waste management. Building materials stockpile management

Management of washout areas (concrete, paints, stucco, etc.).

. Control of vehicle/equipment fueling to contractor's staging area.

Other housekeeping BMPs acceptable to the enforcing agency.

Vehicle and equipment cleaning performed off site.

Spill prevention and control.

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale. Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or

the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development

5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance. readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility.

5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. **5.106.4.1.5** Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall

1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks: or 3. Lockable, permanently anchored bicycle lockers.

be convenient from the street and shall meet one of the following:

Note: Additional information on recommended bicycle accommodations may be obtained from

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building. 5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5,3.1 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code.

> 1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:

a. Where there is no local utility power supply b. Where the local utility is unable to supply adequate power.

required to comply with this code section

c. Where there is evidence suitable to the local enforcement agency substantiating the local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project. 2. Parking spaces accessible only by automated mechanical car parking systems are not

5.106.5.3.1 EV capable spaces.

[N] EV capable spaces shall be provided in accordance with Table 5.106.5.3.1 and the following 1. Raceways complying with the California Electrical Code and no less that 1-inch (25 mm)

diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the EV capable and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV charging spaces.

2. A service panel or subpanel (s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS. 3. The electrical system and any on-site distribution transformers shall have sufficient capacity

to supply full rated amperage at each EV capable space. 4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective devices space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

Note: A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement agency. See vehicle Code Section 22511.2 for further details.

TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE)^2
0-9	0	0
10-25	2	0
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6
151-200	35	9
201 AND OVER	20% of total ¹	25% of EV capable spaces

1. Where there is insufficient electrical supply.

2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count towards the total number of required EV capable spaces shown in column 2.

5.106.5.3.2 Electric vehicle charging stations (EVCS) EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 may be provided with EVSE in any combination of Level 2 and Direct Current Fast Charging (DCFC), except that at least one Level 2 EVSE shall be

One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to the EV charger.

The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING VERIFICATION WITH THE FULL CODE.

5.106.5.3.3 Use of automatic load management systems (ALMS).
ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity
specified in Section
5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each
EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle

by an ALMS shall deliver a minimum 30 amperes to an EV when charging one venicion and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

When EVSE is installed, accessible EVSC shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3. Note: For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

5.106.5.4 Electric Vehicle (EV) charging: medium-duty and heavy-duty. [N]Construction shall comply with section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading

spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavy-duty EVSE. 1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:

a. Where there is no local utility power supply.

additional local utility infrastructure design requirements, directly related to the implementation

 b. Where the local utility is unable to supply adequate power. c. Where there is evidence suitable to the local enforcing agency substantiating that

of Section 5.106.5.3, may adversely impact the construction cost of the project. When EVSE(s) is/are installed, it shall be in accordance with the California Building Code, the California Electrical Code and as follows:

5.106.5.4.1 Electric vehicle charging readiness requirements for warehouse, grocery stores and retail stores

[N] In order to avoid future demolition when adding EV charging supply and distribution equipment, spare raceways(s) or busway(s) and adequate capacity for transformers(s), service panels(s) or subpanel(s) shall be installed at the time of construction in accordance with the California Electrical Code. Construction plans and specifications shall include but are not limited to, the following: . The transformer, main service equipment and subpanel shall meet the minimum power

requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future 2. The construction documents shall indicate on or more location(s) convenient to the planned

offstreet loading space(s) reserved for medium-and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s) as shown in Table 3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area

where potential future medium-and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipments for medium- and heavy-duty 4. The raceway(s) or busway(s) shall be sufficient size to carry the minimum additional system load

to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table

TABLE 5.106.5.4.1 RACEWAY CONDUIT AND PANEL POWER REQUIREMENTS FOR MEDIUM- AND HEAVY-DUTY EVSE [N]

BUILDING TYPE	BUILDING SIZE (SQ. FT.)	NUMBER OF OFF-STREET LOADING SPACES	ADDITIONAL CAPACITY REQUIRED (KVA) FOR RACEWAY & BUSWAY AND TRANSFORMER & PANEL
	10,000 to 90,000	1 or 2	200
Grocery	10,000 to 90,000	3 or Greater	400
	Greater than 90,000	1 or Greater	400
	10,000 to 135,000	1 or 2	200
Retail	10,000 to 135,000	3 or Greater	400
	Greater than 135,000	1 or Greater	400
		1 or 2	200
Warehouse	20,000 to 256,000	3 or Greater	400
	Greater than 256,000	1 or Greater	400

5.106.8 LIGHT POLLUTION REDUCTION. [N]. I Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10. Section 10-114 of the California Administrative Code; and

2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8); 3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in

4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Luminaires that qualify as exceptions in Sections 130.2 (b) and 140.7 of the California Energy Code.

Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6. 4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8

Alternate materials, designs and methods of construction. 5. Luminaires with less than 6,200 initial luminaire lumens.

TABLE 5.106.8 [N] MA	ΙΔ ΜΙΙΜΙΧ	I OWARI E I	BACKLIGH	Т	
UPLIGHT AND GLARE			D/ (OI (EI OI I	٠,	
ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING 3					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	В3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	В0	В0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting 3	N/A	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	N/A	U1	U2	U3	UR

			OWNER	R, CONTRACTOR, INSPI	ECTOR ETC.)
MAXIMUM ALLOWABLE GLARE RATING ₅ (G)					
MAXIMUM ALLOWABLE GLARE RATING 5 (G)	N/A	G1	G2	G3	G4
MAXIMUM ALLOWABLE GLARE RATING ₅ (G)	N/A	G0	G1	G1	G2
MAXIMUM ALLOWABLE GLARE RATING 5 (G)	N/A	G0	G0	G1	G1
MAXIMUM ALLOWABLE GLARE RATING 6 (G)	N/A	G0	G0	G0	G1
·					•

IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the California Energy Code and Chapter 10 of the Callifornia Administrative Code.

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this

3. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaries located in these areas shall meet *U*-value limits for "all other outdoor lighting"

5.106.8.1 Facing- Backlight

Luminaries within 2MH of a property line shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in Table 5.106.8 based on the lighting zone and distance to

Exception: Corners. If two property lines (or two segments of the same property line) have equidistant point to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest points(s) on the property lines to determine the required backlight rating.

For luminaires covered by 5.106.8.1, if a property line also exists within or extends into the front hemisphere within 2MH of the luminaire then the luminaire shall comply with the more stringent glare rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point on the nearest property line within the front

1.See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways. 2.Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, California Energy Code Tables 130.2-A and 130.2-B. Refer to the California Building Code for requirements for additions and alterations.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

Water collection and disposal systems. French drains.

Water retention gardens.

5. Other water measures which keep surface water away from buildings and aid in groundwater recharge. **Exception:** Additions and alterations not altering the drainage path.

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

Exceptions: Surface parking area covered by solar photovoltaic shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.

5.106.12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

Exceptions: Playfields for organized sport activity are not included in the total area calculation. 5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

1. Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu

2. Designated and marked play areas of organized sport activity are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY SECTION 5.201 GENERAL

5.201.1 Scope [BSC-CG]. California Energy Code [DSA-SS]. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors

SECTION 5.302 DEFINITIONS

5.302.1 Definitions. The following terms are defined in Chapter 2 (and are included here for reference)

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks. METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The

volume or cycle duration can be fixed or adjustable. GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy

bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape

landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters. MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and

design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking

maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least

Water Standards. See definition in the California Plumbing Code, Part 5. POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic purposes, and meets the

U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water

treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. [HCD 1] A secondary device beyond a meter that measures water consumption of an individual rental unit within a multiunit residential structure or mixed-use residential and commercial structure. (See Civic Code Section 1954.202 (g) and Water code Section 517 for additional details.)

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

rint Date:

GREEN BLDG

REV# DATE DESCRIPTION 2/3/23 | 1st City Submittal 4/7/23 | City PC Response

element lone

architecture

All drawings and written material appearing herein

constitute the original and unpublished work of

element one architecture and the same may no

written consent of element one

23990 clawiter road hayward, california 94545 tel. 650.420.1075

EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource

techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of

California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the

Recycling Access Act of 1991 (Act).

CalRecycle's web site.

YES NOT APPLICABLE

RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.) SECTION 5.303 INDOOR WATER USE **5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over.** For new buildings 10,000 square feet **5.410.4.4 Reporting.** After completion of testing, adjusting and balancing, provide a final report of testing and over, building commissioning shall be included in the design and construction processes of the building project to 5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections signed by the individual responsible for performing these services. verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of **5.410.4.5 Operation and maintenance (O & M) manual.** Provide the building owner or representative with SECTION 5.402 DEFINITIONS comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and 5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows: detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M L-occupancies that are not regulated y the California Energy Code Section 100.0 Scope, all requirements in Sections **5.402.1 DEFINITIONS.** The following terms are defined in Chapter 2 (and are included here for reference) instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related 5.410.2 through 5.410.2.6 shall apply. 1. For each individual leased, rented or other tenant space within the building projected to consume ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop. **5.410.4.5.1 Inspections and reports.** Include a copy of all inspection verifications and reports required ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water by the enforcing agency. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the neating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities. a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s). Commissioning requirements shall include: DIVISION 5.5 ENVIRONMENTAL QUALITY Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s). BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW). 1. Owner's or Owner representative's project requirements. process, including verifying and documenting that building systems and components are planned, designed, installed, **SECTION 5.501 GENERAL** ested, operated and maintained to meet the owner's project requirements. Basis of design **5.501.1 SCOPE.** The provisions of this chapter shall outline means of reducing the quantity of air contaminants that **5.303.1.2 Excess consumption.** A separate submeter or metering device shall be provided for any tenant Commissioning measures shown in the construction documents. are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors. within a new building or within an addition that is projected to consume more than 1,000 gal/day. ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food Commissioning plan. Functional performance testing. soiled paper waste that is mixed in with food waste. Documentation and training. 5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and **5.502.1 DEFINITIONS.** The following terms are defined in Chapter 2 (and are included here for reference) TEST. A procedure to determine quantitative performance of a system or equipment 7. Commissioning report. urinals) and fittings (faucets and showerheads) shall comply with the following: SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route. 5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per 5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local Unconditioned warehouses of any size. Specification for Tank-Type toilets. using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting ordinance, whichever is more stringent. 2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of 5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods. Tenant improvements less than 10,000 square feet as described in Section 303.1.1. 1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound 4. Open parking garages of any size, or open parking garage areas, of any size, within a structure. of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, 5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures. the amount of heat required to melt a ton (2,000 pounds) of ice at 32° Fahrenheit. Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not 5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven provide heating and or air conditioning. COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), rain to prevent water intrusion into buildings as follows: except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm 5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn. **5.407.2.2.1 Exterior door protection.** Primary exterior entries shall be covered to prevent water not exceed 0.5 gallons per flush. intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to 1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium such openings plus at least one of the following: commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, qualifications of commissioning personnel. AC 476 des not certify individuals to conduct functional 5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or 1. An installed awning at least 4 feet in depth. performance tests or to adjust and balance systems. gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a). The door is protected by a roof overhang at least 4 feet in depth. WaterSense Specification for Showerheads. The door is recessed at least 4 feet. 2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls Note: See CCR, Title 17, Section 93120.1. 4. Other methods which provide equivalent protection. must be performed in compliance with the California Energy Code. **5.303.3.3.2 Multiple showerheads serving one shower.** When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane. single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.). 5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and allow only one shower outlet to be in operation at a time. requirements of the building appropriate to its phase shall be documented before the design phase of the Note: A hand-held shower shall be considered a showerhead DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, project begins. This documentation shall include the following: SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND sound power, sound intensity) with respect to a reference quantity. Environmental and sustainability goals. Building sustainable goals. ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, 5.303.3.4 Faucets and fountains. Indoor environmental quality requirements. **5.408.1 CONSTRUCTION WASTE MANAGEMENT.** Recycle and/or salvage for reuse a minimum of 65% of the trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor 4. Project program, including facility functions and hours of operation, and need for after hours non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. **5.303.3.4.1 Nonresidential Lavatory faucets.** Lavatory faucets shall have a maximum flow rate of not meet a local construction and demolition waste management ordinance, whichever is more stringent, Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the California Electrical Code, more than 0.5 gallons per minute at 60 psi. Equipment and systems expectations. off-road, self-propoelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground 6. Building occupant and operation and maintenance (O&M) personnel expectations. 5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and **5.303.3.4.2 Kitchen faucets.** Kitchen faucets shall have a maximum flow rate of not more than 1.8 support equipment, tractors, boats, and the like, are not included. demolition waste management ordinance, submit a construction waste management plan that: gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, 5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons ELECTRIC VEHICLE CHARGING STATION(S) (EVCSj). One or more spaces intended for charging electric vehicles the OPR shall be completed at the design phase of the building project. The Basis of Design document shall 1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient per minute at 60 psi. cover the following systems: usage, recycling, reuse on the project or salvage for future use or sale. ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and 2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) **5.303.3.4.3 Wash fountains.** Wash fountains shall have a maximum flow rate of not more than 1.8 equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, Renewable energy systems. bulk mixed (single stream). gallons per minute/20 [rim space (inches) at 60 psil. power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring Landscape irrigation systems . Identifies diversion facilities where construction and demolition waste material collected will be taken and the electric vehicle Water reuse system 4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated **5.303.3.4.4 Metering faucets.** Metering faucets shall not deliver more than 0.20 gallons per cycle. by weight or volume, but not by both. ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as **5.410.2.3 Commissioning plan. [N]** Prior to permit issuance a commissioning plan shall be completed to the fluctuating noise level integrated over the time of period of interest. **5.303.3.4.5 Metering faucets for wash fountains.** Metering faucets for wash fountains shall have a document how the project will be commissioned. The commissioning plan shall include the following: 5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi]. General project information. documentation that the percentage of construction and demolition waste material diverted from the landfill EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may complies with this section Note: Where complying faucets are unavailable, aerators or other means may be used to achieve not be divided or have grade separations at intersections. Systems to be commissioned. Plans to test systems and components shall include: a. An explanation of the original design intent. Note: The owner or contractor shall make the determination if the construction and demolition waste material FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections. b. Equipment and systems to be tested, including the extent of tests. will be diverted by a waste management company. c. Functions to be tested. GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance d. Conditions under which the test shall be performed. Exceptions to Sections 5,408.1.1 and 5,408.1.2: gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference Efficiency Regulations), Section 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 e. Measurable criteria for acceptab (d)(7), and shall be equipped with an integral automatic shutoff. 4. Commissioning team information. Excavated soil and land-clearing debris. 5. Commissioning process activities, schedules and responsibilities. Plans for the completion of 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the FOR REFERENCE ONLY: The following table and code section have been reprinted from the California commissioning shall be included. facilities capable of compliance with this item do not exist Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of 3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities 1605.3 (h)(4)(A). **5.410.2.4 Functional performance testing. [N]** Functional performance tests shall demonstrate the correct Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14. installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing TABLE H-2 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a each of the building components tested, the testing methods utilized, and include any readings and adjustments not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a as approved by the enforcing agency. GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009). 5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates 5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019 compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as including Occupational Safety and Health Act (OSHA) requirements in California Code of Regulations (CCR), LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, PRODUCT CLASS necessary and shall be accessible during construction for examination by the enforcing agency. Title 8, Section 5142, and other related regulations. with a radius 1.5 times the pipe diameter. MAXIMUM FLOW RATE (gpm) [spray force in ounce force (ozf)] LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than **5.410.2.5.1 Systems manual. [N]** Documentation of the operational aspects of the building shall be Product Class 1 (≤ 5.0 ozf) 1.00 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, completed within the systems manual and delivered to the building owner or representative. The 1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" sec.82.3 (as amended March 10, 2009). Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf) systems manual shall include the following: 1.20 located www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-1. Site information, including facility description, history and current requirements. Product Class 3 (> 8.0 ozf) Resources-List-Folder/CALGreen may be used to assist in documenting compliance with the waste MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999. 1.28 2. Site contact information. 3. Basic operations and maintenance, including general site operating procedures, basic 2. Mixed construction and demolition debris processors can be located at the California Department of MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a 5.303.4 COMMERCIAL KITCHEN EQUIPMENT. troubleshooting, recommended maintenance requirements, site events log. Resources Recycling and Recovery (CalRecycle). compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to Maior systems. hundreths of a gram (g O³/g ROC). 5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm 5. Site equipment inventory and maintenance notes. 5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no 6. A copy of verifications required by the enforcing agency or this code. provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water. items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited 7. Other resources and documentation, if applicable. article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of Note: This code section does not affect local jurisdiction authority to prohibit or require disposer Jniversal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste product (excluding container and packaging). naterials shall be included in the construction documents. **5.410.2.5.2 Systems operations training. [N]** A program for training of the appropriate maintenance PSIG. Pounds per square inch, guage. **5.303.5 AREAS OF ADDITION OR ALTERATION.** For those occupancies within the authority of the California staff for each equipment type and/or system shall be developed and documented in the commissioning Note: Refer to the Universal Waste Rule link at: http://www.dtsc.ca.gov/universalwaste/ Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply report and shall include the following: REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to to new fixtures in additions or areas of alteration to the building. 1. System/equipment overview (what it is, what it does and with what other systems and/or 5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated ozone formation in the troposphere. equipment it interfaces). regetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such 5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed 2. Review and demonstration of servicing/preventive maintenance. naterial may be stockpiled on site until the storage site is developed. SCHRADER ACCESS VALVES. Access fittings with a valve core installed. in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 3. Review of the information in the Systems Manual. of the California Plumbing Code and in Chapter 6 of this code. **Exception:** Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation. 4. Review of the record drawings on the system/equipment. SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter. SECTION 5.304 OUTDOOR WATER USE 5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Nonresidential developments shall comply 5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet design and construction phases of the building project shall be completed and provided to the owner or with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water 1. If contamination by disease or pest infestation is suspected, contact the County Agricultural or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected Efficient Landscape Ordinance (MWELO), whichever is more stringent. Commissioner and follow its direction for recycling or disposal of the material. to remote compressor units or condensing units. 2. For a map of know pest and/or disease quarantine zones, consult with the California Department of VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with Food and Agriculture. (www.cdfa.ca.gov) 5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet. Testing and adjusting of 1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a) alteration subject to Section 303.1. 2. MWELO and supporting documents, including a water budget calculator, are available at: Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition https://www.water.ca.gov/. 5.410.4.2 (Reserved) included in that specific regulation is the one that prevails for the specific measure in question. 5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. For public schools and community colleges, Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including SECTION 5.503 FIREPLACES landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well 5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter **5.410.1 RECYCLING BY OCCUPANTS.** Provide readily accessible areas that serve the entire building and are as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35. Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances. paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive. 5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the 5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified prescriptive measures contained in Appendix D of the MWELO. **Exception**: Rural jurisdictions that meet and apply for the exemption in Public Resources included for testing and adjusting shall include at a minimum, as applicable to the project: to meet the emission limits. Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section. **5.304.6.1 Newly constructed landscapes.** New construction projects with an aggregate landscape area equal to or greater than 500 square feet. 1. Renewable energy systems. **5.410.1.1 Additions.** All additions conducted within a 12-month period under single or multiple permits, SECTION 5.504 POLLUTANT CONTROL 2. Landscape irrigation systems. resulting in an increase of 30% or more in floor area, shall provide recycling areas on site. 5.504.1 TEMPORARY VENTILATION. The permanent HVAC system shall only be used during construction if 5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate Water reuse systems. necessary to condition the building or areas of addition or alteration within the required temperature range for landscape area equal to or greater than 1,200 square feet. Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space material and equipment installation. If the HVAC system is used during construction, use return air filters with a **5.410.4.3 Procedures.** Perform testing and adjusting procedures in accordance with manufacturer's Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of specifications and applicable standards on each system. DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE 30% based on ASHRAE 52.1-1992 Replace all filters immediately prior to occupancy, or, if the building is **5.410.1.2 Sample ordinance.** Space allocation for recycling areas shall comply with Chapter 18, Part 3, occupied during alteration, at the conclusion of construction.

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5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning

Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance

system serving a building or space is operated for normal use, the system shall be balanced in

Council National Standards or as approved by the enforcing agency.

accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National

element lone

architecture

23990 clawiter road hayward, california 94545 tel. 650.420.1075

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REV# DATE DESCRIPTION 2/3/23 | 1st City Submittal 4/7/23 | City PC Response

GREEN BLDG

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Print Date:

5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of

rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation

sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which

equipment, all duct and other related air distribution component openings shall be covered with tape, plastic,

may enter the system.

California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (January 2023)

.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.1 Adhesives, sealants and caulks, Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards: 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where

applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such

products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of <i>California Code of Regulations</i> , Title 17, commencing with Section 94507.
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Less Water and Less Exempt Compounds in Grams per Liter	
ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIN	MIT
Less Water and Less Exempt Compounds in Gram	s per Liter
SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product

COATING CATEGORY	CURRENT VOC LIMIT	\dashv
SPECIALTY COATINGS	Octuber 100 Films	\dashv
ALUMINUM ROOF COATINGS	400	_
BASEMENT SPECIALTY COATINGS	400	
BITUMINOUS ROOF COATINGS	50	_
BITUMINOUS ROOF PRIMERS	350	_
BOND BREAKERS	350	_
CONCRETE CURING COMPOUNDS		_
	350	
CONCRETE/MASONRY SEALERS	100	
DRIVEWAY SEALERS	50	
DRY FOG COATINGS	150	_
FAUX FINISHING COATINGS	350	_
FIRE RESISTIVE COATINGS	350	_
FLOOR COATINGS	100	_
FORM-RELEASE COMPOUNDS	250	
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500	
HIGH-TEMPERATURE COATINGS	420	
INDUSTRIAL MAINTENANCE COATINGS	250	
LOW SOLIDS COATINGS1	120	
MAGNESITE CEMENT COATINGS	450	
MASTIC TEXTURE COATINGS	100	
METALLIC PIGMENTED COATINGS	500	
MULTICOLOR COATINGS	250	
PRETREATMENT WASH PRIMERS	420	
PRIMERS, SEALERS, & UNDERCOATERS	100	
REACTIVE PENETRATING SEALERS	350	
RECYCLED COATINGS	250	
ROOF COATINGS	50	
RUST PREVENTATIVE COATINGS	250	
SHELLACS:		
CLEAR	730	
OPAQUE	550	
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100	
STAINS	250	
STONE CONSOLIDANTS	450	
SWIMMING POOL COATINGS	340	
TRAFFIC MARKING COATINGS	100	
TUB & TILE REFINISH COATINGS	420	
WATERPROOFING MEMBRANES	250	
WOOD COATINGS	275	
WOOD PRESERVATIVES	350	
ZINC-RICH PRIMERS	340	

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following: Manufacturer's product specification

5.504.4.4 Carpet Systems.

All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." Version 1.2, January 2017 (Emission testing method for California

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

2. Field verification of on-site product containers

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,"Version 1.2, January 2017 (Emission testing method for California Specifications

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1

5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 e seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following: Product certifications and specifications.

. Chain of custody certifications.

Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seg.).

4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S

5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION **CURRENT LIMIT** HARDWOOD PLYWOOD VENEER CORE 0.05 HARDWOOD PLYWOOD COMPOSITE CORE 0.05 PARTICLE BOARD 0.09 MEDIUM DENSITY FIBERBOARD 0.11 THIN MEDIUM DENSITY FIBERBOARD2

 VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12. 2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

5.504.4.6 Resilient flooring systems. Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." Version 1.2. January 2017 (Emission testing method for California Specifications

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.4.7 Thermal insulation Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing

and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, "Version 1.2, January 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.7.1 Verification of compliance. Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission

5.504.4.8 Acoustical ceiling and wall panels. Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.2. January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs.

5.504.4.8.1 Verification of compliance. Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Exceptions: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see

SECTION 5.506 INDOOR AIR QUALITY

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO₂) MONITORING. For buildings or additions equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

5.506.3 Carbon dioxide (CO2) monitoring in classrooms.

(DSA-SS) Each public K-12 school classroom, as listed in Table 120.1-A of the California Energy Code, shall be equipped with a carbon dioxide monitor or sensor that meets the following requirements: The monitor or sensor shall be permanently affixed in a tamper-proof manner in each classroom between 3 and

6 feet (914 mm and 1829 mm) above the floor and at least 5 feet (1524 mm) away from door and operable

When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an EMCS, the carbon dioxide readings shall be available to and regularly monitored by facility personnel.

A monitor shall provide notification though a visual indicator on the monitor when the carbon dioxide levels in the om have exceeded 1,100ppm. A sensor integral to an EMCS shall provide personnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have exceeded 1.100ppm

The monitor or sensor shall measure carbon dioxide levels at minimum 15- minute intervals and shall maintain a record of previous carbon dioxide measurements of not less than 30 days duration.

The monitor or sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 400ppm to 2000ppm or greater.

The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1.000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than

SECTION 5.507 ENVIRONMENTAL COMFORT

5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

1. Ldn or CNEL for military airports shall be determined by the facility Air Installation Compatible

Land Use Zone (AICUZ) plan. 2. Ldn or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq} - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior

sound levels shall be prepared by personnel approved by the architect or engineer of record.

spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack. 5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a

refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of

5.508.2.2 Valves. Valves Valves and fittings shall comply with the California Mechanical Code and as

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place. **5.508.2.2.2.2.1 Chain tethers.** Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and **5.508.2.5.1 Minimum pressure.** The system shall be charged with regulated dry nitrogen and

appropriate tracer gas to bring system pressure up to 300 psig minimum. **5.508.2.5.2 Leaks.** Check the system for leaks, repair any leaks, and retest for pressure using the same

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more

than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging. 5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper nstallation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

State certified apprenticeship programs.

Public utility training programs.

Training programs sponsored by trade, labor or statewide energy consulting or verification organizations. Programs sponsored by manufacturing organizations. 5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be onsidered by the enforcing agency when evaluating the qualifications of a special inspector:

Certification by a national or regional green building program or standard publisher. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.

Successful completion of a third party apprentice training program in the appropriate trade.

4. Other programs acceptable to the enforcing agency.

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code. 2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

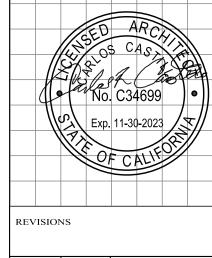
703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

element lone architecture

23990 clawiter road hayward, california 94545 tel. 650.420.1075

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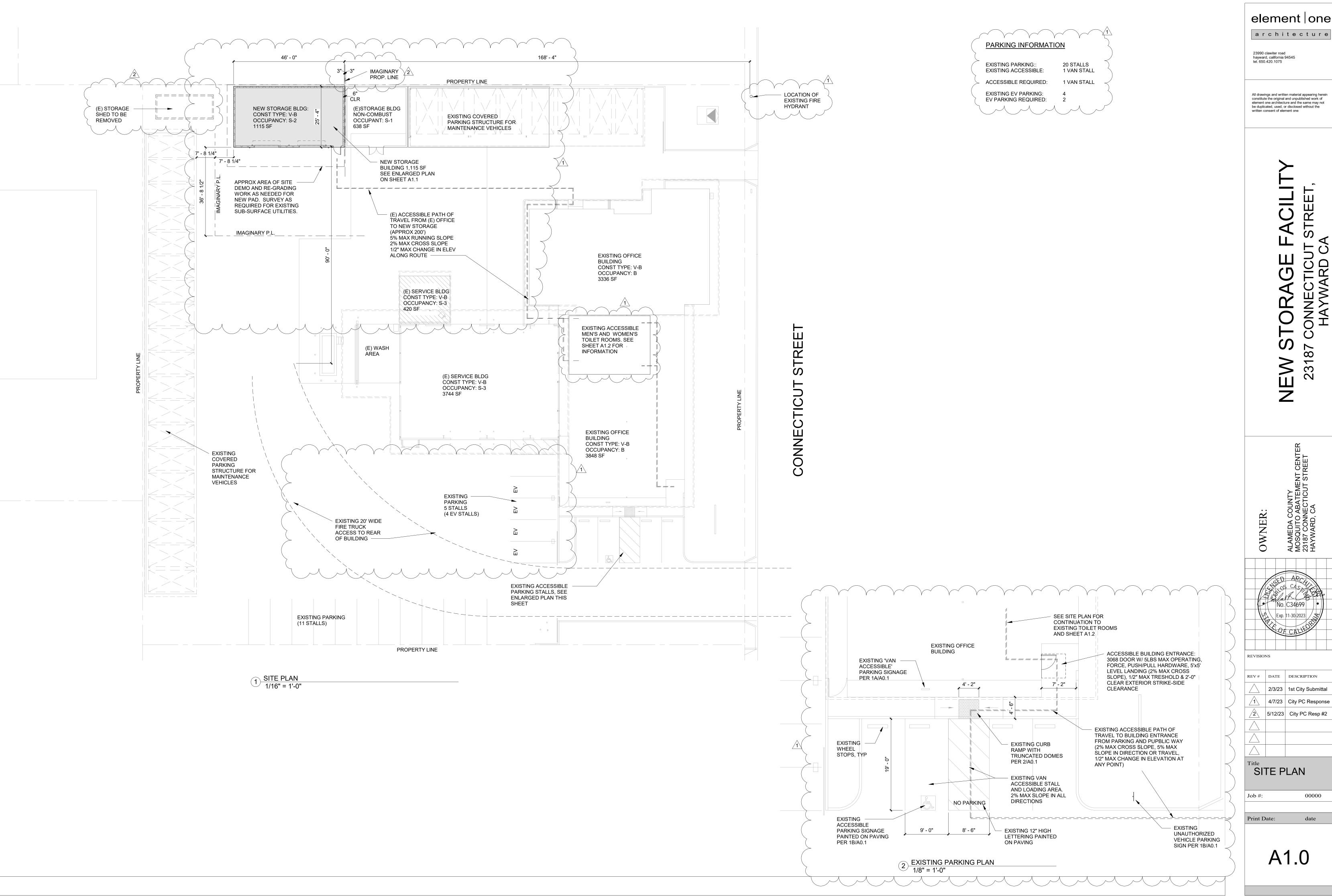
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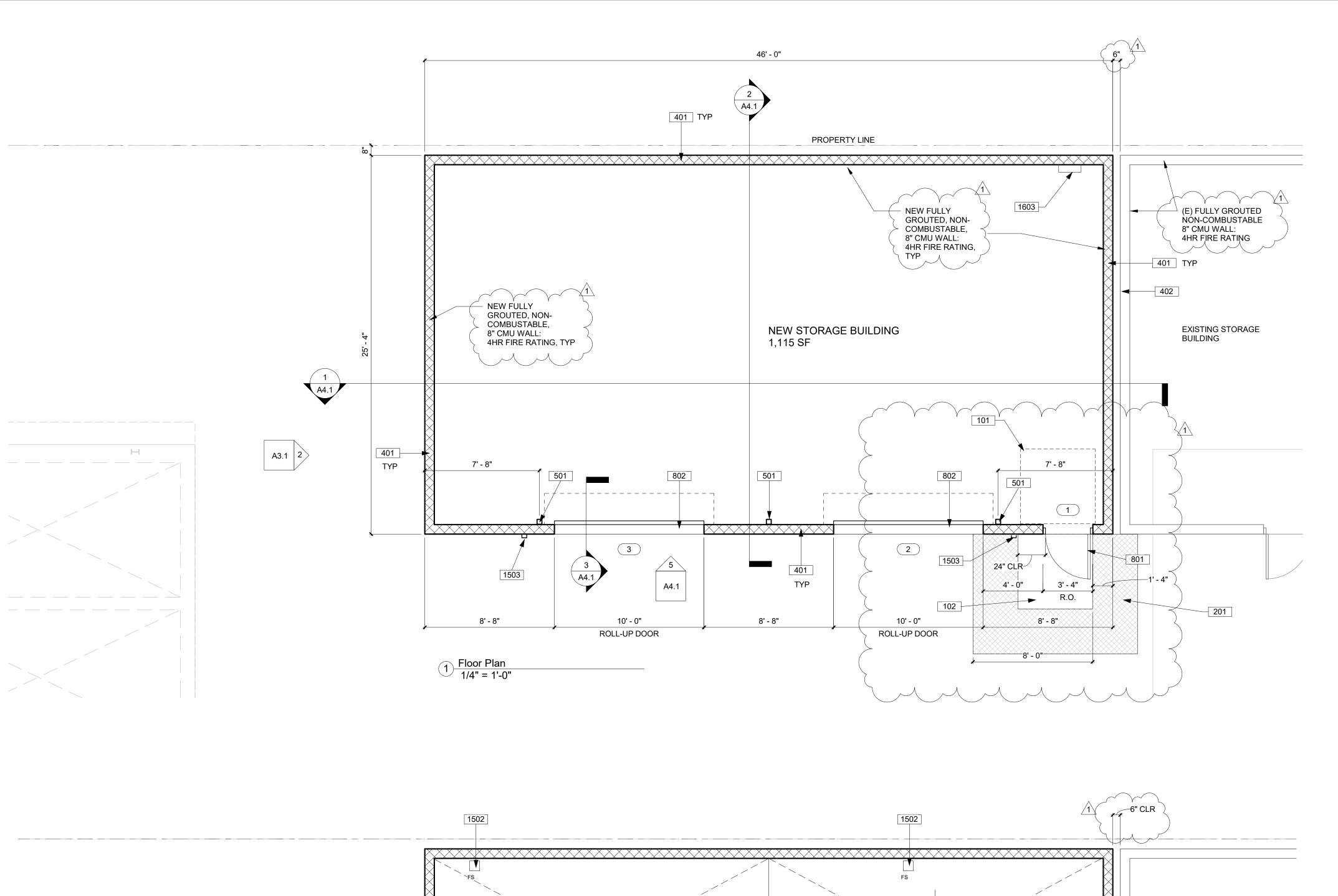
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SITE PLAN

