CM-07-01-2026

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION
# CITY OF COSTA MESA

## 800 BAKER STREET
## COSTA MESA, CA 92626
## APN: 418-121-29
## CITY PROJECT No. 26-05

**APPROVED**
BY COSTA MESA FIRE & RESCUE DEPT
COMMUNITY RISK REDUCTION DEVISION
COSTA MESA, CALIFORNIA

DATE 07/01/2026
BY JOHNS_N

NOTE: APPROVAL APPLIES TO PLANS SUBMITTED AND FOR CONSTRUCTION INDICATED THERON INSTALLATION SUBJECT TO FINAL INSPECTION AND ACCEPTANCE

**City of Costa Mesa**
**Transportation Services Department**

Accepted ☑

Accepted By: T. Luong Date: 07/01/2026

CITY OF COSTA MESA
PLANNING

Planning approval is subject to building division regulations. No modification(s) of the approved plans including, but not limited to, changes that increase the building height, removal of building articulation, or a change of the finish material(s), shall be made during construction without prior Planning Division written approval. Failure to obtain prior Planning Division approval of any modification could result in discretionary review process, revision of approved plans and/or modification of construction.

By: YEAGE_C

Date: 07/01/2026

DIVISION OF BUILDING SAFETY
CITY OF COSTA MESA
REVIEWED FOR CODE COMPLIANCE

BY Charles N. Chamoun DATE 07/01/2026

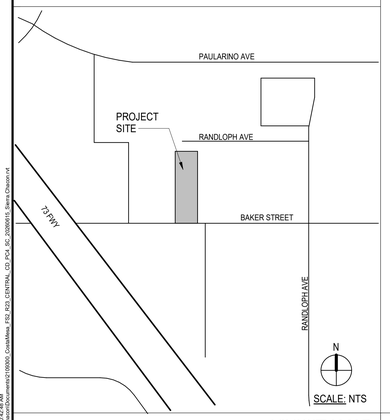
The approved plans and attached specifications MUST be kept in the job site at all times. No inspections shall be performed without the approved plans on-site. it is unlawful to make any changes or alterations on same without written permission from the Division of Building and Safety, City of Costa Mesa.

The stamping of this plan and attached specifications SHALL NOT be construed to permit or approve the violation of any provisions of any City of Costa Mesa Ordinance, State, or Federal law. These permits shall expire and become null and void if the work is not commenced or maintained per CB105.5/CRC 105.5

CITY OF COSTA MESA
ENGINEERING DIVISION

☑ APPROVED
☐ APPROVED AS CORRECTED
☐ REVISE AND RESUBMIT
☐ REJECTED
☐ FOR INFORMATION ONLY

BY GARCI_A DATE 7/1/2026




## VINICITY MAP

1. THESE DRAWINGS DO NOT CONTAIN THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
2. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AND TO PROTECT THEM FROM DAMAGE. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY UNIDENTIFIED CONDITIONS BE DISCOVERED. THE CONTRACTOR SHALL BEAR ALL EXPENSE OR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THIS WORK.
3. THESE DOCUMENTS AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF PBK ARCHITECTS, INC., AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF PBK ARCHITECTS, INC.
4. THE WORK SHOWN ON THESE DRAWINGS AS EXISTING CONDITIONS WAS PREPARED FROM INFORMATION FURNISHED BY THE OWNER, WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, PBK ARCHITECTS, INC. IS NOT RESPONSIBLE FOR THE ACCURACY OR ADEQUACY OF ANY WORK SHOWN AS EXISTING NOR IS PBK ARCHITECTS, INC. RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.
5. ALL FIRE LANES TO BE UNOBSTRUCTED DURING ALL PHASES OF CONSTRUCTION.
6. PENETRATIONS TO FIRE RATED MATERIALS OR ASSEMBLIES SHALL BE RESTORED TO EQUAL RATING. FIRE STOP SYSTEMS AS LISTED BY UNDERWRITERS LABORATORIES SHALL BE INSTALLED PER FIRE RESISTANCE DIRECTORY. FIRE STOP SYSTEMS SHALL BE AS SPECIFIED.
7. NONRESIDENTIAL ENERGY STANDARDS COMPLIANCE STATEMENT (TITLE 24, PART 6):

   THE DESIGN INDICATED HEREIN COMPLIES WITH THE REQUIREMENTS OF THE ENERGY CONSERVATION STANDARDS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THE PROPOSED BUILDING(S) WILL BE IN COMPLIANCE WITH THE ENERGY CONSERVATION STANDARDS PROVIDED IT (THEY) IS (ARE) BUILT ACCORDING TO THESE DRAWINGS AND SPECIFICATIONS AND PROVIDED ANY FUTURE IMPROVEMENTS ARE COMPLETED ACCORDING TO THE REQUIREMENTS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED TO INCLUDE ALL SIGNIFICANT ENERGY CONSERVATION FEATURES REQUIRED FOR COMPLIANCE WITH THE STANDARDS. BUILDING AREAS THAT ARE UNCONDITIONED AND/OR NOT SUBJECT TO THE STANDARDS ARE INDICATED ON THE PLANS.

   ENVELOPE MANDATORY MEASURES:

   A. INSTALLED INSULATING MATERIALS SHALL HAVE BEEN CERTIFIED BY THE MANUFACTURER TO COMPLY WITH THE CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL.

   B. ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF TITLE 24, PART CALIFORNIA CODE OF REGULATIONS, SECTIONS 707 AND 2602.

   C. ALL EXTERIOR JOINTS AND OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL AND OBSERVABLE SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED OR OTHERWISE SEALED.

   D. SITE CONSTRUCTED DOORS, WINDOWS, AND SKYLIGHTS SHALL BE CAULKED BETWEEN THE UNIT AND THE BUILDING, AND SHALL BE WEATHERSTRIPPED (EXCEPT FOR UNFRAMED GLASS DOORS AND FIRE DOORS.)

   E. MANUFACTURED DOORS AND WINDOWS INSTALLED SHALL HAVE AIR INFILTRATION RATES CERTIFIED BY THE MANUFACTURER IN ACCORDANCE WITH TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS, SECTION 116(a)1.

   F. MANUFACTURED FENESTRATION PRODUCTS IN THE ENVELOPE OF THE BUILDING, INCLUDING, BUT NOT LIMITED TO, WINDOWS, SLIDING GLASS DOORS, FRENCH DOORS, SKYLIGHTS, CURTAIN WALLS, AND GARDEN WINDOWS MUST BE LABELED FOR U-VALUE IN ACCORDANCE WITH THE (NFRC) NATIONAL FENESTRATION RATING COUNCIL'S INTERIM U-VALUE RATING PROCEDURE.

   G. DEMISING WALL INSULATION SHALL BE INSTALLED IN ALL OPAQUE PORTIONS OF FRAMED WALLS (EXCEPT DOORS).

1. PROOF LOAD TESTS FOR EXPANSION TYPE ANCHOR BOLTS:

   A. ANCHOR DIAMETER REFERS TO THE THREAD SIZE FOR THE WEDGE CATEGORY AND TO THE ANCHOR OUTSIDE DIAMETER FOR THE SLEEVE CATEGORY.

   B. APPLY PROOF TEST LOADS TO WEDGE & SLEEVE ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD.

   C. FOR SLEEVE INTERNALLY THREADED CATEGORIES, VERIFY THAT THE ANCHOR IS NOT PREVENTED FROM WITHDRAWING BY A BASEPLATE OR OTHER FIXTURES. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE FIXTURE(S) PRIOR TO TESTING.

   D. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).

   E. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.

   F. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

   (1). HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.

   (2). TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:

   WEDGE OR SLEEVE TYPE: ONE-HALF (1/2) TURN OF THE NUT. ONE-QUARTER (1/4) TURN OF THE NUT FOR THE 3/8 IN. SLEEVE ANCHOR ONLY.

   G. TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE SUBJECT ANCHORS.

   H. ALL ANCHOR BOLTS OF THE EXPANSION TYPE (LOADED IN EITHER PULLOUT OR SHEAR) SHALL HAVE 50 PERCENT OF THE BOLTS (ALTERNATE BOLTS IN ANY GROUP ARRANGEMENT ALLOWED BY THE TYPE OF SUBSTRATE AND DIAMETER OF BOLT LISTED BELOW UNDER TEST VALUES TABLE) PROOF TESTED IN TENSION TO TWICE THE ALLOWABLE TENSION LOAD. IF THERE ARE ANY FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH TITLE 24, PART 2, SECTION 1925A.3.5.

   I. ALL BOLTS MUST HAVE ICC/ES APPROVAL.

   J. ALL ANCHOR BOLTS OF THE EXPANSION TYPE INSTALLED IN CONCRETE SHALL BE ONE OF THE FOLLOWING:

   1. HILTI, INC. - KWIK BOLT TZ2: STAINLESS STEEL WEDGE ANCHOR - ICC-ES ESR-4266
   2. SIMPSON - STRONGBOLT 2: STAINLESS STEEL WEDGE ANCHOR - ICC-ES ESR-3037

| REQUIRED INSTALLATION TORQUE NORMAL WEIGHT OR LIGHTWEIGHT CONCRETE | | | |
|---|---|---|---|
| | DIA (IN) | TORQUE (FT-LBS) | EMBEDMENT (IN) |
| KWIK BOLT TZ2 ESR-4266 | 1/4" | 6 | 1 1/2" |
| | 3/8" | 30 | 1 1/2", 2", 2 1/2" |
| | 1/2" | 40 | 1 1/2", 2", 2 1/2", 3 1/4" |
| | 5/8" | 60 | 2 3/4", 3 1/4", 4" |
| | 3/4" | 125 | 3 1/4", 3 3/4", 4 3/4" |
| STRONG BOLT 2 ESR-3037 | 1/4" | 4 | 1 3/4" |
| | 3/8" | 20 | 2 5/8" |
| | 1/2" | 35 | 3 1/2" |
| | 5/8" | 55 | 4 3/8" |
| | 3/4" | 100 | 5 1/4" |

   K. ALL ANCHOR BOLTS OF THE EXPANSION TYPE INSTALLED IN GROUT-FILLED MASONRY SHALL BE ONE OF THE FOLLOWING:

   1. HILTI, INC. - KWIK BOLT 3: MASONRY ANCHORS - ICC-ES ESR-1385
   2. SIMPSON - STRONG BOLT 2: MASONRY ANCHORS - IAPMO UES ER-240

| REQUIRED INSTALLATION TORQUE NORMAL WEIGHT OR LIGHTWEIGHT CONCRETE | | | |
|---|---|---|---|
| | DIA (IN) | TORQUE (FT-LBS) | EMBEDMENT (IN) |
| KWIK BOLT TZ2 ESR-4561 | 1/4" | 6 | 1 1/2" |
| | 3/8" | 15 | 1 1/2", 2 1/2" |
| | 1/2" | 25 | 2", 3 1/4" |
| | 5/8" | 35 | 2 3/4", 4" |
| | 3/4" | 50 | 3 1/4", 4 3/4" |
| STRONG BOLT 2 ER-240 | 1/4" | 4 | 1 3/4" |
| | 3/8" | 20 | 2 5/8" |
| | 1/2" | 35 | 3 1/2" |
| | 5/8" | 55 | 4 3/8" |
| | 3/4" | 100 | 5 1/4" |

9. POWDER DRIVEN CONCRETE FASTENERS:

   A. GENERAL: USE OF POWDER DRIVEN CONCRETE FASTENERS FOR TENSION LOADS IS LIMITED TO SUPPORT OF MINOR LOADS LIKE ACOUSTICAL CEILINGS, DUCT WORK, CONDUIT.

   B. ALLOWABLE LOADS: IN GENERAL, LOADS SHOULD BE LIMITED TO LESS THAN 100 POUNDS. HOWEVER, GREATER LOADS MAY BE PERMITTED FOR SPECIAL CASES WHEN APPROVED BY THE CHECKING SUPERVISOR OR FIELD ENGINEER.

   C. TESTING. THE OPERATOR, TOOL, AND FASTENER SHALL BE PREQUALIFIED BY THE PROJECT INSPECTOR. HE SHALL OBSERVE THE TESTING OF THE FIRST 10 FASTENER INSTALLATIONS. A TEST "PULL-OUT" LOAD OF NOT LESS THAN TWICE THE DESIGN LOAD, OR 200 POUNDS, WHICHEVER IS GREATER, SHALL BE APPLIED TO THE PIN IN SUCH A MANNER AS NOT TO RESIST THE SPALLING TENDENCY OF THE CONCRETE SURROUNDING THE PIN. THEREAFTER, RANDOM TESTS UNDER THE PROJECT INSPECTOR'S SUPERVISION SHALL BE MADE OF APPROXIMATELY 1 IN 10 PINS, EXCEPT THAT WHEN THE DESIGN LOAD EXCEEDS 100 POUNDS, ONE HALF OF THE PINS SHALL BE TESTED. SHOULD FAILURE OCCUR ON ANY PIN TESTED, ALL INSTALLATIONS MUST BE TESTED AND UNFAIR PINS REPLACED.

   D. ALL POWDER DRIVEN CONCRETE FASTENERS SHALL BE ONE OF THE FOLLOWING:

   (1). HILTI, INC. X-CP 72 PINS - WOOD PLATE - ICC/ES NO. 2379 X-U PINS - STEEL TRACK - ICC/ES NO. 2269

   (2). ITW RAMSET/REDHEAD DRIVE PIN - WOOD PLATE - ICC/ES NO. 2690 DRIVE PIN - STEEL TRACK - ICC/ES NO. 1799

   (3). SIMPSON STRONG-TIE CO., INC. PDPWL-300MG - WOOD PLATE - ICC/ES NO. 2138 PDPA-125- STEEL TRACK - ICC/ES NO. 2138

10. GRADING PERMIT AND ROUGH GRADING APPROVAL ARE REQUIRED PRIOR TO ISSUANCE OF A BUILDING PERMIT.
11. SEPARATE PERMIT IS REQUIRED FOR EACH BUILDING STRUCTURE SUCH AS FENCE WALLS AND RETAINING WALLS, LIGHT POLES, SIGNS.
12. THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN OR PERSON DESIGNATED BY THEM TO PERFORM VISUAL STRUCTURAL OBSERVATION OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND AT THE COMPLETION OF THE STRUCTURAL SYSTEM. OBSERVED DEFICIENCES WILL BE REPORTED TO OWNER, CONTRACTOR, SPECIAL INSPECTOR AND BUILDING OFFICIAL IN WRITING.
13. THE CITY OF COSTA MESA IS NOT AUTHORIZED TO REVIEW PLANS OR INSPECT PROJECTS FOR ADA & FHA COMPLAINCE. THE CITY DOES ENFORCE CH.11-B FROM THE CBC.
14. ANY AND ALL REFERENCES TO SPECIALTY CONTRACTORS SHALL REMAIN THE RESPONSIBILITY OF THE BIDDING GENERAL CONTRACTOR AND SHALL BE COORDINATED WITH THEIR SUBCONTRACTORS. ANY WORK IDENTIFIED "BY OTHERS "IS ALSO THE RESPONSIBILITY OF THE BIDDING CONTRACTOR UNLESS A UTILITY AGENT IS SPECIFICALLY IDENTIFIED.

## GENERAL NOTES


| | TITLE |
|---|---|
| T1 | TITLE SHEET |
| T2 | CODE ANALYSIS |
| T3 | 2022 CALGREEN CHAPTER 5 NONRESIDENTIAL CHECKLIST |
| T4 | 2022 CALGREEN CHAPTER 5 NONRESIDENTIAL CHECKLIST |
| T5 | CONDITIONS OF APPROVAL |
| | CIVIL |
| C-0.01 | TITLE SHEET |
| C-0.02 | DETAIL SHEET |
| C-0.03 | DETAIL SHEET |
| C-0.04 | SOILS REPORT EXCERPT - RECOMMENDATIONS |
| C-0.05 | SOILS REPORT EXCERPT - RECOMMENDATIONS |
| C-1.01 | PRECISE GRADING PLAN - TEMPORARY FACILITY |
| C-1.02 | PRECISE GRADING PLAN |
| C-2.01 | WATER PLAN - TEMPORARY FACILITY |
| C-2.02 | WATER / SEWER PLAN |
| C-3.01 | EROSION CONTROL PLAN |
| C-4.01 | HORIZONTAL CONTROL PLAN |
| D-1.01 | DEMOLITION PLAN |
| SM-1.01 | SURVEY MAP |
| WQ-1 | WQMP SITE MAP |
| | MESA WATER DISTRICT |
| WD0.1 | MESA WATER DISTRICT - TITLE SHEET |
| WD0.2 | MESA WATER DISTRICT - WATER PLAN TEMP. FACILITY |
| WD0.3 | MESA WATER DISTRICT - WATER/SEWER PLAN |
| WD0.4 | MESA WATER DISTRICT - IRRIGATION PLAN |
| | TRAFFIC |
| TS0.1 | TRAFFIC SIGNAL MODIFICATION PLAN |
| | ARCHITECTURAL |
| A1.0_A | PHASING DEMOLITION / NEW PLANS |
| A1.0_B | PHASING DEMOLITION / NEW PLANS |
| A1.0_C | TEMPORARY CONSTRUCTION EASEMENT EXHIBITS |
| A1.0_D | PHASING DEMOLITION / NEW PLANS |
| A1.0_E | PHASING DEMOLITION / NEW PLANS |
| A1.0_F | PHASING DEMOLITION / NEW PLANS |
| A1.1 | SITE PLAN |
| A1.2 | ENLARGED SITE PLANS |
| A1.3 | ENLARGED SITE PLANS & SITE DETAILS |
| A1.4 | SITE DETAILS |
| A1.5 | TRASH ENCLOSURE AND SITE DETAILS |
| A2.1 | FLOOR PLAN |
| A2.2 | REFLECTED CEILING PLAN |
| A2.3 | ROOF PLAN |
| A3.1 | EXTERIOR ELEVATIONS |
| A4.1 | BUILDING SECTIONS |
| A4.2 | BUILDING SECTIONS |
| A5.1 | DOOR, WINDOW AND FINISH SCHEDULES |
| A5.2 | DOOR DETAILS |
| A5.3 | WINDOW DETAILS |
| A6.1 | ENLARGED FLOOR PLANS |
| A7.1 | INTERIOR ELEVATIONS |
| A7.2 | INTERIOR ELEVATIONS |
| A7.3 | INTERIOR ELEVATIONS |
| A7.4 | INTERIOR ELEVATIONS |
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| A8.2 | INTERIOR DETAILS |
| A8.3 | MILLWORK DETAILS AND SCHEDULES |
| A8.4 | SPECIALTY DETAILS |
| A8.5 | SIGNAGE DETAILS |
| A8.6 | EXTERIOR AND ROOF DETAILS |
| A8.7 | ROOF DETAILS |
| A8.8 | FIRE STOPPING DETAILS |
| A8.9 | FIRE STOPPING DETAILS |
| A8.10 | FIRE STOPPING DETAILS |
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| AS4.2 | ALERT SYSTEM DEVICE DETAILS |
| AS4.3 | ALERT SYSTEM DEVICE DETAILS |
| AS4.4 | ALERT SYSTEM DEVICE DETAILS |
| AS4.5 | ALERT SYSTEM DEVICE DETAILS |
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| SCE1.0 | SCE DESIGN - NEW METER AND SERVICE |
| SCE1.1 | SCE DESIGN - NEW METER AND SERVICE |
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**OWNER**
CITY OF COSTA MESA
77 FAIR DRIVE
COSTA MESA, CA 92626

**FIRE DEPARTMENT**
COSTA MESA FIRE DEPARTMENT
77 FAIR DRIVE
COSTA MESA, CA 92626

## OWNER AND FIRE DEPARTMENT

**ARCHITECT**
PBK ARCHITECTS
8163 ROCHESTER AVE. SUITE 100
RANCHO CUCAMONGA, CA 91730
(909) 987-0909 FAX (909) 980-9980

**MECHANICAL/PLUMBING ENGINEER**
POCOCK DESIGN SOLUTIONS
14451 CHAMBERS ROAD, SUITE 210
TUSTIN, CA 92780
(949) 417-3903 Ext 105 FAX (949) 419-1393

**CIVIL ENGINEER**
CIVTEC
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
(909) 463-8822

**ELECTRICAL ENGINEER**
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C
RANCHO CUCAMONGA, CA 91701
(909) 941-3008 FAX (909) 941-8211

**STRUCTURAL ENGINEER**
MIYAMOTO INTERNATIONAL
707 WILSHIRE BLVD
LOS ANGELES, CA 90017
(213) 362-7778

**LANDSCAPE ARCHITECT**
CORNERSTONE STUDIOS, INC.
951 E SANTA ANA BLVD
SANTA ANA, CA 92701
(714) 973-2200

**LEED SPECIALIST**
GREEN DINSOAUR, INC.
865 WASHINGTON BLVD., SUITE 210
CULVER CITY, CA 90232
(213) 455-3311

## PROJECT TEAM

DEFERRED APPROVAL ITEMS:

DEFERRED SUBMITTALS AND FINAL APPROVALS ARE A CONTRACTOR RESPONSIBILITY AND SHALL BE COMPLETED CONSISTENT WITH THE CONTRACTOR'S APPROVED CONSTRUCTION SCHEDULE.

SUBMITTAL DOCUMENTS FOR DEFERRED ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN AND DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. SOME SUBMITTAL ITEMS WILL NEED TO BE SUBMITTED BY THE CONTRACTOR DIRECTLY TO CITY BUILDING DIVISION AND/OR FIRE DEPARTMENT THROUGH THE CITY'S ONLINE TOTALLY ELECTRONIC SELF SERVICE APPLICATION (TESSA).

INSTALLATION OF DEFERRED APPROVAL ITEMS SHALL NOT BE STARTED UNTIL DETAILED PLANS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR ENGINEER IN GENERAL RESPONSIBLE CHARGE OF DESIGN AND SIGNED BY A CALIFORNIA REGISTERED ARCHITECT OR PROFESSIONAL ENGINEER WHO HAS BEEN DELEGATED RESPONSIBILITY COVERING THE WORK SHOWN ON A PARTICULAR PLAN OR SPECIFICATION AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.

DEFERRED APPROVAL ITEMS SHALL BE SUBMITTED FOR REVIEW NO LATER THAN 60 DAYS AFTER THE NOTICE TO PROCEED, U.N.O.

DEFERRED APPROVAL ITEMS FOR THIS PROJECT ARE THE FOLLOWING ITEMS, NOT ALL INCLUSIVE:
A. AUTOMATIC FIRE SPRINKLER SYSTEM
B. FIRE ALARM SYSTEM
C. UNDERGROUND FIRE LINE
D. EMERGENCY GENERATOR / DOCKING STATION (SCAQMD)
E. FUEL TANK (SCAQMD)
F. TEMPORARY APPARATUS BAY
G. TEMPORARY LIVING QUARTERS (STAMPED AND APPROVED HCD PLANS AND CALCS)
   a. SUBMIT WITHIN 30 DAYS FOLLOWING NTP SPECIFIED
H. HOSE TOWER (DRAWINGS AND CALCS)

## DEFERRED APPROVAL

CONSTRUCTION OF A NEW 9,445 S.F. (FOOTPRINT), 8,630 S.F. (USABLE), FIRE STATION BUILDING, SINGLE STORY, TYPE V-B, SPRINKLERED.

IN ADDITION TO RELATED SITE IMPROVEMENTS ON A 0.8 ACRE LOT, INCLUDING PV ARRAYS IN THE CITY OF COSTA MESA, STATE OF CALIFORNIA.

THE FOLLOWING WORK AND/OR ANCILLARY STRUCTURES ARE INCLUDED WITH SCOPE OF WORK, WHICH MAY REQUIRE ADDITIONAL PERMITS:
- ELECTRICAL WORK
- MECHANICAL WORK
- PLUMBING WORK
- FIRE SPRINKLERS
- RETAINING WALLS/GRADING
- EXTERIOR BUILDING SIGNAGE
- EMERGENCY GENERATOR
- ABOVE GROUND FUEL TANK
- CMU PERIMETER WALLS
- TRASH ENCLOSURE
- PHOTOVOLTAIC ARRAY

CITY PERMIT REFERENCE NUMBERS:
-_____(BUILDING PERMIT)
-_____(PRECISE GRADING PERMIT)

## SCOPE OF WORK


**PBK**
**SOUTHERN CALIFORNIA**
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com


**COSTA MESA FIRE STATION No. 2 RECONSTRUCTION**
**COSTA MESA FIRE & RESCUE DEPARTMENT**
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

**CONSULTANT**

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| | | | REVISIONS |

DRAWN: SC CHECKED: JM
DATE: 06/30/2026 SCALE: AS NOTED
PROJECT NUMBER: 2109300

**TITLE SHEET**

DRAWING NUMBER: **T1**

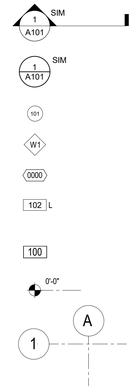
PC SUBMITTAL 04

6/30/2026 10:42:48 AM
C:\Users\schuyler\Documents\21\09300_CostaMesa_FS2_R25_CENTRAL_CD_PC4_SC_2026615_Barra Chaser.rvt

CM-07-01-2026

| | | | |
|---|---|---|---|
| ∠ | Angle | N | North |
| @ | At | N.I.C. | Not In Contract |
| ℄ | Centerline | No. or # | Number |
| ⌴ | Channel | NOM. | Nominal |
| ⌀ | Diameter or Round | N.T.S. | Not To Scale |
| d | Penny (Nails) | | |
| # | Pound or Number | OD | Outside Diameter |
| (E) | Existing | O.A. | Overall |
| (N) | New | OC. | On Center |
| | | OCC. | Occupant |
| A/C | Air Conditioning | O.F.C.I. | Owner Furnished, Contractor Installed |
| A.C. | Asphaltic Concrete | | |
| ACOUS. | Acoustical | OFF. | Office |
| A.D. | Area Drain | OPP. | Opposite |
| ADJ. | Adjustable | OPER. | Operable |
| A.F.F. | At Finish Floor | | |
| ALT. | Alternate | PART. | Partition |
| ALUM. | Aluminum | PL. | Plate |
| APPROX. | Approximate | P.LAM. | Plastic Laminate |
| ARCH. | Architectural | PLAS. | Plaster |
| | | PLYWD. | Plywood |
| BD. | Board | PNL. | Panel |
| BITUM. | Bituminous | PR. | Pair |
| BLDG. | Building | PT. | Point |
| BLK. | Block | | |
| BLKG. | Blocking | Q.T. | Quarry Tile |
| B.M. | Bench Mark | | |
| BM. | Beam | R | Riser |
| BOT. | Bottom | R.D. | Roof Drain |
| | | REF. | Reference |
| CAB. | Cabinet | REFR. | Refrigerator |
| C.B. | Chalk Board | REG. | Register |
| CEM. | Cement | REINF. | Reinforced |
| CER. | Ceramic | REQ. | Required |
| CERT. | Certificate | RESIL. | Resilient |
| C.I. | Cast Iron | R.H. | Round Head |
| C.J. | Construction Joint | RM. | Room |
| C.L. | Chain Link / Center Line | R.O. | Rough Opening |
| CLG. | Ceiling | RWD. | Redwood |
| CLR. | Clear | | |
| C.M.U. | Concrete Masonry Unit | S | South |
| COL. | Column | S.C. | Saw Cut |
| CONC. | Concrete | SCHED. | Schedule |
| CONN. | Connection | SECT. | Section |
| CONSTR. | Construction | SH. | Shelf |
| CONT. | Continuous | SHT. | Sheet |
| CORR. | Corridor | SHWR. | Shower |
| CPT. | Carpet | SIM. | Similar |
| CTSK. | Countersunk | SPEC. | Specification |
| CTR. | Center | SQ. | Square |
| CW. | Cold Water | SST. | Stainless Steel |
| DBL. | Double | STD. | Standard |
| DEPT. | Department | STL. | Steel |
| D.F. | Drinking Fountain/ Douglas Fir | STOR. | Storage |
| | | STRUCT. | Structural |
| DIA. | Diameter | SUSP. | Suspended |
| DIAG. | Diagonal | SYM. | Symmetrical |
| DIM. | Dimension | SYS. | System |
| DISP. | Dispenser | | |
| DN. | Down | T.B. | Towel Bar |
| DR. | Door | TEL. | Telephone |
| DS. | Downspout | TER. | Terrazzo |
| D.S.P. | Dry Standpipe | THK. | Thick |
| DTL. | Detail | T. & G. | Tongue & Groove |
| DWG. | Drawing | T.O.C. | Top of Curb |
| DWR. | Drawer | T.O.C.D. | Top of Concrete Deck |
| | | T.O.CR. | Top of Cricket |
| E | East | T.O.M. | Top of Masonry |
| EA. | Each | T.O.P. | Top of Pavement/ Top of Parapet |
| E.J. | Expansion Joint | | |
| EL. | Elevation | T.O.R.D. | Top of Roof Deck |
| ELEC. | Electrical | T.O.S. | Top of Sheathing |
| ELEV. | Elevator | T.O.W. | Top of Wall |
| EMER. | Emergency | TRD. | Tread |
| ENCL. | Enclosure | T.S. | Tube Steel |
| EQ. | Equal | T.S.W. | Top of Sidewalk |
| EQPT. | Equipment | T.V. | Television |
| E.W. | Each Way | TYP. | Typical |
| EXH. | Exhaust | | |
| EXP. | Expansion | U.L. | Underwriters Laboratory |
| EXT. | Exterior | U.N.O. | Unless Noted Otherwise |
| | | U.O.N. | Unless Otherwise Noted |
| F.A. | Fire Alarm | | |
| F.D. | Floor Drain | V.C.T. | Vinyl Composition Tile |
| FDN. | Foundation | VERT. | Vertical |
| F.E. | Fire Extinguisher | VEST. | Vestibule |
| FEC. | Fire Extinguisher Cabinet | V.T.R. | Vent Through Roof |
| F.F. | Finish Floor | V.W.C. | Vinyl Wall Covering |
| F.G. | Finish Grade | | |
| F.H. | Flat Head | W | West |
| FHC | Fire Hose Cabinet | W/ | With |
| FIN. | Finish | W.C. | Water Closet |
| FLASH. | Flashing | WD. | Wood |
| FLR. | Floor | WDW. | Window |
| FLUOR. | Fluorescent | W/O | Without |
| F.O.C. | Face of Concrete | W.S. | Wood Screw |
| F.O.F. | Face of Finish | WT. | Weight |
| F.O.M. | Face of Masonry | W.W.F. | Welded Wire Fabric |
| F.O.S. | Face of Studs | | |
| FT. | Foot or Feet | | |
| FTG. | Footing | | |
| FURR. | Furring | | |
| GA. | Gauge | | |
| GALV. | Galvanized | | |
| G.B. | Grab Bar | | |
| GI | Galvanized Iron | | |
| GL. | Glass | | |
| GND. | Ground | | |
| GR. | Grade | | |
| GS | Galvanized Steel | | |
| GYP. | Gypsum | | |
| H.B. | Hose Bibb | | |
| H.C. | Hollow Core | | |
| HDR. | Header | | |
| HDWD. | Hardwood | | |
| HDWR. | Hardware | | |
| H.M. | Hollow Metal | | |
| HORIZ. | Horizontal | | |
| HSS | Hollow Steel Section | | |
| HT. | Height | | |
| I.D. | Inside Diameter | | |
| INSUL. | Insulation | | |
| INT. | Interior | | |
| JAN. | Janitor | | |
| JT. | Joint | | |
| KIT. | Kitchen | | |
| LAB. | Laboratory | | |
| LAM. | Laminate | | |
| LAV. | Lavatory | | |
| LKR. | Locker | | |
| LT. | Light | | |
| MAINT. | Maintenance | | |
| MAT. | Material | | |
| MAX. | Maximum | | |
| M.B. | Machine Bolt | | |
| MECH. | Mechanical | | |
| MEMB. | Membrane | | |
| MEZZ. | Mezzanine | | |
| MFR. | Manufacturer | | |
| MH. | Manhole | | |
| MIN. | Minimum | | |
| MIR. | Mirror | | |
| MISC. | Miscellaneous | | |
| M.O. | Masonry Opening | | |
| MTD. | Mounted | | |
| MTL. | Metal | | |
| MUL. | Mullion | | |

## ABBREVIATIONS 23




BUILDING SECTION
SHEET NUMBER

DETAIL NUMBER
SHEET NUMBER

DOOR IDENTIFICATION

WINDOW IDENTIFICATION

REFERENCE NOTE

WOODWORK INSTITUTE REFERENCE NUMBER

ROOM NAME

SPOT ELEVATION

GRID IDENTIFICATION

## GRAPHIC SYMBOLS 17

2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE CALIFORNIA CODE OF OF REGULATIONS (CCR) TITLE 24, PART 1

2022 CALIFORNIA BUILDING CODE (CBC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2 — (2021 INTERNATIONAL BUILDING CODE (IBC) W/ CALIFORNIA AMENDMENTS)

2022 CALIFORNIA ELECTRICAL CODE (CEC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 3 — (2020 NATIONAL ELECTRIC CODE (NEC) W/ CALIFORNIA AMENDMENTS)

2022 CALIFORNIA MECHANICAL CODE (CMC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 4 — (2021 UNIFORM MECHANICAL CODE (UMC) W/ CALIFORNIA AMENDMENTS)

2022 CALIFORNIA PLUMBING CODE (CPC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 5 — (2021 UNIFORM PLUMBING CODE (UPC) W/ CALIFORNIA AMENDMENTS)

2022 CALIFORNIA ENERGY CODE CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 6

2022 CALIFORNIA FIRE CODE (CFC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 9 — (2021 INTERNATIONAL FIRE CODE (IFC) W/ CALIFORNIA AMENDMENTS)

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL GREEN) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 11

2022 CALIFORNIA REFERENCED STANDARDS CODE -CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 12 — 1990 STATE FIRE MARSHAL REGULATIONS (AS AMENDED TO DATE) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 19

2022 CALIFORNIA BUILDING CODE CHAPTER 11B FOR ACCESSIBLE DESIGN (CBC) CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24, PART 2

NOTE: ALL DESIGN AND PLANS BASED ON THE 2022 CBC, CMC, CEC,CPC, CGBSC AND BUILDING ENERGY CODE.

APPLICABLE NFPA , UL AND ICC STANDARDS

NFPA 13 - AUTOMATIC SPRINKLER SYSTEMS, 2025 EDITION

NFPA 14 - STANDPIPE SYSTEMS, 2024 EDITION

NFPA 17 - DRY CHEMICAL EXTINGUISHING SYSTEMS, 2024 EDITION

NFPA 17A - WET CHEMICAL SYSTEMS, 2024 EDITION

NFPA 20 - STATIONARY PUMPS, 2025 EDITION

NFPA 22 - WATER TANKS FOR PRIVATE FIRE PROTECTION, 2023 EDITION

NFPA 24 - PRIVATE FIRE MAINS, 2025 EDITION

NFPA 25 - WATER BASED FIRE PROTECTION SYSTEMS, 2023CA EDITION

NFPA 72 - NATIONAL FIRE ALARM CODE, 2022 EDITION

NFPA 80 - FIRE DOORS AND OTHER OPENING PROTECTIVES, 2025 EDITION

NFPA 92 - STANDARD FOR SMOKE CONTROL SYSTEMS, 2024 EDITION

NFPA 253 - CRITICAL RADIANT FLUX OF FLOOR COVERINGS, 2023 EDITION

NFPA 2001 - CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, 2025 EDITION

ICC 300 - ICC STANDARDS FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING, AND GRANDSTANDS, 2012 EDITION

UL 300 - FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF COMMERCIAL RESTAURANT COOKING AREAS, 2005 EDITION

UL 464 - AUDIBLE SIGNAL APPLIANCES, 2003 EDITION

UL 521 - HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS, 1999 EDITION

NOTE: ALL NFPA STANDARDS AS LISTED ARE TO CONFORM TO THE EDITION AS LISTED WITH THE LATEST CALIFORNIA AMENDMENTS. REFERENCE THE 2022 CBC, TITLE 24, PART 2 - CHAPTER 35 FOR ADDITIONAL APPLICABLE NFPA, UL. STANDARDS AND ANY CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

## GOVERNING CODES 19

**CODE**: 2022 CPC, TABLE A, TABLE 422.1 **GROUP**: "B"/ "R-3" / "S-2"

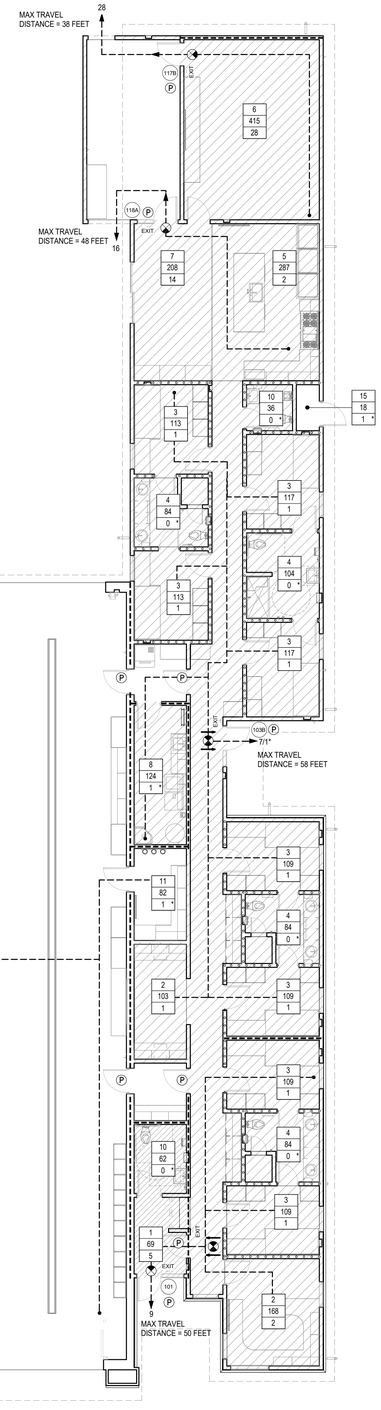
**PLUMBING OCCUPANT LOAD:**

"B" 61* / 200 = 1 (1M/1F); "R-3" 392* / 200 = 2 (5M/5F); "S-2" 84 / 5,000 = 1 (1M/1F)

| | MEN | WOMEN | UNISEX |
|---|---|---|---|
| TOILETS | "B" / "R-3" / "S-2" | "B" / "R-3" / "S-2" | "B" / "R-3" / "S-2" |
| REQUIRED | 1 + 1 + 1 = 3 | 1 + 1 + 1 = 3 | 0 |
| PROVIDED | - | - | 7 |
| URINALS | | | |
| REQUIRED | 1 + 0 + 0 = 1 | - | 0 |
| PROVIDED | - | - | 1 |
| LAVATORIES | | | |
| REQUIRED | 1 + 1 + 1 = 3 | 1 + 1 + 1 = 3 | 0 |
| PROVIDED | - | - | 7 |
| SHOWERS | | | |
| REQUIRED | - | - | 0 + 1 + 0 = 1 |
| PROVIDED | - | - | 5 |
| SERVICE SINKS | | | |
| REQUIRED | - | - | 1 + 1 + 1 = 3 |
| PROVIDED | - | - | 7 |

*AREAS HAVE BEEN EXCLUDED FROM SQUARE FOOTAGE PER 2022 CPC TABLE A NOTE**.
DRINKING FOUNTAINS SHALL NOT BE REQUIRED FOR AN OCCUPANT LOAD OF 30 OR LESS.

## PLUMBING FIXTURE ANALYSIS 13


MAX TRAVEL DISTANCE = 38 FEET
28
MAX TRAVEL DISTANCE = 48 FEET
16
34/3" MAX TRAVEL DISTANCE = 149 FEET
MAX TRAVEL DISTANCE = 58 FEET
7'1"*
MAX TRAVEL DISTANCE = 50 FEET
9
22 MAX TRAVEL DISTANCE = 29 FEET
EXIT
EXIT
EXIT

CM-07-01-2026

# 2022 CALGreen Chapter 5 Nonresidential Checklist

Costa Mesa Fire Station No. 2

| Code Section | Requirement Type | Description | Location in Construction Documents |
|---|---|---|---|
| 5.1 | | **Planning and Design** | |
| 5.105.1 | N/A | Recycle / Resale of Existing Building | Not in SOW |
| 5.105.2 | N/A | Reuse of Existing Building | Not in SOW |
| 5.106.1 | Mandatory | Storm Water Pollution Prevention | C-3.01 |
| 5.106.1.1 | Mandatory | Storm Water Pollution Prevention: Local ordinance | C-3.01 |
| 5.106.1.2 | Mandatory | Storm Water Pollution Prevention: Best Management Practices (BMP) | C-3.01 |
| 5.106.1 | N/A | Storm Water Pollution Prevention for Project that disturb one or more acres of land. | N/A |
| 5.106.4.1 | Mandatory | Bicycle parking [BSC] | A1.1 |
| 5.106.4.1.1 | Mandatory | Short-term bicycle parking | A1.1 |
| 5.106.4.1.2 | N/A | Long-term bicycle parking | N/A - 9 tenant-occupant |
| 5.106.4.1.3 | N/A | Long-term bicycle parking - Additions or Alterations | Not in SOW |
| 5.106.4.1.4 | N/A | Long-term bicycle parking - New Shell Buildings | Not in SOW |
| 5.106.4.2 | N/A | Bicycle parking [DSA-SS] | Not in SOW |
| 5.106.4.2.1 | N/A | Student Bicycle Parking [DSA-SS] | Not in SOW |
| 5.106.4.2.2 | N/A | Staff Bicycle Parking [DSA-SS] | Not in SOW |
| 5.106.5.3 | N/A | Electric Vehicles (EV) Charging [N] | N/A - 9 Parking Spaces Provided |
| 5.106.5.3.1 | N/A | EV Capable Spaces [N] | N/A - 9 Parking Spaces Provided |
| 5.106.5.3.2 | N/A | Electric vehicle charging stations (EVCS) | N/A - 9 Parking Spaces Provided |
| 5.106.5.3.3 | N/A | Use of automatic load management systems (ALMS) | Not in SOW |
| 5.106.5.3.4 | Mandatory | Accessible electric vehicle charging station (EVCS) | N/A - 9 Parking Spaces Provided |
| 5.106.5.3.5 | Mandatory | Electric vehicle charging station signage | N/A - 9 Parking Spaces Provided |
| 5.106.5.3.6 | N/A | Electric vehicle charging stations (EVCS)-Power allocation method | Not in SOW |
| 5.106.5.4 | N/A | Additions or alterations to existing buildings or parking facilities [A] | Not in SOW |
| 5.106.5.4.1 | N/A | Existing buildings or parking areas without perviously installed EV capable infrastructure [A] | Not in SOW |
| 5.106.5.4.2 | N/A | Existing buildings or parking areas with perviously installed EV capable infrastructure [A] | Not in SOW |
| 5.106.5.5 | N/A | Electric vehicle charging (EV) charging: medium-duty and heavy-duty [N] | Not in SOW |
| 5.106.5.5.1 | N/A | Electric vehicle charging readiness requirements for warehouses, grocery stores, office buildings, and manufacturing facilities and retail stores with planned off-street loading spaces | Not in SOW |
| 5.106.5.6 | N/A | Electric vehicle (EV) charging at public schools and community colleges [DSA-SS] | Not in SOW |
| 5.106.5.6.1 | N/A | EV capable spaces [DSA-SS] | Not in SOW |
| 5.106.5.6.2 | N/A | Electric vehicle charging stations (EVCS) [DSA-SS] | Not in SOW |
| 5.106.5.6.2.1 | N/A | Reduce number of EV capable spaces [DSA-SS] | Not in SOW |
| 5.106.5.6.2.2 | N/A | Multiple connectors [DSA-SS] | Not in SOW |
| 5.106.5.6.2.3 | N/A | Use of automatic load management systems (ALMS) [DSA-SS] | Not in SOW |
| 5.106.5.6.3 | N/A | EVCS alternative compliance [DSA-SS] | Not in SOW |
| 5.106.5.6.4 | N/A | EVCS for alterations of or additions to parking facilities [DSA-SS] | Not in SOW |
| 5.106.5.6.4.1 | N/A | Alterations of and additions to parking facilities [DSA-SS] | Not in SOW |
| 5.106.5.6.4.2 | N/A | Alterations consiting of the installation of photovoltaic systems [DSA-SS] | Not in SOW |
| 5.106.5.6.5 | N/A | Requirement to install EVSE [DSA-SS] | Not in SOW |
| 5.106.8 | Mandatory | Light Pollution Reduction [N] | E0.4, E1.1P |
| 5.106.8.1 | Mandatory | Facing - Backlight | E0.4, E1.1P |
| 5.106.8.2 | Mandatory | Facing Glare | E0.4, E1.1P |
| 5.106.10 | Mandatory | Grading and Paving | C-1.01, C-1.02 |
| 5.106.12 | N/A | Shade trees [DSA-SS] | Not in SOW |
| 5.106.12.1 | N/A | Surface parking areas [DSA-SS] | Not in SOW |
| 5.106.12.2 | N/A | Landscape areas [DSA-SS] | Not in SOW |
| 5.106.12.3 | N/A | Hardscape areas [DSA-SS] | Not in SOW |
| 5.3 | | **Water Efficiency and Conservation** | |
| 5.303.1 | N/A | Indoor Water Use - Meters | Not in SOW |
| 5.303.1.1 | N/A | New buildings or additions in excess of 50,000 square feet | Not in SOW |



| Code Section | Requirement Type | Description | Location in Construction Documents |
|---|---|---|---|
| 5.303.1.2 | N/A | Indoor Water Use - Meters: Excess consumption | Not in SOW |
| 5.303.3.1 | Mandatory | Water Closets | P0.2, CALGreen Notes |
| 5.303.3.2.1 | Mandatory | Wall-mounted Urinals | P0.2, CALGreen Notes |
| 5.303.3.2.2 | Mandatory | Floor-mounted Urinals | P0.2, CALGreen Notes |
| 5.303.3.3.1 | Mandatory | Single Showerhead | P0.2, CALGreen Notes |
| 5.303.3.3.2 | N/A | Multiple Showerheads Serving One Shower | Not in SOW |
| 5.303.3.4.1 | Mandatory | Nonresidential Lavatory Faucet | P0.2, CALGreen Notes |
| 5.303.3.4.2 | Mandatory | Kitchen Faucet | P0.2, CALGreen Notes |
| 5.303.3.4.3 | N/A | Metering Faucets | N/A |
| 5.303.3.4.4 | Mandatory | Metering Faucets | P0.2, CALGreen Notes |
| 5.303.3.4.5 | N/A | Metering Faucets for Wash Fountains | N/A |
| 5.303.3.4.6 | N/A | Pre-rinse spray valve | N/A |
| 5.303.4.1 | Mandatory | Food Waste Disposers | CALGreen Notes |
| 5.303.5 | N/A | Areas of Additions or Alteration | N/A |
| 5.303.6 | Mandatory | Standards for Plumbing Fixtures and Fittings | CALGreen Notes |
| 5.304.1 | Mandatory | Outdoor potable water use in landscape areas | L1.1 |
| 5.304.6 | N/A | Outdoor Potable Water Use in Landscape Areas | Not in SOW |
| 5.304.6.1 | N/A | Newly Constructed Landscape | Not in SOW |
| 5.304.6.2 | N/A | Rehabilitated Landscape | Not in SOW |
| 5.4 | | **Material Conservation and Resource Efficiency** | |
| 5.407.1 | Mandatory | Weather Protection | A8.6, A8.7 |
| 5.407.2 | Mandatory | Moisture Control | CALGreen Notes |
| 5.407.2.1 | Mandatory | Sprinklers | L1.1 |
| 5.407.2.2 | Mandatory | Entries and Openings | CALGreen Notes |
| 5.407.2.2.1 | Mandatory | Exterior Door Protection | A-2.1, A-2.3 |
| 5.407.2.2.2 | Mandatory | Flashing | A8.6, A8.7 |
| 5.408.1 | Mandatory | 65% Construction Waste Management | CALGreen Notes |
| 5.408.1.1 | Mandatory | Construction waste management plan | CALGreen Notes |
| 5.408.1.2 | Mandatory | Waste Management Company | CALGreen Notes |
| 5.408.1.3 | N/A | Waste stream reduction alternative | Not is SOW |
| 5.408.2 | N/A | Universal Waste [A] | Not in SOW |
| 5.408.3 | N/A | Excavated Soil and Land Clearing Debris | Not in SOW |
| 5.409.2 | N/A | Whole building life cycle assessment | N/A |
| 5.410.1 | Mandatory | Recycling By Occupants | A1.1, A1.2 |
| 5.410.1.1 | N/A | Recycling By Occupants: Additions [A] | Not in SOW |
| 5.410.1.2 | Mandatory | Recycling by Occupants: Sample ordinance | A1.1, A1.2 |
| 5.410.2 | N/A | Commissioning [N] | N/A - Project is under 10,000 sf |
| 5.410.2.1 | N/A | Owner's or Owner Representative's Project Requirements (OPR). [N] | N/A - Project is under 10,000 sf |
| 5.410.2.2 | N/A | Basis of Design (BOD). [N] | N/A - Project is under 10,000 sf |
| 5.410.2.3 | N/A | Commissioning Plan. [N] | N/A - Project is under 10,000 sf |
| 5.410.2.4 | N/A | Functional Performance Testing. [N] | N/A - Project is under 10,000 sf |
| 5.410.2.5 | N/A | Documentation and training. [N] | N/A - Project is under 10,000 sf |
| 5.410.2.5.1 | N/A | Systems manual. [N] | N/A - Project is under 10,000 sf |
| 5.410.2.5.2 | N/A | Systems operations training. [N] | N/A - Project is under 10,000 sf |
| 5.410.2.6 | N/A | Commissioning report [N] | N/A - Project is under 10,000 sf |
| 5.410.4 | Mandatory | Testing and Adjusting | CALGreen Notes |
| 5.410.4.2 | Mandatory | Systems | CALGreen Notes |
| 5.410.4.3 | Mandatory | Procedures | CALGreen Notes |
| 5.410.4.3.1 | Mandatory | HVAC balancing | CALGreen Notes |
| 5.410.4.5 | Mandatory | Operation and maintenance (O & M) manual | CALGreen Notes |
| 5.5 | | **Environmental Quality** | |
| 5.503.1 | N/A | Fireplaces | Not in SOW |



| Code Section | Requirement Type | Description | Location in Construction Documents |
|---|---|---|---|
| 5.504.1 | N/A | Pollutant Control | Not in SOW |
| 5.504.1.3 | Mandatory | Temporary ventilation | CALGreen Notes |
| 5.504.3 | Mandatory | Covering of duct openings and protection of mechanical equipment during construction | CALGreen Notes |
| 5.504.4.1 | Mandatory | Adhesives, sealants and caulks | CALGreen Notes |
| 5.504.4.3 | Mandatory | Paints and coatings | CALGreen Notes |
| 5.504.4.3.1 | Mandatory | Aerosol Paints and Coatings | CALGreen Notes |
| 5.504.4.4 | Mandatory | Carpet Systems | CALGreen Notes |
| 5.504.4.4.1 | Mandatory | Carpet cushion | CALGreen Notes |
| 5.504.4.4.2 | Mandatory | Carpet adhesive | CALGreen Notes |
| 5.504.4.5 | Mandatory | Composite Wood Products | CALGreen Notes |
| 5.504.4.6 | Mandatory | Resilient Flooring System | CALGreen Notes |
| 5.504.4.7 | Mandatory | Thermal Insulation | CALGreen Notes |
| 5.504.4.8 | Mandatory | Acoustical ceilings and wall panels | CALGreen Notes |
| 5.504.5.3 | Mandatory | Filters | M0.2, CALGreen Notes |
| 5.504.7 | Mandatory | Environmental Tobacco Smoke (ETS) Control | A6.1, A8.5 |
| 5.505.1 | Mandatory | Indoor Moisture Control | CALGreen Notes |
| 5.506.1 | Mandatory | Outside Air Delivery | M0.2 |
| 5.506.2 | N/A | Carbon Dioxide (CO2) Monitoring | N/A |
| 5.506.3 | N/A | Carbon Dioxide (CO2) Monitoring in Classrooms [DSA-SS] | Not in SOW |
| 5.507.4 | Mandatory | Acoustical Control | See Acoustical Report |
| 5.507.4.1 | Mandatory | Exterior noise transmission, prescriptive method | See Acoustical Report |
| 5.507.4.2 | Mandatory | Performance Method | See Acoustical Report |
| 5.507.4.2.1 | Mandatory | Site Features | See Acoustical Report |
| 5.507.4.2.2 | Mandatory | Documentation of Compliance | See Acoustical Report |
| 5.507.4.3 | Mandatory | Interior sound transmission | See Acoustical Report |
| 5.508.1 | Mandatory | Ozone depletion and greenhouse gas reduction | CALGreen Notes |
| 5.508.1.1 | Mandatory | CFCs - Install HVAC and refrigeration equipment that does not contain CFCs | M0.2, CALGreen Notes |
| 5.508.1.2 | Mandatory | Halons - Install fire suppression equipment that does not contain Halons | CALGreen Notes |
| 5.508.2 | N/A | Supermarket refrigerant leak reduction | N/A |



# 2022 CALGreen Chapter 5 Nonresidential Notes

Costa Mesa Fire Station No. 2

| Code Section | Construction Document Notes |
|---|---|
| 5.106.1 | 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 measure as listed in 5.106.1.1 and/or 5.106.1.2.<br>(5.106.1) |
| 5.106.1.1 | Comply with a lawfully enacted stormwater management and/or erosion control ordinance.<br>(5.106.1.1) |
| 5.106.1.2 | Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMP's.<br><br>1. Soil loss BMP's that should be considered for implementation as appropriate for each project include, but are not limited to, the following:<br>a. Scheduling construction activity during dry weather, when possible.<br>b. Preservation of natural features, vegetation, soil, and buffers around surface waters.<br>c. Drainage swales or lined ditches to control stormwater flow.<br>d. Mulching or hydroseeding to stabilize disturbed soils.<br>e. Protection of slopes and channels. f. Protection of storm drain inlets (gravel bags or catch basin inserts).<br>g. Perimeter sediment control (perimeter silt fence, fiber rolls).<br>h. Sediment trap or sediment basin to retain sediment on site.<br>i. Stabilized construction exits.<br>j. Wind erosion control.<br>k. Other soil loss BMP's acceptable to the enforcing agency.<br><br>2. Good housekeeping BMP's 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:<br>a. Dewatering activities.<br>b. Material handling and waste management.<br>c. Building materials stockpile management.<br>d. Management of washout areas (concrete, paints, stucco, etc.).<br>e. Control of vehicle/equipment fueling to contractor's staging area.<br>f. Vehicle and equipment cleaning performed off site.<br>g. Spill prevention and control.<br>h. Other housekeeping BMP's acceptable to the enforcing agency.<br>(5.106.1.2) |
| 5.106.4.1 | Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.<br>(5.106.4.1) |
| 5.106.4.1.1 | 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 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.<br><br>Exceptions: Additions and alterations which add nine or less visitor vehicular parking spaces.<br>(5.106.4.1.1) |
| 5.106.5.3.4 | When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3.<br>(5.106.5.3.4) |
| 5.106.5.3.5 | Electric vehicle charging stations shall be identified by signage or pavement markings in compliance with Caltans Traffic Operations Policy Firective 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).<br>(5.106.5.3.5) |
| 5.106.8 | Outdoor lighting systems shall be designed and installed to comply with the following:<br><br>1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10 of the California Administrative code; and<br><br>2. Backlight (B) as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);<br><br>3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8); and ,<br><br>4. Allowable BUG ratings not exceeding those shown in Table 5.106.8; OR<br><br>Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.<br><br>Exceptions:<br>1. Luminaires that quality as exceptions in Sections 130.2(b) and 140.7 of the California Energy code.<br>2. Emergency lighting.<br>3. Building facade meeting the requirements in table 140.7-B of the California Energy Code, Part 6.<br>4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs, and methods of construction.<br>5. Luminaires with less than 6,200 lumens.<br>(5.106.8) |



| Code Section | Construction Document Notes |
|---|---|
| 5.106.8.1 | Luminaires 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 the nearest point of that property line.<br><br>Exception: Corners. If two property lines (or two segments of the same property line) have equidistant points 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 point(s) on the property lines to determine the required backlight rating.<br>(5.106.8.1) |
| 5.106.8.2 | 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 hemisphere.<br><br>Notes:<br>1. See also California Building Code, Chapter 12, Section 1205.7 for college campus lighting requirements for parking facilities and<br>walkways.<br>2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, California Energy Code<br>Tables 130.2-A and 130.2-B.<br>3. Refer to the California Energy Code for requirements for additions and alterations.<br>(5.106.8.2) |
| 5.106.10 | Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering the building. Examples of methods to maange surface water incdiue, but are not limited to the following:<br>1. Swales.<br>2. Water collection and disposal systems.<br>3. French drains.<br>4. Water retention gardens.<br>5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.<br><br>Exceptions: Addition and alterations not altering the drainage path.<br>(5.106.10) |
| 5.303.3.1 | Water closet flush rates shall not exceed 1.28 gallons per flush and be certified to the performance criteria of the U.S. EPA WaterSense Specification.<br><br>Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.<br>(5.303.3.1) |
| 5.303.3.2.1 | The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.<br>(5.303.3.2.1) |
| 5.303.3.3.1 | Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.<br>(5.303.3.3.1) |
| 5.303.3.4.1 | Lavatory faucet shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.<br>(5.303.3.4.1) |
| 5.303.3.4.2 | Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucet may temporarily increase the flow above maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.<br>(5.303.3.4.2) |
| 5.303.3.4.4 | Metering faucets shall not deliver more than 0.20 gallons per cycle.<br>(5.303.3.4.4) |
| 5.303.4.1 | Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/reload) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.<br><br>Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.<br>(5.303.4.1) |
| 5.303.6 | Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and in Chapter 6 of this code.<br>(5.303.6) |
| 5.304.1 | Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water<br>Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.<br><br>Notes:<br>1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2.<br>2. MWELO and supporting documents, including a water budget calculator, are available at:<br>https://www.water.ca.gov/.<br>(5.304.1) |
| 5.407.1 | Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacture's installation instructions, or local ordinance, whichever is more stringent.<br>(5.407.1) |



| Code Section | Construction Document Notes |
|---|---|
| 5.407.2 | Employ moisture control measures by the following methods.<br>(5.407.2) |
| 5.407.2.1 | Design and maintain landscape irrigation systems to prevent spray on structures.<br>(5.407.2.1) |
| 5.407.2.2 | Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings per Section 5.407.2.2.1 and 5.407.2.2.2.<br>(5.407.2.2) |
| 5.407.2.2.1 | Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:<br><br>1. An installed awning t least 4 feet in depth.<br>2. The door is protected by a roof overhang at least 4 feet in depth.<br>3. The door is recessed by at least 4 feet.<br>4. Other methods that provide equivalent protection.<br>(5.407.2.2.1) |
| 5.407.2.2.2 | Install flashings integrated with a drainage plane.<br>(5.407.2.2.2) |
| 5.408.1 | Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.<br>(5.408.1) |
| 5.408.1.1 | Where a local jurisdiction does not have a construction and demolition waste management ordinance that is more stringent, submit a construction waste management plan that<br><br>1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.<br><br>2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).<br><br>3. Identifies diversion facilities where construction and demolition waste material collected will be taken.<br><br>4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.<br>(5.408.1.1)<br><br>Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 5.408.1.1 through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.<br>(5.408.1.4) |
| 5.408.1.2 | Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.<br><br>Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.<br><br>Exceptions to Section 5.408.1.1 and 5.408.1.2:<br>1. Excavated soil and land-clearing debris.<br>2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilites capable of compliance with this item do not exist.<br>3. Demolition waste meeting local ordinance or calculated in consecration of local recycling facilities and markets.<br>(5.408.1.2)<br><br>Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 5.408.1.1 through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.<br>(5.408.1.4) |
| 5.410.1 | Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a min.) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance.<br>(5.410.1) |
| 5.410.1.2 | Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).<br><br>Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.<br>(5.410.1.2) |
| 5.410.4 | Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.<br>(5.410.4)<br><br>Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) system and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6 130.4 and 140.9(b)3 for additional testing requirements of specific systems.<br>(5.410.4.1) |



PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

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**RECONSTRUCTION**
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800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
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REVISIONS

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**2022 CALGREEN CHAPTER 5 NONRESIDENTIAL CHECKLIST**

DRAWING NUMBER: **T3**

PC SUBMITTAL 04

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| Code Section | Construction Document Notes |
|---|---|
| 5.410.4.2 | Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include as applicable to the project:<br><br>1. Renewable energy systems.<br>2. Landscape irrigation systems.<br>3. Water reuse systems.<br>(5.410.4.2) |
| 5.410.4.3 | Perform testing and adjusting procedures in accordance with manufacture's specifications and applicable standards on each system.<br>(5.410.4.3) |
| 5.410.4.3.1 | In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, balance the system in accordance with the procedures defined by the Testing Adjusting and Balance Council National Standards or as approved by the enforcing agency.<br>(5.410.4.3.1)<br><br>After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.<br>(5.410.4.4) |
| 5.410.4.5 | Provide the building owner or representation with detailed operation and maintenance instructions and copies of guaranties/warranties for each system. O&M instructions shall be consisted with OSHA requirements in CCR, Title 8, Section 5142 and other related regulations.<br>(5.410.4.5)<br><br>Include a comply of all inspection verifications and reports required by the enforcing agency.<br>(5.410.4.5.1) |
| 5.504.1.3 | The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the permanent HVAC system is used during construction, use MERV 8, based on ASHRAE 52.2-1999. Replace all the filters immediately prior to occupancy, or, if the building is occupied during alterations, at the conclusion of construction.<br>(5.504.1) |
| 5.504.3 | At the time of rough installation and during storage on the construction site until final startup of the heating , cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to recuse the amount of dust, water and debris which may enter the system.<br>(5.504.3) |
| 5.504.4.1 | Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:<br><br>1. Adhesives, adhesive bounding primers, adhesive primers, sealants, sealant primers and caulks shall comply with SCAQMD Rule VOC limits as shown in Tables 5.504.4.1 and 5.504.4.2 of the CALGreen code and the prohibition on the use of certain toxic compounds.<br><br>2. Aerosol adhesives, and smaller uint sizes adhesives and sealant or calking compounds shall comply with statewide VOC standards and other requirements included prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17 commencing with Section 94507.<br>(5.504.4.1)<br><br>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:<br>1. Manufacturer's product specification<br>2. Field verification of on-site product containers.<br>(5.504.3.2) |
| 5.504.4.3 | 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.<br>(5.504.4.3)<br><br>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:<br>1. Manufacturer's product specification<br>2. Field verification of on-site product containers.<br>(5.504.3.2) |
| 5.504.4.3.1 | Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, included prohibitions on use of certain toxic compounds and ozone deleting substances in Section 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 or product limits of Regulation 8 Rule 49.<br>(5.504.3.1)<br><br>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:<br>1. Manufacturer's product specification<br>2. Field verification of on-site product containers.<br>(5.504.3.2) |



| Code Section | Construction Document Notes |
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| 5.504.4.4 | 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 Specification 01350).<br>See California Department of Public Health's website for certification programs and testing labs.<br>https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material<br>(5.504.4.4.1) |
| 5.504.4.4.1 | All carpet cushions 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 Specification 01350).<br>See California Department of Public Health's website for certification programs and testing labs.<br>https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material<br>(5.504.4.4.2) |
| 5.504.4.4.2 | All carpet adhesive shall meet the requirements of Table 5.504.4.1.<br>(5.504.4.4.2) |
| 5.504.4.5 | Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.) Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.<br>(5.504.4.5)<br><br>Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:<br>1. Product certifications and specifications.<br>2. Chain of custody certifications.<br>3. Product labeled and invoiced as meeting the Composite Wood Products regulations (see CCR, Title 17, Section 93120, et seq.),<br>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 standards.<br>5. Other methods acceptable to the enforcing agency.<br>(5.504.4.5.3) |
| 5.504.4.6 | 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 Specification 01350).<br>See California Department of Public Health's website for certification programs and testing labs.<br>https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx<br>(5.504.4.6)<br><br>Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.<br>(5.504.4.6.1) |
| 5.504.4.7 | Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions form Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350).<br>See California Department of Public Health's website for certification programs and testing labs.<br>https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx<br>(5.504.4.7)<br><br>Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission limits.<br>(5.504.4.7.1) |
| 5.504.4.8 | 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).<br>See California Department of Public Health's website for certification programs and testing labs.<br>https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx<br>(5.504.4.8)<br><br>Documentation shall be provided verifying that acoustical finish materials meet the pollutant emission limits.<br>(5.504.4.6.1) |
| 5.504.5.3 | In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside 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.<br>(5.504.5.3.1)<br><br>Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.<br>(5.504.5.3.1) |
| 5.504.7 | 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. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.<br>(5.504.7) |
| 5.505.1 | Building shall meet or exceed the provisions of California Building Code, CRR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls).<br>(5.505.1) |



| Code Section | Construction Document Notes |
|---|---|
| 5.506.1 | For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the 2013 California Energy Code, or the applicable local code, and Division 1, Chapter 4 of CCR, Title 8.<br>(5.506.1) |
| 5.507.4 | Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E90 and ASTM E413 or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.<br><br>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 structures and utility buildings.<br><br>Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.<br>(5.507.4) |
| 5.507.4.1 | Wall and roof-ceiling assemblies exposed to the noise source making up the building envelope shall meet the composite STC rating of at least 50 or 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:<br><br>1. Within the 65 CNEL noise contour of an airport.<br>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.<br>(5.507.4.1)<br><br>Buildings exposed to a noise level of 65 dB Leg-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).<br>(5.507.4.1.1) |
| 5.507.4.2 | For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roofceiling 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.<br>(5.507.4.2) |
| 5.507.4.2.1 | 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.<br>(5.507.4.2.1) |
| 5.507.4.2.2 | An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.<br>(5.507.4.2.2) |
| 5.507.4.3 | Wall to floor-ceiling assemblies separating tenant spaces and public spaces shall have an STC of at least 40.<br><br>Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: http://www.toolbase.org/PDF/CaseStudies/stc_ioc_ratings.pdf<br>(5.507.4.3) |
| 5.508.1 | 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 | Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.<br>(5.508.1.1) |
| 5.508.1.2 | Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.<br>(5.508.1.2) |



PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## 2022 CALGREEN CHAPTER 5 NONRESIDENTIAL CHECKLIST

DRAWING NUMBER: **T4**

6/30/2026 10:34:22 AM
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CM-07-01-2026

**RESOLUTION NO. PC-2024-22**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF COSTA MESA, CALIFORNIA APPROVING MASTER PLAN (PMAP-24-0003) FOR THE DEVELOPMENT OF A NEW COSTA MESA FIRE STATION NO. 2 AND MINOR CONDITIONAL USE PERMIT FOR TEMPORARY MANUFACTURED STRUCTURES LOCATED AT 800 BAKER STREET**

THE PLANNING COMMISSION OF THE CITY OF COSTA MESA, CALIFORNIA FINDS AND DECLARES AS FOLLOWS:

WHEREAS, Master Plan and Minor Conditional Use Permit PMAP-24-0003 was filed by PBK Architects, acting as the authorized agent for the property owner, City of Costa Mesa, requesting approval of a Master Plan to demolish the existing Costa Mesa Fire Station No. 2 and replace it with a new 8,630-square-foot fire station having a double deep apparatus bay, and administrative, storage, and living areas. Additional site improvements include a new drive aisle, two visitor parking spaces, and bike rack at the front of the property, new covered crew parking in the rear parking lot, new perimeter walls, new landscaping, and new utility connections. Existing accessory structures that include a fire hose tower, generator, and fuel tank will be relocated to accommodate the new improvements. The proposed project will be constructed in two phases to ensure that the facility remains operational during construction.

WHEREAS, a Minor Conditional Use Permit was filed requesting the approval of a temporary crew quarters, apparatus bay, and storage for the duration of the construction of the new fire station.

WHEREAS, a duly noticed public hearing was held by the Planning Commission on October 14, 2024 with all persons having the opportunity to speak for and against the proposal;

WHEREAS, pursuant to the California Environmental Quality Act (CEQA), the project is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15202 (Class 2) because the project is requesting to replace the existing fire station with a new fire station with the same purposes and substantially the same capacity.

WHEREAS, the CEQA categorical exemption for this project reflects the independent judgement of the City of Costa Mesa.

NOW, THEREFORE, based on the evidence in the record and the findings contained in Exhibit A, and subject to the conditions of approval contained within Exhibit B, the Planning Commission hereby **APPROVES** Master Plan PMAP-24-0003 as described above.

BE IT FURTHER RESOLVED that the Costa Mesa Planning Commission does hereby find and determine that adoption of this Resolution is expressly predicated upon the activity as described in the staff report for Master Plan and Minor Conditional Use Permit PMAP-24-0003 and upon the applicant's compliance with each and all of the conditions in Exhibit B, and compliance of all applicable federal, state, and local laws. Any approval granted by this resolution shall be subject to review, modification or revocation if there is a material change that occurs in the operation, or if the applicant fails to comply with any of the conditions of approval.

BE IT FURTHER RESOLVED that if any section, division, sentence, clause, phrase or portion of this resolution, or the document in the record in support of this resolution, are for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining provisions.

**PASSED AND ADOPTED this 14th day of October, 2024.**

Adam Ereth, Chair
Costa Mesa Planning Commission

STATE OF CALIFORNIA )
COUNTY OF ORANGE )ss
CITY OF COSTA MESA )

I, Scott Drapkin, Secretary to the Planning Commission of the City of Costa Mesa, do hereby certify that the foregoing Resolution No. PC-2024-22 was passed and adopted at a regular meeting of the City of Costa Mesa Planning Commission held on October 14, 2024 by the following votes:

AYES: Ereth, Toler, Andrade, Klepack, Martinez, Zich

NOES: None

ABSENT: Rojas

ABSTAIN: None

Scott Drapkin, Secretary
Costa Mesa Planning Commission



**EXHIBIT A**

**FINDINGS**

A. The proposed project complies with Costa Mesa Municipal Code Section 13-29(g)(5) because:

**Finding: The master plan meets the broader goals of the general plan, any applicable specific plan, and the Zoning Code by exhibiting excellence in design, site planning, integration of uses and structures and protection of the integrity of neighboring development.**

**Facts in Support of Findings:** The master plan meets the broader goals of the general plan by preserving and enhancing the residential character of the surrounding neighborhood by changing the circulation of the fire station to limit fire apparatus from driving on residential streets. In addition, the master plan design includes architectural elements that are similar to the surrounding residences and will blend with the surrounding neighborhood. The project complies with all required Zoning standards including setbacks, FAR, landscaping, and parking and meets the broader goals of the Institutional and Recreational Zoning designation. The project will bring the fire station into conformance with current industry standards and will allow for improved community safety/emergency response.

**Finding: Master plan findings for mixed use-development projects in the mixed-use overlay district are identified in Chapter V, Article 11, mixed-use overlay district.**

**Facts in Support of Findings:** The proposed master plan is not proposing mixed use development.

**Finding: As applicable to affordable multi-family housing development, the project complies with the maximum density standards allowed pursuant to the general plan and provides affordable housing to low or very-low income households, as defined by the California Department of Housing and Community Development. The project includes long-term affordability covenants in compliance with state law.**

**Facts in Support of Findings:** The proposed master plan is not proposing affordable multi-family housing development.

B. The proposed project complies with Costa Mesa Municipal Code Section 13-29(g)(2) because:

**Finding: The proposed development or use is substantially compatible with developments in the same general area and would not be materially detrimental to other properties within the area.**

**Facts in Support of Findings:** The temporary structures related to the construction of Fire Station No. 2 are compatible to the general area and would not be materially detrimental to other properties within the area because the temporary apparatus bay, crew quarters, and storage will be located completely on the subject property while construction occurs. The structures are temporary in nature and will be removed once construction has been completed. The structures will be placed outside of required setbacks, will maintain visibility requirements, and will maintain adequate onsite circulation for personal vehicles and fire apparatus.

**Finding: Granting the conditional use permit or minor conditional use permit will not be materially detrimental to the health, safety and general welfare of the public or otherwise injurious to property or improvements within the immediate neighborhood.**

**Facts in Support of Findings:** The proposed temporary structures will comply with building and fire codes. The placement of the structures will allow for adequate vehicle and pedestrian circulation. The temporary structures will allow the fire station to remain operational while construction is occurring to ensure safety and general welfare of the surrounding neighborhood.

**Finding: Granting the conditional use permit or minor conditional use permit will not allow a use, density or intensity which is not in accordance with the general plan designation and any applicable specific plan for the property.**

**Facts in Support of Findings:** The temporary structures will not allow a use, density, or intensity which is not in accordance with the general plan because the structures are temporary. The temporary structures will replace the existing fire station while it is reconstructed to allow for continued operation.

C. The project is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15302 (Class 2), Replacement or Reconstruction. Under Class 2, a project consisting of the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced is eligible for the exemption. Since the project is requesting to replace the existing fire station with a new fire station with the same purposes and substantially the same capacity, the proposed development project meets all criteria for a Class 2 Categorical Exemption pursuant to CEQA Guidelines Section 15302. The project is consistent with the applicable General Plan land use designation and policies as well as with the applicable zoning designation and regulations.

D. The project is exempt from traffic impact fees, pursuant to Chapter XII, Article 3 Transportation System Management, of Title 13 of the Costa Mesa Municipal Code.

**EXHIBIT B**

**CONDITIONS OF APPROVAL**

Plng. 1. Approval of Master Plan PMAP-24-0003 is valid for two (2) years from the effective date of this approval and will expire at the end of that period unless the applicant establishes the use by one of the following actions: 1) a building permit has been issued and construction has commenced, and a valid building permit has been maintained by making satisfactory progress as determined by the Building Official; or 2) a certificate of occupancy has been issued. A time extension can be requested no less than thirty (30) days or more than sixty (60) days before the expiration date of Master Plan PMAP-24-0003 and submitted with the appropriate fee for review to the Planning Division. The Director of Development Services may extend the time for an approved permit or approval to be exercised up to 180 days subject to specific findings listed in Title 13, Section 13-29 (k) (6). Only one request for an extension of 180 days may be approved by the Director. Any subsequent extension requests shall be considered by the original approval authority.

2. The conditions of approval for Master Plan PMAP-24-0003 shall be printed on the site plan sheet that is submitted as part of the plan check submittal package.

3. The project shall be limited to the building as described in this staff report and in the attached plans. Any change in the use, size, or design shall require review by the Planning Division and may require an amendment to the Master Plan.

4. If any section, division, sentence, clause, phrase or portion of this approval is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining provisions.

5. No exterior roof access ladders, roof drain scuppers, or roof drain downspouts are permitted. This condition relates to visually prominent features of scuppers or downspouts that not only detract from the architecture but may be spilling water from overhead without an integrated gutter system which would typically channel the rainwater from the scupper/downspout to the ground. An integrated downspout/gutter system which is painted to match the building would comply with the condition.

6. On-site lighting shall be provided in all parking areas, vehicular access ways, and along major walkways. The lighting shall be directed onto driveways and walkways within the project and away from dwelling units and adjacent properties to minimize light and glare impacts, and shall be of a type approved by the Development Services Director.

7. Prior to the issuance of Building Permits, the applicant shall submit to the City's Economic and Development Services Department a Lighting Plan and Photometric Study for review and approval. The Lighting Plan shall demonstrate compliance with the following: (a) Lighting design and layout shall limit light spill to no more than 0.5 foot candle at the property line of the surrounding neighbor's properties, consistent with the level of lighting that is deemed necessary for safety and security purposes on site; (b) Light shields may be required for select light standards to reduce or eliminate direct lighting into neighboring residence.

8. All on-site utility services and connections shall be installed underground or shall be screened at the direction of the Planning Division.

9. Transformers, backflow preventers, and any other approved above-ground utility improvement shall be located outside of the required street setback area and shall be screened from view, under direction of Planning staff. Any deviation from this requirement shall be subject to review and approval of the Development Services Director.

10. Installation of all new utility meters shall be performed in a manner so as to obscure the installation from view from any place on or off the property. The installation shall be in a manner acceptable to the public utility and shall be in the form of a vault, wall cabinet, or wall box under the direction of the Planning Division.

11. Temporary structures shall be removed prior to operation of the new Fire Station No. 2.

12. Temporary Structures shall comply with all required setbacks and all buildings in operation shall not exceed the maximum FAR allowed on the site.

13. The project shall comply with groundcover landscaping requirements pursuant to CMMC Section 13-106(a)(4).

**CODE REQUIREMENTS**

The following list of federal, state and local laws applicable to the project has been compiled by staff for the applicant's reference. Any reference to "City" pertains to the City of Costa Mesa.

Plng. 1. Development shall comply with all requirements of Article 7, Chapter 5, Title 13, of the Costa Mesa Municipal Code relating to development standards for Institutional projects.

2. All noise-generating construction activities shall be limited to 7 a.m. to 7 p.m. Monday through Friday and 9 a.m. to 6 p.m. Saturday. Noise-generating construction activities shall be prohibited on Sunday and the following federal holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

3. All landscaped areas shall be separated from paved vehicular areas by 6 inch high continuous Portland Cement Concrete curbing.

4. Parking spaces shall be striped in accordance to the City's Parking Design Standards.

Bldg. 5. Comply with the requirements of the most-recent adopted California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Green Building Standards, California Energy Code, and California Code of Regulations also known as the California Building Standards Code, as amended by the City of Costa Mesa at the time of plan submittal or permit issuance. Requirements for accessibility to sites, facilities, buildings and elements by individuals with disability shall comply with chapter 11B of the California Building Code. A change of occupancy shall require compliance with the Disabled access requirements of chapter 11B of the California Building Code.

6. Plans shall be prepared under the supervision of a registered California Architect or Engineer. Plans shall be stamped and signed by the registered California Architect or Engineer.

7. Maximum area of exterior wall openings shall be determined in accordance with the applicable provisions of California Building Code 705.8.

Fire 8. Comply with the requirements of the California Fire Code, including the reference standards, as adopted and amended by Costa Mesa Fire & Rescue.

Bus. Lic. 9. All contractors and subcontractors must have valid business licenses to do business in the City of Costa Mesa. Final inspections, final occupancy and utility releases will not be granted until all such licenses have been obtained.

**SPECIAL DISTRICT REQUIREMENTS**

AQMD 1. Prior to the Building Division (AQMD) issuing a demolition permit, contact South Coast Air Quality Management District located at:
21865 Copley Dr.
Diamond Bar, CA 91765-4178
Tel: 909-396-2000
OR
Visit their web site: http://www.costamesaca.gov/modules/showdocument.aspx?documentid=23381
The Building Division will not issue a demolition permit until an identification number is provided by AQMD.

State 2. Comply with the requirements of the California Department of Food and Agriculture (CDFA) to determine if red imported fire ants exist on the property prior to any soil movement or excavation. Call CDFA at 1-888-4FIREANT for information.

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

**COSTA MESA FIRE STATION No. 2 RECONSTRUCTION**
**COSTA MESA FIRE & RESCUE DEPARTMENT**
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38806
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**CONDITIONS OF APPROVAL**

DRAWING NUMBER: **T5**

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## GRADING NOTES

1. All work shall be in accordance with the Grading-Code of the County of Orange and any special requirements of the permit. A copy of the Grading Code and Manual shall be retained on the job site while work is in progress. When referenced on the plans, a copy of RDMD Standard Plans shall also be retained on the site.
2. Grading shall not be started without first notifying the District Grading Inspector. A pre-grading meeting on the site is required before start of grading with the following people present: Owner, Grading Contractor, Design Civil Engineer, Soil Engineer, Engineering Geologist, District Grading Inspector and when required the Archaeologist and Paleontologist. The required inspections for grading will be explained at this meeting.
3. Issuance of a grading permit does not eliminate the need for permits from other agencies with regulatory responsibilities for construction activities associated with the work authorized on this plan.
4. The Grading Permit and an approved copy of the Grading Plan shall be on the permitted site while work is in progress.
5. Preliminary soil and geology reports and all subsequent reports as approved by PDSD, Grading Section, are considered a part of the approved grading plan.
6. The Soil Engineer and Engineering Geologist shall perform sufficient inspections and be available during grading and construction to verify compliance with the plans, specifications and the code within their purview.
7. The Civil Engineer shall be available during grading to verify compliance with the plans, specifications, code and any special conditions of the permit within their purview.
8. The Soil Engineer and Engineering Geologist shall, after clearing and prior to the placement of fill in canyons, inspect each, canyon for areas of adverse stability and to determine the presence or absence of subsurface water or spring flow. If needed, sub drains will be designed and constructed prior to the placement of fill in each respective canyon.
9. Subdrain outlets shall be completed at the beginning of the subdrain construction.
10. The exact location of the sub drains shall be surveyed in the field for line/grade and shown on as-graded plans.
11. Areas to receive fill shall be properly prepared and approved in writing by the Soil Engineer and the Building official prior to placing fill.
12. Fills shall be benched into competent material per RDMD Standard Plan No. 1322.
13. All existing fills shall be approved by the Building official or removed prior to placing additional fills.
14. Fills shall be compacted throughout to a minimum of 90% relative compaction. Aggregate base for asphaltic areas shall be compacted to a minimum of 95% relative compaction. Maximum density shall be determined by Uniform Building Code Standard No. 70-1 or approved equivalent and field density by Uniform Building Code Standard No. 70-2 or approved equivalent.
15. Cut and fill slopes shall be no steeper than 2-foot horizontal to 1-foot vertical (2:1) except where specifically approved otherwise.
16. All cut slopes shall be investigated both during and after grading by the Engineering Geologist to determine if any slope stability problem exists. Should excavation disclose any geological hazards or potential geological hazards, the Engineering Geologist shall submit recommended treatment to the Building Official for approval.
17. Where support or buttressing of cut and natural slopes is determined to be necessary by the Engineering Geologist and Soil Engineer, the Soil Engineer shall submit design, locations and calculations to the Building official prior to construction. The Engineering Geologist and Soil Engineer shall inspect and control the construction of the buttressing and certify to the stability of the slope and adjacent structures upon completion.
18. When cut pads are brought to near grade, the Engineering Geologist shall determine if the bedrock is extensively fractured or faulted and will readily transmit water. If considered necessary by the Engineering Geologist and Soil Engineer, a compacted fill blanket will be placed.
19. All trench backfill shall be tested and approved by the Soil Engineer per the Grading Code.
20. Any existing irrigation lines and cisterns shall be removed or crushed in place and approved by the Building Official and Soil Engineer.
21. Any existing water wells shall be abandoned in compliance with the specifications approved by Orange County, Health Care Agency, and Division of Environmental Health.
22. Any existing cesspools and septic tanks shall be abandoned in compliance with the Uniform Plumbing Code to the approval of PDSD/Building inspection.
23. Stockpiling of excess material shall be approved by the Building official prior to excavation.
24. Export soil must be transported to a legal dump or to a permitted site approved by the District Grading inspector.
25. The permittee shall comply with the Grading Code requirements for haul routes when an excess of 5,000 cubic yards of earth is transported to or from a permitted site on public roadways.
26. The permittee is responsible for dust control measures.
27. The permittee shall give reasonable notice to the owner of adjoining lands and buildings prior to beginning excavations, which may affect the lateral and subjacent support of the adjoining property. The notice shall state the intended depth of excavation and when the excavation will commence. The adjoining owner shall be allowed at least 30 days and reasonable access on the permitted property to protect his structure, if he so desires, unless otherwise protected by law.
28. All concrete structures that come in contact with the on-site soils shall be constructed with Type V cement, unless deemed unnecessary by soluble sulfate-content tests conducted by the Soil Engineer.
29. Slopes exceeding 5 feet in height shall be planted with an approved plant material. In addition, slopes exceeding 15 feet in height shall be provided with, an approved irrigation system, unless otherwise approved by the Building Official.
30. All existing drainage courses through this-site shall remain open until facilities to handle stormwater are approved and functional; however, in, any case, the permittee shall be held liable for any damage due to obstructing natural drainage patterns.
31. Sanitary facilities shall be maintained on the site.
32. The location and protection of all utilities is the responsibility of the permittee.
33. Approved protective measures and temporary drainage provisions shall be used to protect adjoining properties during grading.
34. Grading operations including maintenance of equipment within one-half mile of a human occupancy shall not be conducted between the hours of 8 p.m. and 7 a.m. daily, on Sunday or on a Federal Holiday.

    (A) All construction vehicles or equipment fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers.

    (B) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).

    (C) Stockpiling and/or vehicle staging areas shall be located as far a practicable from dwellings and within the limits of grading permit
35. Grading and excavation shall be halted during periods of high winds. According to AQMD Measure F-4, high winds are defined as 30 MPH or greater. This level occurs only under unusually extreme conditions, such as Santa Ana Wind conditions.
36. Asphalt sections must be per Code: Parking stalls = 3" A/C over 6" A/B, Drives 3" A/C over 10" (Comm.) 12" (Industrial). Or: prior to rough grade release for Building Permits by the District Grading Inspector, the Soil Engineer shall submit for approval, pavement section recommendations based on 'R' Value analysis of the sub-grade soils, and expected traffic indices.
37. Asphalt concrete shall be constructed per the requirements of RDMD standard Plan No.1805.
38. Aggregate base section shall be constructed per RDMD Standard No.1804.
39. Roof gutters shall be installed to prevent roof drainage from falling on manufactured slopes.
40. The Civil Engineer, as a condition of rough grade approval, shall provide a blue top with accompanying witness stake, set at the center of each pad reflecting the pad elevation for precise permits and a blue top with witness stake set at the drainage swale high-point reflecting the high point elevation for Preliminary Permits.
41. Prior to final approval, the Civil Engineer shall certify to, the Building Official the amount of earth moved during the grading operation
42. The Engineering Geologist shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.
43. The Grading Contractor shall submit a statement of compliance to the approved Grading Plan prior to final approval.
44. The compaction report and approval from the Soil Engineer shall indicate the type of field testing performed. The method of obtaining the in-place density shall be identified whether sand cone, drive ring, or nuclear, and shall be noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the Field Technician.
45. In the event that soil contamination is discovered during excavation and removal of an existing tank, work shall be stopped until a site assessment and mitigation plan has been prepared, submitted and approved by HCA/Environmental Health and PDSD/Grading.

## EROSION CONTROL NOTES

46. In the case of emergency, call _____ at 24-HR Phone #_____. TO BE COMPLETED BY CONTRACTOR
47. Equipment and workers for emergency work shall be made available at all times during the rainy season. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of temporary devices when rain is imminent.
48. Erosion control devices shall not be moved or modified without the approval of the Building Official.
49. All removable erosion protective devices shall be in place at the end of each working day when the 5-Day Rain Probability Forecast exceeds 40%.
50. After a rainstorm, all silt and debris shall be removed from streets, check berms and basins.
51. Graded areas on the permitted area perimeter must drain away from the face of slopes at the conclusion of each working day. Drainage is to be directed toward desilting facilities.
52. The permittee and contractor shall be responsible and shall take necessary precautions to prevent public trespass onto areas where impounded water creates a hazardous condition.
53. The permittee and contractor shall inspect the erosion control work and insure that the work is in accordance with the approved plans.

## ENVIRONMENTAL NOTES

54. The permittee shall notify all general contractors, subcontractors, material suppliers, lessees, and property owners: that dumping of chemicals into the storm drain system or the watershed is prohibited.
55. Permittee shall maintain construction site in such a condition that an anticipated storm does not carry wastes or pollutants off the site. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, glues, limes, pesticides, herbicides, wood preservatives and solvents; asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; fertilizers, vehicle/equipment wash water and concrete wash water; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical de greasing and superchlorinated potable water line flushings.

    During construction, permittee shall dispose of such materials in a specified and controlled temporary area on-site, physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.
56. Permittee may discharge material other than stormwater only when necessary for performance and completion of construction practices and where they do not: cause or contribute to a violation of any water quality standard; cause or threaten to cause pollution, contamination, or nuisance; or contain a hazardous substance in a quantity reportable under Federal Regulations 40 CFR Parts 117 and 302.
57. Dewatering of contaminated groundwater, or discharging contaminated soils via surface erosion is prohibited. Dewatering of non-contaminated groundwater requires a National Pollutant Discharge Elimination System Permit from the respective State Regional Water Quality Control Board.
58. SPECIAL NOTE:
    "Survey monuments shall be preserved and referenced before construction and replaced after construction pursuant to Section 8771 of the Business and Professional Code."

## DUST CONTROL NOTES

A. MOISTEN SOIL PRIOR TO GRADING.

B. WATER EXPOSED SURFACES AT LEAST TWICE A DAY UNDER CALM CONDITIONS AND AS OFTEN AS NEEDED ON WINDY DAYS WHEN WINDS ARE LESS THAN 25 MILES PER DAY OR DURING VERY DRY WEATHER IN ORDER TO MAINTAIN A SURFACE CRUST AND PREVENT THE RELEASE OF VISIBLE EMISSIONS FROM THE CONSTRUCTION SITE.

C. TREAT ANY AREA THAT WILL BE EXPOSED FOR EXTENDED PERIODS WITH A SOIL CONDITIONER TO STABILIZE SOIL OR TEMPORARILY PLANT WITH VEGETATION.

D. WASH MUD-COVERED TIRES AND UNDER-CARRIAGES OF TRUCKS LEAVING CONSTRUCTION SITES.

E. PROVIDE FOR STREET SWEEPING, AS NEEDED, ON ADJACENT ROADWAYS TO REMOVE DIRT DROPPED BY CONSTRUCTION VEHICLES OR MUD WHICH WOULD OTHERWISE BE CARRIED OFF BY TRUCKS DEPARTING PROJECT SITES.

F. SECURELY COVER LOADS OF DIRT WITH A TIGHT FITTING TARP ON ANY TRUCK LEAVING THE CONSTRUCTION SITES TO DISPOSE OF EXCAVATED SOIL.

G. CEASE GRADING DURING PERIODS WHEN WINDS EXCEED 25 MILES PER HOUR.

H. PROVIDE FOR PERMANENT SEALING OF ALL GRADED AREAS, AS APPLICABLE, AT THE EARLIEST PRACTICABLE TIME AFTER SOIL DISTURBANCE.

## OWNER

CITY OF COSTA MESA
77 FAIR DR.
COSTA MESA, CA 92626
CONTACT: SEUNG YANG
PH: 714-754-5323

## SOIL ENGINEER

LEIGHTON CONSULTING, INC.
10532 ACACIA STREET, SUITE B-6
RANCHO CUCAMONGA, CA 91730
CONTACT: JASON HERTZBERG
PH: 866-LEIGHTON

## ARCHITECT

PBK
2400 E. KATELLA AVE., SUITE 950
ANAHEIM, CA 92806
CONTACT: BRUCE OU
PH: 949-548-5000

## LEGEND

| | | | |
|---|---|---|---|
| | PROPERTY LINE | B.O.W. | BACK OF WALK |
| | GRADING LIMITS | BLDG. | BUILDING |
| 665 | EXISTING CONTOUR | C.B. | CATCH BASIN |
| 665.2 | EXISTING SPOT ELEVATION | C.L.F. | CHAIN LINK FENCE |
| 665 | PROPOSED CONTOUR | C&G | CURB & GUTTER |
| | CUT/FILL LINE | C.L. | CENTERLINE |
| | PROPOSED SLOPE | C.O. | CLEANOUT |
| 12"W | EXISTING UTILITY LINE (TYPE AND SIZE AS NOTED) | CONC. | CONCRETE |
| GB | GRADE BREAK LINE | D.G. | DECOMPOSED GRANITE |
| | FLOWLINE | DWY. | DRIVEWAY |
| | FLOW DIRECTION | D.F. | DRINKING FOUNTAIN |
| | STORM DRAIN & GRATE | ELEC. | ELECTRIC |
| | STORM DRAIN AND CLEANOUT | E.P. | EDGE OF PAVEMENT |
| | STREET LIGHT | F.F. | FINISHED FLOOR |
| | VALVE | F.H. | FIRE HYDRANT |
| | FIRE HYDRANT | F.L. | FLOWLINE |
| | LIGHT STANDARD | F.S. | FINISHED SURFACE |
| | ACCESSIBLE PATH OF TRAVEL | G.B. | GRADE BREAK |
| | | H.C. | HANDICAP |
| | | H.P. | HIGH POINT |
| | | INV. | INVERT |
| | | IRR. OR IRRIG. | IRRIGATION |
| | | L.P. | LOW POINT |
| | | M.H. | MANHOLE |
| | | P/A | PLANTER AREA |
| | | P.P. | POWER POLE |
| | | P.O.C. | POINT OF CONNECTION |
| | | R.D. | ROOF DRAIN |
| | | R.O.W. | RIGHT OF WAY |
| | | SD | STORM DRAIN |
| | | ST. | STREET |
| | | T.C. | TOP OF CURB |
| | | T.D. | TOP OF DECK |
| | | TEL. | TELEPHONE |
| | | T.G. | TOP OF GRATE |
| | | T.F. | TOP OF FOOTING |
| | | T.O.S. | TOP OF SUBGRADE |
| | | T.W. | TOP OF WALL |
| | | S | SANITARY SEWER |
| | | W | WATER |
| | | W.I.F. | WROUGHT IRON FENCE |
| | | W.M. | WATER METER |
| | | W.V. | WATER VALVE |

## DIG ALERT NOTE TO CONTRACTOR:

DIG, ALERT (811) IS TO BE CONTACTED AND THAT COMPLIANCE WITH EXCAVATION SAFETY IN ACCORDANCE WITH GOVERNMENT CODE 4216 WILL BE FOLLOWED PRIOR TO ANY EXCAVATION TAKING PLACE.

ACKNOWLEDGED:

_____ _____
CONTRACTOR SIGNATURE DATE

_____
PRINT NAME

# SITE IMPROVEMENT PLANS
## FOR
# COSTA MESA FIRE STATION NO. 2
# COSTA MESA FIRE DEPARTMENT
### 800 BAKER STREET
# COSTA MESA, CA 92626
### COUNTY OF ORANGE
### STATE OF CALIFORNIA

## NOTE:

SEPARATE PLAN CHECKS AND PERMITS SHALL BE REQUIRED TO THE FOLLOWING ITEMS WHEN APPLICABLE:
A. PARKING LIGHT POLES. PARKING LIGHT POLES EXCEEDING 6FT IN HEIGHT SHALL REQUIRE ENGINEERED CALCULATIONS TO BE SUBMITTED AND APPROVED PRIOR TO THE ISSUANCE OF THE PERMIT.
B. TRASH ENCLOSURES
C. SEWER CONNECTIONS
D. RETAINING WALLS
E. BLOCK WALLS
F. PARKING LIGHT POLES

## NOTICE TO CONTRACTOR

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO, OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING, AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ANY NECESSARY ADJUSTMENTS TO ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PREVENT DAMAGE TO ANY UTILITY FACILITIES SHOWN AND ANY OTHER FACILITIES NOT SHOWN ON THESE PLANS.

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON THESE PLANS AGREE THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THEY WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. THIS INCLUDES PROVIDING FOR THE SAFETY OF ALL PERSONS AND PROPERTY AND SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTORS AND SUBCONTRACTORS FURTHER AGREE TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE OWNER AND DESIGN PROFESSIONAL FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE DESIGN PROFESSIONAL.

## EXISTING UNDERGROUND STRUCTURES

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND PIPES OR CONDUITS SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE THE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS. LOCATE ALL UTILITIES BEFORE CONSTRUCTION.

## BENCHMARK

COUNTY OF ORANGE BENCH MARK NO. "1E-97-72"

ELEV.: 39.783' (NAVD88, 2010 LEVELED)

DESCRIBED BY OCS 2001 - FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "1E-97-72", SET IN THE SOUTHEAST CORNER OF AN 8 FT. BY 8 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWEST CORNER OF THE INTERSECTION OF BRISTOL AND BAKER STREET, 58 FT. NORTHERLY OF THE CENTERLINE OF BAKER AND 50 FT. WESTERLY OF THE CENTERLINE OF BRISTOL. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

## BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF RUDOLPH AVE. HAVING A BEARING OF N 00°02'25" W, PER TRACT MAP NO. 11606, RECORDED IN BOOK 509, PAGES 29 AND 30, OFFICIAL RECORDS OF COUNTY OF ORANGE.

## LEGAL DESCRIPTION

THE EAST 105.60 FEET OF THAT PORTION OF LOT 6 IN BLOCK E OF THE BERRY TRACT, IN THE CITY OF COSTA MESA, AS PER MAP RECORDED IN BOOK 30, PAGE 74 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF LOS ANGELES COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE CENTER LINE OF BAKER STREET, AS SHOWN ON SAID NAP, AND THE SOUTHERLY PROLONGATION OF THE WEST LINE OF SAID LOT 6, THENCE NORTH ALONG SAID PROLONGATION AND THE WEST LINE 412.5 FEET; THENCE EAST PARALLEL TO SAID CENTER LINE OF BAKER STREET, 211.2 FEET; THENCE SOUTH PARALLEL TO SAID WEST LINE OF LOT 6 AND ITS SOUTHARLY PROLONGATION 412.5 FEET TO THE CENTER LINE OF BAKER STREET; THENCE WEST ALONG SAID CENTER LINE 211.2 FEET TO THE POINT OF BEGINNING.

EXCEPT THE SOUTH 40 FEET CONVEYED TO THE COUNTY OF ORANGE FOR BAKER STREET BY DEED RECORDED FEBRUARY 15, 1943 IN BOOK 1181, PAGE 157 OF OFFICIAL RECORDA.

APN: 418-121-29

## SITE PREPARATION RECOMMENDATIONS FROM GEOTECHNICAL INVESTIGATION

SEE SHEET C-0.03

FLOOD ZONE: SOUTHERLY TWO-THIRDS:
ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE OF FLOODPLAIN)
NORTHERN ONE-THIRD:
ZONE X (AREAS DETERMINED TO BE INSIDE THE 0.2% ANNUAL CHANCE OF FLOODPLAIN)

PER FLOOD INSURANCE RATE MAP (FIRM) PANEL 267 OF 539
MAP NO. 06059C0267J, DATED DECEMBER 3, 2009

## EARTHWORK

| | | |
|---|---|---|
| AREA DISTURBED: | 0.79± | ACRES |
| RAW CUT | 125 | CUBIC YARDS |
| SHRINKAGE (5%) * | (5) | CUBIC YARDS |
| FILL | 1,350 | CUBIC YARDS |
| SHRINKAGE - O/E (5%) * | 180 | CUBIC YARDS |
| SUBSIDENCE (0.1-FOOT) * | 130 | CUBIC YARDS |
| IMPORT ** | 1,540 | CUBIC YARDS |
| OVER-EXCAVATION * | 3,600 | CUBIC YARDS |

* THE ABOVE CUT/FILL QUANTITIES ARE FOR PERMIT PURPOSES ONLY. THIS CALCULATION DOES NOT INCLUDE SOILS FROM BUILDING OR WALL FOOTINGS, NOR ANY UTILITY TRENCHING. NOR ANY SPOILS FROM ANY PROPOSED UNDERGROUND STORAGE TANKS, BMPs, ETC. THIS CALCULATION ACCOUNTS FOR 5% SHRINKAGE AND 0.1-FOOT OF SUBSIDENCE (TO BE CONFIRMED BY THE SOILS ENGINEER). REMOVALS PER THE SOILS REPORT INCLUDE 5-FEET BELOW THE BUILDING PADS TO AND EXTENT HORIZONTALLY 5-FEET AND 2-FEET BELOW PAVEMENT. CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR STATEMENTS CONCERNING GRADING REQUIREMENTS.

## ** NOTICE TO THE CONTRACTOR

THE ESTIMATES OF IMPROVEMENT AND GRADING QUANTITIES AS SHOWN HEREON ARE PROVIDED FOR SATISFYING PLAN CHECK INFORMATION REQUIREMENTS ONLY. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT ESTIMATE OF ALL IMPROVEMENT QUANTITIES INCLUDING GRADING QUANTITIES, AND SHALL USE SAME AS A BASIS FOR HIS BID(S) AND CONTRACT(S).

THE GRADING CONTRACTOR SHALL BE RESPONSIBLE AND ACCOUNT FOR DISTRIBUTING ANY EXCESS MATERIAL OR SUPPLYING ANY DEFICIENCIES TO BRING THE SITE TO DESIGN GRADE.

## NOTE TO CONTRACTOR:

ALL GRADING AND EARTHWORK IS TO BE DONE IN ACCORDANCE WITH THE EARTHWORK SPECIFICATION AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

## CONSTRUCTION NOTES/ESTIMATE OF QUANTITIES

| NO. | DESCRIPTION | QUANTITY | |
|---|---|---|---|
| | | BUILD-OUT | TEMP. FACILITY |
| | FINAL PHASE DEMOLITION NOTES | | |
| AA | REMOVE EXISTING CATCH BASINS AND PIPE (COMPLETE) AND DISPOSE | LS | - |
| BB | REMOVE EXISTING A.C./A.B. PAVEMENT (COMPLETE) AND DISPOSE | LS | - |
| CC | REMOVE EXISTING WALL (COMPLETE) AND DISPOSE | LS | - |
| DD | CONFIRM REMOVAL OF EXIST. MISCELLANEOUS ITEM (COMPLETE) AND DISPOSE ACCORDINGLY | LS | - |
| EE | REMOVE EXISTING FENCE, POSTS, AND FOUNDATIONS (COMPLETE) AND DISPOSE | LS | - |
| | GENERAL CONSTRUCTION NOTES | | |
| 1A | CONSTRUCT 8" REINF. CONC. / 8" A.B. / 95% COMPACTED SUBGRADE PAVING PER ARCHITECT PLANS | 14,920 SF | 3,220 SF |
| 1B | CONSTRUCT 6" REINF. CONC. / 8" A.B. / 95% COMPACTED SUBGRADE PAVING PER ARCHITECT PLANS | 2,325 SF | - |
| 1C | CONSTRUCT CONC. WALK PER ARCHITECT PLANS | - | - |
| 1D | GRIND MIN. 2-INCHES (MIN. 2' WIDE) AND OVERLAY PER SPPWC SECTION 400, TYPE III C3 TO JOIN EXIST. PAVEMENT | - | 1,150 SF |
| 2 | CONSTRUCT CURB & GUTTER TYPE 'C-6' PER CITY OF COSTA MESA STD. DWG. NO. 312, C.F. PER PLAN | 130 LF | - |
| 3 | CONSTRUCT CURB TYPE "A" PER CITY OF COSTA MESA STD. DWG. NO. 311, C.F. PER PLAN | 395 LF | - |
| 4 | CONSTRUCT CATCH BASIN & GRATE PER DETAIL 1, SHEET C-0.02 | 2 EA | 1 EA |
| 5 | CONSTRUCT DECK DRAIN PER DETAIL 2, SHEET C-0.02 | 8 EA | - |
| 6 | CONSTRUCT ACO KLASSIKDRAIN K100 WITH ADA-COMPLIANT AND LOAD CLASS E GRATE | 62 LF | 26 LF |
| 7 | CONSTRUCT CURB OPENING CATCH BASIN PER S.P.P.W.C. STD. PLAN 300-4, W = 3.5', V PER PLAN | 1 EA | - |
| 8 | CONSTRUCT LOCAL DEPRESSION PER S.P.P.W.C. STD. PLAN 313-4, CASE E | 1 EA | - |
| 9 | CONSTRUCT MODULAR WETLAND SYSTEM UNIT (MWS) OR EQUAL | 1 EA | - |
| 10 | PROTECT IN PLACE | - | - |
| 11 | CONSTRUCT STORM DRAIN CLEAN OUT PER DETAIL 3, SHEET C-0.02 | 1 EA | 1 EA |
| 12 | CONSTRUCT 6" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813 | 350 LF | 135 LF |
| 13 | CONSTRUCT 8" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813 | 240 LF | 70 LF |
| 14 | CONSTRUCT 12" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813 | - | 90 LF |
| 15 | CORE INTO EXISTING JUNCTION STRUCTURE AND CONNECT - WATERPROOF CONNECTION WITH GROUT | - | 1 EA |
| 16 | CONNECT TO BUILDING ROOF DRAIN | 4 EA | - |
| 17 | CONNECT TO TRENCH DRAIN | 2 EA | 1 EA |
| 18 | CONSTRUCT CURB FACE TRANSITION PER DETAIL 4, SHEET C-0.02 | 65 LF | - |
| 19 | CONSTRUCT CURB RAMP PER CITY OF COSTA MESA STD. DWG. NO. 416, CASE PER PLAN - SEE ARCHITECT PLANS FOR MODIFICATIONS | 4 EA | - |
| 20 | CONSTRUCT TRENCH REPLACEMENT PER CITY OF COSTA MESA STD. DWG. NO. 813 | - | 80 SF |
| 20A | ADJUST UTILITY BOX/VAULT/LID TO GRADE | 4 EA | 1 EA |
| 21 | CAP STORM DRAIN FOR FUTURE CONNECTION | - | 1 EA |
| 21A | CONNECT TO EXISTING STORM DRAIN WITH FITTING | 5 EA | - |
| 22 | CONSTRUCT TEMPORARY A.C. WALK | - | 1 EA |
| 23 | CONSTRUCT 2" PVC (SCH 80) STORM DRAIN PIPE | 12 LF | - |
| 24 | CONNECT STORM DRAIN TO RECESSED FLOOR MAT - SEE ARCHITECT PLANS | 1 EA | - |
| 25 | OUTLET 2" STORM DRAIN THROUGH CURB FACE | 1 EA | - |
| | BAKER RIGHT-OF-WAY CONSTRUCTION NOTES | | |
| 26 | CONSTRUCT DRIVEWAY TYPE II PER CITY OF COSTA MESA STD. DWG. NO. 514 | 2 EA | - |
| 27 | CONSTRUCT CURB & GUTTER, TYPE 'C-8' PER CITY OF COSTA MESA STD. DWG. NO. 312 | 20 LF | - |
| 28 | CONSTRUCT SIDEWALK PER CITY OF COSTA MESA STD. DWG. NO. 412 | 155 SF | - |
| 29 | CONSTRUCT DEEPLIFT PAVEMENT PER DETAIL 7, SHEET C-0.02 | 120 LF | - |
| 29A | CONSTRUCT CURB DRAIN PER S.P.P.W.C. STD. PLAN 150-4 - MATCH SIZE OF EXIST. AND JOIN EXIST. AT BACK OF WALK | 1 EA | - |
| | RANDOLPH AVE. RIGHT-OF-WAY CONSTRUCTION NOTES | | |
| 29B | RECONSTRUCT LID OF EXISTING CURB INLET CATCH BASIN FLUSH WITH EXISTING SIDEWALK S.P.P.W.C. STD. PLAN 300-4 | 1 EA | - |
| | SEE SHEET D-1.01 FOR DEMOLITON CONSTRUCTION NOTES | | |
| | SEE SHEET C-2.01 AND C-2.02 FOR WATER/SEWER CONSTRUCTION NOTES | | |
| | SEE SHEET C-3.01 FOR EROSION CONTROL CONSTRUCTION NOTES | | |
| | SEE SHEET C-4.01 FOR HORIZONTAL CONTROL / STRIPING CONSTRUCTION NOTES | | |

## NOTICE TO CONTRACTOR:

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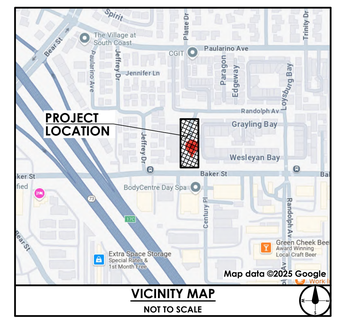
## SHEET INDEX



| | NUMBER |
|---|---|
| TITLE SHEET | C-0.01 |
| DETAIL SHEET | C-0.02 TO C-0.03 |
| SOILS REPORT EXCERPT - RECOMMENDATIONS | C-0.04 TO C-0.05 |
| DEMOLITION PLAN | D-1.01 |
| PRECISE GRADING PLAN - TEMPORARY FACILITY | C-1.01 |
| PRECISE GRADING PLAN | C-1.02 |
| WATER PLAN - TEMPORARY FACILITY | C-2.01 |
| WATER/SEWER PLAN | C-2.02 |
| EROSION CONTROL PLAN | C-3.01 |
| HORIZONTAL CONTROL PLAN | C-4.01 |
| SURVEY MAP | SM-1.01 |
| WQMP SITE MAP | WQ-1 |






VICINITY MAP
NOT TO SCALE

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

COSTA MESA FIRE STATION No. 2
RECONSTRUCTION
COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — STATE OF CALIFORNIA — THOMAS E. CARROLL — C-31640 Exp. 09-30-27
REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CARROLL — C-31640 — CIVIL — STATE OF CALIFORNIA
6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | | | |
|---|---|---|---|
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

# TITLE SHEET

DRAWING NUMBER: C-0.01

CM-07-01-2026

*City of Costa Mesa*

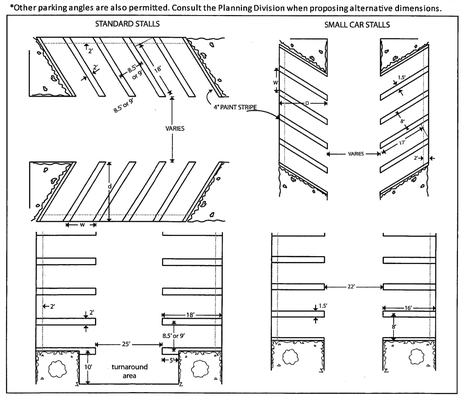
## PARKING DESIGN STANDARDS

(All Zones except R1)

Revised November 1, 1999 per Resolution #99-74

| STANDARDS STALLS | | | | | SMALL CAR STALLS | | | |
|---|---|---|---|---|---|---|---|---|
| | | Stall Dimensions | | | | | Stall Dimensions | |
| Parking Angle | Aisle Width 1 way/2 way | D | W (Commercial and Industrial) | W (Residential) | Parking Angle | Aisle width 1 way/2 way | D | W |
| 30 | 15'/20' | 16' | 18' | 17' | 30 | 15'/20' | 13' | 16 1/2' |
| 45 | 15'/20' | 18 1/2' | 13' | 12' | 45 | 15'/20' | 14 1/2' | 12' |
| 50 | 15'/20' | 19' | 12' | 11' | 50 | 15'/20' | 15' | 11' |
| 60 | 18'/20' | 20' | 10 1/2' | 10' | 60 | 15'/20' | 16' | 10' |
| 70 | 21'/21' | 18 1/2' | 9 1/2' | 9' | 70 | 15'/20' | 16' | 9' |
| 80 | 23'/23' | 18' | 9' | 8 1/2' | 80 | 18 1/2'/20' | 16' | 8' |
| 90 | 25'/25' | 18' | 9' | 8 1/2' | 90 | 22'/22' | 16' | 8' |

*Other parking angles are also permitted. Consult the Planning Division when proposing alternative dimensions.

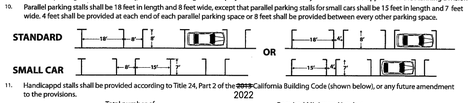



*City of Costa Mesa*

## PARKING DESIGN STANDARDS

(All Zones except R1)

1. All parking areas containing more than 2 spaces shall provide forward motion access to and from the public street, unless an exception is approved by the Planning Division.
2. Parking areas shall provide internal circulation or sufficient, designated turnaround space. Turnaround area, as shown on the reverse side of this sheet, shall be provided at the end of all dead-end parking aisles exceeding 100 feet in length. Other turnaround arrangements providing the same maneuverability may be approved by the Planning Division.
3. Of the required stall depth, the maximum allowance of bumper overhang into a landscaped area is 2 feet for standard and small car stalls. This area may not be included in the fulfillment of tha landscaping requirements for the site, nor may it encroach into the required street setback.
4. Carports and stalls in parking structures shall provide a clear inside dimension equal to the required width for open stalls; vertical supports shall be recessed 4 feet from access aisle. Other designs providing the same accessibility may be approved by the Planning Division.
5. Residential garage parking stalls shall maintain an unobstructed inside dimmension of at least 10 feet in width and 20 feet in length. Garages shall be provided with a minimum door width of 8 feet for single garages and 16 feet for double garages.
6. Stalls (open and carports) with vertical restrictions at the side (walls, fences, shrubs, etc.) shall be increased in width 1 foot over the width normally required.
7. When necessary due to constraints, minor reductions in the aisle width may be approved by the Planning Division, provided the stall width is increased accordingly.
8. Site plans shall be drawn to scale.
9. Small car parking shall be reasonably distributed throughout the project site and shall be subject to review and approval of the Planning Division.
10. Parallel parking stalls shall be 18 feet in length and 8 feet wide, except that parallel parking stalls for small cars shall be 15 feet in length and 7 feet wide. 4 feet shall be provided at each end of each parallel parking space or 8 feet shall be provided between every other parking space.




11. Handicappd stalls shall be provided according to Title 24, Part 2 of the ~~2019~~ 2022 California Building Code (shown below), or any future amendment to the provisions.

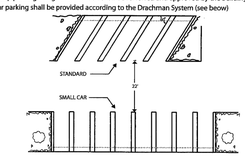
| Total number of Parking Spaces | Required Minimum Number of Accessible Spaces |
|---|---|
| 1 - 25 | 1 |
| 26 - 50 | 2 |
| 51 - 75 | 3 |
| 76 - 100 | 4 |
| 101 - 150 | 5 |
| 151 - 200 | 6 |
| 201 - 300 | 7 |
| 301 - 400 | 8 |
| 401 - 500 | 9 |
| 501 - 1000 | * |
| 1001 - over | ** |

* 2 percent of total

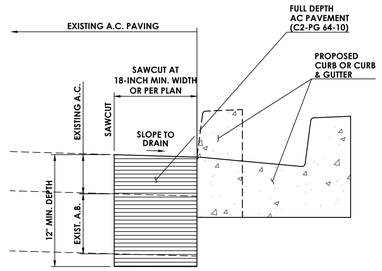
** 20 plus 1 for each 100, or fraction thereof over 1001

One handicapped stall shall be at least 18 feet in length and 17 feet wide. Additional handicapped stalls shall be at least 18 feet in length and 14 feet wide. Handicap parking design and location shall be reviewed and approved by the Building Division.

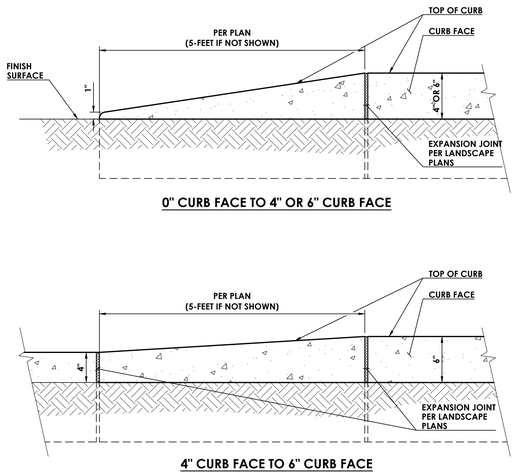
12. Where feasible, small car parking shall be provided according to the Drachman System (see beow)



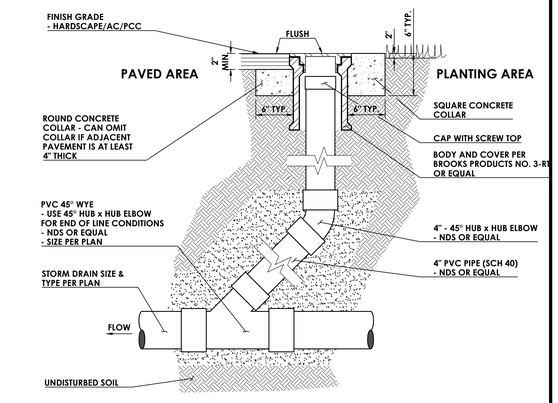

**8 | CITY OF COSTA MESA PARKING STANDARDS** | SCALE: N.T.S.




**7 | FULL-DEPTH DEEP LIFT A.C. PAVING** | SCALE: N.T.S.

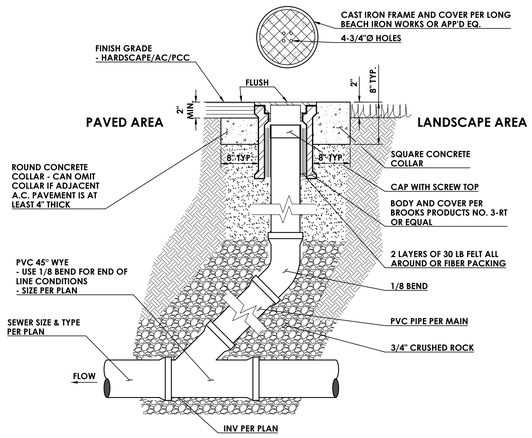



**4 | C.F. TRANSITION** | SCALE: N.T.S.



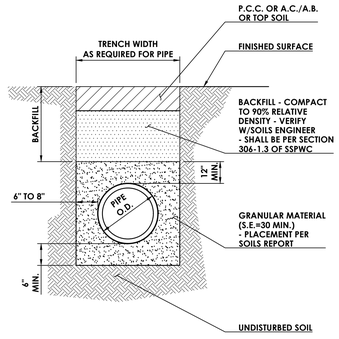

NOTE:
- USE 4,000 p.s.i., TYPE II/V CONCRETE IN TRAFFIC AREAS
- USE 3,250 p.s.i., TYPE II/V CONCRETE IN LANDSCAPE AREAS
- BACKFILL TO TOP OF 45° BEND WITH SAME MATERIAL AS PIPE BACKFILL

**3 | STORM DRAIN CLEANOUT** | SCALE: N.T.S.




NOTE:
- USE 4,000 p.s.i., TYPE II/V CONCRETE IN TRAFFIC AREAS
- USE 3,250 p.s.i., TYPE II/V CONCRETE IN LANDSCAPE AREAS
- BACKFILL WITH SAME MATERIAL AS PIPE BACKFILL
- CLEANOUT PIPE TO BE SAME SIZE AND MATERIAL AS MAIN

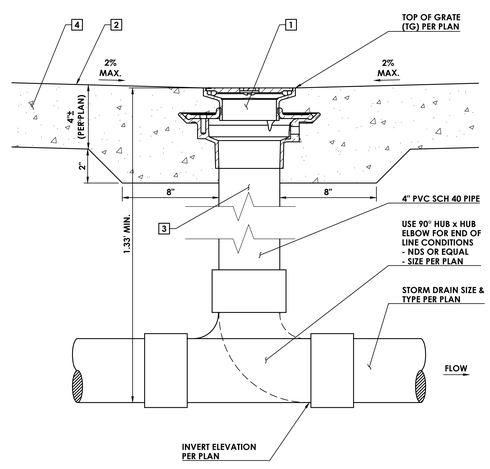
**6 | SEWER CLEANOUT** | SCALE: N.T.S.




NOTE:
- WATER MINIMUM COVER DEPTH = 36"
- SEWER MINIMUM COVER DEPTH = 36" - SEE PLAN
- PLACE MARKING TAPE ON ALL BURIED PIPING OUTSIDE BUILDING FOOTPRINT.

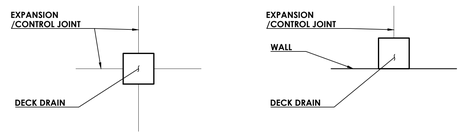
NOTE:
TRENCHES ADJACENT AND PARALLEL TO BUILDING FOUNDATIONS SHALL NOT BE BELOW A 1:1 PLANE PROJECTED DOWNWARD FROM THE BOTTOM EDGE OF THE ADJACENT FOOTING AND NOT CLOSER THAN 18" FROM THE FACE OF FOOTING. IF THIS CONDITION OCCURS THE ADJACENT FOOTING SHOULD BE DEEPENED OR THE UTILITY CONSTRUCTED AND THE TRENCH BACKFILLED AND COMPACTED PER RECOMMENDATIONS IN THE SOILS REPORT PRIOR TO FOOTING CONSTRUCTION.

**5 | UTILITY BEDDING** | SCALE: N.T.S.




### LEGEND

1. 4" DECK DRAIN, JOSAM DRAIN MODEL NO. 3004-55-VP-2, OR APP'D EQUAL. VANDAL PROOF SCREWS, SATIN BRONZE FINISH
2. FINISH SURFACE PER GRADING PLANS
3. DRAINLINE CONNECTION TO STORM DRAIN LINE PER STORM DRAIN PLANS
4. CONCRETE SURFACE PER LANDSCAPE ARCHITECT'S PLAN

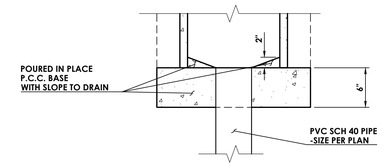



**TYPICAL INSTALLATION**

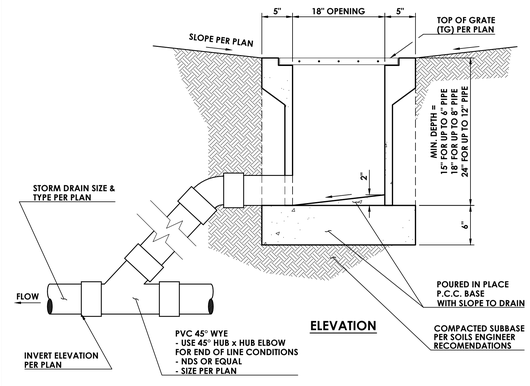
NOT TO SCALE

NOTE:
- GRATES LOCATED IN ACCESSIBLE AREAS ARE TO HAVE ADA COMPLIANT OPENINGS.
- INSTALL DRAIN IN P.C.C. SIDEWALK PER MANUFACTURERS. RECOMMENDATIONS.
- DECK DRAINS ARE TO BE PLACED AT EXPANSION JOINT OR CONTROL JOINT INTERSECTIONS UNLESS OTHERWISE SHOWN.

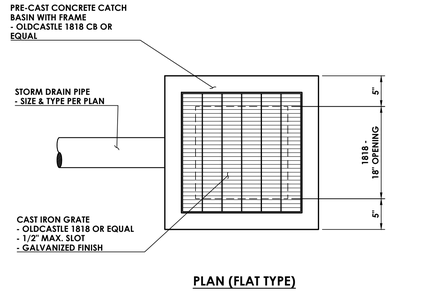
**2 | DECK DRAIN** | SCALE: N.T.S.




**ALTERNATE STORM DRAIN OUTLET**




**ELEVATION**




**PLAN (FLAT TYPE)**

NOTE:
- GRATES LOCATED IN ACCESSIBLE AREAS ARE TO HAVE ADA COMPLIANT OPENINGS.
- USE 3,250 p.s.i. TYPE II/V CONCRETE

**1 | CATCH BASIN & GRATE** | SCALE: N.T.S.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — STATE OF CALIFORNIA — C-31640 Exp. 09-30-27

REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CONSOLINI — CIVIL — STATE OF CALIFORNIA

6/30/26

CONSULTANT
CIVTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| | | | REVISIONS |

| | | | |
|---|---|---|---|
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

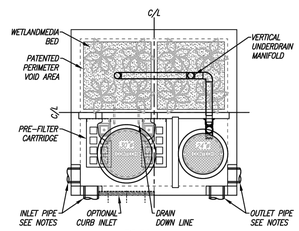
## DETAIL SHEET

DRAWING NUMBER: **C-0.02**

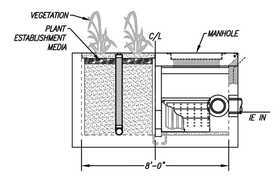
CM-07-01-2026

| SITE SPECIFIC DATA | | | |
|---|---|---|---|
| PROJECT NUMBER | | | |
| PROJECT NAME | | | |
| PROJECT LOCATION | | | |
| STRUCTURE ID | | | |
| TREATMENT REQUIRED | | | |
| TREATMENT FLOW (CFS) | | | |
| PRETREATMENT LOADING RATE (GPM/SF) | | | 2.1 GPM/SF |
| WETLAND MEDIA LOADING RATE (GPM/SF) | | | 1.0 |
| PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE | | | ____ (CFS) |
| PIPE DATA | I.E. | MATERIAL | DIAMETER |
| INLET PIPE 1 | | | |
| INLET PIPE 2 | | | |
| OUTLET PIPE | | | |
| | PRETREATMENT | BIOFILTRATION | DISCHARGE |
| RIM ELEVATION | | | |
| SURFACE LOAD | PEDESTRIAN | | |
| NOTES: | | | |

* PRELIMINARY ONLY - NOT FOR CONSTRUCTION



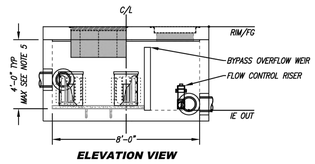

PLAN VIEW



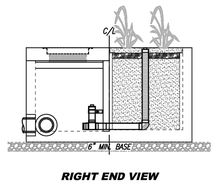

LEFT END VIEW

INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
3. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATERTIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
4. CONTRACTOR RESPONSIBLE FOR CONTACTING CONTECH FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A CONTECH REPRESENTATIVE.
5. VERTICAL HEIGHT VARIES BASED ON SITE SPECIFIC REQUIREMENTS.




ELEVATION VIEW




RIGHT END VIEW

THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS: 7,425,262; 7,470,365; 7,704,393; 8,142,653 AND FOREIGN PATENTS OR OTHER PATENTS PENDING.

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CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com

MWS-L-8-8-V
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

| DESIGN SPECIFICATIONS | | |
|---|---|---|
| | Q(25) BYPASS FLOW, cfs | REQUIRED TREATMENT FLOW, cfs |
| MWS UNIT | 2.8 | 0.17 |

REFERENCE ONLY - NOT FOR CONSTRUCTION
CONTRACTOR TO SUBMIT SHOP DRAWING FROM MANUFACTURER FOR APPROVAL PRIOR TO CONSTRUCTION

1 | STORM WATER BIOFILTRATION SYSTEM - MODULAR WETLAND SYSTEM #2

SCALE: N.T.S.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER THOMAS E. CARROLL C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA
6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | | | |
|---|---|---|---|
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

## DETAIL SHEET

DRAWING NUMBER: C-0.03

CM-07-01-2026



## 3.0 CONCLUSIONS AND RECOMMENDATIONS

### 3.1 Conclusions

This site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone for surface fault rupture. However, as is the case for most of southern California, the most significant geotechnical issue at the site is related to the potential for strong seismic shaking. Historic groundwater levels have been estimated to be on the order of 20 feet below the surface based on the Seismic Hazard Report for the Anaheim and Newport Beach 7.5-Minute Quadrangle Report (CGS, 1997). Based on our analysis and the relatively dense nature of the underlying soils, the potential for liquefaction and seismic induced settlement is considered low at this site. The northern portion of the site is mapped within a 500-year flood zone and special consideration of this occurrence should be taken into consideration during design of the project. Recommendations for design and construction of proposed improvements are provided in the following sections.

The recommendations below are based upon the exhibited geotechnical engineering properties of the soils and their anticipated response both during and after construction. These recommendations are also based upon proper field observation and testing during construction. The project geotechnical engineer should be notified of suspected variances in field conditions to evaluate the effect upon the recommendations presented herein. These recommendations are considered minimal and may be superseded by more restrictive requirements of the civil and structural engineers, the County of Orange, and other governing agencies.

### 3.2 Earthwork

Project earthwork is expected to include overexcavation and recompaction of undocumented fill soils, and partial removals of onsite alluvial soils, below the proposed new building footprint as described in the following subsections:

**3.2.1 Earthwork Observation and Testing:** Leighton should observe and test all grading and earthwork to check that the site has been properly prepared, to assess that selected fill materials are satisfactory, and to evaluate that placement and compaction of fills has been performed in accordance with our





recommendations and the project specifications. Any imported soil or aggregate material to be evaluated for its suitability as onsite fill material should be submitted to a Leighton geotechnical laboratory at least two working days in advance of earth material placement and compaction. Project plans and specifications should incorporate recommendations contained in the text of this report.

Variations in site conditions are possible and may be encountered during construction. To confirm correlation between soil data obtained during our field and laboratory testing and actual subsurface conditions encountered during construction, and to observe conformance with approved plans and specifications, we should be retained to perform continuous or intermittent review during earthwork, excavation, and foundation construction phases. Conclusions and recommendations presented in this report are contingent upon construction geotechnical observation services.

**3.2.2 Site Preparation:** Prior to construction, the site should be cleared of vegetation, trash and debris, which should be disposed of offsite. Any underground obstructions should be removed. Resulting cavities should be properly backfilled and compacted. Efforts should be made to locate existing utility lines. Those lines should be removed or rerouted if they interfere with the proposed construction, and the resulting cavities should be properly backfilled and compacted. Unsuitable deposits and undocumented fill should be excavated and removed from the proposed building footprints prior to fill placement. Removal of these unsuitable deposits and undocumented fill should be as recommended by Leighton Consulting during grading and further evaluated based on the foundation system.

Based on encountered soil conditions, we recommend that all existing fill to be completely removed, which were found to be generally 3 to 5 feet thick in our exploratory borings, but locally thicker undocumented fills are expected to be exposed during grading. Furthermore, potentially compressible native soils are recommended to be excavated below proposed building footprints to at least 3 feet below the bottoms of proposed footings or at least 5 feet below existing grade, whichever is deeper. Overexcavation bottoms should be evaluated by Leighton, and localized deeper removals may be recommended during grading based on exposed conditions.





Where possible, overexcavation bottoms should extend horizontally a distance beyond the outside edges of proposed building perimeter footings equal to the depth of excavation below finish grade or at least 5 feet horizontally, whichever is greater. Where this is not achievable, overexcavation should be reviewed on a case-by-case basis. Overexcavation should encompass the whole new building footprint including attached columns.

Areas outside proposed building pads, planned for asphalt and/or concrete pavement, should be overexcavated to a minimum depth of 24 inches below existing or finish grade, or 12 inches below proposed pavement sections; whichever is deeper.

Resulting removal excavation bottom surfaces should be observed by Leighton prior to placement of any backfill or new construction. It is essential that all existing fill soils be excavated from the proposed building footprints, regardless of depth. After overexcavation is completed and prior to fill placement, exposed surfaces should be scarified to a minimum depth of 6 inches, moisture conditioned to 3 percentage points above optimum moisture content, and recompacted to a minimum 90 percent relative compaction as determined by ASTM D1557 standard test method (modified Proctor compaction curve).

**3.2.3 Fill Placement and Compaction:** Onsite soils free of organics and debris are suitable for use as compacted structural fill provided it is also free of oversized material (greater than 8 inches in its largest dimension). However, any soil to be placed as fill, whether onsite or imported material, should be first viewed by Leighton and then tested if and as necessary, prior to approval for use as compacted fill. All structural fill should be free of hazardous materials.

All fill soil should be placed in thin, loose lifts, moisture-conditioned, as necessary, to at least 3 percentage points above optimum moisture content and compacted to a minimum 90% relative compaction as determined by ASTM D1557 standard test method (modified Proctor compaction curve) within the building footprint. Aggregate base for pavement sections should be compacted to a minimum of 95% relative compaction.

No debris or oversize cobbles were observed at the site during our exploration. If oversize material and debris are encountered during grading or during demolition of the existing fire station building and associated features onsite, it





should be removed from soils prior to placement as compacted fill.

**3.2.4 Shrinkage or Bulking:** The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Subsidence occurs as in-place soil (e.g., natural ground) is moisture-conditioned and densified to receive fill, such as in processing an overexcavation bottom. Subsidence is in addition to shrinkage due to recompaction of fill soil. Based on our laboratory test results for the underlying soils at the site we estimate the following earth volume changes will occur during grading:

| Shrinkage and Subsidence | |
|---|---|
| Shrinkage | Approximately 3 +/- 5 percent |
| Subsidence (overexcavation bottom processing) | Approximately 0.1 foot |

The level of fill compaction, variations in the dry density of the existing soils and other factors influence the amount of volume change. Some adjustments to earthwork volume should be anticipated during grading of the site.

### 3.3 Seismic Design Parameters

The site will experience strong ground shaking after the proposed project is developed resulting from an earthquake occurring along one or more of the major active or potentially active faults in southern California. Accordingly, the project should be designed in accordance with all applicable current codes and standards utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117a (CGS, 2008). Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.





The following parameters should be considered for design under the 2022 CBC:

**Table 1. 2022 CBC Site-Specific Seismic Parameters**

| 2022 CBC Parameters (CBC or ASCE 7-16 reference) | Value 2022 CBC |
|---|---|
| Site Latitude and Longitude: 33.6806, -117.8899 | |
| Site Class Definition (1613.2.2, ASCE 7-16 Ch 20) | D** |
| Mapped Spectral Response Acceleration at 0.2s Period (1613.2.1), $S_s$ | 1.301 g |
| Mapped Spectral Response Acceleration at 1s Period (1613.2.1), $S_1$ | 0.466g |
| *Short Period Site Coefficient at 0.2s Period (T1613.2.3(1))*, $F_a$ | 1.000 |
| *Long Period Site Coefficient at 1s Period (T1613.2.3(2))*, $F_v$ | 1.834* |
| Adjusted Spectral Response Acceleration at 0.2s Period (1613.2.3), $S_{MS}$ | 1.301 g |
| Adjusted Spectral Response Acceleration at 1s Period (1613.2.3), $S_{M1}$ | 0.855* g |
| Design Spectral Response Acceleration at 0.2s Period (1613.2.4), $S_{DS}$ | 0.867 g |
| Design Spectral Response Acceleration at 1s Period (1613.2.4), $S_{D1}$ | 0.570* g |
| Mapped $MCE_G$ peak ground acceleration (11.8.3.2, Fig 22-9 to 13), ***PGA*** | 0.558 g |
| Site Coefficient for Mapped $MCE_G$ *PGA* (11.8.3.2), $F_{PGA}$ | 1.100 |
| Site-Modified Peak Ground Acceleration (1803.5.12; 11.8.3.2), $PGA_M$ | 0.614 g |

* See Section 11.4.8 of ASCE 7-16. A site-specific ground motion hazard analysis in accordance with Section 21.2 of ASCE 7-16 is required for this site. **Per Supplement 3 to ASCE 7-16, a site-specific ground motion hazard analysis is not required where the value of the parameters SM1 and SD1 in the table are increased by 50%.**

** Site Class D, and all of the resulting parameters in this table, may only be used for structures without seismic isolation or seismic damping systems.

A Site Class analysis is included in Appendix C in accordance with ASCE 7-16 Chapter 20. Subsurface data below 50 feet was conservatively estimated using Standard Penetration Test (SPT) blowcounts from our deepest boring. Hazard deaggregation was estimated using the USGS Interactive Deaggregations utility. The results of this analysis indicate that the predominant modal earthquake has a magnitude of approximately 7.69 ($M_W$) at a distance on the order of 6.58 kilometers for the Maximum Considered Earthquake (2% probability of exceedance in 50 years.

### 3.4 Foundations

Based on our exploration and our experience in the region, onsite soils exposed at pad grade are anticipated to exhibit a low expansive potential. As such, we recommend that the proposed structures be supported on conventional shallow





spread or strip footings foundation system in accordance with the California Building Code (CBC). Anticipated foundation loads were not available during preparation of this report. We assumed maximum column dead loads up to (≤) 50 kips and wall loads of 3 kips per lineal foot for our preliminary foundation recommendations. Overexcavation and recompaction of footing subgrade soils should be performed as detailed in Section 3.2 of this report. Shallow foundation recommendations are provided in the following section.

**3.4.1 Minimum Embedment and Width**
Based on our preliminary investigation, footings should have a minimum embedment per code requirements, with a minimum width of 24 and 12 inches for isolated and continuous footings, respectively

**3.4.2 Allowable Bearing**
An allowable bearing pressure of 2,000 pounds-per-square-foot (psf) may be used, based on an assumed embedment depth of 18 inches and minimum width described above. This allowable bearing value may be increased by 250 psf per foot increase in depth or width to a maximum allowable bearing pressure of 3,000 psf. If higher bearing pressures are required, this should be reviewed on a case-by-case basis and may include additional overexcavation and/or soil reinforcement. These allowable bearing pressures are for total dead load and sustained live loads. Footing reinforcement should be designed by the structural engineer.

**3.4.3 Lateral Load Resistance**
Soil resistance available to withstand lateral loads on a shallow foundation is a function of the frictional resistance along the base of the footing and the passive resistance that may develop as the face of the structure tends to move into the soil. The frictional resistance between the base of the foundation and the subgrade soil may be computed using a coefficient of friction of 0.30. The passive resistance may be computed using an allowable equivalent fluid pressure of 240 pounds per cubic foot (pcf), assuming there is constant contact between the footing and undisturbed soil. The coefficient of friction and passive resistance may be combined without further reduction.





**3.4.4 Increase in Bearing and Friction – Short Duration Loads**
The allowable bearing pressure and coefficient of friction values may be increased by one-third when considering loads of short duration, such as those imposed by wind and seismic forces.

**3.4.5 Settlement Estimates**
The recommended allowable bearing pressure is generally based on a total allowable, post-construction static settlement of 1 inch. Differential settlement due to static loading is estimated at ½ inch over a horizontal distance of 30 feet. Since settlement is a function of footing sustained load, size and contact bearing pressure, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists.

### 3.5 Concrete Slab-On-Grade

Concrete slabs-on-grade should be designed by the structural engineer in accordance with 2022 CBC requirements for soil with a low expansion potential. More stringent requirements may be required by the structural engineer and/or architect; however, slabs-on-grade should have the following minimum recommended components:

- **Subgrade:** Slab-on-grade subgrade soil should be moisture conditioned to or within 3% over optimum moisture content, to a minimum depth of 24 inches within building footprints, and compacted to 95% of the modified Proctor (ASTM D1557) laboratory maximum density prior to placing either a moisture barrier, steel and/or concrete.
- **Moisture Barrier:** A moisture barrier consisting of at least 15-mil-thick Stego-wrap vapor barriers (see: http://www.stegoindustries.com/products/stego_wrap_vapor_barrier.php), or equivalent, should then be placed below slabs where moisture-sensitive floor coverings or equipment will be placed.
- **Reinforced Concrete**: A conventionally reinforced concrete slab-on-grade with a thickness of at least 4 inches should be placed in pedestrian areas without heavy loads. Reinforcing steel should be designed by the structural engineer, but as a minimum should be No. 4 rebar placed at 18 inches on-center, each direction (perpendicularly), mid-depth in the slab. A modulus of subgrade reaction (k) as a linear spring constant, of 90 pounds per square inch per inch deflection (pci) can be used for design of heavily loaded slabs-on-grade, assuming a linear response up to deflections on the order of ¾ inch.





- **Slab-On-Grade Control Joints**: Slab-on-grade crack control joint locations and spacing should be designed by the project Structural Engineer (SE). We suggest control joints of 12 feet on center. Control joints should form square panels.

Minor cracking of the concrete as it cures, due to drying and shrinkage, is normal and should be expected. However, cracking is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected. Low slump concrete can reduce the potential for shrinkage cracking. Additionally, our experience indicates that reinforcement in slabs and foundations can generally reduce the potential for concrete cracking. The structural engineer should consider these components in slab design and specifications.

Moisture retarders can reduce, but not eliminate moisture vapor rise from the underlying soils up through the slab. Floor covering manufacturers should be consulted for specific recommendations.

Leighton does not practice in the field of moisture vapor transmission evaluation, since this is not specifically a geotechnical issue. Therefore, we recommend that a qualified person, such as the flooring subcontractor and/or structural engineer, be consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. That person should provide recommendations for mitigation of potential adverse impact of moisture vapor transmission on various components of the structures as deemed appropriate.

### 3.6 Sulfate Attack and Ferrous Corrosion Protection

**3.6.1 Sulfate Exposure:** Sulfate ions in the soil can lower the soil resistivity and can be highly aggressive to Portland cement concrete by combining chemically with certain constituents of the concrete, principally tricalcium aluminate. This reaction is accompanied by expansion and eventual disruption of the concrete matrix. A potentially high sulfate content could also cause corrosion of reinforcing steel in concrete. Section 1904A of the 2022 California Building Code (CBC) defers to the American Concrete Institute's (ACI's) ACI 318-19 for concrete durability requirements. Table 19.3.1.1 of ACI 318-19 lists "*Exposure categories and classes*," including sulfate exposure as follows:



PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

**COSTA MESA FIRE STATION No. 2 RECONSTRUCTION**
**COSTA MESA FIRE & RESCUE DEPARTMENT**
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CRIDER — C-81540 Exp. 09-30-27 — CIVIL — STATE OF CALIFORNIA
6/30/26

CONSULTANT
CIVTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
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| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

**SOILS REPORT EXCERPT - RECOMMENDATIONS**

DRAWING NUMBER: **C-0.04**

CM-07-01-2026



**Table 2. Sulfate Concentration and Exposure**

| Soluble Sulfate in Water (parts-per-million) | Water-Soluble Sulfate ($SO_4$) in soil (percentage by weight) | ACI 318-19 Sulfate Class |
|---|---|---|
| 0-150 | 0.00 - 0.10 | S0 (negligible) |
| 150-1,500 | 0.10 - 0.20 | S1 (moderate*) |
| 1,500-10,000 | 0.20 - 2.00 | S2 (severe) |
| >10,000 | >2.00 | S3 (very severe) |

*or seawater

**3.6.2 Ferrous Corrosivity:** Many factors can modify corrosion potential of soil including soil moisture content, resistivity, permeability and pH, as well as chloride and sulfate concentration. In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor. Based on the findings of studies presented in ASTM STP 1013 titled "*Effects of Soil Characteristics on Corrosion*" (February 1989), the approximate relationship between soil resistivity and soil corrosiveness was developed as follows:

**Table 3. Soil Resistivity and Soil Corrosivity**

| Soil Resistivity (ohm-cm) | Classification of Soil Corrosiveness |
|---|---|
| 0 to 900 | Very Severely Corrosive |
| 900 to 2,300 | Severely Corrosive |
| 2,300 to 5,000 | Moderately Corrosive |
| 5,000 to 10,000 | Mildly Corrosive |
| 10,000 to >100,000 | Very Mildly Corrosive |

Acidity is an important factor of soil corrosivity. The lower the pH (the more acidic the environment), the higher the soil corrosivity will be with respect to buried metallic structures and utilities. As soil pH increases above 7 (the neutral value), the soil is increasingly more alkaline and less corrosive to buried steel structures, due to protective surface films, which form on steel in high pH environments. A pH between 5 and 8.5 is generally considered relatively passive from a corrosion standpoint. Chloride and sulfate ion concentrations, and pH appear to play secondary roles in modifying corrosion potential. High chloride levels tend to reduce soil resistivity and break down otherwise protective surface deposits, which can result in corrosion of buried steel or reinforced concrete structures.





**3.6.3 Corrosivity Estimates:** To evaluate corrosion potential of soils sampled from this site, we tested a bulk soil sample for soluble sulfate content, soluble chloride content, pH and resistivity. Results of these tests are summarized below:

**Table 4. Results of Corrosivity Testing**

| Locations | Sample Depth (feet) | Sulfate (mg/kg) | Chloride (mg/kg) | pH | Minimum Resistivity (ohm-cm) |
|---|---|---|---|---|---|
| Boring LB-2 | 0 - 5 | 99 | 120 | 9.1 | 1,620 |

Note: mg/kg = milligrams per kilogram, or parts-per-million (ppm)

These results are discussed as follows:

- **Sulfate Exposure**: Based on recovered near surface soils and Table 19.3.1.1 of ACI 318-19, in our opinion, sulfate exposure should be considered "negligible" with an Exposure Class S0 for soils sampled at the site. Based on Table 19.3.2.1 of ACI 318-19, for this Exposure Category S0, there would be no restrictions on cement type ("cementitious material") nor water/cement ratio, and an $f_c'$ (28-day compressive strength) of at least 2,500 pounds per square inch (psi) is required at a minimum for structural concrete.
- **Ferrous Corrosivity**: As shown above, minimum soil resistivity of 1,620 ohm-centimeters was measured in our laboratory test. In our opinion, it appears for site soils that corrosion potential to buried steel may be characterized as "severely corrosive" at the site. Ferrous pipe buried in moist to wet site earth materials may be replaced by high-density polyethylene (HDPE) or other non-ferrous pipe when possible. Or ferrous pipe may be protected by polyethylene bags, tap or coatings, di-electric fittings or other means to separate the pipe from on-site earth materials. A corrosion engineer may also be consulted to further evaluation for more detailed recommendations relating to onsite soil corrosion characteristics.

**3.7 Pavement Section Design**

Based on design procedures outlined in the 2017 Caltrans *Highway Design Manual* and a design R-value of less than 5 for onsite subgrade soils based on laboratory testing, preliminary flexible pavement sections were calculated for the Traffic Indices (TIs) tabulated, and are listed below:





**Table 5. Hot Mixed Asphalt (HMA) Pavement Sections**

| Assumed Traffic Index | Asphalt Concrete (inches) | Class 2 Aggregate Base (inches) |
|---|---|---|
| 5.0 (automobile parking, driveways) | 3.0 | 10.0 |
| 6.0 (truck traffic) | 4.0 | 11.5 |
| 7.0 (roadways and heavy truck traffic) | 6.0 | 12.0 |

For fire truck (60,000-pound "apparatus") lanes, asphalt pavements designed for a TI=6.0 are recommended. However, note that undistributed apparatus outrigger loads could cause local asphalt pavement punching damage. When possible, outrigger loads should be distributed over asphalt pavements with planks and plywood. Otherwise, areas where outrigger loads are anticipated could be paved with 8-inch-thick concrete as described below.

Onsite clays are expected to have a low expansive potential, and R-value test on a near-surface sample was low (R<5). A subgrade sample should be collected during grading to perform additional R-Value tests to verify pavement design. Alternatively, in order to reduce the pavement section thicknesses provided in the table above, the subgrade soils can be cement-treated. We recommend that additional samples be collected during construction for R-Value testing, and also to determine the ideal cement treatment ratio (typically on the order of 3 to 5 percent). The following table provides pavement sections for cement-treated subgrade.

**Table 6. Hot Mixed Asphalt (HMA) Pavement Sections Cement Treated Subgrade***

| Assumed Traffic Index | Asphalt Concrete (inches) | Class 2 Aggregate Base (inches) |
|---|---|---|
| 5.0 (automobile parking, driveways) | 3.0 | 5.5 |
| 6.0 (truck traffic) | 3.5 | 7.5 |
| 7.0 (roadways and heavy truck traffic) | 4.0 | 9.5 |

*subgrade treated with 3%-5% cement

Portland cement concrete (PCC) pavement sections were calculated in accordance with procedures developed by the Portland Cement Association. Concrete paving sections for three Traffic Indices (TIs) are presented below:





**Table 7. Portland Cement Concrete Pavement Sections**

| Assumed Traffic Index | PC Concrete (inches) | Base Course (inches) |
|---|---|---|
| 5.0 (automobile parking, driveways) | 6 | 8 |
| 6.0 (roadways and truck traffic) | 8 | |

We have assumed that this Portland cement concrete will have a compressive strength of at least 3,000 psi. Prior to placement of aggregate base, subgrade soils should be scarified to a minimum depth of 8 inches, moisture-conditioned, as necessary, and recompacted to a minimum of 95 percent relative compaction, determined in accordance with ASTM D1557 modified Proctor laboratory maximum density. Aggregate base should be placed in thin lifts; moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction. Field observation and periodic testing, as needed during placement of base course materials, should be undertaken to ensure that requirements of current Caltrans' *Standard Specifications* and Special Provisions are fulfilled. Consideration should be given to reinforce concrete pavements where large outrigger point loads are anticipated.

Adequate drainage (both surface and subsurface) should be provided such that the subgrade soils and aggregate base materials are not allowed to become wet. All pavement construction should be performed in accordance with the current Caltrans *Standard Specifications* or *Standard Specifications for Public Works Construction* ("Greenbook"). Recommended structural pavement materials should conform to the specified provisions in the current Caltrans *Standard Specifications* including grading and quality requirements, shown below:

- **Asphalt Concrete (Hot Mixed Asphalt)** for pavement should be Type A and should conform to Section 39 of the *Standard Specifications*. Asphalt concrete specimens should be tested for surface abrasion in accordance with CT-360.
- **Portland Cement Concrete (PCC)** pavement should conform to Section 40 of the *Standard Specifications*. PCC pavement materials (pavement, structures, minor concrete) should conform to Section 90 of the *Standard Specifications*.
- **Class II Aggregate Base (AB)** should conform to Section 26 of the *Standard Specifications*.

Traffic Indices (TIs) used in our pavement design are considered reasonable values for typical parking lot areas, and should provide a pavement life of approximately 20 years with a normal amount of flexible pavement maintenance.





Irrigation adjacent to pavements, without a deep curb or other cutoff to separate landscaping from the paving, will result in premature pavement failure. Traffic parameters used for design were selected based on engineering judgment and not on information furnished to us such as an equivalent wheel-load analysis or a traffic study. The project Civil Engineer should confirm the TI assumptions.

**3.8 Surface Drainage:** Pad drainage should be designed to collect and direct surface water away from structures to approved drainage facilities. Hardscape drains should be installed and drain to approved storm water disposal systems. Drainage patterns and drainpipes approved at the time of fine grading should be maintained throughout the life of proposed structures.

**3.9 Retaining Wall Recommendations**

The following retaining wall recommendations are included for design consideration of walls with a height less than 6 feet. We recommend that retaining walls be backfilled with very low expansive soil and constructed with a backdrain in accordance with the recommendations provided on Figure 8, *Retaining Wall Backfill and Subdrain Detail*. Using expansive soil as retaining wall backfill will result in higher lateral earth pressures exerted on the wall and are, therefore, not recommended. Retaining wall locations and configurations are unknown at the time of this report.

**Table 8. Retaining Wall Design Parameters**

| Static Equivalent Fluid Pressure (pcf) | |
|---|---|
| Condition | Level Backfill |
| Active | 45 |
| At-Rest (drained, compacted-fill backfill) | 65 |
| Passive (ultimate) | 230 (Max. 3,000 psf) |

The above values do not contain an appreciable factor of safety, so the structural engineer should apply the applicable factors of safety and/or load factors during design.

Cantilever walls that are designed to yield at least 0.001H, where H is equal to the wall height, may be designed using the active condition. Rigid walls and walls braced at the top should be designed using the at-rest condition.





Passive pressure is used to compute soil resistance to lateral structural movement. In addition, for sliding resistance, a frictional resistance coefficient of 0.35 may be used at the concrete and soil interface. The lateral passive resistance should be taken into account only if it is ensured that the soil providing passive resistance, embedded against the foundation elements, will remain intact with time. A soil unit weight of 120 pcf may be assumed for calculating the actual weight of the soil over the wall footing.

In addition to the above lateral forces due to retained earth, surcharge due to improvements, such as an adjacent structure or traffic loading, should be considered in the design of the retaining wall. Loads applied within a 1:1 projection from the surcharging structure on the stem of the wall should be considered in the design. A third of uniform vertical surcharge-loads should be applied at the surface as a horizontal pressure on cantilever (active) retaining walls, while half of uniform vertical surcharge-loads should be applied as a horizontal pressure on braced (at-rest) retaining walls. To account for automobile parking surcharge, we suggest that a uniform horizontal pressure of 100 psf (for restrained walls) or 70 psf (for cantilever walls) be added for design, where autos are parked within a horizontal distance behind the retaining wall less than the height of the retaining wall stem.

We recommend that the wall designs for walls 6 feet tall or taller be checked seismically using an *additive seismic* Equivalent Fluid Pressure (EFP) of 17 pcf, which is added to the EFP. The *additive seismic* EFP should be applied at the retained midpoint.

Conventional retaining wall footings should have a minimum width of 24 inches and a minimum embedment of 12 inches below the lowest adjacent grade. An allowable bearing pressure of 2,000 psf may be used for retaining wall footing design, based on the minimum footing width and depth. This bearing value may be increased by 250 psf per foot increase in width or depth to a maximum allowable bearing pressure of 3,000 psf.

**3.10 Infiltration Recommendations**

Based on our onsite observations, and infiltration test results summarized in the table below, reliance of infiltration into onsite near surface native soils is not considered feasible due to encountered fine grained soils (clays and silts) within the near surface soils and the mapped historical high groundwater table within the area.





Orange County Guidelines indicate that BMP system invert elevations need to have a minimum 10-foot vertical setback from historical groundwater elevations. As mentioned in Section 2.3, the historical high ground water level at the site is mapped to be approximately 20 feet bgs, resulting in an maximum allowable invert elevation of 10 feet bgs.

Although infiltration testing with a bottom depth of 10 feet bgs produced moderate rates for the test itself, soils with higher percent fines and fine-grained soils (silts and clays) were generally located above and below this very narrow test zone with favorable soils at depths ranging from 8 to 10 feet, causing a confining layer within neighboring borings. The very narrow clean sand layer (6% fines) was not encountered within any of our other borings onsite. It is likely that water infiltrated at depths of approximately 10 feet bgs through prolonged infiltration will tend to migrate laterally rather than vertically and produce lower infiltration values.



PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT THOMAS E. CARROLL C-81640 Exp. 09-30-27 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER THOMAS E. CARROLL C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA

6/30/26

CONSULTANT
CIVTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
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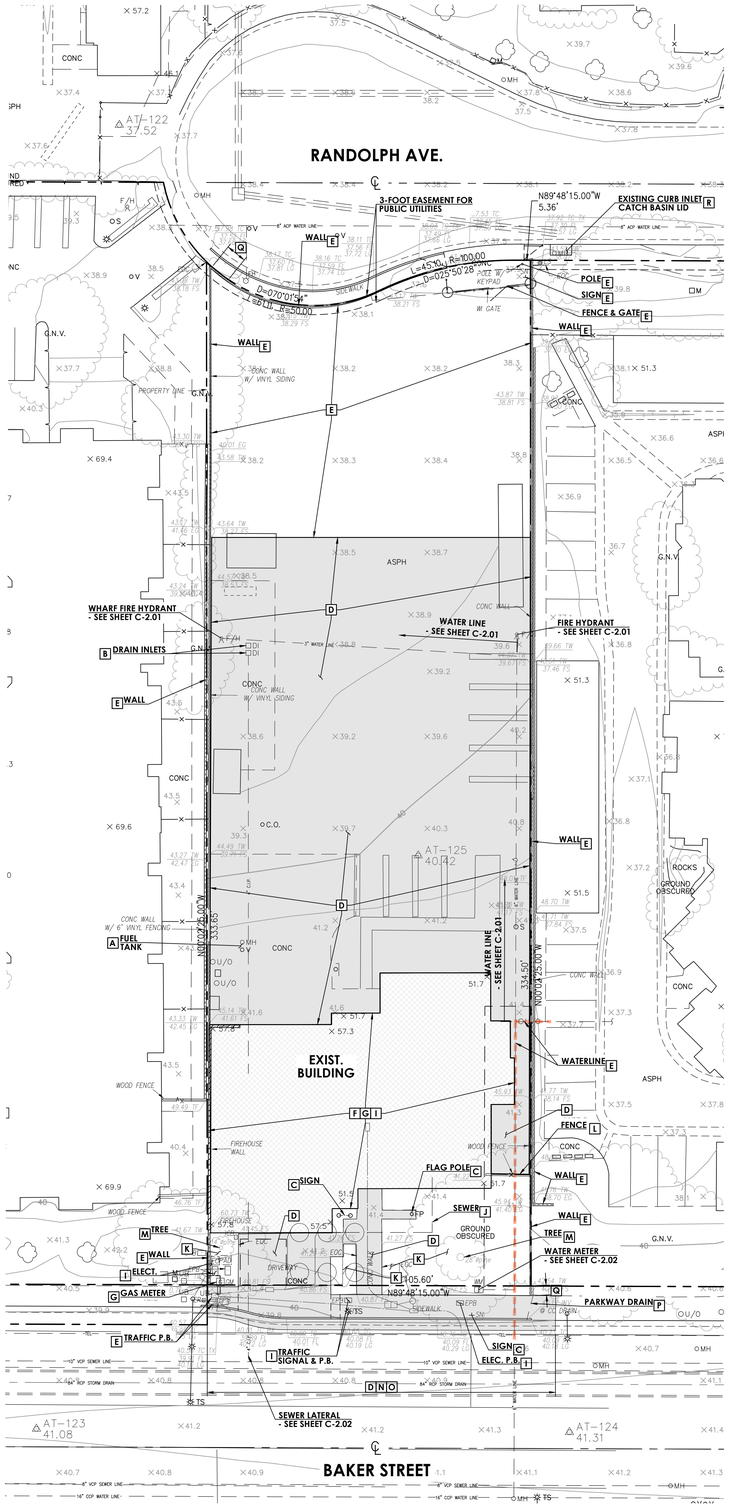
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

## SOILS REPORT EXCERPT - RECOMMENDATIONS

DRAWING NUMBER: C-0.05

CM-07-01-2026




## DEMOLITION NOTES

- A REMOVE EXIST. 1,000 GAL. DOUBLE-WALLED FUEL TANK AND ALL ACCESSEROIES AND FUEL (COMPLETE) AND DISPOSE - UNDER SEPARATE PERMIT - SEE "NOTE TO CONTRACTOR REGARDING FUEL TANK REMOVAL" BELOW AND BACKFILL PER THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL'S CLEAN IMPORTED FILL MATERIAL GUIDANCE AND PER THE SOILS ENGINEER. REMOVALS SHALL INCLUDE A MINIMUM OF 12-INCHES BELOW TANK OR AS REQUIRED TO MEET PERMIT REQUIREMENTS, WHICHEVER IS GREATER.
  - SEE ARCHITECTURAL SHEET A1.0_A FOR MORE INFORMATION
- B REMOVE EXIST. CATCH BASIN AND STORM DRAIN (COMPLETE) AND DISPOSE
- C CONFIRM REMOVAL OF EXIST. MISCELLANEOUS ITEM (COMPLETE) AND DISPOSE ACCORDINGLY
- D SAWCUT AND REMOVE EXISTING CONCRETE CONCRETE, A.C./A.B., STAIRS OR PAD (COMPLETE) AND DISPOSE ****
- E PROTECT IN PLACE - POTHOLE AND LOCATE EXISTING UNDERGROUND UTILITY LINES TO PROTECT AS REQUIRED
- F DEMOLISH/REMOVE EXISTING BUILDING/STRUCTURE/FOUNDATION/SUBTERRANEAN PITS AND DISPOSE ****
- G EXISTING GAS LINE AND/OR APPURTENANCE - COORD. REMOVAL WITH THE GAS COMPANY
- H SAWCUT AND REMOVE EXISTING CURB OR CURB & GUTTER AND DISPOSE
- I EXIST. ELECTRICAL/CATV/TELECOM. LINE OR DEVICE - SEE ELECTRICAL PLANS FOR CONDUIT CAPPING/REROUTING *
- J REMOVE EXISTING SEWER LINE
- K REMOVE EXISTING LANDSCAPING AND IRRIGATION (COMPLETE) AND DISPOSE - SEE IRRIGATION PLANS
- L REMOVE EXISTING FENCE, POSTS, AND FOUNDATIONS (COMPLETE) AND DISPOSE
- M REMOVE EXISTING TREE AND ROOTBALL (COMPLETE) AND DISPOSE - CONFIRM TREE DISPOSITION WITH THE CITY PRIOR TO DEMOTION
- N SAWCUT AND REMOVE EXISTING CURB & GUTTER (COMPLETE) AND DISPOSE
- O SAWCUT AND REMOVE EXISTING DRIVEWAY OR SIDEWALK (COMPLETE) AND DISPOSE
- P REMOVE EXISTING PARKWAY DRAIN TO BACK OF EXISTING WALK (COMPLETE) AND DISPOSE - SEE SHEET C-1.02 FOR NEW CONSTRUCTION
- Q REMOVE EXISTING WALL AND FOUNDATION (COMPLETE) AND DISPOSE - SEE ARCHITECT DRAWINGS FOR MORE INFORMATION
- R REMOVE EXISTING LID OF EXISTING CATCH BASIN - SEE SHEET C-1.02 FOR RECONSTRUCTION

* CONDUIT RE-ROUTING/CAPPING AS REQUIRED

*** ALL UTILITIES SHOULD BE SHUT OFF AND CAPPED PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY PRIOR TO COMMENCEMENT OF WORK.

**** SEE SOILS REPORT FOR ADDITIONAL DEMOLITION REQUIREMENTS

## LEGEND

- LIMITS OF DEMOLITION
- REMOVAL OF EXISTING BUILDING (COMPLETE)
- PROTECT EXISTING UTILITY IN PLACE

## NOTE TO CONTRACTOR REGARDING FUEL TANK REMOVAL:

A SEPARATE PERMIT WILL BE APPLIED FOR AND APPROVED THROUGH THE COUNTY OF ORANGE FOR THE FUEL TANK REMOVAL. PLEASE CONTACT THE ARCHITECT AND CITY FOR COMPLETION OF THE PERMIT AND REQUIREMENTS FOR REMOVAL PRIOR TO START OF WORK. PLEASE NOTE THE PERMIT WILL REQUIRE, AMONG OTHER REQUIREMENTS, THE FOLLOWING (PLEASE NOTE THIS IS A PARTIAL LIST):

- NOTIFICATION AND SCHEDULING OF THE FIELD WORK, AS WELL AS COMPLIANCE WITH AND SOIL SAMPLING AS DESCRIBED IN SECTION #7 OF THE OCHCA (ORANGE COUNTY HEALH CARE AGENCY) TANK REMOVAL GUIDELINES.
- THE DTSC (DEPARTMENT OF TOXIC SUBSTANCES CONTROL) GUIDANCE MUST BE FOLLOWED IN REGARDS TO BACKFILLING. IN ADVANCE OF THE TANK REMOVAL, THIS AGENCY NEEDS TO BE INFORMED OF THE SOURCE FOR THE BACKFILL MATERIAL. IF THE SOURCE OF THE BACKFILL MATERIAL IS A QUARRY, A RECEIPT OF THE MATERIAL MUST BE PROVIDED PRIOR TO THE START OF THE PROJECT. IN ADDITION, LABORATORY ANALYSIS FOR THE BACKFILL MATERIAL IS REQUIRED - AT A MINIMUM, WE REQUIRE ANALYSIS FOR HEAVY METALS (EPA METHODS 6010B AND 7471A), ASBESTOS (POLARIZED LIGHT MICROSCOPY), AND PH.

SEE ARCHITECTURAL SHEET A1.0_A FOR MORE INFORMATION

## NOTE TO CONTRACTOR:

CONTRACTOR TO SCHEDULE A SITE WALK WITH THE CITY AND/OR FIRE DEPT. PRIOR TO START OF DEMOLITION TO VERIFY ALL ITEMS TO BE DEMOLISHED.

## NOTE TO CONTRACTOR:

SEE ARCHITECT SET FOR THE PHASING OF THE DEMOLITION SCOPE OF WORK.

## DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL CONDUCT A SURVEY OF EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED TO DETERMINE AND VERIFY THE EXTENT OF DEMOLITION REQUIRED.
2. CONTRACTOR SHALL RECORD EXISTING CONDITIONS BY USE OF PRE-CONSTRUCTION PHOTOGRAPHS, PRE-CONSTRUCTION VIDEOTAPES, AND DRAWINGS AS APPROPRIATE.
3. A SURVEY SHALL BE PERFORMED AS WORK PROGRESSES TO DETECT HAZARDS RESULTING FROM DEMOLITION ACTIVITIES.
4. CONTRACTOR SHALL KEEP INVENTORY AND RECORD THE CONDITION OF ITEMS TO BE REMOVED.
5. LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT AS THE FIRST ITEM OF WORK AND PROTECT THEM FROM DAMAGE. NOTIFY OWNER IMMEDIATELY IF DAMAGE OCCURS AND ASSUME FULL RESPONSIBILITY FOR EXPENSE OF REPAIR OR REPLACEMENT. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD FIELD CONDITIONS VARY FROM THOSE SHOWN ON PLAN.
6. WHEN UNANTICIPATED ELECTRICAL, STRUCTURAL, OR OTHER ELEMENTS INCLUDING STORM DRAIN, WATER AND SEWER LINES THAT CONFLICT WITH INTENDED DESIGN ARE ENCOUNTERED, CONTRACTOR SHALL INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF CONFLICT AND CONTRACTOR SHALL PROMPTLY SUBMIT A WRITTEN REPORT TO THE CITY.
7. CONTRACTOR SHALL LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF INDICATED UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS SERVING AREAS TO BE SELECTIVELY DEMOLISHED AND:
   - SHALL ARRANGE TO SHUT OFF INDICATED UTILITIES WITH UTILITY COMPANIES.
   - IF SERVICES/SYSTEMS ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, BEFORE PROCEEDING WITH DEMOLITION CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES/SYSTEMS THAT BYPASS AREA OF DEMOLITION AND THAT MAINTAIN CONTINUITY OF SERVICES/SYSTEMS TO OTHER PARTS OF BUILDING AND SITE.
   - SHALL CUT OFF PIPE OR CONDUIT IN WALLS TO BE REMOVED, CAP, VALVE, OR PLUG AND SEAL REMAINING PORTION OF PIPE OR CONDUIT AFTER BYPASSING. WHERE ENTIRE WALL IS TO BE REMOVED, EXISTING SERVICES/SYSTEMS MAY BE REMOVED WITH REMOVAL OF THE WALL. CONTRACTOR SHALL CUT OFF PIPE OR CONDUIT SO IT WILL NOT BE VISIBLE IN FINISHED CONSTRUCTION.
8. CONTRACTOR SHALL PROTECT EXISTING SERVICES/SYSTEMS INDICATED AGAINST DAMAGE DURING DEMOLITION OPERATIONS.
9. INACTIVE OR ABANDONED UTILITIES WITHIN PROJECT SITE SHALL BE DISCONNECTED, REMOVED, AND PLUGGED OR CAPPED SUBJECT TO THE LOCAL GOVERNING AGENCIES.
10. ACTIVE UTILITIES SHALL BE PROTECTED BY AND AT THE EXPENSE OF THE CONTRACTOR. KEEP ANY REQUIRED UTILITY IN OPERATING CONDITION DURING THE ENTIRE PERIOD OF WORK, INCLUDING EXISTING IRRIGATION SYSTEMS FOR LANDSCAPE MAINTENANCE.
11. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION WHEN IT IS OBVIOUS THAT KNOWN OBSTRUCTIONS EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. ASSUME RESPONSIBILITY FOR ALL NECESSARY REVISION DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
12. CONTRACTOR SHALL CONDUCT DEMOLITION AND DEBRIS-REMOVAL OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, WALKWAYS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
13. CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION REQUIRED TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN AND:
   - SHALL PROVIDE TEMPORARY WEATHER PROTECTION, DURING THE INTERVAL BETWEEN DEMOLITION OF EXISTING CONSTRUCTION ON EXTERIOR SURFACES AND NEW CONSTRUCTION, TO PREVENT WATER LEAKAGE AND DAMAGE TO STRUCTURE AND INTERIOR AREAS.
   - SHALL PROTECT WORK THAT IS TO REMAIN OR THAT IS EXPOSED DURING DEMOLITION OPERATIONS.
   - SHALL COVER AND PROTECT EQUIPMENT THAT HAS NOT BEEN REMOVED.
14. CONTRACTOR SHALL PROVIDE AND MAINTAIN SHORING, BRACING, AND STRUCTURAL SUPPORTS AS REQUIRED TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF CONSTRUCTION AND FINISHES THAT REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED. CONTRACTOR SHALL STRENGTHEN OR ADD NEW SUPPORTS WHEN REQUIRED DURING PROGRESS OF DEMOLITION.
15. DEMOLITION AND REMOVAL WORK SHALL BE CAREFULLY PERFORMED TO AVOID DAMAGE TO EXISTING TREES NOTED ON THE PLANS TO REMAIN.
16. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ADOPTED EDITIONS OF THE UNIFORM BUILDING CODE, THE AMERICANS WITH DISABILITIES ACT, AND ALL OTHER APPLICABLE LOCAL AND STATE CODES, ORDINANCES AND REGULATIONS.
17. CONTRACTOR SHALL USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN THE LIMITATIONS OF GOVERNING REGULATIONS AND AS FOLLOWS:
   - SHALL NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED, USING CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION. USE HAND TOOLS OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING, TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES. TEMPORARILY COVER OPENINGS TO REMAIN.
   - SHALL CUT OR DRILL FROM THE EXPOSED OR FINISHED SIDE INTO CONCEALED SURFACES TO AVOID MARRING EXISTING FINISHED SURFACES.
   - SHALL NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. AT CONCEALED SPACES, SUCH AS DUCT AND PIPE INTERIORS, VERIFY CONDITION AND CONTENTS OF HIDDEN SPACE BEFORE STARTING FLAME-CUTTING OPERATIONS. MAINTAIN FIRE WATCH AND PORTABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS.
   - SHALL MAINTAIN ADEQUATE VENTILATION WHEN USING CUTTING TORCHES.
   - SHALL REMOVE DECAYED, TERMITE-INFESTED, VERMIN-INFESTED, OR OTHERWISE DANGEROUS OR UNSUITABLE MATERIALS AND PROMPTLY DISPOSE OF OFF-SITE.
   - SHALL LOCATE DEMOLITION EQUIPMENT AND REMOVE DEBRIS AND MATERIALS SO AS NOT TO IMPOSE EXCESSIVE LOADS ON STRUCTURES TO REMAIN.
19. CLEAR THE SITE OF GRASS, WEED GROWTH, RUBBISH, DEBRIS, PAVEMENT, CONCRETE, INACTIVE OR ABANDONED FACILITIES (VERIFIED BY THE AGENCY), THAT ARE TO BE REMOVED FOR CONSTRUCTION OF THE SITE IMPROVEMENTS TO THE LIMITS AND DEPTHS SHOWN ON THE PLANS.
20. ABANDONED UNDERGROUND FACILITIES (VERIFIED BY THE AGENCY), ROOTS THREE INCHES IN DIAMETER AND LARGER, AND ROCKS AND BROKEN MASONRY LARGER THAN 4 INCHES IN ANY DIMENSION SHALL BE REMOVED TO A MINIMUM DEPTH OF 12" BELOW FINISH GRADE.
21. ALL DELETERIOUS MATERIALS WITHIN THE LIMITS OF THE WORK SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, WHO SHALL MAKE ALL NECESSARY ARRANGEMENTS AND PAY ALL RELATED COSTS.
22. CONTRACTOR SHALL REMOVE DEMOLISHED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM AT THE CONTRACTOR'S EXPENSE IN AN EPA-APPROVED LANDFILL AND:
   - SHALL NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.
   - SHALL REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
23. CONTRACTOR SHALL NOT BURN DEMOLISHED MATERIALS.
24. CONTRACTOR SHALL CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS AND RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE DEMOLITION OPERATIONS BEGAN.

## NOTE TO CONTRACTOR:

ALL UTILITIES SHOULD BE SHUT OFF AND CAPPED PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY PRIOR TO COMMENCEMENT OF WORK.

## NOTE TO CONTRACTOR:

INSTALL 8-FOOT CHAIN LINK FENCE WITH WINDSCREEN AND GATES, WHERE NECESSARY, ALONG THE PERIMETER OF THE SITE AS NEEDED. CONTRACTOR SHALL PROTECT THESE FENCES AND KEEP AREA FULLY SECURE DURING DEMOLITION. PLEASE SEE ARCHITECT PLANS FOR REMOVALS AND INSTALLATION OF FENCE AND GATE FOR PHASING.

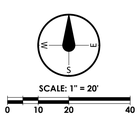
## NOTE TO CONTRACTOR:

- LOCATION OF EXISTING FACILITIES SHOWN HEREON ARE BASED ON THE TOPOGRAPHIC SURVEY PERFORMED BY civTEC, INC., DATED MARCH 2022, FIELD OBSERVATION AND A SEARCH OF AVAILABLE RECORDS AND MAY NOT REPRESENT ACTUAL CONDITIONS.
- CONTRACTOR MUST FIELD LOCATE ALL UTILITIES (LOCATION AND DEPTH) WITHIN WORK AREA AS A FIRST ITEM OF WORK AND VERIFY PROPOSED DESIGN IS VALID.
- CONTRACTOR SHALL PROTECT IN PLACE THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITY LINES.
- CONTRACTOR TO VERIFY AND INFORM THE CITY OF ANY FACILITIES ENCOUNTERED IN THE FIELD WHICH IS NOT SHOWN ON THIS PLAN, OR DIFFERS IN LOCATION OR SIZE, PRIOR TO REMOVAL.

## NOTE TO CONTRACTOR:

EXACT LOCATION OF EXISTING UNDERGROUND UTILITY LINES ON-SITE ARE UNKNOWN. CONTRACTOR SHALL:

- VERIFY LOCATION, SIZE, ELEVATIONS OF EXISTING UTILITIES AND VERIFY DESIGN AS A FIRST ITEM OF WORK. NOTIFY ENGINEER IMMEDIATELY OF ANY REQUIRED CHANGE IN DESIGN.
- CAP EXISTING UTILITIES AT DEMOLITION LIMITS - NOTIFY CITY OF ALL LOCATIONS, SIZES AND INVERT ELEVATIONS AT COMPLETION OF DEMOLITION.
- IF INLET PIPES ARE FOUND CONNECTING TO EXISTING GRATES THAT ARE REMOVED DURING THE CONSTRUCTION OF THIS PROJECT (OR PIPES ARE DAMAGED OR REMOVED DURING CONSTRUCTION) THAT RUN OUTSIDE OF DEMOLITION LIMITS, NOTIFY ENGINEER IMMEDIATELY OF THE LOCATION AND SIZE TO INSURE CONTINUITY OF DRAINAGE UPSTREAM.




PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER THOMAS E. CONNELLY C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA
6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
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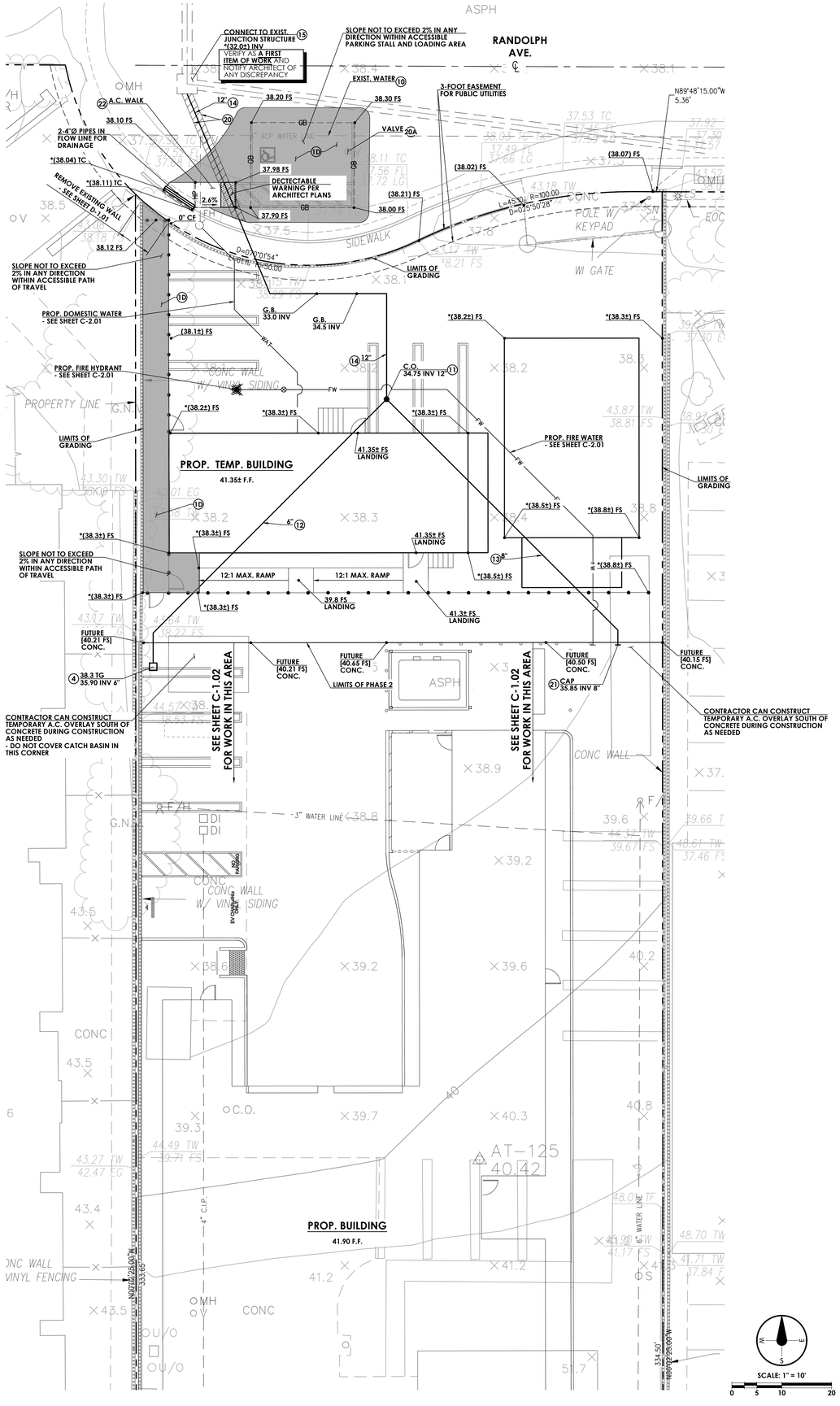
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

# DEMOLITION PLAN

DRAWING NUMBER: D-1.01

CM-07-01-2026




## DIG ALERT NOTE TO CONTRACTOR:

CONTRACTOR'S SURVEYOR SHALL MONUMENT PROPERTY CORNER BEFORE STARTING GRADING, EITHER WITH PERMANENT MONUMENTS OR TEMPORARY 1FT. LONG ½" DIAMETER METAL RODS DRIVEN INTO THE GROUND TO NEAR FLUSH AND MARKED WITH PAINT.

## * NOTE TO CONTRACTOR:

CONTRACTOR TO VERIFY EXISTING ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

## NOTE TO CONTRACTOR:

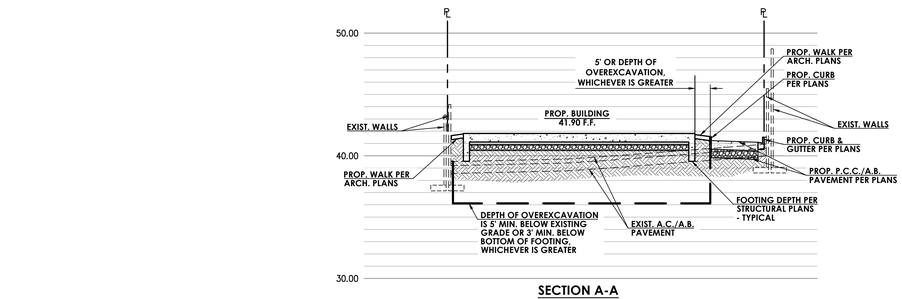
LOCATE ALL EXISTING UTILITIES AS A FIRST ITEM OF WORK AND PROTECT THEM IN PLACE AS REQUIRED.

## NOTE TO CONTRACTOR:

ALL GRADING AND EARTHWORK IS TO BE DONE IN ACCORDANCE WITH THE EARTHWORK SPECIFICATION AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

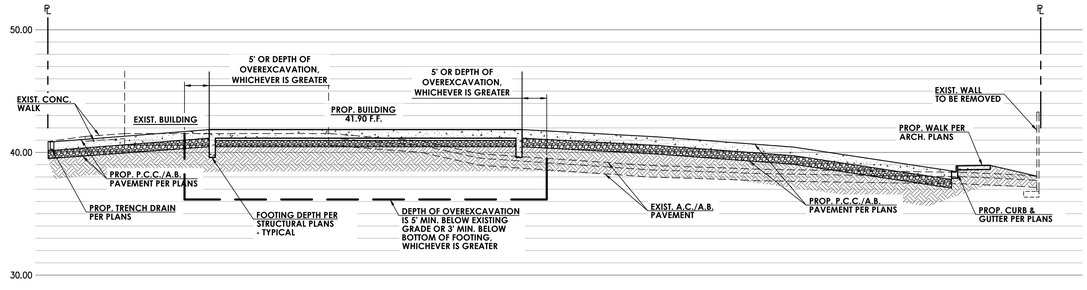
### GENERAL CONSTRUCTION NOTES

- (1A) CONSTRUCT 8" REINF. CONC. / 8" A.B. / 95% COMPACTED SUBGRADE PAVING PER ARCHITECT PLANS
- (1B) CONSTRUCT 6" REINF. CONC. / 8" A.B. / 95% COMPACTED SUBGRADE PAVING PER ARCHITECT PLANS
- (1C) CONSTRUCT CONC. WALK PER ARCHITECT PLANS
- (1D) GRIND MIN. 2-INCHES (MIN. 2' WIDE) AND OVERLAY PER SPPWC SECTION 400, TYPE III C3 TO JOIN EXIST. PAVEMENT.*
- (2) CONSTRUCT CURB & GUTTER TYPE 'C-6' PER CITY OF COSTA MESA STD. DWG. NO. 312, C.F. PER PLAN
- (3) CONSTRUCT CURB TYPE "A" PER CITY OF COSTA MESA STD. DWG. NO. 311, C.F. PER PLAN
- (4) CONSTRUCT CATCH BASIN & GRATE PER DETAIL 1, SHEET C-0.02
- (5) CONSTRUCT DECK DRAIN PER DETAIL 2, SHEET C-0.02
- (6) CONSTRUCT ACO KLASSIKDRAIN K100 WITH ADA-COMPLIANT AND LOAD CLASS E GRATE
- (7) CONSTRUCT CURB OPENING CATCH BASIN PER S.P.P.W.C. STD. PLAN 300-4, W = 3.5', V PER PLAN
- (8) CONSTRUCT LOCAL DEPRESSION PER S.P.P.W.C. STD. PLAN 313-4, CASE E
- (9) CONSTRUCT MODULAR WETLAND SYSTEM UNIT (MWS) OR EQUAL WITH TRASH CAPTURE SCREEN PER DETAIL 1, SHEET C-0.03
- (10) PROTECT IN PLACE
- (11) CONSTRUCT STORM DRAIN CLEAN OUT PER DETAIL 3, SHEET C-0.02
- (12) CONSTRUCT 6" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813
- (13) CONSTRUCT 8" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813
- (14) CONSTRUCT 12" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813
- (15) CORE INTO EXISTING JUNCTION STRUCTURE AND CONNECT - WATERPROOF CONNECTION WITH GROUT
- (16) CONNECT TO BUILDING ROOF DRAIN
- (17) CONNECT TO TRENCH DRAIN
- (18) CONSTRUCT CURB FACE TRANSITION PER DETAIL 4, SHEET C-0.02
- (19) CONSTRUCT CURB RAMP PER CITY OF COSTA MESA STD. DWG. NO. 416, CASE PER PLAN - SEE ARCHITECT PLANS FOR MODIFICATIONS
- (20) CONSTRUCT TRENCH REPLACEMENT PER CITY OF COSTA MESA STD. DWG. NO. 813
- (20A) ADJUST UTILITY BOX/VAULT/LID TO GRADE
- (21) CAP STORM DRAIN FOR FUTURE CONNECTION
- (21A) CONNECT TO EXISTING STORM DRAIN WITH FITTING
- (22) CONSTRUCT TEMPORARY A.C. WALK
- (23) CONSTRUCT 2" PVC (SCH 80) STORM DRAIN PIPE
- (24) CONNECT STORM DRAIN TO RECESSED FLOOR MAT - SEE ARCHITECT PLANS
- (25) OUTLET 2" STORM DRAIN THROUGH CURB FACE




**SECTION A-A**

SCALE:
HORIZ.: 1" = 20'
VERT.: 1" = 5'




**SECTION B-B**

NOT TO SCALE

**SITE SECTIONS**
SEE SHEET C-1.02

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — STATE OF CALIFORNIA — C-81640 Exp. 09-30-27

REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CIVIL — CIVIL — STATE OF CALIFORNIA

6/30/26

CONSULTANT
CIVTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

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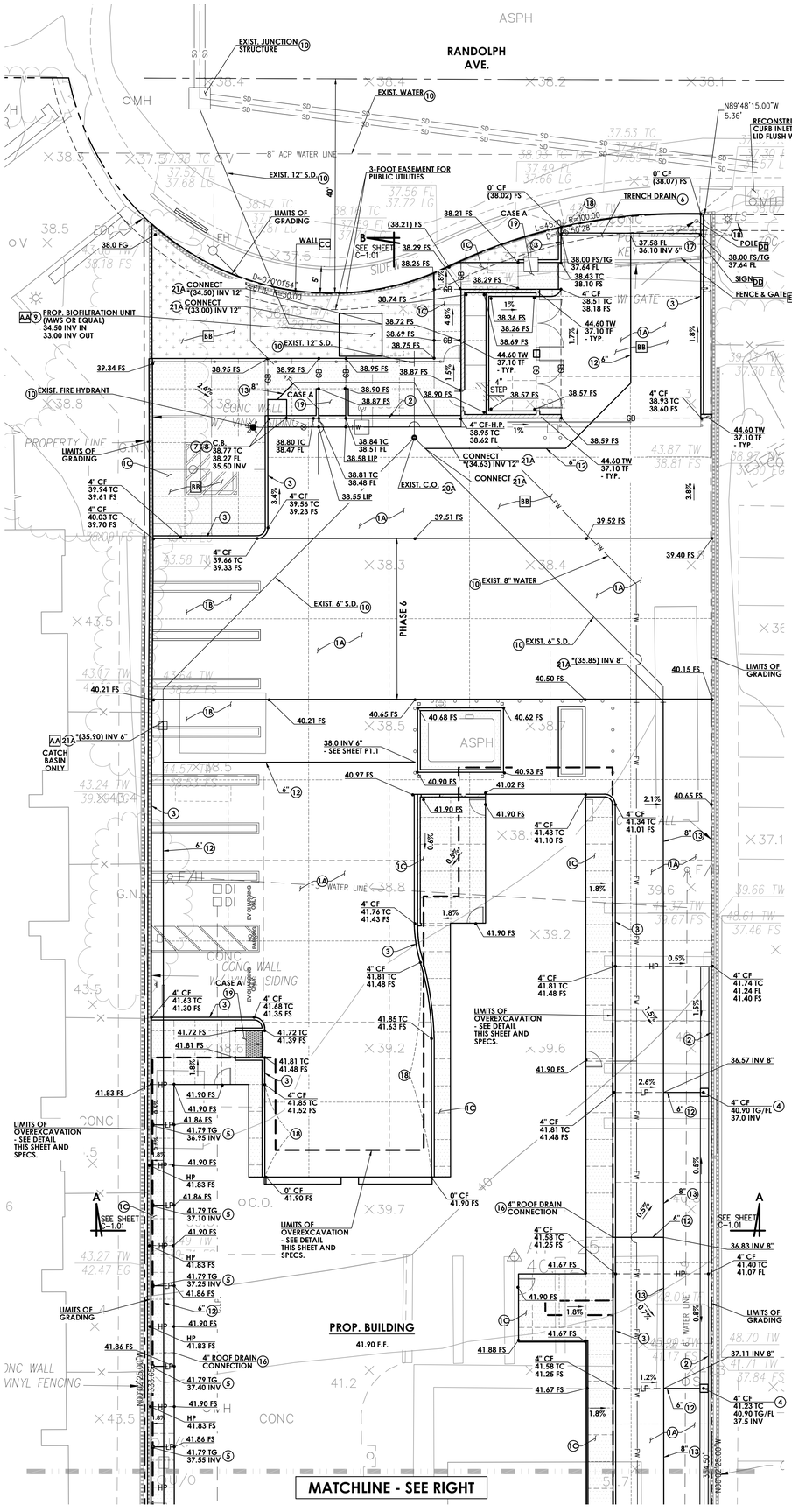
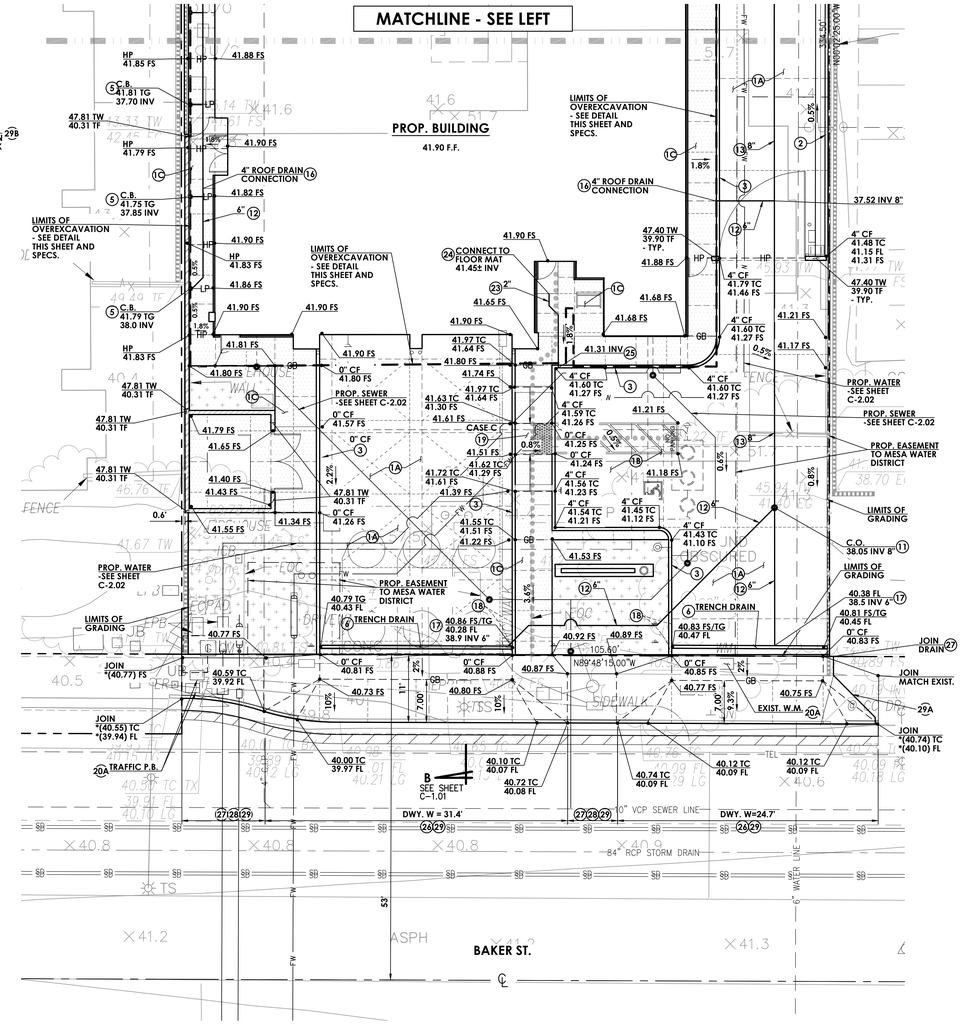
# PRECISE GRADING PLAN - TEMPORARY FACILITY

DRAWING NUMBER: **C-1.01**

CM-07-01-2026




**FINAL PHASE DEMOLITION NOTES**

- AA REMOVE EXISTING CATCH BASINS AND PIPE (COMPLETE) AND DISPOSE
- BB REMOVE EXISTING A.C./A.B. PAVEMENT (COMPLETE) AND DISPOSE
- CC REMOVE EXISTING WALL (COMPLETE) AND DISPOSE
- DD CONFIRM REMOVAL OF EXIST. MISCELLANEOUS ITEM (COMPLETE) AND DISPOSE ACCORDINGLY
- EE REMOVE EXISTING FENCE, POSTS, AND FOUNDATIONS (COMPLETE) AND DISPOSE

**GENERAL CONSTRUCTION NOTES**

- 1A CONSTRUCT 8" REINF. CONC. / 8" A.B. / 95% COMPACTED SUBGRADE PAVING PER ARCHITECT PLANS
- 1B CONSTRUCT 6" REINF. CONC. / 8" A.B. / 95% COMPACTED SUBGRADE PAVING PER ARCHITECT PLANS
- 1C CONSTRUCT CONC. WALK PER ARCHITECT PLANS
- 1D GRIND MIN. 2-INCHES (MIN. 2' WIDE) AND OVERLAY PER SPPWC SECTION 400, TYPE III C3 TO JOIN EXIST. PAVEMENT
- 2 CONSTRUCT CURB & GUTTER TYPE 'C-6' PER CITY OF COSTA MESA STD. DWG. NO. 312, C.F. PER PLAN
- 3 CONSTRUCT CURB TYPE "A" PER CITY OF COSTA MESA STD. DWG. NO. 311, C.F. PER PLAN
- 4 CONSTRUCT CATCH BASIN & GRATE PER DETAIL 1, SHEET C-0.02
- 5 CONSTRUCT DECK DRAIN PER DETAIL 2, SHEET C-0.02
- 6 CONSTRUCT ACO KLASSIKDRAIN K100 WITH ADA-COMPLIANT AND LOAD CLASS E GRATE
- 7 CONSTRUCT CURB OPENING CATCH BASIN PER S.P.P.W.C. STD. PLAN 300-4, W = 3.5', V PER PLAN
- 8 CONSTRUCT LOCAL DEPRESSION PER S.P.P.W.C. STD. PLAN 313-4, CASE E
- 9 CONSTRUCT MODULAR WETLAND SYSTEM UNIT (MWS) OR EQUAL
- 10 PROTECT IN PLACE
- 11 CONSTRUCT STORM DRAIN CLEAN OUT PER DETAIL 3, SHEET C-0.02
- 12 CONSTRUCT 6" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813
- 13 CONSTRUCT 8" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813
- 14 CONSTRUCT 12" PVC (SCH 80) STORM DRAIN PIPE, BEDDING PER CITY OF COSTA MESA STD. DWG. 813
- 15 CORE INTO EXISTING JUNCTION STRUCTURE AND CONNECT - WATERPROOF CONNECTION WITH GROUT
- 16 CONNECT TO BUILDING ROOF DRAIN
- 17 CONNECT TO TRENCH DRAIN
- 18 CONSTRUCT CURB FACE TRANSITION PER DETAIL 4, SHEET C-0.02
- 19 CONSTRUCT CURB RAMP PER CITY OF COSTA MESA STD. DWG. NO. 416, CASE PER PLAN - SEE ARCHITECT PLANS FOR MODIFICATIONS
- 20 CONSTRUCT TRENCH REPLACEMENT PER CITY OF COSTA MESA STD. DWG. NO. 813
- 20A ADJUST UTILITY BOX/VAULT/LID TO GRADE
- 21 CAP STORM DRAIN FOR FUTURE CONNECTION
- 21A CONNECT TO EXISTING STORM DRAIN WITH FITTING
- 22 CONSTRUCT TEMPORARY A.C. WALK
- 23 CONSTRUCT 2" PVC (SCH 80) STORM DRAIN PIPE
- 24 CONNECT STORM DRAIN TO RECESSED FLOOR MAT - SEE ARCHITECT PLANS
- 25 OUTLET 2" STORM DRAIN THROUGH CURB FACE

**BAKER RIGHT-OF-WAY CONSTRUCTION NOTES**

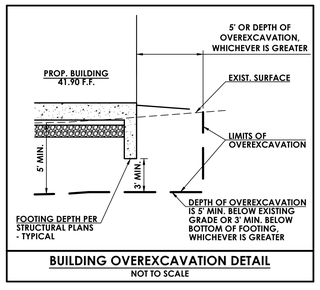
- 26 CONSTRUCT DRIVEWAY TYPE II PER CITY OF COSTA MESA STD. DWG. NO. 514
- 27 CONSTRUCT CURB & GUTTER, TYPE 'C-8' PER CITY OF COSTA MESA STD. DWG. NO. 312
- 28 CONSTRUCT SIDEWALK PER CITY OF COSTA MESA STD. DWG. NO. 412
- 29 CONSTRUCT DEEPLIFT PAVEMENT PER DETAIL 7, SHEET C-0.02
- 29A CONSTRUCT CURB DRAIN PER S.P.P.W.C. STD. PLAN 150-4 - MATCH SIZE OF EXIST. AND JOIN EXIST. AT BACK OF WALK

**RANDOLPH AVE. RIGHT-OF-WAY CONSTRUCTION NOTES**

- 29B RECONSTRUCT LID OF EXISTING CURB INLET CATCH BASIN FLUSH WITH EXISTING SIDEWALK S.P.P.W.C. STD. PLAN 300-4

## PUBLIC WORKS GENERAL NOTES

1. PUBLIC WORKS INSPECTIONS IS REQUIRED PRIOR TO ISSUANCE OF BUILDING FINAL. AT THE TIME OF INSPECTION, IF ANY OF EXISITING PUBLIC IMPROVEMENTS SURROUNDING THE SITE IS DAMAGED, NEW CURB & GUTTER AND STREET PAVEMENT WILL BE REQUIRED.
2. AN APPROVED ENCROACHMENT PERMIT IS REQUIRED FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY FROM PUBLIC WORKS.
3. CONTRACTOR TO PREPARE AND PROVIDE CITY A TRAFFIC CONTROL PLAN FOR APPROVAL FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY PRIOR TO START.