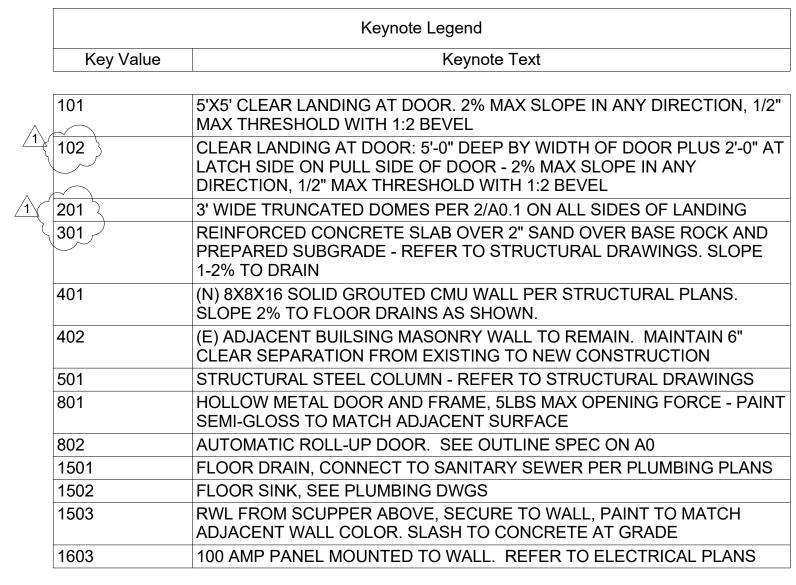
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EXISTING STORAGE BUILDING

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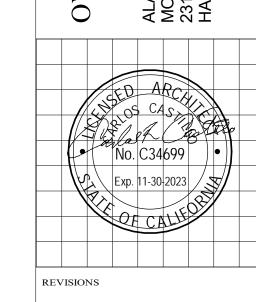
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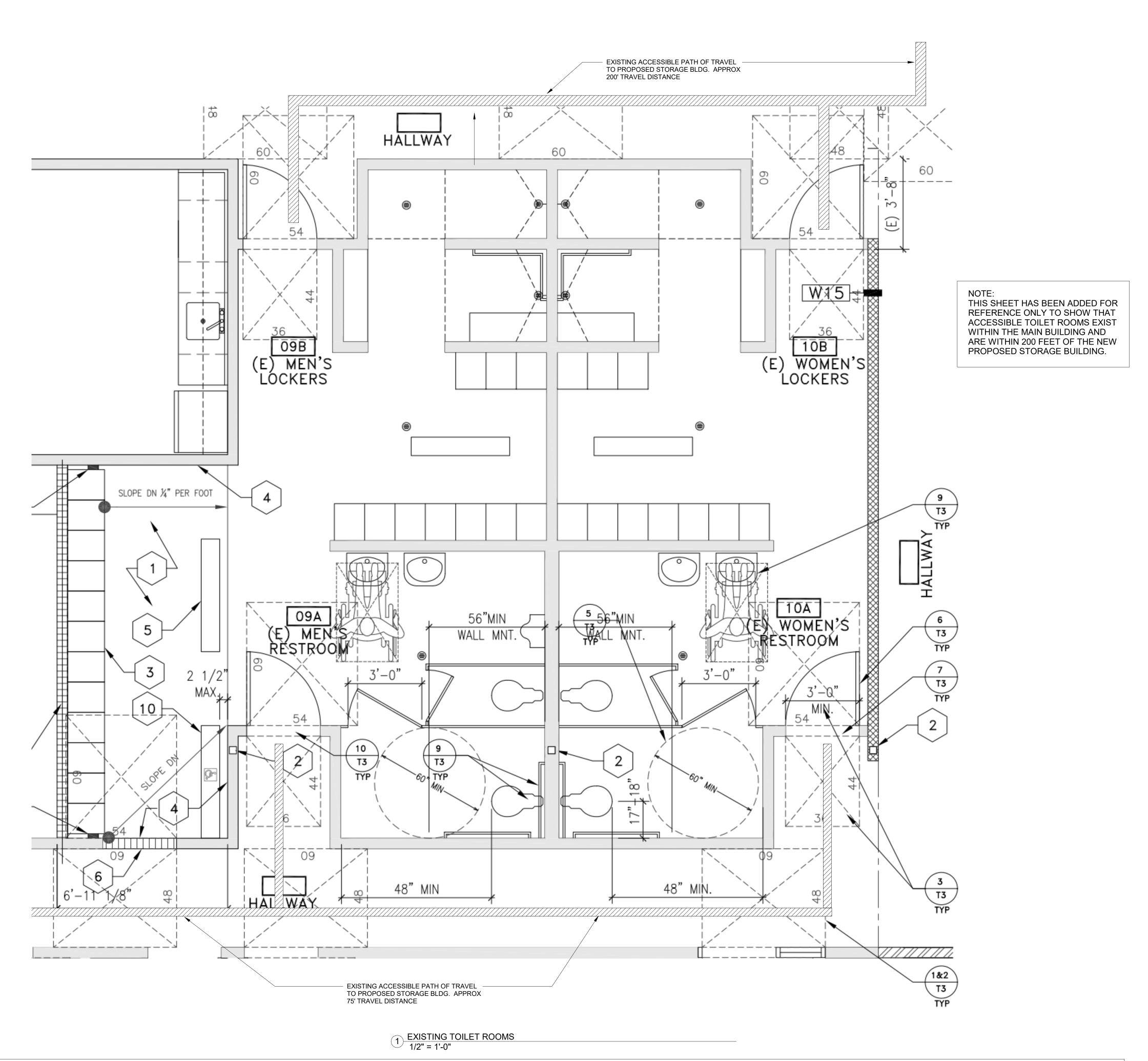
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1	4/7/23	City PC Respons
2	5/12/23	City PC Resp #2

FLOOR PLAN, SLAB PLAN

Job #: 00000

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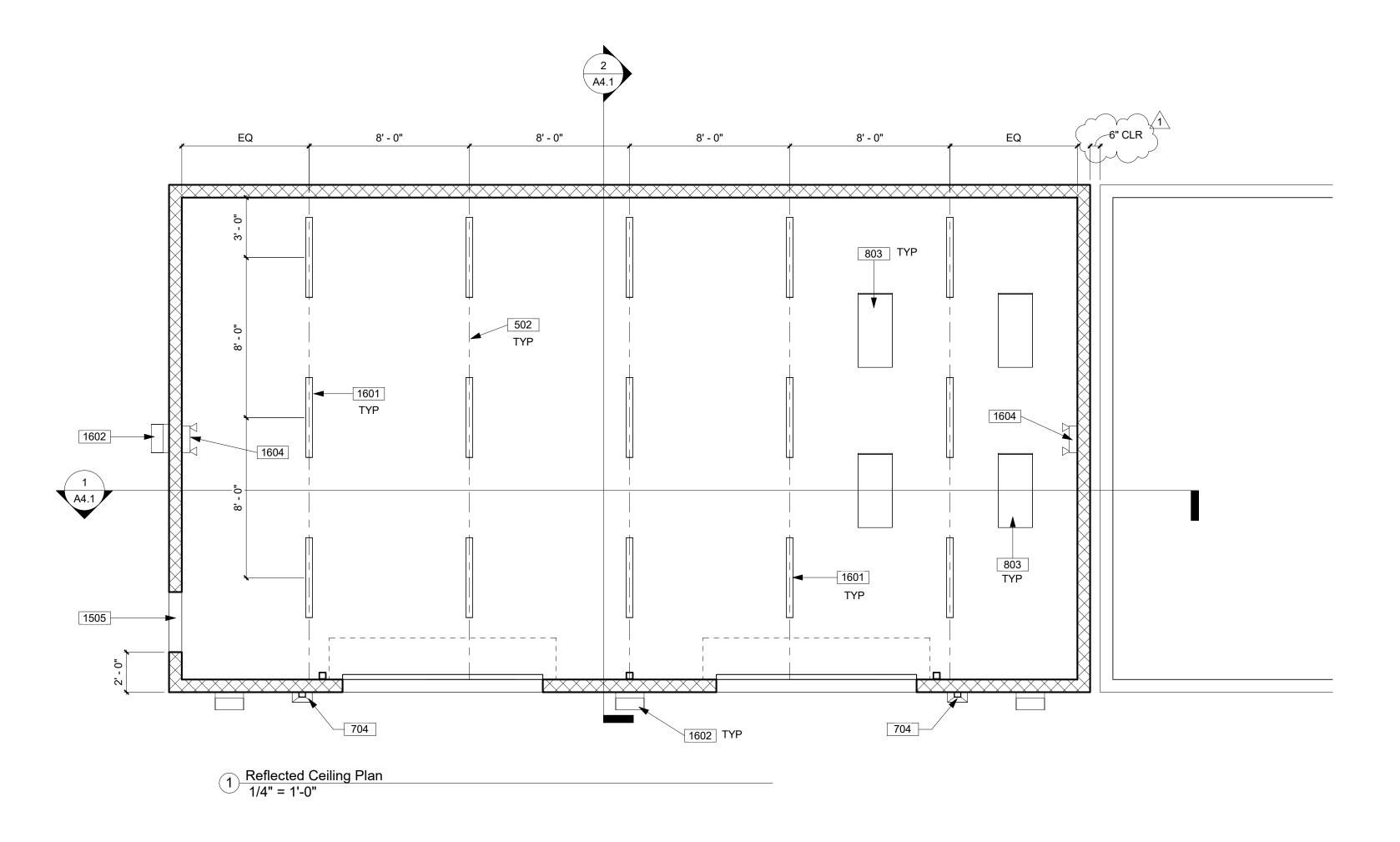
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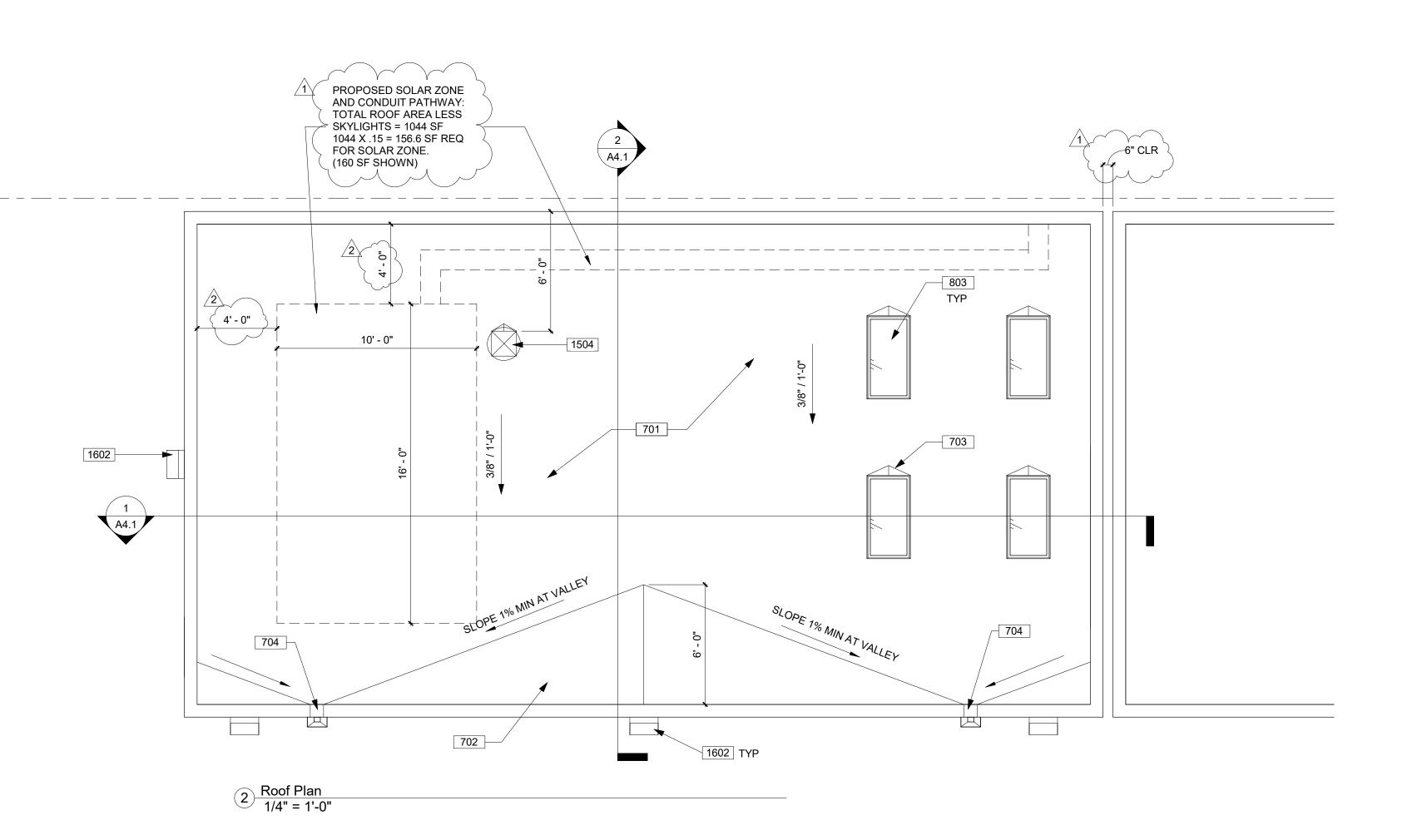
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REVISIONS





		Keynote Legend
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\wedge	502	STEEL ROOF STRUCURE
<u>/1\</u>	701	SINGLE PLY ROOFING SYSTEM PER OUTLINE SPEC ON SHEET A0, OVE VERCO METAL DECK PER STRUCTURAL DWGS. SLOPE AS SHOWN
	702	DRAINAGE CRICKET
	703	CRICKET AT SKYLIGHT
	704	THRU-WALL DRAIN AND GSM SCUPPER PER DETAIL 4/A5.1
	803	4'X2' CURB-MOUNTED SKYLIGHT
	1504	ROOF MOUNTED EXHAUST FAN. INSTALL PER MFR RECOMMENDATIONS, REFER TO MECHANICAL PLANS
	1505	21"X36" LOUVER PER MECHANICAL PLANS. PAINT TO MATCH WALL COLOR
	1601	4' LED LIGHT MOUNTED TO UNDERSIDE OF STEEL BEAM, REFER TO ELECTRICAL PLANS
	1602	LED WALL WALL PACK PER ELECTRICAL
	1604	EMERGENCY LIGHTING WITH BATTERY BACK-UP PER ELECTRICAL PLANS

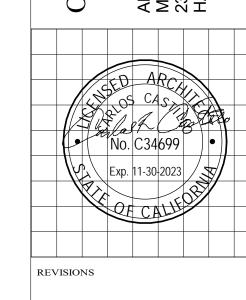
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ALAMEDA COUNTY

MOSQUITO ABATEMENT CENTER
23187 CONNECTICUT STREET
HAYWARD, CA



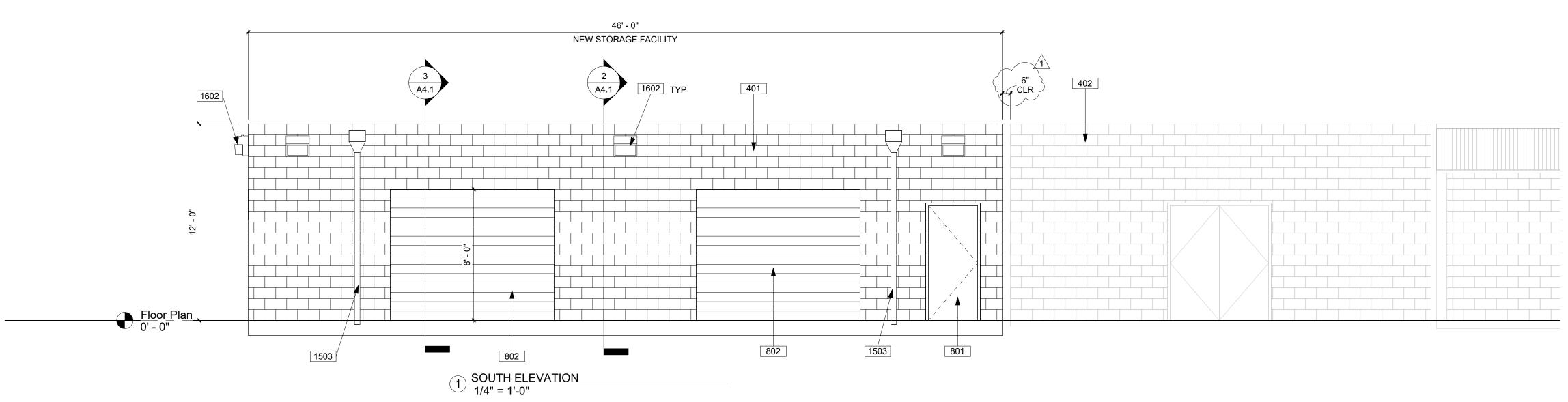
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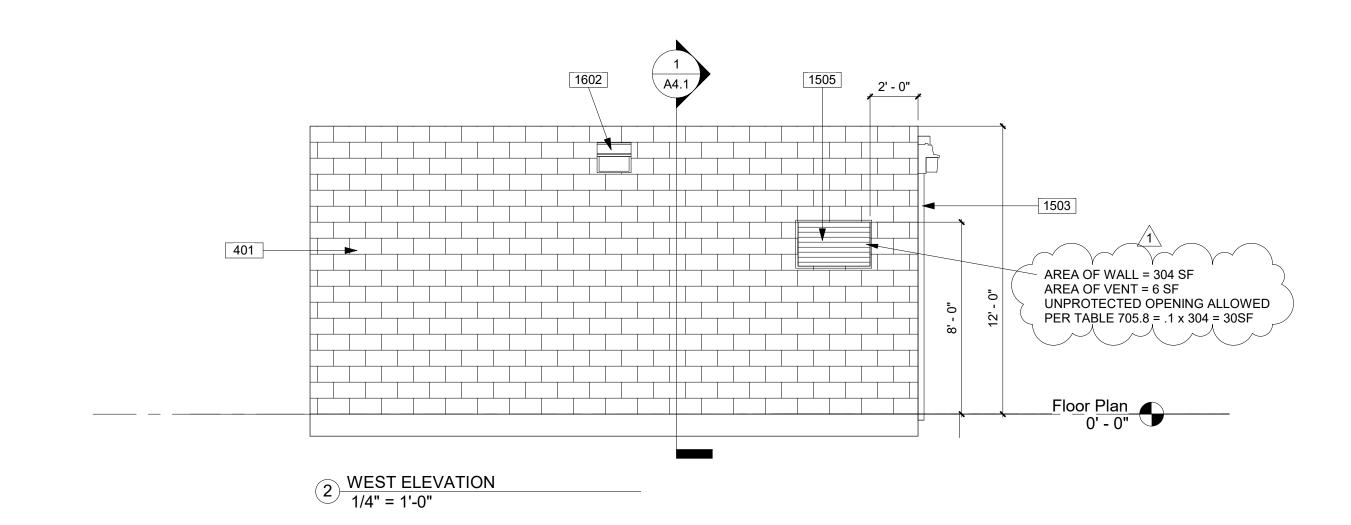
RCP & ROOF PLAN

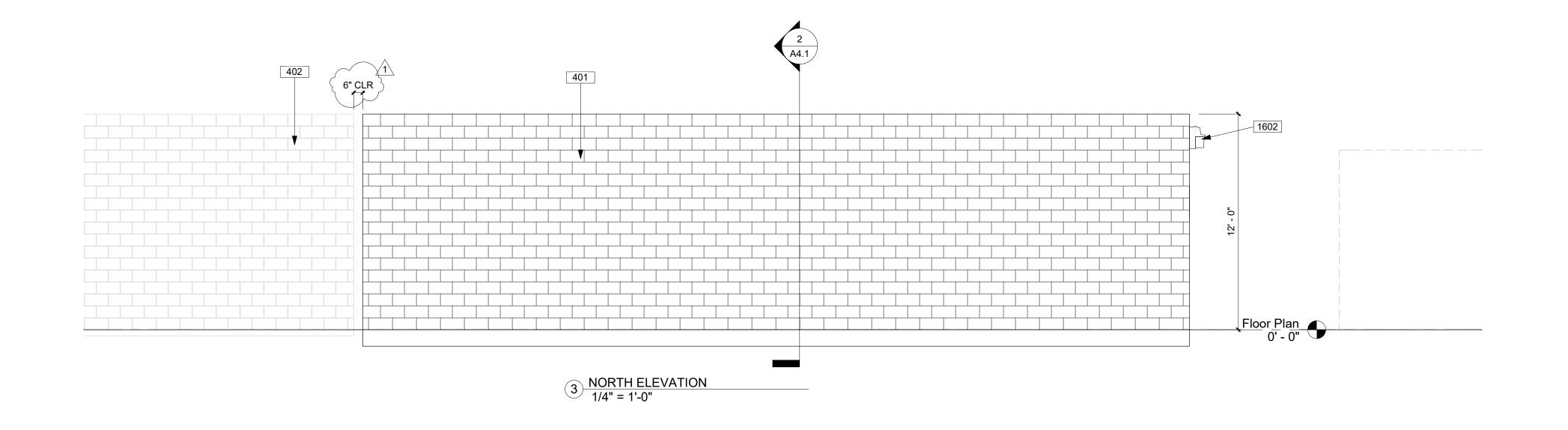
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Key Value	Keynote Text
401	(N) 8X8X16 SOLID GROUTED CMU WALL PER STRUCTURAL PLANS. SLOPE 2% TO FLOOR DRAINS AS SHOWN.
402	(E) ADJACENT BUILSING MASONRY WALL TO REMAIN. MAINTAIN 6" CLEAR SEPARATION FROM EXISTING TO NEW CONSTRUCTION
801	HOLLOW METAL DOOR AND FRAME, 5LBS MAX OPENING FORCE - PAIN SEMI-GLOSS TO MATCH ADJACENT SURFACE
802	AUTOMATIC ROLL-UP DOOR. SEE OUTLINE SPEC ON A0
1503	RWL FROM SCUPPER ABOVE, SECURE TO WALL, PAINT TO MATCH ADJACENT WALL COLOR. SLASH TO CONCRETE AT GRADE
1505	21"X36" LOUVER PER MECHANICAL PLANS. PAINT TO MATCH WALL COLOR
1602	LED WALL WALL PACK PER ELECTRICAL

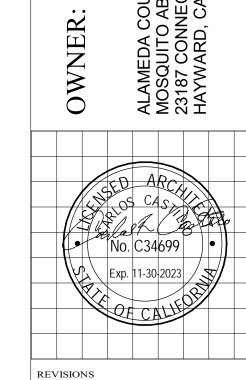
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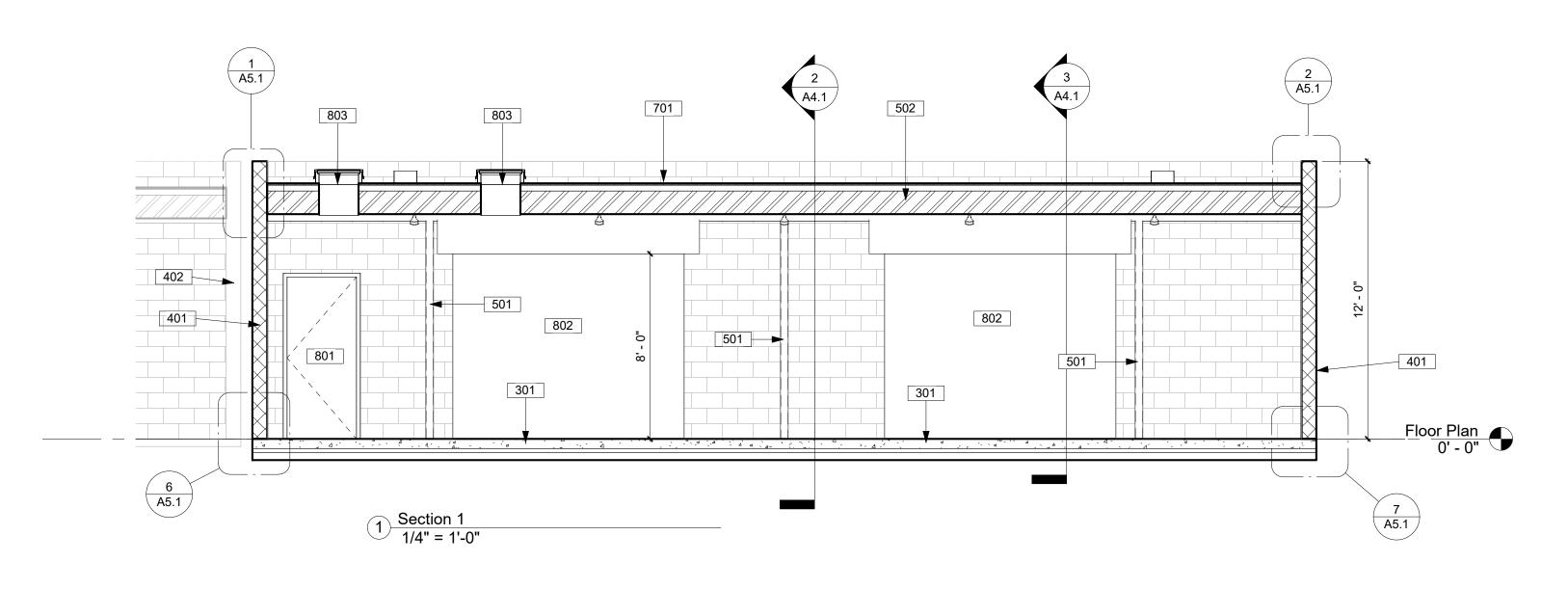
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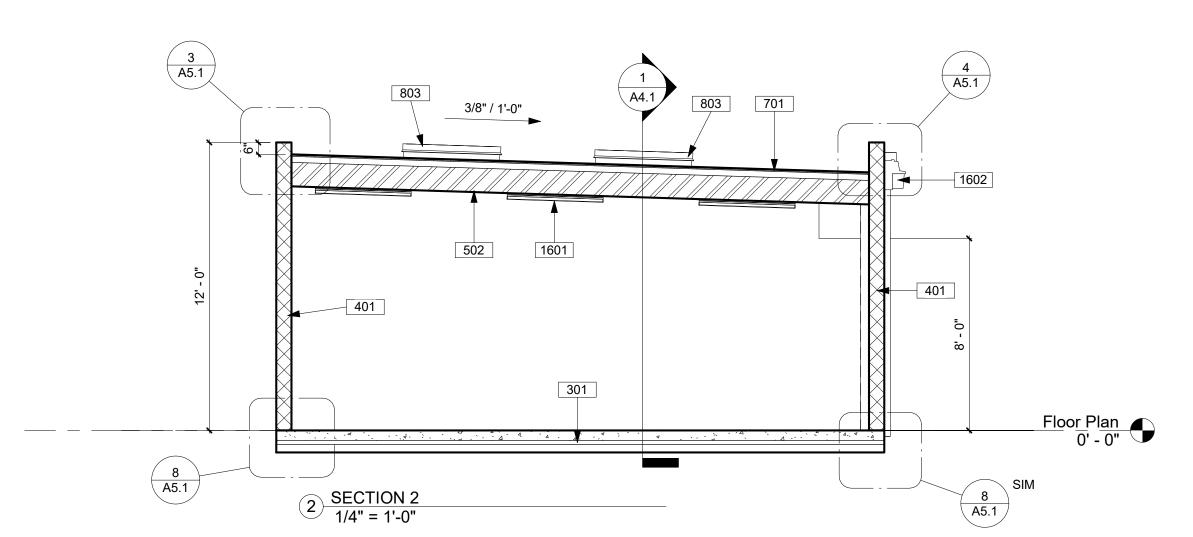
Elevations

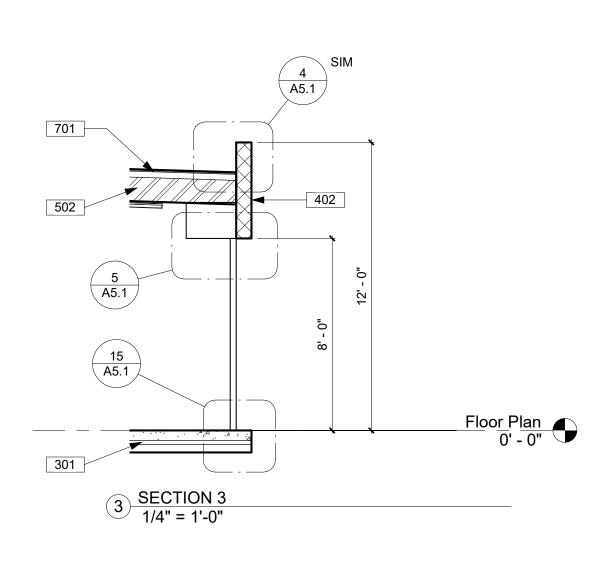
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	Keynote Legend
Key Value	Keynote Text
301	REINFORCED CONCRETE SLAB OVER 2" SAND OVER BASE ROCK AND PREPARED SUBGRADE - REFER TO STRUCTURAL DRAWINGS. SLOPE 1-2% TO DRAIN
401	(N) 8X8X16 SOLID GROUTED CMU WALL PER STRUCTURAL PLANS. SLOPE 2% TO FLOOR DRAINS AS SHOWN.
402	(E) ADJACENT BUILSING MASONRY WALL TO REMAIN. MAINTAIN 6" CLEAR SEPARATION FROM EXISTING TO NEW CONSTRUCTION
501	STRUCTURAL STEEL COLUMN - REFER TO STRUCTURAL DRAWINGS
502	STEEL ROOF STRUCURE
701	SINGLE PLY ROOFING SYSTEM PER OUTLINE SPEC ON SHEET A0, OVER VERCO METAL DECK PER STRUCTURAL DWGS. SLOPE AS SHOWN
801	HOLLOW METAL DOOR AND FRAME, 5LBS MAX OPENING FORCE - PAINT SEMI-GLOSS TO MATCH ADJACENT SURFACE
802	AUTOMATIC ROLL-UP DOOR. SEE OUTLINE SPEC ON A0
803	4'X2' CURB-MOUNTED SKYLIGHT
1601	4' LED LIGHT MOUNTED TO UNDERSIDE OF STEEL BEAM, REFER TO ELECTRICAL PLANS
1602	LED WALL WALL PACK PER ELECTRICAL

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SECTIONS, DOOR SCHED

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							Door Sche	edule						
Door				Door							Frame			
Number	Width	Height	Thickness	Material	Finish	Under Cut	Fire Rating	Hardware	Type	Material	Finish	Jamb	Head	Comments
1	3' - 0"	7' - 0"	0' - 2"	Hollow Metal	Paint	No	NA	See Spec	Welded	Metal	Paint	9/A5.1	9/A5.1	
2	10' - 0"	8' - 0"	0' - 0 3/4"	Insulated Roll-Up	Per Spec	NA		See Spec			See Spec	15/A5.1	5/A5.1	
	10' - 0"	8' - 0"	0' - 0 3/4"	Insulated Roll-Up	Per Spec	NA		See Spec			See Spec	15/A5.1	5/A5.1	

General Notes

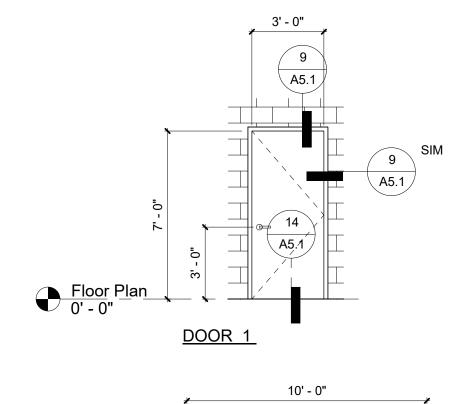
- THE MAXIMUM FORCE FOR PUSHING / PULLING OPEN A DOOR OR GATE SHALL BE AS FOLLOWS:

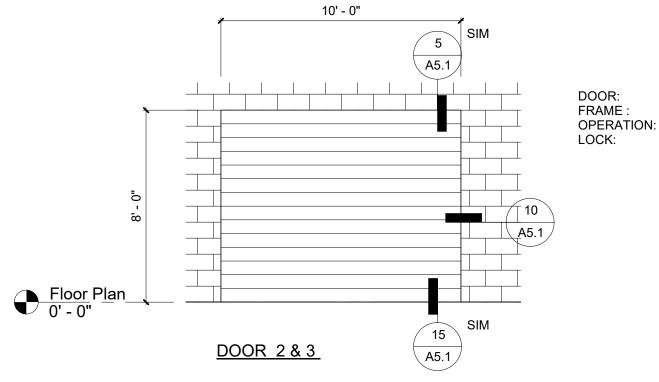
 a. INTERIOR HINGED DOORS AND GATES = 5 LBS

 b. REQUIRED FIRE DOORS = 15 LBS

 c. EXTERIOR HINGED DOORS = 5 LBS

- 2. FIRE DOORS SHALL BE LABELED SHOWING MANUFACTURER, TESTING AUTHORITY AND RATING IN ACCORDANCE WITH NFPA 80.





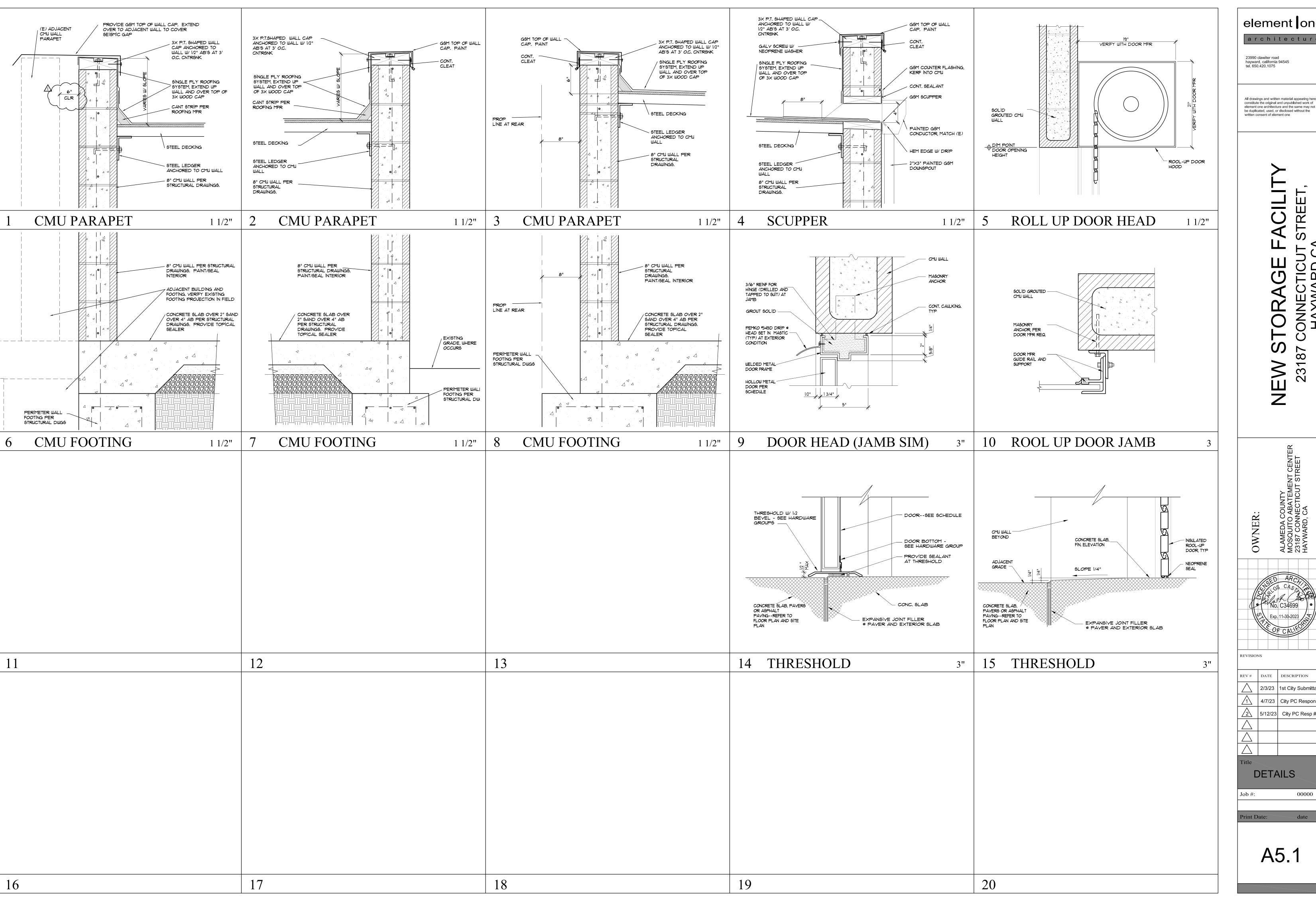
CLOSER: THRESHOLD: DOOR STOP: DOOR BOTTOM:

OVERHEAD DOOR MFR, 625 SERIES, INSULATED, COLOR: GREY DOOR MFR STANDARD ELECTRIC WITH CHAIN HOIST OVER-RIDE SLIDE BOLT

HINGES: 1 1/2 PAIR HAGER BB1191NRP BEARING BUTTS, 4 1/2" x 4 1/2", STAINLESS STEEL LOCKSET: SCHLAGE ND53 ENTRANCE LOCK, WITH SPARTA LEVER HANDLE, SATIN NICKEL FINISH CYLINDER: BEST 6 PIN WEATHERSTRIPPING: PEMKO S88

LCN DELAYED ACTION BARRIER FREE 5 LBS. MAX OPERATING FORCE PEMKO 274 H.C. ACCESSIBLE (1/2" MAX, WITH 1:2 BEVEL), MILL FINISH IVES FS17

PEMKO 412 SURFACE MOUNT



element one architecture All drawings and written material appearing herein

> STREE CONNECTICUT HAYWARD C <u>7</u>

2/3/23 1st City Submittal 4/7/23 City PC Response 2 5/12/23 City PC Resp #2

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GENERAL NOTES

- 1. THE NOTES AND SPECIFICATIONS GIVEN ON THE STRUCTURAL DRAWINGS ARE EXCERPTS FROM THE RELATING PROJECT SPECIFICATIONS. THEY ARE NEITHER COMPLETE NOR DO THEY REPLACE THE CONTRACT SPECIFICATIONS.
- 2. CODE: CONSTRUCTION SHALL CONFORM TO THE PROVISIONS OF THE CALIFORNIA BUILDING CODE, 2022 EDITION AND STANDARDS REFERENCED THEREIN.
- 3. GENERAL DETAILS: AND NOTES ON THESE SHEETS SHALL APPLY UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. CONSTRUCTION DETAILS NOT FULLY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS. ALL WORK OR CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, REGULATION AND SAFETY REQUIREMENTS.
- 4. **DISCREPANCIES:** THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS OR OF ANY VARIATIONS NEEDED IN ORDER TO CONFORM TO CODES, RULES AND REGULATIONS. UPON RECEIPT OF SUCH INFORMATION, THE ENGINEER WILL SEND WRITTEN INSTRUCTIONS TO ALL CONCERNED. ANY SUCH DISCREPANCY, OMISSION, OR VARIATION NOT REPORTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND WORK SHALL BE PERFORMED IN A MANNER AS DIRECTED BY THE ENGINEER.
- 5. SHORING: IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND PROVIDE ADEQUATE SHORING. BRACING, AND FORMWORK, AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING THE CONSTRUCTION OF THIS BUILDING(S). CONSTRUCTION LOADS SHALL NOT EXCEED LOADS EQUIVALENT TO THE DESIGN SUPERIMPOSED LOADS LESS CONSTRUCTION DEAD AND LIVE LOADS. DESIGN SUPERIMPOSED LOADS INCLUDE LIVE LOAD, PARTITION LOAD, AND ANY OTHER LOAD NOT IN PLACE AT THE TIME OF SHORING.
- 6. **EXCAVATION:** THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT.
- 7. OTHER TRADES, SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE STRUCTURAL DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED AND VERIFIED WITH THE ARCHITECTURAL DRAWINGS
- 8. BACKFILL: WHERE REQ'D BACKFILL AROUND THE EXTERIOR PERIMETER OF WALL SHALL NOT BE PLACED UNTIL AFTER THE COMPLETION OF THE ELEVATED FLOOR SYSTEM, SUPPORTED BY THE WALLS. AS A MINIMUM, DO NOT PROCEED WITH BACKFILL UNTIL SEVEN (7) DAYS AFTER THE COMPLETION OF INTERIOR FLOOR SYSTEMS, UNLESS WALLS ARE ADEQUATELY BRACED. BACKFILL SHALL NOT BE PLACED UNTIL AFTER COMPLETION AND INSPECTION OF WATERPROOFING, WHERE WATERPROOFING OCCURS.
- BRACING: TEMPORARY BRACING SHALL BE PROVIDED AS REQUIRED TO HOLD ALL COMPONENTS OF THE STRUCTURE IN PLACE UNTIL FINAL SUPPORT IS SECURELY ANCHORED. (DESIGNED BY OTHERS)
- 10. **Welding**: all welding shall be performed by welders CERTIFIED FOR THE WELDS TO BE MADE; SEE SPECIFICATIONS FOR WELDING PROCESS TO BE USED. WELDING OF REINFORCING STEEL FOR USE IN STRUCTURAL CONCRETE OR STRUCTURAL MASONRY SHALL BE PERMITTED ONLY WHERE SPECIFICALLY DESIGNATED ON THESE PLANS OR WHERE SPECIFICALLY APPROVED BY THE ENGINEER.
- 11. MATERIALS AND WORKMANSHIP WARRANTY: CONTRACTOR SHALL REPLACE ANY DEFECTIVE MATERIALS AND CORRECT POOR WORKMANSHIP WITH NO ADDITIONAL COSTS TO THE OWNER, AND SHALL REMEDY ANY DEFECTS IN MATERIAL OR WORKMANSHIP WHICH APPEAR IN ONE YEAR FROM THE DATE OF COMPLETION OF THE JOB. THIS WARRANTY APPLIES TO THE WORK DONE BY THE SUBCONTRACTORS AS WELL AS THE WORK DONE BY THE EMPLOYEES OF THE CONTRACTOR.
- 12. SAFETY: THE CONTRACTOR SHALL ADEQUATELY PROTECT HIS WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND BE RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLIGENCE.
- 13. INSPECTIONS: ANY INSPECTIONS, SPECIAL OR OTHERWISE, THAT ARE REQUIRED BY THE BUILDING CODES, LOCAL BUILDING DEPARTMENTS, OR THESE PLANS, SHALL BE DONE BY AN INDEPENDENT INSPECTION COMPANY. JOB SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE, OR SUBSTITUTE FOR SPECIAL INSPECTIONS UNLESS SPECIFICALLY CONTRACTED FOR.
- 14. SHOP DRAWINGS: SHOP DRAWINGS ARE AN AID FOR FIELD PLACEMENT, AND ARE SUPERCEDED BY THE STRUCTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE CERTAIN THAT ALL CONSTRUCTION IS IN FULL AGREEMENT WITH THE LATEST STRUCTURAL DRAWINGS.

INSPECTION NOTES

	REQUIRED VERIFICATION AND INSPECTION OF SOILS						
	VERIFICAITON AND INSPECTION TASK Continuous Periodic						
1.	Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	-	х				
2.	Verify excavations are extended to proper depth and have reached proper material.	-	Х				
3.	Perform classification and testing of compacted fill materials.	-	Х				
4.	Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	-	-				
5.	Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly.	-	Х				
Inspecti	Inspections per Table(s) 1705.6, 1705.7 and 1705.8 required						

		VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
1.	Inspection o	f reinforcing steel, including prestressing tendons, and placement.	-	X
2.	Inspection o	-	_	
3.		f anchors cast in concrete where allowable loads have been increased or gth design is used.	-	х
4.	Inspection o	f anchors post-installed in hardened concrete members ^b .	-	Х
5.	Verifying use	e of required design mix.	-	Х
6.	At the time f	х	-	
7.	Inspection of concrete and shotcrete placement for proper application techniques.			-
8.	Inspection fo	-	Х	
9.	Inspection of prestressed concrete:			
	a. Appl	lication of prestressing forces (PT Tendon stressing)	-	-
	b. Grou	iting of bonded prestressing tendons in the seismic force-resisting system	-]
LO.	Erection of p	recast concrete members.	-	-
11.		of in-situ concrete strength, prior to stressing of tendons in post-tensioned d prior to removal of shores and forms from beams and structural slabs.	-	х
12.	Inspect form formed.	work for shape, location and dimensions of the concrete member being	-	х
13.	Inspection of adhesive anchors in horizontal and upwardly inclined positions. ^c -		-	Х

Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with ACI 355.2 or other qualification procedures. Where specific requirements are not provided, special nspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

Installation of all adhesive anchors in horizontal and upwardly inclined positions shall be performed by an ACI/CRSI certified adhesive anchor installer.

			VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
1.	Materi	al verifi	cation of high-strength bolts, nuts and washers:		
	a.		ication markings to conform to ASTM standards specified in the approved uction documents	-	х
	b.	Manuf	acturer's certificate of compliance required.	-	Х
2.	Inspec	tion of h	nigh-strength bolting:		
	a.	Snug-t	ight joints.	-	Х
	b.		sioned and slip-critical joints using turn-of-nut with matchmarking, twist-off direct tension indicator methods of installation	-	х
	c.	calibra	sioned and slip-critical joints using turn-of-nut without matchmarking or ited wrench methods of installation.	-	-
3.	Materi		cation of structural steel and cold-formed steel deck:		
	a.	For str	uctural steel, identification markings to conform to AISC 360.	-	Х
	b.		ner steel, identification markings to conform to ASTM standards specified in proved construction documents.	-	х
	c.	Manuf	acturer's certified test reports.	-	Х
4.	Materi	al verifi	cation of weld filler materials:		
	a.		ication markings to conform to AWS specification in the approved uction documents.		x
	b.	Manuf	acturer's certificate of compliance required.		x
5.	Inspec	tion of \			
<u>J.</u>	a.		ural steel and cold-formed steel deck:		
		1)	Complete and partial joint penetration groove welds.	_	_
		2)	Multipass fillet welds.	_	_
		3)	Single-pass fillet welds > 5/16".	_	_
		4)	Plug and slot welds.	_	
		5)	Single-pass fillet welds ≤ 5/16".	-	X
	+	6)	Floor and roof deck welds.	-	
	b.		rcing steel:	-	X
		1)	Verification of weldability of reinforcing steel other than ASTM A 706.	-	X
		2)	Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, boundary elements of special structural walls of concrete and shear reinforcement.	X	-
		3)	Shear reinforcement.	Х	-
		4)	Other reinforcing steel.	-	Х
6.	Inspec	tion of s	teel frame joint details for compliance:		
	a.	Details	s such as bracing and stiffening.	-	_
	b.	Memb	er locations.	-	_
	c.	Applic	ation of joint details at each connection.	_	_

GENERAL NOTES

ABBREVIATIONS

SYMBOL DEFINITION ANCHOR BOLT AMERICAN CONCRETE INSTITUTE A.I.S.C AMERICAN INSTITUTE OF STEEL CONSTRUCTION ALTERNATE ARCHITECTURAL AMERICAN STANDARD FOR TESTING AND MATERIALS AMERICAN WELDING SOCIETY BET. BETWEEN BLDG. BUILDING CENTROID OF TENDON

- CAST-IN-PLACE CONCRETE C.B.C. CALIFORNIA BUILDING CODE C.J. CONSTRUCTION JOINT CENTERLINE CEILING CLEAR CONCRETE MASONRY UNIT
- COLUMN CONCRETE CONST CONSTRUCTION CONTINUOUS CENTER CTR'D. CENTERED CUBIC FEET CUBIC INCH CU.IN. CUBIC YARD BAR DIAMETER
- DIA. (φ) DIAG. DIAMETER DIAGONAL DIM. DIMENSION DEAD LOAD DOWN DRAWING(S) EACH
- EACH FACE ELEVATION ELEVATOR **ENGINEER** ENGINEER OF RECORD EACH SIDE EACH WAY EAST-WEST
- EXTERIOR FLOOR DRAIN FOUNDATION FINISH FLOOR FINISH GRADE FIN. FLR. FINISH FLOOR FACE OF FACE OF CONCRETE
- F.O.M. FACE OF MASONRY FOOTING GALVANIZED GRADE BEAM HORIZ HORIZONTAL HIGH POINT INSIDE DIAMETER INSIDE FACE

INCH(ES)

IN IERIOR JOINT KIP (1.000 LBS K/FT, K/' KIPS PER FOOT LIN. LINEAR LIVE LOAD LOW POINT LIGHT WEIGHT MACHINE BOLT

MATI

MATERIAL MAXIMUM MECHANICAL MEMB. MEMBRANE MECHANICAL, ELECTRICAL & PLUMBING MANUFACTURER MINIMUM

MID-DEPTH

- MISC. MISCELLANEOUS NEUTRAL AXIS NUMBER NORTH-SOUTH NOT TO SCALE
- ON CENTER OUTSIDE DIAMETER OUTSIDE FACE OPNG. OPENING OPPOSITE ORIG. ORIGINAL P.S.F. POUNDS PER SQUARE FOOT
- POUNDS PER SQUARE INCH P.S.I. P.T. POST-TENSIONING RADIUS ROOF DRAIN REFERENCE REINFORCE(D) / REINFORCING REQUIRED
- SEE ARCHITECTURAL DRAWINGS SEE CIVIL DRAWINGS SEE MECHANICAL DRAWINGS SEE ELECTRICAL DRAWINGS SEE LANDSCAPE DRAWINGS SIMILAR

SLAB JOINT

WALL JOINT

SLAB-ON-GRADE **SPECIFICATIONS** STAGGER(ED) STANDARÒ STL. STR. STRAIGHT SYMMETRICAL

U.B.C.

U.N.O.

STRUCTURAL TUBE UNIFORM BUILDING CODE UNLESS NOTED OTHERWISE

FOUNDATION NOTES:

1. ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED. ALL BACKFILL SHALL HAVE 95% COMPACTION.

2. <u>ALLOWABLE SOIL BEARING PRESSURE:</u>

ALLOWABLE FOUNDATION PRESSURE:	
D.L. + L.L. CONTINUOUS	1,500 PSF (TABLE 1806A.2 CBC 2022
D.L. + L.L. WIND OR SEISMIC	2,000 PSF
COEFFICIENT OF SLIDING FRICTION	0.30

- 3. FOOTINGS SHALL BE EMBEDDED A MINIMUM OF 24" BELOW LOWEST ADJACENT GRADE AND SHALL BEAR ON COMPACTED SUBGRADE.
- 4. VERIFY LOCATION OF UNDERGROUND UTILITIES BEFORE EXCAVATION. NOTIFY ARCHITECT PRIOR TO EXCAVATION IN THE EVENT SUCH UTILITES ARE ENCOUNTERED.

STRUCTURAL OBSERVATIONS

THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THIS STRUCTURAL DESIGN, OR ANOTHER REGISTERED ENGINEER OR ARCHITECT DESIGNATED BY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, TO PERFORM STRUCTURAL OBSERVATION AS DEFINED IN SECTION 1702. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR & THE BUILDING OFFICIAL. THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE & IDENTIFYING ANY REPORTED DEFICIENCIES THAT TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

STRUCTURAL OBSERVATIONS SHALL BE PERFORMED AT THE FOLLOWING STAGES OF CONSTRUCTION:

PRIOR TO POURING OF FOUNDATION & SLAB ON GRADE .. COMPLETE INSTALLATION OF C.M.U. WALLS AND ROOF BEAMS..

STRUCTURAL OBSERVATION DOES NOT WAIVE NOR REPLACE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR. STRUCTURAL OBSERVATION IS NOT AN INSPECTION. IT IS FAMILIARIZATION WITH THE PROGRESS & QUALITY OF THE WORK AND CLARIFICATION OF THE DOCUMENTS & GENERAL CONFORMANCE TO DESIGN INTENT. SEE "INSPECTION NOTES" FOR INSPECTION CRITERIA & NOTE THAT CONTINUOUS SPECIAL INSPECTION PERFORMED BY A QUALIFIED DEPUTY IS REQUIRED FOR ALL PRIMARY STRUCTURAL ELEMENTS, ETC. THE CONTRACTOR & INSPECTOR WILL ASSURE THAT CERTIFIED RECORD OF CONTINUOUS SPECIAL INSPECTION OF THE WORK TO BE OBSERVED IS MADE AVAILABLE TO THE OBSERVER BEFORE REQUESTING OBSERVATION. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED.

DESIGN DATA

SEISMIC DESIGN: DESIGN IS IN ACCORDANCE TO ASCE 7-16 & CBC 2022

DESCRIPTION	DATA
SEISMIC FORCE RESISTING SYSTEM	SPECIAL REINF. CONC. SHEARWALLS
RESPONSE MODIFICATION COEFFICIENT	R = 5.0
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	I = 1.0
SITE CLASS	D
MAPPED SPECTRAL RESPONSE ACCELERATION—SHORT PERIOD	$S_s = 1.73 g$
MAPPED SPECTRAL RESPONSE ACCELERATION-1sec. PERIOD	$S_1 = 0.66 g$
SHORT-PERIOD SITE COEFFICIENT	$F_{\alpha} = 1.2$
LONG-PERIOD SITE COEFFICIENT	$F_v = -$
DESIGN SPECTRAL RESPONSE ACCELERATION—SHORT PERIOD	Sps = 1.39g
DESIGN SPECTRAL RESPONSE ACCELERATION-1 SECOND	S _{D1} = -
SEISMIC DESIGN CATEGORY	D
SEISMIC FORCE AMPLIFICATION FACTOR	$\Omega_{o} = 2.5$
SEISMIC RESPONSE COEFFICIENT	$C_{s} = 0.277$
DESIGN BASE SHEAR	V = 30 KIPS
ANALYSIS PROCEDURE USED	E.L.F.A.

General Notes	30-1.1
Material Notes & Specifications	SC-1.2
General Details	SC-1.3
C.M.U. Wall Sections and Details.	SC-1.4
C.M.U. Wall Sections and Details.	SC-1.5
Foundation Plan and Roof Framing Plan	SC - 2.0

DESCRIPTION	DATA
SEISMIC FORCE RESISTING SYSTEM	SPECIAL REINF. CONC. SHEARWALLS
RESPONSE MODIFICATION COEFFICIENT	R = 5.0
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	I = 1.0
SITE CLASS	D
MAPPED SPECTRAL RESPONSE ACCELERATION—SHORT PERIOD	$S_s = 1.73 g$
MAPPED SPECTRAL RESPONSE ACCELERATION-1sec. PERIOD	$S_1 = 0.66 g$
SHORT-PERIOD SITE COEFFICIENT	$F_{\alpha} = 1.2$
LONG-PERIOD SITE COEFFICIENT	$F_v = -$
DESIGN SPECTRAL RESPONSE ACCELERATION—SHORT PERIOD	Sps = 1.39g
DESIGN SPECTRAL RESPONSE ACCELERATION-1 SECOND	S m = -
SEISMIC DESIGN CATEGORY	D
SEISMIC FORCE AMPLIFICATION FACTOR	$\Omega_{\circ} = 2.5$
SEISMIC RESPONSE COEFFICIENT	$C_{S} = 0.277$
DESIGN BASE SHEAR	V = 30 KIPS
ANALYSIS PROCEDURE USED	E.L.F.A.

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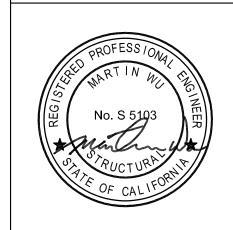
General Notes	.SC-1.
Material Notes & Specifications	.SC-1.
General Details	.SC-1.
C.M.U. Wall Sections and Details.	SC-1.
C.M.U. Wall Sections and Details.	.SC-1.
Foundation Plan and Roof Framina Plan	SC-2

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REVISIONS

REV#	DATE	DESCRIPTION
	2/3/23	1st CITY SUBMITTAI
1	4/7/23	Plan Check Response
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GENERAL NOTES

2023-01

4-7-2023 Print Date:

SC-1.1

MATERIAL NOTES AND SPECIFICATIONS

CONCRETE AND REINFORCEMENT

- 1. **CONCRETE PLACEMENT AND QUALITY:** SPECIFIED IN PROJECT SPECIFICATIONS.
- 2. **DEBRIS:** REMOVE ALL DEBRIS FROM FORMS BEFORE POURING.
- 3. SEGREGATION OF AGGREGATES: CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN WALLS, COLUMNS AND DROP CAPITALS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. USE HOPPERS, CHUTES OR TRUNKS OF VARYING LENGTH SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED FIVE FEET, AND A SUFFICIENT NUMBER SHALL BE USED TO ENSURE THAT THE CONCRETE IS KEPT LEVEL AT ALL TIMES.
- 4. **INSERTS:** ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.
- 5. **DOWELING:** ALL WALLS AND COLUMNS SHALL BE DOWELED INTO FOOTINGS, WALLS, BEAMS, OR SLABS WITH BARS OF THE SAME SIZE AND SPACING AS THE BARS ABOVE. USE A THIRTY SIX (36) BAR DIAMETER LAP WHERE NOT SPECIFICALLY INDICATED ON PLANS OR DETAILS.
- 6. SPLICES: VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE BARS IN MEMBERS SUCH AS SPANDRELS, BEAMS, ETC., AS FOLLOWS: TOP BARS AT CENTERLINE OF SPAN, BOTTOM BARS AT THE SUPPORT. ALL REINFORCING STEEL SHALL BE SECURELY WIRED AND PROPERLY SUPPORTED ABOVE GROUND AND AWAY FROM THE FORMS. SPLICES IN HORIZONTAL WALL BARS SHALL BE CLASS B (30" MIN.) & SHALL BE STAGGERED BY 5'-0" MIN. HORIZONTAL SPLICES IN TWO CURTAINS WHERE USED SHALL NOT OCCUR IN THE SAME LOCATION AND SHALL BE STAGGERED 5'-0" MIN.
- 7. CONSTRUCTION JOINTS: CONSTRUCTION JOINTS SHALL HAVE ENTIRE SURFACE REMOVED TO EXPOSE CLEAN, SOLIDLY EMBEDDED AGGREGATE. THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL OF CONSTRUCTION JOINT LOCATIONS IN SLABS AND BEAMS.
- 8. TEMPERATURE AND SHRINKAGE REINFORCEMENT: SHALL HAVE A LAP OF THIRTY (30) BAR DIAMETERS, BUT NOT LESS THAN 18 INCHES, AND THE SPLICES IN ADJACENT BARS SHALL BE NOT LESS THAN FIVE (5) FEET APART.
- 9. **REBAR GRADES:** ALL REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A706 OR *ASTM A615* MEETING ACI 318—11 SEC. 21.1.5. AS FOLLOWS:

#3 &	SMALLER BARS	GRADL	60
#4 &	LARGER BARS	GRADE	60
₁₁ . 33			• •

- * BILLET STEEL A615 GRADES 40 & 60 REINFORCEMENT SHALL BE PERMITTED TO BE USED IN MOMENT FRAMES & CONCRETE WALLS IF (1) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI, AND (2) THE RATIO OF THE ACTUAL ULTIMATE STRESS TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25.
- 10. WELDED WIRE FABRIC: WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND A185.
- 11. **WELDING:** TACK WELDING OF REBAR IS NOT PERMITTED UNLESS CALLED FOR OR APPROVED BY THE ENGINEER.
- 12. **REBAR COVER:** MINIMUM REBAR COVER FOR PRESTRESSED CONCRETE SHALL BE AS SHOWN IN THIS TABLE:

EXPOSURE CONDITION	MINIMUM COVER	TOLERANCE (-)
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"	3/8 INCH
EXPOSED TO EARTH OR WEATHER:		
NO. 5 AND SMALLER BARS	1-1/2"	1/4 INCH
NO. 6 AND LARGER BARS	2"	1/4 INCH
NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:		
STRUCTURAL SLABS & WALLS	1"	1/8 INCH
BEAMS AND COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS & SPIRALS)	1-1/2"	1/4 INCH
SLABS-ON-GRADE	1-1/2"	1/4 INCH

13. TOLERANCES FOR REBAR PLACEMENT: TOLERANCE FOR LONGITUDINAL LOCATION OF BENDS AND ENDS OF REINFORCEMENT SHALL BE PLUS OR MINUS TWO (2) INCHES, EXCEPT AT DISCONTINUOUS ENDS OF MEMBERS WHERE TOLERANCES SHALL BE ±1/2 INCH.

CONCRETE (cont'd.)

14. **CONCRETE QUALITY:** SHALL BE AS SHOWN IN TABLE BELOW: FOR SLABS & WALLS, PROVIDE NORMAL WEIGHT CONCRETE WITH PROVEN SHRINKING CHARACTERISTICS OF LESS THAN 0.04%, ATTAINING MIN. COMPRESSIVE STRENGTH AT 28 DAYS (F'c), U.N.O.