**BUILDING OVEREXCAVATION DETAIL**
NOT TO SCALE

*** NOTE TO CONTRACTOR:**

CONTRACTOR TO VERIFY EXISTING ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

**** NOTE TO CONTRACTOR:**

VERIFY STRUCT. SLAB SECTION (ASSUMED 5" PCC / VAPOR BARRIER / 2" SAND / 4" CLASS II A.B. /COMPACTED FILL AND AT APPARATUS BAY 8" PCC / VAPOR BARRIER / 2" SAND / 6" TO 8" CLASS II A.B /COMPACTED FILL) W/STRUCTURAL DRAWINGS AND SOILS ENGINEER'S REPORT PRIOR TO CONSTRUCTION AND NOTIFY CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

**NOTE TO CONTRACTOR:**

LOCATE ALL EXISTING UTILITIES AS A FIRST ITEM OF WORK AND PROTECT THEM IN PLACE AS REQUIRED.

**NOTE TO CONTRACTOR:**

ALL GRADING AND EARTHWORK IS TO BE DONE IN ACCORDANCE WITH THE EARTHWORK SPECIFICATION AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

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SOUTHERN CALIFORNIA
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER THOMAS E. CIRCELLI C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA

6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

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| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

# PRECISE GRADING PLAN

SCALE: 1" = 10'
0 5 10 20

DRAWING NUMBER: C-1.02

CM-07-01-2026

**MESA WATER DISTRICT**
**STANDARD WATER CONSTRUCTION NOTES**

1. ENGINEERING PLAN CHECK/INSPECTION FEE AND PERFORMANCE GUARANTEE BOND SHALL BE PAID AND APPLICATION/PERMIT (A.P.) COMPLETED BY THE APPLICANT PRIOR TO THE PLANS AND ISSUANCE OF THE A.P. FEE SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.
2. CAPACITY CHARGES SHALL BE COLLECTED BY MESA WATER AT THE TIME OTHER FEES ARE COLLECTED PRIOR TO APPROVAL OF PLANS AND SERVICE AGREEMENT. THIS FEE SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.
3. WATER MAINS SHALL BE INSTALLED ACCORDING TO THE LATEST STANDARDS AND SPECIFICATION OF MESA WATER.
4. CONTRACTOR TO HAVE, ON THE JOB SITE, A COPY OF THE LATEST STANDARD SPECIFICATIONS AT ALL TIMES.
5. CONTRACTOR SHALL SCHEDULE INSPECTIONS A MINIMUM OF 24 HOURS IN ADVANCE AND IN ACCORDANCE WITH THE INSPECTION CHECKLIST REQUIREMENTS. THE SCHEDULE AN INSPECTION, CALL (949) 207-5518.
6. A CASH PERFORMANCE GUARANTEE BOND SHALL BE HELD ONE YEAR AFTER MESA WATER'S NOTICE OF COMPLETION TO GUARANTEE WORK PERFORMANCE BY THE CONTRACTOR.
7. SEPARATION BETWEEN SANITARY SEWER AND WATER MAINS SHALL BE A MINIMUM OF 10' HORIZONTAL, 1' VERTICAL (ABOVE SEWER)
8. A 15' WATER MAIN EASEMENT SHALL BE GRANTED TO MESA WATER FOR MAINTENANCE PURPOSES, 5' FOR WATER SERVICES (7.5' EACH SIDE OF MAIN; 2.5' EACH SIDE OF SERVICE). EASEMENT DOCUMENTS ARE TO BE SUBMITTED TO MESA WATER FOR APPROVAL PRIOR TO A PERMIT BEING ISSUED.
9. SERVICE LATERALS SHALL BE SET TO GRADE BY CONTRACTOR PRIOR TO THE INSTALLATION OF WATER METERS AND BOXES PER MESA WATER STANDARD DRAWINGS 1, 2, & 3.
10. WATER METER SHALL NOT BE INSTALLED NOR WATER TURNED ON UNTIL THE BACKFLOW DEVICES REQUIRED FOR THE BUILDING AND IRRIGATION SYSTEMS HAVE BEEN INSTALLED, TESTED, APPROVED, AND CERTIFIED. CONTACT CROSS CONNECTION CONTROL AT (949) 631-1291.
11. PROTECT EXISTING UTILITIES IN PLACE.
12. WATER MAINS SHALL HAVE 42" MINIMUM COVER TO FINISH GRADE.
13. RAISE EXISTING WATER VALVE COVERS TO GRADE PER MESA WATER STANDARD DRAWING 14.
14. INSTALL FIRE HYDRANT PER MESA WATER STANDARD DRAWING 4, 4A, AND 4B.
15. INSTALL BLOW-OFF PER MESA WATER STANDARD DRAWING 9.
16. WATER MAINS SHALL BE TESTED AT 225 PSI FOR FOUR HOURS.
17. BACKFILL MATERIAL IN PIPE ZONE SHALL HAVE A SAND EQUIVALENT OF 30 OR GREATER.
18. THE BACKFILL ABOVE THE PIPE ZONE SHALL BE COMPACTED PER MESA WATER STANDARD DRAWING 18 AND BE IN COMPLIANCE WITH THE CITY OF COSTA MESA STANDARD DRAWING 813.
19. CHIP 2" "W" IN CURB FACE TO IDENTIFY WATER SERVICE LOCATION.
20. INSTALL THRUST AND GRAVITY BLOCKS PER MESA WATER STANDARD DRAWING 11 AND 12.
21. CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO TRENCHING.
22. CONTRACTOR SHALL INSTALL TEMPORARY TAPS FOR TESTING AND CHLORINATION PRIOR TO CONNECTING TO EXISTING MAINS.
23. CONTRACTOR, AT THEIR EXPENSE, SHALL RETURN ALL REMOVED EQUIPMENT TO MESA WATER YARD AND DISPOSE OF OTHER MATERIAL, INCLUDING BUT NOT LIMITED TO A.C.P., BROKEN CONCRETE, AND NATIVE SOIL.
24. WATER METERS AND BOXES SHALL BE INSTALLED BY MESA WATER BUT PAID FOR BY THE APPLICANT/OWNER.
25. A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON ALL METERED WATER SERVICES TO ANY CONDOMINIUM UNIT OVER TWO STORES OR FIVE OR MORE UNITS ON ONE METERED WATER SERVICE. CONTACT CROSS CONNECTION CONTROL AT (949) 631-1291.
26. IRRIGATION METERS SHALL REQUIRE A REDUCED PRESSURE PRINCIPLE ASSEMBLY.
27. IN LANDSCAPED AREAS, NO TREES SHALL BE LOCATED IN MESA WATER EASEMENT OR WITHIN 7.5' OF ANY MESA WATER FACILITY.
28. A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON METERED WATER SERVICES TO ALL INDUSTRIAL BUILDINGS.
29. A DOUBLE CHECK DETECTOR ASSEMBLY WITH COMBINATION FLOW METER WILL BE REQUIRED ON FIRE LINE SERVICES, PER MESA WATER STANDARD DRAWING 17.
30. FIRELINE SERVICES SHALL NOT BE TURNED ON UNTIL THE MESA WATER ENGINEERING DEPARTMENT HAS RECEIVED A LETTER FROM THE OWNER, OF OWNER'S AUTHORIZED AGENT, REQUESTING IT AND STATION THAT THE PLUMBING IS READY FOR THE FIRELINE TO BE TURNED ON. THE LETTER SHALL ALSO CONTAIN MESA WATER'S FILE NUMBER, SIZE, AND SERIAL NUMBER OF THE DEVICE, AND PROJECT ADDRESS.
31. IF A 13D SPRINKLER SYSTEM IS NOT A FLOW THROUGH SYSTEM, THEN A TESTABLE BACKFLOW DEVICE SHALL BE INSTALLED NEXT TO THE BUILDING. MESA WATER INSPECTOR SHALL VERIFY FLOW THROUGH SYSTEMS BY TURNING OFF THE HOUSE VALVE AND CHECKING FOR FLOW THROUGH CONNECTION (I.E. TOILET OR SINK).

## CONSTRUCTION KEY NOTES/ESTIMATE OF QUANTITIES

| NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| | GENERAL CONSTRUCTION NOTES | |
| 10 | PROTECT IN PLACE | - |
| | | |
| | DEMOLITION NOTES | |
| A | REMOVE EXIST. FIRE HYDRANT (COMPLETE) AND RETURN TO MESA WATER DISTRICT | LS |
| B | REMOVE EXIST. WHARF HYDRANT (COMPLETE) AND DISPOSE | LS |
| C | REMOVE EXIST. WATER LINE (COMPLETE) AND DISPOSE | LS |
| D | CAP WATER LINE WITH BLIND FLANGE | LS |
| E | MESA WATER DISTRICT WILL DISCONNECT AND REMOVE EXIST. 1.5-INCH METER | LS |
| F | ABANDON EXISTING DOMESTIC WATER SERVICE PER MESA WATER DISTRICT'S STD. DRAWING NO. 34, THE METER BOX IS TO BE REMOVED. | LS |
| | PRIVATE WATER CONSTRUCTION NOTES | |
| 60 | INSTALL PRIVATE ONSITE FIRE HYDRANT PER MESA WATER DISTRICT STD. DWG. 4 (WITH TEMP. BOLLARDS PER STD. DWG. 4B) - PAINT SAFETY RED PER MESA WATER DISTRICT TECHNICAL SPECIFICATION 09900 | 1 EA |
| 61 | CONSTRUCT 8" PVC, C-900, DR 14, WATER LINE, BEDDING PER DETAIL MESA WAT. DIST. STD. DWG. 18 | 105 LF |
| 62 | CONSTRUCT 6" GATE VALVE PER DETAIL MESA WATER DISTRICT STD. DWG. 4 AND 14A | 1 EA |
| 63 | CAP WATER LINE FOR FUTURE CONNECTION (DURING PHASE 2) | 1 EA |
| 64 | CONNECT TO EXIST. FIRE HYDRANT FOR TEMPORARY WATER SERVICE | 1 EA |
| 65 | INSTALL 1" TEMPORARY METER AND BACKFLOW PROTECTION PER MESA WATER DISTRICT REQUIREMENTS AND SPECIFICATIONS OUTLINE IN SECTION 5 OF MESA WATER DISTRICT'S RULES AND REGULATIONS FOR WATER SERVICE | 1 EA |
| 66 | CONSTRUCT 1" PVC, C-900, CLASS 200 WATER LINE PER DETAIL MESA WAT. DIST. STD. DWG. 1, 18, AND 19 | 50 LF |
| 67 | CONNECT WATER LINE TO BUILDING WATER LINE - VERIFY LOCATION WITH BUILDING PLANS | 1 EA |
| | | |

## NOTICE TO THE CONTRACTOR:

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## NOTE TO CONTRACTOR:

VERIFY EXACT SIZE AND LOCATION OF BUILDING WATER P.O.C. WITH PLUMBING DRAWINGS PRIOR TO CONSTRUCTION AND COORDINATE INSTALLATION.

## NOTE TO CONTRACTOR:

LOCATE ALL EXISTING UTILITIES AS A FIRST ITEM OF WORK AND PROTECT THEM IN PLACE AS REQUIRED.

## EXISTING UNDERGROUND STRUCTURES

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND PIPES OR CONDUITS SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE THE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS. LOCATE ALL UTILITIES BEFORE CONSTRUCTION.

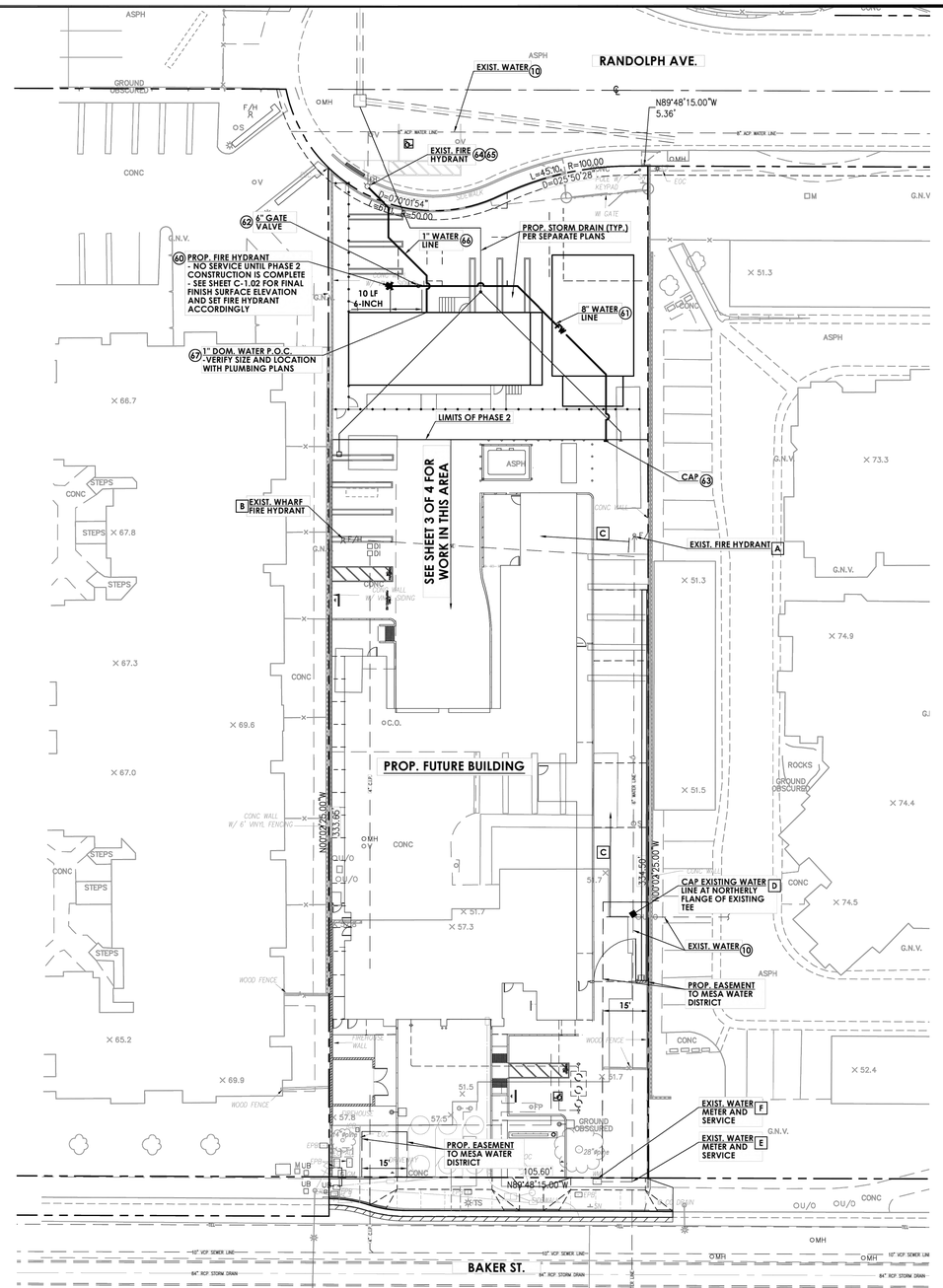
## NOTICE TO CONTRACTOR:

CONTRACTOR TO VERIFY BY POTHOLING THE EXISTING ELEVATION AND HORIZONTAL LOCATION OF ALL POINTS OF CONNECTIONS AND CROSSINGS PRIOR TO CONSTRUCTION. THE ENGINEER MUST BE NOTIFIED OF ANY DISCREPANCY IMMEDIATELY.

THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY - NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBER AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. LOCATIONS OF UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THE QUANTITY ESTIMATE SHOWN HEREON IS FOR THE USE OF GOVERNING AGENCIES IN DETERMINING BOND AMOUNTS AND/OR FEES AND IS NOT TO BE USED FOR BID PURPOSES.




SCALE: 1" = 20'
0 10 20 40

**PREPARED BY:**

civTEC
CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

THOMAS E. CAROLLO, C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA
5/6/26

DIGALERT CALL TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG Underground Service Alert

| REV. | DATE | BY | DESCRIPTION | APPROVED | DATE |
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| PROJECT INFORMATION | |
|---|---|
| DATE 5/6/26 | DESIGN TEC |
| FILE NO. 170.01 | DRAWN STAFF |
| DRAWING NO. PH1-WS-1.1 | CHECKED TEC |

**MESA WATER DISTRICT**
C0013-25-04

N. Barkley
CIVIL ENGINEER
05/08/2026
DATE

MesaWater DISTRICT

civTEC
800 BAKER ST., COSTA MESA, CA 92626 - TEMP. FACILITY
COSTA MESA FIRE & RESCUE DEPARTMENT

SHEET 2 OF 4 SHEETS

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER THOMAS E. CAROLLO C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA
6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
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| 1 | | | REVISIONS |

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| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

**WATER PLAN - TEMPORARY FACILITY**

DRAWING NUMBER: **C-2.01**

CM-07-01-2026

## CONSTRUCTION KEY NOTES/ESTIMATE OF QUANTITIES

| NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| | GENERAL CONSTRUCTION NOTES | |
| (10) | PROTECT IN PLACE | - |
| (29) | CONSTRUCT TRENCH REPLACEMENT PER CITY OF COSTA MESA STD. DWG. NO. 813 | 700 SF |
| | PUBLIC WATER CONSTRUCTION NOTES | |
| (30) | CONSTRUCT 2" SERVICE ASSEMBLY (FOR IRRIG.) WITH 1-INCH BADGER HR-E RADIO READ METER PER MESA WATER DISTRICT STD. DWG. 2, 3, 5, 18, AND 19 | 1 EA |
| (31) | CONSTRUCT 2" SERVICE ASSEMBLY WITH 2-INCH METER FOR BUILDING ONLY PER MESA WATER DISTRICT STD. DWG. 2, 3, 5, 18, AND 19 | 1 EA |
| (32) | ** HOT TAP EXIST. 16" CML&C WATER PIPE PER MESA WATER DISTRICT STD. DWG. 5, 12, 18, AND 19 | 1 EA |
| (33) | ** CONSTRUCT 8" PVC, C-900, DR14, WATER LINE, BEDDING PER MESA WATER DISTRICT STD. DWG. 12, 18, AND 19 | 70 LF |
| (34) | NOT USED | - |
| | PRIVATE WATER CONSTRUCTION NOTES | |
| (40) | CONSTRUCT 2" PVC, C-900, CLASS 200 WATER LINE PER MESA WATER DISTRICT STD. DWG. 18 AND 19 | 92 LF |
| (41) | CONNECT WATER LINE TO BUILDING WATER LINE - VERIFY LOCATION WITH PLUMBING PLANS | 1 EA |
| (42) | CONSTRUCT 2" LEAD FREE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR (RPPD) PER MESA WATER DISTRICT STD. DWG. 23 - FOR BUILDING ONLY | 1 EA |
| (42a) | CONSTRUCT 1" LEAD FREE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR (RPPD) PER MESA WATER DISTRICT STD. DWG. 23 - FOR IRRIGATION ONLY | 1 EA |
| (43) | ** CONSTRUCT 8" PVC, C-900, DR14, WATER LINE PER MESA WATER DISTRICT STD. DWG. 18 AND 19 | 290 LF |
| (43A) | ** CONSTRUCT 6" PVC, C-900, DR14, WATER LINE PER MESA WATER DISTRICT STD. DWG. 18 AND 19 | 10 LF |
| (44) | ** CONSTRUCT 8" DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) WITH 5/8-INCH TATTLE METER PER MESA WATER DISTRICT STD. DWG. 17 | 1 EA |
| (45) | ** INSTALL FIRE DEPARTMENT CONNECTION (F.D.C.) PER LOCAL FIRE DEPT. STANDARDS AND NFPA 13 & 24 SPECS. | 1 EA |
| (46) | ** INSTALL POST INDICATOR VALVE (P.I.V.) PER LOCAL FIRE DEPT. STANDARDS AND NFPA 13 & 24 SPECS. | 1 EA |
| (47) | ** CONNECT FIRE WATER LINE TO BLDG. FIRE WATER LINE - SEE SPRINKLER PLANS | 1 EA |
| (48) | REMOVE EXISTING CAP AND JOIN EXISTING WATER LINE | 1 EA |
| (49) | INSTALL 2" PRESSURE REDUCING VALVE (PRV) - WILKINS NO. 500XYSBR-HR, 75 PSI TO 125 PSI REDUCED PRESSURE RANGE, FACTORY SET AT 85 PSI, FIELD RESET TO 78 PSI, COMPLETE WITH BRONZE "Y" STRAINER, GATE VALVES AND UNIONS | 1 EA |
| | PUBLIC SEWER CONSTRUCTION NOTES | |
| (50) | CONNECT TO EXIST. SEWER LINE WITH CUT-IN WYE | 1 EA |
| (51) | CONSTRUCT 6" PVC SEWER LINE (SDR 26) PER C.M.S.D. DRAWING NO. S-104-A (MODIFIED) | 25 LF |
| (52) | CAP EXIST. SEWER LATERAL AT MAINLINE | 1 EA |
| (53) | FILL EXIST. SEWER LATERAL WITH SLURRY IN PUBLIC RIGHT-OF-WAY | 25 LF |
| (54) | REMOVE EXIST. SEWER LATERAL (COMPLETE) ON SITE | LS |
| | | |
| | PRIVATE SEWER CONSTRUCTION NOTES | |
| (60) | CONSTRUCT 4" PVC SEWER LINE (SDR 35), BEDDING PER DETAIL 5, SHEET C-0.02 | 140 LF |
| (61) | CONSTRUCT SEWER CLEANOUT PER DETAIL 6, SHEET C-0.02 | 4 EA |
| (62) | CONNECT PRIVATE SEWER LINE TO BUILDING SEWER LINE - VERIFY LOCATION WITH BLDG. PLUMBING PLANS | 3 EA |
| (63) | CONSTRUCT 2-WAY SEWER CLEANOUT PER C.M.S.D. DRAWING NO. S-107A | 1 EA |

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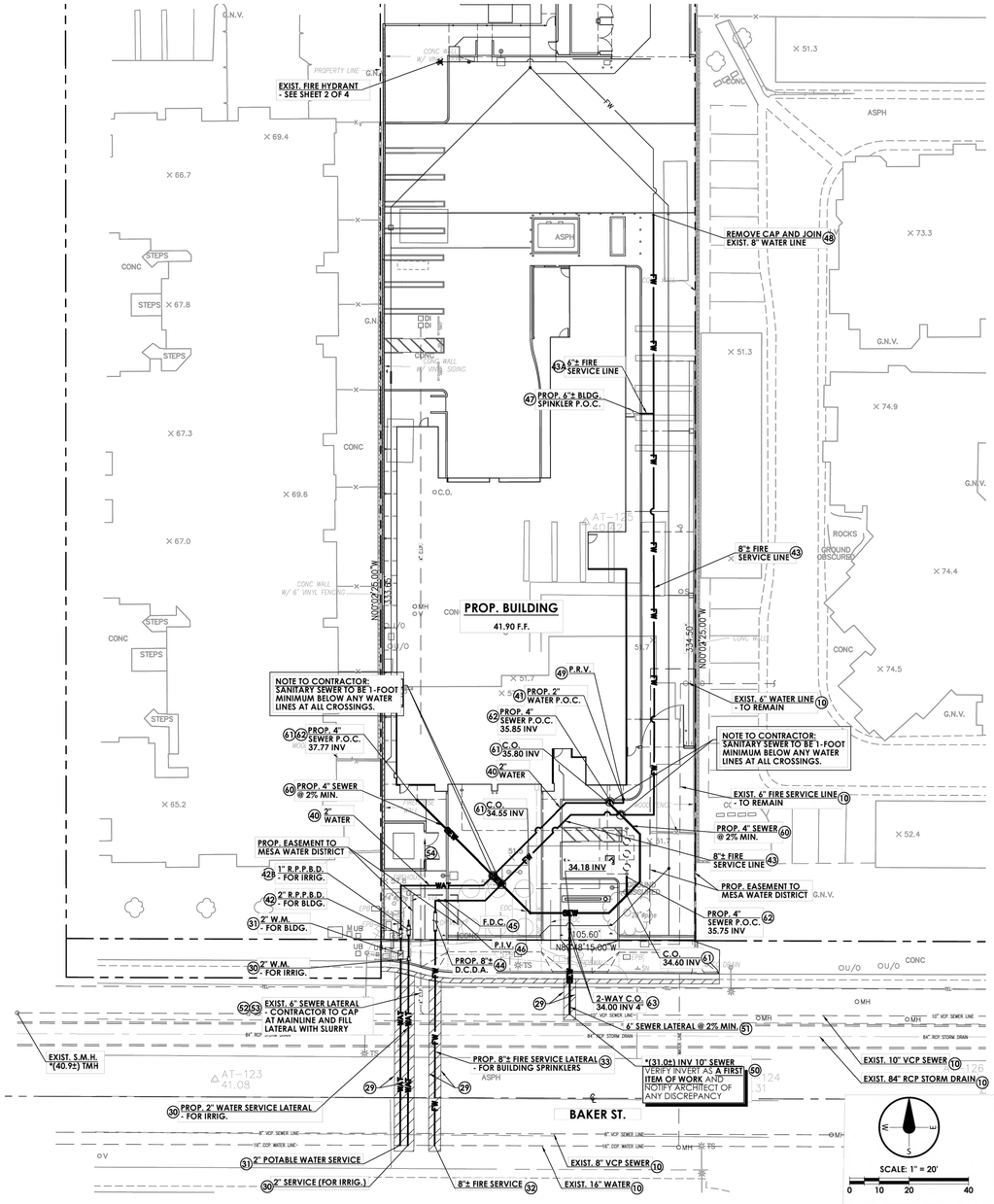
**** NOTE TO CONTRACTOR:**

NOTES WITH AN " ** " ARE FOR REFERENCE ONLY. CONTRACTOR SHALL PROVIDE FOR SEPARATE DETAILED PLANS AND UNDERGROUND SHOP DRAWINGS FOR THE FIRE SYSTEM TO BE PREPARED BY A DESIGN/BUILD CONTRACTOR AND SUBMITTED TO THE JURISDICTIONS HAVING AUTHORITY (JHA) FOR APPROVAL FOR ALL BUILDING AND SITE FIRE PROTECTION SYSTEMS.




*** NOTE TO CONTRACTOR:**

CONTRACTOR TO VERIFY EXISTING ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY CITY AND CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

**NOTE TO CONTRACTOR:**

VERIFY EXACT SIZE AND LOCATION OF BUILDING WATER P.O.C. WITH PLUMBING DRAWINGS PRIOR TO CONSTRUCTION AND COORDINATE INSTALLATION.

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**MESA WATER DISTRICT**
**STANDARD WATER CONSTRUCTION NOTES**

SEE SHEET 2 OF 4

**COSTA MESA SANITARY DISTRICT**
**STANDARD SEWER NOTES**

1. THE SEWER SYSTEM SHALL CONFORM TO THE STANDARDS OF THE COSTA MESA SANITARY DISTRICT.
2. CONTRACTOR SHALL REQUEST INSPECTION 48 HOURS PRIOR TO COMMENCEMENT OF WORK. PLEASE CONTACT CMSD FRONT DESK AT 949-645-8400 FOR SCHEDULING.
3. ANY WORK PERFORMED WITHOUT INSPECTION FROM THE DISTRICT SHALL BE CONSIDERED UNACCEPTABLE.
4. CONTRACTOR SHALL OBTAIN CMSD SEWER PERMIT PRIOR TO COMMENCEMENT OF WORK FROM THE COSTA MESA SANITARY DISTRICT, 290 PAULARINO AVE., COSTA MESA, CA 92626. 949/645-8400 EXT. 229.
5. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS THAT MAY BE REQUIRED BY THELOCAL GOVERNING AGENCY.
6. CONTRACTOR TO HAVE A COPY OF APPROVED SEWER PLAN AND CMSD STANDARD PLANS AND SPECIFICATIONS ON JOB SITE AT ALL TIMES.
7. CLAY PIPE JOINTS SHALL BE TYPE "G" MECHANICAL COMPRESSION JOINTS FOR MAIN LINE SEWER. TYPE "D", JOINTS, BAND-SEAL OR APPROVED EQUAL, ARE APPROVED FOR LATERALS AND REPAIR WORK ONLY.
8. 6" LATERALS SHALL BE CONSTRUCTED FROM THE SEWER MAIN TO EVERY LOT.
9. ALL LATERALS SHALL BE PLACED PRIOR TO SURFACING OF STREETS.
10. STAMP "S" ON CURB AT SEWER LATERAL LOCATIONS.
11. SEWER MAIN SHALL BE AIR OR WATER TESTED MEETING DISTRICT ENGINEER'S APPROVAL.
12. PRIOR TO ASPHALT CONCRETE PAVING, MANHOLE FRAMES AND COVERS SHALL BE LEFT 6" BELOW FINISH GRADE. AFTER STREET SURFACING IS COMPLETED, FRAMES AND COVERS SHALL BE RAISED TO GRADE PER STD. DWG. NO. S-105.
13. SEWER MANHOLE FRAME AND COVER SHALL BE ALHAMBRA FOUNDRY A-1270, OR APPROVED EQUAL. COVER TO BE STAMPED 'SEWER'.
14. SEWER MAIN SHALL BE BALLED AFTER ALL MANHOLE FRAMES AND COVERS HAVE BEEN RAISED TO GRADE.
15. PVC PIPE MAY BE USED ONLY WITH PRIOR APPROVAL FROM THE DISTRICT ENGINEER.
16. IF MINIMUM SEPARATION DISTANCE BETWEEN SEWER AND WATER MAIN IS NOT MET, SPECIAL CONSTRUCTION REQUIREMENTS ARE TO BE USED PER STD. DWG. NO. S-110-A OR S-110-B.
17. DEVELOPER IS RESPONSIBLE FOR REPLACING ANY EXISTING LATERALS NOT FOUND IN FIELD OR FOUND TO BE DEFECTIVE.
18. ALL TRENCH EXCAVATION AND PIPE BEDDING SHALL BE CONSTRUCTED PER STD. DWG. NO. S-112.
19. CONTRACTOR TO EITHER REPLACE EXISTING 6" VCP LATERAL IN STREET RIGHT OF WAY W/NEW LATERAL PER CMSD STD S-104-A OR PERFORM CCTV OF EXISTING LATERAL AND PROVIDE VIDEO TO THE COSTA MESA SANITARY DISTRICT. DAMAGED PORTIONS OF EXISTING LATERAL SHALL BE REPAIRED (IF ANY).

PREPARED BY:
civTEC
CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net
C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA
5/6/26

DIGALERT CALL TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG Underground Service Alert

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| FILE NO. 170.01 | DRAWN STAFF |
| DRAWING NO. PH1-WS-1.1 | CHECKED TEC |

**MESA WATER DISTRICT**
C0013-25-04
N. Bartling — CIVIL ENGINEER
05/08/2026 — DATE

MesaWater DISTRICT

civTEC
800 BAKER ST., COSTA MESA, CA 92626 - NEW FACILITY
COSTA MESA FIRE & RESCUE DEPARTMENT

SHEET 3 OF 4 SHEETS

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CIMINELLI — C-81640 Exp. 09-30-27 — CIVIL — STATE OF CALIFORNIA
6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
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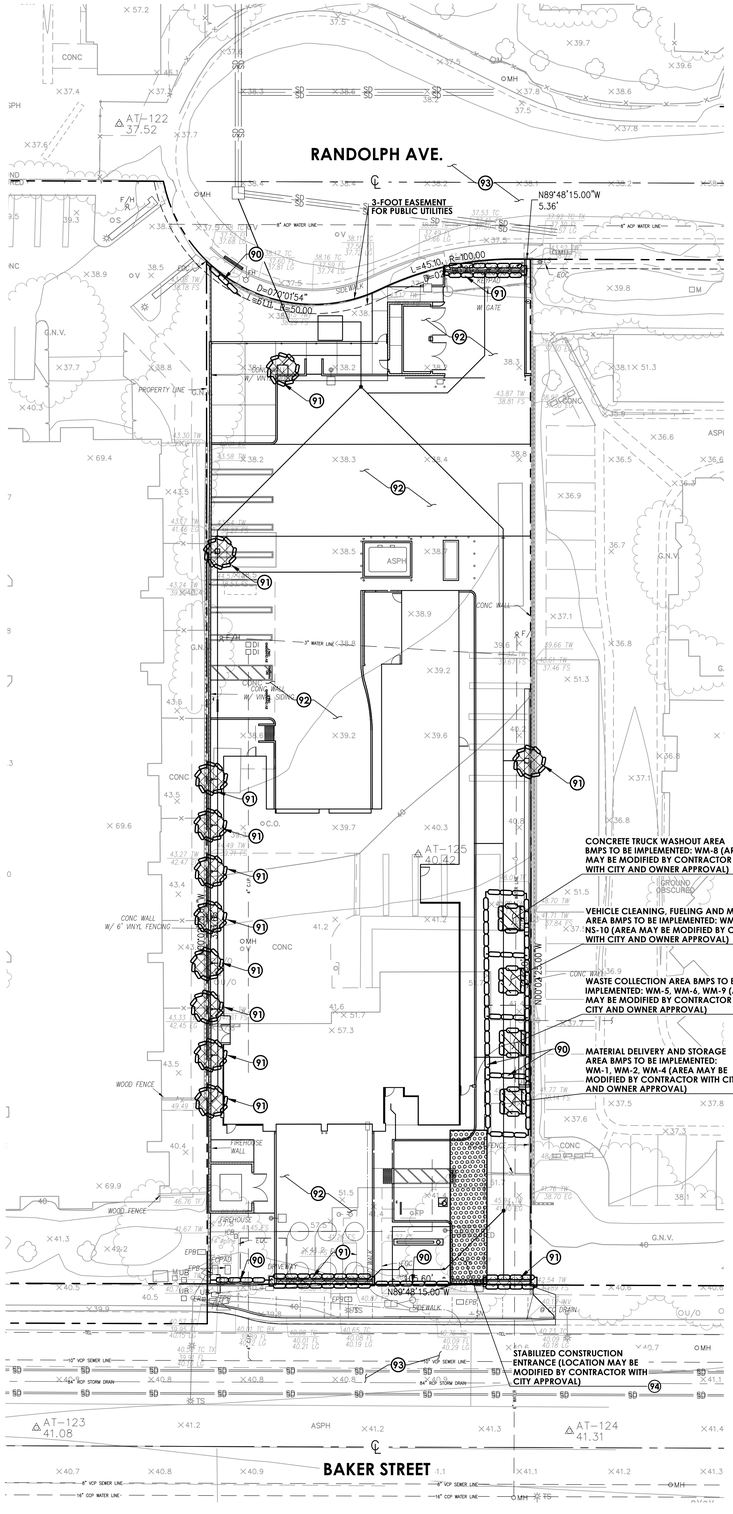
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

## WATER/SEWER PLAN

DRAWING NUMBER: C-2.02

CM-07-01-2026




## EROSION CONTROL CONSTRUCTION NOTES

(90) INSTALL GRAVEL BAGS (SE-8)
(91) INSTALL STORM DRAIN INLET PROTECTION (SE-10)
(92) APPLY SOIL BINDERS TO DISTURBED INACTIVE AREAS (EC-5) - APPLIES TO ENTIRE SITE
(93) IMPLEMENT STREET SWEEPING AND VACUUMING (SE-7)
(94) INSTALL STABLIZED CONSTRUCTION ENTRACE (TC-1)

## LEGEND

GRAVEL BAGS (SE-8)

STORM DRAIN INLET PROTECTION (SE-10)

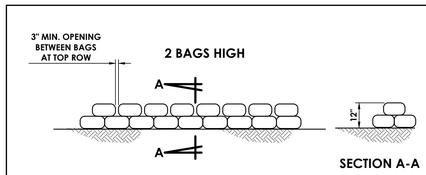
## CONSTRUCTION
## STORMWATER MITIGATION MEASURES (BMPs)

THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 2024, OR THE LATEST REVISED EDITION, APPLY DURING THE CONSTRUCTION OF THIS PROJECT. (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTORS)

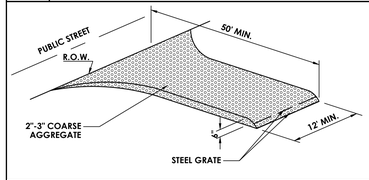
NS-1 WATER CONSERVATION PRACTICES *
NS-2 DEWATERING OPERATIONS *
NS-3 PAVING OPERATIONS *
NS-7 POTABLE WATER/IRRIGATION *
WM-1 MATERIAL DELIVERY AND STORAGE *
WM-2 MATERIAL USE *
WM-3 STOCKPILE MANAGEMENT *
WM-4 SPILL PREVENTION AND CONTROL *
WM-5 SOLID WASTE MANAGEMENT *
WM-6 HAZARDOUS WASTE MANAGEMENT *
WM-7 CONTAMINATED SOIL MANAGEMENT *
WM-8 CONCRETE WASTE MANAGEMENT *
WM-9 SANITARY-SEPTIC WASTE MANAGEMENT *
NS-8 VEHICLE AND EQUIPMENT CLEANING *
NS-9 VEHICLE AND EQUIPMENT FUELING *
NS-10 VEHICLE AND EQUIPMENT MAINTENANCE *
NS-12 CONCRETE CURING
NS-13 CONCRETE FINISHING

WE-1 WIND EROSION CONTROL
TC-1 STABILIZED CONSTRUCTION ENTRANCE *
TC-3 ENTRANCE OUTLET TIRE WASH *
SE-1 SILT FENCE
SE-4 CHECK DAMS
SE-5 FIBER ROLLS
SE-6 GRAVEL BAG BERM
SE-7 STREET SWEEPING AND VACUUMING
SE-9 STRAW BALE BARRIERS
SE-10 STORM DRAIN INLET PROTECTION
EC-1 SCHEDULING
EC-2 PRESERVATION OF EXISTING VEGETATION
EC-5 SOIL BINDERS

NOTE:
* LOCATIONS TO BE DETERMINED BY CONTRACTOR AND APPROVED BY CITY INSPECTOR




**SE-8 GRAVEL BAG DETAILS** — SCALE: N.T.S.

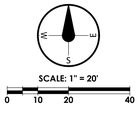



NOTE:
PLACE 4" PVC DRAIN PIPE IN EXISTING GUTTER FLOWLINE WITH A.C. RAMP AT DRIVEWAYS IF STREET CURB & GUTTER DRAINAGE FLOW IS BLOCKED.

NOTE:
A RUMBLE RACK IS REQUIRED AT BOTH ENTRANCES TO THE SITE UNTIL THE ASPHALT HAS BEEN INSTALLED.

NOTE:
CONTRACTOR SHALL REPAIR ALL DAMAGED CURB & GUTTER IN PUBLIC RIGHT-OF-WAY TO THE SATISFACTION OF THE CITY PRIOR TO PROJECT CLOSE-OUT.

**TC-1 STABILIZED CONSTRUCTION ENTRANCE** — SCALE: N.T.S.




## EROSION CONTROL
## GENERAL NOTES

1. EROSION CONTROL SHALL BE REQUIRED FOR GRADING OPERATIONS DURING THE RAINY SEASON, OCTOBER 15TH THROUGH APRIL 15TH.
2. SLOPES CONSTRUCTED PRIOR TO OCTOBER 1ST SHALL BE TREATED FOR EROSION CONTROL PRIOR TO OCTOBER 15TH. SLOPES CONSTRUCTED AFTER OCTOBER 1ST SHALL BE TREATED FOR EROSION CONTROL AS CONSTRUCTION PROGRESSES.
3. THE DESIGN CIVIL ENGINEER SHALL SUPERVISE AND ASSURE EROSION CONTROL WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
4. IN CASE OF EMERGENCY, CALL:

_____ (RESPONSIBLE PERSON)
_____ (FIRM NAME) TO BE COMPLETED BY CONTRACTOR
_____ (24 HOUR TELEPHONE)

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL PREVENT THE TRESPASS OF IMPOUND WATER ON PUBLIC AREAS OR THE CREATION OF HAZARDOUS CONDITIONS.
6. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO THAT RUNOFF IS CONTAINED WITHIN THE PROJECT AREA OR CHANNELED INTO THE STORM DRAIN SYSTEM WHICH SERVES THE RUNOFF AREA. STORM RUNOFF FROM ONE AREA SHALL NOT BE DIVERTED TO ANOTHER AREA.
7. NO CHANGES TO EXISTING OR NATURAL DRAINAGE COURSES SHALL BE PERMITTED DURING THE RAINY SEASON UNLESS THE APPROVED DRAINAGE FACILITIES HAVE BEEN COMPLETED.
8. CLEARING AND GRUBBING SHALL BE LIMITED TO AREAS THAT WILL RECEIVE IMMEDIATE GRADING. EROSION CONTROL MEASURES SHALL BE REQUIRED AND MAY INCLUDE: GRADED DITCHES, BRUSH BARRIERS AND SILT FENCING. CARE SHALL BE EXERCISED TO PRESERVE VEGETATION BEYOND THE LIMITS OF GRADING.
9. DESILTING BASINS SHALL BE CONSTRUCTED AS INDIVIDUAL ROUGH GRADING AREAS ARE COMPLETED.
10. GRADED AREAS AROUND THE TRACT PERIMETER SHALL DRAIN AWAY FROM THE TOE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY.
11. TEMPORARY EROSION PROTECTION SHALL BE REQUIRED FOR MANUFACTURED SLOPES PRIOR TO PERMANENT PLANTING.
12. FILL AREAS, DURING PERIODS OF COMPLETION PRIOR TO FINAL GRADE, SHALL BE PROTECTED TO LIMIT EROSION AND THE SILTATION OF DOWNSTREAM PROPERTY. PROTECTION MEASURES MAY INCLUDE TEMPORARY DOWN DRAINS USING PIPES OR PAVED DITCHES WITH PROTECTED OUTFALL AREAS, DESILTING PONDS, CHECK DAMS, SAND BAG PROTECTED INLETS NOT YET BROUGHT TO GRADE AND APPROPRIATE CHANNEL GRADING TO DIRECT RUNOFF AWAY FROM AREAS WHERE EARTHWORK IS NOT UNDERWAY.
13. PROJECT AREAS AS WELL AS NEIGHBORING PROPERTY AREAS SHALL RETAIN FIRE ACCESS AT ALL TIMES.
14. EQUIPMENT AND PERSONNEL FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID DEPLOYMENT.
15. REMOVABLE PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT.
16. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT APPROVAL FROM THE CITY ENGINEER OR PUBLIC WORKS INSPECTOR.
17. AFTER A RAINSTORM, SILT AND DEBRIS SHALL BE REMOVED FROM CHECK DAMS, SILT FENCES AND OTHER IMPACTED AREAS.
18. AN UPDATED COPY OF THIS PLAN SHALL BE KEPT AVAILABLE TO THE CITY AT THE PROJECT SITE.
19. INFORMATION ON THIS PLAN IS FOR EROSION CONTROL ONLY. THE CITY ENGINEER MAY MODIFY THIS PLAN AS NECESSARY.
20. APPROVAL OF THIS PLAN SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITIES TO HIS SITE OR ADJACENT PROPERTIES. TEMPORARY EROSION CONTROL SHALL INCLUDE CONSTRUCTION MEASURES NECESSARY TO PREVENT, CONTROL AND ABATE WATER, MUD AND EROSION DAMAGE TO PUBLIC OR PRIVATE PROPERTY IMPACTED BY HIS CONSTRUCTION ACTIVITIES.
21. APPROVAL OF THIS PLAN SHALL NOT RELIEVE THE DEVELOPER OF THE RESPONSIBILITY FOR THE CORRECTION OF ERRORS AND OMISSIONS DISCOVERED DURING CONSTRUCTION. UPON REQUEST, THE REQUIRED REVISIONS SHALL BE SUBMITTED FOR APPROVAL.

## GRAVELBAGS:

1. GENERAL: GRAVELBAG SHALL INCLUDE PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT TO FABRICATE AND INSTALL GRAVELBAGS AS REQUIRED TO FACILITATE THE CONTROL OF EROSION.
2. LOCATION: GRAVELBAGS SHALL BE PLACED PER PLAN, AND IN LOCATIONS SPECIFIED BY THE CITY, AND IN LOCATIONS DEEMED NECESSARY BY THE CONTRACTOR.
3. FABRICATION: GRAVELBAGS SHALL BE FABRICATED USING FACTORY SEWN OR SEALED BAGS OF WOVEN POLYPROPYLENE, TREATED TO RESIST DEGRADATION BY ULTRAVIOLET LIGHT AND HAVING SUFFICIENT RESISTANCE TO TEARING TO ALLOW RELOCATION OF BAGS WITHIN SIX MONTHS OF INITIAL PLACEMENT WITH A LOSS OF NOT MORE THAN FIVE PERCENT OF THE BAGS.

   THE BAGS SHALL BE FILLED WITH SUBROUNDED TO ROUNDED GRAVEL LESS THAN 3/4-INCH IN DIAMETER, WITH LESS THAN FIVE PERCENT OF MATERIAL PASSING A NO. 30 SIEVE. THE FILLED BAGS SHALL HAVE THE OPEN ENDS SECURELY FASTENED PRIOR TO DELIVERY TO THE SITE.
4. INSTALLATION: GRAVELBAGS SHALL BE INSTALLED IN A SIDE BY SIDE MANNER TO ENTRAP SILT AND MUD, AND TO DIVERT THE FLOW OF WATER. NOTWITHSTANDING THE OTHER REQUIREMENTS OF THIS SPECIFICATION, FAILURE OF THE BAGS TO PERFORM THIS FUNCTION SHALL BE REASON TO REJECT THEIR INSTALLATION.

   GRAVELBAGS SHALL BE INSTALLED WITH THE WIDEST FACE AGAINST THE GROUND SURFACE OR THE UNDERLYING COURSE OF BAGS, AND PRESSED IN PLACE TO CONFORM TO THE UNDERLYING SURFACE. THE BAGS SHALL BE PLACED WITH THE TIED ENDS IN THE "UPHILL" OR "UPSTREAM" DIRECTION, BEGINNING AT THE LOWEST OR MOST DOWNSTREAM BAG, TIED ENDS WILL BE TUCKED UNDER BAG. SUBSEQUENT BAGS WITHIN ONE COURSE OF BAGS SHALL BE PLACED SO AS TO REST UPON THE TIED END OF THE PREVIOUSLY PLACED BAG, WITH NOT LESS THAN 10 PERCENT OF THE BAG IN CONTACT WITH THE PREVIOUS BAG, AND NOT MORE THAN 20 PERCENT IN CONTACT.

   SUBSEQUENT COURSES OF BAGS SHALL BE PLACED AS DESCRIBED PREVIOUSLY, WITH THE MID-POINT OF THE BAGS STRADDLING THE JOINTS OF BAGS IN THE UNDERLYING ROW.

   CONSTRUCTION OF A GRAVELBAG BERM PERPENDICULAR TO THE DIRECTION OF FLOW SHALL INCORPORATE BAGS PLACED IN A "PYRAMID" CONFIGURATION, WITH ALL INDIVIDUAL BAGS ORIENTED PERPENDICULAR TO THE DIRECTION OF FLOW, THE BERM SHALL BE CONSTRUCTED WITH A SPECIFIED NUMBER OF ROWS AT THE BOTTOM (IN CONTACT WITH THE GROUND), WITH SUCCESSIVELY FEWER ROWS IN EACH OVERLYING COURSE. THE UPSTREAM AND DOWNSTREAM FACES OF THE BERM SHALL BE NO STEEPER THAN 1-1/2 FEET HORIZONTAL TO 1 VERTICAL.

   DAMAGE WHICH COULD FORESEEBLY BE PREVENTED BY PROPER GRAVELBAG INSTALLATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

## EROSION CONTROL NOTES

1. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR ANY DAMAGED EROSION CONTROL MEASURES WHEN RAIN IS IMMINENT.
2. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY INSPECTOR.
3. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE-DAY RAIN PROBABILITY FORECAST EXCEED 40 PERCENT.
4. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERM AND DESILTING BASINS AND THE BASINS PUMPED DRY. ANY GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING A RAINSTORM SHALL ALSO BE IMMEDIATELY REPAIRED.
5. FILL SLOPES AT THE CONSTRUCTION AREA PERIMETER MUST DRAIN AWAY FROM THE TOP OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
6. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICES EXCEEDS TWO FEET.
7. DURING GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES TEMPORARY DRAINAGE CONTROL SHALL BE PROVIDED TO PREVENT PONDING WATER AND DAMAGE TO ADJACENT PROPERTIES.
8. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — STATE OF CALIFORNIA — C-8*640 Exp. 09-30-27
REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CIRCELLI — CIVIL — STATE OF CALIFORNIA
6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

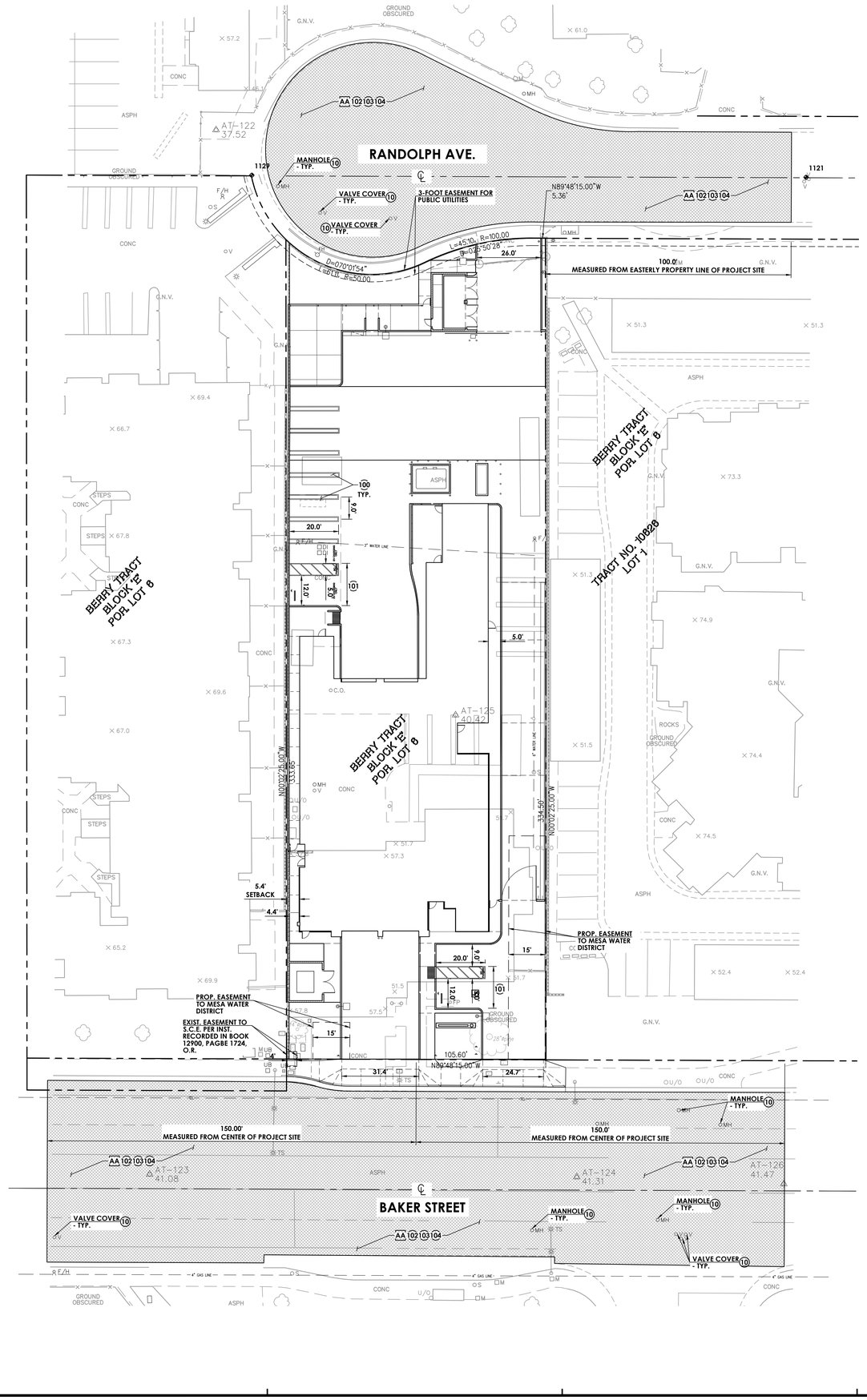
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | | | |
|---|---|---|---|
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

# EROSION CONTROL PLAN

DRAWING NUMBER: C-3.01

CM-07-01-2026




SCALE: 1" = 20'

0 10 20 40

## DIG ALERT NOTE TO CONTRACTOR:

CONTRACTOR'S SURVEYOR SHALL MONUMENT PROPERTY CORNER BEFORE STARTING GRADING, EITHER WITH PERMANENT MONUMENTS OR TEMPORARY 1FT. LONG ½" DIAMETER METAL RODS DRIVEN INTO THE GROUND TO NEAR FLUSH AND MARKED WITH PAINT.

## BENCHMARK

COUNTY OF ORANGE BENCH MARK NO. "1E-97-72"

ELEV.: 39.783' (NAVD88, 2010 LEVELED)

DESCRIBED BY OCS 2001 - FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "1E-97-72", SET IN THE SOUTHEAST CORNER OF AN 8 FT. BY 8 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWEST CORNER OF THE INTERSECTION OF BRISTOL AND BAKER STREET, 58 FT. NORTHERLY OF THE CENTERLINE OF BAKER AND 50 FT. WESTERLY OF THE CENTERLINE OF BRISTOL. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

## BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF RUDOLPH AVE. HAVING A BEARING OF N 00°02'25" W, PER TRACT MAP NO. 11606, RECORDED IN BOOK 509, PAGES 29 AND 30, OFFICIAL RECORDS OF COUNTY OF ORANGE.

## SIGNING/STRIPING CONSTRUCTION NOTES & ESTIMATED QUANTITIES

| NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| 10 | PROTECT IN PLACE | - |
| 100 | PAINT PARKING STRIPING PER ARCHITECT PLANS AND CITY OF COSTA MESA PARKING DESIGN STANDARDS ON DETAIL B, SHEET C-0.02 | LS |
| 101 | PAINT ACCESSIBLE PARKING STRIPING PER ARCHITECT PLANS | LS |
| AA | REMOVE EXISTING A.C. PAVEMENT BY COLD MILLING - DEPTH = 2 INCHES ** | 11, 400 SF |
| 02 | CLEAN EXISTING MILLED PAVEMENT AND REPAIR CRACKS ** | LS |
| 03 | CONSTRUCT 2 INCH ASPHALT OVERLAY WITH A.C. MIX = PG 70-10R0 (CITY SHALL APPROVE MIX DESIGN SUBMITTAL PRIOR TO START OF WORK) ** | 11,400 SF |
| 04 | REPLACE EXISTING STREET STRIPING AND MARKINGS IN KIND - REFER ALSO AND COORDINATE WITH MARKINGS AS SHOWN ON THE TRAFFIC SIGNAL MODIFICATION PLAN ** | LS |

** NOTE: CONTRACTOR SHALL COMPLETE THIS WORK FOLLOWING COMPLETION OF ALL UTILITY AND OTHER WORK WITHIN THE STREETS.

## NOTICE TO THE CONTRACTOR

THE ESTIMATES OF IMPROVEMENT AND GRADING QUANTITIES AS SHOWN HEREON ARE PROVIDED FOR SATISFYING PLAN CHECK INFORMATION REQUIREMENTS ONLY. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT ESTIMATE OF ALL IMPROVEMENT QUANTITIES INCLUDING GRADING QUANTITIES, AND SHALL USE SAME AS A BASIS FOR HIS BID(S) AND CONTRACT(S).

**NOTE TO CONTRACTOR:**

A. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING COMPLETE, TIMELY AND ACCURATE FIELD LAYOUT OF THE PROPOSED SITE IMPROVEMENTS INCLUDING, BUT NOT NECESSARILY LIMITED TO, HORIZONTAL AND VERTICAL CONTROL AND DIMENSIONAL COORDINATION AS NECESSARY TO CONSTRUCT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THIS SURVEY WORK SHALL BE PERFORMED BY A LICENSED LAND SURVEYOR AND SHALL PROVIDE FOR THE SURVEY AND STAGING OF ALL CONSTRUCTION ELEMENTS INCLUDING BUT NOT LIMITED TO BUILDING LOCATIONS, PAVING EDGES/ALIGNMENT FENCING, WALLS, LIGHT FIXTURES, SIGNS, MOW CURBS, SEATING, SHADE STRUCTURES, PLAY FIELDS AND APPURTENANCES,, CURB AND GUTTER ALIGNMENTS, CATCH BASINS, DRAINS, ETC.

B. AN AUTOCAD-COMPATIBLE .DWG FILE OF THE PROPOSED IMPROVEMENTS SHALL BE PROVIDED TO THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR HIS USE IN PREPARING THE NECESSARY FIELD SURVEYING / LAYOUT OF PROPOSED IMPROVEMENTS. THE USE OF THIS DIGITAL FILE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND IS INTENDED TO ASSIST THE SURVEYOR IN THE LAYOUT OF THE PROPOSED IMPROVEMENTS.

THESE ELECTRONIC FILES ARE NOT CONSTRUCTION DOCUMENTS. DIFFERENCES MAY EXIST BETWEEN THESE ELECTRONIC FILES AND CORRESPONDING HARD COPY CONSTRUCTION DOCUMENTS ISSUED FOR PUBLIC BID. IN THE EVENT THAT A CONFLICT ARISES BETWEEN THE SIGNED OR SEALED HARD COPY CONSTRUCTION DOCUMENTS AND THE ELECTRONIC FILES, THE SIGNED OR SEALED HARD COPY CONSTRUCTION DOCUMENTS SHALL GOVERN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF ANY CONFLICT EXISTS AND SHALL BRING ANY DISCREPANCIES TO THE PROJECT LANDSCAPE ARCHITECT'S ATTENTION PRIOR TO ANY FIELD LAYOUT. BY THE CONTRACTOR'S USE OF THESE ELECTRONIC FILES, THEY ARE NOT RELIEVED OF THEIR DUTY TO FULLY COMPLY WITH THE CONTRACT DOCUMENTS, INCLUDING, AND WITHOUT LIMITATION, THE NEED TO CHECK, CONFIRM, AND COORDINATE ALL DIMENSIONS AND DETAILS, TAKE FIELD MEASUREMENTS, VERIFY FIELD CONDITIONS, AND COORDINATE THE WORK WITH THAT OF OTHER CONTRACTORS FOR THE PROJECT.

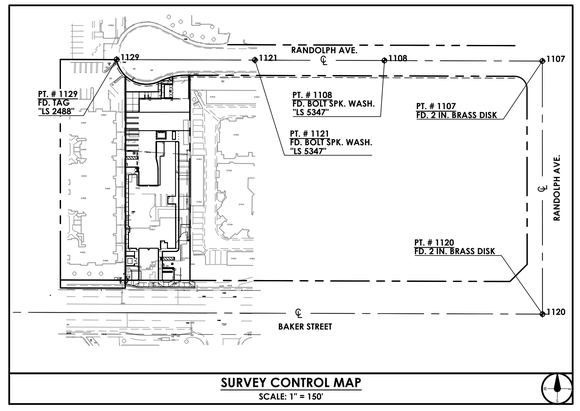
THE DIGITAL INFORMATION PROVIDED BY civTEC SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN FOR THE PROJECT DESCRIBED ABOVE AND SHALL NOT BE RELEASED TO ANY OTHER PARTY WITHOUT THE WRITTEN CONSENT OF civTEC. THE INFORMATION CONTAINED ON THE ELECTRONIC MEDIA IS AN INSTRUMENT OF PROFESSIONAL SERVICES AND SHALL REMAIN THE PROPERTY OF civTEC.

## GENERAL NOTES

1. CONTRACTOR SHALL REFERENCE ARCHITECTURAL AND/OR LANDSCAPE PLANS FOR ADDITIONAL HARDSCAPE REQUIREMENTS AND DETAILS.
2. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING LANDSCAPE AND HARDSCAPE IMPROVEMENTS AS NECESSARY TO CONSTRUCT IMPROVEMENTS SHOWN HEREON.
3. ALL SIDEWALKS, CURB RETURNS, AND ACCESS POINTS SHALL MEET TITLE 24 AND AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS.

**POINT TABLE**

| POINT # | NORTHING | EASTING |
|---|---|---|
| 1107 | 5409.35 | 10927.29 |
| 1108 | 5410.25 | 10669.89 |
| 1120 | 4996.83 | 10927.58 |
| 1121 | 5411.11 | 10458.70 |
| 1129 | 5411.95 | 10233.16 |




SURVEY CONTROL MAP
SCALE: 1" = 150'

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CIRCELLI — C-81640 Exp. 09-30-27 — CIVIL — STATE OF CALIFORNIA

6/30/26

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | | | |
|---|---|---|---|
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

# HORIZONTAL CONTROL / STRIPING PLAN

DRAWING NUMBER: C-4.01

CM-07-01-2026

**DIG ALERT NOTE TO CONTRACTOR:**

CONTRACTOR'S SURVEYOR SHALL MONUMENT PROPERTY CORNER BEFORE STARTING GRADING, EITHER WITH PERMANENT MONUMENTS OR TEMPORARY 1FT. LONG ½" DIAMETER METAL RODS DRIVEN INTO THE GROUND TO NEAR FLUSH AND MARKED WITH PAINT.

## BENCHMARK

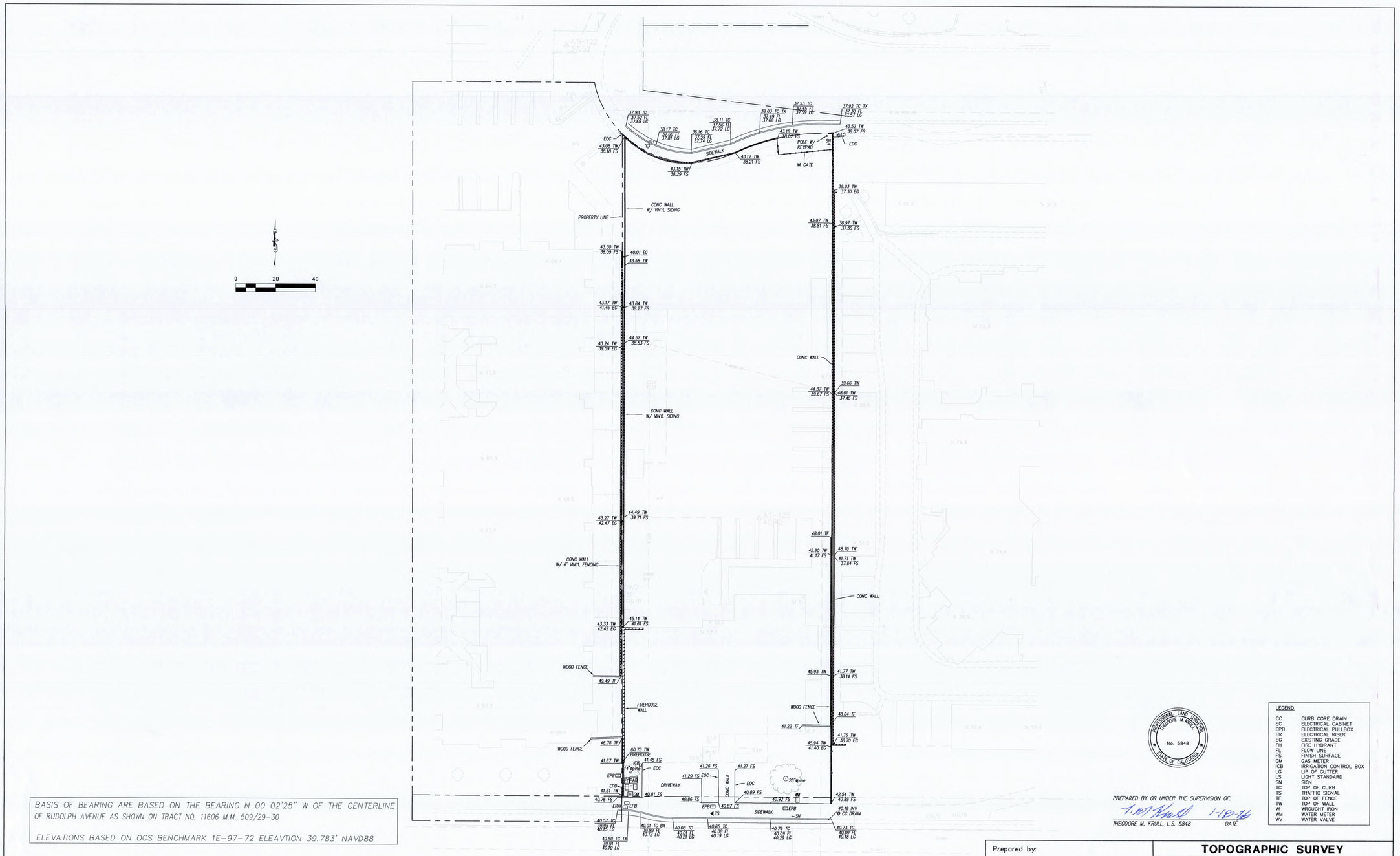
COUNTY OF ORANGE BENCH MARK NO. "1E-97-72"

ELEV.: 39.783' (NAVD88, 2010 LEVELED)

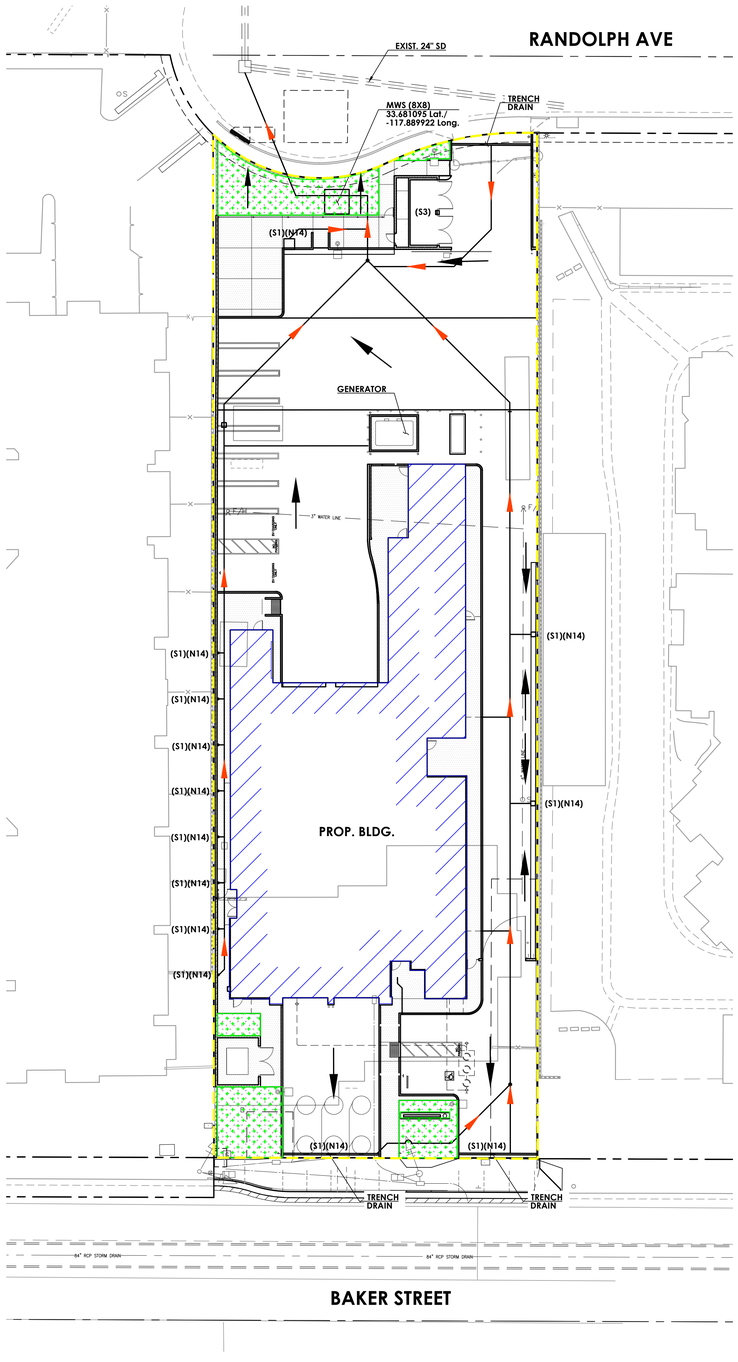
DESCRIBED BY OCS 2001 - FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "1E-97-72", SET IN THE SOUTHEAST CORNER OF AN 8 FT. BY 8 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWEST CORNER OF THE INTERSECTION OF BRISTOL AND BAKER STREET, 58 FT. NORTHERLY OF THE CENTERLINE OF BAKER AND 50 FT. WESTERLY OF THE CENTERLINE OF BRISTOL. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

## BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CENTERLINE OF RUDOLPH AVE. HAVING A BEARING OF N 00°02'25" W, PER TRACT MAP NO. 11606, RECORDED IN BOOK 509, PAGES 29 AND 30, OFFICIAL RECORDS OF COUNTY OF ORANGE.


0
20
40
CONC WALL W/ VINYL SIDING
PROPERTY LINE
CONC WALL W/ VINYL SIDING
CONC WALL W/ 6' VINYL FENCING
WOOD FENCE
FIREHOUSE WALL
WOOD FENCE
CONC WALL
WOOD FENCE
CONC WALL
SIDEWALK
DRIVEWAY
SIDEWALK
EOC
POLE W/ KEYPAD
W GATE
EOC
28" pine
EPB
SN
WM
WV
EOC
EOC
EOC

CM-07-01-2026




## LEGEND

- STORM DRAIN FLOW DIRECTION
- SURFACE FLOW DIRECTION
- LIMIT OF WORK/DMA BOUNDARY
- PROP. BLDG.
- LANDSCAPE AREAS (S4)

## SOURCE CONTROL BMP LEGEND

Structural BMPs
(S1) Storm Drain Stenciling and Signage
(S3) Trash Enclosure
(S4) Efficient Irrigation

Non-Structural BMPS
(N1) Education for Property Owners and Occupants
(N2) Activity Restrictions
(N3) Common Area Landscape Management
(N4) BMP Maintenance.
(N10) Uniform Fire Code Implementation
(N11) Common Area Litter Control
(N12) Employee Training
(N14) Common Area Catch Basin Inspection
(N15) Street Sweeping Private Streets and Parking Lots

BMP'S FOR ENTIRE SITE:
(N1) (N2) (N3) (N4) (N10) (N11) (N12) (N15)

## BMP SUMMARY TABLE

| DMA | TOTAL AREA | PERVIOUS AREA | IMPERVIOUS AREA | TREATMENT FLOWRATE | LID BMP | TREATMENT CAPACITY | GIS COORDINATE |
|---|---|---|---|---|---|---|---|
| A | 34,520 | 1,810 | 32,710 | 0.1770 | MWS L-8-8-V | 0.2310 | 33.681095 LAT./-117.889922 LONG. |

N W E S

SCALE: 1"=20'
0 20 40

# COSTA MESA FIRE STATION NO. 2

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER THOMAS E. CARROLL C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA

CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

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|---|---|---|---|
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

WQMP SITE MAP

DRAWING NUMBER: WQ-1

30% CDs

PBK

SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER THOMAS E. CARROLL C-81640 Exp. 09-30-27 CIVIL STATE OF CALIFORNIA

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CONSULTANT
civTEC CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
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|---|---|---|---|
| 1 | | | REVISIONS |

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|---|---|---|---|
| DRAWN: | STAFF | CHECKED: | TEC |
| DATE: | 6/30/2026 | SCALE: | PER PLAN |
| PROJECT NUMBER: | | | 170.01 |

WQMP SITE PLAN

DRAWING NUMBER: WQ-1

CM-07-01-2026

# COSTA MESA FIRE STATION No. 2
# CITY OF COSTA MESA

## 800 BAKER STREET
## COSTA MESA, CA 92626
## APN: 418-121-29

May 6, 2026

CONCRETE PAVING - VEHICULAR (VEH) AREAS

CONTROL JOINT CJ1

CONTROL JOINT CJ2

CONCRETE PAVING - SIDEWALK (SWK) AREAS

CONTROL JOINT TJ1

CONTROL JOINT EJ1

PA — XERISCAPE

NEW 8" CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL.

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL; PROTECT-IN-PLACE, REPLACE AS NECESSARY

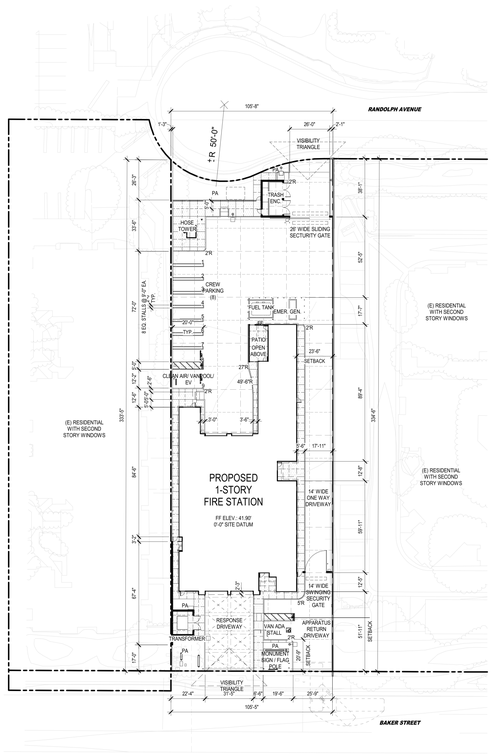
PROPERTY LINE

PATH OF TRAVEL

DRAINAGE STRUCTURES, SEE CIVIL DRAWINGS

LIGHT STANDARD, SEE ELECTRICAL DWGS

MATERIALS LEGEND & NOTES




SITE PLAN
SCALE: 1'-0" = 40'-0"

| | SHEET INDEX |
|---|---|
| 1 | TITLE SHEET |
| 2 | TEMP. SITE - WATER IMPROVEMENT PLAN |
| 3 | NEW FACILITY - WATER IMPROVEMENT PLAN |
| 4 | IRRIGATION PLAN |

**OWNER**
CITY OF COSTA MESA
77 FAIR DRIVE
COSTA MESA, CA 92626

**FIRE DEPARTMENT**
COSTA MESA FIRE DEPARTMENT
77 FAIR DRIVE
COSTA MESA, CA 92626

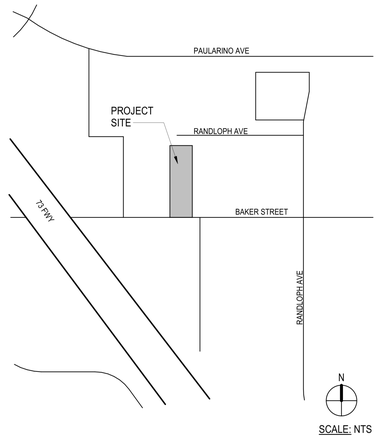
OWNER AND FIRE DEPARTMENT

**ARCHITECT**
PBK ARCHITECTS
8163 ROCHESTER AVE. SUITE 100
RANCHO CUCAMONGA, CA 91730
(909) 987-0909 FAX (909) 980-9980

**CIVIL ENGINEER**
CIVTEC
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
(909) 463-8822

**LANDSCAPE ARCHITECT**
CORNERSTONE STUDIOS, INC.
951 E SANTA ANA BLVD
SANTA ANA, CA 92701
(714) 973-2200

PROJECT TEAM




SCALE: NTS

LOCATION MAP

DIGALERT Underground Service Alert — CALL TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG

| REV. | DATE | BY | DESCRIPTION | APPROVED | DATE |
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| PROJECT INFORMATION | |
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| DATE 05/06/2026 | DESIGN PBK |
| FILE NO. W2109300 | DRAWN SC |
| DRAWING NO. | CHECKED JM |

**MESA WATER DISTRICT**
C0013-25-04

N. Bartlett — CIVIL ENGINEER — 05/08/2026 DATE

MesaWater DISTRICT®

PBK ARCHITECTS
800 BAKER ST., COSTA MESA, CA 92626 - TITLE SHEET
COSTA MESA FIRE & RESCUE DEPARTMENT

SHEET 1 OF 4 SHEETS

PBK
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10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
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**COSTA MESA FIRE STATION No. 2**
**RECONSTRUCTION**
**COSTA MESA FIRE & RESCUE DEPARTMENT**
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

**CONSULTANT**

| NO | DATE | BY | DESCRIPTION |
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| | | | REVISIONS |

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| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**MESA WATER DISTRICT - TITLE SHEET**

DRAWING NUMBER: **WD0.1**

5/8/2026 10:51:57 AM
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CM-07-01-2026

MESA WATER DISTRICT
STANDARD WATER CONSTRUCTION NOTES

1. ENGINEERING PLAN CHECK/INSPECTION FEE AND PERFORMANCE GUARANTEE BOND SHALL BE PAID AND APPLICATION/PERMIT (A.P.) COMPLETED BY THE APPLICANT PRIOR TO THE PLANS AND ISSUANCE OF THE A.P. FEE SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.
2. CAPACITY CHARGES SHALL BE COLLECTED BY MESA WATER AT THE TIME OTHER FEES ARE COLLECTED PRIOR TO APPROVAL OF PLANS AND SERVICE AGREEMENT. THIS FEE SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.
3. WATER MAINS SHALL BE INSTALLED ACCORDING TO THE LATEST STANDARDS AND SPECIFICATION OF MESA WATER.
4. CONTRACTOR TO HAVE, ON THE JOB SITE, A COPY OF THE LATEST STANDARD SPECIFICATIONS AT ALL TIMES.
5. CONTRACTOR SHALL SCHEDULE INSPECTIONS A MINIMUM OF 24 HOURS IN ADVANCE AND IN ACCORDANCE WITH THE INSPECTION CHECKLIST REQUIREMENTS. THE SCHEDULE AN INSPECTION, CALL (949) 207-5518.
6. A CASH PERFORMANCE GUARANTEE BOND SHALL BE HELD ONE YEAR AFTER MESA WATER'S NOTICE OF COMPLETION TO GUARANTEE WORK PERFORMANCE BY THE CONTRACTOR.
7. SEPARATION BETWEEN SANITARY SEWER AND WATER MAINS SHALL BE A MINIMUM OF 10' HORIZONTAL, 1' VERTICAL (ABOVE SEWER)
8. A 15' WATER MAIN EASEMENT SHALL BE GRANTED TO MESA WATER FOR MAINTENANCE PURPOSES, 5' FOR WATER SERVICES (7.5' EACH SIDE OF MAIN; 2.5' EACH SIDE OF SERVICE). EASEMENT DOCUMENTS ARE TO BE SUBMITTED TO MESA WATER FOR APPROVAL PRIOR TO A PERMIT BEING ISSUED.
9. SERVICE LATERALS SHALL BE SET TO GRADE BY CONTRACTOR PRIOR TO THE INSTALLATION OF WATER METERS AND BOXES PER MESA WATER STANDARD DRAWINGS 1, 2, & 3.
10. WATER METER SHALL NOT BE INSTALLED NOR WATER TURNED ON UNTIL THE BACKFLOW DEVICES REQUIRED FOR THE BUILDING AND IRRIGATION SYSTEMS HAVE BEEN INSTALLED, TESTED, APPROVED, AND CERTIFIED. CONTACT CROSS CONNECTION CONTROL AT (949) 631-1291.
11. PROTECT EXISTING UTILITIES IN PLACE.
12. WATER MAINS SHALL HAVE 42" MINIMUM COVER TO FINISH GRADE.
13. RAISE EXISTING WATER VALVE COVERS TO GRADE PER MESA WATER STANDARD DRAWING 14.
14. INSTALL FIRE HYDRANT PER MESA WATER STANDARD DRAWING 4, 4A, AND 4B.
15. INSTALL BLOW-OFF PER MESA WATER STANDARD DRAWING 9.
16. WATER MAINS SHALL BE TESTED AT 225 PSI FOR FOUR HOURS.
17. BACKFILL MATERIAL IN PIPE ZONE SHALL HAVE A SAND EQUIVALENT OF 30 OR GREATER.
18. THE BACKFILL ABOVE THE PIPE ZONE SHALL BE COMPACTED PER MESA WATER STANDARD DRAWING 18 AND BE IN COMPLIANCE WITH THE CITY OF COSTA MESA STANDARD DRAWING #13.
19. CHIP 2" "W" IN CURB FACE TO IDENTIFY WATER SERVICE LOCATION.
20. INSTALL THRUST AND GRAVITY BLOCKS PER MESA WATER STANDARD DRAWING 11 AND 12.
21. CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO TRENCHING.
22. CONTRACTOR SHALL INSTALL TEMPORARY TAPS FOR TESTING AND CHLORINATION PRIOR TO CONNECTING TO EXISTING MAINS.
23. CONTRACTOR, AT THEIR EXPENSE, SHALL RETURN ALL REMOVED EQUIPMENT TO MESA WATER YARD AND DISPOSE OF OTHER MATERIAL, INCLUDING BUT NOT LIMITED TO A.C.P., BROKEN CONCRETE, AND NATIVE SOIL.
24. WATER METERS AND BOXES SHALL BE INSTALLED BY MESA WATER BUT PAID FOR BY THE APPLICANT/OWNER.
25. A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON ALL METERED WATER SERVICES TO ANY CONDOMINIUM UNIT OVER TWO STORES OR FIVE OR MORE UNITS ON ONE METERED WATER SERVICE. CONTACT CROSS CONNECTION CONTROL AT (949) 631-1291.
26. IRRIGATION METERS SHALL REQUIRE A REDUCED PRESSURE PRINCIPLE ASSEMBLY.
27. IN LANDSCAPED AREAS, NO TREES SHALL BE LOCATED IN MESA WATER EASEMENT OR WITHIN 7.5' OF ANY MESA WATER FACILITY.
28. A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON METERED WATER SERVICES TO ALL INDUSTRIAL BUILDINGS.
29. A DOUBLE CHECK DETECTOR ASSEMBLY WITH COMBINATION FLOW METER WILL BE REQUIRED ON FIRE LINE SERVICES, PER MESA WATER STANDARD DRAWING 17.
30. FIRELINE SERVICES SHALL NOT BE TURNED ON UNTIL THE MESA WATER ENGINEERING DEPARTMENT HAS RECEIVED A LETTER FROM THE OWNER, OF OWNER'S AUTHORIZED AGENT, REQUESTING IT AND STATION THAT THE PLUMBING IS READY FOR THE FIRELINE TO BE TURNED ON. THE LETTER SHALL ALSO CONTAIN MESA WATER'S FILE NUMBER, SIZE, AND SERIAL NUMBER OF THE DEVICE, AND PROJECT ADDRESS.
31. IF A 13D SPRINKLER SYSTEM IS NOT A FLOW THROUGH SYSTEM, THEN A TESTABLE BACKFLOW DEVICE SHALL BE INSTALLED NEXT TO THE BUILDING. MESA WATER INSPECTOR SHALL VERIFY FLOW THROUGH SYSTEMS BY TURNING OFF THE HOUSE VALVE AND CHECKING FOR FLOW THROUGH CONNECTION (I.E. TOILET OR SINK).

## CONSTRUCTION KEY NOTES/ESTIMATE OF QUANTITIES

| NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| | GENERAL CONSTRUCTION NOTES | |
| 10 | PROTECT IN PLACE | - |
| | | |
| | DEMOLITION NOTES | |
| A | REMOVE EXIST. FIRE HYDRANT (COMPLETE) AND RETURN TO MESA WATER DISTRICT | LS |
| B | REMOVE EXIST. WHARF HYDRANT (COMPLETE) AND DISPOSE | LS |
| C | REMOVE EXIST. WATER LINE (COMPLETE) AND DISPOSE | LS |
| D | CAP WATER LINE WITH BLIND FLANGE | LS |
| E | MESA WATER DISTRICT WILL DISCONNECT AND REMOVE EXIST. 1.5-INCH METER | LS |
| F | ABANDON EXISTING DOMESTIC WATER SERVICE PER MESA WATER DISTRICT'S STD. DRAWING NO. 34, THE METER BOX IS TO BE REMOVED. | LS |
| | PRIVATE WATER CONSTRUCTION NOTES | |
| 60 | INSTALL PRIVATE ONSITE FIRE HYDRANT PER MESA WATER DISTRICT STD. DWG. 4 (WITH TEMP. BOLLARDS PER STD. DWG. 48) - PAINT SAFETY RED PER MESA WATER DISTRICT TECHNICAL SPECIFICATION 09900 | 1 EA |
| 61 | CONSTRUCT 8" PVC, C-900, DR 14, WATER LINE, BEDDING PER DETAIL MESA WAT. DIST. STD. DWG. 18 | 105 LF |
| 62 | CONSTRUCT 6" GATE VALVE PER DETAIL MESA WATER DISTRICT STD. DWG. 4 AND 14A | 1 EA |
| 63 | CAP WATER LINE FOR FUTURE CONNECTION (DURING PHASE 2) | 1 EA |
| 64 | CONNECT TO EXIST. FIRE HYDRANT FOR TEMPORARY WATER SERVICE | 1 EA |
| 65 | INSTALL 1" TEMPORARY METER AND BACKFLOW PROTECTION PER MESA WATER DISTRICT REQUIREMENTS AND SPECIFICATIONS OUTLINE IN SECTION 5 OF MESA WATER DISTRICT'S RULES AND REGULATIONS FOR WATER SERVICE | 1 EA |
| 66 | CONSTRUCT 1" PVC, C-900, CLASS 200 WATER LINE PER DETAIL MESA WAT. DIST. STD. DWG. 1, 18, AND 19 | 50 LF |
| 67 | CONNECT WATER LINE TO BUILDING WATER LINE - VERIFY LOCATION WITH BUILDING PLANS | 1 EA |
| | | |

## NOTICE TO THE CONTRACTOR:

THE ESTIMATES OF IMPROVEMENT AND GRADING QUANTITIES AS SHOWN HEREON ARE PROVIDED FOR SATISFYING PLAN CHECK INFORMATION REQUIREMENTS ONLY. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT ESTIMATE OF ALL IMPROVEMENT QUANTITIES INCLUDING GRADING QUANTITIES, AND SHALL USE SAME AS A BASIS FOR THEIR BID(S) AND CONTRACT(S).

**NOTE TO CONTRACTOR:**

VERIFY EXACT SIZE AND LOCATION OF BUILDING WATER P.O.C. WITH PLUMBING DRAWINGS PRIOR TO CONSTRUCTION AND COORDINATE INSTALLATION.

**NOTE TO CONTRACTOR:**

LOCATE ALL EXISTING UTILITIES AS A FIRST ITEM OF WORK AND PROTECT THEM IN PLACE AS REQUIRED.

## EXISTING UNDERGROUND STRUCTURES

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND PIPES OR CONDUITS SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE THE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS. LOCATE ALL UTILITIES BEFORE CONSTRUCTION.

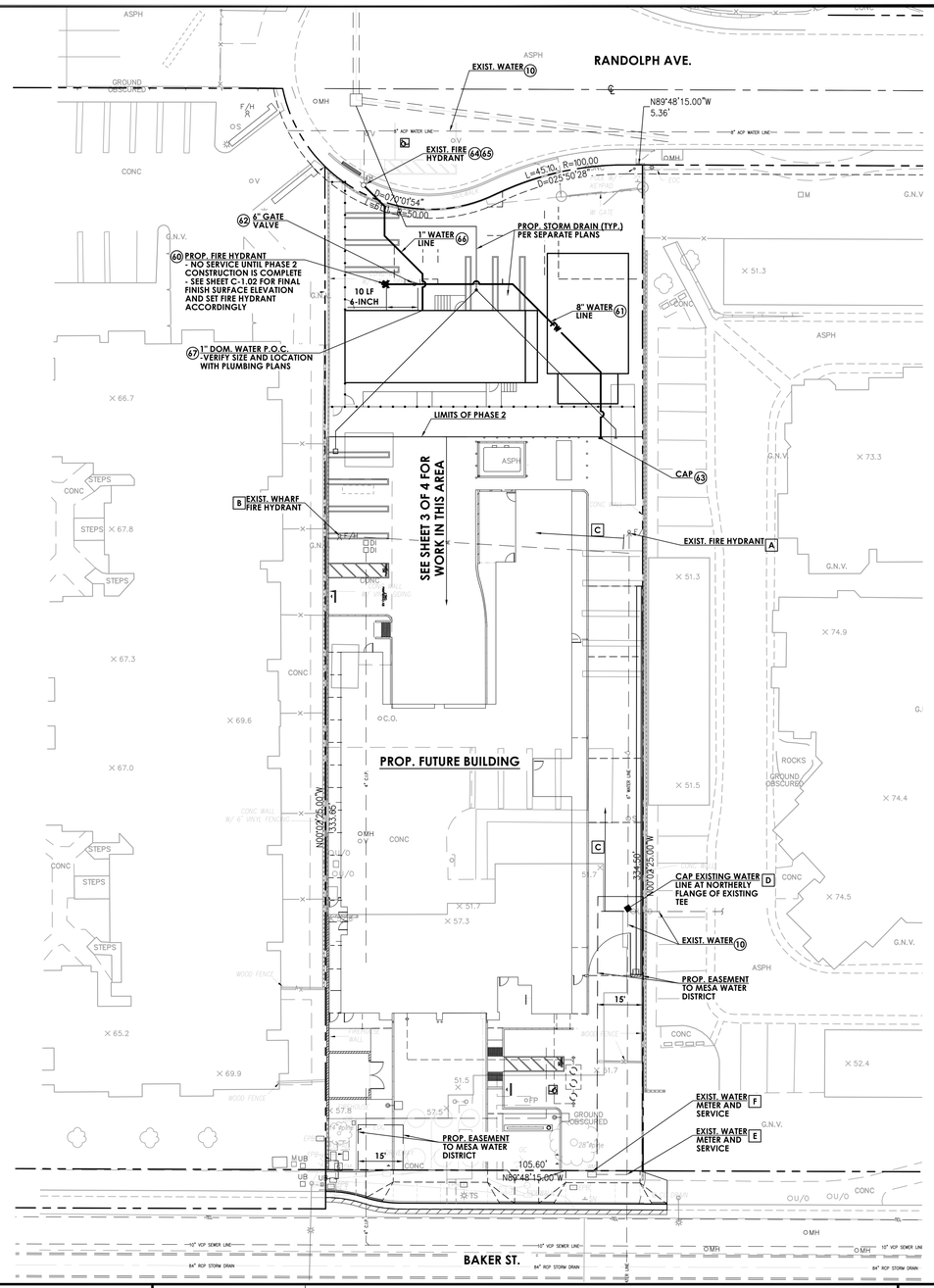
## NOTICE TO CONTRACTOR:

CONTRACTOR TO VERIFY BY POTHOLING THE EXISTING ELEVATION AND HORIZONTAL LOCATION OF ALL POINTS OF CONNECTIONS AND CROSSINGS PRIOR TO CONSTRUCTION. THE ENGINEER MUST BE NOTIFIED OF ANY DISCREPANCY IMMEDIATELY.

THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY - NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBER AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. LOCATIONS OF UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

THE QUANTITY ESTIMATE SHOWN HEREON IS FOR THE USE OF GOVERNING AGENCIES IN DETERMINING BOND AMOUNTS AND/OR FEES AND IS NOT TO BE USED FOR BID PURPOSES.




PREPARED BY:

civTEC
CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net

REGISTERED PROFESSIONAL ENGINEER — THOMAS E. CHECCHERE — C-81640 Exp. 09-30-27 — CIVIL — STATE OF CALIFORNIA

5/6/26

DIGALERT CALL TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG Underground Service Alert

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| PROJECT INFORMATION | |
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| DATE 5/6/26 | DESIGN TEC |
| FILE NO. 170.01 | DRAWN STAFF |
| DRAWING NO. PH1-WS-1.1 | CHECKED TEC |

**MESA WATER DISTRICT**
C0013-25-04

N. Bartlett
CIVIL ENGINEER
05/08/2026
DATE

MesaWater DISTRICT

civTEC
800 BAKER ST., COSTA MESA, CA 92626 - TEMP. FACILITY
COSTA MESA FIRE & RESCUE DEPARTMENT

SHEET 2 OF 4 SHEETS

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION
COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — PETER FOX C-38606 REN. 08-31-27 — STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

DRAWN: | CHECKED:
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**MESA WATER DISTRICT - WATER PLAN TEMP. FACILITY**

DRAWING NUMBER: **WD0.2**

6/9/2026 10:10:29 AM
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CM-07-01-2026

## CONSTRUCTION KEY NOTES/ESTIMATE OF QUANTITIES

| NO. | DESCRIPTION | QUANTITY |
|---|---|---|
| | GENERAL CONSTRUCTION NOTES | |
| 10 | PROTECT IN PLACE | - |
| 29 | CONSTRUCT TRENCH REPLACEMENT PER CITY OF COSTA MESA STD. DWG. NO. 813 | 700 SF |
| | PUBLIC WATER CONSTRUCTION NOTES | |
| 30 | CONSTRUCT 2" SERVICE ASSEMBLY (FOR IRRIG.) WITH 1-INCH BADGER HR-E RADIO READ METER PER MESA WATER DISTRICT STD. DWG. 2, 3, 5, 18, AND 19 | 1 EA |
| 31 | CONSTRUCT 2" SERVICE ASSEMBLY WITH 2-INCH METER FOR BUILDING ONLY PER MESA WATER DISTRICT STD. DWG. 2, 3, 5, 18, AND 19 | 1 EA |
| 32 | ** HOT TAP EXIST. 16" CML&C WATER PIPE PER MESA WATER DISTRICT STD. DWG. 5, 12, 18, AND 19 | 1 EA |
| 33 | ** CONSTRUCT 8" PVC, C-900, DR14, WATER LINE, BEDDING PER MESA WATER DISTRICT STD. DWG. 12, 18, AND 19 | 70 LF |
| 34 | NOT USED | - |
| | PRIVATE WATER CONSTRUCTION NOTES | |
| 40 | CONSTRUCT 2" PVC, C-900, CLASS 200 WATER LINE PER MESA WATER DISTRICT STD. DWG. 18 AND 19 | 92 LF |
| 41 | CONNECT WATER LINE TO BUILDING WATER LINE - VERIFY LOCATION WITH PLUMBING PLANS | 1 EA |
| 42 | CONSTRUCT 2" LEAD FREE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR (RPPD) PER MESA WATER DISTRICT STD. DWG. 23 - FOR BUILDING ONLY | 1 EA |
| 42B | CONSTRUCT 1" LEAD FREE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR (RPPD) PER MESA WATER DISTRICT STD. DWG. 23 - FOR IRRIGATION ONLY | 1 EA |
| 43 | ** CONSTRUCT 8" PVC, C-900, DR14, WATER LINE PER MESA WATER DISTRICT STD. DWG. 18 AND 19 | 290 LF |
| 43A | ** CONSTRUCT 6" PVC, C-900, DR14, WATER LINE PER MESA WATER DISTRICT STD. DWG. 18 AND 19 | 10 LF |
| 44 | ** CONSTRUCT 8" DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) WITH 5/8-INCH TATTLE METER PER MESA WATER DISTRICT STD. DWG. 17 | 1 EA |
| 45 | ** INSTALL FIRE DEPARTMENT CONNECTION (F.D.C.) PER LOCAL FIRE DEPT. STANDARDS AND NFPA 13 & 24 SPECS. | 1 EA |
| 46 | ** INSTALL POST INDICATOR VALVE (P.I.V.) PER LOCAL FIRE DEPT. STANDARDS AND NFPA 13 & 24 SPECS. | 1 EA |
| 47 | ** CONNECT FIRE WATER LINE TO BLDG. FIRE WATER LINE - SEE SPRINKLER PLANS | 1 EA |
| 48 | REMOVE EXISTING CAP AND JOIN EXISTING WATER LINE | 1 EA |
| 49 | INSTALL 2" PRESSURE REDUCING VALVE (PRV) - WILKINS NO. 500XYSBR-HR, 75 PSI TO 125 PSI REDUCED PRESSURE RANGE, FACTORY SET AT 85 PSI, FIELD RESET TO 78 PSI, COMPLETE WITH BRONZE "Y" STRAINER, GATE VALVES AND UNIONS | 1 EA |
| | PUBLIC SEWER CONSTRUCTION NOTES | |
| 50 | CONNECT TO EXIST. SEWER LINE WITH CUT-IN WYE | 1 EA |
| 51 | CONSTRUCT 6" PVC SEWER LINE (SDR 26) PER C.M.S.D. DRAWING NO. S-104-A (MODIFIED) | 25 LF |
| 52 | CAP EXIST. SEWER LATERAL AT MAINLINE | 1 EA |
| 53 | FILL EXIST. SEWER LATERAL WITH SLURRY IN PUBLIC RIGHT-OF-WAY | 25 LF |
| 54 | REMOVE EXIST. SEWER LATERAL (COMPLETE) ON SITE | LS |
| | | |
| | PRIVATE SEWER CONSTRUCTION NOTES | |
| 60 | CONSTRUCT 4" PVC SEWER LINE (SDR 35), BEDDING PER DETAIL 5, SHEET C-0.02 | 140 LF |
| 61 | CONSTRUCT SEWER CLEANOUT PER DETAIL 6, SHEET C-0.02 | 4 EA |
| 62 | CONNECT PRIVATE SEWER LINE TO BUILDING SEWER LINE - VERIFY LOCATION WITH BLDG. PLUMBING PLANS | 3 EA |
| 63 | CONSTRUCT 2-WAY SEWER CLEANOUT PER C.M.S.D. DRAWING NO. S-107A | 1 EA |

## NOTICE TO THE CONTRACTOR:

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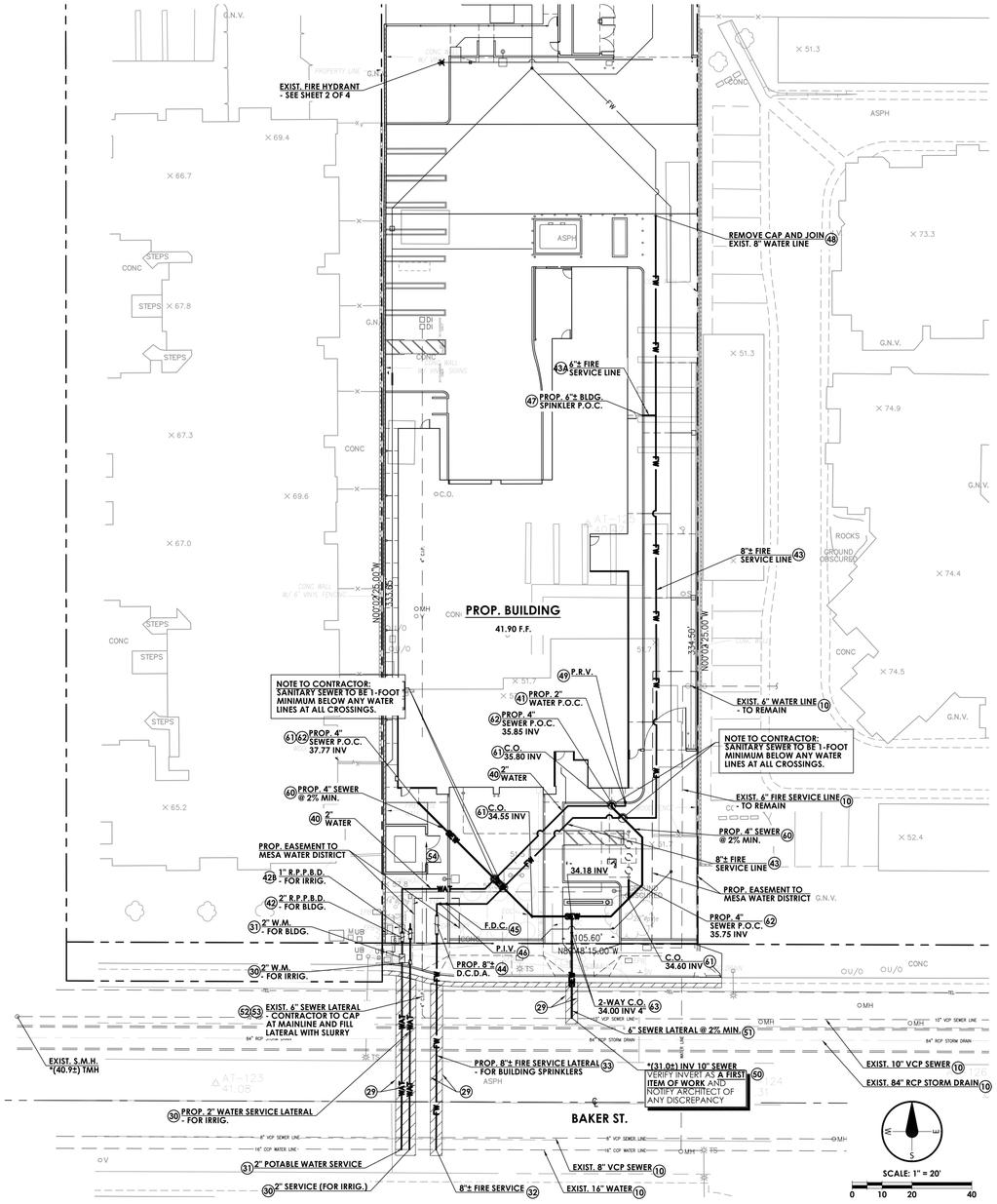
**** NOTE TO CONTRACTOR:**

NOTES WITH AN " ** " ARE FOR REFEBENCE ONLY. CONTRACTOR SHALL PROVIDE FOR SEPARATE DETAILED PLANS AND UNDERGROUND SHOP DRAWINGS FOR THE FIRE SYSTEM TO BE PREPARED BY A DESIGN/BUILD CONTRACTOR AND SUBMITTED TO THE JURISDICTIONS HAVING AUTHORITY (JHA) FOR APPROVAL FOR ALL BUILDING AND SITE FIRE PROTECTION SYSTEMS.




*** NOTE TO CONTRACTOR:**

CONTRACTOR TO VERIFY EXISTING ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY CITY AND CIVIL ENGINEER IMMEDIATELY OF ANY DISCREPANCY.

**NOTE TO CONTRACTOR:**

VERIFY EXACT SIZE AND LOCATION OF BUILDING WATER P.O.C. WITH PLUMBING DRAWINGS PRIOR TO CONSTRUCTION AND COORDINATE INSTALLATION.

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**MESA WATER DISTRICT**
**STANDARD WATER CONSTRUCTION NOTES**

SEE SHEET 2 OF 4

**COSTA MESA SANITARY DISTRICT**
**STANDARD SEWER NOTES**

1. THE SEWER SYSTEM SHALL CONFORM TO THE STANDARDS OF THE COSTA MESA SANITARY DISTRICT.
2. CONTRACTOR SHALL REQUEST INSPECTION 48 HOURS PRIOR TO COMMENCEMENT OF WORK. PLEASE CONTACT CMSD FRONT DESK AT 949-645-8400 FOR SCHEDULING.
3. ANY WORK PERFORMED WITHOUT INSPECTION FROM THE DISTRICT SHALL BE CONSIDERED UNACCEPTABLE.
4. CONTRACTOR SHALL OBTAIN CMSD SEWER PERMIT PRIOR TO COMMENCEMENT OF WORK FROM THE COSTA MESA SANITARY DISTRICT, 290 PAULARINO AVE., COSTA MESA, CA 92626. 949/645-8400 EXT. 229.
5. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS THAT MAY BE REQUIRED BY THELOCAL GOVERNING AGENCY.
6. CONTRACTOR TO HAVE A COPY OF APPROVED SEWER PLAN AND CMSD STANDARD PLANS AND SPECIFICATIONS ON JOB SITE AT ALL TIMES.
7. CLAY PIPE JOINTS SHALL BE TYPE "G" MECHANICAL COMPRESSION JOINTS FOR MAIN LINE SEWER. TYPE "D" JOINTS, BAND-SEAL OR APPROVED EQUAL, ARE APPROVED FOR LATERALS AND REPAIR WORK ONLY.
8. 6" LATERALS SHALL BE CONSTRUCTED FROM THE SEWER MAIN TO EVERY LOT.
9. ALL LATERALS SHALL BE PLACED PRIOR TO SURFACING OF STREETS.
10. STAMP "S" ON CURB AT SEWER LATERAL LOCATIONS.
11. SEWER MAIN SHALL BE AIR OR WATER TESTED MEETING DISTRICT ENGINEER'S APPROVAL.
12. PRIOR TO ASPHALT CONCRETE PAVING, MANHOLE FRAMES AND COVERS SHALL BE LEFT 6" BELOW FINISH GRADE. AFTER STREET SURFACING IS COMPLETED, FRAMES AND COVERS SHALL BE RAISED TO GRADE PER STD. DWG. NO. S-105.
13. SEWER MANHOLE FRAME AND COVER SHALL BE ALHAMBRA FOUNDRY A-1270, OR APPROVED EQUAL. COVER TO BE STAMPED 'SEWER'.
14. SEWER MAIN SHALL BE BALLED AFTER ALL MANHOLE FRAMES AND COVERS HAVE BEEN RAISED TO GRADE.
15. PVC PIPE MAY BE USED ONLY WITH PRIOR APPROVAL FROM THE DISTRICT ENGINEER.
16. IF MINIMUM SEPARATION DISTANCE BETWEEN SEWER AND WATER MAIN IS NOT MET, SPECIAL CONSTRUCTION REQUIREMENTS ARE TO BE USED PER STD. DWG. NO. S-110-A OR S-110-B.
17. DEVELOPER IS RESPONSIBLE FOR REPLACING ANY EXISTING LATERALS NOT FOUND IN FIELD OR FOUND TO BE DEFECTIVE.
18. ALL TRENCH EXCAVATION AND PIPE BEDDING SHALL BE CONSTRUCTED PER STD. DWG. NO. S-112.
19. CONTRACTOR TO EITHER REPLACE EXISTING 6" VCP LATERAL IN STREET RIGHT OF WAY W/NEW LATERAL PER CMSD STD S-104-A OR PERFORM CCTV OF EXISTING LATERAL AND PROVIDE VIDEO TO THE COSTA MESA SANITARY DISTRICT. DAMAGED PORTIONS OF EXISTING LATERAL SHALL BE REPAIRED (IF ANY).

PREPARED BY:
civTEC
CIVIL ENGINEERING CONSULTING
999 CORPORATE DR., SUITE 100
LADERA RANCH, CA 92694
p: 949.463.8822
e: tec@civtec.net
5/6/26

DIGALERT CALL TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG Underground Service Alert

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**MESA WATER DISTRICT**
C0013-25-04
N. Bartzis
CIVIL ENGINEER
05/08/2026
DATE

MesaWater DISTRICT

civTEC
800 BAKER ST., COSTA MESA, CA 92626 - NEW FACILITY
COSTA MESA FIRE & RESCUE DEPARTMENT

SHEET 3 OF 4 SHEETS

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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT PETER FOX C-38606 REN. 08-31-27 STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 4 | | | REVISIONS |

DRAWN: CHECKED:
DATE: 06/30/2026 SCALE: AS NOTED
PROJECT NUMBER: 2109300

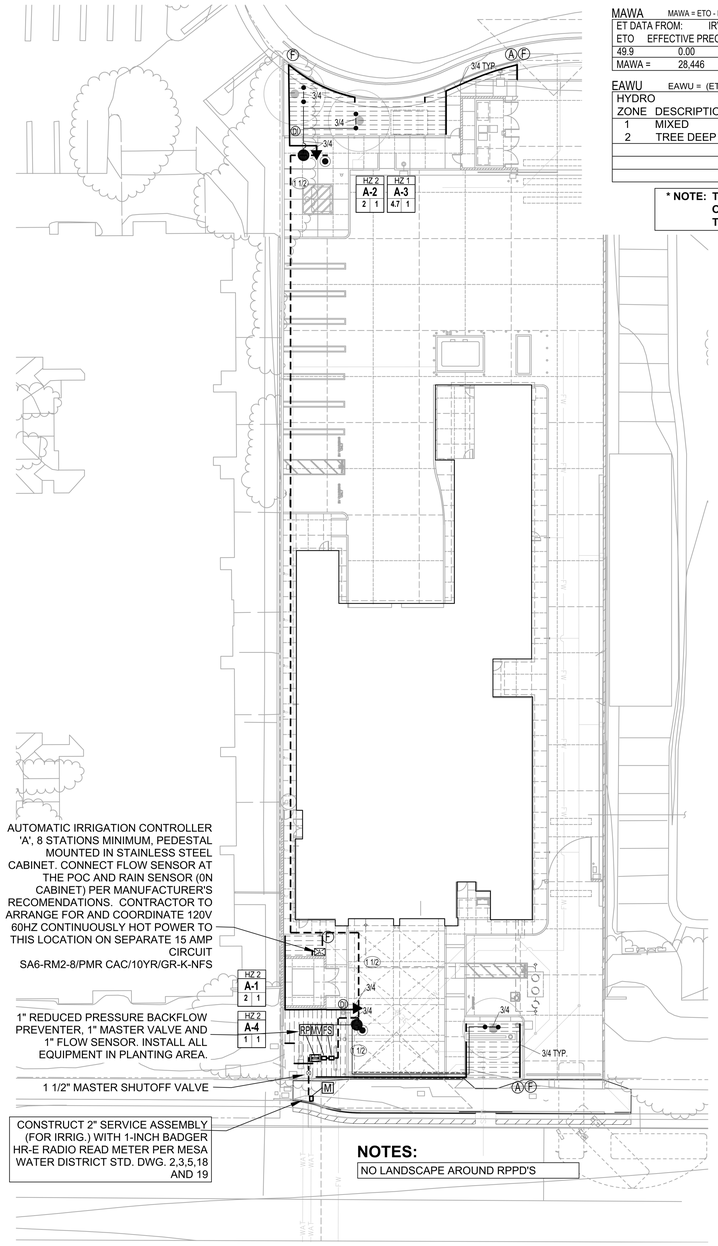
**MESA WATER DISTRICT - WATER/SEWER PLAN**

DRAWING NUMBER: **WD0.3**

PC SUBMITTAL #4

5/8/2026 10:52:0 AM
C:\Users\tricia\Documents\21 PROJECTS\2109300_Costa Mesa_FS2_RCS_CENTRAL_CD_PC4_SC_20260505_tricia.rvt

CM-07-01-2026




MAWA MAWA = ETO - EFFECTIVE RAIN X IN TO GAL X( (ET ADJ FACTOR X TOTAL AREA) + (SPECIAL AREA X 0.55) )

| ET DATA FROM: | IRVINE | | | | |
|---|---|---|---|---|---|
| ETO | EFFECTIVE PRECIP | IN TO GAL | ET ADJ FACTOR | TOTAL AREA | SPECIAL AREAS |
| 49.9 | 0.00 | 0.620 | 0.45 | 1795 | 0 |
| MAWA = | 28,446 | GAL/YEAR | | | |

EAWU EAWU = (ETO - EFFECTIVE RAIN) x IN TO GAL x( (PF/IE x AREA)

| HYDRO ZONE | DESCRIPTION | WATER USE | PLANT FACTOR (PF) | IRRIGATION METHOD | IRRIGATION EFFICIENCY (IE) | ETAF (PF/IE) | SQ FT AREA (HA) | x HA | EAWU |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MIXED | MED | 0.20 | DRIP | 0.81 | 0.247 | 1795 | 443.21 | 13,712 |
| 2 | TREE DEEP WATER | LOW | 0.10 | BUBBLER | 0.75 | 0.133 | 200* | 26.67 | 825 |
| | | | | REGULAR AREA TOTAL | | | | | 14,537 |
| | | | | SPECIAL LANDSCAPE AREA TOTAL | | | | | 0 |
| | | | | **TOTAL EAWU** | **14,537** | **MAWA** | **28,446** | **DIFFERENCE** | **(13,909)** |

*** NOTE: THE TREE HYDROZONE SHOWS ADDITIONAL SQUARE FOOTAGE TO ALLOW FOR DEEP WATERING OF THE TREES. ALL TREES ARE WITHIN THE MIXED HYDROZONE AREAS, SO THERE IS NO CHANGE TO THE TOTAL SQUARE FOOTAGE IRRIGATED.**

1 1/2 MAINLINE SIZES

CONTROLLER APPROXIMATE GPM

| HZ 1 | HYDROZONE |
|---|---|
| A-1 | SEQUENCE NUMBER |
| 6 \| 1 | VALVE SIZE, INCHES |

| HYDROZONES | |
|---|---|
| 1 MIXED PLANTING | DRIP |
| 2 TREE DEEP WATER | BUBBLER |

## IRRIGATION LEGEND

| SYMBOL | DESCRIPTION | PSI | GPM | RAD | MFGR/MODEL |
|---|---|---|---|---|---|
| ● | BUBBLER HEAD (2 PER TREE) | 30 | 0.5 | -- | RAIN BIRD RWS-B-C-1402 |
| —— —— | SUB SURFACE DRIPLINE, 18" SPACING, 18" O.C. | 30 | 0.01 | -- | RAIN BIRD XFS-09-18 |
| Ⓐ | DRIP IRRIGATION AIR/VACUUM RELIEF VALVE | | | | RAIN BIRD ARV-050 |
| Ⓕ | DRIP IRRIGATION FLUSH VALVE | | | | RAIN BIRD FLUSH CAP |
| Ⓓ | DRIP OPERATION INDICATOR | | | | RAIN BIRD OPERIND |
| ◉ | QUICK COUPLER VALVE | | | | RAIN BIRD 44LRC W/ 44K KEY & SH-1 SWIVEL |
| ⊗ | MASTER SHUT-OFF GATE VALVE, LINE SIZE, W/ BRONZE CROSS HANDLE | | | | NIBCO T-580 |
| M | WATER METER | | | | 1-INCH BADGER HR-E RADIO READ METER PER MESA WATER DISTRICT |
| M | MASTER VALVE | | | | NETAFIM LHM15TG1-ML |
| ● | REMOTE CONTROL VALVE | | | | RAIN BIRD EFB-CP SERIES BRASS VALVE, SCH 80 BALL VALVE |
| ▼ | REMOTE CONTROL VALVE FOR DRIP SYSTEMS | | | | RAIN BIRD EFB-CP SERIES BRASS VALVE, SCH 80 BALL VALVE<br>RAIN BIRD PRBQKCH100 PRESSURE REGULATING QUICK CHECK BASKET<br>RAIN BIRD DRIP SYSTEM OPERATION INDICATOR KIT ON EACH DRIP STATION |
| FS | FLOW SENSOR | | | | RAIN BIRD FS100P |
| RP | REDUCED PRESSURE BACKFLOW PREVENTER (VERIFY CONDITION AND SUITABILITY OF EXISTING BACKFLOW FOR POSSIBLE RE-INSTALLATION) | | | | FEBCO LF825Y W/ WILKINS 500Y STRAINER |
| CA-C | AUTOMATIC IRRIGATION CONTROLLER, 8 STATION, PEDESTAL MOUNTED, WITH RAIN SENSOR ON CABINET | | | | RAINMASTER EAGLE PLUSB SA6-RM2-8/PMR CAC/10YR/GR-K-NFS W/ HUNTER MINI-CLIK SENSOR |
| | | | | | |
| —— | LATERAL (NON-PRESSURE) PIPING, SIZE AS SHOWN | | | | SCH 40 |
| ▬ ▬ | MAIN LINE (PRESSURE) PIPING, SIZE AS SHOWN IN OVALS | | | | SCH 80 |
| = = = = | SLEEVE, PER PLAN, 2x DIAM OF CARRYING PIPE, MIN. | | | | SCH 40 |

## MESA WATER DISTRICT STANDARD WATER CONSTRUCTION NOTES

1 ENGINEERING PLAN CHECK/INSPECTION FEE AND PERFORMANCE GUARANTEE BOND SHALL BE PAID AND APPLICATION/ PERMIT (A.P.) COMPLETED BY THE APPLICANT PRIOR TO THE APPROVAL OF THE PLANS AND ISSUANCE OF THE A.P. FEES SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.

2 CAPACITY CHARGES SHALL BE COLLECTED BY MESA WATER AT THE TIME OTHER FEES ARE COLLECTED PRIOR TO APPROVAL OF PLANS AND SERVICE AGREEMENT. THIS FEE SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.

3 WATER MAINS WILL BE INSTALLED ACCORDING TO THE LATEST STANDARDS AND SPECIFICATIONS OF MESA WATER.

4 CONTRACTOR TO HAVE, ON THE JOB SITE, A COPY OF THE LATEST STANDARD SPECIFICATIONS AT ALL TIMES.

5 CONTRACTOR SHALL SCHEDULE INSPECTIONS A MINIMUM OF 24 HOURS IN ADVANCE AND IN ACCORDANCE WITH THE INSPECTION CHECKLIST REQUIREMENTS. TO SCHEDULE AND INSPECTION, CALL (949) 207-5518.

6 A CASH PERFORMANCE GUARANTEE BOND SHALL BE HELD ONE YEAR AFTER MESA WATER'S NOTICE OF COMPLETION TO GUARANTEE WORK PERFORMED BY THE CONTRACTOR.

7 SEPARATION BETWEEN SANITARY SEWER AND WATER MAINS SHALL BE A MINIMUM OF 10' HORIZONTAL, 1' VERTICAL (ABOVE SEWER)

8 A 15' WATER MAIN EASEMENT WILL BE GRANTED TO MESA WATER® FOR MAINTENANCE PURPOSES, 5' FOR WATER SERVICES (7.5' EACH SIDE OF MAIN; 2.5' EACH SIDE OF SERVICE). EASEMENT DOCUMENTS ARE TO BE SUBMITTED TO MESA WATER FOR APPROVAL PRIOR TO A PERMIT BEING ISSUED.

9 SERVICE LATERALS WILL BE SET TO GRADE BY CONTRACTOR PRIOR TO THE INSTALLATION OF WATER METERS AND BOXES (PER MESA WATER'S STANDARD DRAWINGS #1, #2 AND #3).

10 WATER METER WILL NOT BE INSTALLED NOR WATER TURNED ON UNTIL THE BACKFLOW DEVICES REQUIRED FOR THE BUILDING AND IRRIGATION SYSTEMS HAVE BEEN INSTALLED, TESTED, APPROVED, AND CERTIFIED. CONTACT CROSS CONNECTION CONTROL AT 949-631-1291.

11 PROTECT EXISTING UTILITIES IN PLACE.

12 WATER MAINS SHALL HAVE 42" MINIMUM COVER TO FINISH GRADE.

13 RAISE EXISTING WATER VALVE COVERS TO GRADE (PER MESA WATER STANDARD DRAWING #14).

14 INSTALL FIRE HYDRANT PER MESA WATER STANDARD DRAWING #4 OR #4B.

15 INSTALL BLOW-OFF PER MESA WATER STANDARD DRAWING #9.

16 WATER MAINS WILL BE TESTED AT 225 P.S.I. FOR FOUR HOURS.

17 BACKFILL MATERIAL IN PIPE ZONE WILL HAVE A SAND EQUIVALENT OF 30 OR GREATER.

18 THE BACKFILL ABOVE THE PIPE ZONE WILL BE COMPACTED PER MESA WATER STANDARD DRAWING #18, AND BE IN COMPLIANCE WITH CITY OF COSTA MESA STANDARD DRAWING 813.

19 CHIP 2" "W" IN CURB FACE TO IDENTIFY WATER SERVICE LOCATION.

20 INSTALL THRUST OR GRAVITY BLOCKS PER MESA WATER STANDARD DRAWING #11 OR #12.

21 CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO TRENCHING.

22 CONTRACTOR TO INSTALL TEMPORARY TAPS FOR TESTING AND CHLORINATION PRIOR TO CONNECTING TO EXISTING MAINS.

23 CONTRACTOR TO RETURN ALL EQUIPMENT REMOVED TO MESA WATER YARD, AND DISPOSE OF OTHER MATERIAL (I.E., BROKEN CONCRETE AND NATIVE SOIL, ETC.) AT CONTRACTOR'S EXPENSE.

24 WATER METERS AND BOXES TO BE INSTALLED BY MESA WATER BUT PAID FOR BY APPLICANT/OWNER.

25 A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON ALL WATER METERED SERVICES TO ANY CONDOMINIUM UNIT OVER TWO STORIES OR FIVE OR MORE UNITS ON ONE METERED SERVICE. CONTACT CROSS CONNECTION CONTROL AT 949-631-1291.

26 IRRIGATION METERS SHALL REQUIRE A REDUCED PRESSURE PRINCIPLE ASSEMBLY.

27 IN LANDSCAPED AREAS, NO TREES SHALL BE LOCATED IN MESA WATER EASEMENT OR WITHIN 7.5' OF ANY MESA WATER FACILITY.

28 A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON METERED WATER SERVICES TO ALL INDUSTRIAL BUILDINGS.

29 A DOUBLE CHECK DETECTOR ASSEMBLY WITH COMBINATION FLOW METER WILL BE REQUIRED ON FIRE LINE SERVICES, PER STANDARD 17.

30 FIRELINE SERVICES SHALL NOT BE TURNED ON UNTIL THE MESA WATER ENGINEERING DEPARTMENT HAS RECEIVED A LETTER FROM THE OWNER, OR OWNER'S AUTHORIZED AGENT, REQUESTING IT AND STATING THAT THE PLUMBING IS READY FOR THE FIRELINE TO BE TURNED ON. THE LETTER MUST ALSO CONTAIN MESA WATER'S FILE NUMBER, SIZE AND SERIAL NUMBER OF THE DEVICE, AND JOB ADDRESS.

31 IF A 13D SPRINKLER SYSTEM IS NOT A FLOW THROUGH SYSTEM, THEN A TESTABLE BACKFLOW DEVICE NEXT TO BUILDING SHALL BE INSTALLED. MESA WATER® INSPECTOR TO VERIFY FLOW THROUGH SYSTEMS. MESA WATER® INSPECTOR SHALL VERIFY FLOW THROUGH 13D FIRE SPRINKLER SYSTEMS BY:

- TURNING OFF HOUSE VALVE
- CHECKING FOR FLOW ON FLOW THOUGH CONNECTION (I.E., TOILET OR SINK)

LICENSED LANDSCAPE ARCHITECT — JUNG, ROGER DALE — No. 6042 — 30 April 2026 — Renewal Date — State of California

N — TRUE NORTH
SCALE: 1" = 20'-0"

CORNERSTONE STUDIOS, INC.
951 E Santa Ana Blvd, Santa Ana, CA 92701
714. 973. 2200 Voice
714. 973. 2203 Fax
LANDSCAPE ARCHITECTURE + URBAN DESIGN + PLANNING + RESOURCE ANALYSIS

DIGALERT CALL TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG Underground Service Alert

| REV. | DATE | BY | DESCRIPTION | APPROVED | DATE |
|---|---|---|---|---|---|

| PROJECT INFORMATION | |
|---|---|
| DATE 5/6/26 | DESIGN RB |
| FILE NO. | DRAWN RB |
| DRAWING NO. | CHECKED JK |

**MESA WATER DISTRICT**
C0013-25-04
N. Bartling — CIVIL ENGINEER — 05/08/2026 DATE

MesaWater DISTRICT

CORNERSTONE STUDIOS, INC.
800 BAKER ST., COSTA MESA, CA 92626 - IRRIGATION PLAN
COSTA MESA FIRE & RESCUE DEPARTMENT

SHEET 4 OF 4 SHEETS

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION
COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #\ | | | REVISIONS |

DRAWN: | CHECKED:
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**MESA WATER DISTRICT - IRRIGATION PLAN**

DRAWING NUMBER: **WD0.4**

6/30/2026 10:10:06 AM
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PC 06/08/2026

CM-07-01-2026

## TRAFFIC SIGNAL GENERAL NOTES:

1. ALL METHODS, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF THE CALTRANS STANDARD PLANS AND SPECIFICATIONS, CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), AND THE SPECIAL PROVISIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UNDERGROUND UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONTACT USA (800-277-2600) AT LEAST 48 HOURS BEFORE BEGINNING WORK. THE CONTRACTOR SHALL POTHOLE ALL PROPOSED TRAFFIC SIGNAL LOCATIONS TO VERIFY/CONFIRM EXISTING UNDERGROUND UTILITIES, PRIOR TO ORDERING TRAFFIC SIGNAL EQUIPMENT.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL AFFECTED AGENCIES AND UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK ON EXCAVATION TO DETERMINE EXACT LOCATION OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON, AND FOR ANY DAMAGE OR PROTECTION OF THESE LINES.
4. EXISTING IMPROVEMENTS, INCLUDING SUBSTRUCTURES THAT ARE DAMAGED BY THE CONTRACTOR, WHICH ARE NOT DESIGNATED BY THE PLANS OR SPECIFICATIONS TO BE DISTURBED, SHALL BE RESTORED OR REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
5. ALL ELECTRICAL EQUIPMENT, INCLUDING SIGNAL POLES, PULL BOXES, DETECTORS, AND SERVICE/CONTROLLER CABINETS, ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. PROPOSED FINAL LOCATIONS ARE TO BE APPROVED IN THE FIELD BY THE ENGINEER PRIOR TO EXCAVATION FOR FOUNDATIONS. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE FOR APPROVAL OF PROPOSED EQUIPMENT LOCATIONS.
6. CONDUCTOR SCHEDULE IS FURNISHED AS AN INSTALLATION GUIDELINE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CORRECT CONDUCTORS REQUIRED FOR THE INTENDED OPERATION.
7. ALL PULL BOXES SHALL BE NO. 6, UNLESS OTHERWISE NOTED ON THE PLANS. NEW PULL BOXES SHALL BE TYPE N SERIES WITH FIBRELYTE LID. PULL BOXES SHALL NOT BE LOCATED IN CURB RAMPS. ALL NEW PULL BOX COVERS SHALL BE LABELED WITH APPROPRIATE LABELS "TRAFFIC SIGNAL", "LIGHTING", "SERVICE", "SIGNAL INTERCONNECT", ETC.
8. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THE PRECISE FIELD LOCATIONS OF ALL TRAFFIC SIGNAL EQUIPMENT PRIOR TO THE INSTALLATION.
9. PEDESTRIAN PUSH BUTTON ASSEMBLIES SHALL BE ADA COMPLIANT, APS TYPE.
10. TRAFFIC SIGNAL PRODUCTS SHALL CONFORM TO THE SPECIAL PROVISIONS AND CALTRANS TEES, LATEST EDITION, AND SHALL BE LISTED ON THE QUALIFIED PRODUCTS LIST.
11. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A COMPLETE AND CURRENT COPY OF APPROVED PLAN ON THE JOB SITE AT ALL TIMES.
12. WHERE SIDEWALK, DRIVEWAYS, CURBS OR GUTTERS ARE CUT FOR INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT OR SIGN POSTS, CUTS SHALL BE MADE AT THE NEAREST SCORE MARK. CONTRACTOR SHALL REPLACE THE ENTIRE SECTION AND MATCH EXISTING SCORE PATTERNS, SURFACE COLOR, AND TEXTURE. DAMAGED OR EXCAVATED LANDSCAPED AREAS SHALL BE RESTORED TO MATCH EXISTING.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN EGRESS AND INGRESS OF ABUTTING DRIVEWAYS AND MINOR STREET INTERSECTIONS AND ACCESS TO ALL PUBLIC AND PRIVATE DRIVEWAYS IN THE CONSTRUCTION AREA NOT RELATED TO THE SPECIFIC PROJECT. CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO NEIGHBORING RESIDENTS, BUSINESSES, PROPERTY OWNERS, AND OCCUPANTS WITHIN 1000' OF THE WORK ZONE 72-HOURS IN ADVANCE REGARDING PLANNED LANE AND ROAD CLOSURES OR CONSTRUCTION WORK THAT WILL DIRECTLY AFFECT AND BLOCK DRIVEWAY ACCESS.
14. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
15. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT AND APPURTENANCES NECESSARY FOR THE SIGNAL TO OPERATE AS INTENDED IN THESE PLANS.
16. ALL NEW CONDUCTORS AND THEIR TERMINATORS SHALL BE CLEARLY MARKED.
17. ALL PEDESTRIAN SIGNALS SHALL BE COUNTDOWN LED TYPE. VEHICULAR SIGNAL HEADS SHALL HAVE 12" LED INDICATIONS WITH HIGH VISIBILITY YELLOW RETRO-REFLECTIVE YELLOW BORDER BACKPLATES. ALL NEW PEDESTRIAN PUSH BUTTONS SHALL BE APS TYPE.
18. EXISTING CITY AND/OR SERVICE LIGHTING CONDUCTORS WHICH ARE NOT IDENTIFIED FOR REMOVAL SHALL BE PROTECTED IN PLACE DURING CONSTRUCTION.
19. HARD HATS AND HIGH VISIBILITY REFLECTIVE VESTS SHALL BE WORN AT ALL TIMES WHEN WORKING ON THE PROJECT
20. IN THE COURSE OF RUNOFF WATER CONTROL, THE CONTRACTOR SHALL PROTECT ALL WATER COURSES, THE GROUND WATER AND BODIES OF WATER FROM POLLUTION BY FUEL, OILS, BITUMENS OR OTHER HARMFUL MATERIALS.
21. ALL SPARES SHALL TERMINATE AT THE SIGNAL TERMINAL COMPARTMENTS AND IN THE CONTROLLER CABINET. SPARES SHALL BE TAPED ON THE END AND SHALL BE CONTINUOUS.
22. NO SPLICING OF CABLES SHALL BE PERMITTED, WITH EXCEPTION OF DLC.
23. HOLES REMAINING IN POLES SHALL BE WELDED CLOSED, FINISHED SMOOTH AND GALVANIZED
24. CONTRACTOR SHALL RESET ALL EXISTING PULL BOXES TO NEW FINISHED GRADE. ANY DAMAGE TO EXISTING PULL BOXES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

## CONSTRUCTION NOTES:

1. FURNISH AND INSTALL A MOMENTARY PUSH BUTTON (MPB) WITHIN THE FIRE STATION TO ACTUATE EMERGENCY VEHICLE PRE-EMPTION, PER DETAIL NOTE 1.
2. INSTALL 2" CONDUIT WITH 3 #14 CONDUCTOR CABLE TO THE PROPOSED MOMENTARY PUSH BUTTON (MPB) IN THE FIRE STATION.
3. FURNISH AND INSTALL PRIOR TO DRIVEWAY PAVING EMBEDDED AND PREFORMED NEW TYPE E VEHICLE LOOP DETECTORS PER CALTRANS STANDARD PLAN ES-5B. CONTRACTOR SHALL TEST LOOPS AND OBTAIN CITY APPROVAL PRIOR TO CONCRETE POUR.
4. FURNISH AND INSTALL SIGN(S) AND SIGN POST.
5. FURNISH AND INSTALL SIGN(S).
6. REMOVE EXISTING IISNS "FIRE SIGNAL" SIGN ON SIGNAL MAST ARM. INSTALL NEW 10' IISNS STRAIGHT MAST ARM DETAIL WITH IISNS "FIRE SIGNAL" SIGN PER CITY STANDARD PLAN NO. 1200.
7. ABANDON EXISTING DETECTOR LOOPS.
- AB. ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS.
- CB. CONNECT CONDUIT INTO EXISTING PULL BOX.
- CC. CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED.
- RC. EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
- RF. REMOVE FOUNDATION.
- RL. RELOCATE EQUIPMENT.
- SC. SPLICE NEW TO EXISTING CONDUCTORS.

## CONDUCTOR SCHEDULE

| AWG SIZE OR CABLE TYPE | CIRCUIT | CONDUIT RUNS 1 | 2* | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| #14 AWG | ø2 | 3 | 3(N) | | 3(N) | | 3 | 3 | |
| | ø4 | 3 | 3(N) | | 3(N) | | 3 | 3 | |
| | ø2P | | | | 2(N) | | 2 | 2 | |
| | ø4P | 2 | 2(N) | | 2(N) | | 2 | 2 | |
| | ø2PPB | | | | 1(N) | | 1 | 1 | |
| | ø4PPB | 1 | 1(N) | | 1(N) | | 1 | 1 | |
| | PPB COMMON | 1 | 1(N) | | 1(N) | | 1 | 1 | |
| | SPARES | | 3(N) | 2(N) | 3(N) | | 3 | 3 | |
| | FIRE PRE-EMPT | | | 3(N) | 3(N) | | 3 | 3 | |
| TOTAL CABLE (#14 AWG) | | 10 | 13(N) | 5(N) | 19(N) | | 19 | 19 | |
| NO. 8 – SERVICE | | | | | | | | | 3 |
| NO. 10 – LUMINAIRES | | 2 | 2(N) | | 2(N) | | 2 | 2 | |
| NO. 12 – ISNS | | 2 | 2(N) | | 2(N) | | 2 | 2 | |
| TYPE B – DLC | | | | | | 3(N) | 3(N) | 3(N) | |
| 24 SMFO – FIBER OPTIC | | | | | | | 2 | 2 | |
| | CONDUIT SIZE | 2" | 2" | 2"(N) | 3"(N) | 2"(N) | 3" | 2-3" | 1 1/2" |
| | PERCENT FILL | 10% | 11% | 3% | 7% | 2% | 19% | 9% | 9% |

CONDUCTORS SHOWN ON AS-BUILT SIGNAL PLAN AS IN THE EXISTING CONDUITS, EXCEPT NOTED AS (N) = NEW.

* EXISTING CONDUCTORS TO BE REMOVED AND REPLACED BETWEEN PULL BOXES AT ENDS OF MODIFIED CONDUIT RUN.

## PHASE DIAGRAM

| | | | |
|---|---|---|---|
| NOT USED | | NOT USED | |
| ø1 | ø2 | ø3P | ø4 |
| NOT USED | NOT USED | NOT USED | NOT USED |
| ø5 | ø6 | ø7 | ø8 |

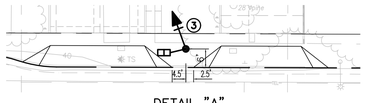
## POLE SCHEDULE

| NO. | POLE DATA TYPE | HEIGHT | SIGNAL M.A. LENGTH | LUMINAIRE M.A. LENGTH | LUMINAIRE LED WATTS | VEHICLE SIGNAL MOUNTING M.A. | VEH. | PED. | PED PUSH BUTTON PHASE | PED PUSH BUTTON ARROW | POLE LOCATION A | B | C | STREET NAME SIGN TYPE | STREET NAME SIGN LEGEND | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 17-2-70 | 30' | 20' | 15' | 105 | MAS | SV-2-TA | – | – | – | EXISTING | | | I.S.N.S. | FIRE SIGNAL (N) 6 | – |
| 2 | 19-2-70 | 30' | 30' | 15' | 105 | MAS | SV-2-TA | SP-1-T | 2(N) | ← | EXISTING | | | I.S.N.S. | FIRE SIGNAL (N) 6 | INSTALL APS AND R10-3b AS PART OF PPB. |
| 3 | 1A(N) | 10'(N) | – | – | – | – | TV-1-T(N) | SP-1-T(N) | 2(N) | → | SEE DETAIL "A" | | | | | INSTALL APS AND R10-3b AS PART OF PPB. |

ALL NEW SIGNAL POLES AND MAST ARMS SHALL CONFORM TO CALTRANS STANDARDS PLANS (2024 EDITION).
ALL EQUIPMENT SHOWN IS EXISTING UNLESS OTHERWISE NOTED.
(N) – INDICATES NEW EQUIPMENT.
ISNS – INTERNALLY ILLUMINATED STREET NAME SIGN (DOUBLE SIDED).
ACCESSIBLE PEDESTRIAN SIGNAL (APS) SHALL BE POLARA IDS SYSTEM AND SHALL BE PROGRAMMED BY CONTRACTOR AT THE DIRECTION OF THE ENGINEER.

## SIGNING AND STRIPING NOTES:

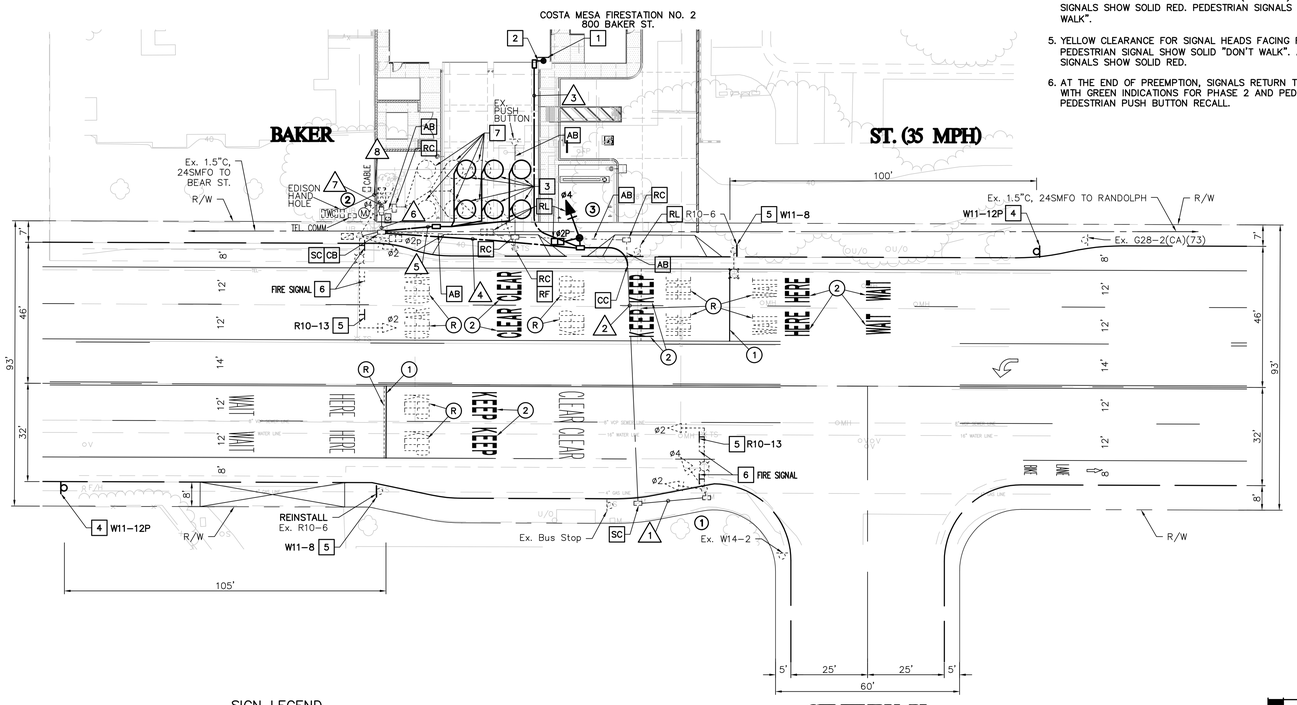
1. INSTALL 12" WHITE THERMOPLASTIC LIMIT LINE PER CALTRANS STANDARD PLAN A24E.
2. INSTALL THERMOPLASTIC PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24D.
- R. REMOVE CONFLICTING STRIPING.

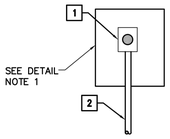



DETAIL "A"
POLE LOCATION
(NO SCALE)

## E.V.P. AT FIRE STATION DRIVEWAY

1. EMERGENCY VEHICLE PREEMPTION IS ACTIVATED BY MOMENTARY PUSH BUTTON AT THE FIRE STATION.
2. PEDESTRIAN HEADS FLASHING "DON'T WALK" WILL HAVE A TWENTY-ONE (21) SECOND COUNT DOWN CLEARANCE. IF PEDESTRIAN HEADS ARE DISPLAYING "WALK", THEY WILL ADVANCE TO PEDESTRIAN CLEARANCE. ANY PEDESTRIAN HEADS DISPLAYING "DON'T WALK" AND A COUNT-DOWN AMOUNT WILL CLEAR. PEDESTRIAN SIGNAL HEADS IN SOLID "DON'T WALK" SHALL REMAIN IN SOLID "DON'T WALK".
3. VEHICULAR PHASES DISPLAYING GREEN INDICATION WILL ADVANCE TO YELLOW AND ALL RED CLEARANCE FOLLOWED BY A 2 SECOND RED REVERT PERIOD FOR VEHICULAR INDICATIONS.
4. THIRTY (30.0) SECONDS OF GREEN EMERGENCY VEHICLE CLEARANCE FOR SIGNAL HEADS FACING FIRE STATION (PHASE 4). ALL OTHER VEHICULAR SIGNALS SHOW SOLID RED. PEDESTRIAN SIGNALS REMAIN IN SOLID "DON'T WALK".
5. YELLOW CLEARANCE FOR SIGNAL HEADS FACING FIRE STATION (PHASE 4). PEDESTRIAN SIGNAL SHOW SOLID "DON'T WALK". ALL OTHER VEHICULAR SIGNALS SHOW SOLID RED.
6. AT THE END OF PREEMPTION, SIGNALS RETURN TO NORMAL OPERATION WITH GREEN INDICATIONS FOR PHASE 2 AND PEDESTRIANS SIGNALS ON PEDESTRIAN PUSH BUTTON RECALL.




MOMENTARY
PUSH BUTTON DETAIL
(NTS)

## DETAIL NOTES:

1. INSTALL HARDWIRED FIRE STATION BUTTON ACTIVATED UNIT WITH WALL MOUNT BOX, ACTUATION SWITCH, CONFIRMATION BUZZER, AND TERMINAL BLOCK TO CONNECT EACH HARDWIRED SYSTEM TRIGGER.

## SIGN LEGEND

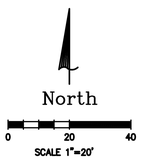
R10-3b (9"x12")

R10-6 (24"x36")

R10-13 (36"x30")

W11-8 (36"x36")

W11-12P (36"x30")




PLANS PREPARED UNDER THE SUPERVISION OF:
George Rhyner
GEORGE RHYNER R.C.E. 47763 — DATE 6/30/26

KOA
A LOCHNER COMPANY
1100 Corporate Center Drive, Suite 201
Monterey Park, California 91754
Tel: (323) 260-4703 Fax: (323) 260-4705

REGISTERED PROFESSIONAL ENGINEER
GEORGE RHYNER
NO. 047763
EXP. 12/31/2027
CIVIL
STATE OF CALIFORNIA

| REVISIONS | | | | |
|---|---|---|---|---|
| NO. | DATE | INITIALS | | APP'VD |
| 1 | 12/17/25 | | PC 1 REVISIONS | |
| 2 | 4/29/26 | | PC 2 REVISIONS | |
| 3 | 6/17/26 | | PC 3 REVISIONS | |

CONTRACTOR — LIC. #

DATE OF CONSTRUCTION
BEGIN — END

DATE ACCEPTED BY CITY COUNCIL

**BENCHMARK**
BENCHMARK NO:
DESCRIPTION:
BASIS OF BEARING:

DESIGNED BY: — DATE
DRAWN BY:
CHECKED BY:
RECOMMENDED BY:
APPROVED BY:

CITY OF COSTA MESA
DEPARTMENT OF PUBLIC SERVICES / ENGINEERING DIVISION

TRAFFIC SIGNAL MODIFICATION PLAN
BAKER STREET
AT
FIRE STATION #2 DRIVEWAY WEST OF CENTURY PLACE

SHEET 1 OF 1
PLAN NUMBER

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 3 | | | REVISIONS |

DRAWN: KOA — CHECKED:
DATE: 06/30/2026 — SCALE: AS NOTED
PROJECT NUMBER: 2109300

# TRAFFIC SIGNAL MODIFICATION PLAN

DRAWING NUMBER: **TS0.1**

6/30/2026 10:10:54 AM
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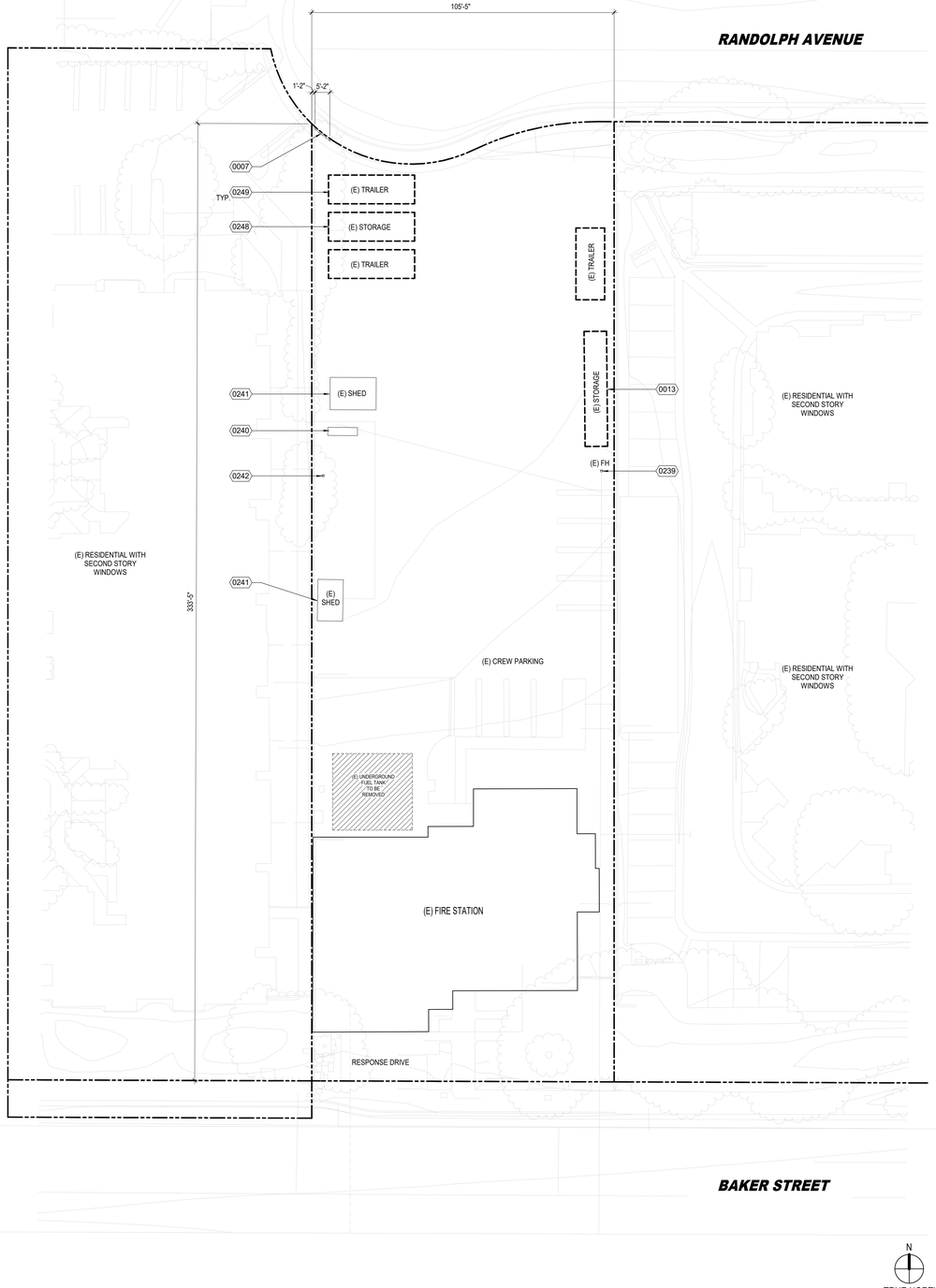
PC SUBMITTAL 04

CM-07-01-2026




PHASE 01

N
TRUE NORTH

## KEY PLAN 1

PHASE 01 DEMOLITION AREA

(E) UNDERGROUND 1,000 GALLON DOUBLE WALLED FUEL TANK, AT A DEPTH OF 12 FEET TO THE BOTTOM OF THE TANK, TO BE REMOVED. IN ADDITION, ALL FUEL TANK ACCESSORIES (PUMPS, DOUBLE WALLED PIPES, REELS, DETECTION EQUIPMENT, ETC.), FUEL, AND HEAVY SEDIMENT ARE TO BE REMOVED.

NOTE: THE CONTRACTOR IS TO COVER THE REMOVAL OF THE TANK IN THE SCENARIO OF STEEL, FIBERGLASS, AND/OR CONCRETE. THE EXISTING FIRE STATION IS TO REMAIN FULLY OPERATIONAL WHILE PHASE 01 IS UNDERWAY. COORDINATE WITH THE FIRE DEPARTMENT.

1. DTSC GUIDANCE: MUST BE FOLLOWED IN REGARDS TO BACKFILLING. IN ADVANCE OF THE TANK REMOVAL, THIS AGENCY NEEDS TO BE INFORMED OF THE SOURCE FOR THE BACKFILL MATERIAL. IF THE SOURCE OF THE BACKFILL MATERIAL IS A QUARRY, A RECEIPT OF THE MATERIAL MUST BE PROVIDED PRIOR TO THE START OF THE PROJECT. IN ADDITION, LABORATORY ANALYSIS FOR THE BACKFILL MATERIAL IS REQUIRED - AT A MINIMUM, WE REQUIRE ANALYSIS FOR HEAVY METALS (EPA METHODS 6010B AND 7471A), ASBESTOS (POLARIZED LIGHT MICROSCOPY), AND PH.
2. OCHCA TANK REMOVAL GUIDELINES: COMPLY WITH ALL THE DEPICTED ITEMS IN THE LATEST VERSION OF THE OCHA TANK REMOVAL GUIDELINES. ALSO, IN CONJUNCTION WITH THE NOTIFICATION AND SCHEDULING OF THE FIELD WORK, SOIL SAMPLING ASSOCIATED WITH THE PROJECT WILL BE REQUIRED. THIS TOPIC IS DESCRIBED IN SECTION #7 OF THE OCHCA TANK REMOVAL GUIDELINES.
3. OTHER REQUIREMENTS, BUT NOT LIMITED TO:
   - A. ENSURE ALL REQUIRED PERMITS AND ENVIRONMENTAL NOTIFICATIONS ARE OBTAINED BEFORE REMOVAL.
   - B. ENSURE AN ENVIRONMENTAL SITE ASSESSMENT AND SOIL SAMPLING FOR CONTAMINATION IS PERORMED AT THE TIME OF REMOVAL. CONTRACTOR IS REQUIRED TO ISOLATE CONTAMINATED MATERIAL AND TRANSPORT TO DESIGNATED LANDFILL BASED ON TSTED RATING OF SOIL, HAZARDOUS OR NON-HAZARDOUS.
   - C. SUBMIT SAFETY PROTOCOL PLAN FOR VAPOR MONITORING, FIRE/EXPLOSION PREVENTION, PPE USAGE, ETC.
   - D. SUBMIT ADEQUATE EXCAVATION PLAN AND PROTECTION OF EXISTING STATION. SITE SHOULD BE SECURED DURING EXCAVATION AND REMOVAL TO PROTECT WORKERS, THE PUBLIC AND FIREFIGHTER PERSONNEL IN EXISTING STATION.
   - E. SUBMITE SITE RESTORATION PLAN, INCLUDING BACKFILLING AND POTENTIAL LONG-TERM ENVIRONMENTAL MONITORING.
   - F. SUBMIT AN EMERGENCY RESPONSE PLAN FOR SPILLS OR INCIDENTS DURING DEMO, AND SAME WITH THE TEMPORARY FUELING STATION, IF REQUIRED.

(E) STRUCTURES TO BE RELOCATED, COORDINATE WITH FIRE DEPARTMENT.

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL TO BE PROTEXTED IN PLACE. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING OR FUTURE DAMAGE. EXISTING CONDITIONS MUST BE DOCUMENTED DURING THE MANDATORY PRE-BID WALK. REFER TO CIVIL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. ANCHORS AND BOLTS ON (E) WALL TO BE PROTECT-IN-PLACE.

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL TO BE REMOVED.

PROPERTY LINE

NOTES:
1. SEE CIVIL AND ELECTRICAL SITE PLANS FOR LOCATION OF ADDITIONAL SITE ITEMS.
2. SITE FULLY COMPIES WITH T-24, ACCESSIBILITY STANDARDS: AND SUBJECT TO FIELD VERIFICATION.
3. CONTRACTOR TO MAINTAIN FIRE DEPARTMENT ACCESS FROM RANDOLPH AVE. TO THE EXISTING STATION AT ALL TIMES DURING ESTABLISHMENT OF THE TEMPOARARY ACCOMODATIONS. COORDINATE WITH THE FIRE DEPARTMENT.
4. ITEMS TO BE RELOCATED TO CORP YARD ARE TO GO TO THE FOLLOWING ADDRESS: 2310 PLACENTIA AVE., COSTA MESA, 92626

## MATERIAL LEGEND AND NOTES 3

| | |
|---|---|
| 0007 | REMOVE (E) WALL, GUARDRAIL & HEDGES |
| 0013 | REMOVE (E) 40' CONTAINER |
| 0239 | (E) FIRE HYDRANT, TO REMAIN, SEE CIVIL DRAWINGS. |
| 0240 | (E) HOSE DRYING TOWER, TO REMAIN. |
| 0241 | (E) STRUCTURE, TO REMAIN, COORDINATE WITH THE FIRE DEPARTMENT. |
| 0242 | (E) WHARF HYDRANT, TO REMAIN. |
| 0248 | RELOCATE (E) 30' CONTAINER TO THE CORP YARD |
| 0249 | FIRE DEPARTMENT TO RELOCATE (E) TRAILERS PRIOR TO THE START OF PROJECT |

## REFERENCE NOTES 4

## PHASE 01 1" = 20'-0" 8

Orange County Health Care Agency
Environmental Health
TANK MODIFICATION PERMIT APPROVAL

PLEASE SEE THE ATTACHED GUIDELINES FOR THE REMOVAL OF AN UNDERGROUND STORAGE TANK (UST) FOR DETAILS REGARDING PERMITTING, SCHEDULING, SOIL SAMPLING, AND LABORATORY REQUIREMENTS.

**The UST Facility Modification Application is approved with the following requirements:**

1. **The applicant must provide the tank owner with a copy of: a) the approved tank modification application; b) the UST removal guidelines with backfill sampling requirements attachment; and, c) this document.**
2. This permit approval shall not be construed to permit the violation of any law, nor does it prevent further corrections of errors found on the plans. Plans must be resubmitted for approval if any changes are made by the applicant.
3. In addition to this approval, all applicable permits required by the local fire department, building department, and the Air Quality Management District must be obtained.
4. USTs, product piping, liquid, soil stockpiles not approved for re-use, and sludge associated with UST(s) shall be removed and properly disposed. Copies of destruction certificates and disposal manifests must be provided to this Agency for all material removed from the site within 60 days of tank removal/abandonment activities.
5. An organic vapor analyzer (FID/PID) must be onsite during UST removal activities and shall be provided by the contractor. Site workers using the monitoring equipment shall be qualified to operate the field equipment. Monitoring equipment shall have been calibrated within the last 3 months.
6. The Hazardous Waste Tank Closure Certification (HWTCC) form must be completed by a qualified professional and must accompany the tank(s) to the disposal/recycling facility. A copy of the HWTCC form must be provided to OCHCA staff prior to tank removal or sampling. A copy must also be provided to the tank owner/operator.
7. UST plan check fees are based on up to 10 hours of staff time for the first tank and up to three hours for each additional tank, including plan review, field inspections, and review of removal documentation. An additional hourly fee at Environmental Health's current rate established per resolution of the Orange County Board of Supervisors may be assessed by the Agency to the UST owner at the completion of the project.
8. This removal application approval is valid for one year from the date of approval. If the USTs have not been removed within the year, a new application and fees will be required.
9. A copy of these approved plans must be available at the site at all times.
10. The OCHCA inspector must be present to direct and observe the collection of soil samples. Laboratory results of soil confirmation and backfill material sampling (in accordance with the attached guidelines) must be provided to this Agency within 60 days of tank removal activities. Note, sampling of quarry material (i.e., previously unused, not recycled and not reclaimed) is not required; however, a supplier verification letter and purchase and delivery receipts must be submitted.
11. To schedule the tank removal inspection, please contact the Hazardous Materials Specialist below **at least 48 hours prior to removing the tanks**. If the specialist is unavailable, call our main number: (714) 433-6000.
12. Please call the Hazardous Materials Specialist below if you have any questions.

## UST REMOVAL GUIDELINE REQUIREMENTS 20

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

# PHASING DEMOLITION / NEW PLANS

DRAWING NUMBER: A1.0_A

PC SUBMITTAL

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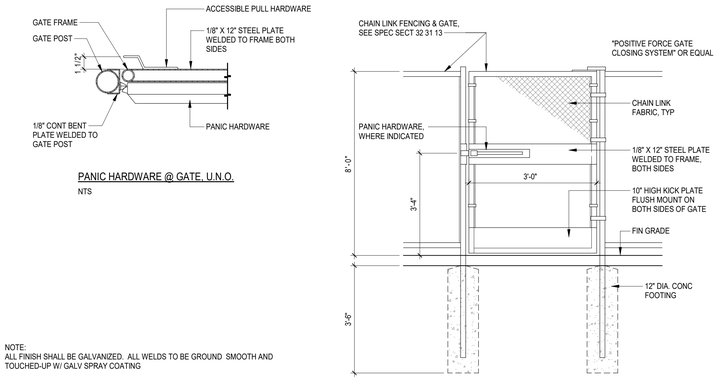
CM-07-01-2026

KEYNOTES FOR CHAIN LINK FENCE DETAILS:

1. 3/8" X 3" GALVANIZED STEEL ANCHOR BOLT EMBEDDED INTO CONCRETE MIDWAY BETWEEN POST
2. 2-7/8" O.D. GALV. FENCE POST (5.70 LB/FT.) END, ANGLE & CORNER POST, TYP.
3. 2-3/8" O.D. GALVANIZED STEEL LINE POST AND HORIZONTAL (3.65 LB/FT.) TYP.
4. 1-5/8" O.D. GALVANIZED STEEL HORIZONTAL RAIL (2.75 LB/FT.) TYP.
5. 2" X 2" MESH X 9GA. GALVANIZED FENCE FABRIC WITH KNUCKLED TOP AND BOTTOM SELVAGE FENCE FABRIC TO BE GALANIZED BEFORE WESAVING (G.B.W.), TYP.
6. 9 GA. (.0148 DIA.) GALVANIZED STEEL WIRES OR HOG RINGS AT 15" O.C. MAX. SPACING. MINIMUM OF 8 TIE WIRES PER EA. 10' HORIZONTAL RAIL, TYP.
7. 7 GA. (0.177 DIA.) GALVANIZED STEEL TENSION WIRE, TYP.
8. 6 GA. (0.912 DIA.) GALVANIZED STEEL POST CLIPS AT 14" MAX. SPACING, MIN. OF 5 POST CLIPS FOR 8' POSTS. MIN. OF 10 POSTS CLIPS FOR 10' POST, TYP.
9. GALVANIZED ADJUSTABLE TURNBUCKLE FOR 3/8" DIA. TRUSS ROD, TYP.
10. 3/8" GALV.STEEL ADJUSTABLE TRUSS ROD. TRUSS RODS ARE REQUIRED FOR ALL GATE POST PANELS AND END OF CORNER POST PANELS, TYP.
11. GALVANIZED STRETCHER BAR TENSION BAND AT 12" MAX. SPACING, MIN. OF 6 TENSION BANDS FOR 6' POSTS AND 20 TENSION BANDS FOR 20' POSTS, TYP.
12. 1/4" X 6" GALVANIZED STEEL STRETCHER BAR, TYP.
13. EXISTING PAVING. PATCH AND REPAIR AS REQUIRED TO MATCH ADJACENT CONDITION
14. GALV. RAINPROOF CAP, TYP.
15. CONCRETE FOOTING, TYP.
16. NOT USED.
17. 2" O.D. GALV. STEEL PERIMETER GATE FRAME (2.72 LB/FT)
18. 1-7/8" O.D. GALV. STEEL INTERMEDIATE GATE SUPPORT (2.72 LB/FT)
19. 1-7/8" O.D. GALV. PIPE RAILE
20. NOT USED.

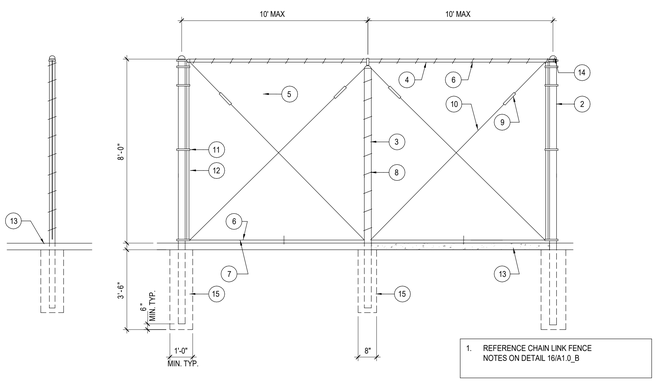
## CHAIN LINK FENCHING KEYNOTES 16



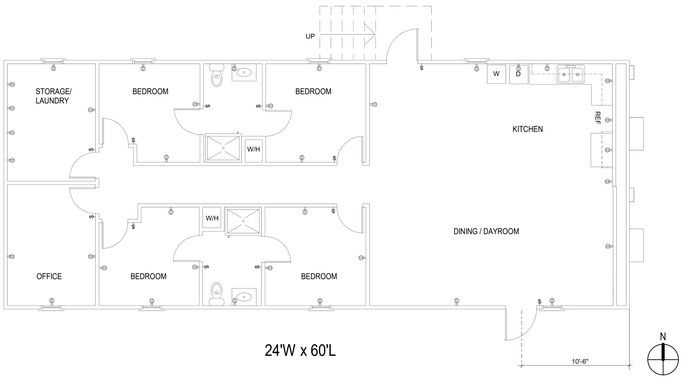

PANIC HARDWARE @ GATE, U.N.O.
NTS

NOTE:
ALL FINISH SHALL BE GALVANIZED. ALL WELDS TO BE GROUND SMOOTH AND TOUCHED-UP W/ GALV SPRAY COATING

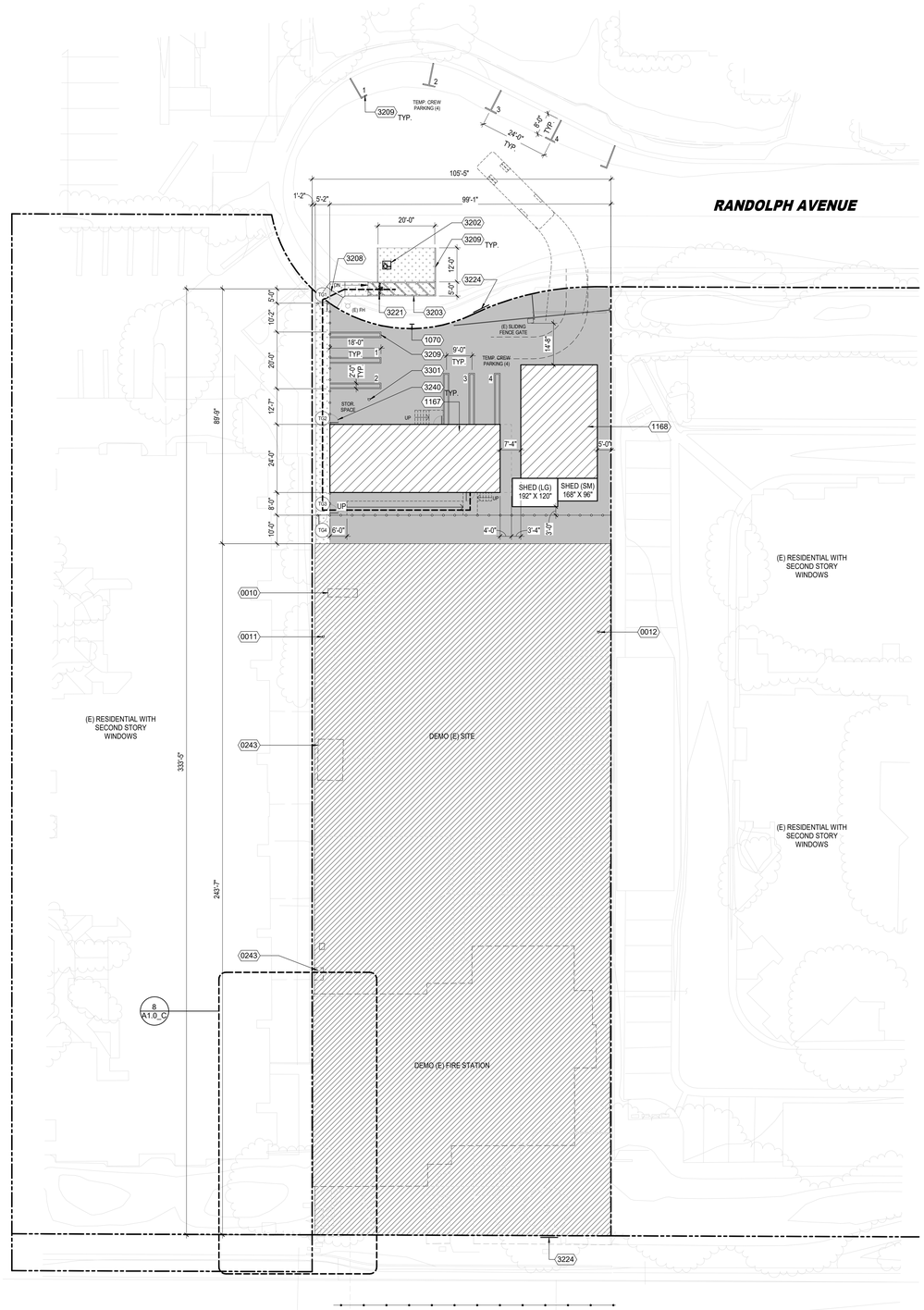
## CHAINLINK GATE W/ PANIC HARDWARE 17
1/2" = 1'-0"




## CHAINLINK FENCING 18
1/2" = 1'-0"




## TEMPORARY LIVING QUARTERS - BASIS OF DESIGN (REFERENCE ONLY) 19
NOT TO SCALE




## PHASE 02 / PHASE 03 8
1" = 20'-0"

N
TRUE NORTH

## KEY PLAN 1

**PHASE 02**

(E) ASPHALT & CONCRETE PAVING, PROTECT IN PLACE.

NOTE: THE EXISTING FIRE STATION IS TO REMAIN FULLY OPERATIONAL WHILE PHASE 02 IS UNDERWAY. COORDINATE WITH THE FIRE DEPARTMENT.

**PHASE 02 CONSTRUCTION AREA**

(N) ASPHALT, REF. CIVIL DRAWINGS

**PHASE 02**

TEMPORARY BUILDINGS, CONTRACTOR FURNISHED, CONTRACTOR INSTALLED (CFCI).

RELOCATED (E) SHED, OWNER FURNISHED, CONTRACTOR INSTALLED (OFCI).

**PHASE 03 DEMOLITION AREA**

(E) ASPHALT/PLANTER/GRAVEL AREA, CONCRETE PAVERS, & STRUCTURES. SEE CIVIL DRAWINGS FOR MORE INFORMATION.

NOTE: PHASE 03 IS TO START ONLY AFTER THE PHASE 02 TEMPORARY STATION IS FULLY OPERABLE, COORDINATE WITH THE FIRE DEPARTMENT.

**PHASE 03**

(E) STRUCTURES TO BE REMOVED

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL TO BE PROTEXTED IN PLACE. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING OR FUTURE DAMAGE. EXISTING CONDITIONS MUST BE DOCUMENTED DURING THE MANDATORY PRE-BID WALK. REFER TO CIVIL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. ANCHORS AND BOLTS ON (E) WALL TO BE PROTECT-IN-PLACE

CHAIN LINK FENCE AND GATES, 8'-0" HIGH MIN., REF DETAILS 16, 17, AND 18/A1.0_B
NOTE: FENCE AND GATES ARE TO GO UP AT THE BEGINNING OF PHASE 02 AND STAY UNTIL THE COMPLETION OF PHASE 05. COORDINATE FURTHER WITH THE CITY/ FIRE DEPARTMENT.

PROPERTY LINE

ACCESSIBLE PATH OF TRAVEL: NO ABRUPT CHANGES IN ELEVATION ALONG PATH OF TRAVEL

1. SEE CIVIL AND ELECTRICAL PLANS FOR LOCATION OF ADDITIONAL SITE ITEMS.
2. SITE FULLY COMPIES WITH T-24, ACCESSIBILITY STANDARDS: AND SUBJECT TO FIELD VERIFICATION.
3. CONTRACTOR TO MAINTAIN FIRE DEPARTMENT ACCESS FROM RANDOLPH AVE. TO THE EXISTING STATION AT ALL TIMES DURING ESTABLISHMENT OF THE TEMPOARARY ACCOMODATIONS, COORDINATE WITH THE FIRE DEPARTMENT.
4. SITE MUST BE SECURE AT ALL TIMES, WITH FULL PERIMETER ENCLOSURE. THE EXISTING BLOCK WALLS IN CONNECTION WITH CONTRACTOR FURNISHED AND INSTALLED 8' TALL CHAIN LINK FENCING WITH PRIVACY/DUST SCREENING SHALL BE PROVIDED AT ALL TIMES FOR PUBLIC SAFETY AND SECURITY.
5. THE CONTRACTOR SHALL RELOCATE ALL BEDS, DRESSERS, DINING TABLES, CHAIRS, GYM EQUIPMENT, OFFICE FURNITURE, AND OTHER RELATED ITEMS FROM THE EXISTING STATION TO THE TEMPORARY STATION ONCE THE CERTIFICATE OF OCCUPANCY HAS BEEN OBTAINED AND ALL OPERATIONAL FUNCTIONS ARE IN PLACE.
6. THE NEAREST VAULT / TRANSFORMER BANK AVAILABLE TO BE USED BY THE CONTRACTOR / LIVING QUARTERS FOR TEMPORARY POWER CAN ONLY SERVICE THE FOLLOWING TWO VOLTAGES: 120/240V 1P 3W OR 120/420V 3P 4W.
7. THE SITE MUST BE SECURE AT ALL TIMES, WITH FULL PERIMETER ENCLOSURE. THE EXISTING BLOCK WALLS IN CONNECTIONS WITH CONTRACTOR FURNISHED AND INSTALLED 8' TALL CHAIN LINK FENCING WITH PRIVACY/DUST SCREENING SHALL BE PROVIDED AT ALL TIMES FOR PUBLIC SAFETY AND SECURITY.
   A. FENCING AT THE SOUTH PERIMETER ALONG BAKER STREET AND AT THE TCE'S SHALL BE INSTALLED AT THE BEGINNING OF PHASE 03 AND REMOVED AT THE END OF PHASE 04.

## MATERIAL LEGEND AND NOTES 3

| | |
|---|---|
| 0010 | REMOVE (E) HOSE DRYING TOWER |
| 0011 | REMOVE (E) WHARF HYDRANT |
| 0012 | CAP (E) FIRE HYDRANT, SEE CIVIL DRAWINGS. |
| 0243 | (E) STRUCTURE TO BE RELOCATED, COORDINATE WITH FIRE DEPARTMENT. |
| 1070 | VAN ACCESSIBLE PARKING SIGN, SURFACE MOUNTED, SEE 16/A1.3. |
| 1167 | 24'-0" x 60'-0" TEMPORARY LIVING QUARTERS, CFCI. SEE DETAIL 19/A1.0_B. |
| 1168 | 27'-0" x 40'-0" TEMPORARY APPARATUS BAY, CFCI |
| 3202 | PAINTED ISA SYMBOL, TYP., SEE 19/A1.3 |
| 3203 | 4" WIDE BLUE TRAFFIC PAINT STRIPING AT 36" O.C., TYP. |
| 3208 | TRUNCATED DOMES AND GROOVED BORDER, TYP., SEE 24/A1.3 |
| 3209 | 4" STRIPED TRAFFIC PAINT AT PARKING STALL, TYP. |
| 3221 | 12" HIGH LETTERS IN WHITE TRAFFIC PAINT, TYP. |
| 3224 | PROJECT CONSTRUCTION SIGN, COORDINATE WITH CITY. |
| 3240 | 3'-0" WIDE CHAIN LINK MAN GATE, SEE 17/A1.0_B |
| 3301 | FIRE HYDRANT, SEE CIVIL DRAWINGS |

## REFERENCE NOTES 4

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

PHASING DEMOLITION / NEW PLANS

DRAWING NUMBER: A1.0_B

PC SUBMITTAL 04

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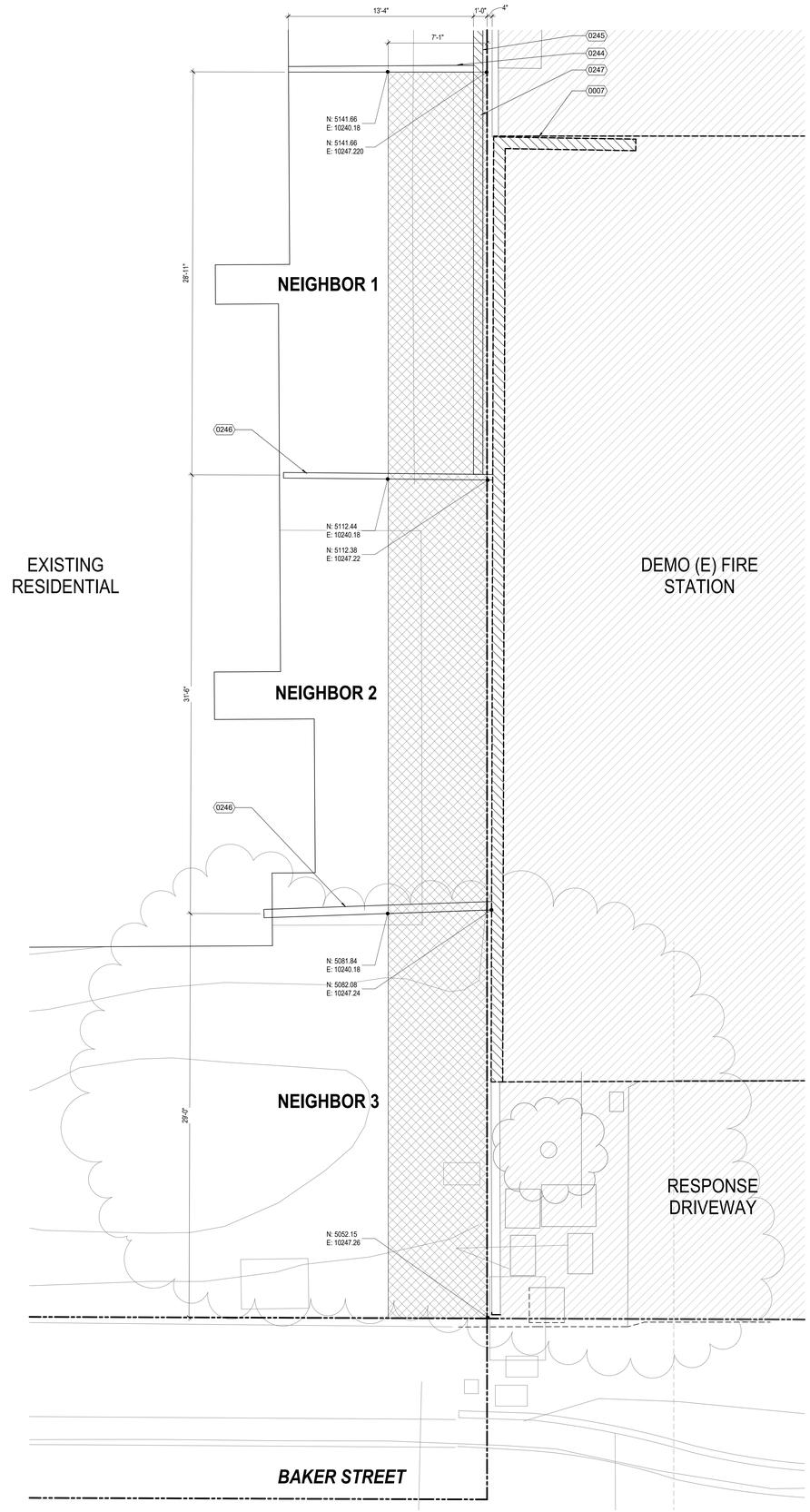
CM-07-01-2026




**NEIGHBOR 1 - NORTHERN NEIGHBORS LOT**

ASSESSOR PARCEL NUMBER:
937-681-73

APPROXIMATE TCE AREA
183 SF

PROPERTY OWNER:
MARGARET (PEGGY) THIBODEAU

**NEIGHBOR 2 - SOUTHERN NEIGHBORS LOT**

ASSESSOR PARCEL NUMBER:
937-681-72

APPROXIMATE TCE AREA
219 SF

PROPERTY OWNER:
JOSHUA GALL

**NEIGHBOR 3 - LOT OUTSIDE SOUTHERN NEIGHBORS**

ASSESSOR PARCEL NUMBER:
418-121-32

APPROXIMATE TCE AREA
100 SF

PROPERTY OWNER:
KNOWLETON MANOR HOA

## NEIGHBOR'S SITE INFO 1

PHASE 03 DEMOLITION AREA

(E) FIRE STATION, TO BE REMOVED.

APPROXIMATE TEMPORARY CONSTRUCTION EASEMENT (TCE) ENCROACHMENT

(E) CMU WALL, TO BE REMOVED

PROPERTY LINE

1. CONTRACTOR TO REPLACE IN KIND WITH NEW, ANY, AND ALL PORPERTY AFFECTED BY OPERATIONS AND/OR PROJECT IMPROVEMENTS INCLUDING BUT NOT LIMITED TO, FULL LENGTH OF PRIVATE FENCING INCLUDING FOUNDATIONS, HARDSCAPING, LANDSCAPING, AND REMAINING AFFECTED NEIGHBORS PROPERTY. THE FOLLOWING ITEMS ARE TO BE AT THE CITY'S DIRECTION AND CONTRACTOR'S COST:
   A. NEIGHBOR 1
      a. PROTECT IN PLACE / REPLACE (E) FLOWERS, SHRUBS, AND VINYL FENCING
   B. NEIGHBOR 2
      a. PROTECT IN PLACE / REPLACE (E) MATURE LEMON TREE AND 10'X10' VINYL SHED. CONTRACTOR TO COORDINATE AND INCUR EXPENSE TO RELOCATE AND RETURN
   C. NEIGHBOR 3
      a. PROTECT IN PLACE / REPLACE (E) LAWN AND TREE
2. CONTRACTOR SHALL PROVIDE THE CITY A 21 DAY NOTICE PRIOR TO ENTERING TCEs AND TCEs WILL ONLY BE AVAILABLE FOR A CONSECUTIVE DURATION OF 90 DAYS. IN THE EVENT A TCE IS NOT AVAILABLE, CONTRACTOR SHALL CONDUCT IMPROVEMENTS UTILIZING MEANS AND METHODS NECESSARY FROM PROJECT SITE/PROPERTY AT THEIR OWN EXPENSE.
3. RECOMMEND REQUIRING DOCUMENTED AGREEMENTS OR COORDINATION MEETINGS WITH THE NEIGHBORS BEFORE ANY WORK COMMENCES.
4. CONTRACTOR TO TAKE PRE-CONSTRUCTION PHOTOGRAPHIC OR VIDEO DOCUMENTIONS OF NEIGHBORING PROPERTIES AND ANY ITEMS TO BE PROTECTED OR REPLACED, IN ORDER TO AVOIDE DISPUTES.
5. THE SITE MUST BE SECURE AT ALL TIMES, WITH FULL PERIMETER ENCLOSURE. THE EXISTING BLOCK WALLS IN CONNECTIONS WITH CONTRACTOR FURNISHED AND INSTALLED 8' TALL CHAIN LINK FENCING WITH PRIVACY/DUST SCREENING SHALL BE PROVIDED AT ALL TIMES FOR PUBLIC SAFETY AND SECURITY.
   A. FENCING AT THE SOUTH PERIMETER ALONG BAKER STREET AND AT THE TCE'S SHALL BE INSTALLED AT THE BEGINNING OF PHASE 03 AND REMOVED AT THE END OF PHASE 04

## MATERIALS LEGEND & NOTES 3

0007 REMOVE (E) WALL, GUARDRAIL & HEDGES

0244 (E) FENCE, PROTECT-IN-PLACE.

0245 (E) CONCRETE WALL WITH 6'-0" VINYL FENCING, PROTECT-IN-PLACE.

0246 (E) FENCE, SALVAGE AND REINSTALL.

0247 (E) CONCRETE WALL WITH 6'-0" VINYL FENCING, TO REMOVE.

N
TRUE NORTH

## NEIGHBORING LOTS TCE EXHIBIT 8
1/4" = 1'-0"

## REFERENCE NOTES 4

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# TEMPORARY CONSTRUCTION EASEMENT EXHIBITS

DRAWING NUMBER: A1.0_C

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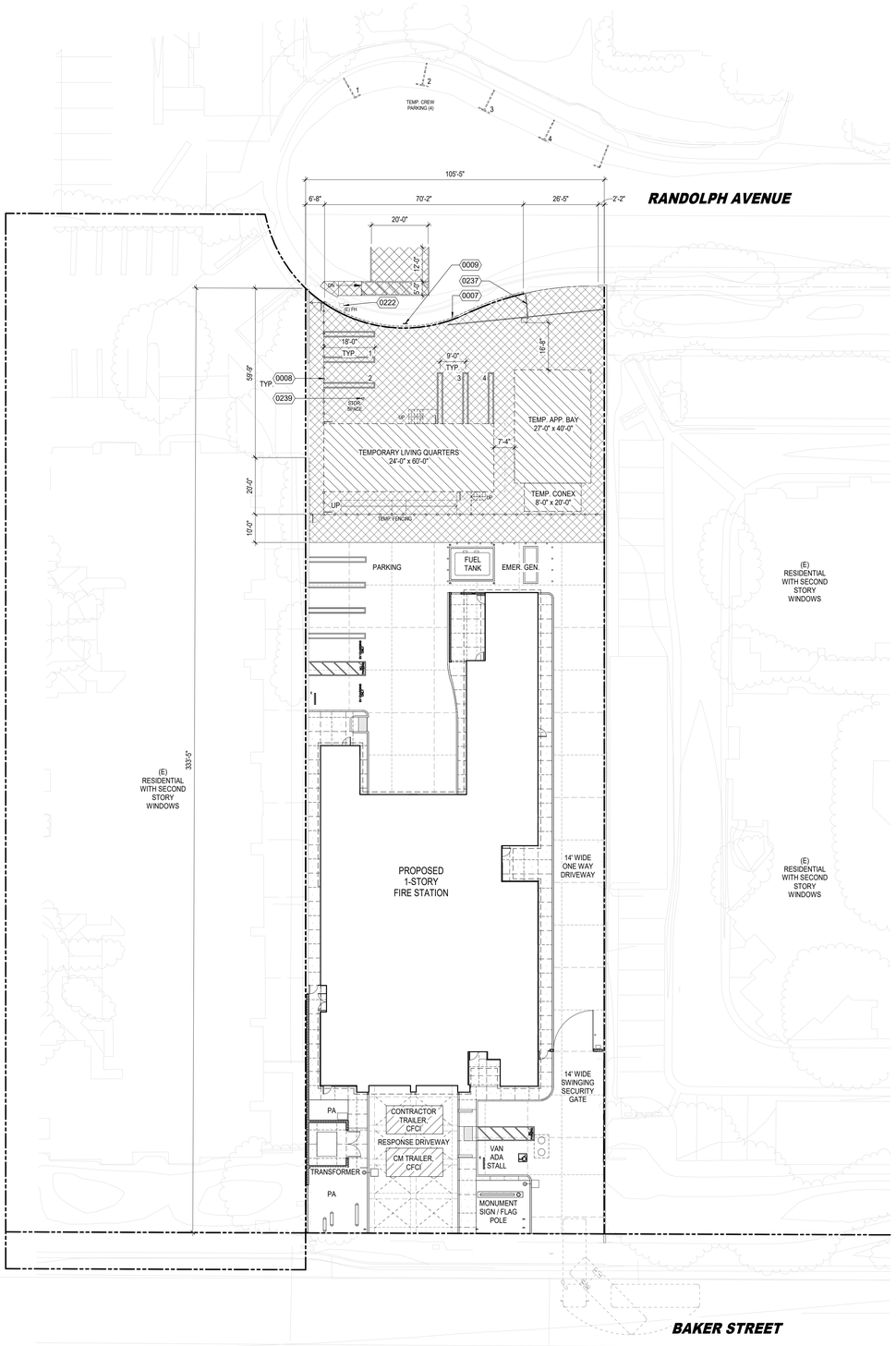

PHASE 04

PHASE 05

N

TRUE NORTH

## KEY PLAN 1

PHASE 04 CONSTRUCTION AREA

NOTE: THE TEMPORARY FIRE STATION IS TO REMAIN FULLY OPERATIONAL WHILE PHASE 04 IS UNDERWAY. COORDINATE WITH THE FIRE DEPARTMENT.

CONCRETE PAVING - VEHICULAR (VEH) AREAS

CONTROL JOINT CJ1

CONTROL JOINT CJ2

CONCRETE PAVING - SIDEWALK (SWK) AREAS

CONTROL JOINT TJ1

CONTROL JOINT EJ1

CONSTRUCTION TRAILERS, CFCI.

NOTE: RELOCATE TRAILERS WHEN PHASE 04 IS READY FOR MOVE IN AND FULLY OPERABLE.

PA — XERISCAPE

PHASE 05 DEMOLTION AREA

(E) ASPHALT & CONCRETE PAVING, SAW CUT AND REMOVE.

NOTE: PHASE 05 IS TO START ONLY AFTER THE PHASE 04 PERMANENT STATION IS FULLY OPERABLE, FIRE DEPARTMENT PERSONALL HAVE TRANSITIONED OPERATIONS, AND OBTAINED A BENEFICIAL OCCUPANCY AND BUILDING DIVISION CERTIFICATE OF OCCUPANCY, COORDINATE WITH THE FIRE DEPARTMENT.

(E) STRUCTURES TO BE REMOVED, COORDINATE WITH OWNER.

(N) 8" CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL TO BE PROTEXTED IN PLACE. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING OR FUTURE DAMAGE. EXISTING CONDITIONS MUST BE DOCUMENTED DURING THE MANDATORY PRE-BID WALK. REFER TO CIVIL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. ANCHORS AND BOLTS ON (E) WALL TO BE PROTECT-IN-PLACE

PROPERTY LINE

REMOVE (E) TEMPORARY FENCE AND GATES

NOTE: FENCE AND GATES ARE TO STAY UNTIL THE COMPLETION OF PHASE 05. COORDINATE FURTHER WITH THE CITY / FIRE DEPARTMENT.

1. SEE CIVIL AND ELECTRICAL SITE PLANS FOR LOCATION OF ADDITIONAL SITE ITEMS.
2. SITE MUST BE SECURE AT ALL TIMES, WITH FULL PERIMETER ENCLOSURE. THE EXISTING BLOCK WALLS IN CONNECTION WITH CONTRACTOR FURNISHED AND INSTALLED 8' TALL CHAIN LINK FENCING WITH PRIVACY/DUST SCREENING SHALL BE PROVIDED AT ALL TIMES FOR PUBLIC SAFETY AND SECURITY.
   A. FENCING AT THE SOUTH PERIMETER ALONG BAKER STREET AND AT THE TCE'S SHALL BE INSTALLED AT THE BEGINNING OF PHASE 03 AND REMOVED AT THE END OF PHASE 04
   B. FENCING AT THE NORTH PERIMETER ALONG ALONG RANDOLPH AVE. SHALL BE INSTALLED AT THE BEGINNING OF PHASE 05 AND REMOVED AT THE END OF PHASE 07.
3. SITE FULLY COMPIES WITH T-24, ACCESSIBILITY STANDARDS: AND SUBJECT TO FIELD VERIFICATION.
4. SEE SHEET A1.1 FOR ADDITIONAL INFORMATION

## MATERIAL LEGEND AND NOTES 3

0007 REMOVE (E) WALL, GUARDRAIL & HEDGES

0008 REMOVE TEMPORARY FENCING

0009 REMOVE (E) SIGN

0222 (E) FIRE HYDRANT, SEE CIVIL DRAWINGS

0237 (E) SLIDING GATE, MOTOR, TRACK, POLES, POWER PROVISIONS, ETC. TO BE REMOVED

0239 (E) FIRE HYDRANT, TO REMAIN, SEE CIVIL DRAWINGS.

N

TRUE NORTH

PHASE 04 / PHASE 05
1" = 20'-0"

8

REFERENCE NOTES 4

PBK

SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# PHASING DEMOLITION / NEW PLANS

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6/30/2026 10:34:39 AM
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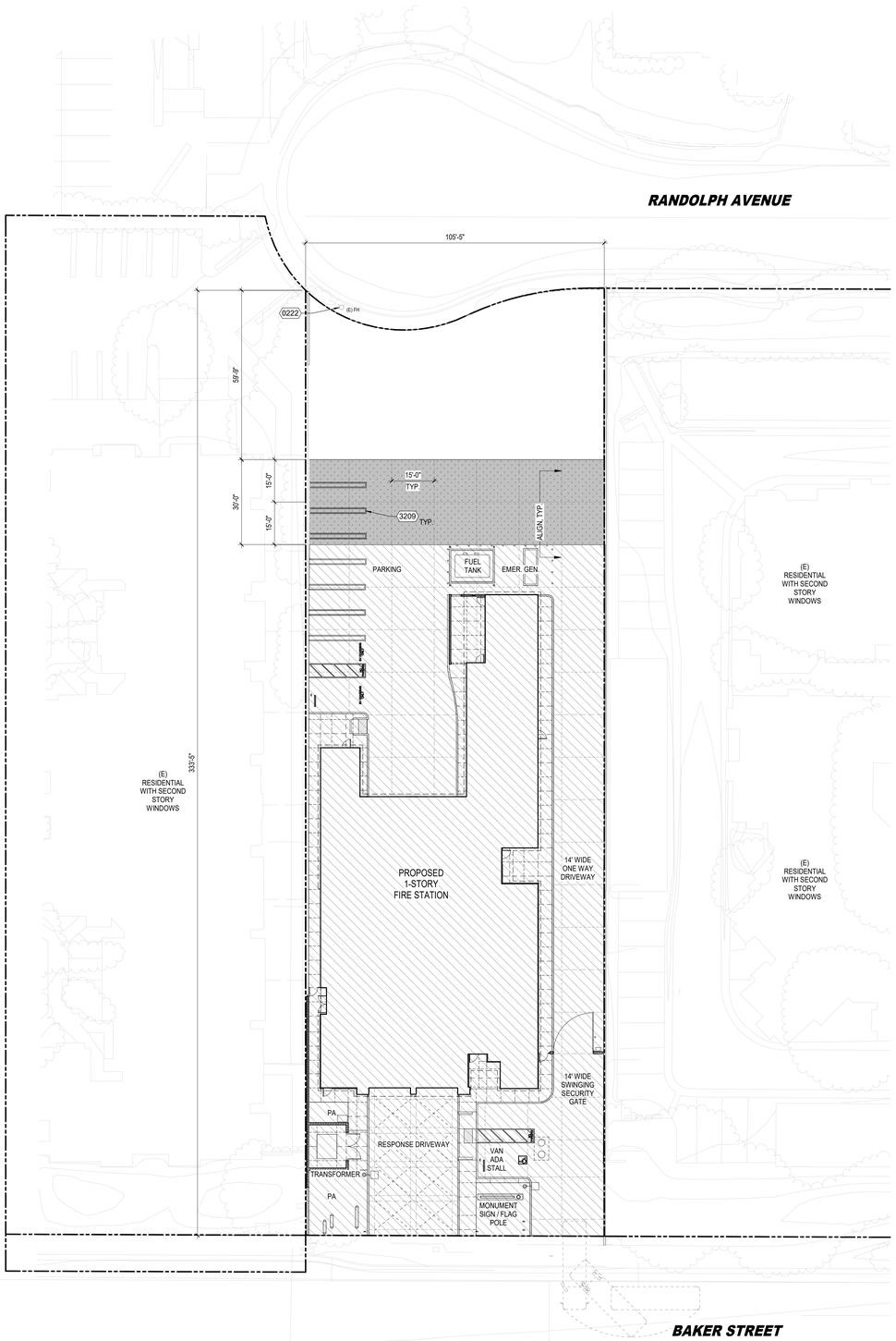


PHASE 04

PHASE 05

PHASE 06

N

TRUE NORTH

## KEY PLAN 1

PHASE 04

NOTE: THE FIRE STATION IS TO REMAIN FULLY OPERATIONAL WHILE PHASE 06 IS UNDERWAY. COORDINATE WITH THE FIRE DEPARTMENT.

PHASE 06

NOTE: THE FIRE STATION IS TO REMAIN FULLY OPERATIONAL WHILE PHASE 06 IS UNDERWAY. COORDINATE WITH THE FIRE DEPARTMENT.

CONCRETE PAVING - VEHICULAR (VEH) AREAS

CONTROL JOINT CJ1

CONTROL JOINT CJ2

CONCRETE PAVING - SIDEWALK (SWK) AREAS

CONTROL JOINT TJ1

CONTROL JOINT EJ1

PA — XERISCAPE

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL TO BE PROTEXTED IN PLACE. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING OR FUTURE DAMAGE. EXISTING CONDITIONS MUST BE DOCUMENTED DURING THE MANDATORY PRE-BID WALK. REFER TO CIVIL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. ANCHORS AND BOLTS ON (E) WALL TO BE PROTECT-IN-PLACE.