CONCRETE USE	STRENGTH AT 28 DAYS U.N.O.	SLUMP	W/C RATIO	AGGREGATE SIZE	AGGREGATE TYPE	FLY ASH AND/ OR SLAG %
SLAB ON GRADE	3000 PSI	4"	0.45 MAX.	1"	HARDROCK	20%
CONTINUOUS AND SPREAD FOOTINGS	3000 PSI	4"	0.50 MAX.	1"	HARDROCK	50%

- 15. CONCRETE WEIGHT: ALL CONCRETE SHALL BE OF REGULAR WEIGHT.
 150 POUNDS PER CUBIC FOOT UNLESS NOTED OTHERWISE.
- 16. AGGREGATE: SIZE OF AGGREGATE SHALL CONFORM TO ASTM

3/4"ASTM	SIZE	67
1"ASTM	SIZE	57

- 17. **CEMENT:** SHALL BE TYPE II.
- 18. CONCRETE AGE: NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT UNLESS APPROVED BY TESTING AGENCY.
- 19. WET SET: REINFORCEMENT MAY NOT BE WET SET IN CONCRETE
- 20. ROUGHENED SURFACES: WHERE INDICATED ON THE DRAWINGS, ROUGHENED SURFACES SHALL BE PROVIDED BY MEANS OF HEAVY RAKING OR GROOVING. SURFACES SHALL BE ROUGHENED TO A 1/4" AMPLITUDE. OTHER METHODS MAY BE ACCEPTABLE PENDING WRITTEN APPROVAL FROM THE ENGINEER. ALL INTERFACING SURFACES MUST BE CLEAN AND FREE OF LOOSE MATERIALS.
- 21. **ADMIXTURES:** NO ADMIXTURES SHALL BE ADDED TO THE CONCRETE MIX WITHOUT THE APPROVAL OF THE ENGINEER, UNLESS NOTED OTHERWISE. ADMIXTURES OR CONCRETE CONTAINING CHLORIDES SHALL NOT BE USED IN THE POST—TENSIONED SLABS.
- **22. WATER:** FRESH, CLEAN, POTABLE, FREE FROM OIL, INJURIOUS MATERIALS, ACIDS, ALKALIS, SALTS, ORGANIC MATTER OR OTHER DELETRIOIUS SUBSTANCES.
- 23. CURING AND SEALING MATERIALS: CLEAR WATER-BASED CURE-SEAL-HARDENER, MEMBRANE FORMING, 20% SOLIDS, COMPLYING WITH ASTM C-309, TYPE I, CLASS B, EUCLID CHEM-ICAL COMPANY "DIAMOND CLEAR VOX", (NO KNOWN EQUAL).

COMPATIBILITY: VERIFY COMPATIBILITY OF CURING COMPOUND WITH FINISHES TO BE APPLIED AFTER CURING PERIOD. NOTIFY THE OWNER'S REPRESENTATIVE'S CONSULTANT OF INCOMPATIBILITES. CORRECT AS DIRECTED BY THE OWNER'S REPRESENTATIVE'S CONSULTANT PRIOR TO PROCEEDING WITH CURING OPERATIONS.

- 24. **NON-SHRINK GROUT:** ASTM C-1107
- 25. EPOXY: SIMPSON SET-XP (ESR-2508) OR APPROVED EQUAL.

MASONRY

- CONCRETE MASONRY UNITS: ALL BLOCKS SHALL CONFORM TO GRADE N UNITS GIVEN IN ASTM C90, LATEST EDITION, AND IN ADDITION SHALL HAVE A LINEAR SHRINKAGE OF 0.065% MAXIMUM FROM SATURATED TO THE OVEN DRY CONDITION. MASONRY UNITS SHALL HAVE CURED FOR NOT LESS THAN (28) DAYS WHEN PLACED IN THE STRUCTURE. PROVIDE ALL BOND BEAM UNITS, LINTELS, ETC., AS REQUIRED.
- 2. **DEFECTIVE UNITS:** DO NOT USE CHIPPED OR CRACKED BLOCKS. IF ANY SUCH BLOCKS ARE DISCOVERED IN ANY FINISHING WALL, THEY SHALL BE PROMPTLY REMOVED AND REPLACED WITH NEW BLOCKS TO THE APPROVAL OF THE ENGINEER.
- 3. **CEMENT:** SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150, TYPE I OR TYPE II, AND SHALL BE ENTIRELY OF ONE MANUFACTURER.
- 4. **WATER:** WATER USED FOR MORTAR AND GROUT SHALL BE CLEAN AND FREE FROM DELETERIOUS AMOUNTS OF ACIDS, SALTS, ALKALI, AND ORGANIC MATERIALS.
- AGGREGATES: SAND FOR MORTAR SHALL CONFORM TO ASTM C144 EXCEPT THAT NOT LESS THAN 3% OF THE SAND SHALL PASS THE NUMBER 100 SIEVE. SAND AND PEA GRAVEL FOR GROUT SHALL CONFORM TO ASTM C404, TABLE 1, COARSE AGGREGATE, EXCEPT WHEN OTHER GRADINGS ARE SPECIFICALLY APPROVED BY THE ENGINEER.

MASONRY (cont'd.)

- 6. QUICKLIME: QUICKLIME SHALL CONFORM TO ASTM C5.
- 7. MORTAR: SHALL BE TYPE M UNLESS OTHERWISE NOTED.
- 8. **GROUT:** FOR PUMPING SHALL BE FLUID CONSISTENCY AND SHALL NOT HAVE LESS THAN (5) SACKS OF CEMENT IN EACH CUBIC YARD OF GROUT. THE MIX SHALL BE REVIEWED BY THE ENGINEER. FLUID CONSISTENCY SHALL MEAN A CONSISTENCY AS FLUID AS POSSIBLE FOR POURING WITHOUT SEGREGATION OF THE CONSTITUENT PARTS.
- 9. **ADMIXTURES:** THE USE OF ADMIXTURES SHALL NOT BE PERMITTED IN MORTAR OR GROUT UNLESS SUSTAINING DATA HAS BEEN SUBMITTED TO AND REVIEWED BY THE ENGINEER. THE USE OF ADMIXTURES IN MORTAR SHALL NOT BE PERMITTED WITHOUT REDUCING THE LIME CONTENT. THE USE OF UNCONTROLLED FIRE CLAY, DIRT, AND OTHER DELETERIOUS MATERIALS IS PROHIBITED.
- MIXING: PLACE THE SAND, CEMENT AND WATER IN THE MIXER IN THAT ORDER FOR EACH BATCH OF MORTAR OR GROUT AND MIX FOR A PERIOD OF AT LEAST 2 MINUTES. ADD THE LIME AND CONTINUE MIXING FOR AS LONG AS NEEDED TO SECURE A UNIFORM MASS, BUT IN NO CASE LESS THAN 10 MINUTES. USE MIXERS TO SECURE A UNIFORM CAPACITY. BATCHES REQUIRING FRACTIONAL SACKS WILL NOT BE PERMITTED UNLESS CEMENT IS WEIGHED FOR EACH SUCH BATCH. RETEMPER MORTAR ONLY BY ADDING WATER INTO A BATCH MADE WITH THE MORTAR AND THEN CAREFULLY WORKING THE WATER INTO THE MORTAR. RETEMPERING THE MORTAR BY DASHING WATER OVER THE MORTAR SHALL NOT BE PERMITTED. ANY MORTAR OR GROUT WHICH IS UNUSED WITHIN ONE HOUR AFTER INITIAL MIXING SHALL BE REMOVED FROM THE WORK. MORTAR SHALL BE MIXED AND MAINTAINED ON THE BOARDS TO A SLUMP OF 2-3/4INCHES PLUS OR MINUS 1/4 INCH USING A TRUNCATED CONE 4 INCHES BY 2 INCHES; 6 INCHÉS HIGH.
- 11. **CONSTRUCTION JOINTS:** WHEN GROUTING IS STOPPED FOR A PERIOD OF ONE HOUR OR LONGER, FORM HORIZONTAL CONSTRUCTION JOINTS BY STOPPING THE GROUT POUR 1-1/2 INCHES MINIMUM BELOW THE UPPER-MOST UNIT.
- 12. ALIGNMENT OF VERTICAL CELLS: ALL MASONRY SHALL BE BUILT TO PRESERVE THE UNOBSTRUCTED VERTICAL CONTINUITY OF THE CELLS TO BE FILLED. THE VERTICAL ALIGNMENT SHALL BE SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED VERTICAL FLUE MEASURING NOT LESS THAN 3 INCHES BY 3 INCHES, EXCEPT WHERE OPEN END UNITS ARE USED.
- 13. **LAYING:** IN PLACING MORTAR IN HORIZONTAL JOINTS, COMPLETELY COVER THE FACE SHELLS OF THE UNITS WITH MORTAR. SOLIDLY FILL ALL HEAD JOINTS. LAY ALL MASONRY WITH COMMON OR RUNNING BOND. HOLD RAKING TO A MINIMUM.
- 14. WALL CLEANING AND PROTECTION: REMOVE CONCRETE SCUM AND GROUT STAINS ON THE WALL IMMEDIATELY. AFTER THE WALL IS CONSTRUCTED, DO NOT SATURATE WITH WATER FROM CURING OR, ANY OTHER PURPOSE. CHECK ALL JOINTS FOR TIGHTNESS AND, WHERE CRACKS ARE VISIBLE, CHIP OUT THE MORTAR, TUCK POINT AND TOOL TO MATCH ADJACENT JOINT.
- 15. **REINFORCEMENT:** REINFORCEMENT SHALL BE FULLY EMBEDDED IN GROUT. SEE STRUCTURAL NOTES & DETAILS FOR SIZE, GRADE, LAPS,
- 16. **GROUT QUALITY:** GROUT FILL FOR CELLS SHALL CONSIST OF ONE PART PORTLAND CEMENT TO NOT MORE THAN (3) PARTS SAND, TO (2) PARTS PEA GRAVEL, 3/8 INCH MAXIMUM SIZE COARSE AGGREGATE. GROUT FILL USING COARSER AGGREGATE MAY BE USED IF THE MIX IS PROPERLY DESIGNATED AND APPROVED BY THE ENGINEER. THE MAXIMUM SIZE OF AGGREGATE USED SHALL NOT EXCEED 1/5 THE LEAST LATERAL DIMENSION OF THE CELL TO BE FILLED. GROUT SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT (28) DAYS. REPLACE 30% OF CEMENT CONTENT WITH WITH FLY ASH OR SLAG.
- 17. **GROUTING:** ALL WALLS SHALL HAVE ALL CELLS FILLED SOLID WITH GROUT.
- 18. **DOWELS:** ALL VERTICAL WALL REINFORCEMENT SHALL HAVE DOWELS EQUAL IN SIZE EMBEDDED INTO FOOTING UNLESS NOTED OTHERWISE ON THESE PLANS.
- 19. **STRENGTH:** ULTIMATE COMPRESSIVE STRENGTH (f'm) SHALL BE 1,500 PSI MINIMUM.

MAXIMUM HEIGHT: MAXIMUM HEIGHT OF ANY GROUT POUR SHALL NOT BE GREATER THAN 5 FEET UNLESS PROPER HIGH—LIFT PROCEDURES ARE USED.

20. MASONRY REBAR LAP LENGTH:

BAR SIZE

21. REINFORCING COVER: 2 INCHES THROUGHOUT.

STRUCTURAL STEEL NOTE & STEEL DECK SECHEDULE

STRUCTURAL STEEL NOTES:

 STRUCTURAL STEEL SHALL BE SUPPLIED, DETAILED, FABRICATED & ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS LATEST EDITION.

a. WF BEAMS ASTM A992
b. STEEL TUBES ASTM A500 GR B.
c. STEEL ANGLE ASTM A36

CHANNELS & MISC. STEEL SECTIONS

d. BASE PLATES ASTM A36
& SHEAR TABS
e. BOLTS ASTM A325N
f. WELDED STUDS ASTM A307

- 2. WELDING SHALL CONFORM TO AWS SPECIFICATION & BE PERFORMED BY CERTIFIED WELDERS.
 - a. DECKING, GRATING, AND ALL ACCESSORIES SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A446, GRADE A. THE STEEL SHALL HAVE A METAL PROTECTIVE COATING OF ZINC CONFORMING TO ASTM A525 CLASS G60.
 - b. WELD STEEL DECK & GRATING TO SUPPORTS AS FOLLOWS:1. PLUG WELDS WITH EFFECTIVE FUSION DIAMETER OF 1/2"
 - AT EACH FLUTE AT EACH SUPPORT INCLUDING END SUPPORTS.
 - PLUG WELDS WITH EFFECTIVE FUSION DIAMETER OF 1/2" @ 12" o.c.
 AT ALL PANEL EDGE FLUTES LANDING ON BEAMS PARALLEL TO FLUTES.
 MIN. BEARING OF STEEL DECK ON SUPPORTS SHALL BE 2"
- 3. ALL EXPOSED STEEL TO BE PAINTED WITH ZINC—RICH PAINT. SEE ARCH. DWGS FOR FINISH COATING REQUIREMENTS.

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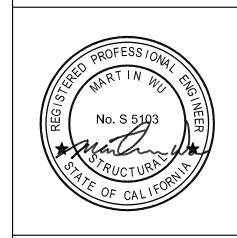
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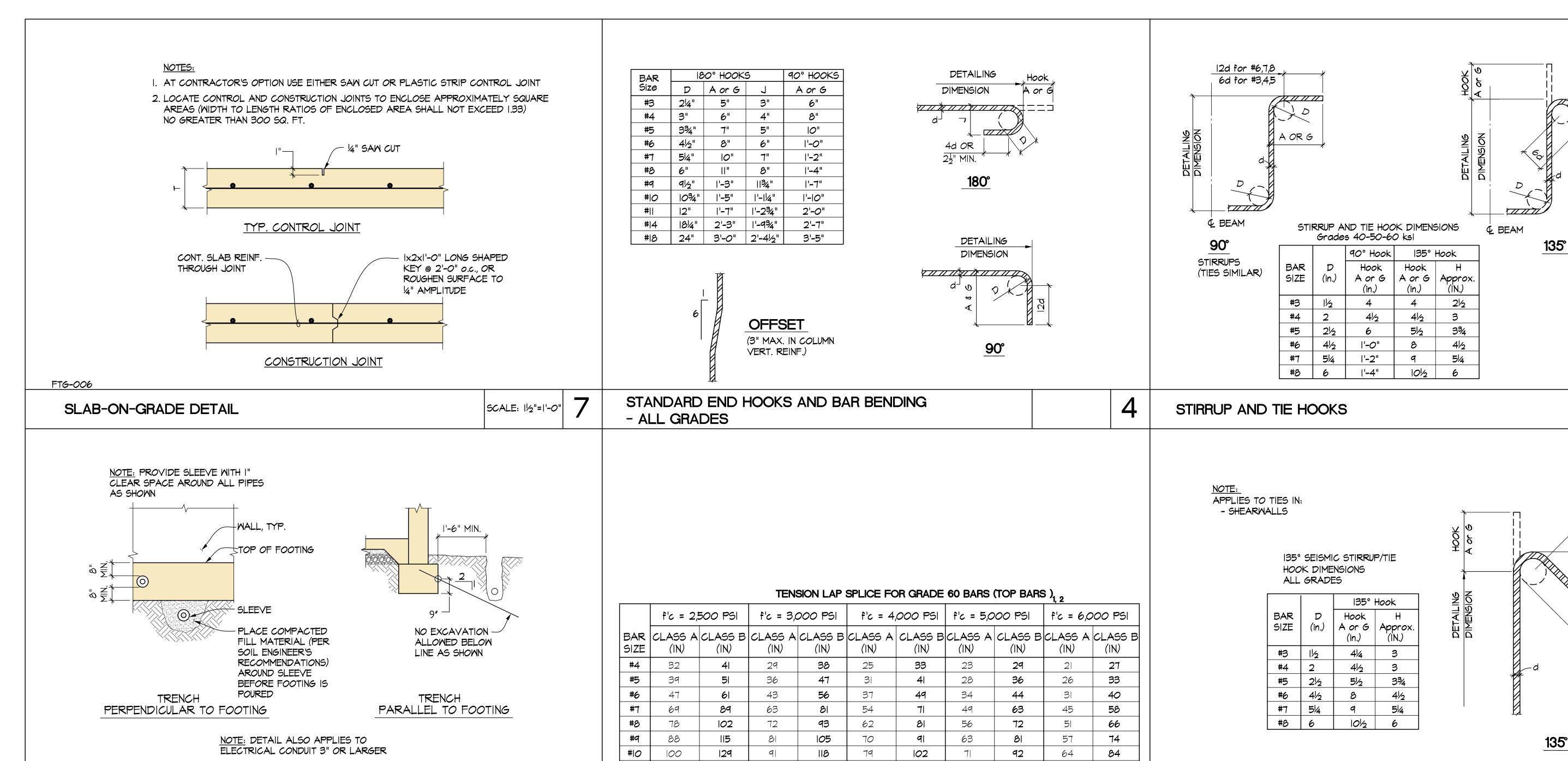
MATERIAL
NOTES & SPEC.

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	f'c = 2,	500 PSI	f'c = 3,0	000 PSI	f'c = 4,	000 PSI	f'c = 5,0	000 PSI	f'c = 6,0	000 PSI
BAR SIZE	CLASS A	CLASS B	CLASS A	CLASS B	CLASS A (IN)	CLASS B	CLASS A (IN)	CLASS B	CLASS A (IN)	CLASS B
#4	32	41	29	38	25	33	23	29	21	27
#5	39	51	36	47	31	41	28	36	26	33
#6	47	61	43	56	37	49	34	44	31	40
#7	69	89	63	81	54	71	49	63	45	58
#8	78	102	72	93	62	81	56	72	51	66
#9	88	115	81	105	70	91	63	81	57	74
#10	100	129	91	118	79	102	71	92	64	84
#	110	143	101	131	87	114	78	102	71	93

TENSION LAP SPLICE FOR GRADE 60 BARS,

BAR CLASS A CI SIZE (IN) #4 24	(IN) 32	(IN)	CLASS B (IN)	CLASS A	CLASS B	CLASS A	CLASS B	CLASS A	CLASS B
#4 24	32			(113)	(IN)	(IN)	(IN)	(IN)	(IN)
		22	29	19	25	17	23	16	21
#5 3 <i>0</i>	39	28	36	24	31	22	28	20	26
#6 36	47	33	43	29	37	26	34	24	31
#7 53	69	48	63	42	54	38	49	34	45
#8 60	78	55	72	48	62	43	56	39	51
#9 68	88	62	81	54	70	48	63	44	57
#10 77	100	70	91	61	79	54	71	50	64
#11 85	110	78	101	67	87	60	78	55	71

SCALE: 3/8"=1'-0"

FTG-004

PIPE AND TRENCH CLEARANCE AT FTG. AS

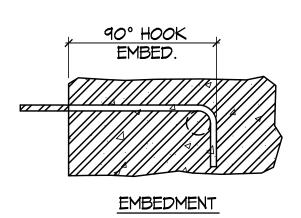
NEEDED FOR CIVIL/MECH/ELEC/PLUMBING

- I TOP BARS = HORIZONTAL BARS (OTHER THAN IN WALLS) PLACED WITH MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW, THEM.
- 2 ABOVE TABLES ARE BASED UPON MINIMUM CLEAR COVER GREATER THAN I.Odb AND MINIMUM CLEAR SPACING GREATER THAN 2db. WHERE EITHER OF THESE REQUIREMENTS IS NOT MET, INCREASE LAP LENGTH BY 50%.
- 3 USE CLASS B FOR ALL BAR SPLICES, U.N.O.
- 4 FOR CLASS "A" LAP LENGTHS TO BE USED, THE FOLLOWING SHALL BE MET. I) ONE-HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN
- THE REQUIRED LAP LENGTH. 2) STAGGER SPLICES BY THE LARGER OF THE REQUIRED LAP LENGTH OR 5'-0" MIN.

135° SEISMIC STIRRUP/TIE HOOKS

| 2,500 PSI | 3,000 PSI | 4,000 PSI | 5,000 PSI EMBED. BAR EMBED. EMBED. EMBED. (in.) SIZE (in.) (in.) (in.) #3⁽²⁾ #4 12 10 12 15 15 13 18 20 17 15 #8 24 22 19 17 27 25 22 20

EMBEDMENT OF STANDARD HOOKS FOR GRADE 60 REINF.

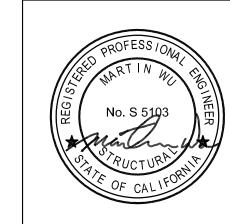


- I. WHERE REQUIRED EMBEDMENT IN MAIN BARS CANNOT BE OBTAINED WITH STRAIGHT BARS PROVIDE 90° HOOK EQUALING LENGTH SHOWN ABOVE (U.N.O. IN DETAILS.)
- 2. Fy = 40ksi

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GENERAL DETAILS

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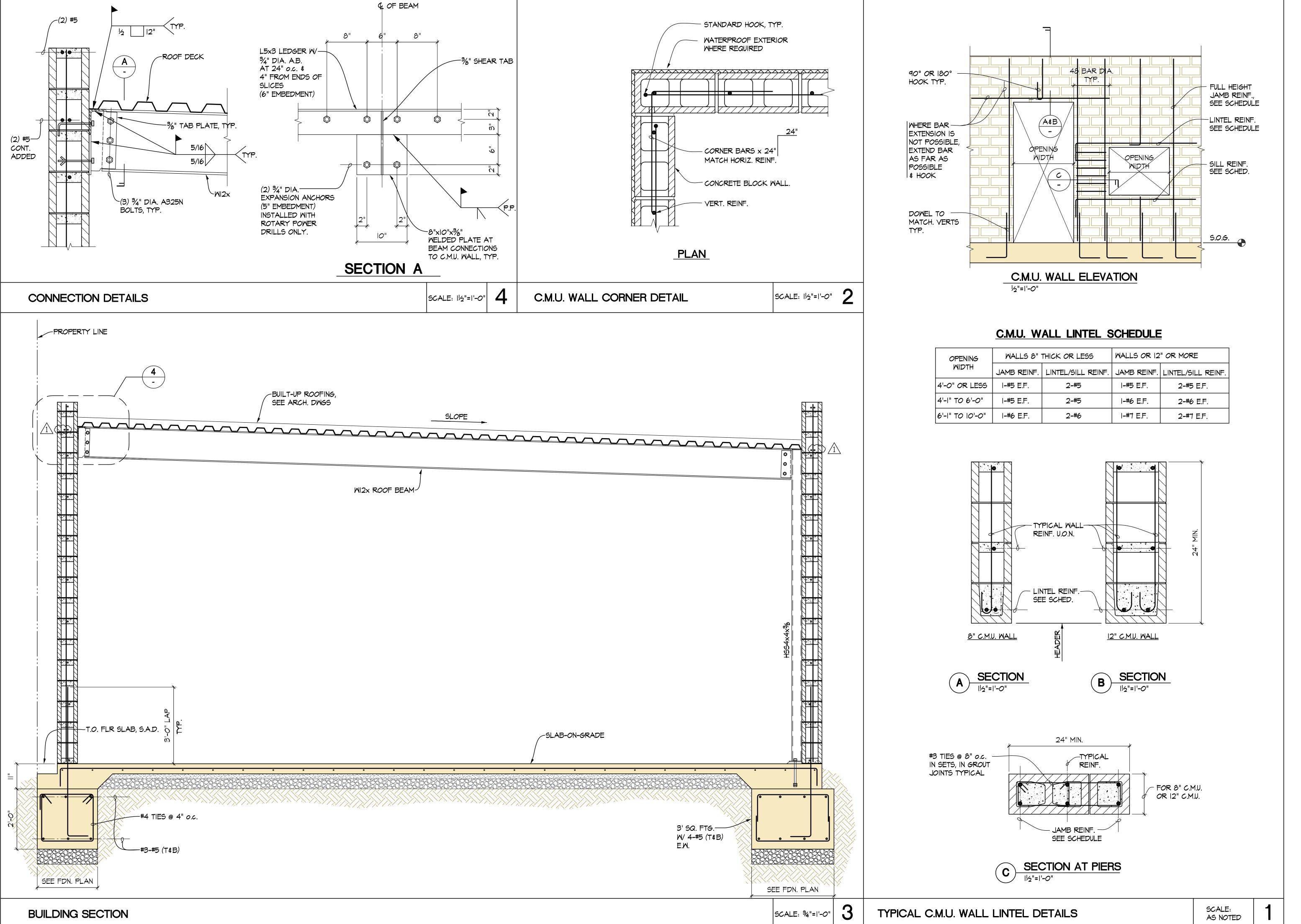
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TENSION LAP SPLICE SCHEDULE

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REINFORCING EMBEDMENT FOR STANDARD HOOKS



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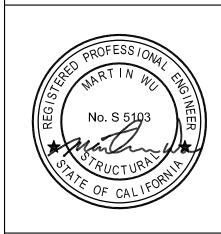
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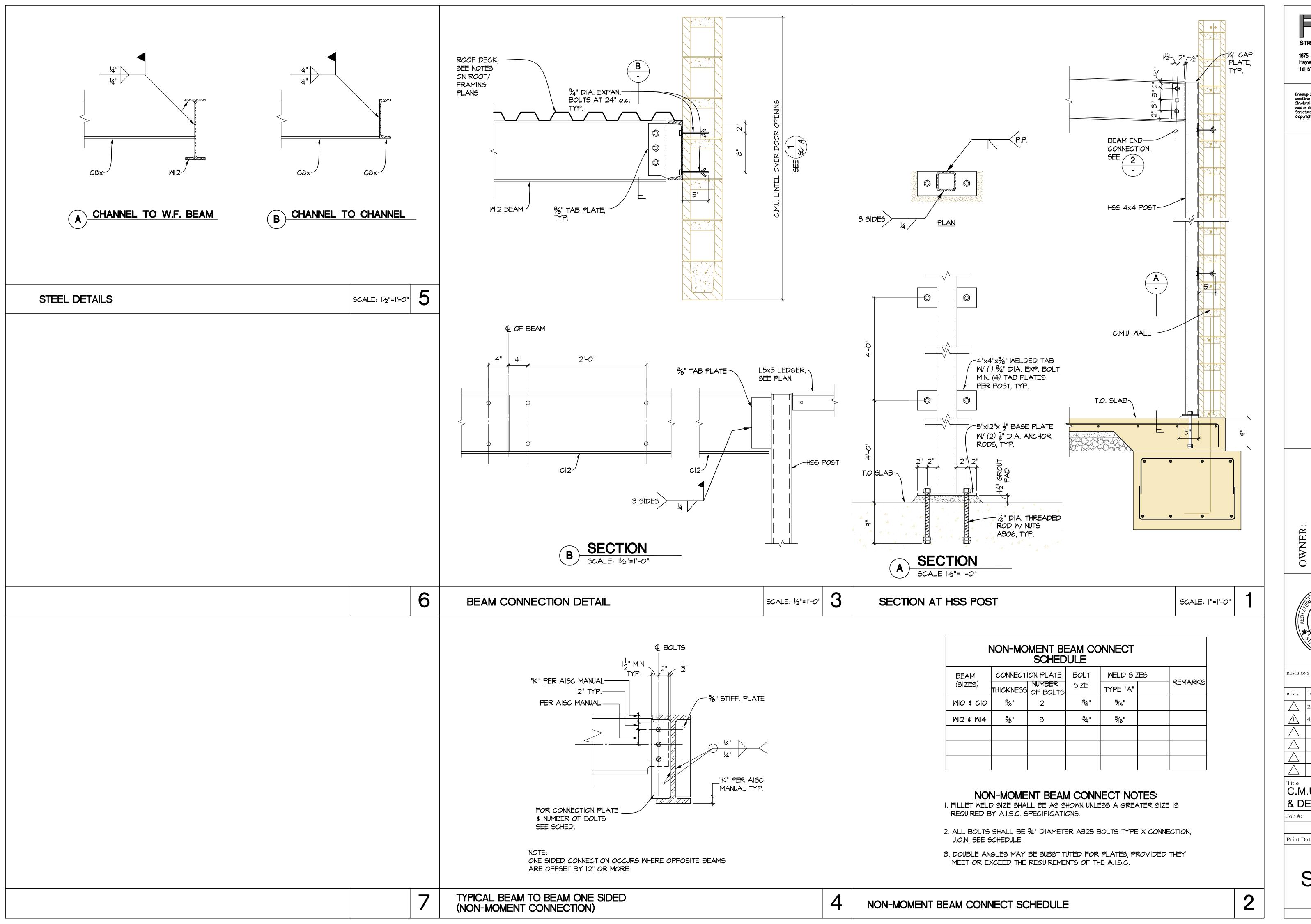
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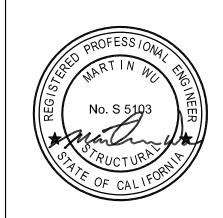
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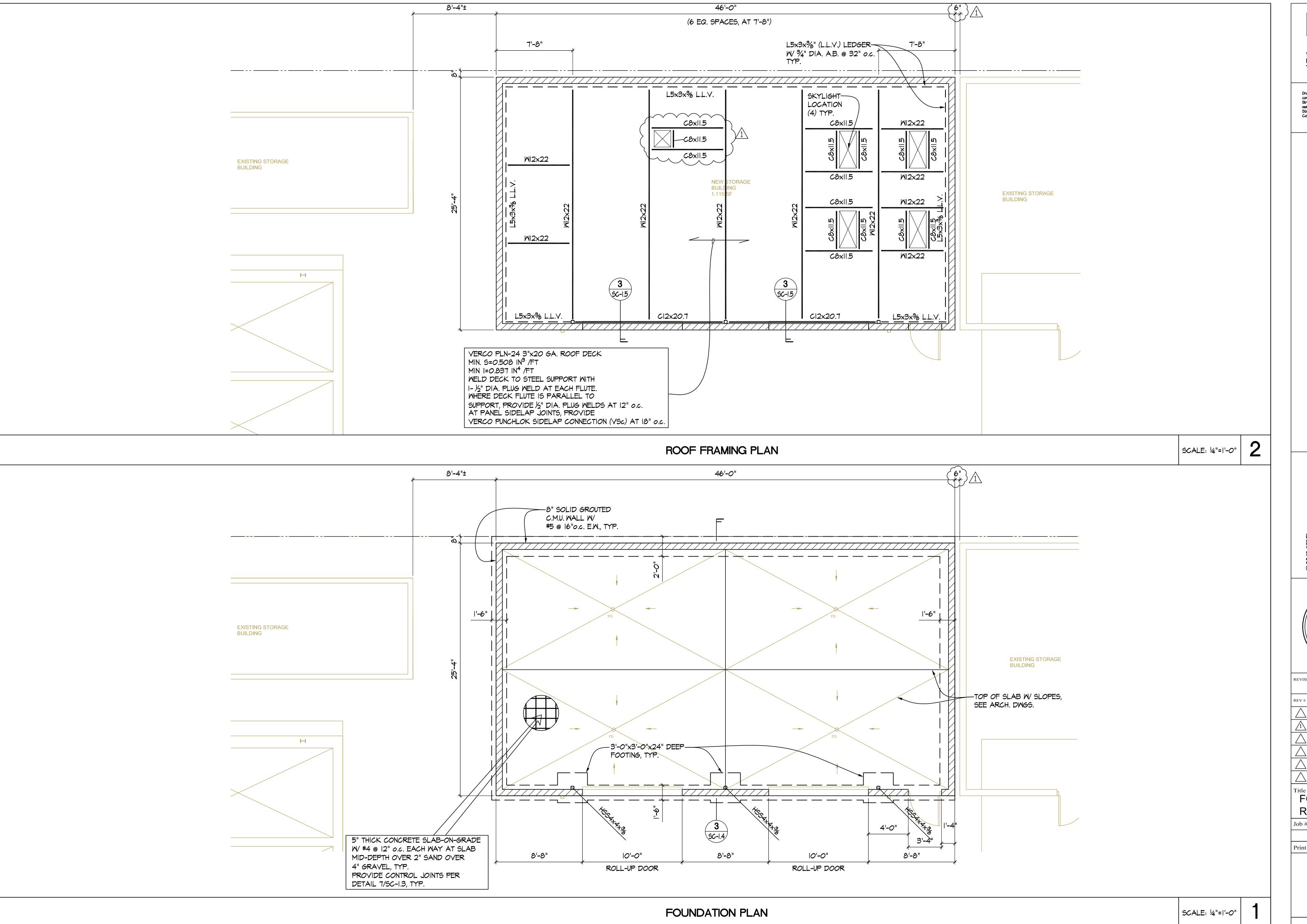
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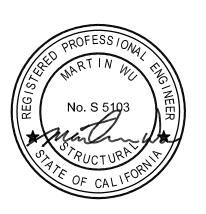
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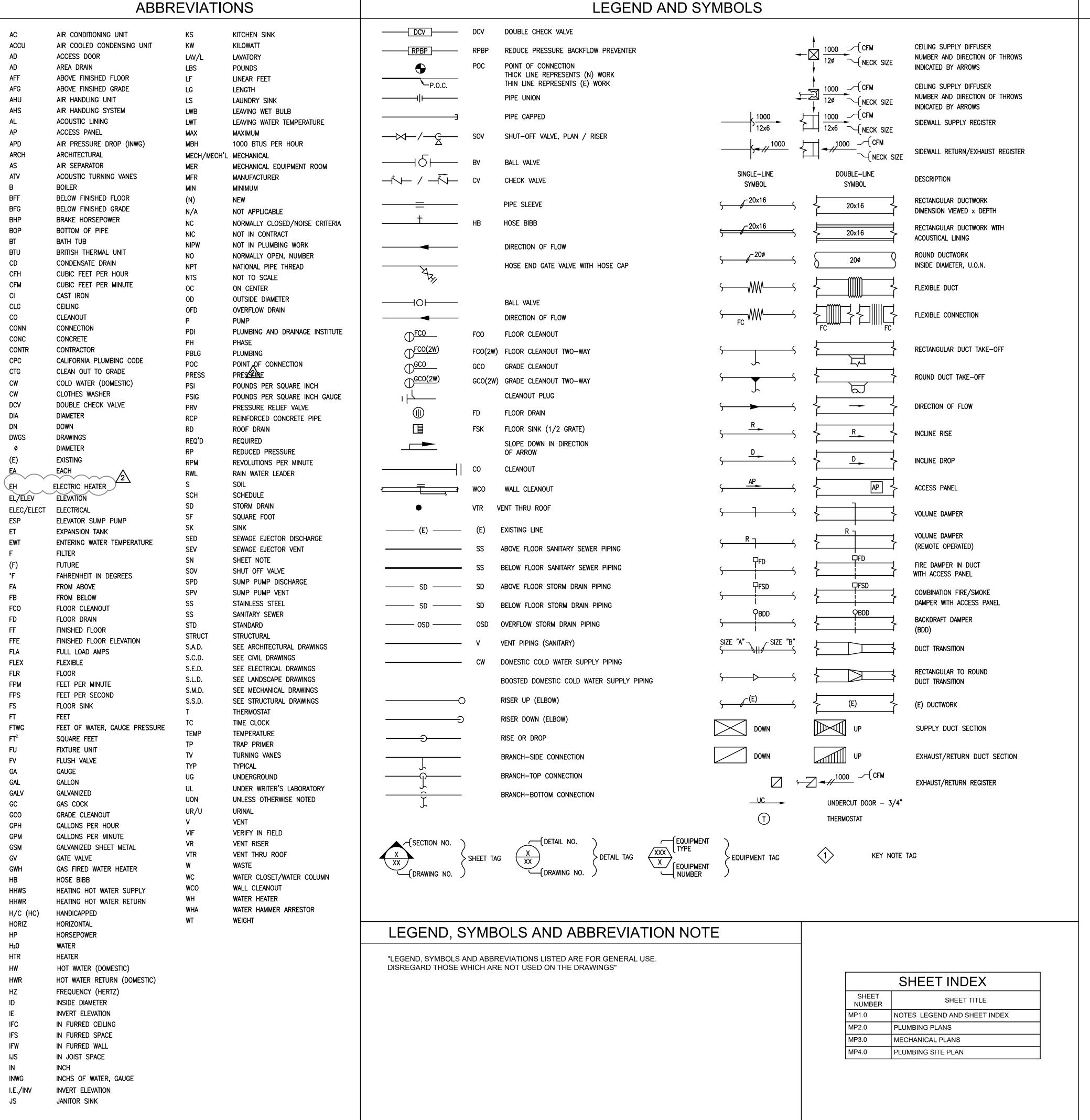
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GENERAL NOTES

- 1. OWNER SHALL PAY AND OBTAIN FOR ALL REQUIRED UTILITY SERVICES, INSPECTIONS AND PERMITS.
- 2. ALL WORK SHALL COMPLY WITH THE 2022 CALIFORNIA PLUMBING CODE.
- 3. PRIOR TO BIDDING, THE CONTRACTOR SHALL OBTAIN COPY OF THE PLANS AND SPECIFICATIONS AND EXAMINE THEM. ANY DISCREPANCIES OR CONFLICTS IN THE DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ARCHITECT AND/OR ENGINEER, IN WRITING, BEFORE BIDS ARE SUBMITTED. NO ALLOWANCE WILL BE MADE FOR FAILURE TO SUBMIT DISCREPANCIES TO THE ARCHITECT AND/OR ENGINEER.
- 4. PRIOR TO START OF CONSTRUCTION WORK, <u>PLUMBING CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWING IN ADEQUATE DETAIL FOR REVIEW AND APPROVAL BY THE ARCHITECT AND/OR ENGINEER.</u>
- 5. CONTRACTOR SHALL CLOSELY COORDINATE WORK WITH ALL TRADES.
- 6. VERTICAL AND HORIZONTAL OFFSETS SHOWN IN PIPES INDICATE THE GENERAL RELATIONSHIP OF THE SYSTEMS. PROVIDE ADDITIONAL OFFSETS SIMILAR TO THOSE SHOWN AS REQUIRED TO SUIT CONSTRUCTION AND WORK DONE BY OTHER TRADES. THE CONTRACTOR SHALL PROVIDE ALL. NECESSARY ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
- 7. ALL VALVES, CONTROLS, ETC. SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS. PROVIDE ADEQUATELY SIZED ACCESS DOORS WHERE REQUIRED.
- 8. EXAMINE ARCHITECTURAL DRAWINGS TO ENSURE THAT ALL PIPING CROSSING FIRE AND/OR SMOKE SEPARATION CONSTRUCTION SHALL BE SEALED WITH UL LISTED ASSEMBLIES.
- 9. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.
- 10. OFFSET VENTS AT ROOF AS REQUIRED TO MAINTAIN 10 FEET SEPARATION FROM ANY AIR INTAKE, DOORS, OPERABLE WINDOWS ETC.
- 11. HORIZONTAL SANITARY SEWER PIPES SHALL HAVE 1/4" PER FOOT MINIMUM SLOPE OR 2% MINIMUM FLOW TOWARDS THE DISPOSAL AREA.
- 12. ALL HOSE BIBS SHALL BE PROVIDED WITH NON-REMOVABLE BACKFLOW PREVENTION DEVICE.
- 13. ALL WATER AND DRAINAGE PIPING SYSTEMS SHALL BE INSTALLED WITH ACOUSTICAL ISOLATORS AND SHALL BE ISOLATED FROM ANY STRUCTURAL MEMBERS, WALL SECTIONS OR OTHER MATERIALS THAT COULD TRANSMIT SOUND TO THE OCCUPIED AREAS.
- 14. PIPING PENETRATIONS OF STRUCTURAL MEMBERS SHALL BE IN ACCORDANCE WITH STRUCTURAL DRAWINGS AND MUST BE COORDINATED WITH THE TRADES INVOLVED BEFORE MAKING THE PENETRATIONS.
- 15. PLUMBING CONTRACTOR SHALL CONNECT TO SITE SEWER AND DOMESTIC COLD WATER SUPPLY WITHIN 5 FEET OUT OF BUILDING LINE.
- 16. ALL PIPING ON PLANS IS TYPICALLY SHOWN CONCEALED IN CEILING OR PLUMBING WALLS. RISERS AND OFFSETS SHALL BE CONCEALED IN WALLS OR CEILING UNLESS OTHERWISE NOTED.
- 17. EACH PLUMBER USING A TORCH TO SWEAT PIPE JOINT SHALL HAVE ACCESS TO 2A RATED FIRE EXTINGUISHER AT WORK AREA AND SHALL FIRE WATCH FOR 1/2-HOUR AFTER USE, IN COMPLIANCE WITH THE 2022 CALIFORNIA FIRE CODE (CFC).
- 18. ALL PIPING PENETRATING CONCRETE FLOOR OR WALL MUST BE PROVIDED WITH SLEEVE TO PREVENT PIPE BREAKAGE.
- 19. FURNISH AND INSTALL ANY INCIDENTAL WORK NOT SHOWN OR SPECIFIED WHICH IS NECESSARY TO PROVIDE A COMPLETE AND WORKABLE SYSTEM.
- 20. FOR EXACT LOCATIONS OF PLUMBING FIXTURES, FLOOR DRAINS, FLOOR SINKS, ROOF DRAINS, AREA DRAINS, DECK DRAINS, DOWNSPOUT AND HOSE BIBS, SEE ARCHITECTURAL DRAWINGS AND DETAILS.
- 21. KEEP ALL PLUMBING PIPING AS HIGH AS POSSIBLE TO STRUCTURE ABOVE AND OFFSET AS REQUIRED.
- 22. ANY CONFLICT IN THE DRAWINGS AND/OR SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR RESOLUTION PRIOR TO THE CONSTRUCTION OF SUCH ITEMS.
- 23. ALL PIPING PENETRATIONS THROUGH RATED WALL, CEILING OR FLOOR SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 (UL 1479), WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED FIRE—RESISTANCE RATING OF THE WALL PENETRATED.
- 24. COORDINATE ROUGH-IN OF ALL WORK WITH EQUIPMENT/FIXTURE REQUIREMENTS AND OTHER TRADES.
- 25. ALL PLUMBING EQUIPMENT SHALL BE SECURELY FASTENED TO THE BUILDING STRUCTURE.
- 26. WHERE MAIN PIPE SIZE IS NOT INDICATED BETWEEN BRANCH CONNECTIONS IN THE DRAWING, THE PIPE SIZE SHALL BE OF THE LARGER PRECEDING PIPE
- 27. ALL VALVES AND ACCESSORIES SHALL BE FULL LINE SIZE. PROVIDE ALL NECESSARY UNIONS, REDUCERS AND STOPS AS REQUIRED WHEN CONNECTING TO EACH FIXTURE AND/OR EQUIPMENT.
- 28. PROVIDE CLEANOUTS ON DRAINAGE LINES IN ACCORDANCE WITH THE PLUMBING CODE AND AS INDICATED ON THE DRAWINGS.
- 9. PROVIDE DEEP SEAL TRAPS ON ALL FLOOR DRAINS.
- 30. ALL DRAINS FROM RELIEF VALVES, CONDENSATE PANS, COILS AND HVAC EQUIPMENT HAVING DRAINS SHALL BE PIPED TO NEAREST DRAIN UNDER THIS SECTION OF WORK.
- 31. ALL PIPING IN CONCRETE FOUNDATIONS, AND WALLS, INCLUDING BLOCK WALLS SHALL BE FULLY INSULATED TO ISOLATE PIPING FROM CONCRETE.
- 32. ALL PLUMBING FIXTURES AND PIPING SHALL BE LISTED BY AN APPROVED LISTING AND TESTING AGENCY AND PROPERLY LABELED PER CPC SECTION 301.1.2.
- 33. ALL DOMESTIC WATER VALVES UP TO AND INCLUDING 2" SIZE SHALL BE BRASS OR OTHER APPROVED MATERIALS. EACH GATE VALVE SHALL BE A FULL-WAY TYPE WITH WORKING PARTS OF NON-CORROSIVE MATERIAL PER CPC 606.1.
- 34. PROVIDE ACOUSTO-PLUMB TYPE PIPE ISOLATOR AT HANGERS FOR COPPER PRESSURE LINES.
- 35. ALL ROOF WORK SHALL BE COORDINATED WITH THE ROOFING CONTRACTOR, AND SHALL COMPLY WITH HIS REQUIREMENTS TO PROTECT THE ROOFING WARRANTY.
- 36. LINE VOLTAGE EQUIPMENT, SUCH AS MOTOR STARTERS, DISCONNECTS SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL ADVISE THE ELECTRICAL CONTRACTOR OF THE REQUIRED SIZES AND CAPACITIES OF ALL SUCH EQUIPMENT
- 37. COORDINATE INSTALLATION WITH THE WORK OF OTHER TRADES PRIOR TO STARTING. IN THE EVENT THAT CONFLICTS ARE FOUND WITH THE WORK OF OTHER TRADES, BRING ALL SUCH CONFLICTS TO THE ARCHITECT & DESIGNER'S ATTENTION FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA.
- 38. GRILLES AND REGISTERS SHALL BE LOCATED SO AS TO BE CENTERED ON ADJACENT ARCHITECTURAL FEATURES, AND WITH THEIR EDGES ALIGNED WITH ONE ANOTHER WHERE APPLICABLE.
- 39. PLATFORMS, CURBS, AND FLASHING FOR MECHANICAL EQUIPMENT SHALL BE COORDINATED WITH MANUFACTURER REQUIREMENTS AND WITH STRUCTURAL AND ARCHITECTURAL PLANS. COORDINATE EXACT SIZES OF REQUIRED OPENINGS AND SUPPORTS FOR FURNISHED EQUIPMENT.
- 40. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS. RECOMMENDATIONS. INSTALL CLEARANCE SPACE FOR MAINTAINING EQUIPMENT PER MANUFACTURER REQUIREMENTS AND ELECTRICAL CLEARANCE REQUIREMENTS.
- 41. ALL EQUIPMENT, DUCTS, PIPING AND OTHER DEVICES AND MATERIALS INSTALLED OUTSIDE OF THE BUILDING OR OTHERWISE EXPOSED TO THE WEATHER SHALL BE COMPLETELY WEATHERPROOFED.
- O COORDINATE LOCATIONS OF THERMOSTATE (SENSORS WITH ARCHITECTURAL ROCHMENTS AND MOUNT RED LATEST ARA REQUIREMENTS
- 42. COORDINATE LOCATIONS OF THERMOSTATS/SENSORS WITH ARCHITECTURAL DOCUMENTS AND MOUNT PER LATEST ADA REQUIREMENTS.
- 43. COORDINATE ALL FLOOR, CEILING AND WALL OPENINGS WITH ARCHITECTURAL AND STRUCTURAL.
- 44. CONTRACTOR IS REQUIRED TO PROVIDE A FULLY FUNCTIONAL AND OPERATIONAL SYSTEM THAT COMPLY WITH ACCEPTABLE TOLERANCES OF PLUS OR MINUS 10% OF THE DESIGN PARAMETERS; SUCH TOLERANCES ARE UP TO THE CONTRACTOR TO DOCUMENT AND PROVE AS REQUIRED. ANY CORRECTIONS REQUIRED IN MEETING THE DESIGN PARAMETERS AND TOLERANCES SHALL BE AT CONTRACTOR EXPENSE. AIR BALANCE TECHNICIAN SHALL BE AABC / NEBB CERTIFIED OR EQUIVALENT.
- 45. MECHANICAL EQUIPMENT AND DEVICES SHALL OPERATE WITHOUT OBJECTIONABLE NOISE AND VIBRATION BEING TRANSMITTED TO OCCUPIED PORTIONS OF THE BUILDING OR ANY PART OF THE BUILDING STRUCTURE BY APPARATUS, PIPING, DUCT WORK, CONDUITS, OR OTHER PARTS OF THE MECHANICAL WORK.
- 46. ENVIRONMENTAL EXHAUST TERMINATIONS SHALL BE MINIMUM 3'0" FROM OPENINGS INTO BUILDING.
- 47. ALL EQUIPMENT GREATER THAN 400 LBS SHALL HAVE STRUCTURAL CALCULATIONS IN ACCORDANCE WITH 2022 CBC.
- 48. EXHAUST DUCTS HALL TERMINATE OUTSIDE OF THE BUILDING PER PROVISIONS OF CMC 502.1.
- 49. ALL ROOFTOP EQUIPMENT SHALL BE INSTALLED ON A WELL DRAINED SURFACE OF THE ROOF PER CMC 303.9.4.



element one

architecture

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23187 CONNECTICUT STREET,

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05/11/23 PLAN CHECK RESPONSE 2

Title
NOTES, LEGEND
AND SHEET INDEX

AND SHEET INDEX

Job #: 00000

Print Date:

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PLUMBING ROOF PLAN

1/4" = 1'-0"



		Р	IPING MAT	FRIAL SCH	FDULF	
PIPE	SCHEDULE 40 DWV PVC/ ABS	TYPE "K" COPPER	TYPE "L" COPPER	TYPE "M" COPPER	GALVANIZED SCHEDULE 40 STEEL	REMARKS
SANITARY SEWER	х					
COLD WATER		X UNDERGROUND	X ABOVEGROUND			TRANSITION FROM EXISTING UNDERGROUND PIPE MATERIAL AND PROVIDED DI-ELECTRIC FITTINGS AS REQUIRED.
VENT	х					

NOTES

1. SUSPENDED PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED THOSE SHOWN IN CPC TABLE 3-2.

2. HANGER ROD SIZES SHALL BE NO SMALLER THAN THOSE SHOWN IN CPC TABLE 3-1.

3. LABEL PIPING PER ANSI STANDARDS.

	DRAIN	S AND ACCESS	ORY SCHEDUL	.E
TAG	MANUFACTURER	MODEL NO	STRAINER/COVER TYPE	REMARKS
FD-1 (FLOOR DRAIN)	JR SMITH	#2142Y-U CAST IRON BODY AND FLASHING COLLAR OR APPROVED EQUAL	CAST IRON TRACTOR GRATE AND SOLID FREE STANDING SEDIMENT BUCKET	VANDAL PROOF GRATE
FSK-1 (FLOOR SINK)	JR SMITH	#3100Y-11 NO HUB OUTLET OR APPROVED EQUAL	CAST IRON FLANGED RECEPTOR WITH SEEPAGE HOLES ACID RESISTANT COATED INTERIOR, NICKEL BRONZE RIM, ALUMINUM DOME BOTTOM STRAINER	INSTALL WITH TOP OF RIM FLUSH WITH FINISHED FLOOR OR AS DIRECTED TO BY OWNER/ DISTRICT.
FCO	JR SMITH	4100 SERIES		FLOOR CLEANOUT
WCO	JR SMITH	4720 COVER		WALL CLEANOUT

					ZOC	om			
	TAG	DESCRIPTION	MFTR/MODEL NO.	SPECIFICATIONS		IIN PIPI NECTIO VENT	ONS, II	NCH	REMARKS
1	НВ	HOSE BIBB	JAY R SMITH FIG 5670 OR APPROVED EQUAL	BENT NOSE WITH FLANGE AND VACUUM BREAKER			3/4"		3/4" HOSE CONNECTION, REMOVABLE WHEEL HANDLE.
	BFP-1	BACKFLOW PREVENTER	WATTS SERIES 007 OR APPROVED EQUAL	DOUBLE CHECK VALVE ASSEMBLY			1"		ASSE STANDARD, IAPMO PS31, UPC. VERTICAL FLOW UP INSTALL. BRONZE,

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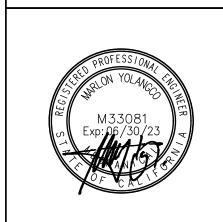
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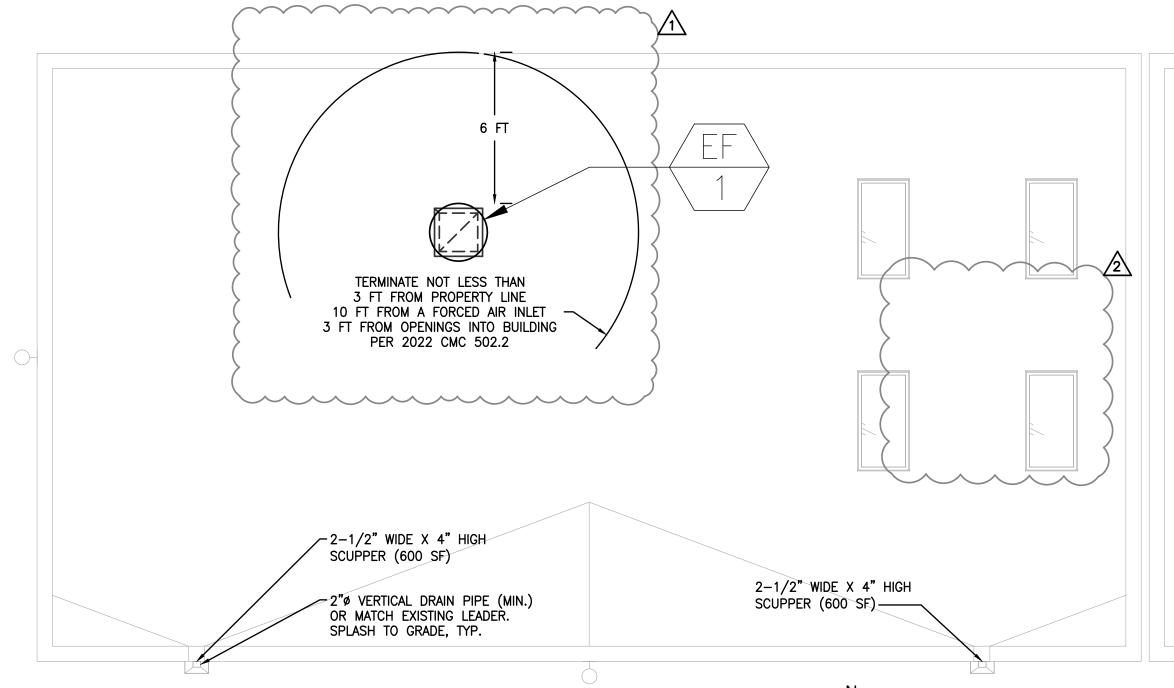
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PLUMBING PLANS

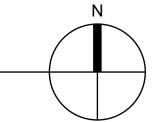
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MECHANICAL ROOF PLAN



EXHAUST FAN SCHEDULE FAN DATA **UNIT TAG** SP MANUFACTURER MODEL SYSTEM / LOCATION CONTROL WEIGHT REMARKS CAPACITY HP FAN RPM VOLT/PH/Hz SONES TYPE **CFM** LBS IN. WG THERMOSTAT (ADJUSTABLE) EXHAUST FAN / ROOF EF-1 G-100-A **ROOF** 1725 1, 2, 3, 4, 5 **GREENHECK** 0.6 10.4 0.3 120/1/60 INITIALLY SET AT 80°F

- 1. PROVIDE WITH BACKDRAFT DAMPER.
- 2. INSTALL PER MANUFACTURER'S INSTRUCTIONS. 3. SET FAN TO ACTIVATE ON LINE VOLTAGE THERMOSTAT.
- 4. PROVIDE WITH ROOF CURB.
- ELECTRICAL WIRING AND CONDUIT BY ELECTRICAL DIVISION

							LOUVER	R SCHE	DULE		
TAG	QTY	MFTR	MODEL	WIDTH (in)	HEIGHT (in)	AIR FLOW (cfm)	FREE AREA (sq ft)	FREE AREA %	FREE AREA VEL (fpm)	PRESSURE DROP (w.g.)	WATER PENETRATION SAFETY FACTOR
L-1	1	RUSKIN	L811	36	21	1200	1.96	37	613	0.08	1.18

INSTALLATION **INSTRUCTIONS**

- All wiring must be in accordance with National and Local Electrical Codes.
- Heater must be grounded as a precaution against possible shock. To avoid possible electrical shock, disconnect all power at the main panel prior to wiring. Verify the power supply voltage coming to the heater
- matches the heater nameplate rating (on back of heater) before energizing heater.

 - When installed, heater must be electrically grounded in accordance with the National Electrical Code.
- See Figures 1 and Tables 1 for minimum mounting clearances.

CAUTION

- Use only with copper branch circuit conductors. - Use supply wires suitable for 90 °C (194 °F) Minimum mounting height: 6 ft. (1.8 m) in ÚSA and 8 ft. (2.4 m) in Canada. High temperature, risk of fire, keep electrical cords, drapery,
- furnishings, and other combustibles at least 36 in. (915 mm) from the front of the heater and away from the sides and rear. To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.
- To prevent possible overheating or damage due to overheating keep at least 5 ft. (1524 mm) clearance in front of heater. See **Tables 1** for side, ceiling and back minimum mounting
- Wall/Ceiling structures and anchoring must be sufficient strength to support the combined weight of the heater and mounting bracket. See **Table 5**.

LOCATE THE HEATER PROPERLY

The heater may be mounted for either horizontal or vertical heated air discharge.

Note: Install accessories in accordance with their installation instructions prior to mounting heater.

HEATER INSTALLATION **Horizontal Air Discharge Mounting**

The factory supplied wall/ceiling brackets may be used or threaded rod (not supplied) may be used.

See Figure 2 and Table 2 for threaded rod size and spacing.

If heater is mounted with control compartment toward wall insure that heater is mounted with enough clearance to the wall (minimum = width of heater) to allow the control compartment

WIRING

All wiring must be in accordance with National and Local Electrical Codes.

The heater must be grounded as a precaution against possible shock. Insure power source is deenergized before wiring heater.

Connect heater only to voltage and phase specified on nameplate. Two knock-outs are provided in the back of the heater: For supply power wiring:

a multiple 1/2 in. to 3/4 in. (13 mm to 19 mm) knock-out. Models 7.5 kW and more. a multiple 1 3/8 in. to 1 3/4 in. (35 mm to 44 mm) knock-out. For control wiring:
- 1/2 in. (13 mm) knock-out.

Field wiring must be properly sized to carry the amperage of the heater and all accessories. The heater has a wiring diagram affixed to the inside of the control

compartment access door. Check this diagram before making any

Wiring compartment volume: 85 in.³ (1393 cm³) minimum.

Figure 1 Minimum Clearances

Heater	Discharge	A	B	C
kW	Air	Ceiling	Side	Back
5.1 to	Horizontal	4 in. 102 mm	6 in. 152 mm	6 in. 152 mm

Figure 2 Threaded Rod Horizontal Air	Spacing Dimensions Discharge	S
		G

Table 2 Threaded Rod Spacing Dimensions Horizontal Air Discharge										
Heater kW	Threaded Rod	E	F	G	Н					
5.1 to 10.0 kW	3/8 - 16	12 in. 305 mm	5 in. 127 mm	6 in. 152 mm	7/16 in. 11 mm					

Table 5 Dimensions and Weight										
Heater kW	Height	Width	Depth	Weight						
5.1 to 10.0 kW	24 1/2 in. 622 mm	22 in. 559 mm	10 7/8 in. 276 mm	67 lb 30 kg						

→ EH-1 (ELECTRIC HEATER) EGEB CYCLONE COMMERCIAL UNIT HEATER

FEATURES

COLOR

Standard: almond

FINISH Standard: epoxy/polyester powder paint

VOLTAGE

208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-phase

CONSTRUCTION

- Draw-through design for more evenly heated air Specially designed outlet diffuser provides maximum air velocity
- Individually adjustable louvers to direct discharge Airflow
- High-limit temperature control with automatic reset 18 and 20 gauge steel

- Motor totally enclosed thermally protected
- Motor mounted in ambient air stream, shielded from heating elements

Fan delay purges heater of residual heat for longer life

Stainless steel sheath with aluminum fins

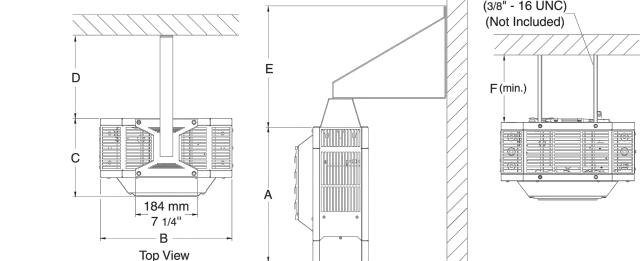
HEATING ELEMENT

 Draw-through design permits greater heat transfer 5-year warranty against defects

DIMENSIONS

REZNOR°

Electric Heater Catalog • Page 4



EGEB CYCLONE COMMERCIAL UNIT HEATER continued

	2 -	- 5kW	7.5 -	10kW	15 - 20kW	
	mm	inch	mm	inch	mm	inch
	416	16 3/8	622	24 1/2	622	24 1/2
	395	15 9/16	559	22	559	22
	231	9 1/8	276	10 7/8	412	16 1/4
	244	9 5/8	357	14 1/16	289	11 3/8
	373	14 11/16	507	19 15/16	556	21 7/8
	152	6	254	10	152	6
	kg	lb	kg	lb	kg	lb
۱ ۱	18	40	30	67	41	90

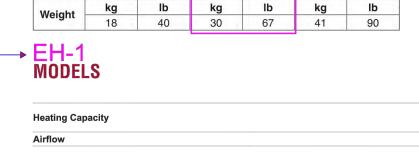
@ 240V and Higher



Ship Weight

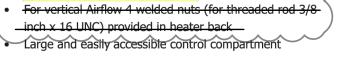
Country Code

Factory Installed Option





Canadian Destination/Approvals



WARRANTY

(for horizontal discharge Airflow)

All models have factory installed contactor

transformer if needed)

(factory or field installed)

Minimum mounting height:

U.S. - 6 ft. (1.8 m)

Canada - 8 ft. (2.4m)

INSTALLATION

240/208V control circuit standard on all models (with

Full line of unit mounted control accessories available

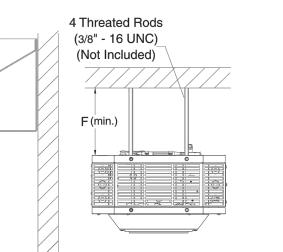
Horizontal or vertical discharge Airflow

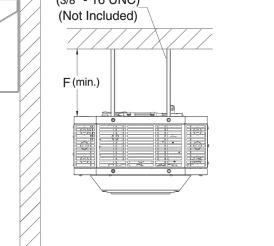
Includes wall and ceiling mounting brackets

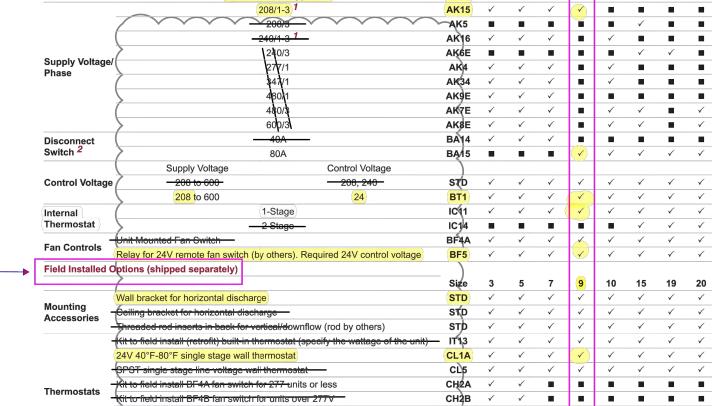
APPLICATION

CONTROL

Factory, warehouse, garage, store, shipping room







Kit to field install BF4B fan switch for units over 277V Kit to field install BF4C fan switch 277V units or less it to field install BF4D fan switch for units over 277V

 CH2C
 ■
 ■
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 ✓
 ✓
 ✓
 ✓
 ✓

 CH2D
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 ■
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 ✓
 ✓
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 ✓
 ✓
 ✓
 IR3 / / / / / / / Relay kti for 24V remote fan switch (by others). Requires 24V control voltage 1 Models with the indications 1/3 can be field converted from 1 to 3-phase. ² For the U.S. only: The nominal current of the unit must not exceed 80% of the capacity of the disconnect.