(N) 8" CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL

PROPERTY LINE

1. SEE CIVIL AND ELECTRICAL SITE PLANS FOR LOCATION OF ADDITIONAL SITE ITEMS.
2. SITE MUST BE SECURE AT ALL TIMES, WITH FULL PERIMETER ENCLOSURE. THE EXISTING BLOCK WALLS IN CONNECTION WITH CONTRACTOR FURNISHED AND INSTALLED 8' TALL CHAIN LINK FENCING WITH PRIVACY/DUST SCREENING SHALL BE PROVIDED AT ALL TIMES FOR PUBLIC SAFETY AND SECURITY.
   A. FENCING AT THE NORTH PERIMETER ALONG ALONG RANDOLPH AVE. SHALL BE INSTALLED AT THE BEGINNING OF PHASE 05 AND REMOVED AT THE END OF PHASE 07.
3. SITE FULLY COMPIES WITH T-24, ACCESSIBILITY STANDARDS: AND SUBJECT TO FIELD VERIFICATION.
4. SEE SHEET A1.1 FOR ADDITIONAL INFORMATION

## MATERIAL LEGEND AND NOTES 3

0222 (E) FIRE HYDRANT, SEE CIVIL DRAWINGS

3209 4" STRIPED TRAFFIC PAINT AT PARKING STALL, TYP.

N

TRUE NORTH

PHASE 06
1" = 20'-0" 8

## REFERENCE NOTES 4

PBK

SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

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STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

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|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# PHASING DEMOLITION / NEW PLANS

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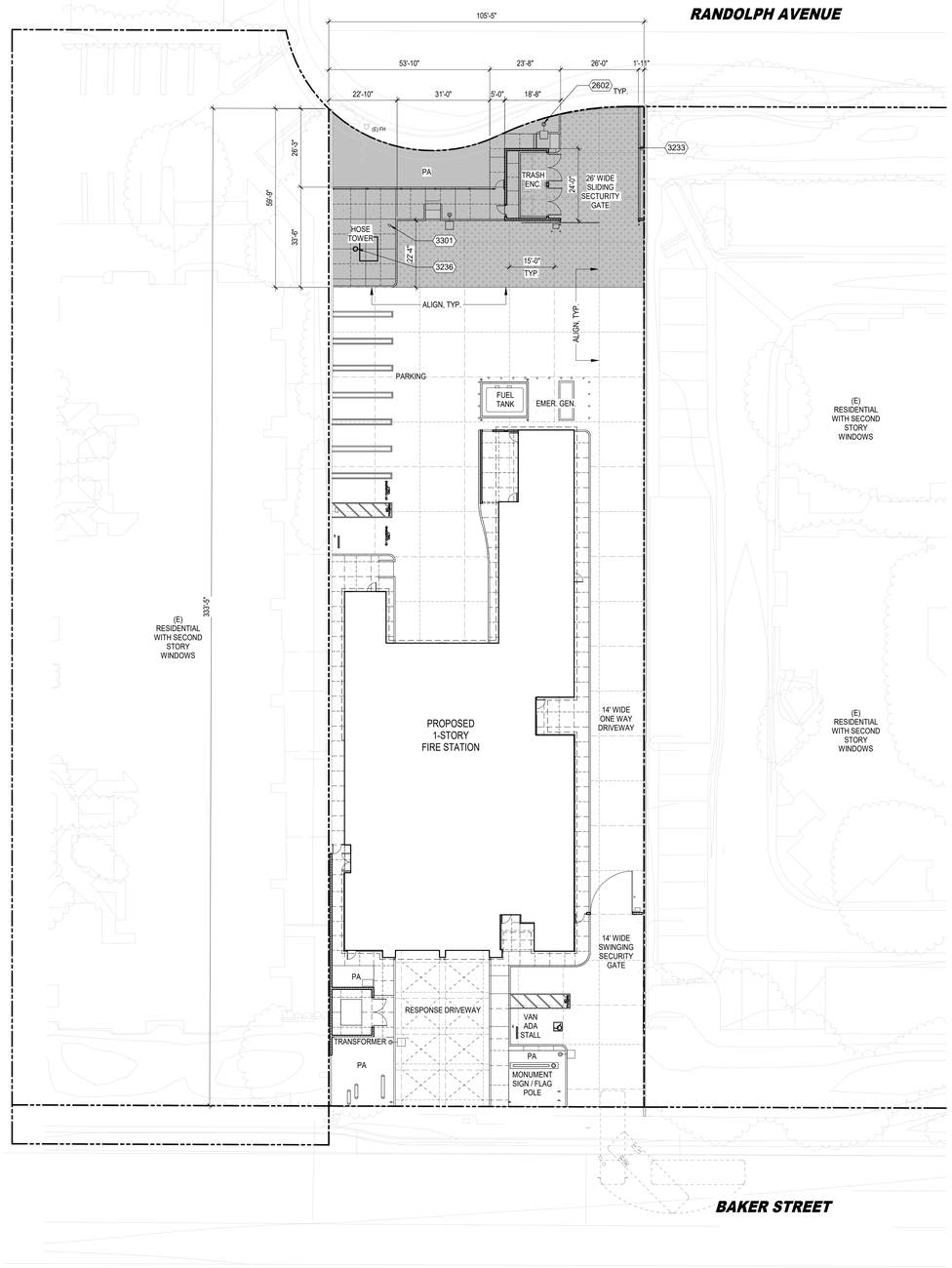


N
TRUE NORTH

PHASE 07
1" = 20'-0"

8

## KEY PLAN 1

PHASE 07

NOTE: THE FIRE STATION IS TO REMAIN FULLY OPERATIONAL WHILE PHASE 07 IS UNDERWAY. COORDINATE WITH THE FIRE DEPARTMENT.

CONCRETE PAVING - VEHICULAR (VEH) AREAS
- CONTROL JOINT CJ1
- CONTROL JOINT CJ2

CONCRETE PAVING - SIDEWALK (SWK) AREAS
- CONTROL JOINT TJ1
- CONTROL JOINT EJ1

PA — XERISCAPE

(N) 8" CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL TO BE PROTEXTED IN PLACE. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING OR FUTURE DAMAGE. EXISTING CONDITIONS MUST BE DOCUMENTED DURING THE MANDATORY PRE-BID WALK. REFER TO CIVIL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. ANCHORS AND BOLTS ON (E) WALL TO BE PROTECT-IN-PLACE.

PROPERTY LINE

1. SEE CIVIL AND ELECTRICAL SITE PLANS FOR LOCATION OF ADDITIONAL SITE ITEMS.
2. SITE MUST BE SECURE AT ALL TIMES, WITH FULL PERIMETER ENCLOSURE. THE EXISTING BLOCK WALLS IN CONNECTION WITH CONTRACTOR FURNISHED AND INSTALLED 8' TALL CHAIN LINK FENCING WITH PRIVACYDUST SCREENING SHALL BE PROVIDED AT ALL TIMES FOR PUBLIC SAFETY AND SECURITY.
   A. FENCING AT THE NORTH PERIMETER ALONG ALONG RANDOLPH AVE. SHALL BE INSTALLED AT THE BEGINNING OF PHASE 05 AND REMOVED AT THE END OF PHASE 07.
3. SITE FULLY COMPIES WITH T-24, ACCESSIBILITY STANDARDS: AND SUBJECT TO FIELD VERIFICATION.
4. SEE SHEET A1.1 FOR ADDITIONAL INFORMATION

## MATERIAL LEGEND AND NOTES 3

- 2602 — LIGHT STANDARD, TYP., SEE ELECTRICAL DRAWINGS
- 3233 — POST MOUNTED KEYPAD FOR GATE CONTROL, SEE 22/A1.3
- 3236 — HOSE TOWER, 15/A1.4
- 3301 — FIRE HYDRANT, SEE CIVIL DRAWINGS

## REFERENCE NOTES 4

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
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| 1 | | | REVISIONS |

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| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# PHASING DEMOLITION / NEW PLANS

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PC SUBMITTAL#4

CM-07-01-2026

verdantas

10532 Acacia Street, Suite B-6
Rancho Cucamonga, CA 91730
909-484-2205

February 2, 2026

Sierra Chacon, Job Captain
PBK Architects
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, California 91730
909.987.0909
Sierra.Chacon@pbk.com

**Review of Grading and Foundation Plans**
**Proposed Fire Station Replacement Project**
**Costa Mesa Fire Station No. 2**
**800 Baker Street, Costa Mesa, Orange County, California**
**Project No. 038.0000024775**

**Reference:** Leighton Consulting, Inc., 2024, Geotechnical Investigation, Proposed Costa Mesa Fire Station No. 2 Replacement, 800 Baker Street, Costa Mesa, Orange County, California, Project No. 038.0000024475, dated July 25, 2024

Verdantas Inc. (formerly Leighton Consulting, Inc.) has reviewed the provided Grading and Foundation Plans for the proposed Fire Station Replacement Project at the existing Costa Mesa Fire Station No. 2 located at 800 Baker Street, in the City of Costa Mesa, California. Plans reviewed were prepared by Structural and Civil consultants working in partnership with PBK Architects, Inc. on the project. The project plans reviewed are as follows:

- CivTEC, 2025, Site Improvement Plans for Costa Mesa Fire Station No. 2, Costa Mesa Fire & Rescue Department, 800 Baker Street, Costa Mesa, CA 92626, Sheets C-0.01 through C-4.01 (10 pages), dated September 26, 2025
- Miyamoto International, 2025, Structural Plans for Costa Mesa Fire Station No. 2, Costa Mesa Fire & Rescue Department, 800 Baker Street, Costa Mesa, CA 92626, Sheets S0.1 through S4.5 (19 pages), dated February 3, 2025

Based on our review, it is our professional opinion that the project plans referenced herein appear to have been prepared in general conformance with the recommendations presented in our referenced report (Leighton, 2024), and that our geotechnical recommendations remain applicable to the referenced plans. The proposed Grading and Foundation Plans are acceptable from a geotechnical standpoint, provided that the foundation and earthwork recommendations in accordance with our referenced geotechnical reports are implemented during construction.

Verdantas.com



We appreciate the opportunity to be of service. If you have any questions, or if we can be of further service, please call us at your convenience.

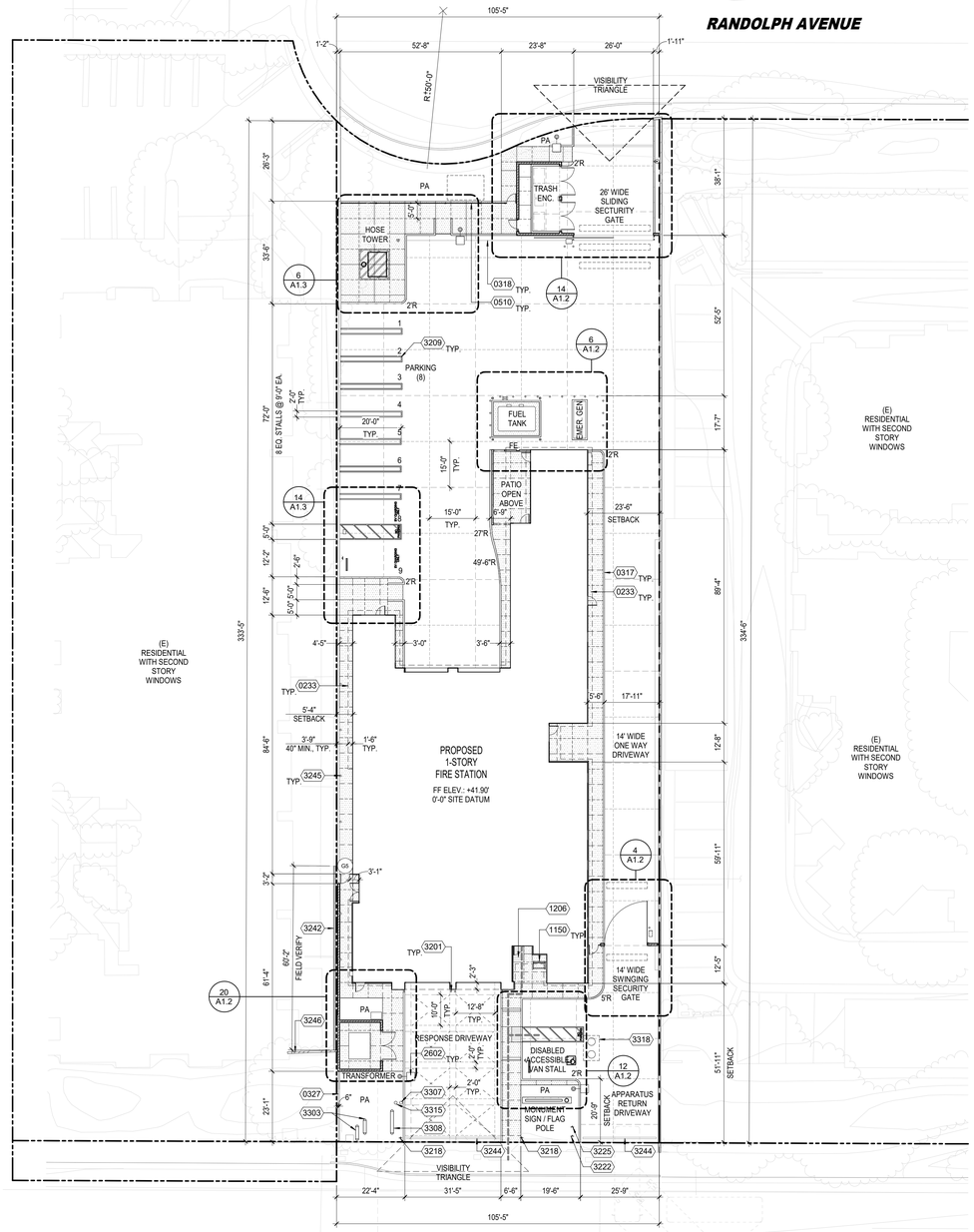
Sincerely,
**Verdantas**

**Jose Tapia, PE 91630**
Senior Project Engineer
jtapia@verdantas.com
909-527-8786

**Luis Perez-Milicua, GE 3281**
Associate Engineer
lperez-milicua@verdantas.com
909-527-8777



SOILS- GRADING AND FOUNDATION PLAN REVIEW LETTER **20**




OVERALL SITE PLAN
1" = 20'-0" **8**

ASSESSOR PARCEL NUMBER: 418-121-29

LEGAL DESCRIPTION:
BERRY TR LOT 6 BLK E POR OF LOT AS DESC IN DD - 7682/894 OR- TR128

GROSS AREA:
34,520 SF OR 0.8 ACRES

EXISITING ZONING:
INSTITUTIONAL AND RECREATIONAL (I&R)

PROPERTY OWNER:
CITY OF COSTA MESA
77 FAIR DRIVE
COSTA MESA, CA 92626

PROPERTY ADDRESS:
800 BAKER STREET
COSTA MESA, CA 92626

LOT COVERAGE:

| | |
|---|---|
| BUILDING (USABLE SQUARE FEET): | 8,630 SF ( 25%) |
| LANDSCAPE : | 2,000 SF ( 6%) |
| PAVED AREA : | 23,890 SF ( 69%) |
| TOTAL: | 34,520 SF (100%) |

PROPOSED BUILDING (USABLE SQUARE FOOTAGE)

| | |
|---|---|
| APPARATUS BAY: | 3,725 SF ( 43%) |
| LIVING SPACE : | 4,905 SF ( 57%) |
| TOTAL: | 8,630 SF (100%) |

## SITE INFO **1**

| TYPE OF PARKING SPACE | QUANTITY |
|---|---|
| STANDARD PARKING | 8 |
| STANDARD - VISITOR | 1 |
| ACCESSIBLE / VAN ACCESSIBLE (TABLE 11B-208.2, CBC 2022) | 1/1+2 |
| CLEAN AIR/ VANPOOL/ VAN ACCESSIBLE/ AMBULATORY | 2 |
| TOTAL | 11 |
| ACCESSIBLE PARKING SPACES REQUIRED (CBC 2022) | 1 |
| EV CAPABLE PARKING SPACES REQUIRED (CGBSC 2022) | 2 |
| SHORT-TERM BIKE SPACES | 4 |
| LONG-TERM BIKE SPACES | 4 |
| SHORT-TERM BIKE SPACES REQUIRED (CALGREEN) | 2 |

## PARKING SUMMARY **2**

CONCRETE PAVING - VEHICULAR (VEH) AREAS
4,000 PSI, 8" THICK W/ #4 REBAR @ 18" O.C. EACH WAY, 8" A.B. BASE
CONTROL JOINT CJ1, SEE 7/A1.3
CONTROL JOINT CJ2, SEE 7/A1.3

CONCRETE PAVING - SIDEWALK (SWK) AREAS
4,000 PSI, 4.5" THICK W/ #3 REBAR @ 24" O.C. EACH WAY
CONTROL JOINT TJ1, SEE 7/A1.3
CONTROL JOINT EJ1, SEE 7/A1.3

PA XERISCAPE

NEW 8" CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL, SEE 5/A1.4

(E) CONCRETE MASONRY PERIMETER, RETAINING WALL, OR ENCLOSURE WALL TO BE PROTEXTED IN PLACE. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING OR FUTURE DAMAGE. EXISTING CONDITIONS MUST BE DOCUMENTED DURING THE MANDATORY PRE-BID WALK. REFER TO CIVIL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION. ANCHORS AND BOLTS ON (E) WALL TO BE PROTECT-IN-PLACE.

PROPERTY LINE

PATH OF TRAVEL, REF. CIVIL DRAWINGS FOR MORE INFO.

DRAINAGE STRUCTURES, SEE CIVIL DRAWINGS

LIGHT STANDARD, SEE ELECTRICAL DWGS

1. SEE CIVIL, MECHANICAL, PLUMBING, ELECTRICAL, AND LANDSCAPE SITE PLANS FOR LOCATION OF ADDITIONAL SITE ITEMS.
2. EXTEND CONCRETE PAVING INTO TRASH ENCLOSURE. TRANSFORMER ENCLOSURE, AND EMERGENCY GENERATOR ENCLOSURE.
3. SEE DETAIL 16 / A1.4 FOR EDGE CONDITION AT CONCRETE SIDE WALK TO LANDSCAPE.
4. SEE DETAIL 21 / A1.3 FOR FIRE LANE CURB.
5. SITE FULLY COMPIES WITH T-24, ACCESSIBILITY STANDARDS: AND SUBJECT TO FIELD VERIFICATION.
6. CONSTRUCTION BANNERS TO BE MOUNTED ON CONSTRUCTION FENCE ALONG RANDOLPH AVENUE AND BAKER STREET, CONTRACTOR TO COORDINATE WITH CITY.
7. CONTRACTOR SHALL REVIEW REPORT AND ADDENDUM OF SOILS INVESITIGATION BY: LEIGHTON.
REPORT DATE: JULY 25, 2024
PROJECT # 038.0000024475

## MATERIALS LEGEND & NOTES **3**

| | |
|---|---|
| 0233 | LINE OF OVERHEAD ABOVE |
| 0317 | CONCRETE CURB, TYP., SEE CIVIL DRAWINGS |
| 0318 | CONCRETE GUTTER, TYP., SEE CIVIL DRAWINGS |
| 0327 | CONCRETE MOW STRIP TO DELINEATE THE PROPERTY LINE, SEE CIVIL AND LANDSCAPE DRAWINGS. |
| 0510 | TUBE STEEL FENCING, SEE 8/A1.4 |
| 1150 | 4 BIKE BICYCLE RACK |
| 1206 | 3'-6" x 5'-0" EXTERIOR RECESSED FLOOR MATS, REF 16/A1.5 AND CIVIL DRAWINGS. |
| 2602 | LIGHT STANDARD, TYP., SEE ELECTRICAL DRAWINGS |
| 3201 | 6" DIA. PIPE BOLLARD, TYP., SEE 3/A1.3 |
| 3209 | 4" STRIPED TRAFFIC PAINT AT PARKING STALL, TYP. |
| 3218 | DO NOT ENTER SIGN, SEE 15/A1.3 |
| 3222 | ACCESSIBLE ENTRY/TOW SIGN, SEE 12/A1.3 |
| 3225 | FIRE LANE ENTRANCE SIGN, SEE 8/A1.3 |
| 3242 | VINYL FENCE, TO MATCH (E) FENCE |
| 3244 | TRENCH DRAIN, SEE CIVIL DRAWINGS. |
| 3245 | CATCH BASIN, SEE CIVIL DRAWINGS |
| 3246 | FULL HEIGHT VINYL FENCE, FIELD VERIFY. |
| 3303 | BACKFLOW PREVENTER DEVICE, SEE CIVIL DRAWINGS |
| 3307 | FIRE DEPARTMENT CONNECTION, SEE CIVIL DRAWINGS |
| 3308 | DOUBLE CHECK DETECTOR ASSEMBLY, SEE CIVIL DRAWINGS |
| 3315 | POST-INDICATOR VALVE, SEE LANDSCAPE DRAWINGS |
| 3318 | SAND AND OIL INTERCEPTOR, SEE CIVIL AND PLUMBING DRAWINGS |

REFERENCE NOTES **4**

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

**CONSULTANT**

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**SITE PLAN**

DRAWING NUMBER: **A1.1**

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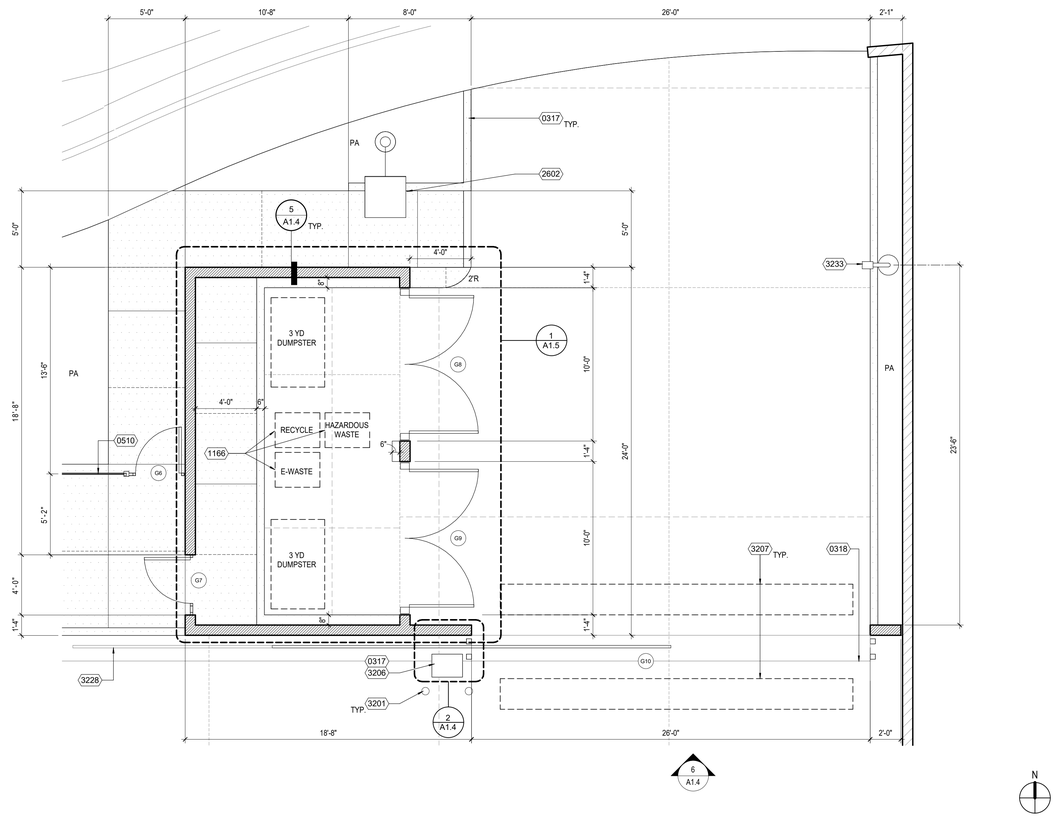
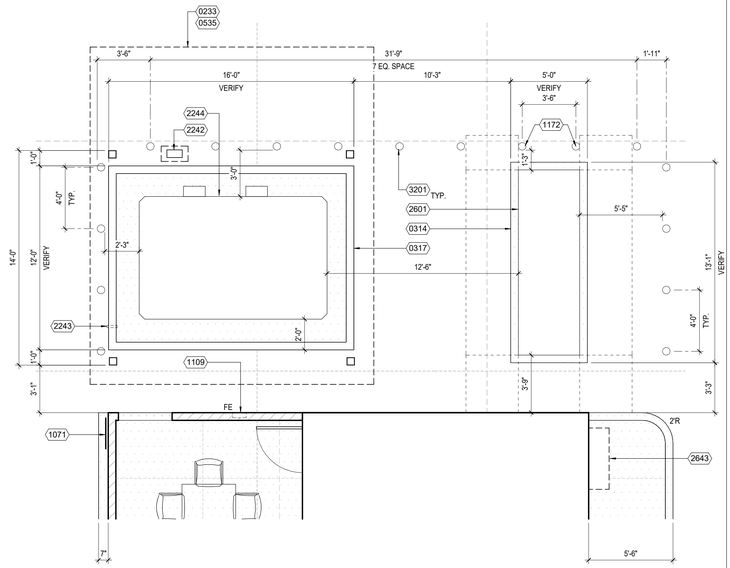
CM-07-01-2026




TRASH ENCLOSURE AND GATE ENTRY 14
1/4" = 1'-0"

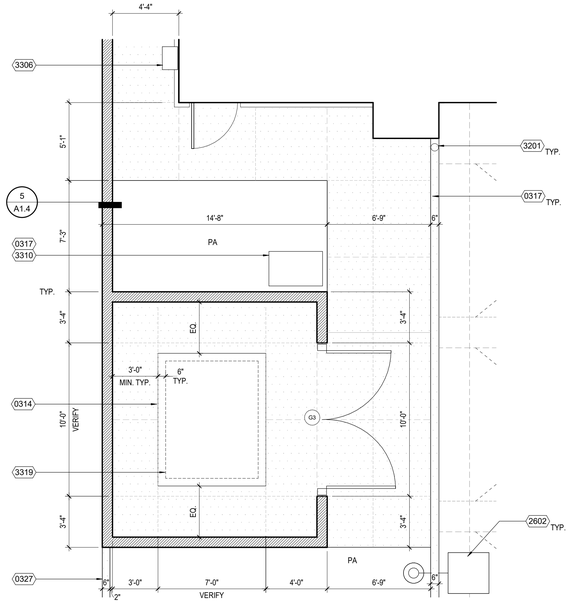



FUEL TANK, EMERGENCY GENERATOR, & BBQ AREA 6
1/4" = 1'-0"

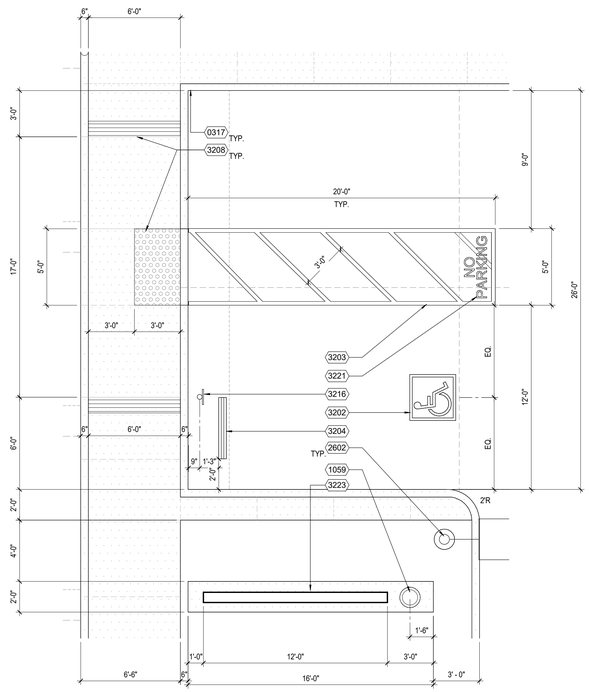
REFERENCE NOTES 2

| | |
|---|---|
| 0233 | LINE OF OVERHEAD ABOVE |
| 0314 | CONCRETE GENERATOR EQUIPMENT PAD, VERIFY SIZE, SEE 14/A1.4 |
| 0317 | CONCRETE CURB, TYP., SEE CIVIL DRAWINGS |
| 0318 | CONCRETE GUTTER, TYP., SEE CIVIL DRAWINGS |
| 0327 | CONCRETE MOW STRIP TO DELINEATE THE PROPERTY LINE, SEE CIVIL AND LANDSCAPE DRAWINGS. |
| 0510 | TUBE STEEL FENCING, SEE 8/A1.4 |
| 0535 | FUEL CANOPY, SEE 9/A1.5 |
| 1059 | FLAG POLE, SEE 4/A1.3 |
| 1071 | FUEL SHUT OFF SIGN SURFACE MOUNTED, SEE 22/A1.5. |
| 1109 | FIRE EXTINGUISHER IN RECESSED CABINET, SEE 6,7 /A8.4 |
| 1166 | 96 GALLON WASTE RECEPTACLE, AS NOTED. |
| 1172 | 6" DIA. REMOVABLE PIPE BOLLARD, SEE 20/A1.3 |
| 2242 | FUEL MANAGEMENT SYSTEM "FUELMASTER 2500 PLUS", SEE ELECTRICAL AND PLUMBING DRAWINGS. |
| 2243 | 1" SLEEVE AND SHUT-OFF VALVE, SEE PLUMBING DRAWINGS. |
| 2244 | 2,000 GALLON FUEL DISPENSING SET, SEE PLUMBING DRAWINGS |
| 2601 | EMERGENCY GENERATOR, SEE ELECTRICAL DRAWINGS |
| 2602 | LIGHT STANDARD, TYP., SEE ELECTRICAL DRAWINGS |
| 2643 | WALL MOUNTED DOCKING STATION, SEE ELECTRICAL DRAWINGS |
| 3201 | 6" DIA. PIPE BOLLARD, TYP., SEE 3/A1.3 |
| 3202 | PAINTED ISA SYMBOL, TYP., SEE 19/A1.3 |
| 3203 | 4" WIDE BLUE TRAFFIC PAINT STRIPING AT 36" O.C., TYP. |
| 3204 | WHEEL STOP, TYP., SEE 12/A1.4 |
| 3206 | SECURITY GATE OPERATOR ON RAISED CONCRETE PAD, SEE 20/A1.4. |
| 3207 | SAFETY/EXIT LOOP, TYP., SEE ELECTRICAL DRAWINGS |
| 3208 | TRUNCATED DOMES AND GROOVED BORDER, TYP., SEE 24/A1.3 |
| 3216 | ACCESSIBLE PARKING SIGN, SEE 16/A1.3 |
| 3221 | 12" HIGH LETTERS IN WHITE TRAFFIC PAINT, TYP. |
| 3223 | MONUMENT SIGN, SEE 19/A1.4 |
| 3228 | ROLLING GATE TRACK, SEE 4/A1.4 |
| 3233 | POST MOUNTED KEYPAD FOR GATE CONTROL, SEE 22/A1.3 |
| 3239 | WALL MOUNTED KEYPAD FOR GATE CONTROL/ KNOX BOX COMBO, REF 23/A1.3 |
| 3306 | GAS METER, SEE CIVIL AND PLUMBING DRAWINGS |
| 3310 | IRRIGATION CONTROLLER, SEE LANDSCAPE DRAWINGS |
| 3319 | TRANSFORMER, SEE ELECTRICAL DRAWINGS |

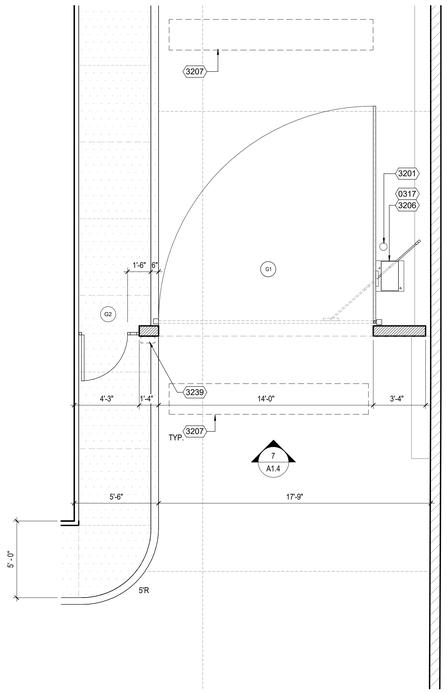
SEE THE GENERAL NOTES/LEGEND ON SHEET A1.1 FOR MORE INFO.




TRANSFORMER AND GATE ENTRY 20
1/4" = 1'-0"




ACCESSIBLE PARKING, FLAG POLE, & MONUMENT SIGN 12
1/4" = 1'-0"




SWINGING SECURITY GATE 4
1/4" = 1'-0"

**PBK**

**SOUTHERN CALIFORNIA**
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38806
REN. 08-31-27
STATE OF CALIFORNIA

**CONSULTANT**

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**ENLARGED SITE PLANS**

DRAWING NUMBER: **A1.2**

6/30/2026 10:34:36 AM
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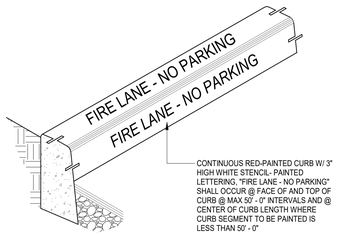
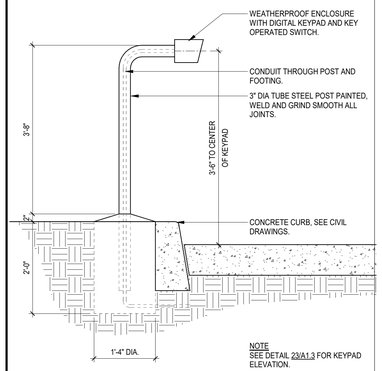
CM-07-01-2026



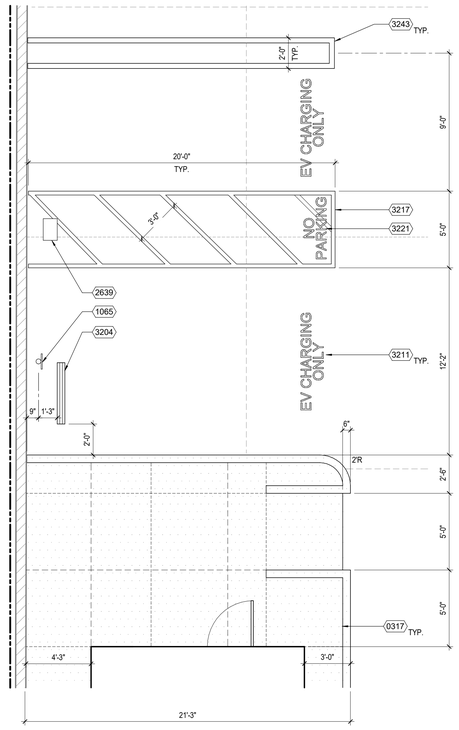

NOTE: COORDINATE LOCATION(S) WITH THE FIRE DEPARTMENT

FIRE LANE CURB 1 1/2" = 1'-0" **21**

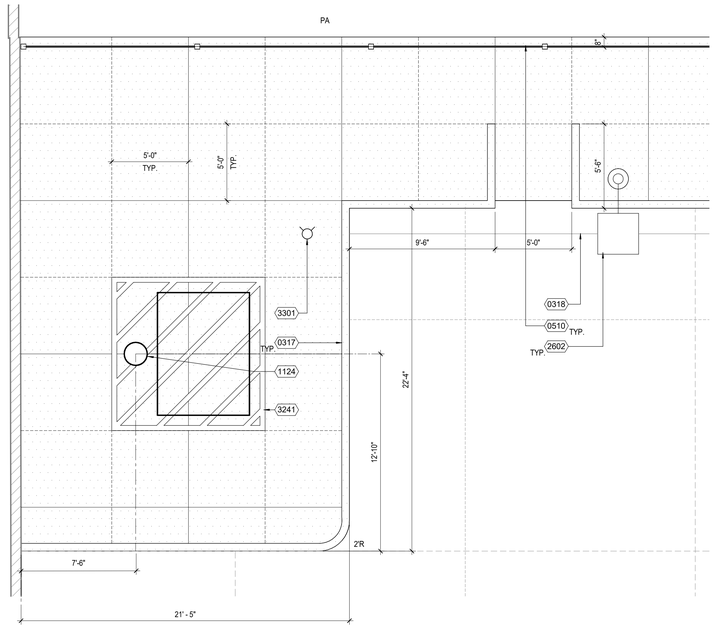



NOTE
SEE DETAIL 23/A1.3 FOR KEYPAD ELEVATION.

KEYPAD POST 3/4" = 1'-0" **22**




EV/ VAN ACCESSIBLE PARKING STALL 1/4" = 1'-0" **14**




HOSE TOWER & RAMP 1/4" = 1'-0" **6**

| | |
|---|---|
| 0317 | CONCRETE CURB, TYP., SEE CIVIL DRAWINGS |
| 0318 | CONCRETE GUTTER, TYP., SEE CIVIL DRAWINGS |
| 0510 | TUBE STEEL FENCING, SEE 8/A1.4 |
| 1065 | ELECTRIC VEHICLE PARKING SIGN, SEE 11/A1.3 |
| 1124 | HOSE DRYING TOWER, SEE 15/A1.4 |
| 2602 | LIGHT STANDARD, TYP., SEE ELECTRICAL DRAWINGS |
| 2639 | EV CHARGING STATION, SEE ELECTRICAL DRAWING |
| 3204 | WHEEL STOP, TYP., SEE 12/A1.4 |
| 3211 | 12" HIGH LETTERS IN WHITE TRAFFIC PAINT - "EV CHARGING ONLY" |
| 3217 | 4" WIDE GREEN TRAFFIC PAINT STRIPING AT 36° O.C., TYP. |
| 3221 | 12" HIGH LETTERS IN WHITE TRAFFIC PAINT, TYP. |
| 3241 | 4" WIDE RED TRAFFIC PAINT STRIPING, TYP. |
| 3243 | 4" WIDE GREEN TRAFFIC STRIPING, TYP. |
| 3301 | FIRE HYDRANT, SEE CIVIL DRAWINGS |

SEE THE GENERAL NOTES/LEGEND ON SHEET A1.1 FOR MORE INFO.

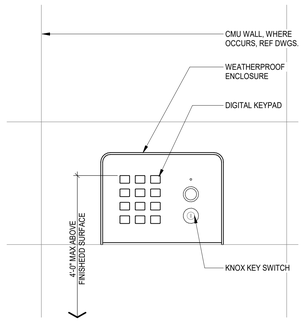
REFERENCE NOTES **2**

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

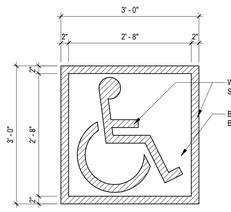
# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626



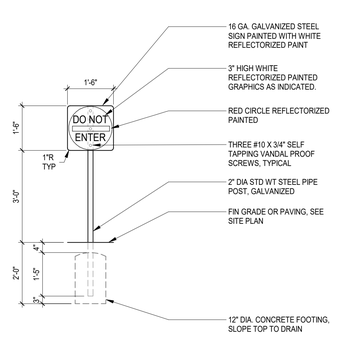

KEYPAD ELEVATION 3" = 1'-0" **23**



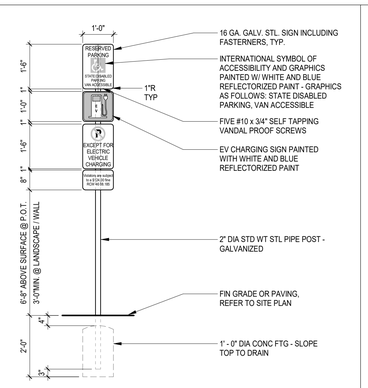

NOTES:

1. ALL STROKES TO BE 2" WIDE W/ WHITE PAINT
2. PROVIDE TWO (2) COATS OF TRAFFIC PAINT
3. BACKGROUND COLOR TO BE FEDERAL BLUE NO. 15090
4. LOCATE SYMBOL AT CENTER OF STALL WHERE SHOWN ON THE SITE PLAN

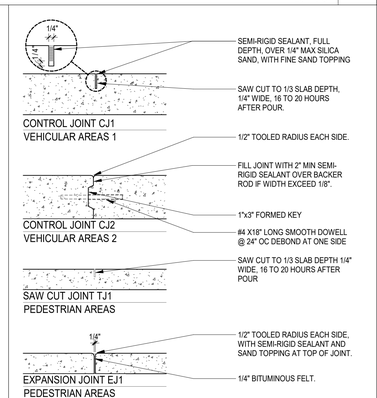
ACCESS SIGN 3/4" = 1'-0" **19**



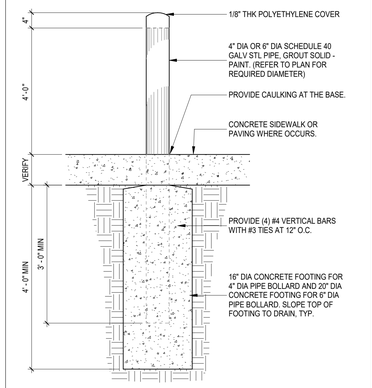

DO NOT ENTER SIGN 1/2" = 1'-0" **15**




EV PARKING SIGN 1/2" = 1'-0" **11**




CONCRETE JOINTS 1" = 1'-0" **7**




TYPICAL BOLLARD 3/4" = 1'-0" **3**

PETER FOX
C-38606
REN. 08-31-27
LICENSED ARCHITECT
STATE OF CALIFORNIA

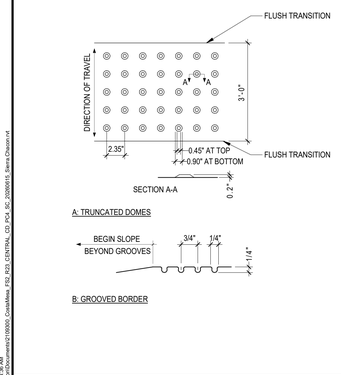
CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

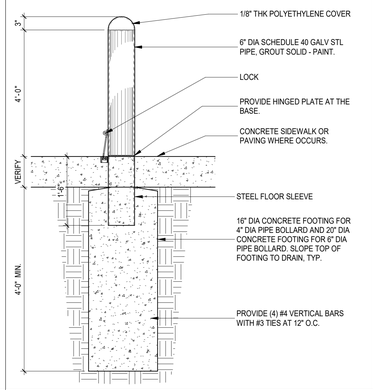
DRAWN: SC CHECKED: JM
DATE: 06/30/2026 SCALE: AS NOTED
PROJECT NUMBER: 2109300

## ENLARGED SITE PLANS & SITE DETAILS

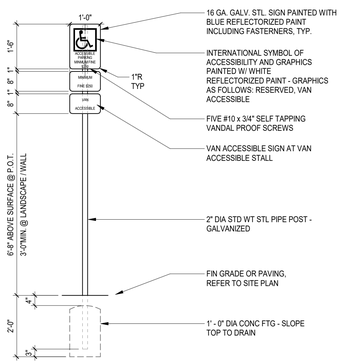
DRAWING NUMBER: **A1.3**



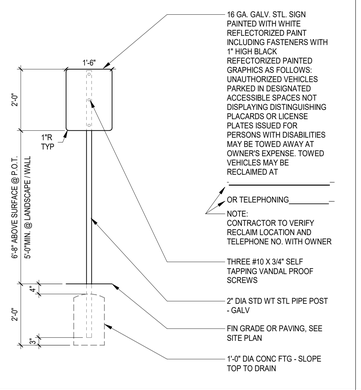

TRUNCATED DOMES & GROOVED BRDR. 1 1/2" = 1'-0" **24**



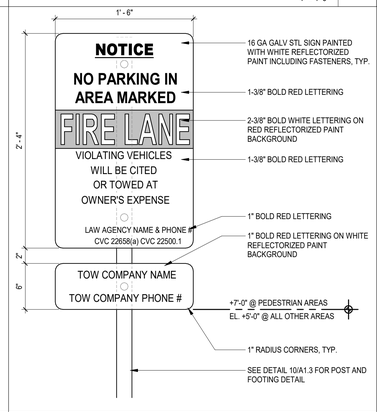

REMOVABLE BOLLARD 3/4" = 1'-0" **20**



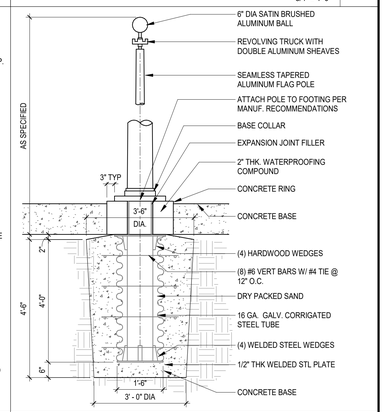

PARKING SIGN 1/2" = 1'-0" **16**




ACCESSIBILITY/ TOW AWAY ENTRY SIGN 1/2" = 1'-0" **12**




FIRE LANE ENTRANCE SIGN 1 1/2" = 1'-0" **8**




FLAGPOLE 1/2" = 1'-0" **4**

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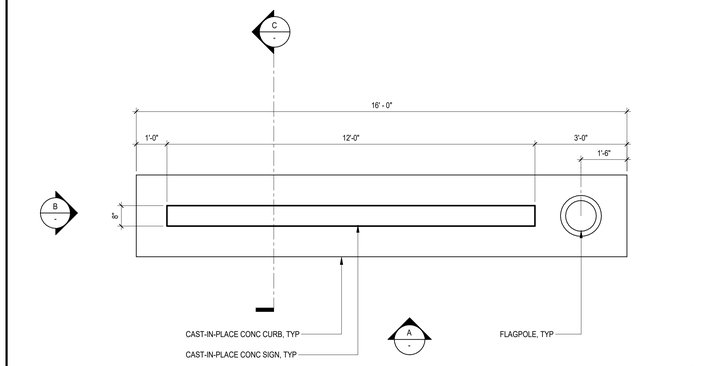
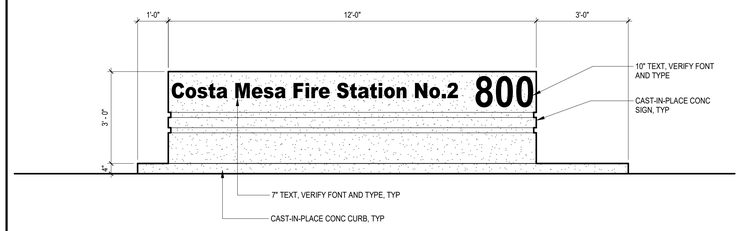
PC 10/08/2025 LA 04

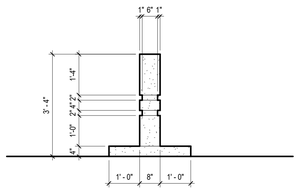
CM-07-01-2026



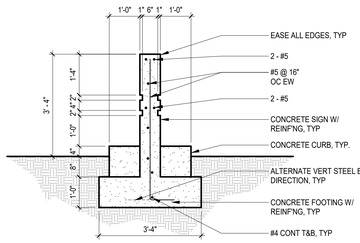

**SITE PLAN**




**A: SOUTH ELEVATION**



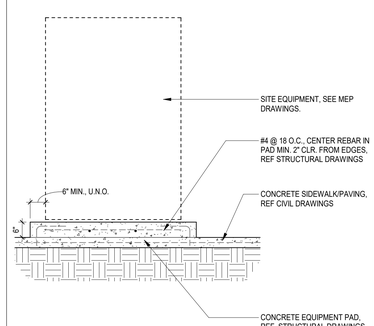

**B: WEST ELEVATION**



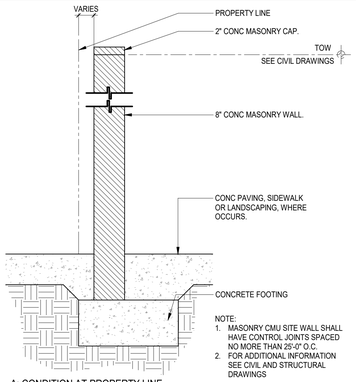

**C: SECTION**

NOTE:
1) CREATE MOCK-UP OF SURFACE AS STANDARD OF QUALITY TO BE APPROVED BY ARCHITECT.
2) VIBRATE CONCRETE WHILE IN FORM TO REMOVE AIR POCKETS AND VOIDS.
3) SURFACE TO BE HIGH QUALITY SMOOTH FINISH, FREE OF VOIDS OVER 1/4".
4) EASE ALL EDGES.
5) SUBMIT REINFORCING TO BE APPROVED BY ENGINEER.

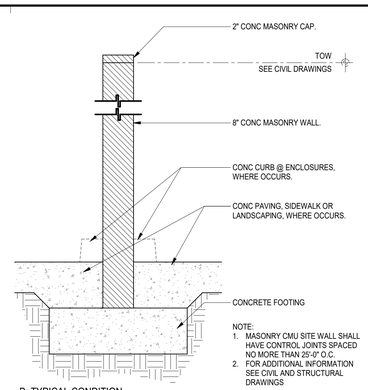
MONUMENT SIGN AND FLAGPOLE 1/2" = 1'-0" **19**




TYPICAL EQUIPMENT PAD 1/2" = 1'-0" **13**

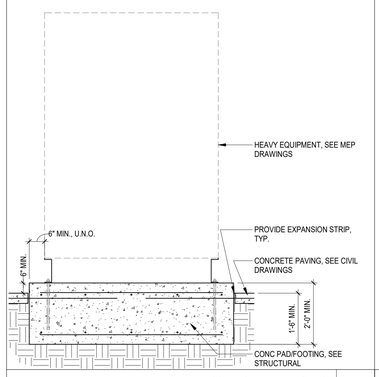



A: CONDITION AT PROPERTY LINE

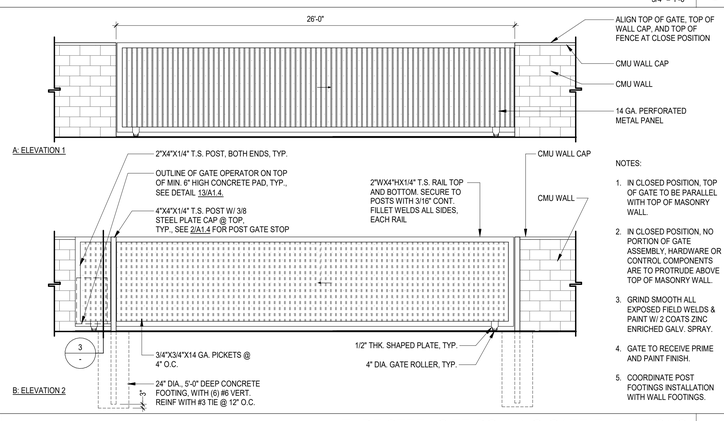



B: TYPICAL CONDITION

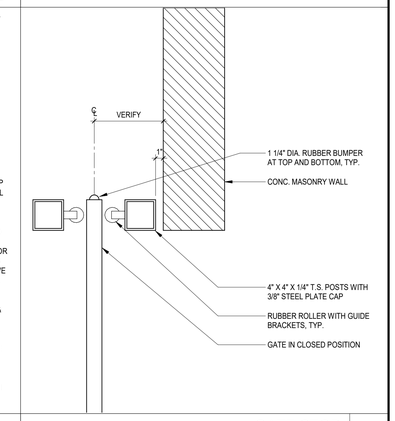
TYPICAL SITE WALL 3/4" = 1'-0" **5**



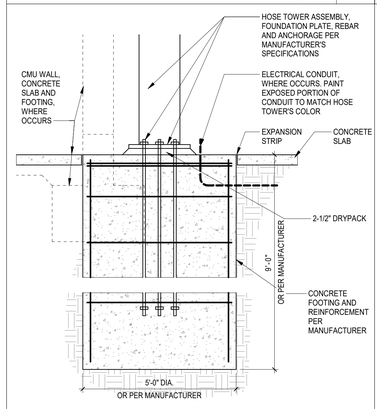

HEAVY EQUIPMENT PAD 1/2" = 1'-0" **14**



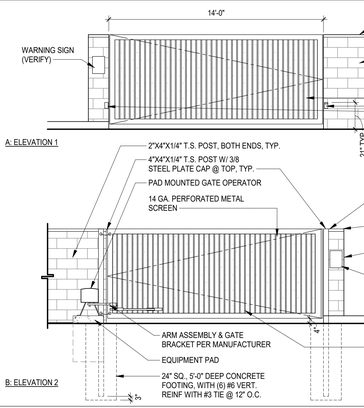

TUBE STEEL SITE ROLLING GATE ELEVATIONS 1/4" = 1'-0" **6**



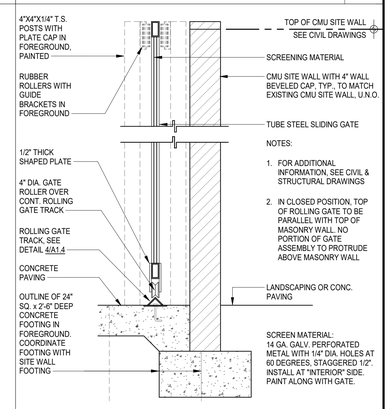

GATE STOP 1 1/2" = 1'-0" **2**



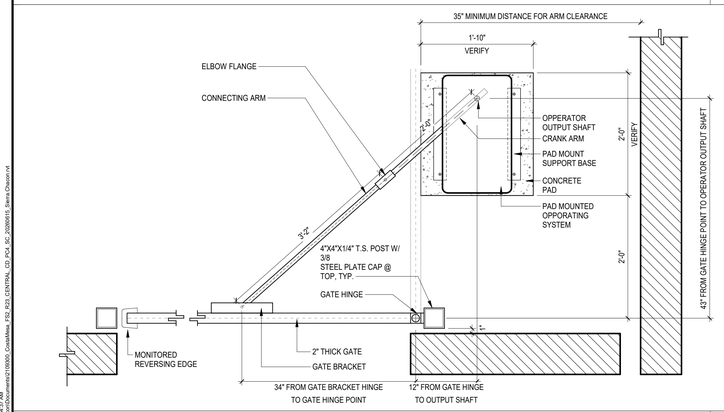

HOSE TOWER FOOTING 1/2" = 1'-0" **15**



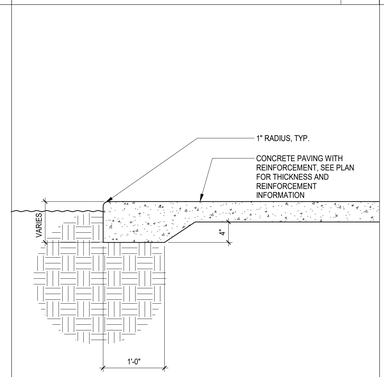

TUBE STEEL SITE SWING GATE ELEVATIONS 1/4" = 1'-0" **7**



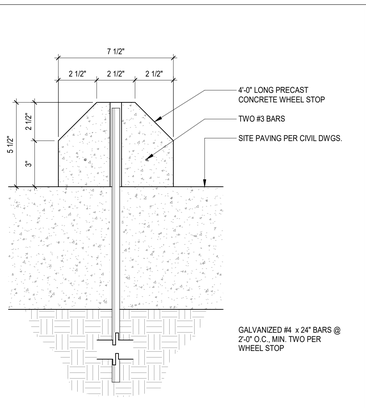

WALL AT GATE 3/4" = 1'-0" **3**



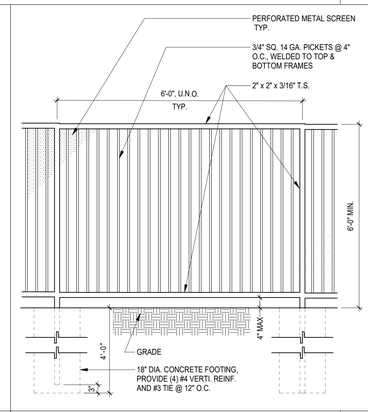

GATE SWING 1" = 1'-0" **20**



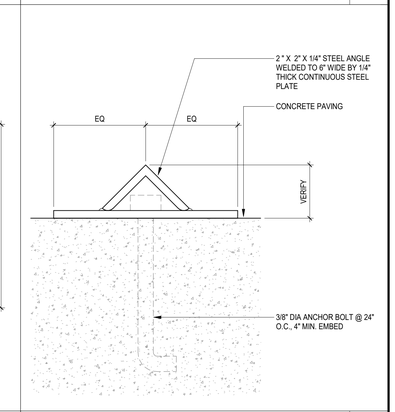

EDGE CONDITION @ CONC. PAVING 1" = 1'-0" **16**




CONCRETE WHEEL STOP 3" = 1'-0" **12**




TUBE STEEL FENCE 1/2" = 1'-0" **8**




ROLLING GATE TRACK 6" = 1'-0" **4**

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

## SITE DETAILS

DRAWING NUMBER: **A1.4**

6/30/2026 10:34:37 AM
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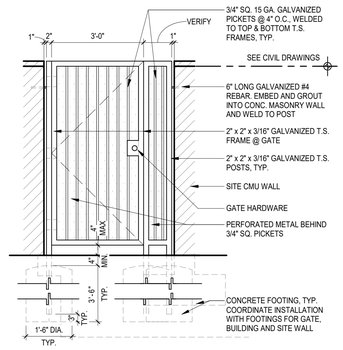
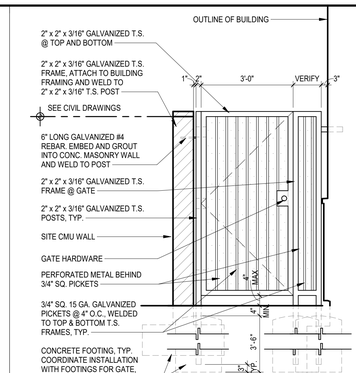
PC 03-0001 (07) 04

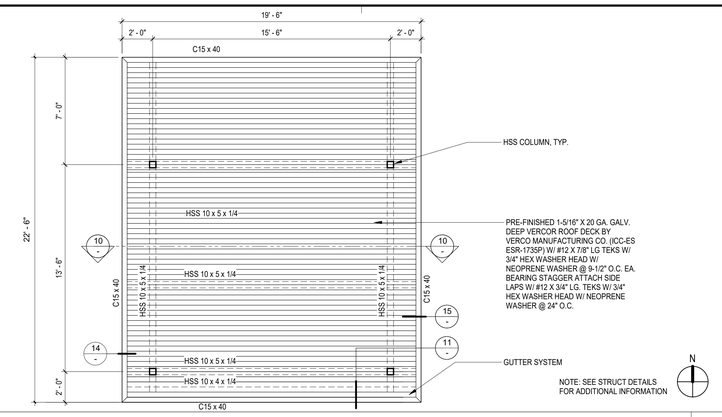
CM-07-01-2026



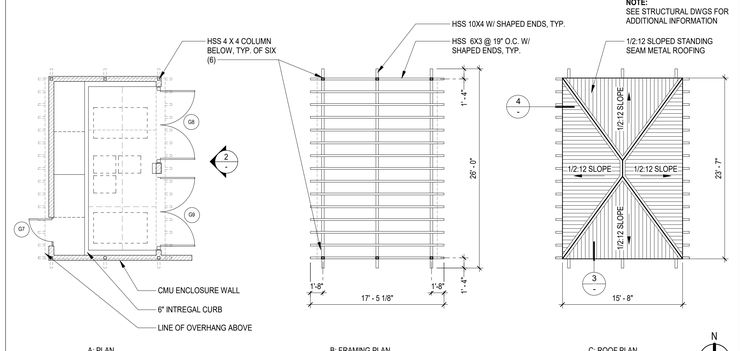

SITE GATE G4 & G7 ELEVATION 1/2" = 1'-0" **21**



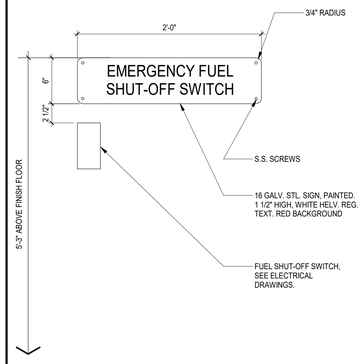

SITE GATE G5 ELEVATION 1/2" = 1'-0" **17**



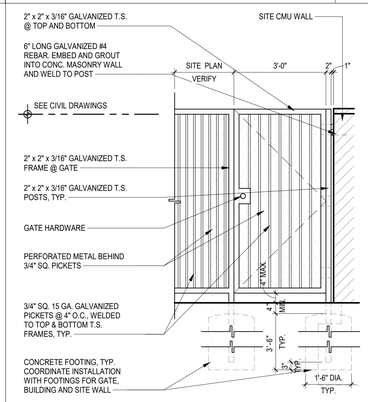

FUEL CANOPY PLAN 1/4" = 1'-0" **9**



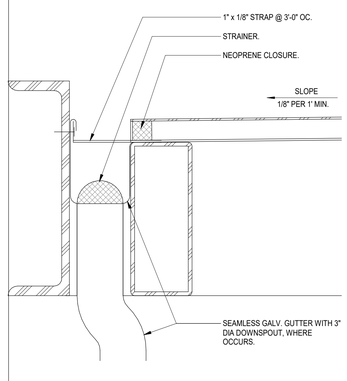

TRASH ENCLOSURE COVER 1/8" = 1'-0" **1**



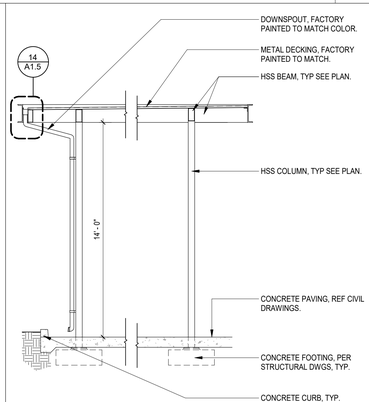

FUEL SHUT-OFF SIGNAGE 1 1/2" = 1'-0" **22**



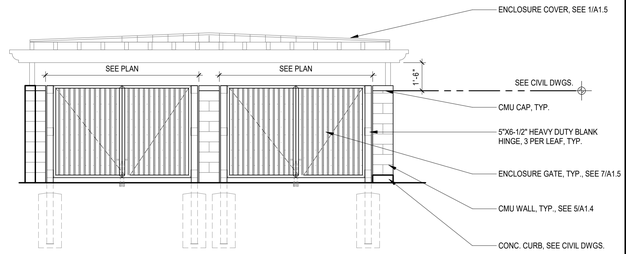

SITE GATE G6 ELEVATION 1/2" = 1'-0" **18**



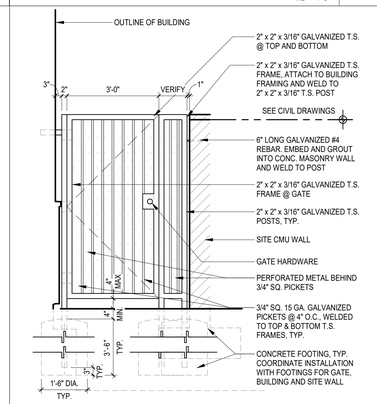

CANOPY GUTTER 3" = 1'-0" **14**



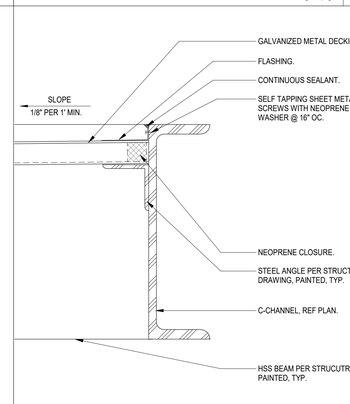

FUEL CANOPY SECTION 1/4" = 1'-0" **10**



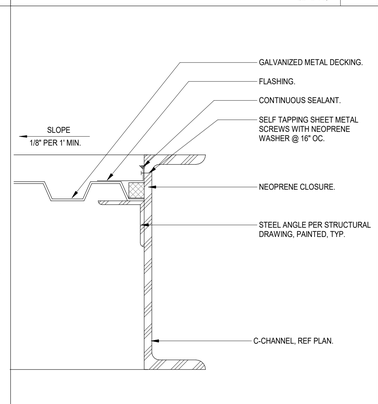

TRASH ENCLOSURE ELEVATION 1/4" = 1'-0" **2**



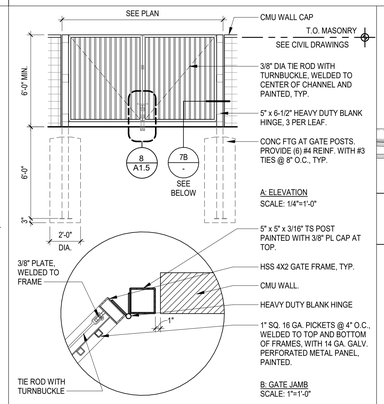

SITE GATE G2 ELEVATION 1/2" = 1'-0" **19**



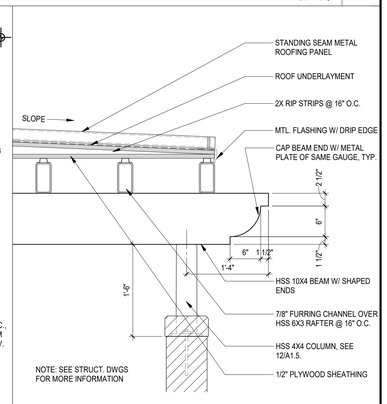

CANOPY EAVE 3" = 1'-0" **15**



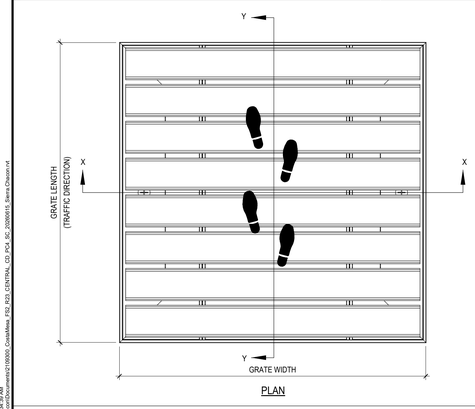

CANOPY RAK 3" = 1'-0" **11**




ENCLOSURE GATE 1/4" = 1'-0" **7**

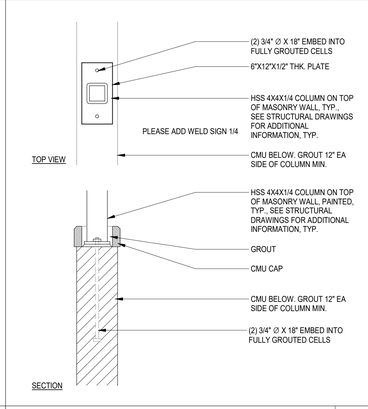



ROOF 1" = 1'-0" **3**

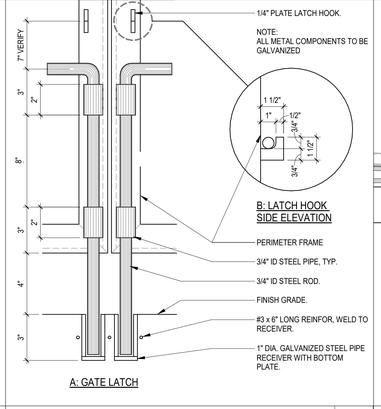



NOTES:
1. FRAME ANCHOR SPACING: 6" FROM CORNERS, 24" MAX.
2. VERIFY TRAFFIC DIRECTION AND THAT SECTIONING DOES NOT OCCUR IN A TRAFFIC LANE
3. ALL RAIL COMPONENTS ARE MADE OF 6063-T6 ALUMINUM ALLOY, ALL FRAME COMPONENTS ARE MADE OF 6063-T5 ALUMINUM ALLOY, KEYLOCKSAER MADE WITH 6061-T6 ALUMINUM ALLOY
4. TREAD RAILS MUST RUN PERPENDICULAR TO TRAFFIC DIRECTION
5. TRAFFIC DIRECTION DIMENSION CAN ONLY BE CHANGE IN 1 1/2" INCREMENTS
6. GRATE DIMENSIONS ALLOWS FOR CLEARANCE BETWEEN GRATE SECTIONS AND FRAMES IN THE WIDTH DIMENSION.
7. ADDITIONAL INFORMATION CAN BE FOUND IN TEH PRODUCT SPECIFICATION
8. FRAME MODEL NUMBER: FD74LBW
9. MODEL: GD74

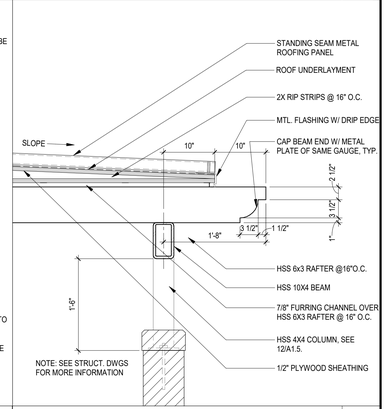
RECESSED FLOOR MAT 3" = 1'-0" **16**




HSS COLUMN TO CMU 1" = 1'-0" **12**




GATE LATCH 3" = 1'-0" **8**




ROOF 1" = 1'-0" **4**

**PBK**

**SOUTHERN CALIFORNIA**
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

**CONSULTANT**

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

| | |
|---|---|
| **DRAWN:** SC | **CHECKED:** JM |
| **DATE:** 06/30/2026 | **SCALE:** AS NOTED |
| **PROJECT NUMBER:** 2109300 | |

# TRASH ENCLOSURE AND SITE DETAILS

**DRAWING NUMBER:** **A1.5**

6/30/2026 10:34:39 AM
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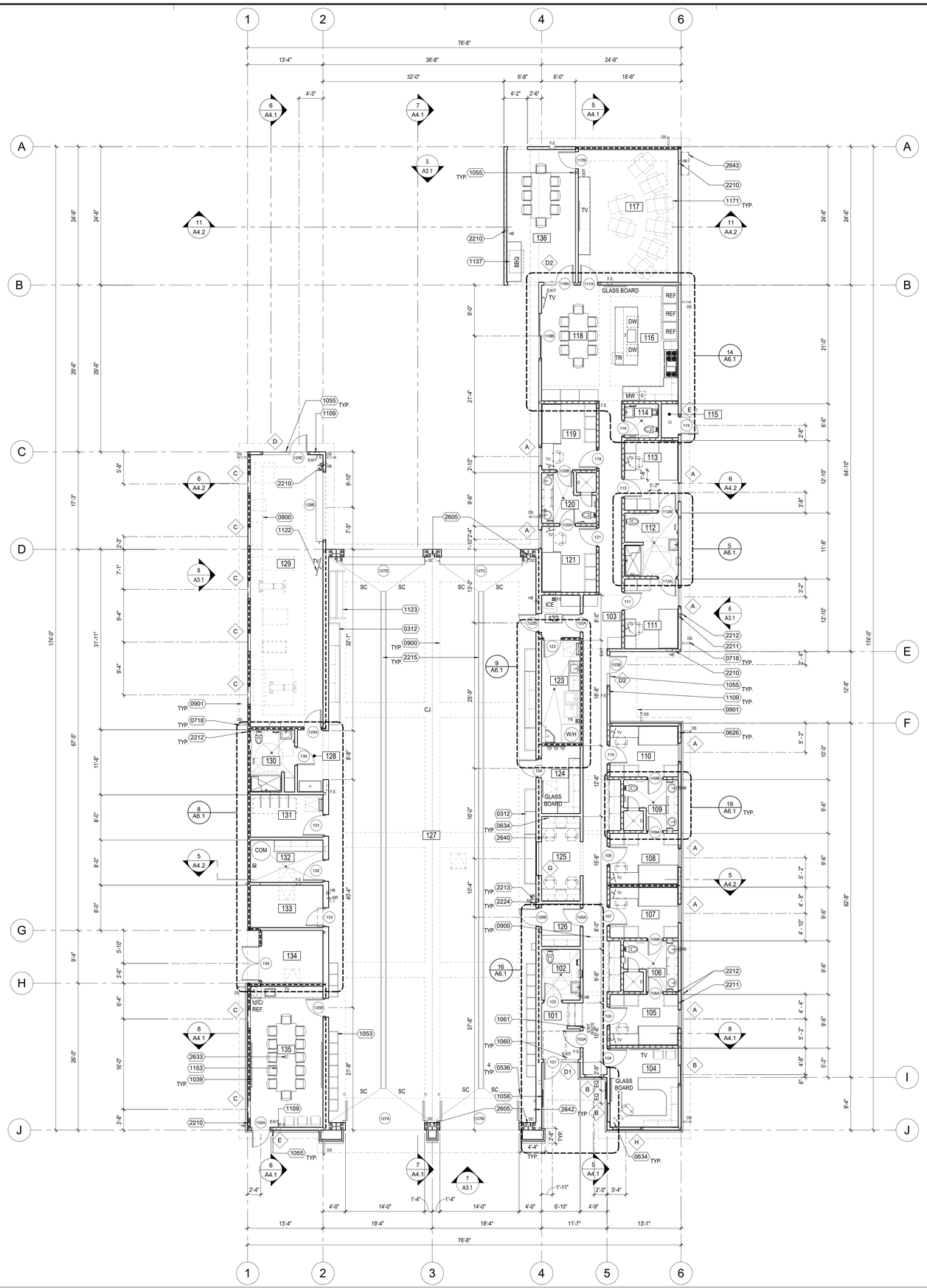
CM-07-01-2026


76'-8"
13'-4"
38'-8"
24'-8"
32'-0"
6'-6"
6'-0"
18'-8"
4'-3"
4'-2"
2'-6"
117
TV
136
BBQ
D2
GLASS BOARD
REF
DW
TR
118
116
MW
114
115
119
113
120
112
121
129
422
ICE
123
W/H
124
GLASS BOARD
103
111
110
109
108
107
106
105
104
102
101
125
126
127
130
128
131
COM
132
133
134
135
W/C REF.
SC
CJ
TYP.
1055
1109
2210
0900
1122
2605
1123
0312
2215
0901
0718
2212
1053
2633
1153
1039
1061
1060
0536
1058
2642
2213
2224
0626
0634
2640
1171
2643
1137
1153
0536
1039
1058
2642
0634
1061
1060
2605
1053
2215
2640
2633
2224
2213
2212
2211
0626
0718
0901
1109
1055
2210
0900
0312
2215
2212
2211
2210
1055
1109
0901
0718
2212
2210
1055
1109
0901
0626
2642
0634
2605
1058
1061
1060
0536
1039
1153
2633
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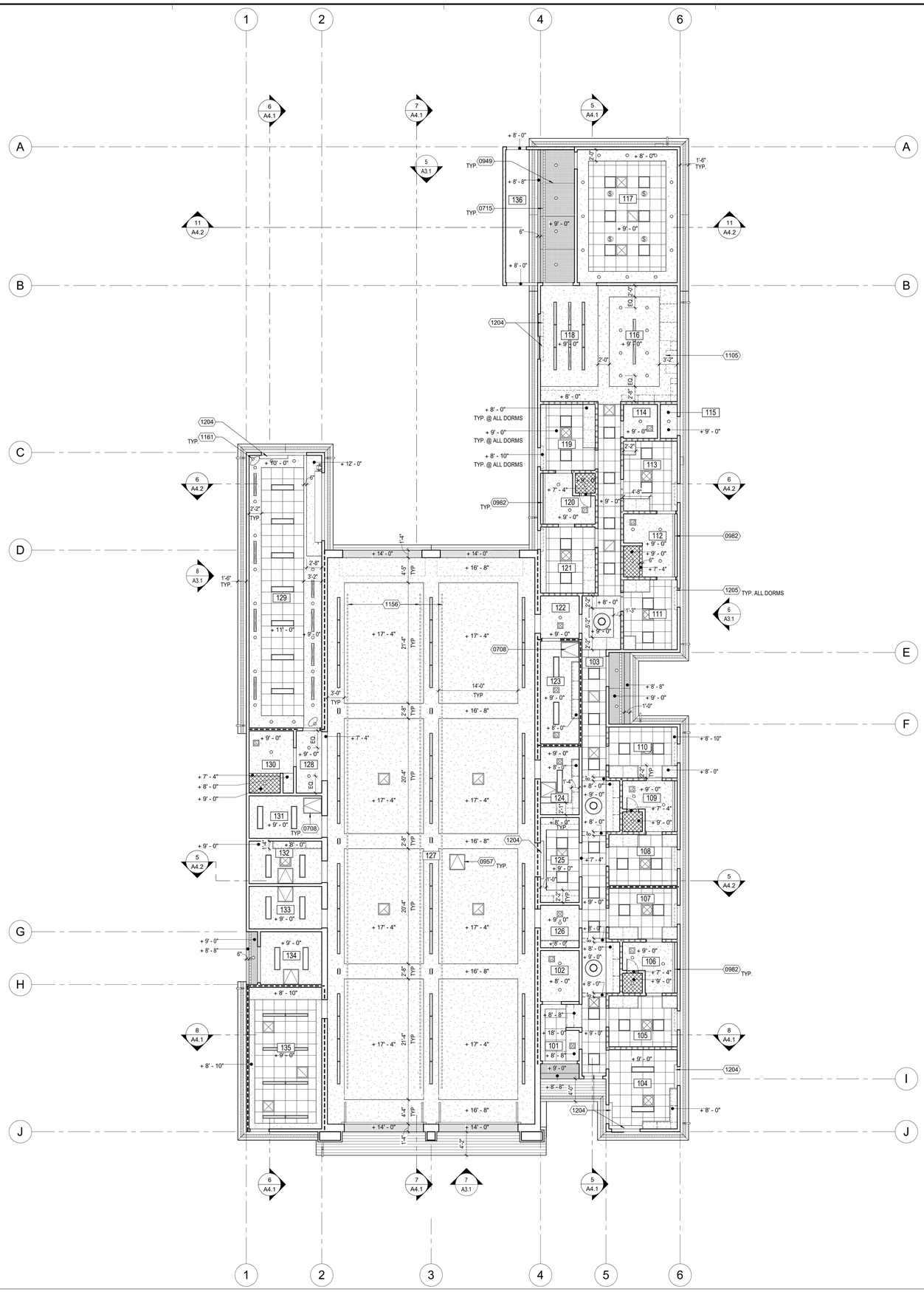
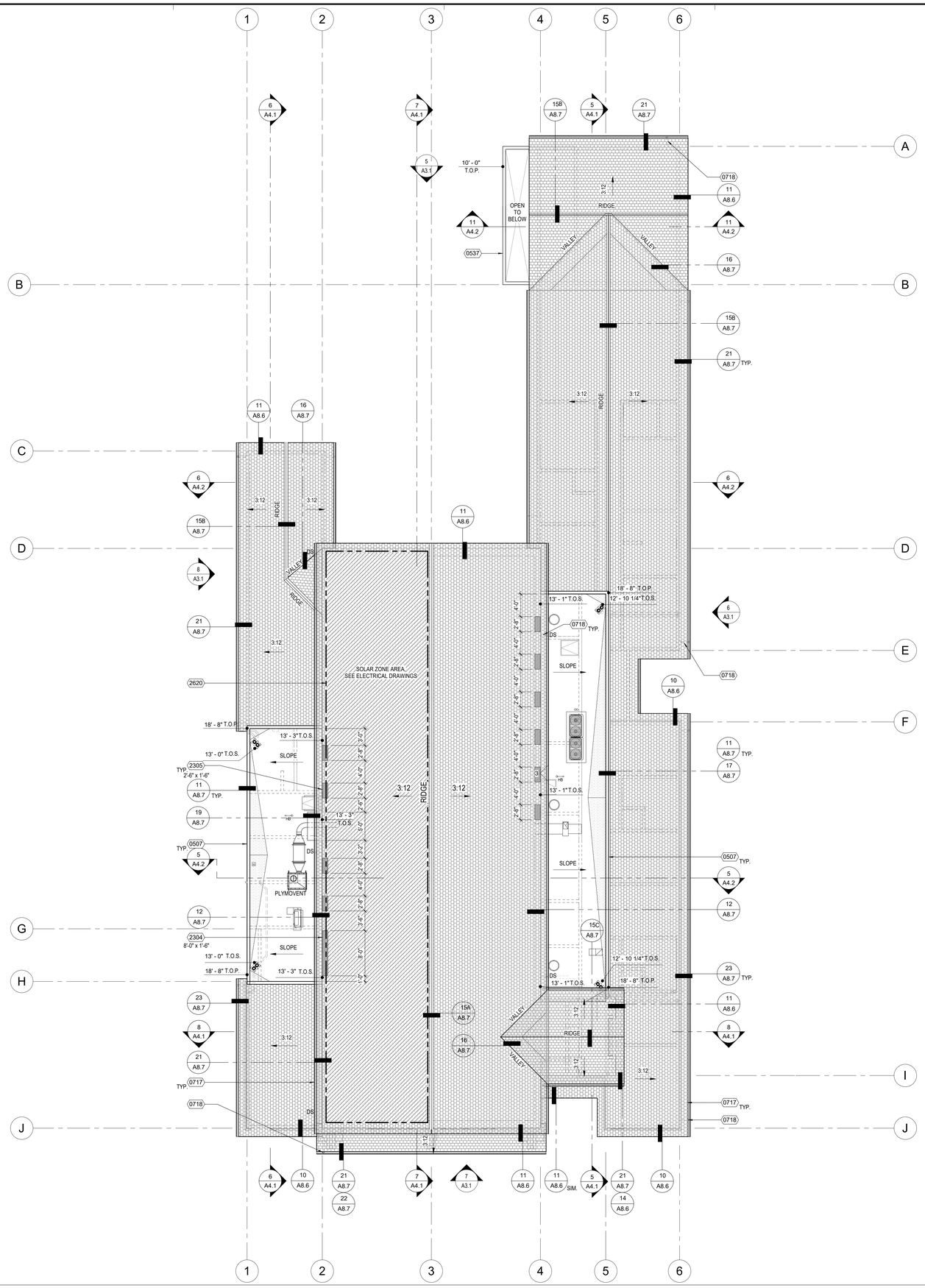
0626
0634
2642
1058
2605

CM-07-01-2026


1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
J
+ 8' - 0"
TYP. 0949
+ 8' - 8"
136
TYP. 0715
+ 9' - 0"
6"
117
118
116
1204
1105
2'-0"
3'-2"
EQ. 2'-0"
EQ. 2'-8"
+ 8' - 0"
114
115
+ 9' - 0"
119
113
+ 8' - 0"
TYP. @ ALL DORMS
+ 9' - 0"
TYP. @ ALL DORMS
+ 8' - 10"
TYP. @ ALL DORMS
1204
TYP. 1161
+ 9'0" - 0"
+ 12' - 0"
6"
2'-2" TYP.
TYP. 0982
+ 7' - 4"
120
+ 9' - 0"
4'-8"
112
0982
+ 9' - 0"
+ 9' - 0"
6"
+ 7' - 4"
121
1205 TYP. ALL DORMS
6 A3.1
+ 14' - 0"
+ 14' - 0"
11"-4"
4'-5" TYP
+ 16' - 8"
1'-6" TYP.
8 A3.1
2'-8"
3'-2"
129
1156
122
+ 8' - 0"
+ 9' - 0"
5'-2"
1'-3"
111
+ 11' - 0"
+ 9' - 0"
+ 17' - 4"
21'-4" TYP
+ 17' - 4"
0708
103
3'-0" TYP
14'-0" TYP
123
+ 9' - 0"
+ 8' - 0"
+ 8' - 8"
+ 9' - 0"
1'-0"
+ 8' - 10"
+ 9' - 0"
EQ.
+ 9' - 0"
130
128
+ 7' - 4"
+ 8' - 0"
+ 9' - 0"
20'-4" TYP
+ 17' - 4"
+ 17' - 4"
110
+ 8' - 10"
+ 8' - 0"
124
+ 9' - 0"
109
+ 7' - 4"
+ 9' - 0"
131
+ 9' - 0"
TYP
0708
+ 9' - 0"
+ 8' - 0"
132
2'-8" TYP
+ 16' - 8"
1204
127
0957 TYP.
125
+ 9' - 0"
1'-0"
108
+ 7' - 4"
5 A4.2
133
+ 9' - 0"
+ 17' - 4"
20'-4" TYP
+ 17' - 4"
107
+ 9' - 0"
126
+ 9' - 0"
+ 8' - 0"
+ 9' - 0"
+ 9' - 0"
134
+ 8' - 8"
6"
102
+ 8' - 0"
+ 8' - 0"
106
+ 9' - 0"
+ 7' - 4"
+ 9' - 0"
0982 TYP.
+ 8' - 10"
8 A4.1
8 A4.1
8 A4.1

CM-07-01-2026




## ROOF PLAN LEGENDS 1

- MODIFIED BITUMEN ROOF OVER PLYWOOD SHEATHING
  - MEMBRANE MANUFACTURER: JOHNS MANVILLE CORP.
  - SYSTEM: 3CND CR-HW / DYNAKAP FR T1 CR G
  - FIRE HAZARD CLASSIFICATION: UL CLASS A
  - SRI: 0.70 CRRC / EMISSIVITY: 0.90 CRRC
- ASPHALT SHINGLE ROOF
  ASPHALT SHINGLE ROOF, ASTM D3018, CLASS A GAF TIMERLINE HDZ REFLECTOR SERIES ICC ESR-1475-COLOR (AGED CHESTNUT)
- CRICKET, REF DETAILS 1 / A8.7 , 2 / A8.7
- SLOPE — PROVIDE MINIMUM 1/4 INCH PER FOOT SLOPE FOR DRAINAGE ALONG FLOW LINES
- ROOF DRAIN AND OVER FLOW DRAIN, SEE PLUMBING DRAWINGS AND DETAIL 7 / A8.7
- ROOF ACCESS HATCH, REF DETAIL 5 / A8.7
- TUBULAR SKYLIGHT SYSTEM, REF DETAIL 3 / A8.7
- MECHANICAL EQPT, SEE MECHANICAL DRAWINGS AND DETAILS 2 / A8.7 , 4 / A8.7 FOR CURB/ PLATFORM

## ROOF PLAN NOTES 2

NOTES:

1. ALL HEIGHTS ARE REFERENCED FROM FINISH FLOOR ELEVATION = 0'-0". REFER TO PLANS AND SECTIONS FOR ADDITIONAL INFORMATION.
2. FOR ADDITIONAL CONDUIT AND PIPING PENETRATIONS AT ROOF AREAD, SEE DETAIL 8/A8.7 MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.
3. FOR VENT PIPE PENETRATIONS AT ROOFING, SEE DETAILS 9/A8.7 AND 10/A8.7.
4. PROVIDE WALKING PAD TO AND AROUND ALL ROOF TOP MOUNTED MECHANICAL EQUIPMENTS AT FLAT ROOFS.
5. PROVIDE CRICKET AT ROOFTOP EQUIPMENT PER DETAIL 1, 2/A8.7.
6. FOR FLASHING AT INTERSECTING WALLS, REF TO DETAIL 11/A8.7.
7. FOR TYPICAL HEAD WALL FLASHING, REF TO DETAIL 17/A8.7.
8. FOR STUD WALL TO FLAT ROOF TRANSITION, REF TO DETAILS 12/A8.7.
9. ALL LOUVERS AND VENTS SHALL HAVE 1/8" NONCMBUSTIBLE, CORROSION-RESISTANT MESH, EXCEPTION: APPROVED VENTS RESISTING INTRUSION OF FLAMES AND EMBERS.
10. ALL ROOFING SHALL HAVE A CLASS A FIRE RATING.
11. INSTALLATIONS OF ROOFING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
12. ROOFING MATERIAL ON THE ROOF SHALL NOT EXCEED 10 POUNDS PER SQUARE FOOT (PITCHED).
13. ROOFING MATERIAL ON THE ROOF SHALL NOT EXCEED 5 POUNDS PER SQUARE FOOT (FLAT).
14. PROVIDE WOOD FRAME LEVEL PLATFORM FOR ALL ROOF TOP MECHANICAL EQUIPMENT, SEE DETAIL 4/A8.7.

## ATTIC VENTILATION CALCULATION 3

ATTIC SPACE VENTILATION CALCULATION (APP BAY ROOF)

| | |
|---|---|
| -TOTAL ENCLOSED ATTIC: | 3,720 SF |
| -REQUIRED TOTAL VENTED FREE AREA: | 3,720 SF / 150 = 24.8 SF = 3,572 SQS. IN. |
| -PROVIDED VENTS: | |
| - (2) GABLE VENTS: CUSTOM LOUVER VENT (50% NFVA) | NFVA 520 SQ. IN./ EA. X 2 = 1,040 SQ. IN. |
| - (10) WALL VENTS: CUSTOM LOUVER VENT (50% NFVA) | NFVA 256 SQ. IN. X 10 = 2,560 SQ. IN. |
| - TOTAL VENTED FREE AREA = 3,600 SQ. IN. > 3,521 SQ. IN.: OK | |

ATTIC SPACE VENTILATION CALCULATION (EAST WING)

| | |
|---|---|
| -TOTAL ENCLOSED ATTIC: | 3,619 SF |
| -REQUIRED TOTAL VENTED FREE AREA: | 3,619 SF / 150 = 24.13 SF = 3,475 SQS. IN. |
| -PROVIDED VENTS: | |
| - (1) GABLE VENTS: CUSTOM LOUVER VENT (50% NFVA) | NFVA 360 SQ. IN./ EA. X 1 = 360 SQ. IN. |
| - (325) LINEAR FT CONT. SOFFIT/EAVE VENTS: NFVA 10 SQ. IN. X 325 = 3,250 SQ. IN. | |
| - TOTAL VENTED FREE AREA = 3,610 SQ. IN. > 3,475 SQ. IN.: OK | |

ATTIC SPACE VENTILATION CALCULATION (WEST WING)

| | |
|---|---|
| -TOTAL ENCLOSED ATTIC: | 1,411 SF |
| -REQUIRED TOTAL VENTED FREE AREA: | 1,411 SF / 150 = 9.41 SF = 1,355 SQS. IN. |
| -PROVIDED VENTS: | |
| - (1) GABLE VENTS: CUSTOM LOUVER VENT (50% NFVA) | NFVA 360 IN./ EA. X 1 = 360 SQ. IN. |
| - (123) LINEAR FT CONT. SOFFIT/EAVE VENTS: NFVA 10 SQ. IN. X 123 = 1,230 SQ. IN. | |
| - TOTAL VENTED FREE AREA = 1,590 SQ. IN. > 1,355 SQ. IN.: OK | |

## REFERENCE NOTES 4

- 0507 METAL COPING, SEE 13/A8.7
- 0537 PARAPET COPING @ CMU CONDITION, SEE 11/A8.7, SIM
- 0717 GUTTER SYSTEM, SEE 8/A8.6
- 0718 DOWNSPOUT, TYP.
- 2304 EXHAUST AIR LOUVER, SEE 12/A8.6 AND MECHANICAL AND STRUCTURAL DRAWINGS
- 2305 EXHAUST AIR LOUVER, SEE 12/A8.6, SIM. AND STRUCTURAL DRAWINGS
- 2620 SOLAR ZONE AREA, SEE ELECTRICAL DRAWINGS

NOTES:

1. VENTS ARE NOT PERMITTED IN OVERHANG AREAS. VENT SHALL RESIST THE INTRUSION OF FLAMES AND EMBERS OR SHALL BE PROTECTED BY LOUVERS AND 1/8-INCH NON-COMBUSTIBLE, CORROSION-RESISTANT METAL MESH.
2. SKYLIGHTS SHALL BE TEMPERED GLASS.
3. ALL ROOFING MATERIAL TO HAVE A MINIMUM CLASS "A" FIRE RATING.
4. SPACE AT EAVE ENDS SHALL HAVE NON-COMBUSTIBLE BIRD STOP TO PRECLUDE ENTRY OF FLAMES OR EMBERS.
5. EXPOSED VALLEY FLASHINGS SHALL BE CONSTRUCTED WITH MIN. 26-GAUGE CORROSION-RESISTANT METAL INSTALLED OVER MIN. 36-INCH WIDE SINGLE LAYER No. 72 ASTM CAP SHEET RUNNING FULL LENGTH OF VALLEY.
6. ANY ROOF GUTTERS SHALL BE PROVIDED WITH MEANS TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS.
7. MECHANICAL DUCT PENETRATIONS, SEE 7/A8.6.

## ROOF PLAN 8

1/8" = 1'-0"

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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 4 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

ROOF PLAN

DRAWING NUMBER: A2.3

PC SUBMITTAL

6/30/2026 10:54:21 AM
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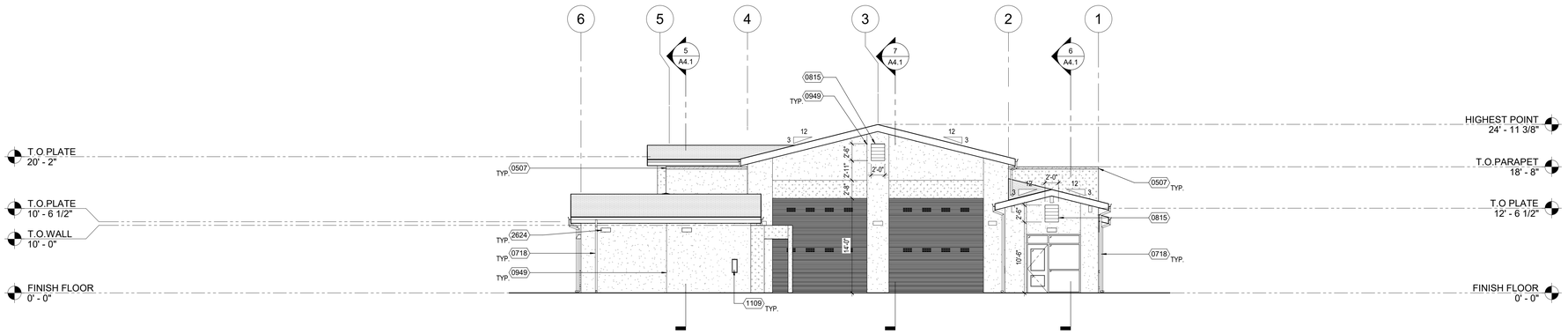
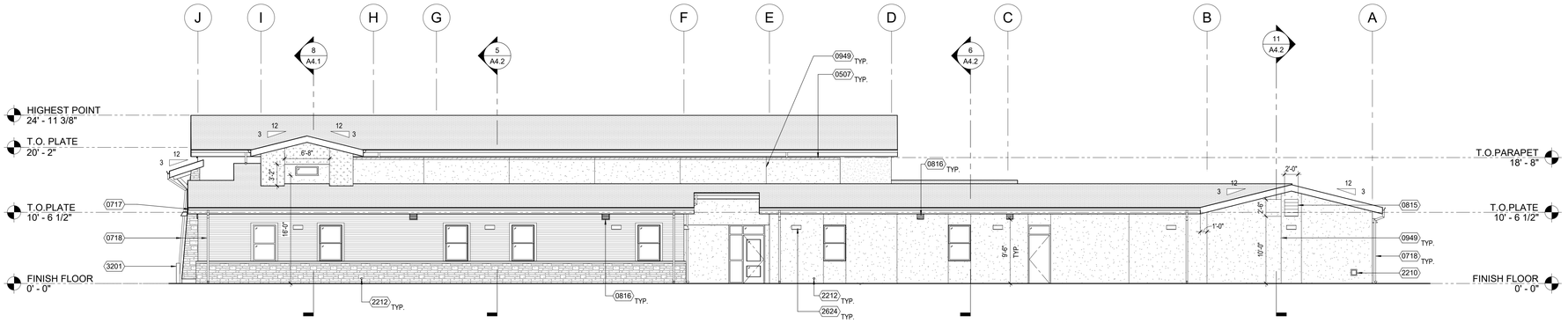
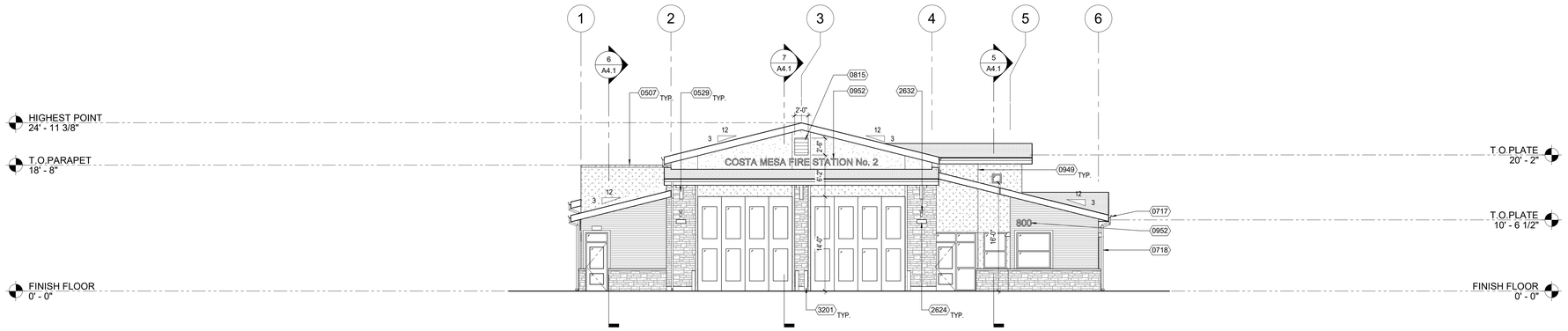


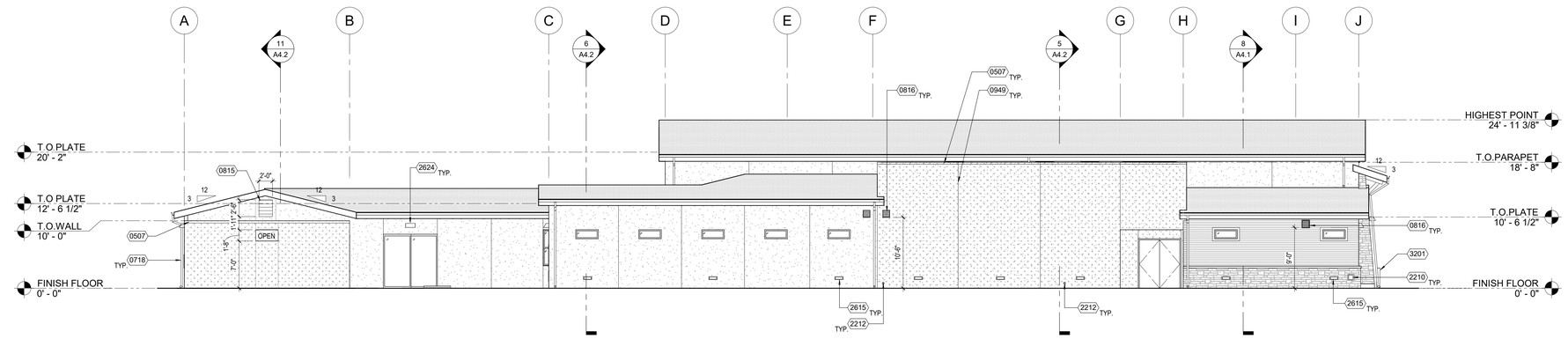

NORTH ELEVATION 5
1/8" = 1'-0"




EAST ELEVATION 6
1/8" = 1'-0"




SOUTH ELEVATION 7
1/8" = 1'-0"




WEST ELEVATION 8
1/8" = 1'-0"

## MATERIAL LEGEND 1

- EXTERIOR PLASTER COLOR 1 (TAN)
- EXTERIOR PLASTER COLOR 2 (BROWN)
- FIBER CEMENT SIDING
- STONE VENEER, REF DETAILS 6/A8.6, TYP.
- ASPHALT SHINGLE ROOF
  ASPHALT SHINGLE ROOF, ASTM D3018, CLASS A GAF TIMBERLINE HDZ REFLECTOR SERIES ICC ESR-1475-COLOR (AGED CHESTNUT)

## REFERENCE NOTES 4

| | |
|---|---|
| 0507 | METAL COPING, SEE 13/A8.7 |
| 0529 | METAL OUTRIGGER, TYP., SEE 9/A8.6 |
| 0717 | GUTTER SYSTEM, SEE 8/A8.6 |
| 0718 | DOWNSPOUT, TYP. |
| 0815 | WALL LOUVER, SEE 12,15/A8.6 AND MECHANICAL DRAWINGS. |
| 0816 | 12"X12" MECHANICAL WALL LOUVER, SEE 12,15/A8.6 AND MECHANICAL DRAWINGS |
| 0949 | PLASTER CONTROL JOINT, SEE 1/A8.6 |
| 0952 | 12" HIGH STUD-MOUNTED METAL NUMBERS, LED BACKLIT, SEE ELECTRICAL DRAWINGS |
| 1109 | FIRE EXTINGUISHER IN RECESSED CABINET, SEE 6,7 /A8.4 |
| 2210 | RECESSED HOSE BIBB, SEE PLUMBING DRAWINGS |
| 2212 | OVERFLOW DRAIN THROUGH WALL, SEE PLUMBING DRAWINGS |
| 2615 | RECESSED LIGHT FIXTURE, TYP., SEE ELECTRICAL DRAWINGS |
| 2624 | LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS |
| 2632 | RED BEACON LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS |
| 3201 | 6" DIA. PIPE BOLLARD, TYP., SEE 3/A1.3 |

NOTES:

1. FOR TYPICAL FIVER CEMENT SIDING SEE DETAILS 20/A8.6.
2. FOR CONTROL JOINT AT EXTERIOR PLASTER LOCATION, SEE DETAIL 1/A8.6.
3. FOR OVERFLOW DRAIN, SEE 2 AND 3/A8.6 AND PLUMBING DRAWINGS
4. FOR DOWNSPOUT BRACKET, REF DETAIL 4/A8.6.
5. FOR TYPICAL GUTTER PROFILE, REF DETAIL 8/A8.6.
6. ALL ROOF GUTTERS SHALL BE PROVIDED WITH MEANS TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS.
7. ALL LOUVERS AND VENTS SHALL HAVE 1/8" NONCOMBUSTIBLE, CORROSION-RESISTANT MESH. EXCEPTION: APPROVED VENTS RESISTING INTRUSION OF FLAMES AND EMBERS.
8. ROOF COVERING SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR "HIGH WIND AREAS."
9. ROLL-UP, SECTIONAL, BI-FOLD, ETC. DOORS SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR "HIGH WIND AREAS."

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CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

# EXTERIOR ELEVATIONS

DRAWING NUMBER: A3.1

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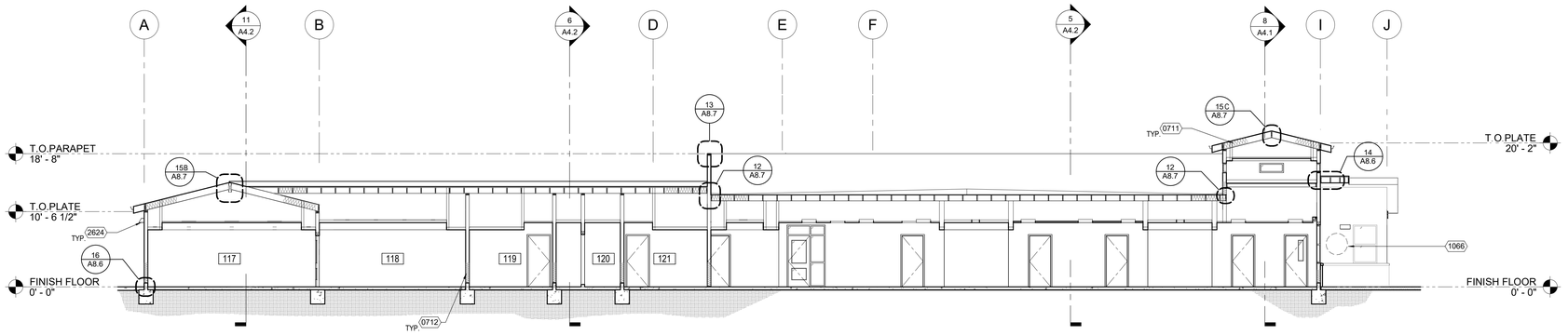
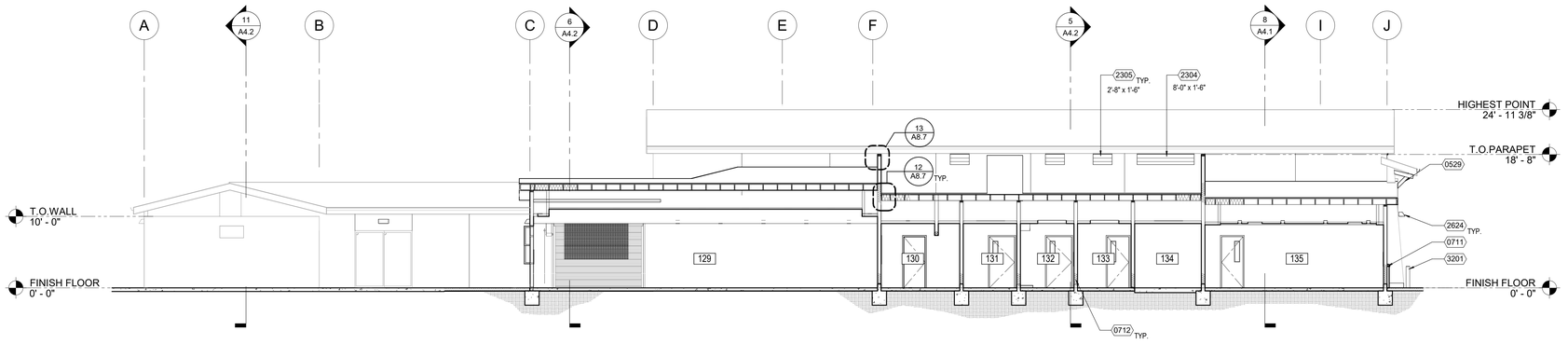
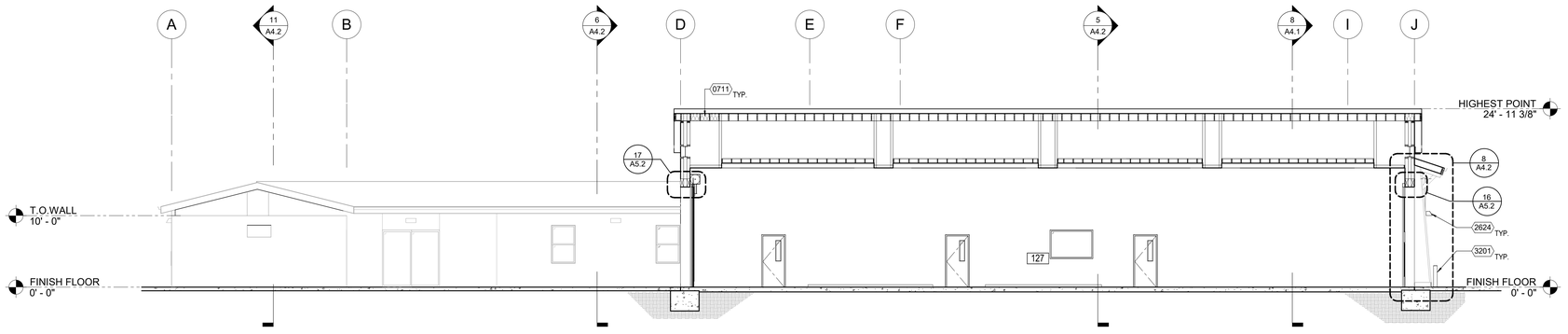


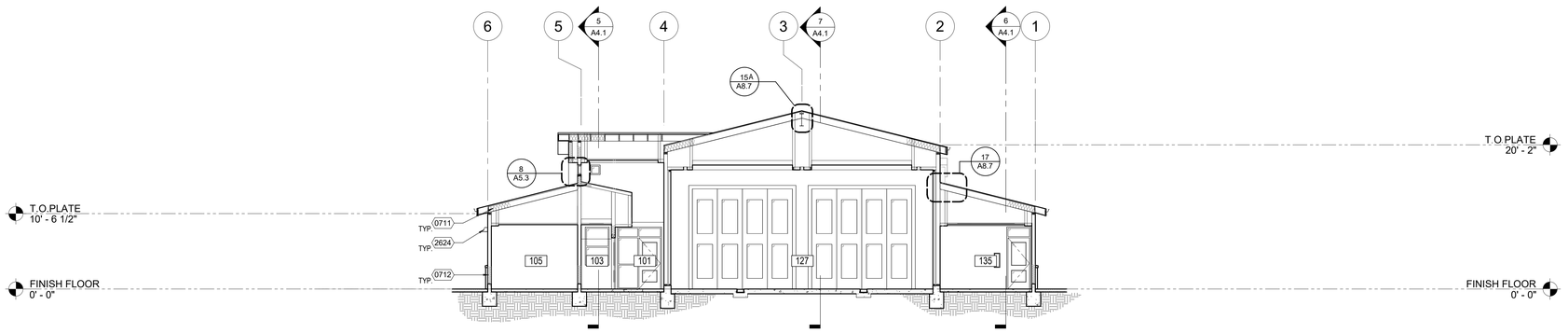

BUILDING SECTION 1/8" = 1'-0" **5**




BUILDING SECTION 1/8" = 1'-0" **6**




BUILDING SECTION 1/8" = 1'-0" **7**




BUILDING SECTION 1/8" = 1'-0" **8**

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN/ STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORKSTATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

## ROOM LEGEND **2**

| | |
|---|---|
| 0529 | METAL OUTRIGGER, TYP., SEE 9/A8.6 |
| 0711 | BATT INSULATION, TYP. |
| 0712 | ACOUSTICAL INSULATION, TYP. |
| 1066 | 36" CUSTOM FD MALTESE CROSS MEMORIAL, SEE 20/A8.5 |
| 2304 | EXHAUST AIR LOUVER, SEE 12/A8.6 AND MECHANICAL AND STRUCTURAL DRAWINGS |
| 2305 | EXHAUST AIR LOUVER, SEE 12/A8.6, SIM. AND STRUCTURAL DRAWINGS |
| 2624 | LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS |
| 3201 | 6" DIA. PIPE BOLLARD, TYP., SEE 3/A1.3 |

NOTES:
1. INSULATION WITHIN WALLS TO BE RATED R19, U.N.O.
2. INSULATION WITHIN THE ROOF TO BE RATED R30, U.N.O.

## REFERENCE NOTES **4**

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LICENSED ARCHITECT
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CONSULTANT

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|---|---|---|---|
| 4 | | | REVISIONS |

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|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**BUILDING SECTIONS**

DRAWING NUMBER: **A4.1**

PC Submittal

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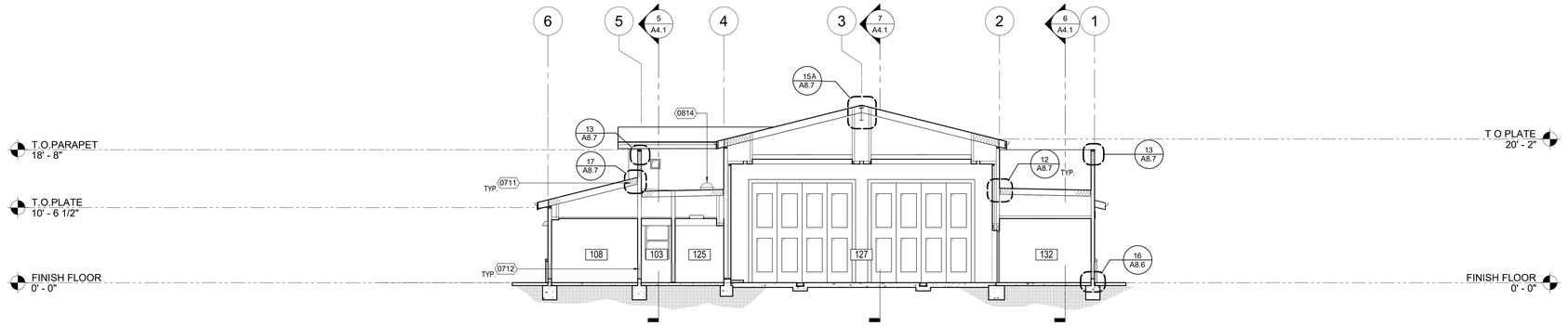
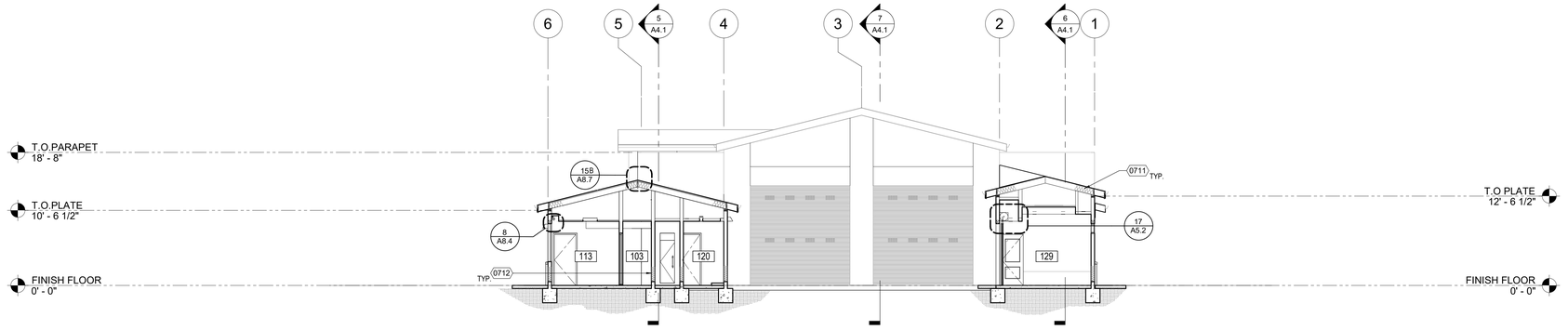


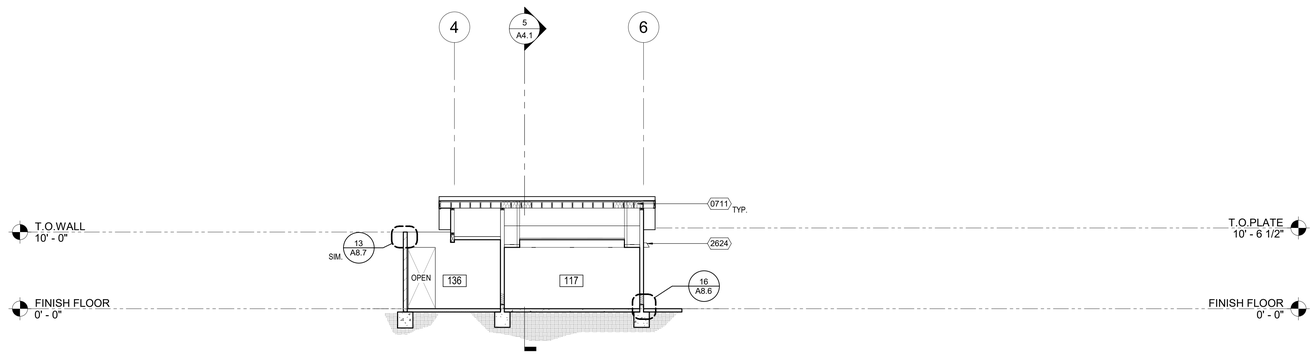

BUILDING SECTION 1/8" = 1'-0" **5**



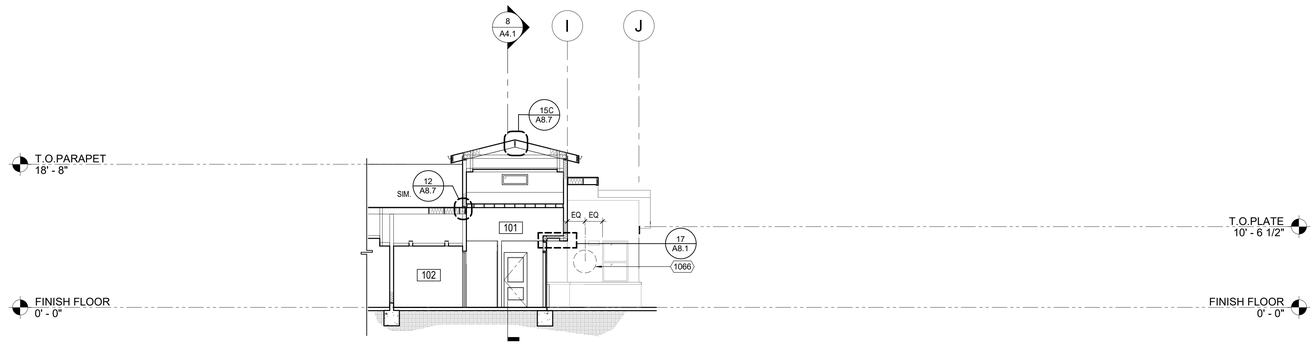

BUILDING SECTION 1/8" = 1'-0" **6**

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN/ STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORKSTATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

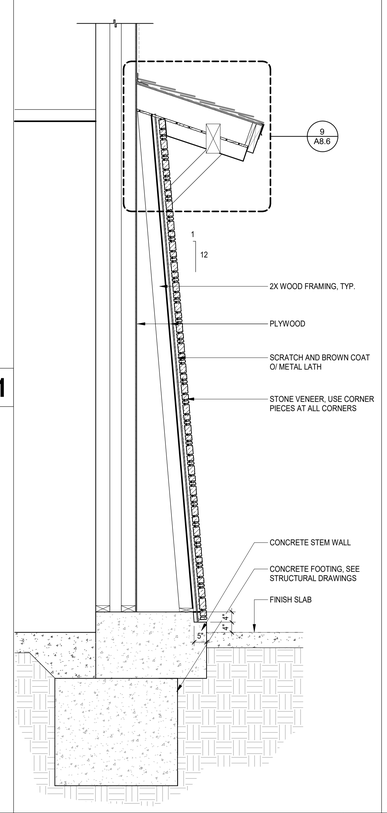
ROOM LEGEND **2**




BUILDING SECTION 1/8" = 1'-0" **11**




BUILDING SECTION 1/8" = 1'-0" **12**




BUTTRESS SECTION 1/2" = 1'-0" **8**

| | |
|---|---|
| 0711 | BATT INSULATION, TYP. |
| 0712 | ACOUSTICAL INSULATION, TYP. |
| 0814 | TUBULAR SKYLIGHT, SEE DETAIL 3/A8.7 |
| 1066 | 36" CUSTOM FD MALTESE CROSS MEMORIAL, SEE 20/A8.5 |
| 2624 | LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS |

NOTES:
1. INSULATION WITHIN WALLS TO BE RATED R19, U.N.O.
2. INSULATION WITHIN THE ROOF TO BE RATED R30, U.N.O.

REFERENCE NOTES **4**

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| 4 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# BUILDING SECTIONS

DRAWING NUMBER: **A4.2**

PC Submittal

6/30/2026 10:34:56 AM
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CM-07-01-2026

## ROOM SCHEDULE

| # | ROOM NAME | BASE | FLOOR | WAINSCOT NORTH | WAINSCOT EAST | WAINSCOT SOUTH | WAINSCOT WEST | WALLS NORTH | WALLS EAST | WALLS SOUTH | WALLS WEST | INTERIOR ELEVATION SHEET | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 101 | LOBBY | RES | PC | - | - | - | - | GYP | GYP | GYP | GYP | 13/A7.1 | POLISHED CONCRETE, COLORED |
| 102 | RESTROOM | POR | POR | - | - | - | - | POR | POR | POR | POR | 4/A7.1 | DEPRESS CONCRETE SLAB 2-1/2" |
| 103 | HALLWAY | RES | CPT | - | - | - | - | GYP | GYP | GYP | GYP | 5/A7.1 | - |
| 104 | CAPTAIN'S OFFICE | RES | CPT | - | - | - | - | GYP | GYP | GYP | GYP | 6/A7.1 | - |
| 105 | SLEEPING QUARTER 1 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 15/A7.1 | - |
| 106 | SHARED BATH 1 | POR | POR | - | - | - | - | AEG/POR | AEG/POR | AEG/POR | AEG/POR | 16/A7.1 | DEPRESS CONCRETE SLAB 2-1/2" |
| 107 | SLEEPING QUARTER 2 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 15/A7.1 | - |
| 108 | SLEEPING QUARTER 3 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 15/A7.1 | - |
| 109 | SHARED BATH 2 | POR | POR | - | - | - | - | AEG/POR | AEG/POR | AEG/POR | AEG/POR | 16/A7.1 | DEPRESS CONCRETE SLAB 2-1/2" |
| 110 | SLEEPING QUARTER 4 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 15/A7.1 | - |
| 111 | SLEEPING QUARTER 5 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 3/A7.2 | - |
| 112 | ACC. SHARED BATH 3 | POR | POR | - | - | - | - | AEG/POR | AEG/POR | AEG/POR | AEG/POR | 4/A7.2 | DEPRESS CONCRETE SLAB 2-1/2" |
| 113 | SLEEPING QUARTER 6 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 3/A7.2 | - |
| 114 | RESTROOM | POR | POR | - | - | - | - | AEG/POR | AEG/POR | AEG/POR | AEG/POR | 19/A7.2 | DEPRESS CONCRETE SLAB 2-1/2" |
| 115 | FIRE RISER ROOM | CONC | CONC | - | - | - | - | GYP | GYP | GYP | GYP | - | - |
| 116 | KITCHEN | RES | PC | - | - | - | - | GYP | GYP | GYP | GYP | 6/A7.2 | POLISHED CONCRETE, COLORED |
| 117 | DAY ROOM | RES | CPT | - | - | - | - | GYP | GYP | GYP | GYP | 17/A7.2 | - |
| 118 | DINING ROOM | RES | PC | - | - | - | - | GYP | GYP | GYP | GYP | 6/A7.2 | POLISHED CONCRETE, COLORED |
| 119 | SLEEPING QUARTER 7 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 16/A7.2 | - |
| 120 | SHARED BATH 4 | POR | POR | - | - | - | - | AEG/POR | AEG/POR | AEG/POR | AEG/POR | 16/A7.1 | DEPRESS CONCRETE SLAB 2-1/2" |
| 121 | SLEEPING QUARTER 8 | RES | CPT | - | - | - | - | AEG | AEG | AEG | AEG | 16/A7.2 | - |
| 122 | VESTIBULE 2 | RES | PC | - | - | - | - | GYP | GYP | GYP | GYP | 5/A7.3 | POLISHED CONCRETE, COLORED |
| 123 | CUSTODIAN/ STORAGE | RES | CONC | - | - | CER | CER | IRG | IRG | IRG | IRG | 5/A7.2 | - |
| 124 | MEDICAL STORAGE | RES | CONC | - | - | - | - | GYP | GYP | GYP | GYP | 7/A7.2 | - |
| 125 | WORKSTATIONS | RES | PC | - | - | - | - | GYP | GYP | GYP | GYP | 16/A7.4 | POLISHED CONCRETE, COLORED |
| 126 | VESTIBULE 1 | RES | PC | - | - | - | - | GYP | GYP | GYP | GYP | 6/A7.3 | POLISHED CONCRETE, COLORED |
| 127 | APPARATUS ROOM | CONC | CONC | - | - | - | - | IRG | IRG | IRG | IRG | 4/A7.3 | - |
| 128 | DECON SINK | RES | CONC | - | - | - | - | IRG | IRG | IRG | IRG | - | - |
| 129 | EXERCISE ROOM | ALT | ATL | ATL | ATL | ATL | ATL | IRG | IRG | IRG | IRG | 10/A7.3 | |
| 130 | DIRTY RESTOOM | POR | POR | - | - | - | - | POR | POR | POR | POR | 5/A7.4 | DEPRESS CONCRETE SLAB 2-1/2" |
| 131 | STORAGE | RES | CONC | - | - | - | - | IRG | IRG | IRG | IRG | - | - |
| 132 | WORKSHOP | RES | CONC | - | - | - | - | IRG | IRG | IRG | IRG | 6/A7.4 | - |
| 133 | DATA | RES | CONC | - | - | - | - | GYP | GYP | GYP | GYP | - | - |
| 134 | ELECTRICAL ROOM | RES | CONC | - | - | - | - | GYP | GYP | GYP | GYP | - | - |
| 135 | CONFERENCE ROOM | RES | CPT | - | - | - | - | GYP | GYP | GYP | GYP | 7/A7.4 | - |
| 136 | OUTDOOR PATIO | - | - | - | - | - | - | - | - | - | - | - | - |

FINISH NOTES:

1. ALL GYP. BOARD SURFACES TO BE PAINTED, TYP.
2. WALL, FLOOR AND CEILING FINISHES SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATIONS IN 2022 CBC TABLE 803.13.
3. PROVIDE FULL HEIGHT FRP FINISH AT ALL MOP SINK LOCATIONS, U.N.O.
4. FOR TYPICAL WALL BASE, SEE DETAIL 4/A8.2.
5. FOR WALL BASE AT TILED LOCATION, SEE DETAIL 8/A8.2.
6. ALL EXPOSED CONCRETE BASE TO HAVE 3/4" RADIUS COVE.
7. FOR FLOOR TRANSITIONS, SEE DETAIL 2/A5.2.
8. DEPRESS CONCRETE SLAB 2-1/2" WHERE PORCELAIN FLOOR FINISH IS SCHEDULED, U.N.O.
9. VERIFY ALL FLOOR PATTERNS WITH ARCHITECT.
10. PORCELAIN TILE TO BE OVER TYPE X TILE BACKER BOARD AT ALL WALL AND CEILING LOCATIONS, U.N.O.
11. VERIFY ADA CLEARANCES ARE TO THE FINISH TILE.
12. FOR TYPICAL WALL TILE PATTERN, SEE DETAIL 10/A8.2.
13. FOR TYPICAL SHOWER STALL, SEE DETAIL 1/A8.2.
14. FOR SECTION THROUGH CURB - TYPICAL SHOWER STALL, SEE DETAIL 3/A8.2. FOR NO CURB, WHERE OCCURS, SEE DETAIL 7/A8.2.
15. 7/8" FURRING CHANNELS AT 16" O.C. SHALL BE USED ON ALL MASONRY SURFACES SCHEDULED TO RECEIVE GYPSUM BOARD FINISH AND 1-1/2" MIN. WHERE THERE IS CONDUIT, U.N.O.

MATERIAL LEGEND:

BASE

| | |
|---|---|
| CER | CERAMIC TILE BASE |
| CONC | EXPOSED CONCRETE CURB |
| RES | RESILIENT BASE |
| EPXY | EPOXY BASE |

FLOOR

| | |
|---|---|
| ATL | ATHLETIC FLOORING |
| CONC | EXPOSED CONCRETE. SEALED WITH ASHFORD FORMULA, AND UL-360 E-ZEE SEAL BY ALLIED INTERNATIONAL |
| CER | CERAMIC TILE |
| CPT | CARPET |
| EPXY | EPOXY FLOORING |
| LVT | LUXURY VINYL TILE |
| PC | POLISHED CONCRETE |
| POR | PORCELAIN TILE |
| RES | RESILIENT FLOORING |
| RUB | RUBBER FLOORING |

WALL

| | |
|---|---|
| AEG | ACOUSTICALLY ENHANCED GYPSUM BOARD |
| CMU | EXPOSED CONCRETE MASONRY |
| CONC | EXPOSED CONCRETE |
| CER | CERAMIC TILE |
| FRP | FIBERGLASS REINFORCED PANELS OVER GYPSUM BOARD |
| GYP | GYPSUM BOARD |
| IRG | IMPACT RESISTANT / ABUSE RESISTANT GYSPUM BOARD |
| MIR | MIRROR OVER IR GYPSUP BOARD |
| MRG | MOISTURE RESISTANT GYPSUM BOARD |
| POR | PORCELAIN TILE |
| PVC | PVC INTERLOCKING PANEL |

## FINISH SCHEDULE AND NOTES

| # | DOOR SIZE WIDTH | DOOR SIZE HEIGHT | FEATURE TYPE | FEATURE THICKNESS | FEATURE LABEL (MIN.) | HARDWARE GROUP | HARDWARE SELF CLOSING | HARDWARE PANIC | MATERIAL DOOR | MATERIAL FRAME | FINISH DOOR | FINISH FRAME | DETAILS SEE SHEET A5.2, U.N.O. HEAD | DETAILS JAMB | DETAILS SILL | GLAZING TYPE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 101 | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 1 | Y | Y | HM | HM | P | P | 8 | 8, 10, 12 | 4 | A | 1, 7, 9, 10 |
| 102 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 2 | Y | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 103A | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 3 | Y | Y | WS | HM | PL | P | 13 | 13 | 2B | C | 8 |
| 103B | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 1 | Y | Y | HM | HM | P | P | 8 | 8, 10 | 4 | A | 1, 7, 10 |
| 104 | 3' - 0" | 7' - 2" | C | 1 3/4" | - | 4 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | C | - |
| 105 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 5 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 106A | 2' - 6" | 7' - 2" | B | 1 3/4" | - | 6 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 106B | 2' - 6" | 7' - 2" | B | 1 3/4" | - | 7 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 107 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 5 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 108 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 5 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 109A | 2' - 6" | 7' - 2" | B | 1 3/4" | - | 6 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 109B | 2' - 6" | 7' - 2" | B | 1 3/4" | - | 7 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 110 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 5 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 111 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 5 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 112A | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 8 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 112B | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 8 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 113 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 5 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 114 | 2' - 6" | 7' - 2" | B | 1 3/4" | - | 9 | Y | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 115 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 10 | - | - | HM | HM | P | P | 10 | 10 | 4 | - | 3, 14 |
| 117A | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 11 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | C | - |
| 117B | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 1 | Y | Y | HM | HM | P | P | 10 | 10 | 4 | A | 1, 7, 10 |
| 118A | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 1 | Y | Y | HM | HM | P | P | 8 | 8,10 | 4 | A | 1, 7, 10 |
| 118B | 8' - 0" | 8' - 0" | D | - | - | 12 | - | - | AL | - | - | FF | 21 | 22, 23 | 21 | A | TWO ROLLER SHADES, REF. DTL. 11/A8.4 |
| 119 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 13 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 120A | 2' - 6" | 7' - 2" | B | 1 3/4" | - | 7 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 120B | 2' - 6" | 7' - 2" | B | 1 3/4" | - | 6 | - | - | WS | HM | PL | P | 13 | 13 | 2E | - | 4 |
| 121 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 13 | Y | - | WS | HM | PL | P | 13 | 13 | 2B | - | - |
| 122A | 3' - 0" | 7' - 2" | C | 1 3/4" | - | 14 | Y | Y | HM | HM | P | P | 13 | 13 | 2B | C | - |
| 122B | 3' - 0" | 7' - 2" | C | 1 3/4" | 45 | 15 | Y | Y | HM | HM | P | P | 13 | 13 | 2C | F | 1, 4 |
| 123 | 3' - 0" | 7' - 2" | C | 1 3/4" | 45 | 16 | Y | - | HM | HM | P | P | 13 | 13 | 2C | F | 4 |
| 124 | 3' - 0" | 7' - 2" | C | 1 3/4" | 45 | 17 | Y | - | HM | HM | P | P | 13 | 13 | 2C | F | 4 |
| 126A | 3' - 0" | 7' - 2" | C | 1 3/4" | - | 18 | Y | Y | HM | HM | P | P | 13 | 13 | 2B | C | 4 |
| 126B | 3' - 0" | 7' - 2" | C | 1 3/4" | 45 | 15 | Y | Y | HM | HM | P | P | 13 | 13 | 2C | F | 1 |
| 127A | 14' - 0" | 14' - 0" | G | - | - | 12 | - | - | ST | ST | FF | FF | 16 | 15 | - | A | FOUR-FOLD DOOR |
| 127B | 14' - 0" | 14' - 0" | G | - | - | 12 | - | - | ST | ST | FF | FF | 16 | 15 | - | A | FOUR-FOLD DOOR |
| 127C | 14' - 0" | 14' - 0" | H | - | - | 12 | - | - | ST | ST | FF | FF | 17 | 14 | - | D | COILING DOOR |
| 127D | 14' - 0" | 14' - 0" | H | - | - | 12 | - | - | ST | ST | FF | FF | 17 | 14 | - | D | COILING DOOR |
| 129A | 3' - 0" | 7' - 2" | A | 1 3/4" | 45 | 19 | Y | Y | HM | HM | PL | P | 13 | 13 | 2D | C | - |
| 129B | 12' - 0" | 8' - 8" | I | - | - | 12 | - | - | ST | ST | FF | FF | 17 | 18 | 14, SIM. | D | COILING DOOR |
| 129C | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 20 | Y | Y | HM | HM | P | P | 8 | 8,10 | 4 | A | 1, 7, 9, 10 |
| 130 | 3' - 0" | 7' - 2" | B | 1 3/4" | - | 21 | Y | - | HM | HM | P | P | 13 | 13 | 2E | - | 4 |
| 131 | 3' - 6" | 7' - 2" | C | 1 3/4" | - | 22 | Y | - | HM | HM | P | P | 13 | 13 | 2C | C | 2 |
| 132 | 3' - 6" | 7' - 2" | C | 1 3/4" | - | 22 | Y | - | HM | HM | P | P | 13 | 13 | 2C | C | - |
| 133 | 6' - 0" | 7' - 2" | C | 1 3/4" | - | 23 | Y | - | HM | HM | P | P | 13 | 13 | 2C | C | - |
| 134 | 3' - 0" | 7' - 2" | E | 1 3/4" | 45 | 24 | Y | - | HM | HM | P | P | 10 | 10 | 4 | - | 2 |
| 135A | 3' - 0" | 7' - 2" | A | 1 3/4" | - | 20 | Y | Y | HM | HM | P | P | 8 | 11, 12 | 4 | A | 1, 7, 10 |
| 135B | 3' - 0" | 7' - 2" | C | 1 3/4" | 45 | 15 | Y | Y | HM | HM | P | P | 13 | 13 | 2B | F | 1, 4 |
| | SITE GATES | | | | | | | | | | | | | | | | |
| G1 | 14' - 0" | HEIGHT | - | - | - | SG1 | - | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 7/A1.4 |
| G2 | 3' - 0" | HEIGHT | F | - | - | SG2 | Y | - | | | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 19/A1.5 |
| G3 | 10' - 0" | HEIGHT | - | - | - | SG3 | - | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 7/A1.5 |
| G5 | - | - | F | - | - | SG2 | - | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 17/A1.5 |
| G6 | 3' - 0" | HEIGHT | F | - | - | SG2 | Y | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 18/A1.5 |
| G7 | 3' - 0" | HEIGHT | F | - | - | SG4 | Y | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 21/A1.5 |
| G8 | 10' - 0" | HEIGHT | - | - | - | SG3 | Y | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 7/A1.5 |
| G9 | 10' - 0" | HEIGHT | - | - | - | SG3 | Y | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 7/A1.5 |
| G10 | 26' - 0" | HEIGHT | - | - | - | SG1 | - | - | ST | ST | P | P | - | - | - | - | TOP TO MATCH TOP OF CMU CAP, SEE 6/A1.4 |
| TG1 | 3' - 0" | HEIGHT | - | - | - | SG5 | Y | Y | CL | CL | CL | CL | - | - | - | - | FOR MORE INFO SEE 17/A1.0_B |
| TG2 | 3' - 0" | HEIGHT | - | - | - | SG6 | - | - | CL | CL | CL | CL | - | - | - | - | FOR MORE INFO SEE 17/A1.0_B |
| TG3 | 3' - 0" | HEIGHT | - | - | - | SG5 | Y | Y | CL | CL | CL | CL | - | - | - | - | FOR MORE INFO SEE 17/A1.0_B |
| TG4 | 3' - 0" | HEIGHT | - | - | - | SG6 | - | - | CL | CL | CL | CL | - | - | - | - | FOR MORE INFO SEE 17/A1.0_B |

MATERIAL/FINISH ABBREVIATIONS:
AL = ALUMINUM
AN = ANODIZED
FF = FACTORY FINISH
HM = HOLLOW METAL
P = PAINTED FINISH
PL = PLASTIC LAMINATE
ST = STEEL
TG = TEMPERED GLAZING
WV = WOOD, VENEER
WS = WOOD, SOLID CORE
Y = YES

DOOR NOTES:

1. ALL LANDINGS TO HAVE MAXIMUM 1:50 SLOPE (2% GRADIENT) IN ALL DIRECTIONS - ON EACH SIDE OF EACH DOOR. ALL THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 1/2" IN HEIGHT.
2. OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. ALL DOORS MUST COMPLY WITH ACCESSIBILTY REQUIREMENTS
3. MAXIMUM FORCE TO OPERATE DOORS IS LIMITED TO 5-LB OF FORCE. EXCEPTION: REQUIRED FIRE DOORS MAY HAVE MIN. OPENING FORCE ALLOWED BY FIRE JURISDICTION, NOT TO EXCEED 15-LB OF FORCE.
4. DOORS WITH CLOSERS SHALL HAVE SWEEP PERIOD OF MIN. 3 SECONDS FROM 70-DEGREE OPENING POSITION UNTIL LEADING EDGE OF DOOR IS WITHIN 3 INCHES OF LATCH.
5. PROVIDE METAL TRIM NEAR BOTTOM OF DOOR JAMB AT ALL EXPOSED CONCRETE BASE (IE. APPARATUS ROOM) TO MAKE UP DIFFERENCE BETWEEN GYPSUM BOARD THICKNESS AND BARE CONCRETE BASE.
6. FIRE RATED GLAZING FOR FIRE RATED DOORS TO BE IN ACCORDANCE WITH CBC 2022, SECTION 716.2.5. ANDN TABLE 716.1(2).
7. FENESTRATIONS MUST HAVE TEMPORARY AND PERMANENT LABELS. (OVERALL U-FACTOR 0.30, SHGC 0.25, AND VT 0.50).

DOOR REMARKS:

1. PUSHBUTTON / KEYPAD ACCESS
2. 18" X 12" BOTTOM DOOR LOUVER
3. 24" X 18" TOP AND BOTTOM DOOR LOUVER
4. 3/4" DOOR UNDERCUT ABOVE THRESHOLD, U.N.O.
5. 24" X 18" BOTTOM DOOR LOUVER AT EACH DOOR
6. 24" X 18" TOP AND BOTTOM DOOR LOUVER AT EACH DOOR
7. PROVIDE EXIT SIGN, SEE 9A/A8.5.
8. PROVIDE EXIT ROUTE SIGN, SEE 9B/A8.5.
9. PROVIDE ACCESSIBILITY SIGN, SEE 13/A8.5.
10. PROVIDE NO SMOKING SIGN, SEE 8/A8.5.
11. PROVIDE UNISEX RESTROOM SIGNS, SEE 14/A8.5 AND 15/A8.5.
12. PROVIDE WOMEN'S RESTROOM SIGNS, SEE 6/A8.5 AND 7/A8.5.
13. PROVIDE MEN'S RESTROOM SIGNS, SEE 11/A8.5 AND 10/A8.5. (SIGNS SHALL BE MOUNTED PER DETAILS 2/A8.5 AND 3/A8.5.)
14. PROVIDE FIRE RISER SIGN, SEE 16/A8.5.

## DOOR SCHEDULE AND NOTES

| # | WINDOW SIZE WIDTH | WINDOW SIZE HEIGHT | TYPE | LABEL (MIN.) | GLAZING TYPE | GLAZING THICKNESS | FRAME MATERIAL | FRAME FINISH | DETAILS SEE SHEET A5.3, U.N.O. HEAD | DETAILS JAMB | DETAILS SILL | DETAILS OTHER | ROLLER SHADE TYPES | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 3' - 4" | 5' - 4" | W3 | - | A | 1" | AL | FF | 10,11 | 10,11 | 10,11 | - | 2 | SINGLE HUNG WINDOW |
| B | 3' - 4" | 5' - 4" | W2 | - | A | 1" | HM | P | 6,7 | 6,7 | 6 | - | 1 | |
| C | 3' - 4" | 1' - 4" | W5 | - | F | 1" | HM | P | 6,7 | 6,7 | 5,7 | - | - | CLERESTORY WINDOW |
| C1 | 3' - 4" | 1' - 4" | W5 | - | F | 1" | HM | P | 6,7 | 6,7 | 5,7 | | - | CLERESTORY WINDOW |
| D | 8' - 0" | 8' - 8" | W1 | - | A | 1" | HM | P | 7 | 1,2,7 | 3 | - | 1 | |
| D1 | 6' - 2" | 8' - 8" | W1 | - | A | 1" | HM | P | 7 | 1,2,7 | 3 | - | - | |
| D2 | 5' - 4" | 8' - 8" | W1 | - | A | 1" | HM | P | 7 | 1,2,7 | 3 | - | - | |
| E | 3' - 4" | 8' - 8" | W6 | - | A | 1" | HM | P | 6,7 | 6,7 | - | - | - | |
| F | 1' - 4" | 1' - 4" | W4 | - | A | 1" | HM | P | 8 | 7 | 7 | - | - | CLERESTORY WINDOW |
| G | 6' - 0" | 4' - 0" | W7 | 60 | F | 1" | HM | P | 9 | 9 | 9 | - | 1 | FIRE RATED |
| H | 5' - 0" | 5' - 4" | W2 | - | A | 1" | HM | P | 6 | 6 | 6 | - | 1 | |

MATERIAL/FINISH ABBREVIATIONS:
AL = ALUMINUM
AN = ANODIZED
FF = FACTORY FINISH
HM = HOLLOW METAL
P = PAINTED FINISH
PL = PLASTIC LAMINATE
ST = STEEL
TG = TEMPERED GLAZING
WV = WOOD, VENEER
WS = WOOD, SOLID CORE
Y = YES

GLAZING TYPES:

TYPE A: INSULATED, 1" THICK, TINTED TEMPERED OUTER PANE, CLEAR TEMPERED INNER PANE, LOW E COATING ON SURFACE 2
TYPE AO: INSULATED, 1" THICK, TINTED TEMPERED OUTER PANE, OBSCURED TEMPERED INNER PANE, LOW E COATING ON SURFACE 2
TYPE B: TEMPERED, TINTED, 1/4" THICK, U.N.O.
TYPE C: TEMPERED, CLEAR, 1/4" THICK, U.N.O.
TYPE D: POLYCARBONATE, 1/4" GLAZING
TYPE F: FIRE RATED SAFETY GLASS

WINDOW NOTES:

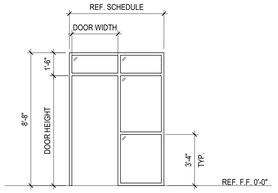
1. FENESTRATIONS MUST HAVE TEMPORARY AND PERMANENT LABELS (OVERALL U-FACTOR 0.30, SHGC 0.25, AND VT 0.50).
2. FIRE RATED GLAZING FOR FIRE RATED DOORS TO BE IN ACCORDANCE WITH CBC 2022, SECTION 716.2.5 AND TABLE 716.1(2).

ROLLER SHADE TYPES:

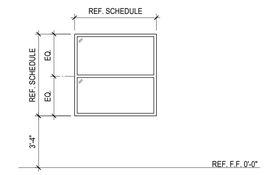
TYPE 1: MANUAL SINGLE SHADE
TYPE 2: MANUAL DOUBLE SHADE (W/ BLACK-OUT SHADE @ ALL DORMITORIES)
TYPE 3: MOTORIZED SINGLE SHADE

NOTE: ROLLER SHADES SHALL COVER ALL GLAZING AREAS.

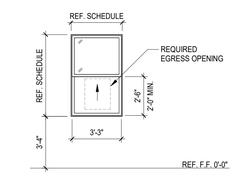
## WINDOW SCHEDULE AND NOTES




D D1 D2 — W1

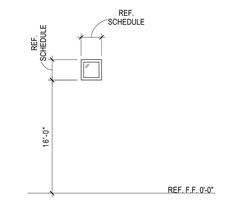



B H — W2

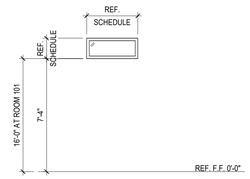



NOTES:
1. 44" MAX HEIGHT TO SILL
2. 5.7 SF. FT. MIN. NET CLEAR OPENING

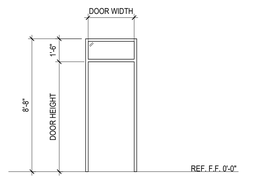
A — W3



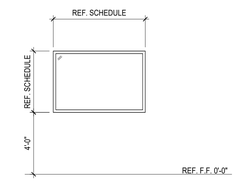

F — W4




C — W5

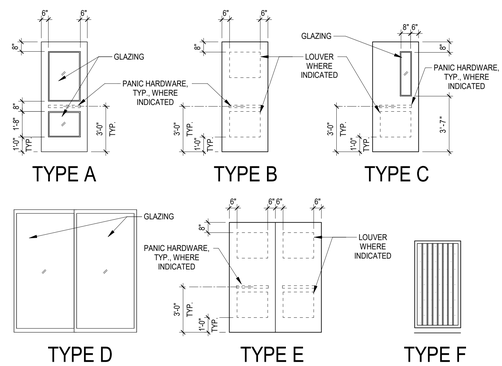


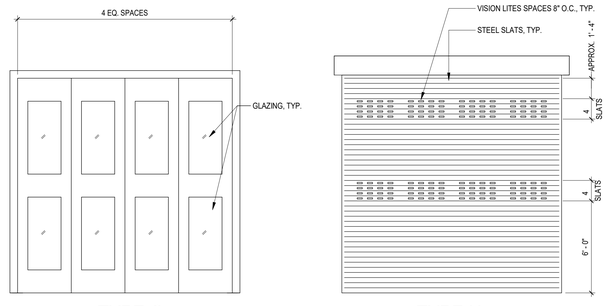

E — W6




G — W7

WINDOW TYPES




NOTES:
1. ALL LOUVERS TO HAVE 50% FREE AREA.
2. FOR TYPICAL FRAME PROFILE, SEE DETAIL 5/A5.2.
3. FOR TYPICAL DOOR ANCHORAGE, SEE DETAIL 6/A5.2.
4. FOR PUSH PLATE AND KICK PLATE INFORMATION, SEE DETAIL 3/A5.2.
5. FOR TYPICAL FRAMING AT DOOR, SEE DETAIL 9/A5.2.

DOOR TYPES

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
EXP. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**DOOR, WINDOW AND FINISH SCHEDULES**

DRAWING NUMBER: **A5.1**

PC SUBMITTAL 04

6/30/2026 10:54:56 AM
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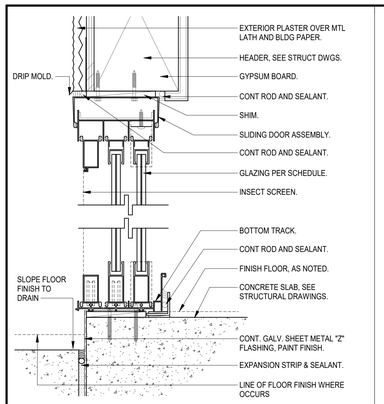
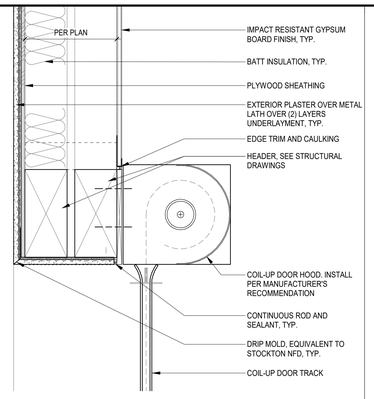
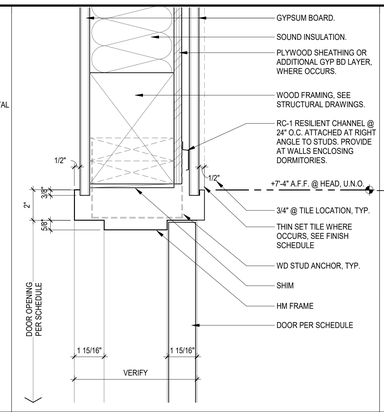
CM-07-01-2026



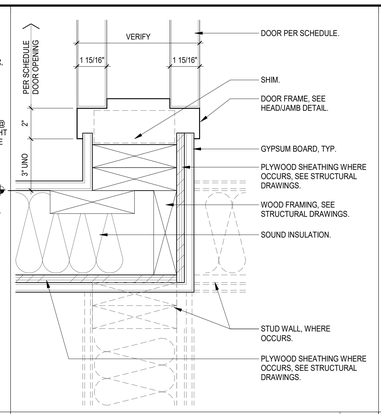

HEAD/SILL AT SLIDER 21
3" = 1'-0"



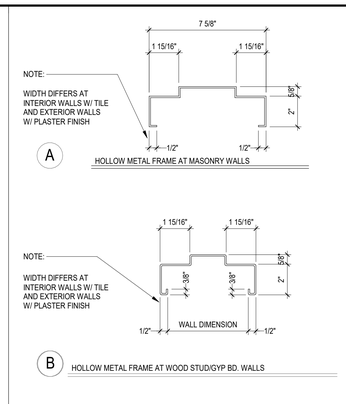

COILING DOOR @ HEAD 17
1 1/2" = 1'-0"



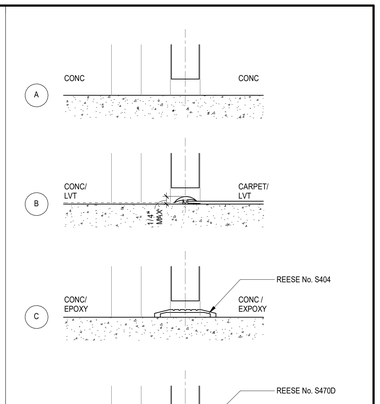

INT. HEAD/JAMB SIM. 13
3" = 1'-0"



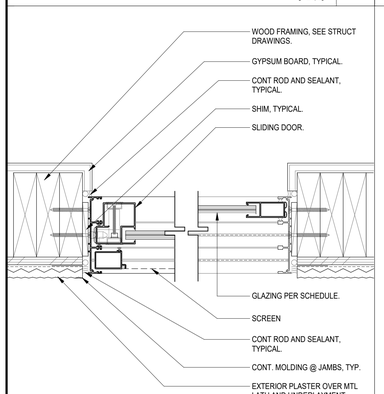

TYP FRAMING @ INT. DOOR 9
3" = 1'-0"



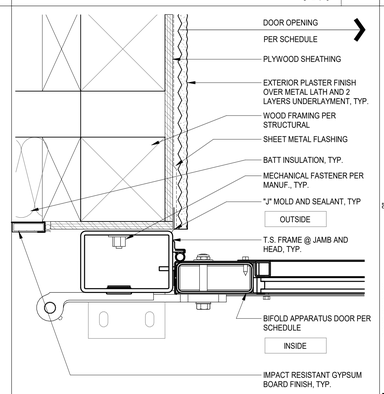

FRAME PROFILE, TYP. 5
3" = 1'-0"



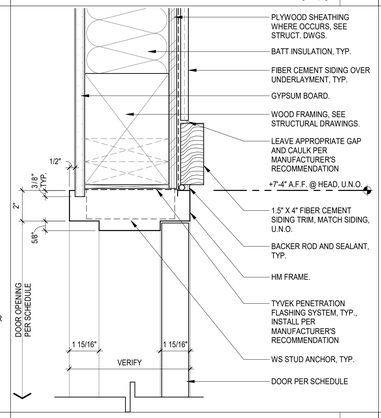

INTERIOR THRESHOLDS 2
3" = 1'-0"



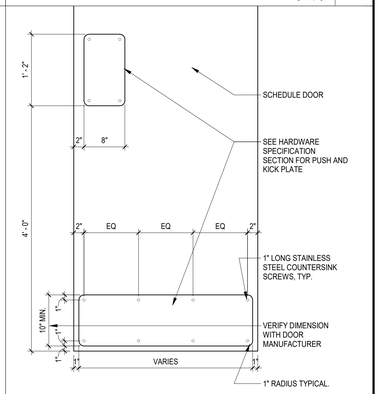

JAMB AT SLIDER 23
3" = 1'-0"



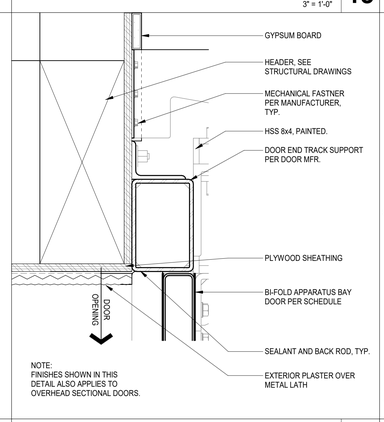

FOUR-FOLD DOOR @ JAMBS 15
3" = 1'-0"



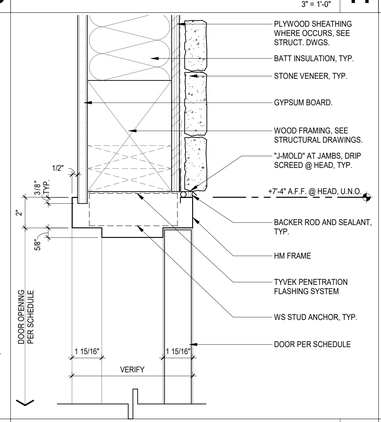

EXT. DOOR HEAD / JAMB SIM. @ SIDING 11
3" = 1'-0"



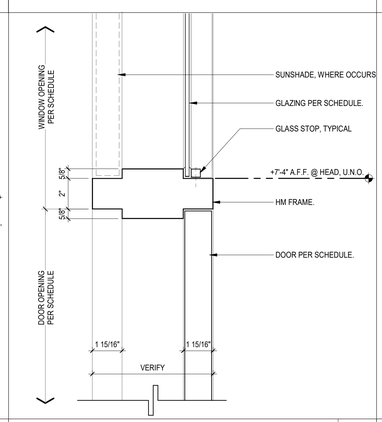

KICK/ PUSH PLATES 3
1" = 1'-0"



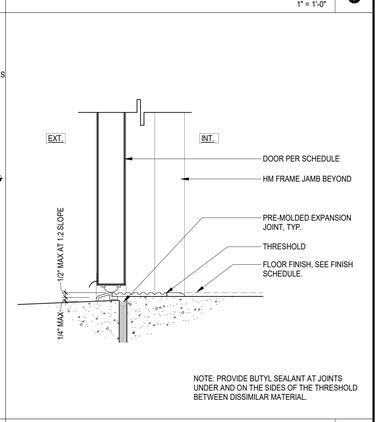

FOUR-FOLD DOOR @ HEAD 16
3" = 1'-0"



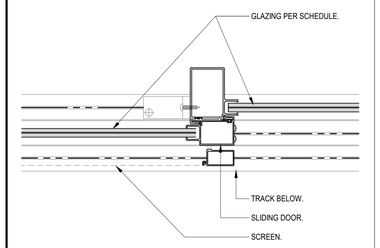

EXT. DOOR HEAD/JAMB SIM. @ VENEER 12
3" = 1'-0"



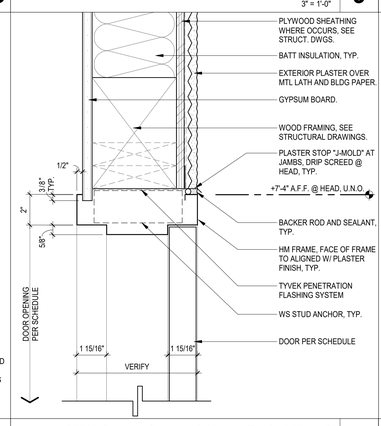

EXT./INT. HEAD/JAMB SIM. @ WINDOW 8
3" = 1'-0"




EXTERIOR THRESHOLD 4
3" = 1'-0"



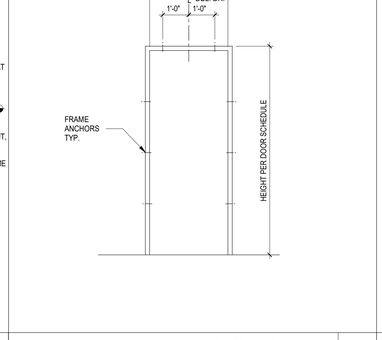

INTERLOCK AT SLIDER 22
3" = 1'-0"




COILING DOOR @ JAMB 14
3" = 1'-0"




EXT. DOOR HEAD/JAMB SIM. @ PLASTER 10
3" = 1'-0"




DOOR ANCHORAGE, TYP. 6
3" = 1'-0"

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10760 4TH STREET, SUITE 200
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

## DOOR DETAILS

DRAWING NUMBER: A5.2

PC SUBMITTAL

6/30/2026 10:56:05 AM
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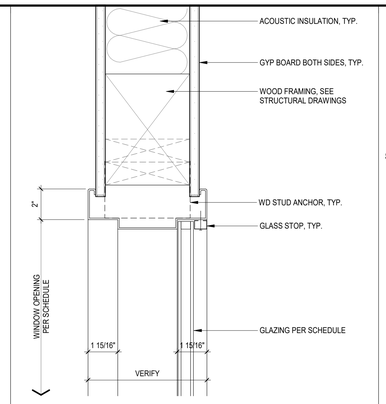
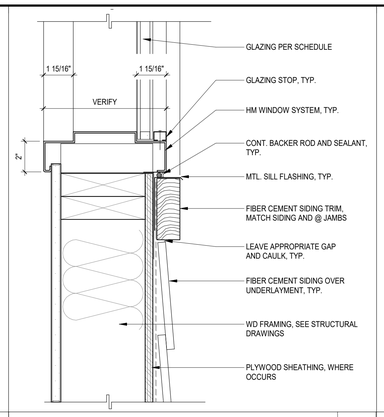
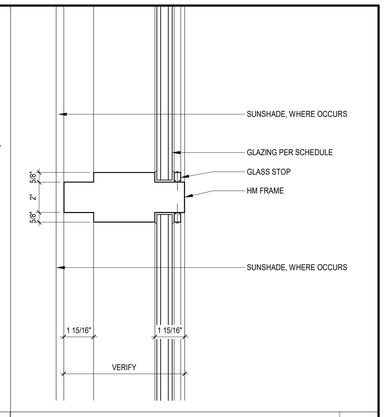
CM-07-01-2026



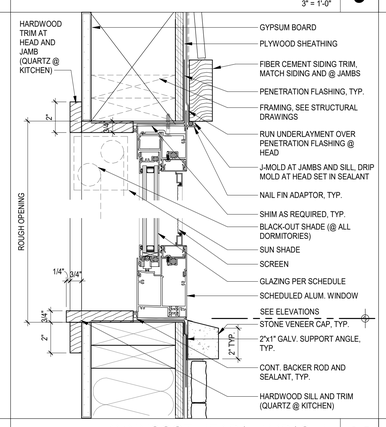

INT HEAD/ JAMB/ SILL, SIM. 3" = 1'-0" **9**



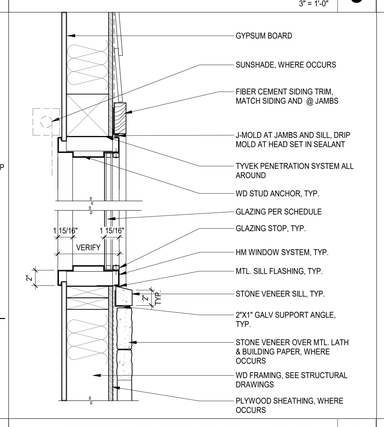

SIDING SILL 3" = 1'-0" **5**



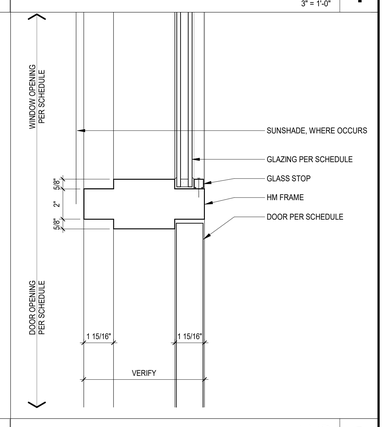

MULLION 3" = 1'-0" **1**



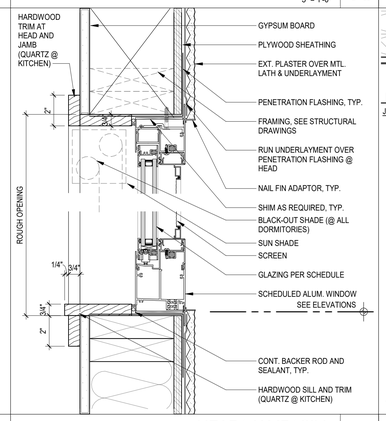

WAINSCOT HEAD/ JAMB/ SILL 3" = 1'-0" **10**



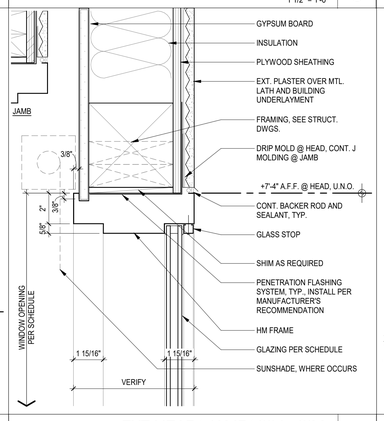

SIDING/ VENEER HEAD/ JAMB/ SILL 1 1/2" = 1'-0" **6**



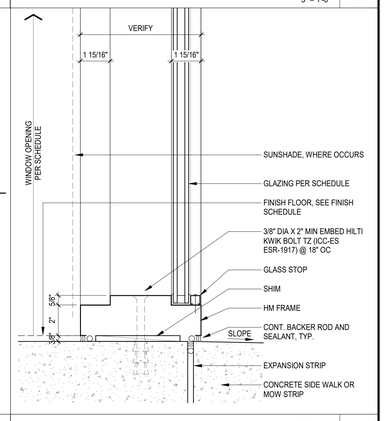

JAMB 3" = 1'-0" **2**



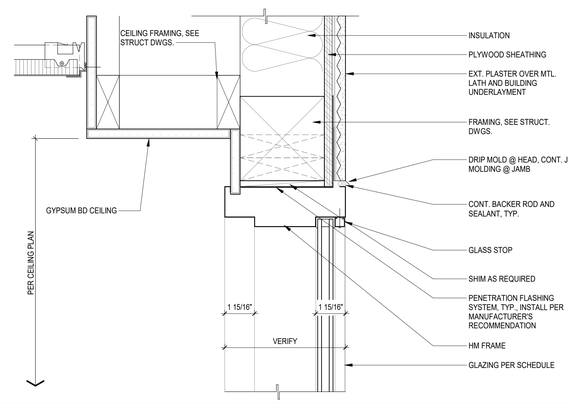

HEAD/ JAMB/ SILL 3" = 1'-0" **11**




EXT HEAD/ JAMB/ SILL, SIM. 3" = 1'-0" **7**




SILL 3" = 1'-0" **3**




CLERESTORY HEAD 3" = 1'-0" **8**

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10760 4TH STREET, SUITE 200
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www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38806
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## WINDOW DETAILS

DRAWING NUMBER: **A5.3**

6/30/2026 10:30:01 AM
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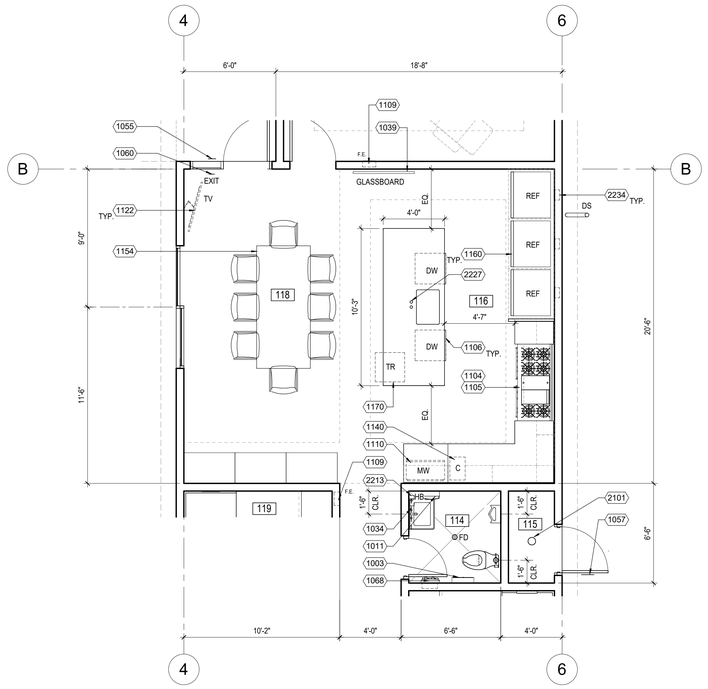
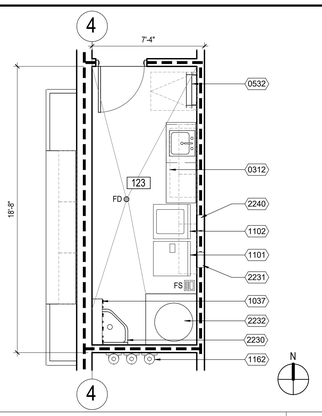
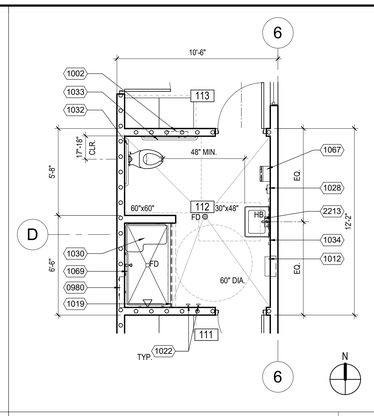
CM-07-01-2026



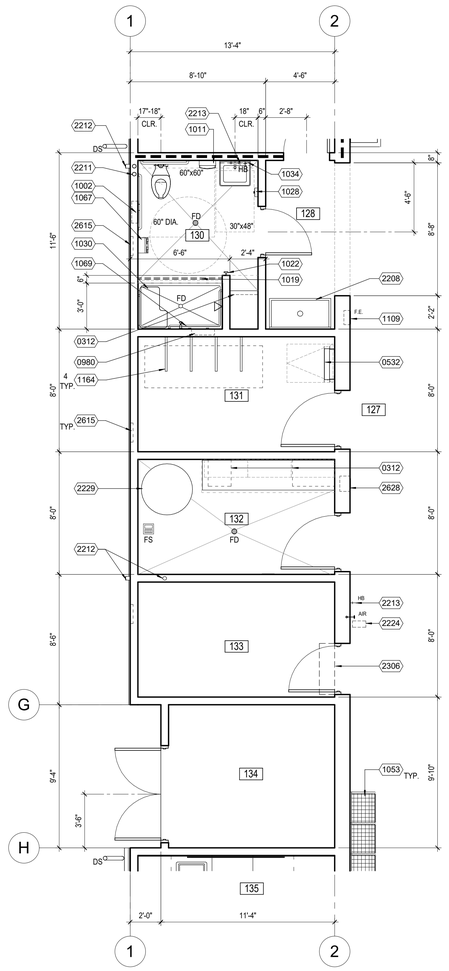

ENLARGED FLOOR PLAN- ROOMS 113, 114, 115, & 118 — 1/4" = 1'-0" — **14**




ENGLARGED FLOOR PLAN- ROOM 123 — 1/4" = 1'-0" — **9**



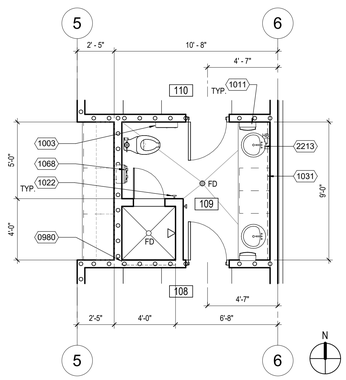

ENLARGED FLOOR PLAN- ROOM 112 — 1/4" = 1'-0" — **5**



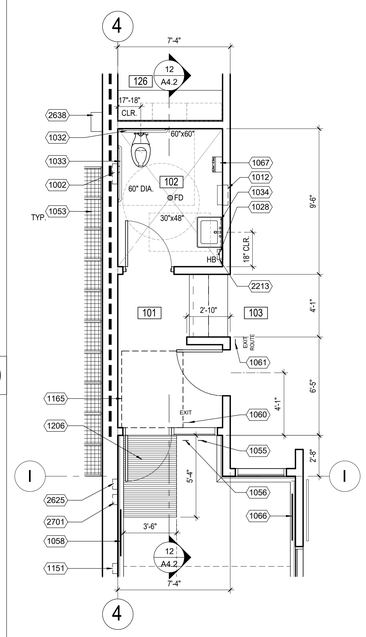

NOTES:

1. SEE INTERIOR ELEVATIONS FOR ADDITIONAL MOUNTING HEIGHTS AND DIMENSIONS NOT INDICATED.
2. FOR TOILET ROOM ACCESSORIES, SEE 4/A8.4.
3. RECESS SLAB IN ROOMS W/ TILE FLOOR TO RECEIVE FULL MORTAR BED SLOPED TO 2% MAX., SEE STRUCTURAL DRAWINGS.
4. SLOPE FINISH FLOOR TO FLOOR DRAINS W/ MIN. 2% SLOPE.

ENLARGED FLOOR PLAN- ROOMS 130, 131, 132, 133, 134, & 135 — 1/4" = 1'-0" — **8**




ENLARGED FP- ROOM 106, 109, & 120 SIM. — 1/4" = 1'-0" — **19**




ENLARGED FLOOR PLAN- RMS 101 & 102 — 1/4" = 1'-0" — **16**

| | |
|---|---|
| 0312 | 4" HIGH CONCRETE PAD WITH SCHEDULED BASE |
| 0532 | ROOF ACCESS LADDER, SEE 6/A8.7 |
| 0980 | SHOWER NICHE, SEE 11/A8.2 |
| 1002 | REC. SEAT COVER/TOILET TISSUE DISPENSER & NAPKIN DISPOSAL |
| 1003 | SURF. MNTD. SEAT COVER/TOILET TISSUE DISP. & NAPKIN DISP. |
| 1011 | SURFACE MNTD. PAPER TOWEL DISPENSER/WASTE RECEPTACLE, SMALL |
| 1012 | RECESSED PAPER TOWEL DISPENSER/WASTE RECEPTACLE, LARGE |
| 1019 | SHOWER CURTAIN ROD |
| 1022 | ROBE HOOK |
| 1028 | SURFACE MNTD. SOAP DISPENSER |
| 1030 | ACCESSIBLE FOLDING SHOWER SEAT |
| 1031 | LRG. MIRROR W/ STAINLESS STEEL FRAME SIZED TO COUNTER WIDTH |
| 1032 | 36" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4 |
| 1033 | 42" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4 |
| 1034 | MIRROR WITH STAINLESS STEEL FRAME |
| 1037 | CUSTODIANS UTILITY SHELF |
| 1039 | GLASS BOARD, SEE 12/A8.2 |
| 1053 | METAL LOCKERS |
| 1055 | NO SMOKING SIGNAGE, SEE 8/A8.5 |
| 1056 | ACCESSIBLE BUILDING ENTRANCE SIGNAGE, SEE 13/A8.5 |
| 1057 | FIRE RISER ROOM SIGNAGE, SEE 16/A8.5 |
| 1058 | DEDICATION PLAQUE, SEE 18/A8.5 |
| 1060 | EXIT SIGN, SEE 9/A8.5 |
| 1061 | EXIT ROUTE SIGN, SEE 9/A8.5 |
| 1066 | 36" CUSTOM FD MALTESE CROSS MEMORIAL, SEE 20/A8.5 |
| 1067 | SURFACE MOUNTED NAPKIN-TAMPON DISPENSER, FREE OPERATION |
| 1068 | SEMI-RECESSED NAPKIN-TAMPON DISPENSESR, FREE OPERATION |
| 1069 | 24"X36" SHOWER COMPARTMENT BAR, SEE 5/A8.4 |
| 1101 | WASHER |
| 1102 | DRYER |
| 1104 | RANGE |
| 1105 | RANGE HOOD |
| 1106 | DISHWASHER |
| 1109 | FIRE EXTINGUISHER IN RECESSED CABINET, SEE 6,7 /A8.4 |
| 1110 | MICROWAVE OVEN |
| 1122 | TV BRACKET & MEDIA BOX, SEE 24/A8.2, VERIFY FINAL LOCATION |
| 1140 | COFFEE MACHINE |
| 1151 | RECESSED KNOX BOX, 8'-0" A.F.F., SEE ELECTRICAL DRAWINGS |
| 1154 | DINING TABLE |
| 1160 | REFRIGERATOR WITH BOTTOM FREEZER |
| 1162 | OXYGEN TANK RACKS, TYP. COORDINATE LOCATION WITH THE FIRE DEPARTMENT. |
| 1164 | WALL MOUNTED BICYCLE RACK |
| 1165 | 36" x 120" WALK OFF MAT |
| 1170 | WASTE CONTAINER |
| 1206 | 3'-6" x 5'-0" EXTERIOR RECESSED FLOOR MATS, REF 16/A1.5 AND CIVIL DRAWINGS. |
| 2101 | FIRE RISER, SEE PLUMBING DRAWINGS |
| 2208 | UTILITY SINK, SEE PLUMBING DRAWINGS |
| 2211 | ROOF DRAIN, SEE PLUMBING DRAWINGS |
| 2212 | OVERFLOW DRAIN THROUGH WALL, SEE PLUMBING DRAWINGS |
| 2213 | HOSE BIBB, SEE PLUMBING DRAWINGS |
| 2224 | QUICK CONNECT AIR LINE, TYP., SEE PLUMBING DRAWINGS |
| 2227 | FOOD DISPOSAL SINKTOP AIR SWITCH, SEE PLUMBING DRAWINGS |
| 2229 | COMPRESSOR, SEE PLUMBING DRAWINGS |
| 2230 | MOP SINK, SEE PLUMBING DRAWINGS |
| 2231 | RECESSED WASH BOX, SEE PLUMBING DRAWINGS |
| 2232 | WATER HEATER, SEE PLUMBING DRAWINGS |
| 2234 | RECESSED WATER VALVE BOX, SEE PLUMBING DRAWINGS |
| 2240 | RECESSED DRYER VENT/ GAS BOX, SEE PLUMB. & MECH. DRAWINGS |
| 2306 | WALL MOUNTED FAN COIL UNIT, SEE MECHANCIAL DRAWINGS |
| 2615 | RECESSED LIGHT FIXTURE, TYP., SEE ELECTRICAL DRAWINGS |
| 2625 | DOORBELL, SEE ELECTRICAL DRAWINGS |
| 2628 | VEHICLE EXHAUST CONTROL PANEL, SEE 20/A8.2 AND ELECTRICAL DWGS. |
| 2638 | FUEL MONITORING PANEL, SEE ELECTRICAL AND PLUMBING DRAWINGS. |
| 2701 | 911 TELEPHONE, SEE ELECTRICAL DRAWINGS |

REFERENCE NOTES — **4**

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SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
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| NO | DATE | BY | DESCRIPTION |
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| # | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

ENLARGED FLOOR PLANS

DRAWING NUMBER: **A6.1**

6/30/2026 10:30:03 AM
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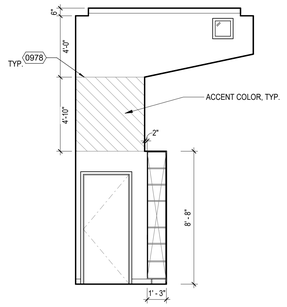
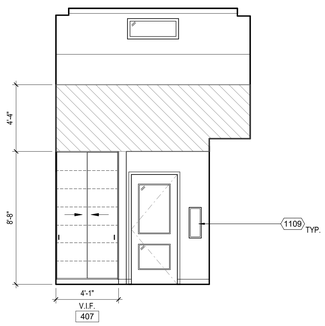
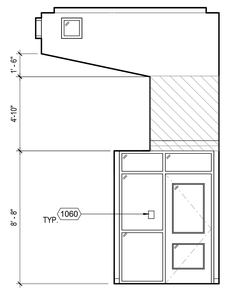
CM-07-01-2026




NORTH

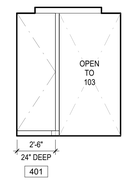



EAST

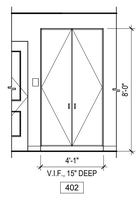



SOUTH

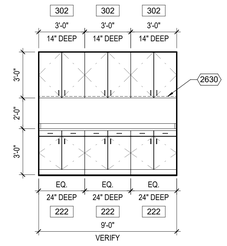
ROOM 101 - LOBBY 13
1/4" = 1'-0"




NORTH/ SOUTH




WEST



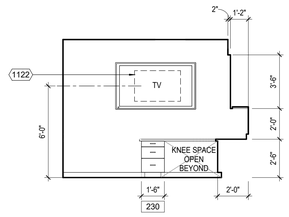

EAST

ROOM 103 - HALLWAY 5
1/4" = 1'-0"

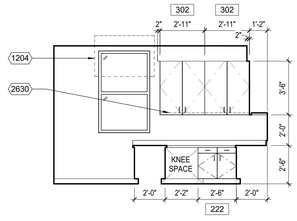
0626 PERSONAL ELECTRONIC NICHE, SEE 16/A8.2
0978 GYPSUM BOARD REVEAL, SEE 13/A8.4
0980 SHOWER NICHE, SEE 11/A8.2
1002 REC. SEAT COVER/TOILET TISSUE DISPENSER & NAPKIN DISPOSAL
1003 SURF. MNTD. SEAT COVER/TOILET TISSUE DISP. & NAPKIN DISP.
1011 SURFACE MNTD. PAPER TOWEL DISPENSER/WASTE RECEPTACLE, SMALL
1012 RECESSED PAPER TOWEL DISPENSER/WASTE RECEPTACLE, LARGE
1022 ROBE HOOK
1028 SURFACE MNTD. SOAP DISPENSER
1031 LRG. MIRROR W/ STAINLESS STEEL FRAME SIZED TO COUNTER WIDTH
1032 36" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4
1033 42" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4
1034 MIRROR WITH STAINLESS STEEL FRAME
1039 GLASS BOARD, SEE 12/A8.2
1060 EXIT SIGN, SEE 9/A8.5
1067 SURFACE MOUNTED NAPKIN-TAMPON DISPENSER, FREE OPERATION
1068 SEMI-RECESSED NAPKIN-TAMPON DISPENSESR, FREE OPERATION
1109 FIRE EXTINGUISHER IN RECESSED CABINET, SEE 6,7 /A8.4
1122 TV BRACKET & MEDIA BOX, SEE 24/A8.2, VERIFY FINAL LOCATION
1163 SHOWER DOOR, TYP. AT EACH SHOWER
1204 RECESSED SINGLE SHADE, TYP. REF 11, 12/A8.4
1205 RECESSED DUAL SHADE, TYP. REF 8/A8.4
2213 HOSE BIBB, SEE PLUMBING DRAWINGS
2624 LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
2630 UNDER CABINET LIGHTING, SEE 12/A8.3 AND ELECTRICAL DRAWINGS

NOTES:
1. FOR TYPICAL WALL PATTERN, SEE 10/A8.2
2. FOR SHOWER ELEVATIONS, SEE 1/A8.2.
3. FOR CASEWORK SCHEDULE, SEE 2/A8.3
4. FOR CASEWORK ANCHORAGE DETAIL, SEE 4/A8.3
5. FOR CASESWORK FACE PANEL DETAIL, SEE 9/A8.3
6. FOR COUNTERTOP DETAILS, SEE 10/A8.3
7. FOR LAVATORY COUNTERTOP, SEE 11/A8.3
8. FOR UNDERCABINET LIGHT FIXTURE, SEE 12/A8.3
9. FOR FIXTURE HEIGHT SCHEDULE, SEE 2/A8.4
10. FOR TOILET ROOM ACCESSORIES, SEE 4/A8.4

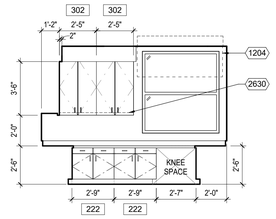
REFERENCE NOTES 2



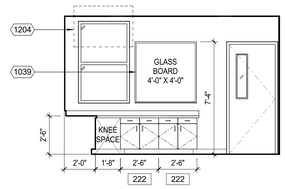

NORTH




EAST

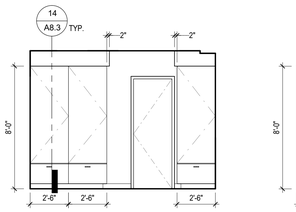



SOUTH



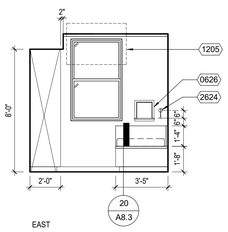

WEST

ROOM 104 - CAPTAIN'S OFFICE 6
1/4" = 1'-0"



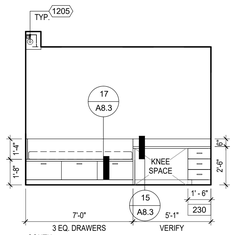

NORTH

SOUTH: ROOMS 107 AND 110 - DORMS, SIM. (MIRROR)



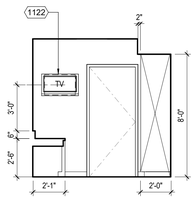

EAST

EAST: ROOMS 107 AND 110 - DORMS, SIM. (MIRROR)




SOUTH

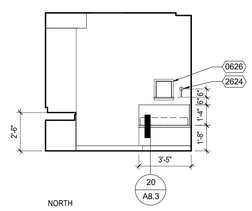
NORTH: ROOMS 107 AND 110 - DORMS, SIM. (MIRROR)




WEST

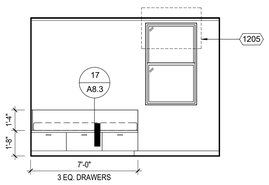
WEST: ROOMS 107 AND 110 - DORMS, SIM. (MIRROR)

RM 105 AND 108 - DORMS, TYP. / ROOMS 107 AND 110 - DORMS, SIM. (MIRROR) 15
1/4" = 1'-0"



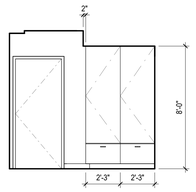

NORTH

SOUTH: ROOM 111 - DORMS, SIM. (MIRROR)



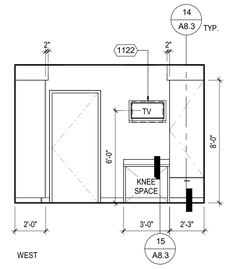

EAST

EAST: ROOM 111 - DORMS, SIM. (MIRROR)




SOUTH

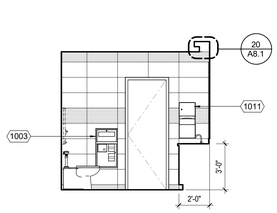
NORTH: ROOM 111 - DORMS, SIM. (MIRROR)




WEST

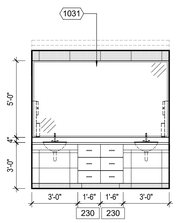
WEST: ROOM 111 - DORMS, SIM. (MIRROR)

ROOM 113 - DORM / ROOM 111 - DORM, SIM. (MIRROR) 3
1/4" = 1'-0"



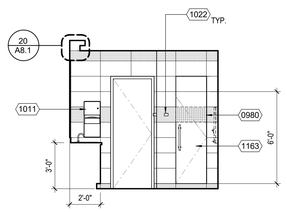

NORTH

SOUTH: ROOM 120 - BATHROOM, SIM. (MIRROR/FLIP)



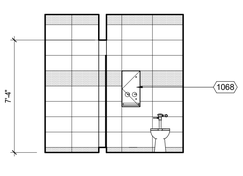

EAST

WEST: ROOM 120 - BATHROOM, SIM. (MIRROR/FLIP)




SOUTH

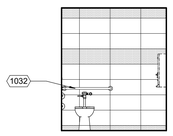
NORTH: ROOM 120 - BATHROOM, SIM. (MIRROR/FLIP)




WEST

EAST: ROOM 120 - BATHROOM, SIM. (MIRROR/FLIP)

ROOM 106 AND 109 - BATHROOMS, TYP. / ROOM 120 - BATHROOM, SIM. (MIRROR/FLIP) 16
1/4" = 1'-0"

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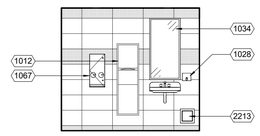


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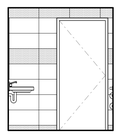

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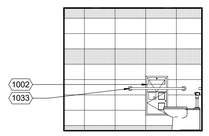


WEST

ROOM 102 - RESTROOM 4
1/4" = 1'-0"

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38806
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC CHECKED: JM
DATE: 06/30/2026 SCALE: AS NOTED
PROJECT NUMBER: 2109300

# INTERIOR ELEVATIONS

DRAWING NUMBER: A7.1

6/30/2026 10:30:07 AM
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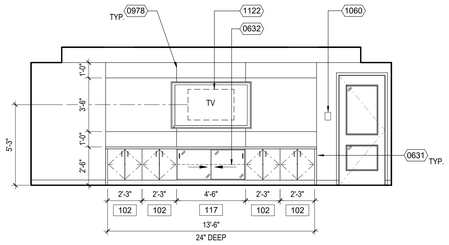
CM-07-01-2026

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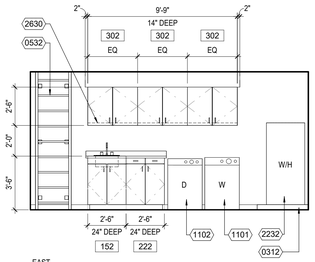


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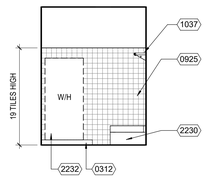


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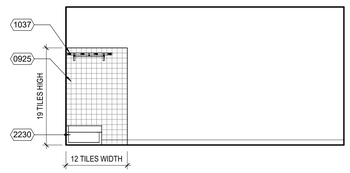
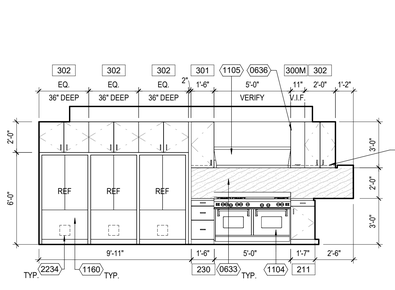



WEST

## RM 117 - DAYROOM 17
1/4" = 1'-0"

## ROOM 123 - CUSTODIAN / STORAGE 5
1/4" = 1'-0"

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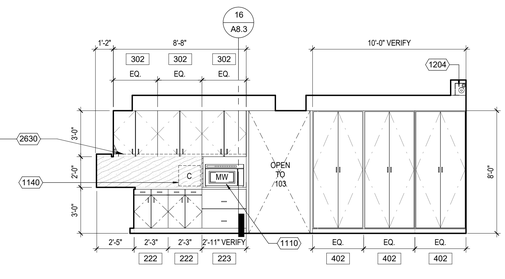


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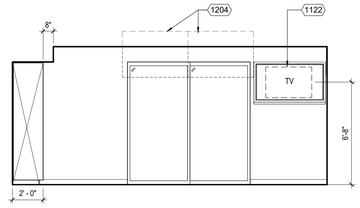
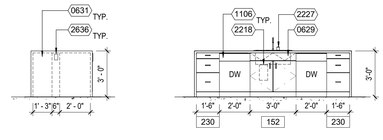


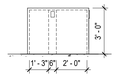

WEST



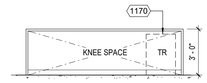

NORTH (ISLAND)




EAST (ISLAND)

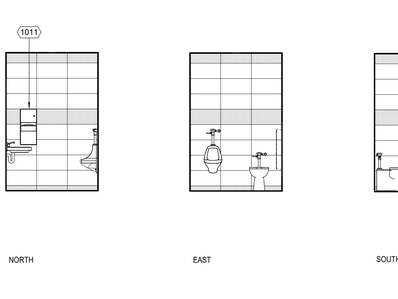



SOUTH (ISLAND)




WEST (ISLAND)

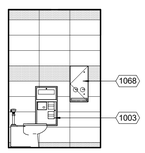
## ROOMS 116 AND 118 - KITCHEN AND DINING ROOM 6
1/4" = 1'-0"



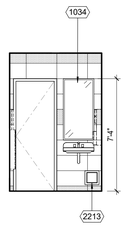

NORTH



EAST

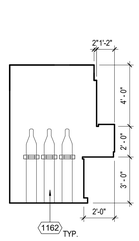



SOUTH

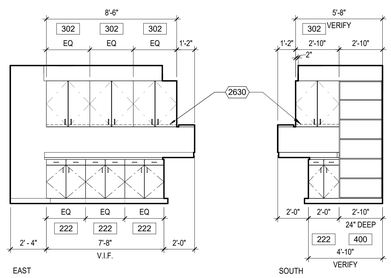



WEST

## ROOM 114 - RESTROOM 19
1/4" = 1'-0"



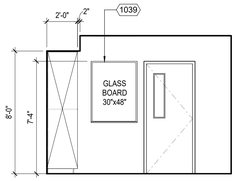

NORTH




EAST




SOUTH




WEST

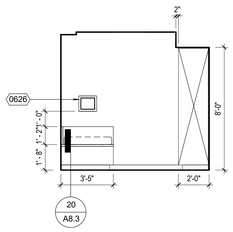
## ROOM 124 - MEDICAL STORAGE 7
1/4" = 1'-0"

0312 4" HIGH CONCRETE PAD WITH SCHEDULED BASE
0532 ROOF ACCESS LADDER, SEE 6/A8.7
0626 PERSONAL ELECTRONIC NICHE, SEE 16/A8.2
0629 SINK FRONT TIP-OUT TRAY WITH HINGES
0631 WRAP COUNTERTOP DOWNSIDE
0632 HIDE TRACK BEHIND TRIM PIECE
0633 FULL HEIGHT BACKSPLASH
0636 WALL CABINET PULLOUT
0925 CERAMIC WALL TILE
0978 GYPSUM BOARD REVEAL, SEE 13/A8.4
0980 SHOWER NICHE, SEE 11/A8.2
1002 REC. SEAT COVER/TOILET TISSUE DISPENSER & NAPKIN DISPOSAL
1003 SURF. MNTD. SEAT COVER/TOILET TISSUE DISP. & NAPKIN DISP.
1011 SURFACE MNTD. PAPER TOWEL DISPENSER/WASTE RECEPTACLE, SMALL
1012 RECESSED PAPER TOWEL DISPENSER/WASTE RECEPTACLE, LARGE
1019 SHOWER CURTAIN ROD
1022 ROBE HOOK
1028 SURFACE MNTD. SOAP DISPENSER
1030 ACCESSIBLE FOLDING SHOWER SEAT
1032 36" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4
1033 42" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4
1034 MIRROR WITH STAINLESS STEEL FRAME
1037 CUSTODIANS UTILITY SHELF
1039 GLASS BOARD, SEE 12/A8.2
1060 EXIT SIGN, SEE 9/A8.5
1067 SURFACE MOUNTED NAPKIN-TAMPON DISPENSER, FREE OPERATION
1068 SEMI-RECESSED NAPKIN-TAMPON DISPENSESR, FREE OPERATION
1069 24"X36" SHOWER COMPARTMENT BAR, SEE 5/A8.4
1101 WASHER
1102 DRYER
1104 RANGE
1105 RANGE HOOD
1106 DISHWASHER
1110 MICROWAVE OVEN
1122 TV BRACKET & MEDIA BOX, SEE 24/A8.2, VERIFY FINAL LOCATION
1140 COFFEE MACHINE
1160 REFRIGERATOR WITH BOTTOM FREEZER
1162 OXYGEN TANK RACKS, TYP. COORDINATE LOCATION WITH THE FIRE DEPARTMENT.
1170 WASTE CONTAINER
1204 RECESSED SINGLE SHADE, TYP. REF 11, 12/A8.4
1205 RECESSED DUAL SHADE, TYP. REF 8/A8.4
2213 HOSE BIBB, SEE PLUMBING DRAWINGS
2218 FOOD WASTE DISPOSAL, SEE PLUMBING DRAWINGS
2227 FOOD DISPOSAL SINKTOP AIR SWITCH, SEE PLUMBING DRAWINGS
2230 MOP SINK, SEE PLUMBING DRAWINGS
2232 WATER HEATER, SEE PLUMBING DRAWINGS
2234 RECESSED WATER VALVE BOX, SEE PLUMBING DRAWINGS
2624 LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
2630 UNDER CABINET LIGHTING, SEE 12/A8.3 AND ELECTRICAL DRAWINGS
2636 ELECTRICAL RECEPTACLE, SEE ELECTRICAL DRAWINGS

NOTES:

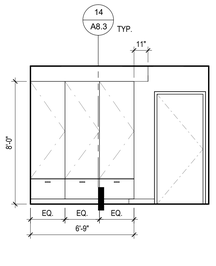
1. FOR TYPICAL WALL PATTERN, SEE 10/A8.2
2. FOR SHOWER ELEVATIONS, SEE 1/A8.2.
3. FOR CASEWORK SCHEDULE, SEE 2/A8.3
4. FOR CASEWORK ANCHORAGE DETAIL, SEE 4/A8.3
5. FOR CASESWORK FACE PANEL DETAIL, SEE 9/A8.3
6. FOR COUNTERTOP DETAILS, SEE 10/A8.3
7. FOR LAVATORY COUNTERTOP, SEE 11/A8.3
8. FOR UNDERCABINET LIGHT FIXTURE, SEE 12/A8.3
9. FOR FIXTURE HEIGHT SCHEDULE, SEE 2/A8.4
10. FOR TOILET ROOM ACCESSORIES, SEE 4/A8.4

## REFERENCE NOTES 3



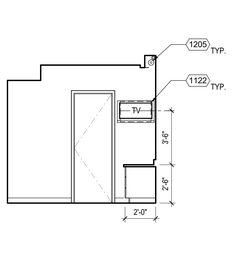

NORTH

SOUTH: ROOM 121 - DORM, SIM. (MIRROR)



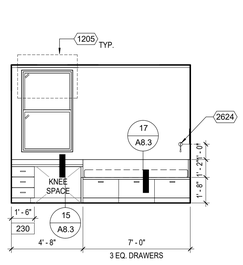

EAST

EAST: ROOM 121 - DORM, SIM. (MIRROR)




SOUTH

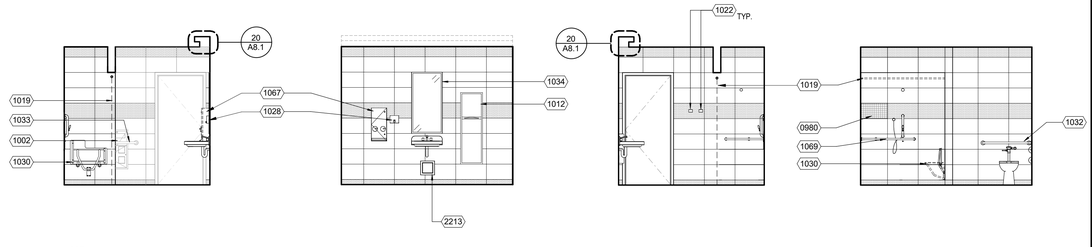
NORTH: ROOM 121 - DORM, SIM. (MIRROR)




WEST

WEST: ROOM 121 - DORM, SIM. (MIRROR)

## ROOM 119 - DORM / ROOM 121- DORM, SIM. (MIRROR) 16
1/4" = 1'-0"




NORTH

EAST

SOUTH

WEST

## ROOM 112 - ACC. SHARED BATH 3 4
1/4" = 1'-0"

PBK

SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 4 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

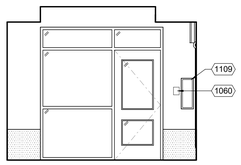
# INTERIOR ELEVATIONS

DRAWING NUMBER: A7.2

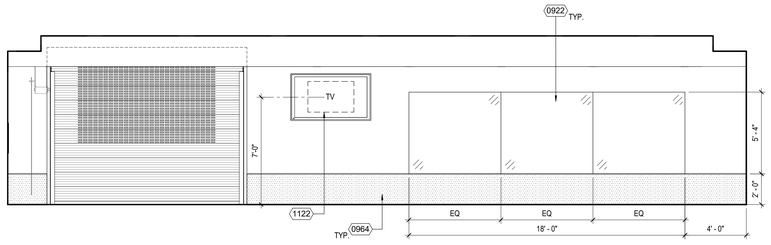
PC SUBMITTAL 04

6/30/2026 10:55:11 AM
C:\Users\mhuynh\Documents\2109300_CostaMesa_FSD_R23_CENTRAL_CD_PC4_SC_20260615_SteveChaston.rvt

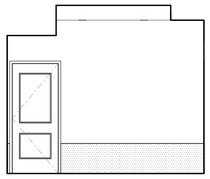
CM-07-01-2026



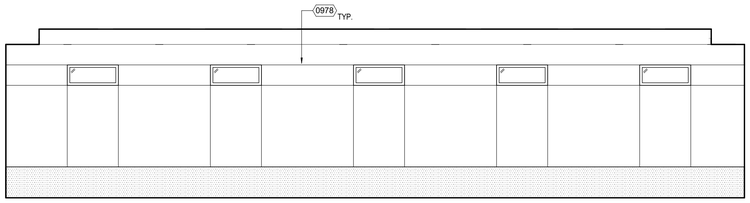

NORTH




EAST

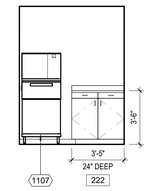


SOUTH

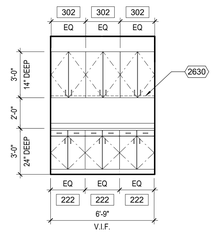



WEST

## ROOM 129 - EXERCISE ROOM 10
1/4" = 1'-0"




NORTH




SOUTH

## ROOM 126 - VESTIBULE 1 6
1/4" = 1'-0"

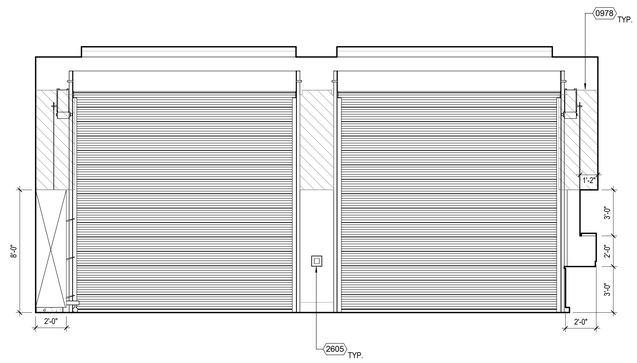
## ROOM 122 - VESTIBULE 2 5
1/4" = 1'-0"

NOTES:

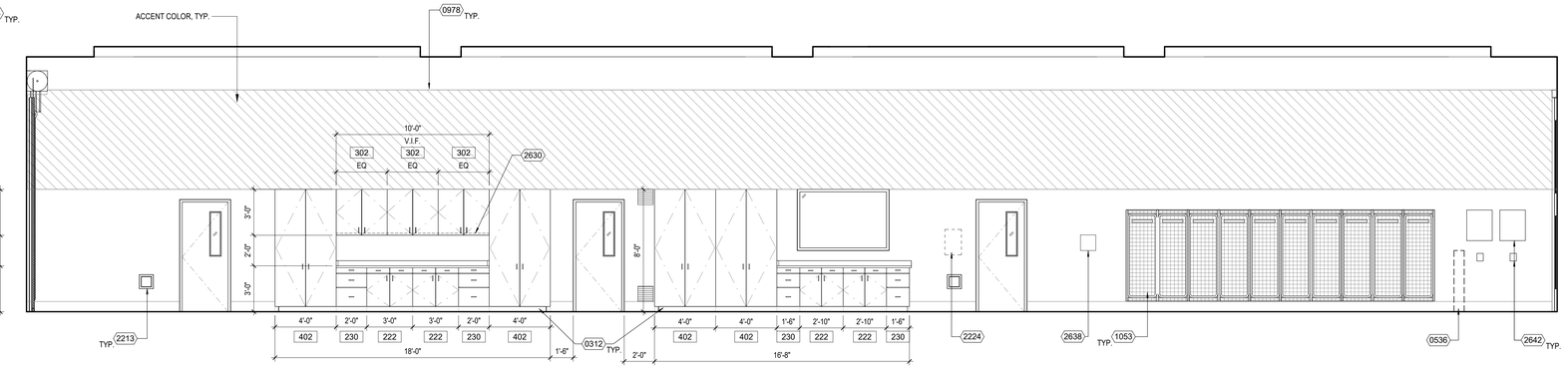
1. FOR TYPICAL WALL PATTERN, SEE 10/A8.2
2. FOR SHOWER ELEVATIONS, SEE 1/A8.2.
3. FOR CASEWORK SCHEDULE, SEE 2/A8.3
4. FOR CASEWORK ANCHORAGE DETAIL, SEE 4/A8.3
5. FOR CASESWORK FACE PANEL DETAIL, SEE 9/A8.3
6. FOR COUNTERTOP DETAILS, SEE 10/A8.3
7. FOR LAVATORY COUNTERTOP, SEE 11/A8.3
8. FOR UNDERCABINET LIGHT FIXTURE, SEE 12/A8.3
9. FOR FIXTURE HEIGHT SCHEDULE, SEE 2/A8.4
10. FOR TOILET ROOM ACCESSORIES, SEE 4/A8.4

| | |
|---|---|
| 0312 | 4" HIGH CONCRETE PAD WITH SCHEDULED BASE |
| 0536 | 8X8 TUBE STEEL BOLLARD, SEE 13/A8.4. |
| 0922 | FULL WALL MIRROR WITH ALUMINUM TRIM OVER GYPSUM BOARD |
| 0964 | 24" HIGH ATHLETIC FLOORING AT BASE, ALL WALLS |
| 0978 | GYPSUM BOARD REVEAL, SEE 13/A8.4 |
| 1053 | METAL LOCKERS |
| 1060 | EXIT SIGN, SEE 9/A8.5 |
| 1107 | ICE MAKER |
| 1109 | FIRE EXTINGUISHER IN RECESSED CABINET, SEE 6,7 /A8.4 |
| 1122 | TV BRACKET & MEDIA BOX, SEE 24/A8.2, VERIFY FINAL LOCATION |
| 1123 | HOSE STORAGE RACK |
| 2213 | HOSE BIBB, SEE PLUMBING DRAWINGS |
| 2224 | QUICK CONNECT AIR LINE, TYP., SEE PLUMBING DRAWINGS |
| 2605 | RECESSED DOOR CONTROL, SEE 13/A8.2 |
| 2628 | VEHICLE EXHAUST CONTROL PANEL, SEE 20/A8.2 AND ELECTRICAL DWGS. |
| 2630 | UNDER CABINET LIGHTING, SEE 12/A8.3 AND ELECTRICAL DRAWINGS |
| 2638 | FUEL MONITORING PANEL, SEE ELECTRICAL AND PLUMBING DRAWINGS. |
| 2641 | ELECTRICAL OVERHEAD REEL, SEE 10/A8.4 AND ELECTRICAL DRAWINGS. |
| 2642 | APPARATUS DOOR CONTROL BOX |

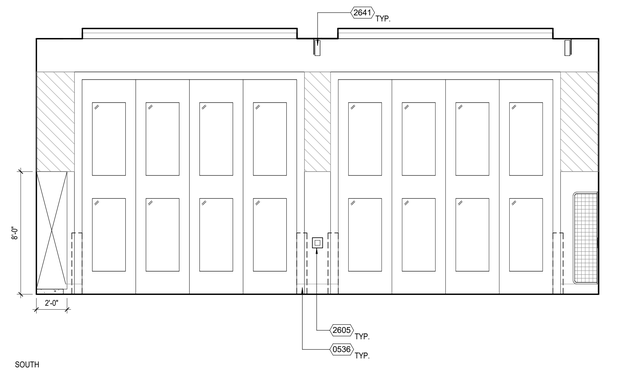
## REFERENCE NOTES 2



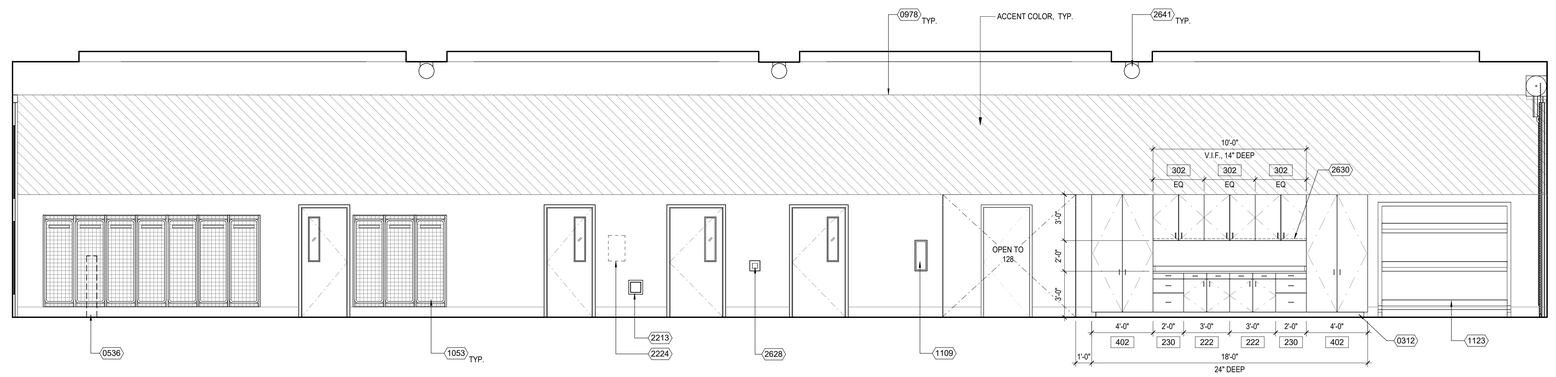

NORTH




EAST




SOUTH




WEST

## ROOM 127 - APPARATUS BAY EAST 4
1/4" = 1'-0"

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10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38806
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

# INTERIOR ELEVATIONS

DRAWING NUMBER: A7.3

6/30/2026 10:35:28 AM
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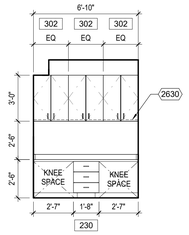
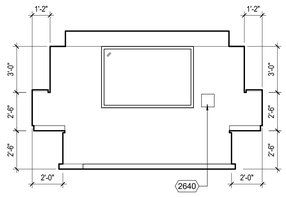
CM-07-01-2026



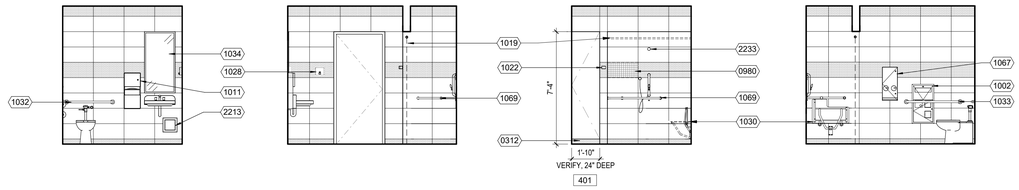

NORTH/ SOUTH




WEST

## ROOM 125 - WORKSTATIONS 16

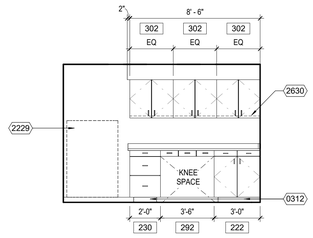
1/4" = 1'-0"



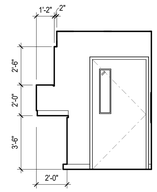

NORTH EAST SOUTH WEST

## ROOM 130 - DIRTY RESTROOM 5

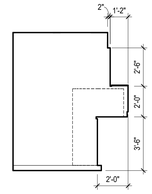
1/4" = 1'-0"




NORTH



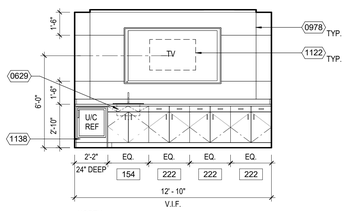

EAST



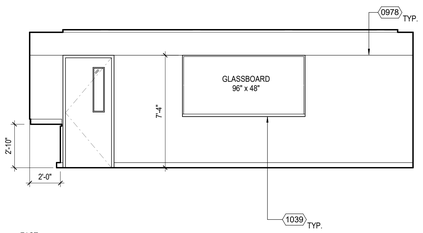

WEST

## ROOM 132 - WORKSHOP 6

1/4" = 1'-0"




NORTH

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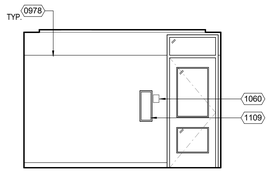
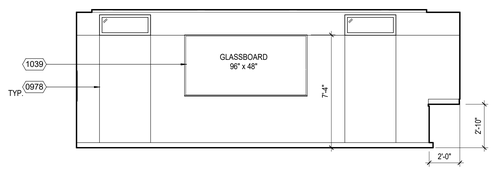



SOUTH




WEST

## CONFERENCE ROOM 7

1/4" = 1'-0"

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| | | | REVISIONS |

## REFERENCE NOTES 2

| | |
|---|---|
| 0312 | 4" HIGH CONCRETE PAD WITH SCHEDULED BASE |
| 0629 | SINK FRONT TIP-OUT TRAY WITH HINGES |
| 0978 | GYPSUM BOARD REVEAL, SEE 13/A8.4 |
| 0980 | SHOWER NICHE, SEE 11/A8.2 |
| 1002 | REC. SEAT COVER/TOILET TISSUE DISPENSER & NAPKIN DISPOSAL |
| 1011 | SURFACE MNTD. PAPER TOWEL DISPENSER/WASTE RECEPTACLE, SMALL |
| 1019 | SHOWER CURTAIN ROD |
| 1022 | ROBE HOOK |
| 1028 | SURFACE MNTD. SOAP DISPENSER |
| 1030 | ACCESSIBLE FOLDING SHOWER SEAT |
| 1032 | 36" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4 |
| 1033 | 42" LONG GRAB BAR, COORDINATE WITH FLUSH VALVE, SEE 5/A8.4 |
| 1034 | MIRROR WITH STAINLESS STEEL FRAME |
| 1039 | GLASS BOARD, SEE 12/A8.2 |
| 1060 | EXIT SIGN, SEE 9/A8.5 |
| 1067 | SURFACE MOUNTED NAPKIN-TAMPON DISPENSER, FREE OPERATION |
| 1069 | 24"X36" SHOWER COMPARTMENT BAR, SEE 5/A8.4 |
| 1109 | FIRE EXTINGUISHER IN RECESSED CABINET, SEE 6,7 /A8.4 |
| 1122 | TV BRACKET & MEDIA BOX, SEE 24/A8.2, VERIFY FINAL LOCATION |
| 1138 | UNDER COUNTER REFRIGERATOR |
| 2213 | HOSE BIBB, SEE PLUMBING DRAWINGS |
| 2229 | COMPRESSOR, SEE PLUMBING DRAWINGS |
| 2233 | SHOWER HEAD |
| 2630 | UNDER CABINET LIGHTING, SEE 12/A8.3 AND ELECTRICAL DRAWINGS |
| 2640 | GENERATOR REMOTE ALARM PANEL, SEE ELECTRICAL DRAWINGS |

NOTES:

1. FOR TYPICAL WALL PATTERN, SEE 10/A8.2
2. FOR SHOWER ELEVATIONS, SEE 1/A8.2.
3. FOR CASEWORK SCHEDULE, SEE 2/A8.3
4. FOR CASEWORK ANCHORAGE DETAIL, SEE 4/A8.3
5. FOR CASESWORK FACE PANEL DETAIL, SEE 9/A8.3
6. FOR COUNTERTOP DETAILS, SEE 10/A8.3
7. FOR LAVATORY COUNTERTOP, SEE 11/A8.3
8. FOR UNDERCABINET LIGHT FIXTURE, SEE 12/A8.3
9. FOR FIXTURE HEIGHT SCHEDULE, SEE 2/A8.4
10. FOR TOILET ROOM ACCESSORIES, SEE 4/A8.4

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SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| DRAWN: SC | CHECKED: JM |
|---|---|
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# INTERIOR ELEVATIONS

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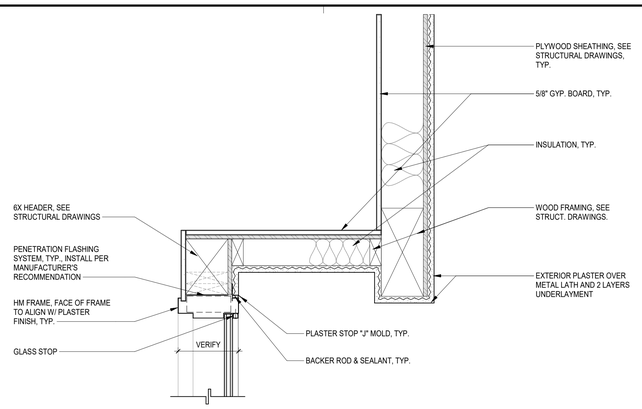
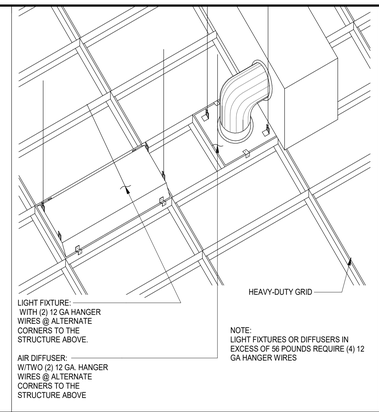
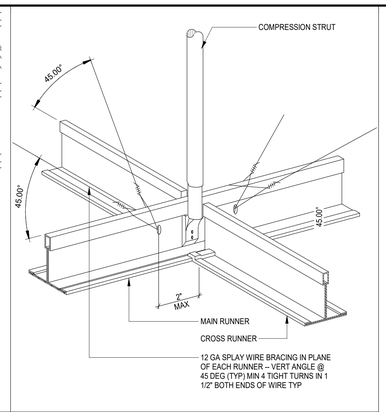
CM-07-01-2026




DOOR / SOFFIT CONDITION 17
1 1/2" = 1'-0"




FIXTURE BRACING 13
1/2" = 1'-0"




SPLAY WIRE BRACING 9
3" = 1'-0"

METAL SUSPENSION SYSTEMS FOR LAY IN PANEL CEILINGS

1. 12 GA. (MIN.) hanger wires may be used for up to and including 4 ft. x 4 ft. grid spacing along main runners.
2. Provide 12 ga. hanger wires at the ends of all main and cross runners within 8" from the support or within 1/4 of the length of the end tee, whichever is least, for the perimeter of the ceiling area.
3. Provide trapeze or other supplementary support members at obstructions to main hanger spacings. Provide additional hangers, struts or braces as required at all ceiling breaks, soffits, or discontinuous areas. Hanger wires that are more than 1 in 6 out of plumb are to have counter-sloping wires.
4. Ceiling grid members may be attached to not more than two adjacent walls. Ceiling grid members should be at least 1/2 inch free of other walls. If walls run diagonally to ceiling grid system runners, one end of main and cross runner should be free and a minimum of 1/2 inch clear of wall.
5. At the perimeter of the ceiling area where main or cross runners are not connected to the adjacent wall, provide interconnection between runners at the free end to prevent lateral spreading. A metal strut or a 16 ga. wire with a positive mechanical connection to the runner may be used. Where the perpendicular distance from the wall to the first parallel runner is 12" or less, this interlock is not required.
6. Provide sets of four 12 ga. splayed bracing wires oriented 90 degrees from each other at not more than 8 feet by 12 feet on center.

   Provide bracing wires at locations not more than 6 feet from each perimeter wall and at the edge of vertical ceiling offsets.

   The slope of these wires should not exceed 45 degrees from the plane of the ceiling and should be taut without causing the ceiling to lift. Splices in bracing wires are not to be permitted without special Building Department approval.
7. Fasten hanger wires with not less than 3 tight turns. Fasten bracing wires with 4 tight turns. Make all tight turns within a distance of 1-1/2 inches. Hanger or bracing wire anchors to the structure should be installed in such a manner that the direction of the wire aligns as closely as possible with the direction of the forces acting on the wire.

   (Note: Wire turns made by machine where both strands have been deformed or bent in wrapping can waive the 1 1/2" requirement, but the number of turns should be maintained, and be as tight as possible.)
8. Separate all ceiling hanging and bracing wires at least 6 inches from all unbraced ducts, pipes, conduit, etc. It is acceptable to attach lightweight items, such as single electrical conduit not exceeding 3/4" nominal diameter, to hanger wires using connectors acceptable to Building Department.

   HAVC ductwork, electrical distribution, telephone services, computer cable distribution, and other services normally found in a ceiling space, shall be independently supported and appropriately braced to eliminate any lateral force on the ceiling membrane or bracing elements.
9. When drilled-in concrete anchors or shot-in anchors are used in reinforced concrete for hanger wires, 1 out of 10 must be field tested for 200 pounds of tension. When drilled-in concrete anchors are used for bracing wires, 1 out of 2 must be field tested for 440 pounds of tension. Shot-in anchors in concrete are not permitted for bracing wires. If any shot-in or drilled-in anchor fails, all adjacent anchors must be tested. Drilled-in or slot-in anchors must be tested. Drilled-in or slot-in anchors require special Building Department approval when used in prestressed concrete.
10. Attach all light fixtures to the ceiling grid runners to resist a horizontal force equal to the weight of the fixtures.

    All recessed lighting fixtures having a nominal end dimension of 24 inches or greater, shall be positively attached to the ceiling grid runner(s) at the end of the fixture with two #8 self-tapping Tek screws. Each screw shall be located within 3" of the side of the fixture and attached through the bulb of the ceiling grid runner(s). Light fixtures having less than a nominal 24" end dimension shall be attached with one #8 self tapping Tek screw at the center of each end of the fixture, attached to the bulb of the ceiling grid runner(s). All attachments shall be capable of laterally supporting the weight of the fixture. All fixtures, regardless of weight or size, shall have interlocking ceiling grid runner(s) on all 4 sides of the fixture.
11. Ceiling mounted air terminals or services shall be positively attached to the ceiling suspension main runners or to cross runners with the same carrying capacity as the main runner.

    Air terminals with a nominal dimension of 24" or less shall be positively attached to the ceiling grid runner(s) on at least two opposing sides with one #8 self tapping Tek screw on each side. Each screw shall be located in the center of the air terminal and shall be attached through the bulb of the ceiling grid runner(s). Air terminals in excess of 24" in length shall be attached with two #8 self tapping Tek screws on each end of diffuser attached to the bulb of the ceiling grid runner(s). All attachments shall be capable of laterally supporting the weight of the air terminal. All air terminals regardless of weight or size shall have interlocking ceiling grid runner(s) on all 4 sides of the air terminal.
12. Flush or recessed light fixtures and air terminals or services weighing less than 56 pounds may be supported directly on the runners of a heavy duty grid system but, in addition, they must have a minimum of two 12 ga. slack safety wires attached to the fixture at diagonal corners and anchored to the structure above. All 4 ft. x 4 ft. light fixtures must have slack safety wires at each corner.

    All flush or recessed light fixtures and air terminals or services weighing 56 pounds or more must be independently supported by not less than 4 taut 12 ga. wires each attached to the fixture and to the structure above regardless of the type of ceiling grid system used.

    The 4 taut 12 ga. wires including their attachment to the structure above may be capable of supporting four times the weight of the unit.
13. Penetrations through ceiling for sprinkler heads and other similar devices that are not integrally tied to the ceiling system shall have a 2" oversized ring or sleeve through the ceiling tile to allow 1" movement in all horizontal directions.
14. Support surface mounted light fixtures by at least two positive devices which surround the ceiling runner and which are each supported from the structure above by a 12 ga. wire. Spring clips or clamps that connect only to the runner are not acceptable.

    Provide additional supports when light fixtures are 8 feet or longer.
15. Support pendant mounted light fixtures directly from the structure above with hanger wires or cables passing through each pendant hanger and capable of supporting 4 times the weight of the fixture. Special details are necessary for this condition at the ceiling grid.
16. Classification of the ceiling grid is heavy duty. Components shall comply with the following Schedule:

    CLASSIFICATION OF CEILING GRID IS HEAVY DUTY.
    COMPONENTS SHALL COMPLY WITH THE FOLLOWING SCHEDULE:

| MANUFACTURER | MAIN | CROSS | ICC-ES REPORT NO. |
|---|---|---|---|
| ARMSTRONG | 7301 | XL7341 (1) | ESR-1308 |
| CHICAGO METALLIC | 200 | 1274 (2) | ER-2631 |
| DONN CORPORATION | DX26 | DX424 (3) | ESR-1222 |
| CERTAINTEED | C12-12-20 | CS4-12-12 (4) | ESR-3336 |

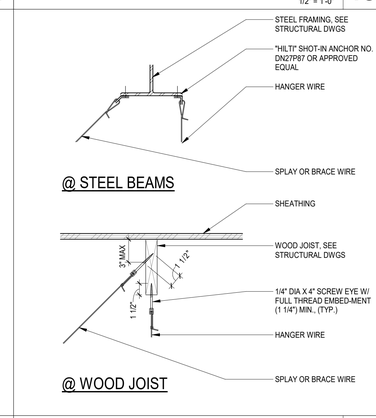
    FOOTNOTES:
    (1) FOR 2' X 2' GRID USE XL7328
    (2) FOR 2' X 2' GRID USE 1202
    (3) FOR 2' X 2' GRID USE DX216
    (4) FOR 2' X 2' GRID USE CS2-12-12
17. Anchors for wall angles:

    A. At wood stud wall: 8D common nail @ 16" O.C.

    B. At metal stud wall: 1 1/8" type "S" Bugle Head drywall screw at 16" O.C.

    C. At masonry wall: 1/4" dia. x 1 3/4" long Tapcon anchor screw @ 16" O.C. ICC/ES No. 1671
18. Suspended acoustical ceiling system shall be installed in accordance with the provisions of ASTM C635 and ASTM C636.
19. Suspended acoustical ceiling system shall comply with ASCE 7-05 Section 13.5.6.
20. Suspended acoustical ceiling system shall be subject to the special inspection requirements of Section 11.A.1.3.0 of ASCE Standard.
21. Suspended acoustical ceiling system shall be in accordance to ASCE 7-16 Section 1.5.6.2.2.

SUSPENDED CEILING NOTES 2
1 : 1




HANGER / SPLAY WIRE 14
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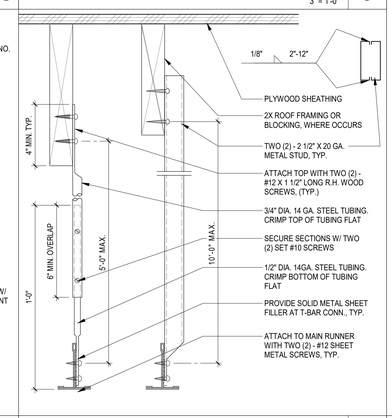


COMPRESSION STRUT 10
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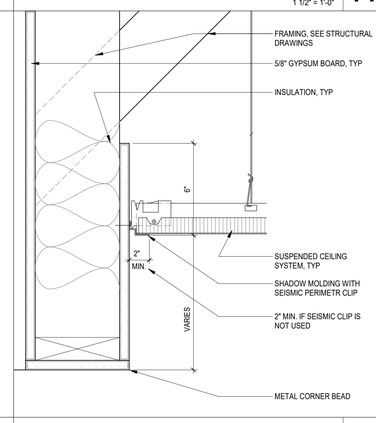


CEILING TRANSITION 15
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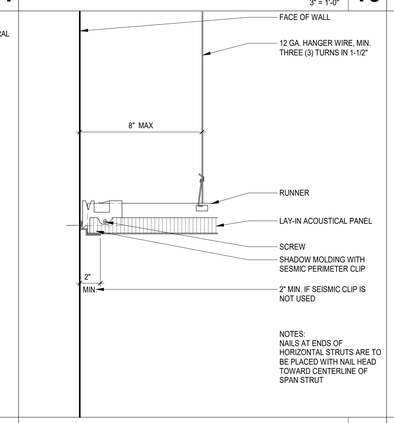


CEILING PERIMETER 11
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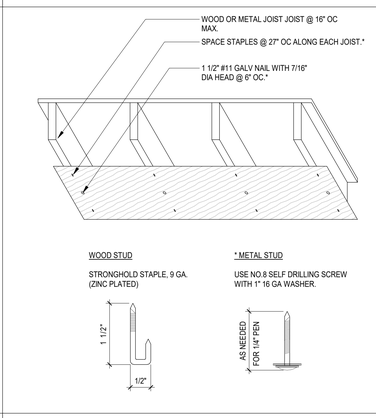


HORIZONTAL LATH ATTACHMENT 3
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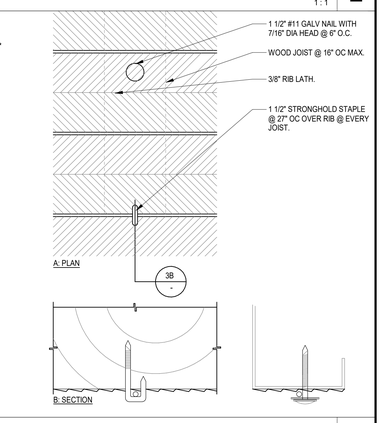
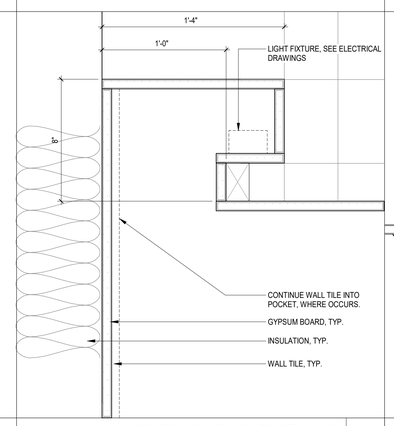
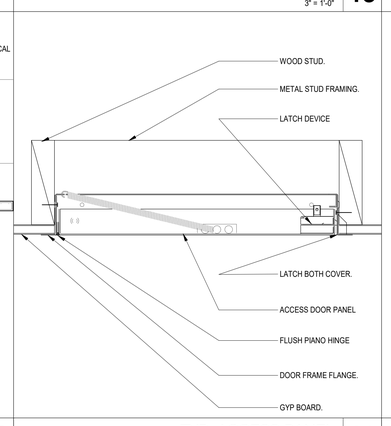
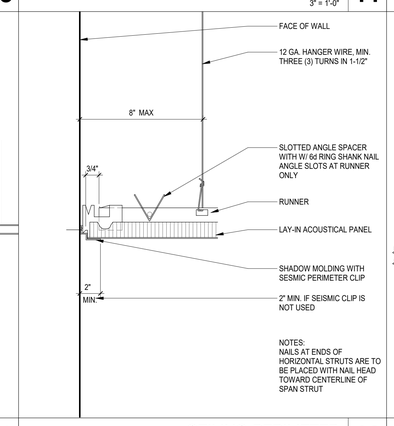



COVE LIGHTING @ CEILING 20
3" = 1'-0"




TYP. ACCESS PANEL 16
3" = 1'-0"




CEILING PERIMETER 12
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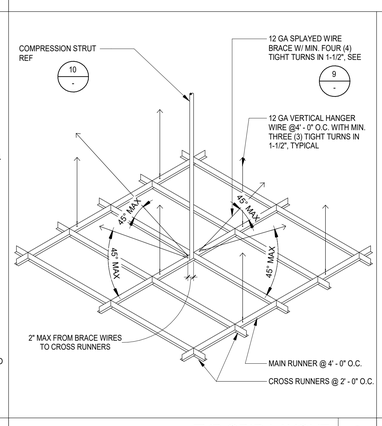


TYP GRID LAYOUT 8
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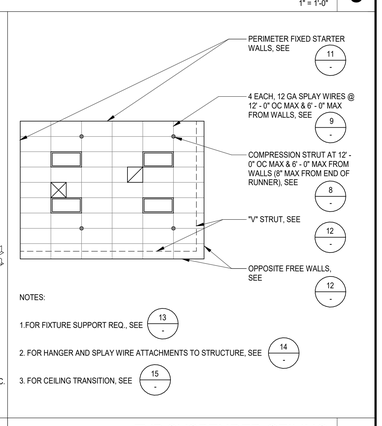


TYP SUSPENDED CEILING 4
1/4" = 1'-0"

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 4 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**SUSPENDED CEILING NOTES AND DETAILS**

DRAWING NUMBER: **A8.1**

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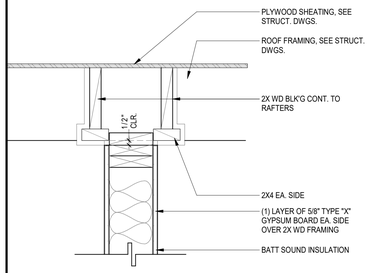
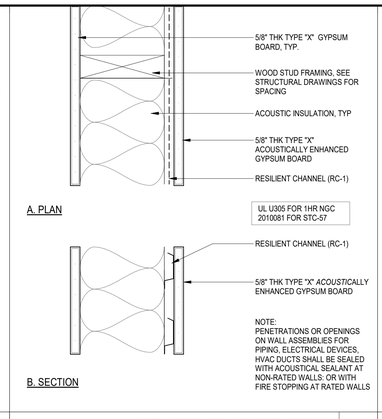
PC SUBMITTAL #4

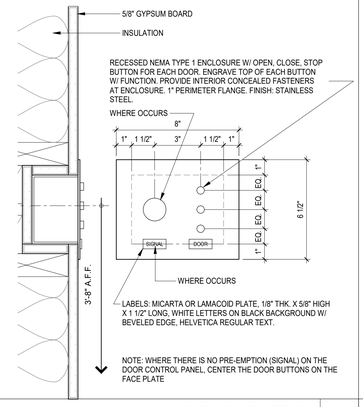
CM-07-01-2026




## WALL HEAD - NON BEARING 21
1 1/2" = 1'-0"




## 1HR, STC-57 SOUND WALL 17
3" = 1'-0"




## DOOR CONTROL 13
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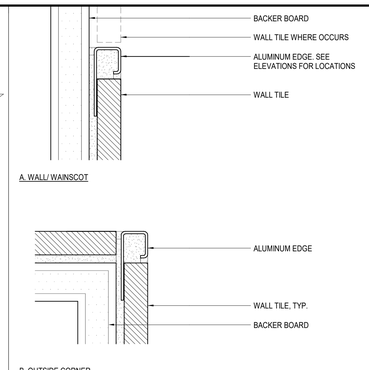
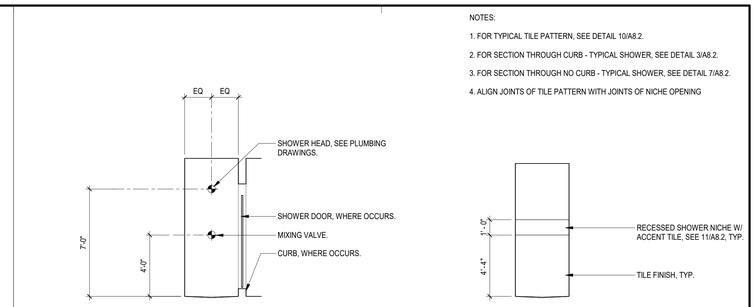



## TILE WALL & OUTSIDE CORNER 9
12" = 1'-0"




## SHOWER ELEVATIONS 1
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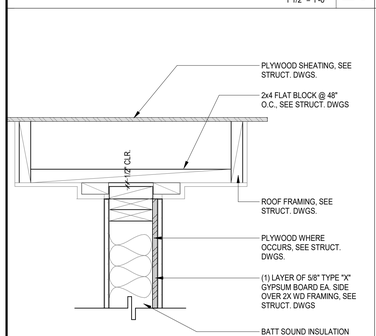


## WALL HEAD - NON BEARING 22
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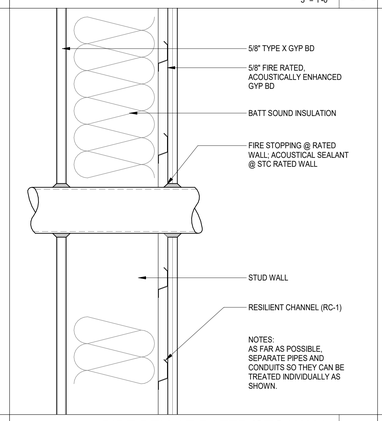
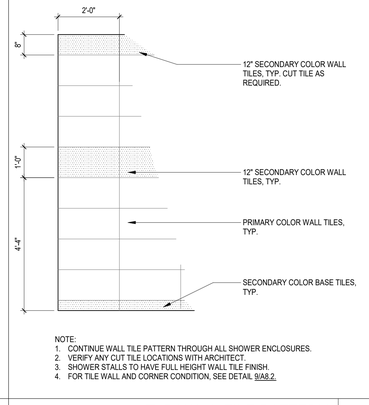



## PIPE PEN AT RATED/STC WALL 18
3" = 1'-0"




## TYP WALL TILE PATTERN 10
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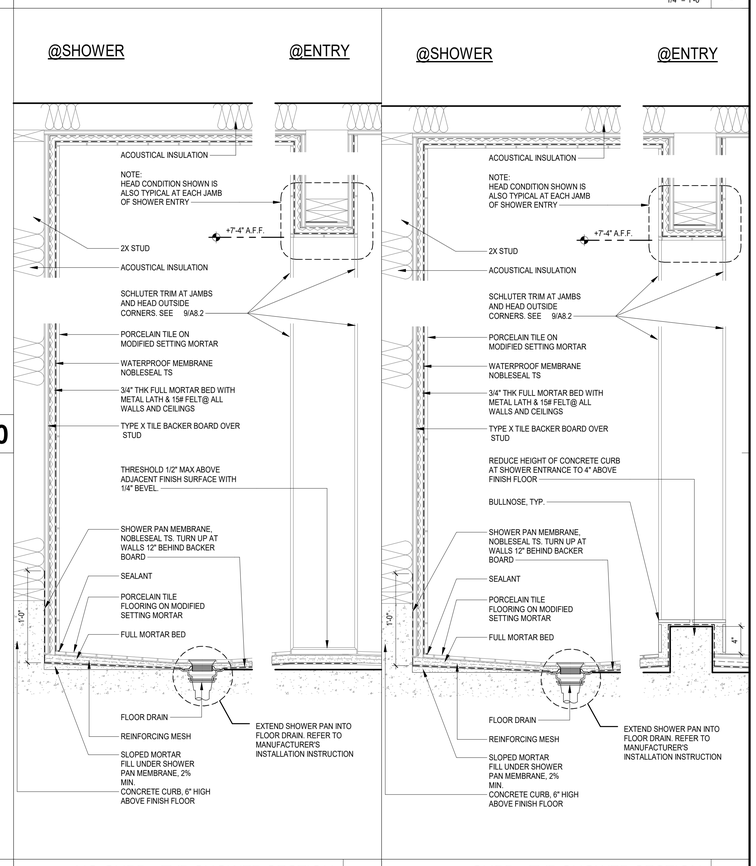
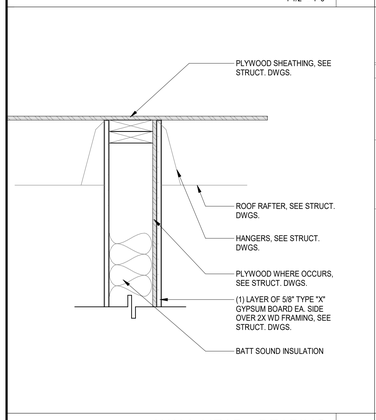



## NO CURB - TYP SHOWER SECTION 7
1 1/2" = 1'-0"

## CURB - TYP SHOWER SECTION 3
1 1/2" = 1'-0"




## WALL HEAD - BEARING 23
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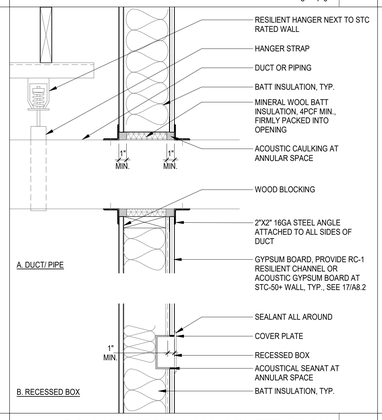


## SOUND & FIRE WALL PENETRATION 19
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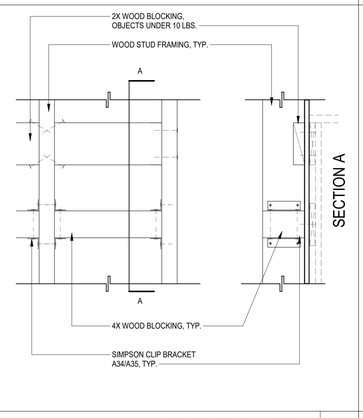


## TYPICAL BLOCKING 15
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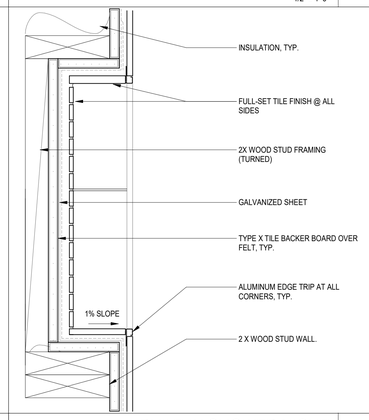


## BUILT-IN SHOWER NICHE 11
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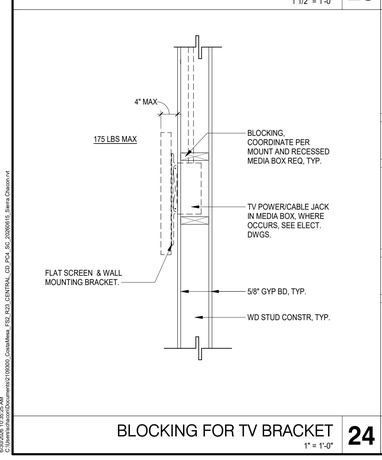
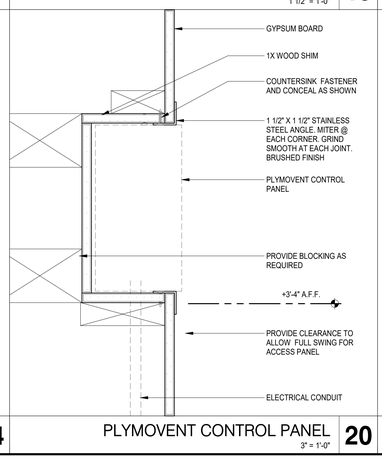
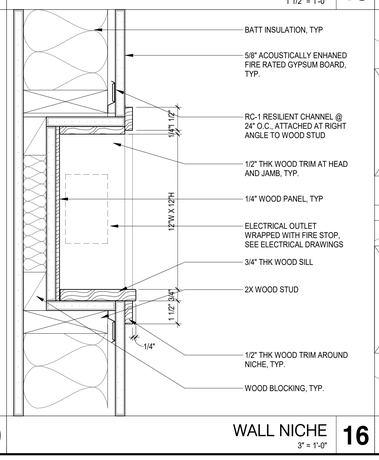


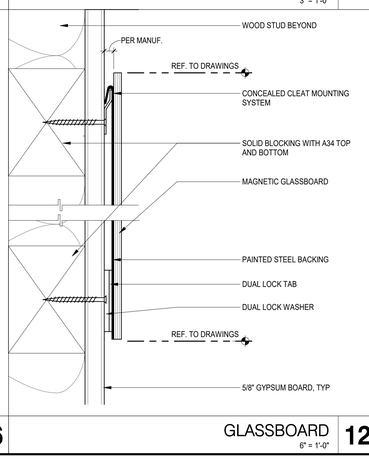

## BLOCKING FOR TV BRACKET 24
1" = 1'-0"




## PLYMOVENT CONTROL PANEL 20
3" = 1'-0"




## WALL NICHE 16
3" = 1'-0"




## GLASSBOARD 12
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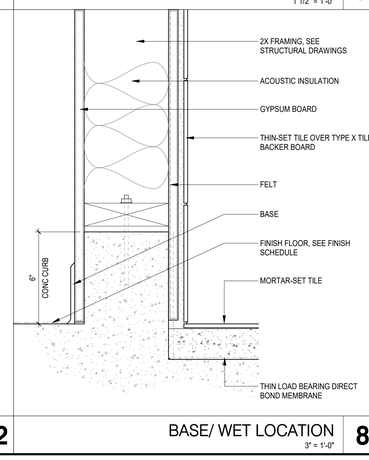


## BASE/ WET LOCATION 8
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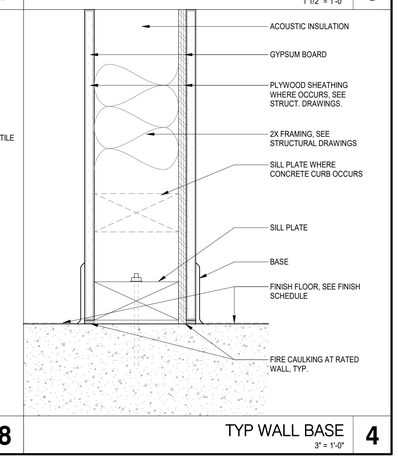


## TYP WALL BASE 4
3" = 1'-0"

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# INTERIOR DETAILS

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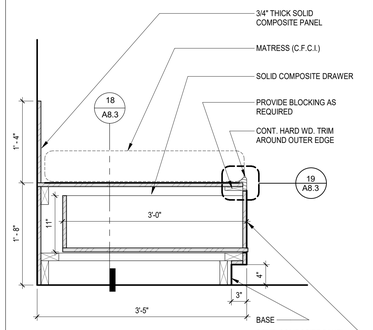
PC SUBMITTAL 04

CM-07-01-2026




BED PLATFORM 17
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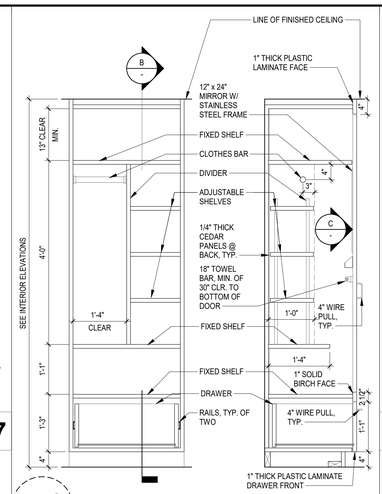
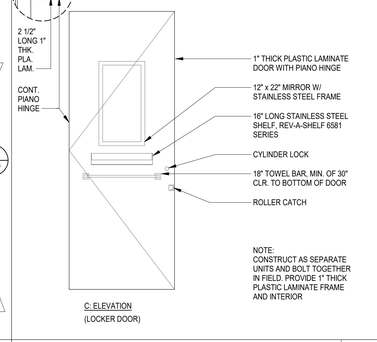
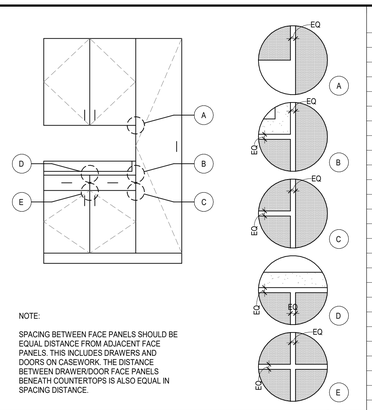



DORMITORY LOCKER 14
3/4" = 1'-0"




CASEWORK FACE PANEL 9
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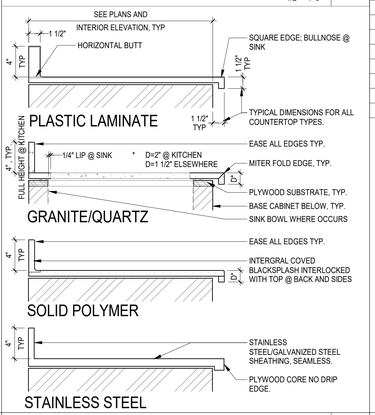
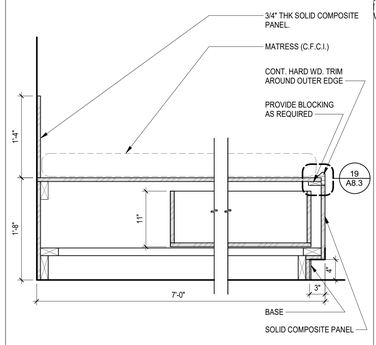


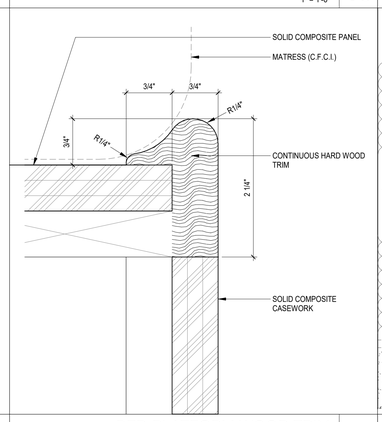

COUNTERTOPS 10
1 1/2" = 1'-0"

| # | ROOM NAME | CASEWORK FINISH | COUNTERTOP AND SPLASH | LOCK | REMARKS |
|---|---|---|---|---|---|
| 101 | LOBBY | SOLID COMPOSITE | - | - | GLASS DISPLAY CASE WITH SHELVES |
| 102 | RESTROOM | - | - | - | - |
| 103 | HALLWAY | SOLID COMPOSITE | SOLID POLYMER | - | - |
| 104 | CAPTAIN'S OFFICE | PLASTIC LAMINATE | SOLID POLYMER | - | - |
| 105 | SLEEPING QUARTER 1 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 106 | SHARED BATH 1 | SOLID COMPOSITE | ENGINEERED QUARTZ | - | - |
| 107 | SLEEPING QUARTER 2 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 108 | SLEEPING QUARTER 3 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 109 | SHARED BATH 2 | SOLID COMPOSITE | ENGINEERED QUARTZ | - | - |
| 110 | SLEEPING QUARTER 4 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 111 | SLEEPING QUARTER 5 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 112 | ACC. SHARED BATH 3 | - | - | - | - |
| 113 | SLEEPING QUARTER 6 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 114 | RESTROOM | - | - | - | - |
| 115 | FIRE RISER ROOM | - | - | - | - |
| 116 | KITCHEN | SOLID COMPOSITE | ENGINEERED QUARTZ | - | - |
| 117 | DAY ROOM | PLASTIC LAMINATE | ENGINEERED QUARTZ | - | - |
| 118 | DINING ROOM | SOLID COMPOSITE | - | - | - |
| 119 | SLEEPING QUARTER 7 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 120 | SHARED BATH 4 | SOLID COMPOSITE | ENGINEERED QUARTZ | - | - |
| 121 | SLEEPING QUARTER 8 | SOLID COMPOSITE | SOLID POLYMER | COMBO TYPE | - |
| 122 | VESTIBULE 2 | SOLID COMPOSITE | STAINLESS STEEL | - | - |
| 123 | CUSTODIAN/ STORAGE | SOLID COMPOSITE | STAINLESS STEEL | - | - |
| 124 | MEDICAL STORAGE | SOLID COMPOSITE | STAINLESS STEEL | - | - |
| 125 | WORKSTATIONS | PLASTIC LAMINATE | SOLID POLYMER | - | - |
| 126 | VESTIBULE 1 | SOLID COMPOSITE | STAINLESS STEEL | - | - |
| 127 | APPARATUS ROOM | SOLID COMPOSITE | STAINLESS STEEL | - | - |
| 128 | DECON SINK | - | - | - | - |
| 129 | EXERCISE ROOM | - | - | - | - |
| 130 | DIRTY RESTOOM | SOLID COMPOSITE | - | - | - |
| 131 | STORAGE | - | - | - | - |
| 132 | WORKSHOP | SOLID COMPOSITE | STAINLESS STEEL | - | - |
| 133 | DATA | - | - | - | - |
| 134 | ELECTRICAL ROOM | - | - | - | - |
| 135 | CONFERENCE ROOM | PLASTIC LAMINATE | ENGINEERED QUARTZ | - | - |
| 136 | OUTDOOR PATIO | - | - | - | - |

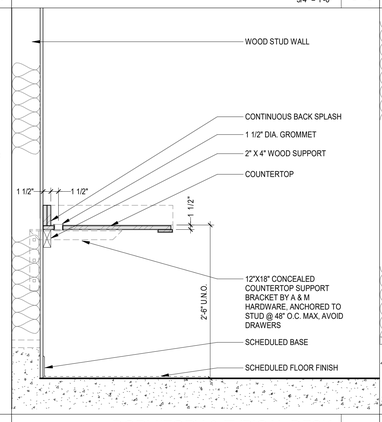
CASEWORK MATERIALS SCHEDULE 2



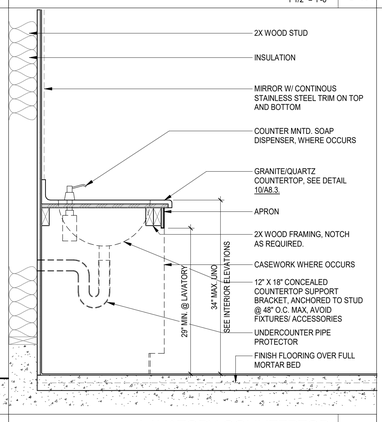

BED PLATFORM 18
1" = 1'-0"




BED PLATFORM WOOD TRIM 19
12" = 1'-0"

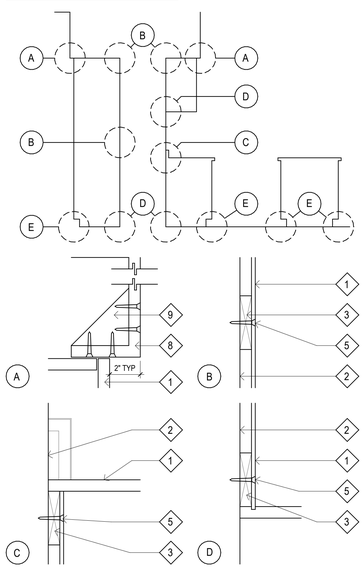



DORMITORY & TYPICAL DESK 15
1" = 1'-0"




LAVATORY COUNTERTOP 11
1" = 1'-0"

CASEWORK ANCHORAGE LOCATIONS:

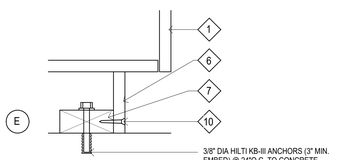



GENERAL NOTES:

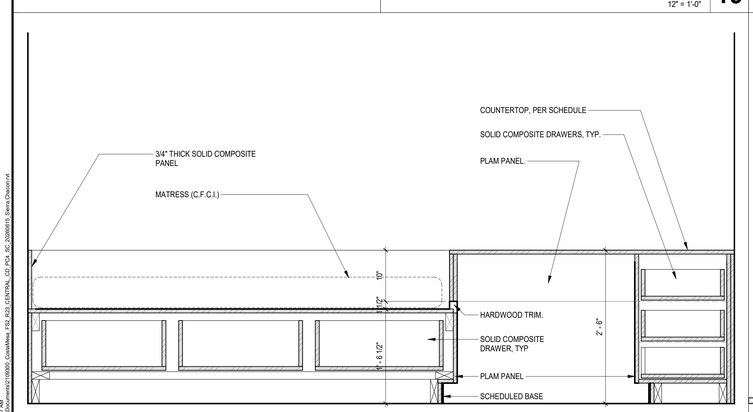
1. ALL CASEWORK SHOWN ON SCHEDULE ARE NOT NECESSARILY USED. ONLY THOSE CASEWORK ITEMS CALLED OUT ON INTERIOR ELEVATIONS AND/OR FLOOR PLANS SHALL BE USED.
2. CASEWORK NUMBERS SHOWN ON SCHEDULE ARE THOSE OF THE WOODWORK INSTITUTE (WI) DESIGN NUMBERING SYSTEM.
3. ALL CABINET DIMENSIONS INDICATED IN SCHEDULE ARE NOMINAL OUTSIDE DIMENSIONS.
4. ALL DIMENSIONS NOTED ON SCHEDULE ARE IN INCHES.
5. FILLER STRIPS ARE REQUIRED AT ENDS OF CABINETS WHERE CABINETS ARE ADJACENT TO WALLS.
6. ALL FILLER STRIPS AT ALL TALL AND WALL CABINETS TO HAVE TOP AND BOTTOM RETURNS.
7. HEIGHT DIMENSIONS OF BASE CABINETS INCLUDE FINISHED TOP THICKNESS OF 1 1/2" & SUBBASE HEIGHT OF 4", U.N.O.
8. HEIGHT DIMESIONS OF APRONS INCLUDE FINISHED TOP THICKNESS OF 1 1/2", U.N.O.
9. HEIGHT DIMENSIONS OF TOPS WITH APRONS FROM FINISHED FLOOR LINE SHALL MATCH HEIGHT LINE SHALL MATCH HEIGHT OF ADJACENT BASE CABINETS U.N.O.
10. ALL PLAN DIMENSIONS OF CASEWORK ARE CABINET DIMENSIONS ONLY & DO NOT INCLUDE TOPS.
11. PROVIDE FINISHED END PANELS FOR SUPPORT OF COUNTERTOPS AT UNDER-COUNTER EQUIPMENTOR KNEE SPACES WHERE THERE IS NO ADJACENT WALL OR CABINET THAT CAN BE USED FOR SUPPORT.
12. FINISH ALL EXPOSED PORTIONS OF CASEWORK AND COUNTERTOPS.
13. ALL UNITS INCLUDING OPEN UNITS SHALL HAVE CASEWORK MANUFACTURER'S STANDARD CABINET LINER, U.N.O.
14. ALL TOE SPACES SHALL BE 4" IN HEIGHT AND 3" IN DEPTH AND SHALL RETURN TO WALL WHERE ENDS OF CABINETS ARE EXPOSED, U.N.O.
15. ALL SHELVING SHALL BE ADJUSTABLE, U.N.O.
16. PROVIDE DUST CLOSURE PANELS TO CEILING OR DROPPED SOFFIT AS INDICATED ON ELEVATIONS OR PLAN.
17. ALL COUNTERTOPS SHALL BE OF DEPTHS AS DETAILED AND SHALL BE OF MAXIMUM PRACTICAL LENGTHS REQUIRED TO CONFORM TO OVERALL BASE CABINET DIMENSIONS.
18. PROVIDE BACKSPLASH RETURN AT ENDS OF COUNTERTOPS WHERE ADJACENT TO WALL OR OTHER FULL HEIGHT CASEWORK.
19. ALL SINKS, SINK TRIM & ELECTRICAL ITEMS SHALL BE FURNISHED BY OTHER THAN THE CASEWORK MANUFACTURER, U.N.O.
20. ALL COUNTERTOPS SHALL BE ENGINEERED QUARTZ, U.N.O.

CASEWORK ANCHORAGE NOTES:

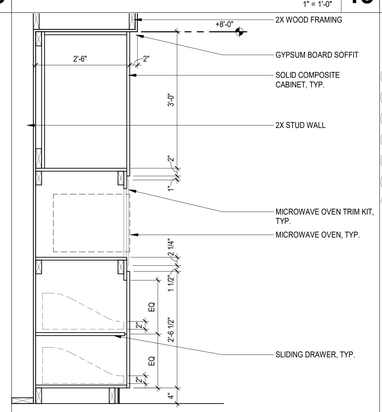
1. CASEWORK (FRONT) (BACK) (TOP) (BOTTOM)
2. FACE OF WALL
3. 1 x 4 CONTINUOUS WOOD CLEAT
4. 1 x 2 CONTINUOUS WOOD CLEAT
5. ANCHORAGE TYPE VARIES BASE UPON WALL CONSTRUCTION AS FOLLOWS:
   WOOD STUD FRAMING - #10 x 3 1/2" FHWS @ 16"O.C., 2" MAXIMUM FROM EACH END. MIN. 2 PER CABINET W/ 3 X 4 WOOD BLOCKING WITH A34 TOP AND BOTTOM,
   OR
   METAL STUD FRAMING - #8 x 2 1/2" FHMS @ 16"O.C., 2" MAXIMUM FROM EACH END. MIN. 2 PER CABINET W/ CONT 16 GA x 4" STEEL PLATE x CABINET LENGTH
   OR
   MASONRY OR CONCRETE - 3/8"DIA HILTI KB-III ANCHORS (2 1/2" MIN EMBEDMENT) @ 24" O.C., MINIMUM TWO PER CABINET
6. 3/4" PARTICLE BOARD SKIRT
7. 2 x 4 PLATE
8. FASCIA
9. 2 x 6 GUSSET @ 48"O.C. - #10 x 2" LONG FHWS (6" FROM EACH END), SET 2x IN GLUE WHERE FASTENERS ARE PARALLEL TO 2x GRAIN, NO EXPOSED SCREW HEADS
10. #10 x 3" FLAT HEAD WOOD SCREWS @ 24" OC



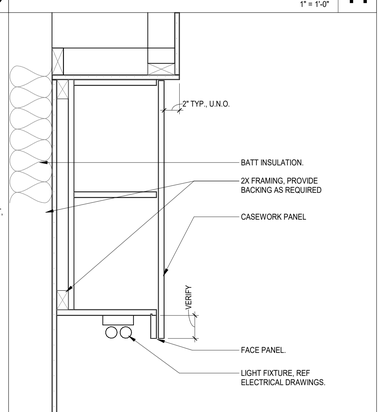

CASEWORK ANCHORAGE 4
12" = 1'-0"




BED PLATFORM 20
1" = 1'-0"




MICROWAVE OVEN CASEWORK 16
3/4" = 1'-0"




CASEWORK LIGHT FIXTURE 12
1 1/2" = 1'-0"

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

MILLWORK DETAILS AND SCHEDULES

DRAWING NUMBER: A8.3

PC SUBMITTAL 04

6/30/2026 10:50:27 AM
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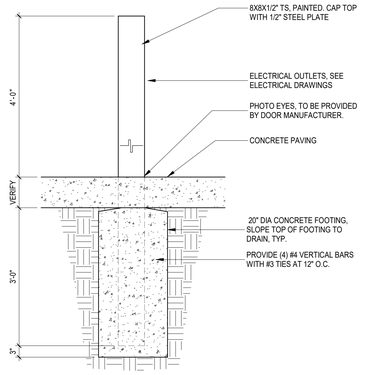
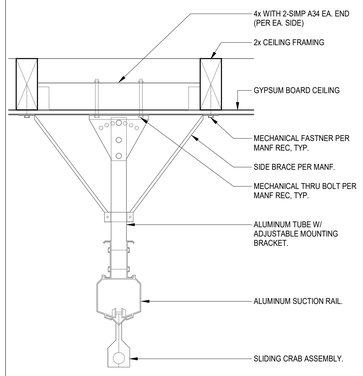
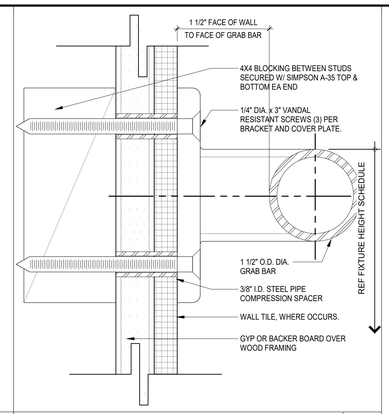
CM-07-01-2026



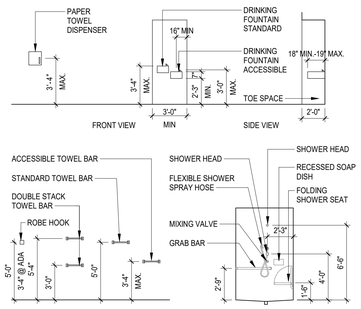

TS 8X8 BOLLARD 13
3/4" = 1'-0"

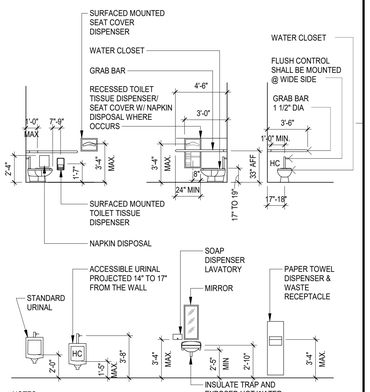



PLYMOVENT RAIL ATTACHMENT 9
1 1/2" = 1'-0"



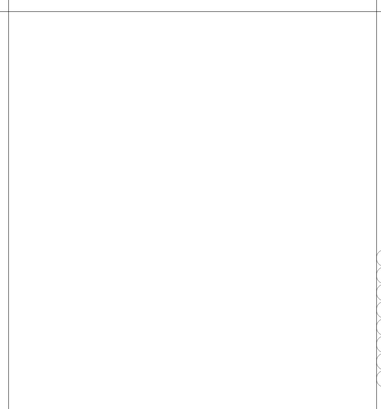

GRAB BAR @ WOOD STUD 5
1 : 1



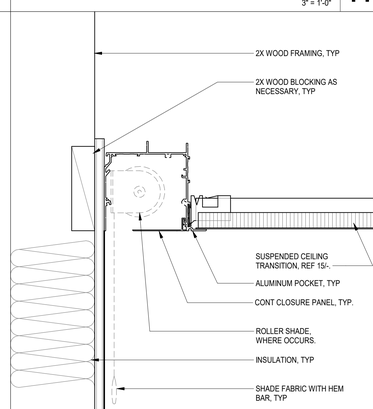




NOTES:
1. ALL FIXTURES AND ACCESSORIES ARE ACCESSIBLE UNLESS OTHERWISE NOTED/DIMENSIONED.
2. SEE ENLARGED FLOOR PLANS & INTERIOR ELEVATION FOR TOILET ACCESSORY LOCATIONS.
3. ALL ACCESSORIES ARE TO BE ACCESSIBLE WITH A MAXIMUM REACH HEIGHT OF 40" FROM FLOOR TO CENTER OF FUNCTIONAL POINT.
4. FOR ACCESSIBLE LAVATORY CLEARANCE DIMENSIONS, SEE 3/A8.4.
5. ALL DIMENSIONED CLEARANCES SHOULD BE FROM TOILET FIXTURES TO FINISH FACE OF WALL

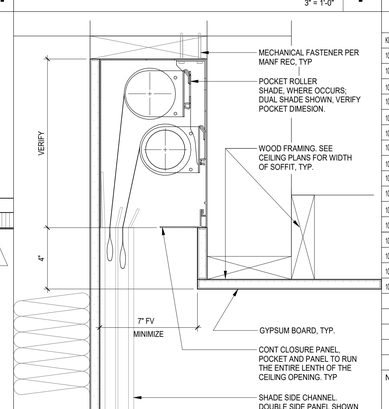
FIXTURE HEIGHT SCHEDULE 2
3/16" = 1'-0"



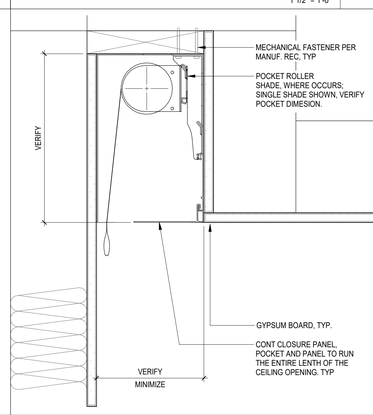

GYPSUM BOARD REVEAL 14
12" = 1'-0"



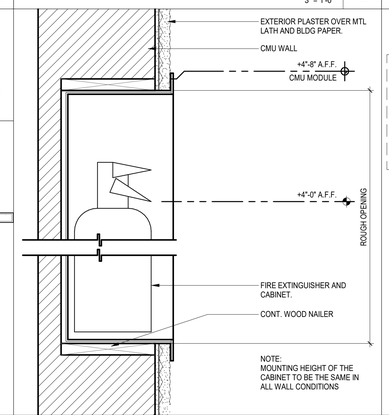

CORD REEL ATTACHMENT 10
1 1/2" = 1'-0"



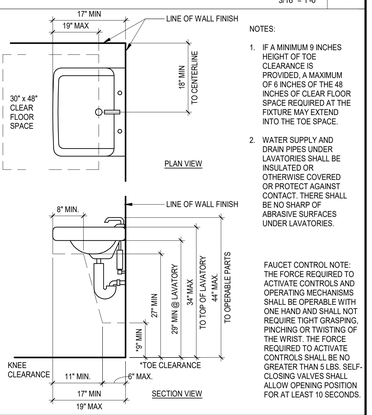

FIRE EXTINGUISHER CABINET 6
3" = 1'-0"




SHADE POCKET @ GYP. CEILING 11
3" = 1'-0"




FIRE EXTINGUISHER CABINET 7
3" = 1'-0"




NOTES:
1. IF A MINIMUM 9 INCHES HEIGHT OF TOE CLEARANCE IS PROVIDED, A MAXIMUM OF 6 INCHES OF THE 48 INCHES OF CLEAR FLOOR SPACE REQUIRED AT THE FIXTURE MAY EXTEND INTO THE TOE SPACE.
2. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED OR PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OF ABRASIVE SURFACES UNDER LAVATORIES.

FAUCET CONTROL NOTE: THE FORCE REQUIRED TO ACTIVATE CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. SELF-CLOSING VALVES SHALL ALLOW OPENING POSITION FOR AT LEAST 10 SECONDS.

KNEE CLEARANCE @ LAVATORY 3
3/4" = 1'-0"




PERIMETER POCKET @ TBAR CEILING 12
3" = 1'-0"




PERIMETER POCKET @ SOFFIT 8
3" = 1'-0"

TOILET ACCESSORIES SCHEDULE

| KEYNOTE | MODEL NUMBER | DESCRIPTION | QUANTITY | ROOMS |
|---|---|---|---|---|
| 1002 | BOBRICK B-35745 | RECESSED SEAT COVER/ TOILET TISSUE DISPENSER AND NAPKIN DISPOSAL | 3 | 102, 112, 130 |
| 1003 | BOBRICK B-3579 | SURFACE MOUNTED SEAT COVER/ TOILET TISSUE DISP. & NAPKIN DISPOSAL | 4 | 106, 109, 114, 120 |
| 1011 | BOBRICK B-43999 | SURFACE MOUNTED PAPER TOWEL DISPENSER/ WASTE RECEPTACLE, SMALL | 8 | 106, 109, 114, 120, 130 |
| 1012 | BOBRICK B-3944 | RECESSED PAPER TOWEL DISPENSER/ WASTE RECEPTACLE, LARGE | 2 | 102, 112 |
| 1019 | BOBRICK 204-1, 204-3, B-207 | SHOWER CURTAIN, ROD AND HOOKS, WIDTH TO MATCH OPENING | 2 | 120, 130 |
| 1022 | BOBRICK B-5717 | ROBE HOOK | 9 | 106, 109, 112, 120,130 |
| 1028 | BOBRICK B-4112 | SURFACE MOUNTED SOAP DISPENSER | 3 | 102, 112, 130 |
| 1030 | BOBRICK B-5181 | ACCESSIBLE FOLDING SHOWER SEAT | 2 | 120, 130 |
| 1031 | BOBRICK B-290 | GLASS MIRROR WITH STAINLESS STEEL FRAME, COUNTER WIDTH | 3 | 106, 109, 120 |
| 1034 | BOBRICK B-290 2448 | GLASS MIRROR WITH STAINLESS STEEL FRAME | 4 | 102, 112, 114, 130 |
| 1032 | BOBRICK B-6806 x 36 | 36" LONG GRAB BAR | 3 | 102, 112, 130 |
| 1033 | BOBRICK B-6806 x 42 | 42" LONG GRAB BAR | 3 | 102, 112, 130 |
| 1037 | BOBRICK B-239 | CUSTODIAN UTILITY SHELF | 1 | 123 |
| 1057 | BOBRICK B-2706C | SURFACE MOUNTED NAPKIN-TAMPON DISPENSER, FREE OPERATION | 3 | 102, 112, 130 |
| 1068 | BOBRICK B-4706C | SEMI-RECESSED NAPKIN-TAMPON DISPENSER, FREE OPERATION | 4 | 106, 109, 114, 120 |
| 1089 | BOBRICK B-6861818 | 24" x 36" SHOWER COMPARTMENT BAR | 2 | 120, 130 |

NOTE: CONTRACTOR TO VERIFY ALL QUANTITIES, SEE PLANS AND INTERIOR ELEVATIONS.

TOILET ROOM ACCESSORIES 4
1/2" = 1'-0"

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

SPECIALTY DETAILS

DRAWING NUMBER: A8.4

6/30/2026 10:35:08 AM
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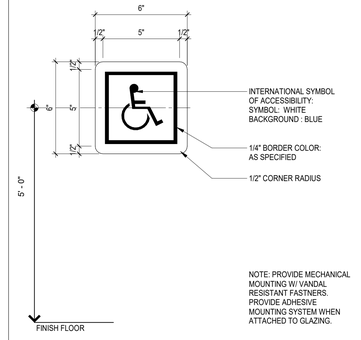
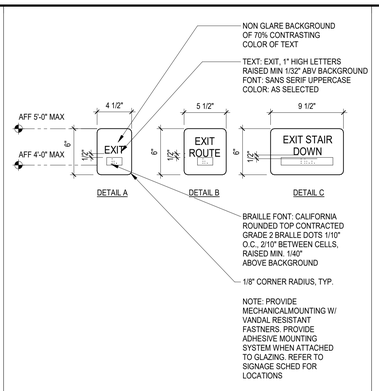
CM-07-01-2026



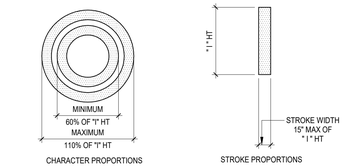

## ACCESSIBLE ENTRY SIGN 13

3" = 1'-0"



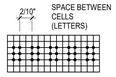

## EXIT SIGNAGE 9

1 1/2" = 1'-0"




## WIDTH TO HEIGHT PROPORTION TEMPLATE

BRAILLE AND TEXT TEMPLATE PER (CBC) CALIFORNIA BUILDING CODE AND (CCR) CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2




CALIFORNIA GRADE 2 BRAILLE SHALL BE USED WHERE EVER BRAILLE IS REQUIRED. INDIVIDUAL BRAILLE DOTS SHALL EACH BE DISTINCT AND SEPARATE. EACH DOT SHALL BE ROUNDED OR DOMED IN LIEU OF SQUARE SIDED AND FLAT TOPPED PER CBC SECTION 11B-703.3

PROPORTIONS: CHARACTERS SHALL HAVE A FONT WHERE THE WIDTH OF THE UPPER CASE "O" AND THE THICKNESS OF THE UPPERCASE "I" ARE AS INDICATED ABOVE AND ARE PER CBC SECTION 11B-703.5.4.
TACTILE FONT: SHALL ALL BE UPPER CASE AND SHALL BE RAISED A MINIMUM OF 1/32".
COPY HT: SHALL BE 1" IN HEIGHT.
CHARACTER SPACING: MINIMUM OF 1/8" AND MAXIMUM OF 4 TIMES CHARACTER STROKE WIDTH. MEASURED BETWEEN CLOSEST POINTS OF ADJACENT LETTERS.
LINE SPACING: MINIMUM OF 135% AND MAXIMUM OF 170% OF THE UPPERCASE " I " HEIGHT MEASURED BASELINE TO BASELINE OF CHARACTERS.
TEXT SHALL BE NON-GLARE AND CONTRAST WITH BACKGROUND PER CBC 11B-703.5.1

## SIGNAGE TEMPLATES 5

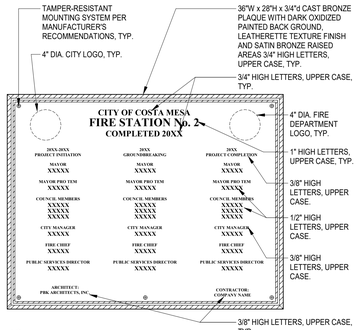
12" = 1'-0"

| ITEM DESCRIPTION | DETAIL | LOCATION |
|---|---|---|
| FEMALE RESTROOM DOOR SYMBOL | 6/- | ALL FEMALE RESTROOM DOORS |
| MALE RESTROOM DOOR SYMBOL | 10/- | ALL MALE RESTROOM DOORS |
| UNISEX RESTROOM DOOR SYMBOL | 14/- | ALL SINGLE USE RESTROOM DOORS |
| FEMALE RESTROOM WALL SIGN | 7/- | ALL FEMALE RESTROOMS |
| MALE RESTROOM WALL SIGN | 11/- | ALL MALE RESTROOMS |
| UNISEX RESTROOM WALL SIGN | 15/- | ALL SINGLE USE RESTROOMS |
| TACTILE EXIT SIGNAGE A (EXIT) | 9A/- | ALL EXTERIOR EXIT DOORS |
| TACTILE EXIT SIGNAGE B (EXIT ROUTE) | 9B/- | ALL HALLWAY EXIT DOORS AND/OR AS NOTED |
| NO SMOKING SIGNAGE | 8/- | ALL EXTERIOR DOORS |
| ACCESSIBILITY SIGNAGE | 13/- | PUBLIC EXTERIOR BUILDING ENTRY |
| ROOM CONTROL SIGNAGE | 12/- | ALL INTERIOR AND EXTERIOR ROOMS |
| FIRE RISER ROOM SIGNAGE | 16/- | ROOM 115 |
| DEDICATION PLAQUE | 18/- | FRONT ENTRY, VERIFY LOCATION |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |

NOTES
1. REFER TO DETAIL 2/- AND 3/- FOR MOUNTING
2. REFER TO DETAIL 4/- AND 5/- FOR BRAILLE TEMPLATE
3. AT GLAZING WHERE BACKING WILL BE EXPOSED ON THE REVERSE SIDE, PROVIDE AN OPAQUE STICKER TO THE GLAZING BEFORE MOUNTING WITH ADHESIVE

## SIGNAGE SCHEDULE 1

12" = 1'-0"

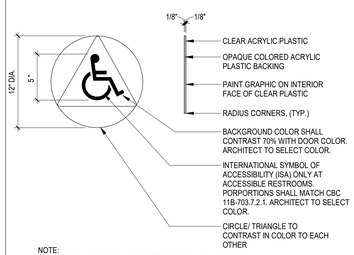



NOTE:
1. TYPE STYLE TO BE TIMES NEW ROMAN BOLD. VERIFY ALL NAMES AND LAYOUT WITH ARCHITECT PRIOR TO FABRICATION.
2. COORDINATE FINAL LOCATION WITH THE CITY AND FIRE DEPARTMENT.

## DEDICATION PLAQUE 18

1 1/2" = 1'-0"

## UNISEX RESTROOM

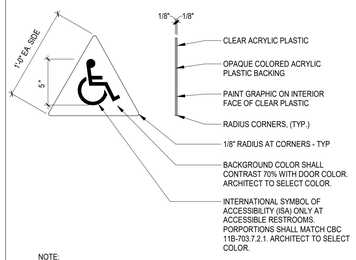



NOTE:
ATTACH SIGN USING THREE FLATHEAD VANDAL RESISTANT COUNTERSUNK SCREWS AND ADHESIVE. SIGN SHALL BE CENTERED ON THE DOOR AND MOUNTED 5' - 0" ABOVE FIN FLOOR LINE TO CENTER OF SIGN. REFER TO SIGNAGE SCHED FOR LOCATIONS

## RESTROOM SYMBOL 14

1 1/2" = 1'-0"

## MEN/BOYS

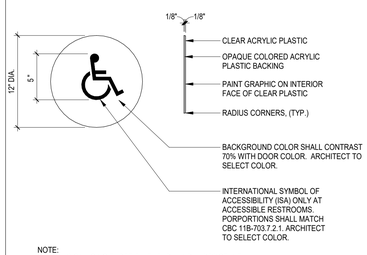



NOTE:
ATTACH SIGN USING THREE FLATHEAD VANDAL RESISTANT COUNTERSUNK SCREWS AND ADHESIVE. SIGN SHALL BE CENTERED ON THE DOOR AND MOUNTED 5' - 0" ABOVE FIN FLOOR LINE TO CENTER OF SIGN. REFER TO SIGNAGE SCHED FOR LOCATIONS

## RESTROOM SYMBOL 10

1 1/2" = 1'-0"

## WOMEN/GIRLS

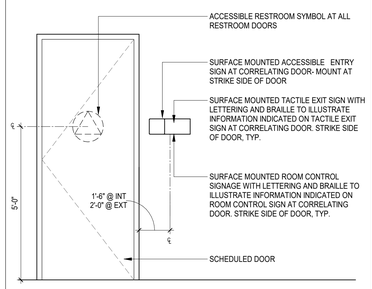



NOTE:
ATTACH SIGN USING THREE FLATHEAD VANDAL RESISTANT COUNTERSUNK SCREWS AND ADHESIVE. SIGN SHALL BE CENTERED ON THE DOOR AND MOUNTED 5' - 0" ABOVE FIN FLOOR LINE TO CENTER OF SIGN. REFER TO SIGNAGE SCHED FOR LOCATIONS

## RESTROOM SYMBOL 6

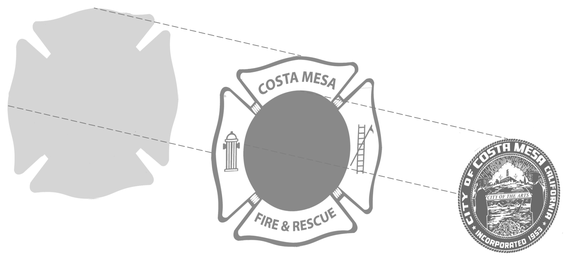
1 1/2" = 1'-0"

NOTE:
AT ALL DOUBLE DOORS LOCATE SIGNAGE ADJACENT TO JAMB OF INACTIVE LEAF OF DOOR PAIR. PROVIDE 90 DEGREE INHIBITOR TYPE CLOSER ON INACTIVE DOOR.




## SIGN MOUNTING DETAIL 2

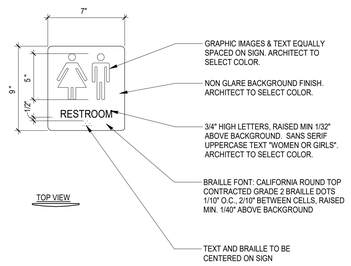
1/2" = 1'-0"




## EXTERIOR MALTESE CROSS ARTWORK PULL APART 19

N.T.S.

## RESTROOM

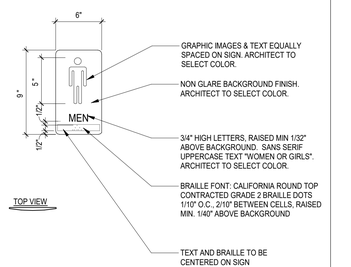



NOTE:
ATTACH SIGNS USING FLATHEAD VANDAL RESISTANT COUNTERSUNK SCREWS AND ADHESIVE. SIGNS SHALL BE MOUNTED 5' - 0" MAX ABOVE FINISH FLOOR LINE TO THE BOTTOM OF THE LETTERS AND 4' - 0" MINIMUM ABOVE FINISH FLOOR LINE TO THE BOTTOM OF THE BRAILLE. MOUNT SIGN ON STRIKE SIDE OF DOOR PER 11B-703.4.1. REFER TO SIGNAGE SCHEDULE FOR LOCATIONS.

## WALL MTD RESTRM SIGN 15

1 1/2" = 1'-0"

## MEN/BOYS

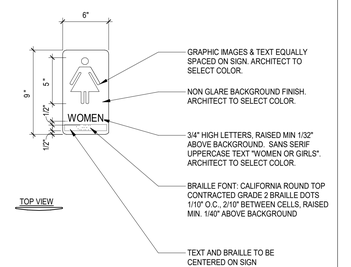



NOTE:
ATTACH SIGNS USING FLATHEAD VANDAL RESISTANT COUNTERSUNK SCREWS AND ADHESIVE. SIGNS SHALL BE MOUNTED 5' - 0" MAX ABOVE FINISH FLOOR LINE TO THE BOTTOM OF THE LETTERS AND 4' - 0" MINIMUM ABOVE FINISH FLOOR LINE TO THE BOTTOM OF THE BRAILLE. MOUNT SIGN ON STRIKE SIDE OF DOOR PER 11B-703.4.1. REFER TO SIGNAGE SCHEDULE FOR LOCATIONS.

## WALL MTD RESTRM SIGN 11

1 1/2" = 1'-0"

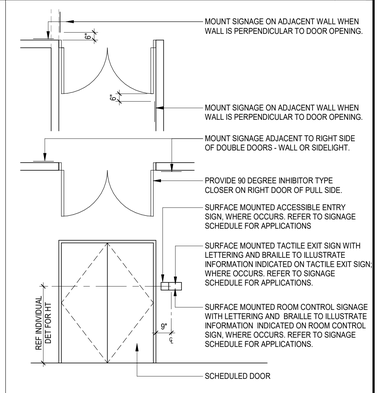
## WOMEN/GIRLS




NOTE:
ATTACH SIGNS USING FLATHEAD VANDAL RESISTANT COUNTERSUNK SCREWS AND ADHESIVE. SIGNS SHALL BE MOUNTED 5' - 0" MAX ABOVE FINISH FLOOR LINE TO THE BOTTOM OF THE LETTERS AND 4' - 0" MINIMUM ABOVE FINISH FLOOR LINE TO THE BOTTOM OF THE BRAILLE. MOUNT SIGN ON STRIKE SIDE OF DOOR PER 11B-703.4.1. REFER TO SIGNAGE SCHEDULE FOR LOCATIONS.

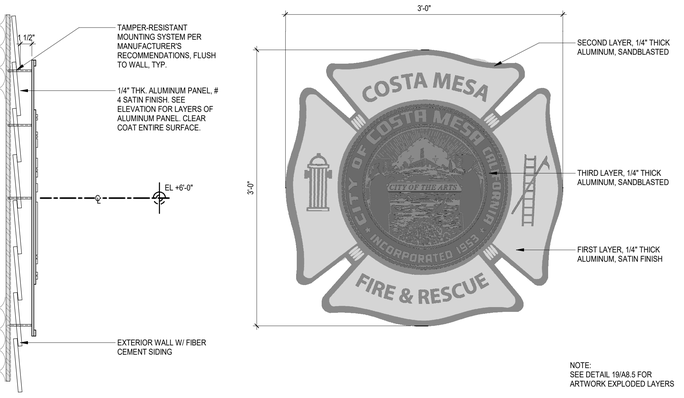
## WALL MTD RESTRM SIGN 7

1 1/2" = 1'-0"




## SIGNAGE MOUNTING DETAIL 3

1/4" = 1'-0"

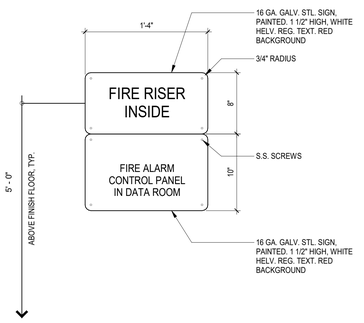



NOTE:
SEE DETAIL 19/A8.5 FOR ARTWORK EXPLODED LAYERS

## EXTERIOR MALTESE CROSS ARTWORK 20

1 1/2" = 1'-0"

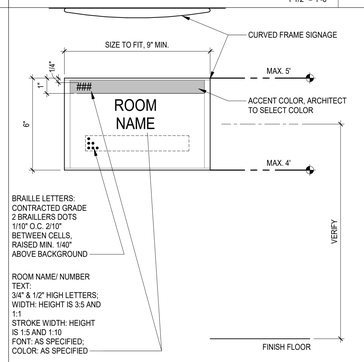
## RESTROOM




## FIRE RISER ROOM SIGNAGE 16

1 1/2" = 1'-0"

## MEN/BOYS

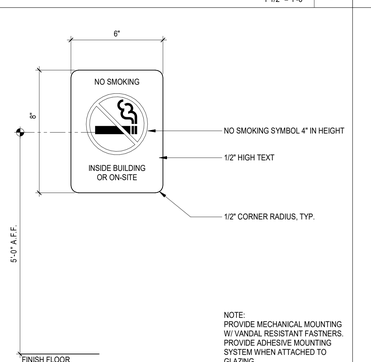



NOTE:
PROVIDE MECHANICAL MOUNTING W/ VANDAL RESISTANT FASTENERS. PROVIDE ADHESIVE MOUNTING SYSTEM WHEN ATTACHED TO GLAZING.

## ROOM CONTROL SIGNAGE 12

3" = 1'-0"

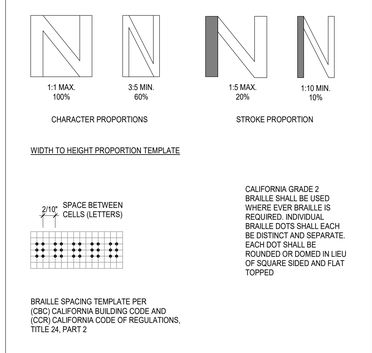
## WOMEN/GIRLS




NOTE:
PROVIDE MECHANICAL MOUNTING W/ VANDAL RESISTANT FASTNERS. PROVIDE ADHESIVE MOUNTING SYSTEM WHEN ATTACHED TO GLAZING.

## NO SMOKING SYMBOL 8

3" = 1'-0"




BRAILLE SPACING TEMPLATE PER (CBC) CALIFORNIA BUILDING CODE AND (CCR) CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2

CALIFORNIA GRADE 2 BRAILLE SHALL BE USED WHERE EVER BRAILLE IS REQUIRED. INDIVIDUAL BRAILLE DOTS SHALL EACH BE DISTINCT AND SEPARATE. EACH DOT SHALL BE ROUNDED OR DOMED IN LIEU OF SQUARE SIDED AND FLAT TOPPED

## SIGNAGE TEMPLATES 4

1/2" = 1'-0"

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | |

REVISIONS

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

SIGNAGE DETAILS

DRAWING NUMBER: A8.5

PC 10/08/01 FLA 04

6/30/2026 10:35:36 AM
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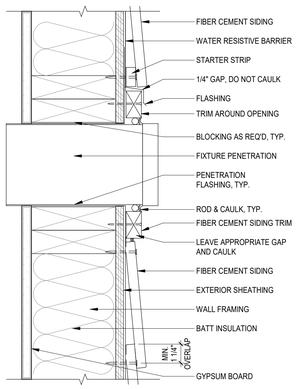
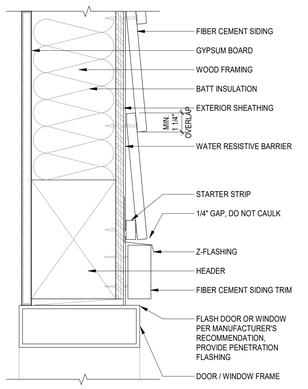
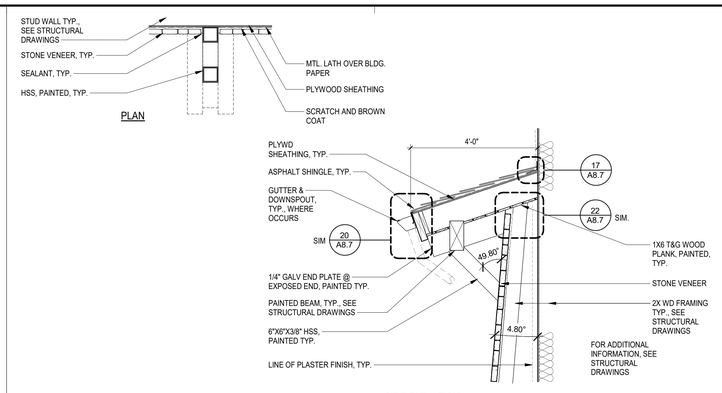
CM-07-01-2026



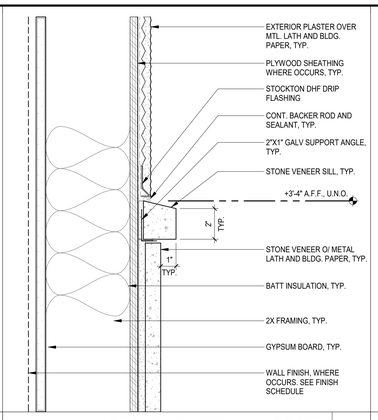

G FIXTURE PENETRATION



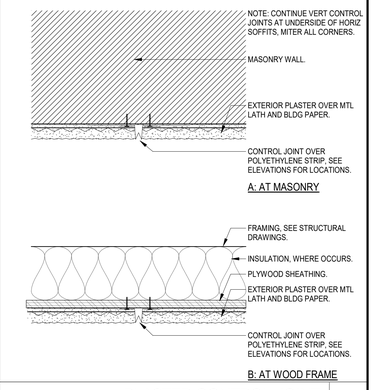

D DOOR / WINDOW HEAD



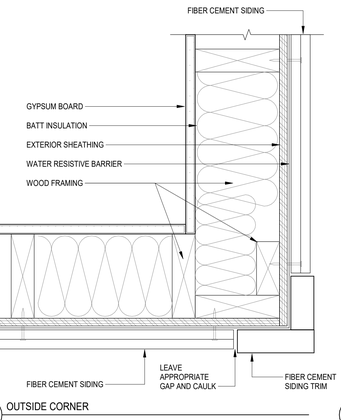

OUTRIGGER 1/2" = 1'-0" **9**



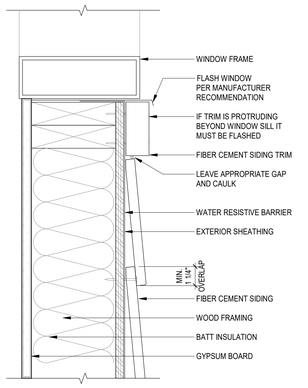

STONE VENEER WAINSCOTT 3" = 1'-0" **5**



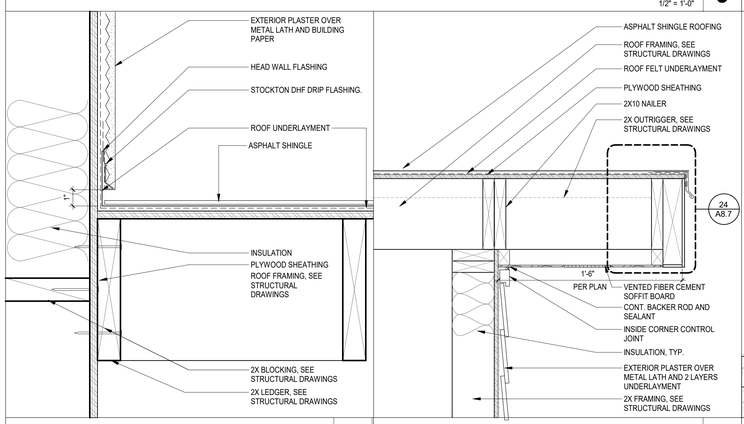

PLASTER CONTROL JOINT 3" = 1'-0" **1**




A OUTSIDE CORNER



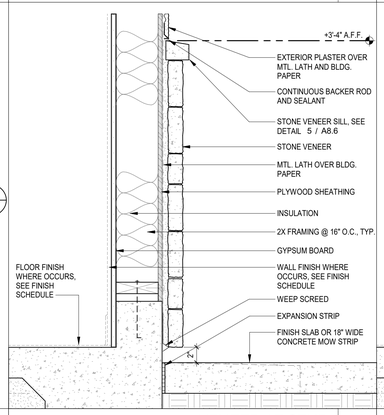

E WINDOW SILL



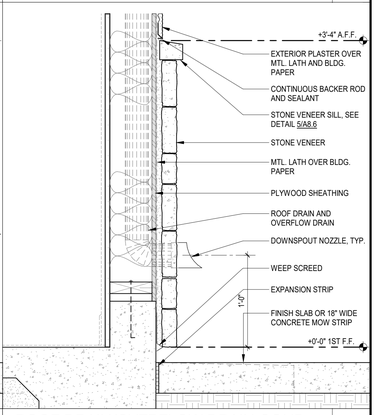

RAKE WALL FLASHING 3" = 1'-0" **14**



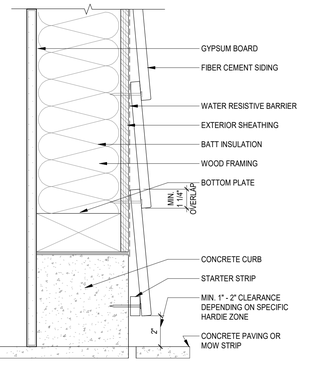

RAKE @ STUD WALL CONDITION 1 1 1/2" = 1'-0" **10**



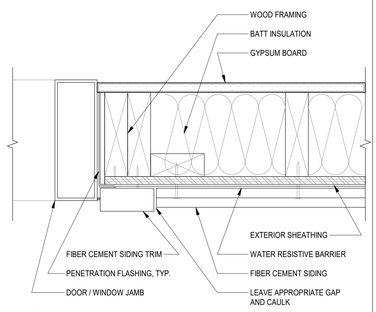

VENEER AT STUD 1 1/2" = 1'-0" **6**



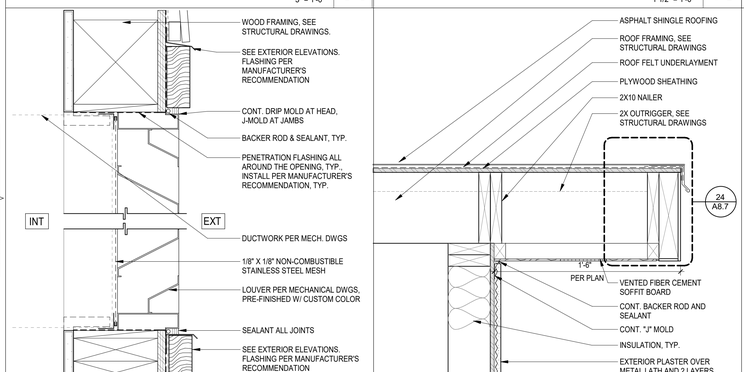

ROOF DRAIN/OVERFLOW DRAIN COND. 1 1 1/2" = 1'-0" **2**




I GRADE CLEARANCE 2



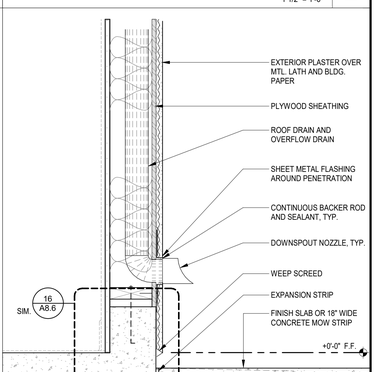

F DOOR / WINDOW JAMB



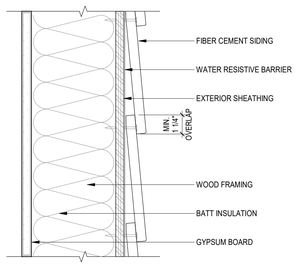

WALL LOUVER @ VENEER 3" = 1'-0" **15**




RAKE @ STUD WALL CONDITION 2 1 1/2" = 1'-0" **11**




ROOF DRAIN/OVERFLOW DRAIN COND. 2 1 1/2" = 1'-0" **3**

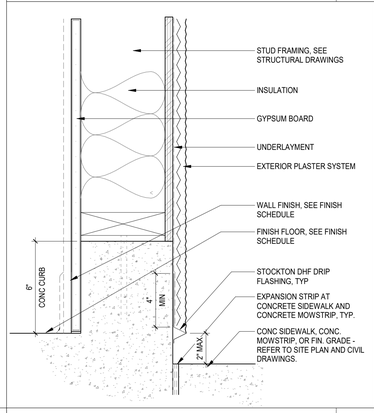



C HORIZONTAL LAP VIEW

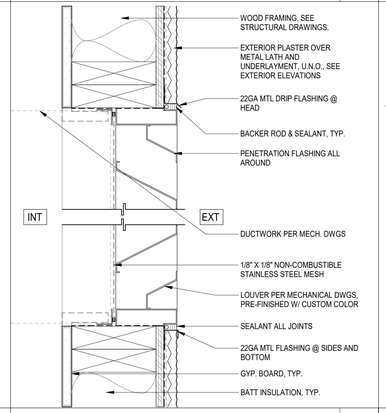
FIBER CEMENT SIDING NOTES:

1. DETAILS ALSO APPLICABLE FOR FIBER CEMENT SHINGLE SIDING AND WHEN ATTACHING TO CMU (METHOD 1: OVER FURRING/ METHOD 2: DIRECT TO BLOCK - FOLLOW LOCAL BUILDING CODES AND MANUF. RECOMMENDATIONS).
2. WATER RESISTIVE BARRIER = BUILDING UNDERLAYMENT.
3. VERIFY THE LATEST INSTALLATION RECOMMENDATIONS FROM THE MANUFACTURER.
4. DETAILS WHERE OCCURS, U.N.O.

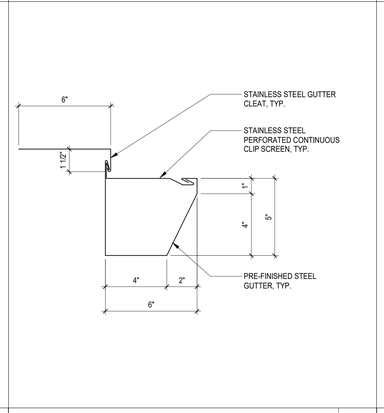
FIBER CEMENT SIDING 3" = 1'-0" **20**



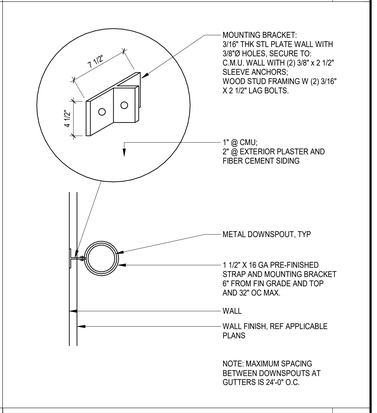

BASE @ PLASTER 3" = 1'-0" **16**




WALL LOUVER 3" = 1'-0" **12**




TYPICAL GUTTER PROFILE 3" = 1'-0" **8**




DOWNSPOUT BRACKET 1 1/2" = 1'-0" **4**

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## EXTERIOR AND ROOF DETAILS

DRAWING NUMBER: **A8.6**

6/30/2026 10:30:31 AM
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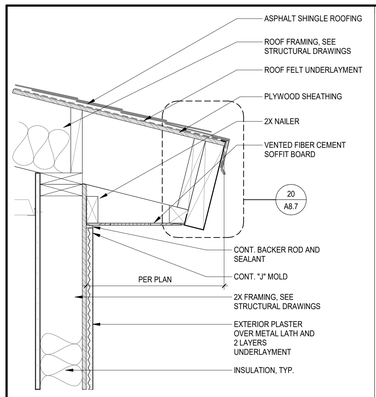
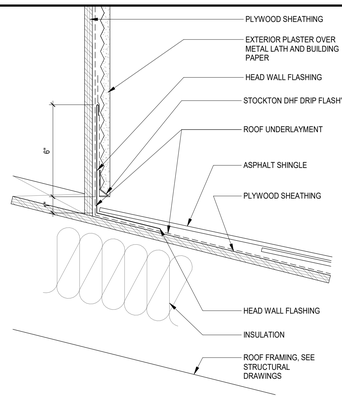
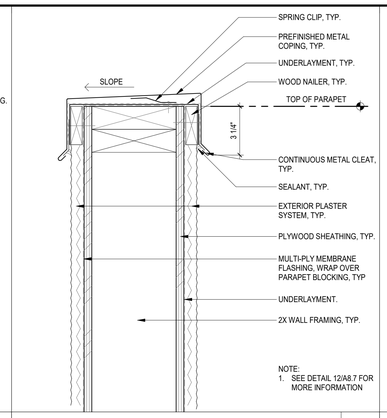
CM-07-01-2026



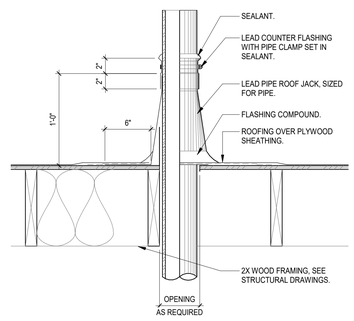

EAVE @ STUD WALL CONDITION 1 — 1 1/2" = 1'-0" — **21**



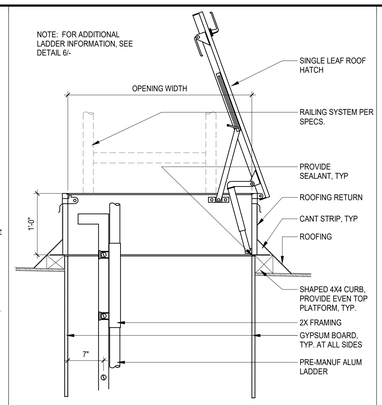

HEAD WALL FLASHING — 3" = 1'-0" — **17**



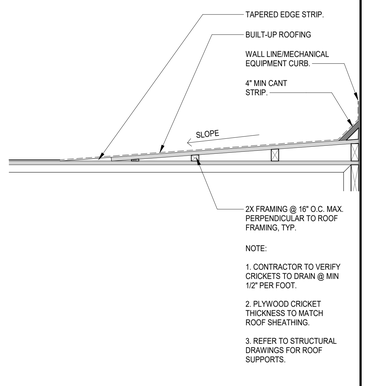

PARAPET COPING — 3" = 1'-0" — **13**



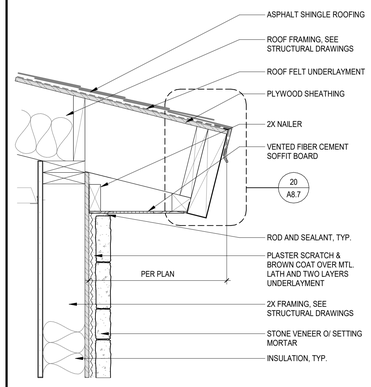

PIPE ROOF VENT — 1 1/2" = 1'-0" — **9**



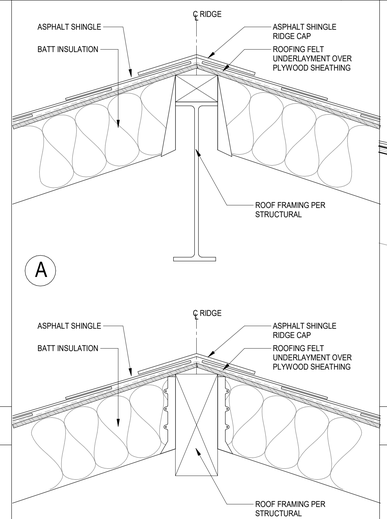

ROOF HATCH — 1" = 1'-0" — **5**



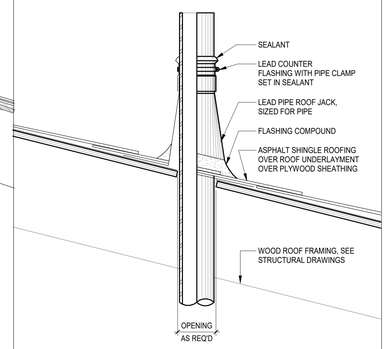

ROOF CRICKET — 1" = 1'-0" — **1**



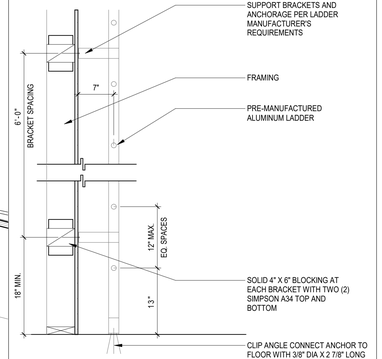

EAVE @ STUD WALL CONDITION 2 — 1 1/2" = 1'-0" — **22**



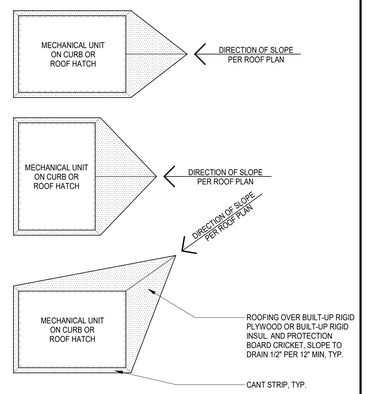

RIDGE — 1 1/2" = 1'-0" — **15**



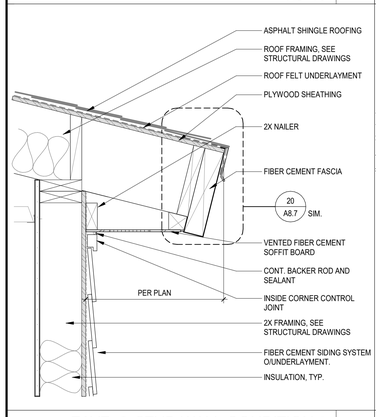

PIPE ROOF VENT — 1 1/2" = 1'-0" — **10**



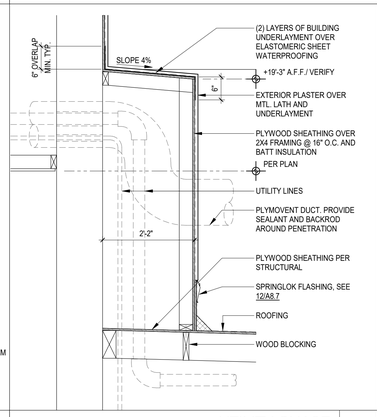

ACCESS LADDER — 1" = 1'-0" — **6**



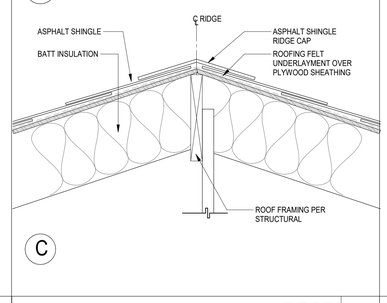

TYP. ROOF EQPT. CRICKET — 1/4" = 1'-0" — **2**



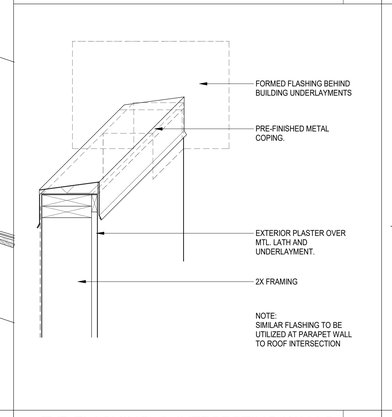

EAVE @ STUD WALL CONDITION 3 — 1 1/2" = 1'-0" — **23**



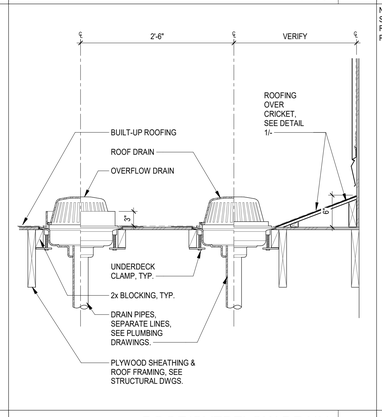

UTILITY CHASE — 3/4" = 1'-0" — **19**



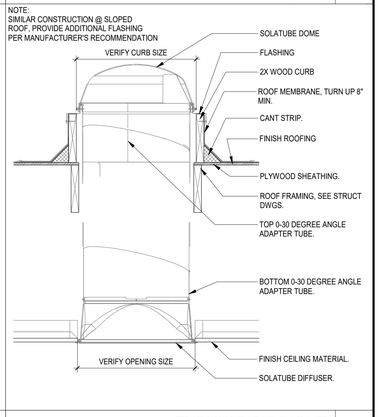

RIDGE — 1 1/2" = 1'-0" — **15**



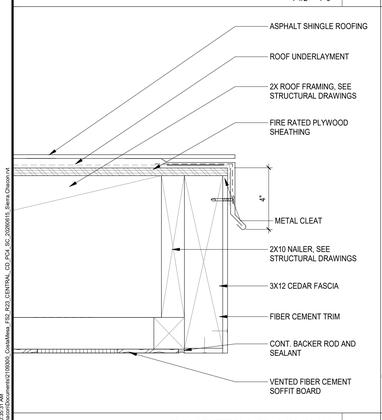

TYP FLASHING @ INTRSECTING WALLS — 1 1/2" = 1'-0" — **11**



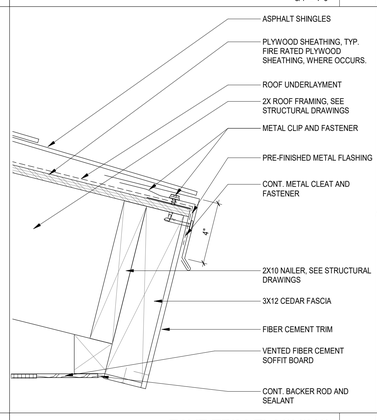

ROOF/OVERFLOW DRAIN — 1" = 1'-0" — **7**



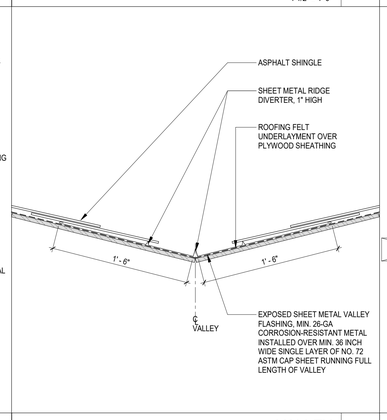

TUBULAR SKYLIGHT — 1" = 1'-0" — **3**



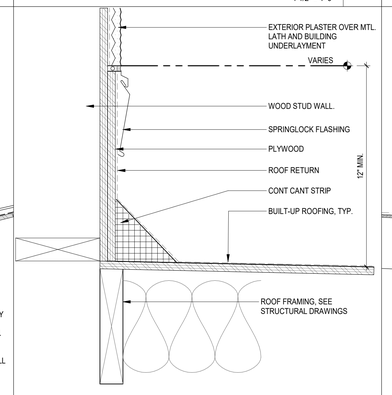

RAKE TRIM/FLASHING — 3" = 1'-0" — **24**



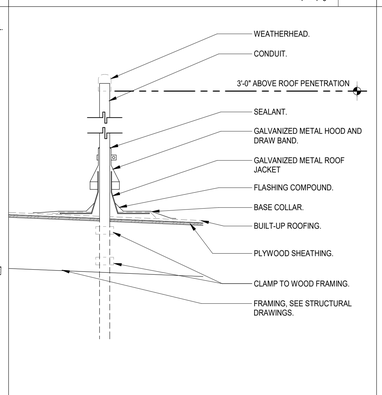

EAVE TRIM/FLASHING — 3" = 1'-0" — **20**



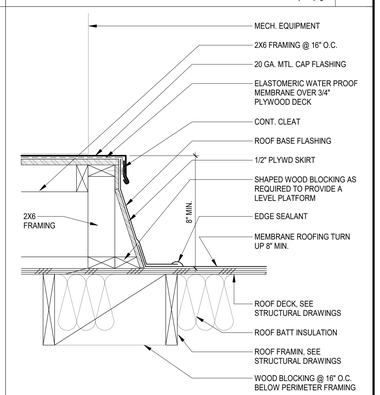

VALLEY — 1 1/2" = 1'-0" — **16**




STUD WALL TO FLAT ROOF — 3" = 1'-0" — **12**




CONDUIT @ ROOF — 1" = 1'-0" — **8**




ROOF MECH. PLATFORM — 1 1/2" = 1'-0" — **4**

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## ROOF DETAILS

DRAWING NUMBER: **A8.7**

6/30/2026 10:30:31 AM
C:\Users\sfox\Documents\21093OO_CostaMesa_FS2_R23_CENTRAL_03_PCH_sfox_20250515_SierraDiscovery4

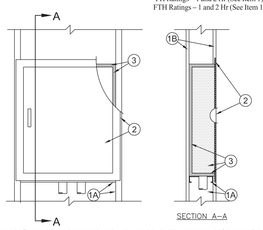
CM-07-01-2026

## System No. W-L-7190

December 05, 2013

**ANSI/UL1479 (ASTM E814)**
F Ratings — 1 and 2 Hr (See Item 1)
T Ratings – 1 and 2 Hr (See Item 1)

**CAN/ULC S115**
F Ratings – 1 and 2 Hr (See Item 1)
FT Ratings – 1 and 2 Hr (See Item 1)
FH Ratings – 1 and 2 Hr (See Item 1)
FTH Ratings – 1 and 2 Hr (See Item 1)




1. **Wall Assembly** – The 1 or 2 hr fire rated framed gypsum board wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs** – Wall framing shall consist of steel channel studs or wood studs. Steel studs to be min 6 in. (152 mm) wide and spaced max 24 in. (610 mm) OC. Wood studs to be nom 2 by 6 in. (51 by 152 mm) or larger and spaced max 16 in. (406 mm) OC. An additional framing member shall be used to form a shelf within the wall cavity to support the steel box (Item 2) and mat fill material (Item 3). The framed opening is to be 1 in. (25 mm) wider than the width of the steel box.
   B. **Gypsum Board*** – The gypsum board type, thickness, number of layers and orientation shall be, as specified in the individual Wall and Partition Design. Size of cutout made to accommodate steel box (Item 2) is to be 1 in. (25 mm) wider and 1 in. (25 mm) higher than the width and height of the steel box.

   **The hourly F, T, FT, FH and FTH Ratings are equal to the hourly rating of the wall assembly.**
2. **Steel Box** – Min 18 gauge, max 20 in. (508 mm) wide by max 48 in. (1.22 m) high by max 6 in. (152 mm) deep for steel stud walls. Min 18 gauge, max 12 in. (305 mm) wide by max 48 in. (1.22 m) high by max 5-1/2 in. (140 mm) deep for wood stud walls. Box to be recessed with hinged steel door and mounting flange. Steel box secured to steel studs with steel screws after application of mat material (Item 3) on exterior surfaces of steel box. Bottom and/or top of steel box may be penetrated by one 2 in. (51 mm) diam steel EMT conduit and up to twelve 1 in. (25 mm) max diam installed from the top and one 1 in. (25 mm) and one 3/4 in. (19 mm) diam conduits installed from the bottom of the box.. Open pipes or tubes which terminate within the box shall be sealed with caulk (Item 4) or plugged with a ball of putty (Item 5).
3. **Fill, Void or Cavity Materials*** – **Mat** – Nominal 0.4 in. (10 mm) thick aluminum foil faced endothermic mat supplied in 24 in. wide rolls. Individual pieces of mat cut to cover four sides and back of box and laminated to box with high strength, fast, contact type adhesive (foil face exposed). The mat sections on the top and bottom of the box shall be cut to overlap the mat sections on the sides of the box. The mat section on the back of the box shall be cut to lap over the edge of the mat sections on the top, bottom and vertical sides of box. Circular cutouts made in the mat to accommodate the pipes or tubes to be 1/4 in. to 1/2 in. (6 to 13 mm) larger than outside diam of pipe or tube. All corners and butted seams in the mat are to be covered with min 2 mil aluminum foil tape.

   **3M COMPANY 3M FIRE PROTECTION PRODUCTS** – Type E-54A or E-5A-4 Mat
4. **Fill, Void or Cavity Materials*** – **Caulk or Sealant** – (Not Shown) - Nom 1/4 in. (6 mm) diam bead of caulk applied to the edge of the mat material around the perimeter of the box mounting flange. Additional caulk fill material shall be used to completely fill each circular cutout made in the mat material to accommodate a pipe or tube. The end of each open pipe or tube which terminates within the box shall be sealed with a min 1/2 in. (13 mm) depth of caulk.

**3M COMPANY 3M FIRE PROTECTION PRODUCTS** – Type CP 25WB+ Caulk, FB-3000WT Sealant
5. **Fill, Void or Cavity Materials*** – **Putty** – (Not Shown) - As an alternate to the caulk (Item 4), the end of each open pipe or tube which terminates within the box may be sealed with a min 1/2 in. (13 mm) depth of putty fill material.

   **3M COMPANY 3M FIRE PROTECTION PRODUCTS** – Type MP+ Moldable Putty

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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www.3M.com/firestop 1-800-328-1687

3M Fire Protection Products
Through Penetrations Applicators and Specifiers Guide





RECESSED ELECTRICAL BOX AT RATED WALL **14**

2. **Through Penetrant -** One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. **Steel Pipe -** Nom 36 in. (914 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe -** Nom 36 in. (914 mm) diam (or smaller) cast or ductile iron pipe.
   C. **Conduit -** Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit, nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 4 in. (102 mm) diam (or smaller) flexible steel conduit.
   D. **Copper Tubing -** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. **Copper Pipe -** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
   F. **Stainless Steel Pipe -** Nom 36 in. (914 mm) diam (or smaller) Schedule 10 (or heavier) stainless steel pipe.

2A. **Through Penetrating Product* - Flexible Metal Piping -** As an alternate to Item 2, one nom 2 in. (51 mm) diam (or smaller) steel flexible metal pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe and the periphery of the opening shall be min 0 in. (point contact) to max 2 in. (51 mm). Pipe to be rigidly supported on both sides of the wall assembly.

**OMEGA FLEX INC**

**GASTITE, DIV OF TITEFLEX**

**WARD MFG L L C**

3. **Fill, Void or Cavity Material* - Sealant -** Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. At point contact location between through penetrant and gypsum board, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the gypsum board/through penetrant interface on both surfaces of wall.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal Series SSS Sealant or SpecSeal LCI Sealant

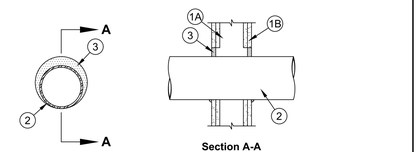
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



Classified by
Underwriters Laboratories, Inc.
to ANSI/UL 1479 (ASTM E814) and CAN/ULC S115

## System No. W-L-1049

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings - 1 and 2 Hr (See Item 1) | F Ratings - 1 and 2 Hr (See Item 1) |
| T Rating - 0 Hr | FT Rating - 0 Hr |
| L Rating At Ambient - Less Than 1 CFM/sq ft | FH Ratings - 1 and 2 Hr (See Item 1) |
| L Rating At 400 F - Less Than 1 CFM/sq ft | FTH Rating - 0 Hr |
| | L Rating at Ambient - Less Than 5.1 L/S/m2 |
| | L Rating at 204°C - Less Than 5.1 L/S/m2 |




Section A-A

1. **Wall Assembly -** The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, V300, U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs -** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. **Gypsum Board* -** 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, V300, U400, V400 or W400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 38 in. (965 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.
   **The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.**

1A. **Metallic Sleeve -** (Optional, Not Shown) - Cylindrical sleeve fabricated from min 0.016 in. (0.41 mm) to max 0.105 in. (2.7 mm) thick sheet steel. Length of steel sleeve to be equal to the thickness of wall. Longitudinal seam of sleeve welded or overlapped min 1 in. (25 mm). The ends of the steel sleeve shall be flush or recessed max 1/4 in. (6 mm) from wall surfaces.



PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38806
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

FIRE STOPPING DETAILS

DRAWING NUMBER: **A8.8**

## System No. W-L-1243

WL 1243

3. Fill, Void or Cavity Material*- Sealant — Min 5/8 in. thickness of fill material applied with annulus, flush with both surfaces of the wall . At point contact location between penetrant and gypsum board, a min 1/2 in. bead of fill material shall be applied at the penetrant /gypsum board interface on both sides of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
+Bearing the UL Listing Mark
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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January 23, 2015

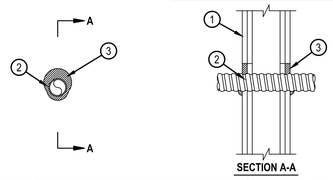


## System No. W-L-1243

WL 1243

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings — 1 and 2 Hr (See Item 1) | F Ratings — 1 and 2 Hr (See Item 1) |
| T Rating — 0 | FT Rating — 0 |
| L Rating At Ambient - 5 CFM/sq ft | FH Ratings — 1 and 2 Hr (See Item 1) |
| L Rating At 400 F - Less Than 1 CFM/sq ft | FTH Rating — 0 Hr |
| | L Rating At Ambient - 5 CFM/sq ft |
| | L Rating At 400 F - Less Than 1 CFM/sq ft |




SECTION A-A

1. Wall Assembly — The 1 or 2 Hr. fire-rate gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Design in the Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of either wood studs or channel shaped steel studs. Wood studs to consist of 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide, fabricated from min 25 MSG galvanized steel, spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft. (1.2 m) wide with square or tapered edges. The gypsum board type, number of layers and sheet orientation shall be as specified in the individual Wall and Partition Designs. Max diam of opening is 3-1/2 in. (89 mm).

   The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through-Penetrant — Max one flexible metal pipe or conduit installed concentrically or eccentrically within opening. The annular space between penetrant and periphery of opening shall be min 0 in. (point contact) to max 1 in. (25 mm). Penetrant to be rigidly supported on both sides of wall assembly. The following types and sizes of penetrants may be used:
   A. Flexible Metal Conduit+ — Nom 2 in. (51 mm) diam (or smaller) aluminum or steel flexible conduit installed either concentrically or eccentrically within the firestop system. The annular space between conduit and periphery of opening shall be min 0 in. (point contact) to max 1 in. (25 mm). Conduit to be rigidly supported on both sides of wall assembly.
   See Flexible Metal Conduit (DXUZ) category in the Electrical Construction Materials Directory for names of manufacturers.
   B. Through Penetrating Product* — Flexible Metal Piping — The following types of steel flexible metal gas piping may be used:
      1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping.
         OMEGA FLEX INC
      2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping.
         GASTITE, DIV OF TITEFLEX
      3. Min 5/8 in. (16 mm) thickness of fill material applied with annulus, flush with both surfaces of the wall. At point contact location between penetrant and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the penetrant /gypsum board interface on both sides of wall.
         WARD MFG L L C

Hilti Firestop Systems

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January 23, 2015

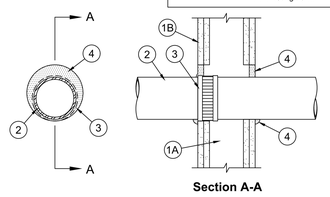


FIRESTOPPING FOR ELECTRICAL CONDUIT PENETRATION **16**

Classified by
Underwriters Laboratories, Inc.
to ANSI/UL 1479 (ASTM E814) and CAN/ULC S115

## System No. W-L-1279

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings - 1 and 2 Hr (See Item 1) | F Rating - 1 and 2 Hr (See Item 1) |
| T Rating - 0 Hr | FT Rating - 0 Hr |
| | FH Rating - 1 and 2 Hr (See Item 1) |
| | FTH Rating - 0 Hr |




Section A-A

1. **Wall Assembly -** The 1 or 2 h fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs -** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. **Gypsum Board* -** Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Max diam of opening is 5-1/2 in. (140 mm).
   **The hourly F and FH Ratings of the firestop system are equal to the hourly assembly rating of the wall assembly in which it is installed.**
2. **Through Penetrant -** One metallic pipe to be installed eccentrically or concentrically within the firestop system. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes may be used:
   A. **Steel Pipe -** Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. **Iron Pipe -** Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
3. **Compression Coupling -** Metallic pipes to be secured together with compression type pipe coupling with elastomeric gasket and a stainless steel jacket with stainless steel band clamps. Coupling to be installed entirely within opening or partially within opening. The annular space between the pipe or coupling and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 1 in. (25 mm).
4. **Fill, Void or Cavity Material* - Sealant -** Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with each surface of the wall assembly. At point contact location, min 1/2 in. (13 mm) diam bead of fill material applied at gypsum board/coupling or gypsum board/pipe interface on both sides of wall.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal 100, 101, 102, 105, 120 or 129 Sealant, SpecSeal LCI Sealant

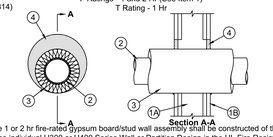
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



Classified by
Underwriters Laboratories, Inc.
to ASTM/UL1479 (ASTM E814)

## System No. W-L-5121

F Ratings - 1 and 2 Hr (See Item 1)
T Rating - 1 Hr




Section A-A

1. **Wall Assembly -** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs -** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-5/8 in. wide and spaced max 24 in. OC.
   B. **Gypsum Board* -** Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Max diam of opening is 12 in.
   **The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.**
2. **Through Penetrant -** One metallic pipe or tube to be installed eccentrically or concentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes and tubes may be used:
   A. **Steel Pipe -** Nom 6 in. diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. **Iron Pipe -** Nom 6 in. diam (or smaller) cast or ductile iron pipe.
   C. **Copper Pipe -** Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe.
   D. **Copper Tube -** Nom 4 in. diam (or smaller) Type L (or heavier) copper tube.
3. **Pipe Coverings -** One of the following types of pipe coverings shall be used:
   A. **Pipe and Equipment Covering Materials* -** Nom 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or butt tape supplied with the product. The annular space between the insulated through penetrant and periphery opening shall be min 0 in. (point contact) to max 1-1/2 in.
   See **Pipe and Equipment Covering Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
   B. **Pipe Covering Materials* -** Nom 2 in. thick unfaced mineral fiber pipe insulation sized to the outside diam of pipe or tube. Pipe insulation secured with min No. 8 AWG steel wire spaced max 12 in. OC. The annular space between the insulated through penetrant and periphery opening shall be min 0 in. (point contact) to max 1-1/2 in.
   **IG MINWOOL, L L C** - High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc.
   C. **Sheathing Material* -** Used in conjunction with Item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape.
   See **Sheathing Materials** (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
4. **Fill, Void or Cavity Material* - Sealant -** Min 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall assembly. At point contact location, min 1/4 in. diam bead of fill material applied at insulated metallic pipe/gypsum board interface on both surfaces of wall.

**SPECIFIED TECHNOLOGIES INC** - SpecSeal LCI Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



FIRESTOPPING FOR PLUMBING PIPE PENETRATION **4**

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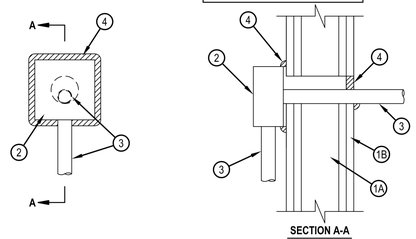
CM-07-01-2026

WL 1440

## System No. W-L-1440

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings — 1 and 2 Hr (See Item 1) | F Ratings — 1 and 2 Hr (See Item 1) |
| T Rating — 0 Hr | FT Rating — 0 Hr |
| | FH Ratings — 1 and 2 Hr (See Item 1) |
| | FTH Rating — 0 Hr |




SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and PartitionDesign. Diam of opening to be min 1/2 in. (13 mm) larger than outside diam of through penetrant. Max diam of opening is 2-1/4 in. (57 mm).
   The F, FH Ratings of the firestop system are equal to the fire rating of the wall assembly.
2. Pull or Junction Box+ — Min 16 ga steel pull or junction box mounted flush with or max 1/4 in. (6 mm) from surface of wall. See Junction and Pull Boxes (BGUZ) category in the Electrical Construction Material Directory for names of manufacturers.
3. Conduit — One nom 1 in. (25 mm) diam (or smaller) steel conduit or steel electrical metallic tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. (point contact) to max 1-1/8 in. (29 mm). Conduit or EMT to be secured to back surface of pull or junction box with steel connector and rigidly supported on both sides of wall assembly.
4. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with surface of wall opposite the pull or junction box. A min 1/2 in. (13 mm) diam bead of fill material shall be applied t the point contact location between the conduit and wall. A min 1/2 in. (13 mm) diam bead of fill material shall be applied around the entire perimeter of the pull or junction box at its interface with the wall surface. The fill material shall lap min 1/2 in. (13 mm) onto both the wall and sides of the pull or junction box.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
   +Bearing the UL Listing Mark
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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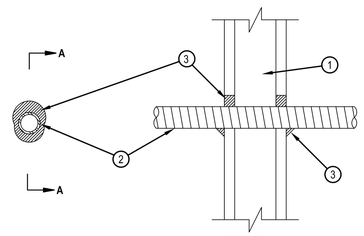
WL 1214

## System No. W-L-1214

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Rating — 1 Hr | F Rating — 1 Hr |
| T Rating — 0 Hr | FT Rating — 0 Hr |
| | FH Rating — 1 Hr |
| | FTH Rating — 0 Hr |




SECTION A-A

1. Wall Assembly — The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified if the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of either wood studs or channel shaped steel studs. Wood studs to consist of 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide, fabricated from min 25 MSG galvanized steel, spaced max 24 in. (610 mm) OC.
   B. Wallboard, Gypsum* — One layer of nom 5/8 in. (16 mm) gypsum wallboard, as specified in the individual Wall and Partition Design. Max diam of opening is 2 in. (51 mm).
2. Through Penetrants — Flexible Steel Conduit+ — Nom 1 in. (25 mm) diam (or smaller) flexible steel conduit. Max one conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and periphery of opening shall be min 0 in. (0 mm, point contact) to max 3/4 in. (19 mm). Conduit to be rigidly supported on both sides of floor or wall assembly. See Flexible Metal Conduit (DXUZ) category in the Electrical Construction Materials Directory for names of manufacturers.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus flush with both surfaces of wall. At point contact location between conduit and wall, a min 1/2 in. (13 mm) bead of fill material shall be applied at the conduit/wallboard interface on both side of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant
   +Bearing the UL Listing Mark
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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WL 1054

## System No. W-L-1054

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space for items 2A to 2E shall be min 0 in. to max 2-1/4 in. (57 mm). These pipes/tubings may be installed with continuous point contact. The annular space for items 2F and 2G shall be min 0 in. to max 1-1/2 in. (38 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
   F. Aluminum Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) aluminum pipe for use in closed (process or supply) piping systems.
   G. Aluminum Conduit — Nom 2 in. (51 mm) diam (or smaller) aluminum electric metallic tubing (EMT) or rigid aluminum conduit for use in closed (process or supply) piping systems.
   The hourly T Ratings of the firestop system are equal to 0 Hr when items 2A to 2E are used and equal to 1/2 Hr when items 2F and 2G are used. The hourly CAN F and FH Ratings are equal to 0 Hr when items 2F and 2G are used.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant
   The M Rating for the firestop system is dependent on the variables as noted in the Table 1 below.

| Movement Direction | Penetrant Item | Nominal Penetrant Diameter | Annular Space | Movement | Sealant Depth | F-Rating | L Rating with Movement |
|---|---|---|---|---|---|---|---|
| Y | 2A, 2C* | 2 in. | Max 2-1/4 in. | 5% | 5/8 in. | 1 hr | N/A |
| Z | 2A, 2C* | 2 in. | 2-1/4 in. | 0.25 in. | 5/8 in. | 1 hr | N/A |

* Rigid steel conduit

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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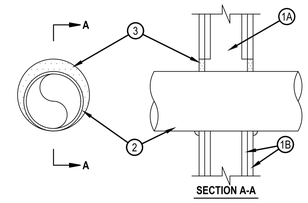
WL 1054

## System No. W-L-1054

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings —1 and 2 Hr (See Items 1 and 3) | F Ratings — 0, 1 and 2 Hr (See Items 1, 2 and 3) |
| T Rating — 0 and 1/2 Hr (See Item 2) | FT Rating — 0 Hr |
| L Rating (Without Movement) at Ambient — Less Than 1 CFM/sq ft | FH Ratings —0, 1 and 2 Hr (See Items 1, 2 and 3) |
| L Rating (Without Movement) at 400°F — Less Than 1 CFM/sq ft | FTH Rating — 0 Hr |
| M Rating (Movement) — See Table 1 | |
| | L Rating at Ambient — Less Than 5.1 L/s/m2 |
| | L Rating at 204°C — Less Than 5.1 L/s/m2 |




SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. For M Rating and items 2F and 2G, steel studs to be min 3-5/8 in. (92 mm) wide. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.
   The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly. The M Rating is applicable only to 1 hr rated walls.

Hilti Firestop Systems

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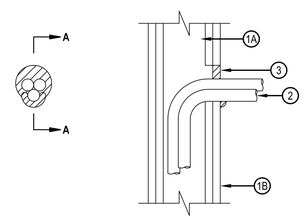
WL 3310

## System No. W-L-3310

**F Rating - 1 and 2 Hr (See Item 1)**
**T Rating - 0 Hr**

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115




SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — One or two layers of nom 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. Max diam of opening is 3 in. (76 mm).
   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly.
2. Cables — Max of three tightly bundled 3/C (with ground) No. 8 AWG bare copper ground metal clad cables with a PVC jacket. Annular space between cable bundle and periphery of opening shall be a min 0 in. (point contact) to a max 1 in. (25 mm). When FS-One sealant is used, max annular space is 1-1/2 in. (38 mm). Cables to be rigidly supported within 24 in. (610 mm) of wall assembly.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with surface of wall. Min 1/2 in. (13 mm) diam bead of sealant applied at point contact location.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, FS-ONE MAX Intumescent Sealant or CP 606 Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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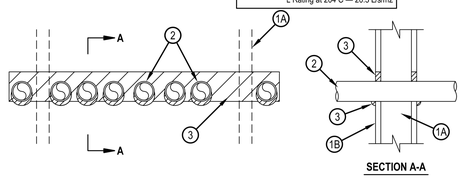
WL 1389

## System No. W-L-1389

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings — 1 and 2 Hr (See Item 1and 3) | F Ratings — 1 and 2 Hr (See Items 1 and 3) |
| T Rating — 0 Hr | FT Rating — 0 Hr |
| L Rating at Ambient — Less Than 1 CFM/sq ft | FH Ratings — 1 and 2 Hr (See Items 1 and 3) |
| L Rating at 400 F — 4 CFM/sq ft | FTH Rating — 0 Hr |
| | L Rating at Ambient — Less Than 5.1 L/s/m2 |
| | L Rating at 204 C — 20.3 L/s/m2 |




SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of min 3-5/8 in. (92 mm) wide steel studs spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Thickness, type, number of layers and fasteners, as specified in the individual Wall and Partition Design. Max height of opening is 3-1/2 in. (89 mm). Max width of opening is 32 in. (813 mm).
   The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrants — Multiple pipes or conduits installed in single layer array within the firestop system. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (point contact) to max 1-3/8 in. (35 mm). The separation between pipes and conduits to be a min 0 in. (point contact) to a max 1-1/4 in. (32 mm), except that for L Rating, the minimum separation between penetrants shall be 1/2 in. (13 mm). Pipes and conduits to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. Conduit — Nom 2 in. (51 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).
3. Fill Void or Cavity Materials* - Sealant — Min 5/8 in. (16 mm) thickness of fill material installed to completely fill annular space between pipes, conduits and gypsum flush with each surface of wall. Min 1/2 in. (13 mm) diam bead of fill material applied to the through penetrant/wall interface at the point contact locations on both sides of the wall. The 2 hour F, FH Ratings apply only when FS-ONE Sealant is used.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Hilti CP 606 Flexible Firestop Sealant or FS-ONE MAX Intumescent Sealant
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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WL 3065

## System No. W-L-3065

3. Cables — Aggregate cross-sectional area of cable in opening to be max 45 percent of the cross-sectional area of the opening. The annular space between the cable bundle and the periphery of the opening to be min 0 in. (point contact) to max 1 in. (25 mm). When sleeve is continuous on one side of wall (see Item 2), the cable fill may be 0 to 45% and the max annular space is not limited. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types and sizes of copper conductor cables may be used:
   A. Max 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.
   B. Max 25 pair No. 24 AWG telephone cable with PVC insulation and jacket.
   B1. Max 4 pr No. 22 AWG Cat 5 or Cat 6 computer cables.
   C. Type RG/U coaxial cable with polyethylene (PE) insulation and PVC jacket having a max outside diameter of ½ in. (13 mm).
   C1. Max RG 6/U coaxial cable with fluorinated ethylene insulation and jacketing.
   D. Multiple fiber optical communication cable jacketed with PVC and having a max OD of 5/8 in. (16 mm).
   E. Through Penetrating Products*— Max three copper conductor No. 8 AWG .Metal-Clad Cable+.
   AFC CABLE SYSTEMS INC
   F. Max 3/C (with ground)(or smaller) No. 8 AWG copper conductor cable with PVC insulation and jacketing.
   G. Max 3/4 in. (19 mm) diam copper ground cable with or without a PVC jacket.
   H. Fire Resistive Cables* - Max 1-1/4 in. (32 mm) diam single conductor or multi conductor Type MI cable. A min 1/8 in. (3 mm) separation shall be maintained between MI cables and any other types of cable.
   I. Max 4/C with ground 300 kcmil (or smaller) aluminum SER cable with PVC insulation and jacket.
   J. Through Penetrating Product* - Any cables, Metal-Clad Cable+ or Armored Cable+ currently Classified under the Through Penetrating Products category.
   K. Maximum 3/C No. 8 AWG metal-clad cable.
   L. Maximum 5/8 diam fiber-optic cable with PVC jacket.
   For cable bundle penetrating the wall assembly at an angle of 45 degrees, the T, FT, FTH Ratings are 0 hr and 3/4 hr for 1 and 2 hr wall assemblies, respectively.
   See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers.
4. Fill, Void or Cavity Material* — Sealant or Putty — Fill material applied within the annulus, flush with each end of the steel sleeve or wall surface. Fill material installed symmetrically on both sides of the wall. A min 5/8 in. (16 mm) thickness of sealant is required for the 1 or 2 hr F Rating . An additional 1/2 in. (13 mm) diam bead of fill material shall be applied at the interface of sleeve with gypsum board.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S, CP606, FS-One Sealants or FS-ONE MAX Intumescent Sealantor or CP618 Putty
5. Packing Material — (Optional, Not Shown) — Mineral wool forming material may be used as a backer for the fill material (Item 4). When used, it shall be firmly packed into annular space within the sleeve as a permanent form and recessed from end of sleeve to accommodate the required thickness of fill material.
   * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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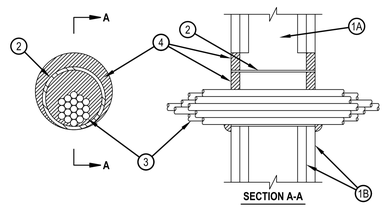
Page: 2 of 2

WL 3065

## System No. W-L-3065

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Rating — 1 and 2 Hr (See Item 1) | F Rating — 1 and 2 Hr (See Item 1) |
| T Rating — 0 and 3/4 Hr (See Item 3) | FT Rating — 0 and 3/4 Hr (See Item 3) |
| L Rating At Ambient — 15 CFM/sq ft | FH Rating — 1 and 2 Hr (See Item 1) |
| L Rating At 400 F — 8 CFM/sq ft | FTH Rating — 0 and 3/4 Hr (See Item 3) |
| | L Rating At Ambient — 15 CFM/sq ft |
| | L Rating At 400 F — 8 CFM/sq ft |




SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick gypsum board, with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max diam of opening is 5-1/2 in. (138 mm) when sleeve (Item 2) is employed. Max diam of opening is 4 in. (102 mm) when sleeve (Item 2) is not employed.
   The F, FH Ratings of the firestop system are equal to the fire rating of the wall assembly.
2. Metallic Sleeve — (Optional) - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or Schedule 5 (or heavier) steel pipe or min 0.016 in. thick (0.41 mm, No. 28 ga) galv steel sleeve installed flush with wall surfaces. The annular space between steel sleeve and periphery of opening shall be min 0 in. (0 mm, point contact) to max 1 in. (25mm). When Schedule 5 steel pipe or EMT is used, sleeve may extend up to 18 in. (457 mm) beyond the wall surfaces. As an option when Schedule 5 steel pipe or EMT is used, sleeve may extend continuously beyond one wall surface. When cable bundle penetrates wall assembly at an angle of 45 degrees, no metallic sleeve is used.

Hilti Firestop Systems

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Page: 1 of 2

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38806
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: SC | CHECKED: JM
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

FIRE STOPPING DETAILS

DRAWING NUMBER: A8.9



6/30/2026 10:35:36 AM
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PC 1000881TA 04

CM-07-01-2026

## System No. W-L-7042

WL 7042

1. Wall Assembly — The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced 24 in. (610 mm) OC. Additional framing members shall be used to completely frame the opening for all ducts greater than 20 in. (502 mm) diam.
   B. Gypsum Board* — For 1 hr assembly, one layer of min 5/8 in. (16 mm) thick wallboard as required in the individual Wall and Partition Design. For 2 hr assembly, two layers of min 5/8 in. (16 mm) thick wallboard as required in the individual Wall and Partition Design. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls and 25-1/2 in. (648 mm) for steel stud walls.
   The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — Galv steel duct to be installed concentrically or eccentrically within the firestop system. The annular space between the duct and periphery of opening shall be 0 in. (0 mm, point contact) and max 1-1/2 in. (64 mm) Duct to be rigidly supported on both sides of wall assembly.
   A. Spiral Wound HVAC Duct — Nom 24 in. ( 610 mm) diam (or smaller) No. 28 MSG (or heavier) galv steel spriral wound duct.
   B. Sheet Metal Duct — Nom 12 in. (305 mm) diam (or smaller) No. 28 MSG (or heavier) galv sheet steel duct.
3. Fill, Void or Cavity Material*—Sealant — Min 5/8 in. (16 mm) and 1-1/4 in. (32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly for 1 and 2 hr F Ratings, respectively. When FS-ONE Max is used, min 5/8 in. (16mm) thickness for both 1 and 2 hr F Ratings. At the point contact location between duct and wallboard, a min 1/2 in. (13 mm) diam bead of sealant shall be applied at the wallboard/duct interface on both surfaces of wall assembly.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Elastomeric Firestop Sealant, FS-ONE Sealant, FS-ONE MAX Intumescent Sealant or CP606 Flexible Firestop Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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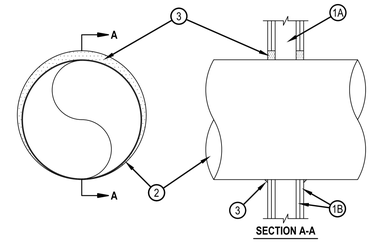
## System No. W-L-7042

WL 7042

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Ratings - 1 and 2 Hr (See Items 1 and 3) | F Ratings - 1 and 2 Hr (See Items 1 and 3) |
| T Rating - 0 Hr | FT Rating - 0 Hr |
| | FH Ratings - 1 and 2 Hr (See Items 1 and 3) |
| | FTH Rating - 0 Hr |




SECTION A-A

Hilti Firestop Systems

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2. **Through Penetrant -** One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. **Steel Pipe -** Nom 36 in. (914 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe -** Nom 36 in. (914 mm) diam (or smaller) cast or ductile iron pipe.
   C. **Conduit -** Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit, nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 4 in. (102 mm) diam (or smaller) flexible steel conduit.
   D. **Copper Tubing -** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. **Copper Pipe -** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
   F. **Stainless Steel Pipe -** Nom 36 in. (914 mm) diam (or smaller) Schedule 10 (or heavier) stainless steel pipe.

2A. **Through Penetrating Product* - Flexible Metal Piping -** As an alternate to Item 2, one nom 2 in. (51 mm) diam (or smaller) steel flexible metal pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe and the periphery of the opening shall be min 0 in. (point contact) to max 2 in. (51 mm). Pipe to be rigidly supported on both sides of the wall assembly.

**OMEGA FLEX INC**

**GASTITE, DIV OF TITEFLEX**

**WARD MFG L L C**

3. **Fill, Void or Cavity Material* - Sealant -** Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. At point contact location between through penetrant and gypsum board, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the gypsum board/through penetrant interface on both surfaces of wall.
   **SPECIFIED TECHNOLOGIES INC** - SpecSeal Series SSS Sealant or SpecSeal LCI Sealant

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

**Specified Technologies Inc. 210 Evans Way Somerville, NJ 08876**

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Created or Revised: May 22, 2023

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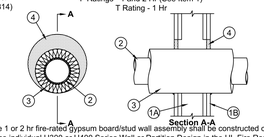
W-L-1049

PAGE 2 OF 2

Classified by Underwriters Laboratories, Inc. to ASTM/UL1479 (ASTM E814)

## System No. W-L-5121

F Ratings - 1 and 2 Hr (See Item 1)
T Rating - 1 Hr




Section A-A

1. **Wall Assembly -** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs -** Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-5/8 in. wide and spaced max 24 in. OC.
   B. **Gypsum Board* -** Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. Max diam of opening is 12 in.
   **The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.**
2. **Through Penetrant -** One metallic pipe or tube to be installed eccentrically or concentrically within the firestop system. Pipe or tube to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes and tubes may be used:
   A. **Steel Pipe -** Nom 6 in. diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. **Iron Pipe -** Nom 6 in. diam (or smaller) cast or ductile iron pipe.
   C. **Copper Pipe -** Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe.
   D. **Copper Tube -** Nom 4 in. diam (or smaller) Type L (or heavier) copper tube.
3. **Pipe Coverings -** One of the following types of pipe coverings shall be used:
   A. **Pipe and Equipment Covering Materials* -** Nom 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or butt tape supplied with the product. The annular space between the insulated through penetrant and periphery opening shall be min 0 in. (point contact) to max 1-1/2 in.
   See **Pipe and Equipment Covering Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
   B. **Pipe Covering Materials* -** Nom 2 in. thick unfaced mineral fiber pipe insulation sized to the outside diam of pipe or tube. Pipe insulation secured with min No. 8 AWG steel wire spaced max 12 in. OC. The annular space between the insulated through penetrant and periphery opening shall be min 0 in. (point contact) to max 1-1/2 in.
   **IG MINWOOL L L C** - High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc
   C. **Sheathing Material* -** Used in conjunction with Item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape.
   See **Sheathing Materials** (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
4. **Fill, Void or Cavity Material* - Sealant -** Min 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall assembly. At point contact location, min 1/4 in. diam bead of fill material applied at insulated metallic pipe/gypsum board interface on both surfaces of wall.
   **SPECIFIED TECHNOLOGIES INC** - SpecSeal LCI Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**Specified Technologies Inc. 210 Evans Way Somerville, NJ 08876**

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W-L-5121

PAGE 1 OF 1



PBK

SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| | | | |

REVISIONS

| | |
|---|---|
| DRAWN: SC | CHECKED: JM |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# FIRE STOPPING DETAILS

DRAWING NUMBER: **A8.10**

6/30/2026 10:30:37 AM
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PC 1609881TLA 04

CM-07-01-2026

## SPECIAL INSPECTIONS TABLE:

| | VERIFICATION AND INSPECTION | CONTINUOUS | PERIODIC | REMARKS |
|---|---|---|---|---|
| STEEL (SECTION 1705.2) | HIGH STRENGTH BOLTS | | | |
| | IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS | NO | YES | - |
| | MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED | NO | YES | - |
| | BEARING-TYPE CONNECTIONS | NO | YES | DURING INSTALLATION AND TIGHTENING OF BOLTS |
| | SLIP-CRITICAL CONNECTIONS | NO | YES | DURING INSTALLATION AND TIGHTENING OF BOLTS |
| | WELDING | | | |
| | COMPLETE AND PARTIAL PENETRATION WELDS | YES | NO | DURING THE WELDING |
| | MULTIPASS FILLET WELDS | YES | NO | DURING THE WELDING |
| | SINGLE PASS FILLET WELDS > 5/16" | NO | YES | DURING THE WELDING |
| | SINGLE PASS FILLET WELDS ≤ 5/16" | NO | YES | DURING THE WELDING |
| | FLOOR AND ROOF DECK WELDS | NO | YES | PRIOR TO COVERING UP |
| | WELDED STUDS WHEN USED FOR STRUCTURAL DIAPHRAGM | NO | YES | PRIOR TO COVERING UP |
| REINFORCING STEEL | REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEARWALLS AND SHEAR REINFORCEMENT | YES | NO | DURING THE WELDING AND IN ACCORDANCE WITH AWS D1.8 |
| | SHEAR REINFORCEMENT | YES | NO | DURING THE WELDING |
| | OTHER REINFORCING STEEL | NO | YES | DURING THE WELDING |
| | INSPECTION OF STEEL MOMENT FRAME AND BRACED FRAME CONNECTIONS | NO | YES | DURING THE WELDING AWS D1.8 |
| CONCRETE (SECTION 1705.3) | INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT | NO | YES | PRIOR TO POURING OF CONCRETE |
| | INSPECT BOLTS TO BE INSTALLED IN CONCRETE | NO | YES | PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED |
| | INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES | YES | NO | - |
| | INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES | YES | NO | - |
| | VERIFYING USE OF REQUIRED DESIGN MIX | NO | YES | PRIOR TO POURING OF CONCRETE |
| | FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE | YES | NO | AT THE TIME FRESH CONCRETE IS SAMPLED |
| | VERIFICATION OF IN-SITU CONCRETE STRENGTH | NO | YES | PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS |
| | INSPECTION OF FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED | NO | YES | PRIOR TO POURING OF CONCRETE |
| | NON-STRUCTURAL SLABS | NO | NO | - |
| | CONTINUOUS CONCRETE FOOTINGS (LIGHT FRAME CONSTRUCTION) | NO | NO | - |
| | POST INSTALLED ANCHORS | YES | NO | PULL TEST 20% OF ANCHORS, WHERE FAILURE OCCURS TEST ALL |
| SOILS (SECTION 1705.6) | VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY | NO | YES | PRIOR TO THE FORMWORK |
| | VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL | NO | YES | PRIOR TO THE FORMWORK |
| | PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS | NO | YES | PRIOR TO THE FORMWORK |
| | VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL | YES | NO | PRIOR TO THE FORMWORK |
| | OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY | NO | YES | PRIOR TO PLACEMENT OF CONTROLLED FILL |
| WOOD (SECTIONS 1705.11 & 1705.12) | NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC - FORCE - RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS | NO | YES | PRIOR TO AND DURING NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS |
| | HIGH LOAD DIAPHRAGMS, INSPECTION OF WOOD STRUCTURAL PANEL SHEATHING TO ASCERTAIN GRADE AND THICKNESS COMPLY WITH THE APPROVED BUILDING PLANS. VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, NAIL DIAMETER AND LENGTH, NUMBER OF FASTENER LINES, SPACING BETWEEN FASTENERS IN EACH LINE, AND AT EDGE DISTANCES COMPLY WITH THE APPROVED BUILDING PLANS | YES | NO | PRIOR TO AND DURING PLACEMENT |
| ARCHITECTURAL COMPONENTS (SECTION 1705.13) | EXTERIOR CLADDING, INTERIOR AND EXTERIOR NON-BEARING WALLS AND EXTERIOR/INTERIOR VENEER | NO | YES | DURING ERECTION AND FASTENING |
| MECHANICAL AND ELECTRICAL COMPONENTS (SECTION 1705.13) | ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS | NO | YES | DURING INSTALLATION OF ANCHORAGE |
| | ANCHORAGE OF OTHER ELECTRICAL EQUIPMENT WHEN ASSIGNED TO SEISMIC DESIGN CATEGORY E OR F SEE "DESIGN LOADS" FOR SEISMIC DESIGN CATEGORY | NO | YES | DURING INSTALLATION OF ANCHORAGE |
| | PIPE SYSTEMS INTENDED TO CARRY FLAMMABLE, COMBUSTIBLE, OR HIGHLY TOXIC CONTENTS AND THEIR ASSOCIATED MECHANICAL UNITS | NO | YES | DURING INSTALLATION OF PIPE SYSTEM |
| | HVAC DUCTWORK THAT WILL CONTAIN HAZARDOUS MATERIALS | NO | YES | DURING INSTALLATION OF DUCTWORK |
| | VIBRATION ISOLATION SYSTEMS WHERE CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 1/4" OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT | NO | YES | DURING INSTALLATION OF VIBRATION ISOLATION SYSTEMS |
| OTHERS | PILE, PIER AND CAISSONS (SECTIONS/TABLES 1705.7 AND 1705.8) | N/A | N/A | DURING DRIVING AND TESTING OF PILES AND CONSTRUCTION OF CAISSONS |
| | SPRAYED FIRE-RESISTANT MATERIALS (SECTION 1705.14) | YES | NO | DURING THE SPRAYING |
| | SPECIAL CASES (SECTION 1704.13) | YES | NO | WORK WHICH, IN THE OPINION OF THE BUILDING OFFICIAL, INVOLVES UNUSUAL CONDITIONS OR HAZARD |

## LEGEND:

| | | | |
|---|---|---|---|
| A.B. | ANCHOR BOLT | GA. | GAUGE |
| ARCH. | ARCHITECTURAL | GALV. | GALVANIZED |
| BLK.G. | BLOCKING | GLB. | GLUE LAMINATED BEAM |
| BM. | BEAM | GYP. BD. | GYPSUM BOARD |
| B.N. | BOUNDARY NAILING | H.A.B. | HEADED ANCHOR BOLT |
| BOT. | BOTTOM | H.D. | HOLD DOWN |
| C. | CAMBER | HORIZ. | HORIZONTAL |
| B.B. | CARRIAGE BOLT | H.S.A. | HEADED STUD ANCHOR |
| CLR. | CLEAR | H.S.B. | HIGH STRENGTH BOLT |
| C.J. | CONSTRUCTION JOINT | H.S.S. | HOLLOW STRUCT. SECTION |
| C.N. | CONT. NAILING | JST. | JOIST |
| COL. | COLUMN | K.P. | KING POST |
| CONC. | CONCRETE | LT. | LIGHT WEIGHT |
| CONN. | CONNECTION | MAS. | MASONRY |
| CONT. | CONTINUOUS | M.B. | MACHINE BOLT |
| C.P. | COMPLETE PENETRATION | M.D.R. | METAL DECK ROOF |
| C.P.E. | CONT. PANEL EDGES | (N) | NEW |
| D.B.A. | DEFORMED BAR ANCHOR | N.S. | NEAR SIDE |
| DBL. | DOUBLE | N.T.S. | NOT TO SCALE |
| D.B. | DRAG BAR | O.C. | ON CENTER |
| Db. | BAR DIAMETER | O.H. | OPPOSITE HAND |
| DIA. | DIAMETER | OPNG. | OPENING |
| DITTO | DITTO | P.J. | POUR JOINT |
| DWG. | DRAWING | GA. | PLATE |
| EA. | EACH | PLYMD. | PLYWOOD |
| ELEV. | ELEVATION | P.P. | PARTIAL PENETRATION |
| (E) | EXISTING | PWJ | PLYWOOD JOIST |
| E.J. | EXPANSION JOINT | REQD. | REQUIRED |
| E.N. | EDGE NAILING | REM. | REMAINDER |
| E.S. | EDGE SCREW | R.L. | REDLAM BY REDBUILT |
| EQ. | EQUAL | R.S. | ROUGH SAWN |
| EXT. | EXTERIOR | SHTG. | SHEATHING |
| FNDN. | FOUNDATION | SEOR. | STRUCT. ENGINEER OF RECORD |
| F.G. | FINISH GRADE | S.J. | SEPARATION JOINT |
| F.H.W.S. | FLAT HEAD WOOD SCREW | SQ. | SQUARE |
| F.N. | FIELD NAILING | SIM. | SIMILAR |
| F.O.C. | FACE OF CONCRETE | S.A. | SHEET METAL |
| F.O.M. | FACE OF MASONRY | S.P. | SEE PLAN |
| F.O.S. | FACE OF STUD | STAGG. | STAGGERED |
| F.S. | FAIR SIDE | STD. | STANDARD |
| FRMG. | FRAMING | STL. | STEEL |
| FTG. | FOOTING | STL...IST. | STEEL JOIST |
| | | STRUCT(T) | STRUCTURAL |

| | | | |
|---|---|---|---|
| T.O.C. | TOP OF CONCRETE | | |
| T.O.M. | TOP OF MASONRY | | |
| T.O.M.D. | TOP OF METAL DECK | | |
| T.O.P. | TOP OF PLYWOOD | | |
| T.O.PAR. | TOP OF PARAPET | | |
| T.O.S. | TOP OF STEEL | | |
| T.S. | TUBE STEEL | | |
| TYP. | TYPICAL | | |
| U.N.O. | UNLESS NOTED OTHERWISE | | |
| VERT. | VERTICAL | | |
| W.O. | WHERE OCCURS | | |
| W.P.J. | WEAKENED PLANE JOINT | | |
| W.W.F. | WELDED WIRE FABRIC | | |

DETAIL REFERENCE — DETAIL NUMBER / SHEET NO. WHERE DRAWN

WALL ELEVATION — WALL ELEVATION LETTER / SHEET NO. WHERE DRAWN

WALL SECTION — WALL SECTION LETTER / SHEET NO. WHERE DRAWN

STEP FOOTING

REFERENCE ELEVATION

REFERENCE ELEVATION TO BOTTOM OF FOOTING

## SPECIAL INSPECTIONS NOTES:

1. WHERE APPLICATION IS MADE FOR CONSTRUCTION AS DESCRIBED IN SECTION 1704 OF THE C.B.C., THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN SECTION 1704 OF THE C.B.C., THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN SECTION 109, APPENDIX CHAPTER 1.
2. THE PERMIT APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 1061, APPENDIX CHAPTER 1, AS A CONDITION FOR PERMIT ISSUANCE.
3. REPORT REQUIREMENTS (PER SECTION 1704.2.4)
   A) THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN CHARGE.
   B) REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED STRUCTURAL DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF WORK.
   C) A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED AT A TIME AGREED UPON BY THE PERMIT APPLICANT AND THE BUILDING OFFICIAL PRIOR TO THE START OF THE WORK.
4. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMAN SHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
5. IN ADDITION TO THE INSPECTIONS LISTED BELOW, THE FOLLOWING ITEMS MUST BE SUBMITTED TO THE ARCHITECT FOR APPROVAL:
   A) REQUIREMENTS OF THE AISC 341 APPENDIX Q AND AWS D1.8 FOR INTERMEDIATE MOMENT FRAMES
6. SUBMIT QUALIFICATIONS FOR PERSONNEL PERFORMING WELDING FOR REVIEW
7. SUBMIT QUALIFICATIONS FOR PERSONNEL PERFORMING BOLTING FOR REVIEW
8. SUBMIT WRITTEN PRACTICES FOR DOCUMENTING INSPECTION DUTIES AND TESTING REQUIREMENTS
9. ADDITIONAL WELDING INSPECTION REQUIREMENTS
10. ULTRASONIC TESTING OF ALL DEMAND CRITICAL WELDS
11. PER AWS D1.8, WELD TAB REMOVAL IS REQUIRED AT ALL DEMAND CRITICAL WELDS
    B) REINFORCING STEEL
12. CERTIFIED MILL TEST REPORTS SHALL BE PROVIDED FOR EACH SHIPMENT OF REINFORCING STEEL

## MASONRY:

1. ALL MASONRY CONSTRUCTION SHALL COMPLY WITH THE 2022 C.B.C. CHAPTER 21.
2. REINFORCING SHALL HAVE A MINIMUM ONE BAR DIAMETER GROUT COVERAGE.
3. REINFORCING SPLICES SHALL HAVE A MINIMUM 64 BAR DIA. LAP.
   PROVIDE MIN. 72 BAR DIA. LAP TYP. FOR ALL THE FOLLOWING CONDITIONS:
   A. ALL VERTICAL JAMB REINFORCING SPLICES.
   B. VERTICAL REINFORCING SPLICES OCCURRING AT MID 1/3 HEIGHT OF WALL.
   C. ALL CHORD BAR SPLICES.
4. MASONRY CONSTRUCTION SHALL BE REINFORCED AND GROUTED SOLID.
5. PIPES OR DUCTS ARE NOT PERMITTED THRU MASONRY CONSTRUCTION.
6. CEMENT: PORTLAND CEMENT TYPE I OR II, LOW ALKALI, ASTM C-150
7. MORTAR SHALL CONFORM TO C.B.C. SECTION 2103.2 TYPE S - 2000 P.S.I.
8. GROUT: 1 PART CEMENT, 3 PART SAND, 2 PART GRAVEL
   2000 P.S.I. MINIMUM GROUT COMPRESSIVE STRENGTH
9. CONCRETE BLOCK SHALL CONFORM TO ASTM C90 GRADE N-I W/ f'm=2000 P.S.I. (MEDIUM WEIGHT)
10. MASONRY SHALL BE LAID IN RUNNING BOND U.N.O.
11. ALL BOLTS IN MASONRY SHALL BE ACCURATELY SET WITH TEMPLATES PRIOR TO GROUTING.
12. CORE TESTS: COMPRESSION 2000 P.S.I.
    SHEAR 100 P.S.I.
13. UNIT STRENGTH OF MASONRY SHALL BE 2000 PSI
14. NOT USED.
15. METAL REINFORCEMENT SHALL BE LOCATED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. REINFORCEMENT SHALL BE SECURED AGAINST DISPLACEMENT PRIOR TO GROUTING BY WIRE POSITIONERS OR OTHER SUITABLE DEVICES AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS.

## MECHANICAL UNIT FRAMING:

1. THE DIMENSIONS FOR THE SUPPORT OF THE MECHANICAL UNITS(EXHAUST FANS, CONDENSING UNITS, ETC., AS SHOWN IN THE STRUCTURAL DRAWINGS ARE APPROXIMATE. THE GENERAL CONTRACTOR SHALL COORDINATE THE UNIT TYPE AND QUANTITY WITH THE STRUCTURAL DRAWINGS. NOTIFY THE ARCHITECT OF ANY DISCREPANCY PRIOR TO THE STRUCTURAL STEEL SHOP DRAWINGS PHASE.
2. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO FULLY COORDINATE THE ACTUAL STRUCTURAL STEEL DIMENSIONS WITH THE MECHANICAL CONTRACTOR AND THE STRUCTURAL STEEL FABRICATOR. COORDINATION SHALL OCCUR PRIOR TO THE STRUCTURAL STEEL SHOP DRAWING PHASE.
3. FURTHER COORDINATION OF THE FIELD WELDED ANGLE FRAME SUPPORTING THE UNIT CURB SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AND COORDINATED WITH THE ACTUAL MECHANICAL UNIT CURB DIMENSIONS. THE HEIGHT OF THE ANGLE FRAME SUPPORTING THE MECH. UNIT SHALL BE COORDINATED BY THE GENERAL CONTRACTOR PRIOR TO THE SHOP DRAWING PHASE.
4. MECHANICAL UNIT SUBSTITUTIONS MAY IMPACT THE SUPPORT FRAMING DUE TO UNIT WEIGHT OR SIZE AS SHOWN ON THE MECHANICAL DRAWINGS. ANY COSTS INCURRED FROM ANY SUBSTITUTIONS MADE BY THE CONTRACTOR WHICH REQUIRES RE-DESIGN OR MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY WISH TO INQUIRE AS TO THE PROBABLE EXTENT OF THESE COSTS PRIOR TO INTRODUCING A SUBSTITUTION.

## LUMBER:

1. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR-LARCH OF THE GRADES INDICATED U.N.O.
   SILL PLATES: PRESSURE TREATED DOUGLAS FIR (NO.2)
   T&G DECKING: SELECT DEX
   STRUCTURAL FRAMING:
   2"-4" THICK; 2"-4" WIDE: NO. 2
   2"-4" THICK; 5" & WIDER: NO. 1
   BEAMS 5" & THICKER: SELECT STRUCT.
   POSTS, 5" x 5" & LARGER: SELECT STRUCT.
2. ALL STRUCTURAL LUMBER SHALL BE GRADED IN ACCORDANCE WITH THE STANDARDS OF THE WEST COAST LUMBER INSPECTION BUREAU.
3. ALL WOOD BEARING ON MASONRY OR CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR AS OUTLINED IN C.B.C. SECTION 2303.3 AND A.W.P.A. U1 AND T1.
4. PLYWOOD ROOF AND SHEAR WALL SHEATHING SHALL BE GRADE MARKED STRUCTURAL 1 OR II (PER PLANS) PS 1-95, WITH EXTERIOR GLUE.
5. BOLTS SHALL BE ASTM A-307. PROVIDE STANDARD CUT WASHER BETWEEN BOLT HEADS AND NUTS AND THE WOOD. WHERE BOLTS ARE IN TENSION PROVIDE MALLEABLE IRON WASHERS.
6. STRUCTURAL LUMBER MEMBERS SHALL NOT BE CUT OR NOTCHED FOR PIPES OR CONDUITS ETC. UNLESS SPECIFICALLY DETAILED OR NOTED.
7. PROVIDE APPROVED METAL CROSS BRIDGING AT 8'-0" ON CENTER FOR JOISTS AND RAFTERS GREATER THAN 6" IN DEPTH.
8. 2" SOLID BLOCKING SHALL BE PROVIDED BETWEEN JOISTS AND RAFTERS AT ALL BEARING SUPPORTS.
9. NOTCH, AS REQUIRED, ALL JOISTS AND RAFTERS TO PROVIDE LEVEL, FULL BEARING AT JOISTS HANGERS, PLATES AND SUPPORTS.
10. BORE HOLES FOR BOLTS 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER.
11. BORED HOLES EXCEEDING ONE THIRD OF THE WIDTH OF THE MEMBER BEING PENETRATED SHALL NOT BE PLACED IN STUDS UNLESS FULLY DETAILED ON THE APPROVED PLANS. HOLES NOT EXCEEDING ONE THIRD OF THE WIDTH SHALL BE NEATLY BORED AND SHALL BE LOCATED IN THE CENTER OF THE MEMBER BEING PENETRATED.
12. RETIGHTEN ALL BOLTS PRIOR TO COVERING, AND MAKING THE BOLTED CONNECTION INACCESSIBLE.
13. ALL NAILS ARE TO BE COMMON NAILS AND ARE TO BE GALVANIZED WHEN EXPOSED.
14. NOT USED
15. HEADER SCHEDULE (UNLESS NOTED OTHERWISE ON PLAN)

| (OPENING WIDTH) | HEADER SIZE AT BEARING WALL (SOLID MEMBER) | HEADER SIZE AT NON BEARING WALL (BUILT UP MEMBER) |
|---|---|---|
| 3'-0" or less | stud width x 4" | 2-2X4 |
| 3'-0" to 6'-0" | stud width x 6" | 2-2X6 |
| 6'-1" to 8'-0" | stud width x 8" | 2-2X8 |

16. SCHEDULE OF ALLOWABLE CEILING JOIST SPANS

| (JOIST) | MAX SPAN (GYP. BOARD FINISH) | MAX SPAN (PLASTER FINISH) |
|---|---|---|
| 2X8 @ 16"o.c. | 10'-0" | 8'-0" |
| 2x8 @ 16"o.c. | 14'-0" | 12'-0" |
| 2x8 @ 16"o.c. | 16'-0" | 14'-0" |
| 2x10 @ 16"o.c. | 20'-0" | 16'-0" |

CEILING JOIST NOTE:
CONTRACTOR SHALL COORDINATE ALL GYPBD AND PLASTER CEILINGS WITH THE ARCHITECTURAL DWGS. CONTRACTOR SHALL PROVIDE CEILING JOISTS AS INDICATED IN CEILING JOIST SCHEDULE ABOVE, AND DETAIL 1/S0.8 WHERE PLASTER OR GYPBD. CEILINGS EXCEED THE SPANS OF THIS TABLE, REFER TO THE SUSPENDED CEILING SYSTEMS SHOWN IN ARCHITECTURAL DRAWINGS. CONTRACTOR SHALL COORDINATE ALL OPENINGS IN CEILING FRAMING FOR MECHANICAL REGISTERS, AND RECESSED LIGHTING, ETC. AND FRAME OPENINGS WIDER THAN 14 1/2 INCHES PER DETAIL 2/S0.6

17. ALL FASTENERS AND CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED AND FIRE TREATED WOOD SHALL BE OF HOT DIPPED ZINC COATED GALVANIZED STEEL.
18. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRED APPROVED PLATE WASHERS AND HOLD DOWNS

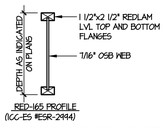
## PREFABRICATED PANEL WEB JOISTS: (PWJ)

1. CALCULATIONS AND SHOP DRAWINGS, STAMPED BY A LICENSED CALIFORNIA CIVIL OR STRUCTURAL ENGINEER, SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER OF RECORD (EOR) PRIOR TO FABRICATION.
2. A PREFABRICATED JOIST SHALL BE FABRICATED IN AN APPROVED FACILITY.
3. MANUFACTURER SUBSTITUTIONS PROPOSED BY THE CONTRACTOR WHICH REQUIRE ADDITIONAL TIME SPENT FOR REVIEW AND APPROVAL OR CHANGES TO THE CONTRACT DOCUMENTS ARE SUBJECT TO FEE CHARGES TO THE CONTRACTOR.
4. DESIGN LOADS: (POUNDS PER SQUARE FOOT, P.S.F.)

   ROOF DEAD LOAD: 20 PSF

   ROOF LIVE LOAD: 20 PSF

5. PANEL WEB JOIST BLOCKING SHALL BE THE SAME MATERIAL AS THE PANEL WEB JOIST.
6. PANEL WEB JOISTS SHALL BE IDENTIFIED BY A STAMP INDICATING THE JOIST TYPE, ICC-ES REPORT NUMBER, MANUFACTURER'S NAME, PLANT NUMBER, PRODUCTION DATE AND THE NAME OF THE INSPECTION AGENCY.
7. ADHESIVES PER ASTM D2294.
8. HOLE SIZE, SPACING AND LOCATIONS SHALL CONFORM TO THE ICC-ES REPORT AND SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO PLACEMENT.
9. CUTTING, NOTCHING OR DRILLING OF FLANGE SHALL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED OR DETAILED.
10. FLANGE AND WEB MATERIALS AND THICKNESS SHALL BE PER ICC-ES REPORT.
11. JOISTS SHALL CONFORM TO THE FOLLOWING PROFILE:




RED-165 PROFILE
(ICC-ES #ESR-2494)

12. ALL RIMS AND ENGINEERED BEAMS SHOULD CONFORM TO THE SPECIFICATIONS OF RED BUILT L.V.L (ICC-ES #ESR 2493) OR AN APPROVED EQUAL. ALL SUBSTITUTIONS TO BE APPROVED BY THE SEOR U.N.O. PER PLAN.

## STRUCTURAL OBSERVATION:

1. WHERE REQUIRED BY THE PROVISIONS OF SECTION 1704.6.1 OR 1704.6.2 THE OWNER SHALL EMPLOY A REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS AS DEFINED.
   THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR INSPECTION REQUIRED BY SECTIONS 109 APPENDIX CHAPTER 1, AND 1704 OR ANY OTHER SECTIONS OF THE C.B.C. AT THE CONCLUSION OF THE WORK INCLUDED IN THE PERMIT, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.
2. STRUCTURAL OBSERVATION SHALL BE PROVIDED BY THE STRUCTURAL ENGINEER AT THE FOLLOWING PHASES AS A MINIMUM.
   A) UPON COMPLETION OF FOUNDATION REINFORCEMENT, IMMEDIATELY PRIOR TO CONCRETE POUR.
   B) SHEAR WALL NAILING AND ANCHORAGE PRIOR TO COVERING WALLS.
   C) FLOOR AND ROOF PLYWOOD NAILING OBSERVATION.
   D) STEEL MOMENT FRAMES AFTER WELDING HAS BEEN COMPLETED AND INSPECTED.
   E) ADDITIONAL VISITATION AS DEEMED NECESSARY BY THE STRUCTURAL ENGINEER.
3. FOR ALL ITEMS THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER 48 HOURS PRIOR TO COMPLETION OF THE WORK TO BE OBSERVED.

## GENERAL:

1. ALL CONSTRUCTION SHALL COMPLY WITH THE 2022 CALIFORNIA BUILDING CODE AND ALL APPLICABLE ORDINANCES.
2. FRAMING CONDITIONS NOT SPECIFICALLY SHOWN OR INDICATED SHALL BE FRAMED SIMILAR TO DETAILS SHOWN FOR THE RESPECTIVE MATERIALS OR CONDITIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS BEFORE STARTING WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.
4. WITHOUT EXCLUSION OF ANY REFERENCE IN THE CONSTRUCTION DOCUMENT TO ANY RULE OR REGULATION, THE STRUCTURAL ENGINEER IS NOT ASSUMING ANY PROVISIONS OF SUPERVISION OF CONSTRUCTION METHODS OR PROCESSES.

## DESIGN LOADS:

1. ROOF LIVE LOAD (REDUCIBLE) ---------- 20 P.S.F.
2. ROOF DEAD LOAD ---------- 20 P.S.F.
3. WIND DESIGN:
   BASIC WIND SPEED (3 SECOND GUST) ---------- 106 M.P.H.
   WIND EXPOSURE ---------- C
   COMPONENTS AND CLADDING DESIGN PRESSURE ---------- 28.3 P.S.F.
   (WORST CASE VARIES)
4. SEISMIC DESIGN:
   SEISMIC IMPORTANCE FACTOR (Ie) -------- 1.5
   RISK CATEGORY ---------- IV
   MAPPED SPECTRAL RESPONSE ACCELERATIONS:
   Ss: 1.301
   S1: 0.446
   SITE CLASS ---------- D
   STRUCTURAL RESPONSE COEFFICIENTS:
   SDs: 0.867
   SD1: 0.512
   SEISMIC DESIGN CATEGORY -------- D
   SEISMIC FORCE RESISTING SYSTEM. ----- ORDINARY STEEL MOMENT FRAMES
   DESIGN BASE SHEAR (V) ---------- 0.31W STRENGTH LEVEL (DIRECTION OF MOMENT FRAMES)
   RESPONSE MODIFICATION FACTOR (R) --- 3.5
   SEISMIC FORCE RESISTING SYSTEM. ----- PLYWOOD SHEAR WALLS
   DESIGN BASE SHEAR (V) ---------- 0.20W STRENGTH LEVEL (DIRECTION OF PLYWD. SHEAR WALLS)
   RESPONSE MODIFICATION FACTOR (R) --- 6.5

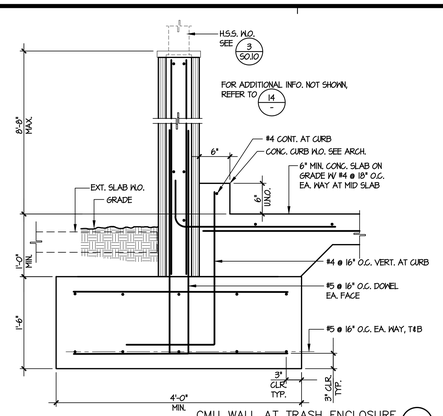
## FOUNDATIONS:

1. CONTRACTOR SHALL REVIEW REPORT AND ADDENDUM OF SOILS INVESTIGATION BY:
   LEIGHTON
   REPORT DATE: JULY 25, 2024
   PROJECT #258,000002447.5
2. ALL FILL SHALL BE COMPACTED TO A MINIMUM OF 90% IN ACCORDANCE WITH THE SPECIFICATIONS.
3. TYPE OF SOIL: LOOSE POORLY GRADED SAND AND MEDIUM STIFF TO STIFF SANDY CLAY.
4. FOUNDATION DESIGN DATA:
   MIN. FOOTING WIDTH: 24" L
   MIN. FOOTING DEPTH: 24" BELOW ADJACENT LOWEST EXTERIOR GRADE
   ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF FOR DEAD AND LIVE LOADS ALLOWABLE BEARING VALUE MAYBE INCREASED BY 250 PSF PER FOOT INCREASE IN DEPTH AND WIDTH TO A MAXIMUM ALLOWABLE BEARING PRESSURE OF 3000 PSF ONE THIRD INCREASE FOR WIND AND SEISMIC ALLOWED.
   PASSIVE LATERAL EARTH PRESSURE: 240 PCF TO MAXIMUM OF 3000 PSF
   COEFFICIENT OF FRICTION: 0.30 (ONE THIRD INCREASE FOR WIND AND SEISMIC ALLOWED)
5. ALL FOOTINGS SHALL BE CARRIED A MINIMUM OF 24" BELOW PROPERLY COMPACTED FILL.
6. PRIOR TO FORMING AND PLACING OF THE REINFORCING, ALL EXCAVATIONS SHALL BE INSPECTED AND APPROVED BY THE GEO-TECHNICAL ENGINEER AND INSPECTOR.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE ALL FOOTINGS AND UTILITY LINE RELOATIONSHIPS SO THAT THE REQUIREMENTS OF DETAIL 3/S0.2 ARE MET. THE COST OF STEPPING THE FOOTINGS TO MEET THE REQUIREMENTS OF 2/S0.2 AND 3/S0.2 SHALL BE THE CONTRACTORS RESPONSIBILITY AND NEW UTILITY LINES SHALL BE LOCATED PRIOR TO FOUNDATION EXCAVATION.
8. THE CONTRACTOR SHALL NOTIFY INSPECTOR PRIOR TO STARTING EXCAVATIONS OR/AND GRADING WORKS
9. EXTEND ALL EXCAVATIONS FOR FOOTING BELOW NATURAL GRADE AS SHOWN ON STRUCTURAL DRAWINGS

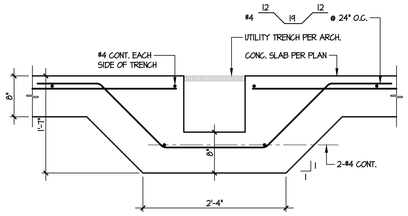
## CONCRETE:

1. THE MINIMUM STRENGTH OF CONCRETE AT END OF 28 DAYS SHALL BE:
   SLABS ON GRADE ---------- 4000 P.S.I. ---- 150 P.C.F.
   FOOTINGS AND GRADE BEAMS ---------- 4000 P.S.I. ---- 150 P.C.F.
2. REINFORCING
   A. BOLTS IN CONCRETE: ASTM F1554 U.N.O.
   B. REINFORCING STEEL: ASTM A-615
      TYPICAL REINFORCING: GRADE 60 (#5 AND LARGER)
      GRADE 40 (#4 AND SMALLER)
      REINFORCING STEEL SHALL CON

CM-07-01-2026




CMU WALL AT TRASH ENCLOSURE 13
SCALE: NOT TO SCALE




TRENCH DRAIN 9
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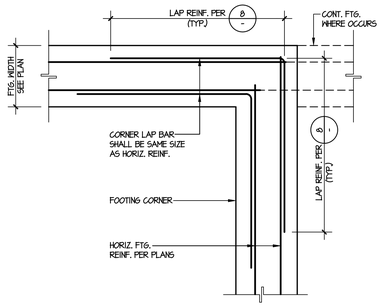
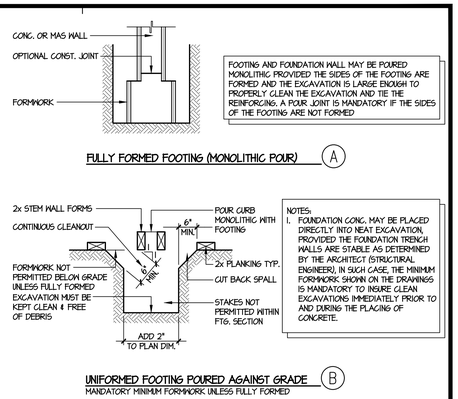



TYPICAL REINFORCING AT FOOTING CORNERS AND INTERSECTIONS 5
SCALE: NOT TO SCALE




FOUNDATION FORMING DETAILS 1
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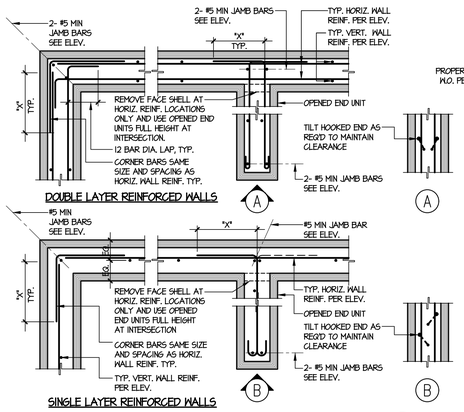
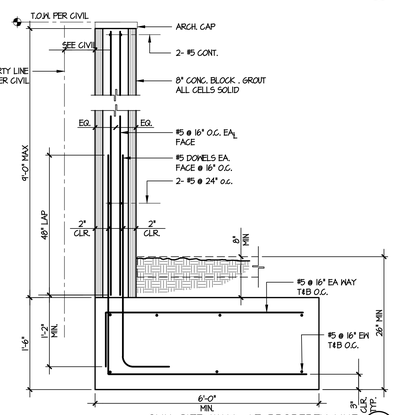
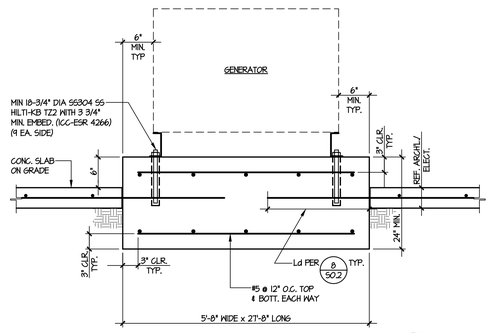


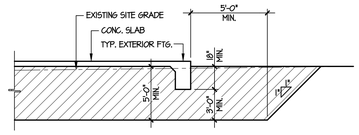

SCALE: NOT TO SCALE 18



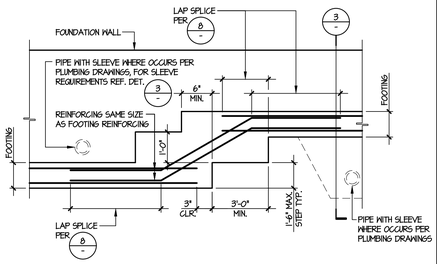

CMU SITE WALL AT PROPERTY LINE 14
SCALE: NOT TO SCALE




GENERATOR CONCRETE PAD 10
SCALE: NOT TO SCALE




OVER EXCAVATION REQUIREMENTS 6
SCALE: NOT TO SCALE




TYPICAL STEPPED FOOTING DETAIL 2
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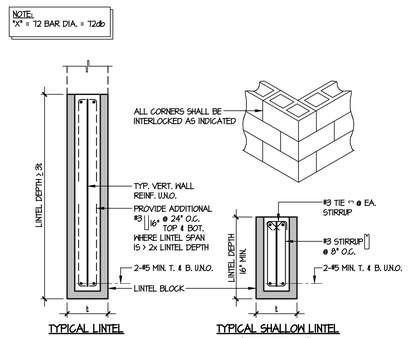


TYPICAL MASONRY WALL REINFORCING DETAILS 19
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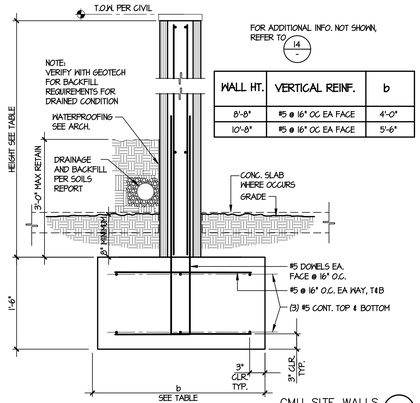
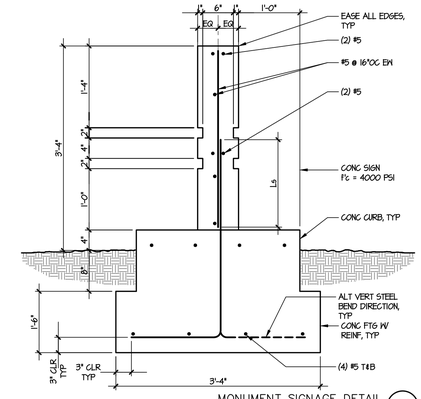
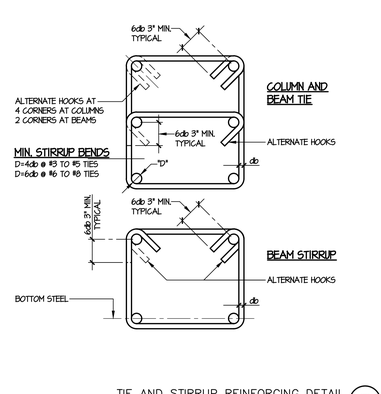


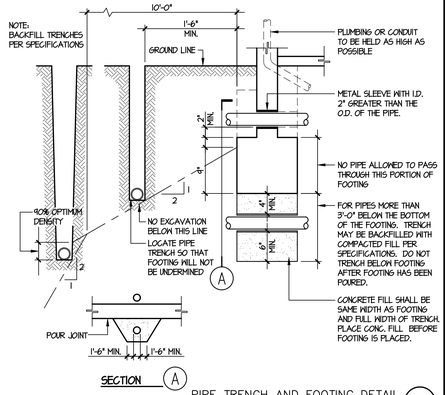

CMU SITE WALLS 15
SCALE: NOT TO SCALE



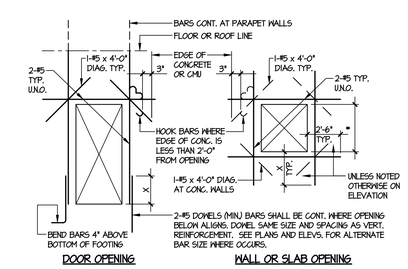

MONUMENT SIGNAGE DETAIL 11
SCALE: NOT TO SCALE



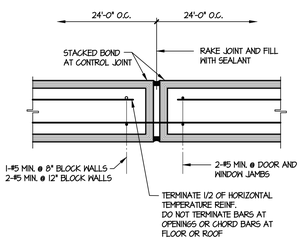

TIE AND STIRRUP REINFORCING DETAIL 7
SCALE: NOT TO SCALE




PIPE TRENCH AND FOOTING DETAIL 3
SCALE: NOT TO SCALE




TYPICAL MASONRY AND CONCRETE OPENING REINGFORCEMENT DETAIL 20
SCALE: NOT TO SCALE



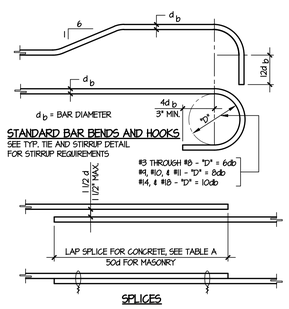

TYPICAL MASONRY WALL JOINT A

SCALE: NOT TO SCALE 16

TABLE A

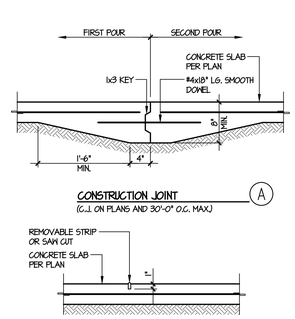
| | BAR LAP SPLICES IN CONCRETE (CLASS B) 3000 P.S.I. | | | BAR LAP SPLICES IN CONCRETE (CLASS B) 3500 P.S.I. | | | BAR LAP SPLICES IN CONCRETE (CLASS B) 4000 P.S.I. | |
|---|---|---|---|---|---|---|---|---|
| | BAR SIZE | BAR LAP | | BAR SIZE | BAR LAP | | BAR SIZE | BAR LAP |
| 51 db | #4 | 24" | 52.5 db | #4 | 23" | 49.4 db | #4 | 25" |
| | #5 | 36" | | #5 | 33" | | #5 | 31" |
| | #6 | 43" | | #6 | 40" | | #6 | 37" |
| 71.2 db | #7 | 63" | 68 db | #7 | 58" | 64.7 db | #7 | 54" |
| | #8 | 72" | | #8 | 66" | | #8 | 62" |
| | #9 | 81" | | #9 | 75" | | #9 | 70" |
| | #10 | 84" | | #10 | 84" | | #10 | 78" |

NOTE:
ALL TABULATED BAR LAPS SHALL BE MULTIPLIED BY 1.3 FOR LIGHT WEIGHT CONCRETE.




* NOTE: PROVIDE MIN. T2 BAR DIA. LAP SPLICE FOR THE FOLLOWING MASONRY REINFG. CONDITIONS:
1. ALL JAMB REINFORCING.
2. VERTICAL REINFORCING SPLICES OCCURING AT MID 1/3 HEIGHT OF WALL.
3. ALL CHORD REINFORCING.
4. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN db, CLEAR COVER NOT LESS THAN db, AND STIRRUPS OR TIES THROUGHOUT ld NOT LESS THAN THE MINIMUM OR CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN 2db AND CLEAR COVER NOT LESS THAN db.

LAP REINFORCING DETAIL 8
SCALE: NOT TO SCALE




SLAB JOINT DETAILS 4
SCALE: NOT TO SCALE

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Rick Wayne Boyd
No. 53350
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24126004.00
T: (833) 270-8648
miyamotointernational.com

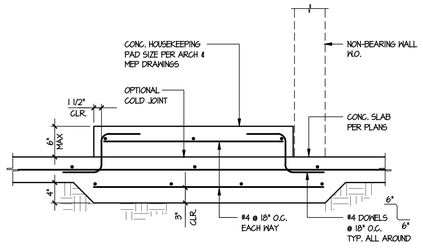
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: DM | CHECKED: DR
DATE: 6/3/2025 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

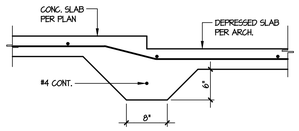
TYPICAL DETAILS

DRAWING NUMBER: S0.2

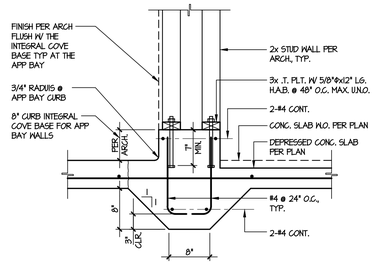
CM-07-01-2026



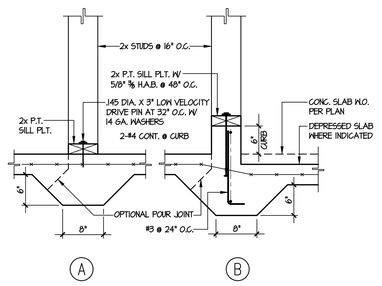

TYPICAL – HOUSEKEEPING PAD DETAIL 17
SCALE: N.T.S.



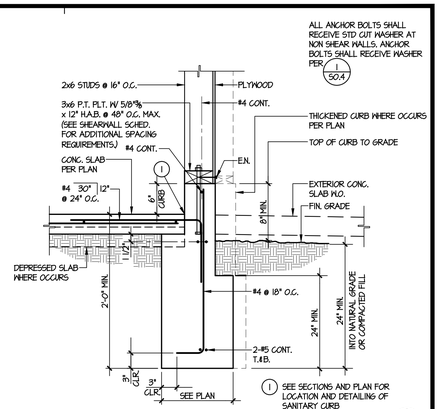

DEPRESSED SLAB DETAIL 13
SCALE: N.T.S.



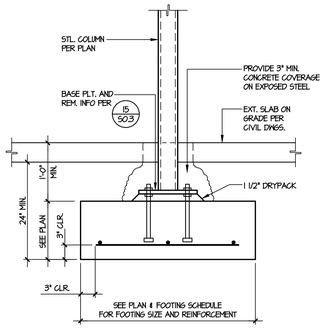

TYPICAL PLUMBING WALL TO CONCRETE CURB DETAIL 9
SCALE: N.T.S.



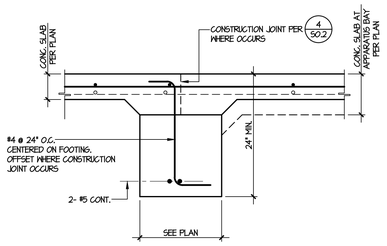

TYP. NON-BEARING WALL TO SLAB DETAILS 5
SCALE: N.T.S.




TYPCIAL EXTERIOR BEARING WALL FOOTING DETAIL 1
SCALE: N.T.S.