Electric Heater Catalog - Page 5

/ / / /

Size 3 5 7 9 10 15 19 20

kW 3 5 7.5 9.9 10 15 19.8 20

°F 31 51 40 52 51 52 49 49

RPM 1550 1550 1550 ■ 1550 1550 1550

Lbs 40 40 67 67 67 90 90 90

Kg 18 18 30 30 30 41 41 41

✓ ✓ ✓ ■ ✓ ■ ■

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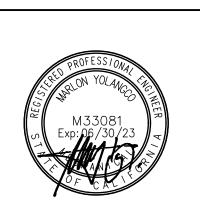
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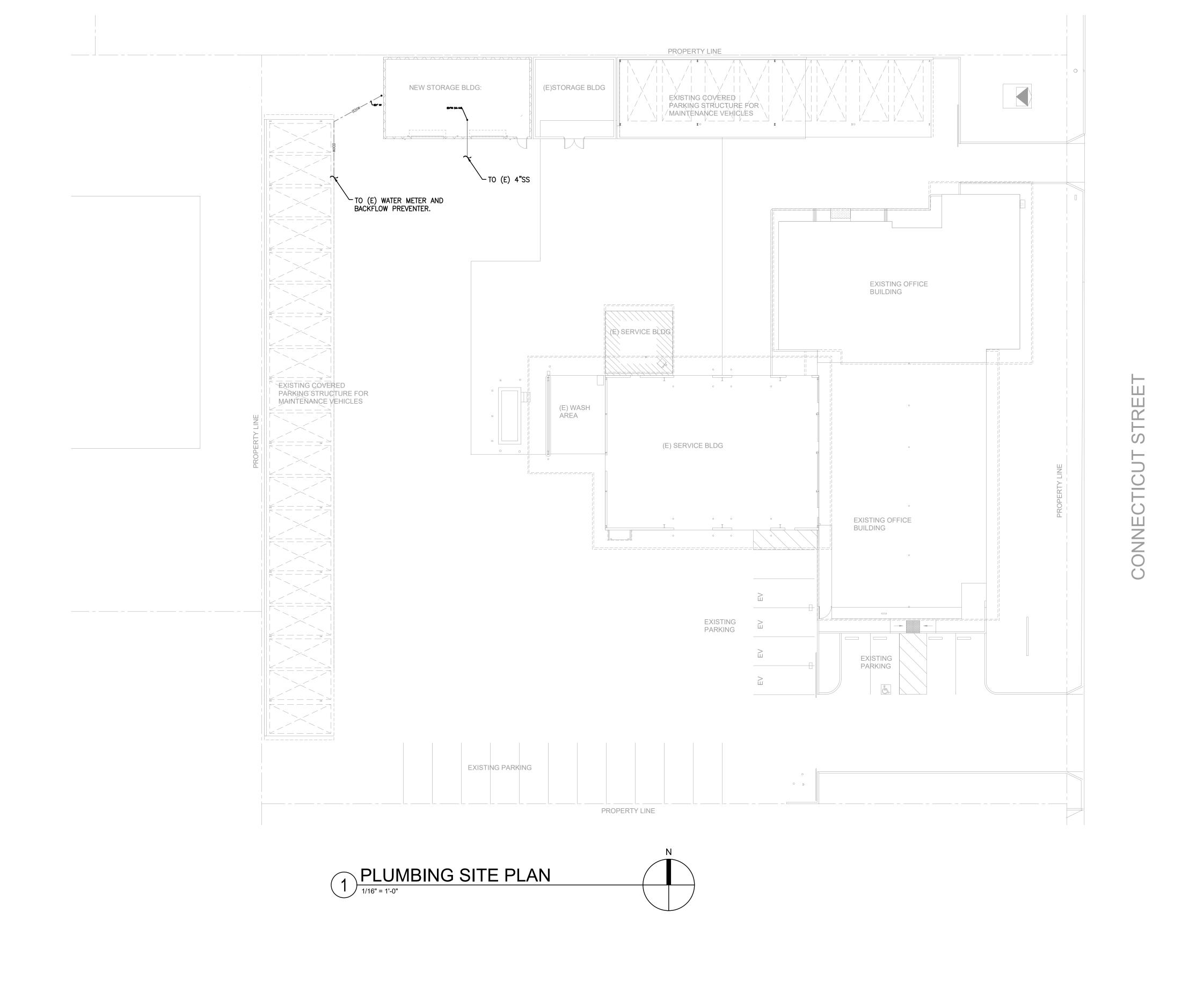
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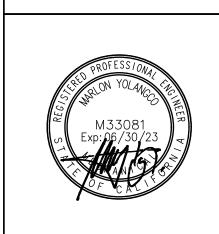
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23187



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Title
PLUMBING
SITE PLAN

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PART 1 – GENERAL

- 1.1 GENERAL TERMS AND CONDITIONS
- A. "LANDLORD" HEREIN INDICATES THE BUILDING OWNER OR HIS REPRESENTATIVE. "OWNER" HEREIN INDICATES THE TENANT OR THE TENANT'S REPRESENTATIVE. "CONTRACTOR" HEREIN INDICATES THE ELECTRICAL CONTRACTOR (EC).
- B. SECTION 16000 OUTLINES ELECTRICAL INSTALLATION OF SUBJECT PROJECT. THIS CONTRACTOR IS DIRECTED TO REFER TO OTHER SECTIONS. WHICH INCLUDES THE ARCHITECTURAL, MECHANICAL AND PLUMBING PLANS AND SPECIFICATIONS AND LANDLORDS' REQUIREMENTS RELATIVE TO ADDITIONAL TECHNICAL AND LEGAL REQUIREMENTS.
- C. CONTRACTOR TO PAY ALL FEES, CHARGES, MATERIALS, TOOLS, TRANSPORTATION, EMPLOYEE WAGES, ALL SUB-CONTRACTORS, IF ANY, ETC. IN A TIMELY MANNER. OBTAIN INSURANCES. LICENSES, PERMITS, ETC. AS REQUIRED BY LOCAL, STATE AND FEDERAL LAWS — ADDITIONAL INSURANCE COVERAGES SHALL BE AS REQUIRED BY THE LANDLORD AND
- D. PROVIDE A FORMAL LIEN RELEASE TO THE LANDLORD AND COPY TO OWNER. CONTRACTOR AND HIS SUB-CONTRACTORS, IF ANY, SHALL HOLD LANDLORD, OWNER, ARCHITECT AND ENGINEERS HARMLESS RELATIVE TO HIS PERFORMANCE OF THE ELECTRICAL WORK.
- 1.2 COOPERATION, COORDINATION AND SITE VERIFICATION
- IT IS ESSENTIAL FOR THIS CONTRACTOR TO BE FAMILIAR WITH THE LANDLORD'S AND CITY'S REQUIREMENTS AND HAVE THE ABILITY TO COOPERATE AND COORDINATE HIS WORK WITH OTHER TRADES, THE LANDLORD, OWNER AND THE CITY INSPECTOR.
- B. HE SHALL HAVE A MINIMUM WORKING KNOWLEDGE OF ALL APPLICABLE CODES AND REQUIREMENTS. FURTHER, HE SHALL HAVE A BASIC WORKING KNOWLEDGE WITH RESPECT TO FEEDER SIZING, VOLTAGE DROP, BASIC DEVICE PROTECTION, ETC., IN ORDER TO INTELLIGENTLY VERIFY EXISTING FIELD CONDITIONS PRIOR TO BID AND POINT OUT DEFICIENCIES TO THE GENERAL CONTRACTOR.
- C. BEFORE SUBMITTING HIS BID, CONTRACTOR SHALL VISIT SITE AND CONTACT CITY, LANDLORD AND ALL UTILITIES TO VERIFY LOCATION, SIZE, DEPTH AND OPERATING CHARACTERISTICS OF ALL POINTS OF CONNECTION AND SERVICES. EXAMINE THE SITE AND PREMISES PRIOR TO SUBMISSION OF BID.
- D. LIST ALL EXTRAS AND EXCEPTIONS ON HIS BID AS ALLOWANCE FOR FURTHER EXPENSES INCURRED DUE TO FAILURE TO EXAMINE THE EXISTING SITE CONDITIONS INCLUDING LANDLORD'S ELECTRICAL SERVICE EQUIPMENT AND DISTRIBUTION TO THIS JOB SITE MAY NOT BE PERMITTED.
- E. THE PLANS INDICATE THE GENERAL ARRANGEMENT OF THE ELECTRICAL LAYOUT, TIGHT CONDITIONS MUST BE WORKED OUT IN ADVANCE PRIOR TO MAJOR PURCHASES OF EQUIPMENT AND ROUGH-IN WORK. DO NOT SCALE FROM THIS SET OF PLANS.
- WHEN APPROVAL IS GIVEN FOR USE OF EQUIPMENT DIFFERING FROM THAT SHOWN ON DRAWINGS IN REGARD TO FOUNDATIONS, SPACE OF PIPING, DUCTWORK, WIRING, INSULATION ETC., CHANGES REQUIRED TO ACCOMMODATE THE DIFFERENCES SHALL BE ACCOMPLISHED AT NO COST TO OWNER.

1.3 SCOPE OF WORK

THE WORK INCLUDED IN THIS SECTION OF THE SPECIFICATIONS SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND EQUIPMENT TO COMPLETELY INSTALL ALL WORK SHOWN ON THE FURNISHED PLANS AND SPECIFIED HEREIN, INCLUDING, BUT NOT LIMITED TO, CONNECTIONS TO ALL EQUIPMENT ITEMS, POWER, LIGHTING, COMMUNICATIONS, CONTROL, AND ALARM. ALL INSTALLATIONS TO BE ACCOMPLISHED TO THE SATISFACTION OF THE CITY INSPECTOR. LANDLORD AND OWNER IN ACCORDANCE WITH THESE SPECIFICATIONS AND PLANS. FULL COMPLIANCE WITH TENANT'S "HANDBOOK AND GUIDELINES".

1.4 CODES, PERMITS AND INSPECTION

1. THE INSTALLATION SHALL COMPLY WITH ALL STATE, LOCAL AND FEDERAL GOVERNMENTS OR THEIR AUTHORITIES HAVING LAWFUL JURISDICTIONS APPLYING TO ELECTRICAL INSTALLATIONS, WITH COMPLIANCE TO:

NATIONAL ELECTRICAL CODE (NEC) (CEC) NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AMERICANS WITH DISABILITIES ACT (ADA)

WHERE CONFLICT OCCURS BETWEEN CODES, THE INSTALLATION THAT OFFERS THE MOST STRINGENT REQUIREMENTS AND PROTECTION SHALL BE ENFORCED.

2. UNLESS OTHERWISE INDICATED HEREIN AND ON THE ELECTRICAL PLANS, ALL MATERIALS SHALL BE NEW AND SHALL CONFORM TO:

> NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION (NEMA) NATIONAL ELECTRICAL CODE (NEC) UNDERWRITER'S LABORATORIES, INC. (UL)

CALIFORNIA ELECTRICAL CODE (CEC) ALL EQUIPMENT AND DEVICES (INCLUDING ALL LIGHT FIXTURES, PANELBOARDS, DISCONNECTS, ETC.) SHALL HAVE THE MANUFACTURE'S NAME PRINTED THEREON AND UNDERWRITER'S LABÓRATORY LISTED. THE SELECTION OF MATERIALS AND EQUIPMENT TO BE PROVIDED UNDER THIS CONTRACT SHALL BE IN STRICT ACCORDANCE WITH THESE SPECIFICATIONS AND PLANS.

1.5 WORKMANSHIP

- A. ALL WORK SHALL BE EXECUTED IN A FIRST CLASS WORKMANLIKE MANNER AND SHALL PRESENT A NEAT MECHANICAL APPEARANCE WHEN COMPLETED, AND SHALL INCLUDE MODIFICATION OF THE EXISTING SERVICE LOAD CENTERS AS REQUIRED, TIME CLOCKS, OUTLETS, MOTORS, ETC., INCLUDING ALL CONDUITS, RACEWAYS, WIRING, JUNCTION BOXES, LOAD CENTERS, SWITCHES, SUPPORTS AND ALL OTHER NECESSARY APPURTENANCES REQUIRED FOR A COMPLETE OPERATIONAL SYSTEM, INCLUDING THE HANGING AND LAMPING OF ALL FIXTURES AND TRANSFORMER(S). EXCEPT AS OTHERWISE NOTED.
- B. ANY MATERIAL ITEMS OF WORK NOT SHOWN ON THE DRAWINGS, MENTIONED IN THE SPECIFICATIONS OR VICE-VERSA, OR ANY ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE IN ALL RESPECTS AND READY FOR OPERATION SHALL BE INCLUDED IN CONTRACTOR'S SCOPE OF WORK AND SUCH ITEMS SHALL NOT BE A CAUSE EXTRA WORK OR EXTRA COST TO THE OWNER.
- THIS CONTRACTOR SHALL DO ALL CUTTING AND PATCHING, AS PERMITTED BY THE LANDLORD, NECESSARY FOR THE INSTALLATION OF HIS WORK UNDER THIS CONTRACT, AND THE BUILDING SHALL BE LEFT IN AS GOOD CONDITION AS FOUND. IN CASES WHERE THE LANDLORD REQUIRES THE USE OF HIS OWN CONTRACTOR FOR SPECIFIC WORK AT THE EXPENSE OF THE CONTRACTOR, THIS CONTRACTOR SHALL COORDINATE WITH THE LANDLORD'S CONTRACTOR FULLY.
- CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE AND SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING WALLS AND CEILINGS.
- PROVIDE STRUCTURAL STEEL FRAMEWORK AND HANGING RODS WITH BRACES AND ACCESSORIES WHERE REQUIRED TO HOLD EQUIPMENT IN FINAL POSITION. PROVIDE STEEL SHAPES AND FRAMES TO SUPPORT WALL MOUNTED EQUIPMENT WHERE NORMAL WALL STRENGTH MAY BE INADEQUATE.
- ELECTRICAL DEVICES, MOTOR STARTERS, DISCONNECT SWITCHES, ETC., SHALL BE SUPPORTED INDEPENDENT OF AND ISOLATED FROM EQUIPMENT VIBRATION.

PART 2 - PRODUCTS AND EXECUTION

- 1.1 ELECTRICAL MATERIALS
- EACH BIDDER SHALL SUBMIT WITH HIS PROPOSAL A LIST OF MANUFACTURER'S NAMES AND CATALOG NUMBERS OF MATERIALS TO BE USED ON THIS PROJECT.
- THE MANUFACTURER'S CATALOG NUMBERS GIVEN IN THE ELECTRICAL DRAWINGS ARE USED TO INDICATE THE CLASS AND TYPE OF EQUIPMENT DESIRED. BIDDER SHALL NOTE PARTICULARLY THAT HIS BID SHALL BE ON THE BASIS OF THE LIST OF MATERIALS AND EQUIPMENT AS SPECIFIED.

- OTHER MANUFACTURERS AND THEIR CATALOG NUMBERS MAY BE SUBMITTED AT TIME OF BIDDING, BUT ONLY AS VOLUNTARY ALTERNATES AND MUST MEET THE LETTER AND INTENT OF THE DRAWINGS. SPECIFICATIONS AND MUST BE APPROVED BY THE OWNER IN WRITING.
- D. THE OWNER RESERVES THE RIGHT TO REJECT SUBMISSION OF MATERIAL OR WORK THAT. IN HIS OPINION, DOES NOT MEET REQUIREMENTS AS SHOWN ON THE DRAWINGS AND SPECIFICATIONS.

SPECIFICATIONS

- 1.2 CONDUIT AND FITTINGS
- A. CONDUIT SHALL BE CONSTRUED AS ELECTRICAL RACEWAYS AND SHALL CONFORM
- 1. CONCEALED IN HUNG CEILINGS AND PARTITIONS EMT. 2. EXPOSED ON BUILDING EXTERIOR OR SUBJECTED TO PHYSICAL DAMAGE -
- RIGID GALVANIZED STEEL OR INTERMEDIATE STEEL CONDUIT. 3. CONNECTION TO MOTORS, HVAC PACKAGES OR ANY EQUIPMENT SUBJECTED TO VIBRATION - FLEX, 4' MAXIMUM. (LIQUID TIGHT FOR EXTERIOR). 4. FLEX NOT EXCEEDING 4' FOR LIGHT FIXTURES.
- 5. UNDERGROUND, UNDERSLAB OR IN SLAB SCHEDULE 40 PVC. 6. ROMEX AND BX NOT PERMITTED. 7. PVC ABOVE GRADE NOT PERMITTED.
- 8. LIQUID TIGHT CONNECTIONS AND DEVICES IN FOOD PREPARATION AREAS.

B. ALL RACEWAYS SHALL BE RUN CONCEALED IN CEILING, WALLS OR FLOOR SLABS.

EXPOSED RACEWAYS SHALL BE LIMITED TO EQUIPMENT IN NON PUBLIC AREAS.

- 1.3 WIRE AND CONNECTORS
- ALL CONDUCTORS SUPPLIED BY THIS CONTRACTOR SHALL BE COPPER (EXCEPT OTHERWISE INDICATED), WITH TYPE THW. THWN INSULATION OR THHN INSULATION.
- B. WHERE SERVICE MAIN FEEDER CONDUCTORS ARE FURNISHED BY THE ELECTRICAL UTILITY AS ALUMINUM. USE APPROVED BIMETAL CONNECTORS AND LUGS FOR PROPER TERMINATION OF CONDUCTORS. TORQUE TO MANUFACTURES SPECIFICATIONS. COPPER CONDUCTORS SHALL BE USED WHENEVER POSSIBLE.
- C. ALL SPLICE CONNECTORS SHALL BE 3M SCOTCHLOK OR EQUAL.
- 1.4 GROUNDING
- ELECTRICAL SYSTEM GROUNDING AND INDIVIDUAL EQUIPMENT GROUNDING SHALL IN ALL INSTANCES CONFORM TO THE MINIMUM REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. LOCAL CODES OR REGULATIONS, AND REGULATIONS OF THE SERVING UTILITIES.
- PROVIDE REQUIRED SERVICE AND EQUIPMENT GROUNDING SYSTEMS. ALL DEVICES SHALL BE BONDED TO THE CONDUIT SYSTEM EXCEPT CLEAN POWER SYSTEM AS NOTED HEREIN.
- C. UFER TYPE GROUND IS ACCEPTABLE PROVIDED SLAB IS IN DIRECT CONTACT WITH EARTH WITHOUT VAPOR BARRIER WITH MINIMUM OF 20' OF #4 CONTINUOUS RE-BAR AND IF ACCEPTABLE TO THE LOCAL INSPECTOR.
- 1.5 PANELBOARDS
- ALL PANELBOARDS ARE TO BE UL LABELED. ALL PANELBOARDS SHALL HAVE HINGED DOORS AND COMPLETE DIRECTORIES. IDENTIFY AND LABELING OF ALL CIRCUIT BREAKERS. PROVIDE ARC FLASH WARNING LABEL PER NEC 110.16.
- PANELBOARDS SHALL BE PROVIDED WITH A TYPE-WRITTEN CIRCUIT DIRECTORY TO COMPLY WITH SEC. 408.4, CEC
- C. THE NEUTRAL BUS IN ALL PANELBOARDS ARE TO BE ISOLATED FROM THE GROUNDING BUS.
- PANELBOARDS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH NEC AND UL STANDARDS AND BEAR APPROPRIATE LABELS.
- MULTIPOLE LOADS SHALL BE PROTECTED BY MULTIPOLE CIRCUIT BREAKERS HAVING COMMON TRIP AND SINGLE HANDLE. HANDLE TIES AND TROUGH CLIPS OR PINS UNACCEPTABLE.
- PROVIDE CIRCUIT BREAKER LOCKS FOR NIGHT LIGHTS AND EXIT/EMERGENCY
- G. INSTALLATION OF PANELBOARDS SHALL COMPLY BUT NOT LIMITED TO NEC ART. 384-4.
- H. PANELBOARD TO HAVE BOLT-ON BREAKERS.
- CIRCUIT BREAKERS SHALL BE RATED FOR AVAILABLE SHORT CIRCUIT CURRENT.
- 1.6 ELECTRICAL SERVICE SYSTEM

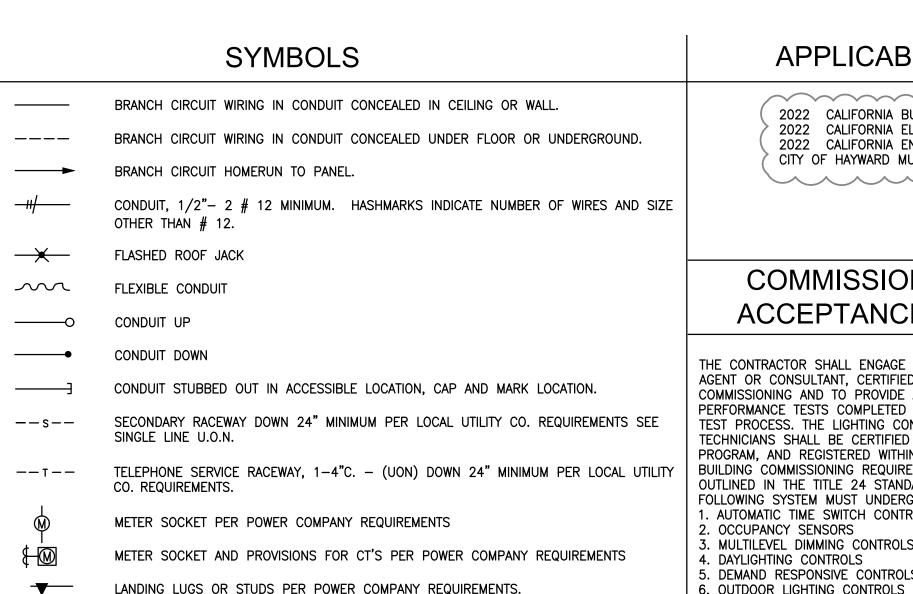
METERING SERVICE SWITCHBOARD:

- A. THE COMPONENTS OF THE ASSEMBLY SHALL BE DESIGNED, MANUFACTURED, TESTED IN ACCORDANCE WITH THE LATEST APPLICABLE STANDARDS OF THE IEEE, ANSI, NEMA, P.G. & E., EUSER AND LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- B. APPLICABLE SECTION(S) AND COMPONENTS SHALL BEAR THE UL SEAL AND/OR LABEL. AS TO ENCLOSURE, BUSSING, WIRING, CLEARANCES AND DEVICES.
- C. EQUIPMENT SHALL BE AS MANUFACTURED BY GENERAL ELECTRIC, ITE-SIEMENS, SQUARE D, IEM, WESTINGHOUSE OR CHALLENGER DIVISION WITH WESTINGHOUSE DEVICES.
- D. THE TOTAL ASSEMBLED METERING SERVICE SWITCHBOARD SHALL BE INTERIOR TYPE AS NOTED METAL—ENCLOSED, DEAD FRONT, FLOOR STANDING SECTIONS ASSEMBLED TO FORM A MECHANICALLY SOUND ELECTRICALLY COORDINATED UNIT CONSISTING OF THE FOLLOWING FEATURES:
- E. UNDERGROUND PULL SECTION, OVER CURRENT DEVICES AND, COMMERCIAL METER SOCKETS.
- F. UNDERGROUND PULL SECTION SHALL BE SEALABLE (SEALS PROVIDED BY UTILITY COMPANY).
- G. MAIN HORIZONTAL CROSS BUS SHALL EXTEND FOR FULL LENGTH OF SWITCHBOARDS SECTIONS SERVED (THREE PHASE AND NEUTRAL). THE BUS SHALL BE SILVERPLATED COPPER OR TIN PLATED ALUMINUM, 100% RATED FOR THE MAIN OVER CURRENT DEVICE WITH PROVISIONS FOR FUTURE EXTENSION. THE CURRENT DENSITY OF THE COPPER BUS BARS SHALL NOT EXCEED 1000 AMPERES PER SQUARE INCH CROSS-SECTION AND FOR ALUMINUM BUS NOT TO EXCEED 750 AMPERES PER SQUARE INCH.
- BUSSING AND EQUIPMENT SHALL BE BRACED TO WITHSTAND STRESSES RESULTING FROM MAXIMUM SHORT-CIRCUIT AMPS AVAILABLE. BRACED FOR 50,000 AMPS
- THE SWITCHBOARD ASSEMBLY COMPLETELY SELF-SUPPORTING, OF THE REQUIRED NUMBER OF VERTICAL SECTIONS BOLTED TOGETHER TO FORM ONE CONTINUOUS SWITCHBOARD 90 INCHES HIGH SIDES, TOP AND REAR COVER SHALL BE CODE GAUGE STEEL BOLTED TO THE STRUCTURE. THE FRAME STRUCTURAL MEMBER SHALL BE DIE-FORMED 12-GAUGE STEEL BOLTED TOGETHER AND REINFORCED AT THE EXTERNAL CORNERS WITH RUGGED GUSSETS INTERNAL AND EXTERNAL TO THE STRUCTURAL MEMBERS. THE SWITCHBOARD FRAME IS TO BE SUITABLE FOR USE AS FLOOR SILLS IN INDOOR INSTALLATIONS.
- AFTER FABRICATION, EACH COMPONENT SHALL BE SANDED SMOOTH TO REMOVE ALL ROUGH EDGES, SCRATCHES, AND IRREGULARITIES, AND THEN SHALL BE IMMERSED IN A SUITABLE CLEANING AND RUST INHABITING PHOSPHATIZING SOLUTION. A HARD, OVEN-BAKED GRAY, ANSI #49 OR #61, ENAMEL SHALL BE APPLIED.
- SUBMIT SHOP DRAWINGS CONCURRENTLY TO ARCHITECT AND PACIFIC GAS AND ELECTRIC REPRESENTATIVE FOR THEIR METERING DEPARTMENT TO REVIEW.
- J. ENGRAVED NAMEPLATES: SECURE EACH WITH TWO CADMIUM PLATED SCREWS.
- . 3/8-INCH WHITE LETTERS ON BLACK PHENOLIC BACKGROUND, SECURE EACH WITH TWO CADMIUM PLATED SCREWS.
- EACH SWITCHBOARD DEVICE SHALL BE LABELED. PROVIDE TENANT ADDRESS ADJACENT TO METER SOCKET AND EACH OVERCURRENT DEVICE.
- 1.7. LIGHTING FIXTURES
- A. ALL FIXTURES SHALL BE ADEQUATELY SUPPORTED, LEVEL AND ALIGNED. COORDINATE LOCATION WITH THE ARCHITECT.

- LIGHTING FIXTURES SHALL BE MOUNTED AT CEILING, AND AS INDICATED ON DRAWINGS, EXPANSIVE ANCHOR TYPE INSERTS, ACKERMAN-JOHNSON OR AN APPROVED EQUAL BY THE OWNER, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL FIXTURES SHALL BE SECURED TO BUILDING STRUCTURE - "CADDY" CLIPS ON "T" BAR AS PRIMARY SUPPORT FOR LAY-IN FIXTURES NOT PERMITTED FOR
- PROVIDE ALL NECESSARY MOUNTING HARDWARE FOR A COMPLETE INSTALLATION. PROVIDE LAMPS, BALLASTS AND SPECIAL CONTROLS.
- LIGHT FIXTURE IN CONTACT WITH INSULATION TO BE U.L. LISTED FOR THERMAL BARRIER OR PROVIDE 3" MINIMUM CLEARANCE.
- LED LUMINAIRES SHALL BE TESTED AND PASSED IES LM-79 AND IES LM-80. PROVIDE MINIMUM L70 LUMEN MAINTENANCE VALUE OF 50,000 HOURS.
- LED DRIVERS TO HAVE A POWER FACTOR GREATER THAN OR EQUAL TO 0.90 AT FULL INPUT POWER. MAXIMUM TOTAL HARMONIC DISTORTION (THD) LESS THAN 20% AT FULL POWER. WITHSTANDS CATEGORY A SURGES OF 4KV WITHOUT IMPAIRMENT OF PERFORMANCE
- 1.8 OUTLETS
- A. ALL OUTLETS ARE TO BE INSTALLED AS LOCATED ON PLANS, AND CONDUCTOR TERMINALS AT EACH WIRING OUTLET SHALL BE LEFT NOT LESS THAN 8" LONG WITH IN THE OUTLET.
- B. ALL DEVICES, INCLUDING BUT NOT LIMITED TO, SWITCHES, JUNCTION BOXES, OUTLETS TO BE INSTALLED FLUSHED TO FINISHED SURFACES. COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN IN SPECIAL SURFACE AREAS.
- IN AREAS WHERE OUTLET BOXES ARE SURFACE MOUNTED, COVERS SHALL BE STEEL. IN GENERAL, SURFACE MOUNTED DEVICES ARE NOT PERMITTED IN PUBLIC AND WORKING
- ALL EXTERIOR OUTLETS INCLUDING OUTLETS FOR HVAC EQUIPMENT AND OUTLETS WITHIN 6 FEET FROM SINK SHALL BE PROTECTED VIA GROUND-FAULT CIRCUIT-INTERRUPTERS (GFCI BREAKERS) PER NEC.
- ALL RECEPTACLES SHALL BE SPECIFICATION GRADE, AS MANUFACTURED BY PASS AND SEYMOUR, HUBBELL, SLATER OR APPROVED EQUAL.
- ALL CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET. NO SPLICES SHALL BE
- WEATHERPROOF COVER OF OUTLETS TO COMPLY WITH SEC 406.8(B)(1) CEC
- A. ALL SWITCHES FOR LIGHTING CIRCUITS SHALL BE FLUSH MOUNTED.
- SWITCHES SHALL BE 20 AMP HUBBELL 1221-1 SINGLE POLE OR 1223-1 THREE WAY. DUPLEX RECEPTACLES SHALL BE 20 AMP HUBBELL 5362-1. PASS AND SEYMOUR, ARROW-HART AND BRYANT SHALL BE CONSIDERED AS EQUAL.
- PROVIDE LOCAL SWITCHES AS SHOWN; HOWEVER, BEFORE INSTALLATION THE CONTRACTOR SHALL INSPECT THE ARCHITECTURAL DRAWINGS AND LOCATE ALL SWITCHES ON THE STRIKE SIDE OF THE DOOR. ALL SWITCHES SHALL BE SPECIFICATION GRADE AS MANUFACTURED BY PASS AND SEYMOUR, HUBBELL, SLATER OR APPROVED EQUAL.
- 2.0 STARTERS AND DISCONNECTS
- STARTERS, LOAD CENTERS, LINE SWITCHES AND SIMILAR APPARATUS SHALL BE MOUNTED SECURELY TO WALLS, COLUMNS, ETC. LINE SWITCHES AND STARTERS SHALL BE MOUNTED NEAR MOTORS, AT UNIFORM HEIGHTS ABOVE FLOOR UNLESS OTHERWISE NOTED ON PLAN. INDIVIDUAL LIGHT SWITCHES, LIGHTING, DISCONNECT, ETC. -NOT MORE THAN 48" ABOVE FINISHED GRADE. SWITCHES SHALL BE ITE HEAVY DUTY TYPE IN NEMA 1 ENCLOSURE OR EQUAL BY SQUARE D OR ARROW-HART. SWITCHES SHALL BE QUICK-MAKE QUICK-BREAK EXTERNALLY OPERATED AND INTERLOCKED, FULL LOAD BREAK AND NEMA HORSEPOWER
- FURNISH AND INSTALL ALL WIRING FOR MOTORS, STARTERS, AND PUSH BUTTONS IN ADDITION TO ALL OTHER POWER AND CONTROL WIRING. ALL AS SHOWN ON PLANS AND CONNECTION DIAGRAMS. HOWEVER, MOTORS WILL BE INSTALLED BY OTHERS. IN CASES WHERE THE CAPACITY OR RATING OF THE EQUIPMENT BEING FURNISHED IS BASED ON THE RATING OF EQUIPMENT BEING FURNISHED BY OTHERS, SUCH RATINGS SHALL BE CONFIRMED BEFORE PURCHASING THE EQUIPMENT. USE EQUIPMENT, INCLUDING RECEPTACLES, DISCONNECTS. ETC., RATED NEMA 3R FOR OUTDOORS, SCULLERY AND KITCHEN LOCATIONS. PUSH-BUTTON AND PILOT DEVICES SHALL BE INDUSTRIAL GRADE, OIL TIGHT.
- IDENTIFY DISCONNECT SWITCHES WITH LAMINATED PHENOLIC NAMEPLATES WITH 1/4" MINIMUM HEIGHT LETTERS.
- ALL CONNECTIONS COMPLETE, PROVIDE STARTERS, PULL BOXES, DISCONNECTS AS REQUIRED.