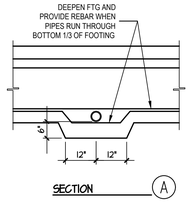


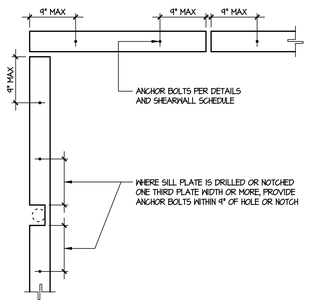

TYPICAL EXTERIOR COLUMN TO PAD FOOTING 18
SCALE: N.T.S.



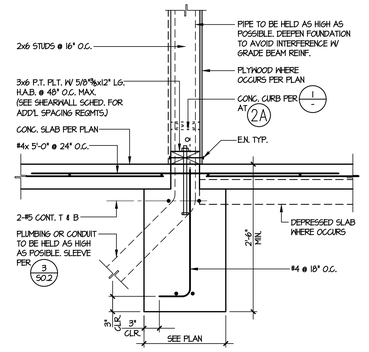

TYPICAL INTERIOR FOOTING DETAIL 14
SCALE: N.T.S.

NOTES:
1. PROVIDE SLEEVE WITH AN INSIDE DIAMETER 1" MIN LARGER THAN PIPE OUTSIDE DIAMETER OR USE 1/2" FOAM WRAP ALL AROUND PIPE, BOTH WITH 1 1/2" MIN CLEAR TO REINFORCING. PROVIDE CLAY OR SLURRY PLUG IN TRENCH AT FACE OF BUILDING. PROVIDE SEALANT AROUND PIPE AT SLEEVE TO PREVENT WATER PENETRATION UNDER THE BUILDING.
2. SINGLE SLEEVES WITH CLEAR SPACING AT LEAST 1.5 TIMES THE GRADE BEAM THICKNESS AND NO LARGER THAN 25% OF THE GRADE BEAM THICKNESS MAY PASS THRU THE MIDDLE THIRD OF THE FOOTING. PROVIDE PROPOSED PIPE LOCATIONS AND ELEVATIONS FOR ENGINEER'S REVIEW BEFORE CUTTING TRENCH OR PLACING PIPE.
3. TRENCH BELOW FOOTING MAY BE POURED MONOLITHICALLY WITH FOOTING OR SHALL BE FILLED WITH CONCRETE OR SLURRY PRIOR TO POURING FOOTING.
4. PIPES SPACED 18" ON CENTER OR MORE AND LOCATED AT DEPTH GREATER THAN 3'-0" CLEAR FROM THE BOTTOM OF THE FOOTING DO NO REQUIERE CONCRETE OR SLURRY AND SHALL BE BACKFILLED WITH SOIL COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPORT. IF PIPES OR CONDUITS OCCUPY 18" WIDTH OR MORE, ENCASE PER DETAIL 1/-
5. SOIL INFLUENCE LINES BY GEOTECHNICAL ENGINEER, THERE SHALL BE NO EXCAVATING BELOW THESE LINES UNLESS THE FOOTING BEARING ELEVATION IS LOWERED WITH SLURRY UNDER THE FOOTING OR A MONOLITHIC THICKENED FOOTING POUR.
6. FOOTINGS MAY BE STEPPED AND DEEPENED PER DETAIL 2/S0.2 TO AVOID CONFLICT.

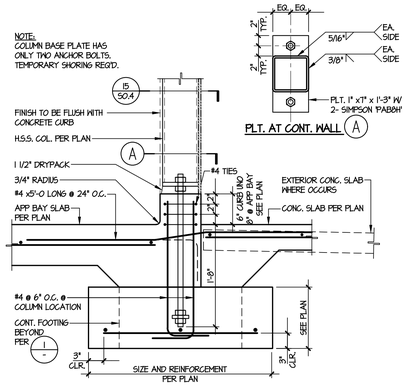


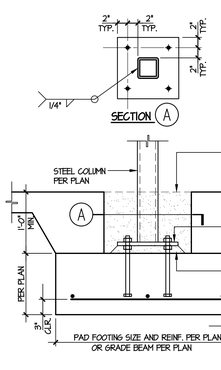

TYPICAL ANCHOR BOLT PLACEMENT AT SILL DETAIL 6
SCALE: N.T.S.




TYPICAL INTERIOR BEARING WALL FOOTING DETAIL 2
SCALE: N.T.S.




STEEL COLUMN TO CONT. FOOTING 19
SCALE: N.T.S.

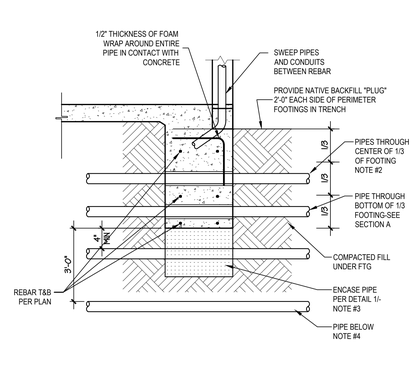






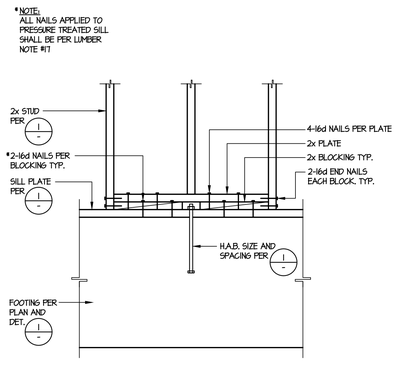



STEEL COLUMN TO FOOTING 15
SCALE: N.T.S.

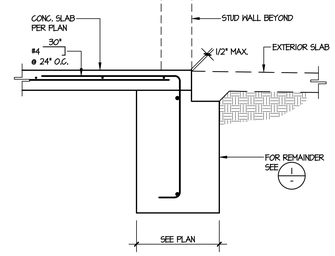



PIPES THROUGH CONTINUOUS FOOTINGS 11
SCALE: N.T.S.

*NOTE:
ALL NAILS APPLIED TO PRESSURE TREATED SILL SHALL BE PER LUMBER NOTE #17



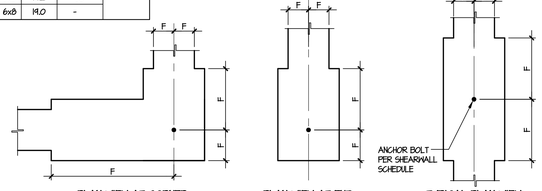

TYPICAL AT ANCHOR BOLT BELOW STUD 7
SCALE: N.T.S.



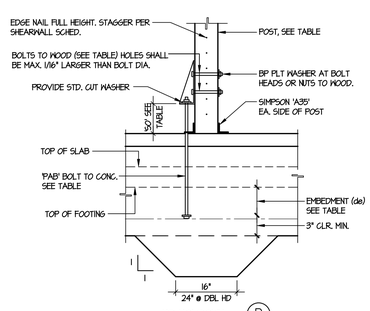

TYPICAL SLAB DETAIL AT STUD WALL OPENING 3
SCALE: N.T.S.

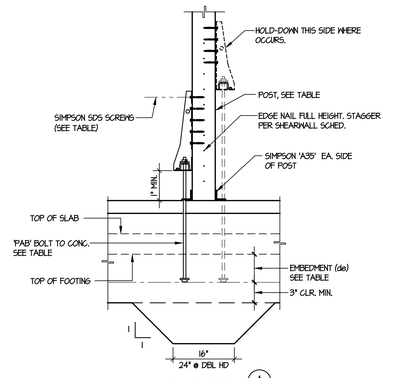
| HD OR HDU HOLDOWN TABLE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK | SIMPSON "HD" IAPMO ER-143 | SIMPSON "HDU" ICC ESR-2330 | BOLTS TO POST (HD ONLY) | 'SD' DIM. (HD ONLY) | ANCHOR DIAM. | ANCHOR | MIN. EMBED. (de) | F | MIN. POST | LOAD (k) 100% | NUMBER OF SDS (HDU ONLY) | DETAIL |
| H2 | - | HDU2 | - | - | 5/8" | PAB5 | 12" | 10" | 4x6 | 3.0 | 6 | SEE DETAIL 'A' FOR HDU HOLDOWN SEE DETAIL 'B' FOR HDU HOLDOWN |
| H4 | - | HDU4 | - | - | 5/8" | PAB5 | 18" | 10" | 4x6 | 4.5 | 10 | |
| H5 | HD5B | HDU5 | 2- 3/4" | 2" MIN. | 5/8" | PAB5 | 18" | 10" | 4x6 | 4.9 | 14 | |
| H7 | HD7B | HDU8 | 3- 3/4" | 2" MIN. | 7/8" | PAB6 | 18" | 12" | 4x6 | 6.5 | 20 | |
| H9 | HD9B | HDU11 | 3- 7/8" | 2 3/8" MIN. | 7/8" ⌀ HD9B/1" ⌀ HDU11 | PAB6/PABT | 18" | 12" | 6x6 | 9.5 | 30 | |
| H12 | HD12 | HDU14 | 4- 1" | 3 5/8" MIN. | 1" | PABT | 24" | 15" | 6x6 | 14.2 | 36 | |
| H19 | HD19 | - | 5- 1" | 3 5/8" MIN. | 1 1/4" | PAB10 | 24" | 23" | 6x8 | 19.0 | - | |

NOTES:
1. HOLDOWN SHALL BE TORQUED AS REQ'D BY MANUFACTURER
2. PAB DENOTES SIMPSON 'PAB' ANCHOR.
3. USE SIMPSON SDS 25212 WOOD SCREWS AT ALL 'HDU' APPLICATIONS
4. HEAVY HEX NUT REQUIRED FOR HDU14
5. WIDEN FOOTING AS REQUIRED FOR HOLDOWN ANCHORS PER C AND "F" DIMENSION PER TABLE.
6. HOLDOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE SIMPSON BP PLATE WASHERS. HOLDOWNS SHALL BE FINGER TIGHT AND 1/2 WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING.
7. HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
8. "F" IS A MIN. DIMENSION. IF SPECIFIED FOOTING WIDTH IS GREATER THAN "F" DIMENSION OF EACH SIDE OF THE HOLDOWN, THE LARGER FOOTING WIDTH SHALL GOVERN.

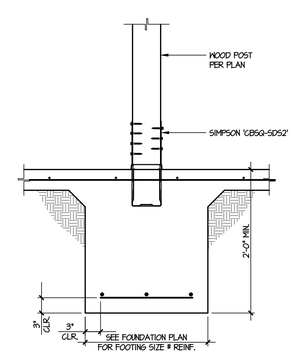



FOOTING AND STEMWALL REQUIREMENTS AT HOLD DOWN ANCHORS C
NOTE: WIDEN FOOTINGS AS REQ'D TO MEET MIN. WIDTH CRITERIA BASED ON "F", AS NECESSARY




TYPICAL HOLDDOWN DETAIL 8
SCALE: N.T.S.




WOOD POST TO PAD FOOTING 4
SCALE: N.T.S.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
PAUL R. DAVIS
No. S5150
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
MI24280004.00
T: (833) 270-8648
miyamotointernational.com

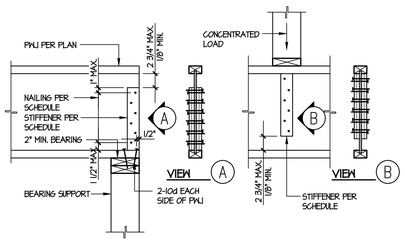
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

FOUNDATION DETAILS

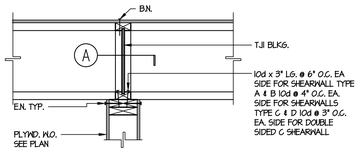
DRAWING NUMBER: S0.3

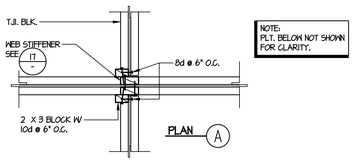
CM-07-01-2026




| PWJ JOIST | STIFFENER MATERIAL EACH SIDE | STIFFENER NAILING |
|---|---|---|
| PWJ (2 1/2" FLANGE) | 1"x2 5/16" GDX PLYWOOD | 8d x2 1/2" @ 2" O.C. MAX. |

TYPICAL PWJ WEB STIFFENER DETAIL 17
SCALE: N.T.S.

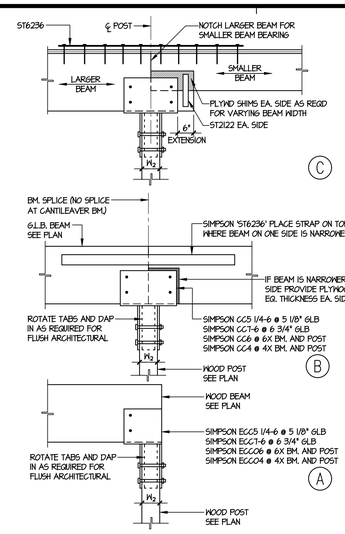


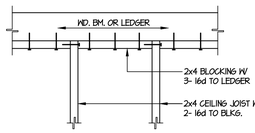

TYPICAL PWJ SHEAR BLOCKING 18
SCALE: N.T.S.



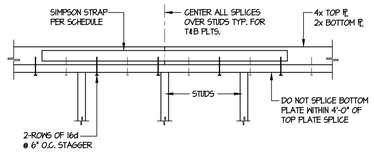

TYPICAL MULTIPLE PWJ 19
SCALE: N.T.S.




TYPICAL WOOD BEAM TO POST CAP CONNECTIONS 13
SCALE: N.T.S.

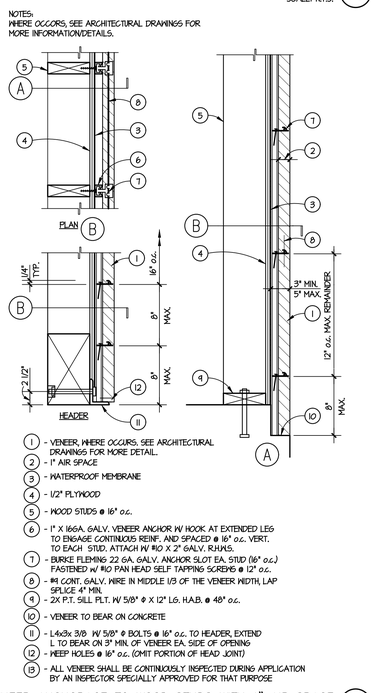



TYPICAL PROGRESSIVE BLOCKING 9
SCALE: N.T.S.

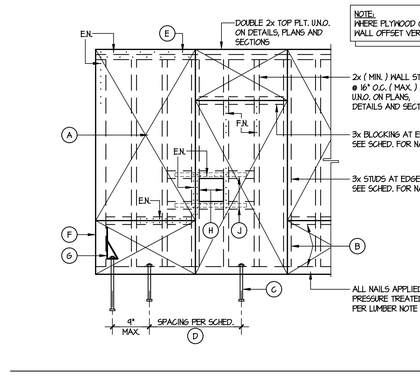



| TYPE | STRAP | ALLOW. LOAD (KIPS) |
|---|---|---|
| A | SIMP. MST27 EA. SIDE | 7.4k |
| B | SIMP. MST48 EA. SIDE | 10.6k |
| C | SIMP. MST60 EA. SIDE | 13.5k |

PLATE SPLICE DETAIL 10
SCALE: N.T.S.




VENEER ANCHORAGE TO WOOD STUDS WITH 1" AIR SPACE 11
SCALE: N.T.S.




NOTE: WHERE PLYWOOD OCCURS EACH SIDE OF WALL OFFSET VERTICAL PLYMD. JOINTS

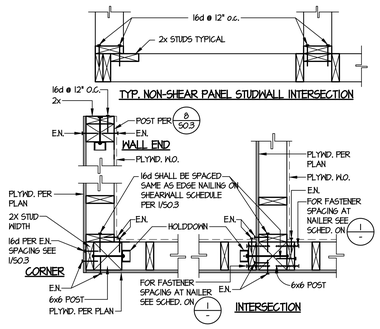
**SHEARWALL SCHEDULE**
STRUCTURAL I

| TYPE. | NAILING | | A.B. SPACING | ALLOWABLE SHEAR |
|---|---|---|---|---|
| | EDGE | FIELD | | |
| A | 10d @ 6" O.C. | 10d @ 12" O.C. | 42" O.C. | 340#/FT. |
| B | 10d @ 4" O.C. | 10d @ 12" O.C. | 28" O.C. | 510#/FT. |
| C | 10d @ 3" O.C. ST.A66. | 10d @ 12" O.C. | 21" O.C. | 665#/FT. |
| D | 10d @ 2" O.C. ST.A66. | 10d @ 12" O.C. | 16" O.C. | 870#/FT. |

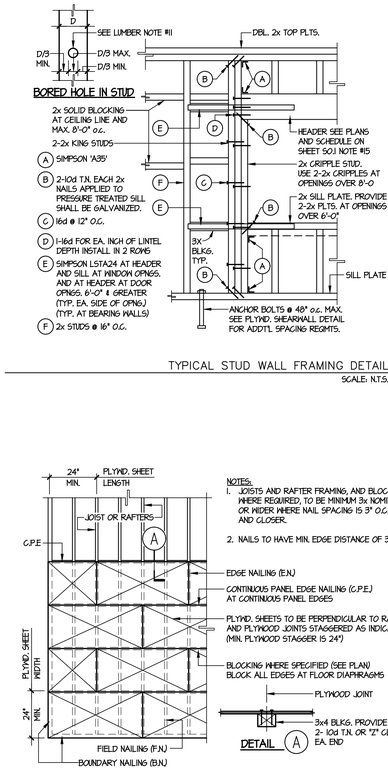
FOR SHEAR WALLS EXCEEDING ASPECT RATIO OF 2:1, THE NOMINAL SHEAR CAPACITY SHALL BE REDUCED BY FACTOR 1.25-0.125 (h/b) PER SDPWS SECTION 4.3.3.2

(A) ALL PLYWOOD TO BE 1/2" STRUCTURAL I SEE NOTES ON S0.1
(B) PROVIDE 3x ( MIN. ) MEMBERS AT ALL ADJOINING PANEL EDGE AND SILLS. WHERE PLYWOOD OCCURS BOTH SIDES OFFSET VERTICAL PLYWOOD JOINTS.
(C) ANCHOR BOLTS TO BE 5/8"Ø x12" MIN. SEE SHEARWALL SCHEDULE FOR SPACING. PROVIDE 2 BOLTS PER PANEL MIN. PROVIDE SIMPSON BPS7 5/8-3 AT ALL ANCHOR BOLTS AT 4" NOMINAL WIDE SILL PLATES. PROVIDE SIMPSON BPS7 5/8-6 AT ALL 6" NOMINAL WIDE SILL PLATES. A CUT WASHER SHALL BE UTILIZED BETWEEN THE NUT AND THE TOP OF THE SLOTTED WASHER. THE WASHER SHALL BE POSITIONED SUCH THAT THE EDGE OF THE PLATE WASHER IS WITHIN 1/2" OF THE SHEATHED EDGE OF THE SILL PLATE. WHERE PLYWOOD OCCURS EACH SIDE OF THE WALL, THE WASHER SHALL BE PLACED WITHIN 1/2" OF EACH FACE OF SILL PLATE.
(D) REDUCE SPACING BY 1/2 WHERE SHEARWALL OCCURS BOTH SIDES
(E) STAGGER NAILS FOR TYPE 'C' AND 'D' SHEARWALLS @ DOUBLE TOP PLATES
(F) 4x MIN. POST @ HOLD DOWN LOCATIONS. U.N.O. ON PLANS, DETAILS OR SECTIONS
(G) HOLD DOWN, SEE PLAN FOR TYPE AND ℄ 503 FOR INSTALLATION. ALLOWABLE SHEAR VALUES HAVE BEEN REDUCED BY 0.42 PER FOOTNOTE 10 ON SPDWS TABLE 4A
(H) 14 1/2" SQUARE MAX. OPENING. (STUDS SHALL NOT BE CUT UNLESS SPECIFICALLY DETAILED)
(J) PROVIDE SIMPSON LSTA36' ABOVE AND BELOW OPENINGS AT SHEARWALL TYPES 'C' AND 'D' AND ALL DOUBLE SIDED.

TYPICAL PLYWOOD SHEARWALL DETAIL 1
SCALE: N.T.S.



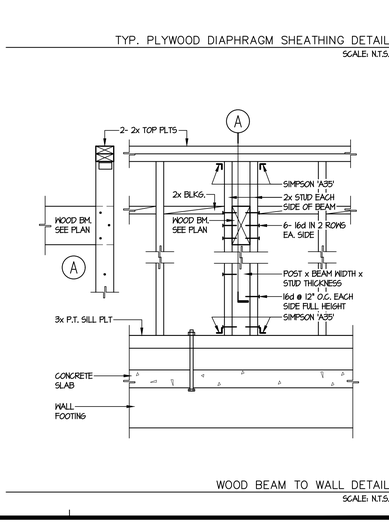

TYPICAL SHEARWALL INTERSECTIONS 6
SCALE: N.T.S.




TYPICAL MINIMUM PLATE SPLICE DETAIL 7
SCALE: N.T.S.

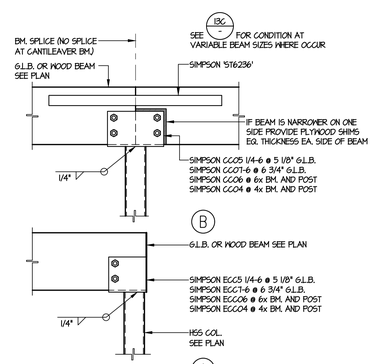



TYPICAL STUD WALL FRAMING DETAIL 2
SCALE: N.T.S.

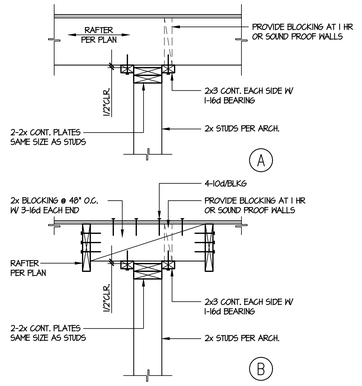



NOTES:
1. JOISTS AND RAFTER FRAMING, AND BLOCKING WHERE REQUIRED, TO BE MINIMUM 3x NOMINAL OR WIDER WHERE NAIL SPACING IS 3" O.C. AND CLOSER.
2. NAILS TO HAVE MIN. EDGE DISTANCE OF 3/8".

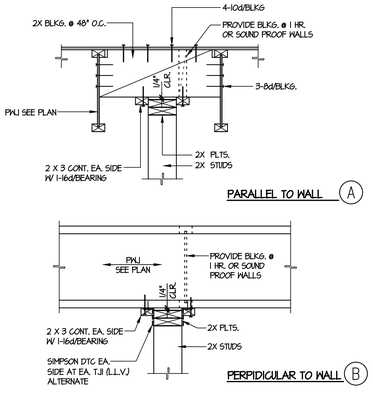
TYP. PLYWOOD DIAPHRAGM SHEATHING DETAIL 3
SCALE: N.T.S.



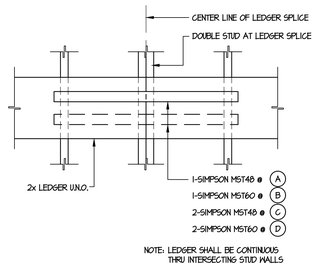

TYP – GLB TO STEEL COLUMN 20
SCALE: N.T.S.




TYPICAL NON-BEARING WALL TO RAFTERS 16
SCALE: N.T.S.




TYPICAL NON-BEARING WALL 12
SCALE: N.T.S.




TYPICAL LEDGER SPLICE DETAIL 8
SCALE: N.T.S.




WOOD BEAM TO WALL DETAIL 4
SCALE: N.T.S.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Rick Wayne Byrd
No. 53050
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
MS2428004.00
T: (833) 270-8648
miyamotointernational.com

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

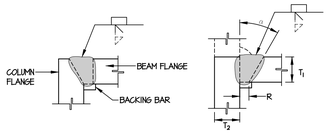
TYPICAL WOOD DETAILS

DRAWING NUMBER: S0.4

CM-07-01-2026

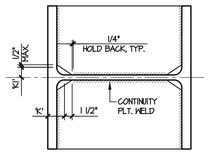
| TOLERANCES | |
|---|---|
| AS DETAILED | AS FIT-UP |
| R = +1/16, -0 | +1/4, -1/16 |
| ∠ = +1°/6, -0° | +1°/6, -3° |

| WELDING PROCESS | JOINT DESIGNATION | BASE METAL THICKNESS (U = UNLIMITED) $T_1$ | $T_2$ | GROOVE PREPARATION: ROOT OPENING | GROOVE ANGLE | ALLOWED WELDING POSITIONS | GAS SHIELDING FOR FCAW |
|---|---|---|---|---|---|---|---|
| SMAW | TC-U4a | U | U | R = 1/4 | α = 45° | ALL | - |
| | | | | R = 3/16 | α = 30° | F, V, OH | - |
| FCAW | TC-U4a-GF | U | U | R = 3/16 | α = 30° | ALL | REQUIRED |
| | | | | R = 3/8 | α = 30° | F | NOT REQUIRED |
| | | | | R = 1/4 | α = 45° | ALL | NOT REQUIRED |

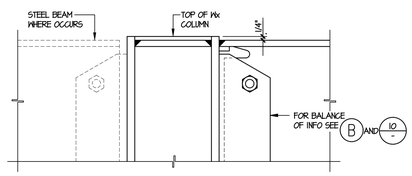



NOTES:
1. GROOVE WELDS IN CORNER AND T-JOINTS OF CYCLICALLY LOADED STRUCTURES SHALL BE REINFORCED WITH FILLET WELDS EQUAL TO 1/4, BUT NEED NOT EXCEED 3/8 INCH.
2. FOR CORNER JOINTS, THE OUTSIDE GROOVE PREPARATION MAY BE IN EITHER OR BOTH MEMBERS, PROVIDED THE BASIC GROOVE CONFIGURATION IS NOT CHANGED AND ADEQUATE EDGE DISTANCE IS MAINTAINED TO SUPPORT THE WELDING OPERATIONS WITHOUT EXCESSIVE EDGE MELTING.
3. ADAPTED WITH PERMISSION FROM THE AWS D1.1 COMMITTEE ON STRUCTURAL WELDING, STRUCTURAL WELDING CODE - STEEL, AWS D1.1/D1.1M: 2015, MIAMI: AMERICAN WELDING SOCIETY, FIGURE 3.4 PG. 92 (TOP LEFT).

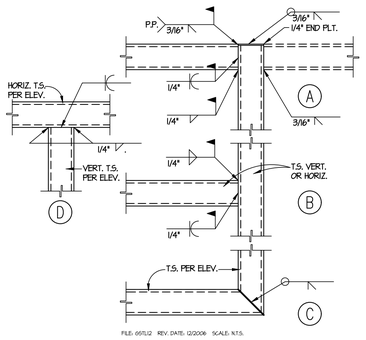
AWS PREQUALIFIED CJP GROOVE WELDED JOINT DETAIL 7
SCALE: NOT TO SCALE



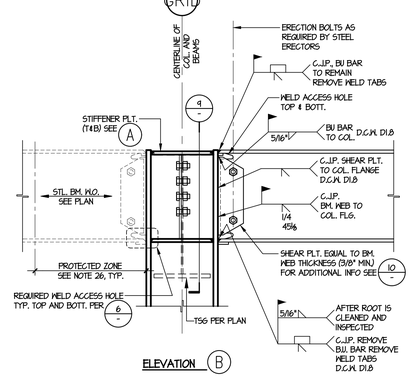

CONTINUITY PLT. CLIP DETAIL D




CONDITION AT ROOF C




TYPICAL HSS TO HSS CONNECTION DETAIL 8
SCALE: NOT TO SCALE




ELEVATION B

ADDITIONAL NOTES:
1. ALL WELDING SHALL BE IN STRICT CONFORMANCE WITH AWS D1.1-15, AWS D1.8-16, AISC 341-10 AND AISC 358-10. "AS FIT-UP" AND "AS-DETAILED" SHALL BE THE MAXIMUM TOLERANCES
2. A WELDING PROCEDURE SPECIFICATION (WPS) AND PROCEDURE QUALIFICATION RECORDS (PQR) PER AWS D1.1, AWS D1.8 AND AISC 341 SHALL BE DEVELOPED BY THE FABRICATOR FOR SHOP WELDING AND THE ERECTOR FOR FIELD WELDING AND BE REVIEWED BY THE ENGINEER OF RECORD OR HIS DESIGNEE. THE WPS SHALL INCLUDE THE WELDING PARAMETERS RECOMMENDED BY THE ELECTRODE MANUFACTURER. WPS SHALL MEET ALL PREQUALIFIED VARIABLES IN TABLE 5 AND SHALL WHENEVER POSSIBLE USE AWS C.J.P GROOVE JOINT SHOWN IN DETAIL W5G3.
3. THE WELDING ELECTRODE MANUFACTURER'S SPECIFICATIONS SHALL BE ATTACHED TO THE WPS.
4. CONTRACTOR SHALL COMPLY WITH AISC 341 CHPATER J AND AISC 360 CHAPTER N FOR QUALITY CONTROL AND QUALITY ASSURANCE AS A MINIMUM UNLESS MODIFIED BY THE CONTRACT DOCUMENTS.
5. SEE TABLE 2 FOR NON-DESTRUCTIVE TESTING LOCATIONS
6. WELDING INSPECTORS ARE TO BE AWS CERTIFIED STEEL WELDING INSPECTORS.
7. THE WELDING INSPECTORS REPORT SHALL DOCUMENT THAT THE WPS REQUIREMENTS WERE FOLLOWED, THAT PROPER AMPERAGE AND VOLTAGE IS USED IN THE WELDING PROCESS, AND THE TRAVEL SPEED AND ELECTRODE STICK OUT COMPLY WITH THE APPROVED WPS. A HAND-HELD CALIBRATED AMP-AND-VOLT METER SHALL BE USED BY THE FABRICATOR, ERECTOR AND WELDING INSPECTORS. AMPERAGE AND VOLTAGE SHALL BE MEASURED NEAR THE ARC. SEE AISC 341 CHAPTER J FOR ADDITIONAL REQUIREMENTS.
8. IN ADDITION TO THE REGULAR INSPECTIONS, A COMPLETE RE-INSPECTION BY THE WELDING INSPECTOR SHALL BE DONE A MINIMUM OF 48 HOURS AFTER WELDING ON FLANGES WITH A THICKNESS OF 3" OR GREATER.
9. NO "WELD DAMS" ARE ALLOWED.
10. MOMENT FRAME BEAM FLANGE TO COLUMN WELDS SHALL BE MADE BEFORE BOLTS ARE TENSIONED.
11. WELDERS SHALL PASS THE WELDER SUPPLEMENTAL WELDER QUALIFICATION PER AWS D1.8 SECTION 5.1.
12. WELDING PROCESSES SHOULD BE LIMITED TO SHIELDED METAL ARC WELDING (SMAW) AND FLUX CORE ARC WELDING (FCAW) WITH GAS SHIELDING, PROVIDED THE HANDLING REQUIREMENTS OF AWS D1.8 SECTION 6.4 ARE MET.
13. FCAW FILLER METAL WIRE SHALL BE LIMITED TO 5/64" DIAMETER MAXIMUM. SMAW WELDING ELECTRODES SHALL BE LIMITED TO 5/32" DIAMETER MAXIMUM.
14. COMPLETE JOINT PENETRATION GROOVE WELDS SHALL HAVE A FILLER METAL WITH A CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBS MINIMUM AT -20% F. AND 40 FT-LBS. @ 70% F. FILLER METAL DETERMINED BY AWS D1.8 SECTION 6.3. ALL SHIELDED METAL ARC WELDING (SMAW) ELECTRODES SHALL BE OF THE LOW HYDROGEN TYPE.
15. RUN-OFF TABS PER AWS D1.1 ARE REQUIRED FOR THE COMPLETE JOINT PENETRATION (C.J.P.) FLANGE WELDS. ALL WELDS ARE TO BE STARTED AND COMPLETED ON THE RUN-OFF TABS AS MUCH AS PRACTICABLE.
16. THE MINIMUM PREHEAT AND INTERPASS TEMPERATURE REQUIREMENTS OF AWS D1.1, SECTION 3.5 AND TABLE 3.2, MUST BE FOLLOWED, SEE TABLE 4. SEE ALSO THE AWS D1.1, ANNEX I "GUIDELINES ON ALTERNATIVE METHODS ON DETERMINING PREHEAT.
17. RUN-OFF TABS AT TOP & BOTTOM FLANGES AND BACKER BARS AT BOTTOM FLANGES SHALL BE REMOVED AFTER COMPLETION OF THE WELD. RUN-OFF TABS TO BE REMOVED TO WITHIN 1/8" OF BASE METAL, EXCEPT AT CONTINUITY PLATES WHERE REMOVAL TO WITHIN 1/4" OF THE PLATE IS ACCEPTABLE. EDGE OF WELD TABS SHALL BE FINISHED TO A SURFACE ROUGHNESS OF 500 MICRO-INCH OR BETTER. GOUGES ARE NOT PERMITTED. MATERIAL REMOVED BY GRINDING THAT EXTENDS MORE THAN 1/16" BELOW THE SURFACE OF BASE METAL SHALL BE FILLED WITH WELD METAL. SEE AISC 358 SECTION 3.4 FOR ADDITIONAL REQUIREMENTS.
18. THESE WELDS MUST BE 100% UT INSPECTED PER AWS D1.1 REQUIREMENTS.
19. BACKING BARS USED AT CONTINUITY PLATE TO COLUMN WELDS NEED NOT BE REMOVED. BACKING BAR LEFT IN PLACE AT COLUMN FLANGE TO HAVE CONTINUOUS 5/16" FILLET WELD ON THE EDGE BELOW THE C.J.P WELD. WHEN BACKING IS REMOVED THE ROOT PASS SHALL BE BACKGOUGED TO SOUND WELD METAL AND BACKWELDED WITH A MIN. 5/16" REINFORCING FILLET WELD.
20. BACKING BARS SHALL BE REMOVED FROM THE BOTTOM FLANGE. THE ROOT PASS SHALL BE BACKGOUGED TO SOUND WELD METAL AND BACKWELDED WITH A REINFORCING FILLET W/ MIN. LEG SIZE OF 5/16". THE REINFORCING FILLET LEG ADJACENT TO THE BEAM FLANGE SHALL BE SUCH THAT THE FILLET TOE IS LOCATED ON THE BEAM FLANGE BASE METAL. SEE AISC 358 SECTION 3.3.2. WELD EXTENSION TABS SHALL BE REMOVED FROM THE TOP AND BOTTOM FLANGE PER NOTE 17.
21. FOR PROHIBITED WELD @ STEEL BACKING SEE AISC 358 SECTION 3.3.4.
22. THE DIFFERENCE BETWEEN THE CENTERLINES OF THE BEAM FLANGES AND THE STIFFENER PLATES SHALL BE LIMITED TO 1/8" IF THE ACTUAL FIELD DIFFERENCE IS GREATER THAN 1/8", THE STIFFENER PLATE SHALL BE REMOVED, REINSTALLED AND TESTED IN THE FIELD.
23. AN APPROVED TESTING LABORATORY SHALL PERFORM ULTRASONIC TESTING OF FIELD WELDING GROOVE WELDS. TESTING SHALL BE DONE IMMEDIATELY AFTER WELDING IS COMPLETED. SEE TABLE TO FOR LOCATION. A SECOND ULTRASONIC TEST SHALL BE PROVIDED NEAR THE END OF FIELD WELDING FOR AT LEAST 25% OF THE TYPICAL FIELD WELDING GROOVE WELDS.
24. ALL FIELD WELDS SHALL BE ETIT-8 (CVN = 20 FT. LBS. @ -20% F & 40 FT. LBS. @ 70%F).
25. NOTE: SURFACE ROUGHNESS OF RUN-OFF TAB TO NOT EXCEED 500 MICRO INCHES.
26. NO WELDED, BOLTED, SCREWED, SHOT PIN OR SHEAR STUD ATTACHMENTS WITHIN PROTECTED ZONE. PROTECTED ZONE SHALL BE SHOP PAINTED WITH YELLOW STRIPES AT BOTH TOP AND BOTTOM FLANGES.
27. CONSTRUCTION AND FABRICATION OF MOMENT FRAMES SHALL COMPLY WITH AWS D1.8-16, AISC 341-10, AND AISC 358-10 GUIDELINES.
28. GOUGES AND NOTCHES EXCEEDING 1/4" DEPTH MAY BE REPAIRED BY WELDING PER AWS D1.8. GOUGES AND NOTCHES SHALL BE TESTED AFTER REPAIRS ARE COMPLETED.
29. BEAMS SHALL BE PERPENDICULAR TO COLUMN FLANGE.

TABLE 1. REPORTS TO BE SUBMITTED TO SEOR AND IOR

| | PREPARED BY | TYPE OF REPORT |
|---|---|---|
| 1. | STRUCTURAL OBSERVER(S) | STRUCTURAL OBSERVATION REPORTS |
| 2. | DEPUTY INSPECTOR(S) | DEPUTY INSPECTION REPORTS |
| 3. | NDT TECHNICIAN(S) | NON-DESTRUCTIVE TESTING REPORTS |

TABLE 2. NON-DESTRUCTIVE TEST LOCATIONS

| | REQUIRED LOCATIONS | SMF | | |
|---|---|---|---|---|
| 1. | C.J.P GROOVE WELD<br>ULTRASONIC TEST SHALL BE PERFORMED ON ALL C.J.P GROOVE WELDS IN MATERIALS 5/16 INCH (8 MM) THICK OR GREATER. IN ADDITION, MAGNETIC PARTICLE TEST SHALL BE PERFORMED ON ALL BEAM-TO-COLUMN C.J.P GROOVE WELDS. | A | | |
| 2. | "k" AREA<br>WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES, OR STIFFENERS HAS BEEN PERFORMED IN THE k-AREA, THE WEB SHALL BE TESTED FOR CRACKS USING MAGNETIC PARTICLE TESTING. THE MAGNETIC PARTICLE TEST AREA SHALL INCLUDE THE k-AREA BASE METAL WITHIN 3 in. (75 MM) OF THE WELD. | B | | |
| 3. | BEAM COPE AND ACCESS HOLE<br>AT WELDED SPLICES AND CONNECTIONS, THERMALLY CUT SURFACES OF BEAM COPES AND ACCESS HOLES SHALL BE TESTED USING MAGNETIC PARTICLE TESTING, WHEN THE FLANGE THICKNESS EXCEEDS 1-1/2 in. (38 MM) FOR ROLLED SHAPES. | B | | |
| 4. | REDUCED BEAM SECTION REPAIR<br>MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON ANY WELD AND ADJACENT AREA OF THE RBS PLASTIC HINGE REGION THAT HAS BEEN REPAIRED BY WELDING, OR ON THE BASE METAL OF THE RBS PLASTIC HINGE REGION IF A SHARP NOTCH HAS BEEN REMOVED BY GRINDING. | A | | |
| 5. | BASE METAL LAMELLAR TEARING AND LAMINATIONS AT C.J.P GROOVE WELD<br>BASE METAL THICKER THAN 1-1/2 in. (38 MM) SHALL BE ULTRASONICALLY TESTED FOR DISCONTINUITIES BEHIND AND ADJACENT TO THE FUSION LINE WHEN THE BASE METAL IS LOADED IN TENSION IN THE THROUGH THICKNESS DIRECTION IN TEE AND CORNER JOINTS AND THE CONNECTED MATERIAL IS GREATER THAN 3/4 in. (19 MM).<br>ANY BASE METAL DISCONTINUITIES FOUND WITHIN 1/4 OF THE STEEL SURFACE SHALL BE ACCEPTED OR REJECTED ON THE BASIS OF CRITERIA OF AWS D1.1 TABLE 6.2, WHERE T IS THE THICKNESS OF THE PART SUBJECTED TO THE THROUGH-THICKNESS STRAIN. | A | | |
| 6. | END OF WELD AT WELD TAB REMOVAL SITE<br>MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON THE END OF WELDS FROM WHICH THE WELD TABS HAVE BEEN REMOVED, EXCEPT FOR CONTINUITY PLATE WELD TABS. | B | | |
| 7. | P.J.P GROOVE WELD<br>ULTRASONIC TESTING SHALL BE PERFORMED ON P.J.P GROOVE WELDS USED IN COLUMN SPLICES WITH AN EFFECTIVE THROAT OF 3/4 in. (19.1 MM) THICK OR GREATER. | A | | |

NOTE: A, B, AND C ARE THE FREQUENCIES OF NON-DESTRUCTIVE TESTS LISTED IN TABLE 3.

TABLE 3. NON-DESTRUCTIVE TEST FREQUENCY

| | FREQUENCY DESIGNATION | | |
|---|---|---|---|
| | A | B | C |
| ULTRASONIC TESTING (UT) | 100% OF JOINTS | 50% OF JOINTS | 25% OF JOINTS |
| MAGNETIC PARTICLE TESTING (MT) | 50% OF JOINTS | 25% OF JOINTS | NOT REQUIRED |

NOTES:
1. REFER TO TABLE 2 FOR LOCATIONS OF NON-DESTRUCTIVE TESTING.
2. RATE OF NON-DESTRUCTIVE TESTING MAY BE REDUCED AS PERMITTED IN SHEET S0.1(B, PART II, ITEM 8(D).

TABLE 4. PREQUALIFIED MINIMUM PREHEAT & INTERPASS TEMPERATURE

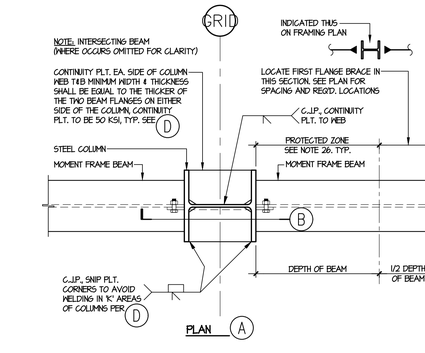
| STEEL SPECIFICATION | WELDING PROCESS | THICKNESS OF THICKEST PART AT POINT OF WELDING (in.) | MINIMUM PREHEAT AND INTERPASS TEMPERATURE (°F) |
|---|---|---|---|
| ASTM A36<br>ASTM A572 GRADE 50<br>ASTM A913 GRADE 50<br>ASTM A992 | SMAW WITH LOW-HYDROGEN ELECTRODES, FCAW | 1/8 TO 3/4 INCL. | 32 |
| | | OVER 3/4 TO 1-1/2 INCL. | 50 |
| | | OVER 1-1/2 TO 2-1/2 INCL. | 150 |
| | | OVER 2-1/2 | 225 |

NOTES:
1. SURFACES TO BE WELDED AND SURFACES ADJACENT TO WELDS SHALL BE FREE OF MOISTURE PURSUANT TO AWS D1.1/D1.1M:2015 SECTION 5.15. USE A HIGHER PREHEAT TEMPERATURE FROM THIS TABLE TO REMOVE MOISTURE.
2. ADAPTED WITH PERMISSION FROM THE AWS D1.1 COMMITTEE ON STRUCTURAL WELDING, STRUCTURAL WELDING CODE - STEEL, AWS D1.1/D1.1M: 2015, MIAMI: AMERICAN WELDING SOCIETY, TABLE 3.2.

TABLE 5. PREQUALIFIED WPS REQUIREMENTS (1, 2, 3)

| VARIABLE | POSITION OF WELD | WELD TYPE | SMAW | FCAW |
|---|---|---|---|---|
| MAXIMUM ELECTRODE DIAMETER | FLAT (F) | FILLET (4) | 5/16 in. | 1/8 in. |
| | | GROOVE (4) | 1/4 in. | |
| | | ROOT PASS | 3/16 in. | |
| | HORIZONTAL (H) | FILLET | 1/4 in. | 1/8 in. |
| | | GROOVE | 3/16 in. | |
| | VERTICAL (V) | ALL | 3/16 in. | 3/32 in. |
| | OVERHEAD (OH) | ALL | 3/16 in. | 5/64 in. |
| MAXIMUM CURRENT | ALL | FILLET | WITHIN THE RANGE OF RECOMMENDED OPERATION BY THE FILLER METAL MANUFACTURER AND A WPS APPROVED BY ENGINEER OF RECORD. | WITHIN THE RANGE OF RECOMMENDED OPERATION BY THE FILLER METAL MANUFACTURER AND A WPS APPROVED BY ENGINEER OF RECORD. |
| | ALL | GROOVE WELD ROOT PASS WITH OPENING | | |
| | | GROOVE WELD ROOT PASS WITHOUT OPENING | | |
| | | GROOVE WELD FILL PASSES | | |
| | | GROOVE WELD CAP PASS | | |
| MAXIMUM ROOT PASS THICKNESS (5) | FLAT (F) | ALL | 3/8 in. | 3/8 in. |
| | HORIZONTAL (H) | | 5/16 in. | 5/16 in. |
| | VERTICAL (V) | | 1/2 in. | 1/2 in. |
| | OVERHEAD (OH) | | 5/16 in. | 5/16 in. |
| MAXIMUM FILL PASS THICKNESS | ALL | ALL | 3/16 in. | 1/4 in. |
| MAXIMUM SINGLE PASS FILLET WELD SIZE | FLAT (F) | FILLET | 3/8 in. | 1/2 in. |
| | HORIZONTAL (H) | | 5/16 in. | 3/8 in. |
| | VERTICAL (V) | | 1/2 in. | 1/2 in. |
| | OVERHEAD (OH) | | 5/16 in. | 5/16 in. |
| MAXIMUM SINGLE PASS LAYER WIDTH | ALL | ROOT OPENING >1/2 IN. | NOT APPLICABLE. | SPLIT LAYERS |
| | | ANY LAYER OF WIDTH W | | (6) |

NOTES:
1. APPLICABLE PROVISIONS OF AWS D1.1/D1.1M:2015 SECTION 3 "PREQUALIFICATION OF WPSs" MUST BE MAINTAINED FOR PREQUALIFIED STATUS OF SMAW AND FCAW WPSs.
2. REFER TO DETAIL 6 FOR DIAGRAM OF WELD PASS SEQUENCE.
3. ADAPTED WITH PERMISSION FROM THE AWS D1.1 COMMITTEE ON STRUCTURAL WELDING, STRUCTURAL WELDING CODE - STEEL, AWS D1.1/D1.1M: 2015, MIAMI: AMERICAN WELDING SOCIETY, TABLE 3.7.
4. EXCEPT ROOT PASSES.
5. SEE AWS D1.1/D1.1M:2015, SECTION 3.7.2, FOR WIDTH-TO-DEPTH LIMITATIONS.
6. IN THE F, H, OR OH POSITIONS FOR NONTUBULARS, SPLIT LAYERS WHEN THE LAYER WIDTH W > 5/8 INCH. IN THE V POSITION FOR NONTUBULARS OR THE 56 OR 66 FOR TUBULARS, SPLIT LAYERS WHEN THE WIDTH W > 1 INCH.




GRAVITY BEAM TO MOMENT FRAME COLUMN 9
SCALE: NOT TO SCALE

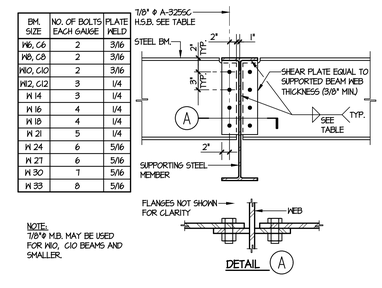



PLAN A

TYPICAL PREQUALIFIED "WUF-W" MOMENT FRAME CONNECTION 5
SCALE: NOT TO SCALE

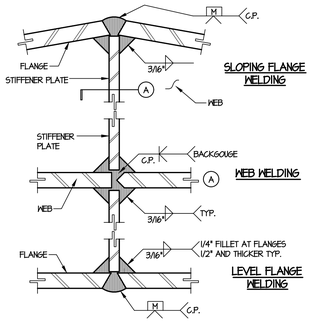
| BM. SIZE | NO. OF BOLTS EACH GAUGE | PLATE WELD |
|---|---|---|
| W6, C6 | 2 | 3/16 |
| W8, C8 | 2 | 3/16 |
| W10, C10 | 2 | 3/16 |
| W12, C12 | 3 | 1/4 |
| W 14 | 3 | 1/4 |
| W 16 | 4 | 1/4 |
| W 18 | 4 | 1/4 |
| W 21 | 5 | 1/4 |
| W 24 | 6 | 5/16 |
| W 27 | 6 | 5/16 |
| W 30 | 7 | 5/16 |
| W 33 | 8 | 5/16 |

NOTE: 7/8"ø M.B. MAY BE USED FOR W10, C10 BEAMS AND SMALLER.

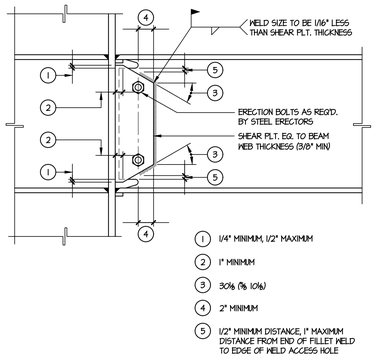



DETAIL A

TYPICAL BEAM TO BEAM CONNECTION DETAIL 1
SCALE: NOT TO SCALE

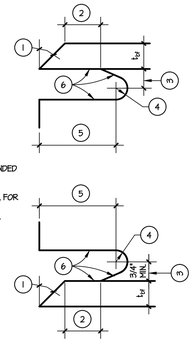



TYPICAL BENT BEAM WELDING 14
SCALE: NOT TO SCALE



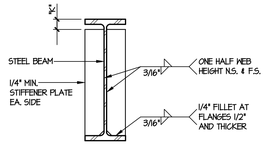

PREQUALIFIED "WUF-W" MOMENT FRAME SHEAR PLATE DETAIL 10
SCALE: NOT TO SCALE

1 BEVEL AS REQUIRED BY AWS D1.1 FOR SELECTED GROOVE WELD PROCEDURE
2 LARGER OF 1bf OR 1/2". (PLUS 1/2 1bf, OR MINUS 1/4 1bf)
3 3/4 1bf, 3/4" MIN. (± 1/4")
4 3/8" MIN. RADIUS (PLUS NOT LIMITED, OR MINUS 0)
5 3 1bf (± 1/2")
6 SEE FEMA-353 AND AWS D1.8-16, RECOMMENDED SPECIFICATIONS AND QUALITY ASSURANCE GUIDELINES FOR STEEL MOMENT-FRAME CONSTRUCTION FOR SEISMIC APPLICATIONS, FOR FABRICATION DETAILS INCLUDING CUTTING METHODS AND SMOOTHNESS REQUIREMENTS.




WELD ACCESS HOLE DETAIL 6
SCALE: NOT TO SCALE

NOTE:
STIFFENER 'E' IS FULL HT. WHERE ANY OF THE FOLLOWING CONDITIONS OCCUR:
- STRUCTURAL HANGERS (HT, TS, OR LJ U.N.O.
- COLUMN ABOVE WHERE SPECIFIED ON PLAN OR DETAIL.
- STIFF. PLATES AND TAPERED STEEL GIRDERS




TYPICAL STIFFENER PLATE DETAIL 2
SCALE: NOT TO SCALE

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
BRIAN K. DAVIS
No. S3130
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
MIZ426004.00
T: (833) 270-8648
miyamotointernational.com

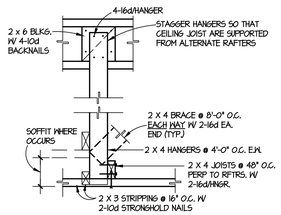
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

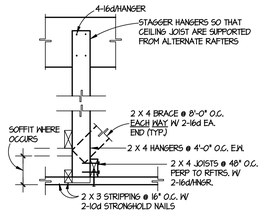
TYPICAL STEEL DETAILS

DRAWING NUMBER: S0.5

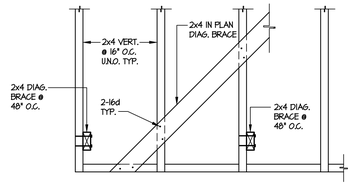
CM-07-01-2026

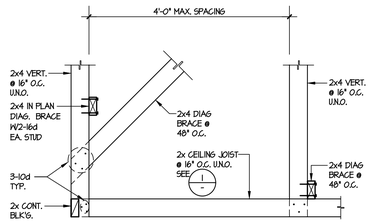



WOOD HANGER TO TJI



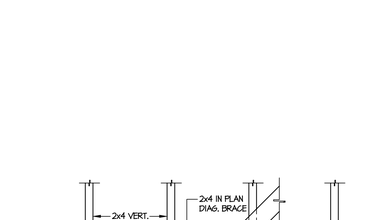

WOOD HANGER TO 2x RAFTERS







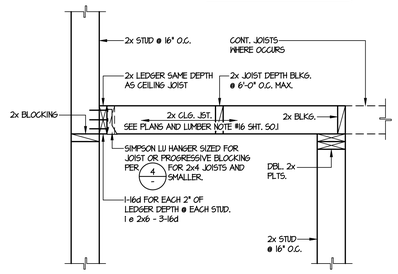






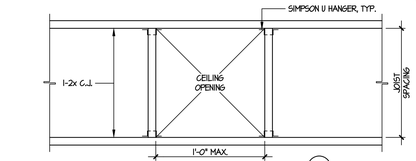
NOTE:
ALL 2x4 VERTICAL HANGERS SHALL BE ATTACHED TO ROOF ABOVE PER 3 11 12 15 16

TYPICAL SOFFIT FRAMING 8
SCALE: N.T.S.

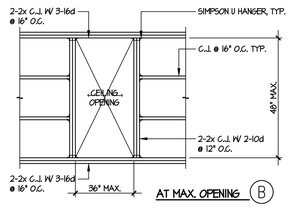



NOTE:
1. FOR CEILING JOIST AND FRAMING SEE SCHEDULE ON SHEET S0.1
2. FOR DIRECTION OF CEILING JOIST SPAN SEE PLAN

TYPICAL CEILING JOISTS FRAMING DETAIL 1
SCALE: N.T.S.

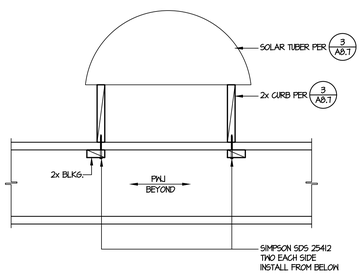



AT OPENING LESS OR EQUAL JOIST SPACING A

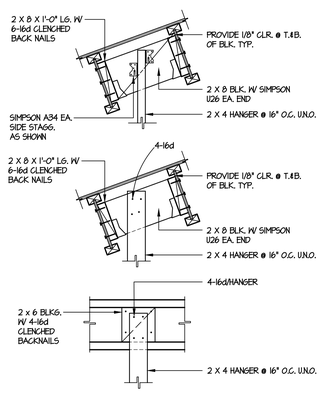



AT MAX. OPENING B

CEILING OPENING DETAIL 2
SCALE: N.T.S.

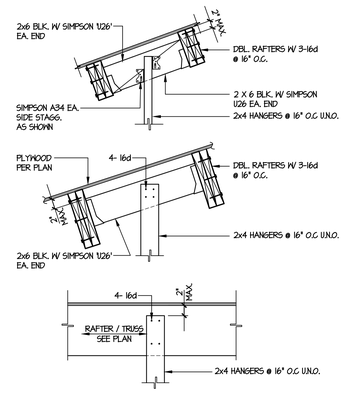



SKYLIGHT FRAMING 19
SCALE: N.T.S.



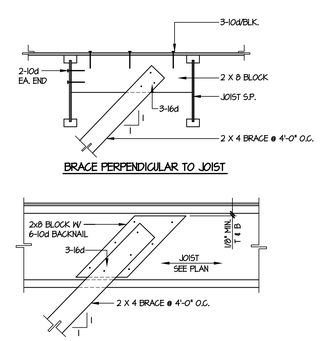

TYPICAL HANGER TO PWJ JOIST 15
SCALE: N.T.S.

TYPICAL SUSPENDED CEILING DETAIL @ PWJ FRAMING 14
SCALE: N.T.S.




TYPICAL HANGER TO WOOD JOIST 11
SCALE: N.T.S.

TYPICAL SUSPENDED CEILING DETAIL @ 2x FRAMING 10
SCALE: N.T.S.

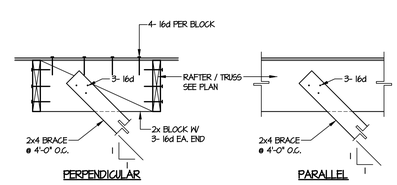



BRACE PERPENDICULAR TO JOIST

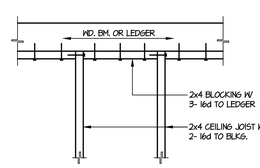



BRACE PARALLEL TO JOIST

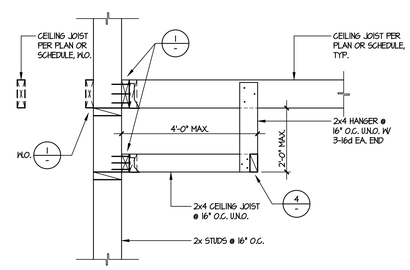
TYPICAL WALL BRACE TO PWJ DETAIL 16
SCALE: N.T.S.




TYPICAL WALL BRACE TO WOOD JOIST 12
SCALE: N.T.S.




TYPICAL PROGRESSIVE BLOCKING 4
SCALE: N.T.S.




SOFFIT FRAMING DETAIL 3
SCALE: N.T.S.

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Jack Wu Chan
No. 53350
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
MI24439004.00
T: (833) 270-8648
miyamotointernational.com

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

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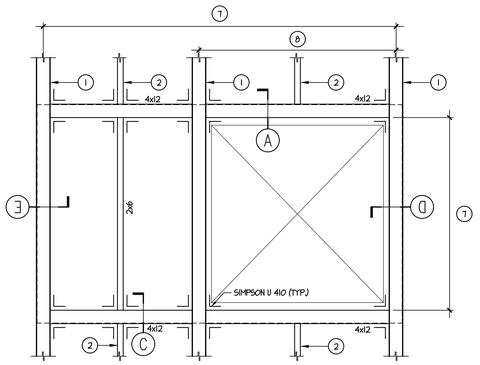
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

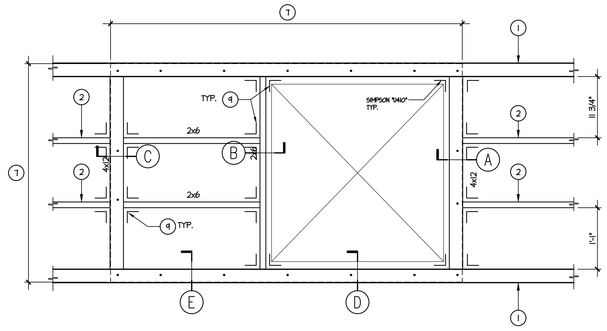
TYPICAL CEILING FRAMING DETAILS

DRAWING NUMBER: S0.6

CM-07-01-2026



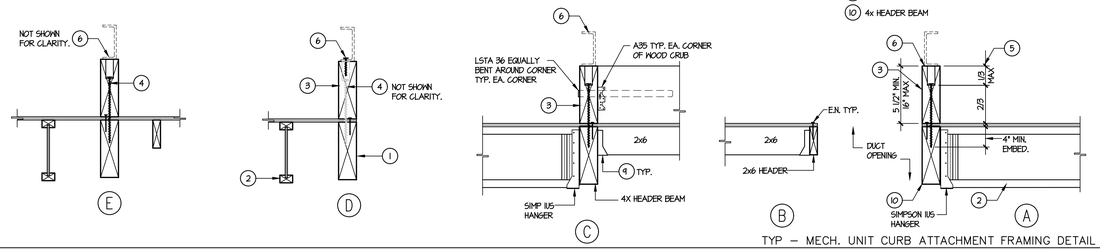

UNIT PERPENDICULAR WITH FRAMING



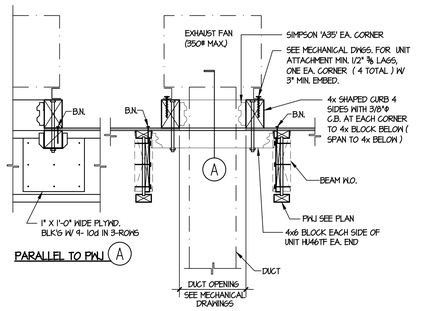

UNIT PARALLEL WITH FRAMING

| MECHANICAL UNIT ATTACHED | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| UNIT | WEIGHT (INCL CURBS) | ISOLATED UNIT Y/N | APPROX. UNIT SIZE | | (6) 1/2"ø LAGS MU CURB TO WOOD CURB | | (4) 1/2" ø LAGS SUPD CURB TO STRUCTURE | |
| | | | LENGTH | WIDTH | LONGSIDE | SHORTSIDE | LONGSIDE | SHORTSIDE |
| AC1 -AC3 | 1060 | YES | 75" | 47" | 5 LAGS 2" EMBED | 3 LAGS 2" EMBED | ONE EA CORNER | |

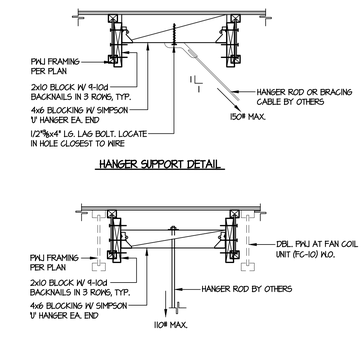
1. WOOD BEAM SEE PLAN.
2. ROOF JOIST SEE PLAN.
3. 4x CURB SHAPED TO LEVEL AS REQ'D AT SLOPING. USE 3 1/2" x RED.LAM AS REQ'D AT TALLER UNIT CURBS.
4. 1/2"ø LAGS x LENGTH REQ'D. MIN EMBEDMENT 4" INTO WOOD FRAMING BELOW. DAP INTO SHAPED CURB TO FACILITATE INSTALL.
5. MAXIMUM DAP LENGTH IS 1/3 THE CURB HEIGHT.
6. UNIT CURB ATTACHED W/ 1/2"ø X4" LAGS SPACED PER TABLE.
7. CONTRACTOR SHALL COORDINATE BEAM AND HEADER LAYOUT WITH THE UNIT CURB ANCHOR LOCATIONS.
8. CONTRACTOR COORDINATE INTERIOR BEAM LOCATION WITH DUCT CLEARANCES.
9. SIMPSON H126 HANGER
10. 4x HEADER BEAM

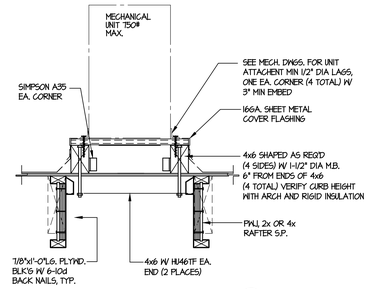


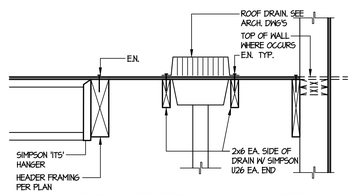

TYP – MECH. UNIT CURB ATTACHMENT FRAMING DETAIL (2)
SCALE: N.T.S.



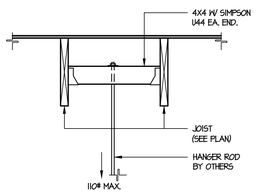

EXHAUST FAN FRAMING AT WOOD ROOF CONSTRUCTION (11)
SCALE: N.T.S.



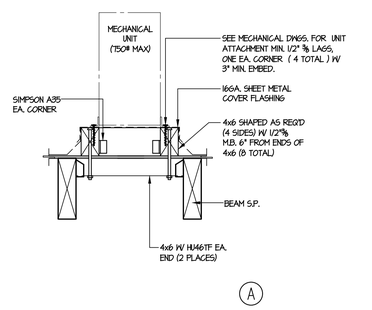




TYPICAL ROOF DRAIN FRAMING (12)
SCALE: N.T.S.




MECHANICAL UNIT HANGER SUPPORT DETAILS (8)
SCALE: N.T.S.




TYPICAL CONDENSING UNIT PLATFORM (4)
SCALE: N.T.S.

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8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
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800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Alex Wai Bun
No. 53350
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24268004.00
T: (833) 270-8648
miyamotointernational.com

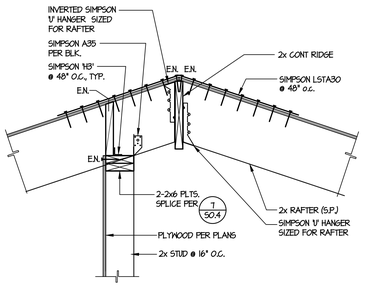
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

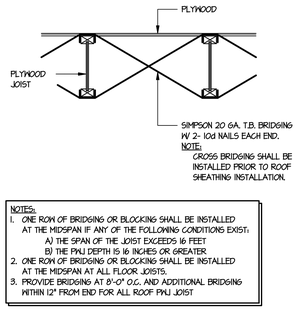
MECHANICAL ANCHORAGE DETAILS

DRAWING NUMBER: S0.7

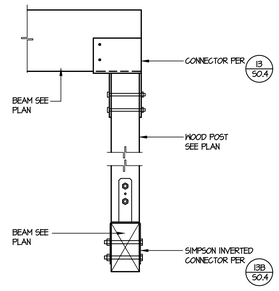
CM-07-01-2026



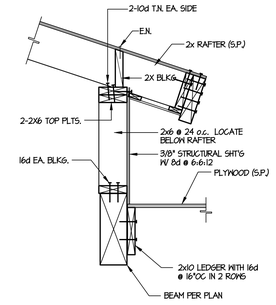

RIDGE SHEAR TRANSFER DETAIL 17
SCALE: N.T.S.



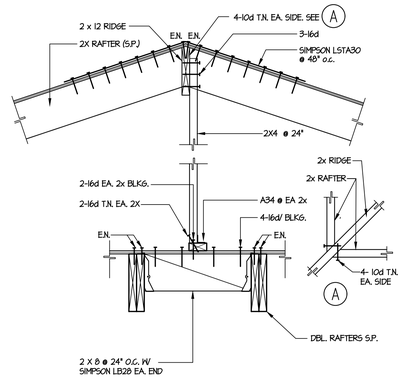

TYPICAL PWJ CROSS BRIDGING 13
SCALE: N.T.S.



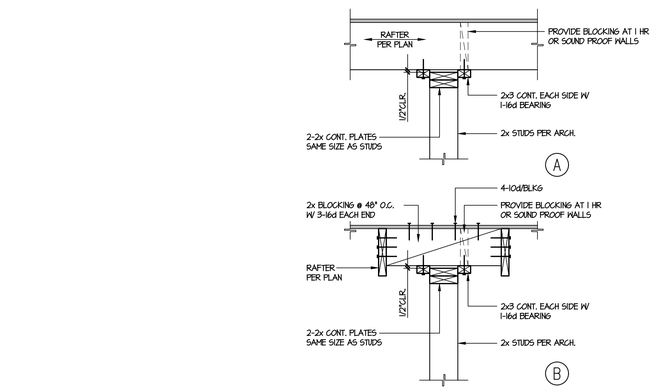

TYP. KING POST TO BEAM 9
SCALE: N.T.S.



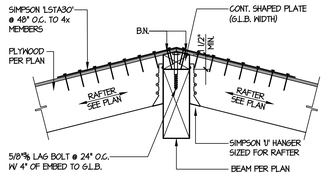

CALIFORNIA CRIPPLE WALL FRAMING DETAIL 5
SCALE: N.T.S.



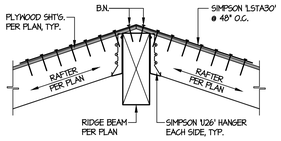

CALIFORNIA RIDGE FRAMING DETAIL 1
SCALE: N.T.S.




TYPICAL NON-BEARING WALL TO RAFTERS 14
SCALE: N.T.S.

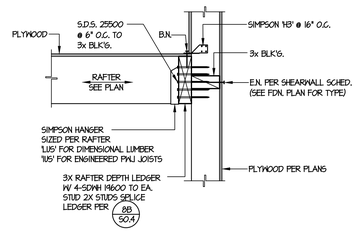



RAFTER TO RIDGE BEAM A

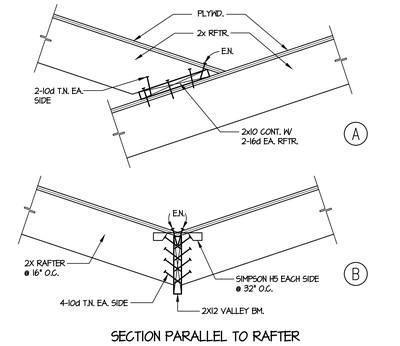



RAFTER TO RIDGE BEAM B

TYPICAL RAFTER TO BEAM 10
SCALE: N.T.S.

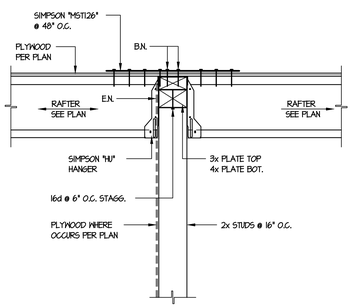



LEDGER TO STUD WALL DETAIL 6
SCALE: N.T.S.

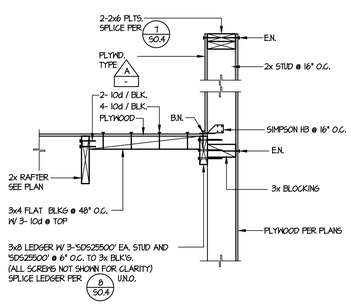



SECTION PARALLEL TO RAFTER

TYPICAL CALIFORNIA FRAMING DETAIL 2
SCALE: N.T.S.

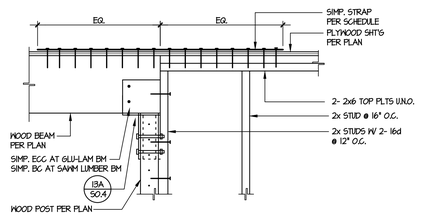



RAFTER PERPENDICULAR TO WALL 19
SCALE: N.T.S.

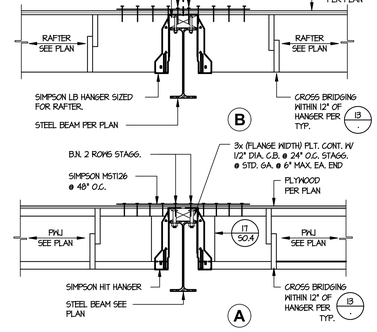



LEDGER TO STUD WALL DETAIL 15
SCALE: N.T.S.

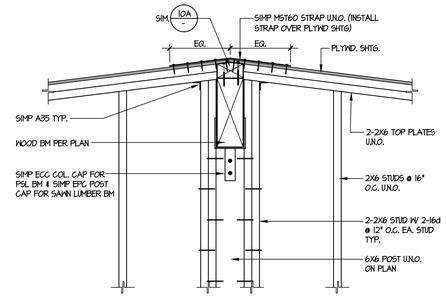
| | SIMPSON STRAP | ALLOWABLE TENSION |
|---|---|---|
| A | SIMP. ST6236 STRAP | 3016# |
| B | SIMP. MST48 STRAP | 4248# |
| C | SIMP. MST60 STRAP | 5384# |
| D | 2- SIMP. MST60 STRAP (SIDE BY SIDE) | 10768# |



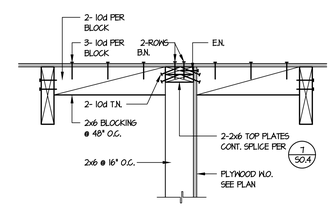

STRUT BEAM TO WALL 11
SCALE: N.T.S.



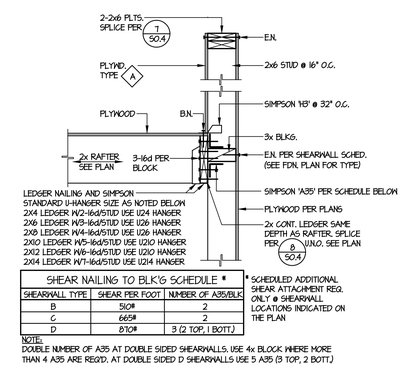

LEDGER TO STUD WALL DETAIL 6
SCALE: N.T.S.




TOP PLATES AT BEAM 3
SCALE: N.T.S.




RAFTER PARALLEL TO WALL 20
SCALE: N.T.S.

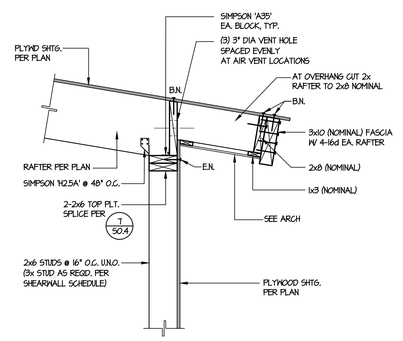



| SHEAR NAILING TO BLK'G SCHEDULE * | | |
|---|---|---|
| SHEARWALL TYPE | SHEAR PER FOOT | NUMBER OF A35/BLK |
| B | 510# | 2 |
| C | 665# | 2 |
| D | 810# | 3 (2 TOP, 1 BOTT.) |

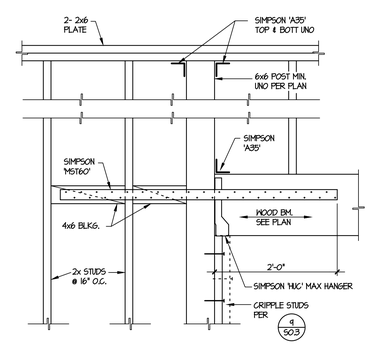
* SCHEDULED ADDITIONAL SHEAR ATTACHMENT REQ. ONLY @ SHEARWALL LOCATIONS INDICATED ON THE PLAN

NOTE:
DOUBLE NUMBER OF A35 AT DOUBLE SIDED SHEARWALLS. USE 4x BLOCK WHERE MORE THAN 4 A35 ARE REQ'D. AT DOUBLE SIDED D SHEARWALLS USE 5 A35 (3 TOP, 2 BOTT.)

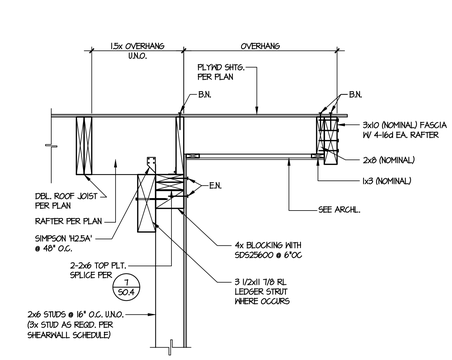
LEDGER TO STUD WALL DETAIL 16
SCALE: N.T.S.




TYPICAL EXTERIOR WALL 12
SCALE: N.T.S.




WOOD BEAM TO POST AT WALL CONNECTION 7
SCALE: N.T.S.




TYPICAL EXTERIOR WALL 4
SCALE: N.T.S.

PBK

SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
PAUL D. SCHAD
No. S5250
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24280004.00
T: (833) 270-8648
miyamotointernational.com

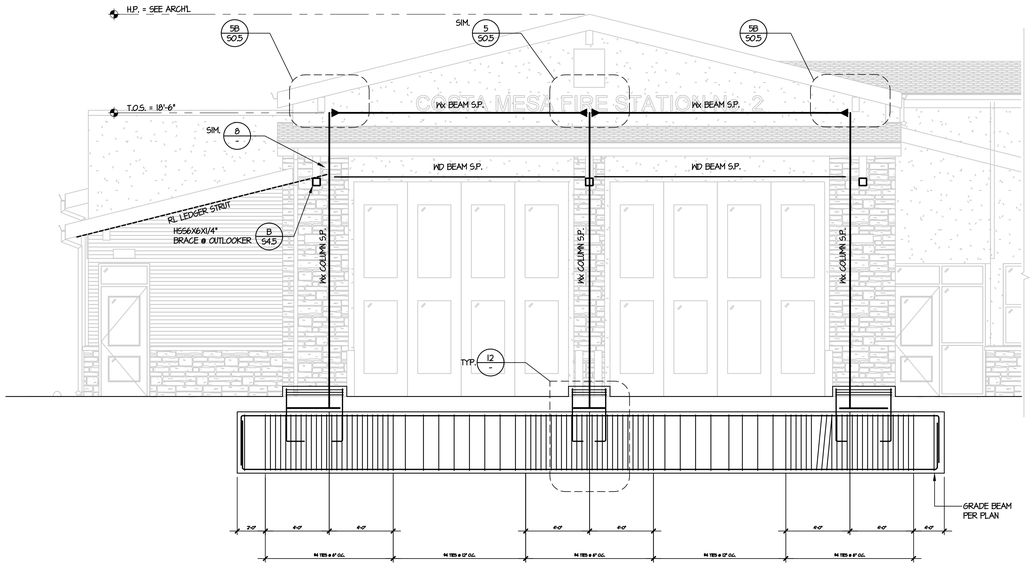
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

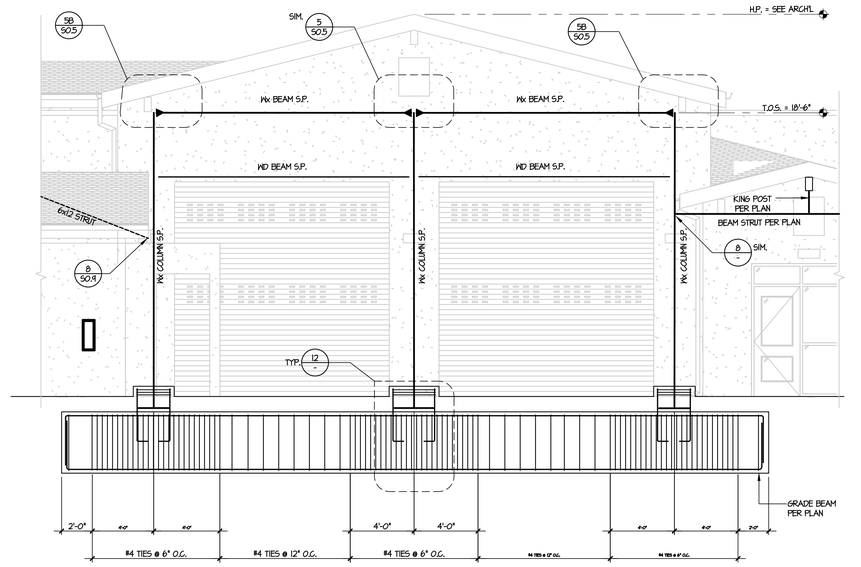
ROOF DETAILS

DRAWING NUMBER: S0.8

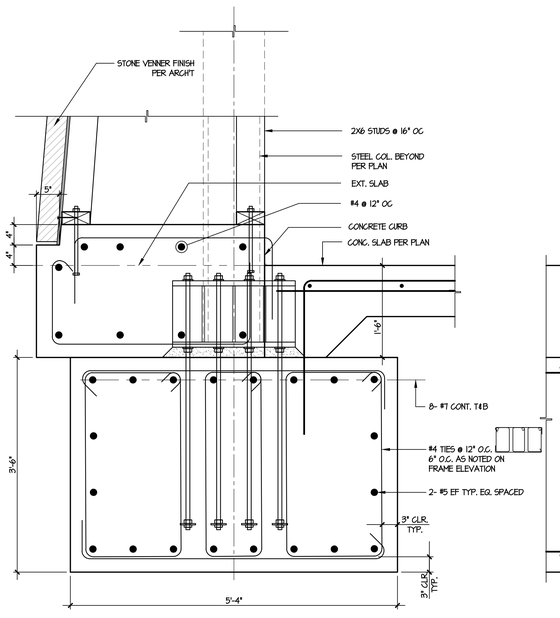
CM-07-01-2026



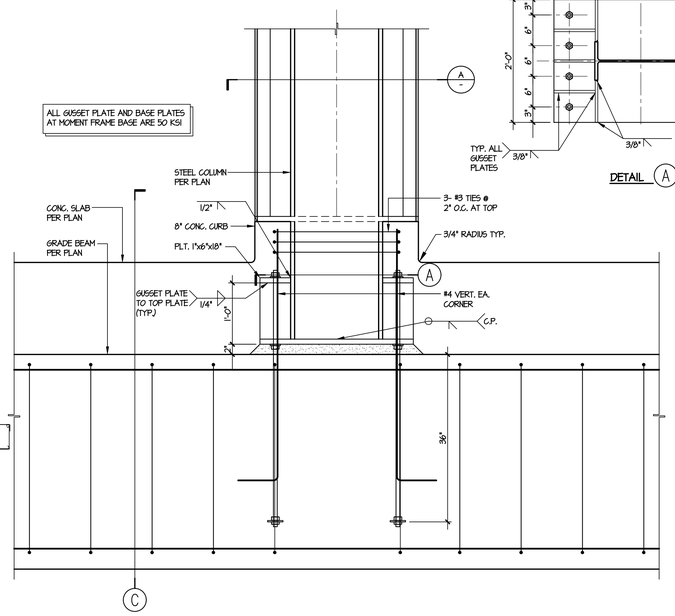

MOMENT FRAME ELEVATION AT APPARATUS BAY GRID D AND E (10)
SCALE: 1/4"=1'-0"

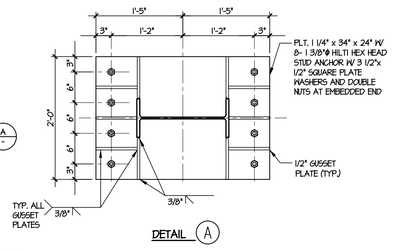



MOMENT FRAME ELEVATION AT APPARATUS BAY GRID F (2)
SCALE: 1/4"=1'-0"

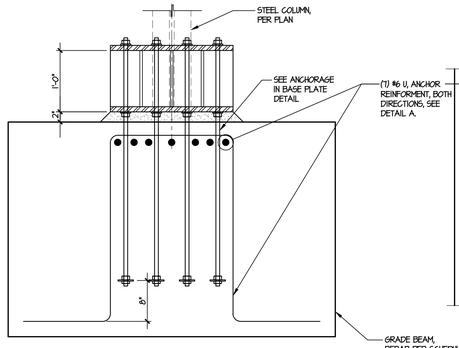


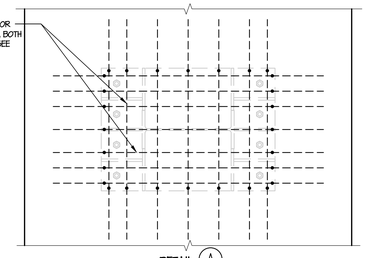

SECTION (C)



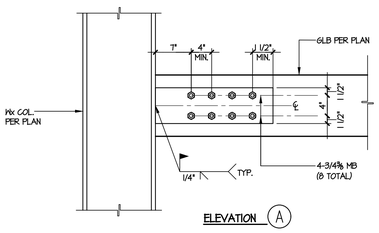

DETAIL (A)



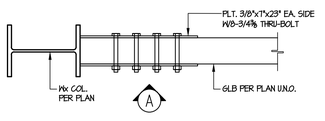



DETAIL (A)

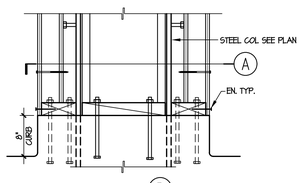
ANCHORAGE REINFORCEMENT
SCALE: 1" = 1'-0" (1)



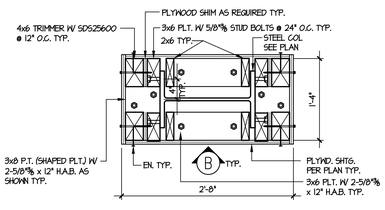

ELEVATION (A)




PLAN VIEW




ELEVATION (B)




PLAN (A)

COLUMN TO PAD FOOTING AT GRADE BEAM (12)
SCALE: 1" = 1'-0"

DRAG CONNECTION AT APPARATUS BAY (8)
SCALE: 1" = 1'-0"

DETAIL (4)
SCALE: 1" = 1'-0"

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Rick Wz Boyd
No. 53050
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24169004.00
T: (833) 270-8648
miyamotointernational.com

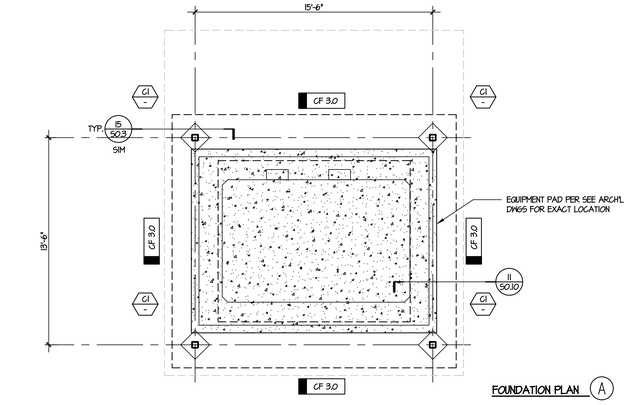
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

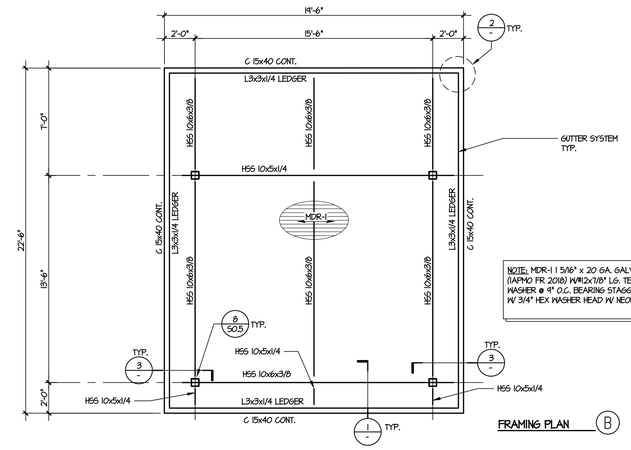
ELEVATIONS AND DETAILS

DRAWING NUMBER: S0.9

CM-07-01-2026



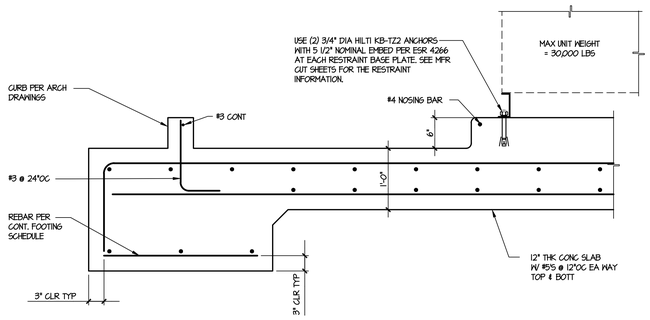

FOUNDATION PLAN A



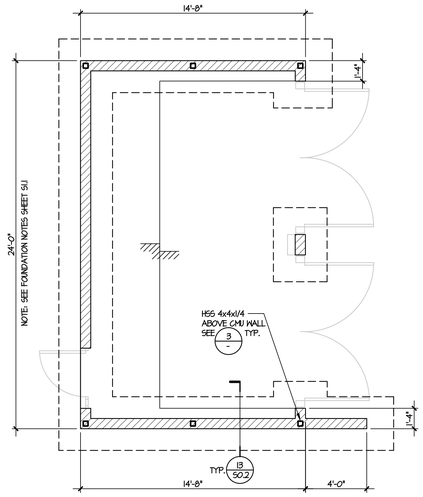

FRAMING PLAN B

NOTE: MDR-1 | 5/16" x 20 GA. GALVANIZED DEEP VERCOR ROOF DECK BY VERCO (IAPMO FR 2018) W/#12x7/8" L.G. TEKS W/ 3/4" HEX WASHER HEAD W/ NEOPRENE WASHER @ 4" O.C. BEARING STAGGER, ATTACH SIDE LAPS W/#12x3/4" L.G. TEKS W/ 3/4" HEX WASHER HEAD W/ NEOPRENE WASHERS @24" O.C. FOR PROFILE SEE 4 S0.10

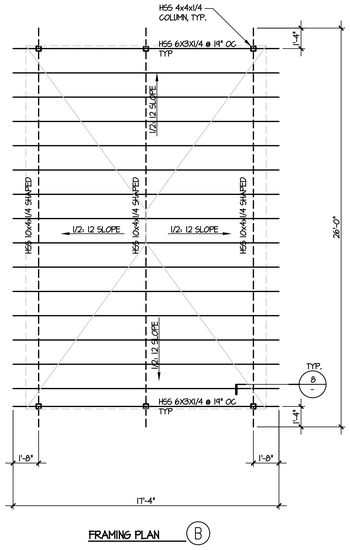
FUEL TANK PLAN 10
SCALE: 1/4" = 1'-0"




FUEL TANK FOUNDATION DETAIL 11
SCALE: N.T.S.

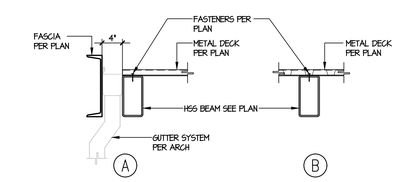



FOUNDATION PLAN A

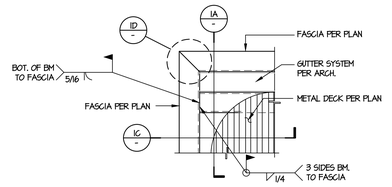



FRAMING PLAN B

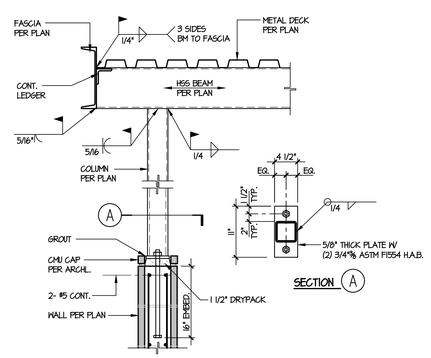
TRASH ENCLOSURE PLAN 7
SCALE: 1/4" = 1'-0"



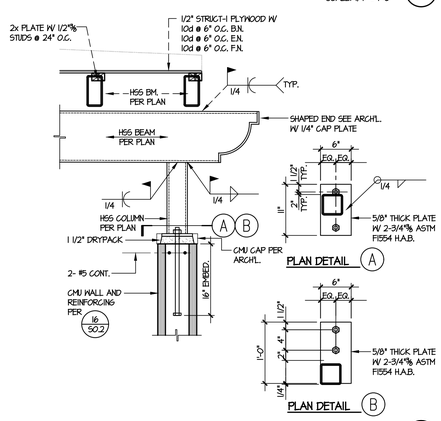

METAL DECK ROOF SECTIONS 1
SCALE: N.T.S.




METAL DECK ROOF SECTIONS 2
SCALE: N.T.S.

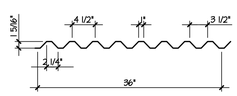



METAL DECK ROOF COLUMN DETAIL 3
SCALE: N.T.S.




DETAIL 8
SCALE: N.T.S.

| VERCO DECKING, INC. (IAPMO 2018) | | | | |
|---|---|---|---|---|
| VERCO SECTION PROPERTIES | | | | |
| GA. | WT. (LBS/FT$^2$) | +I (IN$^4$/FT) | +S (IN$^3$/FT) | -S (IN$^3$/FT) |
| 26 | 1.1 | .074 | .099 | .103 |
| 24 | 1.4 | .098 | .137 | .138 |
| 22 | 1.7 | .120 | .172 | .171 |
| 20 | 2.1 | .143 | .204 | .204 |




DEEP VERCOR DECK PROFILE 4
SCALE: N.T.S.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ERIC SEDO
No. S5150
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
MI24280004.00
T: (833) 270-8648
miyamotointernational.com

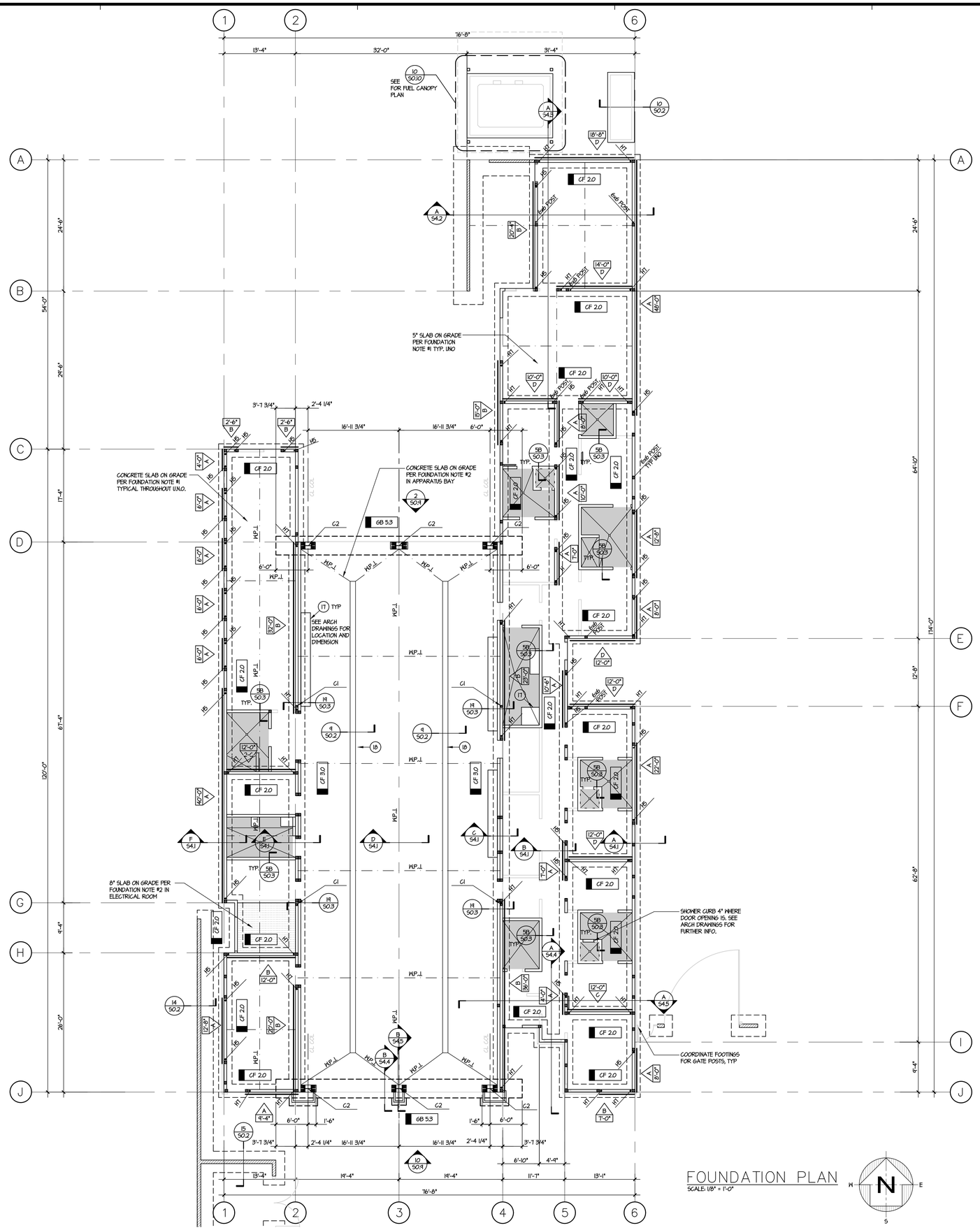
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

MISC DETAILS

DRAWING NUMBER: S0.10

CM-07-01-2026




## FOUNDATION PLAN

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

## FOUNDATION PLAN NOTES

1. 5" THK. CONC. SLAB W/ #4 @ 18" O.C. E.W. @ MID. SLAB OVER 15 MIL. VAPOR BARRIER OVER 2" CLEAN SAND OVER 4" AGGREGATE BASE PER SPECIFICATIONS AND DETAILS.
2. 8" THK. CONC. SLAB W/ #5 @ 18" O.C. E.W. @ MID. SLAB OVER 15 MIL. VAPOR BARRIER OVER 2" CLEAN SAND OVER 6" TO 8" CLASS 2 AGGREGATE BASE PER SPECIFICATIONS AND DETAILS.
3. NOT USED
4. ALL EXTERIOR WALLS AND PARAPETS WHICH ARE NOT ALREADY INDICATED AS SHEAR WALLS SHALL RECEIVE PLYWOOD AND NAILING PER SHEAR WALL TYPE 'A'
   - A — DENOTES SHEARWALL TYPE SEE 1/S04
   - - — DENOTES MIN. SHEARWALL LENGTH.

   (NOTE: PLYMD. SHALL EXTEND FULL LENGTH OF WALL AT INTERIOR SHEAR WALLS AS REQ'D FOR FLUSH FINISH)
5. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. NOTIFY SEOR OF ANY VARIATIONS FROM THE STRUCTURAL PLANS.
6. TYPICAL FOUNDATION FORMING DETAILS PER 1/S02
7. STEP FOOTINGS PER TYPICAL STEP FOOTING DETAIL 2/S02
8. FRAMING AT OPENINGS PER TYP. STUD WALL FRAMING DETAIL 2/S04
9. H(9) — DENOTES HOLD DOWN AND HOLD DOWN SIZE. FOR TYPICAL HOLD DOWN DETAIL SEE 8/S03. WIDEN FOOTING AS REQD. BY 8/S03 IN THE VICINITY OF H.D. BOLTS
10. STEP FOOTINGS AT PLUMBING LINES PER 2/S03
11. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE
12. PRIOR TO REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOIL ENGINEER SHALL INSPECT AND APPROVE THE FOUNDATION EXCAVATIONS.
13. HOLD DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
14. →→→→→ DENOTES 3/4" RADIUS AT EDGE OF SLAB AT APPARATUS BAY CONC. CURB
15. VERIFY ALL CURB HEIGHTS WITH ARCHITECTURAL DRAWINGS.
16. SHADED AREA INDICATES EXTENTS OF SLAB DEPRESSION PER PLAN, VERIFY WITH ARCH'L. DRAWINGS.
17. 4" HIGH CONC. MECH. HOUSEKEEPING PAD, SEE 11/S03
18. PROVIDE 8" MIN. SLAB COVERAGE AROUND FLOOR DRAIN, SEE 9/S02
19. INDICATES 8" THK CMU WALL, PER 14/S02 OR 15/S02

## CONTINUOUS FOOTING SCHEDULE

| MARK | WIDTH | REINFORCEMENT | MIN. DEPTH |
|---|---|---|---|
| CF2.0 | 2'-0" | 2- #5 TOP & BOTTOM | 2'-0" |
| CF3.0 | 3'-0" | 3- #5 TOP & BOTTOM | 2'-0" |

## COLUMN SCHEDULE

| MARK | COLUMN SIZE | BASE PLT. | WELD SIZE | SIZE & NO. OF A.B. U.N.O. |
|---|---|---|---|---|
| C1 | HSS 6x6x3/8 | 3/4" THICK | 1/4" | 4- 3/4"ø x12" LONG |
| C2 | W18x50 | | | |

## GRADE BEAM SCHEDULE

| MARK | WIDTH X DEPTH | REINFORCEMENT |
|---|---|---|
| GB 5.3 | 5'-4" WIDE x 3'-6" DEEP | 8- #7 TOP & BOTTOM W/ #4 TIES @ 12" O.C. |

## PAD FOOTING SCHEDULE

| MARK | SIZE | REINFORCEMENT |
|---|---|---|
| F3 | 3'-0"x3'-0"x2'-0" | 6- #5 EW BOTTOM |

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8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER — PAUL R. DAVIS — No. S5120 — STRUCTURAL — STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
MI24280004.00
T: (833) 270-8648
miyamotointernational.com

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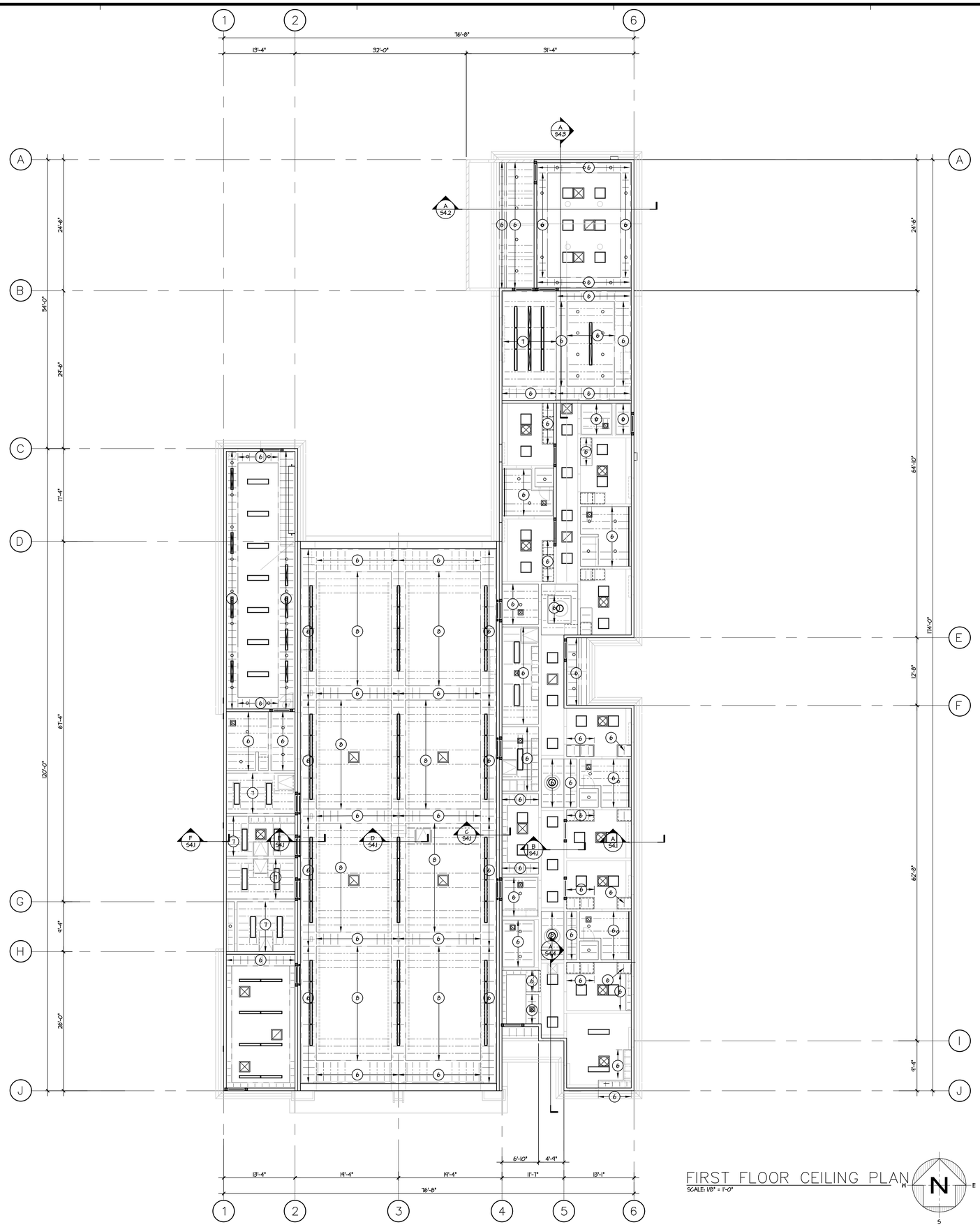
| DRAWN: DM | CHECKED: DR |
| DATE: 6/3/2025 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

FOUNDATION PLAN

DRAWING NUMBER: S1.1

CM-07-01-2026




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

## CEILING FRAMING PLAN NOTES

1. SEE 3/S0.6 AND 9/S0.6 FOR TYPICAL SOFFIT FRAMING.
2. SEE 1/S0.6 FOR TYPICAL CEILING JOIST FRAMING DETAIL.
3. SEE 2/S0.6 FOR TYPICAL CEILING OPENINGS DETAIL.
4. SEE 10/S0.6 AND 14/S0.6 FOR TYPICAL SUSPENDED CEILING DETAIL.
5. SEE ARCH. DWGS. FOR ADDITIONAL INFO.
6. 2x4 @ 16" O.C.
7. 2x6 @ 16" O.C.
8. 2x8 @ 16" O.C.

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
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COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Rick W. Byrd
No. S3150
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA, 91762
MD4289004.00
T: (833) 270-8648
miyamotointernational.com

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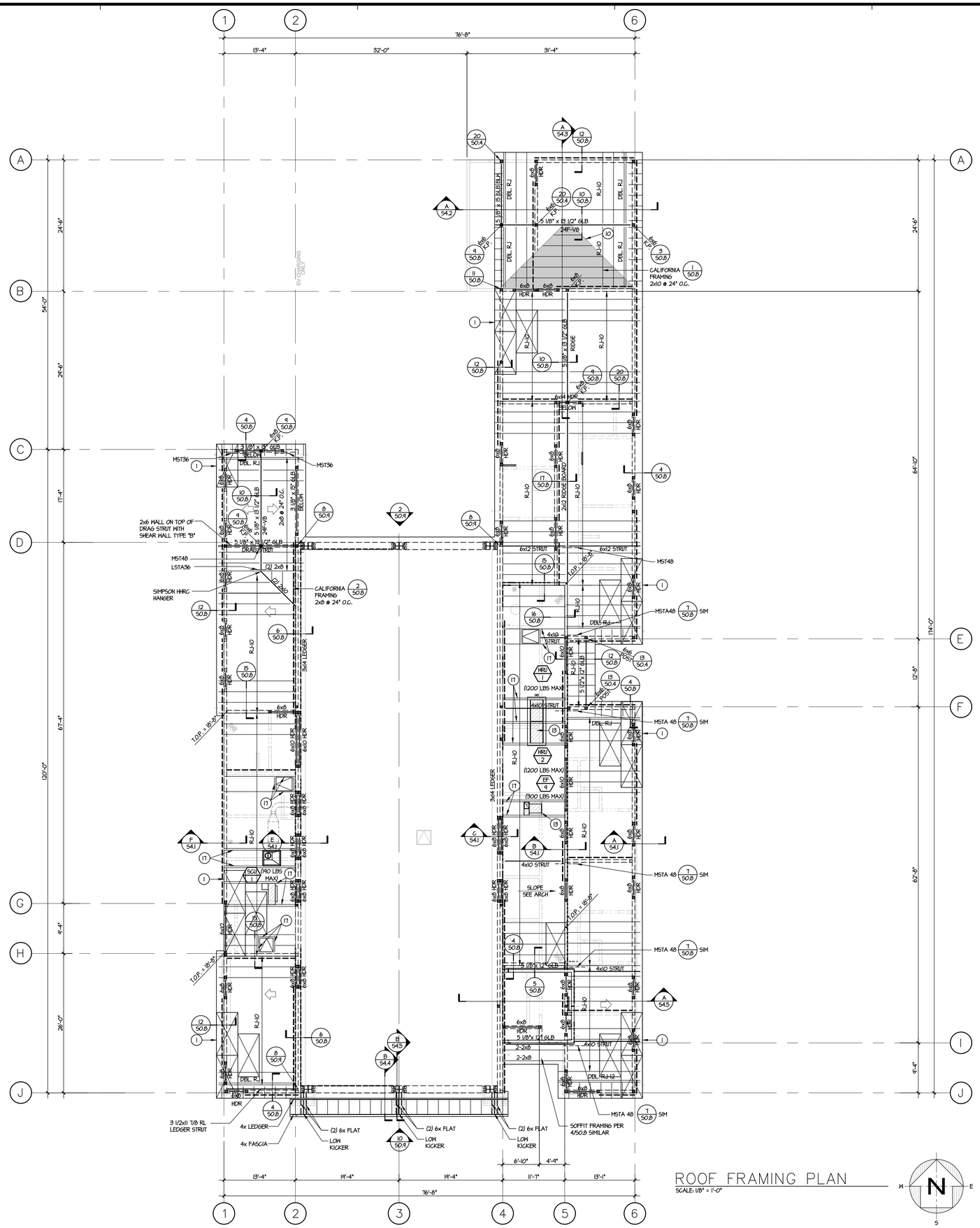
| PROJECT NUMBER: 2109300 | |

FIRST FLOOR CEILING PLAN

DRAWING NUMBER: S2.1

CM-07-01-2026




## ROOF FRAMING NOTES

1. 5/8" STRUCT. I-PLYWOOD W/ 10d @ 4" O.C. B.N. 10d @ 6" O.C. E.N. 10d @ 12" O.C. F.N. BLOCK ALL EDGES TYP. SEE 3/S0.4
2. FOR ALL HEADER SIZES NOT IDENTIFIED SEE LUMBER NOTE 15 ON SHEET S0.1
3. ALL EXTERIOR WALLS AND PARAPETS WHICH ARE NOT ALREADY INDICATED AS SHEAR WALLS SHALL RECEIVE PLYWOOD AND NAILING PER SHEAR WALL TYPE 'A'
   - DENOTES SHEARWALL TYPE SEE 1/S0.4
   - DENOTES MIN. SHEARWALL LENGTH.

   (NOTE: PLYWD. SHALL EXTEND FULL LENGTH OF WALL AT INTERIOR SHEAR WALLS AS REQ'D FOR FLUSH FINISH)
4. NO CUTTING OR NOTCHING OF PWJ FLANGES IS PERMITTED.
5. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS NOTIFY SEOR OF ANY VARIATIONS FROM THE STRUCTURAL PLANS.
6. FRAMING AT OPENINGS PER TYP. STUD WALL FRAMING DETAIL 2/S0.4
7. ALL LEDGERS SHALL BE SPLICED PER 8A/S0.4 U.N.O.
8. TOP PLATE SHALL BE SPLICED PER 1/S0.4 U.N.O.
9. SKYLIGHT FRAMING PER DETAIL 14/S0.8
10. SHADED AREA INDICATES EXTENTS OF CALIFORNIA FRAMING PER __/____, VERIFY WITH ARCH'L DRAWINGS
11. ALL MEMBERS DESIGNATED AS "STRUT" SHALL RECEIVE 2 ROWS OF BOUNDARY NAILING (B.N.) STAGGERED.
12. THE FRAMING IN THE VICINITY OF THE MECHANICAL UNITS WAS DESIGNED FOR THE UNIT SIZE AND WEIGHT AS SHOWN ON THE MECHANICAL DRAWINGS. ANY COSTS INCURRED FROM ANY SUBSTITUTION MADE BY THE CONTRACTOR WHICH REQUIRES RE-DESIGN OR MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY WISH TO INQUIRE AS TO THE PROBABLE EXTENT OF THESE COSTS PRIOR TO INTRODUCING A SUBSTITUTION.
13. FOR MECHANICAL UNIT FRAMING AND DETAILS, REFER TO THE FOLLOWING DETAILS, CONDENSING UNIT 4/S0.1 EXHAUST FAN 11/S0.1
14. ALL LEDGER SHALL BE SPLICED PER TB/S0.3 U.N.O.
15. NOT USED
16. SIMPSON 'CMST12'
17. DENOTES 3 1/2"x 11 7/8" REDLAM LVL

## ROOF JOIST SCHEDULE

| MARK | DESCRIPTION | NOTES |
|---|---|---|
| RJ-H10 | 2x10 No 1, SAWN LUMBER @ 24" O.C. U.N.O. ON PLAN | |
| RJ-H12 | 2x12 No 1, SAWN LUMBER @ 24" O.C. U.N.O. ON PLAN | |
| RJ-I4 | 14" RED-I65 @ 24"OC U.N.O. ON PLAN | FOR ADDITIONAL JOIST INFO. SEE (PWJ) NOTES ON SHEET S0.1 |

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
DAVID R. REED
No. 53000
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24428004.00
T: (833) 270-8646
miyamotointernational.com

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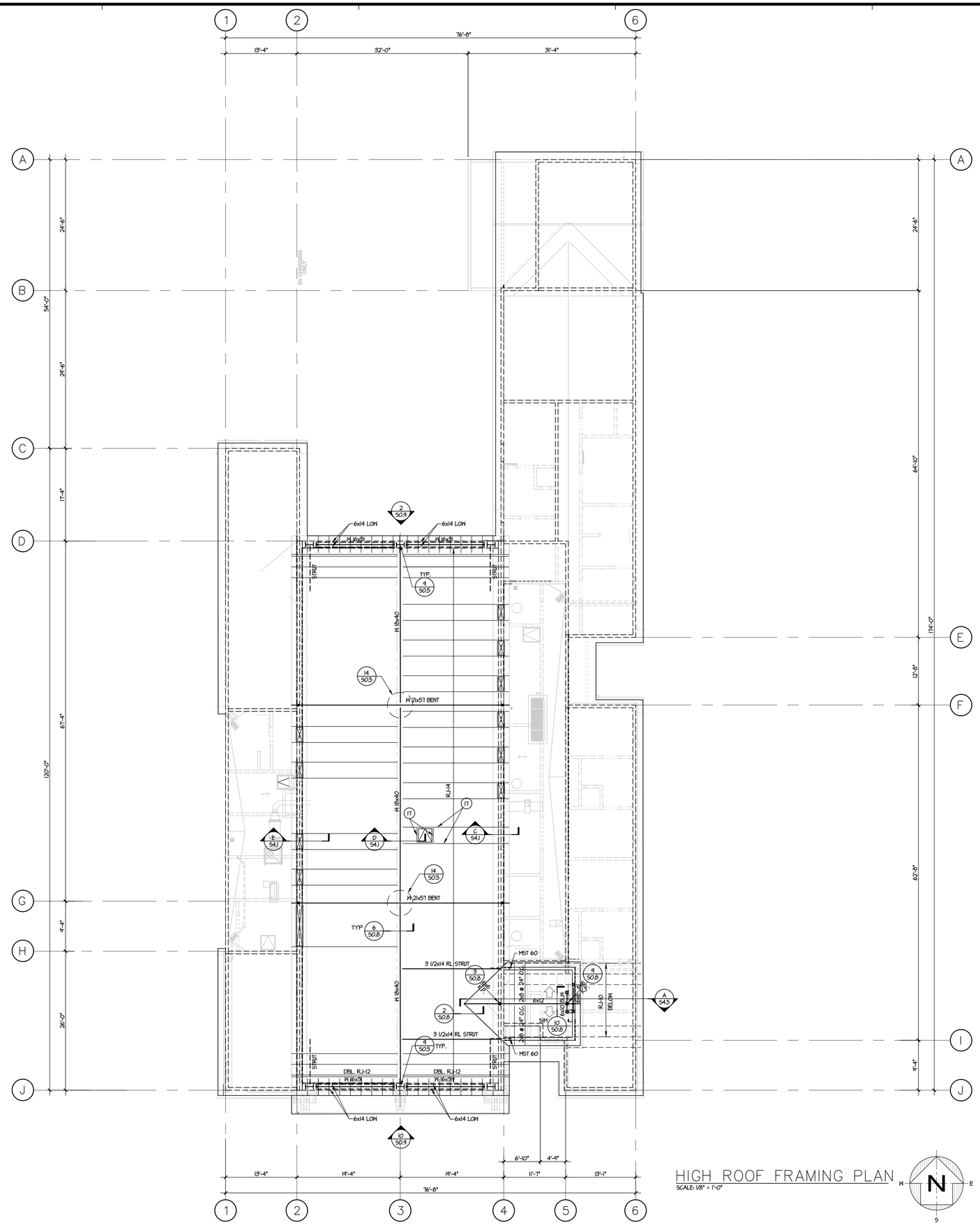
ROOF FRAMING PLAN

DRAWING NUMBER: S3.1

CM-07-01-2026




HIGH ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

## ROOF FRAMING NOTES

1. 5/8" STRUCT. I-PLYWOOD W/ 10d @ 4" O.C. B.N. 10d @ 6" O.C. E.N. 10d @ 12" O.C. F.N. BLOCK ALL EDGES TYP. SEE 3/S0.4
2. FOR ALL HEADER SIZES NOT IDENTIFIED SEE LUMBER NOTE 15 ON SHEET S0.1
3. ALL EXTERIOR WALLS AND PARAPETS WHICH ARE NOT ALREADY INDICATED AS SHEAR WALLS SHALL RECEIVE PLYWOOD AND NAILING PER SHEAR WALL TYPE 'A'
   - DENOTES SHEARWALL TYPE SEE 1/S0.4
   - DENOTES MIN. SHEARWALL LENGTH.

   (NOTE: PLYMD. SHALL EXTEND FULL LENGTH OF WALL AT INTERIOR SHEAR WALLS AS REQ'D FOR FLUSH FINISH)
4. NO CUTTING OR NOTCHING OF PWJ FLANGES IS PERMITTED.
5. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS NOTIFY SEOR OF ANY VARIATIONS FROM THE STRUCTURAL PLANS.
6. FRAMING AT OPENINGS PER TYP. STUD WALL FRAMING DETAIL 2/S0.4
7. ALL LEDGERS SHALL BE SPLICED PER 8A/S0.4 U.N.O.
8. TOP PLATE SHALL BE SPLICED PER 7/S0.4 U.N.O. 6/S0.4
9. SKYLIGHT FRAMING PER DETAIL 14/S0.6
10. SHADED AREA INDICATES EXTENTS OF CALIFORNIA FRAMING PER __/____, VERIFY WITH ARCH'L DRAWINGS
11. ALL MEMBERS DESIGNATED AS "STRUT" SHALL RECEIVE 2 ROWS OF BOUNDARY NAILING (B.N.) STAGGERED.
12. THE FRAMING IN THE VICINITY OF THE MECHANICAL UNITS WAS DESIGNED FOR THE UNIT SIZE AND WEIGHT AS SHOWN ON THE MECHANICAL DRAWINGS. ANY COSTS INCURRED FROM ANY SUBSTITUTION MADE BY THE CONTRACTOR WHICH REQUIRES RE-DESIGN OR MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY WISH TO INQUIRE AS TO THE PROBABLE EXTENT OF THESE COSTS PRIOR TO INTRODUCING A SUBSTITUTION.
13. FOR MECHANICAL UNIT FRAMING AND DETAILS, REFER TO THE FOLLOWING DETAILS, CONDENSING UNIT 4/S0.1 EXHAUST FAN 11/S0.1
14. ALL LEDGER SHALL BE SPLICED PER 8B/S0.4 U.N.O.
15. NOT USED
16. SIMPSON 'CMST12'
17. DENOTES 3 1/2"x 11 7/8" REDLAM LVL.

## ROOF JOIST SCHEDULE

| MARK | DESCRIPTION | NOTES |
|---|---|---|
| RJ-10 | 2x10 No 1, SAWN LUMBER @ 24" O.C. U.N.O. ON PLAN | |
| RJ-12 | 2x12 No 1, SAWN LUMBER @ 24" O.C. U.N.O. ON PLAN | |
| RJ-14 | 14" RED-165 @ 24"OC U.N.O. ON PLAN | FOR ADDITIONAL JOIST INFO. SEE (PWJ) NOTES ON SHEET S0.1 |

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

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COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Jack Kai Dong
No. 33000
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24128004.00
T: (833) 270-8646
miyamotointernational.com

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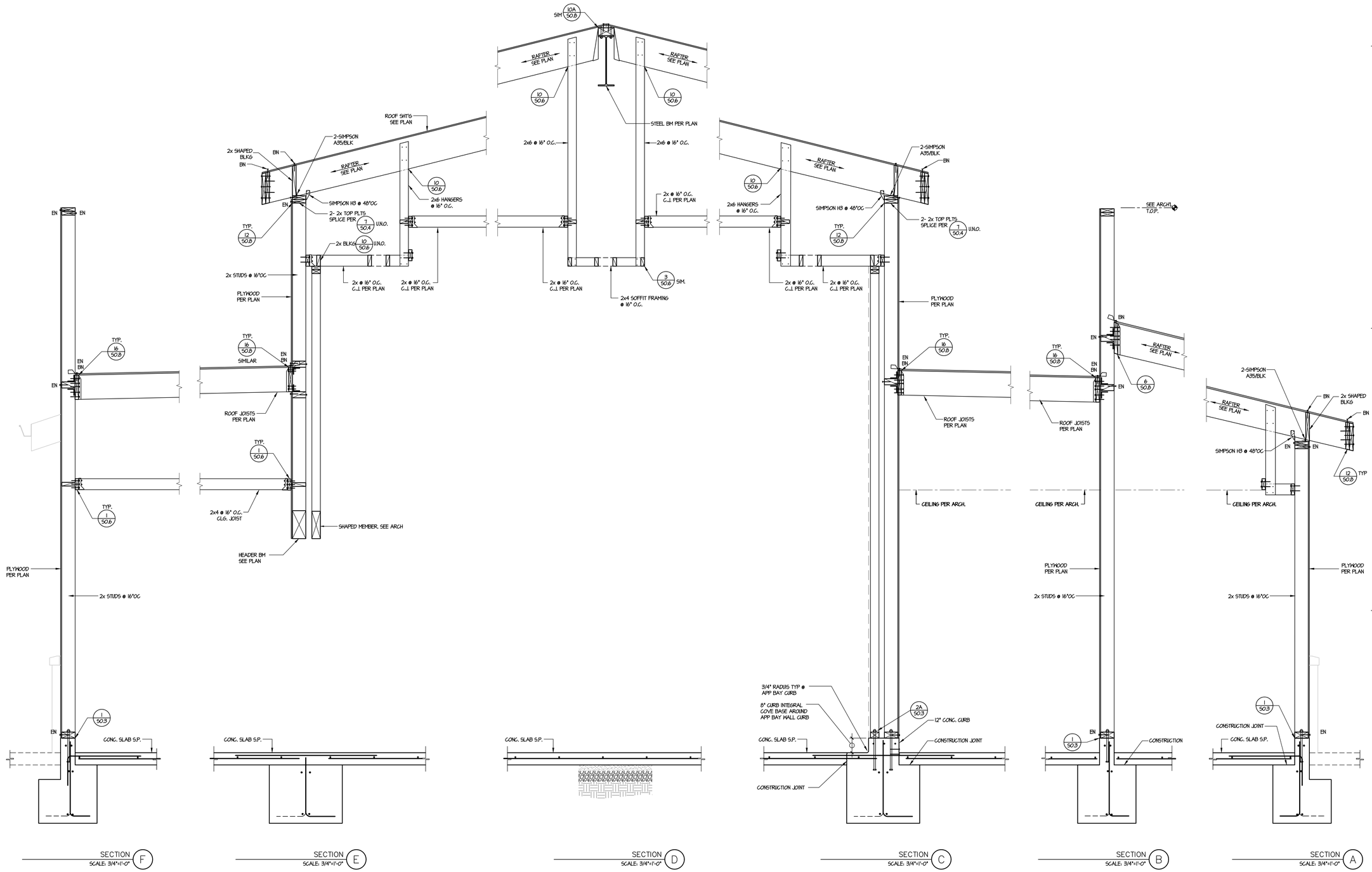
| PROJECT NUMBER: 2109300 | |

HIGH ROOF FRAMING PLAN

DRAWING NUMBER: S3.2

CM-07-01-2026

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TEL: 909-987-0909
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COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Rick W. Boyd
No. S3150
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24289004.00
T: (833) 270-6648
miyamotointernational.com

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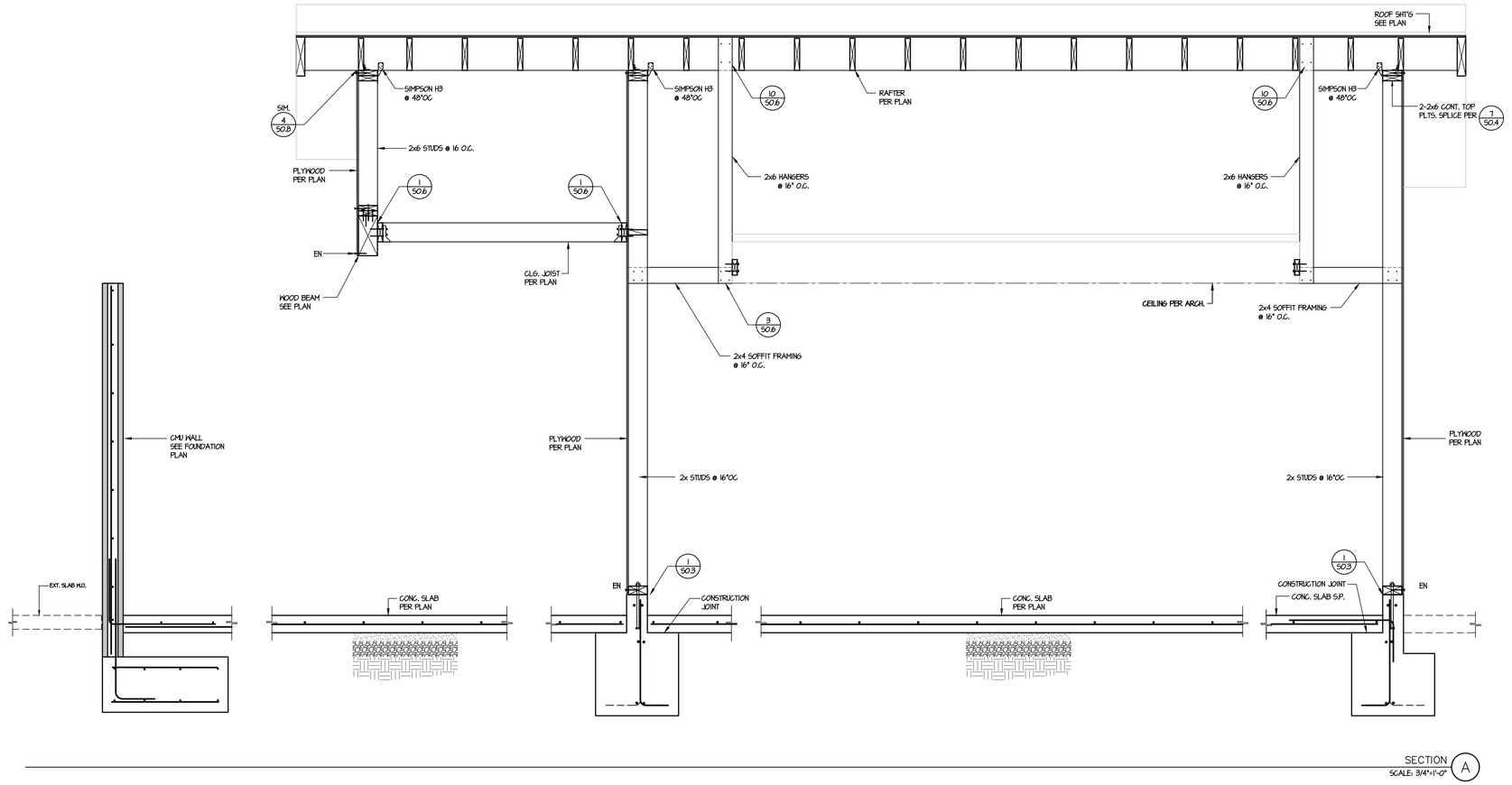
| PROJECT NUMBER: 2109300 | |

WALL SECTIONS

DRAWING NUMBER: S4.1

CM-07-01-2026




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

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RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
BRIAN D. MILLER
No. S5150
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24280004.00
T: (833) 270-8648
miyamotointernational.com

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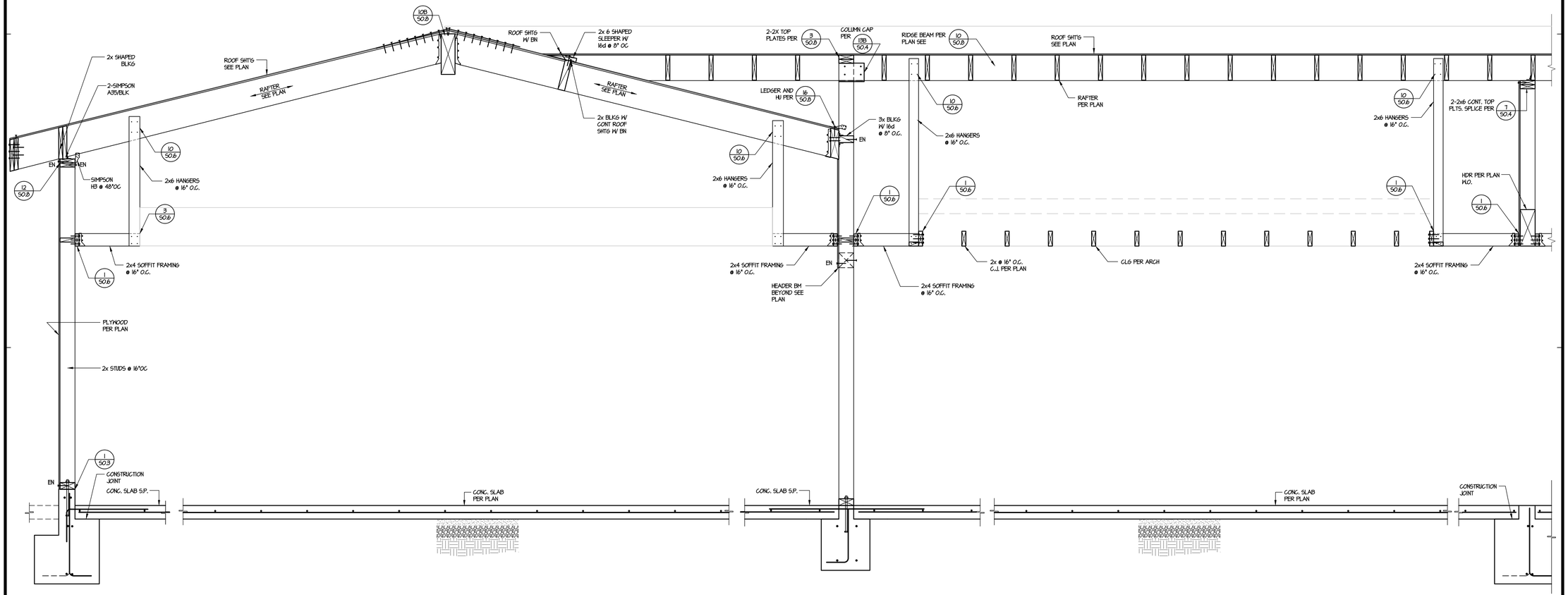
| PROJECT NUMBER: 2109300 | |

WALL SECTIONS

DRAWING NUMBER: S4.2

CM-07-01-2026




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

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## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
DAVID M. DYE
No. S13500
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24428004.00
T: (833) 270-8648
miyamotointernational.com

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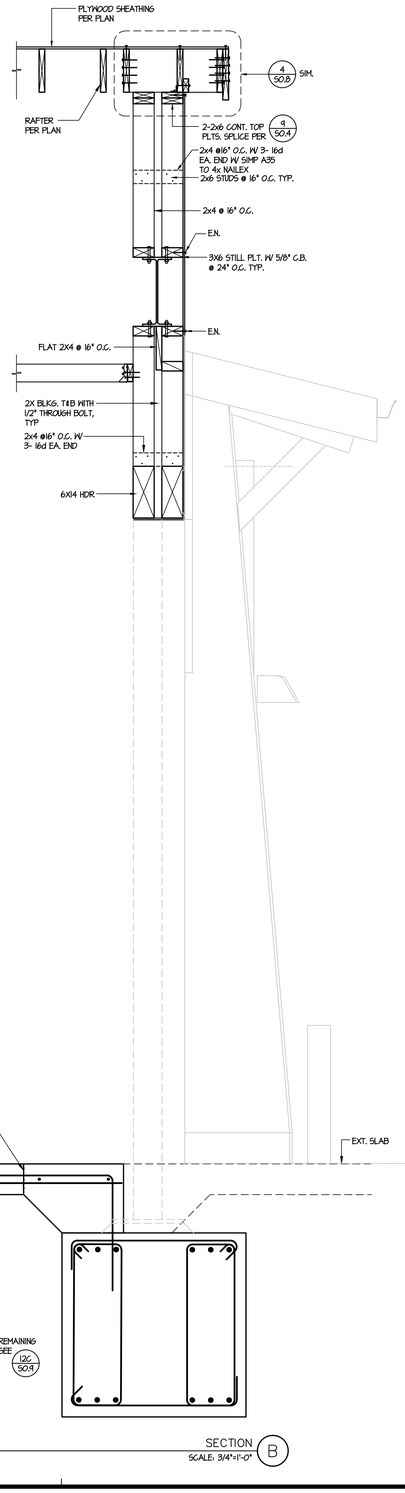
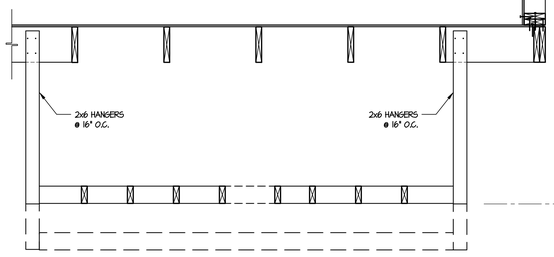
| PROJECT NUMBER: 2109300 | |

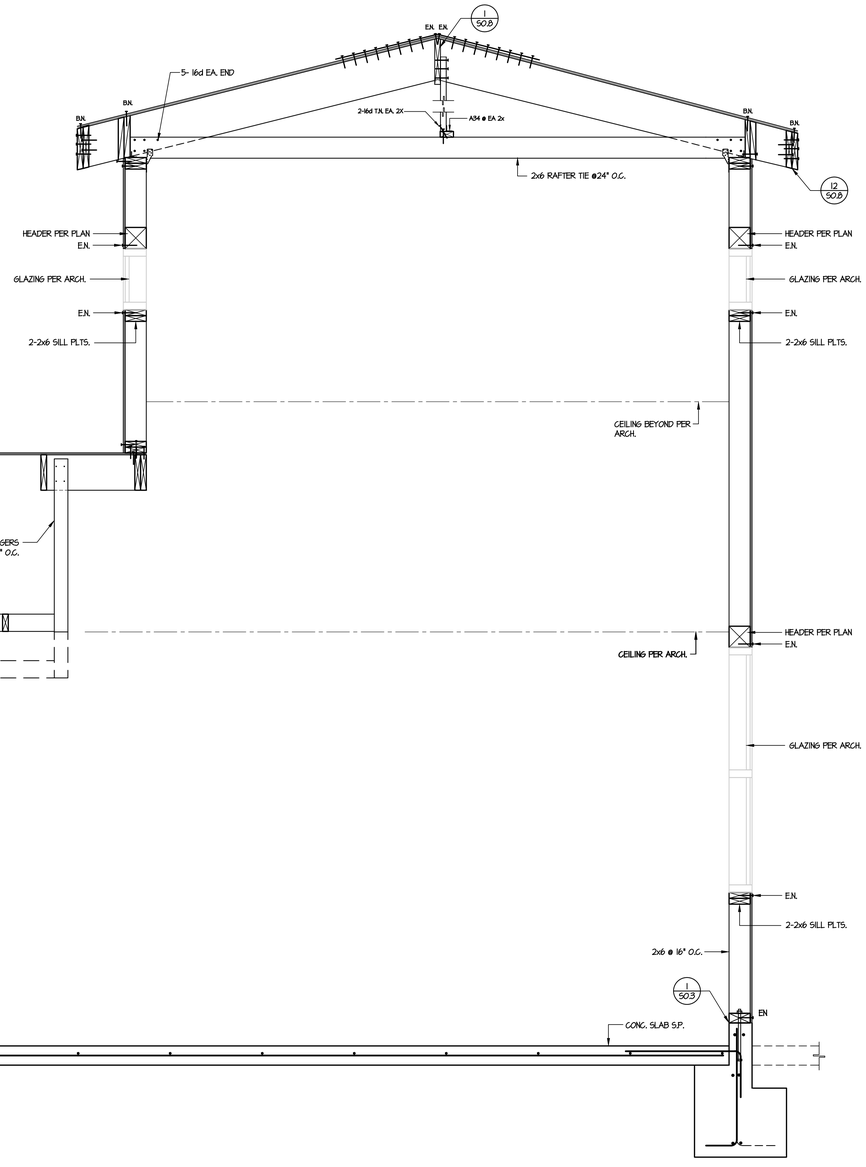
WALL SECTIONS

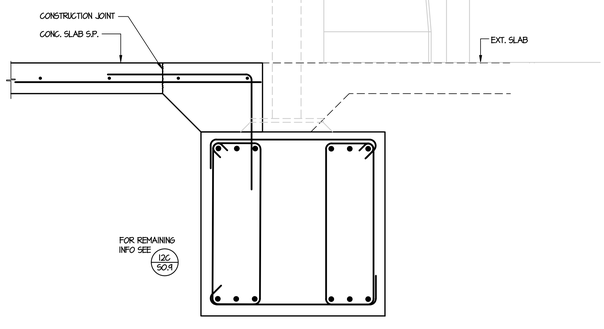
DRAWING NUMBER: S4.3

CM-07-01-2026

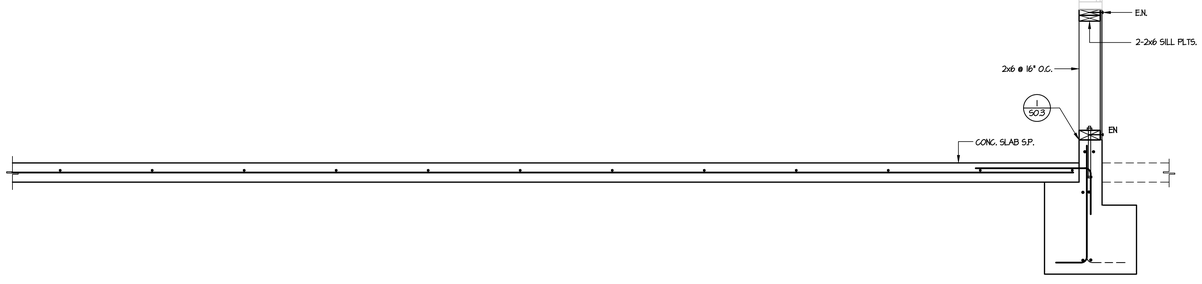



SECTION B
SCALE: 3/4"=1'-0"




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

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COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
Jack Kaz Byrd
No. 53300
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
M24428004.00
T: (833) 270-8648
miyamotointernational.com

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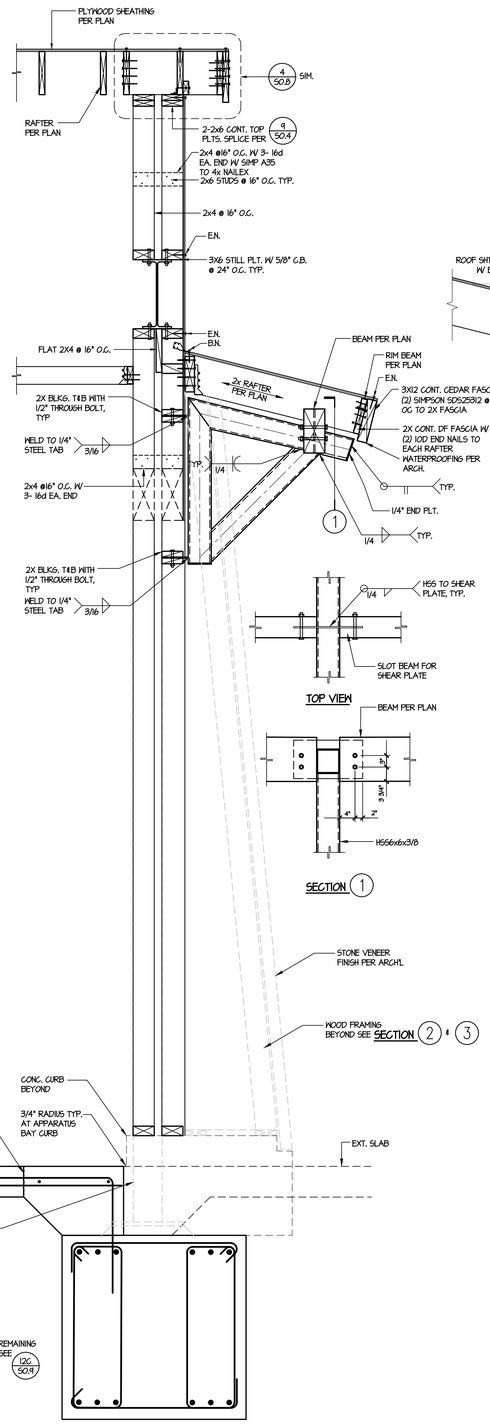
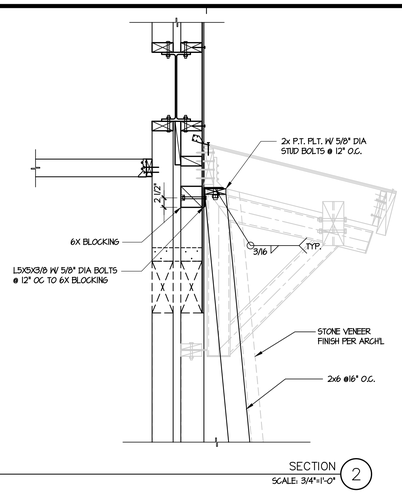
| PROJECT NUMBER: 2109300 | |

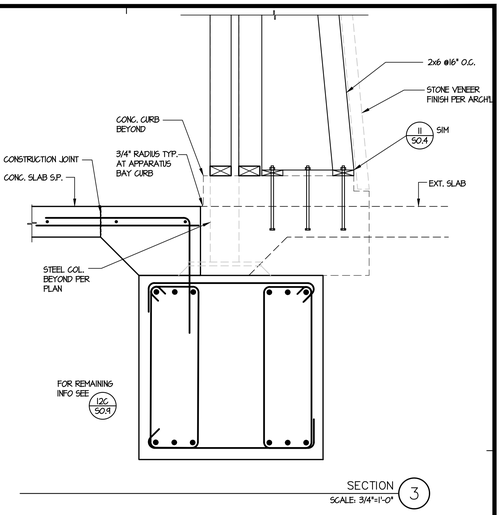
WALL SECTIONS

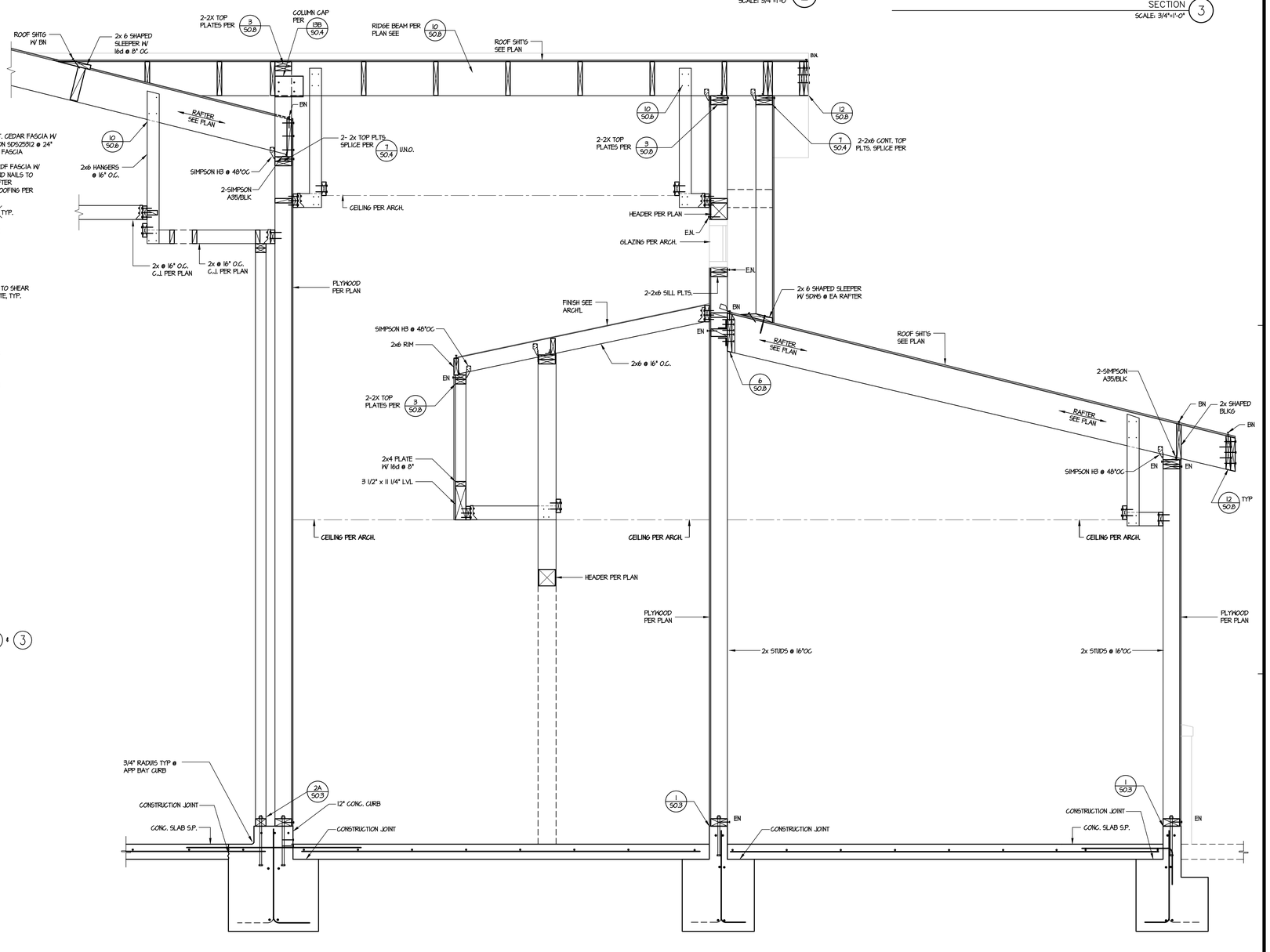
DRAWING NUMBER: S4.4

CM-07-01-2026

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CALIFORNIA 91730-0729
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COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
JACK W. DAVIS
No. 53150
STRUCTURAL
STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA. 91762
MI24280004.00
T: (833) 270-8648
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WALL SECTIONS

DRAWING NUMBER: S4.5

CM-07-01-2026

## AIR DISTRIBUTION SCHEDULE

| SYM. | MANUF & MODEL | NECK SIZE | FACE SIZE | CFM RANGE | MAX. NECK VELOCITY | MAX. N.C. | T. P. DROP | TYPE | DAMPER | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| SD-1 | PRICE SPD | 6"Ø<br>8"Ø<br>10"Ø<br>12"Ø<br>14"Ø<br>15"Ø | 24"x24" | 0 - 80<br>85 - 175<br>180 - 275<br>280 - 390<br>395 - 500<br>505 - 700 | 500 | 25 | 0.075 | SQUARE PLAQUE | MVD | FRAME TYPE 31 FOR T-BAR |
| RG-1 | PRICE SPD | 6"Ø<br>8"Ø<br>10"Ø<br>12"Ø<br>14"Ø<br>15"Ø | 24"x24" | 0 - 80<br>85 - 175<br>180 - 275<br>280 - 390<br>395 - 500<br>505 - 700 | 500 | 25 | 0.016 | PERFOR. | MVD | FRAME TYPE 31 FOR T-BAR |
| SD-2 | PRICE SMCD | 6"x6"<br>8"x8"<br>10"x10"<br>12"x12"<br>14"x14"<br>16"x16"<br>18"x18"<br>20"x20" | 12"x12"<br>14"x14"<br>16"x16"<br>18"x18"<br>20"x20"<br>22"x22"<br>24"x24"<br>26"x26" | 0 - 125<br>130 - 220<br>225 - 350<br>355 - 500<br>505 - 680<br>685 - 880<br>885 - 1125<br>1130 - 1400 | 500 | 25 | .057 | MODULAR CORE | MVD | BORDER TYPE 1<br>FOR GYP. BOARD CEILING<br><br>PROVIDE SQUARE TO ROUND ADAPTER FOR ALL |
| RG-2 | PRICE 530L | 6"x6"<br>8"x8"<br>10"x10"<br>12"x12"<br>14"x14"<br>16"x16"<br>18"x18"<br>22"x20" | 8"x8"<br>10"x10"<br>12"x12"<br>14"x14"<br>16"x16"<br>18"x18"<br>20"x20"<br>24"x22" | 0 - 90<br>95 - 195<br>200 - 300<br>305 - 450<br>455 - 590<br>595 - 800<br>805 - 1040<br>1045 - 1400 | 500 | 25 | .067 | LOUVERED | MVD | BORDER TYPE N<br>FOR GYP. BOARD CEILING |
| LS/LR-1 | PRICE SDS150 | 8"Ø | 4"x48" | 0-280 | 500 | 23 | 0.107 | LINEAR | MVD | BORDER TYPE 2 FOR GYP<br>TWO 1.5" SLOTS<br>PROVIDE WITH SDB PLENUM |
| EG-1 | PRICE PDDR | 6"Ø<br>8"Ø<br>10"Ø<br>12"Ø<br>14"Ø<br>16"Ø<br>18"Ø | 24"x24" | 0 - 80<br>85 - 175<br>180 - 275<br>280 - 390<br>395 - 480<br>485 - 600<br>605 - 780 | 500 | 25 | 0.016 | PERFOR. | MVD | FRAME TYPE 3 FOR T-BAR |
| EG-2 | PRICE 530L | 6"x6"<br>8"x8"<br>10"x10"<br>12"x12"<br>14"x14"<br>16"x16"<br><br>22"x20" | 8"x8"<br>10"x10"<br>12"x12"<br>14"x14"<br>16"x16"<br>18"x18"<br><br>24"x22" | 0 - 90<br>95 - 195<br>200 - 300<br>305 - 450<br>455 - 590<br>595 - 800<br><br>1045 - 1400 | 500 | 25 | .067 | LOUVERED | MVD | BORDER TYPE N<br>FOR SURFACE MOUNT |

LEGEND

CFM

AIR DISTRIBUTION DEVICE

| | |
|---|---|
| SD | SUPPLY DIFFUSER |
| SR | SUPPLY REGISTER |
| RG | RETURN GRILLE |
| EG | EXHAUST GRILLE |
| TG | TRANSFER GRILLE |

NOTES:
1. NOT ALL DIFFUSER/GRILLE TYPES OR SIZES MAY BE USED ON THIS PROJECT.

## CALIFORNIA GREEN BUILDING STANDARDS NOTES

ENTIRE INSTALLATION SHALL COMPLY WITH THE 2022 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE INCLUDING THE FOLLOWING APPLICABLE MANDATORY MEASURES:

1. 5.504.1.3 – PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, CONTRACTOR SHALL USE MERV 8 MINIMUM RETURN AIR FILTERS. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY.
2. 5.504.3 – CONTRACTOR SHALL COVER ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY DURING STORAGE AND CONSTRUCTION AND UNTIL FINAL STARTUP.
3. 5.504.5.3 – MERV 13 FILTERS ARE REQUIRED FOR HVAC SYSTEMS SERVING REGULARLY OCCUPIED AREAS AND AS INDICATED IN THESE PLANS.
4. 5.504.7 – OUTDOOR SMOKING AREAS SHALL BE MINIMUM 25'–0" FROM ALL BUILDING ENTRIES, OUTDOOR AIR INTAKES, AND OPERABLE WINDOWS.
5. 5.505.1 – INSTALLATION SHALL COMPLY WITH CBC SECTION 1203 AND CHAPTER 14 FOR INDOOR MOISTURE CONTROL.
6. 5.506.2 – DEMAND CONTROL VENTILATION REQUIRED FOR ALL DENSELY OCCUPIED SPACES PER 2022 CALIFORNIA ENERGY CODE REQUIREMENTS.
7. 5.508.1 – HVAC, REFRIGERATION, AND FIRE SUPPRESSION EQUIPMENT SHALL NOT CONTAIN CFCS OR HALONS.

## LEGEND

| SYMBOL | ABBR. | DESCRIPTION |
|---|---|---|
| | – | SUPPLY AIR RISER |
| | – | RETURN AIR RISER |
| | – | EXHAUST AIR RISER |
| | SAG | SUPPLY AIR GRILLE |
| | RAG | RETURN AIR GRILLE |
| | EAG | EXHAUST AIR GRILLE |
| | SWR | SIDEWALL REGISTER |
| | (L) | LINED DUCTWORK |
| | – | FLEXIBLE CONNECTION |
| | FC | FLEXIBLE CONNECTION |
| | – | DEMO DUCT (SEE PLAN) |
| | MVD | MANUAL VOLUME DAMPER |
| | BDD | BACKDRAFT DAMPER |
| S/F | SFD | SMOKE / FIRE DAMPER |
| F | FD | FIRE DAMPER |
| | DL | DOOR LOUVER |
| U.C. | UC | UNDERCUT DOOR 3/4" |
| RS | RS | REFRIGERANT SUCTION LINE |
| RL | RL | REFRIGERANT LIQUID LINE |
| CD | CD | CONDENSATE DRAIN |
| | S.D. | SMOKE DETECTOR |
| | P.O.C. | POINT OF CONNECTION |
| T | T–STAT | THERMOSTAT |
| H | H | HUMIDISTAT |
| TS | TS | TEMPERATURE SENSOR |
| OS | OS | OVERRIDE SWITCH |
| PD | PD | PRESSURE DIFFERENTIAL SWITCH |
| S | S | SWITCH |
| | O.C. | ON CENTER |
| | I.D. | INSIDE DIAMETER |
| | O.D. | OUTSIDE DIAMETER |
| | W/ | WITH |
| | S/M | SHEET METAL |
| | S/S | STAINLESS STEEL |
| | G.C. | GENERAL CONTRACTOR |
| | VTR | VENT THRU ROOF |
| | OBD | OPPOSED BLADE DAMPER |
| | FSC | FAN SPEED CONTROL |
| E | E | ITEMS FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR AS SPECIFIED ON THE ELECTRICAL CONTRACT DOCUMENTS |
| M | M | ITEMS FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR AS SPECIFIED ON THE MECHANICAL CONTRACT DOCUMENTS |
| EM | EM | ITEMS FURNISHED BY ELECTRICAL CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR. |
| ME | ME | ITEMS FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. |
| | CBD | COUNTER–BALANCE DAMPER |
| | D.S. | FAN SPEED CONTROL |
| DS | FSC | DOOR SWITCH |

## GENERAL NOTES

1. ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA BUILDING CODE, AND ALL OTHER APPLICABLE CODES AND REGULATIONS, INCLUDING 2022 CALIFORNIA ENERGY CONSERVATION STANDARDS DIVISION T-24.
2. COORDINATE ENTIRE INSTALLATION OF THE HVAC SYSTEM WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS, AND TRANSITIONS AS REQUIRED FOR A COMPLETE WORKABLE INSTALLATION. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ITEMS TO BE PROVIDED BY OTHER TRADES WHERE MENTIONED IN THE CONTRACT DOCUMENTS PRIOR TO BID - NO EXCEPTIONS.
3. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTIVE CEILING PLAN, ELECTRICAL LIGHTING LAYOUT AND ARCHITECTURAL ROOM ELEVATIONS. THE ARCHITECT AND ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS PRIOR TO FABRICATION AND INSTALLATION.
4. ALL EQUIPMENT, DUCTS, PIPING, AND OTHER DEVICES AND MATERIALS INSTALLED OUTSIDE OF THE BUILDING OR OTHERWISE EXPOSED TO THE WEATHER SHALL BE COMPLETELY WEATHER-PROOFED AND PAINTED TO MATCH, COORDINATE WITH ARCHITECT PRIOR TO PAINTING.
5. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH AND BE CONSIDERED TO BE PART OF A SEPARATE AND COMPLETE MECHANICAL SPECIFICATION.
6. ALL DIMENSIONS SHOWN ON THESE PLANS ARE APPROXIMATE AND MUST BE CONFIRMED ON SITE.
7. PRIOR TO OCCUPANCY, THE ENTIRE H.V.A.C. SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH (AABC) ASSOCIATED AIR BALANCE COUNCIL STANDARDS BY AN INDEPENDANT AIR BALANCE CONTRACTOR. CERTIFICATION SHALL BE PROVIDED BY THE CONTRACTOR FOR AIR AND HYDRONIC AS APPLICABLE. SYSTEMS SHALL BE BALANCED AS INDICATED ON PLANS INCLUDING FRESH AIR VENTILATION. WHERE THERE IS A CONFLICT WITH THE MECHANICAL PLANS, THE AIR BALANCE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO BALANCING OF SYSTEM. IF NOT THE AIR BALANCE CONTRACTOR SHALL BEAR ALL COSTS INCURRED FOR WORK THAT MUST BE RE-BALANCED DUE TO CONFLICTS ON CONTRACT DOCUMENTS. CONTRACTOR SHALL PROVIDE THREE COPIES OF THE AIR BALANCE REPORT TO THE ENGINEER FOR APPROVAL.
8. FOR INACCESSIBLE AREAS THE CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL DAMPERS, EQUIPMENT, SMOKE DETECTORS, AND CONTROL DEVICES. THESE PANELS SHALL MATCH THE RATING OF THE WALL AND/OR CEILING THAT THEY ARE LOCATED IN. MINIMUM ACCESS PANEL SIZES SHALL BE AS FOLLOWS:

   1) HAND ACCESS: 12"x12"

   2) BODY ACCESS: 30"x30" MIN. WHERE A LARGER ACCESS SIZE IS REQUIRED DUE TO INSTALLATION CONSTRAINTS, THE CONTRACTOR SHALL DO SO AT NO ADDITIONAL COST AND SHALL NOTIFY THE ARCHITECT AND ENGINEER OF DEVIATIONS PRIOR TO INSTALLATION.
9. COORDINATE THE LOCATION OF ALL ROOF OPENINGS AND THE LOCATION OF ALL ROOF MOUNTED EQUIPMENT WITH THE STRUCTURAL AND ARCHITECTURAL PLANS PRIOR TO ANY INSTALLATION.
10. PLATFORMS, CURBS, AND FLASHINGS FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL PLANS, UNLESS NOTED OTHERWISE. WHERE THERE IS A CONFLICT WITH THE MECHANICAL PLANS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION AND INSTALLTION.
11. ALL EQUIPMENT, ACCESSORIES, AND RELATED PIPING SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, DAMPERS, VALVES, AND OTHER DEVICES REQUIRED FOR A COMPLETE WORKABLE INSTALLATION.
12. MAINTENANCE LABEL SHALL BE AFFIXED TO ALL MECHANICAL EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED FOR THE OWNER'S USE.
13. PROVIDE MERV 13 FILTERS FOR ALL AIR CONDITIONING UNITS. SEE EQUIPMENT SCHEDULE AND SPECIFICATIONS FOR TYPE. SIZES SHALL BE AS RECOMMENDED BY THE MANUFACTURER, UNLESS OTHERWISE SPECIFIED.
14. AIR FILTERS SHALL BE STATE FIRE MARSHALL APPROVED AND LISTED. PREFORMED FILTERS HAVING COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS SHALL BE ACCESSIBLE FOR CLEANING OR REPLACEMENT.
15. ALL EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH FLEXIBLE DUCT AND PIPE CONNECTIONS.
16. ALL EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES. SEE PLANS AND SPECIFICATIONS FOR IDENTIFICATION STANDARDS.
17. ALL HVAC EQUIPMENT SHALL BE CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION TO COMPLY WITH LATEST EFFICIENCY STANDARDS.
18. AC UNITS PROVIDED WITH ECONOMY CYCLE DAMPERS SHALL HAVE DAMPERS SET UP TO CLOSE AUTOMATICALLY ON FAN SHUTDOWN.
19. PROVIDE MANUAL VOLUME DAMPERS AND BACKDRAFT DAMPERS FOR FRESH AIR INTAKES ON ALL AIR HANDLING EQUIPMENT AND EXHAUST FANS SERVING CONDITIONED SPACES. EXCEPTION: EQUIPMENT WITH FACTORY ECONOMIZERS.
20. ALL FRESH AIR INTAKES SHALL MEET CODE REQUIRED CLEARANCES FROM EXHAUST, FLUE, FUEL BURNING APPLIANCE AND PLUMBING VENT OUTLETS. FOR GAS/ELECTRIC AIR CONDITIONING UNITS WHERE THE CODE REQUIRED CLEARANCES ARE NOT MET, A FACTORY FLUE GAS DEFLECTOR AND EXTENSION SHALL BE USED TO MINIMIZE THESE CLEARANCES. CONTRACTOR SHALL DETERMINE LOCATIONS WHERE REQUIRED PRIOR TO BID. THIS SHALL BE PROVIDED AT NO ADDITIONAL COST.
21. ALL AIR HANDLING EQUIPMENT SERVING CONDITIONED SPACES SHALL PROVIDE CONTINUOUS FRESH AIR TO SPACES IN OCCUPIED MODE.
22. CONTRACTOR SHALL VERIFY ALL CLEARANCES AND AVAILIABLE SPACE FOR DUCTWORK PRIOR TO ORDERING AND/OR FABRICATING MATERIAL.
23. CONTRACTOR TO SUBMIT ALL EQUIPMENT, DUCTWORK, AIR DISTRIBUTION DEVICES, AND OTHER ACCESSORIES TO THE ENGINEER FOR APPROVAL PRIOR TO ANY ORDERING OF SUCH ITEMS.
24. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS WITHIN 45 DAYS OF AWARD OF CONTRACT. SEE Z30000 SPECIFICATIONS FOR REQUIREMENTS. ALL CONFLICTS BETWEEN VARIOUS TRADE SHOP DRAWINGS SHALL BE REPORTED TO THE CITY, ARCHITECT, AND ENGINEER OF RECORD. FAILURE TO REPORT CONFLICTS SHALL RESULT IN REJECTION OF RELATED CLAIMS FOR REWORK, EXTRA WORK, AND TIME FOR EXTENSIONS.
25. CONTRACTOR SHALL BE RESPONSIBLE FOR COMMISSIONING OF EQUIPMENT AS STIPULATED ON MECH-1-C FORM ON PLANS UNLESS NOTED OTHERWISE.
26. CONTROL SCHEMATICS ARE FOR SEQUENCE ONLY. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ALL ELECTRICAL DEVICES REQUIRED.
27. ALL LINE VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT. ALL LINE VOLTAGE CONDUIT AND WIRING, INCLUDING FINAL CONNECTIONS, SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AS INDICATED ON THE ELECTRICAL DRAWINGS OR SPECIFIED IN THE ELECTRICAL SECTION OF THE SPECIFICATIONS. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS OF ALL GOVERNING BODIES HAVING JURISDICTION THEREOF.
28. ALL LOW VOLTAGE CONDUIT AND WIRING AS APPLICABLE, INCLUDING FINAL CONNECTIONS, SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR AS INDICATED ON THE MECHANICAL DRAWINGS OR SPECIFIED IN THE MECHANICAL SECTION OF THE SPECIFICATIONS.

   A) ALL LOW VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.

   B) WHERE THE CONTROLS CONTRACTOR IS RETAINED BY THE OWNER, THEY SHALL BE RESPONSIBLE FOR THE FOLLOWING:

   1) FURNISH AND INSTALL ALL DEVICES, WIRING, AND TERMINATIONS REQUIRED FOR A COMPLETE AND FUNCTIONAL INSTALLATION.

   2) COORDINATE ALL WORK AND REQUIREMENTS WITH OTHER TRADES INCLUDING GENERAL, MECHANICAL, AND ELECTRICAL CONTRACTORS PRIOR TO BID.

   3) CONTRACTOR SHALL FOLLOW ALL SUBMITTAL REQUIREMENTS PER DRAWINGS AND SPECIFICATIONS.
29. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING AIR CONDITIONING EQUIPMENT WITH THRU-THE-BASE POWER, CONTROL, AND GAS CONNECTIONS. VERIFY ALL CONNECTION LOCATIONS WITH UNIT MANUFACTURER AND COORDINATE WITH OTHER TRADES AS NECESSARY.
30. ELECTRICAL CONTRACTOR SHALL PROVIDE REQUIRED RELAY ACCESSORIES FOR CONNECTION OF 120 VOLT 1 PHASE VENTILATION EQUIPMENT TO 277 VOLT 1 PHASE LIGHTING AS APPLICABLE. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUCH COORDINATION PRIOR TO BID.
31. WHERE HVAC CONTROL WIRING IS REQUIRED BETWEEN BUILDINGS. PROVIDE UNDERGROUND CONDUIT WITH PULL STRING(S) FURNISHED AND INSTALLED BY ELECTRICAL FOR THE ENERGY MANAGEMENT SYSTEM WIRING TERMINATIONS ONLY. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND WIRING TERMINATIONS FOR BETWEEN BUILDINGS.
32. ALL THERMOSTATS SHALL HAVE LOCKABLE COVERS (WHERE INDICATED ON PLANS) AND SHALL BE OF THE ELECTRONIC, PROGRAMMABLE, AUTOMATIC CHANGEOVER TYPE TO SEQUENCE HEATING OR COOLING. SET POINT RANGE SHALL BE 10 DEGREES F. BETWEEN FULL HEATING AND COOLING. THEY SHALL HAVE CAPABILITY OF TERMINATING ALL HEATING AT A TEMPERATURE NO MORE THAN 70 DEGREES F., AND COOLING AT A TEMPERATURE NOT LESS THAN 78 DEGREES F. ADJUSTABLE TEMPERATURE DIFFERENTIAL SHALL BE 1- 1/2 DEGREES F. CONTROL LIMITS SHALL BE FROM 55 DEGREES F. TO 85 DEGREES F. MOUNT AT 48 INCHES ABOVE FLOOR OR AS REQUIRED BY LOCAL AUTHORITIES OR ACCESSIBILITY CODES.

   NOTES:
   1) THERMOSTATS THAT ARE PART OF AN ENERGY MANAGEMENT SYSTEM SHALL FOLLOW CONTROL SPECIFICATIONS AND DRAWING REQUIREMENTS.

   2) SHOULD THE LOCATION OF THE THERMOSTAT NOT MEET THE ADA HEIGHT REQUIREMENTS DUE TO OBSTRUCTIONS, THEN AN ALTERNATE LOCATION SHALL BE PROPOSED OR REQUESTED BY THE CONTRACTOR THAT SHALL BE APPROVED BY THE ENGINEER AND ARCHITECT.
33. LINE VOLTAGE THERMOSTATS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
34. CONTROLS CONTRACTOR AND AIR BALANCE CONTRACTOR SHALL COORDINATE WORK AND PERFORM NECESSARY TASKS AS REQUIRED TO OBTAIN AIR AND WATER FLOW QUANTITIES FOR SYSTEMS SHOWN HEREIN.
35. CONTROLS SHALL BE PROVIDED TO PROVIDE THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY THE STATE ENERGY REGULATIONS.
36. ALL DUCTWORK SHALL BE SHEET METAL CONSTRUCTED OR SPIRAL, ERECTED, AND TESTED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF LOCAL REGULATIONS, PROCEDURES DETAILED IN THE ASHRAE HANDBOOK OF FUNDAMENTALS, CHAPTER 6 OF THE MECHANICAL CODE, OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION.
37. ALL FLEXIBLE DUCTWORK SHALL BE MAX FIVE FEET AND MIN 3 FEET IN LENGTH TO RESPECTIVE DIFFUSERS, GRILLES, AND REGISTERS, OR OTHER AIR DEVICES.
38. PROVIDE SEISMIC RESTRAINTS TO ALL DUCTWORK, PIPE, AND EQUIPMENT SUPPORTS IN ACCORDANCE WITH THE LATEST SMACNA GUIDELINES FOR SEISMIC RESTRAINT OF MECHANICAL SYSTEMS. SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH SEISMIC ANCHORAGE AND ISOLATION SUPPORTS. SEE SEISMIC NOTES ON THIS SHEET FOR ADDITIONAL REQUIREMENTS.
39. ALL RECTANGULAR DUCT TURNS IN SUPPLY, RETURN, AND EXHAUST DUCTS SHALL HAVE TURNING VANES UNLESS OTHERWISE NOTED.
40. DUCTWORK HANDLING CONDITIONED AIR SHALL BE INSULATED OR LINED AS INDICATED ON DRAWINGS. SUPPLY AND RETURN DUCT INSULATION SHALL BE MIN. 1.5" THICK, 3/4 LB./CUBIC FT. DENSITY AND HAVE A MIN. VALUE OF R-8 WHERE LOCATED IN ONE OR MORE OF THE FOLLOWING SPACES:

   A) OUTDOORS, OR

   B) IN A SPACE BETWEEN THE ROOF AND AN INSULATED CEILING, OR

   C) IN A SPACE DIRECTLY UNDER A ROOF WITH FIXED VENTS OR OPENINGS TO THE OUTSIDE OR UNCONDITIONED SPACES, OR

   D) IN AN UNCONDITIONED CRAWLSPACE; OR

   E) IN OTHER UNCONDITIONED SPACES

   PER 2022 CEC, OTHERWISE PROVIDE R-4.2 WHEN LOCATED IN CONDITIONED ATTIC SPACES ABOVE CEILINGS. ALL DUCTWORK EXPOSED ON ROOF SHALL BE INTERNALLY LINED WITH 1.5" THICK, 1.5LB./CUBIC FT. DENSITY DUCT LINER UNLESS OTHERWISE INDICATED OR SPECIFIED. ALL DUCT SIZES ARE SHEET METAL SIZES. ALL DUCT JOINTS SHALL BE SEALED PER CHAPTER 6 MECHANICAL CODE REQUIREMENTS. PROVIDE PIPING AND DUCT INSULATION IN ACCORDANCE WITH THE LATEST STANDARDS OF THE CALIFORNIA ENERGY COMMISSION.

   ALL INSULATION SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE DENSITY NOT EXCEEDING 50.

   MANUAL VOLUME DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES, AND REGISTERS, AS WELL AS FRESH AIR INTAKE DUCTS. DAMPERS SHALL BE LOCATED AT THE BRANCH DUCT LOCATIONS. THE MECHANICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF DAMPERS WITH THE AIR BALANCE CONTRACTOR PRIOR TO BID, SO THEY ARE ACCESSIBLE PRIOR TO INSTALLATION. IN LOCATIONS WHERE THESE DAMPERS ARE INACCESSIBLE, CABLE OPERATED ADJUSTMENT CONTROLS SHALL BE PROVIDED AT NO ADDITIONAL COST. SEE DETAIL 1/M5.1. OPPOSED BLADE DAMPERS SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.
43. ALL VOLUME DAMPERS SHALL BE INSTALLED MIN THREE DUCT DIAMETERS UPSTREAM OF REGISTERS.

    AUTOMATIC FIRE DAMPER REQUIREMENTS ARE AS FOLLOWS:

    A) PROVIDE AUTOMATIC FIRE DAMPERS AT ALL PENETRATIONS OF FIRE-RATED CEILINGS AND WALLS THROUGHOUT. CONTRACTOR SHALL COORDINATE FIRE-RATED AREAS WITH THE ARCHITECTURAL DRAWINGS AND OTHER TRADES PRIOR TO INSTALL AND SHALL NOTIFY PERTINENT PARTIES PRIOR TO ANY WORK PERFORMED IN THESE AREAS. IN ADDITION, CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE PROPER ACCESS FOR DAMPERS INSTALLED. THE DAMPER FIRE RATING SHALL BE COMPATIBLE WITH THE CEILING/WALL RATING.

    B) LOCATION OF FIRE-RATED CEILINGS AND WALLS ARE AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

    C) FIRE AND/OR SMOKE DAMPER(S) SHALL BE PROVIDED AS REQUIRED BY 2022 CBC AND CFC.

    D) CONTRACTOR SHALL FURNISH FLUSH MOUNTED FIRE AND/OR SMOKE DAMPERS, SO THAT DAMPER DO NOT EXTEND PASS WALLS, FOR AREAS WITHOUT CEILINGS FOR QUALITY WORKMENSHIP.
44. ALL DUCTWORK PASSING THROUGH FIRE RATED CORRIDORS AND LOBBIES SHALL BE MIN. 26 GAGE SHEET METAL CONSTRUCTION. FLEXIBLE DUCTWORK SHALL NOT BE ALLOWED.
45. ALL DUCTWORK, PIPING, CONDUIT, & ETC. PENETRATING FIRE RATED CONSTRUCTION SHALL HAVE APPROVED FIRE STOPPING. COORDINATE WITH OTHER TRADES PRIOR TO INSTALLATION.
46. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER OPERATION OF ALL MECHANICAL EQUIPMENT INCLUDING NECESSARY DEVICES FOR INTERLOCKING OF SUCH EQUIPMENT.
47. CONTRACTOR SHALL REFER TO MECHANICAL AND ARCHITECTURAL PLANS FOR REGISTER, DIFFUSER, AND GRILLE LOCATIONS PRIOR TO INSTALLATION.
48. CONTACT THE ENGINEER IMMEDIATELY IF THERE ARE CONFLICTS PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ALL LOCATIONS OF DUCT PENETRATIONS THROUGH SHEAR WALLS. NO DUCT PENETRATE SHEAR WALLS UNLESS SPECIFICALLY SHOWN ON STRUCTURAL PLANS.
49. CONTRACTOR SHALL REFER TO STRUCTURAL, MECHANICAL, AND ARCHITECTURAL PLANS FOR EXTERIOR LOUVER LOCATIONS PRIOR TO FABRICATION AND INSTALLATION. CONTACT THE ENGINEER IMMEDIATELY IF THERE ARE CONFLICTS. REFER TO ARCHITECTURAL EXTERIOR ELEVATION PLANS FOR MOUNTING HEIGHTS. IF MOUNTING HEIGHTS ARE NOT IDENTIFIED ON THE ARCHITECTURAL PLANS, THEN THE CONTRACTOR SHALL FOLLOW CONTROL PLANS. THEN THE CONTRACTOR SHALL RECEIVE FINAL APPROVAL FROM THE ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.
50. CONTRACTOR SHALL COORDINATE ALL DOOR UNDERCUT QUANTITIES AND LOCATIONS WITH THE APPROPRIATE TRADES PRIOR TO FINAL BID. CONTACT THE ARCHITECT IMMEDIATELY IF THERE ARE CONFLICTS.
51. ALL DOOR UNDERCUTS INDICATED ON FLOOR PLAN(S) SHALL BE 1" MIN. ABOVE THRESHOLD.
52. CONTRACTOR SHALL IDENTIFY ALL CEILING ACCESS DOORS FOR MANUAL AND REMOTE CONTROLLED (CABLE OPERATED) DAMPERS, CEILING CUP LOCATIONS FOR INACCESSIBLE AREAS FOR THE ARCHITECT'S REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION OF DUCTWORK, EQUIPMENT, ETC.
53. CONTRACTOR SHALL CONFIRM FINAL REFRIGERANT PIPE SIZING UPON DETERMINATION OF ACTUAL DEVELOPED LENGTH. ALL PIPE MATERIALS SHALL BE PER MANUFACTURER'S GUIDELINES.
54. FOR INACCESSIBLE AREAS THE CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL DAMPERS, EQUIPMENT, SMOKE DETECTORS, AND CONTROL DEVICES. THESE PANELS SHALL MATCH THE RATING OF THE WALL AND/OR CEILING WHERE THEY ARE LOCATED IN. MINIMUM ACCESS PANEL SIZES SHALL BE AS FOLLOWS:

    1) HAND ACCESS: 12"x12" MIN.
    2) BODY ACCESS: 30"x30" MIN.
    3) MANUAL REMOTE CONTROL (CABLE OPERATED) DAMPERS IN LIEU OF VOLUME DAMPERS. SEE DETAIL...
55. WHERE A LARGER ACCESS SIZE IS REQUIRED DUE TO INSTALLATION CONSTRAINTS, THE CONTRACTOR SHALL DO SO AT NO ADDITIONAL COST AND SHALL NOTIFY THE ARCHITECT AND ENGINEER OF DEVIATIONS PRIOR TO INSTALLATION.
56. CONTRACTOR SHALL COORDINATE ALL MOUNTING HEIGHTS ABOVE FINISHED FLOOR WITH OTHER TRADES AND RECEIVE FINAL APPROVAL FROM THE ARCHITECT PRIOR TO FABRICATING AND INSTALLING EXPOSED DUCTWORK, EQUIPMENT, REGISTERS, ETC.
57. CONTRACTOR SHALL REFER TO MECHANICAL AND ARCHITECTURAL PLANS FOR ALL SIDE-WALL GRILLE LOCATIONS PRIOR TO FABRICATION AND INSTALLATION. CONTACT THE ENGINEER IMMEDIATELY IF THERE ARE CONFLICTS. REFER TO ARCHITECTURAL INTERIOR ELEVATION PLANS FOR MOUNTING HEIGHTS. IF MOUNTING HEIGHTS ARE NOT IDENTIFIED ON THE ARCHITECTURAL PLANS, THEN THE CONTRACTOR SHALL RECEIVE FINAL APPROVAL FROM THE ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.
58. CONTRACTOR SHALL INSULATE ALL REFRIGERANT PIPING SUCTION AND VAPOR LINES. ALL EXTERIOR LINES REQUIRE ALUMINUM JACKETING.
59. CONTRACTOR SHALL PAINT ALL EXPOSED DUCTWORK, REGISTERS, ETC. COORDINATE PAINT FINISHES WITH THE ARCHITECT PRIOR TO INSTALLATION.

PBK

SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909

www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M30639
Exp. 12/31/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT

PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

GENERAL NOTES & LEGEND

DRAWING NUMBER: M0.1

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CM-07-01-2026

## VRF - BRANCH SELECTOR UNIT SCHEDULE

| SYM | MFR & MODEL # | TOTAL CAPACITY (BTU) | PORTS | OUTDOOR UNIT | ELECTRICAL | | | | WEIGHT (LBS) | REMARKS | ANCHORAGE DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | V | PH | MCA | MOCP | | | |
| BS 1 | LG PRHR033A | 230,000 | 3 | HRU 1 | 208 | 1 | 0.27 | 15 | 75 | 1 | 6 M5.2 |
| BS 2 | LG PRHR083A | 230,000 | 8 | HRU 1 | 208 | 1 | 0.27 | 15 | 75 | 1 | 6 M5.2 |
| BS 3 | LG PRHR063A | 230,000 | 6 | HRU 1 | 208 | 1 | 0.27 | 15 | 75 | 1 | 6 M5.2 |

1. PROVIDE FACTORY CONNECTORS AS NECESSARY.

## FAN SCHEDULE

| SYM | MFR & MODEL # | SERVICE | CFM | ESP | HP | BHP | ELECTRICAL | | FAN RPM | WT (LBS) | REMARKS | CONTROL DETAIL | ANCHORAGE DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | V | PH | | | | | |
| EF 1 | GREENHECK SQ-90-VG | EXERCISE | 250 | 0.4 | 1/15 | 0.04 | 115 | 1 | 1,339 | 50 | 1 | 14 M5.1 | 9 M5.1 |
| EF 2 | GREENHECK SP-A390-VG | RESTROOM | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 3 | GREENHECK SP-A390-VG | RESTROOM | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 4 | GREENHECK SP-A390-VG | RESTROOM | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 5 | GREENHECK SP-A390-VG | RESTROOM | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 6 | GREENHECK SP-A390-VG | RESTROOM | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 7 | GREENHECK SP-A390-VG | RESTROOM | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 8 | GREENHECK SP-A390-VG | RESTROOM | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 9 | GREENHECK SP-A390-VG | CUSTODIAN | 120 | 0.4 | 1/20 | 21W | 115 | 1 | 1,093 | 30 | 2, 3 | 14 M5.1 | 8 M5.1 |
| EF 10 | GREENHECK USF-18-B7 | APP BAY | 3,000 | 0.6 | 1.0 | 0.65 | 208 | 3 | 933 | 300 | 1 | 16 M5.1 | 5 M5.1 |

1. PROVIDE WITH BACKDRAFT DAMPER AND ROOF CURB
2. PROVIDE WITH BACKDRAFT DAMPER
3. PROVIDE WITH GREENHECK TIME DELAY WALL SWITCH OVERRIDE AND GRILLE-MOUNTED HUMIDITY/MOTION/TIME DELAY CONTROLS.

## VRF - HEAT RECOVERY UNIT SCHEDULE

| SYM | MFR & MODEL # | NOMINAL TONS | REFRIG. | REFRIG. AMOUNT (#) | COOLING | | | | | HEATING | | | ELECTRICAL | | | | WEIGHT (LBS) | REMARKS | PIPING DETAIL | WIRING DETAIL | CONTROL DETAIL | ANCHORAGE DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | TOTAL CAPACITY (BTU/h) | SENSIBLE CAPACITY (BTU/h) | SEER | EER / IEER | AMBIENT (°F DB) | OUTPUT (BTU/h) | COP | AMBIENT (°F DB) | V | PH | MCA | MOCP | | | | | | |
| HRU 1 | LG ZRUM241BTE5 | 20.0 | R-32 | 66.7 | 233,000 | - | 19.9 | 14.4 | 95 | 270,000 | 3.7 | 47 | 208 | 3 | 72.7 | 80 | 900 | 1 | 4 M5.2 | 5 M5.2 | 5 M5.2 | 1 M5.2 |
| HRU 2 | AAON CFA-003-AA3LJ00H | 3.0 | R-454B | 6.6 | 36,800 | 25,300 | 14.1 | 12.0 | 95 | 34,700 | 3.8 | 47 | 208 | 3 | 19 | 30 | 400 | 1 | 4 M5.2 | 5 M5.2 | 5 M5.2 | 1 M5.2 |

1. PROVIDE WITH LGRED CONTROLS, NEOPRENE MOUNTING PADS, AND COATED CONDENSER COIL.

## VRF - FAN COIL UNIT SCHEDULE

| SYM | MFR & MODEL # | AREA SERVICED | NOMINAL TONS | CFM | OSA CFM | ESP (IN. WG) | COOLING | | HEATING | FILTER EFFICIENCY | OUTDOOR UNIT | ELECTRICAL | | | | WEIGHT (LBS) | REMARKS | WIRING DETAIL | PIPING DETAIL | ANCHORAGE DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | TOTAL CAP (BTUH) | SENSIBLE CAP (BTUH) | TOTAL CAP (BTUH) | | | V | PH | MCA | MOCP | | | | | |
| FC 1 | LG ZRNU363M2AA | EXERCISE | 3.0 | 1050 | 210 | 0.50 | 36,200 | - | 40,600 | MERV 13 | HRU 1 | 208 | 1 | 2.90 | 15 | 100 | 1, 3 | 5 M5.2 | 4 M5.2 | 12 M5.1 |
| FC 2 | LG ZRNU123TRAA | WORKSHOP | 1.0 | 310 | 75 | - | 12,300 | - | 13,600 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 3 | LG ZRNU243M2AA | CONFERENCE | 2.0 | 675 | 125 | 0.50 | 24,200 | - | 27,300 | MERV 13 | HRU 1 | 208 | 1 | 2.9 | 15 | 100 | 1, 3 | 5 M5.2 | 4 M5.2 | 12 M5.1 |
| FC 4 | LG ZRNU243M2AA | DAY ROOM | 2.0 | 675 | 110 | 0.50 | 24,200 | - | 27,300 | MERV 13 | HRU 1 | 208 | 1 | 2.9 | 15 | 100 | 1, 3 | 5 M5.2 | 4 M5.2 | 12 M5.1 |
| FC 5 | LG ZRNU243M2AA | KITCHEN | 2.0 | 675 | 170 | 0.50 | 24,200 | - | 27,300 | MERV 13 | HRU 1 | 208 | 1 | 2.9 | 15 | 100 | 1, 3 | 5 M5.2 | 4 M5.2 | 12 M5.1 |
| FC 6 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 7 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 8 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 9 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 10 | LG ZRNU483M3AA | HALLWAY | 4.0 | 1600 | 300 | 0.50 | 48,100 | - | 52,200 | MERV 13 | HRU 1 | 208 | 1 | 3.1 | 15 | 110 | 1, 3 | 5 M5.2 | 4 M5.2 | 12 M5.1 |
| FC 11 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 12 | AAON H3-ARB-10461C | OUTSIDE AIR | 3.0 | 700 | 700 | 0.5 | 36,800 | - | 34,700 | MERV 13 | HRU 2 | 208 | 1 | 5 | 15 | 500 | 1, 3 | 5 M5.2 | 4 M5.2 | 12 M5.1 |
| FC 13 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 14 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 15 | LG ZRNU073TRAA | DORM | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |
| FC 16 | LG ZRNU073TRAA | CAPTAIN OFFICE | 0.5 | 265 | 20 | - | 7,500 | - | 8,500 | MERV 13 | HRU 1 | 208 | 1 | 0.25 | 15 | 30 | 1, 2 | 5 M5.2 | 4 M5.2 | 7 M5.1 |

1. PROVIDE WITH FACTORY FILTER BOX AND MERV 13 FILTERS, LGRED CONTROLS AND PROGRAMMABLE THERMOSTAT, OVERFLOW SHUTOFF, AND CONDENSATE PUMP
2. PROVIDE WITH VENTILATION KIT
3. PROVIDE WITH SMOKE DETECTOR AND UNIT SHUTOFF PER 608.1 OF 2022 CMC

## CONDENSING UNIT SCHEDULE

| SYM | MFR & MODEL # | AREA SERVICED | COOLING CAPACITY (BTU/HR) | SEER/ EER | ELECTRICAL | | | | | UNIT WT (LB) | INTERLOCK WITH | REMARKS | ANCHORAGE DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | V | PH | HZ | MCA | MOCP | | | | |
| SCU 1 | LG LSU240HFV3 | DATA | 24,000 | 17.0/ 10.0 | 208 | 1 | 60 | 15 | 20 | 185 | SFC 1 | 1 | 2 M5.2 |

1. PROVIDE WITH NEOPRENE PADS, LOW AMBIENT KIT, AND COATED CONDENSER COIL.

## FAN COIL SCHEDULE

| SYM | MFR & MODEL # | AREA SERVICED | MAX. CFM | ELECTRICAL | | | UNIT WT (LB) | INTERLOCK WITH | REMARKS | ANCHORAGE DETAIL |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | V | PH | HZ | | | | |
| SFC 1 | LG LSN240HFV3 | DATA | 690 | 208 | 1 | 60 | 55 | SCU 1 | 1, 2, 3 | 3 M5.2 |

1. CONDENSATE PUMP. 2. WALL MOUNTED PROGRAMMABLE THERMOSTAT. 3. FAN COIL IS POWERED FROM OUTDOOR UNIT.

PBK
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RANCHO CUCAMONGA
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STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
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| 1 | | | REVISIONS |

| | |
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| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**MECHANICAL SCHEDULES**

DRAWING NUMBER: **M0.2**

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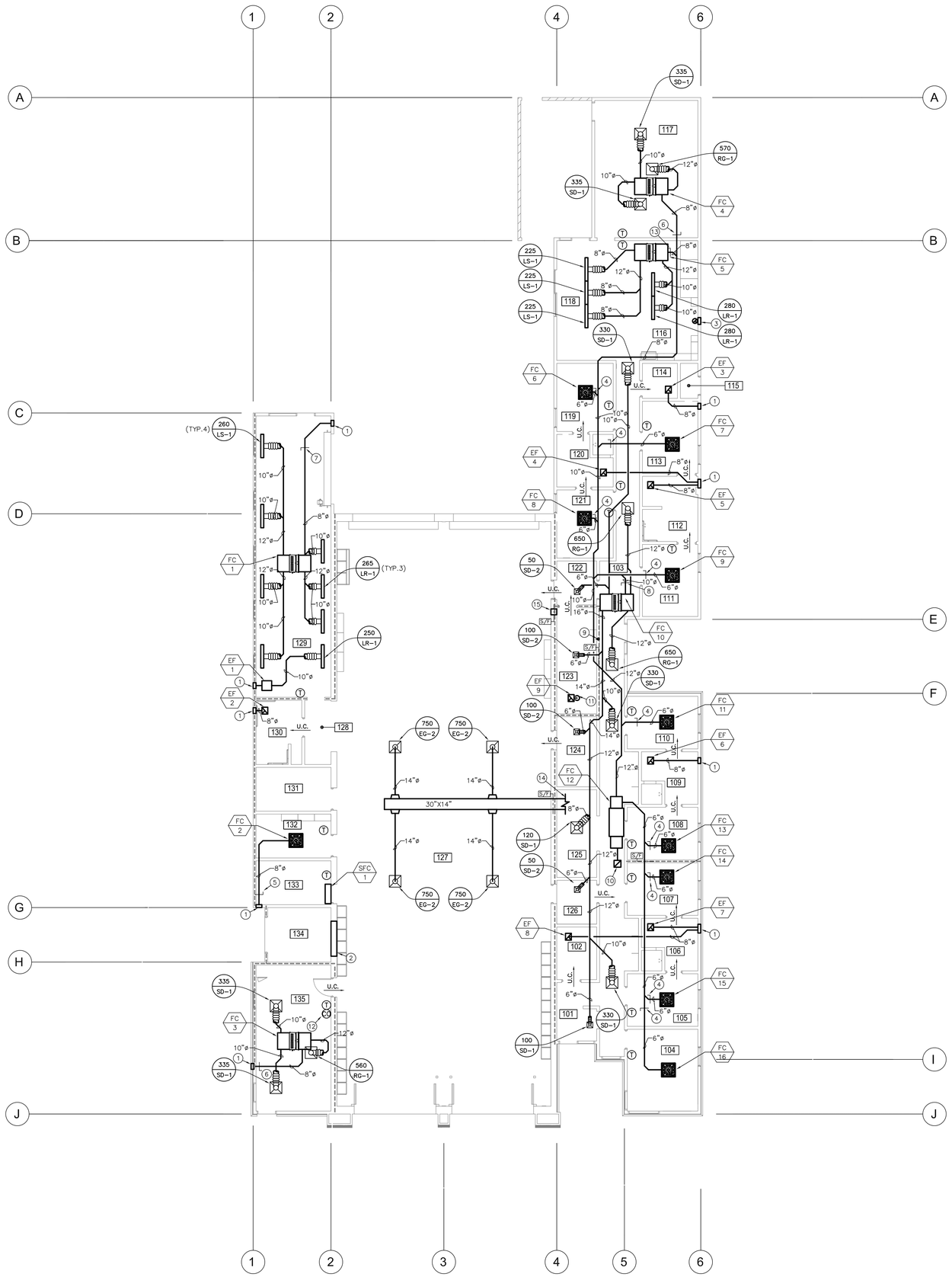
CM-07-01-2026




| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | DORM 1 |
| 106 | SHARED BATH 1 |
| 107 | DORM 2 |
| 108 | DORM 3 |
| 109 | SHARED BATH 2 |
| 110 | DORM 4 |
| 111 | DORM 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | DORM 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | DORM 7 |
| 120 | SHARED BATH 4 |
| 121 | DORM 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |

CONSTRUCTION NOTES:

1. ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA BUILDING CODE, AND ALL OTHER APPLICABLE CODES AND REGULATIONS, INCLUDING 2022 CALIFORNIA ENERGY CONSERVATION STANDARDS DIVISION T-24.
2. COORDINATE ENTIRE INSTALLATION OF THE HVAC SYSTEM WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS, AND TRANSITIONS AS REQUIRED FOR A COMPLETE WORKABLE INSTALLATION. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ITEMS TO BE PROVIDED BY OTHER TRADES WHERE MENTIONED IN THE CONTRACT DOCUMENTS PRIOR TO BID – NO EXCEPTIONS.
3. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTIVE CEILING PLAN, ELECTRICAL LIGHTING LAYOUT AND ARCHITECTURAL ROOM ELEVATIONS. THE ARCHITECT AND ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS PRIOR TO FABRICATION AND INSTALLATION.
4. FOR INACCESSIBLE AREAS THE CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL DAMPERS, EQUIPMENT, SMOKE DETECTORS, AND CONTROL DEVICES. THESE PANELS SHALL MATCH THE RATING OF THE WALL AND/OR CEILING THAT THEY ARE LOCATED IN. MINIMUM ACCESS PANEL SIZES SHALL BE AS FOLLOWS:
   1) HAND ACCESS: 12"x12"
   2) BODY ACCESS: 30"x30" MIN. WHERE A LARGER ACCESS SIZE IS REQUIRED DUE TO INSTALLATION CONSTRAINTS, THE CONTRACTOR SHALL DO SO AT NO ADDITIONAL COST AND SHALL NOTIFY THE ARCHITECT AND ENGINEER OF DEVIATIONS PRIOR TO INSTALLATION.
5. PLATFORMS, CURBS, AND FLASHINGS FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL PLANS, UNLESS NOTED OTHERWISE. WHERE THERE IS A CONFLICT WITH THE MECHANICAL PLANS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION AND INSTALLATION.
6. MANUAL VOLUME DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES, AND REGISTERS, AS WELL AS FRESH AIR INTAKE DUCTS. DAMPERS SHALL BE LOCATED AT THE BRANCH DUCT LOCATIONS. THE MECHANICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF DAMPERS WITH THE AIR BALANCE CONTRACTOR PRIOR TO BID, SO THEY ARE ACCESSIBLE PRIOR TO INSTALLATION. IN LOCATIONS WHERE THESE DAMPERS ARE INACCESSIBLE, CABLE OPERATED ADJUSTMENT CONTROLS SHALL BE PROVIDED AT NO ADDITIONAL COST. OPPOSED BLADE DAMPERS SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.

CONSTRUCTION KEY NOTES:

1. LOUVER WITH MIN. 0.5 SQ. FT. FREE AREA. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
2. MAKEUP AIR LOUVER WITH MIN. 6 SQ FT FREE AREA. SEE SHEET M2.3 FOR CONTINUATION. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
3. 10"ø EXHAUST AIR DUCT FROM P.O.C. AT KITCHEN HOOD OUT THRU EXTERIOR WALL AND TERMINATE WITH FACTORY CAP.
4. OUTSIDE AIR DAMPER TO BE BALANCED AT 20 CFM OF OUTSIDE AIR.
5. OUTSIDE AIR DAMPER TO BE BALANCED AT 75 CFM OF OUTSIDE AIR.
6. OUTSIDE AIR DAMPER TO BE BALANCED AT 125 CFM OF OUTSIDE AIR.
7. OUTSIDE AIR DAMPER TO BE BALANCED AT 210 CFM OF OUTSIDE AIR.
8. OUTSIDE AIR DAMPER TO BE BALANCED AT 250 CFM OF OUTSIDE AIR.
9. 4"ø DRYER VENT DUCT FROM P.O.C. UP THRU ROOF TO FACTORY ROOF CAP.
10. 12"X12" OSA DUCT UP THRU ROOF. SEE SHEET M2.3 FOR CONTINUATION.
11. 8"ø EXHAUST AIR DUCT UP THRU ROOF. SEE SHEET M2.3 FOR CONTINUATION.
12. PROVIDE STANDALONE CO2 SENSOR (NT MODEL X7C-WIFI) WITH A HIGH CO2 LEVEL SETPOINT OF 1000PPM.
13. OUTSIDE AIR DAMPER TO BE BALANCED AT 170 CFM OF OUTSIDE AIR.
14. 30"X14" EXHAUST AIR DUCT OUT THRU EXTERIOR WALL. SEE SHEET M2.3 FOR CONTINUATION.
15. TWO TRANSFER AIR GRILLES EACH WITH 1.1 SQ FT OF FREE AREA. ONE GRILLE TO COMMENCE WITHIN 12 INCHES OF THE TOP OF ROOM 123 AND THE OTHER GRILLE TO COMMENCE WITHIN 12 INCHES OF THE BOTTOM OF ROOM 123. PROVIDE BOTH WITH A S.F.D.

RATED WALL LEGEND:

1-HR RATED WALL. SEE ARCHITECTURAL SHEET A2.1 FOR CONSTRUCTION.

PBK
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| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 2 | 05/04/2026 | | PC 2 REVISIONS |
| 3 | 06/16/2026 | | PC 3 REVISIONS |
| 4 | | | REVISIONS |

| | |
|---|---|
| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# MECHANICAL FLOOR PLAN

DRAWING NUMBER: **M2.1**

MECHANICAL FLOOR PLAN

SCALE 1/8"=1'-0"

1

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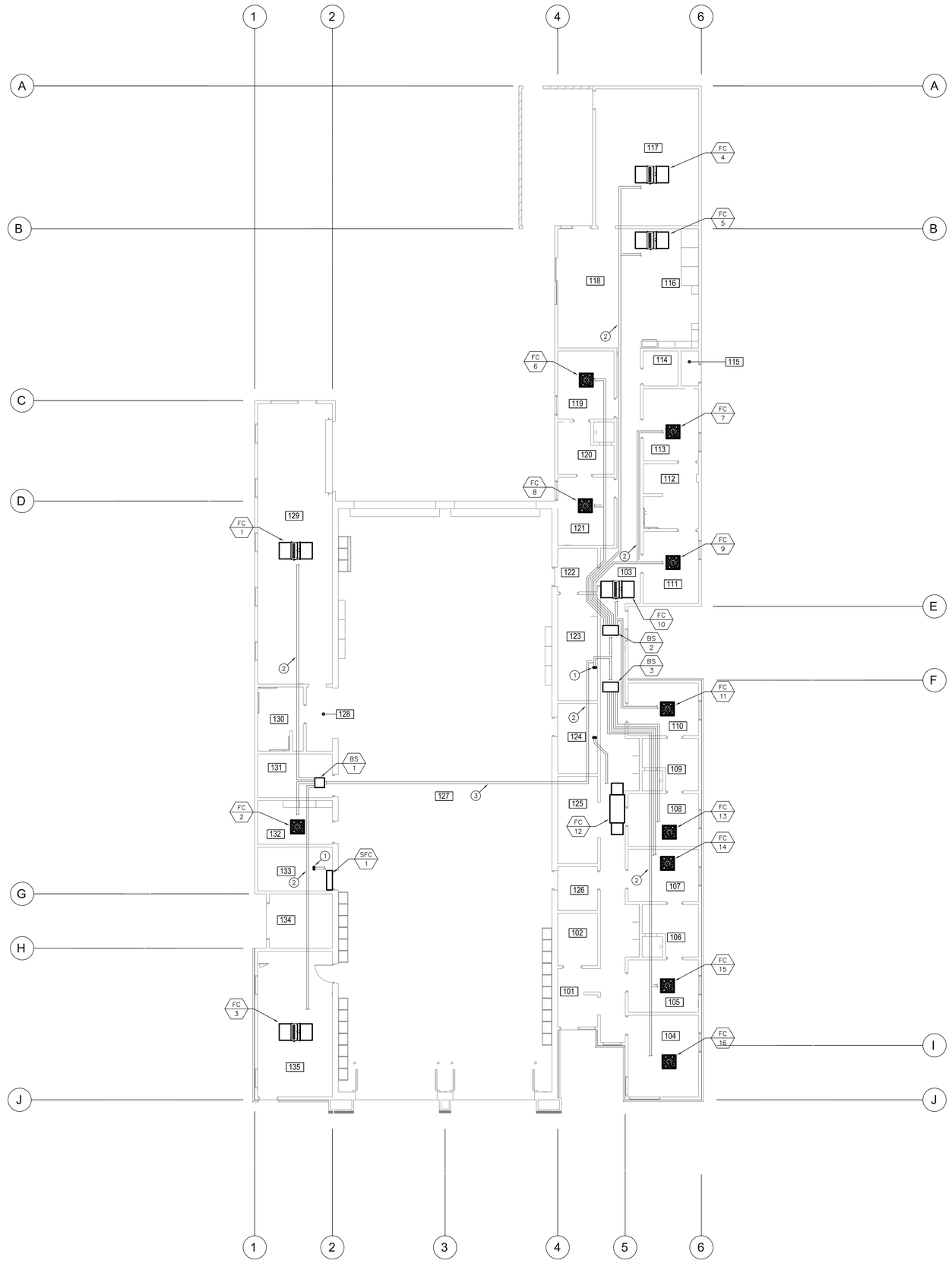
CM-07-01-2026




NORTH

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | DORM 1 |
| 106 | SHARED BATH 1 |
| 107 | DORM 2 |
| 108 | DORM 3 |
| 109 | SHARED BATH 2 |
| 110 | DORM 4 |
| 111 | DORM 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | DORM 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | DORM 7 |
| 120 | SHARED BATH 4 |
| 121 | DORM 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |

CONSTRUCTION NOTES:

1. ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA BUILDING CODE, AND ALL OTHER APPLICABLE CODES AND REGULATIONS, INCLUDING 2022 CALIFORNIA ENERGY CONSERVATION STANDARDS DIVISION T–24.

2. COORDINATE ENTIRE INSTALLATION OF THE HVAC SYSTEM WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS, AND TRANSITIONS AS REQUIRED FOR A COMPLETE WORKABLE INSTALLATION. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ITEMS TO BE PROVIDED BY OTHER TRADES WHERE MENTIONED IN THE CONTRACT DOCUMENTS PRIOR TO BID – NO EXCEPTIONS.

3. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTIVE CEILING PLAN, ELECTRICAL LIGHTING LAYOUT AND ARCHITECTURAL ROOM ELEVATIONS. THE ARCHITECT AND ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS PRIOR TO FABRICATION AND INSTALLATION.

4. FOR INACCESSIBLE AREAS THE CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL DAMPERS, EQUIPMENT, SMOKE DETECTORS, AND CONTROL DEVICES. THESE PANELS SHALL MATCH THE RATING OF THE WALL AND/OR CEILING THAT THEY ARE LOCATED IN. MINIMUM ACCESS PANEL SIZES SHALL BE AS FOLLOWS:
   1) HAND ACCESS: 12"x12"
   2) BODY ACCESS: 30"x30" MIN. WHERE A LARGER ACCESS SIZE IS REQUIRED DUE TO INSTALLATION CONSTRAINTS, THE CONTRACTOR SHALL DO SO AT NO ADDITIONAL COST AND SHALL NOTIFY THE ARCHITECT AND ENGINEER OF DEVIATIONS PRIOR TO INSTALLATION.

5. PLATFORMS, CURBS, AND FLASHINGS FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL PLANS, UNLESS NOTED OTHERWISE. WHERE THERE IS A CONFLICT WITH THE MECHANICAL PLANS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION AND INSTALLATION.

6. MANUAL VOLUME DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES, AND REGISTERS, AS WELL AS FRESH AIR INTAKE DUCTS. DAMPERS SHALL BE LOCATED AT THE BRANCH DUCT LOCATIONS. THE MECHANICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF DAMPERS WITH THE AIR BALANCE CONTRACTOR PRIOR TO BID, SO THEY ARE ACCESSIBLE PRIOR TO INSTALLATION. IN LOCATIONS WHERE THESE DAMPERS ARE INACCESSIBLE, CABLE OPERATED ADJUSTMENT CONTROLS SHALL BE PROVIDED AT NO ADDITIONAL COST. OPPOSED BLADE DAMPERS SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.

CONSTRUCTION KEY NOTES:

(1) REFRIGERANT PIPING UP THRU ROOF.

(2) CONTRACTOR TO VERIFY REFRIGERANT PIPING SIZE AND ROUTING WITH MANUFACTURER PRIOR TO ORDERING (TYP.).

(3) REFRIGERANT PIPING IN APP BAY TO BE ROUTED IN CONCEALED LOCATION.

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| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## MECHANICAL PIPING FLOOR PLAN

DRAWING NUMBER: **M2.1P**

MECHANICAL PIPING FLOOR PLAN

SCALE 1/8"=1'–0"

1

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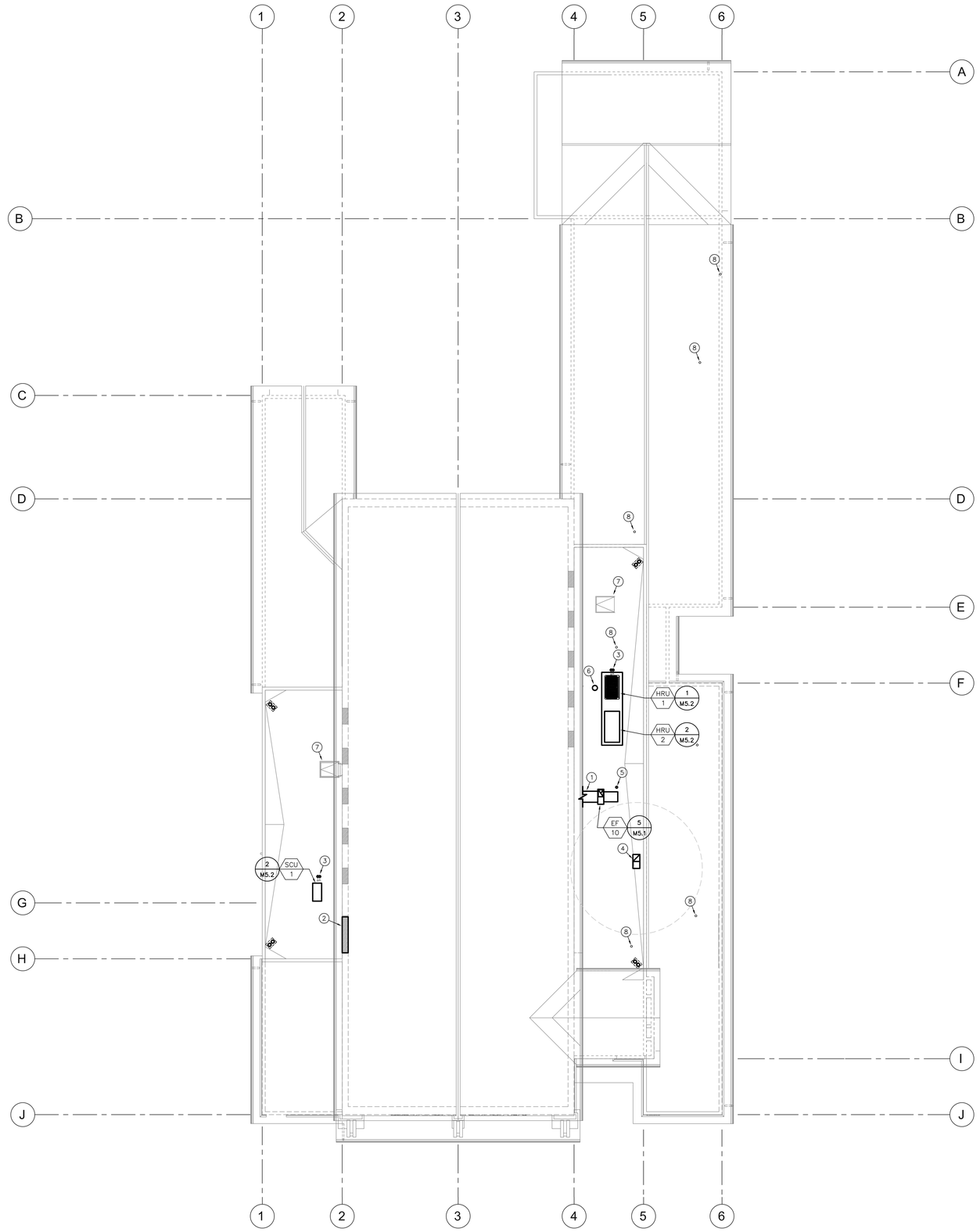
CM-07-01-2026




CONSTRUCTION NOTES:

1. ENTIRE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA BUILDING CODE, AND ALL OTHER APPLICABLE CODES AND REGULATIONS, INCLUDING 2022 CALIFORNIA ENERGY CONSERVATION STANDARDS DIVISION T–24.
2. COORDINATE ENTIRE INSTALLATION OF THE HVAC SYSTEM WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS, AND TRANSITIONS AS REQUIRED FOR A COMPLETE WORKABLE INSTALLATION. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ITEMS TO BE PROVIDED BY OTHER TRADES WHERE MENTIONED IN THE CONTRACT DOCUMENTS PRIOR TO BID – NO EXCEPTIONS.
3. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES WITH THE ARCHITECTURAL REFLECTIVE CEILING PLAN, ELECTRICAL LIGHTING LAYOUT AND ARCHITECTURAL ROOM ELEVATIONS. THE ARCHITECT AND ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS PRIOR TO FABRICATION AND INSTALLATION.
4. FOR INACCESSIBLE AREAS THE CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL DAMPERS, EQUIPMENT, SMOKE DETECTORS, AND CONTROL DEVICES. THESE PANELS SHALL MATCH THE RATING OF THE WALL AND/OR CEILING THAT THEY ARE LOCATED IN. MINIMUM ACCESS PANEL SIZES SHALL BE AS FOLLOWS:
   1) HAND ACCESS: 12"x12"
   2) BODY ACCESS: 30"x30" MIN. WHERE A LARGER ACCESS SIZE IS REQUIRED DUE TO INSTALLATION CONSTRAINTS, THE CONTRACTOR SHALL DO SO AT NO ADDITIONAL COST AND SHALL NOTIFY THE ARCHITECT AND ENGINEER OF DEVIATIONS PRIOR TO INSTALLATION.
5. PLATFORMS, CURBS, AND FLASHINGS FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE STRUCTURAL AND ARCHITECTURAL PLANS, UNLESS NOTED OTHERWISE. WHERE THERE IS A CONFLICT WITH THE MECHANICAL PLANS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION AND INSTALLATION.
6. MANUAL VOLUME DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES, AND REGISTERS, AS WELL AS FRESH AIR INTAKE DUCTS. DAMPERS SHALL BE LOCATED AT THE BRANCH DUCT LOCATIONS. THE MECHANICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF DAMPERS WITH THE AIR BALANCE CONTRACTOR PRIOR TO BID, SO THEY ARE ACCESSIBLE PRIOR TO INSTALLATION. IN LOCATIONS WHERE THESE DAMPERS ARE INACCESSIBLE, CABLE OPERATED ADJUSTMENT CONTROLS SHALL BE PROVIDED AT NO ADDITIONAL COST. OPPOSED BLADE DAMPERS SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.

CONSTRUCTION KEY NOTES:

(1) 30"X14" EXHAUST AIR DUCT THRU EXTERIOR WALL TO EXHAUST GRILLES IN APP BAY. SEE SHEET M2.1 FOR CONTINUATION.

(2) MAKEUP AIR LOUVER WITH MIN. 6 SQ FT FREE AREA. SEE SHEET M2.1 FOR CONTINUATION. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.

(3) REFRIGERANT PIPING DOWN THRU ROOF. SEE SHEET M2.1P FOR CONTINUATION. CONTRACTOR TO VERIFY REFRIGERANT PIPING SIZE AND ROUTING WITH MANUFACTURER PRIOR TO ORDERING.

(4) 12"X12" OUTSIDE AIR DUCT DOWN THRU ROOF TO DOAS UNIT. SEE SHEET M2.1 FOR CONTINUATION.

(5) 4"ø DRYER DUCT TO TERMINATE WITH FACTORY ROOF CAP AND TO GO DOWN THRU ROOF.

(6) 8"ø EXHAUST AIR DUCT DOWN THRU ROOF. SEE SHEET M2.1 FOR CONTINUATION.

(7) ROOF ACCESS HATCH.

(8) PLUMBING VENT.

NORTH

MECHANICAL ROOF PLAN

SCALE 1/8"=1'–0" 1

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M28826
Exp. 3/31/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

MECHANICAL ROOF PLAN

DRAWING NUMBER: M2.3

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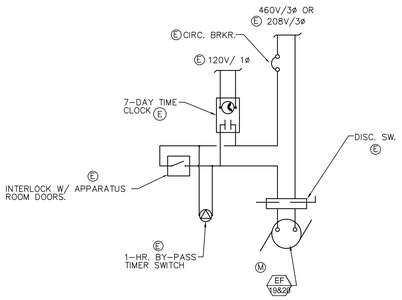
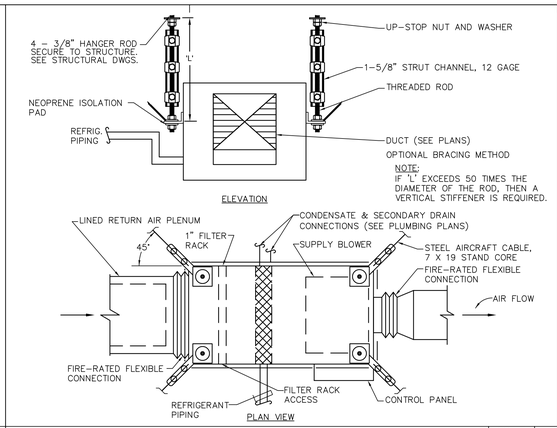
CM-07-01-2026



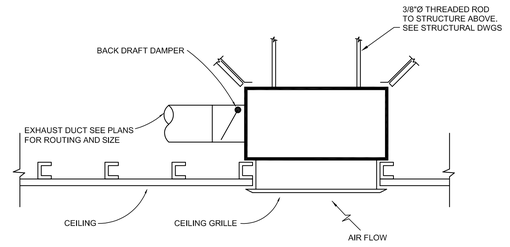

## APP BAY EXHAUST FAN WIRING DIAGRAM

SCALE: NONE | 16



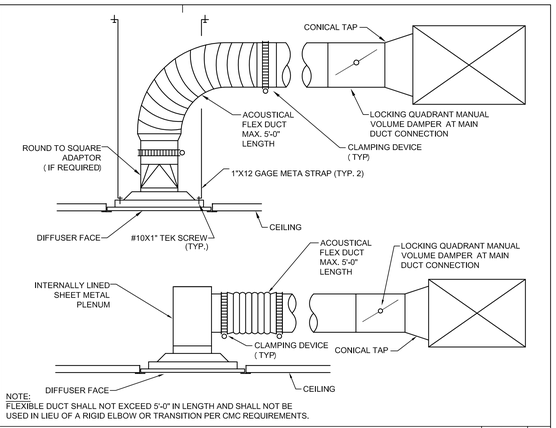

## DUCTED FAN COIL ANCHORAGE

SCALE: NONE | 12



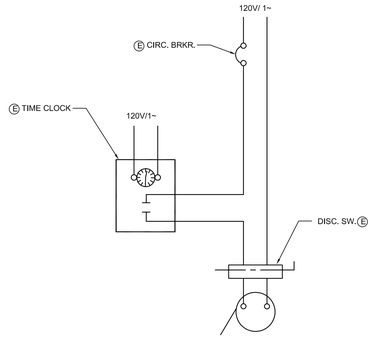

## CEILING EXHAUST FAN ANCHORAGE DETAIL

SCALE: NONE | 8



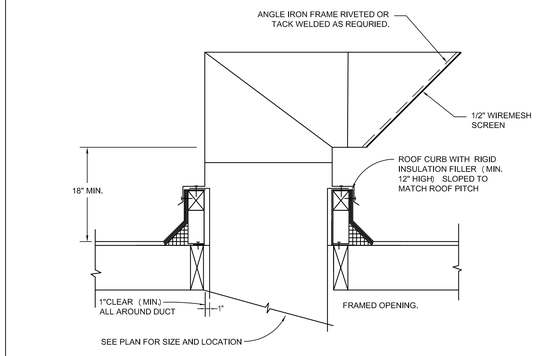

## CEILING DIFFUSER DETAIL

SCALE: NONE | 4



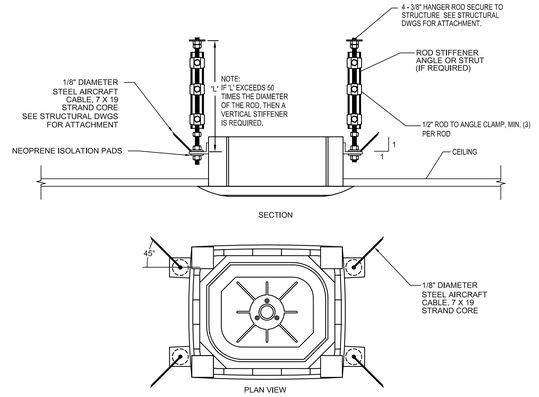

## TIMECLOCK CONTROLLED EXHAUST FAN WIRING DIAGRAM

SCALE: NONE | 15



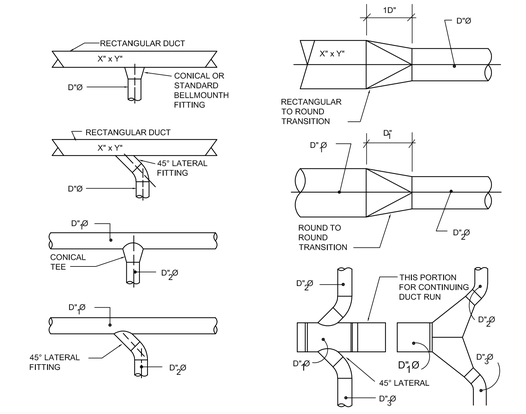

## CONDENSING UNIT ANCHORAGE DETAIL

SCALE: NONE | 11



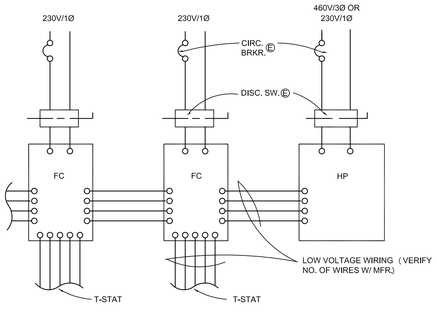

## CASSETTE FAN COIL ANCHORAGE

SCALE: NONE | 7



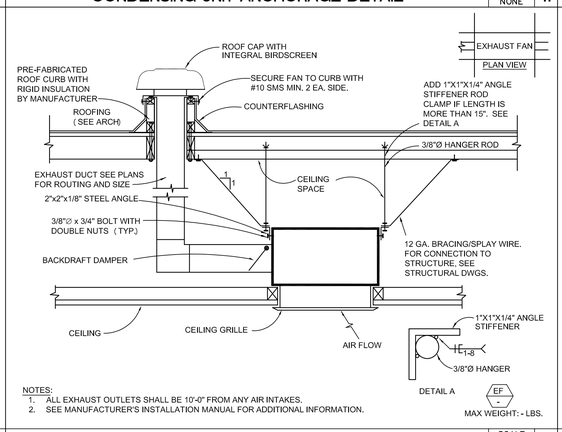

## DUCTWORK TRANSITION DETAIL

SCALE: NONE | 3



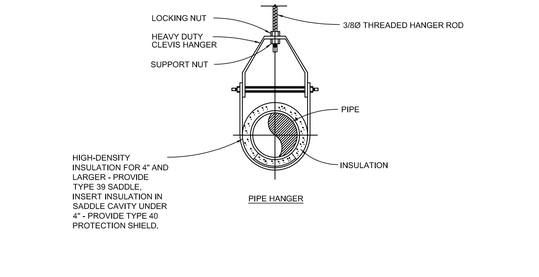

## TYP. EXHAUST FAN WIRING DETAIL

SCALE: NONE | 14



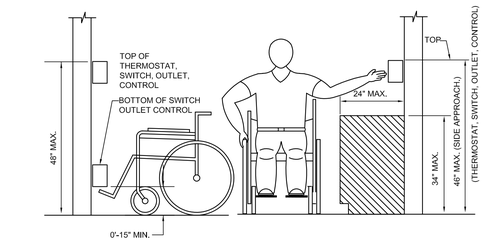

## ROOF CAP PENETRATION DETAIL

SCALE: NONE | 10




## TYPICAL PIPE HANGER DETAIL

SCALE: NONE | 6



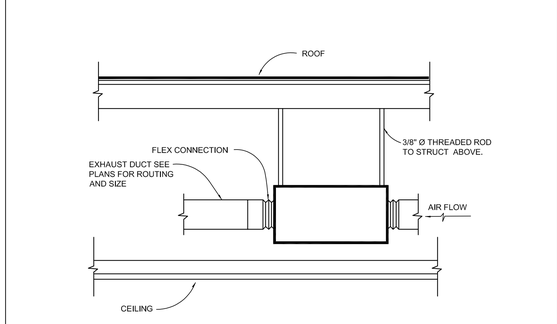

## THERMOSTAT MOUNTING DETAIL

SCALE: NONE | 2



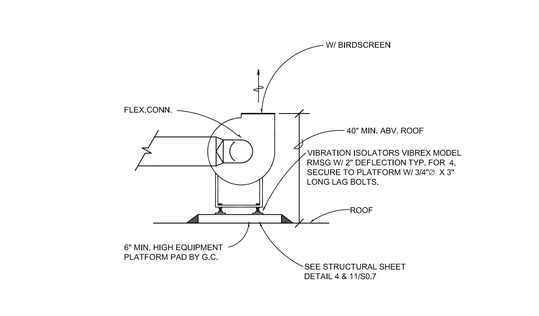

## FAN COIL UNIT WIRING DIAGRAM

SCALE: NONE | 13



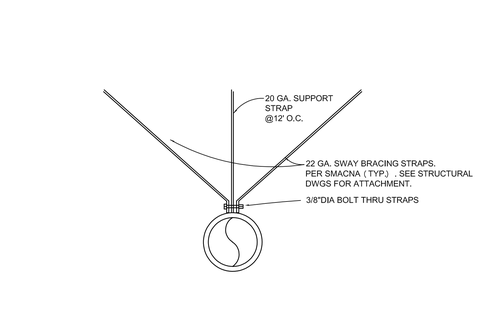

## INLINE EXHAUST FAN ANCHORAGE DETAIL

SCALE: NONE | 9




## EXHAUST FAN ANCHORAGE DETAIL

SCALE: NONE | 5




NOTE: INSTALLATION SHALL COMPLY W/ LATEST SMACNA STANDARDS.

## DUCTWORK HANGER SUPPORT DETAIL

SCALE: NONE | 1

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8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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800 BAKER STREET
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REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSELIN
No. M29639
Exp. 3/31/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: EC | CHECKED: AG
DATE: 05/23/25 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**MECHANICAL DETAILS**

DRAWING NUMBER: **M5.1**

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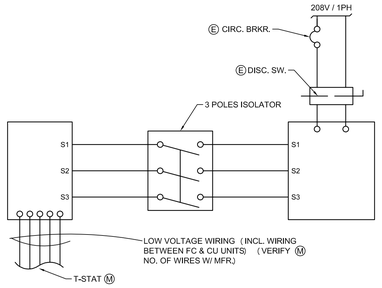
CM-07-01-2026




LEGEND:

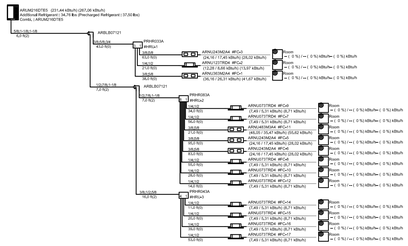
(E) PROVIDED BY ELEC.

(M) PROVIDED BY MECH.

NOTE: INSTALL PER MANUFACTURER'S GUIDELINES.

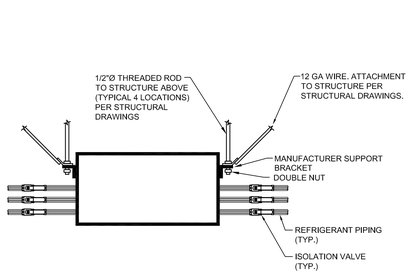
## SPLIT SYSTEM HEAT PUMP WIRING DIAGRAM

SCALE NONE 7



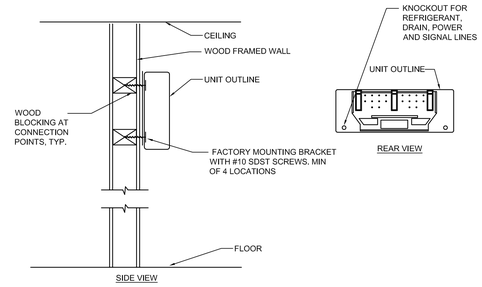
## HRU-1 PIPING DIAGRAM

SCALE NONE 4




## BRANCH SELECTOR BOX ANCHORAGE DETAIL

SCALE NONE 6




NOTES:

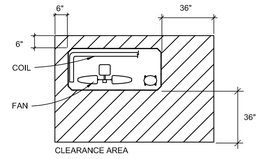
1. MAINTAIN MFR. RECOMMENDED MIN. CLEARANCES.
2. REFRIGERANT IS METERED BY CAPILLARY TUBES IN THE OUTDOOR UNIT. INSULATE BOTH REFRIGERANT LINES.
3. REFRIGERANT, DRAIN, AND POWER CONNECTIONS MAY BE MADE IN UNIT REAR, BOTTOM, LEFT SIDE OR RIGHT SIDE.
4. INSTALLATION SHALL COMPLY WITH MFR. GUIDELINES.

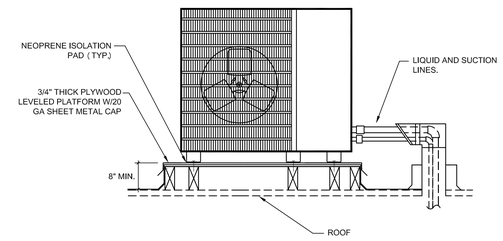
FC

MAX WEIGHT: - LBS.

## WALL-MOUNTED FAN COIL UNIT ANCHORAGE

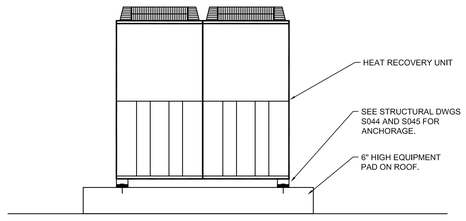
SCALE NONE 3



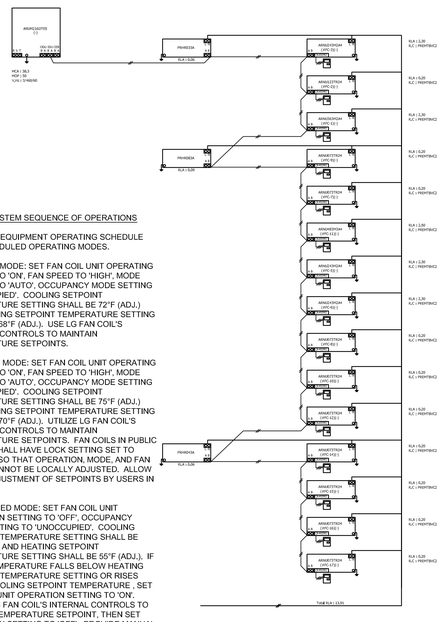

## ROOFTOP CONDENSING UNIT ANCHORAGE DETAIL

SCALE NONE 2




## HEAT RECOVERY UNIT ANCHORAGE ON ROOF

SCALE NONE 1




LG VRF SYSTEM SEQUENCE OF OPERATIONS

REFER TO EQUIPMENT OPERATING SCHEDULE FOR SCHEDULED OPERATING MODES.

WARM-UP MODE: SET FAN COIL UNIT OPERATING SETTING TO 'ON', FAN SPEED TO 'HIGH', MODE SETTING TO 'AUTO', OCCUPANCY MODE SETTING TO 'OCCUPIED'. COOLING SETPOINT TEMPERATURE SETTING SHALL BE 72°F (ADJ.) AND HEATING SETPOINT TEMPERATURE SETTING SHALL BE 68°F (ADJ.). USE LG FAN COIL'S INTERNAL CONTROLS TO MAINTAIN TEMPERATURE SETPOINTS.

OCCUPIED MODE: SET FAN COIL UNIT OPERATING SETTING TO 'ON', FAN SPEED TO 'HIGH', MODE SETTING TO 'AUTO', OCCUPANCY MODE SETTING TO 'OCCUPIED'. COOLING SETPOINT TEMPERATURE SETTING SHALL BE 75°F (ADJ.) AND HEATING SETPOINT TEMPERATURE SETTING SHALL BE 70°F (ADJ.). UTILIZE LG FAN COIL'S INTERNAL CONTROLS TO MAINTAIN TEMPERATURE SETPOINTS. FAN COILS IN PUBLIC SPACES SHALL HAVE LOCK SETTING SET TO PROHIBIT SO THAT OPERATION, MODE, AND FAN SPEED CANNOT BE LOCALLY ADJUSTED. ALLOW LOCAL ADJUSTMENT OF SETPOINTS BY USERS IN SPACES.

UNOCCUPIED MODE: SET FAN COIL UNIT OPERATION SETTING TO 'OFF', OCCUPANCY MODE SETTING TO 'UNOCCUPIED'. COOLING SETPOINT TEMPERATURE SETTING SHALL BE 85°F (ADJ.) AND HEATING SETPOINT TEMPERATURE SETTING SHALL BE 55°F (ADJ.). IF SPACE TEMPERATURE FALLS BELOW HEATING SETPOINT TEMPERATURE SETTING OR RISES ABOVE COOLING SETPOINT TEMPERATURE , SET FAN COIL UNIT OPERATION SETTING TO 'ON'. UTILIZE LG FAN COIL'S INTERNAL CONTROLS TO SATISFY TEMPERATURE SETPOINT, THEN SET OPERATION SETTING TO 'OFF'. PROVIDE MANUAL OVERRIDE AT THERMOSTAT TO START UNIT AND OPERATE IN OCCUPIED MODE FOR 2 HOURS (ADJ.) THEN RETURN TO UNOCCUPIED MODE.

ALARMS: ON UNIT ERROR

## HRU-1 WIRING DIAGRAM

SCALE NONE 5

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909

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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

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800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M28870
Exp. 3/31/26
MECHANICAL
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CONSULTANT

PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## MECHANICAL DETAILS

DRAWING NUMBER: **M5.2**

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CM-07-01-2026

| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 1 of 17) |
| Project Name: Costa Mesa FS 2 | Date Prepared: 2025-04-29 |

**A. General Information**

| | | | | | |
|---|---|---|---|---|---|
| 1 | Project Name | Costa Mesa FS 2 | | | |
| 2 | Run Title | Title 24 Analysis | | | |
| 3 | Project Location | 800 Baker St | | | |
| 4 | City | Costa Mesa | 5 | Standards Version | Compliance 2022 |
| 6 | Zip code | 92626 | 7 | Compliance Software (version) | EnergyPro 9.3 |
| 8 | Climate Zone | 6 | 9 | Building Orientation (deg) | 0 |
| 10 | Building Type(s) | • Nonresidential | 11 | Weather File | TORRANCE-MUNI-AP_STYP20.epw |
| 12 | Project Scope | • New envelope and mechanical | 13 | Number of Dwelling Units | 0 |
| 14 | Total Conditioned Floor Area in Scope (ft²) | 4290 | 15 | Total # of hotel/motel rooms | 0 |
| 16 | Total Unconditioned Floor Area (ft²) | 0 | 17 | Fuel Type | Natural gas |
| 18 | Nonresidential Conditioned Floor Area | 4290 | 19 | Total # of Stories (Habitable Above Grade) | 1 |
| 20 | Residential Conditioned Floor Area | 0 | | | |



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 2 of 17) |

**B. PROJECT SUMMARY**

*Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the permit application.*

| Building Components Complying via Performance | | | | | Building Components Complying Prescriptively | |
|---|---|---|---|---|---|---|
| Envelope (See Table G) | Nonres | Performance | Solar Thermal Water Heating (See Table I3) | ☐ Performance | The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E). | |
| | MultiFam | Not Included | | ☒ Not Included | | |
| Mechanical (See Table H) | Nonres | Performance | Covered Process: Commercial Kitchens (see Table J) | ☐ Performance | Indoor Lighting (Unconditioned) 140.6 & 170.2(e) | NRCC-LTI-E is required |
| | MultiFam | Not Included | | ☒ Not Included | Outdoor Lighting 140.7 & 170.2(e) | NRCC-LTO-E is required |
| Domestic Hot Water (See Table I) | Nonres | Not Included | Covered Process: Laboratory Exhaust (see Table J) | ☐ Performance | Sign Lighting 140.8 & 170.2(e) | NRCC-LTS-E is required |
| | MultiFam | Not Included | | ☒ Not Included | **Building Components Complying with Mandatory Measures** | |
| Lighting (Indoor Conditioned, see Table K) | Nonres | Not Included | Photovoltaics (see Table F) | ☐ Performance | Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.) | |
| | MultiFam | Not Included | | ☒ Not Included | Electrical Power Distribution 110.11 | NRCC-ELC-E is required |
| | | | Battery (see Table F) | ☐ Performance | Commissioning 120.8 | NRCC-CXR-E is required |
| | | | | ☒ Not Included | Solar and Battery 110.10 | NRCC-SAB-E is required |



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 3 of 17) |

**C1. COMPLIANCE SUMMARY**

| | COMPLIES[3] | | |
|---|---|---|---|
| | Time Dependent Valuaton (TDV) | | Source Energy Use |
| | Efficiency[1] (kBtu/ft² - yr) | Total[2] (kBtu/ft² - yr) | Total[2] (kBtu/ft² - yr) |
| Standard Design | 341.84 | 232.99 | 25.65 |
| Proposed Design | 228.38 | 228.38 | 19.16 |
| **Compliance Margins** | **113.46** | **4.61** | **6.49** |
| | **Pass** | **Pass** | **Pass** |

[1] *Efficiency measures include improvements like a better building envelope and more efficient equipment*
[2] *Compliance Totals include efficiency, photovoltaics and batteries*
[3] *New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded*
*Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded*



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 4 of 17) |

**C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)**

| | COMPLIES[2] | | |
|---|---|---|---|
| Energy Component | Standard Design (TDV) | Proposed Design (TDV) | Compliance Margin (TDV)[1] |
| Space Heating | 1.43 | 2.86 | -1.43 |
| Space Cooling | 133.28 | 133.27 | 0.01 |
| Indoor Fans | 159.5 | 44.62 | 114.88 |
| Heat Rejection | 0 | 0 | 0 |
| Pumps & Misc. | 0 | 0 | 0 |
| Domestic Hot Water | 17.54 | 17.54 | 0 |
| Indoor Lighting | 30.09 | 30.09 | 0 |
| Flexibility | --- | --- | --- |
| **EFFICIENCY COMPLIANCE TOTAL** | **341.84** | **228.38** | **113.46 (33.2%)** |
| Photovoltaics | -107.83 | --- | -107.83 |
| Batteries | -1.02 | --- | -1.02 |
| **TOTAL COMPLIANCE** | **232.99** | **228.38** | **4.61 (2%)** |

[1] *Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.*



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 5 of 17) |

**C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]**

| Non-Regulated Energy Component | Standard Design (TDV) | Proposed Design (TDV) | Compliance Margin (TDV)[1] |
|---|---|---|---|
| Receptacle | 50.43 | 50.43 | --- |
| Process | 363.34 | 363.34 | --- |
| Other Ltg | --- | --- | --- |
| Process Motors | --- | --- | --- |
| **TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)** | **646.76** | **642.15** | **4.61 (0.7%)** |

[1] *Notes: This table is not used for Energy Code Compliance.*



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 6 of 17) |

**C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft² /yr)**

| | COMPLIES[2] | | |
|---|---|---|---|
| Energy Component | Standard Design (SOURCE) | Proposed Design (SOURCE) | Compliance Margin (SOURCE)[1] |
| Space Heating | 0.22 | 0.41 | -0.19 |
| Space Cooling | 8.12 | 7.41 | 0.71 |
| Indoor Fans | 14.91 | 4.17 | 10.74 |
| Heat Rejection | 0 | 0 | 0 |
| Pumps & Misc. | 0 | 0 | 0 |
| Domestic Hot Water | 4.89 | 4.89 | 0 |
| Indoor Lighting | 2.28 | 2.28 | 0 |
| Flexibility | --- | --- | --- |
| **EFFICIENCY COMPLIANCE TOTAL** | **30.42** | **19.16** | **11.26 (37%)** |
| Photovoltaics | -4.34 | --- | -4.34 |
| Batteries | -0.43 | --- | -0.43 |
| **TOTAL COMPLIANCE** | **25.65** | **19.16** | **6.49 (25.3%)** |

[1] *Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.*



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 7 of 17) |

**C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]**

| Non-Regulated Energy Component | Standard Design (SOURCE) | Proposed Design (SOURCE) | Compliance Margin (SOURCE)[1] |
|---|---|---|---|
| Receptacle | 3.58 | 3.58 | --- |
| Process | 28.87 | 28.87 | --- |
| Other Ltg | --- | --- | --- |
| Process Motors | --- | --- | --- |
| **TOTAL ( TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)** | **58.1** | **51.61** | **6.49 (11.2%)** |

[1] *Notes: This table is not used for Energy Code Compliance.*

**C6. 'ABOVE CODE' QUALIFICATIONS**

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 8 of 17) |

**C7. ENERGY USE SUMMARY**

| Energy Component | Standard Design Site (MWh) | Proposed Design Site (MWh) | Margin (MWh) | Standard Design Site (MBtu) | Proposed Design Site (MBtu) | Margin (MBtu) |
|---|---|---|---|---|---|---|
| Space Heating | 0.2 | 0.4 | -0.2 | --- | --- | --- |
| Space Cooling | 20.6 | 19.9 | 0.7 | --- | --- | --- |
| Indoor Fans | 24.1 | 6.7 | 17.4 | --- | --- | --- |
| Heat Rejection | --- | --- | --- | --- | --- | --- |
| Pumps & Misc. | --- | --- | --- | --- | --- | --- |
| Domestic Hot Water | 0.9 | 0.9 | 0 | 20.6 | 20.6 | 0 |
| Indoor Lighting | 5.1 | 5.1 | 0 | --- | --- | --- |
| Flexibility | --- | --- | --- | --- | --- | --- |
| **EFFICIENCY TOTAL** | **50.9** | **33** | **17.9** | **20.6** | **20.6** | **0** |
| Photovoltaics | -22.7 | --- | --- | --- | --- | --- |
| Batteries | 0 | --- | --- | --- | --- | --- |
| **ENERGY USE SUBTOTAL** | **28.2** | **33** | **-4.8** | **20.6** | **20.6** | **0** |
| Receptacle | 8.7 | 8.7 | 0 | --- | --- | --- |
| Process | 59.2 | 59.2 | 0 | --- | --- | --- |
| Other Ltg | --- | --- | --- | --- | --- | --- |
| Process Motors | --- | --- | --- | --- | --- | --- |
| **ENERGY USE TOTAL** | **96.1** | **100.9** | **-4.8** | **20.6** | **20.6** | **0** |



| CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD | NRCC-PRF-E |
|---|---|
| Nonresidential Performance Compliance Method | (Page 9 of 17) |

**C8. ENERGY USE INTENSITY (EUI)**

| | Standard Design (kBtu/ft² / yr) | Proposed Design (kBtu/ft² / yr) | Margin (kBtu/ft² / yr) | Margin Percentage |
|---|---|---|---|---|
| GROSS EUI[1] | 99.29 | 85.05 | 14.24 | 14.34 |
| NET EUI[1] | 81.23 | 85.05 | -3.82 | -4.7 |

[1] *Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.*

**D1. EXCEPTIONAL CONDITIONS**

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
• The building does not include service water heating. Verify that service water heating is not required and is not included in the design.
• PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

**G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)**

| 01 | 02 | 03 | 04 |
|---|---|---|---|
| Opaque Surfaces & Orientation | Total Gross Surface Area (ft²) | Total Fenestration Area (ft²) | Window to Wall Ratio (%) |
| North-Facing[1] | 500 | 55 | 11 |
| East-Facing[2] | 1230 | 90 | 7.32 |
| South-Facing[3] | 260 | 30 | 11.54 |
| West-Facing[4] | 1150 | 55 | 4.78 |
| **Total** | **3140** | **230** | **7.32** |

*Notes*
[1] *North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW),*
[2] *East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE),*
[3] *South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE),*
[4] *West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW),*



PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M28070
Exp. 3/31/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: EC | CHECKED: AG
DATE: 05/23/25 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

## TITLE 24 COMPLIANCE FORMS

DRAWING NUMBER: **M5.3**

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CM-07-01-2026



**G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)**

| 01 | 02 | 03 | 04 |
|---|---|---|---|
| Opaque Surfaces & Orientation | Total Gross Surface Area (ft²) | Total Fenestration Area (ft²) | Window to Wall Ratio (%) |
| Roof | 4290 | 0 | 0 |

*Notes*
[1]*North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW),*
[2]*East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE),*
[3]*South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE),*
[4]*West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW),*

**G4. NONRESIDENTIAL AIR BARRIER**

| 01 | 02 |
|---|---|
| Building Story Name | Air Barrier |
| Com-Floor 1 | No air barrier |





**G5. OPAQUE SURFACE ASSEMBLY SUMMARY**

| 01 | 02 | 03 | 04 | 05 | 06 | | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Surface Name | Construction Type | Area (ft²) | Framing Type | Cavity R-Value | Continuous R-Value | | Units | Value | Description of Assembly Layers | Status[1] |
| | | | | | Interior | Exterior | | | | |
| R-19 Wall6 | Exterior Wall | 3,140 | Wood | 19 | N/A | N/A | U-factor | 0.0723 | Stucco - 7/8 in.<br>Vapor permeable felt - 1/8 in.<br>Composite-1<br>Gypsum Board - 1/2 in. | N |
| Slab On Grade17 | Underground Floor | 4,290 | N/A | 0 | N/A | N/A | F-factor | 0.73 | Slab Type =Unheated slab on grade<br>Insulation Orientation =None<br>Insulation R-Value =none | N |
| R-30 Roof No Attic19 | Roof | 4,290 | Wood | 30 | N/A | N/A | U-factor | 0.034 | AsphaltShingles0_25In<br>Vapor permeable felt - 1/8 in.<br>Plywood - 1/2 in.<br>Air - Cavity - Wall Roof Ceiling - 4 in. or more<br>Composite-2<br>Gypsum Board - 1/2 in. | N |
| R-0 Wall70 | Interior Wall | 390 | N/A | 0 | N/A | N/A | U-factor | 0.3367 | Stucco - 7/8 in.<br>Vapor permeable felt - 1/8 in.<br>Air - Cavity - Wall Roof Ceiling - 4 in. or more<br>Gypsum Board - 1/2 in. | N |

[1] *Status: N - New, A - Altered, E - Existing*

**G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)**

| 01 | 02 | 03 | 04 |
|---|---|---|---|
| Assembly Name | Area (ft²) | Overall U-factor | Status[1] |
| Metal Door9 | 102 | 0.7 | N |

[1] *Status: N - New, A - Altered, E - Existing*





**G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
|---|---|---|---|---|---|---|---|---|
| Fenestration Assembly Name | Fenestration Type/ Product Type / Frame Type | Certification Method[1] | Assembly Method | Area (ft²) | Overall U-factor | Overall SHGC | Overall VT | Status[2] |
| PPG SOLARBAN 70 XL Clear | Vertical fenestration<br>Fixed window<br>Metal | Default 110.6 | Manufactured | 230 | 0.71 | 0.73 | 0.77 | N |

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

**H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Name | Equipment Type | Qty | Heating | | | | Cooling | | | Economizer Type (if present) | Status[1] |
| | | | Total Heating Output (kBtu/h) | Supp Heat Output (kBtu/h) | Efficiency Unit | Efficiency | Total Cooling Output (kBtu/h) | Efficiency Unit | Efficiency | | |
| HRU-1 | Variable Refrigerant Flow | 1 | 378 | N/A | COP | 3.24 | 336 | EER | 10.8 | N/A | N |

[1] *Status: N - New, A - Altered, E - Existing*





**H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name or Item Tag | Qty | Design OA CFM | Supply Fan | | | | Return / Relief Fan | | | | | Status[1] |
| | | | CFM | Power | Power Units | Control | Fan Type | CFM | Power | Power Units | Control | |
| 2-FC-1-VRF | 1 | 93 | 1,050 | 0.4 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 3-FC-2-VRF | 1 | 15 | 310 | 0.02 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 4-FC-3-VRF | 1 | 160 | 675 | 0.08 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 5-FC-4-VRF | 1 | 210 | 675 | 0.08 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 6-FC-5-VRF | 1 | 250 | 675 | 0.08 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 7-FC-6-VRF | 1 | 16.5 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 8-FC-7-VRF | 1 | 18 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 9-FC-8-VRF | 1 | 16.5 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 10-FC-9-VRF | 1 | 18 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 11-FC-10-VRF | 1 | 102 | 1,600 | 0.2 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 12-FC-11-VRF | 1 | 16.5 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 13-FC-12 OSA-VRF | 1 | 87 | 1,200 | 0.41 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 14-FC-13-VRF | 1 | 16.5 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 15-FC-14-VRF | 1 | 16.5 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 16-FC-15-VRF | 1 | 16.5 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |
| 17-FC-16-VRF | 1 | 25.5 | 265 | 0.01 | BHP | Constant Vol | N/A | N/A | N/A | N/A | N/A | N |

[1] *Status: N - New, A - Altered, E - Existing*





**H8. SYSTEM SPECIAL FEATURES**

| 01 | 02 | 03 | 04 |
|---|---|---|---|
| System Name | Equipment Type | Interlocks per 140.4(n)[1] | Other Special Features and Controls |
| HRU-1 | Variable Refrigerant Flow | N/A | Heat Recovery |

*Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.*
[1] *Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.*

**H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|---|---|---|---|---|---|---|
| Zone Name | Mechanical Ventilation | | | | Conditioned Area (sf) | DCV or Occupant Sensor Controls, or Both |
| | Ventilation Function | # of People | Supply OA CFM | Exhaust CFM | | |
| 1-FC-1 | Sports/Entertainment - Health club/weight rooms | 6.2 | 93 | 0 | 620 | N/A |
| 2-FC-2 | Office - Office space | 0.5 | 15 | 0 | 100 | N/A |
| 3-FC-3 | General - Conference/meeting | 10.67 | 160 | 0 | 320 | N/A |
| 4-FC-4 | General - Break rooms | 14 | 210 | 0 | 420 | N/A |
| 5-FC-5 | Food Service - Bars, cocktail lounges | 16.67 | 250 | 0 | 500 | N/A |
| 6-FC-6 | Office - Office space | 0.55 | 16.5 | 0 | 110 | N/A |
| 7-FC-7 | Office - Office space | 0.6 | 18 | 0 | 120 | N/A |
| 8-FC-8 | Office - Office space | 0.55 | 16.5 | 0 | 110 | N/A |
| 9-FC-9 | Office - Office space | 0.6 | 18 | 0 | 120 | N/A |
| 10-FC-10 | General - Corridors | 3.4 | 102 | 0 | 680 | N/A |
| 11-FC-11 | Office - Office space | 0.55 | 16.5 | 0 | 110 | N/A |
| 12-FC-12 OSA | General - Corridors | 2.9 | 87 | 0 | 580 | N/A |
| 13-FC-13 | Office - Office space | 0.55 | 16.5 | 0 | 110 | N/A |





**H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|---|---|---|---|---|---|---|
| Zone Name | Mechanical Ventilation | | | | Conditioned Area (sf) | DCV or Occupant Sensor Controls, or Both |
| | Ventilation Function | # of People | Supply OA CFM | Exhaust CFM | | |
| 14-FC-14 | Office - Office space | 0.55 | 16.5 | 0 | 110 | N/A |
| 15-FC-15 | Office - Office space | 0.55 | 16.5 | 0 | 110 | N/A |
| 16-FC-16 | Office - Office space | 0.85 | 25.5 | 0 | 170 | N/A |

**H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| System ID | System Type | Qty | Rated Capacity (kBtuh) | | Airflow (cfm) | | | Fan | | | VSD |
| | | | Heating | Cooling | Design | Min. | Min. Ratio | Power | Power Units | Cycles | |
| 2-FC-1-VRF | Variable Refrigerant Flow | 1 | 40.6 | 36.2 | 1,050 | N/A | N/A | 0.4 | BHP | Continuous | ☐ |
| 3-FC-2-VRF | Variable Refrigerant Flow | 1 | 13.6 | 12.3 | 310 | N/A | N/A | 0.02 | BHP | Continuous | ☐ |
| 4-FC-3-VRF | Variable Refrigerant Flow | 1 | 27.3 | 24.2 | 675 | N/A | N/A | 0.08 | BHP | Continuous | ☐ |
| 5-FC-4-VRF | Variable Refrigerant Flow | 1 | 27.3 | 24.2 | 675 | N/A | N/A | 0.08 | BHP | Continuous | ☐ |
| 6-FC-5-VRF | Variable Refrigerant Flow | 1 | 27.3 | 24.2 | 675 | N/A | N/A | 0.08 | BHP | Continuous | ☐ |
| 7-FC-6-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 8-FC-7-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 9-FC-8-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 10-FC-9-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 11-FC-10-VRF | Variable Refrigerant Flow | 1 | 52.2 | 48.1 | 1,600 | N/A | N/A | 0.2 | BHP | Continuous | ☐ |
| 12-FC-11-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 13-FC-12 OSA-VRF | Variable Refrigerant Flow | 1 | 91.36 | 95.6 | 1,200 | N/A | N/A | 0.41 | BHP | Continuous | ☐ |
| 14-FC-13-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 15-FC-14-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 16-FC-15-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |
| 17-FC-16-VRF | Variable Refrigerant Flow | 1 | 8.5 | 7.5 | 265 | N/A | N/A | 0.01 | BHP | Continuous | ☐ |





**L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

**Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online**

| Building Component | Form/Title |
|---|---|
| Envelope | NRCI-ENV-01-E - Must be submitted for all buildings |
| Envelope | NRCI-ENV-E - Envelope (for all buildings) |
| Mechanical | NRCI-MCH-01-E - Must be submitted for all buildings |
| Mechanical | NRCI-MCH-E - For all buildings with Mechanical Systems |

**M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

**Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).**

| Building Component | Form/Title & System Name(s) |
|---|---|
| Envelope | NRCA-ENV-02-F - NRFC label verification for fenestration |

**N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION**

**Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online**

**There are no Certificates of Verification applicable to this project**





**Documentation Author's Declaration Statement**

**I. I certify that this Certificate of Compliance documentation is accurate and complete.**

| | |
|---|---|
| Documentation Author Name: Andrew Gossman | Documentation Author Signature: Andrew Gossman |
| Company: | Signature Date: |
| Address: 14451 Chambers Road, Suite 210 | CEA/HERS Certification Identification (if applicable): M35839 |
| City/State/Zip: Tustin, CA 92780 | Phone: 949-4173903 |

**Responsible Person's Declaration statement**

**I certify the following under penalty of perjury, under the laws of the State of California:**

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered 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 all applicable inspections, and I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

| | |
|---|---|
| Responsible Designer Name: Bruce Ou | Responsible Designer Signature: |
| Company: PBK | |
| Address: 8163 Rochester Ave | Date Signed: |
| City/State/Zip: Rancho Cucamonga, CA 91730 | License #: C-34832 |
| Phone: 909-987-0909 | Title: Scope: |
| Responsible Designer Name: Andrew Gossman | Responsible Designer Signature: Andrew Gossman |
| Company: Pocock Design Solutions | |
| Address: 14451 Chambers Road Suite 210 | Date Signed: 5/16/2025 |
| City/State/Zip: Tustin, CA 92780 | License #: M35839 |
| Phone: (949) 417-3903 | Title: Scope: |



PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER ANDREW R. GOSSMAN No. M35839 Exp. 3/31/26 MECHANICAL STATE OF CALIFORNIA

CONSULTANT

PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: EC CHECKED: AG
DATE: 05/23/25 SCALE: AS NOTED
PROJECT NUMBER: 2109300

## TITLE 24 COMPLIANCE FORMS

DRAWING NUMBER: **M5.4**

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CM-07-01-2026

## GAS WATER HEATER SCHEDULE

| ITEM | MANUFACTURER | MODEL NO. | SERVICE | LOCATION | STORAGE | INPUT BTU/HR | RECOVERY CAPACITY @ 60°F | INLET TEMP °F | OUTLET TEMPER °F | OPER. WT. LBS. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WH 1 | A.O. SMITH | BTH-150 | DOMESTIC HOT WATER | SEE PLANS | 100 GALLONS | 150,000 | 297 GPH | 60 | 120 | 1387 LBS. | MUST HAVE ASHRAE STICKER OR OTHERWISE COMPLY WITH TITLE 24 REQUIREMENT FOR SERVICE WATER HEATERS. |

## PUMP SCHEDULE

| ITEM | MANUFACTURER | MODEL NO. | SERVICE | LOCATION | STORAGE | CAPACITY | | MOTOR | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GPM | HEAD | HORSE POWER | VOLT | PHASE | CYCLE | R.P.M. | |
| CP 1 | GRUNDFOS | "UP" SERIES | HOT WATER RETURN | SEE PLANS | CENTRIFUGAL | 2 | 8 | 1/25 | 115 | 1 | 60 | 1750 | PROVIDED WITH BUILT-IN OVERLOAD. |

## GENERAL NOTES

1. BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
2. ALL ACCESSIBLE WATER CLOSETS SHALL HAVE FLUSH VALVE WITH HANDLE ON OPEN SIDE.
3. ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS PIPE UNLESS OTHERWISE INDICATED ON DRAWINGS.
4. ALL PLUMBING FIXTURE VENTS TO TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10 FEET FROM ANY OUTSIDE AIR INTAKES.
5. EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS.
6. ALL EXTERIOR GAS COCKS, WATER SHUT OFF VALVES AND/OR SEWER CLEANOUTS BELOW GROUND SHALL BE INSTALLED IN YARD BOXES WITH THE COVERS CONSPICUOUSLY MARKED "GAS", "WATER", AND "SEWER" RESPECTIVELY.
7. CONNECTION BETWEEN INCOMPATIBLE MATERIALS ABOVE GRADE AND INSIDE BUILDING SHALL BE MADE WITH TWO (2) DIELECTRIC UNIONS SEPARATED BY A TWELVE INCH (12") SECTION OF RED BRASS PIPE.
8. ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. ALL URNINALS SHALL HAVE CLEANOUTS ABOVE FIXTURE, CPC 707.4. THE CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENT, CABINETS, ETC., AND THE ARCHITECT PRIOR TO ANY INSTALLATION.
9. ALL URINALS SHALL HAVE CLEANOUTS ABOVE FIXTURE, PER CPC 707.4. THE CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH THE ARCHITECT PRIOR TO ANY INSTALLATION.
10. SEE ARCHITECTURAL DRAWINGS FOR ACCESSIBLE FIXTURE LOCATIONS AND MOUNTING HEIGHTS. INSULATE ALL EXPOSED HOT WATER AND DRAIN PIPING BELOW ACCESSIBLE LAVATORIES AND SINKS.
11. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING.
12. ALL WORK AND MATERIAL SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH CALIFORNIA PLUMBING CODE 2022.
13. THESE DRAWINGS INDICATE THE SEWER, WATER, AND STORM DRAIN SYSTEMS TO POINT OF CONNECTION 5'-0" OUTSIDE OF THE BUILDING. CONTINUATION OF THESE SYSTEMS IS SHOWN ON THE CIVIL DRAWINGS AND IS SPECIFIED UNDER ANOTHER SECTION OF THE SPECIFICATIONS. THE PIPING SHALL BE INSTALLED TO MEET THE INVERT ELEVATIONS SHOWN ON THE CIVIL DRAWINGS.
14. INSULATION PER CPC 609.11. ALSO SEE CALIFORNIA ENERGY CODE TABLE 120.3-A.
15. INSULATION (SEE SPECIFICATION FOR TYPE REQUIRED) AND COVERING ON PIPE AND TUBING SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH 2022 C.B.C. SECTION 720.3.
16. MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL HAVE A FLAME-SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHERE TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. CMC 2022, CHAPTERS 7, 9 ,& 11.
17. THE BUILDING SHALL BE PROVIDED WITH AN AUTOMATIC SPRINKLER SYSTEM PER C.B.C. CHAPTER 9 SECTION 903 & NFPA 13, ALL LOCAL CODES, AND INSURANCE UNDERWRITERS REQUIREMENTS. THE FIRE SPRINKLER CONTRACTOR SHALL SUBMIT AN APPROVED AND STAMPED SET OF DRAWINGS SHOWING ALL SIZES AND LOCATIONS OF FIRE SPRINKLER RISER, PIPING, DETECTOR CHECK VALVE AND ANY OTHER EQUIPMENT REQUIRED. IN ADDITION, SUBMITTAL SHALL BE MADE FOR ALL MATERIAL AND EQUIPMENT.
18. PROVIDE A WATER HAMMER ARRESTOR FOR FLUSH VALVE PER 2022 CPC 609.10.
19. ALL EQUIPMENT SHALL BE LATERALLY SUPPORTED IN ALL DIRECTIONS TO RESIST A MIN. OF 20% OF THE EQUIPMENT'S OPERATING WEIGHT.
20. CORROSION PROTECTION SHALL BE PROVIDED FOR ALL BELOW GRADE CAST IRON AND COPPER PIPING AND ASSOCIATED VALVES AND FITTINGS. SUCH PIPING SHALL BE PROTECTED FROM CORROSION BY ENCASEMENT IN A POLYETHYLENE PROTECTIVE WRAPPING, REFERRED TO HEREAFTER AS POLYWRAP. ALTHOUGH NOT INTENDED TO BE A COMPLETELY AIR AND WATER TIGHT ENCLOSURE, THE POLYWRAP SHALL PROVIDE A CONTINUOUS BARRIER BETWEEN THE PIPE AND SURROUNDING BEDDING AND BACKFILL. SEE SPECS 221316 SECTION 2.4 CORROSION PROTECTION.
21. ALL SIZING FOR WASTE, VENTS, WATER AND GAS SHALL BE IN COMPLIANCE WITH TABLES IN THE CALIFORNIA PLUMBING CODE 2022.

## MATERIALS

1. SANITARY SOIL WASTE AND VENT SYSTEMS ABV & BEL. GRADE: PIPING WITHIN THE BUILDING ITSELF AND OUTSIDE WITHIN FIVE FEET (5') OF THE FOUNDATION, SHALL BE NO-HUB CAST IRON SERVICE WEIGHT PIPE AND FITTINGS, FREE FROM DEFECTS, AND SHALL COMPLY WITH C.I.S.P.I. STANDARD 301 OR ASTM A-888. FITTINGS SHALL BE MADE UP WITH "HUSKY" SD 4000 SERIES OR "CLAMP ALL"125 SERIES STAINLESS STEEL TYPE 304 COUPLINGS AND SHALL CONFORM TO ASTM C1540 & ASTM C564 EXCEPT ALL ABOVE GROUND VENT PIPE FITTINGS AY BE ADE WITH "ANACO" STAINLESS STEEL TWO BAND COUPLINGS CONFORMING TO C.I.S.P.I. STANDARD 310.
2. WATER PIPING WITHIN THE BUILDING AND ABOVE GRADE SHALL BE TYPE "L" ASTM B88, HARD DRAWN COPPER TUBING WITH WROUGHT COPPER SWEAT FITTINGS ANSI B16.22 WITH 95-5 SILVER SOLDER.
3. WATER PIPING BELOW THE BUILDING FLOOR SHALL BE TYPE "L" SOFT ANNEALED COPPER TUBING WITH NO FITTINGS BELOW THE SLAB.
4. INDIRECT AND CONDENSATE DRAINS SHALL BE TYPE "M" ASTM B88, HARD DRAWN COPPER TUBING WITH WROUGHT COPPER SWEAT FITTINGS ANSI B16.22 WITH LEAD FREE SOLDER.
5. CONCEALED GAS PIPING WITHIN THE BUILDING SHALL BE SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A53 USING 150 POUND BANDED MALLEABLE IRON SCREWED FITTINGS
6. EXPOSED GAS PIPING OUTSIDE THE BUILDING SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE CONFORMING TO ASTM A53 USING GALVANIZED 150 POUND BONDED GALVANIZED MALLEABLE IRON SCREWED FITTINGS.
7. UNDERGROUND GAS PIPING SHALL BE SCHEDULE 40 SDR-11 POLYETHYLENE PE2406 (YELLOW) AS MANUFACTURED BY PLEXCO. FITTINGS SHALL BE SOCKET FUSION WELD POLYETHYLENE WITH ANODELESS SERVICE RISER AS MANUFACTURED BY PLEXCO PE2406 (YELLOW) COMPLYING WITH ASTM, D2513. WHERE REQUIRED PROVIDE "LYCO" OR DOUBLE "O" SEAL TRANSITION FITTINGS BETWEEN STEEL AND POLYETHYLENE AS MANUFACTURED BY CENTRAL, ALL IDENTIFIED AND APPROVED FOR GAS SERVICE. A NO. 18 COPPER TRACER WIRE SHALL BE INSTALLED WITH AND ATTACHED TO POLYETHYLENE PIPING AND SHALL TERMINATE ABOVE GRADE AT EACH END.
8. STORM DRAIN SYSTEM: ALL STORM DRAIN PIPING AND FITTINGS WITHIN THE BUILDING ITSELF SHALL BE CAST IRON AS SPECIFIED FOR SOIL AND WASTE PIPING.

## WATER CALCULATION

STREET PRESSURE: STATIC = 90 PSI
RESIDUAL = 78 PSI
TOTAL DEMAND FOR BUILDING: 103 FIXTURE UNITS = 70 GPM
RESIDUAL PRESSURE (FLUSH VALVE WATER CLOSET) = 25 PSI
STATIC HEIGHT 20' X .433 = 7 PSI
2" BACKFLOW PREVENTER = 8 PSI
2" WATER METER = 5 PSI
SUB TOTAL = 45 PSI

RESIDUAL = 78 PSI
SUB TOTAL = 45 PSI
TOTAL = 33 PSI

AVAILABLE FOR LINE LOSS = 33 PSI
ALLOWABLE FRICTION LOSS PER 100 FEET OF PIPE
DEVELOPMENT LENGTH = 350 FEET
EQUIVALENT LENGTH = 438 FEET (25 % FOR FITTINGS)

33 PSI X 100 / 3300 / 438 = 7 PSI/100 FEET DESIGN FOR 7 PSI
DESIGN PIPE SIZES ON 7 PSI/100 FEET
AT MAXIMUM VELOCITY 8 FPS

### SIZES TABLE

| PIPE SIZES | GPM | (FT) F.U. | (FV) F.U. | VELOCITY |
|---|---|---|---|---|
| 1/2" | 2.9 | 2 | 0 | 3.9 |
| 3/4" | 7.3 | 8 | 0 | 5.3 |
| 1" | 16.0 | 23 | 0 | 6.2 |
| 1 1/4" | 27.0 | 46 | 10 | 7.5 |
| 1 1/2" | 42.0 | 90 | 30 | 8.0 |
| 2" | 77.5 | 261 | 138 | 8.0 |
| 2 1/2" | 119 | 474 | 357 | 8.0 |
| 3" | 170 | 748 | 700 | 8.0 |

## LEGEND

| SYMBOL | ABBREVIATION | DESCRIPTION |
|---|---|---|
| | S OR W | SOIL OR WASTE BELOW FLOOR OR GRADE |
| CWV | CWV | COMBINATION WASTE & VENT BELOW FLOOR OR GRADE |
| SD | SD | STORM DRAIN ABOVE FLOOR |
| SD | SD | STORM DRAIN BELOW FLOOR OR GRADE |
| OD | OD | OVERFLOW DRAIN ABOVE FLOOR |
| | V | SANITARY VENT |
| | CW | COLD WATER |
| | HW | HOT WATER |
| | HWR | HOT WATER RETURN |
| CD | CD | CONDENSATE DRAIN |
| TP | TP | TRAP PRIMER |
| G | G | GAS LINE |
| A | A | COMPRESSED AIR LINE |
| F | F | FIRE LINE |
| AS | AS | AUTOMATIC SPRINKLER LINE |
| DOS | DOS | DIESEL OIL SUPPLY LINE |
| DOR | DOR | DIESEL OIL RETURN LINE |
| | | DIRECTION OF FLOW |
| | SOV | SHUT-OFF VALVE |
| | SOV/GC | SHUT-OFF VALVE OR GAS COCK IN YARD BOX |
| | GC | GAS COCK |
| | BV | BALANCING VALVE |
| | FCO | FLOOR CLEANOUT |
| | WCO | WALL CLEANOUT |
| | | RISER UP |
| | | RISER DOWN |
| | ABV | ABOVE |
| | AP | ACCESS PANEL |
| | BEL | BELOW |
| | CLG | CEILING |
| | CONT | CONTINUATION |
| | COTG | CLEANOUT TO GRADE |
| | DN | DOWN |
| | EXIST | EXISTING |
| | FLR | FLOOR |
| | FFE | FINISH FLOOR ELEVATION |
| | I.E. | INVERT ELEVATION |
| | POC | POINT OF CONNECTION |
| | PLCS | PLACES |
| | SLVE | SLEEVE |
| | VTR | VENT THRU ROOF |
| | YB | YARD BOX |

## AIR EQUIPMENT SCHEDULE

| ITEM | EQUIPMENT | DESCRIPTION |
|---|---|---|
| AC 1 | AIR COMPRESSOR | INGERSOLL-RAND MODEL NO. 2475N7.5-P, TWO STAGE RECIPROCATING, MAXIMUM OVERALL DIMENSIONS SHALL BE 76" HIGH X 40" WIDE. THE COMPLETE UNIT SHALL BE BOLTED TO THE FLOOR AND PROVIDED WITH SEISMIC BRACES. AIR COMPRESSOR, 7.5 HP, 200 VOLTS, 3 PHASE, 60 HZ, COMPRESSOR SHALL DELIVERY 24.0 CFM AT 175 PSI. TANK SHALL BE 80 GALLON CAPACITY, VERTICAL TYPE. THE UNIT SHALL HAVE CENTRIFUGAL PRESSURE RELEASE FOR "LOAD FREE" STARTING AND AUTOMATIC SWITCH TO START AND STOP AT PRESET MINIMUM AND MAXIMUM PRESSURE LIMITS. THE UNIT SHALL BE COMPLETE WITH THE FOLLOWING ACCESSORIES MOUNTED ON THE UNIT: COMPLETELY ENCLOSED, CAL OSHA APPROVED BELT GUARD, OIL BATH AIR CLEANER, SAFETY VALVE, CHECK VALVE, AIR OUTLET VALVE, PRESSURE GAUGE, AUTOMATIC DRAIN VALVE W/ POWER CORD & PLUG (120 VOLT, SINGLE PHASE), PRESSURE SWITCH, 208 VOLT, THREE PHASE, 60 HZ, MAGNETIC MOTOR STARTER WITH THREE PHASE OVERLOAD PROTECTION. APPROXIMATE OPERATING WEIGHT = 611 LBS.<br><br>CONTACT INFORMATION:<br>CURT DAHMEN, AREA MANAGER<br>ARNEL COMPRESSOR COMPANY<br>114 SUNSET AVE.<br>INDUSTRY, CA 91744<br>DIRECT: 626.672.6407<br>FAX: 909.597.7338 |
| HR 1 | HOSE REEL | COXREELS C SERIES MODEL NO. C-L350-5016-A, COMPACT TWO REEL ASSEMBLY FOR AIR/ELECTRIC, 50'-0" HOSE W/ MAX. WORKING PRESSURE OF 300 PSI. SEE DRAWINGS FOR LOCATIONS. FRAME MUST BE IN THE COLOR RED. |

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M29629
Exp. 6/30/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: EC | CHECKED: AG
DATE: 05/23/25 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**PLUMBING LEGEND, SCHEDULES, & GEN. NOTES**

DRAWING NUMBER: **P0.1**

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CM-07-01-2026

# FIXTURE SCHEDULE

| ITEM | FIXTURE | ROUGH-IN CONNECTIONS: TRAP | WASTE | VENT | HOT WATER | COLD WATER | GAS | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|
| WC 1 | WATER CLOSET | INT | 4" | 2" | -- | 1" | -- | AMERICAN STANDARD (A/S) NO. 3451.001 "MADERA FLOWISE 15" HEIGHT ELONGATED FLUSH VALVE TOILET", SIPHON JET, FLOOR MOUNTED, ELONGATED BOWL, 15" HIGH. COMPLETE WITH SLOAN ROYAL NO. 111-1.1 GPF FLUSH VALVE, OLSONITE NO. 95SSCT SEAT AND A/S BOLT CAPS. |
| WC 2 | WATER CLOSET (ACCESSIBLE) | INT | 4" | 2" | -- | 1" | -- | AMERICAN STANDARD (A/S) NO. 3461.001 "MADERA FLOWISE 16-1/2" HEIGHT ELONGATED FLUSHOMETER TOILET", SIPHON JET, FLOOR MOUNTED, ELONGATED BOWL, 16-1/2" HIGH. COMPLETE WITH SLOAN ROYAL NO. 111-1.1 GPF FLUSH VALVE, OLSONITE NO. 95SSCT SEAT AND A/S BOLT CAPS. |
| WC 3 | WATER CLOSET (ACCESSIBLE, I/R SENSOR) | INT | 4" | 2" | -- | 1" | -- | AMERICAN STANDARD (A/S) NO. 3461.001 "MADERA FLOWISE 16-1/2" HEIGHT ELONGATED FLUSHOMETER TOILET", SIPHON JET, FLOOR MOUNTED, ELONGATED BOWL, 16-1/2" HIGH. COMPLETE WITH SLOAN ECOS NO. 111-1.1 GPF HW POWERED SENSOR OPERATED FLUSH VALVE, OLSONITE NO. 95SSCT SEAT AND A/S BOLT CAPS., NO. EL-154 TRANSFORMER 24 VOLT, (1) TRANSFORMER PER (10) UNITS AND LOW VOLTAGE WIRING INSTALLED BY ELECTRICAL CONTRACTOR. |
| UR 1 | URINAL | INT | 2" | 1-1/2" | -- | 3/4" | -- | AMERICAN STANDARD (A/S) NO. 6002.001 "PINTBROOK URINAL", WALL HUNG, SIPHON JET. COMPLETE WITH SLOAN ROYAL NO. 186-0.125 GPF FLUSH VALVE AND ZURN NO. Z-1222 WALL HANGER. |
| L 1 | LAVATORY (ACCESSIBLE, HW/CW) | 1-1/4" | 2" | 1-1/2" | 1/2" | 1/2" | -- | AMERICAN STANDARD (A/S) NO. 0355.012 "LUCERNE WALL HUNG LAVATORY", 20" X 18", WALL HUNG. COMPLETE WITH CHICAGO NO. 3400-E39VPABCP METER FAUCET 0.35 GPM NON-AERATING SPRAY AND VANDAL RESISTANT COVER PLATE, SYMMONS "MAXLINE" NO. 7-225-CK-MS-BTX THERMOSTATIC MIXING VALVE WITH STAINLESS STEEL RECESSED WALL CABINET & CHECK STOPS, McGUIRE NO. 155A 1-1/4" OUTLET "OPEN GRID P.O. PLUG", McGUIRE NO. PW8090NC0 1-1/4" L.A. PATTERN P-TRAP WITH TRAP AND SUPPLY COVERS, GALVANIZED NIPPLE AND CHROMIUM PLATED BRASS CASING, CHICAGO NO. 1019-ABCP FIXED KEY STOPS WITH RIGID SUPPLIES, AND ZURN NO. Z-1231-EZR-WL ADJUSTABLE CONCEALED ARM CARRIER W/ SLEEVE FOR WASTE. MOUNT IN ACCORDANCE WITH ADA REQUIREMENTS. |
| L 2 | LAVATORY (UNDER COUNTER, HW/CW) | 1-1/4" | 2" | 1-1/2" | 1/2" | 1/2" | -- | AMERICAN STANDARD (A/S) NO. 0496.221 "OVALYN II UNDERCOUNTER LAVATORY", 20" X 17", UNDERCOUNTER MOUNTED, VITREOUS CHINA. COMPETE WITH KOHLER FAUCET NO. K-5317-4 1.0 GPM FLOW PCA-SPREY TECHE TJ, W/ LEVER HANDLES & POP UP DRAIN, McGUIRE NO. 8089CNC 1-1/2" L.A. PATTERN P-TRAP, GALVANIZED NIPPLE AND CHROMIUM PLATED BRASS CASING, AND CHICAGO NO. 1019-ABCP STOPS WITH WHEEL HANDLE AND RIGID SUPPLIES. MOUNT IN ACCORDANCE WITH ADA EQUIREMENTS. |
| S 1 | SINK (ISLAND, SINGLE BOWL, HW/CW, DISPOSER) | 1-1/2" | 2" | 1-1/2" | 1/2" | 1/2" | -- | ELKAY NO. ELUH141810 "LUSTERTONE SINGLE BOWL UNDERMOUNT SINK", SINGLE COMPARTMENT, 18 GAUGE TYPE 304 STAINLESS STEEL, UNDERCOUNTER MOUNTED, 20-1/2" X 16-1/2" X 9-7/8" DEEP. COMPLETE WITH ELKAY NO. LKAV4061 PRE-RINSE FAUCET WITH 1.5 GPM FLOW REGULATOR, INSINKERATOR EVOLUTION SERIES FOOD WASTE DISPOSER, 1 H.P./120V/10.2 AMP AVG., McGUIRE NO. 8089CNC 1-1/2" L.A. PATTERN P-TRAP AND CHICAGO NO. 1019-ABCP FIXED KEY STOPS WITH RIGID SUPPLIES. |
| S 2 | SINK (ACCESSIBLE, SINGLE BOWL, HW/CW) | 1-1/2" | 2" | 1-1/2" | 1/2" | 1/2" | -- | ELKAY NO. ELUHAD211550 "LUSTERTONE SINGLE BOWL UNDERMOUNT SINK", SINGLE COMPARTMENT, 18 GAUGE TYPE 304 STAINLESS STEEL, UNDERMOUNT, 21" X 15" X 4-7/8" DEEP. COMPLETE WITH KOHLER NO. K-597 FAUCET WITH MODEL NO. 1167289 AERATOR 1.5 GPM, McGUIRE NO. 152 1-1/2" OUTLET "WIDE TOP SINK STRAINER", McGUIRE NO. PW8089NC0 1-1/2" L.A. PATTERN P-TRAP WITH TRAP AND SUPPLY COVERS, GALVANIZED NIPPLE AND CHROMIUM PLATED BRASS CASING, AND CHICAGO NO. 1019-ABCP FIXED KEY STOP WITH RIGID SUPPLIES. MOUNT IN ACCORDANCE WITH ADA REQUIREMENTS. |
| S 3 | SINK (LAUNDRY, SINGLE BOWL, HW/CW) | 1-1/2" | 2" | 1-1/2" | 1/2" | 1/2" | -- | ELKAY NO. ELUH211510 "LUSTERTONE UNDERMOUNT SINK", SINGLE COMPARTMENT, 18 GAUGE TYPE 304 STAINLESS STEEL, UNDERCOUNTER MOUNTED, 21" X 15-3/4" X 10" DEEP. COMPLETE WITH CHICAGO NO. 786-E35VPCAB-CP FAUCET WITH 1.5 GPM AERATOR, McGUIRE NO. 152 1-1/2" OUTLET "WIDE TOP SINK STRAINER", McGUIRE NO. PW8089NC0 1-1/2" L.A. PATTERN P-TRAP WITH TRAP AND SUPPLY COVERS, GALVANIZED NIPPLE AND CHROMIUM PLATED BRASS CASING, AND CHICAGO NO. 1019-ABCP STOPS WITH WHEEL HANLDLE AND RIGID SUPPLIES. MOUNT IN ACCORDANCE WITH ADA REQUIREMENTS. |
| S 4 | SINK (SINGLE BOWL, HW/CW) | 1-1/2" | 2" | 1-1/2" | 1/2" | 1/2" | -- | ELKAY NO. EWMA4820C "ELKAY WALL HUNG MULTIPLE STATION HAND WASH SINK", 14 GAUGE TYPE 304 STAINLESS STEEL, THREE STATION, 48" X 20" X 8" DEEP. COMPLETE WITH (2) ELKAY NO. LK940GN05T4H FAUCET 1.5 GPM, ELKAY NO. LK18B 1-1/2" OUTLET, STAINLESS STEEL, "STRAINER AND TAILPIECE", McGUIRE NO. PW8089NC0 1-1/2" L.A. PATTERN P-TRAP WITH TRAP AND SUPPLY COVERS, GALVANIZED NIPPLE AND CHROMIUM PLATED BRASS CASING, AND CHICAGO NO. 1019-ABCP STOPS WITH WHEEL HANDLE RIGID SUPPLIES. |
| SS 1 | SERVICE SINK | 3" | 3" | 2" | 3/4" | 3/4" | -- | CECO NO. 871 "CORNER SERVICE SINK", ENAMELED CAST IRON, CORNER FLOOR MOUNTED, COMPLETE WITH CHICAGO NO. 445-PVB-CP FAUCET, CECO NO. B71-3" 3" DIAMETER DRAIN WITH FLAT CHROME STRAINER, CECO NO. B-872 COATED WIRE RIM GUARD AND HOSE. |
| TP 1 | TRAP PRIMER (SINGLE DRAIN) | -- | -- | -- | -- | 1/2" | -- | MIFAB NO. MR-500 TRAP PRIMER VALVE, BRASS BODY, ADJUSTABLE, COMPLETE WITH 1/2" COPPER TYPE "L" PIPE TO RECEPTOR. INSTALL PER MANUFACTURER'S RECOMMENDATIONS, COMPLETE BEHIND ACCESS PANEL WITH SHUT-OFF VALVE. |
| TP 2 | TRAP PRIMER (MULTIPLE DRAIN) | -- | -- | -- | -- | 1/2" | -- | MIFAB NO. MR-500 TRAP PRIMER VALVE, BRASS BODY, ADJUSTABLE, COMPLETE WITH MI-DU DISTRIBUTION UNIT, 1/2" COPPER TYPE "L" PIPE TO EACH RECEPTOR. INSTALL PER MANUFACTURER'S RECOMMENDATIONS, COMPLETE BEHIND ACCESS PANEL WITH SHUT-OFF VALVE. |
| TP 3 | TRAP PRIMER (ELECTRONIC) | -- | -- | -- | -- | 1/2" | -- | PPP NO. MP-500-115V MINI-PRIME ELECTRONIC TRAP SEAL PRIMER SYSTEM WITH BALL VALVE, VACUUM BREAKER AND SOLENOID VALVE (120 VOLT, 1 PHASE). COMPLETE WITH SHUT-OFF VALVE AND 1/2" COPPER TYPE "L" PIPE TO RECEPTOR. |
| WHA 1 | WATER HAMMER ARRESTOR | -- | -- | -- | -- | -- | -- | ZURN NO. Z-1700 SERIES "SHOKTROL" WATER HAMMER ARRESTOR COMPLETE BEHIND ACCESS PANEL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. |

| ITEM | FIXTURE | ROUGH-IN CONNECTIONS: TRAP | WASTE | VENT | HOT WATER | COLD WATER | GAS | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|
| FD 1 | FLOOR DRAIN | 2" | 2" | 1-1/2" | -- | -- | -- | ZURN NO. ZN-415-BZ1-P, CAST IRON BODY, COMPLETE WITH ROUND NICKEL-BRONZE TOP, CLAMPING COLLAR, 1/2" TRAP PRIMER CONNECTION AND P-TRAP. |
| FD 2 | FLOOR DRAIN (SHOWER) | 2" | 2" | 1-1/2" | -- | -- | -- | ZURN NO. ZN-415-BZ1-113, CAST IRON BODY, COMPLETE WITH ROUND NICKEL-BRONZE TOP, CLAMPING COLLAR, AND P-TRAP. |
| TD 1 | TRENCH DRAIN | 3" | 3" | -- | -- | -- | -- | ZURN NO. Z886-HPD CUSTOM PREFABRICATED TRENCH DRAIN, WITH DUCTILE CAST IRON LONGITUDINAL GRATE. |
| SH 1 | SHOWER | -- | -- | -- | 3/4" | 3/4" | -- | SYMMONS NO. 261XBODY WITH 3591B15TRM WITH, 532SH-1.5. COMPLETE WITH PRESSURE BALANCING MIXING VALVE WITH LEVER HANDLE, INTEGRAL SERVICE STOPS, 1.5 GPM ADJUSTABLE SHOWER HEAD. |
| SH 2 | SHOWER (ACCESSIBLE) | -- | -- | -- | 3/4" | 3/4" | -- | SYMMONS NO. S262XBODYNS WITH S3598BL515TRM, AND ADA SLIDE/GRAB BAR ASSEMBLY H359.315. COMPLETE WITH PRESSURE BALANCING MIXING VALVE WITH LEVER HANDLE, INTEGRAL SERVICE STOPS, HAND-HELD SHOWER, 60" HOSE, INLINE VACUUM BREAKER AND 36" SLIDE BAR. |
| FS 1 | FLOOR SINK | 2" | 2" | 1-1/2" | -- | -- | -- | ZURN NO. ZN1901-KC-P-2, 12" X 12" X 8" DEEP, CAST IRON BODY, ACID-RESISTING ENAMELED INTERIOR COMPLETE WITH DOME STRAINER, NICKEL-BRONZE HALF GRATE, SEEPAGE FLANGE, TRAP PRIMER CONNECTION AND P-TRAP. |
| WB 1 | WASHING BOX | 2" | 2" | 1-1/2" | -- | 3/4" | -- | ACORN NO. 8186, TYPE 304 STAINLESS STEEL, RECESSED BOX WITH 3/4" HOT AND COLD WATER VALVES, SCREWDRIVER STOPS, VACUUM BREAKERS AND 2" DRAIN PIPE. |
| SI 1 | SAND-OIL INTERCEPTOR | -- | -- | -- | -- | -- | -- | JENSEN NO. JP1000SO, 2-COMPARTMENT PRE-CAST CONCRETE SAND-OIL INTERCEPTOR, 1000 GALLON CAPACITY. COMPLETE WITH MANHOLES WITH CONCRETE MANHOLE EXTENSIONS TO GRADE AS REQUIRED AND 24" DIA. GAS TIGHT CAST IRON TRAFFIC WEIGHT COVERS. (ENTIRE INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS). |
| RD 1 | ROOF DRAIN | SEE PLAN FOR SIZES | | | | | | ZURN NO. ZC100-DP-84, 15" CAST IRON BODY, COMPLETE WITH ADJUSTABLE EXTENSION SLEEVE, FLASHING COLLAR, STAINLESS STEEL GRAVEL STOP, CAST IRON DOME STRAINER, SUMP RECEIVER, AND UNDERDECK CLAMP. |
| OD 1 | OVERFLOW DRAIN | SEE PLAN FOR SIZES | | | | | | ZURN NO. ZC100-DP-84-89, 15" CAST IRON BODY, COMPLETE WITH CAST IRON DOME STRAINER, UNDERDECK CLAMP, AND 2" HIGH WATER DAM. |
| DN 1 | DOWNSPOUT NOZZLE | SEE PLAN FOR SIZES | | | | | | ZURN NO. Z199-DC, STAINLESS STEEL FRAME WITH FABRICATED SECURED PERFORATED STAINLESS STEEL HINGED STRAINER, THREADED INLET AND DECORATIVE FACE OF WALL FLANGE AND OUTLET NOZZLE. |
| ET 1 | EXPANSION TANK | -- | -- | -- | -- | -- | -- | WILKINS NO. WXT-18, 4 GALLON, DIAPHRAGM TYPE, PRE-PRESSURIZED WITH WELDED EXTERIOR, BUTYL DIAPHRAGM AND EPOXY COATED EXTERIOR W/ MAPA MXC-11 EXPANSION TANK CAGE. |
| HB 1 | HOSE BIBB (WALL) | -- | -- | -- | -- | 3/4" | -- | ACORN NO. 8121-CP "BENT NOSE WITH FLANGE" HOSE BIBB, WALL MOUNTED, CHROME-PLATED POLISHED, WITH INTEGRAL VACUUM BREAKER, LOOSE KEY OPERATION. |
| HB 2 | HOSE BIBB (FREE STANDING, ROOF) | -- | -- | -- | -- | 3/4" | -- | ACORN NO. 8126-CR "BENT NOSE" HOSE BIBB, FREE STANDING, CHROME-PLATED ROUGH, WITH INTEGRAL VACUUM BREAKER, LOOSE KEY OPERATION. SUPPLY PIPING SHALL BE SECURELY FASTENED TO ROOF DECKING WITH 3/4" NIBCO NO. 724-5-A "HY-SET HANGER COUPLING". |
| RHB 1 | RECESSED HOSE BIBB | -- | -- | -- | -- | 3/4" | -- | ACORN NO. 8104, RECESSED WALL MOUNTED, STAINLESS STEEL BOX, WITH INTEGRAL VACUUM BREAKER AND LOCKING DOOR. |
| GC 1 | GAS COCK | -- | -- | -- | -- | -- | 1 1/4" | TRRACPIPE FGP-WBTM-750, RECESSED METAL WALL BOX WITH GAS COCK. |
| IMB 1 | ICE MAKER BOX | -- | -- | -- | -- | 1/2" | -- | GUY GRAY NO. MIB1-HAAB "METAL LEAD FREE ICE MAKER BOX", COMPLETE WITH INTEGRAL HAMMER ARRESTER QUARTER-TURN VALVE, 1/4" O.D. COMPRESSION OUTLET CONNECTION AND WHITE POWDER COAT FINISH. INSTALL ICE MAKER BOX @ 18" ABOVE FINISH FLOOR. |
| RO 1 | REVERSE OSMOSIS | -- | -- | -- | -- | 3/4" | -- | WATERDROP MODEL NO. G3P800 REVERSE OSMOSIS SYSTEM WITH UV STERILIZING LIGHT. SYSTEM CONSISTS OF ONE PRE-SEDIMENT AND CARBON BLOCK FILTER, ONE ACTIVEDED CARBON FILTER, ONE RO MEMBRANE FILTER, ONE UV STERILIZER, ONE FEED WATER ADAPTER, 3-WAY RO/DISHWASHER AIR GAP. |
| F 1 | REVERSE OSMOSIS FAUCET | -- | -- | -- | -- | 3/4" | -- | WATERDROP "RO FAUCET" FINISH TO MATCH ELKAY NO. LKAV4061 PRE-RINSE FAUCET. COMPLETE WITH 3-WAY RO/DISHWASHER AIR GAP CONNECT WASTE FROM REVERSE OSMOSIS SYSTEM AND WHERE NEEDED DISHWASHER TO GARBAGE DISPOSER. AIRGAP TO BE INSTALLED BEFORE PLUMBING THE GARBAGE DISPOSER. |
| MV 1 | MIXING VALVE | -- | -- | -- | 1/2" | 1/2" | -- | SYMMONS NO. 7-225-CK-MS-BTX "MAXLINE", WATER TEMPERATURE LIMITING VALVE. COMPLETE WITH INTEGRAL CHECKS AND DUAL STANLESS STEEL STRAINERS, STAINLESS STEEL RECESSED WALL CABINET, AND SEPARATE CHECK STOPS. |
| SGV 1 | SEISMIC GAS VALVE | ITEM SHALL BE SIZED TO MATCH FULL LINE SIZE OF PIPING SERVED. SEE PLAN FOR SIZES. | | | | | | KOSO/CALIFORNIA EARTHQUAKE SENSITIVE SHUT-OFF VALVE, 60 PSI WORKING PRESSURE, U.L. LISTED, THREADED CONNECTIONS FOR SIZES 2" AND LESS, FLANGED CONNECTIONS FOR SIZES GREATER THAN 2". PRESSURE DROP SHALL NOT EXCEED 13" EQUIVALENT PIPING LENGTH. |

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

**COSTA MESA FIRE STATION No. 2**
**RECONSTRUCTION**
COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M35639
Exp. 3/31/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| | | | REVISIONS |

DRAWN: EC | CHECKED: AG
DATE: 05/23/25 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**PLUMBING FIXTURE SCHEDULE**

DRAWING NUMBER: **P0.2**

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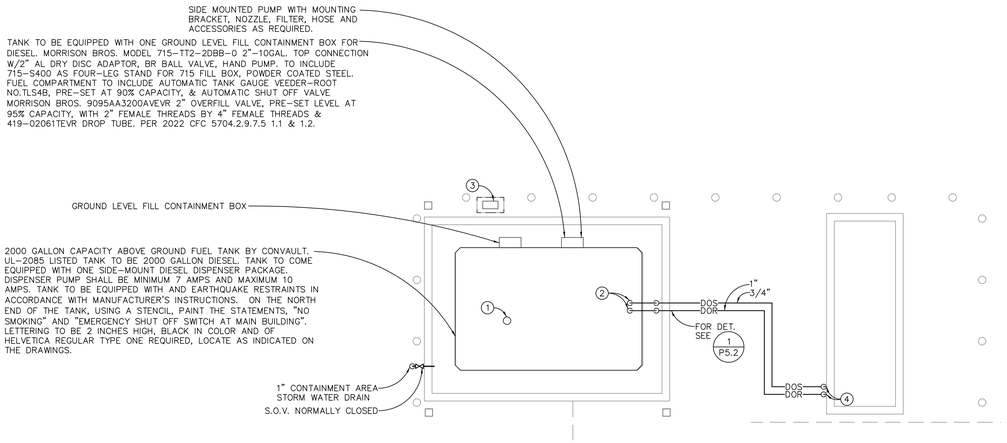



CONSTRUCTION KEY NOTES:

1. 2" D.O.V. UP TO 12'-0" ABOVE FINISH GRADE WITH OPW MODEL NO. 23-0033, (2") OPEN ATMOSPHERIC VAPOR VENT.
2. P.O.C. 3/4" D.O.S. AND 1" D.O.R. TO DAY TANK PER ON FUEL TANK PER MANUFACTURER RECOMMENDATIONS.
3. FUEL MANAGEMENT SYSTEM "FUELMASTER 2500 PLUS" 120 VOLTS, SINGLE PHASE.
4. P.O.C. 3/4" D.O.S. AND 1" D.O.R. TO DAY TANK ON EMERGENCY GENERATOR PER MANUFACTURER RECOMMENDATIONS.

MATERIAL:

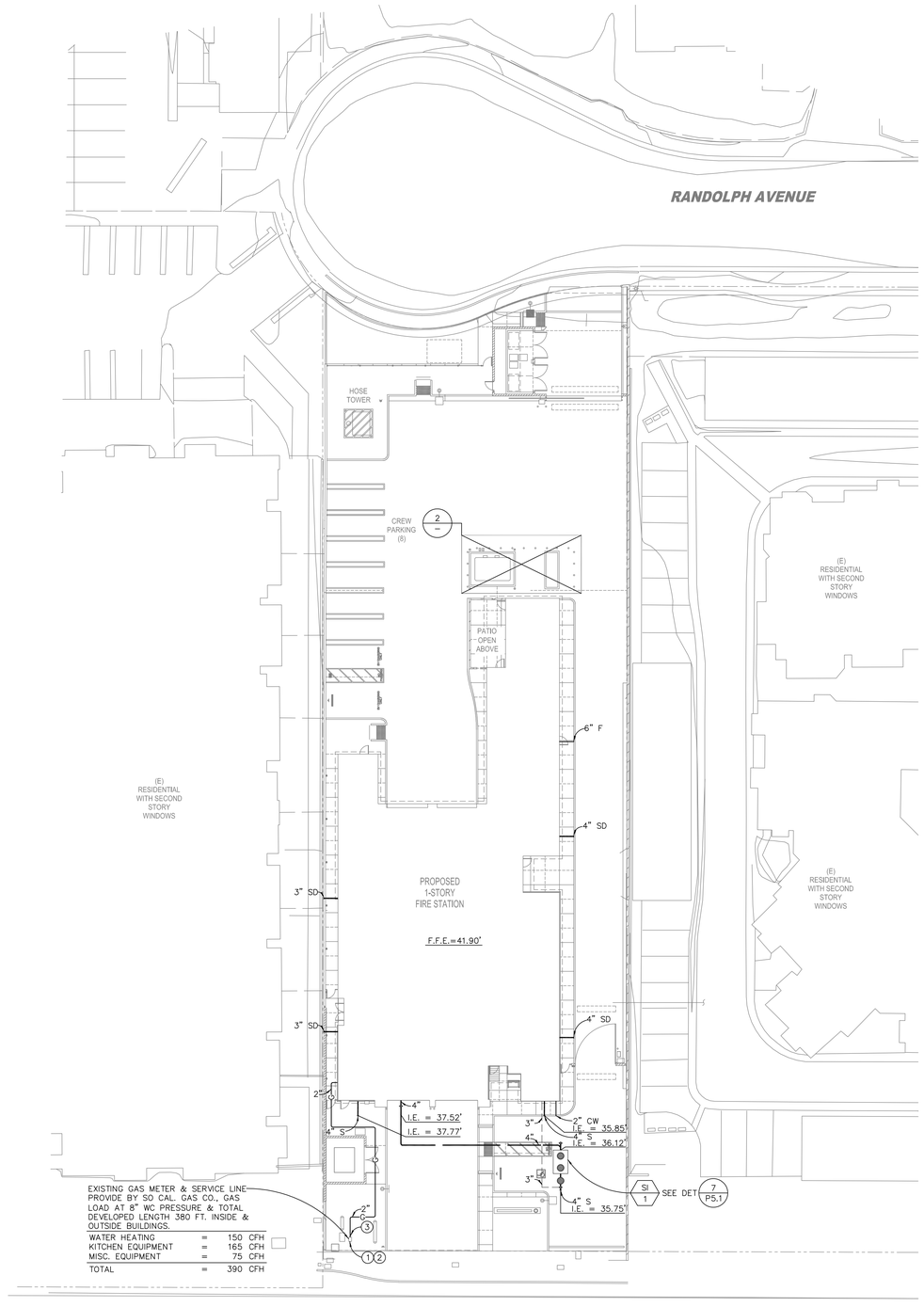
1. 3/4" DIESEL FUEL SUPPLY LINE AND 1" DIESEL FUEL RETURN LINE SHALL BE SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A-53 USING 150 POUND BANDED MALLEABLE IRON SCREWED FITTING.

CONSTRUCTION NOTES:

1. TANK INSTALLATION AND TESTING SHALL COMPLY WITH NFPA 30, 30A, 70 AND UFC STANDARD 79-9 AND ALL APPLICABLE CODES, STANDARD PRACTICES OF THE TRADE AND AUTHORITIES HAVING JURISDICTION AND TANK MFG. INSTRUCTIONS.
2. CONTRACTOR SHALL OBTAIN ENVIRONMENT HEALTH SERVICES APPROVAL OF ABOVE GROUND FUEL TANK, BEFORE INSTALLATION.
3. ANCHORING TANK SHALL BE INSTALL PER TANK MANUFACTURER RECOMMENDATIONS.

FUEL TANK

SCALE 1/4"=1'-0" | 2




CONSTRUCTION NOTES:

1. FOR CONTINUATION OF ALL UTILITIES SEE CIVIL ENGINEERING DRAWINGS.

CONSTRUCTION KEY NOTES:

1. EXISTING GAS METER LOCATION IN VAULT.
2. CONTRACTOR SHALL COORDINATE WITH SOUTHERN CALIFORNIA GAS COMPANY FIELD PLANNER IF EXISTING GAS METER AND HIGH PRESSURE IS ADEQUATE FOR EXISTING AND NEW GAS DEMAND. ALSO, SOUTHERN CALIFORNIA GAS COMPANY FIELD PLANNER SHALL ADJUST THE HIGH-PRESSURE LINE LESS THAN 2-PSI AND PROVIDE NEW GAS REGULATOR AND GAS METER AS REQUIRED FOR EXISTING AND NEW GAS DEMAND.
3. P.O.C. NEW 2" G TO EXISTING GAS METER IN VAULT W/ G.C.

NORTH

SITE PLAN

SCALE 1"=20'-0" | 1

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER ANDREW R. GOSSMAN No. M28826 Exp. 3/31/26 MECHANICAL STATE OF CALIFORNIA

CONSULTANT
PDS PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: EC | CHECKED: AG
DATE: 05/23/25 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

PLUMBING SITE PLAN

DRAWING NUMBER: P1.1

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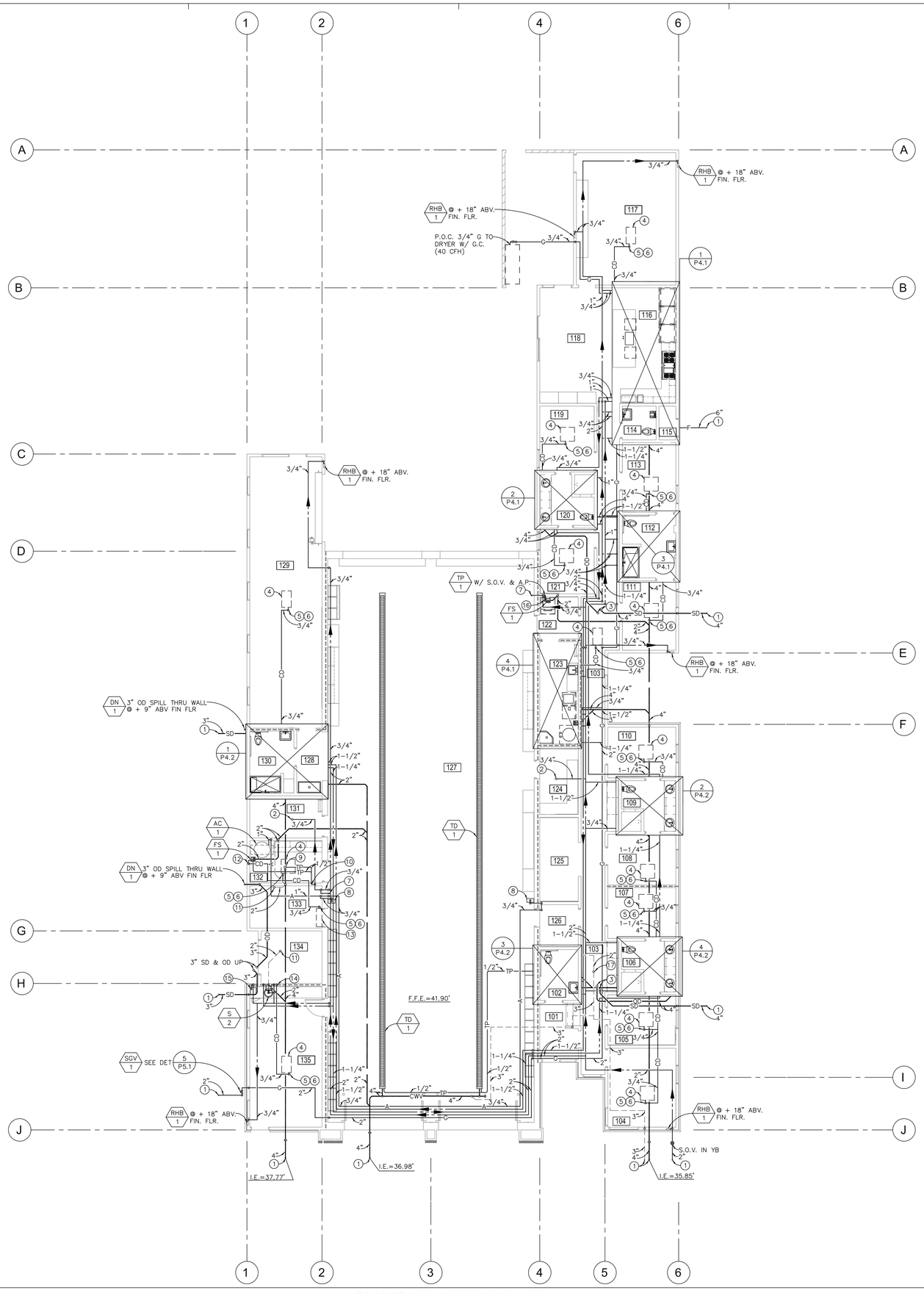


| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | DORM 1 |
| 106 | SHARED BATH 1 |
| 107 | DORM 2 |
| 108 | DORM 3 |
| 109 | SHARED BATH 2 |
| 110 | DORM 4 |
| 111 | DORM 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | DORM 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | DORM 7 |
| 120 | SHARED BATH 4 |
| 121 | DORM 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN/ STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |

## CONSTRUCTION NOTES:

1. ALL HORIZONTAL STORM DRAIN PIPING SHALL SLOPE AT 1% UNLESS OTHERWISE NOTED.
2. ALL CONDENSATE DRAIN PIPING ABOVE CEILING SHALL SLOPE AT 1% UNLESS OTHERWISE NOTED.
3. ALL GAS PIPING SIZES INSIDE AND OUTSIDE THE BUILDING ARE BASED ON CALIFORNIA PLUMBING CODE 2022 TABLE 1215.2(1) (LOW PRESSURE) AT TOTAL DEVELOPED LENGTH 380 FEET & 390 CFH.
4. ALL SLEEVES THRU FOOTINGS SHALL BE MINIMUM TWO PIPE SIZES LARGER THAN THE PIPE GOING THRU IT, PROVIDE ALL SLEEVES.
5. ALL STORM DRAIN LINES, WASTE LINES & COLD WATER LINES INTO FOOTINGS SHALL BE DOUBLE HALF LAP WRAPPED WITH 1/8" THICK "ARMOFLEX" INSULATION. ALSO, THE CONTRACTOR SHALL PROVIDE BLOCKED OUT AREAS IN THE FOOTING FOR STORM DRAIN LINES, WASTE LINES & COLD WATER LINES. ALL PIPING SHALL AVOID THE LOWER 9" OF THE FOOTING.
6. BEFORE COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING BY PHYSICAL EXCAVATION, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
7. WHERE PLANS INDICATE NEW FIXTURES OR EQUIPMENT CONNECTING TO EXISTING SERVICES, PLUMBING CONTRACTOR SHALL MODIFY AND/OR EXTEND EXISTING PIPING OR ROUGH-INS AS REQUIRED TO SUIT THE NEW FIXTURE.

## CONSTRUCTION KEY NOTES:

(1) FOR CONTINUATION OF ALL UTILITIES SEE SHEET P1.1.
(2) 3/4" CW UP.
(3) 4" SD & OD UP.
(4) AC UNIT ABOVE CEILING, SEE MECHACNICAL DRAWINGS FOR EXACT LOCATION.
(5) P.O.C. 3/4" CONDENSATE TO CONDENSATE PUMP ABOVE CEILING.
(6) CONDENSATE PUMP PROVIDED BY MECH. CONTRACTOR.
(7) HB-1 @ +18" ABV. FIN. FLR.
(8) HR-1 @ +18" ABV. FIN. FLR.
(9) FD-1
(10) TP-2 W/ S.O.V. & A.P.
(11) 2" V UP TO 2" VTR.
(12) 3/4" CD DN IN WALL, SPILL TO FLOOR SINK W/ 2" AIR GAP.
(13) FAN COIL ON WALL SEE MECH. DWGS. FOR EXACT LOCATION.
(14) 3/4" CD DN IN WALL, CONNECT TO SINK TAILPIECE.
(15) 1/2" COLD WATER WITH ANGLE STOP FOR COFFEE MAKER.
(16) 1/2" COLD WATER WITH ANGLE STOP FOR ICE MAKER.
(17) 3" V UP TO 3" VTR

NORTH

# PLUMBING FLOOR PLAN

SCALE 1/8"=1'-0" | 1

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M29328
Exp. 3/31/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
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| 1 | | | REVISIONS |

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| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

PLUMBING FLOOR PLAN

DRAWING NUMBER: P2.1

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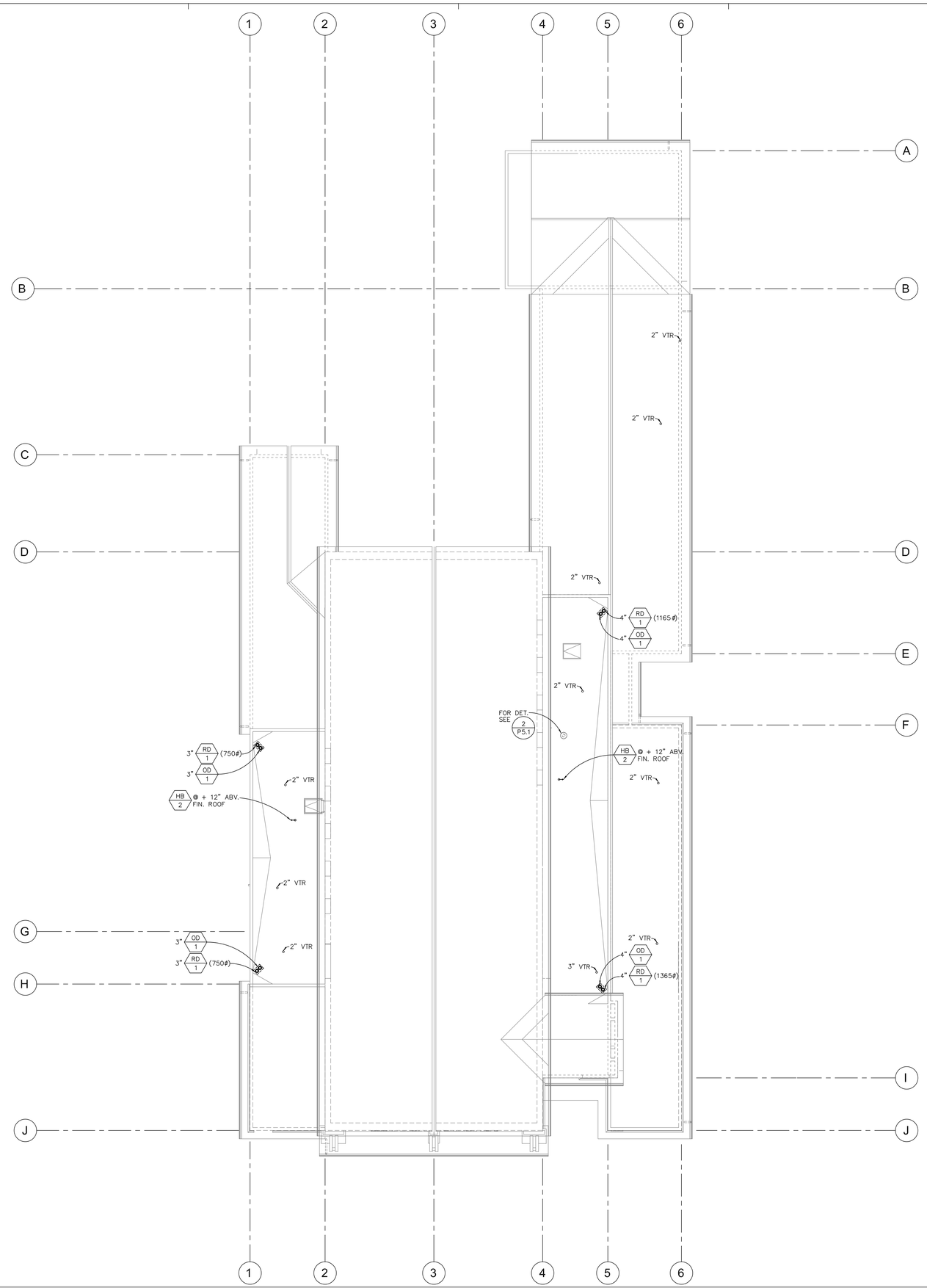


CONSTRUCTION NOTES:

1. ALL STORM DRAIN PIPE SIZES ARE BASED ON CALIFORNIA PLUMBING CODE 2022 TABLE 1103.1 & 1103.2 AT 4" RAINFALL PER HOUR.

NORTH

PLUMBING ROOF PLAN

SCALE 1/8"=1'-0" | 1

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M29539
Exp. 3/31/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
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| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

PLUMBING ROOF PLAN

DRAWING NUMBER: P3.1

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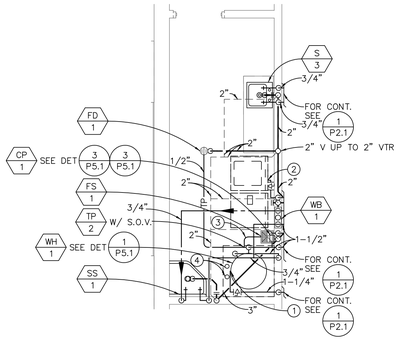
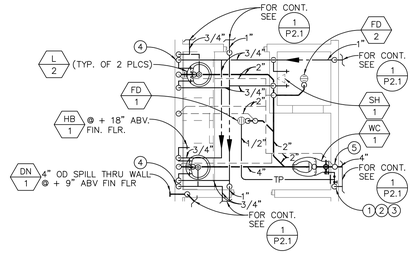



CONSTRUCTION KEY NOTES:

1. P.O.C. 1-1/4" G TO WATER HEATER W/G.C. (150 CFH)
2. P.O.C. 3/4" G TO DRYER W/G.C. (35 CFH)
3. 1/2" TP
4. 4" INTAKE & EXHUAST UP TO 5" CONCENTRIC VTR

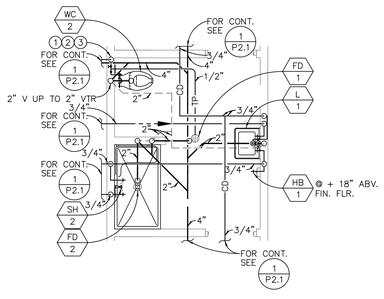
PLUMBING ENLARGED FLOOR PLAN — SCALE 1/4"=1'-0" — 4




CONSTRUCTION KEY NOTES:

1. 1-1/2" CW DN IN WALL W/ S.O.V. & A.P.
2. TP-1 W/S.O.V. & A.P.
3. WHA-1 W/A.P.
4. 3/4" CD DN IN WALL, CONNECT TO LAV TAILPIECE.
5. 2" V UP TO 2" VTR

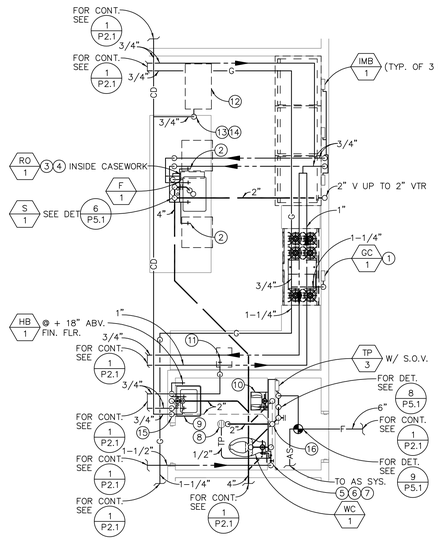
PLUMBING ENLARGED FLOOR PLAN — SCALE 1/4"=1'-0" — 2




CONSTRUCTION KEY NOTES:

1. 1-1/2" CW DN IN WALL W/ S.O.V. & A.P.
2. TP-1 W/S.O.V. & A.P.
3. WHA-1 W/A.P.

PLUMBING ENLARGED FLOOR PLAN — SCALE 1/4"=1'-0" — 3




CONSTRUCTION KEY NOTES:

1. P.O.C. 1-1/4" GAS TO RANGE (165 CFH) WITH RECESSED GC-1 IN WALL.
2. DISHWASHER ROUGH-IN & CONNECTION 1/2" HOT WATER WITH S.O.V. & 3/4" HOSE WASTE THRU COUNTER MOUNTED AIR GAP FITTING TO GARBAGE DISPOSER.
3. CONTRACTOR SHALL ROUGH-IN CONNECT 3/4" DRAIN LINE TO SINK TAILPIECE ABOVE FINISH FLOOR AS REQUIRED FOR PURIFIED WATER REFILL STATION.
4. CONTRACTOR SHALL ROUGH-IN CONNECT 3/4" DRAIN LINE FOR PURIFIED WATER REFILL STATION.
5. 1-1/2" CW DN IN WALL W/ S.O.V. & A.P.
6. TP-1 W/S.O.V. & A.P.
7. WHA-1 W/A.P.
8. FD-1
9. L-1
10. UR-1
11. 1/2" COLD WATER WITH ANGLE STOP FOR COFFEE MAKER.
12. AC UNIT ABOVE CEILING, SEE MECHACNICAL DRAWINGS FOR EXACT LOCATION.
13. P.O.C. 3/4" CONDENSATE TO CONDENSATE PUMP ABOVE CEILING.
14. CONDENSATE PUMP PROVIDED BY MECH. CONTRACTOR.
15. 3/4" CD DN IN WALL, CONNECT TO LAV TAILPIECE.
16. 2" V UP TO 2" VTR

PLUMBING ENLARGED FLOOR PLAN — SCALE 1/4"=1'-0" — 1

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CALIFORNIA 91730-0729
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800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M28670
Exp. 6/30/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

| NO | DATE | BY | DESCRIPTION |
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| # | | | REVISIONS |

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| DRAWN: EC | CHECKED: AG |
| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**PLUMBING ENLARGED PLAN**

DRAWING NUMBER: **P4.1**

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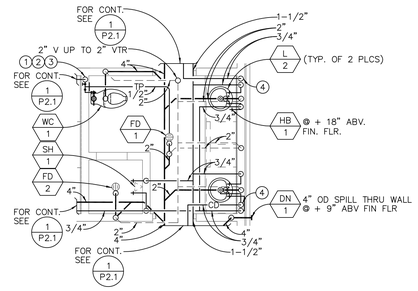
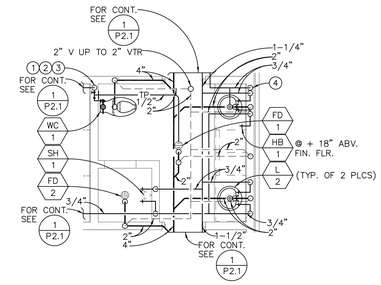



CONSTRUCTION KEY NOTES:

1. 1-1/2" CW DN IN WALL W/ S.O.V. & A.P.
2. TP-1 W/S.O.V. & A.P.
3. WHA-1 W/A.P.
4. 3/4" CD DN IN WALL, CONNECT TO LAV TAILPIECE

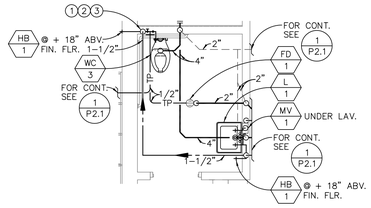
PLUMBING ENLARGED FLOOR PLAN | SCALE 1/4"=1'-0" | 4




CONSTRUCTION KEY NOTES:

1. 1-1/2" CW DN IN WALL W/ S.O.V. & A.P.
2. TP-1 W/S.O.V. & A.P.
3. WHA-1 W/A.P.
4. 3/4" CD DN IN WALL, CONNECT TO LAV TAILPIECE

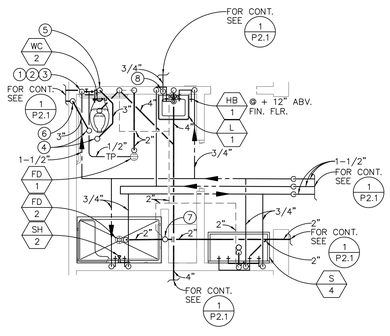
PLUMBING ENLARGED FLOOR PLAN | SCALE 1/4"=1'-0" | 2




CONSTRUCTION KEY NOTES:

1. 1-1/2" CW DN IN WALL W/ S.O.V. & A.P.
2. TP-1 W/S.O.V. & A.P.
3. WHA-1 W/A.P.

PLUMBING ENLARGED FLOOR PLAN | SCALE 1/4"=1'-0" | 3




CONSTRUCTION KEY NOTES:

1. 1-1/2" CW DN IN WALL W/ S.O.V. & A.P.
2. TP-1 W/S.O.V. & A.P.
3. WHA-1 W/A.P.
4. 3" SD & OD UP
5. 3" OD DN IN WALL
6. 3" SD DN IN WALL
7. 2" V UP TO 2" VTR
8. 3/4" CD DN IN WALL, CONNECT TO LAV TAILPIECE

PLUMBING ENLARGED FLOOR PLAN | SCALE 1/4"=1'-0" | 1

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RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. GOSSMAN
No. M28870
Exp. 9/30/26
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
PDS
PocockDesignSolutions Inc.

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| PROJECT NUMBER: 2109300 | |

## PLUMBING ENLARGED PLANS

DRAWING NUMBER: **P4.2**

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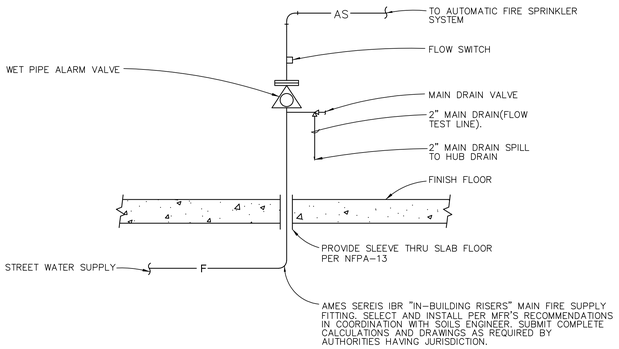
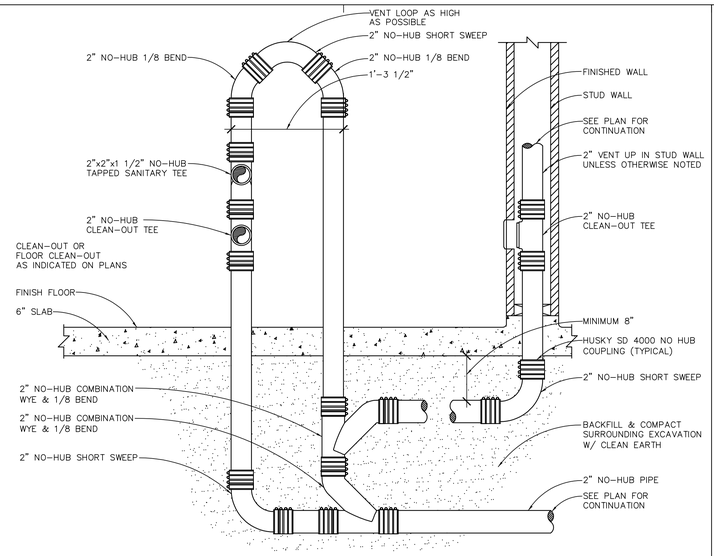


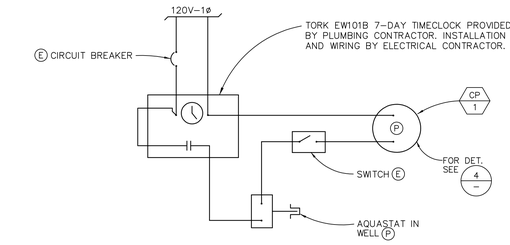

## FIRE SPRINKLER RISER DETAIL

| SCALE | |
|---|---|
| NONE | 9 |




## ISLAND VENT DETAIL

| SCALE | |
|---|---|
| NONE | 6 |



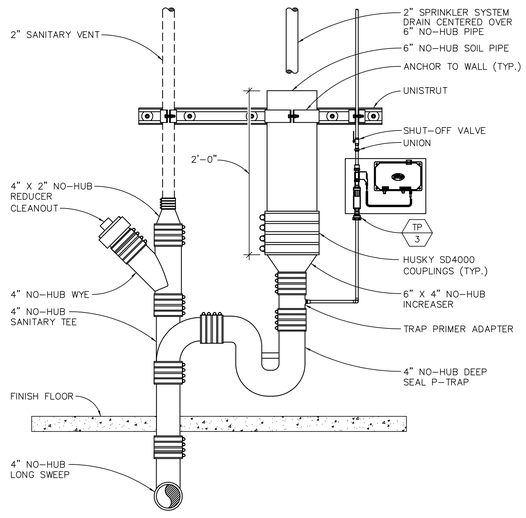

NOTE: ALL CONDUIT AND WIRING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.

(E) ITEM INDICATED ON THE ELECTRICAL DRAWING AND SPECIFIED IN THE ELECTRICAL SECTIONS OF THE SPECIFICATION.

(P) ITEM INDICATED ON THE PLUMBING DRAWING AND SPECIFIED IN THE WATER HEATER DETAILS.

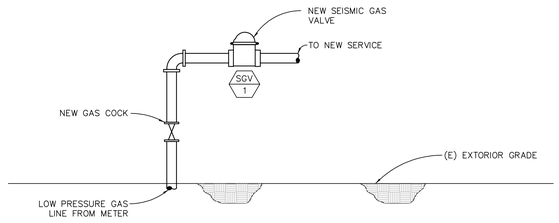
## CIRC. PUMP WIRING DIAGRAM

| SCALE | |
|---|---|
| NONE | 3 |




## HUB DRAIN DETAIL

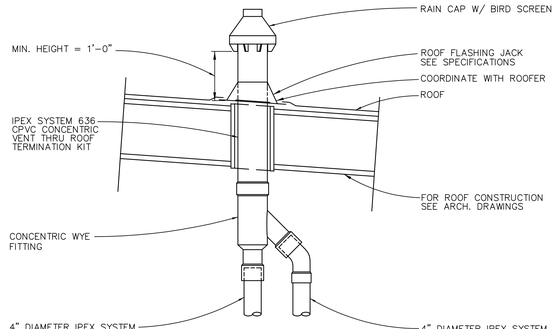
| SCALE | |
|---|---|
| NONE | 8 |




## SEISMIC GAS VALVE DETAIL

| SCALE | |
|---|---|
| NONE | 5 |

NOTE:
TERMINATIONS SHALL BE IN ACCORDANCE WITH CURRENT NFPA 54. GAS VENTS THAT ARE 12" OR LESS IN SIZE AND LOCATED NOT LESS THAN 8' FROM A VERTICAL WALL OR SIMILAR OBSTRUCTION SHALL TERMINATE ABOVE THE ROOF IN ACCORDANCE WITH FIGURE 509.6.2. CPC 509.6.2.

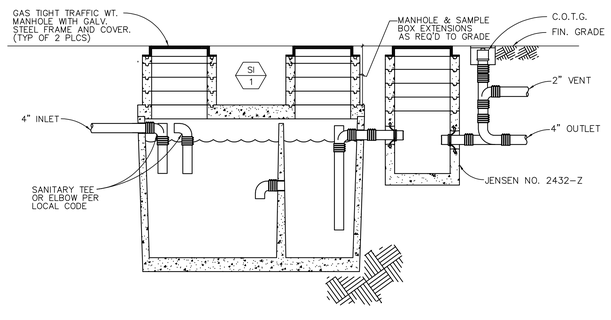



## CONCENTRIC VENT THRU ROOF DETAIL

| SCALE | |
|---|---|
| NONE | 2 |

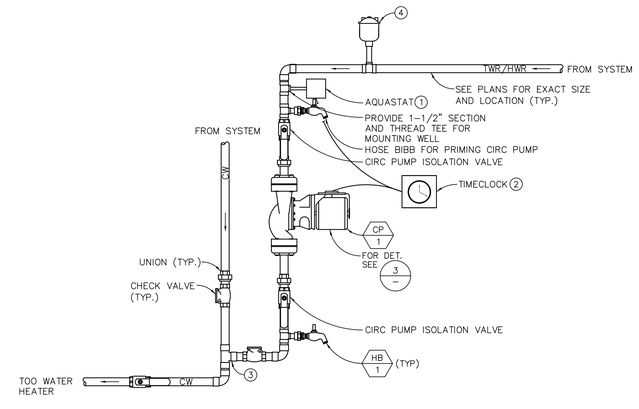
NOTES:

1. ENTIRE INSTALLATION SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATIONS AND SHALL MEET LOCAL JURISDICTION SPECIFICATION AND STANDARDS.
2. SEE SHEET P1.1 FOR LOCATION OF SAND & OIL INTERCEPTOR.




## SAND + OIL INTERCEPTOR

| SCALE | |
|---|---|
| NONE | 7 |




KEY NOTES:

(1) AQUASTAT "MH" NO. L4006A, SET TO START 105°F AND STOP 110°F

(2) 7 DAY TIMECLOCK PROVIDED BY PLUMBING CONTRACTOR AND WIRING BY ELEC. CONTRACTOR @ + 54"A.F.F.

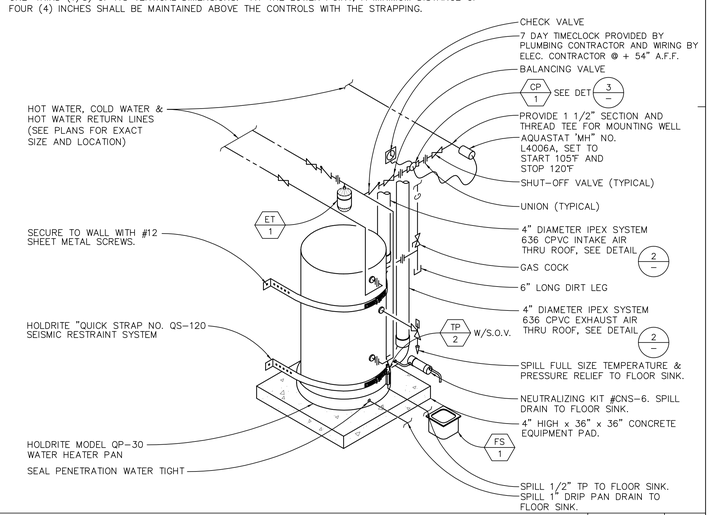
(3) HOT WATER RETURN TO COLD WATER INLET OF WATER HEATER.

(4) THE INSTALLATION OF AN AIR RELEASE VALVE ON THE INLET SIDE OF THE RE-CIRCULATION PUMP, WITHIN 4'-0" OF THE PUMP.

## CIRC PUMP DETAIL

| SCALE | |
|---|---|
| NONE | 4 |

NOTE:
WATER HEATER STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE-THIRD (1/3) AND LOWER ONE-THIRD (1/3) OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT, A MINIMUM DISTANCE OF FOUR (4) INCHES SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING.




## CONCENTRIC VENT WATER HEATER W/CIRC. PUMPDETAIL

| SCALE | |
|---|---|
| NONE | 1 |

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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER ANDREW R. GODMAR No. M30639 Exp. 3/31/26 MECHANICAL STATE OF CALIFORNIA

CONSULTANT

PDS PocockDesignSolutions Inc.

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| DATE: 05/23/25 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## PLUMBING DETAILS

DRAWING NUMBER: **P5.1**

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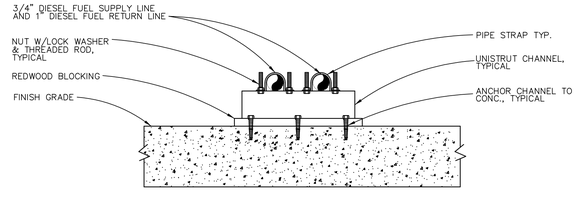
CM-07-01-2026

NOTE:
ALL DIESEL FUEL PIPING SHALL BE ANCHORED TO 4" X 4" REDWOOD BLOCKING WITH UNISTRUT CHANNEL AND PIPE STRAPS. BLOCKING SHALL BE SET IN MASTIC AT 6'-0" ON CENTER.




PIPE STRAPPING DETAIL

SCALE
NONE

1

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| PROJECT NUMBER: 2109300 | |

PLUMBING DETAILS

DRAWING NUMBER: P5.2

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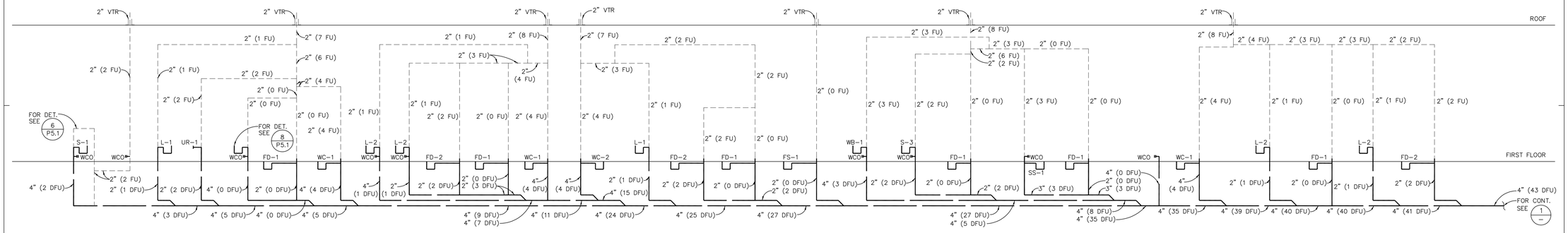
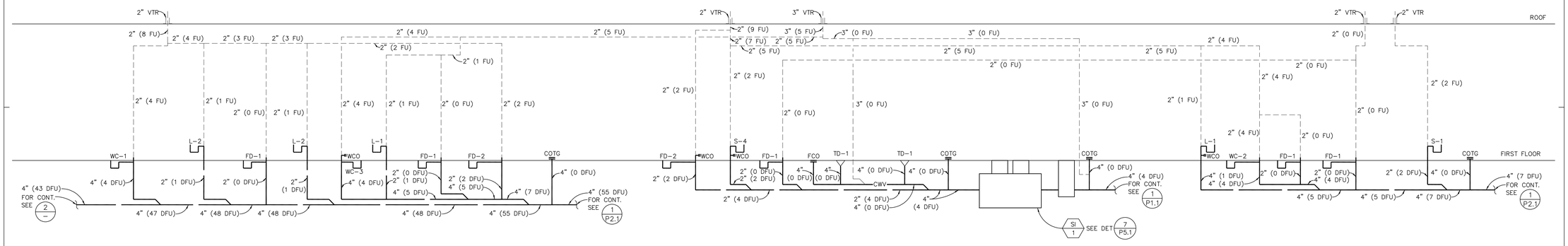
CM-07-01-2026




PLUMBING WASTE/SEWER AND VENT RISER DIAGRAM

SCALE NONE | 2




PLUMBING WASTE/SEWER AND VENT RISER DIAGRAM

SCALE NONE | 1

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## PLUMBING RISER DIAGRAM

DRAWING NUMBER: **P6.1**

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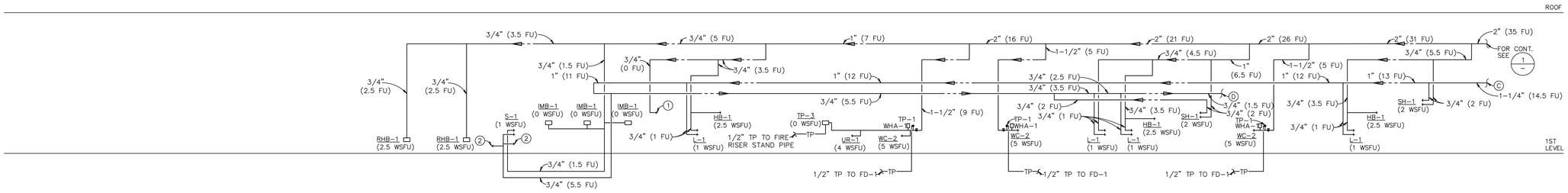
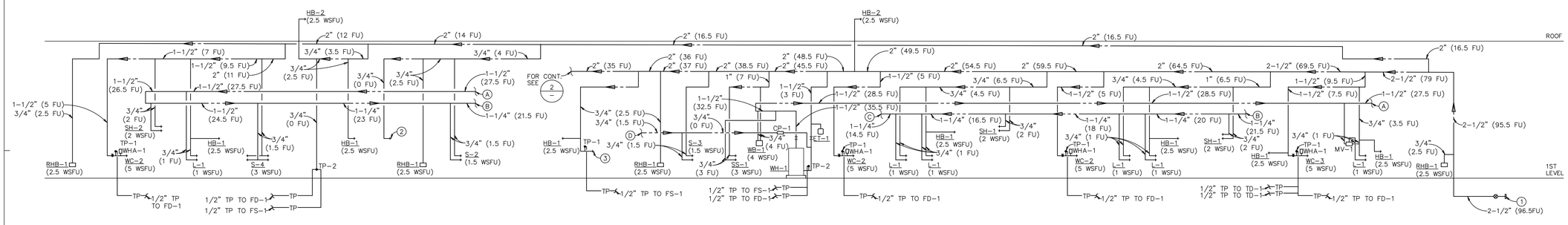



CONSTRUCTION KEY NOTES:

1. 1/2" COLD WATER WITH ANGLE STOP FOR COFFEE MAKER.
2. DISHWASHER ROUGH-IN & CONNECTION 1/2" HOT WATER WITH S.O.V. & 3/4" HOSE WASTE THRU COUNTER MOUNTED AIR GAP FITTING TO GARBAGE DISPOSER.(1.5 FU EA. DW)

## PLUMBING HOT AND COLD WATER RISER DIAGRAM

SCALE: NONE | 2




CONSTRUCTION KEY NOTES:

1. FOR CONTINUATION OF ALL UTILITIES SEE CIVIL ENGINEERING DRAWINGS.
2. 1/2" COLD WATER WITH ANGLE STOP FOR COFFEE MAKER.
3. 1/2" COLD WATER WITH ANGLE STOP FOR ICE MAKER.

## PLUMBING HOT AND COLD WATER RISER DIAGRAM

SCALE: NONE | 1

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**PLUMBING RISER DIAGRAM**

DRAWING NUMBER: **P6.2**

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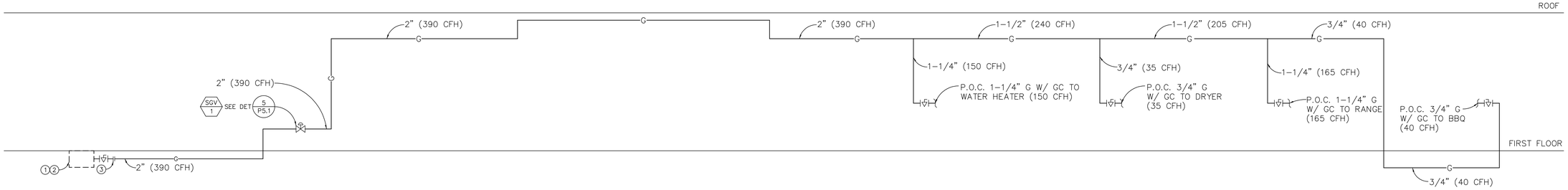


EXISTING GAS METER & SERVICE LINE PROVIDE BY SO CAL. GAS CO., GAS LOAD AT 8" WC PRESSURE & TOTAL DEVELOPED LENGTH 380 FT. INSIDE & OUTSIDE BUILDINGS.

| | | |
|---|---|---|
| WATER HEATING | = | 150 CFH |
| KITCHEN EQUIPMENT | = | 165 CFH |
| MISC. EQUIPMENT | = | 75 CFH |
| TOTAL | | 390 CFH |

CONSTRUCTION NOTES:

1. ALL GAS PIPING SIZES INSIDE THE BUILDING ARE BASED ON CALIFORNIA PLUMBING CODE 2022 TABLE 1215.2(1) (LOW PRESSURE) AT TOTAL DEVELOPED LENGTH 380 FEET & 390 CFH.

CONSTRUCTION KEY NOTES:

(1) EXISTING GAS METER LOCATION IN VAULT.

(2) CONTRACTOR SHALL COORDINATE WITH SOUTHERN CALIFORNIA GAS COMPANY FIELD PLANNER IF EXISTING GAS METER AND HIGH PRESSURE IS ADEQUATE FOR EXISTING AND NEW GAS DEMAND. ALSO, SOUTHERN CALIFORNIA GAS COMPANY FIELD PLANNER SHALL ADJUST THE HIGH-PRESSURE LINE LESS THAN 2-PSI AND PROVIDE NEW GAS REGULATOR AND GAS METER AS REQUIRED FOR EXISTING AND NEW GAS DEMAND.

(3) P.O.C. NEW 2" G TO EXISTING GAS METER IN VAULT W/ G.C.

PLUMBING GAS RISER DIAGRAM

SCALE NONE

1

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| PROJECT NUMBER: 2109300 | |

PLUMBING RISER DIAGRAM

DRAWING NUMBER: P6.3

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CM-07-01-2026

# GENERAL NOTES

1. THE CONTRACTOR SHALL TRACE ALL LINE AND LOW VOLTAGE CIRCUITS SERVING THE EXISTING LIGHTING FIXTURES, RECEPTACLES, COMMUNICATIONS AND ALARM DEVICES LOCATED WITHIN THE PROJECT AREA PRIOR TO COMMENCING DEMOLITION OF THE ELECTRICAL LINE AND LOW VOLTAGE EQUIPMENT. HE SHALL COORDINATE THE DEMOLITION OF SAID EQUIPMENT WITH THE GENERAL CONTRACTOR TO ENSURE EQUIPMENT AND DEVICES REMAINING IN OPERATION DURING THE CONSTRUCTION PERIOD ARE NOT AFFECTED BY THE REMOVAL OF LINE AND LOW VOLTAGE SERVICES. PROVIDE TEMPORARY POWER AND COMMUNICATIONS SERVICES WHERE REQUIRED.
2. THE CONTRACTOR SHALL SECURE AND PAY FOR PERMITS AND FEES NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING ALL CHARGES BY THE LOCAL GOVERNMENT AGENCIES.
3. ALL OUTLET LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
4. THIS CONTRACTOR SHALL SUPPLY POWER TO AND MAKE CONNECTION TO ALL MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS SHOWN ON THE PLANS.
5. EXACT LOCATION OF ALL CEILING MOUNTED DEVICES SHALL BE AS INDICATED ON THE ARCHITECTURAL REFLECTED CEILING PLANS.
6. UNLESS OTHERWISE NOTED, MOUNTING HEIGHTS INDICATED ON ELECTRICAL OUTLETS ARE FROM FINISHED FLOOR TO CENTER OF OUTLETS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT-OUTS IN TILE OR COUNTER SPLASHES WHERE RECEPTACLES, OUTLETS, ETC. OCCUR.
8. ALL RECESSED DEVICES, ETC., MOUNTED IN FIRE RATED CEILING SHALL BE ENCLOSED WITH AN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATING AS THE CEILING. THE CEILING.
9. ALL SURFACE MOUNTED LIGHTING FIXTURES SHALL BE APPROVED FOR DIRECT MOUNTING ON LOW DENSITY COMBUSTIBLE CEILINGS.
10. THE NUMERAL(S) SHOWN AT TOP LIGHT FIXTURE IDENTIFICATION SYMBOL WHICH INDICATES NUMBER OF LIGHT FIXTURES REQUIRED SHALL NOT BE USED BY THE CONTRACTOR FOR HIS QUANTITY TAKE-OFF AT BIDDING OR FOR DETERMINATION OF HOW MANY FIXTURES WILL BE INSTALLED. THE CONTRACTOR SHALL INSTALL A LIGHT FIXTURE WHEREVER A FIXTURE OUTLET IS SHOWN ON DRAWINGS.
11. NO CONDUIT SHALL BE RUN HORIZONTALLY IN CONCRETE FLOOR SLABS.
12. ALL FINAL CONNECTIONS TO OWNER-FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTORS.
13. EQUIPMENT ANCHORAGE NOTE

    ALL ELECTRICAL EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED IN THE 2022 CBC.

    THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED ABOVE, BUT NEED NOT BE DETAILED ON THE PLANS:

    A. EQUIPMENT WEIGHING LESS THAN 400 POUNDS SUPPORTED DIRECTLY ON THE FLOOR OR ROOF.

    B. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.

    C. EQUIPMENT WEIGHING LESS LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.
14. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING SPECIFICALLY ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THESE EXISTING CONDITIONS AND BY SUBMITTING A BID ACCEPTS CONDITIONS UNDER WHICH HE WILL BE REQUIRED TO PERFORM HIS WORK.
15. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO DO ALL CORING, CUTTING, PATCHING AND REFINISHING OF WALLS AND SURFACES WHEREVER IT IS NECESSARY FOR HIM TO PENETRATE FOR HIS WORK. ALL OPENINGS MADE SHALL BE SEALED TO MEET THE RATED INTEGRITY OF THE PARTICULAR WALL, FLOOR OR CEILING.
16. ATTENTION IS CALLED TO THE FACT THAT THE CEILING SYSTEMS FOR THE MOST PART ARE CONSIDERED TO BE INACCESSIBLE. THE CONTRACTOR SHALL STRATEGICALLY LOCATE BOXES, ETC., IN AN ACCESSIBLE CEILING SPACE.
17. WHERE EXPOSED CONDUIT IS PERMITTED BY THE ARCHITECT, SUCH CONDUIT SHALL BE PAINTED TO MATCH FINISH OF SURFACE TO WHICH IT IS ATTACHED/SUPPORTED TO.
18. INSTALL RACEWAY SYSTEMS AS FOLLOWS:

    A. RIGID GALVANIZED STEEL IN ALL OUTDOOR LOCATIONS AND IN INDOOR LOCATIONS WHERE SUBJECT TO PHYSICAL DAMAGE.

    B. I.M.C. OR E.M.T. IN ALL INDOOR AREAS.

    C. FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO LIGHT FIXTURES, MOTORS, VIBRATING ELECTRICAL EQUIPMENT AND HORIZONTAL RUNS IN WOOD STUD WALLS.

    D. PVC CONDUIT FOR UNDERGROUND RUNS, USE 20 MIL PVC TAPED RIGID STEEL RISER ELBOWS AND RISERS FOR CONDUIT STUB-UPS.

    E. USE COMPRESSION TYPE FITTINGS FOR ALL METALLIC CONDUIT.

    F. 1" CONDUIT MINIMUM FOR UNDERGROUND INSTALLATIONS.
19. CONDUIT ROUTING INDICATED ON THE PLANS IS DIAGRAMMATIC. ACTUAL ROUTING OF CONDUITS SHALL BE COORDINATED IN THE FIELD TO AVOID INTERFERENCE WITH OTHER UTILITIES AND TRADES. THE CONTRACTOR SHALL INSTALL ALL CONDUIT, JUNCTION/PULL BOXES, ETC., AS REQUIRED FOR A COMPLETE SYSTEM IN FULL COMPLIANCE WITH ALL APPLICABLE CODES.
20. ALL EXTERIOR MOUNTED EQUIPMENT SHALL BE WEATHERPROOF OR PROVIDED IN A WEATHERPROOF ENCLOSURE.
21. ALL POWER AND LIGHTING BRANCH CIRCUITS SHALL BE INSTALLED WITH A #12 GREEN GROUND WIRE U.O.N. THE COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE CALIFORNIA ELECTRICAL CODE (CEC).
22. IDENTIFICATION NAME PLATES FOR BRANCH CIRCUIT PANELS SHALL MATCH THE NOMENCLATURE PROVIDED BY THE OWNER AT THE END OF THE CONTRACT.
23. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED, NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER.
24. ALL CONDUCTORS SHALL BE STRANDED COPPER, SIMPULL TYPE OR EQUAL. TYPE THHN/THWN THERMOPLASTIC, 600 VOLT, UL APPROVED, DRY AND WET LOCATIONS, FOR CONDUCTOR SIZES UP TO AND INCLUDING #4 AWG. TYPE XHHW CROSS-LINKED SYNTHETIC POLYMER, 600 VOLT, UL APPROVED, FOR DRY AND WET LOCATIONS, FOR CONDUCTOR SIZES #2 AWG. AND ABOVE, AND FOR UNDERGROUND INSTALLATIONS.

4 →

**⚠WARNING**

MAXIMUM AVAILABLE FAULT CURRENT:
42,000 SYMMETRICAL RMS AMPERES
DATE: MM/DD/YYYY

XYZ ELECTRIC 1-800-123-4567

# ELECTRICAL SYMBOL LIST

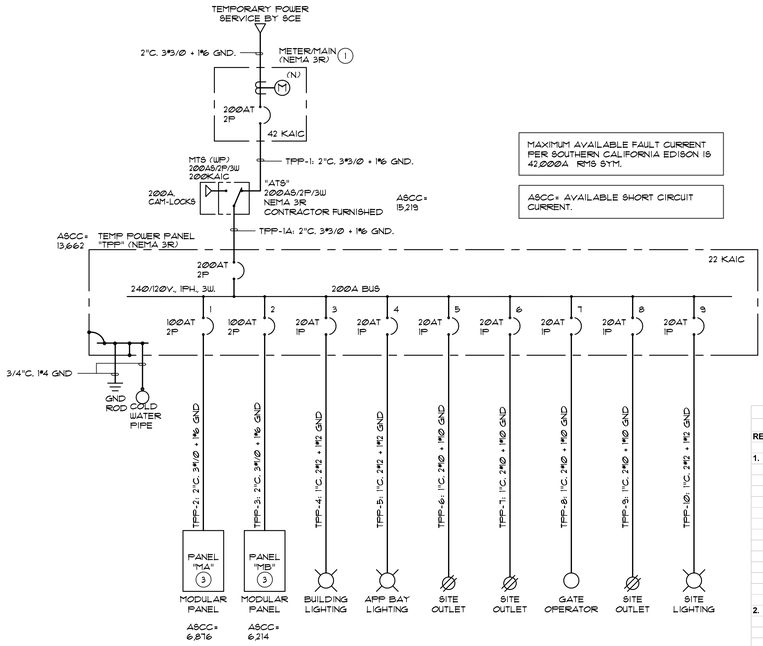
- CONDUIT RUN, CONCEALED IN CEILING, WALLS OR UNDER FLOOR 3/4" MIN.
- CONDUIT RUN, UNDERGROUND.
- FLEXIBLE CONDUIT, SEALTITE WHERE EXPOSED TO WEATHER. REFER TO SPECIFICATIONS FOR USE.
- CONDUIT TURNED DOWN.
- CONDUIT TURNED UP.
- #Ø — CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 WIRES CONTAINED THEREIN. TWO #12 ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12.
- B-13 — CONDUIT HOME RUN TO PANELBOARD. LETTER AND NUMERALS INDICATES ELECTRICAL PANEL AND CIRCUIT NUMBER.
- 3 / A / +20'-0" — LIGHTING FIXTURE IDENTIFICATION SYMBOL. LETTER INDICATES TYPE OF FIXTURE. NUMERAL AT TOP OF HEXAGON INDICATES NUMBER OF FIXTURES REQUIRED. NUMBER AT BOTTOM OF HEXAGON INDICATES MOUNTING HEIGHT FROM FLOOR TO BOTTOM OF FIXTURE. OMISSION OF MOUNTING HEIGHT INDICATES CEILING MOUNTING.
- BRANCH CIRCUIT PANEL, MOUNTING AS SHOWN ON SCHEDULES.
- CIRCUIT BREAKER. REFER TO SINGLE LINE DIAGRAM.
- GROUND.
- FENDANT MOUNTED LED LIGHT FIXTURE. REFER TO LIGHT FIXTURE SCHEDULE FOR TYPE OF LIGHT TO BE PROVIDED AND INSTALLED.
- SITE / AREA LED LIGHT FIXTURE. REFER TO TO LIGHT FIXTURE SCHEDULE FOR TYPE OF LIGHT TO BE PROVIDED AND INSTALLED.
- (N) NEW EQUIPMENT.
- DUPLEX RECEPTACLE, FLUSH IN WALL, GROUNDING TYPE (20 AMP, 120V., WALL PLATE TO MATCH DEVICE) MTD. AT 48".
- J_C — CEILING MOUNTED JUNCTION BOX.

## FIRE ALARM SYSTEM DEFERRED APPROVAL NOTE

THE FIRE ALARM SYSTEM IS A DEFERRED APPROVAL ITEM AND THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT PLANS, EQUIPMENT DATA SHEETS/LISTINGS, WIRING DIAGRAMS AND CALCULATIONS TO THE CITY OF ONTARIO FIRE DEPARTMENT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY OF ONTARIO FIRE DEPARTMENT PRIOR TO INSTALLING THE FIRE ALARM SYSTEM COMPONENTS.

FIRE ALARM SYSTEM DEVICES AND COMPONENTS INDICATED ON THESE DRAWINGS ARE THE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE QUANTITY AND TYPE OF DEVICES REQUIRED BY THE CITY OF ONTARIO FIRE DEPARTMENT AT NO ADDITIONAL COST TO THE CONTRACT.

THE FIRE ALARM SYSTEM DRAWINGS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF CALIFORNIA PROFESSIONAL ELECTRICAL ENGINEER.




MAXIMUM AVAILABLE FAULT CURRENT PER SOUTHERN CALIFORNIA EDISON IS 42,000A RMS SYM.

ASCC= AVAILABLE SHORT CIRCUIT CURRENT.

**TEMP. POWER PANEL "TPP"** — MAIN BREAKER: 200A, SCA: 22KAIC
VOLTAGE: 208/120V-3-WIRE, BUS SIZE, MOUNT: FLOOR
LOCATION: EXTERIOR NEMA 3R, COPPER: 200A, ENTRY: BOTTOM

| DESCRIPTION | CKT | CB | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA |
|---|---|---|---|---|---|---|---|---|---|---|
| RESIDENTIAL LOAD | 1 | 100 | 2 | | | | | 11175 | 11175 | |
| (PANEL "MA" AND "MB") | 2 | 100 | 2 | | | | | 11175 | 11175 | |
| SITE LIGHTING (BUILDING) | 3 | 20 | 1 | 4 | | | | 126 | | |
| APP. BAY LIGHTING | 4 | 20 | 1 | 3 | | | | | 81 | |
| APP. BAY RECEPTACLE | 5 | 20 | 1 | | 2 | | | 360 | | |
| APP. BAY RECEPTACLE | 6 | 20 | 1 | | 2 | | | | 360 | |
| GATE OPERATOR | 7 | 20 | 1 | | | 1 | | 500 | | |
| APP. BAY RECEPTACLE | 8 | 20 | 1 | | 2 | | | | 360 | |
| SITE LIGHTING | 9 | 20 | 1 | 4 | | | | 72 | | |
| | | | | | | | | SUB TOTAL VOLTAMPS: | 23408 | 23151 |
| CONNECTED: 46559 VA | | | | | | | | TOTAL AMPS/PHASE: | 195 | 193 |
| 25% OF MTR: 0 VA | | | | | | | | | | |
| 25% OF LCL: 70 VA | | | | | | | | | | |
| CALCULATED: 46628.8 VA = 194 AVERAGE AMPS | | | | | | | | | | |

Demand Load Calculation (per C.E.C. 220)

**RESIDENTIAL LOADS**

| | | | | |
|---|---|---|---|---|
| **1. General Lighting Loads:** | | | | |
| Lighting Load @ 3.0VA / sq.ft. (per CEC Table 220.12) | | | | |
| 1,440 x 3.0 VA | | = | | 4.3 kVA |
| Small Appliance Circuit Load (per CEC 220.52(A)) | | | | |
| 2 x 1500 VA | | = | | 3.0 kVA |
| Laundry Circuit Load (per CEC 220.52(B)) | | | | |
| 1 x 1500 VA | | = | | 1.5 kVA |
| | Sub-Total for #1 | | | 8.8 kVA |
| **Application of Demand Factor (per CEC 220.42)** | | | | |
| First 3000 or Less at 100%: | | | | 3.0 kVA |
| From 3001 to 120,000 at 35%: | | | | 2.0 kVA |
| Remainder over 120,000 at 25% | | | | 0.0 kVA |
| | **Total for #1** | | | 5.0 kVA |
| **2. Permanently Connected Appliances:** | | | | |
| Dishwasher | | | | |
| 1 x 1032 VA | | = | | 0.8 kVA |
| Garbage Disposal | | | | |
| 1 x 864 VA | | = | | 0.6 kVA |
| Water Heater | | | | |
| 2 x 1800 VA | | = | | 2.7 kVA |
| Clothes Dryer | | | | |
| 1 x 5000 VA | | = | | 3.8 kVA |
| Range | | | | |
| 1 x 8000 VA | (10800 Is Less than 12kW) | = | | 8.0 kVA |
| | **Total for #2** | | | 15.9 kVA |
| **3. Loads at 100%:** | | | | |
| HVAC | | | | |
| 2 x 11880 VA | | = | | 23.8 kVA |
| | **Total for #3** | | | 23.8 kVA |
| | **Total Connected Residential Demand Load** | = | | 44.7 kVA |
| | Total Connected Demand Amps at 240V, 1PH. | = | | 186.1 Amps |

# SINGLE LINE DIAGRAM

## SINGLE LINE DIAGRAM NOTES

1. METER/MAIN PANEL SHALL BE SCE AND EUSERC COMPLIANT, AS MANUFACTURED BY SQUARE-D OR EQUAL EATON OR SIEMENS.
2. ALL EQUIPMENT SHALL BE LISTED BY UL. OR A CITY APPROVED THIRD PARTY TESTING FACILITY.
3. THE BUILDING PANELS ARE PROVIDED WITH THE BUILDINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE PANELS, AND DETERMINING THE CONDUIT AND WIRE TERMINATION REQUIREMENTS PRIOR TO ROUTING SITE DISTRIBUTION CONDUITS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES AND OBTAIN DIRECTION FROM THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. PROVIDE AND INSTALL SIGNAGE FOR AVAILABLE FAULT CURRENT PER CEC 110.24. PROVIDE SELF-ADHESIVE VINYL LABEL TO AFFIX TO ELECTRICAL EQUIPMENT TO WARN OF ARC FLASH HAZARDS. THE LABEL SHALL BE LOCATED ON THE EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT. CONTRACTOR TO PLACE COMPANY NAME AND CONTACT PHONE NUMBER ON SIGN. THIS DETAIL IS FOR REFERENCE ONLY.

# SITE LIGHTING FIXTURE SCHEDULE

| TYPE | MANUFACTURER CATALOG* | LAMP QTY. & TYPE | FIXTURE WATTAGE | VOLTS | REMARKS |
|---|---|---|---|---|---|
| 6A | LITHONIA LIGHTING *DSXW1-P4-40K-80CRI-TFTM-MVOLT-PIR-# OR APPROVED EQUAL | 3,822 LUMENS (3) LTG) 4000K | 29 | UNV | WALL MOUNTED LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH TYPE IV FORWARD THROW OPTICS, 4000K COLOR TEMPERATURE, 80 CRI, MVOLT VOLTAGE, AND INTEGRAL PHOTO/MOTION SENSOR. PROVIDE ALL REQUIRED MOUNTING HARDWARE / ACCESSORIES FOR A COMPLETE INSTALLATION.<br>#= FINISH AS SELECTED BY ARCHITECT. |
| 6B | LITHONIA LIGHTING *CWX-LED-V4-FT-40K-80CRI-T5M-MVOLT-PM-DMG-PIR-# OR APPROVED EQUAL | 3,827 LUMENS (4) LTG) 4000K | 27 | UNV | LED PENDANT MOUNTED FIXTURE. PROVIDE FIXTURE WITH PM PERFORMANCE PACKAGE, 4000K COLOR TEMPERATURE, AND MOTION/AMBIENT SENSOR. PROVIDE WITH REQUIRED MOUNTING HARDWARE.<br>#= FINISH AS SELECTED BY ARCHITECT. |
| 6C | LITHONIA LIGHTING *DSXW1-P1-40K-80CRI-T3M-MVOLT-PIR-# OR APPROVED EQUAL | 1,730 LUMENS (33 LTG) 4000K | 13 | UNV | WALL MOUNTED LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH TYPE III MEDIUM THROW OPTICS, 4000K COLOR TEMPERATURE, 80 CRI, MVOLT VOLTAGE, AND INTEGRAL PHOTO/MOTION SENSOR. PROVIDE ALL REQUIRED MOUNTING HARDWARE / ACCESSORIES FOR A COMPLETE INSTALLATION.<br>#= FINISH AS SELECTED BY ARCHITECT. |
| 6D | LITHONIA LIGHTING *LBYX-LED-P2-40K-MVOLT- # OR APPROVED EQUAL | 2,512 LUMENS (2) LTG) 4000K | 24 | UNV | WALL MOUNTED LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH 2,512 LUMENS, 4000K COLOR TEMPERATURE, 80 CRI, MVOLT VOLTAGE AND 0-10V LED DIMMING DRIVER. PROVIDE ALL REQUIRED MOUNTING HARDWARE / ACCESSORIES FOR A COMPLETE INSTALLATION.<br>#= FINISH AS SELECTED BY ARCHITECT. |
| 6E | LITHONIA LIGHTING *LBYX-LED-P1-40K-MVOLT- # OR APPROVED EQUAL | 1,512 LUMENS (2) LTG) 4000K | 12 | UNV | WALL MOUNTED LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH 1568 LUMENS, 4000K COLOR TEMPERATURE, 80 CRI, MVOLT VOLTAGE AND 0-10V LED DIMMING DRIVER. PROVIDE ALL REQUIRED MOUNTING HARDWARE / ACCESSORIES FOR A COMPLETE INSTALLATION.<br>#= FINISH AS SELECTED BY ARCHITECT. |


**PBK**

**SOUTHERN CALIFORNIA**
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com


**COSTA MESA FIRE STATION NO. 2**
**RECONSTRUCTION**
**COSTA MESA FIRE & RESCUE DEPARTMENT**
800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/28
STATE OF CALIFORNIA


**CONSULTANT**
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX: (909) 941-8211


| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| ⚠ | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**TEMP. FIRE STATION GENERAL NOTES, SYMBOL LIST, FIXTURE SCHEDULE, AND SINGLE LINE DIAGRAM**

DRAWING NUMBER: **ET0.1**

CM-07-01-2026

STATE OF CALIFORNIA
## Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

| CERTIFICATE OF COMPLIANCE | | | NRCC-LTO-E |
|---|---|---|---|
| *This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2L for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.* | | | |
| **Project Name:** | Costa Mesa Temp. Fire Station #2 | **Report Page:** | **(Page 1 of 9)** |
| **Project Address:** | 800 Baker Street | **Date Prepared:** | 7/7/2025 |

### A. GENERAL INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| 01 | Project Location (city) | Costa Mesa | 04 | Total Illuminated Hardscape Area (ft²) | 5215 |
| 02 | Climate Zone | 6 | | | |
| 03 | Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by Authority Having Jurisdiction (AHJ): | | | | |
| ☐ | LZ-0: Very Low - Undeveloped Parkland | ☒ LZ-2: Moderate - Urban Clusters | | ☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval | |
| ☐ | LZ-1: Low - Rural Areas | ☐ LZ-3: Moderately High - Urban Areas | | | |
| 05 | Occupancy Types within Project | | | | |

♦ All Other Occupancies

### B. PROJECT SCOPE

*This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv for alterations.*

**My Project Consists of:**

| 01 | 02 | |
|---|---|---|
| ☒ New Lighting System | Must Comply with Allowances from 140.7 / 170.2(e)6 | |
| ☐ Altered Lighting System | Is your alteration increasing the connected lighting load (Watts)? | ○ Yes ○ No |
| 03 | 04 | 05 |
| % of Existing Luminaires Being Altered[1] | Sum Total of Luminaires Being Added or Altered | Calculation Method |
| ☐ < 10% ☐ >= 10% and < 50% ☐ >= 50% | | |

***Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.***

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*



STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: Costa Mesa Temp. Fire Station #2 Report Page: (Page 2 of 9)
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### C. COMPLIANCE RESULTS

*Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.*

| Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv | | | | | | | | | | | | Compliance Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | | 02 | | 03 | | 04 | | 05 | 06 | | 07 | |
| General Hardscape Allowance 140.7(d)1 / 170.2(e)6i (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)3 / 170.2(e)6i (See Table M) | OR | Existing Power Allowance 141.0(b)2L / 180.2(b)4Bv (See Table N) | = | **Total Allowed** (Watts) |
| 406 | + | ---- | + | ---- | + | ---- | + | 90 | OR | ---- | = | 496 |

| 08 | 09 | |
|---|---|---|
| ≥ | **Total Actual** (Watts) | **07 must be >= 08** |
| ≥ | 288 | COMPLIES |

| | |
|---|---|
| **Shielding Compliance (See Table G for Details)** | COMPLIES |
| **Controls Compliance (See Table H for Details)** | COMPLIES |

### D. EXCEPTIONAL CONDITIONS

*This table is auto-filled with unedittable 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.*

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0725-1246 Report Generated: 2025-07-07 10:10:10

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: Costa Mesa Temp. Fire Station #2 Report Page: (Page 3 of 9)
Date Prepared: 7/7/2025

### F. OUTDOOR LIGHTING FIXTURE SCHEDULE

*For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). 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.*

**Designed Wattage:**

| 01 | 02 | | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Name or Item Tag | Complete Luminaire Description | | Watts per luminaire[1,2] | How is Wattage determined | Total Number Luminaires[2] | Luminaire Status[3] | Excluded per 140.7(a) / 170.2(e)6A | Design Watts | Cutoff Req. > 6,200 initial lumen output 130.2(b) / 160.5(c)[4] | Field Inspector | |
| | | | | | | | | | | Pass | Fail |
| 5A | (1) 29w LED | ☐ Linear | 29 | Mfr. Spec | 3 | New | ☐ | 87 | Provided | ☐ | ☐ |
| 5B | (1) 30w LED | ☐ Linear | 30 | Mfr. Spec | 3 | New | ☐ | 90 | NA: < 6200 lumens | ☐ | ☐ |
| SC | (1) 13w LED | ☐ Linear | 13 | Mfr. Spec | 3 | New | ☐ | 39 | Provided | ☐ | ☐ |
| SD | (1) 24w LED | ☐ Linear | 24 | Mfr. Spec | 2 | New | ☐ | 48 | Provided | ☐ | ☐ |
| SE | (1) 12w LED | ☐ Linear | 12 | Mfr. Spec | 2 | New | ☐ | 24 | Provided | ☐ | ☐ |
| | | | | | | | **Total Design Watts:** | 288 | | | |

* *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)*

[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/ft 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 the project scope.*
[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)*

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0725-1246 Report Generated: 2025-07-07 10:10:10

STATE OF CALIFORNIA
Outdoor Lighting
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### G. SHIELDING REQUIREMENTS (BUG)

*This table includes fixtures of >=6,200 initial lumens indicated on Table F as needing to comply with Shielding Requirements. Maximum lumens can be found in Title 24, Part 11, Section 5.106.8*

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name or Item Tag | Complete Luminaire Description | Backlight Rating[2] | | | Uplight Rating[2] | | | Glare Rating (Lumens)[2] | | | | Field Inspector |
| | | Mounting Height[1] | Max Allowable Backlight Rating[2] | Backlight Rating Per Design | Lighting type | Max Allowable Uplight Rating[2] | Uplight Rating Per Design | Mounting Height[1] | Max Allowable Glare Rating[2] | Glare Rating Per Design | Pass | Fail |
| 5A | (1) 29w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G2 | ☐ | ☐ |
| 5D | (1) 24w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G1 | ☐ | ☐ |
| 5A | (1) 29w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G2 | ☐ | ☐ |
| SC | (1) 13w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G1 | ☐ | ☐ |
| SE | (1) 12w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G1 | ☐ | ☐ |

[1] *FOOTNOTES: Mounting Height is labeled MH in this table.*
[2] *Authority Having Jurisdiction may ask for luminaire cut sheets or other documentation to confirm luminaire type, uplight ratings and glare ratings used for compliance per 130.2(b)/ 160.5(c)*
[3] *BUG ratings with a lower number than the 'Max Allowable' are compliant. Ex. If Max Allowable is Bug Rating B4, then B0, B1, B2 and B3 are all compliant.*

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0725-1246 Report Generated: 2025-07-07 10:10:10

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: Costa Mesa Temp. Fire Station #2 Report Page: (Page 5 of 9)
Date Prepared: 7/7/2025

### H. OUTDOOR LIGHTING CONTROLS

*This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.*
*Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit*

**Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings**

| 01 | 02 | 03 | 04 | 05 | |
|---|---|---|---|---|---|
| Area Description | Shut-Off 130.2(c)1 / 160.5(c) | Auto-Schedule 130.2(c)2 / 160.5(c) | Motion Sensor 130.2(c)3 / 160.5(c) | Field Inspector | |
| | | | | Pass | Fail |
| Automotive Hardscape | Photocontrol | Provided | Provided | ☐ | ☐ |
| Service Canopy | Photocontrol | Provided | NA: Each Luminaire <= 40 Watts | ☐ | ☐ |
| Pedestrian Hardscape | Photocontrol | Provided | NA: Each Luminaire <= 40 Watts | ☐ | ☐ |

[1] *FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.*
[2] *Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.*
[3] *Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.*

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0725-1246 Report Generated: 2025-07-07 10:10:10

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: Costa Mesa Temp. Fire Station #2 Report Page: (Page 6 of 9)
Date Prepared: 7/7/2025

### I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))

*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-B while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-5. Indicate which allowances are being 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.*

| | 01 | | | | |
|---|---|---|---|---|---|
| | "Use it or lose it" Allowance (select all that apply) (select all that apply) | | | | |
| ☒ 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 per Table 140.7-A for Nonresidential & Hotel/Motel

| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
|---|---|---|---|---|---|---|---|
| Area Description | Area Wattage Allowance (AWA) | | | Linear Wattage Allowance (LWA) | | | Total General AWA + LWA (Watts) |
| | Illuminated Area (ft²) | Allowed Density (W/ft²) | Area Allowance (Watts) | Perimeter Length (lf) | Allowed Density (W/lf) | Linear Allowance (Watts) | |
| Automotive Hardscape | 3803 | 0.019 | 72.3 | 314 | 0.2 | 47.1 | 119 |
| Pedestrian Hardscape | 1412 | 0.019 | 26.8 | 400 | 0.2 | 60 | 87 |
| | | | | | **Initial Wattage Allowance for Entire Site (Watts):** | | 200 |
| | | | | | **Instances of Initial Wattage Allowance (LZ 0 only)[1]** | | |
| | | | | | **Total General Hardscape Allowance (Watts):** | | 406 |

### J. LIGHTING ALLOWANCE: PER APPLICATION

*This section does not apply to this project.*

### K. LIGHTING ALLOWANCE: SALES FRONTAGE

*This section does not apply to this project.*

### L. LIGHTING ALLOWANCE: ORNAMENTAL

*This section does not apply to this project.*

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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
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### M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

*This table includes areas using the wattage allowance per specific area from Table 140.7-B /Table 170.2-5. More than one specific area allowance may be taken in a single project, if applicable. However, multiple specific area allowances may not be taken for the exact same area on the site.*

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Area Description | Specific Area Type per Table 140.7-B | Extra | CALCULATED ALLOWANCE (Watts) | | | DESIGN WATTS | | | Additional Allowance (Watts) |
| | | | Specific Area (ft²)[1] | Allowed Density (W/ft²) | Extra Allowance (Watts) | Luminaire Name or Item Tag | Watts per Luminaire | # of Luminaires | Design Watts |
| Service Canopy | ServiceStationCanopy | | 1080 | 0.4 | 464.4 | 5B | 30 | 3 | 90 | 90 |
| | | | | | | | | Total Design Watts for this Area: | 90 | |
| | | | | | | | | **Total Allowance (Watts) All Areas:** | | 90 |

[1] *FOOTNOTES: See Table 140.7-B /Table 170.2-5 for rules for calculating the specific areas (ft²) for these additional lighting allowances.*
[2] *For luminaires indicated in Table F as linear, wattage in column DT is W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 08 instead of number of luminaires.*

### N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

*This section does not apply to this project.*

### O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

*Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online*

| Form/Title |
|---|
| NRCI-LTO-E - Must be submitted for all buildings |

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STATE OF CALIFORNIA
Outdoor Lighting
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CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: Costa Mesa Temp. Fire Station #2 Report Page: (Page 8 of 9)
Date Prepared: 7/7/2025

### P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

*Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html*

| Form/Title | Systems/Spaces To Be Field Verified |
|---|---|
| NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires. | Automotive Hardscape; Service Canopy; Pedestrian Hardscape; |

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STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
Project Name: Costa Mesa Temp. Fire Station #2 Report Page: (Page 9 of 9)
Project Address: 800 Baker Street Date Prepared: 7/7/2025

### DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

**I certify that this Certificate of Compliance documentation is accurate and complete.**

| | |
|---|---|
| Documentation Author Name: Luis E. Flores | Documentation Author Signature: |
| Company: A&F Engineering Group, Inc. | Signature Date: 2025-07-07 |
| Address: 9320 Baseline Rd., Suite C | CEA/ HERS Certification Identification (if applicable): |
| City/State/Zip: Rancho Cucamonga, CA 91701 | Phone: (909) 941-3008 |

### RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval 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 all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

| | |
|---|---|
| Responsible Designer Name: Rolando E. Sotelo | Responsible Designer Signature: |
| Company: A&F Engineering Group, Inc. | Date Signed: 2025-07-07 |
| Address: 9320 Baseline Rd., Suite C | License: E17229 |
| City/State/Zip: Rancho Cucamonga CA 91701 | Phone: (909) 941-3008 |

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ROLANDO E. SOTELO
No. E17229
6/30/28
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL (909) 941-3008 FAX (909) 941-8211

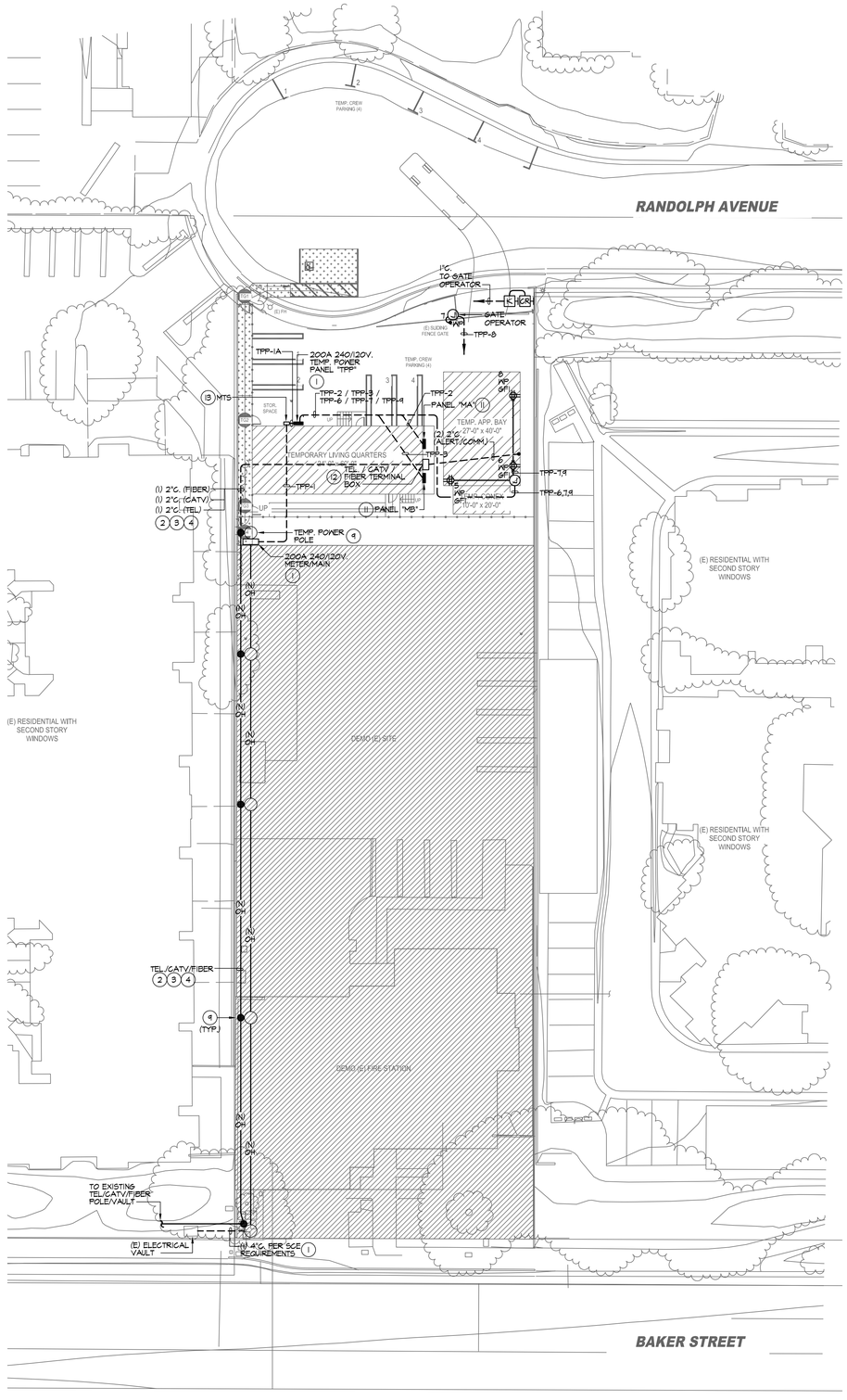
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

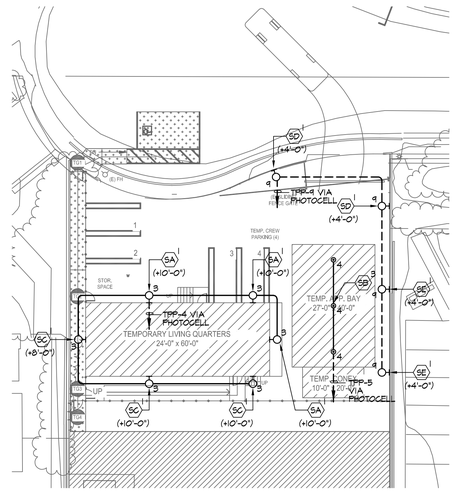
**TEMP. FIRE STATION TITLE 24 COMPLIANCE**

DRAWING NUMBER: **ET0.2**

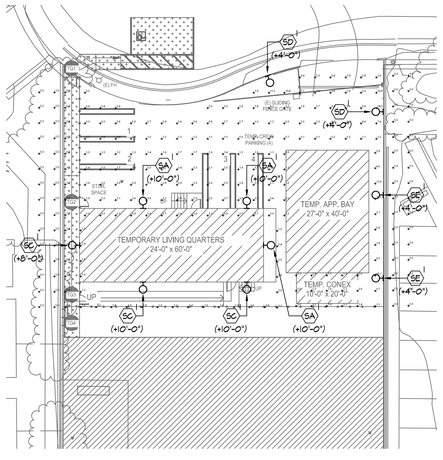
CM-07-01-2026




SITE PLAN - PHASE 01
1" = 20'-0"
**1**




LIGHTING PLAN - PHASE 01
1" = 20'-0"
**2**




N
TRUE NORTH

Statistics

| Description | Symbol | Avg | Max | Min | Max/Min | Avg/Min |
|---|---|---|---|---|---|---|
| Beyond Property Line - West | + | 0.0 fc | 0.0 fc | 0.0 fc | N/A | N/A |
| Pedestrian Pathway | + | 2.4 fc | 15.1 fc | 0.2 fc | 75.5:1 | 12:1 |
| Parking | + | 2.4 fc | 28.0 fc | 0.1 fc | 280.0:1 | 24.0:1 |
| Beyond Property Line - East | + | 0.0 fc | 0.0 fc | 0.0 fc | N/A | N/A |

## PHOTOMETRIC PLAN NOTES:

1. THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINARIE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS.
2. LIGHT LOSS FACTOR (LLF) USED FOR PHOTOMETRY IS 0.91.

N
TRUE NORTH

SITE LIGHTING PHOTOMETRIC - PHASE 01
1" = 20'-0"
**3**

## PLAN NOTES

1. THE CONTRACTOR SHALL CONTACT THE ELECTRIC SERVICE PLANNER UPON AWARD OF CONTRACT AND OBTAIN A COPY OF THE ENGINEERING DRAWINGS PRIOR TO INSTALLING THE SERVICE CONDUIT, DUCTS, PAD MOUNT, RISERS, PULL BOXES, PROTECTIVE COVERING, ETC. INDICATED ON THIS PLAN. ALL WORK INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS, WHETHER SHOUN ON THIS PLAN OR NOT, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY COMPANY REQUIREMENTS AND ALL UTILITY COMPANY WORK SHALL BE INSPECTED AND APPROVED BY THE SERVING UTILITY.

   UTILITY COMPANY ENGINEERING AND PERMIT FEES ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS SHALL BE PAID BY THE CONTRACTOR AND REIMBURSED BY THE OUNER. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/OUNER OF ANY DISCREPANCIES BETWEEN THE UTILITY COMPANY ENGINEERING DRAWINGS AND THIS PLAN RIOR TO PROCEEDING WITH THE WORK.

2. THE CONTRACTOR SHALL CONTACT THE TELEPHONE ENGINEER PRIOR TO BID AND RECEIVE COMPLETE INFORMATION OF THEIR REQUIREMENTS AND INCLUDE ALL SERVICE COSTS ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THESE PLANS AND SPECIFICATION IN HIS BID. THE ACT OF SUBMITTING THE BID SHALL CONSTITUTE THE FULL RESPONSIBILITY OF THIS CONTRACTOR TO INSTALL SERVICE IN COMPLIANCE WITH THE SERVING UTILITY AND TO PAY ALL CHARGES LEVIED BY THE SERVING UTILITY.

   ALL TELEPHONE WORK SHALL BE IN COMPLIANCE WITH THESE DRAWINGS AND REQUIREMENTS OF THE TELEPHONE COMPANY. ALL ITEMS SHOUN ON THESE DRAWINGS AND THE DRAWINGS OF THE SERVING UTILITY SHALL BE PROVIDED AND/OR INSTALLED BY THIS CONTRACTOR AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY.

3. CATV SERVICE:
   THE CONTRACTOR SHALL CONTACT THE SPECTRUM CATV SERVICE PLANNER UPON AWARD OF CONTRACT AND OBTAIN A COPY OF THE SPECTRUM ENGINEERING DRAWINGS PRIOR TO INSTALLING THE SERVICE CONDUIT, DUCTS, RISERS PULL BOXES, PROTECTIVE COVERING, ETC. INDICATED ON THIS PLAN. ALL WORK INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS, WHETHER SHOUN ON THIS PLAN OR NOT, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY COMPANY REQUIREMENTS AND ALL UTILITY COMPANY WORK SHALL BE INSPECTED AND APPROVED BY THE SERVING UTILITY

   UTILITY COMPANY ENGINEERING AND PERMIT FEES ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS SHALL BE PAID BY THE CONTRACTOR AND REIMBURSED BY THE OUNER. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/OUNER OF ANY DISCREPANCIES BETWEEN THE UTILITY COMPANY ENGINEERING DRAWINGS AND THIS PLAN PRIOR TO PROCEEDING WITH THE WORK.

4. THE CONTRACTOR SHALL CONTACT THE CITY FIBER SERVICE PLANNER UPON AWARD OF CONTRACT AND OBTAIN A COPY OF THE FIBER DRAWINGS PRIOR TO INSTALLING THE SERVICE CONDUIT, DUCTS, RISERS, PULL BOXES, PROTECTIVE COVERING, ETC. INDICATED ON THIS PLAN. ALL WORK INDICATED ON THE CITY FIBER ENGINEERING DRAWINGS, WHETHER SHOUN ON THIS PLAN OR NOT, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE CITY FIBER COMPANY REQUIREMENTS AND ALL CITY FIBER WORK SHALL BE INSPECTED AND APPROVED BY THE CITY.

   ENGINEERING AND PERMIT FEES ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THE CITY FIBER ENGINEERING DRAWINGS SHALL BE PAID BY THE CONTRACTOR AND REIMBURSED BY THE OUNER. CONTRACTOR SHALL NOTIFY THE ARCHITECT/OUNER OF ANY DISCREPANCIES BETWEEN THE UTILITY COMPANY ENGINEERING DRAWINGS AND THIS PLAN PRIOR TO PROCEEDING WITH THE WORK.

5. REFER TO DRAWING ET0.1, SINGLE LINE DIAGRAM, FOR POWER CONDUIT SIZE AND WIRE QUANTITIES.
6. CONDUIT AND WIRE INDICATED ON THE SINGLE LINE DIAGRAM, WHETHER SHOWN ON THIS DRAWING OR NOT, SHALL BE A PART OF THIS CONTRACT AND THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE REQUIRED ROUTING TO MEET THE INTENT OF THESE PLANS AND SPECIFICATIONS.
7. CONDUIT ROUTING INDICATED ON THESE PLANS IS DIAGRAMMATIC. ACTUAL ROUTING OF UNDERGROUND CONDUITS SHALL BE COORDINATED IN THE FIELD TO AVOID INTERFERENCE WITH OTHER UTILITIES AND TRADES.
8. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO MAINTAIN REQUIRED CLEARANCES BETWEEN UNDERGROUND ELECTRICAL CONDUITS AND FOOTINGS. CONDUIT STUB-UPS SHALL NOT BE INSTALLED IN FOOTINGS, EXACT METHOD FOR STUBBING-UP CONDUITS AT FOOTING LOCATIONS SHALL BE COORDINATED IN THE FIELD WITH THE GENERAL CONTRACTOR AND THE ARCHITECT.
9. TEMPORARY POWER AND TELEPHONE POLES SPACING SHALL NOT EXCEED 75'-0". MAINTAIN 18'-0" MINIMUM CLEARANCE FROM FINISHED GRADE TO THE LOWEST POINT OF THE AERIAL CABLE AT DRIVE AREAS. MAINTAIN 14'-0" MINIMUM CLEARANCE FROM FINISHED GRADE TO THE LOWEST POINT OF THE AERIAL CABLE AT PEDESTRIAN PATHWAYS. PROVIDE REQUIRED GUY WIRES AND TRAFFIC BARRIERS. POLES SHALL BE DESIGNED TO ACCOUNT FOR THE WEIGHT OF THE CABLE(S) AND APPLICABLE WIND LOAD. PROVIDE CONCRETE BASES IF REQUIRED TO MEET THE REQUIREMENT.
10. REFER TO DRAWING ET0.1, GENERAL NOTES, FOR ADDITIONAL REQUIREMENTS.
11. PANEL PROVIDED WITH MODULAR BUILDING.
12. PROVIDE WEATHERPROOF 24" X 36" X 10" TEL. / CATV / FIBER TERMINAL CABINET.
13. CONFIRM EXACT LOCATION WITH ARCHITECT / FIRE DEPARTMENT PRIOR TO ROUGH-IN AND INSTALLATION.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ARNALDO E. SOTELO
No. E17329
6/30/26
STATE OF CALIFORNIA

CONSULTANT
A&E ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

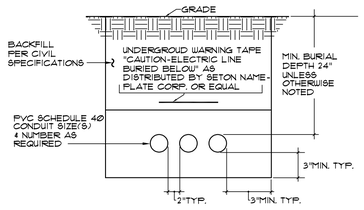
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**TEMP. FIRE STATION SITE PLAN - PHASE 01**

DRAWING NUMBER: **ET1.1**

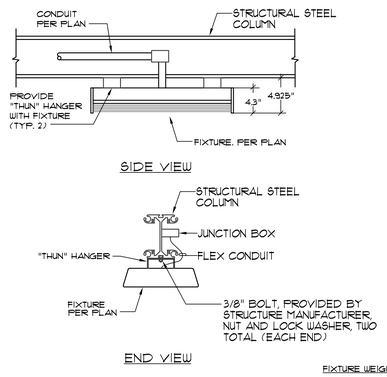
CM-07-01-2026




NOTES:
1. SLOPE RUNS A MIN. OF 4" IN 100 FT. BETWEEN MANHOLES OR MANHOLE AND VAULT OR CABLE RISERS.
2. RUN SHALL BE STRAIGHT WITHOUT ANY HIGH OR LOW POINTS BETWEEN ENDS, THE HIGHER END SHALL BE AT A VENTILATED MANHOLE,VAULT, OR CABLE RISER.

## UNDERGROUND CONDUIT

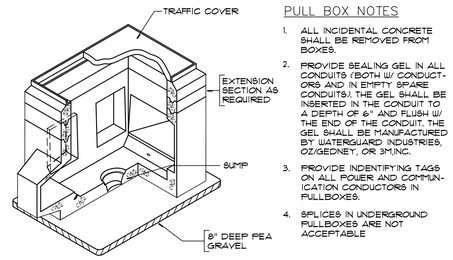
SCALE: NONE | 1




FIXTURE WEIGHT = 12LBS.

## SURFACE MOUNTED LIGHT FIXTURE

SCALE: NONE | 2

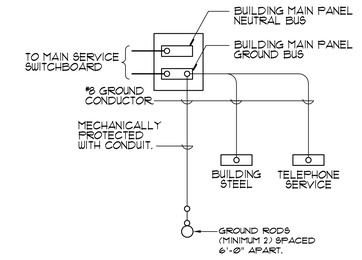



PULL BOX NOTES

1. ALL INCIDENTAL CONCRETE SHALL BE REMOVED FROM BOXES.
2. PROVIDE SEALING GEL IN ALL CONDUITS (BOTH W/ CONDUCTORS AND IN EMPTY SPARE CONDUITS). THE GEL SHALL BE INSERTED IN THE CONDUIT TO A DEPTH OF 6" AND FLUSH W/ THE END OF THE CONDUIT. THE GEL SHALL BE MANUFACTURED BY WATERGUARD INDUSTRIES, OZ/GEDNEY, OR 3M,INC.
3. PROVIDE INDENTIFYING TAGS ON ALL POWER AND COMMUNICATION CONDUCTORS IN PULLBOXES.
4. SPLICES IN UNDERGROUND PULLBOXES ARE NOT ACCEPTABLE

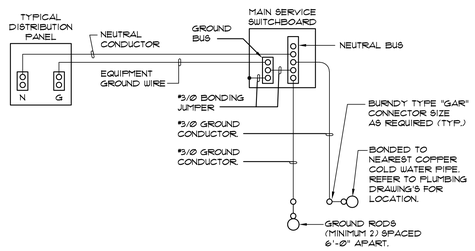
## UNDERGROUND PULL BOX

SCALE: NONE | 3



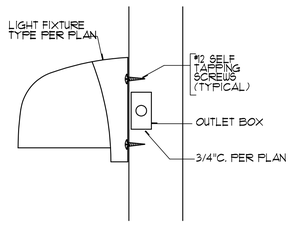

## MODULAR BUILDING GROUNDING

SCALE: NONE | 4




## SERVICE GROUNDING

SCALE: NONE | 5




NOTE: ALL OUTDOOR LIGHT FIXTURES SHALL BE WEATHER SEALED WITH SILICONE SEALANT AROUND OUTSIDE EDGE.