2.1 LIGHTING CONTROL EQUIPMENT: PROVIDE TITLE 24 COMPLIANT PROGRAMMABLE ELECTRONIC TIME SWITCH, CIRCUIT CONTROLLER, 365 DAY CAPACITY, WITH ADJUSTABLE ON/OFF TIMES FOR EACH CIRCUIT CONTROLLED, 4 HOUR BATTERY BACKUP; PARAGON, WATT STOPPER, DOUGLAS CONTROLS OR EQUAL

- 2.2 TELEPHONE
- TELEPHONE, ALARM AND SIGNAL SYSTEM OUTLET BOXES SHALL BE STANDARD OUTLET BOX TYPE WHERE ONLY ONE CONDUIT ENTERS SAME, UNLESS OTHERWISE SPECIFIED OR INDICATED ON DRAWINGS: WHERE TWO OR MORE CONDUITS ENTER, OUTLET BOX SHALL BE 4-11/16" WITH SUITABLE ADAPTER COVER RING EXCEPT WHERE OTHERWISE INDICATED ON DRAWINGS, VERIFY WITH TELEPHONE COMPANY AND OWNER FOR LOCATION OF ALL SERVICE.
- FURNISH AND INSTALL EMPTY CONDUIT, OUTLETS AND BACKBOARD TO ACCOMMODATE TELEPHONE COMPANY WIRING AND EQUIPMENT AS SHOWN ON DRAWINGS. WORK SHALL BE INSTALLED IN STRICT ACCORDANCE WITH TELEPHONE COMPANY REQUIREMENTS.
- 2.3 LOAD BALANCE
- THE CONNECTED LOADS SHALL BE BALANCED AT THE END OF THE PROJECT SO THAT A VARIATION OF AMPERAGE AMONG THE PHASES OF LESS THAN 10% IS PRESENT. BALANCE LOAD AT END OF PROJECT WITH ALL NORMAL OPERATED EQUIPMENT ON (HVAC, LIGHTS, KITCHEN LOADS, ETC.).
- 2.4 ROOF FLASHING
- USE APPROVED ROOF FLASHING FOR CONDUITS PENETRATING THROUGH ROOF STRUCTURE. ROUTE CONDUITS DIRECTLY TO DEVICES FROM CEILING AREA WHENEVER POSSIBLE. DO NOT ROUGH-IN UNLESS THIS CONTRACTOR HAS COORDINATED WITH THE LANDLORD FOR HIS REQUIREMENTS.
- .5 TESTING
- PROVIDE TEST EQUIPMENT AND CONDUCT NECESSARY TESTING TO DETERMINE THE CONFORMITY WITH THE SPECIFICATIONS AND THE TOTAL BUILDING SYSTEM REQUIREMENTS. THIS TEST MUST BE MADE UNDER THE OBSERVATION OF THE OWNER'S REPRESENTATIVE AND THE CITY ELECTRICAL INSPECTOR. ANY DEFECTS MUST BE CORRECTED IMMEDIATELY.
- 2.6 EMERGENCY AND EXIT LIGHTING SYSTEM
- IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO OBTAIN REQUIREMENTS AND APPROVAL FROM LOCAL CODE AUTHORITIES, ON EMERGENCY AND EXIT LIGHTING.
- EMERGENCY BATTERY-PACK LIGHTS: IN GENERAL BATTERIES SHALL BE REQUIRED WHEN BUILDING DOES NOT PROVIDE EMERGENCY GENERATOR LIFE SAFETY POWER FOR TENANT SPACE. EMERGENCY LIGHTS SHALL BE CONNECTED TO BUILDING EMERGENCY GENERATOR SYSTEM WHEN AVAILABLE.
- 2.7 CLEAN UP
- THE CONTRACTOR SHALL, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH CAUSE BY HIS WORK, AND AT THE COMPLETION OF THE WORK, SHALL REMOVE HIS RUBBISH, TOOLS, EQUIPMENT AND SURPLUS MATERIALS; AND SHALL LEAVE HIS WORK CLEAN AND READY FOR USE.



LANDING LUGS OR STUDS PER POWER COMPANY REQUIREMENTS. CIRCUIT BREAKER PRECAST ELECTRICAL SPLICE PULLBOX-13"X24"X16" DEEP MINIMUM (SIZE PER NEC). WITH HEAVY DUTY TRAFFIC COVER WHERE EXPOSED TO VEHICLES, LOCATE SO AS NOT TO AFFECT PLANTING. LIGHTING FIXTURE TAG. SEE FIXTURE SCHEDULE.

SHEET NOTE DETAIL TAG. REFER TO DETAIL 1 ON SHEET NUMBER EO.1. WALL MOUNTED LIGHT FIXTURE AND BOX. SEE ARCH ELEVATIONS FOR MOUNTING HEIGHT.

SHADED FIXTURE IS ON NIGHTLIGHT CIRCUIT.

CEILING OR PENDANT MOUNTED FLUORESCENT STRIPLIGHT AND BOX. RECESSED DOWNLIGHT AND BOX

POLE MOUNT LUMINAIRE POLE MOUNT DECORATIVE LUMINAIRE

SINGLE POLE SWITCH AND BOX. LOWER CASE LETTER INDICATES CIRCUIT OR LAMPS CONTROLLED BY SWITCH. +48" T.O.D. D = DIMMER a 🕝 ∫\$os MOTION DETECTOR AND BOX, CEILING, WALL MOUNTED, +48" T.O.D. (UON).

LOWER CASE LETTER INDICATES CIRCUIT OR FIXTURE CONTROLLED BY DETECTOR.

AIM ADJUSTABLE SENSORS PER DIRECTIONAL ARROWS WHERE INDICATED. DUPLEX RECEPTACLE 20A, 125V, 3WG, NEMA 5-20R, +15" B.O.D. (UON). (WP= WEATHERPROOF)

DUPLEX RECEPTACLE 1P20A WITH GROUNDFAULT CIRCUIT INTERRUPTER, +15" B.O.D. (UON). WP WEATHER RESISTANT TYPE W/ EXTRA DUTY IN-USE COVER

 \bigcirc JUNCTION OR OUTLET BOX - MOUNT ABOVE CEILING WITH BLANK COVER. (F= FLUSH IN FINISHED CEILING)

COMBINATION STARTER AND FUSIBLE DISCONNECT SWITCH.

PANELBOARD, 120/208V, 3 PHASE, 4W U.O.N., SURFACE.

INDICATED. (WP = WEATHERPROOF) TENANT SIGN J-BOX SURFACE MOUNTED JUNCTION BOX AND COVER PLATE

FOURPLEX RECEPTACLES (2) NEMA 5-20R, +15" B.O.D. (UON).

FOR SIGN. LOCATE IN ACCESSIBLE LOCATION. SEE EXTERIOR ELEVATION. FUSED DISCONNECT SWITCH WITH DUAL ELEMENT FUSES (UON). WP WHERE ON ROOF.

WALL MOUNTED JUNCTION OR OUTLET BOX WITH BLANK COVER, HEIGHT AS

MOTOR OUTLET AND FLEX CONNECTION TO MOTOR.

~~ FLEXIBLE CONDUIT WITH CONNECTION TO EQUIPMENT. DUCT SMOKE DETECTOR FURNISHED WITH HVAC UNIT.

MAIN SWITCHBOARD

TELEPHONE BACKBOARD 4' x 8' x 3/4" PLYWOOD ABOVE FINISHED FLOOR TO CENTERLINE OF DEVICE.

ABOVE FINISHED GRADE NOT IN THIS CONTRACT

NIGHTLIGHT NOT TO SCALE NTS

FURNISH, INSTALLED AND CONNECT. SEE ARCHITECTURAL DRAWINGS

WEATHERPROOF

EXISTING REMOVE

UNLESS OTHERWISE NOTED

GROUNDFAULT CIRCUIT INTERRUPTER

EXISTING, REMOVE AND REPLACE

EXISTING TO REMAIN

COMMISSIONING AND **ACCEPTANCE TESTING**

APPLICABLE CODES

2022 CALIFORNIA ELECTRICAL CODE

2022 CALIFORNIA BUILDING CODE

2022 CALIFORNIA ENERGY CODE

CITY OF HAYWARD MUNICIPAL CODE

THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL THIRD PARTY AGENT OR CONSULTANT. CERTIFIED TO PERFORM THE MEP SYSTEMS COMMISSIONING AND TO PROVIDE A REPORT FOR ALL FUNCTIONAL PERFORMANCE TESTS COMPLETED AS PART OF THE ACCEPTANCE TEST PROCESS. THE LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIANS SHALL BE CERTIFIED THRU AN APPROVED TRAINING PROGRAM, AND REGISTERED WITHIN THE STATE OF CALIFORNIA. BUILDING COMMISSIONING REQUIREMENTS SHALL BE MET AS OUTLINED IN THE TITLE 24 STANDARDS, SECTION 120.8 THE FOLLOWING SYSTEM MUST UNDERGO ACCEPTANCE TESTING: 1. AUTOMATIC TIME SWITCH CONTROLS

5. DEMAND RESPONSIVE CONTROLS 6. OUTDOOR LIGHTING CONTROLS

SHEET INDEX SHEET SHEET TITLE NUMBER GENERAL NOTES, SYMBOLS LIST AND SHEET INDEX E1.0 E2.0 POWER AND SIGNAL PLAN E3.0 LIGHTING PLAN E4.0 SITE PLAN E5.0 SINGLE LINE DIAGRAM AND SCHEDULES E6.0 TITLE 24 - INTERIOR TITLE 24 - EXTERIOF

SHEET INDEX 00000

REVISIONS

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ESCRIPTION T CITY SUBMITTAL PLAN CHECK RESPONSE LAN CHECK RESPONSE

GENERAL NOTES, SYMBOLS LIST AND

> Print Date: date

> > E1.0

CIRCUITING NOTES

- 1. PLANS ARE PREPARED WITH REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. PROVIDE AND INSTALL ALL CONDUITS, CONDUCTORS, BOXES, MISC., FITTINGS, ETC, FOR A COMPLETE AND OPERABLE SYSTEM INCLUDING HOME RUN (WETHER SHOWN OR NOT). BRANCH INSTALLATION SHALL COMPLY WITH SPECIFICATIONS AND LATEST CALIFORNIA ELECTRICAL CODE (2022) AND N.E.C PROVIDE #10 WIRE FOR 120V CIRCUIT RUNS OVER 125.
- 2. UNDERGROUND AND OVERHEAD ROUTING OF BRANCH CIRCUITS ARE GENERALLY NOT SHOWN. HOWEVER, THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR COMPLETE WIRING SYSTEMS INCLUDING HOMERUNS, RESTORATION OF ALL NEW OR EXISTING SURFACES REQUIRING SAWCUTTING, PATCHING, PLASTERING, PAINTING AND/OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC. AS REQUIRED. VERIFY ALL APPLICABLE SEALANT SPECIFICATION WITH ARCHITECT.
- 3. ALL ELECTRICAL LINES SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT AN EXTENT AS POSSIBLE. ALL EXPOSED CONDUITS SHALL BE INSTALLED AT LEAST 6" OFF FLOOR.
- 4. PROVIDE EXTRA UNSWITCHED HOT WIRE FOR EXIT AND EMERGENCY FIXTURE.

ELECTRICAL EQUIPMENT SCHEDULE										
MARK	DESCRIPTION	VOLT/PHASE	KW	AMPS	WIRE AND CONDUIT SIZE	CONNECTION				
A	FUTURE	120-1		3.0	2#12;1#12 GRD 1/2"C	5-20R				
B	FUTURE	220-1	6.0		2#8;1#10 GRD 3/4"C	60AS-40AF				
©	FUTURE	120-1		2.7	2#12;1#12 GRD 1/2"C	J-BOX				
D	ELECTRIC HEATER — EH-1	220-1	10.0		2#4;1#10 GRD 1"C	60AS-60AF				
E	EXHAUST FAN	120-1			2#12;1#12 GRD 1/2"C	J-BOX				
F	ROLL UP DOORS (2)	120-1		0.8	2#12;1#12 GRD 1/2"C	J-BOX				

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REV#	DATE	DESCRIPTION
	02/03/23	IST CITY SUBMITTAL
<u></u>	04/10/23	PLAN CHECK RESPONSE
2	05/11/23	PLAN CHECK RESPONSE 2

Title
POWER AND SIGNAL
PLAN

Job #: 00000

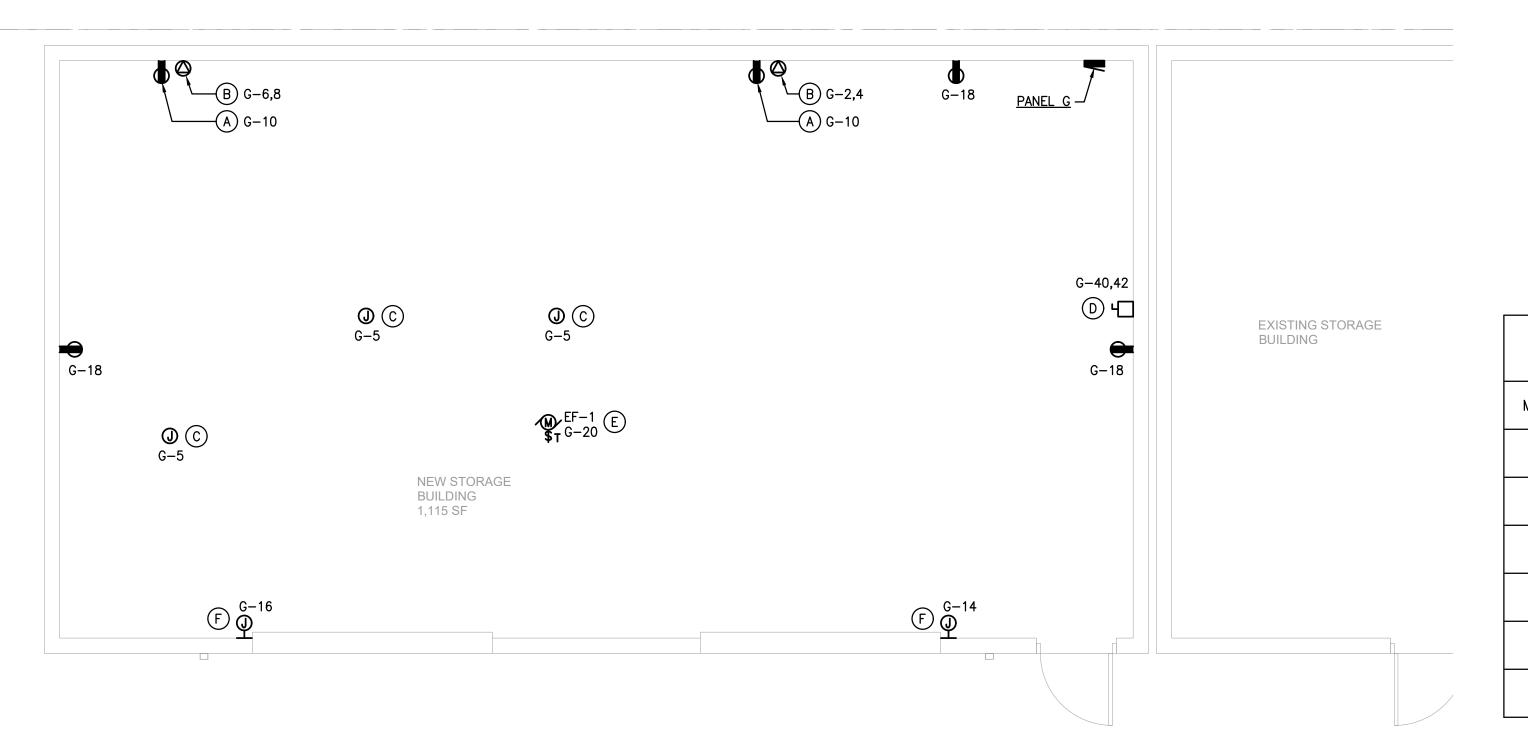
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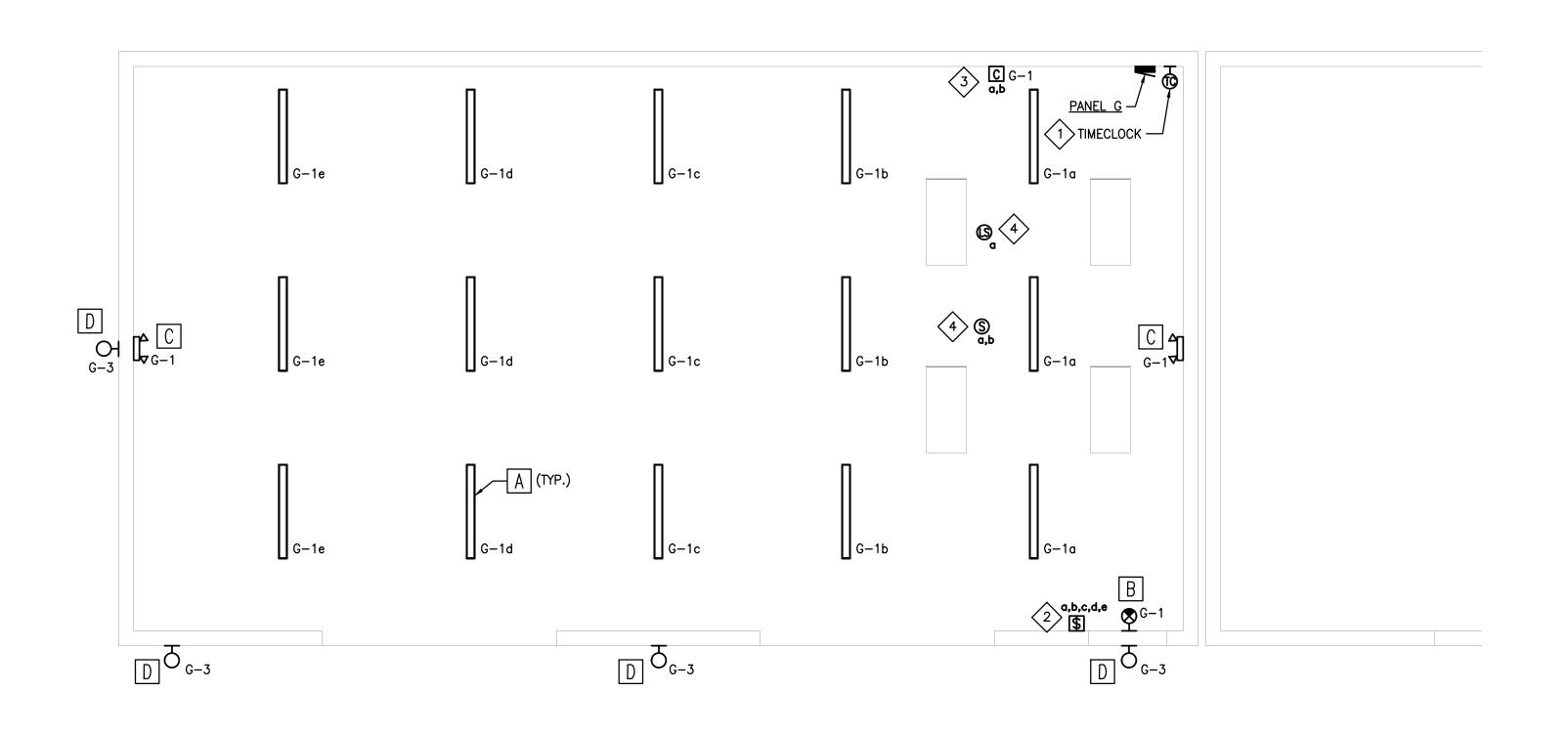
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1) LIGHTING PLAN

1/4" = 1'-0"



- 1. PROVIDE PROGRAMMABLE T-24 TIMECLOCK.
- 2. WALL MOUNT DIMMING SWITCHES.
- 3. DIMMING ROOM CONTROLLER. MOUNT ABOVE CEILING SPACE.
- 4. CEILING MOUNT LIGHT SENSOR.

CIRCUITING NOTES

- 1. PLANS ARE PREPARED WITH REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. PROVIDE AND INSTALL ALL CONDUITS, CONDUCTORS, BOXES, MISC., FITTINGS, ETC, FOR A COMPLETE AND OPERABLE SYSTEM INCLUDING HOME RUN (WETHER SHOWN OR NOT). BRANCH INSTALLATION SHALL COMPLY WITH SPECIFICATIONS AND LATEST CALIFORNIA ELECTRICAL CODE (2022) AND N.E.C PROVIDE #10 WIRE FOR 120V CIRCUIT RUNS OVER 125.
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FIXTURE SCHEDULE									
	DESCRIPTION	MFG. CAT. #	LAMPS	REMARKS					
A	4'-0" CEILING SURFACE MOUNTED LED LUMINAIRE. O-10V DIMMING DRIVER	DAYBRITE # NWL-44OL-8CST-UMV- DIM-120	34.0 WATTS LRD						
В	UNIVERSAL MOUNTED LED EXIT SIGN WITH 90 MINUTE EMERGENCY BATTERY PACK.	EMERGILITE BA-TXN-1-G-120	LAMP FURNISHED WITH UNIT						
С	UNIVERSAL MOUNTED LED EMERGENCY FIXTURE WITH 90 MINUTE EMERGENCY BATTERY PACK.	EMERGILITE EL-2RHL-AB-120	LAMP FURNISHED WITH UNIT						
D	LED SMALL WALL PACK. EMERGENCY BATTERY. INTEGRAL MOTION SENSOR. BLACK	GARDCO 101L-16L-200-NW-G2-3 EBPC-1MR12-F1-BK	11 WATTS LED	MOUNT AT 12'-0" AFG					

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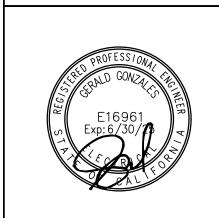
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	02/03/23	IST CITY SUBMITTAL
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2	05/11/23	PLAN CHECK RESPONSE 2

Title LIGHTING PLAN

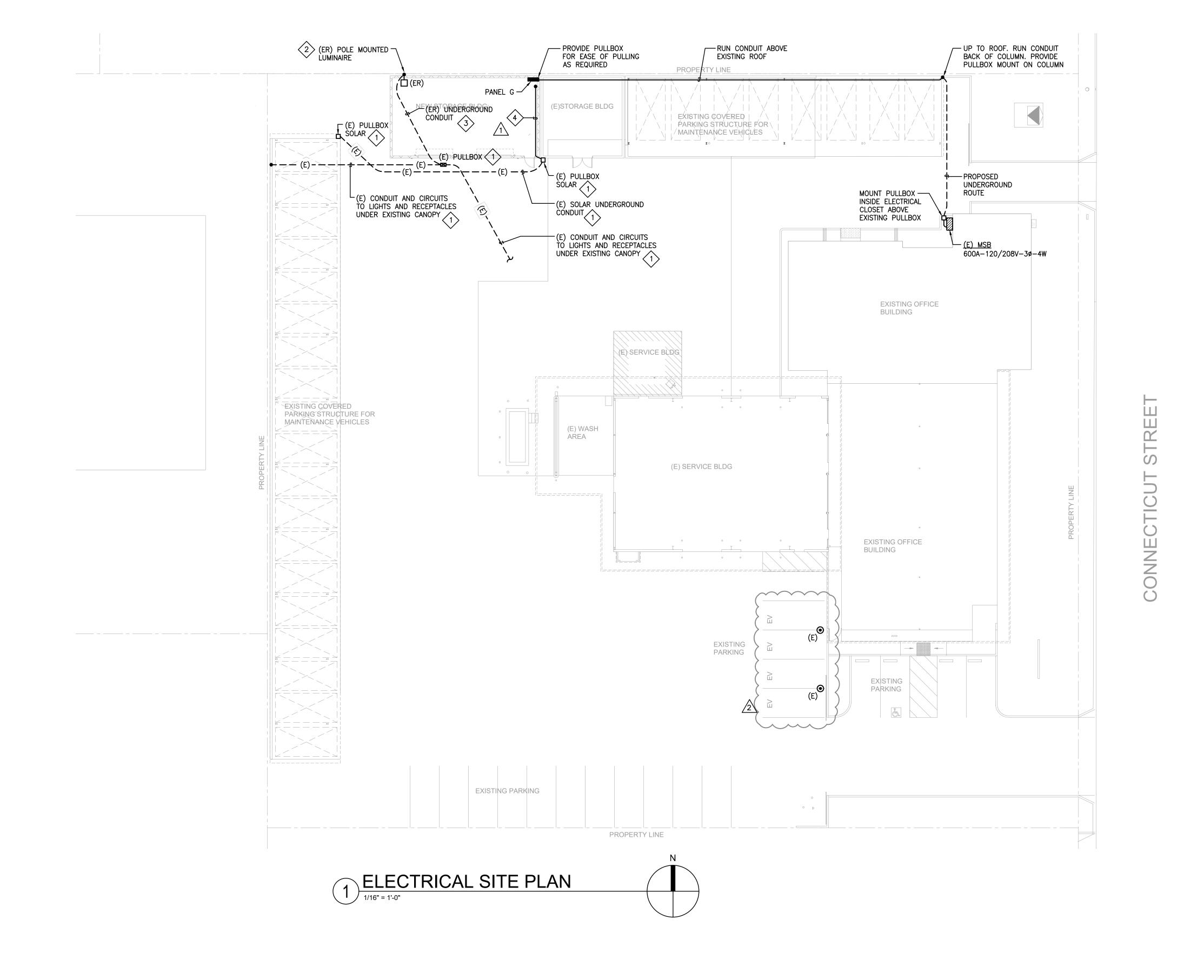
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E3.0



- 1. PROTECT AND MAINTAIN CIRCUIT CONTINUITY OF ALL SOLAR PULLBOX, SOLAR UNDERGROUND CONDUIT, HOUSE PANEL UNDERGROUND CIRCUITS FOR CANOPY LIGHTS AND RECEPTACLES THAT ARE SHOWN EXISTING TO REMAIN.
- 2. DISCONNECT AND REMOVE EXISTING POLE MOUNTED LUMINAIRE.
 RETURN LUMINAIRE TO OWNER OR DISPOSE OF AS REQUESTED BY
- 3. DISCONNECT AND REMOVE EXISTING CONDUIT AND CONDUCTORS THAT FEED EXISTING POLE MOUNTED LUMINAIRE BEING REMOVED, MAINTAIN CIRCUIT CONTINUITY FROM EXISTING PULLBOX TO EXISTING CIRCUITS FEEDING EXISTING CANOPY.
- 4. PROVIDE 2"C. WITH PULLCORD STUB UP THRU ROOF. CAP BOTH END STUB OTHER END INTO AN EXISTING SOLAR PULLBOX. LABEL CONDUIT "SOLAR READY".