## EXTERIOR LIGHT FIXTURE-STEEL STUD

SCALE: NONE | 6

## NOT USED

SCALE: NONE | 7

## NOT USED

SCALE: NONE | 8

## NOT USED

SCALE: NONE | 9

## NOT USED

SCALE: NONE | 10

## NOT USED

SCALE: NONE | 11

## NOT USED

SCALE: NONE | 12

## NOT USED

SCALE: NONE | 13

## NOT USED

SCALE: NONE | 14

## NOT USED

SCALE: NONE | 15

## NOT USED

SCALE: NONE | 16

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8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ROLANDO E. ZOFLEO
No. E17229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
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| #1 | REVISIONS | | |

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| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**TEMP. FIRE STATION ELECTRICAL DETAILS**

DRAWING NUMBER: **ET3.1**

CM-07-01-2026

# GENERAL NOTES

1. THE CONTRACTOR SHALL SECURE AND PAY FOR PERMITS AND FEES NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING ALL CHARGES BY THE LOCAL GOVERNMENT AGENCIES.
2. ALL OUTLET LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
3. THIS CONTRACTOR SHALL SUPPLY POWER TO AND MAKE CONNECTION TO ALL MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS, INCLUDING ALL FRACTIONAL HORSEPOWER MOTORS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE MECHANICAL AND PLUMBING DRAWINGS FOR DUCTS, LINES AND EQUIPMENT.
4. SEE SINGLE LINE DIAGRAM FOR CONDUIT AND CONDUCTOR SIZES. PANELS, MECHANICAL EQUIPMENT, ETC. HOMERUNS TO PANELS MAY NOT BE SHOWN ON PLANS BUT ARE A PART OF THIS CONTRACT.
5. EXACT LOCATION OF ALL CEILING MOUNTED DEVICES SHALL BE AS INDICATED ON THE ARCHITECTURAL REFLECTED CEILING PLANS.
6. UNLESS OTHERWISE NOTED, OR REQUIRED BY ADA MOUNTING HEIGHTS INDICATED ON ELECTRICAL OUTLETS ARE FROM FINISHED FLOOR TO CENTER OF OUTLETS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT-OUTS IN TILE OR COUNTER SPLASHES WHERE RECEPTACLES, OUTLETS, ETC., OCCUR.
8. ALL RECESSED DEVICES, ETC., MOUNTED IN FIRE RATED CEILING SHALL BE ENCLOSED WITH AN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATING AS THE CEILING. THE CEILING.
9. ALL SURFACE MOUNTED LIGHTING FIXTURES SHALL BE APPROVED FOR DIRECT MOUNTING ON LOW DENSITY COMBUSTIBLE CEILINGS.
10. THE NUMERAL(S) SHOWN AT TOP LIGHT FIXTURE IDENTIFICATION SYMBOL WHICH INDICATES NUMBER OF LIGHT FIXTURES REQUIRED SHALL NOT BE USED BY THE CONTRACTOR FOR HIS QUANTITY TAKE-OFF AT BIDDING OR FOR DETERMINATION OF HOW MANY FIXTURES WILL BE INSTALLED. THE CONTRACTOR SHALL INSTALL A LIGHT FIXTURE WHEREVER A FIXTURE OUTLET IS SHOWN ON DRAWINGS.
11. NO CONDUIT SHALL BE RUN HORIZONTALLY IN CONCRETE FLOOR SLABS.
12. ALL WIRING AND ELECTRICAL EQUIPMENT INSTALLED FOR MECHANICAL AND PLUMBING EQUIPMENT SHALL BE IN ACCORDANCE WITH THESE DRAWINGS AND THE WIRING DIAGRAMS OF THE MECHANICAL AND PLUMBING DRAWINGS.
13. ALL FINAL CONNECTIONS TO OWNER-FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTORS.
14. EQUIPMENT ANCHORAGE

    THE SEISMIC ANCHORAGE OF ELECTRICAL EQUIPMENT SHALL CONFORM TO C.C.R. TITLE 24, 2022 CBC.
15. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING SPECIFICALLY ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THESE EXISTING CONDITIONS AND BY SUBMITTING A BID ACCEPTS CONDITIONS UNDER WHICH HE WILL BE REQUIRED TO PERFORM HIS WORK.
16. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO DO ALL CORING, CUTTING, PATCHING AND REFINISHING OF WALLS AND SURFACES WHEREVER IT IS NECESSARY FOR HIM TO PENETRATE FOR HIS WORK. ALL OPENINGS MADE SHALL BE SEALED TO MEET THE RATED INTEGRITY OF THE PARTICULAR WALL, FLOOR OR CEILING.
17. ATTENTION IS CALLED TO THE FACT THAT THE CEILING SYSTEMS FOR THE MOST PART ARE CONSIDERED TO BE INACCESSIBLE. THE CONTRACTOR SHALL STRATEGICALLY LOCATE BOXES, ETC., IN ACCESSIBLE CEILING SPACE.
18. WHERE EXPOSED CONDUIT IS PERMITTED BY THE ARCHITECT, SUCH CONDUIT SHALL BE PAINTED TO MATCH FINISH OF SURFACE TO WHICH IT IS ATTACHED/SUPPORTED TO.
19. INSTALL RACEWAY SYSTEMS AS FOLLOWS:
    A. RIGID GALVANIZED STEEL IN ALL OUTDOOR LOCATIONS AND IN INDOOR LOCATIONS WHERE SUBJECT TO PHYSICAL DAMAGE.
    B. I.M.C. OR E.M.T. IN ALL INDOOR AREAS.
    C. FLEXIBLE METAL CONDUIT TO LIGHT FIXTURES, MOTORS AND VIBRATING ELECTRICAL EQUIPMENT IN A WHIP 6' OR LESS APPLICATION ONLY. NO RUNS ANYWHERE INCLUDING WOOD FRAMING. ANY WEARYING FROM THAT SHOULD REQUIRE AN APPROVAL FROM BUILDINGS.
    D. PVC CONDUIT FOR UNDERGROUND RUNS. USE 20 MIL PVC TAPED RIGID STEEL RISER ELBOWS AND RISERS FOR CONDUIT STUB-UPS.
    E. USE COMPRESSION TYPE FITTINGS FOR ALL METALLIC CONDUIT.
    F. 1" CONDUIT MINIMUM FOR UNDERGROUND INSTALLATIONS. 3/4" MIN. ABOVE GROUND.
    G. NO MC CABLE ALLOWED.
20. CONDUIT ROUTING INDICATED ON THESE PLANS IS DIAGRAMMATIC. ACTUAL ROUTING OF CONDUITS SHALL BE COORDINATED IN THE FIELD TO AVOID INTERFERENCE WITH OTHER UTILITIES AND TRADES. THE CONTRACTOR SHALL INSTALL ALL CONDUIT, JUNCTION/PULL BOXES, ETC., AS REQUIRED FOR A COMPLETE SYSTEM IN FULL COMPLIANCE WITH ALL APPLICABLE CODES.
21. ALL EXTERIOR MOUNTED EQUIPMENT SHALL BE WEATHERPROOF OR PROVIDED IN A WEATHERPROOF ENCLOSURE.
22. ALL POWER AND LIGHTING BRANCH CIRCUITS SHALL BE INSTALLED WITH A #12 GREEN GROUND WIRE U.O.N. THE COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE CALIFORNIA ELECTRICAL CODE (CEC).
23. IDENTIFICATION NAME PLATES FOR BRANCH CIRCUIT PANELS SHALL MATCH THE NOMENCLATURE PROVIDED BY THE OWNER AT THE END OF THE CONTRACT.
24. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED, NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER.
25. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED AND LABELED FOR THEIR USE.
26. WHERE MORE THAN ONE NOMINAL VOLTAGE SYSTEM EXISTS IN A BUILDING, EACH UNDERGROUND SYSTEM CONDUCTOR SHALL BE IDENTIFIED BY PHASE AND SYSTEM. THE MEANS OF IDENTIFICATION SHALL BE PERMANENTLY POSTED AT EACH BRANCH CIRCUIT PANELBOARD. THE PHASE COLOR CODING OF THE INSULATION OF CONDUCTORS SHALL BE: A) BROWN-ORANGE-YELLOW FOR 480/277-VOLTS B) BLACK-RED-BLUE FOR 208/120-VOLTS.
27. PROVIDE THE SHORT CIRCUIT CURRENT RATING OF THE ELECTRICAL SERVICE IN A LETTER FROM SCE. THE PANELBOARD(S) AND/OR CIRCUIT BREAKERS SHALL MEET OR EXCEED THE S.C.C. RATING. A POINT-TO-POINT GROUND-FAULT AND SHORT-CIRCUIT CALCULATIONS MAY BE REQUIRED TO SUBSTANTIATE THE RATINGS OF THE ELECTRICAL EQUIPMENT.
28. ALL CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE JUNCTION OR DEVICE BOX NOR LESS THAN 15 INCHES MEASURED TO THE BOTTOM OF THE JUNCTION OR DEVICE BOX ABOVE THE FINISHED FLOOR.
29. ALL RECEPTACLES OUTLETS ON BRANCH CIRCUITS OF 30-AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES MEASURED TO THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING ABOVE THE FINISHED FLOOR.
30. LIGHTING FIXTURES INSTALLED IN A SUSPENDED CEILING SHALL BE FASTENED TO THE CEILING FRAMING MEMBER AT ALL FOUR CORNERS WITH SCREWS AND ATTACHED #12 CEILING WIRES TO THE LIGHT FIXTURE AT DIAGONALLY OPPOSITE CORNERS AND TO THE STRUCTURAL CEILING.
31. ALL CONDUCTOR TO BE COPPER, TYPE THWN/THHN OR XHHW ("75/90 DEGREES C).
32. ALL EQUIPMENT TO BE UL. LISTED OR EQUIVALENT.
33. PROVIDE ACCESS PANELS.
34. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1 FOOTCANDLE (11 LUX) AND A MINIMUM AT ANY POINT OF (0) FOOT CANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOT CANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOT CANDLE (0.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40 TO 1 SHALL NOT BE EXCEEDED. SECTION 1006.3.1 CFC
35. THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT-CANDLE (11 LUX) AT THE WALKING SURFACE LEVEL. IN THE EVENT OF POWER SUPPLY FAILURE, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE THE FOLLOWING AREAS:
    A. AISLES AND UNENCLOSED EGRESS STAIRWAYS IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEAN OF EGRESS.
    B. CORRIDORS, EXIT ENCLOSURES AND EXIT PASSAGEWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
    C. EXTERIOR EGRESS COMPONENTS AT OTHER THAN THE LEVEL OF EXIT DISCHARGE UNTIL EXIT DISCHARGE IS ACCOMPLISHED FOR BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
    D. INTERIOR EXIT DISCHARGE ELEMENTS, AS PERMITTED IN SECTION 1024.1, IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
    E. EXTERIOR LANDINGS, AS REQUIRED BY SECTION 1008.1.5, FOR EXIT DISCHARGE DOORWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
    F. THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 2702.
36. LIGHTING AT EXTERIOR DOORWAYS SHALL BE MAINTAINED AT A MINIMUM OF 1 FOOT CANDLE AT GROUND WITH VANDAL PROOF LENSES.
37. ELECTRIC CIRCUITS SERVING CONTROLLED RECEPTACLES SHALL BE EQUIPPED WITH AUTOMATIC SHUT-OFF CONTROLS FOLLOWING THE REQUIREMENTS PRESCRIBED IN SECTION 130.1(c.)(1) THROUGH 5), AND AT LEAST ONE CONTROLLED RECEPTACLE TO BE INSTALLED WITHIN 6 FEET FROM EACH UNCONTROLLED RECEPTACLE OR A SPLIT WIRED DUPLEX RECEPTACLE WITH ONE CONTROLLED AND ONE UNCONTROLLED RECEPTACLE SHALL BE INSTALLED, AND CONTROLLED RECEPTACLES SHALL HAVE A PERMANENT MARKING TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES, AND FOR OPEN OFFICE AREAS, CONTROLLED CIRCUITS SHALL BE PROVIDED AND MARKED TO SUPPORT INSTALLATION AND CONFIGURATION OF OFFICE FURNITURE WITH RECEPTACLES THAT COMPLY WITH SECTION 130.5(d)1, 2, AND 3.
38. CONTRACTOR TO PROVIDE ENGRAVED LABELING AT EACH RECEPTACLE, DATA OUTLET, JUNCTION BOX, DISCONNECT SWITCH, ECT. DISPLAYING THE IDF OR PANEL (WITH CIRCUIT) FEEDING THE DATA OUTLET, RECEPTACLE, JUNCTION BOX, DISCONNECT SWITCH, ECT.
40. THE CITY OF COSTA MESA IS MAKING THE INTERPRETATION OF ARTICLES 200.6/200.7 AND 210.4 OF THE NEC TO MEAN "FACTORY COLORS BROWN, ORANGE, YELLOW FOR 480/277 VOLT AND BLACK, RED, BLUE FOR 208/120 VOLT."

# REFERENCES & ABBREVIATIONS

| | | | |
|---|---|---|---|
| ⊖ | DETAIL REFERENCE | MCB | MAIN CIRCUIT BREAKER |
| 1 | KEYNOTE REFERENCE | FLA | FULL LOAD AMPS |
| A.F.F. | ABOVE FINISH FLOOR | C. | CONDUIT |
| U.O.N. | UNLESS OTHERWISE NOTED | V. | VOLTS |
| C.O. | CONDUIT ONLY W/PULL ROPE | A | AMPS |
| WP | WEATHER PROOF | GFI | GROUND FAULT INTERRUPTER |
| CU. | COPPER | GND | GROUND |
| M.L.O. | MAIN LUGS ONLY | V.L. | VERIFY LOCATION |
| E or (E) | EXISTING TO REMAIN | A.C. | ABOVE COUNTER |
| | | N.L. | NIGHT LIGHT |
| | | EM. | EMERGENCY |

## APPLICABLE CODES

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS, AND THE REQUIREMENTS OF THE CALIFORNIA CODE OF REGULATIONS (C.C.R.), TITLE 24, INCLUSIVE OF:

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR

2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR

2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR

2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR

2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR

2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CCR

2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR

2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR

2022 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN), PART 11, TITLE 24 CCR

2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12 TITLE 24 CCR

TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

## APPLICABLE STANDARDS

FOR A LIST OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO NFPA STANDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.

### FIRE ALARM DEFERRED APPROVAL NOTE

THE FIRE ALARM SYSTEM IS A DEFERRED APPROVAL ITEM AND THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO SUBMIT PLANS, EQUIPMENT DATA SHEETS/LISTINGS, WIRING DIAGRAMS AND CALCULATIONS TO THE CITY OF ORANGE FIRE DEPARTMENT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY OF ORANGE FIRE DEPARTMENT PRIOR TO INSTALLING THE FIRE ALARM SYSTEM COMPONENTS.

FIRE ALARM SYSTEM DEVICES AND COMPONENTS INDICATED ON THE DRAWINGS ARE THE MINIMUM REQUIREMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE QUANTITY AND TYPE OF DEVICES REQUIRED BY THE CITY OF ORANGE FIRE DEPARTMENT AT NO ADDITIONAL COST TO THE CONTRACT.

THE FIRE ALARM SYSTEM DRAWINGS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF CALIFORNIA PROFESSIONAL ELECTRICAL ENGINEER.

## EMERGENCY RESPONDER RADIO COVERAGE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE CORONA FIRE DEPARTMENT, OBTAINING THE EMERGENCY RESPONDER RADIO COVERAGE (ERRC) REQUIREMENTS, AND PERFORMING THE REQUIRED TESTS TO CONFIRM THE EMERGENCY RADIO COVERAGE IN THE NEW BUILDING MEETS THE CRITERIA SET FORTH BY THE FIRE DEPARTMENT.

FOR NON-COMPLIANT BUILDINGS:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE SYSTEM DESIGN AND EQUIPMENT CRITERIA FROM THE FIRE DEPARTMENT, SUBMITTING PLANS AND CALCULATIONS TO THE CITY/FIRE DEPARTMENT FOR REVIEW AND APPROVAL, AND OBTAINING A CONSTRUCTION PERMIT FROM THE CITY/FIRE DEPARTMENT. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE AND OPERABLE EERC SYSTEM IN COMPLIANCE WITH THE CITY/FIRE DEPARTMENT REQUIREMENTS AND CALIFORNIA FIRE CODE CHAPTER 5, SECTION 510 AND CHAPTER 1, DIVISION II, SECTION 105.7.6. UPON COMPLETION, COPIES OF THE APPROVED PLANS, EQUIPMENT DATA SHEETS, AND PROOF OF TESTING AND ACCEPTANCE DOCUMENTATION SHALL BE SUBMITTED TO THE SCHOOL DISTRICT.

# SYMBOL LIST

- CONDUIT RUN, CONCEALED IN CEILING, WALLS OR UNDER FLOOR 3/4" MIN.
- CONDUIT RUN, UNDERGROUND.
- CONDUIT STUBBED OUT AND CAPPED. PULL LINE IN PLACE.
- FLEXIBLE CONDUIT, SEALTITE WHERE EXPOSED TO WEATHER. REFER TO SPECIFICATIONS FOR USE.
- CONDUIT TURNED DOWN.
- CONDUIT TURNED UP.
- #10 — CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 WIRES CONTAINED THEREIN. TWO #12 ARE TO BE PROVIDED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. PROVIDE CONDUIT SIZE AS REQUIRED TO ACCOMMODATE THE WIRE SIZE TO BE CONTAINED THEREIN.
- B-1,3 — CONDUIT HOME RUN TO PANELBOARD. LETTER AND NUMERALS INDICATES ELECTRICAL PANEL AND CIRCUIT NUMBER.
- RECESSED MOUNTED BRANCH CIRCUIT PANEL. OUTDOOR TO BE NEMA 3R.
- SURFACE MOUNTED BRANCH CIRCUIT PANEL. OUTDOOR TO BE NEMA 3R.
- MOLDED CASE CIRCUIT BREAKER (SINGLE LINE DIAGRAM).
- AT — CIRCUIT BREAKER AMPERE TRIP RATING (SINGLE LINE DIAGRAM).
- GROUND.
- (M) — UTILITY METER AND SOCKET (SINGLE LINE DIAGRAM).
- E — EXISTING CONDUIT AND CONDUCTORS TO REMAIN.
- EX — EXISTING CONDUIT TO BE RE-USED. CONDUCTORS TO BE DISCONNECTED AND REMOVED.
- EA — EXISTING CONDUIT TO BE ABANDONED IN PLACE. CONDUCTORS TO BE DISCONNECTED AND REMOVED.
- ER — EXISTING CONDUIT AND CONDUCTORS TO BE DISCONNECTED AND REMOVED.
- (E) — EXISTING EQUIPMENT TO REMAIN IN OPERATION.
- (R) — EXISTING EQUIPMENT TO DISCONNECTED AND REMOVED.
- WP — WEATHERPROOF.
- F — DUPLEX GROUNDING RECEPTACLE FLUSH IN FLOOR. PROVIDE COMPLETE WITH FULLY ADJUSTABLE 1-GANG FLOOR BOX, COLLAR ASSEMBLY, CARPET FLANGE AND BRASS COVERS. WIREMOLD OMNIBOX 880 SERIES OR APPROVED EQUAL.
- X GFI — EXTERIOR WEATHER PROOF DUPLEX RECEPTACLE FOR CHRISTMAS LIGHT DECORATIONS , WITH GROUND FAULT INTERRUPTER (20 AMP, 120V, 3W) WALL PLATE TO MATCH DEVICE/MTD. UNDER ROOF EAVE. CONTRACTOR SHALL COORDINATE WITH ARCHITECT FOR EXACT LOCATIONS OF RECEPTACLES PRIOR TO ROUGH IN.
- H-O-A — COMBINATION FUSED DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER. ROMAN NUMERAL INDICATES THE STARTER SIZE. H-O-A INDICATES DOOR MOUNTED HAND-OFF-AUTO SELECTOR SWITCH. FUSES AND OVERLOADS SHALL BE SIZED PER THE EQUIPMENT NAME PLATE.
- _AS/__P — DISCONNECT SWITCH, HEAVY DUTY TYPE WITH REQUIRED. AS=SWITCH AMPERE RATING. P=NUMBER OF POLES.
- 2/Ø — DATA OUTLET WITH OPEN-BACKED 4" SQUARE BACKBOX AND (1) 3/4"C. STUB-UP INTO THE ACCESSIBLE CEILING. MOUNTED AT +18" A.F.F.-U.O.N. W=48" A.F.F. FIRST NUMERAL INDICATES QUANTITY OF "CAT 6" DATA CABLE DROPS TO BE PROVIDED AND TERMINATED. SECOND NUMERAL INDICATES QUANTITY OF "CAT 6" VOICE CABLE DROPS TO BE PROVIDED AND TERMINATED. THIRD NUMERAL INDICATES QUANTITY OF BLANK POSITIONS TO BE PROVIDED ON THE WALL PLATE. QUANTITY OF "RJ45" CONNECTORS TO BE PROVIDED SHALL MATCH THE QUANTITY OF CABLE DROPS.
- F — COMBINATION TELEPHONE/DATA OUTLET FLUSH IN FLOOR PROVIDE COMPLETE WITH FULLY ADJUSTABLE 2-GANG FLOOR BOX, COLLAR ASSEMBLY, CARPET FLANGE AND BRASS COVERS. WIREMOLD OMNIBOX 880 SERIES OR APPROVED EQUAL. ROUTE AND TERMINATE TWO (2) "CAT 6" DATA CABLES AND ONE (1) "CAT 3" TELEPHONE CABLE. QUANTITY OF CONNECTORS TO MATCH QUANTITY OF CABLES.
- CLOSED CIRCUIT TV SYSTEM CAMERA.
- T — THERMOSTAT, MOUNTED AT +48" AFF. TO TOP OF BOX. SEE MECHANICAL.
- SURFACE OR PENDANT MOUNTED STRIP FLUORESCENT LIGHT FIXTURES. SHADING INDICATES FIXTURE WITH EMERGENCY BATTERY PACK.
- POLE MOUNTED AREA LIGHTING FIXTURE
- LED LIGHT FIXTURE. SHADING INDICATES FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK.
- 2X2 LED LIGHT FIXTURE. SHADING INDICATES FIXTURE TO BE PROVIDED WITH 90 MINUTE EMERGENCY BATTERY PACK.
- WALL MOUNTED LED SCONCE FIXTURE. SHADING INDICATES FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK.
- CEILING MOUNTED PENDANT FIXTURE. SHADING INDICATES FIXTURE WITH EMERGENCY BATTERY PACK.
- WALL MOUNTED LINEAR STRIP FIXTURE.
- SLOT RECESSED LED FIXTURE
- SPECIALTY LIGHTING REFER TO FIXTURE SCHEDULE.
- BOLLARD LED FIXTURE
- EC — LED LIGHT FIXTURE. EC AND SHADING INDICATES FIXTURE TO BE CONNECTED TO THE ALERTING SYSTEM.
- TELEPHONE OUTLET COMPLETE WITH 4" SQUARE BACKBOX AND 3/4"C. STUB-UP INTRO CEILING SPACE. MOUNTED AT +18" A.F.F. U.O.N. W=48" A.F.F.
- W — TELEPHONE OUTLET. 4" SQ. BOX WITH 1 GANG FRAME AND 1"C. STUB UP INTO ACCESSIBLE CEILING. MOUNT AT +18" A.F.F. W = WALL MOUNTED AT +48" A.F.F.
- F — AUDIO VISUAL OUTLET FLUSH IN FLOOR. PROVIDE COMPLETE WITH FULLY ADJUSTABLE 2-GANG FLOOR BOX, COLLAR ASSEMBLY, CARPET FLANGE AND BRASS COVERS. WIREMOLD OMNIBOX 880 SERIES OR APPROVED EQUAL. REFER TO PLANS FOR CONDUIT AND CABLE REQUIREMENTS.
- F — TELEPHONE OUTLET FLUSH IN FLOOR. PROVIDE COMPLETE WITH FULLY ADJUSTABLE 2-GANG FLOOR BOX, COLLAR ASSEMBLY, CARPET FLANGE AND BRASS COVERS. WIREMOLD OMNIBOX 880 SERIES OR APPROVED EQUAL. ROUTE CAT 6 CABLE BACK TO IDF.
- CRAB RETURN PUSH BUTTON. COORDINATE EXACT LOCATION WITH FLYMOVENT CONTRACTOR.
- TS — FIRE ALARM TAMPER SWITCH.
- FS — FIRE ALARM FLOW SWITCH.
- PIV — POST INDICATOR VALVE
- K — SECURITY KEY PAD IDENTIFICATION SYMBOL.
- CR — DOOR ACCESS PROXIMITY CARD READER. SEMI-FLUSH IN WALL WITH 4" SQUARE BACK-BOX, 1-GANG PLASTER RING AND 3/4" CONDUIT STUB-UP INTO ACCESSIBLE CEILING SPACE. WALL PLATE AND DEVICE TO BE PROVIDED AND INSTALLED BY OTHERS. MOUNTED AT +48". PROVIDED AND INSTALLED BY OTHERS. MOUNTED AT +48".
- SECURITY DOOR CONTACT IDENTIFICATION SYMBOL.
- CLOCK IDENTIFICATION SYMBOL.
- AC 1 — HVAC EQUIPMENT DESIGNATION. SEE MECHANICAL PLANS.
- JUNCTION BOX.
- DUPLEX RECEPTACLE, FLUSH IN WALL, GROUNDING TYPE (20 AMP, 120V., WALL PLATE TO MATCH DEVICE) MTD. AT +18".
- DOUBLE DUPLEX RECEPTACLE, FLUSH IN WALL (20 AMP, 120 V., WALL PLATE TO MATCH DEVICE) MTD. AT +18".
- GFI — DUPLEX RECEPTACLE, WITH GROUND FAULT INTERRUPTER (20 AMP, 120V., 3W, WALL PLATE TO MATCH DEVICE) MTD. AT +18".
- SPECIALTY RECEPTACLE/OUTLET. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT VENDOR/SUPPLIER WHERE A RECEPTACLE IS REQUIRED PROVIDE COMPLETE WITH STAINLESS STEEL WALL PLATE AND VOLTAGE, AMPERE RATING AND CONFIGURATION TO MATCH VENDOR SUPPLIED PLUG. WHERE HARD WIRED CONNECTION IS REQUIRED PROVIDE STAINLESS STEEL WALL PLATE WITH GROMMETT AND SEAL-TITEFLEXIBLE CONDUIT AND CONDUCTORS FOR FINAL CONNECTION TO THE VENDOR SUPPLIED EQUIPMENT. MTD. AT +18".
- EXIT SIGN.
- ROLL-UP DOOR LOCAL CONTROL
- CEILING MOUNTED CORD REEL, 20 AMP CABLE REEL SHALL CONSIST OF A HEAVY DUTY REEL WITH 50 FOOT LONG 3-CONDUCTOR #10 TYPE SJEOOW CORD/CABLE AND CONNECTOR TO MATCH THE ENGINE AUTO EJECT. REELCRAFT #L5550-123-X REEL AND KUSSMAUL #5-20P-H CONNECTOR. PROVIDE 20A, 120V. FLUSH MOUNTED CEILING RECEPTACLE TO PROVIDE POWER TO THE REEL.
- CEILING MOUNTED CORD REEL, 30 AMP CABLE REEL SHALL CONSIST OF A HEAVY DUTY REEL WITH 50 FOOT LONG 3-CONDUCTOR #10 TYPE SJEOOW CORD/CABLE AND CONNECTOR TO MATCH THE ENGINE AUTO EJECT. REELCRAFT #L5150-123-X REEL AND KUSSMAUL #091-153-CON-3P-120 CONNECTOR. PROVIDE 30A 120V. FLUSH MOUNTED CEILING RECEPTACLE AND MATCHING PLUG TO PROVIDE POWER TO THE REEL.
- LOW LEVEL LED LIGHTING FIXTURE
- S — SMOKE DETECTOR AND LOW FREQUENCY SOUNDER.
- C/O — COMBINATION SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR.
- REX — REQUEST TO EXIT MOTION SENSOR. REFER TO VOLTAGE SPECIALIST ACCESS CONTROL PLANS FOR REQUIREMENTS.
- TV — TV SYSTEM WALL-TAP WITH 4" SQUARE BACKBOX AND 3/4" CONDUIT STUB-UP INTO CEILING SPACE.
- HALF SWITCHED DUPLEX RECEPTACLE, FLUSH IN WALL, GROUNDING TYPE (20 AMP, 120V., WALL PLATE TO MATCH DEVICE) MTD. AT +18".
- F — FLUSH FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE.
- WAP — WIRELESS ACCESS POINT
- U — COMBINATION USB AND DUPLEX RECEPTACLE, FLUSH IN WALL, GROUNDING TYPE (20 AMP, 120V., WALL PLATE TO MATCH DEVICE) MTD. AT +18". F= FLUSH FLOOR MOUNTED IN FLOOR BOX.
- A — AQUA STAT
- TC — TIME CLOCK
- AV — AUDIO VISUAL OUTPUT FOR GEST ELECTRONIC DEVICES.
- m — MANUAL MOTOR STARTER WITH THERMAL OVERLOAD. RATING AND NUMBER OF POLES PER THE EQUIPMENT NAMEPLATE DATA.
- WALL MOUNTED LIGHT FIXTURE. SHADING INDICATES FIXTURE WITH EMERGENCY BATTERY PACK.
- CEILING OR PENDANT MOUNTED LIGHT FIXTURE. SHADING INDICATES LIGHT FIXTURE WITH EMERGENCY BATTERY PACK.
- A 3 +20"-0" — LIGHTING FIXTURE IDENTIFICATION SYMBOL. LETTER INDICATES TYPE OF FIXTURE. NUMERAL AT TOP OF HEXAGON INDICATES NUMBER OF FIXTURES REQUIRED. NUMBER AT BOTTOM OF HEXAGON INDICATES MOUNTING HEIGHT FROM FLOOR TO BOTTOM OF FIXTURE. OMISSION OF MOUNTING HEIGHT INDICATES CEILING MOUNTING.
- S3 — SINGLE POLE SWITCH. LETTER AT BOTTOM INDICATES OUTLETS CONTROLLED. MOUNTED AT +48" TO TOP OF THE BOX. STAINLESS STEEL WALL PLATE. SUPERSCRIPT DENOTES.
  2 - DOUBLE POLE — P - PILOT LIGHT
  3 - THREE WAY — K - KEY OPERATED
  4 - FOUR WAY — T - TIMER
- ELECTRICAL NOTE CALLOUT.
- X E4X — ELECTRICAL DETAIL CALLOUT.
- LV-* — BUILDING LIGHTING SHUT-OFF CONTROL SYSTEM LOW VOLTAGE BY-PASS SWITCH. NUMERAL INDICATES THE ZONE CONTROLLED.
- CEILING / WALL-SWITCH — DUAL TECHNOLOGY OCCUPANT SENSOR WITH 2,000 SQUARE FOOT COVERAGE. COORDINATE EXACT LOCATION IN THE FIELD WITH THE SENSOR MANUFACTURER TO ENSURE OPTIMUM SENSOR OPERATION. COVERAGE TO BE DETERMINED BY THE SENSOR APPLICATION INDICATED ON PLAN. PROVIDE SLAVE-PACK WHERE TWO CIRCUITS ARE TO BE CONTROLLED. PROVIDE TWO-CIRCUIT (2P.) TYPE WALL-SWITCH TYPE SENSOR WHERE INDICATED ON PLAN. WALL SWITCH SENSOR SHALL BE WATT-STOPPER #LW-200 COLOR AS SELECTED BY THE ARCHITECT. CEILING SENSOR SHALL BE WATT-STOPPER #DT-355.
- SFD — SMOKE FIRE DAMPER. SEE MECHANICAL.
- VSA — FIRE ALARM STROBE. cd = STROBE CANDELA RATING. C=CEILING MOUNTED.
- FIRE ALARM SMOKE DETECTOR.
- FIRE ALARM HEAT DETECTOR.
- ROLL-UP DOOR LOCAL CONTROL
- GAP — GENERATOR REMOTE ALARM PANEL
- FAN CONTROLLER
- LOW LEVEL FLOOD LIGHT. REFER TO PLANS FOR FIXTURE TYPE.
- EMERGENCY FIXTURE, BUG EYE TYPE.
- VFD — VARIABLE FREQUENCY DRIVE. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT OPTIONS / FUNCTIONALITY TO BE PROVIDED.

PBK

SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

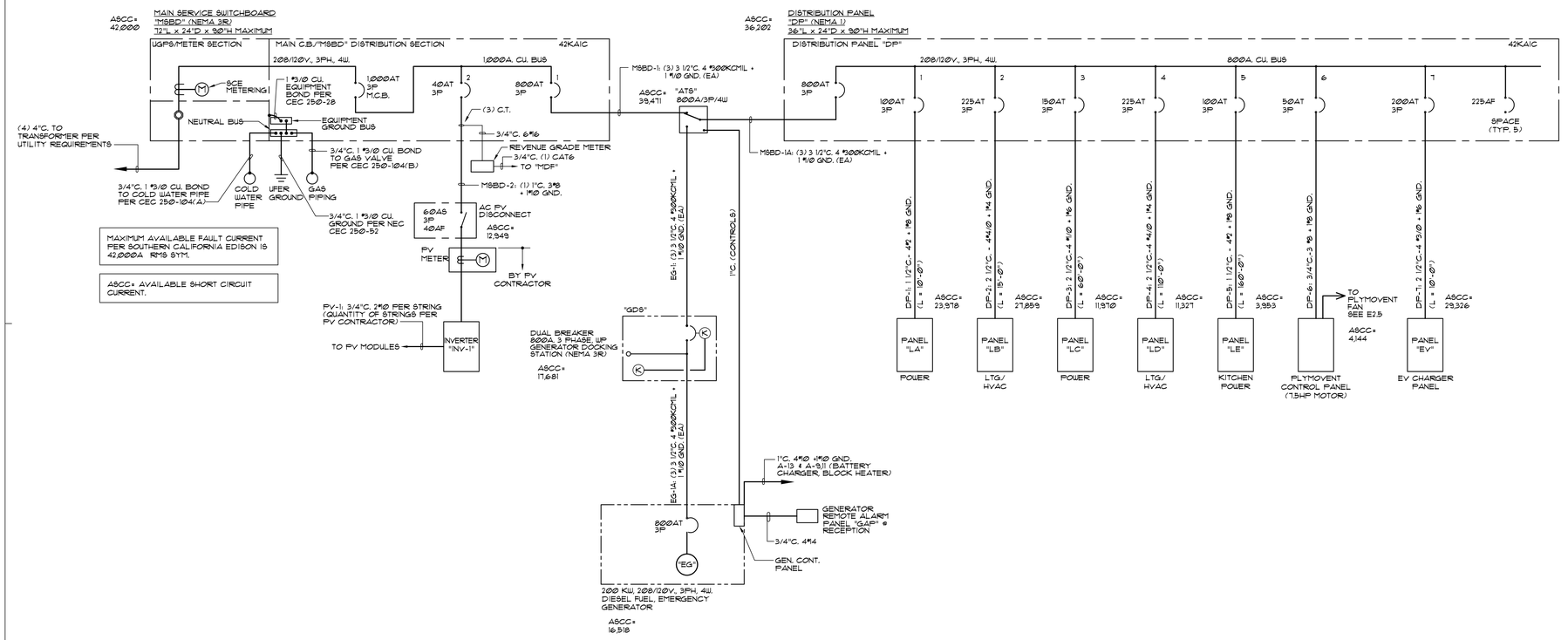
# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER — BRANDY E. BOYD

CM-07-01-2026




PV POWER SUMMARY

| ARRAY | LOCATION | NUMBER OF MODULES | STC Kw | PTC Kw | AC Kw | |
|---|---|---|---|---|---|---|
| 1 | ROOF | 24 | 13.2 | 9.94 | 9.59 | |
| | | 24 | 13.2 | 9.94 | 9.59 | 26.6 |
| | | TOTAL MODULES | TOTAL STC Kw | TOTAL PTC Kw | TOTAL AC Kw | AC AMPS @ 208V |

| PV – "MSBD" BUS SIZING* | |
|---|---|
| "MSBD" MAIN CIRCUIT BREAKER<br>PV SYSTEM CIRCUIT BREAKER | 1,000 A.<br>40 A. |
| SUM OF CIRCUIT BREAKERS | 1,040 A. |

*PER 2022 CEC ARTICLE 705.12(B)(2)(3)(b):
120% OF 1,000A BUS = 1,200A.
1,200A – 1,040A = 160A
160A > 40A.

**SWITCHBOARD "MSBD"** MAIN BREAKER: 1000A. SCA: 42KAIC
VOLTAGE: 208/120V-4-WIRE BUS SIZE MOUNT: FLOOR
LOCATION: ELECTRICAL RM. COPPER: 1000A. ENTRY: BOTTOM

| DESCRIPTION | OKT | CB | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FUTURE PV | | 40 | 3 | | | | | 3197 | 3197 | 3197 | |
| DISTRIBUTION PANEL "DP" | 1 | 800 | 3 | | | | | 64907 | 67190 | 62864 | |
| | | | | | | | | SUB TOTAL VOLT/AMPS: | | 68104 | 70387 | 66061 | |
| | | | | | | | | TOTAL AMPS/PHASE: | | 568 | 587 | 551 | |

CONNECTED: 204551 VA
25% OF MTR: 0 VA
25% OF LCL: 0 VA
CALCULATED: 204551 VA = 567.78 AVERAGE AMPS

**DISTRIBUTION BOARD "DP"** MAIN BREAKER: 800A. SCA: 42KAIC
VOLTAGE: 208/120V-4-WIRE BUS SIZE MOUNT: FLOOR
LOCATION: ELECTRICAL RM. COPPER: 800A. ENTRY: BOTTOM

| DESCRIPTION | OKT | CB | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PANEL "LA" | 1 | 100 | 3 | | | | | 10500 | 10560 | 7760 | |
| PANEL "LB" | 2 | 225 | 3 | | | | | 9083 | 9010 | 9968 | |
| PANEL "LC" | 3 | 150 | 3 | | | | | 11526 | 10470 | 13706 | |
| PANEL "LD" | 4 | 225 | 3 | | | | | 17036 | 16704 | 16958 | |
| PANEL "LE" | 5 | 100 | 3 | | | | | 2915 | 6598 | 3952 | |
| PLYMOVENT | 6 | 50 | 3 | | | | | 2200 | 2200 | 2200 | |
| PANEL "EVP" | 7 | 200 | 3 | | | | | 11648 | 11648 | 8320 | |
| | | | | | | | | SUB TOTAL VOLT/AMPS: | | 64907 | 67190 | 62864 | |
| | | | | | | | | TOTAL AMPS/PHASE: | | 541 | 560 | 524 | |

CONNECTED: 194960 VA
25% OF MTR: 0 VA
25% OF LCL: 0 VA
CALCULATED: 194960 VA = 541.16 AVERAGE AMPS

| FEEDER/CIRCUIT IDENTIFICATION | LOAD | WIRE SIZE | WIRE PER PHASE | CONDUIT TYPE PVC/STL | OHMS TO NEUTRAL RESISTANCE PER 1000FT. | FEEDER LENGTH | CONNECTED AMPS | AMPS PER CONDUCTOR | LINE TO NEUTRAL VOLTAGE DROP | LINE TO LINE VOLTAGE DROP | LINE TO LINE VOLTAGE | PHASE | % VOLTAGE DROP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DP-1 | PANEL "LA" | 2 | 1 | S | 0.2 | 10 | 70 | 70.0 | 0.14 | 0.24 | 208 | 3 | 0.1166 |
| DP-2 | PANEL "LB" | 4/0 | 1 | S | 0.08 | 15 | 82 | 82.0 | 0.10 | 0.17 | 208 | 3 | 0.0819 |
| DP-3 | PANEL "LC" | 1/0 | 1 | S | 0.13 | 60 | 112 | 112.0 | 0.87 | 1.51 | 208 | 3 | 0.7274 |
| DP-4 | PANEL "LD" | 4/0 | 1 | S | 0.08 | 110 | 136 | 136.0 | 1.20 | 2.07 | 208 | 3 | 0.9966 |
| DP-5 | PANEL "LE" | 2 | 1 | S | 0.2 | 160 | 55 | 55.0 | 1.76 | 3.05 | 208 | 3 | 1.4655 |
| DP-7 | PANEL "EVP" | 3/0 | 1 | S | 0.094 | 10 | 97 | 97.0 | 0.09 | 0.16 | 208 | 3 | 0.0759 |

## SINGLE LINE DIAGRAM NOTES

1. THE MAIN CIRCUIT BREAKER SHALL BE PERMANENTLY MARKED TO IDENTIFY IT AS THE SERVICE DISCONNECT PER N.E.C. 230.70(B).
2. PER SECTION 250.52(A)(1) METAL UNDERGROUND WATER PIPE - CONNECTION TO THE INTERIOR METAL WATER PIPING SHALL BE MADE WITHIN 5 FEET FROM POINT OF ENTRANCE.
3. PROVIDE AND INSTALL SIGNAGE FOR AVAILABLE FAULT CURRENT PER CEC 110.24. PROVIDE SELF-ADHESIVE VINYL LABEL TO AFFIX TO ELECTRICAL EQUIPMENT TO WARN OF ARC FLASH HAZARDS. THE THE LABEL SHALL BE LOCATED ON THE EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT. CONTRACTOR TO PLACE COMPANY NAME AND CONTACT PHONE NUMBER ON SIGN. THIS DETAIL IS FOR REFERENCE ONLY.
4. CONTRACTOR TO ENSURE THAT THE UTILITY (SCE) SERVICE REPORT SHALL BE AVAILABLE ON SITE AT ALL TIMES FOR BUILDING INSPECTION TO VERIFY.

## CONSTRUCTION NOTES

1. ALL EQUIPMENT SHALL BE LISTED BY UL OR A COUNTY APPROVED THIRD PARTY TESTING FACILITY.
2. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS. PROVIDE ADDITIONAL GROUND RODS, SPACED 6'-0" APART, TO MEET THIS REQUIREMENT. REFER TO SHEET E3.2, DETAIL #4 AND #5 FOR COMPLETE REQUIREMENTS.
3. GROUND FAULT PROTECTION OF EQUIPMENT SHALL BE PROVIDED FOR SOLIDLY GROUNDED WYE ELECTRIC SERVICES OF MORE THAN 150 VOLTS TO GROUND BUT NOT EXCEEDING 1000 VOLTS PHASE-TO-PHASE FOR EACH SERVICE DISCONNECT RATED 1000 AMPERES OR MORE. GFPD IS REQUIRED TO HAVE PERFORMANCE TESTING AS DESCRIBED IN 230.95(C), 2019 CEC.

3 →

**⚠WARNING**

MAXIMUM AVAILABLE FAULT CURRENT:
42,000 SYMMETRICAL RMS AMPERES
DATE: MM/DD/YYYY

XYZ ELECTRIC 1-800-123-4567

| APPLICABLE CODES |
|---|
| ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS, AND THE REQUIREMENTS OF THE CALIFORNIA CODE OF REGULATIONS (C.C.R.), TITLE 24, INCLUSIVE OF: |
| 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 C.C.R. |
| 2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. |
| 2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. |
| 2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, C.C.R. |
| 2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. |
| 2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R. |
| 2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R. |
| 2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 C.C.R. |

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/28
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3006 FAX: (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**SINGLE LINE DIAGRAM**

DRAWING NUMBER: **E0.2**

CM-07-01-2026

## PANEL "LA"

MAIN BREAKER: M.L.O. — SCA: 42 KAIC
VOLTAGE: 208/120V-4-WIRE — BUS SIZE COPPER: 100A. — MOUNT: SURFACE
LOCATION: ELEC. RM. 134 — ENTRY: BOTTOM

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RMS. 128,132 RECEPTACLES | 1 | 20 | 1 | | 3 | | | | 540 | | |
| RMS. 130,131,132 RECEPT. | 3 | 20 | 1 | | 3 | | | | 540 | | |
| RM. 129 RECEPTACLES | 5 | 20 | 1 | | 4 | | | | | 720 | |
| RM. 129 RECEPTACLES | 7 | 20 | 1 | | 4 | | | 720 | | | |
| RM. 129 TV RECEPTACLE | 9 | 20 | 1 | | 1 | | | | 360 | | |
| SPARE | 11 | 20 | 1 | | | | | | | | |
| RM. 135 CONTRLD. REC. | 13 | 20 | 1 | | 5 | | | 900 | | | |
| RM. 135 RECEPTACLES | 15 | 20 | 1 | | 4 | | | | | 720 | |
| RM. 135 RECEPTACLES | 17 | 20 | 1 | | 3 | | | | | | 540 |
| RM. 135 U/C FRIDGE REC. | 19 | 20 | 1 | | 1 | | | | 360 | | |
| RM. 135 TV RECEPTACLE | 21 | 20 | 1 | | 1 | | | | | 360 | |
| RM. 127 RECEPTACLE | 23 | 20 | 1 | | 4 | | | | | | 720 |
| RM. 127 CORD REEL (SOUTH) | 25 | 20 | 1 | | 1 | | | | 750 | | |
| RM. 127 CORD REEL (SOUTH) | 27 | 20 | 1 | | 1 | | | | | 750 | |
| RM. 127 CORD REEL | 29 | 20 | 1 | | 1 | | | | | | 750 |
| RM. 127 CORD REEL | 31 | 20 | 1 | | 1 | | | | 750 | | |
| RM. 127 CORD REEL (NORTH) | 33 | 20 | 1 | | 1 | | | | | 750 | |
| RM. 127 CORD REEL (NORTH) | 35 | 20 | 1 | | 1 | | | | | | 750 |
| SPARE | 37 | 20 | 1 | | | | | | | | |
| SPARE | 39 | 20 | 1 | | | | | | | | |
| SPARE | 41 | 20 | 1 | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 4020 | 3480 | 3480 | |
| RM. 133 RACK | 2 | 30 | 1 | | 1 | | | | 2880 | | |
| RM. 133 RACK | 4 | 30 | 1 | | 1 | | | | | 2880 | |
| SPARE | 6 | 20 | 1 | | | | | | | | |
| SPARE | 8 | 20 | 1 | | | | | | | | |
| RM. 133 RECEPTACLES | 10 | 20 | 1 | | 4 | | | | 720 | | |
| RM. 133 RECEPTACLE | 12 | 30 | 1 | | 1 | | | | | | 2880 |
| RM. 133 RECEPTACLES | 14 | 20 | 1 | | 4 | | | 720 | | | |
| RM 133 RECEPTACLES | 16 | 20 | 1 | | 2 | | | | 360 | | |
| RM. 134 RECEPTACLE | 18 | 20 | 1 | | 1 | | | | | | 180 |
| RM. 133 ALERTING SYSTEM | 20 | 20 | 1 | | | 1 | | 500 | | | |
| RM. 135 COFFEE RECEPT. | 22 | 20 | 1 | | 1 | | | | 1200 | | |
| ROOF RECEPTACLE | 24 | 20 | 1 | | 1 | | | | | | 180 |
| RM. 129 FLOOR RECEPT. | 26 | 20 | 1 | | 1 | | | 180 | | | |
| RM. 129 FLOOR RECEPT. | 28 | 20 | 1 | | 1 | | | | 180 | | |
| CRAB RETURN RECEPT. | 30 | 20 | 1 | | | 2 | | | | | 360 |
| SECURITY CNTRL. PNL. "SEC" | 32 | 20 | 1 | | | 1 | | 500 | | | |
| ACCESS CNTRL. PNL. "DCP" | 34 | 20 | 1 | | | 1 | | | 500 | | |
| FIRE ALARM PANEL "FACP" | 36 | 20 | 1 | | | 1 | | | | | 500 |
| DAS (PV SYSTEM) | 38 | 20 | 1 | | | 1 | | 180 | | | |
| RM. 134 RECEPTALE | 40 | 30 | 1 | | 1 | | | | 1920 | | |
| EMS CONTROLS | 42 | 20 | 1 | | | 1 | | | | | 500 |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 4960 | 7760 | 4600 | |
| PANEL SUB TOTAL VOLT/AMPS: | | | | | | | | 8980 | 11240 | 8080 | |
| TOTAL LCL/PHASE: | | | | | | | | 0 | 0 | 0 | |
| TOTAL VOLT/AMPS: | | | | | | | | 8980 | 11240 | 8080 | |
| TOTAL AMPS/PHASE: | | | | | | | | 75 | 94 | 67 | |

CONNECTED: 28300 VA
25% OF MTR: VA
25% OF LCL: 0 VA
CALCULATED: 28300 VA = 78.55 AVERAGE AMPS

## PANEL "EV"

MAIN BREAKER: 200A. — SCA: 42 KAIC
VOLTAGE: 208/120V-4-WIRE — BUS SIZE COPPER: 200A. — MOUNT: SURFACE
LOCATION: ELEC. ROOM 134 — ENTRY: BOTTOM

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EV CHARGER | 1 | 40 | 2 | | | | | 3328 | | | |
| W/CKT. 1 | 3 | ---- | --- | | | | | | 3328 | | |
| EV CHARGER | 5 | 40 | 2 | | | | | | | 3328 | |
| W/CKT. 5 | 7 | ---- | --- | | | | | 3328 | | | |
| EV CAPABLE SPACE | 9 | 40 | 2 | | | | | | 3328 | | |
| W/CKT. 9 | 11 | ---- | --- | | | | | | | 3328 | |
| EV CAPABLE SPACE | 13 | 40 | 2 | | | | | 3328 | | | |
| W/CKT. 13 | 15 | ---- | --- | | | | | | 3328 | | |
| SPACE | 17 | | | | | | | | | | |
| SPACE | 19 | | | | | | | | | | |
| SPACE | 21 | | | | | | | | | | |
| SPACE | 23 | | | | | | | | | | |
| SPACE | 25 | | | | | | | | | | |
| SPACE | 27 | | | | | | | | | | |
| SPACE | 29 | | | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 9984 | 9984 | 6656 | |
| SPACE | 2 | | | | | | | | | | |
| SPACE | 4 | | | | | | | | | | |
| SPACE | 6 | | | | | | | | | | |
| SPACE | 8 | | | | | | | | | | |
| SPACE | 10 | | | | | | | | | | |
| SPACE | 12 | | | | | | | | | | |
| SPACE | 14 | | | | | | | | | | |
| SPACE | 16 | | | | | | | | | | |
| SPACE | 18 | | | | | | | | | | |
| SPACE | 20 | | | | | | | | | | |
| SPACE | 22 | | | | | | | | | | |
| SPACE | 24 | | | | | | | | | | |
| SPACE | 26 | | | | | | | | | | |
| SPACE | 28 | | | | | | | | | | |
| SPACE | 30 | | | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 0 | 0 | 0 | |
| PANEL SUB TOTAL VOLT/AMPS: | | | | | | | | 9984 | 9984 | 6656 | |
| TOTAL LCL/PHASE: | | | | | | | | 1664 | 1664 | 1664 | |
| TOTAL VOLT/AMPS: | | | | | | | | 11648 | 11648 | 8320 | |
| TOTAL AMPS/PHASE: | | | | | | | | 97 | 97 | 69 | |

CONNECTED: 26624 VA
25% OF MTR: VA
25% OF LCL: 0 VA
CALCULATED: 26624 VA = 73.90 AVERAGE AMPS

## PANEL "LB"

MAIN BREAKER: M.L.O. — SCA: 42 KAIC
VOLTAGE: 208/120V-4-WIRE — BUS SIZE COPPER: 225A. — MOUNT: SURFACE
LOCATION: ELEC. ROOM 134 — ENTRY: BOTTOM

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RMS.129,130,131,132,133,134,135 LTG. | 1 | 20 | 1 | 39 | | | | 854 | | | |
| RM. 127 LIGHTING | 3 | 20 | 1 | 24 | | | | | 672 | | |
| RM. 127 LIGHTING | 5 | 20 | 1 | 24 | | | | | | 672 | |
| SPARE | 7 | 20 | 1 | | | | | | | | |
| SPARE | 9 | 20 | 1 | | | | | | | | |
| NLIGHT "ARP" (LCP) | 11 | 20 | 1 | | | | 1 | | | 500 | |
| SPARE | 13 | 20 | 1 | | | | | | | | |
| SPARE | 15 | 20 | 1 | | | | | | | | |
| NLIGHT "NECY" | 17 | 20 | 1 | | | | 1 | | | 500 | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 854 | 672 | 1672 | |
| EXTERIOR BLDG. LTS. (WEST) | 2 | 20 | 1 | 8 | | | | 140 | | | |
| PEDESTRIAN PATH LTS.-WEST | 4 | 20 | 1 | 6 | | | | | 144 | | |
| RESP. DRIVE/LOW LEVEL LTG. | 6 | 20 | 1 | 12 | | | | | | 243 | |
| EXTERIOR ADDRESS SIGN | 8 | 20 | 1 | | | | 1 | 1200 | | | |
| EXTERIOR BUILDING SIGN | 10 | 20 | 1 | | | | 1 | | 1200 | | |
| SPARE | 12 | 20 | 1 | | | | | | | | |
| SPARE | 14 | 20 | 1 | | | | | | | | |
| SPARE | 16 | 20 | 1 | | | | | | | | |
| RESP.DRIVE LT.POLE REC. | 18 | 20 | 1 | | 2 | | | | | 360 | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 1340 | 1344 | 603 | |
| PANEL SUB TOTAL VOLT/AMPS: | | | | | | | | 2194 | 2016 | 2275 | |
| TOTAL LCL/PHASE: | | | | | | | | 549 | 504 | 479 | |
| TOTAL VOLT/AMPS: | | | | | | | | 2743 | 2520 | 2754 | |
| TOTAL AMPS/PHASE: | | | | | | | | 23 | 21 | 23 | |

CONNECTED: 6485 VA
25% OF MTR: VA
25% OF LCL: 1531 VA
CALCULATED: 8016.25 VA = 22.25 AVERAGE AMPS

### FUTURE CT SECTION

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-1 | 19 | 15 | 2 | | | 1 | | 302 | | | |
| W/CKT. 25 | 21 | ---- | --- | | | | | | 302 | | |
| FC-2 | 23 | 15 | 2 | | | 1 | | | | 26 | |
| W/CKT. 29 | 25 | ---- | --- | | | | | 26 | | | |
| FC-3 | 27 | 15 | 2 | | | 1 | | | 302 | | |
| W/CKT. 33 | 29 | ---- | --- | | | | | | | 302 | |
| EF-1 / EF-2 | 31 | 15 | 1 | | | 2 | | 360 | | | |
| SCU-1 / SFC-1 | 33 | 20 | 2 | | | 1 | | | 1560 | | |
| W/CKT. 39 | 35 | ---- | --- | | | | | | | 1560 | |
| AC COMPRESSOR | 37 | 50 | 3 | | | 1 | | 3036 | | | |
| W/CKT. 37 | 39 | ---- | --- | | | | | | 3036 | | |
| W/CKT. 37 | 41 | ---- | --- | | | | | | | 3036 | |
| HOSE TOWER | 43 | 20 | 3 | | | 1 | | 1260 | | | |
| W/CKT. 43 | 45 | ---- | --- | | | | | | 1260 | | |
| W/CKT. 43 | 47 | ---- | --- | | | | | | | 1260 | |
| AC COMPRESSOR RECEPT. | 49 | 20 | 1 | | 1 | | | 180 | | | |
| SPARE | 51 | 20 | 1 | | | | | | | | |
| EXERCISE RM. FANS | 53 | 20 | 1 | | | 2 | | | | 1000 | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 5164 | 6460 | 7184 | |
| EXERCISE RM. AUTO-DOOR | 20 | 20 | 1 | | | 1 | | 1176 | | | |
| BS-1 | 22 | 15 | 2 | | | 1 | | | 30 | | |
| W/CKT. 22 | 24 | ---- | --- | | | | | | | 30 | |
| SPARE | 26 | 20 | 1 | | | | | | | | |
| SPARE | 28 | 20 | 1 | | | | | | | | |
| SPARE | 30 | 20 | 1 | | | | | | | | |
| SPARE | 32 | 20 | 1 | | | | | | | | |
| SPARE | 34 | 20 | 1 | | | | | | | | |
| SPARE | 36 | 20 | 1 | | | | | | | | |
| SPARE | 38 | 20 | 1 | | | | | | | | |
| SPARE | 40 | 20 | 1 | | | | | | | | |
| SPARE | 42 | 20 | 1 | | | | | | | | |
| SPARE | 44 | 20 | 1 | | | | | | | | |
| SPARE | 46 | 20 | 1 | | | | | | | | |
| SPARE | 48 | 20 | 1 | | | | | | | | |
| SPARE | 50 | 20 | 1 | | | | | | | | |
| SPARE | 52 | 20 | 1 | | | | | | | | |
| SPARE | 54 | 20 | 1 | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 1176 | 30 | 30 | |
| PANEL SUB TOTAL VOLT/AMPS: | | | | | | | | 6340 | 6490 | 7214 | |
| TOTAL LCL/PHASE: | | | | | | | | 0 | 0 | 0 | |
| TOTAL VOLT/AMPS: | | | | | | | | 6340 | 6490 | 7214 | |
| TOTAL AMPS/PHASE: | | | | | | | | 53 | 54 | 60 | |

CONNECTED: 20044 VA
25% OF MTR: VA
25% OF LCL: 0 VA
CALCULATED: 20044 VA = 55.64 AVERAGE AMPS

**PANEL SUMMARY**

| | | | |
|---|---|---|---|
| SECTION #1: | 6485 VA | TOTAL PANEL VOLT/AMPS: | 9083 / 9010 / 9968 |
| SECTION #2: | 20044 VA | TOTAL AMPS/PHASE: | 76 / 75 / 83 |
| 25% OF LCL: | 1531 VA | | |
| CALCULATED: | 28060 VA = 77.89 AVERAGE AMPS | | |

## PANEL "LC"

MAIN BREAKER: 150A. — SCA: 22 KAIC
VOLTAGE: 208/120V-4-WIRE — BUS SIZE COPPER: 150A. — MOUNT: RECESSED
LOCATION: VESTIBULE 126 — ENTRY: BOTTOM

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RM. 124 U/C FRIDGE | 1 | 20 | 1 | | | 1 | | | 360 | | |
| RMS. 123,124 RECEPT. | 3 | 20 | 1 | | | 3 | | | | 540 | |
| RM. 123 DRYER | 5 | 30 | 2 | | | 1 | | | | | 2496 |
| W/CKT. 51 | 7 | ---- | --- | | | | | 2496 | | | |
| RM 123 WASHER | 9 | 20 | 1 | | | 1 | | | 1200 | | |
| * RMS. 111,112, 113 RECEPT. | 11 | 20 | 1 | | | 4 | | | | | 1040 |
| * RMS. 110,113RECEPT. | 13 | 20 | 1 | | | 5 | | 1220 | | | |
| RMS. 103,114,122 RECEPT. | 15 | 20 | 1 | | | 4 | | | 720 | | |
| * RMS. 119,120,121 RECEPT. | 17 | 20 | 1 | | | 5 | | | | 1220 | |
| RMS. 119,120,121 RECEPT. | 19 | 20 | 1 | | | 5 | | 1220 | | | |
| RM. 117 A/V RECEPT. | 21 | 20 | 1 | | | 2 | | | 360 | | |
| RM. 117 A/V RECEPT. | 23 | 20 | 1 | | | 2 | | | | 580 | |
| † RM. 117 RECEPTACLES | 25 | 20 | 1 | | | 4 | | 720 | | | |
| RM. 117 RECEPTACLES | 27 | 20 | 1 | | | 4 | | | 720 | | |
| RM. 136 BBQ RECEPT. | 29 | 20 | 1 | | | 1 | | | | 1000 | |
| RM. 136 RECEPT. | 31 | 20 | 1 | | | 1 | | 180 | | | |
| SPARE | 33 | 20 | 1 | | | | | | | | |
| SPARE | 35 | 20 | 1 | | | | | | | | |
| SPARE | 37 | 20 | 1 | | | | | | | | |
| ROLL-UP DOOR "RUD-1" | 39 | 30 | 1 | | | | 1 | | 1920 | | |
| ROLL-UP DOOR "RUD-2" | 41 | 30 | 1 | | | | 1 | | | 1920 | |
| BI-FOLD DOOR #1 | 43 | 20 | 3 | | | | 1 | 385 | | | |
| W/CKT. 43 | 45 | ---- | --- | | | | | | 385 | | |
| W/CKT. 43 | 47 | ---- | --- | | | | | | | 385 | |
| BI-FOLD DOOR #2 | 49 | 20 | 3 | | | | 1 | 385 | | | |
| W/CKT. 49 | 51 | ---- | --- | | | | | | 385 | | |
| W/CKT. 49 | 53 | ---- | --- | | | | | | | 385 | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 6966 | 6230 | 9026 | |
| RM. 127 RECEPTACLES | 2 | 20 | 1 | | | 4 | | 720 | | | |
| RM 127 RECEPTACLES | 4 | 20 | 1 | | | 4 | | | 720 | | |
| RMS. 101,104 CNTRLD. REC. | 6 | 20 | 1 | | | 4 | | | | 720 | |
| RMS. 104. EXTERIOR RECEPT. | 8 | 20 | 1 | | | 3 | | | 540 | | |
| RMS. 101,104 RECEPT. | 10 | 20 | 1 | | | 3 | | | 540 | | |
| * RMS. 105,106,107 RECEPT. | 12 | 20 | 1 | | | 4 | | | | | 1040 |
| * RMS. 105,106,107 RECEPT. | 14 | 20 | 1 | | | 4 | | 1040 | | | |
| RM. 102,103,126 RECEPT. | 16 | 20 | 1 | | | 3 | | | 540 | | |
| RM. 103 COPIER / PRINTER | 18 | 20 | 1 | | | 1 | | | | 800 | |
| RM. 125 CNTRLD. RECEPT. | 20 | 20 | 1 | | | 3 | | 540 | | | |
| RM. 125 RECEPTACLES | 22 | 20 | 1 | | | 3 | | | 540 | | |
| RM. 125 RECEPTACLES | 24 | 20 | 1 | | | 2 | | | | 360 | |
| * RMS. 108,109,110 RECEPT. | 26 | 20 | 1 | | | 4 | | 1040 | | | |
| * RMS. 108,109,110 RECEPT. | 28 | 20 | 1 | | | 4 | | | 1040 | | |
| RM. 105 RECEPTACLES | 30 | 20 | 1 | | | 4 | | | | 720 | |
| RM. 103 GAP | 32 | 20 | 1 | | | | 1 | 500 | | | |
| RM. 115 TRAP PRIMER | 34 | 20 | 1 | | | | 1 | | 360 | | |
| RM. 127 VEEDER ROOT | 36 | 20 | 1 | | | | 1 | | | 500 | |
| SPARE | 38 | 20 | 1 | | | | | | | | |
| RM. 122 ICE MAKER REC. | 40 | 20 | 1 | | | 1 | | | 500 | | |
| RELAY CABINET "TS-1" | 42 | 20 | 1 | | | | 1 | | | 180 | |
| RELAY CABINET "RC-1" | 44 | 20 | 1 | | | | 1 | 180 | | | |
| SPARE | 46 | 20 | 1 | | | | | | | | |
| ROOF RECEPTACLES | 48 | 20 | 1 | | | 2 | | | | 360 | |
| SPACE | 50 | ---- | --- | | | | | | | | |
| SPACE | 52 | ---- | --- | | | | | | | | |
| SPACE | 54 | ---- | --- | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 4560 | 4240 | 4680 | |
| PANEL SUB TOTAL VOLT/AMPS: | | | | | | | | 11526 | 10470 | 13706 | |
| TOTAL LCL/PHASE: | | | | | | | | 0 | 0 | 0 | |
| TOTAL VOLT/AMPS: | | | | | | | | 11526 | 10470 | 13706 | |
| TOTAL AMPS/PHASE: | | | | | | | | 96 | 87 | 114 | |

CONNECTED: 35702 VA
25% OF MTR: VA
25% OF LCL: 0 VA
CALCULATED: 35702 VA = 99.10 AVERAGE AMPS

* = INDICATES ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER.

## PANEL "LD"

MAIN BREAKER: 225A. — SCA: 22 KAIC
VOLTAGE: 208/120V-4-WIRE — BUS SIZE COPPER: 225A. — MOUNT: RECESSED
LOCATION: VESTIBULE 122 — ENTRY: BOTTOM

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HALLWAY 103 LIGHTING | 1 | 20 | 1 | 17 | | | | | 449 | | |
| * RMS. 111 - 122 LIGHTING | 3 | 20 | 1 | 44 | | | | | | 1085 | |
| * RMS. 101-1110 & 123-126 LTG. | 5 | 20 | 1 | 39 | | | | | | | 882 |
| SPARE | 7 | 20 | 1 | | | | | | | | |
| SPARE | 9 | 20 | 1 | | | | | | | | |
| SPARE | 11 | 20 | 1 | | | | | | | | |
| SPARE | 13 | 20 | 1 | | | | | | | | |
| SPARE | 15 | 20 | 1 | | | | | | | | |
| SPARE | 17 | 20 | 1 | | | | | | | | |
| SPARE | 19 | 20 | 1 | | | | | | | | |
| SPARE | 21 | 20 | 1 | | | | | | | | |
| SPARE | 23 | 20 | 1 | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 449 | 1085 | 882 | |
| EXTERIOR BLDG. LTS. (NORTH) | 2 | 20 | 1 | 10 | | | | | 279 | | |
| PARKING / DRIVE / TRASH LTS. | 4 | 20 | 1 | 5 | | | | | | 414 | |
| EXTERIOR BLDG. LTS. (EAST) | 6 | 20 | 1 | 11 | | | | | | | 397 |
| SPARE | 8 | 20 | 1 | | | | | | | | |
| SPARE | 10 | 20 | 1 | | | | | | | | |
| SPARE | 12 | 20 | 1 | | | | | | | | |
| SPARE | 14 | 20 | 1 | | | | | | | | |
| SPARE | 16 | 20 | 1 | | | | | | | | |
| SPARE | 18 | 20 | 1 | | | | | | | | |
| PARKING / DRIVE POLE REC. | 20 | 20 | 1 | | 3 | | | | 540 | | |
| SPARE | 22 | 20 | 1 | | | | | | | | |
| SPARE | 24 | 20 | 1 | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 810 | 414 | 397 | |
| PANEL SUB TOTAL VOLT/AMPS: | | | | | | | | 1259 | 1499 | 1279 | |
| TOTAL LCL/PHASE: | | | | | | | | 180 | 375 | 320 | |
| TOTAL VOLT/AMPS: | | | | | | | | 1439 | 1874 | 1599 | |
| TOTAL AMPS/PHASE: | | | | | | | | 12 | 16 | 13 | |

CONNECTED: 4037 VA
25% OF MTR: VA
25% OF LCL: 874 VA
CALCULATED: 4911.25 VA = 13.63 AVERAGE AMPS

### FUTURE CT SECTION

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-13 THRU FC-16 | 25 | 15 | 2 | | | 4 | | 104 | | | |
| W/CKT. 25 | 27 | ---- | --- | | | | | | 104 | | |
| FC-4 AND FC-5 | 29 | 15 | 2 | | | 2 | | | | 603 | |
| W/CKT. 29 | 31 | ---- | --- | | | | | 603 | | | |
| FC-6 THRU FC-12 | 33 | 15 | 2 | | | 6 | | | 676 | | |
| W/CKT. 33 | 35 | ---- | --- | | | | | | | 676 | |
| EF-6 THRU EF-9 | 37 | 15 | 1 | | | 4 | | 720 | | | |
| EF-3 THRU EF-5 | 39 | 15 | 1 | | | 3 | | | 540 | | |
| SPARE | 41 | ---- | --- | | | | | | | | |
| HRU-2 | 43 | 30 | 3 | | | 1 | | 2280 | | | |
| W/CKT. 43 | 45 | ---- | --- | | | | | | 2280 | | |
| W/CKT. 43 | 47 | ---- | --- | | | | | | | 2280 | |
| HRU-1 MODULE #2 | 49 | 80 | 3 | | | 1 | | 8724 | | | |
| W/CKT. 49 | 51 | ---- | --- | | | | | | 8724 | | |
| W/CKT. 49 | 53 | ---- | --- | | | | | | | 8724 | |
| SPARE | 55 | 20 | 1 | | | | | | | | |
| SMOKE FIRE DAMPERS | 57 | 20 | 1 | | | 3 | | | 150 | | |
| SPARE | 59 | 20 | 1 | | | | | | | | |
| EF-10 | 61 | 15 | 3 | | | 1 | | 816 | | | |
| W/CKT. 61 | 63 | ---- | --- | | | | | | 816 | | |
| W/CKT. 61 | 65 | ---- | --- | | | | | | | 816 | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 13247 | 13290 | 13099 | |
| SPARE | 26 | 20 | 1 | | | | | | | | |
| AQUA-STAT/CP-1/RECEPT. | 28 | 20 | 1 | | 1 | 2 | | | 280 | | |
| GATE OPERATOR | 30 | 20 | 1 | | | 1 | | | | 500 | |
| GENERATOR BLOCK HEATER | 32 | 20 | 1 | | | 1 | | 1500 | | | |
| GENERATOR BATT. CHARGER | 34 | 20 | 1 | | | 1 | | | 1200 | | |
| GATE OPERATOR | 36 | 20 | 1 | | | 1 | | | | 500 | |
| FUEL DISPENSING SHUT-OFF | 38 | 20 | 1 | | | 1 | | 500 | | | |
| SHUNT-TRIP | 40 | ---- | --- | | | | | | | | |
| DIESEL DISPENSER / PUMP | 42 | 20 | 1 | | | 1 | | | | 600 | |
| FUEL MANAGEMENT SYSTEM | 44 | 20 | 1 | | | 1 | | 500 | | | |
| FUEL OVERFLOW ALARM | 46 | 20 | 1 | | | 1 | | | 180 | | |
| DIESEL DISPENSER / PUMP | 48 | 20 | 1 | | | 1 | | | | 600 | |
| SPARE | 50 | 20 | 1 | | | | | | | | |
| SPARE | 52 | 20 | 1 | | | | | | | | |
| SPARE | 54 | 20 | 1 | | | | | | | | |
| SPARE | 56 | 20 | 1 | | | | | | | | |
| SPARE | 58 | 20 | 1 | | | | | | | | |
| BS-2 | 60 | 15 | 2 | | | 1 | | | | 30 | |
| W/CKT. 60 | 62 | ---- | --- | | | | | 30 | | | |
| BS-3 | 64 | 15 | 2 | | | 1 | | | 30 | | |
| W/CKT. 64 | 66 | ---- | --- | | | | | | | 30 | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 2530 | 1690 | 2260 | |
| PANEL SUB TOTAL VOLT/AMPS: | | | | | | | | 15777 | 14980 | 15359 | |
| TOTAL LCL/PHASE: | | | | | | | | 0 | 0 | 0 | |
| TOTAL VOLT/AMPS: | | | | | | | | 15777 | 14980 | 15359 | |
| TOTAL AMPS/PHASE: | | | | | | | | 131 | 125 | 128 | |

CONNECTED: 46116 VA
25% OF MTR: VA
25% OF LCL: 0 VA
CALCULATED: 46116 VA = 128.01 AVERAGE AMPS

**PANEL SUMMARY**

| | | | |
|---|---|---|---|
| SECTION #1: | 4037 VA | TOTAL PANEL VOLT/AMPS: | 17216 / 16854 / 16958 |
| SECTION #2: | 46116 VA | TOTAL AMPS/PHASE: | 143 / 140 / 141 |
| 25% OF LCL: | 874 VA | | |
| CALCULATED: | 51027 VA = 141.64 AVERAGE AMPS | | |

## PANEL "LE"

MAIN BREAKER: 100A. — SCA: 10 KAIC
VOLTAGE: 208/120V-4-WIRE — BUS SIZE COPPER: 100A. — MOUNT: RECESSED
LOCATION: HALLWAY 103 — ENTRY: BOTTOM

| DESCRIPTION | CKT | BKR | P | LTS | REC | MSC | MTR | A-VA | B-VA | C-VA | AMPS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KITCHEN 116 FRIDGE | 1 | 20 | 1 | | 1 | | | | 360 | | |
| KITCHEN 116 FRIDGE | 3 | 20 | 1 | | 1 | | | | | 360 | |
| KITCHEN 116 FRIDGE | 5 | 20 | 1 | | 1 | | | | | | 360 |
| KITCHEN 116 M.W. | 7 | 20 | 1 | | 1 | | | 1100 | | | |
| KITCHEN 116 COFFEE | 9 | 20 | 1 | | 1 | | | | 1668 | | |
| KITCHEN 116 HOOD | 11 | 20 | 1 | | 1 | | | | | 360 | |
| KITCHEN 116 DISHWASHER | 13 | 20 | 1 | | | 1 | | 1440 | | | |
| KITCHEN 116 DISHWASHER | 15 | 20 | 1 | | | 1 | | | 1440 | | |
| SPARE | 17 | 20 | 1 | | | | | | | | |
| KITCHEN 116 G.D. | 19 | 20 | 1 | | | 1 | | 1224 | | | |
| SPARE | 21 | 20 | 1 | | | | | | | | |
| KITCHEN 116 CNTR. RECEPT. | 23 | 20 | 1 | | 2 | | | | | 360 | |
| SPARE | 25 | 20 | 1 | | | | | | | | |
| KITCHEN 116 RANGE | 27 | 50 | 2 | | 1 | | | | 5000 | | |
| W/CKT. 27 | 29 | ---- | --- | | | | | | | 5000 | |
| SPACE | 31 | 20 | 1 | | | | | | | | |
| SPACE | 33 | 20 | 1 | | | | | | | | |
| SPACE | 35 | 20 | 1 | | | | | | | | |
| SPACE | 37 | ---- | --- | | | | | | | | |
| SPACE | 39 | ---- | --- | | | | | | | | |
| SPACE | 41 | ---- | --- | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 4124 | 8468 | 6080 | |
| KITCHEN 116 CONV. REC. | 2 | 20 | 1 | | 2 | | | | 360 | | |
| KITCHEN 116 CONV. REC. | 4 | 20 | 1 | | 2 | | | | | 360 | |
| SPARE | 6 | 20 | 1 | | | | | | | | |
| SPARE | 8 | 20 | 1 | | | | | | | | |
| RM. 118 RECEPT. | 10 | 20 | 1 | | 3 | | | | 860 | | |
| SPARE | 12 | 20 | 1 | | | | | | | | |
| SPARE | 14 | 20 | 1 | | | | | | | | |
| SPARE | 16 | 20 | 1 | | | | | | | | |
| SPARE | 18 | 20 | 1 | | | | | | | | |
| SPARE | 20 | 20 | 1 | | | | | | | | |
| SPARE | 22 | 20 | 1 | | | | | | | | |
| SPARE | 24 | 20 | 1 | | | | | | | | |
| SPARE | 26 | 20 | 1 | | | | | | | | |
| SPARE | 28 | 20 | 1 | | | | | | | | |
| SPARE | 30 | 20 | 1 | | | | | | | | |
| SPACE | 32 | ---- | --- | | | | | | | | |
| SPACE | 34 | ---- | --- | | | | | | | | |
| SPACE | 36 | ---- | --- | | | | | | | | |
| SPACE | 38 | ---- | --- | | | | | | | | |
| SPACE | 40 | ---- | --- | | | | | | | | |
| SPACE | 42 | ---- | --- | | | | | | | | |
| SUB TOTAL VOLT/AMPS: | | | | | | | | 360 | 1220 | 0 | |
| NON-KITCHEN LOAD VOLTA/AMPS: | | | | | | | | 0 | 860 | 0 | |
| KITCHEN LOAD VOLTA/AMPS: | | | | | | | | 4484 | 8828 | 6080 | |
| KITCHEN LOAD @66% DEMAND: | | | | | | | | 2914.6 | 5738.2 | 3952 | |
| TOTAL VOLT/AMPS: | | | | | | | | 2915 | 6598 | 3952 | |
| TOTAL LCL/PHASE: | | | | | | | | 0 | 0 | 0 | |
| TOTAL AMPS/PHASE: | | | | | | | | 24 | 55 | 33 | |

CONNECTED: 13465 VA
25% OF MTR: 0 VA
25% OF LCL: 0 VA
CALCULATED: 13465 VA = 37.37 AVERAGE AMPS

## PANEL SCHEDULE NOTES

1. ALL RECEPTACLES AND LIGHT FIXTURES INSTALLED IN RESIDENTIAL OCCUPANCY ROOMS SHALL BE PROTECTED BY AN AFCI CIRCUIT BREAKER. REFER TO SHEET T-2, CODE ANALYSIS, FOR RESIDENTIAL OCCUPANCY BOUNDARY.
2. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED BY UL OR A COUNTY APPROVED THIRD PARTY TESTING FACILITY PER SECTION 110.3(b).
3. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
4. CONTRACTOR TO PROVIDE BRANCH CIRCUIT PANELS WITH DEDICATED SPACE FOR INSTALLATION OF FUTURE CT'S FOR MONITORING OF INDIVIDUAL BRANCH CIRCUITS.
5. CONTRACTOR TO PROVIDE ENGRAVED NAME PLATES FOR MAIN SWITCHBOARD, SWITCHBOARD METERS, AND PANELS.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER — RICHARD E. SIFFORD — No. E17229 — 6/30/26 — STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASSLINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX: (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: CBF — CHECKED: RES
DATE: 06/17/26 — SCALE: AS NOTED
PROJECT NUMBER: 2109300

**PANEL SCHEDULES**

DRAWING NUMBER: **E0.3**

CM-07-01-2026

## LIGHTING FIXTURE SCHEDULE

| TYPE | MANUFACTURER CATALOG* | LAMP QTY. & TYPE | FIXTURE WATTAGE | VOLTS | REMARKS |
|---|---|---|---|---|---|
| A | LITHONIA LIGHTING<br>*EBLT2-33L-ADP-GZ10-LP840-N100<br>*E10ILLCP (EM BATTERY PACK)<br>OR APPROVED EQUAL | 3,391 LUMEN<br>128 LM/W<br>4000K | 27 | 120 | 2'X2' RECESSED LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 3,300 LUMEN OUTPUT, ACRYLIC DIFFUSER, INTEGRAL Ø-10V, LED DIMMING DRIVER, 4000K COLOR TEMPERATURE, AND INTEGRAL N-LIGHT CONTROLS, WHERE SHADING INDICATES ON PLAN PROVIDE 90 MINUTE EMERGENCY BATTERY BACK-UP. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES FOR COMPLETE INSTALLATION. |
| B | LITHONIA LIGHTING<br>*2TL-4-33L-EZ1-LP840-N100<br>*DGA14 (DRYWALL KIT)<br>*E10ILLCP (EM BATTERY PACK)<br>OR APPROVED EQUAL | 3,465 LUMEN<br>123 LM/W<br>4000K | 28 | 120 | 1'X4' RECESSED LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 3,500 LUMEN OUTPUT, INTEGRAL Ø-10V, LED DIMMING DRIVER, 4000K COLOR TEMPERATURE, AND INTEGRAL N-LIGHT CONTROLS, WHERE SHADING INDICATES ON PLAN, PROVIDE INTEGRAL 90 MIN. EMERGENCY BATTERY BACK-UP. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES FOR COMPLETE INSTALLATION. |
| C | GOTHAM<br>*EVO6-40/15-AR-MD-#-120-GZ10<br>*E10ILLCP (EM BATTERY PACK)<br>OR APPROVED EQUAL | 1,471 LUMEN<br>100 LM/W<br>4000K | 15 | 120 | 6" LED DOWNLIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 1500 LUMEN PACKAGE, AND 4000K COLOR TEMPERATURE. WHERE SHADING INDICATES ON PLAN PROVIDE INTEGRAL 90 MIN. EMERGENCY BATTERY PACK. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES.<br># = FINISH AS SELECTED BY ARCHITECT. |
| D | GOTHAM LIGHTING<br>*EVO6SH-40/15-DFR-SMO-MVOLT-EZ10<br>OR APPROVED EQUAL | 1,500 LUMEN LED<br>89 LM/W<br>4000K | 15 | 120 | 6" LED DOWNLIGHT, FIXTURE SHALL BE PROVIDED WITH INTEGRAL Ø-10V, LED DIMMING DRIVER & IP65 RATED SUITABLE FOR STEAM ROOM APPLICATION. |
| E | WAC LIGHTING<br>*BL-1630-3<br>OR APPROVED EQUAL | 260 LUMENS<br>33 LM/W<br>3000K | 8 | 120 | WALL MOUNTED DORM BED READING LIGHT.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| F | LITHONIA LIGHTING<br>*2LED-L24-840LP-FST-MVOLT-40K-80CRI-#<br>OR APPROVED EQUAL | 2,061 LUMEN<br>101 LM/W<br>4000K | 17 | 120 | 2' SURFACE MOUNTED LET STRIP LIGHT FIXTURE. FIXTURE SHALL BE BE PROVIDED WITH 1900 LUMEN PACKAGE, 4000K COLOR TEMPERATURE, AND ELECTRONIC DRIVER. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| G | EATON<br>*ull-48-D-9-30<br>OR APPROVED EQUAL | 1,320 LUMEN<br>60 LM/W<br>4000K | 22 | 120 | 4' UNDERCABINET LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH 4000K COLOR TEMPERATURE, INTEGRAL Ø-10V, LED DIMMING, AND 90 COLOR RENDERING INDEX.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| H | DUAL-LITE<br>ILE-#-#-R-###-N-E-I<br>OR APPROVED EQUAL | LED | 3 | 120 | ARCHITECTURAL LED EDGE-LIT EXIT SIGN WITH RED LETTER, SATIN ALUMINUM FINISH, INTEGRAL 90 MINUTE BATTERY BACK-UP.<br><br># = MOUNTING PER PLAN.<br>## = FACES PER PLAN.<br>### = DIRECTIONAL ARROWS PER PLAN. |
| I | MARK ARCHITECTURAL LIGHTING<br>*S4RD-LLP-12FT-MSL6-80CRI-40K-4000LM-180CRI-140K-14000LMF-BW-SCT-MINI-FLL-DCF-MVOLT-#-IE10ILLCP-NLIGHT-F2/36A-RDCY<br>OR APPROVED EQUAL | 9,600 LUMEN<br>141 LM/W<br>4000K | 68 | MVOLT | 12' LED INDIRECT / DIRECT LINEAR PENDANT. FIXTURE SHALL BE PROVIDED WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 400 LUMENS PER FOOT, 4000K COLOR TEMPERATURE, AND INTEGRAL NLIGHT CONTROLS. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR TYPE CEILING FIXTURE IS TO BE INSTALLED IN.<br># = FINISH AS SELECTED BY ARCHITECT. |
| J | MARK ARCHITECTURAL LIGHTING<br>*CVS84-LLP-8-MSL3-MCFMC-80CRI-40K-4000LMF-ASYM-MINI-MVOLT-SQU-NLIGHT<br>OR APPROVED EQUAL | 4,104 LUMEN<br>128 LM/W<br>4000K | 32 | MVOLT | 8'-0" LED COVE LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 400 LUMENS PER FOOT, 4000K COLOR TEMPERATURE AND INTEGRAL NLIGHT CONTROLS. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR TYPE OF CEILING LIGHT FIXTURE IS TO BE INSTALLED IN. |
| K | MARK ARCHITECTURAL LIGHTING<br>*CVS84-LLP-7-MSL3-MCFMC-80CRI-40K-4000LMF-ASYM-MINI-MVOLT-SQU-NLIGHT<br>OR APPROVED EQUAL | 3,192 LUMEN<br>128 LM/W<br>4000K | 25 | MVOLT | 7'-0" LED COVE LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 400 LUMENS PER FOOT, 4000K COLOR TEMPERATURE AND INTEGRAL NLIGHT CONTROLS. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR TYPE OF CEILING LIGHT FIXTURE IS TO BE INSTALLED IN. |
| L | LITHONIA LIGHTING<br>*BLT4-30L-ADP-GZ10-LP840-N100<br>*E10ILLCP (EM BATTERY PACK)<br>OR APPROVED EQUAL | 3,060 LUMEN<br>139 LM/W<br>4000K | 22 | 120 | 1'X4' RECESSED LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 3,000 LUMEN OUTPUT, ACRYLIC DIFFUSER, INTEGRAL Ø-10V, LED DIMMING DRIVER, 4000K COLOR TEMPERATURE AND INTEGRAL N-LIGHT CONTROLS, WHERE SHADING INDICATES ON PLAN PROVIDE 90 MINUTE EMERGENCY BATTERY BACK-UP PROVIDE ALL REQUIRED MOUNTING ACCESSORIES FOR COMPLETE INSTALLATION. |
| M | GOTHAM<br>*EVO6-40/10-AR-MD-#-120-GZ10<br>*E10ILLCP (EM BATTERY PACK)<br>OR APPROVED EQUAL | 986 LUMEN<br>98 LM/W<br>4000K | 10 | 120 | 6" LED DOWNLIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 1000 LUMEN PACKAGE, AND 4000K COLOR TEMPERATURE. WHERE SHADING INDICATES ON PLAN PROVIDE INTEGRAL 90 MIN. EMERGENCY BATTERY PACK. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES.<br># = FINISH AS SELECTED BY ARCHITECT. |
| N | DELRAY<br>*DC4-#-W35-SR-D<br>OR APPROVED EQUAL | 4,333 LUMEN<br>83 LM/W<br>4000K | 52 | 120 | 4' DIAMETER PENDANT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 3500K COLOR TEMPERATURE, AND INTEGRAL Ø-10V, LED DIMMING.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| O | MARK ARCHITECTURAL LIGHTING<br>*SL6L-LOP-4FT-FLP-TG-80CRI-40K-3500LMF-MINI-120-NLIGHT<br>OR APPROVED EQUAL | 3,400 LUMEN<br>107 LM/W<br>4000K | 32 | MVOLT | 6" WIDE BY 4'-0" LONG RECESSED LINEAR LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 3200 LUMENS PER FOOT, 4000K COLOR TEMPERATURE, AND INTEGRAL NLIGHT CONTROLS. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR TYPE OF CEILING LIGHT FIXTURE IS TO BE INSTALLED IN. |
| P | MARK ARCHITECTURAL LIGHTING<br>*S2WD-LLP-8FT-MSL8-80CRI-40K-4000LMF-180CRI-140K-14000LMF-SCT-MINI-FLL-DCF-MVOLT-#-NLIGHT<br>OR APPROVED EQUAL | 2,936 LUMEN (DIRECT)<br>2,352 LUMEN (DIRECT)<br>70 LM/W<br>4000K | 47 | MVOLT | 8'-0" LONG WALL MOUNTED DIRECT / INDIRECT LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 400 LUMENS PER FOOT, 4000K COLOR TEMPERATURE, AND INTEGRAL NLIGHT CONTROLS. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR TYPE OF CEILING LIGHT FIXTURE IS TO BE INSTALLED IN. |
| Q | MARK ARCHITECTURAL LIGHTING<br>*S2WD-LLP-4FT-MSL4-180CRI-140K-16000LMF-SCT-MINI-DCF-MVOLT-MVOLT-#-NLIGHT<br>OR APPROVED EQUAL | 2,376 LUMEN<br>158 LM/W<br>4000K | 15 | MVOLT | 4'-0" LONG WALL MOUNTED INDIRECT LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL Ø-10V, LED DIMMING DRIVER, 6000 LUMENS PER FOOT, 4000K COLOR TEMPERATURE, AND INTEGRAL NLIGHT CONTROLS. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR TYPE OF CEILING LIGHT FIXTURE IS TO BE INSTALLED IN. |
| R | FINELITE<br>*HF-2-UM-D-10'-H-843-SMC-F-36LG-120-SC-FC-10%-MB-FE-#<br>OR APPROVED EQUAL | 5,976<br>87 LM/W<br>4000K | 68 | 120 | 10' LED WALL MOUNT FIXTURE. FIXTURE SHALL HAVE DIRECT DISTRIBUTION, 80 COLOR RENDERING INDEX, 4300K COLOR TEMPERATURE, AND INTEGRAL Ø-10V DIMMING.<br><br># = FINISH AS SELECTED BY ARCHITECT. |

## SITE LIGHTING FIXTURE SCHEDULE

| TYPE | MANUFACTURER CATALOG* | LAMP QTY. & TYPE | FIXTURE WATTAGE | VOLTS | B.U.G. RATING | REMARKS |
|---|---|---|---|---|---|---|
| SA | LITHONIA LIGHTING<br>*WRC2-LED-P3-40K-MVOLT-#<br>*EBUG (EM BATTERY PACK)<br>OR APPROVED EQUAL | 3,387 LUMEN<br>136 LM/W<br>4000K | 24 | UNV | B1-U0-G1 | WALL MOUNTED DECORATIVE LED FIXTURE. FIXTURE SHALL BE WITH 3,000 LUMEN PACKAGE, 4000K COLOR TEMPERATURE UNIVERSAL VOLTAGE AND INTEGRAL ELECTRONIC DRIVER. WHERE SHADING INDICATES ON PLAN PROVIDE INTEGRAL 90 MIN. EMERGENCY BATTERY PACK. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES.<br># = FINISH AS SELECTED BY ARCHITECT. |
| SB | RAB LIGHTING<br>*WALED23<br>*GLG80R (GLOBE)<br>OR APPROVED EQUAL | 595 LUMEN<br>39 LM/W<br>2700K | 13 | 120 | B1-U3-G1 | SURFACE MOUNTED LED VAPOR PROOF BEACON LIGHT FIXTURE WITH RED GLOBE. PROVIDE ALL REQUIRED MOUNTING HARDWARE FOR A COMPLETE AND OPERABLE SYSTEM. |
| SC | LUMINAIRE LED<br>*AEL-36-N-NODIM-15W-40K-MVOLT-DP-#<br>*EMB3080T (EM BATTERY PACK)<br>OR APPROVED EQUAL | 1,310 LUMEN<br>87 LM/W<br>4000K | 15 | UNV | B1-U0-G0 | 3' SURFACE MOUNTED LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 1,310 LUMENS, 4000K COLOR TEMPERATURE AND INTEGRAL ELECTRONIC DRIVER. WHERE SHADING INDICATES ON PLAN PROVIDE INTEGRAL 90 MIN EMERGENCY BATTERY PACK. PROVIDE ALL ALL REQUIRED MOUNTING ACCESSORIES.<br># = FINISH AS SELECTED BY ARCHITECT. |
| SD | LITHONIA LIGHTING<br>*DSXO-LED-P3-40K-80CRI-TFTM-208-DMG-#<br>OR APPROVED EQUAL | 8,247 LUMEN<br>115 LM/W<br>4000K | 69 | UNV | B3-U0-G3 | POLE MOUNTED AREA LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH TYPE IV FORWARD THROW OPTICS, 30 LED BOARD, 1050 mA DRIVE CURRENT, 4000K COLOR TEMPERATURE, AND Ø-10V, DIMMING FOR EXTERNAL CONTROLS.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| SE | LITHONIA LIGHTING<br>*DSXO-LED-P2-40K-80CRI-TFTM-208-DMG-#<br>OR APPROVED EQUAL | 5,795 LUMEN<br>128 LM/W<br>4000K | 45 | UNV | B3-U0-G3 | POLE MOUNTED AREA LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH TYPE IV FORWARD THROW OPTICS, 30 LED BOARD, 700 mA DRIVE CURRENT, 4000K COLOR TEMPERATURE, AND Ø-10V, DIMMING FOR EXTERNAL CONTROLS.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| SF | LUMINAIRE LED<br>*WR4-4FT-MINI2-25W-40K-MVOLT-DP-#<br>OR APPROVED EQUAL | 2,775 LUMEN LED<br>103 LM/W<br>4000K | 27 | MVOLT | B1-U2-G1 | 4'-0" VANDAL RESISTANT SURFACE MOUNTED LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 2,775 LUMENS, OPAL LENS, Ø-10V LED DIMMING DRIVER AND 4000K KELVIN COLOR TEMPERATURE.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| SG | HYDREL LIGHTING<br>*HBLS-32INC-LED-40K-MVOLT-L-BB-1<br>OR APPROVED EQUAL | 3,86 LUMEN LED<br>371 LM/W<br>4000K | 11 | MVOLT | N/A | RECESSED MOUNTED STEP LIGHT LED LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 386 LUMENS, ELECTRONIC DRIVER, AND 4000K KELVIN COLOR TEMPERATURE.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| SH | HYDREL<br>*HTB6L-4FT-5000LMF-40K-MVOLT-MFL-KM-P6SA-NJB-ZT-CR-#<br>OR APPROVED EQUAL | 2,000 LUMEN<br>68 LM/W<br>4000K | 21 | MVOLT | B2-U0-G1 | ARCHITECTURAL LINEAR SIGN LIGHT FIXTURE. FIXTURE SHALL BE PROVIDED WITH 5000 LUMENS PER FOOT, 4000K COLOR TEMPERATURE, INTEGRAL J-BOX, Ø-10V, LED DIMMING DRIVER, KNUCKLE MOUNT AND CORROSION RESISTANT.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| SI | THE FLAG POLE COMPANY<br>INTERNAL HATCLARD FLAG POLE BEACON<br>*ORN-150031-12V<br>OR APPROVED EQUAL | (2) 3W LED<br>3000K | 6 | 120/12 | N/A | FLAG POLE BEACON POLE TOP MOUNTED. COORDINATE MOUNTING WITH POLE SUPPLIER PRIOR TO ROUGH-IN. PROVIDE 120-12V TRANSFORMER AND REQUIRED HARDWARE FOR A COMPLETE AND OPERABLE SYSTEM. |
| SJ | LITHONIA LIGHTING<br>*ARC1-LED-P1-40K-MVOLT-#<br>OR APPROVED EQUAL | 1,454 LUMEN<br>134 LM/W<br>4000K | 11 | UNV | B1-U0-G0 | WALL MOUNTED DECORATIVE LED FIXTURE. FIXTURE SHALL BE WITH 1,500 LUMEN PACKAGE, 4000K COLOR TEMPERATURE, UNIVERSAL VOLTAGE AND INTEGRAL ELECTRONIC DRIVER. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES.<br><br># = FINISH AS SELECTED BY ARCHITECT. |
| SK | LITHONIA LIGHTING<br>*DSXW1-P6-40K-80CRI-TFTM-MVOLT-DMG-#<br>OR APPROVED EQUAL | 6,567 LUMEN<br>136 LM/W<br>4000K | 48 | UNV | B3-U1-G2 | WALL MOUNTED LED FIXTURE. FIXTURE SHALL BE PROVIDED WITH P2 LUMEN PACKAGE, 4000K COLOR TEMPERATURE, UNIVERSAL VOLTAGE, Ø-10V LED DIMMING DRIVER PROVIDE ALL REQUIRED MOUNTING ACCESSORIES.<br><br># = FINISH AS SELECTED BY ARCHITECT. |

PBK

SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. STOTELO
No. E17229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**LIGHT FIXTURE SCHEDULE**

DRAWING NUMBER: **E0.4**

CM-07-01-2026

STATE OF CALIFORNIA
## Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE** NRCC-ELC-E

*This document is used to demonstrate compliance with mandatory requirements in 130.5, for electrical systems in newly constructed nonresidential and hotel/motel occupancies and 160.6 and 160.9 for electrical systems in newly constructed multifamily occupancies. Additions and alterations to electrical service systems in nonresidential and hotel/motel occupancies will also use this document to demonstrate compliance per 141.0(a) or 141.0(b)2P for alterations. For multifamily addition or alterations compliance will be documented per 180.1(a) or 180.2 (b)4bii*

| | | | |
|---|---|---|---|
| **Project Name:** | Costa Mesa Fire Station #2 | **Report Page:** | **(Page 1 of 7)** |
| **Project Address:** | 800 Baker Street | **Date Prepared:** | 5/28/2025 |

**A. GENERAL INFORMATION**

| | | | | | |
|---|---|---|---|---|---|
| 01 | Project Location (city) | Costa Mesa | 02 | Climate Zone | 6 |
| | | | 03 | Occupancy Types Within Project: | All Other OccupanciesCommercial IndustrialGymnasiumHotel/MotelOfficeSupport areasWarehouse |

**B. PROJECT SCOPE**

*This table includes electrical systems that are within the scope of the permit application.*

| 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|---|---|---|---|---|---|---|
| Electrical Service Designation/ Description | Scope of Work[1] | Rating[2] (kVA) | Utility Provided Metering System Exception to 130.5(a)/ 160.6(a)[3] | System subject to CA Elec Code Article 517 Exception to 130.5(a)and (b) | Demand Response Controls | Provides power to dwelling units/common living areas only in multifamily occupancy |
| Main Service Switchboard | New electrical service equipment and meter | 50 | ☐ | ☐ | Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections 120.2/ 160.3, 130.1/ 160.5, and 130.3/ 160.5, and mechanical, indoor lighting, and sign lighting Certificate of Compliance documents will indicate when demand response controls are required. | ☐ |

*[1] FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c)/160.6(c), no other requirements from 130.5/160.6 are required.*
*[2] If common use areas in a multifamily are submetered, rating is for submeter size serving common use areas.*
*[3] Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.*



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**C. COMPLIANCE RESULTS**

*Results in this table are automatically calculated from data input and calculations in Tables F through J. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.*

| 01 | | 02 | | 03 | | 04 | 05 | 06 |
|---|---|---|---|---|---|---|---|---|
| Service Electrical Metering 130.5(a)/ 160.6(a) (See Table F) | AND | Separation for Monitoring 130.5(b)/ 160.6(b) (See Table G) | AND | Voltage Drop 130.5(c)/ 160.6(c) (See Table H) | AND | Controlled Receptacles 130.5(d)/ 160.6(d) (See Table I) | Electric Ready 160.9 (See Table J) | **Compliance Results** |
| Yes | AND | Yes | AND | Yes | AND | Yes | | COMPLIES |

**D. EXCEPTIONAL CONDITIONS**

*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.*

**F. SERVICE ELECTRICAL METERING**

*This table includes new or replacement electrical service systems OR equipment to demonstrate compliance with 130.5(a) / 160.6(a). For multifamily occupancies, submetered systems that provide power to common use areas must meet the following metering requirements. Submetered systems providing power to dwelling units do not.*

| 01 | 02 | 03 | | | 04 | 05 | |
|---|---|---|---|---|---|---|---|
| | | Required Metering Capabilities per Table 130.5-A | | | | Field Inspector | |
| Electrical Service Designation/ Description | Rating[1] (kVA) | Instantaneous Demand (kW) | Historical Peak Demand (kW) | Tracking kWh for user-defined period | Location of Requirements in Construction Documents | Pass | Fail |
| Main Service Switchboard | 50 | ☒ | ☐ | ☒ | E0.2 | ☐ | ☐ |

*[1] FOOTNOTES: If common use areas in a multifamily are submetered, rating is for submeter size serving common use areas.*

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**G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING**

*This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with 130.5(b)/ 160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.*

| 01 | 02 | 03 | 04 | 05 | |
|---|---|---|---|---|---|
| | | | | Field Inspector | |
| Load Type per Table 130.5-B[1] | Minimum Required Separation of Load per Table 130.5-B | Compliance Method[2] | Location of Requirements in Construction Documents | Pass | Fail |
| **Main Service Switchboard** | | | | | |
| Lighting including exit, egress and exterior | not required | NA: Add/Alt to feeders and branch circuits only | E-Sheets | ☐ | ☐ |
| Lighting including exit, egress and exterior | not required | Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring | E0.3 | ☐ | ☐ |
| HVAC systems and components | not required | Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring | E0.3 | ☐ | ☐ |
| Plug Loads and appliances less than 25kVA | not required | Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring | E0.3 | ☐ | ☐ |

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**G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING**

*This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with 130.5(b)/ 160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.*

| 01 | 02 | 03 | 04 | 05 | |
|---|---|---|---|---|---|
| | | | | Field Inspector | |
| Load Type per Table 130.5-B[1] | Minimum Required Separation of Load per Table 130.5-B | Compliance Method[2] | Location of Requirements in Construction Documents | Pass | Fail |
| Loads associated with renewable power sources | not required | Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring | E0.2 | ☐ | ☐ |
| Charging stations for electrical vehicle | All loads in aggregate | Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring | E0.3 | ☐ | ☐ |

** NOTES: If "Other**" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

*[1] FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.*
*[2] Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type.*
*Method 2: Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type.*
*Method 3: Branch circuits serve load types individually and provisions for adding future branch circuit monitoring.*
*Method 4: Complete metering system measures and reports loads by type.*
*See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.*

**H. VOLTAGE DROP**

*This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with 130.5(c)/ 160.6(c). For alterations, only the altered circuits must demonstrate compliance per 141.0(b)2Pii/ 180.2(b)4Bvic.*

| 01 | 02 | 03 | 04 | 05 |
|---|---|---|---|---|

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**H. VOLTAGE DROP**

| Electrical Service Designation/Description | Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method | | | Location of Voltage Drop Calculations[1] | Sheet Number for Voltage Drop Calculations in Construction Documents | Field Inspector | |
|---|---|---|---|---|---|---|---|
| | | | | | | Pass | Fail |
| Main Service Switchboard | ☒ | Voltage drop less than 5% | ☐ | Permitted by CA Elec Code (Exception to 130.5(c))* | In construction documents | E0.2 | ☐ | ☐ |

** NOTES: If "Permitted by CA Elec Code ** is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*

*[1] FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".*

**I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES**

*This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with 130.5(d)/ 160.6(d). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.*

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Field Inspector | |
| Room name or Description | Location/ Type of Controlled Receptacles[1] | Shut-Off Controls | Demand Responsive Controls | Permanent Durable Marking Will be Used | Location of Requirements in Construction Documents | Pass | Fail |
| Lobby 101 | Split-wired receptacle | Occupancy Sensor | Included w capabilities per 110.12(e) | ☒ | E2.2 | ☐ | ☐ |
| Captain's Office 104 | Within 6ft of uncontrolled AND Split-wired receptacle | Occupancy Sensor | Included w capabilities per 110.12(e) | ☒ | E2.2 | ☐ | ☐ |
| Workstations 125 | Within 6ft of uncontrolled AND Split-wired receptacle | Occupancy Sensor | Included w capabilities per 110.12(e) | ☒ | E2.2 | ☐ | ☐ |
| Conference Room 135 | Within 6ft of uncontrolled AND Split-wired receptacle | Occupancy Sensor | Included w capabilities per 110.12(e) | ☒ | E2.2 | ☐ | ☐ |

** NOTES: If "Other** is selected under Shut-Off Controls above, please indicate how compliance has been achieved in the space provided below.*

*[1] FOOTNOTES: Receptacles dedicated to refrigerators and water dispensers in kitchens, located a minimum of 6ft above the floor specifically for clocks, network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms, circuits rated more than 20 Amps, or connected to a UPS that are intended to be in continuous use and are marked to differentiate them from other receptacles or circuits are excepted from the requirements. .*

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**J. ELECTRIC READY BUILDINGS**

*This section does not apply to this project.*

**K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

*Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online*

| Form/Title |
|---|
| NRCI-ELC-E - Must be submitted for all buildings |

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Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-ELC-E
Project Name: Costa Mesa Fire Station #2 | Report Page: (Page 7 of 7)
Project Address: 800 Baker Street | Date Prepared: 5/28/2025

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

**I certify that this Certificate of Compliance documentation is accurate and complete.**

| | |
|---|---|
| Documentation Author Name: Luis E. Flores | Documentation Author Signature: |
| Company: A&F Engineering Group, Inc. | Signature Date: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | CEA/ HERS Certification Identification (if applicable): |
| City/State/Zip: Rancho Cucamonga, CA 91701 | Phone: (909) 941-3008 |

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval 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 all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

| | |
|---|---|
| Responsible Designer Name: Rolando E. Sotelo | Responsible Designer Signature: |
| Company: A&F Engineering Group, Inc. | Date Signed: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | License: 137229 |
| City/State/Zip: Rancho Cucamonga CA 91701 | Phone: (909) 941-3008 |

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STATE OF CALIFORNIA
## Solar And Battery
CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE** NRCC-SAB-E

*This document is used to demonstrate compliance with prescriptive PV and battery requirements in 140.10/ 170.2 for nonresidential, multifamily and mixed-use buildings and prescriptive solar thermal requirements in 170.2(d)3C for multifamily and hotel/ motel occupancies. When PV/battery/solar thermal requirements don't apply or are traded using the performance approach, this document demonstrates compliance with mandatory solar readiness requirements in 110.10/ 160.8 for newly constructed buildings which are either multifamily ten stories or fewer, hotel/motel ten stories or fewer or all other nonresidential buildings three stories or fewer. It is also used to demonstrate compliance with solar readiness in 110.10/ 160.8 for additions to nonresidential, multifamily or hotel/motel building types which add more than 2,000 ft² of roof area. Alterations, or additions of less than 2,000 ft² of roof area, are not required to comply with solar readiness, solar PV and battery requirements and do not need to complete this document.*

| | | | |
|---|---|---|---|
| **Project Name:** | Costa Mesa Fire Station #2 | **Report Page:** | **(Page 1 of 5)** |
| **Project Address:** | 800 Baker Street | **Date Prepared:** | 5/28/2025 |

**A. GENERAL INFORMATION**

| | | | | | |
|---|---|---|---|---|---|
| 01 | Project Location (city) | Costa Mesa | 04 | Building Occupancies | All Other OccupanciesCommercial IndustrialGymnasiumHotel/MotelOfficeSupport AreasWarehouse |
| 02 | Climate Zone | 6 | 05 | Construction Type | New construction w/ roof <=533 ft² |
| 03 | Conditioned Floor Area (ft²) | 5395 | 06 | Number of Stories | Bldg <= 3 stories |

**B. PROJECT SCOPE**

*The compliance path the project is using to comply per 110.10(b)1B/ 140.10/ 170.2(g and h) is indicated below.*

**Compliance with Solar Photovoltaic (PV) and Battery Requirements in 140.10/ 170.2(g and h)**

| | 01 | |
|---|---|---|
| ☐ | 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. |
| ☐ | 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 as documented 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. |
| ☐ | The prescriptive PV/battery requirement has been traded off using the performance compliance approach as documented on the PRF Certificate of Compliance form. | |

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0525-1204 Report Generated: 2025-06-28 13:27:55

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-SAB-E
Project Name: Costa Mesa Fire Station #2 | Report Page: (Page 2 of 5)
Date Prepared: 5/28/2025

**Compliance with Solar Thermal Water Heating Requirements in 170.2(d)3C (Multifamily and hotel/ motel occupancies only)**

| | 01 |
|---|---|
| ☐ | The project includes a hotel/motel or multifamily occupancy with a gas or propane central water-heating system (serves 2+ dwelling units) and includes a permanently installed domestic solar water-heating system to comply with 170.2(d)3C and Reference Residential Appendix RA4, as documented in Table H. Compliance meets Exception 2 to solar ready requirements in 110.10(b). |

**C. COMPLIANCE RESULTS**

*Results in this table are automatically calculated from data input and calculations in Tables F through I. Note: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance or see the applicable Table referenced below.*

| Allocated Solar Zone | | | | Installed PV System | | | | | | Installed SWH System | | | Smart Tstat and Alternative EE Measure | | Compliance Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | | 02 | | 03 | | 04 | | 05 | 06 | | | 07 | 08 | | |
| Required Minimum Area (ft²) | <= | Designated Area (ft²) | OR | Required Minimum DC Power Rating (Watts) | <= | Designed DC Power Rating (Watts) | OR | Required Minimum Solar Savings Fraction | <= | Designed/Rated Solar Savings Fraction | OR | JA5 Compliant Thermostat Specified? | Alternative Energy Efficiency Measure | | |
| (See Table F) | | | | (See Tables G or J) | | | | (See Table H) | | | | | (See Table I) | | |
| | <= | | OR | 0 | <= | 13,200 | OR | | <= | | OR | | | | |
| 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). | | | | | | | | | | | | | | | |
| Battery storage system design meets the minimum requirements in Joint Appendix JA12 and the minimum energy (kWh)/ power (kW) capacity per Table J. | | | | | | | | | | | | | | | COMPLIES |

**D. EXCEPTIONAL CONDITIONS**

*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 is includes remarks made by the permit applicant to the Authority Having Jurisdiction.*

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0525-1204 Report Generated: 2025-06-28 13:27:55

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION
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Project Name: Costa Mesa Fire Station #2 | Report Page: (Page 3 of 5)
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**F. ALLOCATED SOLAR ZONE**

*This section does not apply to this project.*

**G. PERMANENTLY INSTALLED SOLAR PV FOR SOLAR READY EXCEPTION**

*This section does not apply to this project.*

**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**

*This section does not apply to this project.*

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0525-1204 Report Generated: 2025-06-28 13:27:55

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-SAB-E
Project Name: Costa Mesa Fire Station #2 | Report Page: (Page 4 of 5)
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**J. PHOTOVOLTAIC (PV) AND BATTERY SYSTEMS**

*This 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 trades-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 the minimum requirements in Joint Appendix 11.*

**Photovoltaic (PV) System**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
|---|---|---|---|---|---|---|---|
| Occupancy | Conditioned Floor Area (ft²) | Area of New Roof[1] (ft²) | Roof Area < 70% Solar Access[2] (ft²) | Plansheet or Document showing Solar Access Calculations | Occupied Roof Area[3] (ft²) | Solar Access Roof Area (SARA) (ft²) | Min Size of PV System Required (kWdc) |
| Hotel/Motel | 4,410 | 4,410 | 0 | | 0 | 4,410 | 1.94 |
| | | | | | **Total Min Size PV System Required for all Spaces (kWdc):** | | 0 |
| | | | | | | **Total Size PV System in Design (kWdc):** | 13.2 |

*[1] FOOTNOTES: Includes the area of the building's roof space capable of structurally supporting a PV system and the area of all roof space on covered parking areas, carports, and all other newly constructed structures on the site that are compatible with supporting a PV system per Title 24, Part 2 Section 1511.2.*
*[2] Solar access must be determined using CEC approved solar access calculation tools found at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/solar-assessment-tools.*
*[3] As specified by CBC Section 503.1.4.*

**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 ++ UserChangesSelectionInCI. 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.*

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance | Generated Date/Time: Report Version: 2022.0.000 Schema Version: rev 20220101 | Documentation Software: EnergyPro Compliance ID: EnergyPro-5868-0525-1204 Report Generated: 2025-06-28 13:27:55

STATE OF CALIFORNIA
Solar And Battery
CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE NRCC-SAB-E
Project Name: Costa Mesa Fire Station #2 | Report Page: (Page 5 of 5)
Project Address: 800 Baker Street | Date Prepared: 5/28/2025

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

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|---|---|
| Documentation Author Name: Luis E. Flores | Documentation Author Signature: |
| Company: A&F Engineering Group, Inc. | Signature Date: |
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| City/State/Zip: Rancho Cucamonga, CA 91701 | Phone: (909) 941-3008 |

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3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval 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 all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

| | |
|---|---|
| Responsible Designer Name: Rolando E. Sotelo | Responsible Designer Signature: |
| Company: A&F Engineering Group, Inc. | Date Signed: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | License: |
| City/State/Zip: Rancho Cucamonga CA 91701 | Phone: (909) 941-3008 |

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PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ROLANDO E. SOTELO
No. EJ7229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | |

REVISIONS

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**TITLE 24 COMPLIANCE FORMS**

DRAWING NUMBER: **E0.5**

CM-07-01-2026

STATE OF CALIFORNIA
**Indoor Lighting**
CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE** NRCC-LTI-E

*This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.*

| | | | |
|---|---|---|---|
| **Project Name:** | Costa Mesa Fire Station #2 | **Report Page:** | **(Page 1 of 10)** |
| **Project Address:** | 800 Baker Street | **Date Prepared:** | 5/28/2025 |

**A. GENERAL INFORMATION**

| | | | | |
|---|---|---|---|---|
| 01 | Project Location (city) | Costa Mesa | 04 Total Conditioned Floor Area (ft²) | 4,410 |
| 02 | Climate Zone | 6 | 05 Total Unconditioned Floor Area (ft²) | 1,858 |
| 03 | Occupancy Types Within Project (select all that apply): | | 06 # of Stories (Habitable Above Grade) | 1 |

● Commercial Industrial ● Gymnasium ● Hotel/Motel ● Office ● Support Areas ● Warehouse ● All Other Occupancies

**B. PROJECT SCOPE**

*This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.*

| Scope of Work | Conditioned Spaces | | Unconditioned Spaces | |
|---|---|---|---|---|
| 01 | 02 | 03 | 04 | 05 |
| My Project Consists of (check all that apply): | Calculation Method | Area (ft²) | Calculation Method | Area (ft²) |
| ☒ New Lighting System | Area Category Method | 4410 | Area Category Method | 3858 |
| ☐ New Lighting System - Parking Garage | | | | |
| **Total Area of Work (ft²)** | 4410 | | 3858 | |



STATE OF CALIFORNIA
**Indoor Lighting**
CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE** NRCC-LTI-E

| | | | |
|---|---|---|---|
| **Project Name:** | Costa Mesa Fire Station #2 | **Report Page:** | **(Page 2 of 10)** |
| | | **Date Prepared:** | 5/28/2025 |

**C. COMPLIANCE RESULTS**

*If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.*

| *Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b)1 / 170.2(e)* | Allowed Lighting Power per 140.6(b) / 170.2(e) (Watts) | | | | | | Adjusted Lighting Power per 140.6(a) / 170.2(e) (Watts) | | | | | | Compliance Results |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 01 | 02 | 03 | 04 | | 05 | 06 | 07 | | 08 | | | 09 |
| | 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)4Au (+) | 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) | | | | | |
| **Conditioned** | | 2,600.6 | 0 | | = | 2,600 | 2,597 | 0 | = | 2597 | | | COMPLIES |
| **Unconditioned** | | 2,121.9 | 0 | | = | 2,122 | 1,344 | 0 | = | 1344 | | | COMPLIES |
| | | | | | | | **Controls Compliance (See Table H for Details)** | | | | | | COMPLIES |
| | | | | | | | **Rated Power Reduction Compliance (See Table Q for Details)** | | | | | | |

**D. EXCEPTIONAL CONDITIONS**

*This table is auto-filled with unedittable 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.*



STATE OF CALIFORNIA
**Indoor Lighting**
CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE** NRCC-LTI-E

| | | | |
|---|---|---|---|
| **Project Name:** | Costa Mesa Fire Station #2 | **Report Page:** | **(Page 3 of 10)** |
| | | **Date Prepared:** | 5/28/2025 |

**F. INDOOR LIGHTING FIXTURE SCHEDULE**

*This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.*

**Designed Wattage: Conditioned Spaces**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 Inspector Pass | Field Inspector Fail |
| A | (1) 27w LED | No | NA | 27 | Mfr. Spec | 20 | No | 540 | ☐ | ☐ |
| B | (1) 28w LED | No | NA | 28 | Mfr. Spec | 11 | No | 308 | ☐ | ☐ |
| C | (1) 15w LED | No | NA | 15 | Mfr. Spec | 27 | No | 405 | ☐ | ☐ |
| D | (1) 15w LED | No | NA | 15 | Mfr. Spec | 5 | No | 75 | ☐ | ☐ |
| I | (1) 68w LED | No | NA | 68 | Mfr. Spec | 2 | No | 136 | ☐ | ☐ |
| J | (1) 32w LED | No | NA | 32 | Mfr. Spec | 3 | No | 96 | ☐ | ☐ |
| K | (1) 25w LED | No | NA | 25 | Mfr. Spec | 1 | No | 25 | ☐ | ☐ |
| L | (1) 22w LED | No | NA | 22 | Mfr. Spec | 7 | No | 154 | ☐ | ☐ |
| M | (1) 10w LED | No | NA | 10 | Mfr. Spec | 32 | No | 320 | ☐ | ☐ |
| N | (1) 52w LED | No | NA | 52 | Mfr. Spec | 3 | No | 156 | ☐ | ☐ |
| O | (1) 32w LED | No | NA | 32 | Mfr. Spec | 10 | No | 320 | ☐ | ☐ |
| P | (1) 47w LED | No | NA | 47 | Mfr. Spec | 1 | No | 47 | ☐ | ☐ |
| Q | (1) 15w Wall Mtd. LED | No | NA | 15 | Mfr. Spec | 1 | No | 15 | ☐ | ☐ |
| | | | | | | **Total Designed Watts: CONDITIONED SPACES** | | 2,597 | | |

**Designed Wattage: Unconditioned Spaces**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 Inspector Pass | Field Inspector Fail |
| B | (1) 28w LED | No | NA | 28 | Mfr. Spec | 48 | No | 1,344 | ☐ | ☐ |
| | | | | | | **Total Designed Watts: UNCONDITIONED SPACES** | | 1,344 | | |



STATE OF CALIFORNIA
**Indoor Lighting**
CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE** NRCC-LTI-E

| | | | |
|---|---|---|---|
| **Project Name:** | Costa Mesa Fire Station #2 | **Report Page:** | **(Page 4 of 10)** |
| | | **Date Prepared:** | 5/28/2025 |

**F. INDOOR LIGHTING FIXTURE SCHEDULE**

*[1]FOOTNOTE: 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.*

*[2]Authority 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**

*This 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 | 03 | |
|---|---|---|---|
| | | Field Inspector | |
| | | Pass | Fail |
| Mandatory Demand Response 110.12(c) | Shut-off controls 130.1(c) / 160.5(b)4C | ☐ | ☐ |
| Required >= 4,000W subject to multilevel | See Area/Space Level Controls | ☐ | ☐ |



STATE OF CALIFORNIA
**Indoor Lighting**
CALIFORNIA ENERGY COMMISSION

**CERTIFICATE OF COMPLIANCE** NRCC-LTI-E

| | | | |
|---|---|---|---|
| **Project Name:** | Costa Mesa Fire Station #2 | **Report Page:** | **(Page 5 of 10)** |
| | | **Date Prepared:** | 5/28/2025 |

**H. INDOOR LIGHTING CONTROLS (Not including PAFs)**

**Area Level Controls**

| 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|
| 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 Pass | Field Inspector Fail |
| Lobby | Main Entry Lobby | Readily Accessible | Dimmer | Occupancy Sensor | Included | NA: General Ltg < 120W | No | ☐ | ☐ |
| Office Areas | Office ( <=250 square feet) | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| Dormitories | All Other Space Types | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| Restrooms | Restroom | Readily Accessible | Dimmer | Occupancy Sensor | NA: Rm < 24sf Glazing | NA: Rm < 24sf Glazing | No | ☐ | ☐ |
| Corridors | Corridor | Readily Accessible | Dimmer | Occupancy Sensor | NA: Rm < 24sf Glazing | NA: Rm < 24sf Glazing | No | ☐ | ☐ |
| Electrical / Mechanical Rooms | Electrical Mechancial Telephone Room | Readily Accessible | Dimmer | NA: Elec. equip. rm | NA: Rm < 24sf Glazing | NA: Rm < 24sf Glazing | No | ☐ | ☐ |
| Kitchen | Kitchen/ Food Preparation | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| Dining | Dining - Bar/Fine | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| Dayroom | Lounge | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| Storage Areas | Commercial Industrial Storage Area | Readily Accessible | Dimmer | Occupancy Sensor | NA: Rm < 24sf Glazing | NA: Rm < 24sf Glazing | No | ☐ | ☐ |
| Apparatus Bay | Auto Repair | Readily Accessible | Dimmer | Occupancy Sensor | Included | NA: Garage General Ltg < 60W | No | ☐ | ☐ |



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**H. INDOOR LIGHTING CONTROLS (Not including PAFs)**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Gymnasium | Exercise Center Gymnasium | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| Workshop | General Commercial Industrial Work Area Precision | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| Conference Room | Convention, Conference, Multipurpose and Meeting Center | Readily Accessible | Dimmer | Occupancy Sensor | NA: General Ltg < 120W | NA: General Ltg < 120W | No | ☐ | ☐ |
| | | | | | | | 13 | | |
| | | | | | | | Plan Sheet Showing Daylit Zones: | | |

**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**

*Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .*

**Conditioned Spaces**

| 01 | 02 | 03 | 04 | 05 | 06 | |
|---|---|---|---|---|---|---|
| Area Description | Complete Building or Area Category Primary Function Area | Allowed Density (W/ft²) | Area (ft²) | Allowed Wattage (Watts) | Additional Allowance / Adjustment Area Category | PAF |
| Lobby | Main Entry Lobby | 0.7 | 70 | 49 | No | No |
| Office < 250 Square Feet | Office ( <=250 square feet) | 0.65 | 295 | 191.8 | No | No |
| Restrooms | Restroom | 0.65 | 630 | 409.5 | No | No |
| Corridor | Corridor | 0.4 | 765 | 306 | No | No |
| Electrical, Mechanical, Telephone Room | Electrical Mechancial Telephone Room | 0.4 | 250 | 100 | No | No |
| Kitchen | Kitchen/ Food Preparation | 0.95 | 515 | 489.2 | No | No |
| Lounge | Lounge | 0.55 | 430 | 236.5 | No | No |
| Storage | Commercial Industrial Warehouse | 0.4 | 355 | 142 | No | No |
| Gymnasium | Exercise Center Gymnasium | 0.5 | 640 | 320 | No | No |



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**I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**

| | | | | | | |
|---|---|---|---|---|---|---|
| Workshop | General Commercial Industrial Work Area Precision | 0.85 | 115 | 97.8 | No | No |
| Conference | Convention, Conference, Multipurpose and Meeting Center | 0.75 | 345 | 258.8 | No | No |
| | | **TOTALS:** | 4,410 | 2,600.6 | See Tables J, or P for detail | |

**Unconditioned Spaces**

| 01 | 02 | 03 | 04 | 05 | 06 | |
|---|---|---|---|---|---|---|
| Area Description | Complete Building or Area Category Primary Function Area | Allowed Density (W/ft²) | Area (ft²) | Allowed Wattage (Watts) | Additional Allowance / Adjustment Area Category | PAF |
| Apparatus | Auto Repair | 0.55 | 3,858 | 2,121.9 | No | No |
| | | **TOTALS:** | 3,858 | 2,121.9 | See Tables J, or P for detail | |

**J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM**

*This section does not apply to this project.*

**K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE**

*This section does not apply to this project.*

**L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY**

*This section does not apply to this project.*

**M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING**

*This section does not apply to this project.*



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**N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS**

*This section does not apply to this project.*

**O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE**

*This section does not apply to this project.*

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

*This section does not apply to this project.*

**Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS**

*This section does not apply to this project.*

**R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS**

*This section does not apply to this project.*

**S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)**

*This section does not apply to this project.*

**T. DWELLING UNIT LIGHTING**

*This section does not apply to this project.*



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**U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

*Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online*

| Form/Title |
|---|
| NRCI-LTI-E - Must be submitted for all buildings |

**V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

*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 in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html*

| Form/Title | Systems/Spaces To Be Field Verified |
|---|---|
| NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls. | Lobby; Office Areas; Dormitories; Restrooms; Corridors; Kitchen; Dining; Dayroom; Storage Areas; Apparatus Bay; Gymnasium; Workshop; Conference Room; |
| NRCA-LTI-03-A - Must be submitted for automatic daylight controls. | Lobby; Apparatus Bay; |
| NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls. | Whole Building Demand Response; |



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| | | | |
|---|---|---|---|
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| **Project Address:** | 800 Baker Street | **Date Prepared:** | 5/28/2025 |

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

**I certify that this Certificate of Compliance documentation is accurate and complete.**

| | |
|---|---|
| Documentation Author Name: Luis E. Flores | Documentation Author Signature: |
| Company: A&F Engineering Group, Inc. | Signature Date: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | CEA/ HERS Certification Identification (if applicable): |
| City/State/Zip: Rancho Cucamonga, CA 91701 | Phone: (909) 941-3008 |

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval 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 all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

| | |
|---|---|
| Responsible Designer Name: Rolando E. Sotelo | Responsible Designer Signature: |
| Company: A&F Engineering Group, Inc. | Date Signed: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | License: E17229 |
| City/State/Zip: Rancho Cucamonga CA 91701 | Phone: (909) 941-3008 |



PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ROLANDO E. SOTELO
No. E17229
6/30/26
STATE OF CALIFORNIA

**CONSULTANT**

A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX: (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| **DRAWN:** CBF | **CHECKED:** RES |
| **DATE:** 06/17/26 | **SCALE:** AS NOTED |
| **PROJECT NUMBER:** 2109300 | |

**TITLE 24 COMPLIANCE FORMS**

**DRAWING NUMBER:** **E0.6**

CM-07-01-2026

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| Project Address: 800 Baker Street | Date Prepared: | 5/28/2025 |

*This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2I, for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(o) and 180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.*

**A. GENERAL INFORMATION**

| | | | | |
|---|---|---|---|---|
| 01 | Project Location (city) | Costa Mesa | | |
| 02 | Climate Zone | 6 | | |
| 03 | Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by Authority Having Jurisdiction (AHJ): | | | |
| ☐ | LZ-0: Very Low - Undeveloped Parkland | ☒ LZ-2: Moderate - Urban Clusters | ☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval | |
| ☐ | LZ-1: Low - Rural Areas | ☐ LZ-3: Moderately High - Urban Areas | | |
| 05 | Occupancy Types within Project | | | |

● Commercial Industrial ● Gymnasium ● Hotel/Motel ● Office ● Support Areas ● Warehouse ● All Other Occupancies

| 04 | Total Illuminated Hardscape Area (ft²) | 20051 |
|---|---|---|

**B. PROJECT SCOPE**

*This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)6 or 141.0(b)2I. / 180.2(b)4Bv for alterations.*

**My Project Consists of:**

| 01 | 02 | |
|---|---|---|
| ☒ New Lighting System | Must Comply with Allowances from 140.7 / 170.2(e)6 | |
| ☐ Altered Lighting System | Is your alteration increasing the connected lighting load (Watts)? | ○ Yes ○ No |

| 03 | 04 | 05 |
|---|---|---|
| % of Existing Luminaires Being Altered[1] | Sum Total of Luminaires Being Added or Altered | Calculation Method |
| ☐ < 10% ☐ >= 10% and < 50% ☐ >= 50% | | |

***Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.***

*[1] FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*



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**C. COMPLIANCE RESULTS**

*Results in this table are automatically calculated from data input and calculations in Tables F through N. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.*

| Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)6 or 141.0(b)2I. / 180.2(b)4Bv | | | | | | | | | | 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)2I. / 180.2(b)4Bv (See Table N) | = | **Total Allowed** (Watts) | > | **Total Actual** (Watts) | **07 must be >= 08** |
| 916 | + | 40 | + | --- | + | --- | + | --- | OR | --- | = | 956 | > | 810 | COMPLIES |
| **Shielding Compliance (See Table G for Details)** | | | | | | | | | | | | | | | COMPLIES |
| **Controls Compliance (See Table H for Details)** | | | | | | | | | | | | | | | COMPLIES |

**D. EXCEPTIONAL CONDITIONS**

*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.*



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**F. OUTDOOR LIGHTING FIXTURE SCHEDULE**

*For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2I, only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). 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.*

**Designed Wattage:**

| 01 | 02 | | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Name or Item Tag | Complete Luminaire Description | | Watts per luminaire[1,2] | How is Wattage determined | Total Number Luminaires[3] | Luminaire Status[4] | Excluded per 140.7(a) / 170.2(e)6A | Design Watts | Cutoff Req. > 6,200 initial lumen output 130.2(b) / 160.5(c)1[4] | Field Inspector | |
| | | | | | | | | | | Pass | Fail |
| M | (1) 10w LED | ☐ Linear | 10 | Mfr. Spec | 8 | New | ☐ | 80 | NA: < 6,200 lumens | ☐ | ☐ |
| SA | (1) 24w LED | ☐ Linear | 24 | Mfr. Spec | 12 | New | ☐ | 288 | Provided | ☐ | ☐ |
| SD | (1) 47w LED | ☐ Linear | 47 | Mfr. Spec | 2 | New | ☐ | 94 | NA: < 6,200 lumens | ☐ | ☐ |
| SE | (1) 45w LED | ☐ Linear | 45 | Mfr. Spec | 1 | New | ☐ | 45 | Provided | ☐ | ☐ |
| SF | (1) 27w LED | ☐ Linear | 27 | Mfr. Spec | 1 | New | ☐ | 27 | NA: < 6,200 lumens | ☐ | ☐ |
| SG | (1) 11w LED | ☐ Linear | 11 | Mfr. Spec | 10 | New | ☐ | 110 | Provided | ☐ | ☐ |
| SJ | (1) 11w LED | ☐ Linear | 11 | Mfr. Spec | 2 | New | ☐ | 22 | Provided | ☐ | ☐ |
| SK | (1) 48w LED | ☐ Linear | 48 | Mfr. Spec | 3 | New | ☐ | 144 | Provided | ☐ | ☐ |
| | | | | | | | **Total Design Watts:** | 810 | | | |

* 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)*

*[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/ft 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 the project scope.*



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**F. OUTDOOR LIGHTING FIXTURE SCHEDULE**

*For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2I, only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). 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.*

**Designed Wattage:**

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

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



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**G. SHIELDING REQUIREMENTS (BUG)**

*This table includes fixtures of >=6,200 initial lumens indicated on Table F as needing to comply with Shielding Requirements. Maximum lumens can be found in Title 24, Part 11, Section 5.106.8.*

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Name or Item Tag | Complete Luminaire Description | Backlight Rating[1] | | | Uplight Rating[2] | | | Glare Rating (Lumens)[2] | | | Field Inspector | |
| | | Mounting Height[1] | Max Allowable Backlight Rating[1] | Backlight Rating Per Design | Lighting type | Max Allowable Uplight Rating[1] | Uplight Rating Per Design | Mounting Height[1] | Max Allowable Glare Rating[1] | Glare Rating Per Design | Pass | Fail |
| SA | (1) 24w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G1 | ☐ | ☐ |
| SK | (1) 48w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G2 | ☐ | ☐ |
| SE | (1) 45w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G3 | ☐ | ☐ |
| SA | (1) 24w LED | 2 MH from property line | No Limit | B1 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G1 | ☐ | ☐ |
| SJ | (1) 11w LED | 2 MH from property line | No Limit | B0 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G0 | ☐ | ☐ |
| SG | (1) 11w LED | 2 MH from property line | No Limit | B0 | All other outdoor lighting, including decorative | U2 | U0 | > 2 MH from property line | G2 | G0 | ☐ | ☐ |

*[1] FOOTNOTES: Mounting Height is labeled MH in this table.*
*[2] Authority Having Jurisdiction may ask for Luminaire cut sheets or other documentation to confirm luminaire type, uplight ratings and glare ratings used for compliance per 130.2(b)/ 160.5(c)*
*[3] BUG ratings with a lower number than the 'Max Allowable' are compliant. Ex. If Max Allowable is Bug Rating B4, then B0, B1, B2 and B3 are all compliant.*



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**H. OUTDOOR LIGHTING CONTROLS**

*This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.*
*Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit*

**Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings**

| 01 | 02 | 03 | 04 | 05 | |
|---|---|---|---|---|---|
| Area Description | Shut-Off 130.2(c)1 / 160.5(c) | Auto-Schedule 130.2(c)2 / 160.5(c) | Motion Sensor 130.2(c)3 / 160.5(c) | Field Inspector | |
| | | | | Pass | Fail |
| BBQ Patio | Photocontrol | Provided | NA: Each Luminaire <= 40 Watts | ☐ | ☐ |
| Fire Station Entrance | Photocontrol | Provided | NA: Each Luminaire <= 40 Watts | ☐ | ☐ |
| Automotive Hardscape | Photocontrol | Provided | Provided | ☐ | ☐ |
| Response Driveway | Photocontrol | Provided | Provided | ☐ | ☐ |
| Pedestrian Hardscape | Photocontrol | Provided | NA: Each Luminaire <= 40 Watts | ☐ | ☐ |

*[1] FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.*
*[2] Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.*
*[3] Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.*



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**I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))**

*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-A while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowances are being 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.*

| 01 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | "Use it or lose it" Allowance (select all that apply) (select all that apply) | | | | | | |
| ☒ 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 per Table 140.7-A for Nonresidential & Hotel/Motel

| 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
|---|---|---|---|---|---|---|---|
| Area Description | Area Wattage Allowance (AWA) | | | Linear Wattage Allowance (LWA) | | | Total General AWA + LWA (Watts) |
| | Illuminated Area (ft²) | Allowed Density (Watts) | Area Allowance (Watts) | Perimeter Length (lf) | Allowed Density (W/lf) | Linear Allowance (Watts) | |
| BBQ Patio | 286 | 0.019 | 5.4 | 71 | 0.2 | 10.6 | 16 |
| Automotive Hardscape | 15757 | 0.019 | 299.4 | 1063 | 0.2 | 159.4 | 459 |
| Response Driveway | 1618 | 0.019 | 30.7 | 166 | 0.2 | 24.9 | 56 |
| Pedestrian Hardscape | 2390 | 0.019 | 45.4 | 933 | 0.2 | 140 | 185 |
| | | | | | **Initial Wattage Allowance for Entire Site (Watts):** | | 200 |
| | | | | | **Instances of Initial Wattage Allowance (L2 only)[1]** | | |
| | | | | | **Total General Hardscape Allowance (Watts):** | | 916 |



STATE OF CALIFORNIA
**Outdoor Lighting** CALIFORNIA ENERGY COMMISSION

| CERTIFICATE OF COMPLIANCE | | NRCC-LTO-E |
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**J. LIGHTING ALLOWANCE: PER APPLICATION**

*This table includes areas using the wattage allowance per application from Table 140.7-B / Table 170.2-S.*

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| Area Description | Application per Table 140.7-B[1] | CALCULATED ALLOWANCE (Watts) | | | DESIGN WATTS | | | | Additional Allowance (Watts) |
| | | # of Locations | Allowance per Location[2] | Extra Allowance (Watts) | Luminaire Name or Item Tag | Watts per Luminaire | # of Luminaires | Design Watts | |
| Fire Station Entrance | Primary Entrance (Special) | 2 | 40 | 80 | M | 10 | 4 | 40 | 40 |
| | | | | | Total Design Watts for this Area | | | 40 | |
| | | | | | **Total Allowance (Watts) All Areas:** | | | | 40 |

*[1] FOOTNOTES: Primary entrance applications are only available for senior care facilities, healthcare facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.*
*[2] The Allowance per Location for ATMs is 100W for the first ATM and 35W for each additional per Table 140.7-B /Table 170.2-S.*
*[3] For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 08 instead of number of luminaires.*

**K. LIGHTING ALLOWANCE: SALES FRONTAGE**

*This section does not apply to this project.*

**L. LIGHTING ALLOWANCE: ORNAMENTAL**

*This section does not apply to this project.*

**M. LIGHTING ALLOWANCE: PER SPECIFIC AREA**

*This section does not apply to this project.*

**N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)**

*This section does not apply to this project.*



STATE OF CALIFORNIA
**Outdoor Lighting** CALIFORNIA ENERGY COMMISSION

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| | Date Prepared: | 5/28/2025 |

**O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

*Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online*

| Form/Title |
|---|
| NRCI-LTO-E - Must be submitted for all buildings |

**P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

*Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html*

| Form/Title | Systems/Spaces To Be Field Verified |
|---|---|
| NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires. | BBQ Patio; Fire Station Entrance; Automotive Hardscape; Response Driveway; Pedestrian Hardscape; |



STATE OF CALIFORNIA
**Outdoor Lighting** CALIFORNIA ENERGY COMMISSION

| CERTIFICATE OF COMPLIANCE | | NRCC-LTO-E |
|---|---|---|
| Project Name: Costa Mesa Fire Station #2 | Report Page: | (Page 10 of 10) |
| Project Address: 800 Baker Street | Date Prepared: | 5/28/2025 |

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

**I certify that this Certificate of Compliance documentation is accurate and complete.**

| | |
|---|---|
| Documentation Author Name: Luis E. Flores | Documentation Author Signature: |
| Company: A&F Engineering Group, Inc. | Signature Date: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | CEA/ HERS Certification Identification (if applicable): |
| City/State/Zip: Rancho Cucamonga, CA 91701 | Phone: (909) 941-3008 |

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval 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 all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

| | |
|---|---|
| Responsible Designer Name: Rolando E. Sotelo | Responsible Designer Signature: |
| Company: A&F Engineering Group, Inc. | Date Signed: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | License: E17229 |
| City/State/Zip: Rancho Cucamonga CA 91701 | Phone: (909) 941-3008 |



STATE OF CALIFORNIA
**Sign Lighting** CALIFORNIA ENERGY COMMISSION

| CERTIFICATE OF COMPLIANCE | | NRCC-LTS-E |
|---|---|---|
| Project Name: Costa Mesa Fire Station #2 | Report Page: | (Page 1 of 4) |
| Project Address: 800 Baker Street | Date Prepared: | 5/28/2025 |

**A. GENERAL INFORMATION**

| | | | |
|---|---|---|---|
| 01 | Project Location (city) | Costa Mesa | |
| 02 | Climate Zone | 6 | |
| 03 | Occupancy Types within Project | ☐ | Healthcare Facility |
| | | ☐ | Multifamily/ MF Mixed-use >= 4 stories (includes dormitory, senior living) |

**B. PROJECT SCOPE**

*This table includes illuminated signs that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.8/ 170.2(e) or 141.0(b)2M/ 180.2(b)4Bv for alterations. Exit signs and traffic signs are not required to comply with prescriptive requirements per exceptions to 140.8/ 170.2(e) and do not need to complete this compliance document.*

| 01 | 02 | 03 | 04 | 05 |
|---|---|---|---|---|
| Name or Item Tag | Complete Sign Description | Sign Status[1] | Sign Type | Compliance Method[2] |
| Building / Address Sign | New | Outdoor | Max Allowed Lighting Power | |

*[1] FOOTNOTE: Sign alterations that increase the connected lighting load, replace and rewire more that 50% of the ballasts, or relocate the sign to a different location must comply with 140.8/ 170.2(e). See 141.0(b)2M/ 180.2(b)4Bv for more details.*
*[2] The ENERGY VERIFIED Label compliance method is only applicable if the sign has a permanent, factory-installed, ENERGY VERIFIED label certified by UL or comparable, confirming the sign complies with 140.8/ 170.2(e). Note that using an ENERGY VERIFIED label is an optional compliance path, not a mandatory requirement. See the tooltips for this table for more details.*



STATE OF CALIFORNIA
**Sign Lighting** CALIFORNIA ENERGY COMMISSION

| CERTIFICATE OF COMPLIANCE | | NRCC-LTS-E |
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| Project Name: Costa Mesa Fire Station #2 | Report Page: | (Page 2 of 4) |
| | Date Prepared: | 5/28/2025 |

**C. COMPLIANCE RESULTS**

*Results in this table are automatically calculated from data input and calculations in Tables B through H. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.*

| 01 | 02 | 03 | | 04 | | 05 | | 06 | 07 |
|---|---|---|---|---|---|---|---|---|---|
| Name or Item Tag (See Table B) | Complete Sign Description (See Table B) | Total Allowed (Watts) (See Table F) | ≥ | Total Designed (Watts) (See Table F) | OR | Compliant Light Sources (See Table G) | OR | ENERGY VERIFIED Label (See Table H) | **Compliance Results** |
| | Building / Address Sign | 2,208 | ≥ | 2,400 | OR | | OR | | DOES NOT COMPLY |
| **Controls Compliance (See Table F/G/H for Details)** | | | | | | | | | COMPLIES |

**D. EXCEPTIONAL CONDITIONS**

*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.*

**F. MAXIMUM ALLOWED LIGHTING POWER AND CONTROLS**

*This table includes illuminated signs using the Maximum Allowed Lighting Power compliance method per 140.8(a) / 170.2(e) as indicated on Table B of this compliance document. It also demonstrates compliance with mandatory controls requirements from 130.3 / 160.5(d) by indicating control types for each sign.*

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | | | 09 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Name or Item Tag | Complete Sign Description | Illumination Method | Sign Area (ft²) | Allowed Density (W/ft²) | Allowance (Watts) | Design Watts | Mandatory Controls | | | Field Inspector | |
| | | | | | | | Shut-Off | Dimming | Demand Response[1] | Pass | Fail |
| | Building / Address Sign | Internally | 184 | 12 | 2208 | 2400 | Automatic Time Switch + Photocontrol (outdoor) | | | ☐ | ☐ |

** NOTES: Controls with a * require a note in the space below explaining how compliance is achieved. EX: Sign within tunnel illuminated day and night; EXCEPTION to 130.3(a)2A.*

*[1] FOOTNOTE: Demand response controls are only required for an Electronic Message Center having a new connected lighting power load greater than 15 kW per 110.12(d)*



STATE OF CALIFORNIA
**Sign Lighting** CALIFORNIA ENERGY COMMISSION

| CERTIFICATE OF COMPLIANCE | | NRCC-LTS-E |
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| Project Name: Costa Mesa Fire Station #2 | Report Page: | (Page 3 of 4) |
| | Date Prepared: | 5/28/2025 |

**G. LIGHT SOURCES AND CONTROLS**

*This section does not apply to this project.*

**H. ENERGY VERIFIED LABELED SIGNS AND CONTROLS**

*This section does not apply to this project.*

**I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

*Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online*

| Form/Title |
|---|
| NRCI-LTS-E - Must be submitted for all buildings |

**J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

*There are no forms required for this project.*



STATE OF CALIFORNIA
**Sign Lighting** CALIFORNIA ENERGY COMMISSION

| CERTIFICATE OF COMPLIANCE | | NRCC-LTS-E |
|---|---|---|
| Project Name: Costa Mesa Fire Station #2 | Report Page: | (Page 4 of 4) |
| Project Address: 800 Baker Street | Date Prepared: | 5/28/2025 |

**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

**I certify that this Certificate of Compliance documentation is accurate and complete.**

| | |
|---|---|
| Documentation Author Name: Luis E. Flores | Documentation Author Signature: |
| Company: A&F Engineering Group, Inc. | Signature Date: 2025-05-28 |
| Address: 9320 Baseline Rd., Suite C | CEA/ HERS Certification Identification (if applicable): |
| City/State/Zip: Rancho Cucamonga, CA 91701 | Phone: (909) 941-3008 |

**RESPONSIBLE PERSON'S DECLARATION STATEMENT**

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval 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 all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

| | |
|---|---|
| Responsible Designer Name: Rolando E. Sotelo | Responsible Designer Signature: |
| Company: A&F Engineering Group, Inc. | Date Signed: 2025-05-28 |
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RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ROLANDO E. SOTELO
No. E17229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: CBF CHECKED: RES
DATE: 06/17/26 SCALE: AS NOTED
PROJECT NUMBER: 2109300

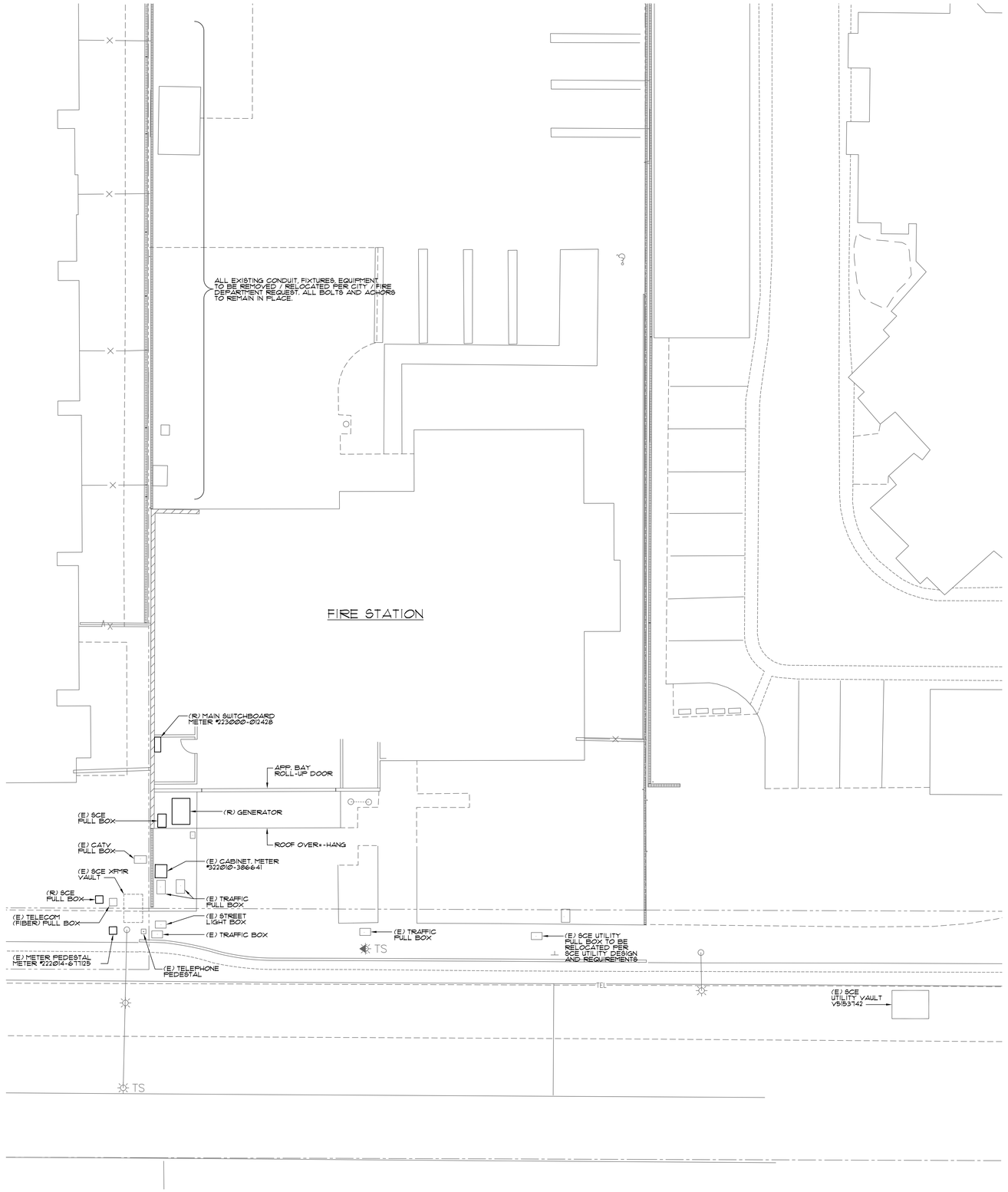
## TITLE 24 COMPLIANCE FORMS

DRAWING NUMBER: **E0.7**

CM-07-01-2026

PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.




N
TRUE NORTH

DEMOLITION SITE PLAN
1" = 10'-0"

1

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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/28
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD. SUITE C, RANCHO CUCAMONGA, CA 91701
TEL (909) 941-3006 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
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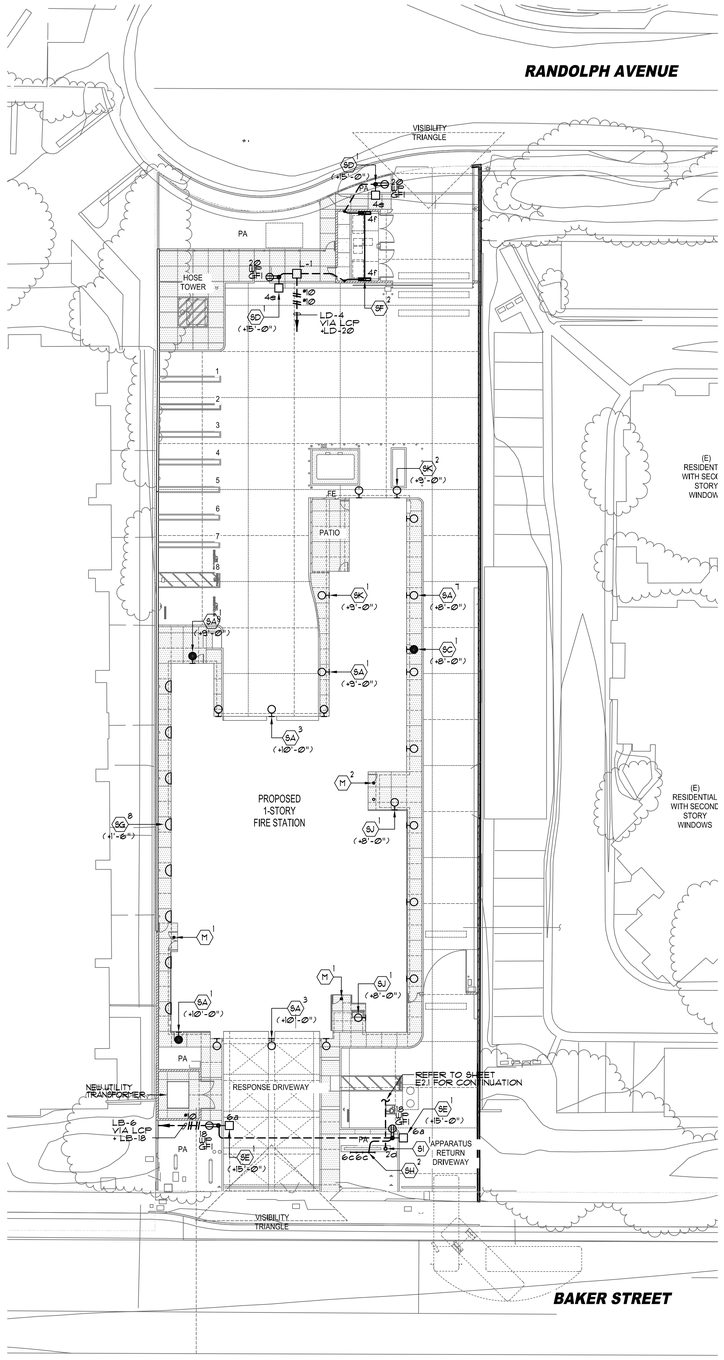
| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**DEMOLITION SITE PLAN**

DRAWING NUMBER: **E1.1D**

CM-07-01-2026




N
TRUE NORTH

SITE LIGHTING PLAN
1" = 20'-0"

1

PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
2. REFER TO SHEET E0.4, FIXTURE SCHEDULE, FOR FIXTURE TYPE TO BE PROVIDED AND INSTALLED.
3. CONDUIT ROUTING INDICATED ON THESE PLANS IS DIAGRAMMATIC. ACTUAL ROUTING OF UNDERGROUND CONDUITS SHALL BE COORDINATED IN THE FIELD TO AVOID INTERFERENCE WITH OTHER UTILITIES AND TRADES.
4. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO MAINTAIN REQUIRED CLEARANCES BETWEEN UNDERGROUND ELECTRICAL CONDUITS AND FOOTINGS. CONDUIT STUB-UPS SHALL NOT BE INSTALLED IN FOOTINGS. EXACT METHOD FOR STUBBING-UP CONDUITS AT FOOTING LOCATIONS SHALL BE COORDINATED IN THE FIELD WITH THE GENERAL CONTRACTOR AND THE ARCHITECT.

## UNDERGROUND PULLBOX SCHEDULE

| I.D. | SIZE | TYPE | COVER | COVER I.D. |
|---|---|---|---|---|
| L-1 | 11" X 17" | CONCRETE | STEEL TRAFFIC COVER | LIGHTING |

SCHEDULE NOTES:

1. 11"x 17" UNDERGROUND PULLBOXES SHALL BE BROOKS * 36FB SERIES, OR APPROVED EQUAL. PROVIDE WITH BOLT-DOUN TRAFFIC COVERS.

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COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/28
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD. SUITE C, RANCHO CUCAMONGA, CA 91701
TEL (909) 941-3006 FAX (909) 941-8211

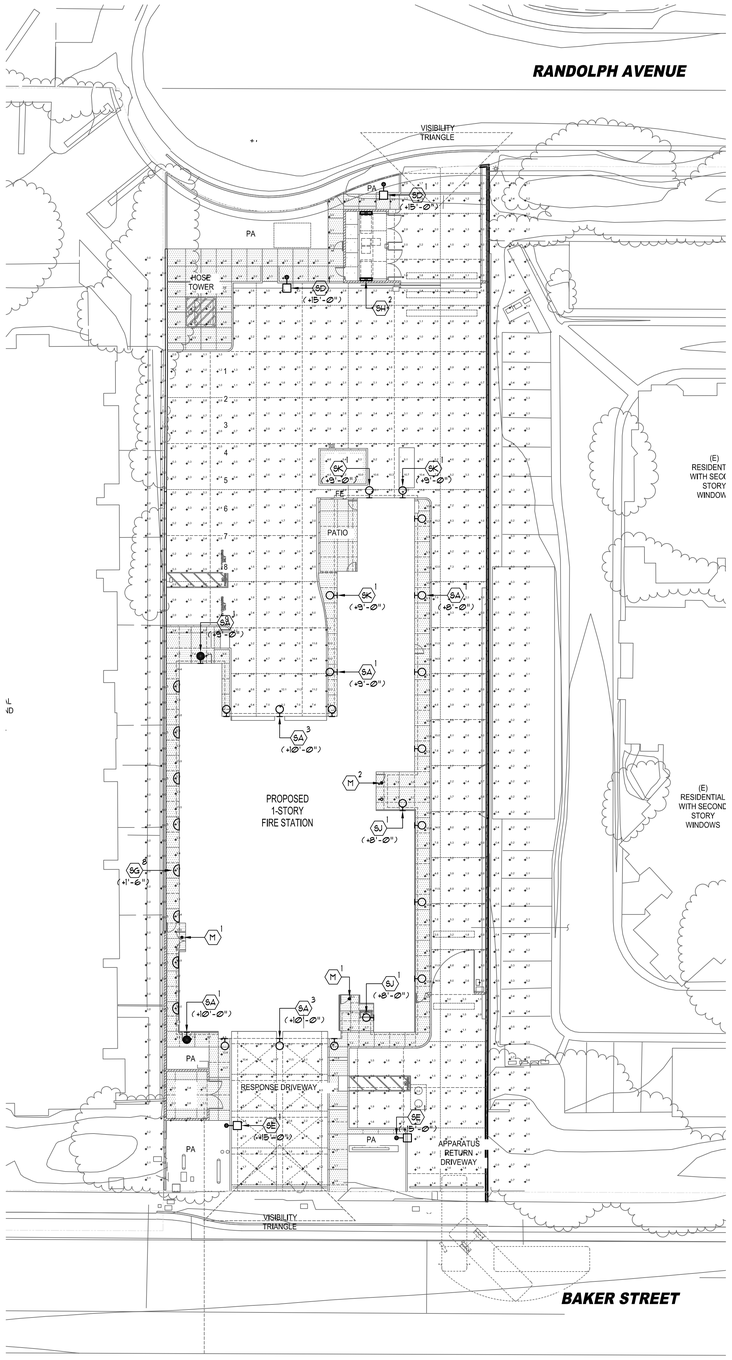
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## SITE LIGHTING PLAN

DRAWING NUMBER: **E1.1**

CM-07-01-2026




## PLAN NOTES:

1. THIS LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS UTILIZING CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINARIE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS AND OTHER VARIABLE FIELD CONDITIONS.
2. LIGHT LOSS FACTOR (LLF) USED FOR PHOTOMETRY IS 0.91.

Statistics

| Description | Symbol | Avg | Max | Min | Max/Min | Avg/Min |
|---|---|---|---|---|---|---|
| Automotive Hardscape | + | 3.2 fc | 15.2 fc | 0.2 fc | 76.0:1 | 15.9:1 |
| Beyond Property Line - East | + | 0.4 fc | 0.9 fc | 0.1 fc | 9.0:1 | 4.0:1 |
| Beyond Property Line - West | + | 0.1 fc | 1.7 fc | 0.0 fc | N/A | N/A |
| Hose Tower Side Walk | + | 1.7 fc | 4.3 fc | 0.2 fc | 21.5:1 | 8.5:1 |
| Pedestrian Walkway (East) | + | 6.9 fc | 20.7 fc | 0.9 fc | 23.0:1 | 7.7:1 |
| Pedestrian Walk (West) | + | 9.6 fc | 49.9 fc | 0.1 fc | 499.0:1 | 96.0:1 |
| Response Drive | + | 4.4 fc | 11.7 fc | 1.0 fc | 11.7:1 | 4.4:1 |
| Utility Pad | + | 0.5 fc | 1.1 fc | 0.3 fc | 3.7:1 | 1.7:1 |
| Apparatus Return Driveway | + | 1.9 fc | 7.2 fc | 0.9 fc | 8.0:1 | 2.1:1 |

N
TRUE NORTH

SITE LIGHTING PHOTOMETRIC PLAN
1" = 20'-0"
1

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CIVIL
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A&F ENGINEERING GROUP, INC.
9320 BASELINE RD. SUITE C, RANCHO CUCAMONGA, CA 91701
TEL (909) 941-3006 FAX (909) 941-8211

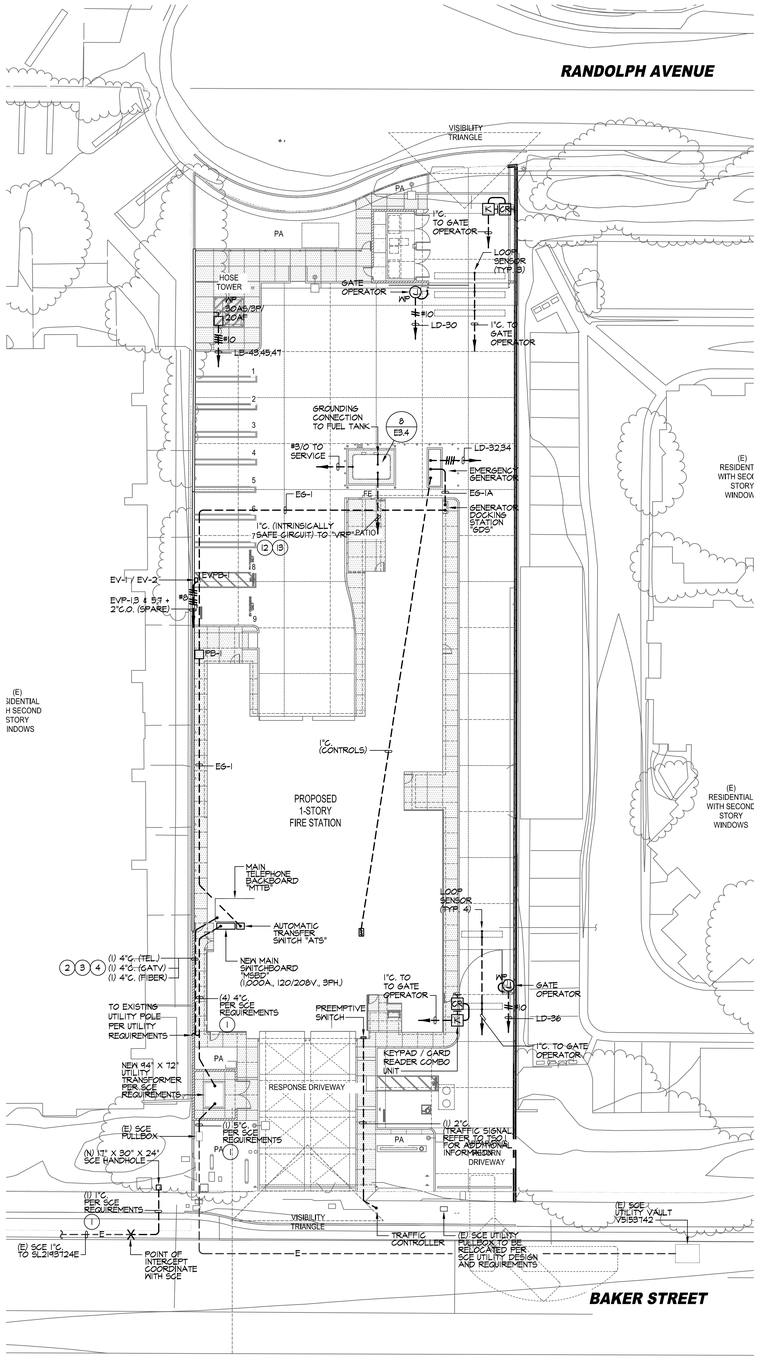
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## SITE LIGHTING PHOTOMETRIC PLAN

DRAWING NUMBER: **E1.1P**

CM-07-01-2026




## PLAN NOTES:

1. THE CONTRACTOR SHALL CONTACT THE ELECTRIC SERVICE PLANNER UPON AWARD OF CONTRACT AND OBTAIN A COPY OF THE ENGINEERING DRAWINGS PRIOR TO INSTALLING THE SERVICE CONDUIT, DUCTS, PAD MOUNT, RISERS, PULL BOXES, PROTECTIVE COVERING, ETC. INDICATED ON THIS PLAN. ALL WORK INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS, WHETHER SHOUN ON THIS PLAN OR NOT, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY COMPANY REQUIREMENTS AND ALL UTILITY COMPANY WORK SHALL BE INSPECTED AND APPROVED BY THE SERVING UTILITY.

   UTILITY COMPANY ENGINEERING AND PERMIT FEES ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS SHALL BE PAID BY THE CONTRACTOR AND REIMBURSED BY THE OUNER. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/OUNER OF ANY DISCREPANCIES BETWEEN THE UTILITY COMPANY ENGINEERING DRAWINGS AND THIS PLAN RIOR TO PROCEEDING WITH THE WORK.

2. THE CONTRACTOR SHALL CONTACT THE TELEPHONE ENGINEER PRIOR TO BID AND RECEIVE COMPLETE INFORMATION OF THEIR REQUIREMENTS AND INCLUDE ALL SERVICE COSTS ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THESE PLANS AND SPECIFICATION N HIS BID. THE ACT OF SUBMITTING THE BID SHALL CONSTITUTE THE FULL RESPONSIBILITY OF THIS CONTRACTOR TO INSTALL SERVICE IN COMPLIANCE WITH THE SERVING UTILITY AND TO PAY ALL CHARGES LEVIED BY THE SERVING UTILITY.

   ALL TELEPHONE WORK SHALL BE IN COMPLIANCE WITH THESE DRAWINGS AND REQUIREMENTS OF THE TELEPHONE COMPANY. ALL ITEMS SHOUN ON THESE DRAWINGS AND THE DRAWINGS OF THE SERVING UTILITY SHALL BE PROVIDED AND/OR INSTALLED BY THIS CONTRACTOR AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY.

3. CATV SERVICE:
   THE CONTRACTOR SHALL CONTACT THE SPECTRUM CATV SERVICE PLANNER UPON AWARD OF CONTRACT AND OBTAIN A COPY OF THE SPECTRUM ENGINEERING DRAWINGS PRIOR TO INSTALLING THE SERVICE CONDUIT, DUCTS, RISERS PULL BOXES, PROTECTIVE COVERING, ETC. INDICATED ON THIS PLAN. ALL WORK INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS, WHETHER SHOUN ON THIS PLAN OR NOT, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY COMPANY REQUIREMENTS AND ALL UTILITY COMPANY WORK SHALL BE INSPECTED AND APPROVED BY THE SERVING UTILITY

   UTILITY COMPANY ENGINEERING AND PERMIT FEES ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THE UTILITY COMPANY ENGINEERING DRAWINGS SHALL BE PAID BY THE CONTRACTOR AND REIMBURSED BY THE OUNER. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/OUNER OF ANY DISCREPANCIES BETWEEN THE UTILITY COMPANY ENGINEERING DRAWINGS AND THIS PLAN PRIOR TO PROCEEDING WITH THE WORK.

4. THE CONTRACTOR SHALL CONTACT THE CITY FIBER SERVICE PLANNER UPON AWARD OF CONTRACT AND OBTAIN A COPY OF THE FIBER DRAWINGS PRIOR TO INSTALLING THE SERVICE CONDUIT, DUCTS, RISERS, PULL BOXES, PROTECTIVE COVERING, ETC. INDICATED ON THIS PLAN. ALL WORK INDICATED ON THE CITY FIBER ENGINEERING DRAWINGS, WHETHER SHOUN ON THIS PLAN OR NOT, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL THE SERVICE IN COMPLIANCE WITH THE CITY FIBER COMPANY REQUIREMENTS AND ALL CITY FIBER WORK SHALL BE INSPECTED AND APPROVED BY THE CITY.

   ENGINEERING AND PERMIT FEES ASSOCIATED WITH THE WORK SHOUN AND INDICATED ON THE CITY FIBER ENGINEERING DRAWINGS SHALL BE PAID BY THE CONTRACTOR AND REIMBURSED BY THE OUNER. CONTRACTOR SHALL NOTIFY THE ARCHITECT/OUNER OF ANY DISCREPANCIES BETWEEN THE UTILITY COMPANY ENGINEERING DRAWINGS AND THIS PLAN PRIOR TO PROCEEDING WITH THE WORK.

5. REFER TO DRAWING E0.2, SINGLE LINE DIAGRAM, FOR POUER CONDUIT SIZE AND WIRE QUANTITIES.

6. CONDUIT AND WIRE INDICATED ON THE SINGLE LINE DIAGRAM, WHETHER SHOUN ON THIS DRAWING OR NOT, SHALL BE A PART OF THIS CONTRACT AND THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE REQUIRED ROUTING TO MEET THE INTENT OF THESE PLANS AND SPECIFICATIONS.

7. CONDUIT ROUTING INDICATED ON THESE PLANS IS DIAGRAMMATIC. ACTUAL ROUTING OF UNDERGROUND CONDUITS SHALL BE COORDINATED IN THE FIELD TO AVOID INTERFERENCE WITH OTHER UTILITIES AND TRADES.

8. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO MAINTAIN REQUIRED CLEARANCES BETWEEN UNDERGROUND ELECTRICAL CONDUITS AND FOOTINGS. CONDUIT STUB-UPS SHALL NOT BE INSTALLED IN FOOTINGS, EXACT METHOD FOR STUBBING-UP CONDUITS AT FOOTING LOCATIONS SHALL BE COORDINATED IN THE FIELD WITH THE GENERAL CONTRACTOR AND THE ARCHITECT.

9. REFER TO DRAWING E0.1, GENERAL NOTES, FOR ADDITIONAL REQUIREMENTS.

10. CONTRACTOR TO ROUTE DEDICATED CONDUITS FOR LINE AND LOW VOLTAGE.

12. COORDINATE CONNECTIONS TO FUEL TANK, WITH FUEL TANK SUPPLIER AND MAKE ALL REQUIRED CONNECTIONS AND ATTACHMENTS TO THE FUEL TANK AND "FUEL MASTER" FUEL DISPENSING MONITORING SYSTEM FOR A FULLY FUNCTIONAL FUEL DISPENSING AND MONITORING SYSTEM. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.

13. INTRINSICALLY SAFE WIRING SYSTEM SHALL COMPLY WITH 2019 C.E.C. ART. 504.

14. ALL CONDUIT / FITTINGS AND WIRING METHODS WITHIN THIS AREA SHALL BE IN COMPLIANCE WITH CLASS I, DIVISION 2 INSTALLATION METHODS. PROVIDE PROVIDE CONDUIT SEALS PER C.E.C. ARTICLE 514 & 515.

15. PROVIDE EMERGENCY SHUT-DOUN OF PRIME MOVER AND PROVIDE SIGNAGE PER NFPA 110 5.6.5 / NFPA 37 9.2.1 TO READ "EMERGENCY ENGINE SHUT-OFF" AND SHALL BE VISIBLE FROM 25'-0".

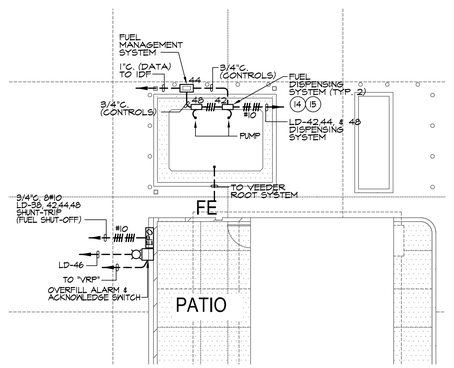
## UNDERGROUND PULLBOX SCHEDULE

| I.D. | SIZE | TYPE | COVER | COVER I.D. |
|---|---|---|---|---|
| PB-1 | 11" X 17" | CONCRETE | STEEL TRAFFIC COVER | POWER |
| EVPB-1<br>EVPB-2 | 11" X 17" | CONCRETE | STEEL TRAFFIC COVER | EV CHARGER |

SCHEDULE NOTES:
1. 11"x 17" UNDERGROUND PULLBOXES SHALL BE BROOKS * 36PB SERIES, OR APPROVED EQUAL. PROVIDE WITH BOLT-DOUN TRAFFIC COVERS.

N
TRUE NORTH

SITE POWER PLAN
1" = 20'-0"
1




ENLARGED FUEL TANK PLAN
1/8" = 1'-0"
2

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX: (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

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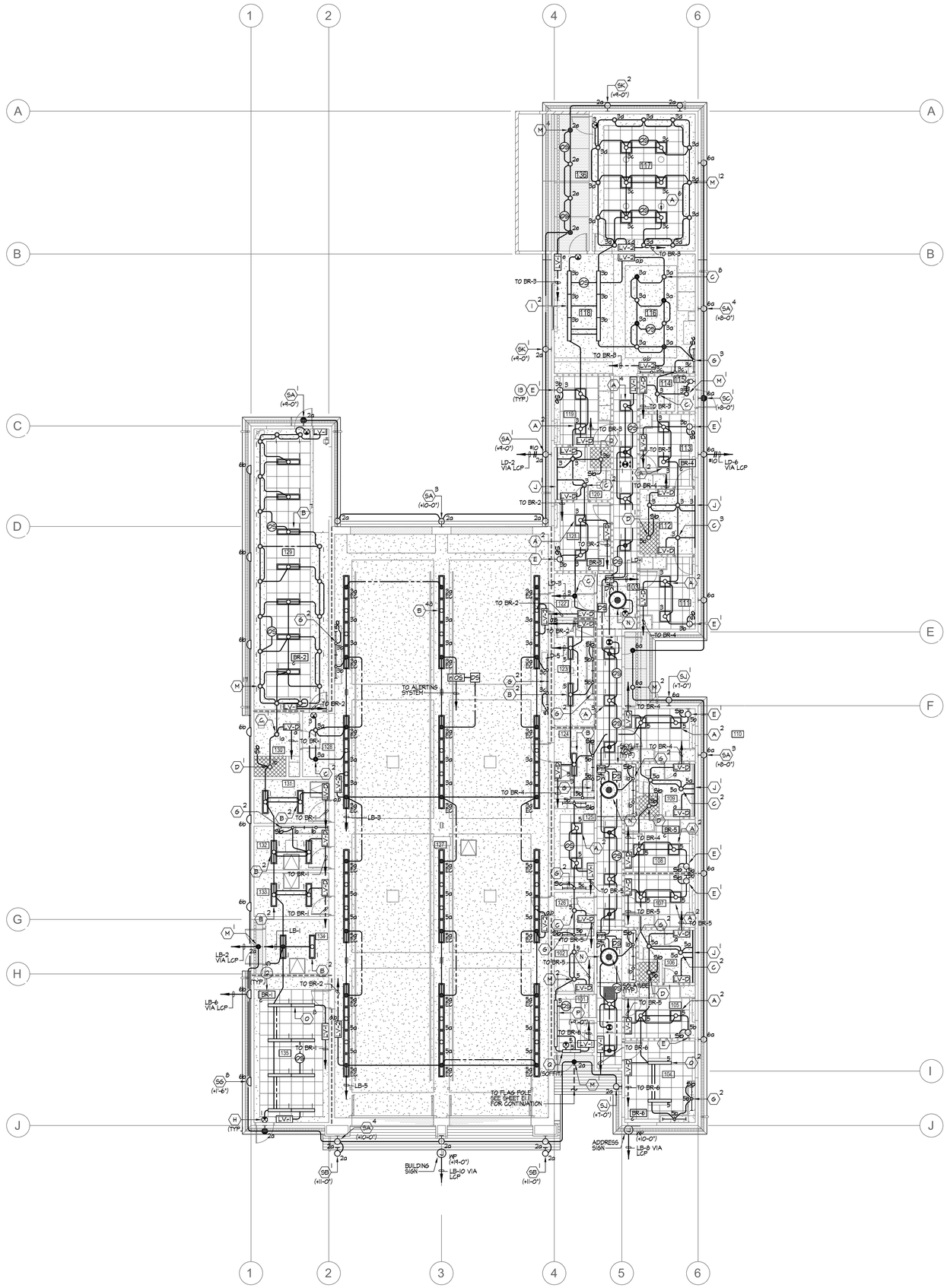
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## SITE POWER PLAN

DRAWING NUMBER: **E1.2**

CM-07-01-2026




## PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
2. REFER TO LIGHTING FIXTURE SCHEDULE, DRAWING E0.4, FOR TYPE OF FIXTURE TO BE PROVIDED AND INSTALLED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CEILING MOUNTED FIXTURES AND DEVICES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.
4. OCCUPANT SENSOR LOCATIONS INDICATED ON PLAN SHALL BE ADJUSTED/MOVED AS REQUIRED TO PROVIDE FULL COVERAGE OF THE AREA INDICATED ON PLAN. PLACEMENT OF SENSORS SHALL CONFORM WITH THE SENSOR MANUFACTURER'S RECOMMENDATION.
5. NO EXPOSED CONDUIT WILL BE ALLOWED.
6. LIGHTING CONTROLS ARE BASED ON ACUITY NLIGHT SYSTEM. ANY PROPOSED ALTERNATE SYSTEM WILL REQUIRE THE CONTRACTOR TO UPDATE/CHANGE THE PLAN TO REFLECT THE PROPOSED ALTERNATE SYSTEM. THE REVISED DRAWING SHALL BE ISSUED AS PART OF THE LIGHTING CONTROLS SUBMITTAL.
7. OCCUPANT SENSORS IN DORMS SHALL BE PROGRAMMED TO OPERATE IN "VACANCY" MODE.
8. ALL SENSORS IN HALLWAYS/CORRIDORS SHALL BE PROGRAMMED TO REDUCE BY 50% WHEN NO MOVEMENT IS DETECTED.
9. CONTRACTOR TO MEET AND COORDINATE WITH THE TITLE 24 ACCEPTANCE TESTER PRIOR TO THE BEGINNING OF THE PROJECT TO VERIFY ALL TITLE 24 ACCEPTANCE TEST REQUIREMENTS AND DOCUMENTS TO BE COMPLETED. CONTRACTOR SHALL PROVIDE, COMPLETE AND SUBMIT ALL REQUIRED TITLE 24 ACCEPTANCE TEST DOCUMENTS AS REQUIRED BY THE T24 ACCEPTANCE TESTER.
10. THE CONTRACTOR SHALL NOTE THAT THE DRAWING IS DIAGRAMMATIC. EXACT ROUTING OF NEW CONDUITS AND LOCATION OF JUNCTION BOXES AND PULL BOXES SHALL BE COORDINATED AND DETERMINED IN THE FIELD. NEW CONDUIT, JUNCTION BOXES AND PULL BOXES SHALL BE ROUTED / PLACED IN SUCH A MANNER AS TO ADHERE TO ALL APPLICABLE CODES AND TO AVOID INTERFERENCE WITH EXISTING UTILITIES AND THE WORK BEING PERFORMED BY OTHER TRADES. ALL BUILDING STRUCTURES, EXTERIOR CONDUIT, FITTINGS, JUNCTION BOXES AND PULL BOXES TO BE WEATHER PROOF TYPE, NEMA 3R.
11. CONTRACTOR TO PROVIDE ENGRAVED LABELING AT EACH RECEPTACLE, DATA OUTLET, JUNCTION BOX, DISCONNECT SWITCH, ECT. DISPLAYING THE IDF OR PANEL (WITH CIRCUIT) FEEDING THE DATA OUTLET, RECEPTACLE, JUNCTION BOX, DISCONNECT SWITCH, ECT.
12. REFER TO WIRING CONTROL DIAGRAM ON SHEET E3.5 FOR WIRING REQUIREMENTS.
13. DORM READING LIGHT TO BE INSTALLED ADJACENT TO PERSONAL ELECTRICAL NICHE. COORDINATE WITH ARCHITECT / OWNER FOR EXACT MOUNTING HEIGHTS PRIOR TO ROUGH-IN AND INSTALLATION. TYPICAL FOR ALL DORMITORIES.
14. CONTRACTOR TO MOUNT LIGHT FIXTURE ABOVE THE MAP BOARD. CONTRACTOR TO COORDINATE WITH ARCHITECT / OWNER FOR EXACT MOUNTING HEIGHT PRIOR TO ROUGH-IN AND INSTALLATION.

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

N
TRUE NORTH

LIGHTING FLOOR PLAN 1/8" = 1'-0" | 1 | ROOM LEGEND N.T.S.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
BRADD E. BOTEILHO
No. E17229
6/30/28
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD. SUITE C, RANCHO CUCAMONGA, CA 91701
TEL (909) 941-3006 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

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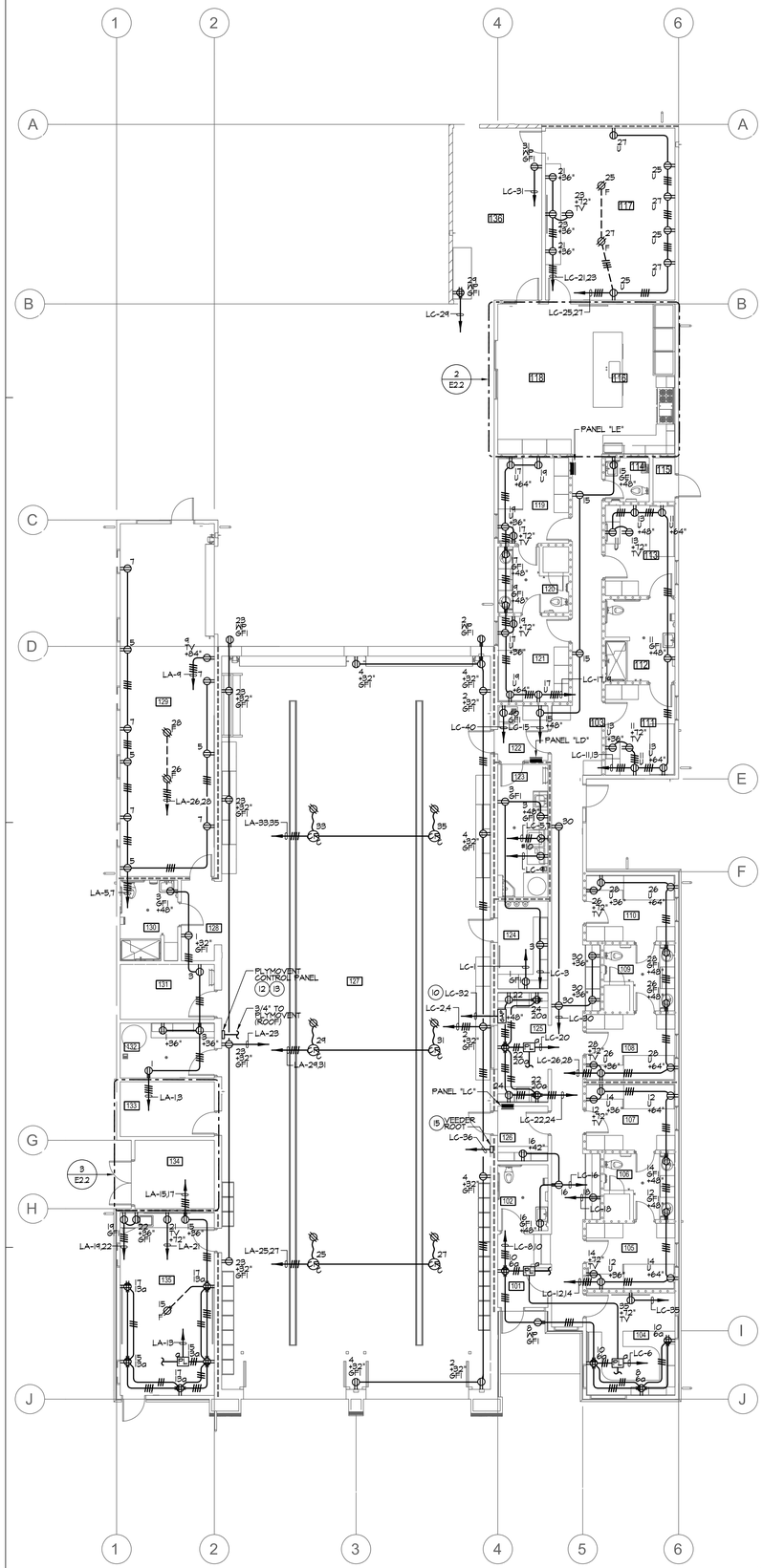
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

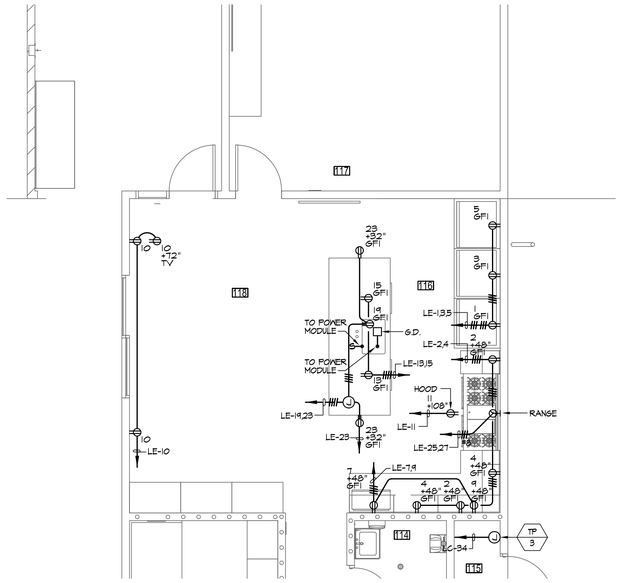
## LIGHTING FLOOR PLAN

DRAWING NUMBER: **E2.1**

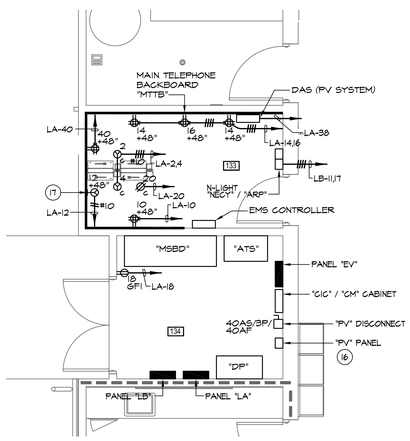
CM-07-01-2026




POWER FLOOR PLAN 1/8" = 1'-0" **1**




ENLARGED KITCHEN / DINING 1/4" = 1'-0" **2**




ENLARGED ELECTRICAL / IT ROOM 1/4" = 1'-0" **3**

PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
2. SEE SINGLE LINE DIAGRAM, DRAWING E0.2 FOR CONDUIT SIZE AND WIRE SIZE AND QUANTITIES REQUIRED FOR ALL ELECTRICAL EQUIPMENT.
3. CONDUIT AND WIRE INDICATED ON THE SINGLE LINE DIAGRAM, WHETHER SHOWN ON THIS DRAWING OR NOT, SHALL BE A PART OF THIS CONTRACT AND THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE REQUIRED ROUTING TO MEET THE INTENT OF THESE PLANS AND SPECIFICATIONS.
4. EXACT LOCATION OF OUTLETS SHOWN ON THESE DRAWINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN AND SHALL BE LOCATED IN SUCH A MANNER TO AVOID INTERFERENCES WITH OTHER OUTLETS AND CASEWORK.
5. EXTERIOR MOUNTED DEVICES / RECEPTACLES SHALL BE PROVIDED COMPLETE WITH LOCKING TYPE WEATHERPROOF COVERS AND BE U.L. LISTED FOR WET LOCATIONS WHEN IN USE. COVERS SHALL BE AS MANUFACTURED BY RACO OR APPROVED EQUAL. PLASTIC COVERS NOT ALLOWED.
6. NO OUTLET BEHIND PERMANENTLY INSTALLED CASEWORK WHERE OUTLETS ARE SPECIFICALLY NOTED TO BE INSTALLED IN CABINETS THE OUTLETS SHALL BE FLUSH WITH THE INSTALLED SURFACE OF THE CABINET.
7. NO EXPOSED CONDUIT WILL BE ALLOWED.
8. CONTRACTOR TO COORDINATE WITH THE CASEWORK MANUFACTURE AND THE ARCHITECT TO AVOID COVERING UP THE RECEPTACLES FOR THE A/V CABINET. COORDINATION TO BE PERFORMED PRIOR TO ROUGH-IN.
9. CONTRACTOR TO PROVIDE ENGRAVED LABELING AT EACH RECEPTACLE, DATA OUTLET, JUNCTION BOX, DISCONNECT SWITCH, ECT. DISPLAYING THE IDF OR PANEL (WITH CIRCUIT) FEEDING THE DATA OUTLET, RECEPTACLE, JUNCTION BOX, DISCONNECT SWITCH, ECT.
10. GENERATOR ALARM PANEL "GAP" TO BE RECESSED MOUNTED.
11. NOT USED.
12. FLYMOVENT CONTROL PANEL, CONTRACTOR SHALL COORDINATE ALL CONDUIT CONNECTIONS WITH MANUFACTURER.
13. CONTRACTOR SHALL PROVIDE CONDUIT CONNECTION TO FLYMOVENT TRACK PER MANUFACTURER'S INSTRUCTIONS.
14. CONTRACTOR SHALL COORDINATE EXACT MOUNTING HEIGHTS WITH ARCHITECT AND INTERIOR ELEVATIONS PRIOR TO ROUGH-IN AND INSTALLATION. CONTRACTOR SHALL LOCATE A RECEPTACLE AT EACH SHELF.
15. VEEDER ROOT SYSTEM TO BE RECESSED MOUNTED.
16. PV PANEL TO BE PROVIDED BY PV DESIGNER / CONTRACTOR REFER TO PV DRAWINGS FOR ADDITIONAL INFORMATION.
17. PROVIDE L5-30R TYPE RECEPTACLE OUTLET.

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

ROOM LEGEND N.T.S.

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/28
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3006 FAX: (909) 941-0211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 4 | | | REVISIONS |

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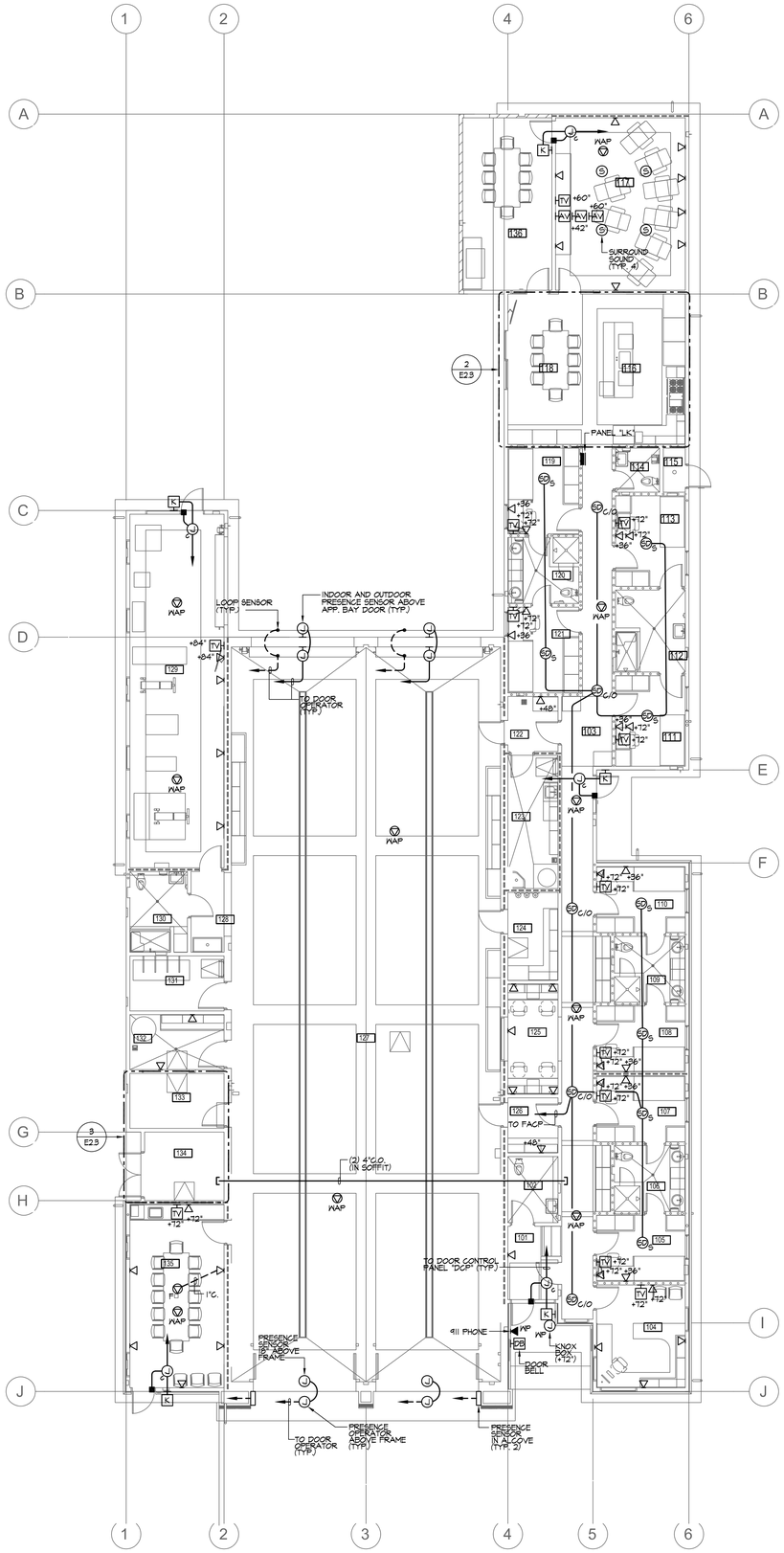
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

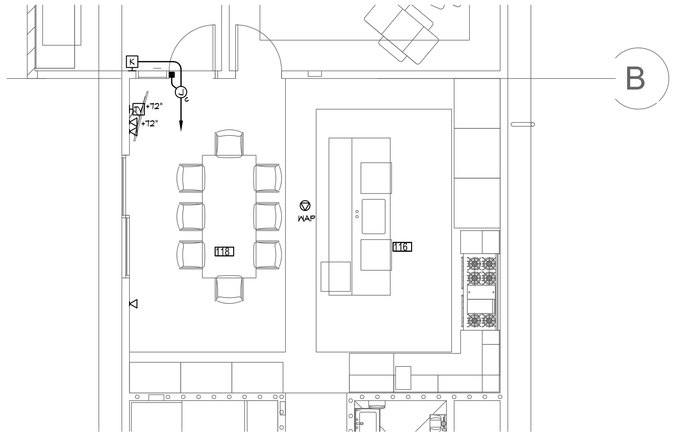
**POWER FLOOR PLAN**

DRAWING NUMBER: **E2.2**

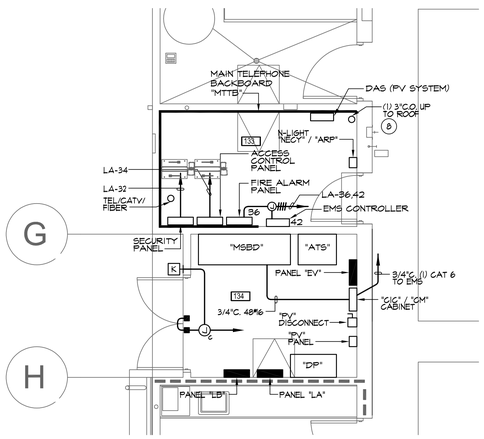
CM-07-01-2026




SIGNAL FLOOR PLAN 1/8" = 1'-0" **1**




ENLARGED KITCHEN / DINING 1/4" = 1'-0" **2**




ENLARGED ELECTRICAL / IT ROOM 1/4" = 1'-0" **3**

PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
2. EXACT LOCATION OF OUTLETS SHOWN ON THESE DRAWINGS SHALL BE COORDINATED WITH THE ARCHITECTURAL PLANS PRIOR TO PULLING OF CABLES / CONDUCTORS.
3. EXTERIOR MOUNTED DEVICES SHALL BE PROVIDED COMPLETE WITH WEATHERPROOF BACKBOXES AND/OR COVERS. COVERS SHALL BE AS RECOMMENDED BY THE SYSTEM'S MANUFACTURER.
4. KNOX BOX. CONNECT TO FIRE ALARM CONTROL PANEL. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
5. WHERE LOW VOLTAGE WIRING IS REQUIRED IN INACCESSIBLE CEILING SPACES, THE CONTRACTOR SHALL PROVIDE A COMPLETE CONDUIT SYSTEM FOR ROUTING OF THE SUBJECT WIRE/CABLE.
6. FIRE ALARM DEVICES SHOWN ON PLAN ARE FOR REFERENCE ONLY. CONTRACTOR TO PROVIDE PATHWAYS FOR FIRE ALARM DEVICES SHOWN ON PLAN. FIRE ALARM SYSTEM IS A DEFERRED APPROVAL. A COMPLETE FIRE ALARM SYSTEM DESIGN SHALL BE SUBMITTED AND REVIEWED BY THE LIFE SAFETY SERVICES, FIRE PREVENTION DEPARTMENT.
7. CONTRACTOR TO PROVIDE ENGRAVED LABELING AT EACH RECEPTACLE, DATA OUTLET, JUNCTION BOX, DISCONNECT SWITCH, ECT. DISPLAYING THE IDF OR PANEL (WITH CIRCUIT) FEEDING THE DATA OUTLET, RECEPTACLE, JUNCTION BOX, DISCONNECT SWITCH, ECT.
8. ROUTE 3"C.O. WITH PULL ROPE AND RING UP TO ROOF FOR BASE RADIO ANTENNA WIRING.

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

ROOM LEGEND N.T.S.

PBK

SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ARNOLD E. SOFFLER
No. E17329
6/30/26
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD, SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

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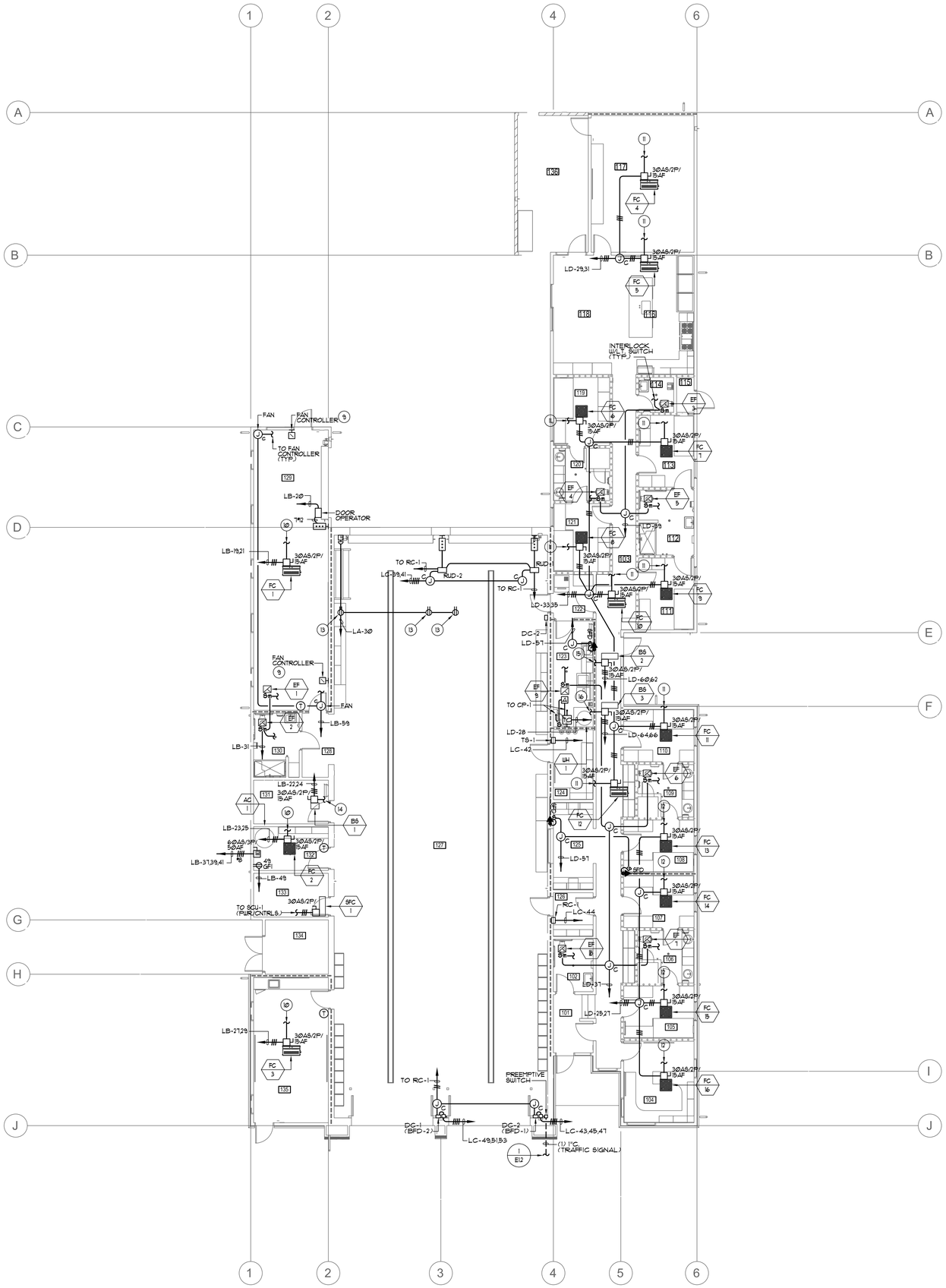
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**SIGNAL FLOOR PLAN**

DRAWING NUMBER: **E2.3**

CM-07-01-2026




MECHANICAL POWER FLOOR PLAN
1/8" = 1'-0"

1

ROOM LEGEND
N.T.S.

## PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
2. SEE SINGLE LINE DIAGRAM, DRAWING E0.2 FOR CONDUIT SIZE AND WIRE SIZE AND QUANTITIES REQUIRED FOR ALL ELECTRICAL EQUIPMENT.
3. CONDUIT AND WIRE INDICATED ON THE SINGLE LINE DIAGRAM, WHETHER SHOWN ON THIS DRAWING OR NOT, SHALL BE A PART OF THIS CONTRACT AND THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE REQUIRED ROUTING TO MEET THE INTENT OF THESE PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTE THAT THE DRAWING IS DIAGRAMMATIC. EXACT ROUTING OF NEW CONDUITS AND LOCATION OF JUNCTION BOXES, SAFETY SWITCHES, DISCONNECT SWITCHES, PULL BOXES, ECT. SHALL BE COORDINATED AND DETERMINED IN THE FIELD. NEW CONDUIT, JUNCTION BOXES, SAFETY SWITCHES, DISCONNECT SWITCHES, PULL BOXES, ECT. SHALL BE ROUTED / PLACED IN SUCH A MANNER AS TO ADHERE TO ALL APPLICABLE CODES AND TO AVOID INTERFERENCE WITH EXISTING BUILDING STRUCTURES, UTILITIES AND THE WORK BEING PERFORMED BY OTHER TRADES. ALL EXTERIOR CONDUIT, FITTINGS, JUNCTION BOXES AND PULL BOXES TO BE WEATHER PROOF TYPE1 NEMA 3R.
5. CONTRACTOR TO PROVIDE ENGRAVED LABELING AT EACH RECEPTACLE, DATA OUTLET, JUNCTION BOX, DISCONNECT SWITCH, ECT. DISPLAYING THE IDF OR PANEL (WITH CIRCUIT) FEEDING THE DATA OUTLET, RECEPTACLE, JUNCTION BOX, DISCONNECT SWITCH, ECT.
6. THE CONTRACTOR SHALL REFER TO THE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT EQUIPMENT LOCATIONS AND ELECTRICAL CONNECTIONS REQUIREMENTS. CONTRACTOR SHALL PROVIDE ALL POWER AND CONTROL CONNECTIONS AS INDICATED ON THE MECHANICAL AND PLUMBING DRAWINGS.
7. WHERE "OPEN WIRING" IS INSTALLED IN INACCESSIBLE CEILING SPACES THE CONTRACTOR SHALL PROVIDE A COMPLETE CONDUIT SYSTEM FOR ROUTING OF THE SUBJECT WIRE/CABLE.
8. CONTRACTOR TO COORDINATE FINAL POWER LOCATIONS FOR ALL EQUIPMENT IN THE FIELD WITH THE ARCHITECT / CLIENT PRIOR TO START OF WORK.
9. CONTRACTOR TO COORDINATE EXACT LOCATION OF FAN CONTROLLER WITH OWNER / ARCHITECT PRIOR TO ROUGH-IN AND INSTALLATION. CONTRACTOR SHALL PROVIDE A COMPLETE AND OPERABLE SYSTEM.
10. TO BS-1 / HRU-1 (CONTROLS). TYPICAL FC-1 THRU FC-3.
11. TO BS-2 / HRU-1 (CONTROLS). TYPICAL FC-4 THRU FC-12.
12. TO BS-3 / HRU-1 (CONTROLS). TYPICAL FC-13 THRU FC-16.
13. PLYMOVENT RETURN SYSTEM RECEPTACLE MOUNTED ON LAST UPRIGHT RAIL SUPPORT, WITHIN 48" OF THE RAIL AND WITHIN 6'-0" OF THE END OF EACH RAIL. COORDINATE FINAL LOCATION OF THE RECEPTACLE WITH THE PLYMOVENT CONTRACTOR PRIOR ROUGH-IN.
14. TO HRU-1, FC-1 THRU FC-3 (CONTROLS).
15. TO HRU-1, FC-5 THRU FC-12 (CONTROLS).
16. TO HRU-1, FC-14 THRU FC-17 (CONTROLS).

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING ROOM |
| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
BRANDO E. SOTELO
No. E17229
6/30/28
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD, SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3006 FAX (909) 941-8211

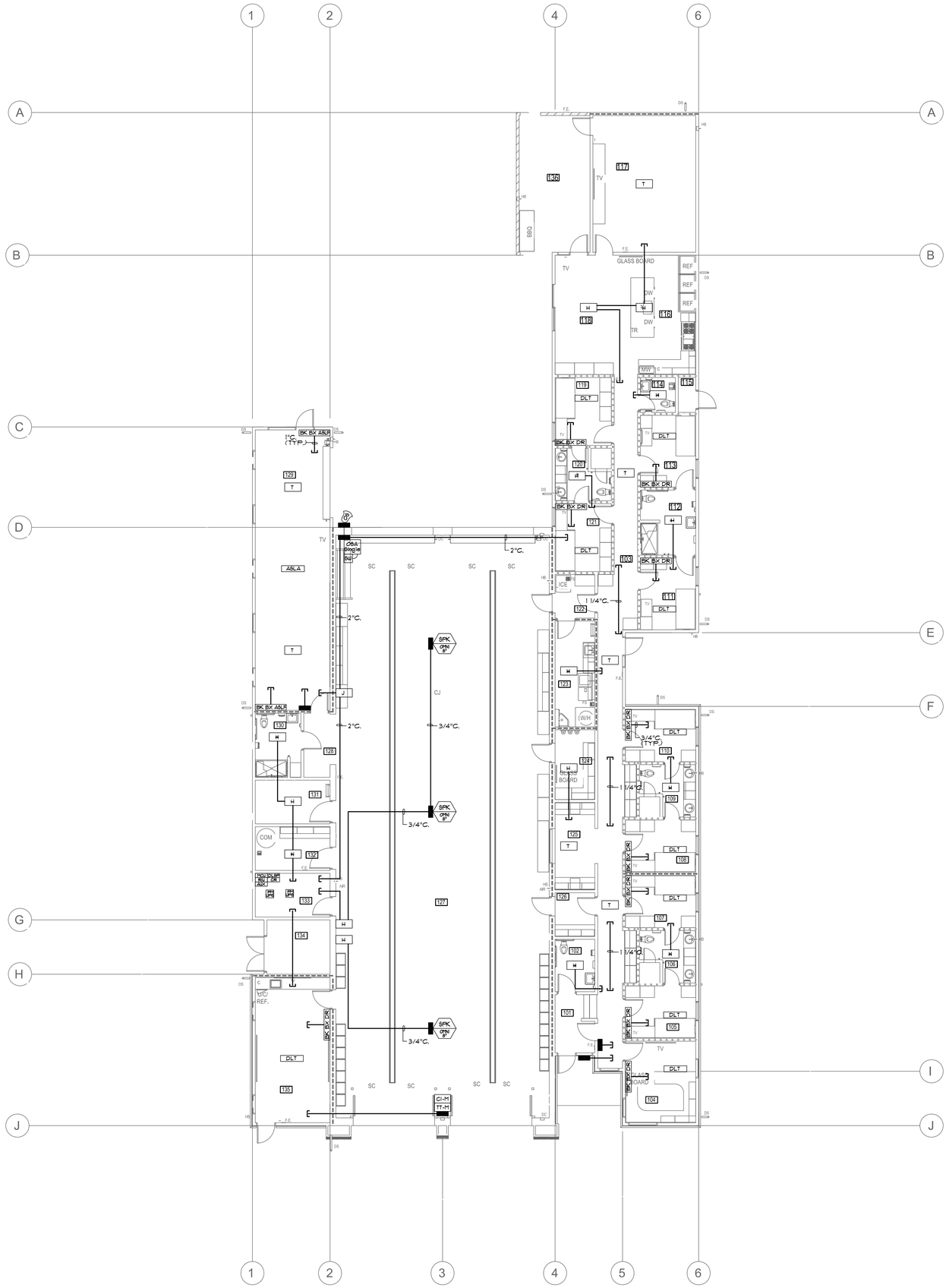
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## MECHANICAL POWER FLOOR PLAN

DRAWING NUMBER: **E2.4**

CM-07-01-2026




## PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
2. NO EXPOSED CONDUIT ALLOWED.
3. REFER TO SHEET E2.1 FOR BEACON/STROBE, CEILING ALERTING LIGHTS, AND LOW LEVEL LIGHTS WIRING.
4. WHERE LOW VOLTAGE WIRING IS REQUIRED IN INACCESSIBLE CEILING SPACES, THE CONTRACTOR SHALL PROVIDE A COMPLETE CONDUIT SYSTEM FOR ROUTING OF THE SUBJECT WIRE/CABLE.

## FIRST-IN FIRE STATION ALERTING

SYMBOL LEGEND

| | |
|---|---|
| MCU | MASTER CONTROL UNIT |
| DLSP | DATA LINE SURGE PROTECTOR |
| CR | CONTROL REMOTE |
| RIU | RADIO ISOLATION UNIT |
| AUX | AUXILLIARY MODULE |
| PM UPS | POWER MODULE WITH UPS-BLACK (DEDICATED 120V CIRCUIT REQUIRED. INDIVIDUAL BREAKER RECOMMENDED) |
| PM UPS | POWER MODULE WITH UPS-BLUE (DEDICATED 120V CIRCUIT REQUIRED)EACH PM ON INDIVIDUAL BREAKER |
| Spk 12mm 8" | 8" OMNI DIRECTIONAL SPEAKER |
| OS | OUTSIDE SPEAKER - IN CONJUNCTION WITH OSA |
| BK BX ASLF | CUSTOM BACKBOX PROVIDED BY WESTNET |
| BK BX DR | DORM REMOTE BACKBOX PROVIDED WESTNET |
| DLT | DORM LITE ACOUSTIC CEILING MOUNT KIT |
| H | 8x10x4 HOFFMAN BACKBOX |
| T | ACOUSTIC CEILING KIT |
| J | JBOX |
| ▬ | LOCATION OF DEVICE WALL MOUNTED |

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
| 118 | DINING HALL |
| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

N
TRUE NORTH

ALERTING SYSTEM FLOOR PLAN 1/8" = 1'-0" | 1 | ROOM LEGEND N.T.S.

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SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ARLANDO E. SOTELO
No. E17229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
8920 BASKINE RD, SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

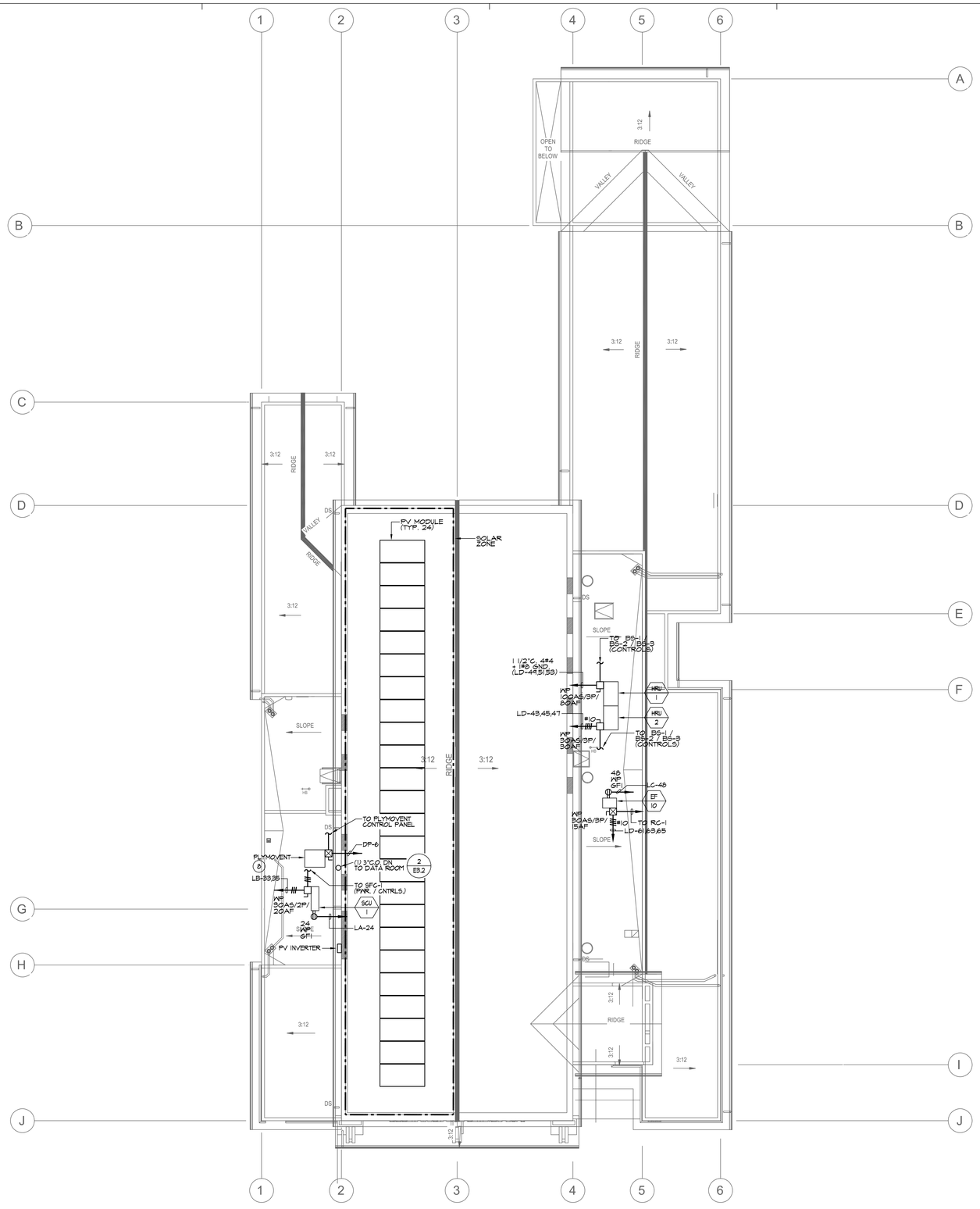
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## ALERTING SYSTEM FLOOR PLAN

DRAWING NUMBER: **E2.5**

CM-07-01-2026




| INVERTER | CONTINUOUS POWER OUTPUT (Kw) | CEC WEIGHTED EFFICIENCY(%) | AC MAXIMUM CONTINUOUS CURRENT (AMPS) AT 208V | MIN. OVERCURRENT PROTECTION PER CEC 690.10(B) | MAXIMUM DC INPUT VOLTAGE | AC INPUT VOLTAGE | MODULES PER STRING | MODULE Vmp | OPERATING VOLTAGE | MODULE Voc | MODULE TEMP. COEFFICIENT | MAXIMUM SYSTEM VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INV-1 | 13.2 | 95.5 | 27.0 | 33.8 | 1000 | 208 | 24 | 41.55 | 997.2 | 49.59 | 0.33% | 1309.9 |

| MODULES PER ARRAY | MODULES PER STRING | STRINGS | kW/STRING STC | STC kW | kW/STRING PTC | PTC kW | INVERTER EFFICIENCY | AC kW | |
|---|---|---|---|---|---|---|---|---|---|
| 24 | 24 | 1 | 13.20 | 13.2 | 9.936 | 9.936 | 0.965 | 9.588 | |
| 24 | | 1 | | 13.2 | | 9.936 | | 9.588 | 26.6 |
| TOTAL MODULES | | TOTAL STRINGS | | TOTAL POWER STC (Kw) | | TOTAL POWER PTC (Kw) | | TOTAL POWER AC (Kw) | AC AMPS @ 208V |

N
TRUE NORTH

ROOF PLAN 1/8" = 1'-0"

1

ROOM LEGEND N.T.S.

PLAN NOTES:

1. REFER TO GENERAL NOTES, DRAWING E0.1, FOR ADDITIONAL REQUIREMENTS.
2. SEE SINGLE LINE DIAGRAM, DRAWING E0.2 FOR CONDUIT SIZE AND WIRE SIZE AND QUANTITIES REQUIRED FOR ALL ELECTRICAL EQUIPMENT.
3. CONDUIT AND WIRE INDICATED ON THE SINGLE LINE DIAGRAM, WHETHER SHOWN ON THIS DRAWING OR NOT, SHALL BE A PART OF THIS CONTRACT AND THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE REQUIRED ROUTING TO MEET THE INTENT OF THESE PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTE THAT THE DRAWING IS DIAGRAMMATIC. EXACT ROUTING OF NEW CONDUITS AND LOCATION OF JUNCTION BOXES, SAFETY SWITCHES, DISCONNECT SWITCHES, PULL BOXES, ECT. SHALL BE COORDINATED AND DETERMINED IN THE FIELD. NEW CONDUIT, JUNCTION BOXES, SAFETY SWITCHES, DISCONNECT SWITCHES, PULL BOXES, ECT. SHALL BE ROUTED / PLACED IN SUCH A MANNER AS TO ADHERE TO ALL APPLICABLE CODES AND TO AVOID INTERFERENCE WITH EXISTING BUILDING STRUCTURES, UTILITIES AND THE WORK BEING PERFORMED BY OTHER TRADES. ALL EXTERIOR CONDUIT, FITTINGS, JUNCTION BOXES AND PULL BOXES TO BE WEATHER PROOF TYPE1 NEMA 3R.
5. CONTRACTOR TO PROVIDE ENGRAVED LABELING AT EACH RECEPTACLE, DATA OUTLET, JUNCTION BOX, DISCONNECT SWITCH, ECT. DISPLAYING THE IDF OR PANEL (WITH CIRCUIT) FEEDING THE DATA OUTLET, RECEPTACLE, JUNCTION BOX, DISCONNECT SWITCH, ECT.
6. THE CONTRACTOR SHALL REFER TO THE MECHANICAL AND PLUMBING DRAWINGS FOR EXACT EQUIPMENT LOCATIONS AND ELECTRICAL CONNECTIONS REQUIREMENTS. CONTRACTOR SHALL PROVIDE ALL POWER AND CONTROL CONNECTIONS AS INDICATED ON THE MECHANICAL AND PLUMBING DRAWINGS.
7. EXTERIOR MOUNTED DEVICES / RECEPTACLES SHALL BE PROVIDED COMPLETE WITH LOCKING TYPE WEATHERPROOF COVERS AND BE U.L. LISTED FOR WET LOCATIONS WHEN IN USE. COVERS SHALL BE AS MANUFACTURED BY RACO OR APPROVED EQUAL. PLASTIC COVERS NOT ALLOWED.
8. CONTRACTOR TO COORDINATE WITH THE ARCHITECT AND PLYMOVENT MANUFACTURER FOR ALL POWER AND CONTROL REQUIREMENTS. CONTRACTOR TO PROVIDE ALL ELECTRICAL PROVISIONS AS REQUIRED FOR A COMPLETED AND FULLY OPERABLE PLYMOVENT SYSTEM.
9. CONTRACTOR TO MOUNT A/C DISCONNECT SWITCHES STRUCTURALLY INDEPENDANT OF HVAC UNITS.

| ROOM # | ROOM NAME |
|---|---|
| 101 | LOBBY |
| 102 | RESTROOM |
| 103 | HALLWAY |
| 104 | CAPTAIN'S OFFICE |
| 105 | SLEEPING QUARTER 1 |
| 106 | SHARED BATH 1 |
| 107 | SLEEPING QUARTER 2 |
| 108 | SLEEPING QUARTER 3 |
| 109 | SHARED BATH 2 |
| 110 | SLEEPING QUARTER 4 |
| 111 | SLEEPING QUARTER 5 |
| 112 | ACC. SHARED BATH 3 |
| 113 | SLEEPING QUARTER 6 |
| 114 | RESTROOM |
| 115 | FIRE RISER ROOM |
| 116 | KITCHEN |
| 117 | DAY ROOM |
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| 119 | SLEEPING QUARTER 7 |
| 120 | SHARED BATH 4 |
| 121 | SLEEPING QUARTER 8 |
| 122 | VESTIBULE 2 |
| 123 | CUSTODIAN / STORAGE |
| 124 | MEDICAL STORAGE |
| 125 | WORK STATIONS |
| 126 | VESTIBULE 1 |
| 127 | APPARATUS ROOM |
| 128 | DECON SINK |
| 129 | EXERCISE ROOM |
| 130 | DIRTY RESTOOM |
| 131 | STORAGE |
| 132 | WORKSHOP |
| 133 | DATA |
| 134 | ELECTRICAL ROOM |
| 135 | CONFERENCE ROOM |
| 136 | OUTDOOR PATIO |

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RANCHO CUCAMONGA
CALIFORNIA 91730-0729

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www.pbk.com

# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
GERARD E. SOTELO
No. EJ7229
6/30/28
STATE OF CALIFORNIA
ELECTRICAL

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD, SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

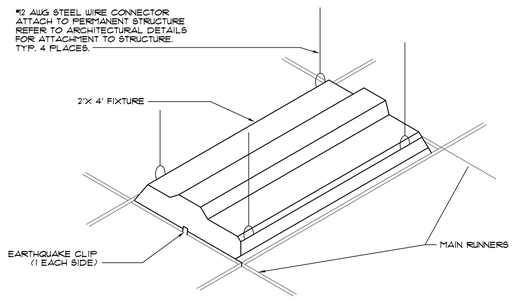
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

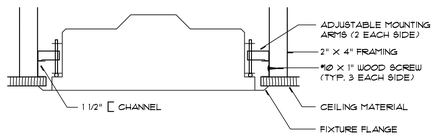
## ROOF PLAN

DRAWING NUMBER: **E2.6**

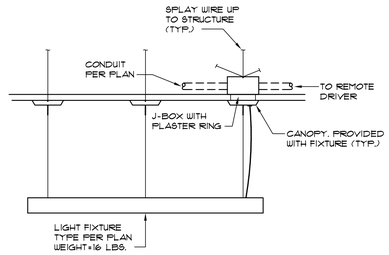
CM-07-01-2026



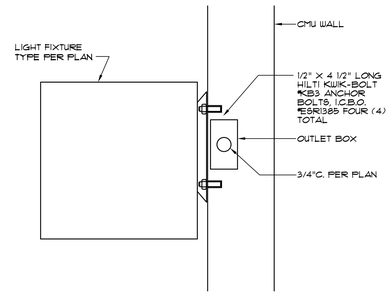

LIGHT FIXTURE - T-BAR MOUNTED | SCALE: NONE | 1



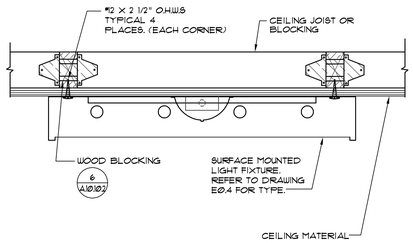

LIGHT FIXTURE - GYP BOARD CEILING | SCALE: NONE | 2




SUSPENDED ROUND FIXTURE | SCALE: NONE | 3

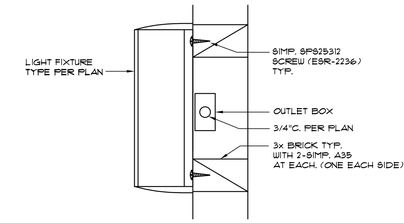



APP BAY - MAP LIGHT | SCALE: NONE | 4



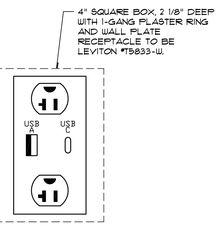

SURFACE MOUNTED FIXTURE | SCALE: NONE | 5

NOT USED | SCALE: NONE | 6

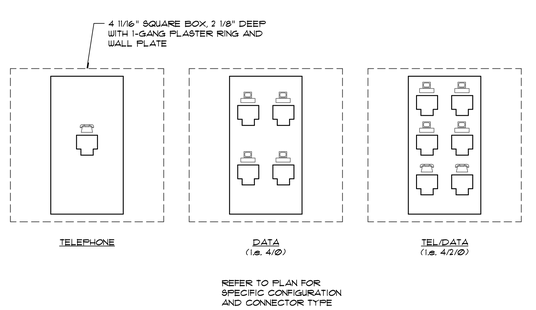



EXTERIOR FIXTURE - WALL MOUNTED | SCALE: NONE | 7

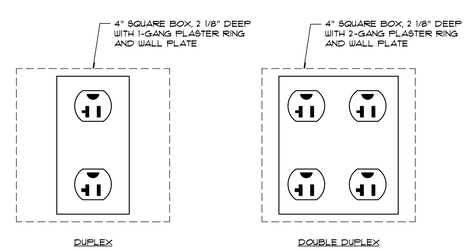
NOT USED | SCALE: NONE | 8



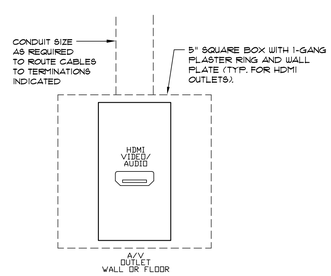

RECEPTACLE / USB OUTLET | SCALE: NONE | 9



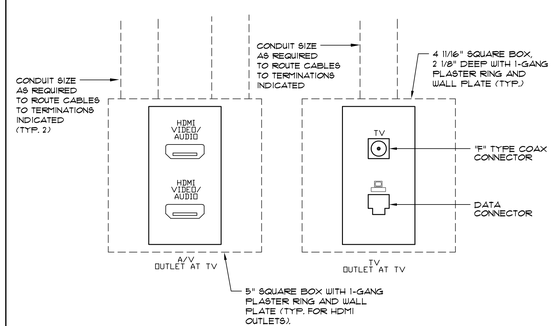

TEL/DATA OUTLET - FLUSH MOUNTED | SCALE: NONE | 10



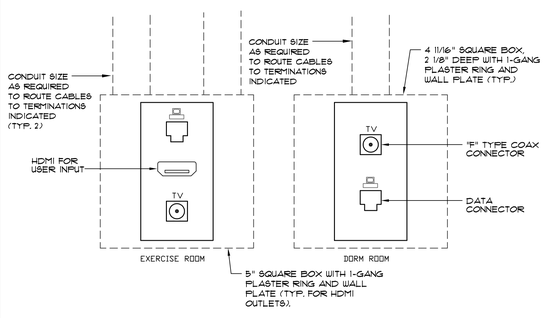

RECPTACLE - FLUSH MOUNTED | SCALE: NONE | 11



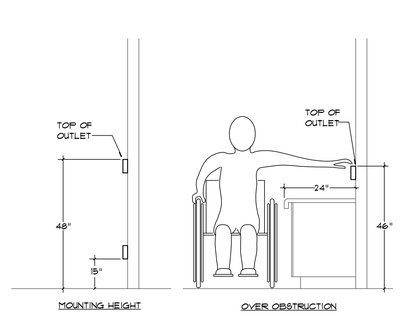

AUDIO-VIDEO (A/V) OUTLET | SCALE: NONE | 12




CONFERENCE/TRAINING - TV | SCALE: NONE | 13




DORM / EXERCISE ROOM - TV | SCALE: NONE | 14




DEVICE MOUNTING HEIGHTS | SCALE: NONE | 15

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SOUTHERN CALIFORNIA
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
ORLANDO E. STOTELO
No. E17229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

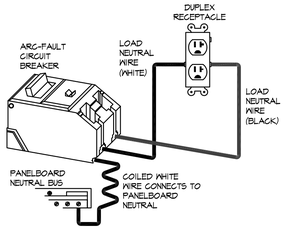
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## ELECTRICAL DETAILS

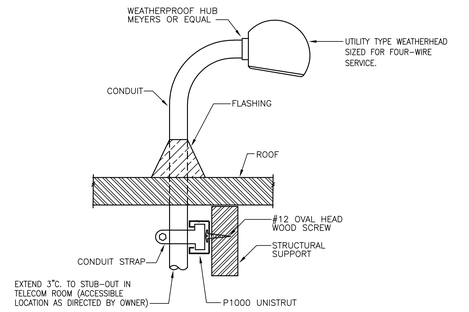
DRAWING NUMBER: **E3.1**

CM-07-01-2026

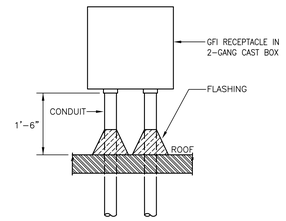



NOTE: ALL RECEPTACLES AND LIGHT FIXTURES INSTALLED IN RESIDENTIAL OCCUPANCY ROOMS SHALL BE PROTECTED BY AN AFCI CIRCUIT BREAKER. REFER TO SHEET A0.4, CODE ANLYSIS, FOR RESIDENTIAL OCCUPANCY BOUNDARY.

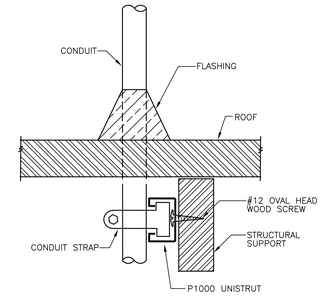
ARC-FAULT CIRCUIT BREAKER WIRING | SCALE: NONE | 1



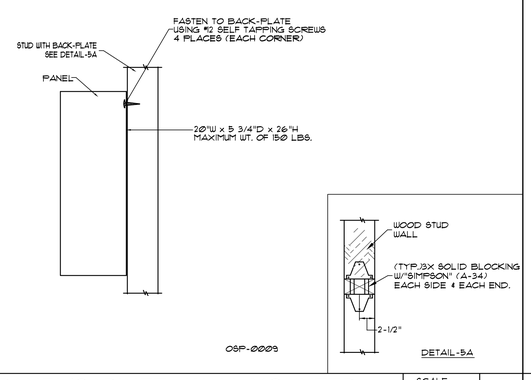

ANTENNA PROVISIONS | SCALE: NONE | 2



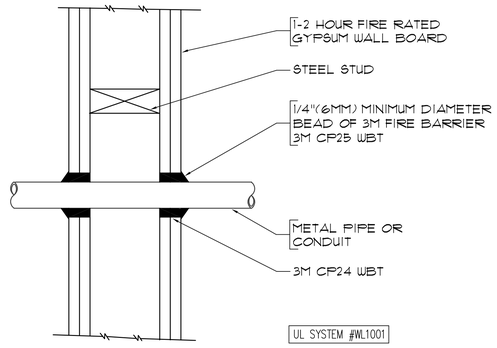

ROOF MOUNTED RECEPTACLE | SCALE: NONE | 3



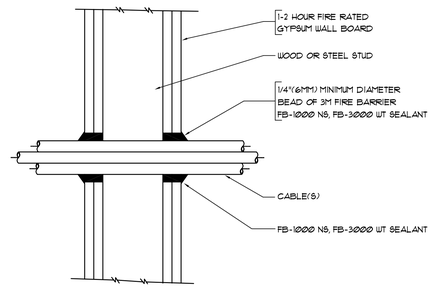

CONDUIT ROOF PENETRATION | SCALE: NONE | 4



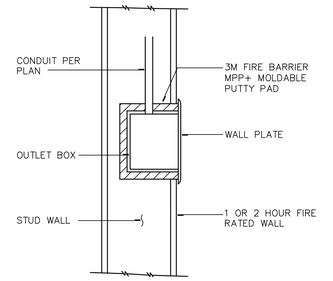

PANEL/CABINET - WALL MOUNTED | SCALE: NONE | 5



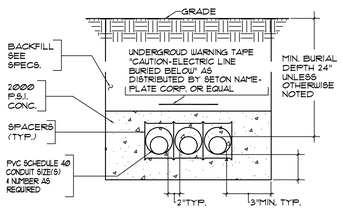

CONDUIT WALL PENETRATION | SCALE: NONE | 6




CABLE - WALL PENETRATION | SCALE: NONE | 7

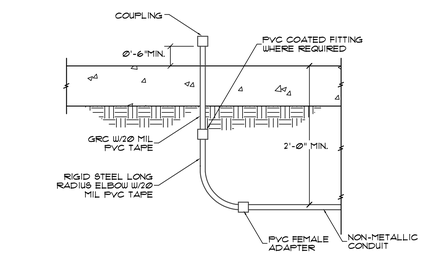



OUTLET IN RATED WALL | SCALE: NONE | 8

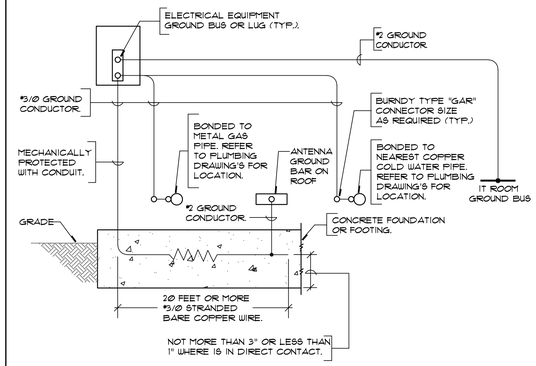



NOTES:
1. SLOPE RUNS A MIN. OF 4" IN 100 FT. BETWEEN MANHOLES OR MANHOLE AND VAULT OR CABLE RISERS.
2. RUN SHALL BE STRAIGHT WITHOUT ANY HIGH OR LOW POINTS BETWEEN ENDS, THE HIGHER END SHALL BE AT A VENTILATED MANHOLE,VAULT, OR CABLE RISER.

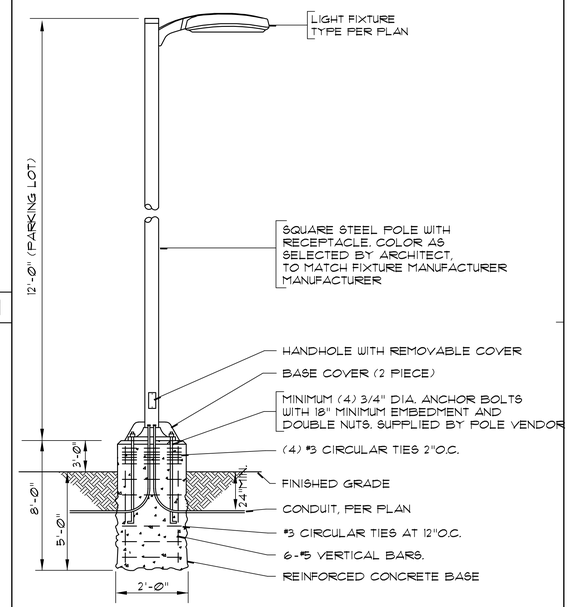
UNDERGROUND DUCT-BANK | SCALE: NONE | 9



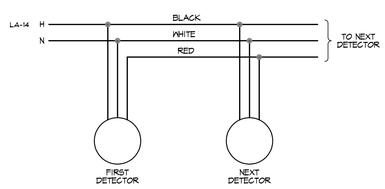

CONDUIT STUB-UP DETAIL | SCALE: NONE | 10



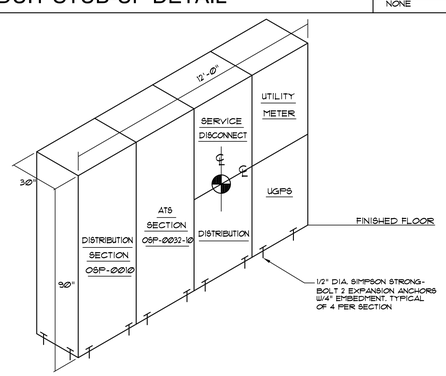

SYSTEM GROUNDING | SCALE: NONE | 11




PARKING LOT FIXTURE DETAIL | SCALE: NONE | 15




SINGLE STATION DETECTOR | SCALE: NONE | 12




SWITCHBOARD TOTAL WEIGHT = 2600 LBS. 4A 50\2

SERVICE SWBD - FLOOR MOUNTED | SCALE: NONE | 13

NOT USED | SCALE: NONE | 14

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CALIFORNIA 91730-0729
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
BRANDO E. BOTELHO
No. E17229
6/30/28
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD, SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3006 FAX (909) 941-8211

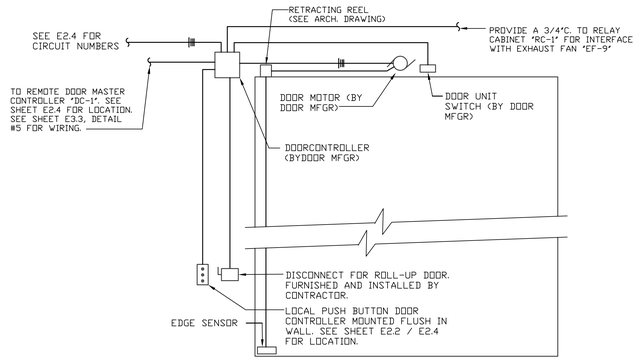
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

## ELECTRICAL DETAILS

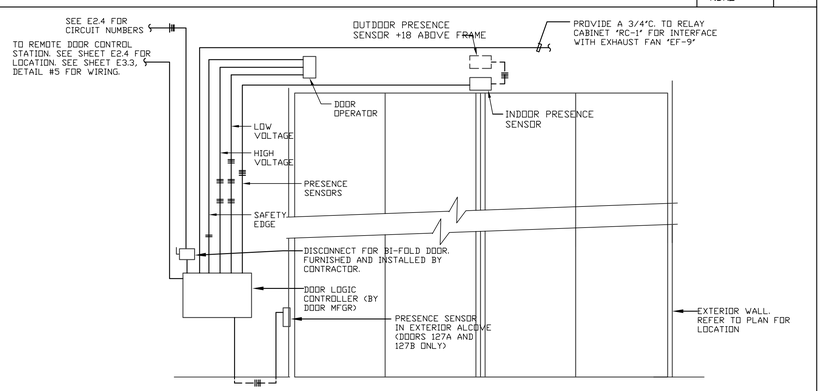
DRAWING NUMBER: **E3.2**

CM-07-01-2026



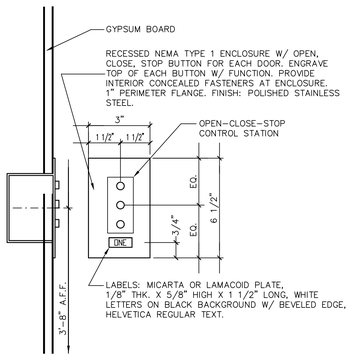

## ROLL-UP DOOR - WIRING DIAGRAM

SCALE: NONE | 1



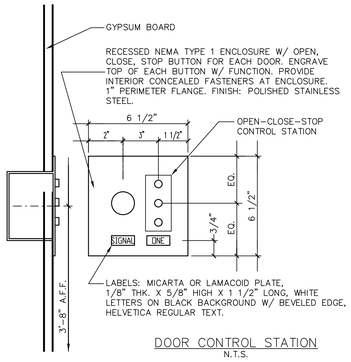

## B-FOLD DOOR - WIRING DIAGRAM

SCALE: NONE | 2



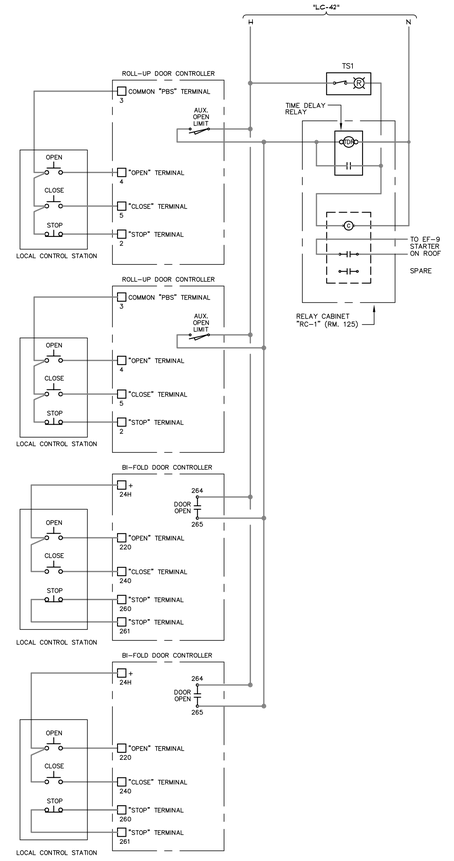

## DOOR CONTROL STATION "DC-1"

SCALE: NONE | 3




## DOOR CONTROL STATION "DC2"

SCALE: NONE | 4




## ROLL-UP DOOR CONTROL DIAGRAM

SCALE: NONE | 5

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8163 ROCHESTER AVENUE, SUITE 100
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# RECONSTRUCTION
## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/28
STATE OF CALIFORNIA

**CONSULTANT**

A&F ENGINEERING GROUP, INC.
9320 BASELINE RD. SUITE C, RANCHO CUCAMONGA, CA 91701
TEL (909) 941-3006 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: CBF | CHECKED: RES |
| DATE: 06/17/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

ELECTRICAL
DETAILS

DRAWING NUMBER: E3.3

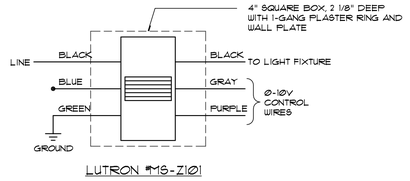
CM-07-01-2026

NOT USED — SCALE: NONE — 1

NOT USED — SCALE: NONE — 2

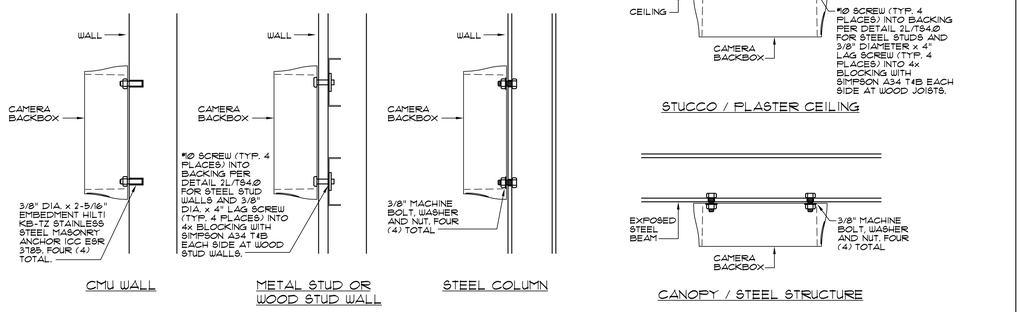
NOT USED — SCALE: NONE — 3

WALL SWITCH TYPE OCC. SENSOR — SCALE: NONE — 4

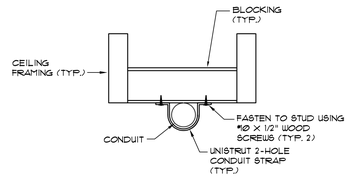



LUTRON #MS-Z101

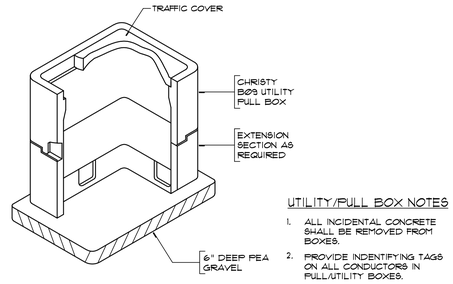
CAMERA BACK-BOX MOUNTING — SCALE: NONE — 5




CONDUIT SUPPORT DETAIL — SCALE: NONE — 6




UNDERGROUND PULL BOX — SCALE: NONE — 7



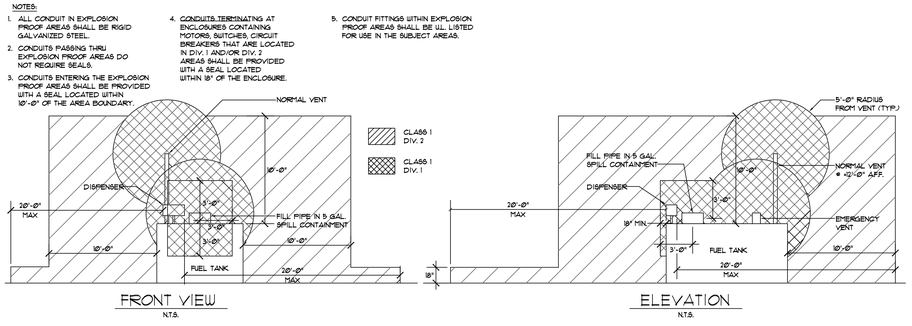

UTILITY/PULL BOX NOTES

1. ALL INCIDENTAL CONCRETE SHALL BE REMOVED FROM BOXES.
2. PROVIDE INDENTIFYING TAGS ON ALL CONDUCTORS IN PULL/UTILITY BOXES.

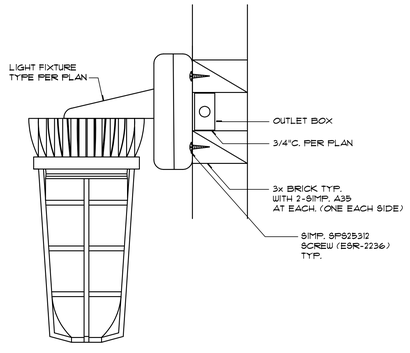
FUEL TANK - EXPLOSION PROOF AREAS — SCALE: NONE — 8

NOTES:

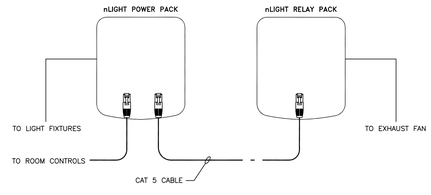
1. ALL CONDUIT IN EXPLOSION PROOF AREAS SHALL BE RIGID GALVANIZED STEEL.
2. CONDUITS PASSING THRU EXPLOSION PROOF AREAS DO NOT REQUIRE SEALS.
3. CONDUITS ENTERING THE EXPLOSION PROOF AREAS SHALL BE PROVIDED WITH A SEAL LOCATED WITHIN 18"-0" OF THE AREA BOUNDARY.
4. CONDUITS TERMINATING AT ENCLOSURES CONTAINING MOTORS, SWITCHES, CIRCUIT BREAKERS THAT ARE LOCATED IN DIV. 1 AND/OR DIV. 2 AREAS SHALL BE PROVIDED WITH A SEAL LOCATED WITHIN 18" OF THE ENCLOSURE.
5. CONDUIT FITTINGS WITHIN EXPLOSION PROOF AREAS SHALL BE UL LISTED FOR USE IN THE SUBJECT AREAS.



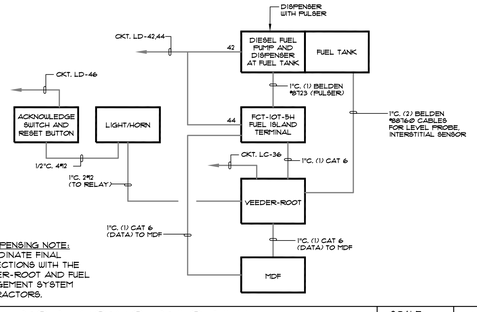

RED GLOBE FIXTURE MOUNTING — SCALE: NONE — 9




LIGHT AND EXHAUST FAN CONTROL — SCALE: NONE — 10



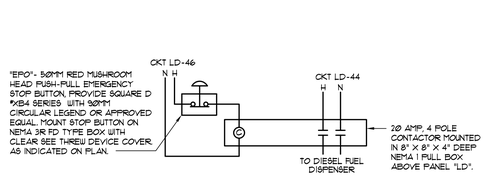

FUEL DISPENSING DIAGRAM — SCALE: NONE — 11



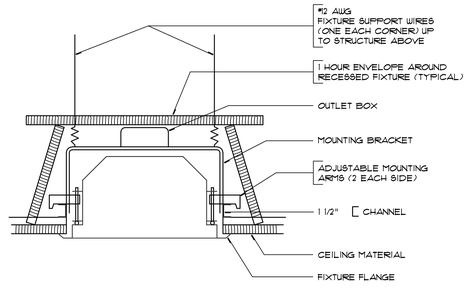

FUEL DISPENSING NOTE:

1. COORDINATE FINAL CONNECTIONS WITH THE VEEDER-ROOT AND FUEL MANAGEMENT SYSTEM CONTRACTORS.

FUEL SYSTEM "EPO" — SCALE: NONE — 12




LIGHT FIXTURE - FIRE RATED CLNG. — SCALE: NONE — 13




NOT USED — SCALE: NONE — 14

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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/28
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

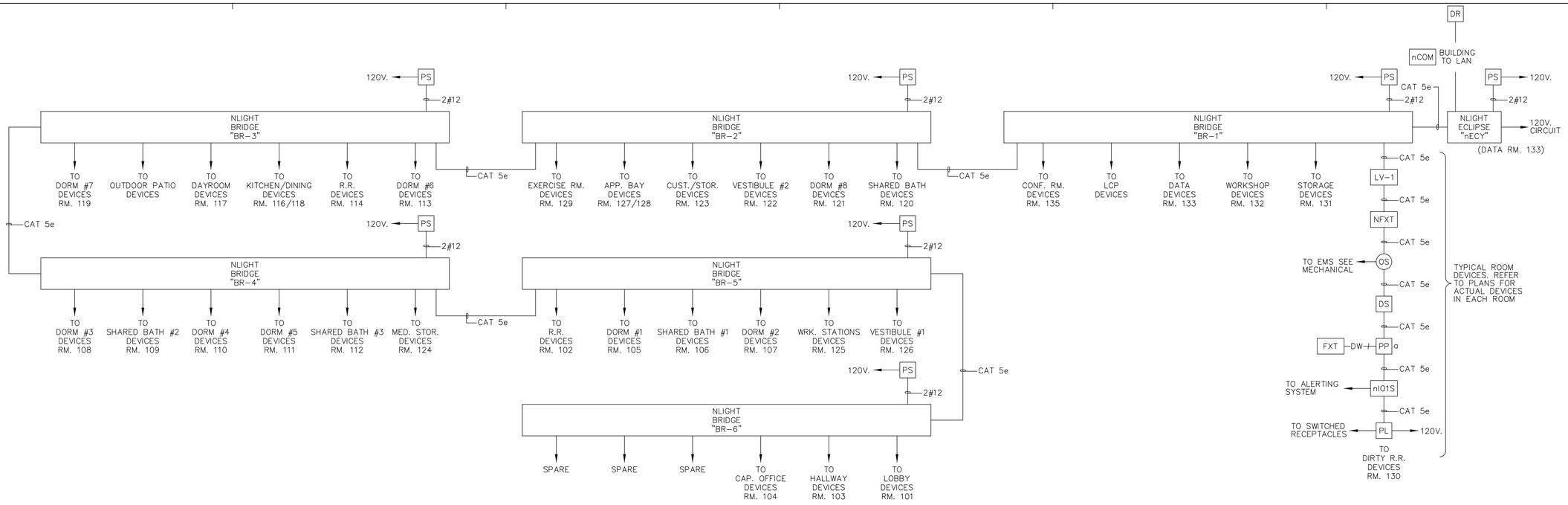
| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: CBF — CHECKED: RES
DATE: 06/17/26 — SCALE: AS NOTED
PROJECT NUMBER: 2109300

ELECTRICAL DETAILS

DRAWING NUMBER: E3.4

CM-07-01-2026



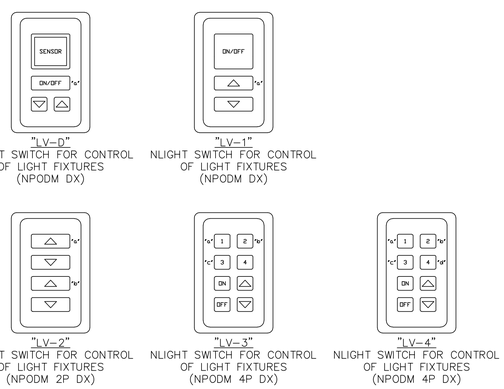

## DETAIL NOTES:

1. THE LIGHTING CONTROL SYSTEM SHALL BE CONFIGURED TO CONTROL THE ROOM LIGHTS BASED ON THE SUBSCRIPT LETTER DESIGNATION ADJACENT TO EACH FIXTURE.
2. THE LIGHTING CONTROL SYSTEM SHALL BE AS MANUFACTURED ACUITY CONTROLS "nLIGHT", OR APPROVED EQUAL, AND SHALL BE PROGRAMMED AND COMMISSIONED BY THE SYSTEM MANUFACTURER.
3. THE LIGHTING CONTROL SYSTEM (INTERIOR AND EXTERIOR) SHALL BE PROGRAMMED PER THE OWNER'S REQUIREMENTS.
4. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH (8) HOURS OF TRAINING FOR THE LIGHTING CONTROL SYSTEM. TRAINING SHALL BE PROVIDED FOR FOUR (4) CLIENT CHOSEN EMPLOYEES. CONTRACTOR TO COORDINATE WITH THE ARCHITECT FOR SCHEDULING OF TRAINING.
5. PLUG LOAD (PL) POWER PACKS FOR CONTROL OF RECEPTACLES. CONNECT LOW VOLTAGE SIDE OF "PL" TO THE LIGHTING CONTROL SYSTEM.
6. ALL INTERIOR LIGHT FIXTURES CONTROLLED BY THE LIGHTING CONTROL SYSTEM SHALL BE PROGRAMMED TO REDUCE BY 50% FROM 8:00 PM TO 8:00 AM.

## SYMBOL LIST

ACCUITY CONTROLS nLIGHT PRODUCT NUMBERS

- (OS) OCCUPANCY SENSOR #nCM PDT10 RJB AR
- DS DAYLIGHT SENSOR. #nCM PC DZ RJB AR
- PL PLUG LOAD POWER PACK #nPP20 PL BP
- PS POWER SUPPLY PROVIDED WITH GATEWAY OR BRIDGE
- LV-D nLIGHT WALLSTATION DIMMER/OCCUPANT SENSOR #nWSX PDT LV DX WH
- LV-* nLIGHT WALLSTATION DIMMER/SWITCH #nPODM DX WH * = DEPENDING ON NUBMER
- DR DEMAND RESPONSE #nADR-L400
- nECY ECLYPSE "nECY" #nECY MVOLT ADR ENC GFXK
- BR- 8 PORT BRIDGE #nBRG8 KIT
- NFXT nLIGHT ENABLED LIGHT FIXTURE
- FXT 0-10V. DIMMING LIGHT FIXTURE
- PP nLIGHT RELAY/POWER PACK #NPP16-D
- NPNL nLIGHT RELAY PANEL / CABINET #ARP-8 / ARP-16
- NCOM nLIGHT PROGRAMMING TOOL USED TO PROGRAM STANDALONE #NCOMKIT
- nIOS LOW VOTLAGE INTERFACE #nIO 1S



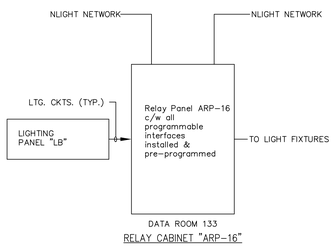

### RELAY CABINET "ARP-16"

| DESCRIPTION | Circuit Number | Control Letter | Control | LV Switch | Relay Number | Control Zone |
|---|---|---|---|---|---|---|
| EXTERIOR BUILDING LIGHTS | LB-2 | a | T/C | ----- | 1 | 1 |
| EXTERIOR BUILDING LIGHTS | LD-6 | a | T/C | ----- | 2 | 1 |
| BBQ PATIO | LD-2 | e | T/C | LV-1 (e) | 3 | 2 |
| REAR SITE LIGHTING | LD-4 | e | T/C | ----- | 4 | 3 |
| RESPONSE DRIVE / PARKING LOT LIGHTS | LB-6 | a | T/C | ----- | 5 | 4 |
| ADDRESS SIGN | LB-8 | – | T/C | ----- | 6 | 5 |
| FLAG POLE LIGHT | LD-2 | d | T/C | ----- | 7 | 6 |
| BUILDING SIGN | LB-10 | – | T/C | ----- | 8 | 7 |
| MONUMENT SIGN | LB-6 | c | T/C | ----- | 9 | 8 |
| LOW LEVEL LIGHTING - PEDESTRIAN PATH | LB-6 | b | T/C | ----- | 10 | 9 |
| SPARE (TYP. 6) | ----- | – | -- | ----- | 11 | – |

DATA ROOM 133

RELAY CABINET - ARP
MANUFACTURER: ACUITY
1 - ARP-INTENCH8-NLT-16SPR-MVOLT-SC-FM

CONTROL LEGEND
T/C = TIME CLOCK




## LIGHTING CONTROL DIAGRAM

SCALE: NONE



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8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
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# COSTA MESA FIRE STATION NO. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

REGISTERED PROFESSIONAL ENGINEER
RICARDO E. SOTELO
No. E17229
6/30/26
ELECTRICAL
STATE OF CALIFORNIA

CONSULTANT
A&F ENGINEERING GROUP, INC.
9320 BASELINE RD., SUITE C, RANCHO CUCAMONGA, CA 91701
TEL: (909) 941-3008 FAX (909) 941-8211

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

DRAWN: CBF | CHECKED: RES
DATE: 06/17/26 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

ELECTRICAL DETAILS

DRAWING NUMBER: E3.5

CM-07-01-2026

# COSTA MESA TEMP STATION #2
# **CITY OF COSTA MESA**
# 800 BAKER STREET,
# COSTA MESA, CA 92626

## DRAWING INDEX

| SHEET # | SHEET CONTENTS | 8/18/2025 | | | | | | |
|---|---|---|---|---|---|---|---|---|
| COVER | COVER SHEET | ● | | | | | | |
| AS1.1 | ALERT SYSTEM 1ST FLOOR DEVICE PLAN | ● | | | | | | |
| AS3.1 | ALERT SYSTEM 1ST FLOOR CONDUIT PLAN | ● | | | | | | |
| AS4.1 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.2 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.3 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.4 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.5 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |

WESTNET®
15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX: (714) 901-5610
www.FirstInAlerting.com

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| REV | REVISION | DATE | BY |
|---|---|---|---|

FIRST-IN
ALERT SYSTEM

PROJECT NAME:
COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
IF THIS SCALE IS NOT 1".
THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025
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TITLE: COVER
SHEET
COVER

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10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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**COSTA MESA FIRE STATION No. 2**
**RECONSTRUCTION**
**COSTA MESA FIRE & RESCUE DEPARTMENT**
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**TEMP. STATION - ALERT SYSTEM COVER SHEET**

DRAWING NUMBER: **AST0.1**

8/28/2026 10:57:36 AM
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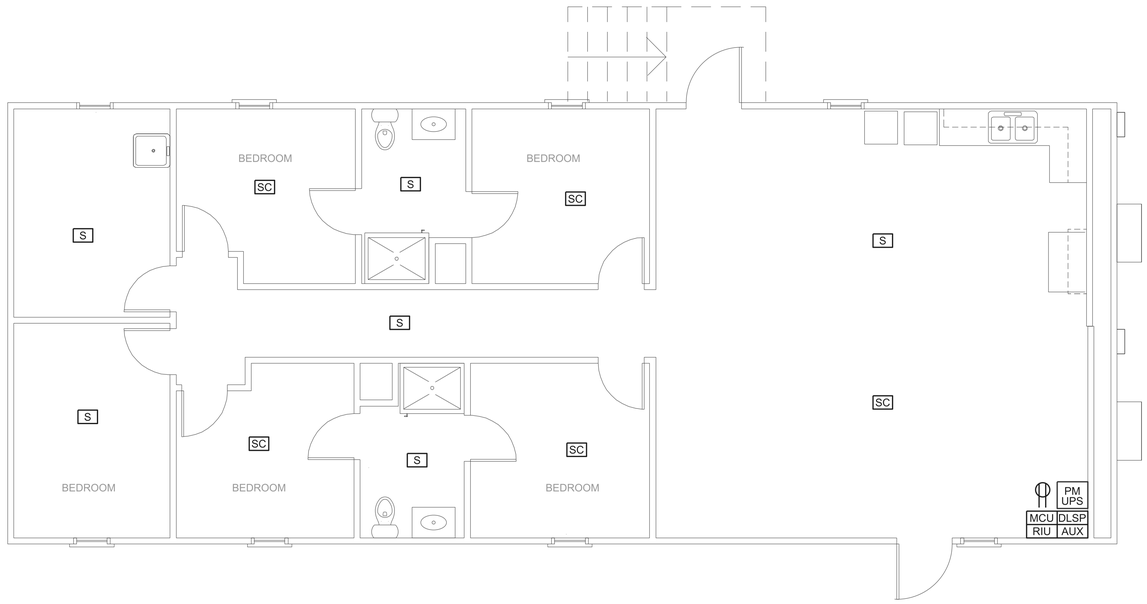
PC SUBMITTAL 04

CM-07-01-2026




## FIRST-IN FIRE STATION ALERTING

SYMBOL LEGEND

| | |
|---|---|
| MCU | MASTER CONTROL UNIT |
| DLSP | DATA LINE SURGE PROTECTOR |
| RIU | RADIO ISOLATION UNIT |
| AUX | AUXILLIARY MODULE |
| PM UPS | POWER MODULE WITH UPS-BLACK (DEDICATED 120V CIRCUIT REQUIRED. INDIVIDUAL BREAKER RECOMMENDED) |
| SC | SATELLIGHT CONTROLLER |
| S | SATELLIGHT |
| DB | DOORBELL BUTTON |

## GENERAL NOTES

1. DEVICES ARE TYPICAL AND FOR REFERENCE ONLY.
2. ALL BACK BOXES & CONDUITS ARE TO BE FLUSH MOUNTED UNLESS OTHERWISE SPECIFIED FOR NEW CONSTRUCTION.
3. DEVICES LOCATED IN ACOUSTICAL CEILINGS DO NOT REQUIRE BACKBOXES
4. DEVICES LOCATED IN ACOUSTICAL CEILINGS REQUIRE ACOUSTICAL WESTNET MOUNTING KIT (SSATKIT-A)
5. DEVICES ONLY LOCATED IN SHEETROCK OR EXPOSED CEILINGS REQUIRE HOFFMAN BRAND 8X10X4 BACKBOX
6. DEVICES ONLY LOCATED IN SHEETROCK OR EXPOSED CEILINGS REQUIRE APPROPRIATE WESTNET MOUNTING KIT (SURFACE MOUNT OR FLUSH MOUNT) FOR NEW CONSTRUCTION.
7. LOCATIONS OF DEVICES DETERMINED AT INSTALLATION BY INSTALLER FOR NEW CONSTRUCTION.
8. SEE ARCHITECTURAL SPECIFICATION FOR ALL ROUGH-IN AND INSTALLATION DETAILS FOR NEW CONSTRUCTION.
9. INSTALLER TO VERIFY WALL AND CEILING TYPE TO DETERMINE NEED FOR FLUSH OR SURFACE MOUNT INSTALLATION OF EQUIPMENT SPECIFIED FOR NEW CONSTRUCTION.
10. ALL WIRING AND DEVICES TO BE INSTALLED BY WESTNET.
11. ALL PENETRATION TO EXTERIOR DEVICES MUST BE WEATHERPROOF AND FIRE CAULKED FOR CONSTRUCTION BY OTHERS.
12. DEVICES LOCATED IN BATHROOM/SHOWER AREAS MUST BE VISIBLE FROM SHOWERS. INSTALLER TO FIELD VERIFY DEVICE LOCATION. (TYPICAL)
13. ALL DEVICES MUST BE KEPT CLEAR OF OBSTRUCTIONS & CEILING FAN BLADES.
14. IN ACOUSTICAL CEILING (T-BAR), WIRE CABLING IS FREE WIRE (NOT IN CONDUIT).
15. IN GYPSUM BOARD CEILING (SHEET ROCK / HARD LID), WIRE CABLING IN IN 3/4" CONDUIT UNLESS CONDUIT SIZE OTHERWISE NOTED.
16. IN EXPOSED AREAS ONLY 8X10X4 HOFFMAN BACK BOX MOUNTED AT +10'-0" A.F.F. MAX. WITH OPEN FACE DOWN IN CENTER OF ROOM WITH 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE, KEEP CLEAR OF OBSTRUCTIONS.
17. A 5 OHM EARTH GROUND MUST BE CONNECTED TO THE RADIO ISOLATION UNIT IN THE COMMUNICATION RACK.
18. THE RADIO RECEIVING THE DISPATCH INFORMATION SHALL BE LOCATED WITHIN 6'-0" FT. OF THE RADIO ISOLATION UNIT.
19. INSTALLER TO PROVIDE ONE ADDITIONAL UNCONNECTED BLUE CAT5 CABLE WITH RJ45 CONNECTORS ON BOTH ENDS BETWEEN THE MCU LOCATION AND EACH ALERTING END POINT FOR NETWORK CONNECTIVITY.

## ALERT SYSTEM - 1ST FLOOR DEVICE LAYOUT PLAN

SCALE: N.T.S.

N

### WESTNET/FIRST IN SYSTEM LAYOUT REVIEW

PROJECT: COSTA MESA TEMP STATION #2

DEPARTMENT: COSTA MESA, CA

DATE SUBMITTED:

- ☐ Approved subject to notations and corrections as indicated.
- ____ Re-submit corrected Layout for our approval.
- ____ Re-submittal of Layout not required.
- ☐ Rejected/Re-submit Layout

Remarks: _____

DATE RETURNED:

REVIEWED BY: _____

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This serves to Certify that this Layout submittal(s) have been reviewed for accuracy and compliance with the general conformance of the design and layout(only) with the Department Contact and/or Contract Documents.

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Westnet, LLC.
15542 Chemical Lane
Huntington Beach, CA 92649
Phone: (714) 548-3500
Fax: (714) 901-5610
www.FirstInAlerting.com

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15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX: (714) 901-5610
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FIRST-IN

ALERT SYSTEM

PROJECT NAME:
COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE: 0 1
IF THIS SCALE IS NOT 1": THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025

DRAWN BY: EV

SCALE: N.T.S.

TITLE: 1ST FLOOR DEVICE PLAN

SHEET
AS1.1

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SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: | CHECKED:

DATE: 06/30/2026 | SCALE: AS NOTED

PROJECT NUMBER: 2109300

TEMP. STATION - FIRST FLOOR DEVICE PLAN

DRAWING NUMBER: AST1.1

6/30/2026 10:01:39 AM
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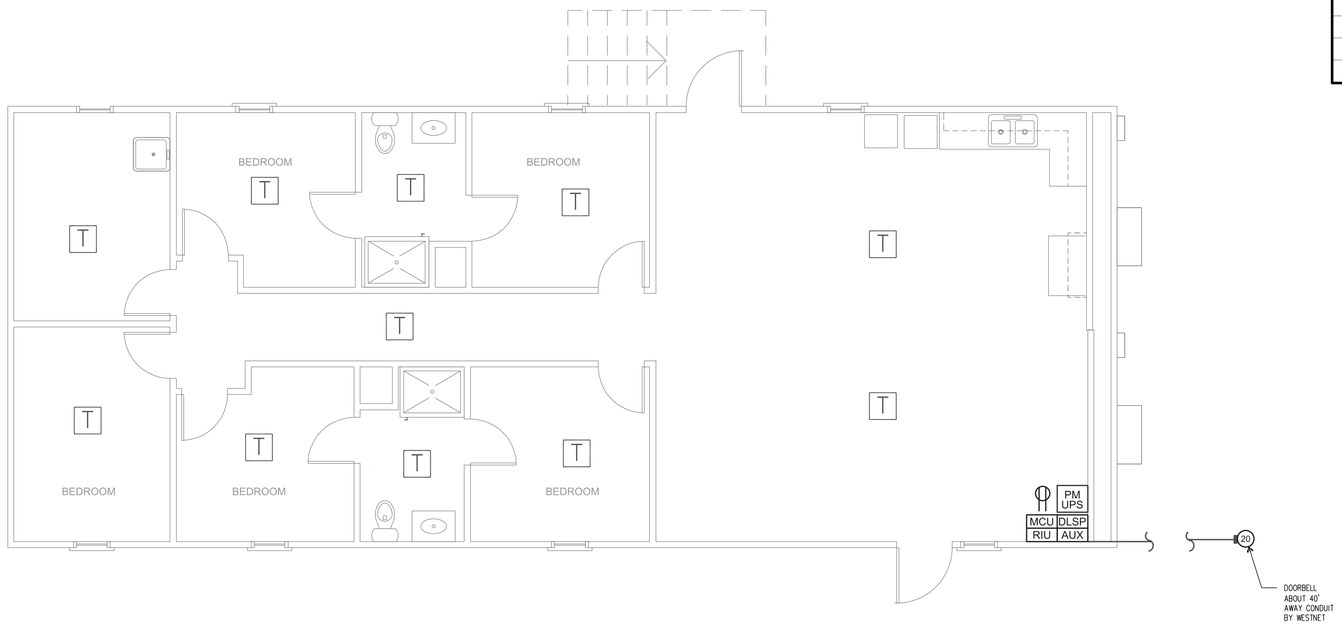
CM-07-01-2026

**NOTE:**

1. **CONDUIT ROUTING IS FOR REFERENCE ONLY**
2. **CONDUIT INSTALLER PLACE PULL BOXES AS NEEDED**
3. **CONDUIT BENDS NOT TO EXCEED 360 DEGREES**
4. **UNDERGROUND CONDUITS NOT PERMITTED**




## ALERT SYSTEM - 1ST FLOOR CONDUIT LAYOUT PLAN

SCALE: N.T.S.

N

## FIRST-IN FIRE STATION ALERTING

SYMBOL LEGEND

| | |
|---|---|
| MCU | MASTER CONTROL UNIT |
| DLSP | DATA LINE SURGE PROTECTOR |
| RIU | RADIO ISOLATION UNIT |
| AUX | AUXILLIARY MODULE |
| PM UPS | POWER MODULE WITH UPS-BLACK (DEDICATED 120V CIRCUIT REQUIRED. INDIVIDUAL BREAKER RECOMMENDED) |
| BK BX ASLF | CUSTOM BACKBOX PROVIDED BY WESTNET |
| BK BX DR | DORM REMOTE BACKBOX PROVIDED WESTNET |
| DLT | DORM LITE ACOUSTIC CEILING MOUNT KIT |
| H | 8x10x4 HOFFMAN BACKBOX |
| T | ACOUSTIC CEILING KIT |
| J | JBOX |
| ▬ | LOCATION OF DEVICE WALL MOUNTED |

## GENERAL NOTES

1. DEVICES ARE TYPICAL AND FOR REFERENCE ONLY.
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20. All BUTTONS AND SWITCHES
    * 4 SQUARE DEEP SINGLE GANG RING BOX
    * MOUNTED +48" A.F.F.
    * 6" - 12" FROM DOOR FRAME
    * 3 /4" CONDUIT STUB UP ABOVE CEILING TO ACCESSIBLE CEILING SPACE.
    * KEEP CLEAR OF OBSTRUCTIONS (TYPICAL)
    *3/4" CONDUIT TO MCU LOCATION

## WESTNET/FIRST IN SYSTEM LAYOUT REVIEW

PROJECT: COSTA MESA TEMP STATION #2

DEPARTMENT: COSTA MESA, CA

DATE SUBMITTED:

- ☐ Approved subject to notations and corrections as indicated.
- ____ Re-submit corrected Layout for our approval.
- ____ Re-submittal of Layout not required.
- ☐ Rejected/Re-submit Layout

Remarks: _____

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15542 Chemical Lane
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Phone: (714) 548-3500
Fax: (714) 901-5610
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FIRST-IN

ALERT SYSTEM

PROJECT NAME:

COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE: 0 1
IF THIS SCALE IS NOT 1", THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025

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SCALE: N.T.S.

TITLE: 1ST FLOOR CONDUIT PLAN

SHEET

AS3.1

PBK

SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729

TEL: 909-987-0909

www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
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| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

TEMP. STATION - FIRST FLOOR CONDUIT PLAN

DRAWING NUMBER: AST3.1

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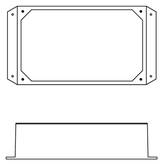
CM-07-01-2026

01 MASTER CONTROL UNIT - MCU
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

## MCU MASTER CONTROL UNIT

- THE MASTER CONTROL UNIT IS THE COMMAND CENTER OF THE SMART STATION NETWORK.
- THE MASTER CONTROL UNIT SHALL ACCEPT ALARM INPUTS FROM UP TO (4) RADIOS, DEDICATED PHONE LINES, POTS TELEPHONE LINES, SERIAL DATA LINES, AS WELL AS TCP/IP ETHERNET NETWORKS.
- THE MASTER CONTROL UNIT SUPPORTS THE FULL ZIR COMMAND SET.
- THE MASTER CONTROL UNIT SHALL MEET THE NFPA REQUIREMENT 1221 FOR SUPERVISED COMMUNICATIONS FOR ALERTING WITH THE DISPATCH CENTER.
- ALARM AUDIO LEVELS SHALL BE CONTROLLABLE OVER A (30) DECIBAL RANGE IN (1) DECIBAL INCREMENTS.
- RADIO AUDIO LEVELS SHALL BE CONTROLLABLE OVER A (30) DECIBAL RANGE IN (1) DECIBAL INCREMENTS.
- THE ENTIRE FIRE STATION ALERTING LEVEL SHALL BE AUTOMATICALLY REDUCED AT NIGHT AND RETURNED TO NORMAL LEVELS IN THE MORNING AUTOMATICALLY.
- OUTSIDE SPEAKERS SHALL BE AUTOMATICALLY TURNED OFF AT NIGHT AND TURNED BACK ON IN THE MORNING AUTOMATICALLY.
- PRIMARY PROGRAMMING SHALL BE ACCOMPLISHED FROM THE FRONT PANEL, WHILE SECONDARY PROGRAMMING IS ACCOMPLISHED WITH THE SMART STATION SERVICE VIA COMPUTER.
- FRONT PANEL PROGRAMMING SHALL BE LIMITED TO PLACING THE STATION ON RADIO WATCH OR REMOVING THE STATION FROM RADIO WATCH.
- THE MASTER CONTROL UNIT SHALL BE POWERED FROM AN "ON-LINE" UPS FOR UNINTERRUPTIBLE ALERTING SERVICE.



02 CONTROL REMOTE - CR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

## CR CONTROL REMOTE

- WHEN THE ALARM SYSTEM TRIGGERS, THE CONTROL REMOTE CAN OPEN BAY DOORS, TURN ON BAY LIGHTS, OPEN GATES, AND/OR SENSE INPUTS FROM CO DETECTORS IN APPARATUS BAYS.
- PROVIDES (8), DOUBLE POLE, DOUBLE THROW (DPDT) RELAYS UNDER SOFTWARE CONTROL OF THE MASTER CONTROL UNIT.
- PROVIDE (4) REMOTE SENSING INPUTS TO COLLECT DATA RELEVANT TO THE CONTROL FUNCTIONS.
- ENABLES THE MASTER CONTROL UNIT TO OPERATE FIRE STATION ALERTING EQUIPMENT THAT IS NOT SMART STATION COMPATIBLE.
- ALL RELAYS SHALL BE ZONE, TIME DELAY AND TIME OF DAY CONTROLLABLE IN ANY COMBINATION NECESSARY.
- SHALL PROVIDE CONTROL AND SENSE CAPABILITY THROUGHOUT THE NETWORK AT ANY LOCATION.
- RELAYS SHALL BE RATED AT (5) AMPS AT (24) VOLTS DC OR AC.
- MECHANICAL LIFE OF THE RELAY CONTACTS SHALL BE A MINIMUM OF (5) MILLION OPERATIONS.
- RELAYS SHALL BE USED TO CONTROL THE OVEN/RANGES IN THR KITCHEN, OPERATION OF EACH APPARATUS BAY DOOR INDEPENDANTLY, AND CONNECTION OF CARBON MONOXIDE SENSORS TO THE SYSTEM. COORDINATE ALL ELECTRICAL CONTACTS AND RELAYS REQUIRED FOR LINE VOLTAGE CIRCUITS TO INTERFACE WITH CONTROL REMOTE DEVICES.
- WESTNET ALERT SYSTEM PROVIDES ONLY DRY CONTACTS RATED AT 24 VOLTS MAX., NO VOLTAGE IS SUPPLIED

## ALERTING SYSTEM OVERVIEW PLEASE READ

Most contractors are unfamiliar with what the Alerting System is and the capabilities of the system. The overall function of the alerting system is to reduce the response time of the received calls from 15 to 45 seconds using visual and audio alerts for dispatched units. This system is installed as a large communication loop utilizing CAT 5 cabling with very limited connections to the existing building.

There are several common questions that are generally asked during the rough in stages for our system:

Does the back box specified need to be a Hoffman Brand - Part #43050 - Cat #A-SE8X10X4 for Dorm Remotes (DR) and Satellite Controllers (SC)? YES, the mounting flanges for these devices specifically made for this type of box. This eliminates re-tapping of the box and quicker installation time.

Can power receptacles be relocated? YES, at a maximum of six (6) feet from plan indication.

Can conduit differ from plans? NO, the routing of the conduit is very specific and is the link from device to device creating the over all communication loop.

There is a spacing conflict with the Dorm Remote (DR), Thermostat, Light Switch, and Telephone location next to the door jamb. Can this be relocated? YES, this can be moved away from the door jamb, generally between the light switch and thermostat is most common, for the occupants to monitor their dispatched calls. Refer to notes on AS.01. The mounting flange will require 18" space between light switch and next device for the horizontally mounted Hoffman back box.

Can devices be relocated? YES, but at a maximum of six (6) feet. Please keep in mind of equal spacing of devices for an even audio and visual coverage; this is important when announcing dispatched calls. Also, the cabling is pre-manufactured and is designated for that device. Relocation of devices at more than six (6) feet from indicated location will need approval by Westnet.

How is the Hoffman Brand - Part #43050 - Cat #A-SE8X10X4 boxes to be mounted? For Dorm Remotes (DR), the back box is to mount horizontally, 10" wide and 8" tall, recessed 1/8" into the sheetrock wall, at 48" to centerline, above finished floor. The mounting flange covers the back box opening and pulls flush against the sheetrock.

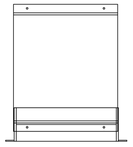
For Satellite Controllers (SC), that is to be mounted into sheetrock ceilings, the back box will run, the 10" side, with the length of the room, in the center, free from obstructions, avoiding other trades, recessed 1/8" into sheetrock, and mounted at a maximum of 15' above finished floor. Back boxes installed in open areas will be mounted at a maximum of 15' above finished surface, free from obstructions, avoiding other trades, recessed 1/8" into sheetrock, and mounted at a maximum of 15' above finished floor. Back boxes installed in open areas will be mounted at a maximum of 15' above finished surface, free from obstructions, with length of room, and visible from all points in the rooms. Westnet does not assume the responsibility for poor installation of back boxes. Refer to notes on AS.01.

What is the function of the Control Remote (CR)? This device can perform multiple functions, opening apparatus bay doors, gates, corridor lighting, etc.
Any equipment that shows to be connected that are to be controlled by the CR will need a control voltage of 24 Volts that is NOT supplied by Westnet. The terminal rating is a maximum of 24V on the CR.

What is the MCU? This is the brains of the system. Received calls go thru this device and are announced throughout the system. This is most commonly the only connection that is made to the existing communications. This is to be located within six (6) feet of the dispatch radio in watch room or communication center of station.

These are just a few of the issues that you may have questions about.
There is to be no alteration of the system without the approval of Westnet.

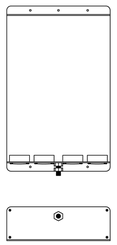
If there are more questions or concerns about the rough in for installation, please call 1-800-807-1700



## TIM TELEPHONE INTERFACE MODULE

- SHALL BE UTILIZED FOR PAGING PERSONNEL WITHIN THE FIRE STATION.
- SHALL INTEGRATE THE FIRE STATION TELEPHONE SYSTEM INTO ALL AUDIO UNITS, SUCH AS COMBINATION SPEAKER/LED LIGHT DEVICES. PROGRAMMABLE SPEAKER/RED GLOW LIGHT DEVICES AND HIGH POWER AMPLIFIERS.
- REQUIRES CONDUIT SLEEVE TO STATION TELE/COMM ROOM

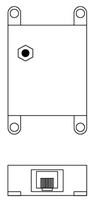
03 STATION PAGING MODULE - PAG
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.



## RIU RADIO ISOLATION UNIT

- SURGE PROTECTION DEVICE CONNECTED TO RADIO ANTENNAS EXTEND GROUND WIRE FROM UNIT TO LIGHTING PROTECTION SYSTEM.

04 RADIO ISOLATION UNIT - RIU
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.



## DATA LINE SURGE SUPPRESSOR - DLSP

- SHALL BE UTILIZED FOR SURGE PROTECTION OF THE LAN FEED FROM SWITCH
- SHALL BE GROUNDED TO 5 OHM GROUND PLATE
- SHALL BE LOCATED WITHIN 6 FEET OF MCU

WESTNET®
15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX: (714) 901-5610
www.FirstInAlerting.com

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| REV | REVISION | DATE | BY |
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| | | | |

ALERT SYSTEM

PROJECT NAME:
COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE: 0 1
IF THIS SCALE IS NOT 1"
THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.1

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

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|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

TEMP. STATION - DEVICE DETAILS

DRAWING NUMBER: AST4.1

8/20/2026 10:13:36 AM
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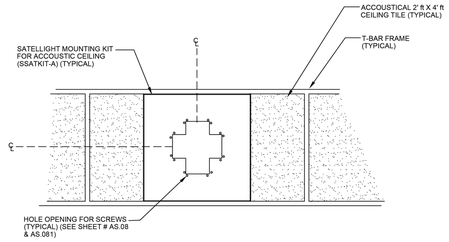
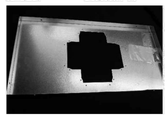


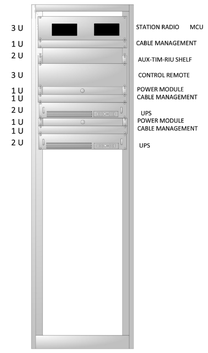

**ID 929 SSATKIT-A**

**Satellight Mounting Kit - Acoustic Ceiling (A-Kit)**



Note:
Kit used for mounting on drop-tile ceilings. Compatible products include:
1. Satellight Controllers 2. Satellights 3. Dorm lights

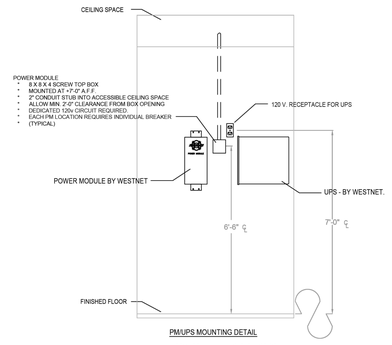
03 TYPICAL T-BAR PANEL INSTALLATION
N.T.S.




TYPICAL LAYOUT

01 SMART STATION RACK DIAGRAM
N.T.S.

RACK PROVIDED BY OTHERS

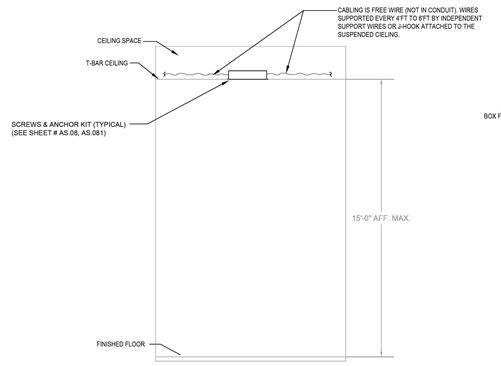



PM/UPS MOUNTING DETAIL

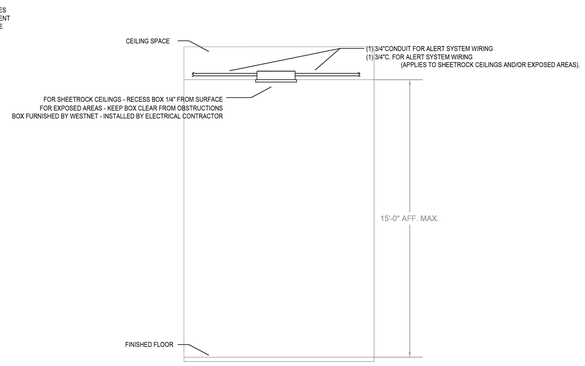
PROVIDE A MINIMUM CLEARANCE OF
3'-0" SQUARE FOR PM/UPS MOUNTING

PM UPS POWER MODULE AND UPS

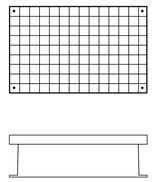
- POWER MODULES SHALL SUPPLY THE SMART STATION CAT 5 PRIMARY ALARM NETWORK WITH 24 VOLTS DC OUTPUT.
- THE POWER MODULE SHALL BE CENTERED TO THE FIRE STATION RADIO, THE PRINTER, MASTER CONTROL UNIT, AND THE DATA TERMINAL CONTROL UNIT IF THE FIRE STATION IS ETHERNET DISPATCHED.
- SHALL SUPPLY SYNTHESIZED 110-VAC POWER THAT IS PROTECTED FROM THE POWER GRID BY AN ON-LINE CONVERTER.
- SHALL SENSE POWER LOSS AND NOTIFY THE MASTER CONTROL UNIT OF ANY OUTAGE.
- LED STATUS INDICATORS SHALL SHOW FIRE PERSONEL THE MODULE POWER STATUS.
- STANDARD AGC POWER FUSES SHALL BE CHANGEABLE BY FIRE STATION PERSONNEL.
- EACH POWER SUPPLY SHALL BE ACCOMPANIED BY AN UNINTERRUPTIBLE POWER SUPPLY WITH CAPACITY TO RUN THE SYSTEM AT FULL OPERATION FOR (60) MINUTES.




SATELLIGHT CONTROLLER T-BAR MOUNTING DETAIL




SATELLIGHT CONTROLLER COUNDUIT MOUNTING DETAIL



03 SATELLIGHT CONTROLLER - SC
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

SATELLIGHT SPEAKER - S
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

SC SATELLIGHT CONTROLLER

KSC KNIGHT LITE SATELLIGHT CONTROLLER

- SHALL OPERATE ON A CAT 5 SMART STATION PRIMARY ALARM NETWORK, WHICH IS DRIVEN FROM THE MCU.
- OPERATE INDEPENDANTLY OR DRIVE UP TO (3) OR (4) DEVICES DEPENDING UPON THE LOCATION IN THE FIRE STATION.
- AUDIO OUTPUT SHALL BE CONTROLLED BY SOFTWARE FROM THE MASTER CONTROL UNIT.
- AUDIO OUTPUT SHALL BE ADJUSTABLE ACROSS A (90) DEOBAL RANGE.
- SHALL BE CAPABLE OF INTELLEGENT SENSING AND CONTROL OF FIRE STATION SYSTEMS AND EQUIPMENT. CONTROLLER SHALL UTILIZE BI-DIRECTIONAL DATA THROUGHOUT THE SMART STATION NETWORK AND EXTEND CAPABILITY TO THE FIRE DEPARTMENT DIPATCH CENTER.
- SHALL BE MOUNTED IN THE CEILING TO PROVIDE ALARM COVERAGE THROUGHOUT THE STATION.
- ACOUSTICAL CEILING MOUNTING SECURES THE DEVICE TO THE T-BAR RAILS AND THE SUPERSTRUCTURE OF THE BUILDING.
- DRYWALL AND PLASTER CEILING MOUNTING HARDWARE SHALL UTILIZE METAL HARDWARE THAT IS COLOR-MATCHED TO THE LAMP ASSEMBLY.

S SATELLIGHT, SPEAKER/LED LIGHT

KS KNIGHT LITE SATELLIGHT, SPEAKER/LED LIGHT

- SHALL OPERATE ON A CAT 5 ALARM SUBNETWORK, WHICH IS DRIVEN FROM A DEVICE CONTROLLER.
- AUDIO OUTPUT FROM THE DEVICES SHALL BE SET BY THE SOFTWARE FROM THE CONTROLLER.
- AUDIO OUTPUT SHALL BE ADJUSTABLE ACROSS A (90) DECIBLE RANGE.
- THE LIGHTING OUTPUT SHALL INCREASE AUTOMATICALLY DURING THE FIRST FEW SECONDS OF THE ALARM SEQUENCE.
- SHALL BE MOUNTED IN CEILING TO PROVIDE ALARM COVERAGE THROUGHOUT THE STATION.
- ACOUSTICAL CEILING MOUNTING SECURES THE DEVICE TO THE T-BAR RAILS AND THE SUPERSTRUCTURE OF THE BUILDING.
- DRYWALL AND PLASTER CEILING MOUNTING HARDWARE INSTALLS DEVICES INTO THESE CEILINGS.

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FIRST IN ALERT SYSTEM

PROJECT NAME:
COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
IF THIS SCALE IS NOT 1".
THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.2

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2
## RECONSTRUCTION
### COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

DRAWN: CHECKED:
DATE: 06/30/2026 SCALE: AS NOTED
PROJECT NUMBER: 2109300

DEVICE DETAILS

DRAWING NUMBER: AST4.2

6/30/2026 10:51:36 AM
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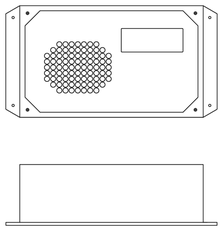
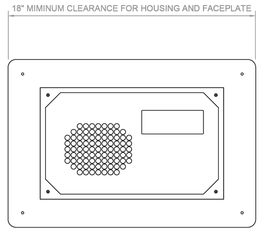
PC SUBMITTAL 04

CM-07-01-2026





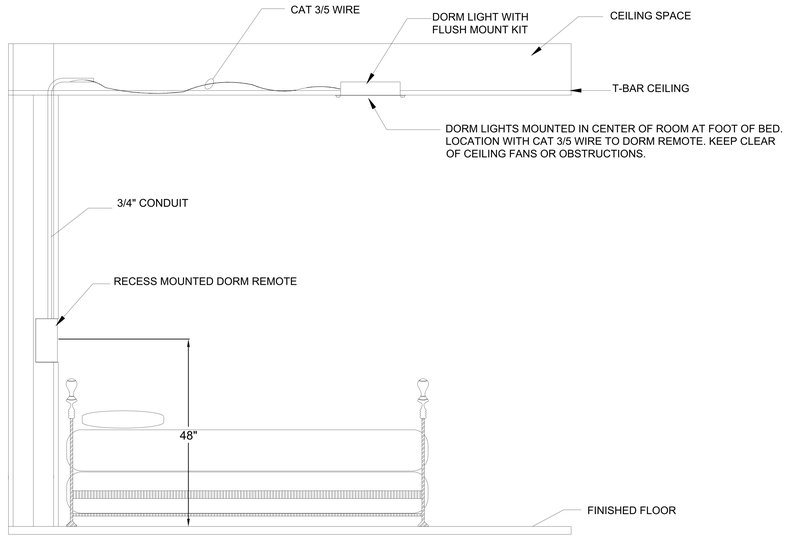

DORM REMOTE WITH ATTACHED FACEPLATE

RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

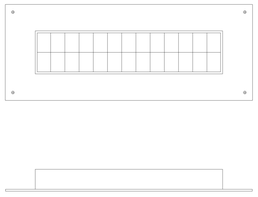
01 DORM REMOTE - DR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

DR DORM REMOTE WITH LIGHT

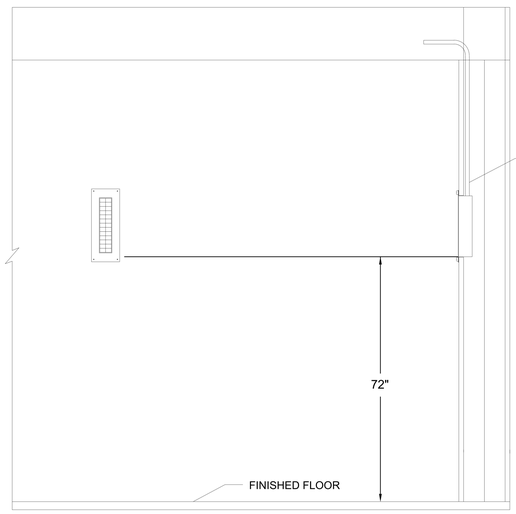
- SPEAKER/LIGHT DEVICES SHALL BE FIREFIGHTER PROGRAMMED TO ACTIVATE ON ALL ALARMS STARTING AT SHIFT CHANGE.
- THE DEVICE AUDIO SHALL BE ADJUSTED OVER A (60) DECIBLE RANGE IN (1) DECIBLE INCREMENTS TO AID IN THE REDUCTION OF AUDIBLE SHOCK THAT OCCURS WHEN THE FIREFIGHTER AWAKENS TO AN ALARM.
- THE LIGHTING SHALL INCREASE DURING THE FIRST FEW SECONDS OF THE ALARM SEQUENCE TO REDUCE OPTICAL SHOCK UPON AWAKENING.
- THE LIGHT OUTPUT SHALL BE ADJUSTABLE BY EACH FIREFIGHTER.
-INSTALLED WITH VISIBLE FRONT DISPLAY PANEL AND SPEAKER TOWARD THE SLEEPING AREA.
- THE TWO-LINE DISPLAY SHALL BE USED FOR DISPLAYING TEXT MESSAGING.
- THE DEVICE SHALL OPERATE UP TO (4) COMBINATION SPEAKER/LED LIGHT DEVICES FOR ZONE CONTROLLED SLEEP AREAS.
- THE DEVICE SHALL BE DESIGNED TO BE WALL OR ROOM DIVIDER MOUNTED AT (2) FEET ABOVE THE HEIGHT OF THE BED TO PROVIDE ILLUMINATION FOR THE BED AND THE FLOOR.
- THE DEVICE CAN BE SURFACE MOUNTED.
- ALL CONNECTIONS SHALL BE MODULAR PLUGS ENABLING RELOCATION OF DORM REMOTE WITH MINIMUM EFFORT.




DORM REMOTE / DORM LIGHT MOUNTING DETAIL



02 ASLF LIGHT
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.




ASLF DORM LIGHT STROBE LAYOUT

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FIRST IN ALERT SYSTEM

PROJECT NAME:
COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
IF THIS SCALE IS NOT 1", THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.3

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

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|---|---|---|---|
| #1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

TEMP. STATION - DEVICE DETAILS

DRAWING NUMBER: AST4.3

PC SUBMITTAL 04

6/30/2026 10:51:42 AM
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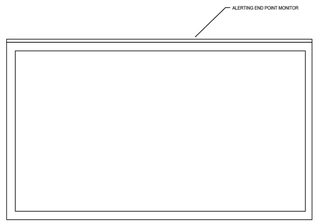
CM-07-01-2026

AEP ALERTING END POINT MONITOR - (SIZE VARIES)

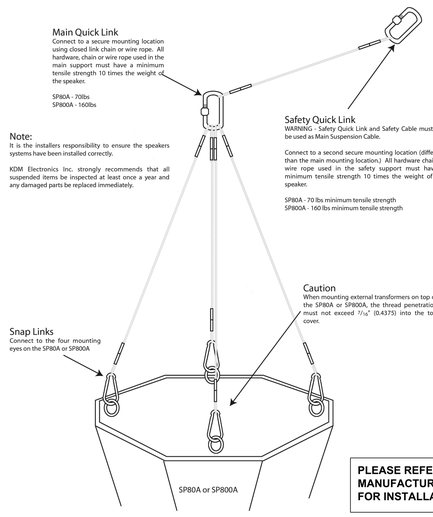
- SHALL BE TEXT AND GRAPHICS IMAGING SIGNS THAT ARE CONTROLLED FROM THE MASTER CONTROL UNIT IN A SMART STATION SYSTEM.
- SHALL BE USED TO DISPLAY THE COMPANIES ASSIGNEDTO THE CALL AND ADDITIONAL INFORMATION SUCH AS THE ADDRESS OF THE CALL, HYDRANT OUTAGES NEAR THE CALL OR HAZMAT INFORMATION ASSOCIATED WITH THE ADDRESS OF THE CALL.
- CHARACTER PANELS SHALL UTILIZE (3) COLOR EMITTERS ENABLING A TOTAL OF (8) SHADES OF MESSAGES.
- SHALL BE DRIVEN BY THE SMART STATION CAT-5 NETWORK.
- SHALL DISPLAY SILENT, CONFIDENTIAL MESSAGES RECEIVED FROM THE MCU RESPONDING TO A MESSAGE ZONE COMMAND.
- SHALL PROVIDE ALERTING INFORMATION THAT IS TOTALLY IMMUNE FROM HIGH NOISE LEVELS OF APPARATUS ROOMS AND AIRCRAFT FACILITIES.
- REQUIRES 120V RECEPTACLE
- SIZE DETERMINED BY INSTALLER




ALERTING END POINT - TOUCH SCREEN

01 ALERTING END POINT MONITOR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

Hanging Instructions SP800A and SP80A using SPH5A Suspension Harness

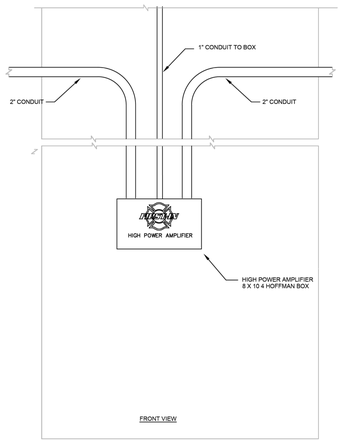



PLEASE REFER TO MANUFACTURING FOR INSTALLATION

Spk Omni
HPA AMP

HIGH POWER PAGING AMPLIFIER & OMNI DIRECTIONAL SPEAKER

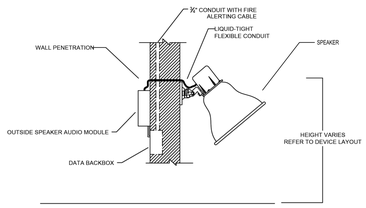
- HIGH POWER AMPLIFIERS SHALL PROVIDE DYNAMIC CONTROL OF THE FIRE ALARM SOUND LEVEL IN HIGH NOISE AREA OF THE FIRE STATION.
- AMPLIFIERS SHALL BE USED THROUGHOUT THE APPARATUS BAYS, AND ALONG THE PERIMETER OF EACH STATION
- INCREASED VOLUME SHALL PROVIDE AUDIBLE DISPATCH IN HIGH NOISE LEVEL AREAS.
- AN AMBIENT NOISE DETECTOR SHALL SENSE SOUND LEVELS AND CONTROL THE OUTPUT POWER FROM (0) TO (128) DECIBALS.
- MAXIMUM OUTPUT POWER SHALL BE SET BY SERVICE SOFTWARE.
- A BUILT IN VOLUME LED INDICATOR SHALL DISPLAY THE OUTPUT LEVEL CONTROL ACTIVITY.
- BUILT IN LED STATUS INDICATORS SHALL INDICATE THE OPERATING MODE OF THE HIGHT POWER AMPLIFIER.
- MULTIPLE HIGH POWER AMPLIFIERS SHALL BE OPERATED ON THE SMART STATION NETWORK.
- SPEAKER SHOWN OUTDOORS SHALL BE WEATHERPROOF AND DESIGNED FOR OUTDOOR USE.
- SPEAKER MOUNTS SHALL BE ADJUSTABLE TO ANY ANGLE AS NEEDED BY THE INSTALLATION.



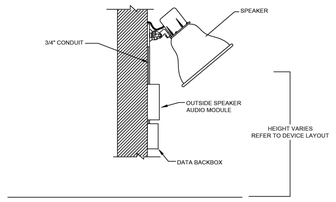

01 HIGH POWER PAGING AMPLIFIER & OMNI DIRECTIONAL SPEAKER
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

FRONT VIEW

FRONT VIEW




02 OUTSIDE SPEAKER AUDIO MODULE - EXTERIOR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.




03 OUTSIDE APEAKER AUDIO MODULE - INTERIOR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

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ALERT SYSTEM

PROJECT NAME:
COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
IF THIS SCALE IS NOT 1".
THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.4

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10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

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|---|---|---|---|
| #1 | | | REVISIONS |

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|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

TEMP. STATION - DEVICE DETAILS

DRAWING NUMBER: AST4.4

8/28/2026 10:14:45 AM
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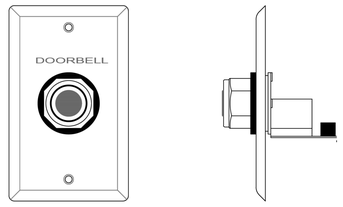
PC SUBMITTAL 04

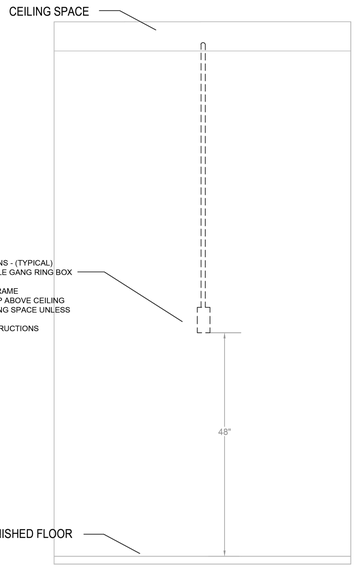
CM-07-01-2026



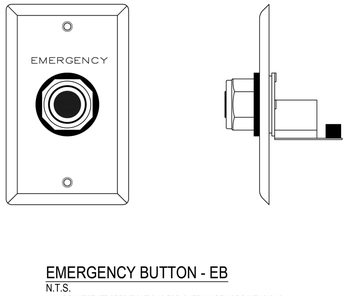

DB DOORBELL - DB
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

DB DOORBELL

- SHALL NOTIFY PERSONNEL OF VISITOR ON FIRE STATION GROUNDS.
- NOTIFICATION OF VISITOR SHALL BE RELAYED TO DISPATCH CENTER.
- SHALL NOTIFY FIRE PERSONNEL AT WHICH DOOR THE VISITOR IS WAITING.
- SHALL PROVIDE BOTH AUDIBLE AND VISUAL NOTIFICATION OF DOORBELL ACTIVATION.
- PROVIDE CUSTOMIZED MESSAGES AND ALERT TONES.



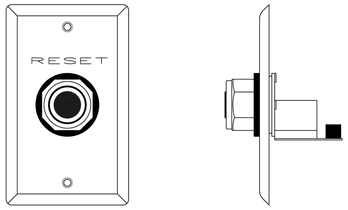

SWITCH/BUTTON MOUNTING DETAIL (TYP.)




EMERGENCY BUTTON - EB
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

EB EMERGENCY BUTTON

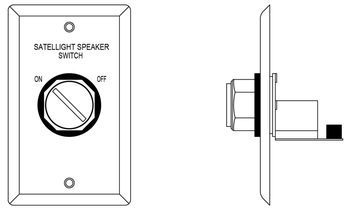
- SHALL NOTIFY PERSONNEL OF EMERGENCY ON FIRE STATION GROUNDS.
- SHALL ENABLE THE FIRE FIGHTER TO ANSWER THE DOOR AND ATTEND TO THE PROBLEM IMMEDIATLY.
- SHALL NOTIFY DISPATCH CENTER OF INCIDENT OCCURANCE AT THE FIRE STATION.
- SHALL PROVIDE BOTH AUDIBLE AND VISUAL NOTIFICATION OF AN EMERGENCY.
- PROVIDE CUSTOMIZED MESSAGES AND ALERT TONES.




RESET BUTTON - RB
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

RB RESET BUTTON

-RESETS APPLIANCE CONTROLLER DEVICE
- SHALL BE WITHIN CLOSE DISTANCE TO APPLIANCE CONTROLLER DEVICE




SPEAKER SWITCH - SW
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

SW SPEAKER SWITCH

- SHALL BE UTILIZED TO CONTROL THE ACTIVE/INACTIVE OPERATION OF THE SATELLIGHT CONTROLLER IN ROOM (COMBINATION SPEAKER/LED LIGHT DEVICE).

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FIRST-IN

ALERT SYSTEM

PROJECT NAME:
COSTA MESA TEMP STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE: 0 1
IF THIS SCALE IS NOT 1", THIS SHEET IS NOT TO SCALE.

DATE: 08/18/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.5

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

TEMP. STATION - DEVICE DETAILS

DRAWING NUMBER: AST4.5

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PC Submittal

CM-07-01-2026

# COSTA MESA FIRE STATION #2
# **CITY OF COSTA MESA**
# 800 BAKER STREET,
# COSTA MESA, CA 92626

## DRAWING INDEX

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| AS1.1 | ALERT SYSTEM 1ST FLOOR DEVICE PLAN | ● | | | | | | |
| AS3.1 | ALERT SYSTEM 1ST FLOOR CONDUIT PLAN | ● | | | | | | |
| AS4.1 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.2 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.3 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.4 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |
| AS4.5 | ALERT SYSTEM DEVICE DETAILS | ● | | | | | | |

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15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX (714) 901-5610
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FIRST-IN
ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE: 0 1
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DATE: 09/22/2025
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TITLE: COVER
SHEET
COVER

PBK
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10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

**COSTA MESA FIRE STATION No. 2**
**RECONSTRUCTION**
**COSTA MESA FIRE & RESCUE DEPARTMENT**
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

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| PROJECT NUMBER: 2109300 | |

**ALERT SYSTEM COVER SHEET**

DRAWING NUMBER: **AS0.1**

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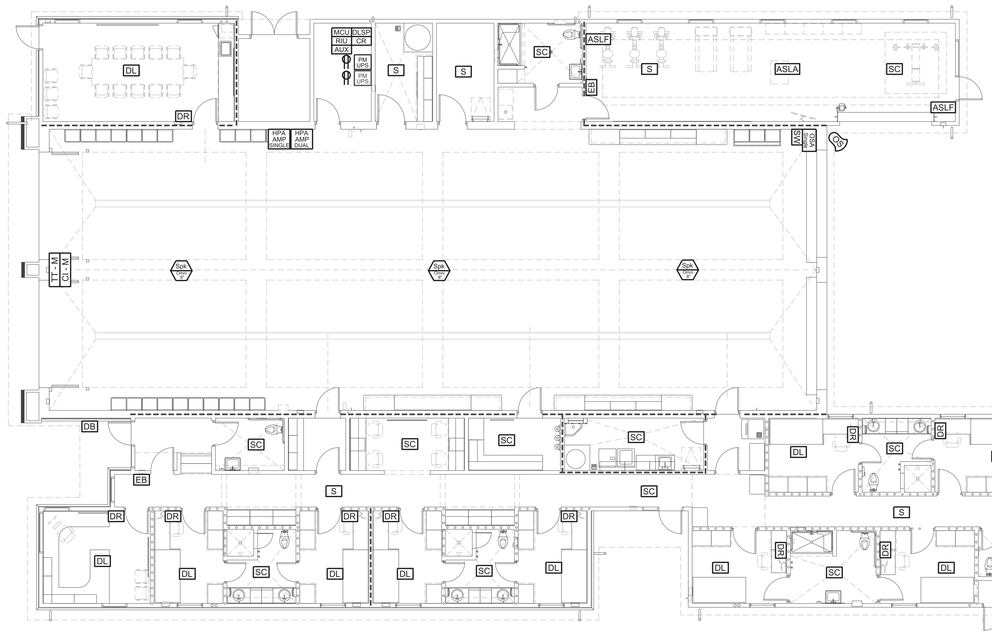
PC SUBMITTAL 04

CM-07-01-2026




## ALERT SYSTEM - 1ST FLOOR DEVICE LAYOUT PLAN

SCALE: N.T.S.

## FIRST-IN FIRE STATION ALERTING

SYMBOL LEGEND

| | |
|---|---|
| MCU | MASTER CONTROL UNIT |
| DLSP | DATA LINE SURGE PROTECTOR |
| CR | CONTROL REMOTE |
| RIU | RADIO ISOLATION UNIT |
| AUX | AUXILLIARY MODULE |
| PM UPS | POWER MODULE WITH UPS-BLACK (REQUIRED DEDICATED CIRCUIT 120V) |
| PM UPS | POWER MODULE WITH UPS-BLUE (REQUIRED DEDICATED CIRCUIT 120V) |
| SC | SATELLIGHT CONTROLLER |
| S | SATELLIGHT |
| ASLF | ALERTING STROBE LIGHT FIXTURE - IN CONJUNCTION WITH ASLA |
| ASLA | ALERTING STROBE LIGHT ADAPTER |
| DR | DORM REMOTE |
| DL | DORM LIGHT |
| DB | DOORBELL BUTTON |
| EB | EMERGENCY BUTTON |
| Spk Omni 8" | 8" OMNI DIRECTIONAL SPEAKER |
| HPA AMP SINGLE | HIGH-POWERED AMPLIFIER MODULE SINGLE |
| HPA AMP DUAL | HIGH-POWERED AMPLIFIER MODULE DUAL |
| TT - M | TURNOUT TIMER MEDIUM |
| CI - M | COMPANY INDICATOR MEDIUM |
| OSA Single | OUTSIDE SPEAKER AUDIO MODULE SINGLE |
| OS | OUTSIDE SPEAKER - IN CONJUNCTION WITH OSA |
| SW | SPEAKER SWITCH |

## GENERAL NOTES

1. DEVICES ARE TYPICAL AND FOR REFERENCE ONLY.
2. ALL BACK BOXES & CONDUITS ARE TO BE FLUSH MOUNTED UNLESS OTHERWISE SPECIFIED FOR NEW CONSTRUCTION.
3. DEVICES LOCATED IN ACOUSTICAL CEILINGS DO NOT REQUIRE BACKBOXES
4. DEVICES LOCATED IN ACOUSTICAL CEILINGS REQUIRE ACOUSTICAL WESTNET MOUNTING KIT (SSATKIT-A)
5. DEVICES ONLY LOCATED IN SHEETROCK OR EXPOSED CEILINGS REQUIRE HOFFMAN BRAND 8X10X4 BACKBOX
6. DEVICES ONLY LOCATED IN SHEETROCK OR EXPOSED CEILINGS REQUIRE APPROPRIATE WESTNET MOUNTING KIT (SURFACE MOUNT OR FLUSH MOUNT) FOR NEW CONSTRUCTION.
7. LOCATIONS OF DEVICES DETERMINED AT INSTALLATION BY INSTALLER FOR NEW CONSTRUCTION.
8. SEE ARCHITECTURAL SPECIFICATION FOR ALL ROUGH-IN AND INSTALLATION DETAILS FOR NEW CONSTRUCTION.
9. INSTALLER TO VERIFY WALL AND CEILING TYPE TO DETERMINE NEED FOR FLUSH OR SURFACE MOUNT INSTALLATION OF EQUIPMENT SPECIFIED FOR NEW CONSTRUCTION .
10. ALL WIRING AND DEVICES TO BE INSTALLED BY WESTNET.
11. ALL PENETRATION TO EXTERIOR DEVICES MUST BE WEATHERPROOF AND FIRE CAULKED FOR CONSTRUCTION BY OTHERS.
12. DEVICES LOCATED IN BATHROOM/SHOWER AREAS MUST BE VISIBLE FROM SHOWERS. INSTALLER TO FIELD VERIFY DEVICE LOCATION. (TYPICAL)
13. ALL DEVICES MUST BE KEPT CLEAR OF OBSTRUCTIONS & CEILING FAN BLADES.
14. IN ACOUSTICAL CEILING (T-BAR), WIRE CABLING IS FREE WIRE (NOT IN CONDUIT).
15. IN GYPSUM BOARD CEILING (SHEET ROCK / HARD LID), WIRE CABLING IN IN 3/4" CONDUIT UNLESS CONDUIT SIZE OTHERWISE NOTED.
16. IN EXPOSED AREAS ONLY 8X10X4 HOFFMAN BACK BOX MOUNTED AT +10'-0" A.F.F. MAX. WITH OPEN FACE DOWN IN CENTER OF ROOM WITH 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE, KEEP CLEAR OF OBSTRUCTIONS.
17. A 5 OHM EARTH GROUND MUST BE CONNECTED TO THE RADIO ISOLATION UNIT IN THE COMMUNICATION RACK.
18. THE RADIO RECEIVING THE DISPATCH INFORMATION SHALL BE LOCATED WITHIN 6'-0" FT. OF THE RADIO ISOLATION UNIT.
19. INSTALLER TO PROVIDE ONE ADDITIONAL UNCONNECTED BLUE CAT5 CABLE WITH RJ45 CONNECTORS ON BOTH ENDS BETWEEN THE MCU LOCATION AND EACH ALERTING END POINT FOR NETWORK CONNECTIVITY.

WESTNET/FIRST IN SYSTEM LAYOUT REVIEW

PROJECT: COSTA MESA FIRE STATION #2

DEPARTMENT: COSTA MESA, CA

DATE SUBMITTED:

☐ Approved subject to notations and corrections as indicated.

____ Re-submit corrected Layout for our approval.

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15542 Chemical Lane
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Fax: (714) 901-5610
www.FirstInAlerting.com

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15542 CHEMICAL LANE
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FIRST-IN

ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
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DATE: 09/22/2025

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TITLE: 1ST FLOOR DEVICE PLAN

SHEET
AS1.1

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10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2
# RECONSTRUCTION
## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

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| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

**ALERT SYSTEM 1ST FLOOR DEVICE PLAN**

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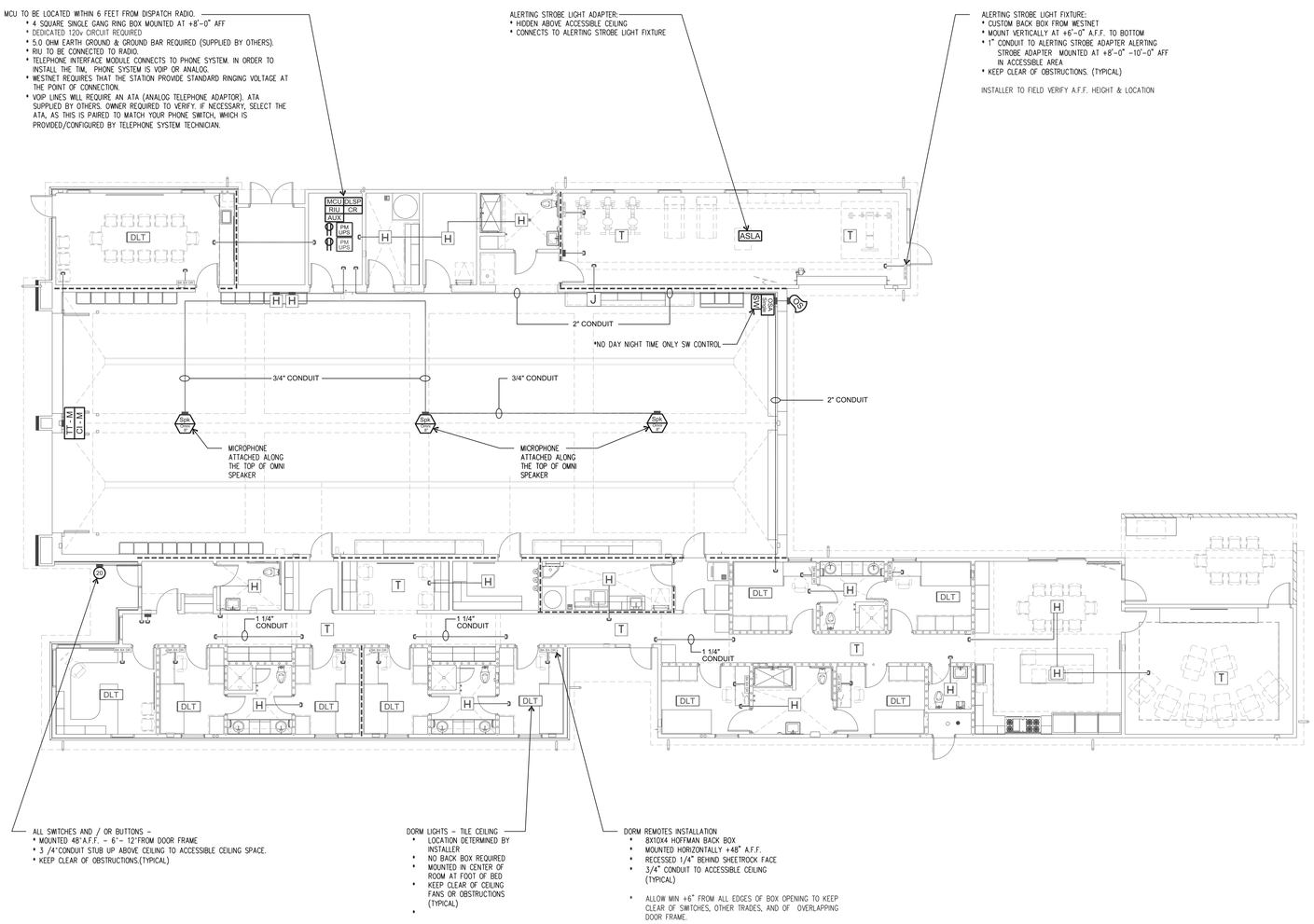
CM-07-01-2026

**NOTE:**

1. **CONDUIT ROUTING IS FOR REFERENCE ONLY**
2. **CONDUIT INSTALLER PLACE PULL BOXES AS NEEDED**
3. **CONDUIT BENDS NOT TO EXCEED 360 DEGREES**
4. **UNDERGROUND CONDUITS NOT PERMITTED**




## ALERT SYSTEM - 1ST FLOOR CONDUIT LAYOUT PLAN

SCALE: N.T.S.

## FIRST-IN FIRE STATION ALERTING

SYMBOL LEGEND

| | |
|---|---|
| MCU | MASTER CONTROL UNIT |
| DLSP | DATA LINE SURGE PROTECTOR |
| CR | CONTROL REMOTE |
| RIU | RADIO ISOLATION UNIT |
| AUX | AUXILLIARY MODULE |
| PM UPS | POWER MODULE WITH UPS-BLACK (REQUIRED DEDICATED CIRCUIT 120V) |
| PM UPS | POWER MODULE WITH UPS-BLUE (REQUIRED DEDICATED CIRCUIT 120V) |
| Spk Omni 8" | 8" OMNI DIRECTIONAL SPEAKER |
| OS | OUTSIDE SPEAKER - IN CONJUNCTION WITH OSA |
| BK BX ASLF | CUSTOM BACKBOX PROVIDED BY WESTNET |
| BK BX DR | DORM REMOTE BACKBOX PROVIDED WESTNET |
| DLT | DORM LITE ACOUSTIC CEILING MOUNT KIT |
| H | 8x10x4 HOFFMAN BACKBOX |
| T | ACOUSTIC CEILING KIT |
| J | JBOX |
| ▬ | LOCATION OF DEVICE WALL MOUNTED |

## GENERAL NOTES

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19. INSTALLER TO PROVIDE ONE ADDITIONAL UNCONNECTED BLUE CAT5 CABLE WITH RJ45 CONNECTORS ON BOTH ENDS BETWEEN THE MCU LOCATION AND EACH ALERTING END POINT FOR NETWORK CONNECTIVITY.
20. All BUTTONS AND SWITCHES
    * 4 SQUARE DEEP SINGLE GANG RING BOX
    * MOUNTED +48" A.F.F.
    * 6" - 12" FROM DOOR FRAME
    * 3 /4" CONDUIT STUB UP ABOVE CEILING TO ACCESSIBLE CEILING SPACE.
    * KEEP CLEAR OF OBSTRUCTIONS (TYPICAL)
    *3/4" CONDUIT TO MCU LOCATION

**WESTNET/FIRST IN SYSTEM LAYOUT REVIEW**

PROJECT: COSTA MESA FIRE STATION #2

DEPARTMENT: COSTA MESA, CA

DATE SUBMITTED:

☐ Approved subject to notations and corrections as indicated.

____ Re-submit corrected Layout for our approval.

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FIRST-IN

ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

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DATE: 09/22/2025

DRAWN BY: EV

SCALE: N.T.S.

TITLE: 1ST FLOOR CONDUIT PLAN

SHEET

AS3.1

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SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2
# RECONSTRUCTION
## COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-36606
REN. 08-31-27
STATE OF CALIFORNIA

**CONSULTANT**

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**ALERT SYSTEM 1ST FLOOR CONDUIT PLAN**

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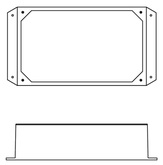
CM-07-01-2026

01 MASTER CONTROL UNIT - MCU
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

## MCU MASTER CONTROL UNIT

- THE MASTER CONTROL UNIT IS THE COMMAND CENTER OF THE SMART STATION NETWORK.
- THE MASTER CONTROL UNIT SHALL ACCEPT ALARM INPUTS FROM UP TO (4) RADIOS, DEDICATED PHONE LINES, POTS TELEPHONE LINES, SERIAL DATA LINES, AS WELL AS TCP/IP ETHERNET NETWORKS.
- THE MASTER CONTROL UNIT SUPPORTS THE FULL ZIR COMMAND SET.
- THE MASTER CONTROL UNIT SHALL MEET THE NFPA REQUIREMENT 1221 FOR SUPERVISED COMMUNICATIONS FOR ALERTING WITH THE DISPATCH CENTER.
- ALARM AUDIO LEVELS SHALL BE CONTROLLABLE OVER A (30) DECIBAL RANGE IN (1) DECIBAL INCREMENTS.
- RADIO AUDIO LEVELS SHALL BE CONTROLLABLE OVER A (30) DECIBAL RANGE IN (1) DECIBAL INCREMENTS.
- THE ENTIRE FIRE STATION ALERTING LEVEL SHALL BE AUTOMATICALLY REDUCED AT NIGHT AND RETURNED TO NORMAL LEVELS IN THE MORNING AUTOMATICALLY.
- OUTSIDE SPEAKERS SHALL BE AUTOMATICALLY TURNED OFF AT NIGHT AND TURNED BACK ON IN THE MORNING AUTOMATICALLY.
- PRIMARY PROGRAMMING SHALL BE ACCOMPLISHED FROM THE FRONT PANEL, WHILE SECONDARY PROGRAMMING IS ACCOMPLISHED WITH THE SMART STATION SERVICE VIA COMPUTER.
- FRONT PANEL PROGRAMMING SHALL BE LIMITED TO PLACING THE STATION ON RADIO WATCH OR REMOVING THE STATION FROM RADIO WATCH.
- THE MASTER CONTROL UNIT SHALL BE POWERED FROM AN "ON-LINE" UPS FOR UNINTERRUPTIBLE ALERTING SERVICE.



02 CONTROL REMOTE - CR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

## CR CONTROL REMOTE

- WHEN THE ALARM SYSTEM TRIGGERS, THE CONTROL REMOTE CAN OPEN BAY DOORS, TURN ON BAY LIGHTS, OPEN GATES, AND/OR SENSE INPUTS FROM CO DETECTORS IN APPARATUS BAYS.
- PROVIDES (8), DOUBLE POLE, DOUBLE THROW (DPDT) RELAYS UNDER SOFTWARE CONTROL OF THE MASTER CONTROL UNIT.
- PROVIDE (4) REMOTE SENSING INPUTS TO COLLECT DATA RELEVANT TO THE CONTROL FUNCTIONS.
- ENABLES THE MASTER CONTROL UNIT TO OPERATE FIRE STATION ALERTING EQUIPMENT THAT IS NOT SMART STATION COMPATIBLE.
- ALL RELAYS SHALL BE ZONE, TIME DELAY AND TIME OF DAY CONTROLLABLE IN ANY COMBINATION NECESSARY.
- SHALL PROVIDE CONTROL AND SENSE CAPABILITY THROUGHOUT THE NETWORK AT ANY LOCATION.
- RELAYS SHALL BE RATED AT (5) AMPS AT (24) VOLTS DC OR AC.
- MECHANICAL LIFE OF THE RELAY CONTACTS SHALL BE A MINIMUM OF (5) MILLION OPERATIONS.
- RELAYS SHALL BE USED TO CONTROL THE OVEN/RANGES IN THR KITCHEN. OPERATION OF EACH APPARATUS BAY DOOR INDEPENDANTLY, AND CONNECTION OF CARBON MONOXIDE SENSORS TO THE SYSTEM. COORDINATE ALL ELECTRICAL CONTACTS AND RELAYS REQUIRED FOR LINE VOLTAGE CIRCUITS TO INTERFACE WITH CONTROL REMOTE DEVICES.
- WESTNET ALERT SYSTEM PROVIDES ONLY DRY CONTACTS RATED AT 24 VOLTS MAX., NO VOLTAGE IS SUPPLIED

## ALERTING SYSTEM OVERVIEW PLEASE READ

Most contractors are unfamiliar with what the Alerting System is and the capabilities of the system. The overall function of the alerting system is to reduce the response time of the received calls from 15 to 45 seconds using visual and audio alerts for dispatched units. This system is installed as a large communication loop utilizing CAT 5 cabling with very limited connections to the existing building.

There are several common questions that are generally asked during the rough in stages for our system:

Does the back box specified need to be a Hoffman Brand - Part #43050 - Cat #A-SE8X10X4 for Dorm Remotes (DR) and Satellite Controllers (SC)? YES, the mounting flanges for these devices specifically made for this type of box. This eliminates re-tapping of the box and quicker installation time.

Can power receptacles be relocated? YES, at a maximum of six (6) feet from plan indication.

Can conduit differ from plans? NO, the routing of the conduit is very specific and is the link from device to device creating the over all communication loop.

There is a spacing conflict with the Dorm Remote (DR), Thermostat, Light Switch, and Telephone location next next to the door jamb. Can this be relocated? YES, this can be moved away from the door jamb, generally between the light switch and thermostat is most common, for the occupants to monitor their dispatched calls. Refer to notes on AS.01. The mounting flange will require 18" space between light switch and next device for the horizontally mounted Hoffman back box.

Can devices be relocated? YES, but at a maximum of six (6) feet. Please keep in mind of equal spacing of devices for an even audio and visual coverage; this is important when announcing dispatched calls. Also, the cabling is pre-manufactured and is designated for that device. Relocation of devices at more than six (6) feet from indicated location will need approval by Westnet.

How is the Hoffman Brand - Part #43050 - Cat #A-SE8X10X4 boxes to be mounted? For Dorm Remotes (DR), the back box is to mount horizontally, 10" wide and 8" tall, recessed 1/8" into the sheetrock wall, at 48" to centerline, above finished floor. The mounting flange covers the back box opening and pulls flush against the sheetrock.

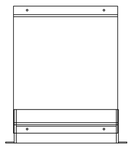
For Satellite Controllers (SC), that is to be mounted into sheetrock ceilings, the back box will run, the 10" side, with the length of the room, in the center, free from obstructions, avoiding other trades, recessed 1/8" into sheetrock, and mounted at a maximum of 15' above finished floor. Back boxes installed in open areas will be mounted at a maximum of 15' above finished surface, free from obstructions, avoiding other trades, recessed 1/8" into sheetrock, and mounted at a maximum of 15' above finished floor. Back boxes installed in open areas will be mounted at a maximum of 15' above finished surface, free from obstructions, with length of room, and visible from all points in the rooms. Westnet does not assume the responsibility for poor installation of back boxes. Refer to notes on AS.01.

What is the function of the Control Remote (CR)? This device can perform multiple functions, opening apparatus bay doors, gates, corridor lighting, etc.
Any equipment that shows to be connected that are to be controlled by the CR will need a control voltage of 24 Volts that is NOT supplied by Westnet. The terminal rating is a maximum of 24V on the CR.

What is the MCU? This is the brains of the system. Received calls go thru this device and are announced throughout the system. This is most commonly the only connection that is made to the existing communications. This is to be located within six (6) feet of the dispatch radio in watch room or communication center of station.

These are just a few of the issues that you may have questions about.
There is to be no alteration of the system without the approval of Westnet.

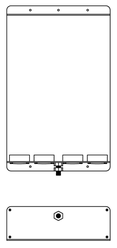
If there are more questions or concerns about the rough in for installation, please call 1-800-807-1700



## TIM TELEPHONE INTERFACE MODULE

- SHALL BE UTILIZED FOR PAGING PERSONNEL WITHIN THE FIRE STATION.
- SHALL INTEGRATE THE FIRE STATION TELEPHONE SYSTEM INTO ALL AUDIO UNITS, SUCH AS COMBINATION SPEAKER/LED LIGHT DEVICES. PROGRAMMABLE SPEAKER/RED GLOW LIGHT DEVICES AND HIGH POWER AMPLIFIERS.
- REQUIRES CONDUIT SLEEVE TO STATION TELE/COMM ROOM

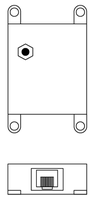
03 STATION PAGING MODULE - PAG
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.



## RIU RADIO ISOLATION UNIT

- SURGE PROTECTION DEVICE CONNECTED TO RADIO ANTENNAS EXTEND GROUND WIRE FROM UNIT TO LIGHTING PROTECTION SYSTEM.

04 RADIO ISOLATION UNIT - RIU
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.



## DATA LINE SURGE SUPPRESSOR - DLSP

- SHALL BE UTILIZED FOR SURGE PROTECTION OF THE LAN FEED FROM SWITCH
- SHALL BE GROUNDED TO 5 OHM GROUND PLATE
- SHALL BE LOCATED WITHIN 6 FEET OF MCU

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

WESTNET®
15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX (714) 901-5610
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| | | | |

FIRST-IN

ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE: IF THIS SCALE IS NOT 1" THIS SHEET IS NOT TO SCALE.

DATE: 09/22/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.1

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

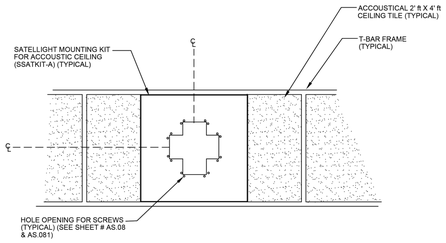
ALERT SYSTEM DEVICE DETAILS

DRAWING NUMBER: AS4.1

6/30/2026 10:01:11 AM
C:\Users\ArchivedDocuments\2109300_CostaMesa_FSI_RSI_CENTRAL_CD_PCI_SC_20260615_Sierra Chassis\.rvt

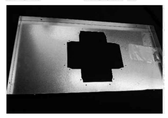
PC SUBMITTAL 1/4

CM-07-01-2026



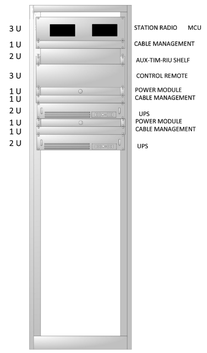

**ID 929** **SSATKIT-A**

**Satellight Mounting Kit - Acoustic Ceiling (A-Kit)**



Note:
Kit used for mounting on drop-tile ceilings. Compatible products include:
1. Satellight Controllers 2. Satellights 3. Dorm lights

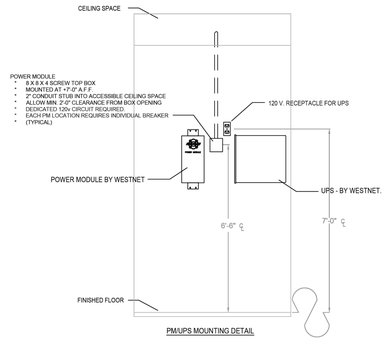
03 TYPICAL T-BAR PANEL INSTALLATION
N.T.S.




TYPICAL LAYOUT

01 SMART STATION RACK DIAGRAM
N.T.S.

RACK PROVIDED BY OTHERS

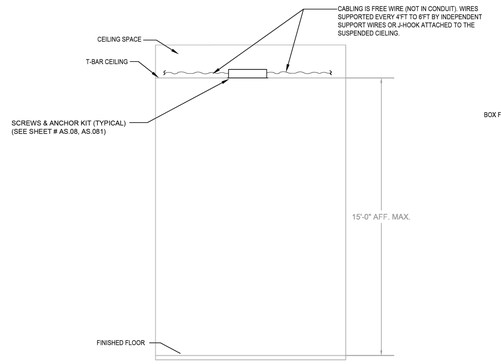



PMUPS MOUNTING DETAIL

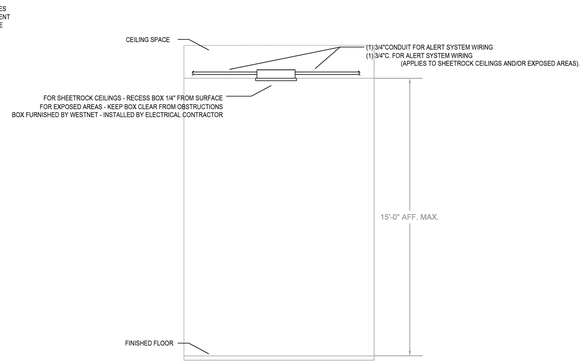
PROVIDE A MINIMUM CLEARANCE OF
3'-0" SQUARE FOR PM/UPS MOUNTING

PM UPS POWER MODULE AND UPS

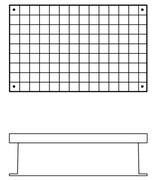
- POWER MODULES SHALL SUPPLY THE SMART STATION CAT 5 PRIMARY ALARM NETWORK WITH 24 VOLTS DC OUTPUT.
- THE POWER MODULE SHALL BE CENTERED TO THE FIRE STATION RADIO, THE PRINTER, MASTER CONTROL UNIT, AND THE DATA TERMINAL CONTROL UNIT IF THE FIRE STATION IS ETHERNET DISPATCHED.
- SHALL SUPPLY SYNTHESIZED 110-VAC POWER THAT IS PROTECTED FROM THE POWER GRID BY AN ON-LINE CONVERTER.
- SHALL SENSE POWER LOSS AND NOTIFY THE MASTER CONTROL UNIT OF ANY OUTAGE.
- LED STATUS INDICATORS SHALL SHOW FIRE PERSONEL THE MODULE POWER STATUS.
- STANDARD AGC POWER FUSES SHALL BE CHANGEABLE BY FIRE STATION PERSONNEL.
- EACH POWER SUPPLY SHALL BE ACCOMPANIED BY AN UNINTERRUPTIBLE POWER SUPPLY WITH CAPACITY TO RUN THE SYSTEM AT FULL OPERATION FOR (60) MINUTES.




SATELLIGHT CONTROLLER T-BAR MOUNTING DETAIL




SATELLIGHT CONTROLLER COUNDUIT MOUNTING DETAIL



03 SATELLIGHT CONTROLLER - SC
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

SATELLIGHT SPEAKER - S
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

SC SATELLIGHT CONTROLLER

KSC KNIGHT LITE SATELLIGHT CONTROLLER

- SHALL OPERATE ON A CAT 5 SMART STATION PRIMARY ALARM NETWORK, WHICH IS DRIVEN FROM THE MCU.
- OPERATE INDEPENDANTLY OR DRIVE UP TO (3) OR (4) DEVICES DEPENDING UPON THE LOCATION IN THE FIRE STATION.
- AUDIO OUTPUT SHALL BE CONTROLLED BY SOFTWARE FROM THE MASTER CONTROL UNIT.
- AUDIO OUTPUT SHALL BE ADJUSTABLE ACROSS A (90) DECIBAL RANGE.
- SHALL BE CAPABLE OF INTELLEGENT SENSING AND CONTROL OF FIRE STATION SYSTEMS AND EQUIPMENT. CONTROLLER SHALL UTILIZE BI-DIRECTIONAL DATA THROUGHOUT THE SMART STATION NETWORK AND EXTEND CAPABILITY TO THE FIRE DEPARTMENT DIPATCH CENTER.
- SHALL BE MOUNTED IN THE CEILING TO PROVIDE ALARM COVERAGE THROUGHOUT THE STATION.
- ACOUSTICAL CEILING MOUNTING SECURES THE DEVICE TO THE T-BAR RAILS AND THE SUPERSTRUCTURE OF THE BUILDING.
- DRYWALL AND PLASTER CEILING MOUNTING HARDWARE SHALL UTILIZE METAL HARDWARE THAT IS COLOR-MATCHED TO THE LAMP ASSEMBLY.

S SATELLIGHT, SPEAKER/LED LIGHT

KS KNIGHT LITE SATELLIGHT, SPEAKER/LED LIGHT

- SHALL OPERATE ON A CAT 5 ALARM SUBNETWORK, WHICH IS DRIVEN FROM A DEVICE CONTROLLER.
- AUDIO OUTPUT FROM THE DEVICES SHALL BE SET BY THE SOFTWARE FROM THE CONTROLLER.
- AUDIO OUTPUT SHALL BE ADJUSTABLE ACROSS A (90) DECIBLE RANGE.
- THE LIGHTING OUTPUT SHALL INCREASE AUTOMATICALLY DURING THE FIRST FEW SECONDS OF THE ALARM SEQUENCE.
- SHALL BE MOUNTED IN CEILING TO PROVIDE ALARM COVERAGE THROUGHOUT THE STATION.
- ACOUSTICAL CEILING MOUNTING SECURES THE DEVICE TO THE T-BAR RAILS AND THE SUPERSTRUCTURE OF THE BUILDING.
- DRYWALL AND PLASTER CEILING MOUNTING HARDWARE INSTALLS DEVICES INTO THESE CEILINGS.

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15542 CHEMICAL LANE
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FIRST-IN ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
IF THIS SCALE IS NOT 1", THIS SHEET IS NOT TO SCALE.

DATE: 09/22/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.2

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

# ALERT SYSTEM DEVICE DETAILS

DRAWING NUMBER: **AS4.2**

6/30/2026 10:01:14 AM
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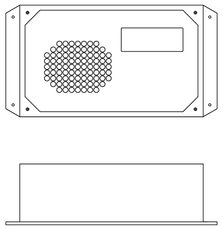
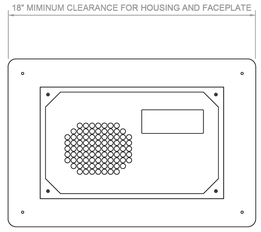
PC SUBMITTAL 04

CM-07-01-2026

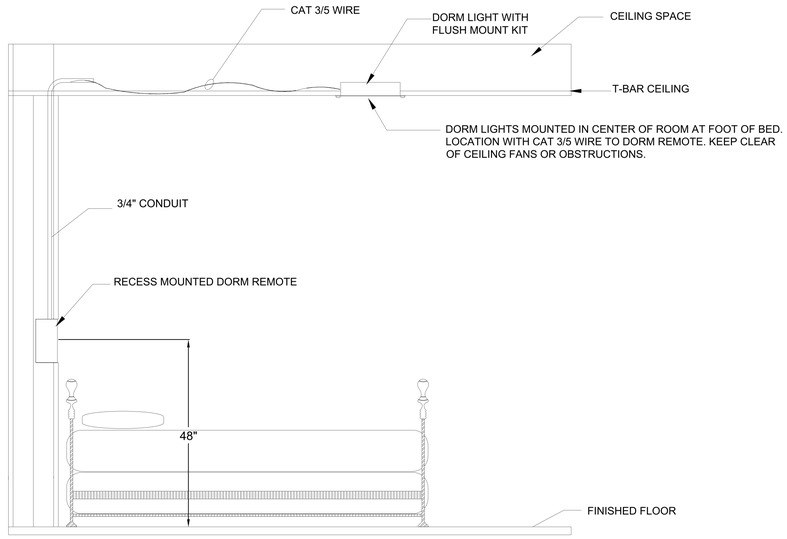





DORM REMOTE WITH ATTACHED FACEPLATE

RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

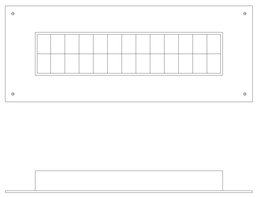
01 DORM REMOTE - DR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.



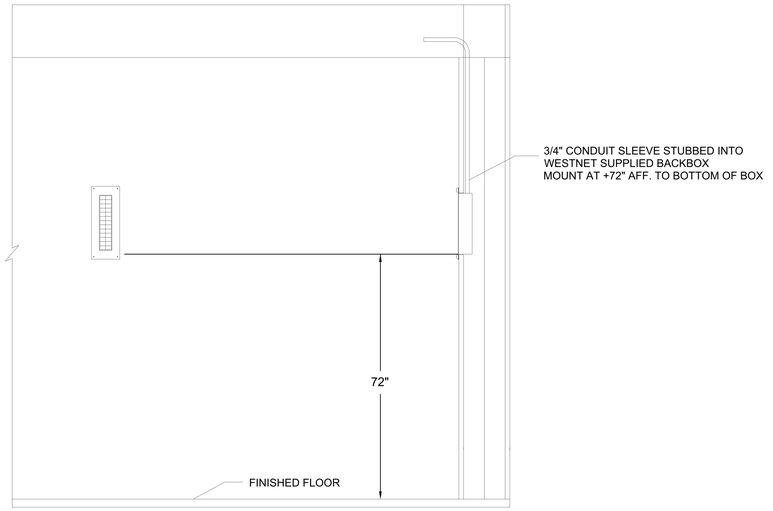

DORM REMOTE / DORM LIGHT MOUNTING DETAIL

DR DORM REMOTE WITH LIGHT

- SPEAKER/LIGHT DEVICES SHALL BE FIREFIGHTER PROGRAMMED TO ACTIVATE ON ALL ALARMS STARTING AT SHIFT CHANGE.
- THE DEVICE AUDIO SHALL BE ADJUSTED OVER A (60) DECIBLE RANGE IN (1) DECIBLE INCREMENTS TO AID IN THE REDUCTION OF AUDIBLE SHOCK THAT OCCURS WHEN THE FIREFIGHTER AWAKENS TO AN ALARM.
- THE LIGHTING SHALL INCREASE DURING THE FIRST FEW SECONDS OF THE ALARM SEQUENCE TO REDUCE OPTICAL SHOCK UPON AWAKENING.
- THE LIGHT OUTPUT SHALL BE ADJUSTABLE BY EACH FIREFIGHTER.
-INSTALLED WITH VISIBLE FRONT DISPLAY PANEL AND SPEAKER TOWARD THE SLEEPING AREA.
- THE TWO-LINE DISPLAY SHALL BE USED FOR DISPLAYING TEXT MESSAGING.
- THE DEVICE SHALL OPERATE UP TO (4) COMBINATION SPEAKER/LED LIGHT DEVICES FOR ZONE CONTROLLED SLEEP AREAS.
- THE DEVICE SHALL BE DESIGNED TO BE WALL OR ROOM DIVIDER MOUNTED AT (2) FEET ABOVE THE HEIGHT OF THE BED TO PROVIDE ILLUMINATION FOR THE BED AND THE FLOOR.
- THE DEVICE CAN BE SURFACE MOUNTED.
- ALL CONNECTIONS SHALL BE MODULAR PLUGS ENABLING RELOCATION OF DORM REMOTE WITH MINIMUM EFFORT.



02 ASLF LIGHT
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.




ASLF DORM LIGHT STROBE LAYOUT

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15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX (714) 901-5610
www.FirstInAlerting.com

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FIRST IN
ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
IF THIS SCALE IS NOT 1".
THIS SHEET IS NOT TO SCALE.

DATE: 09/22/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.3

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| # | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

ALERT SYSTEM DEVICE DETAILS

DRAWING NUMBER: AS4.3

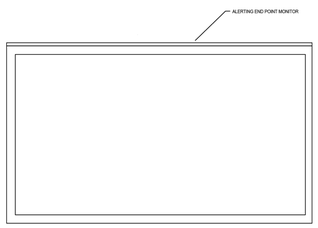
6/30/2026 10:51:17 AM
C:\Users\chaun\Documents\21093000_CostaMesa_FS2_R23_CENTRAL_03_PC4_AC_20250618_Sara.Chaun.rvt

CM-07-01-2026

AEP

## ALERTING END POINT MONITOR - (SIZE VARIES)

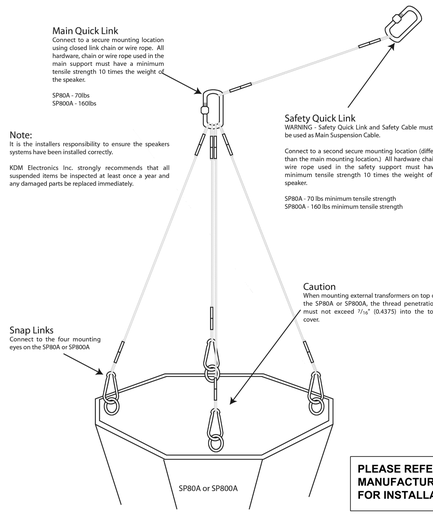
- SHALL BE TEXT AND GRAPHICS IMAGING SIGNS THAT ARE CONTROLLED FROM THE MASTER CONTROL UNIT IN A SMART STATION SYSTEM.
- SHALL BE USED TO DISPLAY THE COMPANIES ASSIGNEDTO THE CALL AND ADDITIONAL INFORMATION SUCH AS THE ADDRESS OF THE CALL, HYDRANT OUTAGES NEAR THE CALL OR HAZMAT INFORMATION ASSOCIATED WITH THE ADDRESS OF THE CALL.
- CHARACTER PANELS SHALL UTILIZE (3) COLOR EMITTERS ENABLING A TOTAL OF (8) SHADES OF MESSAGES.
- SHALL BE DRIVEN BY THE SMART STATION CAT 6 NETWORK.
- SHALL DISPLAY SILENT, CONFIDENTIAL MESSAGES RECEIVED FROM THE MCU RESPONDING TO A MESSAGE ZONE COMMAND.
- SHALL PROVIDE ALERTING INFORMATION THAT IS TOTALLY IMMUNE FROM HIGH NOISE LEVELS OF APPARATUS ROOMS AND AIRCRAFT FACILITIES.
- REQUIRES 120V RECEPTACLE
- SIZE DETERMINED BY INSTALLER




ALERTING END POINT - TOUCH SCREEN

01 ALERTING END POINT MONITOR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

## Hanging Instructions SP800A and SP80A using SPH5A Suspension Harness

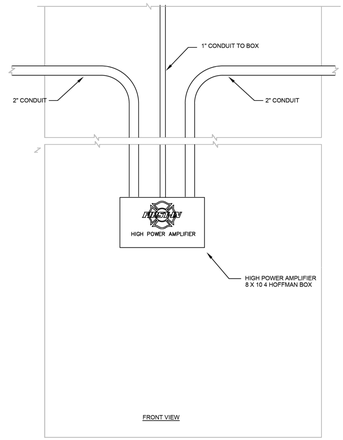



**PLEASE REFER TO MANUFACTURING FOR INSTALLATION**

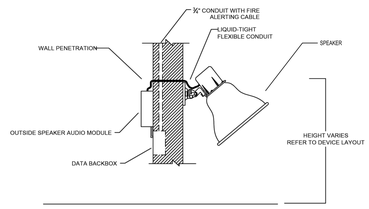
Spk
Omni
HPA
AMP

## HIGH POWER PAGING AMPLIFIER & OMNI DIRECTIONAL SPEAKER

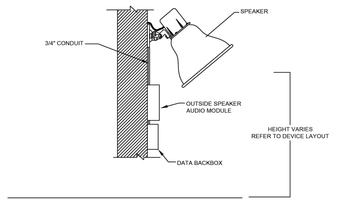
- HIGH POWER AMPLIFIERS SHALL PROVIDE DYNAMIC CONTROL OF THE FIRE ALARM SOUND LEVEL IN HIGH NOISE AREA OF THE FIRE STATION.
- AMPLIFIERS SHALL BE USED THROUGHOUT THE APPARATUS BAYS, AND ALONG THE PERIMETER OF EACH STATION.
- INCREASED VOLUME SHALL PROVIDE AUDIBLE DISPATCH IN HIGH NOISE LEVEL AREAS.
- AN AMBIENT NOISE DETECTOR SHALL SENSE SOUND LEVELS AND CONTROL THE OUTPUT POWER FROM (0) TO (12B) DECIBALS.
- MAXIMUM OUTPUT POWER SHALL BE SET BY SERVICE SOFTWARE.
- A BUILT IN VOLUME LED INDICATOR SHALL DISPLAY THE OUTPUT LEVEL CONTROL ACTIVITY.
- BUILT IN LED STATUS INDICATORS SHALL INDICATE THE OPERATING MODE OF THE HIGHT POWER AMPLIFIER.
- MULTIPLE HIGH POWER AMPLIFIERS SHALL BE OPERATED ON THE SMART STATION NETWORK.
- SPEAKER SHOWN OUTDOORS SHALL BE WEATHERPROOF AND DESIGNED FOR OUTDOOR USE.
- SPEAKER MOUNTS SHALL BE ADJUSTABLE TO ANY ANGLE AS NEEDED BY THE INSTALLATION.




01 HIGH POWER PAGING AMPLIFIER & OMNI DIRECTIONAL SPEAKER
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.




02 OUTSIDE SPEAKER AUDIO MODULE - EXTERIOR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.




03 OUTSIDE APEAKER AUDIO MODULE - INTERIOR
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

WESTNET®
15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX (714) 901-5610
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FIRST-IN

ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE: 0 1
IF THIS SCALE IS NOT 1". THIS SHEET IS NOT TO SCALE.

DATE: 09/22/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.4

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

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COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

ALERT SYSTEM DEVICE DETAILS

DRAWING NUMBER: AS4.4

6/30/2026 10:51:29 AM
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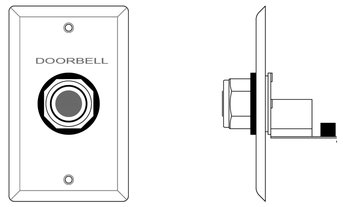
PC Submittal

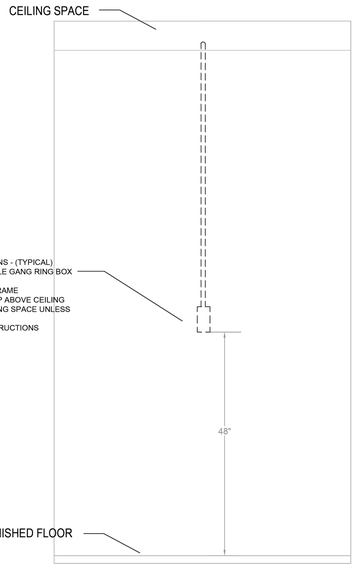
CM-07-01-2026



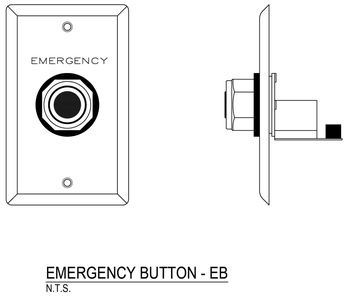

DB DOORBELL - DB
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

DB DOORBELL

- SHALL NOTIFY PERSONNEL OF VISITOR ON FIRE STATION GROUNDS.
- NOTIFICATION OF VISITOR SHALL BE RELAYED TO DISPATCH CENTER.
- SHALL NOTIFY FIRE PERSONNEL AT WHICH DOOR THE VISITOR IS WAITING.
- SHALL PROVIDE BOTH AUDIBLE AND VISUAL NOTIFICATION OF DOORBELL ACTIVATION.
- PROVIDE CUSTOMIZED MESSAGES AND ALERT TONES.



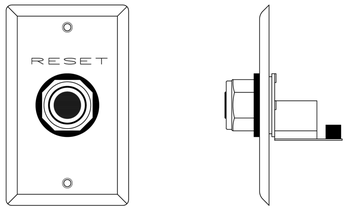

SWITCH/BUTTON MOUNTING DETAIL (TYP.)




EMERGENCY BUTTON - EB
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

EB EMERGENCY BUTTON

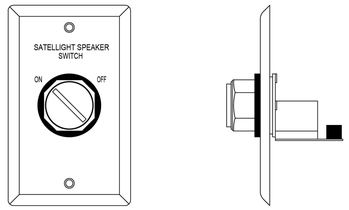
- SHALL NOTIFY PERSONNEL OF EMERGENCY ON FIRE STATION GROUNDS.
- SHALL ENABLE THE FIRE FIGHTER TO ANSWER THE DOOR AND ATTEND TO THE PROBLEM IMMEDIATLY.
- SHALL NOTIFY DISPATCH CENTER OF INCIDENT OCCURANCE AT THE FIRE STATION.
- SHALL PROVIDE BOTH AUDIBLE AND VISUAL NOTIFICATION OF AN EMERGENCY.
- PROVIDE CUSTOMIZED MESSAGES AND ALERT TONES.




RESET BUTTON - RB
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

RB RESET BUTTON

-RESETS APPLIANCE CONTROLLER DEVICE
- SHALL BE WITHIN CLOSE DISTANCE TO APPLIANCE CONTROLLER DEVICE




SPEAKER SWITCH - SW
N.T.S.
RE: WESTNET SPECIFICATIONS FOR OVERALL DEVICE DIMENSIONS.

SW SPEAKER SWITCH

- SHALL BE UTILIZED TO CONTROL THE ACTIVE/INACTIVE OPERATION OF THE SATELLIGHT CONTROLLER IN ROOM (COMBINATION SPEAKER/LED LIGHT DEVICE).

WESTNET®
15542 CHEMICAL LANE
HUNTINGTON BEACH, CA 92649
TEL: (714) 548-3500 FAX: (714) 901-5610
www.FirstInAlerting.com

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| REV | REVISION | DATE | BY |
|---|---|---|---|

FIRST-IN

ALERT SYSTEM

PROJECT NAME:
COSTA MESA FIRE STATION #2
800 BAKER STREET,
COSTA MESA, CA 92626

NOTE:
IF THIS SCALE IS NOT 1"
THIS SHEET IS NOT TO SCALE.

DATE: 09/22/2025
DRAWN BY: EV
SCALE: N.T.S.
TITLE: DEVICE DETAILS
SHEET
AS4.5

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

## COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: | CHECKED: |
| DATE: 06/30/2026 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

ALERT SYSTEM DEVICE DETAILS

DRAWING NUMBER: AS4.5

6/30/2026 10:51:23 AM
C:\Users\ehaun\Documents\21\38000_Construct_FSD_RDS_CENTRAL_CD_PC4_SC_20260615_Sierra Chacon.rvt

PC Submittal

CM-07-01-2026

## CONSTRUCTION NOTES:

UNLESS OTHERWISE SPECIFIED ON THE WORKING DRAWING WHICH FORMS A PART OF THE SPECIFICATION, THE CONTRACTOR/DEVELOPER SHALL FURNISH THE FOLLOWING ITEMS AT NO COST TO THE EDISON COMPANY.

SOUTHERN CALIFORNIA EDISON COMPANY HAS ATTEMPTED TO CORRECTLY SHOW ALL EXISTING UTILITIES AND SUBSTRUCTURES IN THE VICINITY OF THE WORK, BUT DOES NOT GUARANTEE THERE ARE NO OTHER SUBSTRUCTURES IN THE AREA. FAILURE OF SCE TO SHOW ALL SUBSTRUCTURES IN THEIR CORRECT LOCATION WILL NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO SUBSTRUCTURES WHETHER SHOWN OR NOT.

1. FOR GENERAL SPECIFICATIONS SEE UGS GI 001.

2. CONDUIT:
   a. MINIMUM COVER IN STREET OR PARKWAY IS 30" BELOW GUTTER GRADE, UNLESS NOTED OTHERWISE.
   b. MINIMUM COVER ON PRIVATE PROPERTY IS 30" BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
   c. CONTRACTOR IS TO FURNISH AND INSTALL APPROVED CONDUIT TO EDISON SPECIFICATIONS PER UGS CD 100.1, 110 AND 120.
   d. FOR THE TYPE OF CONDUIT FOR THIS JOB, SEE UGS CD 110.1.
   e. INSTALL ALL RISERS PER UGS CD 160, 161, 162 AND 170.
   f. CAP ALL MAINLINE CONDUITS PER UGS CD 148 AND SERVICE CONDUITS PER UGS CD 150.
   g. INSTALL BLANK CONDUIT PLUGS IN ALL CONDUITS TERMINATING INTO VAULTS, MANHOLE'S, PMH'S, SOE'S & ALL CAP LOCATIONS, PER UGS CD 180.1 & UGS CD 180.2
   h. INSTALL PULL ROPE IN ALL CONDUIT RUNS. PULL ROPE TO BE AT LEAST 3/8" POLYPROPYLENE ROPE, BRAIDED OR TWISTED. FOR SPECIFICATIONS, APPROVED MAKES, AND SUPPLIERS, SEE UGS GI 040.
   i. ALL CONDUIT MUST BE MANDRELED WITH THE APPROVED MANDREL UGS CD 197.

3. CONDUIT RADIUS REQUIREMENTS:
   a. THE MINIMUM RADIUS FOR BENDS ARE:
      36" FOR CONDUITS 3" IN DIAMETER OR SMALLER
      48" FOR CONDUITS 4" AND 5" IN DIAMETER
      60" FOR 6" DIAMETER CONDUIT
   b. THE MINIMUM RADIUS FOR ALL SWEEPS OF ALL MAINLINE CONDUITS IS 12'-6" (UNLESS NOTED OTHERWISE).

4. EXCAVATION AND BACKFILL:
   a. WORK AREA SHALL BE CLEARED AND ROUGH GRADED TO WITHIN FOUR INCHES OF FINAL GRADE PRIOR TO INSTALLATION OF EDISON CONDUIT OR STRUCTURES.
   b. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH THE CALIFORNIA STATE CONSTRUCTION SAFETY ORDERS (WHEN APPLICABLE), EDISON SPECIFICATIONS, AND ALL GOVERNING LOCAL ORDINANCES.
   c. EACH TRENCH TO BE A UNIFORM DEPTH BELOW FINAL GRADE PRIOR TO INSTALLATION OF EDISON CONDUIT OR STRUCTURES.
   d. BACKFILL SHALL BE PROVIDED BY THE CONTRACTOR FOR ALL EXCAVATIONS AND SHALL INCLUDE CRUSHED ROCK, CONCRETE, AND/OR IMPORTED BACKFILL, WHEN REQUIRED.
   e. BACKFILL, WITH A MINIMUM OF SIX SACKS PER YARD SAND CEMENT SLURRY AROUND AND OVER VAULTS AND MANHOLES PER UGS GI 030, SECTION 6.4 AND AROUND PMH'S WITHIN ONE FOOT OF FINISHED GRADE, PER UGS SS 590.1.
   f. BACKFILL, PER EDISON SPECIFICATIONS, SHALL IMMEDIATELY FOLLOW CONDUIT OR SUBSTRUCTURE INSTALLATION. AT NO TIME SHALL CONDUIT BE LEFT EXPOSED OVER NIGHT.
   g. NO ROCKS LARGER THAN 3" SHALL BE PLACED WITHIN 12 INCHES OF DIRECT-BURIED CABLES OR ANY CONDUIT WITHOUT CONCRETE ENCASEMENT. NATIVE BACKFILL CAPABLE OF PASSING THROUGH A ONE-HALF INCH MESH SCREEN SHALL BE CONSIDERED TO BE "ROCK FREE". IF EXISTING BACKFILL DOES NOT PASS THROUGH A 1/2" SCREEN, PLACE IMPORTED SAND 3" BELOW AND 12" ABOVE EDISON CABLES. AFTER THIS POINT, NO ROCKS LARGER THAN 12" DIAMETER ARE PERMITTED.
   h. ALL BACKFILL SHALL BE COMPACTED TO MEET OR EXCEED LOCAL ORDINANCES OR OTHER REQUIREMENTS. IT SHALL BE PLACED IN A MANNER THAT WILL NOT DAMAGE THE CONDUIT OR SUBSTRUCTURE OR ALLOW FUTURE SUBSIDENCE OF THE TRENCH OR STRUCTURES.

5. PAVING:
   REPAVING, WHERE REQUIRED, SHALL BE PLACED IN SUCH A MANNER THAT INTERFERENCE WITH TRAFFIC, INCLUDING PEDESTRIAN TRAFFIC, WILL BE KEPT TO A MINIMUM. THE CONTRACTOR SHALL ESTABLISH A PROGRAM OF REPAVING ACCEPTABLE TO THE MUNICIPALITY, COUNTY, OR OTHER AUTHORITY HAVING JURISDICTION AND WHICH IS ACCEPTABLE TO EDISON.

6. STRUCTURES:
   a. ALL SUBSTRUCTURES SHALL BE CONSTRUCTED OR INSTALLED TO EDISON SPECIFICATIONS.
   b. INSTALL PROTECTION BARRIERS PER UGS MS 830 WHEN REQUIRED IN AREAS EXPOSED TO TRAFFIC, PER EDISON INSPECTOR.
   c. ALL CONDUIT LINES AND CONCRETE FLOORED SUBSTRUCTURES SHALL BE WATER TIGHT.
   d. ALL GROUNDING MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

7. RETAINING WALLS:
   WHEN REQUIRED, RETAINING WALLS SHALL BE PROVIDED BY THE DEVELOPER. WALLS ARE REQUIRED WHEREVER GRADE RISES MORE THAN 18 INCHES ABOVE THE STRUCTURE OR 24" ABOVE THE PAD SURFACE AT A DISTANCE OF 5 FEET FROM THE SAME, OR IN AREAS SUBJECT TO EROSION. DESIGN AND INSTALLATION MUST COMPLY WITH LOCAL BUILDING ORDINANCES. REFER TO EDISON INSPECTOR FOR TYPICAL SPACE REQUIREMENTS.

8. PERMITS:
   ALL PERMITS NECESSARY FOR EXCAVATION SHALL BE PROVIDED BY THE CONTRACTOR/DEVELOPER.

9. ACCESS:
   HEAVY TRUCK ACCESS SHALL BE MAINTAINED TO EQUIPMENT LOCATIONS. STRUCTURES MUST BE CLEAR OF ALL APPURTENANCES THAT WOULD OBSTRUCT THE LOADING OR UNLOADING OF EQUIPMENT.

10. SERVICES:
    a. METERS AND SERVICES SHALL COMPLY WITH EDISON ELECTRICAL SERVICES REQUIREMENTS.
    b. WIRING MUST BE IN ACCORDANCE WITH APPLICABLE LOCAL ORDINANCES AND APPROVED BY LOCAL INSPECTION AUTHORITIES.

11. LOCATION:
    a. THE LOCATION OF EXCAVATIONS AND STRUCTURES FOR EDISON SHALL BE AS SHOWN ON THE WORKING DRAWING, NO DEVIATION FROM THE PLANNED LOCATIONS WILL BE PERMITTED UNLESS APPROVED BY THE EDISON INSPECTOR. SEE UGS GI 001, SECTION 2.2.
    b. ACTUAL LOCATION OF OBSTRUCTIONS, STORM DRAINS, AND/OR OTHER FOREIGN UTILITIES TO BE THE RESPONSIBILITY OF THE CONTRACTOR. SEE UGS GI 001, SECTION 2.3.

12. CONTRACTOR IS TO VERIFY LOCATION AND WIDTHS OF ALL SIDEWALKS AND DRIVEWAYS PRIOR TO STREET LIGHT INSTALLATION. SEE UGS CD 175.1, UGS CD 175.2 AND UGS CD 175.3.

13. SURVEY:
    SURVEYING OF STREET IMPROVEMENTS, PROPERTY CORNERS, LOT LINES, FINISHED GRADE, ETC., NECESSARY FOR THE INSTALLATION OF UNDERGROUND FACILITIES MUST BE COMPLETED AND MARKERS OR STAKES PLACED PRIOR TO THE START OF THE INSTALLATION. IN ADDITION, DEVELOPER SHALL MAINTAIN THE MARKERS DURING THE INSTALLATION AND INSPECTION BY EDISON. GRADE AND PROPERTY LINE STAKES MUST SHOW ANY OFFSET MEASUREMENTS.

14. COORDINATION AND SUPERVISION:
    THE DEVELOPER SHALL PROVIDE SUPERVISION OVER AND COORDINATION AMONG THE VARIOUS CONTRACTORS WORKING WITHIN THE DEVELOPMENT IN ORDER TO PREVENT DAMAGE TO EDISON FACILITIES. HE IS RESPONSIBLE FOR THE COST OF REPAIRS, REPLACEMENT, RELOCATION, OR OTHER CORRECTIONS TO EDISON FACILITIES MADE NECESSARY BY HIS FAILURE TO PROVIDE SUPERVISION OR TO OTHERWISE COMPLY WITH THESE SPECIFICATIONS.

15. TELEPHONE AND CO/HER UTILITY REQUIREMENTS:
    THE DRAWING PREPARED FOR THIS JOB MAY ALSO COVER THE FACILITIES TO BE INSTALLED FOR THE TELEPHONE COMPANY AND/OR OTHER UTILITY. ANY QUESTIONS CONCERNING DETAILS OF THEIR INSTALLATION SHOULD BE REFERRED TO THE COMPANY CONCERNED.

16. OWNERSHIP:
    DEVELOPER IS TO DEED TO THE EDISON COMPANY ALL STRUCTURES SHOWN HEREON EXCEPT THOSE SHOWN AS CUSTOMER OWNED.

17. WARRANTY:
    APPLICANTS EXPRESSLY REPRESENT AND WARRANT THAT ALL WORK PERFORMED AND ALL MATERIAL USED IN MEETING APPLICANTS' OBLIGATIONS HEREIN ARE FREE FROM DEFECTS IN WORKMANSHIP AND ARE IN CONFORMITY WITH SOUTHERN CALIFORNIA EDISON COMPANY'S REQUIREMENTS. THIS WARRANTY SHALL COMMENCE UPON RECEIPT BY APPLICANTS OF COMPANY'S FINAL ACCEPTANCE AND SHALL EXPIRE ONE YEAR FROM THAT DATE. APPLICANTS AGREE TO PROMPTLY CORRECT TO THE COMPANY'S SATISFACTION AND THAT OF ANY GOVERNMENTAL AGENCY HAVING JURISDICTION AND AT APPLICANT'S EXPENSE ANY BREACH OF THIS WARRANTY WHICH MAY BECOME APPARENT THROUGH INSPECTION OR OPERATION OF UNDERGROUND ELECTRIC SYSTEM BY COMPANY DURING THIS WARRANTY PERIOD.

18. INSPECTION:
    INSPECTION IS REQUIRED DURING THE CONSTRUCTION PERIOD. A 48 HOUR ADVANCE NOTICE OF INTENT TO START CONSTRUCTION IS REQUIRED FROM THE CONTRACTOR TO THE SOUTHERN CALIFORNIA EDISON COMPANY. STANDARDS OF EDISON CONSTRUCTION REQUIREMENTS ARE AVAILABLE UPON REQUEST.

DUCT AND STRUCTURE INSPECTOR: JORGE CORTEZ PHONE: 626-419-3625

CABLING CONSTRUCTION COORDINATOR: PHONE:

D05: 03/22/24

**UNDERGROUND SERVICE ALERT**
**Contact USA**
**Dial 811 or 800-422-4133**
**www.digalert.org/contact**
FOR UNDERGROUND LOCATING TWO WORKING DAYS BEFORE YOU DIG

D06: 03/22/24

**WARNING**
THE EXCAVATOR MUST TAKE ALL STEPS NECESSARY TO AVOID CONTACT WITH UNDERGROUND FACILITIES WHICH MAY RESULT IN INJURY TO PERSONS OR DAMAGE TO FACILITIES IN THE AREA. THE INDICATED LOCATIONS OF EDISON UNDERGROUND FACILITIES, AS PROVIDED, ARE BELIEVED TO BE ACCURATE, HOWEVER, THE FINAL DETERMINATION OF EXACT LOCATIONS AND THE COST OF REPAIR TO DAMAGED FACILITIES IS THE RESPONSIBILITY OF THE EXCAVATOR.

D13: 03/22/24

NOTE:
ALL ELECTRICAL DUCTS AND STRUCTURES WILL CONFORM TO GENERAL ORDER #128 (RULES FOR CONSTRUCTION OF UNDERGROUND ELECTRICAL SUPPLY AND COMMUNICATION PRESCRIBED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA, JANUARY 2006).

D06: 03/22/24

CUSTOMER-OWNED CONDUIT MATERIAL* AND CONCRETE ENCASEMENT ARE TO BE INSTALLED IN ACCORDANCE WITH EDISON ELECTRICAL SERVICE REQUIREMENTS.
*SUBJECT TO APPROVAL BY LOCAL INSPECTION AUTHORITIES

D14:03/22/24

## PAD FOR SURFACE-MOUNTED TRANSFORMER
## POURED IN FIELD CONSTRUCTION AND PRECAST CONSTRUCTION (CONCRETE)
SEE UGS SS 504

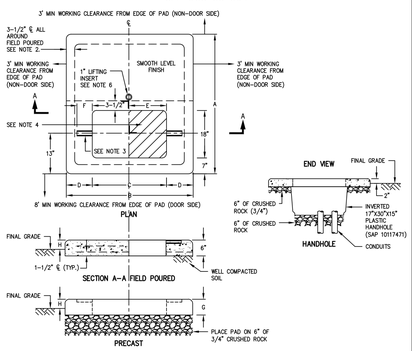


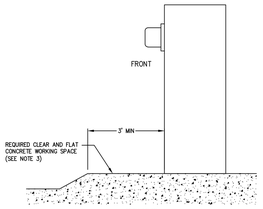

TABLE SS 504-1: SURFACE-MOUNTED TRANSFORMER PADS - DIMENSIONS

| TRANSFORMER | PAD DIMENSIONS (IN) A | B | C | D | E | F | G | H | WEIGHT (LB) | SAP |
|---|---|---|---|---|---|---|---|---|---|---|
| 1Ø 25 KVA-167 KVA | 5 | 4 | 2 | 11 | 12 | 6 | 4 | 2 | 750 | 10118012 |
| FOR REFERENCE ONLY — 3Ø 75 KVA-150 KVA NO SWITCH | 66 | 72 | 38 | 7 | 15 | 6 | 6 | 3 | 2,200 | 10118011 SEE NOTE 8 |
| 3Ø 75 KVA-500 KVA SW AND FUSE | 72 | 94 | 50 | 22 | 22 | 14 | 6 | 3 | 3,200 | 10118013 SEE NOTE 8 |

NOTE(S):
1. CONCRETE TO BE 3,000 PSI (MINIMUM) AT 28 DAYS.
2. REINFORCING STEEL TO BE NO. 4 BARS INSTALLED IN A DOUBLE NET. PERIMETER BARS TO BE CONTINUOUS (8 INCH MINIMUM LAP OR WELD)
3. HOLD-DOWN BRACKETS TO BE P-3200 SERIES UNISTRUT (OR EQUAL).
4. PRIMARY CABLES MUST BE INSTALLED IN SHADED AREA OF DRAWING ABOVE AS FAR TO THE RIGHT AS POSSIBLE ON SINGLE PHASE TRANSFORMERS ONLY. ON THREE-PHASE TRANSFORMERS PRIMARY CABLES MUST BE INSTALLED IN THE UNSHADED AREA OF DRAWING ABOVE AS FAR LEFT AS POSSIBLE.
5. SEE AC 705 FOR PAD-MOUNTED TRANSFORMER/CAPACITOR GROUNDING REQUIREMENTS AND AC 703 FOR APPROVED GROUNDING MATERIALS.
6. 1-INCH LISTING INSERT TO BE LOCATED AT CENTER OF GRAVITY ON PRECAST PADS.
7. SEE SS 500 FOR APPROVED MANUFACTURERS.
8. THE THREE-PHASE TRANSFORMER SHALL ONLY BE USED ON A PAD WHEN FOUR OR FEWER SERVICES ARE TO BE INSTALLED. A SLAB BOX SHOULD BE USED WHEN MORE THAN FOUR SERVICES WILL BE INSTALLED.
9. USE A THIN LAYER OF RED-CRETE (OR EQUIVALENT) FOR RODENT AND WEED CONTROL OR WHERE TRANSFORMER DOES NOT FULLY COVER OPENING IN PAD.
10. A 17" X 30" X 15" PLASTIC HANDHOLE (SAP 10117471) SHALL BE INVERTED AND INSTALLED UNDER THE CABLE OPENING OF THE PAD. THIS WILL PROVIDE ADEQUATE CABLE SLACK FOR OPERATION OF THE LOAD-BREAK ELBOWS ON SINGLE PHASE TRANSFORMERS ONLY.

D43: 12/12/24

## PANEL CLEARANCE
## UNDERGROUND SERVICE CONNECTIONS 0-600 VOLTS
SEE ESR 3-16




NOTES:
1. A MINIMUM OF THREE (3) FEET OF CLEAR, LEVEL WORKSPACE IS REQUIRED IN FRONT OF ALL TERMINATION, METERING, AND SERVICE EQUIPMENT.
2. SEE ESR-5 FOR METER-MOUNTING HEIGHT REQUIREMENTS. METER-MOUNTING HEIGHT WILL BE MEASURED FROM THE STANDING AND WORKING SPACE TO THE CENTERLINE OF THE METER(S).
3. WHEN SERVICE EQUIPMENT IS INSTALLED ON AN ELEVATED PORTION OF THE FLOOR/GROUND, OR HOUSEKEEPING PAD, THE PAD SHALL BE FLUSH WITH AND EXTEND A MINIMUM OF THREE (3) FEET. THIS IS MEASURED FROM THE FRONT OF THE SERVICE EQUIPMENT OR THE OUTER DOOR(S) OF THE SWITCHBOARD NEMA 3R ENCLOSURE WHEN INSTALLED. IN NO CASE SHALL THE MAXIMUM METER HEIGHT OF 6'-7" BE EXCEEDED.
4. TO MAINTAIN A SAFE, CLEAR, AND LEVEL WORKING AREA IN FRONT OF NEW OR EXISTING METER AND SERVICE EQUIPMENT, A CONCRETE SLAB, ACCEPTABLE TO THE COMPANY, MUST BE USED.
5. FOR SWITCHBOARDS ABOVE 600V, FIVE-FOOT MINIMUM OF CLEAR AND LEVEL CONCRETE STANDING AND WORKING SPACE IS REQUIRED IN THE FRONT, REAR, AND SIDE OF ANY SECTION WHERE SUCH PART SUPPORTS OR PROVIDES ACCESS TO METERING, TESTING EQUIPMENT, OR SERVICE CABLE TERMINATION SECTIONS.

### 16.11 PROTECTIVE BARRIERS (POSTS/BOLLARDS) FOR SERVICE EQUIPMENT

BARRIER POSTS/BOLLARDS ARE USED TO PROTECT THE METER AND SERVICE EQUIPMENT, AS WELL AS PERSONNEL, FROM VEHICULAR CONTACT, AND TO PROHIBIT ENCROACHMENT INTO THE WORKING SPACE (FOR EXAMPLE, LOADING ZONES, DRIVEWAYS, CONGESTED AREAS, OFF STREET PARKING, AND SO ON).

THE CUSTOMER SHALL PROVIDE AND INSTALL "NON-REMOVABLE" BARRIERS (POSTS/BOLLARDS) TO PROVIDE THE PROPER SAFE WORKING CLEARANCES WHERE THE WORKSPACE IS EXPOSED TO VEHICULAR OR OTHER HAZARDOUS CONDITIONS. METERS WILL NOT BE SET UNTIL THE BARRIERS HAVE BEEN INSTALLED. METER CABINET DOORS MUST OPEN A MINIMUM OF 90 DEGREES AND NOT CONFLICT WITH BARRIER POSTS. A MINIMUM CLEARANCE OF 3-FEET IS REQUIRED FROM THE FACE OF THE SWITCH GEAR TO THE BOLLARD/POST.

D99: 03/22/24

ACTUAL COST WORK ORDER

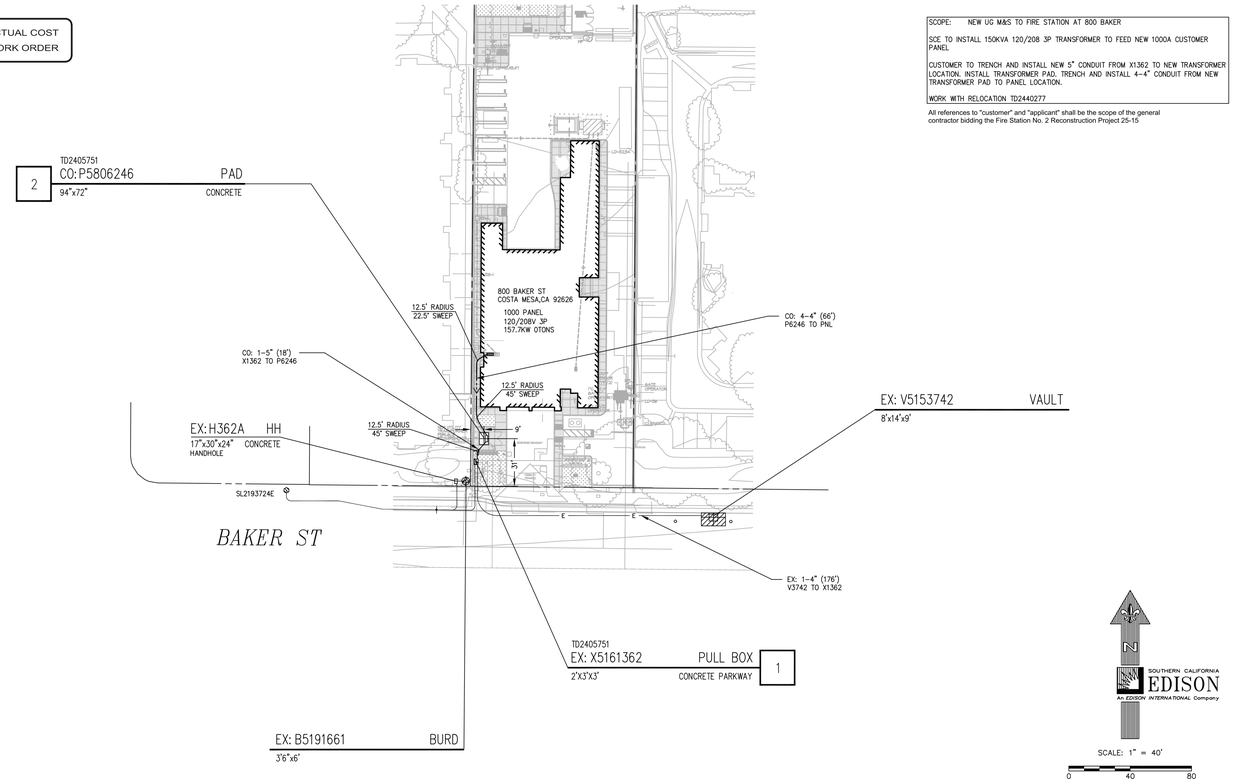
SCOPE: NEW UG M&S TO FIRE STATION AT 800 BAKER

SCE TO INSTALL 150KVA 120/208 3P TRANSFORMER TO FEED NEW 1000A CUSTOMER PANEL

CUSTOMER TO TRENCH AND INSTALL NEW 5" CONDUIT FROM X1362 TO NEW TRANSFORMER LOCATION. INSTALL TRANSFORMER PAD. TRENCH AND INSTALL 4-4" CONDUIT FROM NEW TRANSFORMER PAD TO PANEL LOCATION.

WORK WITH RELOCATION TD2440277

All references to "customer" and "applicant" shall be the scope of the general contractor bidding the Fire Station No. 2 Reconstruction Project 25-15




SCALE: 1" = 40'
0 40 80

## LEGEND CODE DEFINITIONS

CI - CUSTOMER/CONTRACTOR INSTALLED: MATERIALS FURNISHED AND INSTALLED BY APPLICANT AT EDISON'S EXPENSE AND ARE DEEDED TO EDISON. (EXCEPTION: STREET LIGHT ELECTROLIERS WILL BE INSTALLED BY EDISON'S CONTRACTOR.)

CR - CUSTOMER TO REMOVE.

CO - CUSTOMER OWNED: MATERIALS FURNISHED, INSTALLED, OWNED, AND MAINTAINED BY APPLICANT.

CF - CUSTOMER FURNISHED: MATERIALS FURNISHED AND INSTALLED BY APPLICANT AT APPLICANT'S EXPENSE THAT ARE DEEDED TO EDISON.

IN - INSTALL: MATERIALS FURNISHED AND INSTALLED BY APPLICANT IF APPLICANT INSTALLED PROJECT OR BY EDISON IF EDISON INSTALLED PROJECT. (EXCEPTION: FOR AN APPLICANT INSTALLED LINE EXTENSION. STATION NOS.,
HAVING AN ASTERISK ADJACENT TO AN "IN" LEGEND CODE REPRESENTS MATERIALS TO BE PROVIDED BY APPLICANT AND INSTALLED BY EDISON IN ALL CASES. REFER TO DPB 8258. PROJECT MATERIAL LIST BY ASSEMBLY WITHIN A STATION.)

RM - REMOVE: MATERIALS REMOVED BY EDISON.

MI - MEMO INSTALLED: SAME AS IN/INSTALL.

MR - MEMO REMOVED: MATERIALS REMOVED BY EDISON.

SI - SHOO-FLY INSTALLED: MATERIALS FURNISHED AND INSTALLED BY EDISON FOR TEMPORARY CONSTRUCTION.

SR - SHOO-FLY REMOVED: MATERIALS REMOVED BY EDISON FOR TEMPORARY CONSTRUCTION.

TR - TRANSFER: EDISON LABOR REQUIRED TO TRANSFER EXISTING FACILITIES.

D31: 03/22/24

## CONNECTING TO EXISTING SCE STRUCTURES

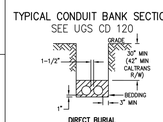
- PER SCE REQUIREMENTS, CUSTOMERS ARE NOT ALLOWED TO ENTER, INTERCEPT OR TIE-IN TO EXISTING SCE FACILITIES; E.G. STRUCTURES, EQUIPMENT, MULTI-CONDUIT RUNS/BANKS, OR CONDUCTORS. THESE FACILITIES MAY BE ENERGIZED AND THE WORK WILL ONLY BE PERFORMED BY SCE. CONTACT THE APPROPRIATE SCE INSPECTOR TO SCHEDULE AN APPOINTMENT. CUSTOMERS MAY CONNECT TO AN EXISTING CONDUIT STUB WITHOUT A SCE INSPECTOR PRESENT.
- MULTI-CONDUIT RUNS/BANKS ARE RUNS OF CONDUIT IN CLOSE PROXIMITY TO EACH OTHER AND OTHER SCE FACILITIES. A CONDUIT STUB IS A SINGLE EMPTY CONDUIT STUB THAT IS NOT IN CLOSE PROXIMITY TO OTHER SCE OWNED FACILITIES. REFER TO THE WORK ORDER MAP FOR DETAILS.
- PER CPUC/SCE'S RULE 15 B.1.A AND RULE 16 D.1.A., THE CUSTOMER WILL PROVIDE ALL NECESSARY EXCAVATIONS (WITH THE EXCEPTION OF EXCAVATION UNDER PADS AND PRIMARY SPLICE BOXES), MATERIAL (INCLUDING CONDUIT AND STRUCTURES) AND ENCASEMENT, TO BE UTILIZED IN THE INTERCEPT/TIE-IN PROCESS.
- THE CUSTOMER MUST ADHERE TO ALL APPLICABLE CAL-OSHA, LOCAL, CITY, STATE AND FEDERAL REGULATIONS, (INCLUDING, BUT NOT LIMITED TO, ALL NECESSARY SHORING AND TRAFFIC CONTROL IN PLACE TO PERFORM THE INTERCEPT/TIE-IN WORK BY SCE'S UNDERGROUND CIVIL CONTRACTOR(S)).
- INTERCEPT/TIE-IN WORK MUST BE COORDINATED WITH SCE'S CIVIL CONTRACTORS THROUGH THE DIVISION INSPECTOR/P-SPEC TO LIMIT EXPOSURE OF EXCAVATION(S). CUSTOMER IS RESPONSIBLE FOR SECURING EXCAVATION(S).

D08: 12/12/24

## *EXISTING SINGLE LINE*
MOONWALK 12KV % GISLER SUB

## *PROPOSED SINGLE LINE*
MOONWALK 12KV % GISLER SUB

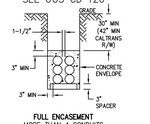
### TYPICAL CONDUIT BANK SECTION
SEE UGS CD 120




DIRECT BURIAL

D70D: 12/12/24

### TYPICAL CONDUIT BANK SECTION
SEE UGS CD 120




FULL ENCASEMENT
MORE THAN 4 CONDUITS (BASE SPACER REQUIRED)

D70B: 12/12/24

### PROJECT REQUIREMENTS (Y/N)

| | |
|---|---|
| EDISON EASEMENT REQUIRED | N |
| PWRD 88 REQUIRED UG | N |
| CIVIL ONLY WORK ORDER | N |
| PERMIT REQUIRED | Y |
| PERMIT TYPE: ENCROACHMENT | |
| OUTAGE REQUIRED | Y |
| OUTAGE DATE: ____ TIME: | |
| TRAFFIC CONTROL REQUIRED | Y |
| PED. TRAFFIC CONTROL REQ'D | Y |
| CONVEYANCE LETTER REQ'D | N |
| ENVIRONMENTAL REQUIREMENTS DOCUMENT (ERD) REQUIRED | N |
| CSD 140 (TLM) REQ'D | N |
| CIRCUIT MAP CHANGE REQ'D (TD 203) | Y |
| DIG ALERT APP | Y |
| VERIFIED ACTIVE AND CONFIRMED USA TICKETS | ☐ |
| UTILIQUEST NOTIFIED | ☐ |
| FAA MARKING REQ'D | N |
| FAA TYPE: N/A | |
| ACTUAL COST WORK ORDER | Y |
| STANDARD ADHERENCE: 3_0/_2025_Y | |

D124: 12/12/24

T.L.M. DATA:
SIZE KVA CUST % LOAD
EXIST. ___ ___ ___ ___%
PROP. ___ ___ ___ ___%
VOLTAGE DROP: _____
FLICKER FACTOR: _____
PRI. CIRCUIT:

D27: 03/22/24

# FINAL DESIGN
## APPROVED FOR CONSTRUCTION

| | | | |
|---|---|---|---|
| DISTRICT: 33 - HUNTINGTON BEACH | PROJ. MGR. N/A PHONE | PLANNER ALVIS, JACQUELINE PHONE 7148950284 | DESIGNER CARRILLO, MARLENA |
| PROJECT NO. 3065413 / SERVICE REQUEST 3944864 | MSR NO. (SEE MAP) | PRODUCT-1 2405751-MIXED FUEL-NEW METER & SERVICE | ASSOC DESIGN 1841896 |
| CIRCUIT / VOLTAGE: | QPS N/A | PRODUCT-2 2440277-RELOCATE FACILITIES | ASSOC DESIGN 1869730 |
| SUB / PQ NO. | CIRCUIT CODE | PRODUCT-3 | ASSOC DESIGN |
| INVENTORY MAP 36-13B-8 | J.P.A. NO. N/A | PROPOSED CONSTRUCTION (LOCATION) NEW M&S UG 800 BAKER ST COSTA MESA CA 92626 | |
| P 8/29/25 | VERGARA ALVIS CARRILLO 54284 | | |
| TYPE DATE | APPROVED BY CHECKED BY DRAWN BY PAX # | SHEET 1 OF 1 | DESIGN\DRWG NO. 1841896_0.01 |

Southern California Edison Company

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION
## COSTA MESA FIRE & RESCUE DEPARTMENT
800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

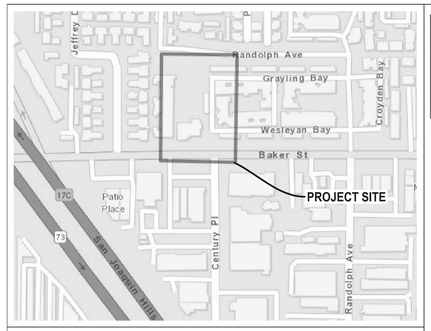
DRAWN: SCE CHECKED:
DATE: 06/30/2026 SCALE: AS NOTED
PROJECT NUMBER: 2109300

**SCE DESIGN - NEW METER AND SERVICE**

DRAWING NUMBER: **SCE1.0**

FILE NAME: I:\PBK_JOB DWG SAVE DATE: 6/30/2026 12:41 PM SAVED BY: CHRISTOPHER
6/30/2026 10:51:51 AM
C:\Users\chance\Documents\2109300_CostaMesa_FS2_R23_CENTRAL_CD_PG4_SC_20250618_Steve Chance.rvt
SC 20250617LA 04

CM-07-01-2026



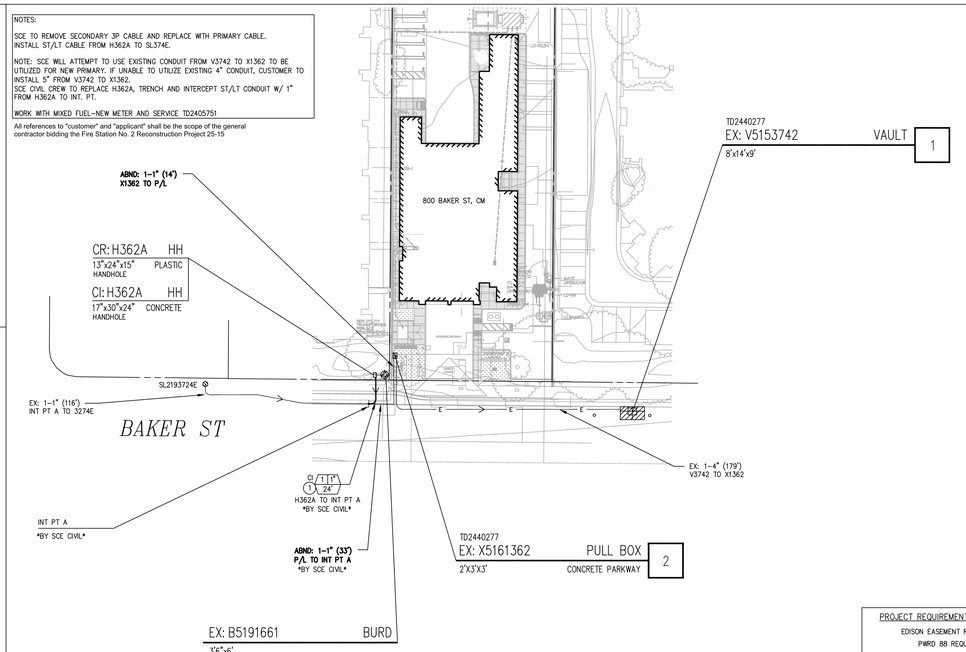

NOTES:

SCE TO REMOVE SECONDARY 3P CABLE AND REPLACE WITH PRIMARY CABLE. INSTALL ST/LT CABLE FROM H362A TO SL374E.

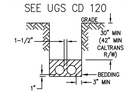
NOTE: SCE WILL ATTEMPT TO USE EXISTING CONDUIT FROM V3742 TO X1362 TO BE UTILIZED FOR NEW PRIMARY. IF UNABLE TO UTILIZE EXISTING 4" CONDUIT, CUSTOMER TO INSTALL 5" FROM V3742 TO X1362.
SCE CIVIL CREW TO REPLACE H362A, TRENCH AND INTERCEPT ST/LT CONDUIT W/ 1" FROM H362A TO INT. PT.

WORK WITH MIXED FUEL--NEW METER AND SERVICE TD2405751

All references to "customer" and "applicant" shall be the scope of the general contractor bidding the Fire Station No. 2 Reconstruction Project 25-15




TYPICAL CONDUIT BANK SECTION
SEE UGS CD 120




DIRECT BURIAL

D700: 12/12/24

## CONNECTING TO EXISTING SCE STRUCTURES

- PER SCE REQUIREMENTS, CUSTOMERS ARE NOT ALLOWED TO ENTER, INTERCEPT OR TIE-IN TO EXISTING SCE FACILITIES; E.G. STRUCTURES, EQUIPMENT, MULTI-CONDUIT RUNS/BANKS, OR CONDUCTORS. THESE FACILITIES MAY BE ENERGIZED AND THE WORK WILL ONLY BE PERFORMED BY SCE. CONTACT THE APPROPRIATE SCE INSPECTOR TO SCHEDULE AN APPOINTMENT. CUSTOMERS MAY CONNECT TO AN EXISTING CONDUIT STUB WITHOUT A SCE INSPECTOR PRESENT.
- MULTI-CONDUIT RUNS/BANKS ARE RUNS OF CONDUIT IN CLOSE PROXIMITY TO EACH OTHER AND OTHER SCE FACILITIES. A CONDUIT STUB IS A SINGLE EMPTY CONDUIT STUB THAT IS NOT IN CLOSE PROXIMITY TO OTHER SCE OWNED FACILITIES. REFER TO THE WORK ORDER MAP FOR DETAILS.
- PER CPUC/SCE'S RULE 15 B.1.A AND RULE 16 D.1.A., THE CUSTOMER WILL PROVIDE ALL NECESSARY EXCAVATIONS (WITH THE EXCEPTION OF EXCAVATION UNDER PADS AND PRIMARY SPLICE BOXES), MATERIAL (INCLUDING CONDUIT AND STRUCTURES) AND ENCASEMENT, TO BE UTILIZED IN THE INTERCEPT/TIE-IN PROCESS.
- THE CUSTOMER MUST ADHERE TO ALL APPLICABLE CAL-OSHA, LOCAL, CITY, STATE AND FEDERAL REGULATIONS, (INCLUDING, BUT NOT LIMITED TO, ALL NECESSARY SHORING AND TRAFFIC CONTROL IN PLACE TO PERFORM THE INTERCEPT/TIE-IN WORK BY SCE'S UNDERGROUND CIVIL CONTRACTOR(S)).
- INTERCEPT/TIE-IN WORK MUST BE COORDINATED WITH SCE'S CIVIL CONTRACTORS THROUGH THE DIVISION INSPECTOR/P-SPEC TO LIMIT EXPOSURE OF EXCAVATION(S). CUSTOMER IS RESPONSIBLE FOR SECURING EXCAVATION(S).

D06: 12/12/24

NOTE:
ALL ELECTRICAL DUCTS AND STRUCTURES WILL CONFORM TO GENERAL ORDER #128 (RULES FOR CONSTRUCTION OF UNDERGROUND ELECTRICAL SUPPLY AND COMMUNICATION PRESCRIBED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA, JANUARY 2006).

D06: 03/22/24

**UNDERGROUND SERVICE ALERT**
**Contact USA**
**Dial 811 or 800-422-4133**
**www.digalert.org/contact**
FOR UNDERGROUND LOCATING TWO WORKING DAYS BEFORE YOU DIG

D16: 03/22/24

**WARNING**
THE EXCAVATOR MUST TAKE ALL STEPS NECESSARY TO AVOID CONTACT WITH UNDERGROUND FACILITIES WHICH MAY RESULT IN INJURY TO PERSONS OR DAMAGE TO FACILITIES IN THE AREA. THE INDICATED LOCATIONS OF EDISON UNDERGROUND FACILITIES, AS PROVIDED, ARE BELIEVED TO BE ACCURATE, HOWEVER, THE FINAL DETERMINATION OF EXACT LOCATIONS AND THE COST OF REPAIR TO DAMAGED FACILITIES IS THE RESPONSIBILITY OF THE EXCAVATOR.

D13: 03/22/24

FINAL DESIGN
APPROVED FOR CONSTRUCTION

AS-IS
MOONWALK 12KV % GISLER SUB

PROPOSED
MOONWALK 12KV % GISLER SUB

## LEGEND CODE DEFINITIONS

CI – CUSTOMER/CONTRACTOR INSTALLED: MATERIALS FURNISHED AND INSTALLED BY APPLICANT AT EDISON'S EXPENSE AND ARE DEEDED TO EDISON. (EXCEPTION: STREET LIGHT ELECTROLIERS WILL BE INSTALLED BY EDISON'S CONTRACTOR.)
CR - CUSTOMER TO REMOVE
CO – CUSTOMER OWNED: MATERIALS FURNISHED, INSTALLED, OWNED, AND MAINTAINED BY APPLICANT.

CF – CUSTOMER FURNISHED: MATERIALS FURNISHED AND INSTALLED BY APPLICANT AT APPLICANT'S EXPENSE THAT ARE DEEDED TO EDISON.

IN – INSTALL: MATERIALS FURNISHED AND INSTALLED BY APPLICANT IF APPLICANT INSTALLED PROJECT OR BY EDISON IF EDISON INSTALLED PROJECT. (EXCEPTION: FOR AN APPLICANT INSTALLED LINE EXTENSION.
STATION NOS._____
HAVING AN ASTERISK ADJACENT TO AN "IN" LEGEND CODE REPRESENTS MATERIALS TO BE PROVIDED BY APPLICANT AND INSTALLED BY EDISON IN ALL CASES. REFER TO DPB 8258. PROJECT MATERIAL LIST BY ASSEMBLY WITHIN A STATION.)

RM – REMOVE: MATERIALS REMOVED BY EDISON.

MI – MEMO INSTALLED: SAME AS IN/INSTALL.

MR – MEMO REMOVED: MATERIALS REMOVED BY EDISON.

SI – SHOO-FLY INSTALLED: MATERIALS FURNISHED AND INSTALLED BY EDISON FOR TEMPORARY CONSTRUCTION.

SR – SHOO-FLY REMOVED: MATERIALS REMOVED BY EDISON FOR TEMPORARY CONSTRUCTION.

TR – TRANSFER: EDISON LABOR REQUIRED TO TRANSFER EXISTING FACILITIES.

D31: 03/22/24

N

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

SCALE: 1" = 40'
0 40 80

## PROJECT REQUIREMENTS (Y/N)

| | |
|---|---|
| EDISON EASEMENT REQUIRED | N |
| PWRD BB REQUIRED UG | Y |
| CIVIL ONLY WORK ORDER | N |
| PERMIT REQUIRED | Y |
| PERMIT TYPE: ENCROACHMENT | |
| OUTAGE REQUIRED | Y |
| OUTAGE DATE: _____ TIME: _____ | |
| TRAFFIC CONTROL REQUIRED | Y |
| PED. TRAFFIC CONTROL REQ'D | Y |
| CONVEYANCE LETTER REQ'D | N |
| ENVIRONMENTAL REQUIREMENTS DOCUMENT (ERD) REQUIRED | Y |
| CSD 140 (TLM) REQ'D | N |
| CIRCUIT MAP CHANGE REQ'D (TD 203) | Y |
| DIG ALERT APP | Y |
| VERIFIED ACTIVE AND CONFIRMED USA TICKETS | ☐ |
| UTILIQUEST NOTIFIED | ☐ |
| FAA MARKING REQ'D | N |
| FAA TYPE: N/A | |
| ACTUAL COST WORK ORDER | N |
| STANDARD ADHERENCE: 3 Q/ 2025 Y | |

D14A: 12/12/24

| | | | |
|---|---|---|---|
| DISTRICT: 33 – HUNTINGTON BEACH | PROJ. MGR.: N/A PHONE | PLANNER: ALVES, JACQUELINE PHONE 7148950284 | DESIGNER: CARRILLO, MARLENA |
| PROJECT NO.: 30654.13 | SERVICE REQUEST: 39448864 | MSR NO.: N/A | PRODUCT-1: 2440277–RELOCATE FACILITIES — ASSOC DESGN: 18697.30 |
| CIRCUIT / VOLTAGE | | GPS: N/A | PRODUCT-2: 2405751–MIXED FUEL – NEW METER & SERVICE — ASSOC DESGN: 18418.96 |
| SUB / PG NO. | | CIRCUIT CODE | PRODUCT-3 — ASSOC DESGN |
| INVENTORY MAP: 36–138–8 | J.P.A. NO.: N/A | | PROPOSED CONSTRUCTION (LOCATION): RELOCATE FACILITIES, 800 BAKER ST, COSTA MESA CA 92626 |
| P | 9/4/25 | VERGARA | ALVES | 54284 | |
| TYPE | DATE | APPROVED BY | CHECKED BY | DRAWN BY | PAX # |
| Southern California Edison Company | | | | | SHEET: 1 of 1 — DESIGN\DRWG NO.: 1869730_0.01 |

PBK
SOUTHERN CALIFORNIA
10760 4TH STREET, SUITE 200
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
PETER FOX
C-38606
REN. 08-31-27
STATE OF CALIFORNIA

CONSULTANT

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