CIRCUITING NOTES

- 1. PLANS ARE PREPARED WITH REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. PROVIDE AND INSTALL ALL CONDUITS, CONDUCTORS, BOXES, MISC., FITTINGS, ETC, FOR A COMPLETE AND OPERABLE SYSTEM INCLUDING HOME RUN (WETHER SHOWN OR NOT). BRANCH INSTALLATION SHALL COMPLY WITH SPECIFICATIONS AND LATEST CALIFORNIA ELECTRICAL CODE (2022) AND N.E.C PROVIDE #10 WIRE FOR 120V CIRCUIT RUNS OVER 125.
- 2. UNDERGROUND AND OVERHEAD ROUTING OF BRANCH CIRCUITS ARE GENERALLY NOT SHOWN. HOWEVER, THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR COMPLETE WIRING SYSTEMS INCLUDING HOMERUNS, RESTORATION OF ALL NEW OR EXISTING SURFACES REQUIRING SAWCUTTING, PATCHING, PLASTERING, PAINTING AND/OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC. AS REQUIRED. VERIFY ALL APPLICABLE SEALANT SPECIFICATION WITH ARCHITECT.
- 3. ALL ELECTRICAL LINES SHALL BE CONCEALED WITHIN THE BUILDING STRUCTURE TO AS GREAT AN EXTENT AS POSSIBLE. ALL EXPOSED CONDUITS SHALL BE INSTALLED AT LEAST 6" OFF FLOOR.
- 4. PROVIDE EXTRA UNSWITCHED HOT WIRE FOR EXIT AND EMERGENCY FIXTURE.

element one

All drawings and written material appearing herein constitute the original and unpublished work of element one architecture and the same may not be duplicated, used, or disclosed without the

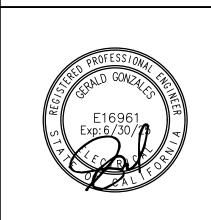
23990 clawiter road

hayward, california 94545 tel. 650.420.1075

written consent of element one

EW STORAGE FACILITY
23187 CONNECTICUT STREET,
HAYWARD CA

LAMEDA COUNTY OSQUITO ABATEMENT CENTER 3187 CONNECTICUT STREET AYWARD, CA



REVISIONS

REV#	DATE	DESCRIPTION
	02/03/23	1ST CITY SUBMITTAL
l	04/10/23	PLAN CHECK RESPONSE
2	05/11/23	PLAN CHECK RESPONSE 2

Title ELECTRICAL SITE PLAN

ob #: 00000

Print Date: date

E4.0

BELDEN

GONSULTING ENGINEERS

4457 Willow Road, Suite 100

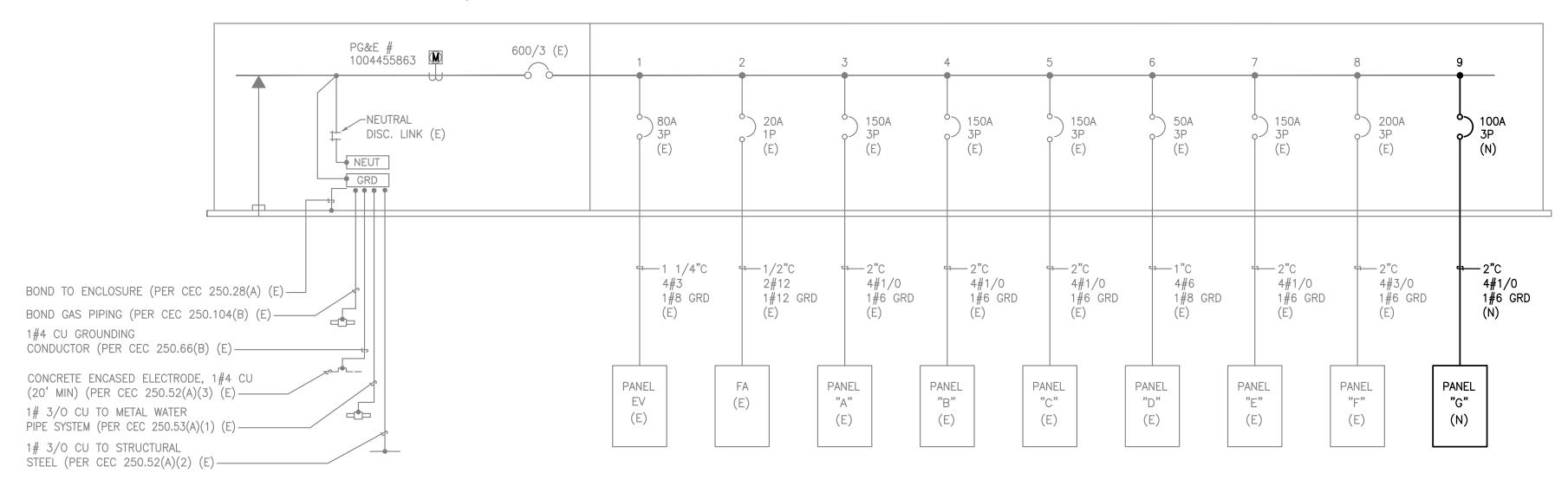
Pleasanton, California 94588

phone: (925) 621-5300 fax: (925) 203-5758

belden@beldeninc.com

23006/NL

MAIN SWITCHBOARD "MS" (E) 600A - 120/208V - 3ø - 4W



ONE LINE DIAGRAM SCHEMATIC

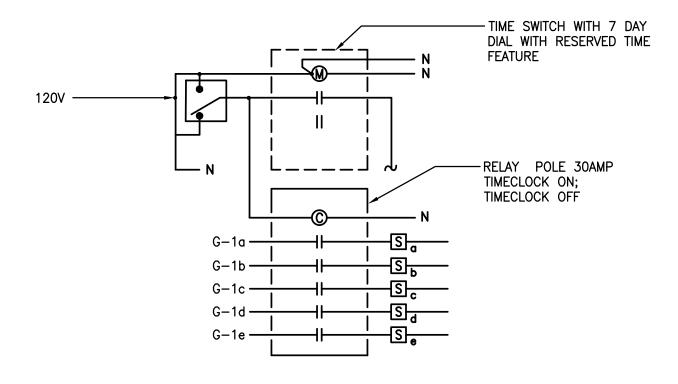
LOA	LOAD RECAP									
DESCRIPTION	KVA	AMPS								
1. PANEL EV (E)	14.4	40.0								
2. PANEL FA (E)	1.4	4.0								
3. PANEL A (E)	27.0	75.0								
4. PANEL B (E)	27.0	75.0								
5. PANEL C (E)	27.0	75.0								
6. PANEL D (E)	9.0	29.0								
7. PANEL E (E)	27.0	75.0								
8. PANEL F (E)	36.0	100.0								
9. PANEL G (N)	27.8	76.9								
TOTAL CONNECTED LOAD	198.2	550.2								

SINGLE LINE DIAGRAM NOTE

REMODEL AND RENOVATION PROJECT:

1. ALL NEW COMPONENTS SHOWN ON THE SINGLE-LINE DIAGRAM SHALL BE "SERIES-COMBINATION RATED SYSTEM" ADEQUATE FOR THE MAXIMUM FAULT CURRENT AVAILABLE AT THE POINT OF APPLICATION, INCORPORATING THE CURRENT LIMITING OVERCURRENT PROTECTIVE DEVICES AS SPECIFIED. SHOP DRAWINGS SHALL INDICATE SERIES-COMBINATION RATING AND INCLUDE A COPY OF ALL LABELING, INCLUDING RESPECTIVE U.L. LISTINGS.

	NEW																
P/	ANEL	G			12 0)/20 PE_	80	_ VOLTS	S <u>3</u> F	PHASE _ _ BUS_	4	22	WIF 5	RE		MAIN LUGS ONLY CB 100A MOUNT SURFAC	
CKT. NO.	LOAD DESCRIPT & LOCATION	ΓΙΟΝ	LTG	REC	BR P	KR	TCL	PHA ØA	SE KVA L ØB	OAD ØC	CCL	BR P	KR	LTG	REC	LOAD DESCRIPTION & LOCATION	CKT. NO.
1 3	LTG-GENERAL LTG-EXTERIOR				1	20 20		0.8 / 3.0	0.2 / 3.0			2	30			FUTURE — B	2
5 7	FUTURE - C SPARE				1	20		· /3.0	3.27 3.3	0.5 / 3.0		2	30			FUTURE — B	6
9	SPARE				1	20		7 / 3.0	· /0.7			1	20			FUTURE – A	10
11	SPARE SPARE				1	20 20		· /1.0		• / •		1	20			SPARE ROLL UP DOOR F	12
15 17	SPARE SPARE				1	20 20			· /1.0	· /0.5		1	20 20			ROLL UP DOOR F REC-DCO	16 18
19	SPARE SPARE				1	20 20		· /1.0	. / .	7 0.0		1	20			EF-1 SPARE	20
21 23	SPARE				1	20		,	. / .	. / .		1	20			SPARE	22 24
25 27	SPARE SPARE				<u>1</u> 1	20 20		• / •	. / .			1	20			SPARE SPARE	26 28
29 31	SPARE SPARE				1	20 20		. / .	,	. / .		1	20			SPARE SPARE	30 32
33	SPARE				1	20		/	. / .	7		1	20			SPARE	34
35 37	SPARE SPARE				1	20 20		. / .	,	• / •		1	20 20			SPARE SPARE	36 38
39 41	SPARE SPARE				<u>1</u> 1	20 20			· /5.0	· /5.0		2	60			ELECTRIC HEATER — D	40
MIN.	CB INTER. CAP				EC1	ΓED	LO	8.8 ADS	9.9 27.7	9.0 KVA+(•	 _ (L(CL)ł	<va< td=""><td>.x25%)= _27.7_ KVA=_76.9</td><td></td></va<>	.x25%)= _27.7 _ KVA= _76.9	



2 LIGHTING CONTROL DIAGRAM SCHEMATIC



element one

23990 clawiter road hayward, california 94545 tel. 650.420.1075

All drawings and written material appearing herein constitute the original and unpublished work of element one architecture and the same may not be duplicated, used, or disclosed without the written consent of element one

STORAGE FACILITY 87 CONNECTICUT STREET, HAYWARD CA

ALAMEDA COUNTY MOSQUITO ABATEMENT CENTER 23187 CONNECTICUT STREET HAYWARD, CA

23



REVISIONS

REV#	DATE	DESCRIPTION
	02/03/23	1ST CITY SUBMITTAL
<u></u>	04/10/23	PLAN CHECK RESPONSE
2	05/11/23	PLAN CHECK RESPONSE 2

Title
SINGLE LINE DIAGRAM
AND SCHEDULES

Job #: 00000

Print Date:

E5.0

A. GENERAL INFORMATION										
01	Project Location (city)	Hayward	04	Total Conditioned Floor Area (ft²)	0					
02	Climate Zone	3	05	Total Unconditioned Floor Area (ft²)	1,115					
03	Occupancy Types Within Project (select a	ll that apply):	06	# of Stories (Habitable Above Grade)	1					
• \	Varehouse									

4/10/2023

Documentation Software: EnergyPro

Compliance ID: EnergyPro-4903-0423-0559

Compliance ID: EnergyPro-4903-0423-0559

Report Generated: 2023-04-10 11:07:37

D. EXCEPTIONAL CONDITIONS

B. PROJECT SCOPE		<u> </u>		÷
This table includes any lighting systems that are within the scope of the permit 141.0(b)2 / 180.2(b)4 for alterations.	application and are demonstrating co	mpliance using the p	rescriptive path outlined in 140.	6 / 170.2(e) or
Scope of Work	Conditioned Space	es	Unconditioned Spa	ices
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☐ New Lighting System				
☐ New Lighting System - Parking Garage				
	Area Category Method	0	Area Category Method	1115
Total Area of Work (ft²)	0		1115	

	Schema Version: rev 20220101	Report Generated: 2023-04-10 11:07:37
STATE OF CALIFORNIA		
Indoor Lighting		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name:	ACMAD Fish Storage Facility Report Page:	(Page 4 of 7)
Project Address:	23187 Connecticut Street Date Prepared:	4/10/2023

Generated Date/Time:

Report Version: 2022.0.000

ea Level Controls										
04	05	06	07	08	09	10	11	1	2	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) / 160.5(b)4A	Multi-Level Controls 130.1(b) / 160.5(b)4B	Shut-Off Controls 130.1(c) // 160.5(b)4C	Primary/Sky lit Daylighting 130.1(d) / 160.5(b)4D	Secondary Daylighting 130.1(d) / 160.5(b)4D	Interlocked Systems 140.6(a)1/ 170.2(e)2A	Field Inspector		
Storage	All Other Space Types	Readily Accessible	Dimmer	See Building Level	NA:Garage < 36sf opening	NA:Garage < 36sf opening				

I. LIGHTING POWER ALLOWANCE:	COMPLETE BUILDING OR AREA CATEGORY N	TETHODS			
Each area complying using the Comple 140.6(c) or adjustments per 140.6(a) o	ete Building or Area Category Methods per 140.6(b are being used .) are included in thi	is table. Column	06 indicates if addition	nal lighting power allowances per
Unconditioned Spaces					
01	02	03	04	05	06

	Unconditioned Spaces						
	01	02	03	04	05	C	06
	Area Description	Complete Building or Area Category Primary	Allowed Density	Area (ft²)	Allowed Wattage	Additional Allowa	nce / Adjustment
	Area Description	Function Area	(W/ft ²)	Alea (It)	(Watts)	Area Category	PAF
	Fish Storage Facility	Commercial Industrial Storage Shipping	0.6	1,115	669	No	No
			TOTALS:	1,115	669	See Tables J,	or P for detail
_							

Registration Number:	Generated Date/Time:	Documentation Software: EnergyPro

Report Version: 2022.0.000

Schema Version: rev 20220101

STATE OF CALIFORNIA Indoor Lighting			CALIFORNIA ENERGY COMMISSIO
CERTIFICATE OF COMPLIANCE			NRCC-LTI-
Project Name:	ACMAD Fish Storage Facility	Report Page:	(Page 7 of
Project Address:	23187 Connecticut Street	Date Prepared:	4/10/202

DOCU	MENTATION AUTHOR'S DECLARATION STATEMENT	
I certify	y that this Certificate of Compliance documentation is accurate and comple	ete.
Documen	ntation Author Name:	Documentation Author Signature:
Company Belden	r. Consulting Engineers	Signature Date: 2023-04-10
Address:		CEA/ HERS Certification Identification (if applicable):
City/State	e/Zip:	Phone:
I certify th 1. 2. 3. 4.	of Title 24, Part 1 and Part 6 of the California Code of Regulations. The building design features or system design features identified on this Certificate of Compliance are plans and specifications submitted to the enforcement agency for approval with this building permit all will ensure that a completed signed copy of this Certificate of Compliance shall be made available wit inspections. I understand that a completed signed copy of this Certificate of Compliance is required to	es for the building design or system design identified on this Certificate of Compliance conform to the requirer consistent with the information provided on other applicable compliance documents, worksheets, calculation pplication. In the building permit(s) issued for the building, and made available to the enforcement agency for all application be included with the documentation the builder provides to the building owner at occupancy.
	ble Designer Name: Gonzales	Responsible Designer Signature:
Company Belden	r. Consulting Engineers	Date Signed: 2023-04-10
Address: 5860 W	/ Las Positas Blvd., Suite 15	License: EE16961
City/State Pleasan	e/Zip: nton CA 94588	Phone: (925)621-5302

CERTIFICATE OF COMPLIANCE Project Name: ACMAD Fish Storage Facility Report Page:	NRCC-LTI
Project Name: ACMAD Fish Storage Facility Report Page:	
	(Page 2 of
Project Address: 23187 Connecticut Street Date Prepared:	4/10/20

C. COMPLIANCE RE	SULTS	")										
If any cell on this tabl	any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.												
	Allo	wed Lighting P	ower per 140.	6(b) / 170.2(e)) (Wa	atts)		Adjusted Ligh	nting Power per (Watts)	140	.6(a) / 170.2(e)		Compliance Results
Lighting in	01	02	03	04		05]	06	07		08	ſ	09
conditioned and unconditioned spaces must not be combined for compliance per 140.6(b)1 / 170.2(e)	Complete Building 140.6(c)1	Area Category 140.6(c)2 / 170.2(e)4	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 / 170.2(e)4B (+)	=	Total Allowed (Watts)	≥	Total Designed (Watts)	Adjustments PAF Lighting Control Credits 140.6(a)2 / 170.2(e)1B (-)	=	Total Adjusted (Watts) *Includes Adjustments		05 must be >= 08 140.6 / 170.2(e)
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)		Aujustinents	L	
Conditioned					Ш		≥			=			
Unconditioned		669	0		=	669	≥	450	0	=	450		COMPLIES
								Contro	ls Compliance (See	Table H for Detai	ls)	COMPLIES
						Rat	ed P	ower Reductio	on Compliance (S	See T	Гable Q for Detai	ls)	

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.				
	E. ADDITIONAL REMARKS			
	This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.			

	Genera	ted Date/Time:	Documentation Software: EnergyPro
CA Building Energy Efficiency Standards -	·	Version: 2022.0.000 a Version: rev 20220101	Compliance ID: EnergyPro-4903-0423-0559 Report Generated: 2023-04-10 11:07:37
STATE OF CALIFORNIA			
Indoor Lighting			CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE			NRCC-LTI-E
Project Name:	ACMAD Fish Storage Facilit	y Report Page:	(Page 5 of 7)
Project Address:	23187 Connecticut Stree	t Date Prepared:	4/10/2023

Th	is section does not apply to this project.
L.	ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
Th	is section does not apply to this project.
STATE OF THE PARTY OF	is section does not apply to this project.
N.	ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS
Th	is section does not apply to this project.
0.	ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
Th	is section does not apply to this project.

Q. RATED POWER	REDUCTION COMPLIANCE FO	R ONE-FOR-ONE ALTERAT	TIONS	
This section does no	t apply to this project.			
R. 80% LIGHTING	POWER FOR ALL ALTERATION:	S - CONTROLS EXCEPTION	s	

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Registration Number:	Generated Date/Time:	Documentation Software: EnergyPro
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: EnergyPro-4903-0423-0559 Report Generated: 2023-04-10 11:07:37

STATE OF CALIFORNIA Indoor Lighting			CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE			NRCC-LTI-E
Project Name:	ACMAD Fish Storage Facility	Report Page:	(Page 3 of 7)
Project Address:	23187 Connecticut Street	Date Prepared:	4/10/2023

	des all planned permanent an Table T. If using Table T to doo re.		-							
Designed Watt	Designed Wattage: Unconditioned Spaces									
01	02	03	04	05	06	07	08	09	1	0
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change ¹	Watts per luminaire ²	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)3 / 170.2(e)2C	Design Watts	Field In	spector Fail
Α	A - 4'0" Ceiling Mount LED	No	NA NA	30	Mfr. Spec	15	No No	450		
			•		Total Designed	Watts: UNCONE	DITIONED SPACES	450		•

¹FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B / 170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.

²Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.

G. MODULAR LIGHTING SYSTEMS

NRCI-LTI-E - Must be submitted for all buildings

his section does not apply to this project.					
H. INDOOR LIGHTING CONTROLS (Not including PAFs)					
This table includes lighting controls for conditioned and unconditioned spaces.					
Building Level Controls					
01	02	0	3		
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C		spector		
ivialitatory Demanti Response 110.12(c)	311ut-011 controls 130.1(c) / 160.3(b)4c	Pass	Fail		
NA < 4,000W subject to multilevel	Whole Building Auto Time Switch				

Registration Number:	Generated Date/Time:	Documentation Software: EnergyPro
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220101	Compliance ID: EnergyPro-4903-0423-0559 Report Generated: 2023-04-10 11:07:37
STATE OF CALLEDRAIA		

STATE OF CALIFORNIA			
Indoor Lighting			CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE			NRCC-LTI-E
Project Name:	ACMAD Fish Storage Facility	Report Page:	(Page 6 of 7)
Project Address:	23187 Connecticut Street	Date Prepared:	4/10/2023

This section does not apply to this project.		
This section does not upply to this project.	 	
T. DWELLING UNIT LIGHTING		
This section does not apply to this project.		
U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION		

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
There are no NRCA forms required for this project.

Generated Date/Time: Documentation Software: EnergyPro CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4903-0423-0559 Report Generated: 2023-04-10 11:07:37 Schema Version: rev 20220101

> BELDEN 4457 Willow Road, Suite 100 Pleasanton, California 94588 phone: (925) 621-5300 fax: (925) 203-5758 belden@beldeninc.com 23006/NL

element one architecture

23990 clawiter road hayward, california 94545 tel. 650.420.1075

All drawings and written material appearing herein constitute the original and unpublished work of element one architecture and the same may not be duplicated, used, or disclosed without the written consent of element one

> STRE 3



REVISIONS

DESCRIPTION ST CITY SUBMITTAL PLAN CHECK RESPONSE PLAN CHECK RESPONSE

TITLE 24 - INTERIOR

00000

Print Date:

date

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Schema Version: rev 20220101

Responsible Designer Name:

Pleasanton CA 94588

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Company: Belden Consulting Engineers

5860 W Las Positas Blvd., Suite 15

Gerald Gonzales

STATE OF CALIFORNIA

Outdoor Lighting

LZ-0: Very Low - Ur LZ-1: Low - Rural A O5 Occupancy Types v Warehouse B. PROJECT SCOPE This table includes outdet	ity) Hayward 3 Cone per Title 24 Part 1 10.114 or and eveloped Parkland LZ-2: Ireas Vithin Project Door lighting systems that are with 1/180.2(b)4Bv for alterations.	Moderate - Urban Clusters Moderately High - Urban Area	aving Jurisdiction	Illuminated Hardscape Area (6.2) 030	
O1 Project Location (c O2 Climate Zone O3 Outdoor Lighting Z LZ-0: Very Low - Ur LZ-1: Low - Rural A O5 Occupancy Types v Warehouse B. PROJECT SCOPE This table includes outded 170.2(e)6 or 141.0(b)2L My Project Consists of:	ity) Hayward 3 Cone per Title 24 Part 1 10.114 or and eveloped Parkland LZ-2: Ireas Within Project Door lighting systems that are within / 180.2(b)4Bv for alterations.	Moderate - Urban Clusters Moderately High - Urban Area	aving Jurisdiction		6.2)	
O2 Climate Zone O3 Outdoor Lighting Z LZ-0: Very Low - Ur LZ-1: Low - Rural A O5 Occupancy Types v Warehouse B. PROJECT SCOPE This table includes outdot 170.2(e)6 or 141.0(b)2L My Project Consists of: New Lighting S	one per Title 24 Part 1 10.114 or and eveloped Parkland LZ-2: I reas LZ-3: I within Project oor lighting systems that are within / 180.2(b)4Bv for alterations.	Moderate - Urban Clusters Moderately High - Urban Area	aving Jurisdiction		6-2) logo	
O3 Outdoor Lighting Z LZ-0: Very Low - Ur LZ-1: Low - Rural A O5 Occupancy Types v Warehouse B. PROJECT SCOPE This table includes outdot 170.2(e)6 or 141.0(b)2L My Project Consists of:	cone per Title 24 Part 1 10.114 or and eveloped Parkland	Moderate - Urban Clusters Moderately High - Urban Area	LZ-4:	(AHI):	ft ²) 830	
LZ-0: Very Low - Ur LZ-1: Low - Rural A 05 Occupancy Types v Warehouse B. PROJECT SCOPE This table includes outded 170.2(e)6 or 141.0(b)2L My Project Consists of:	ndeveloped Parkland	Moderate - Urban Clusters Moderately High - Urban Area	LZ-4:	full 15):		
Occupancy Types v Warehouse B. PROJECT SCOPE This table includes outded 170.2(e)6 or 141.0(b)2L My Project Consists of: New Lighting 5	oor lighting systems that are with / 180.2(b)4Bv for alterations.		as	High - Must be reviewed by (A Energy Commission	for Approval
Warehouse B. PROJECT SCOPE This table includes outded 170.2(e)6 or 141.0(b)2L My Project Consists of: New Lighting:	oor lighting systems that are with / 180.2(b)4Bv for alterations.	in the scope of the permit app				
B. PROJECT SCOPE This table includes outdo 170.2(e)6 or 141.0(b)2L My Project Consists of: New Lighting	/ 180.2(b)4Bv for alterations.	in the scope of the permit app				
This table includes outdon 170.2(e)6 or 141.0(b)2L My Project Consists of: New Lighting	/ 180.2(b)4Bv for alterations.	in the scope of the permit app				
This table includes outdon 170.2(e)6 or 141.0(b)2L My Project Consists of: New Lighting	/ 180.2(b)4Bv for alterations.	in the scope of the permit app				
170.2(e)6 or 141.0(b)2L My Project Consists of: New Lighting	/ 180.2(b)4Bv for alterations.	., те зворе ој те реппи ард	nlication and are	demonstrating compliance	ing the prescriptive pe	ith outlined in 1
☐ New Lighting			oncadon una ure	demonstrating compliance as	ing the prescriptive po	itii outiinea iii 1.
	01					
	System	Must Comply with Allow	ances from 140.7	02 7 / 170.2(e)6		
	·	ls your alteration increas			Yes	0
	03		04			05
	Luminaires Being Altered ¹		minaires Being A	dded or Altered	Calculat	ion Method
	10% and < 50%		0 uminaires			
	ting Luminaires Being Altered = (S			I / Existing Luminaires within	the Scope of the Perm	it Application) x
existing to remain (ie un	NCE		Street Date Prepa	red: ed as part of the permit applic	ation. For alteration p	
the permit application. Outdoor lighting for non	nresidential buildings, parking gar	ages and common service are	eas in multifamily	buildings must be document	ed separately from out	door lighting at
multifamily buildings an	d controlled from the inside of a c	lwelling unit				
Mandatory Controls for 01	Nonresidential Occupancies, Par	king Garages & Common Are	eas in Multifamil	y Buildings 04		05
01				489.70		
Area Description	Shut-Off 130.2(c)1 / 160.5(c)	Auto-Schedu 130.2(c)2 / 160		Motion Sensor 130.2(c)3 / 160.5(c)		Field Inspec
				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Pass
	ed for use in fire-rated installations, a	0.5-A to confirm compliance with umentation to confirm complian and recessed luminaires installed and the complex installed and the configuration.		ılıngs are exceptea from II ana III		
		umentation to confirm complian		ılıngs are exceptea from II ana III		
		umentation to confirm complian nd recessed luminaires installed i				umentation Softwa
Recessed luminaires marke		umentation to confirm complian nd recessed luminaires installed i Ge Compliance Re	in non-insulated ce	e: .0.000	Docu	e ID: EnergyPro-49
Recessed luminaires marke	ed for use in fire-rated installations, a	umentation to confirm complian nd recessed luminaires installed i Ge Compliance Re	in non-insulated ce	e: .0.000	Docu	imentation Softwa e ID: EnergyPro-49 Generated: 2023-0
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Registration Number: CA Building Energy Efficie STATE OF CALIFORNIA Outdoor Lighting CERTIFICATE OF COMPLIAI Project Name: Project Address:	ncy Standards - 2022 Nonresidential (Ge Compliance Re Sc ACMAD Fish Storage F 23187 Connecticut	enerated Date/Timeport Version: 2022 chema Version: reversion: reversion: reversion: Teversion: rev	e: .0.000 20220101	Doct Compliance Report G	e ID: EnergyPro-49 Generated: 2023-0
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Registration Number: CA Building Energy Efficie STATE OF CALIFORNIA Outdoor Lighting CERTIFICATE OF COMPLIAI Project Name: Project Address: DOCUMENTATION AU I certify that this Cert Documentation Author Name Company: Belden Consulting Engin Address: City/State/Zip:	ncy Standards - 2022 Nonresidential of the standards of t	Geompliance ReScompliance Scompliance ReScompliance ted Date/Timeport Version: 2022 chema Version: revenue Page Street Date Prepa mplete. Documentati Signature Da 2023-04-1	e: .0.000 20220101 e: red: on Author Signature: .e: 0	Compliance Report C CALIF	e ID: EnergyPro-49 Generated: 2023-0	
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esponsible Designer Signature

Date Signed: 2023-04-10

(925)621-5302

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CALIFORNIA ENERGY COMMISSION

NRCC-LTO-E

Registration Number:

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

L. LIGHTING ALLOWANCE: ORNAMENTAL

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CERTIFICATE OF	COM	IPLIANCE													NRCC-LTO-I	
Project Name:		ACMAD Fish Storage Facility Report Page: (Page 2 of 7)														
Project Address: 23187 Connecticut Street Date Prepa				epared:					4/10/2023							
C. COMPLIAN			allu o	alculated from	data	innut and calc	latio	ns in Tables E th		b N. Nata: If an	u coll	on this table save "	COM	DUES with Exception	nal Conditions" refer	
to Table D. Exc	eptio	nal Conditions	for g	uidance or see o	applio	able Table refe	rence	ed below.			y cen	on this tuble says				
	ulatio		wed	Lighting Power	(Wa).2(e)	6 or 141.0(b)2I	L / 18	80.2(b)4Bv			Со	Compliance Results		
01		02		03		04		05		06		07		08	09	
General Hardscape Allowance 140.7(d)1 / 170.2(e)6 (See Table I)	+	Per Application 140.7(d)2 / 170.2(e)6 (See Table J)	+	Sales Frontage 140.7(d)2 (See Table K)	+	Ornamental 140.7(d)2 / 170.2(e)6 (See Table L)	+	Per Specific Area 140.7(d)2 / 170.2(e)6 (See Table M)	OR	Existing Power Allowance 141.0(b)2L / 180.2(b)4Bv (See Table N)	Ш	Total Allowed (Watts)	Ν	Total Actual (Watts)	07 must be >= 08	
281	+		+		+		+		OR		II	281	\	33	COMPLIES	
				Sh	ieldiı	ng Compliance	(See	Table G for Det	tails)						N/A	
				C	ontro	ols Compliance	(See	Table H for Det	tails)						Not applicable	
This table is au	ıto-fi		able	comments becc	iuse (of selections mo	ade o	r data entered i	in tal	oles throughout	the f	iorm.				
E. ADDITION								- 1								
This table inclu	ıdes	remarks made l	y the	e permit applica	int to	the Authority	Havir	ng Jurisdiction.								

STATE OF CALIFORNIA							
Outdoor Lighting						CALIFORNIA ENE	RGY COMMISSION
CERTIFICATE OF COMPLIANCE							NRCC-LTO-E
Project Name:	ACMAD	Fish Storage Facil	ity Report Page:				(Page 5 of 7)
Project Address:	2318	7 Connecticut Stre	et Date Prepared:				4/10/2023
L LIGHTING DOWER ALLOWANGE (440 7 / 470	2(-1)						
I. LIGHTING POWER ALLOWANCE (per 140.7 / 170) General			01		
This table includes areas using allowance calculations per 140.7 / 170.2(e). General Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or lose it"				W. L		-11 -1 1 - 1 1 -	
Allowances are per Table 140.7-B /Table 170.2-S. Indica			_	"Use it or lose if	" Allowance (select	all that apply) (selec	ct all that apply)
used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance. Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.			☑ General Hardscape Allowance Table I (below)	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M
Calculated General Hardscape Lighting Power Allowance	e per Table 140.7-	A for Nonresider	itial & Hotel/Motel				
02	03	04	05	06	07	08	09
	Area V	Vattage Allowan	e (AWA) Linear Wattage Allowance (LWA)			Total General	
Area Description	Illuminated Area (ft²)	Allowed Densit (W/ft ²)	y Area Allowance (Watts)	Perimeter Leng (If)	th Allowed Density (W/lf)	Linear Allowance (Watts)	AWA + LWA (Watts)
Exterior	830	0.021	17.4	70	0.2	14	31
				Initial Wat	tage Allowance for	Entire Site (Watts):	250
				Instances of	Initial Wattage Allo	owance (LZ 0 only) ¹	
				Total	General Hardscape	Allowance (Watts):	281

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. LIGHTING ALLOWANCE: PER APPLICATION		
his section does not apply to this project.		
K. LIGHTING ALLOWANCE: SALES FRONTAGE		

This section does not apply to this project.		
Paristantia Nasahar	Constant Date (Toron	Davis and the Coffee of S
Registration Number:	Generated Date/Time:	Documentation Software: End

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STATE OF CALIFORNIA **Outdoor Lighting** CALIFORNIA ENERGY COMMISSION CERTIFICATE OF COMPLIANCE NRCC-LTO-E Project Name: ACMAD Fish Storage Facility Report Page:
23187 Connecticut Street Date Prepared: (Page 3 of 7) Project Address: 4/10/2023

			·						
the spaces covere installed and rep	ed lighting systems demonstrating compliance by the permit application are included in lacement luminaires being installed as part of attached to multifamily buildings and control d here.	the Table below. of the project sc	For altered ligh ope are include	hting systems us d (ie, existing lur	ing the Existing minaires remair	Power method ning or existing	per 141.0(b)2L (luminaires being	only new luming moved are not	aires b t inclu
Designed Wattag	ge:								
01	02	03	04	05	06	07	08	09	
lame or Item	Complete Luminaire Description	Watts per	How is Wattage	Total Number	Luminaire	Excluded per 140.7(a) /	Design Watts	Cutoff Req. > 6,200 initial lumen output	Ins
Tag	complete Editinalle Description	luminaire ^{1, 2}	determined	Luminaires ²	Status ³	170.2(e)6A	Design wates	130.2(b) /	Pass

NA: < 6200 33 D - LED Sconce 11 Mfr. Spec lumens Total Design Watts: 33

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved. EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

G. SHIELDING REQUIREMENTS (BUG)

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

There are no NRCA forms required for this project.

This section does not apply to this project.

Registration Number:

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 1 FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b) ² For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.

³ Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of

⁴ Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b)/ 160.5(c)

This section does not apply to this project.

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STATE OF CALIFORNIA		
Outdoor Lighting		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE		NRCC-LTO-E

Outdoor Lighting			CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE			NRCC-LTO-E
Project Name:	ACMAD Fish Storage Facility	Report Page:	(Page 6 of 7)
Project Address:	23187 Connecticut Street	Date Prepared:	4/10/2023

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)		
This section does not apply to this project.		
O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION		
	Form/Title	

NRCI-LTO-E - Must be submitted for all buildings
P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Documentation Software: EnergyPro Generated Date/Time: CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4903-0423-0558

Schema Version: rev 20220101



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23006/NL



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All drawings and written material appearing herein constitute the original and unpublished work of element one architecture and the same may not be duplicated, used, or disclosed without the

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TITLE 24 - EXTERIOR

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Print Date: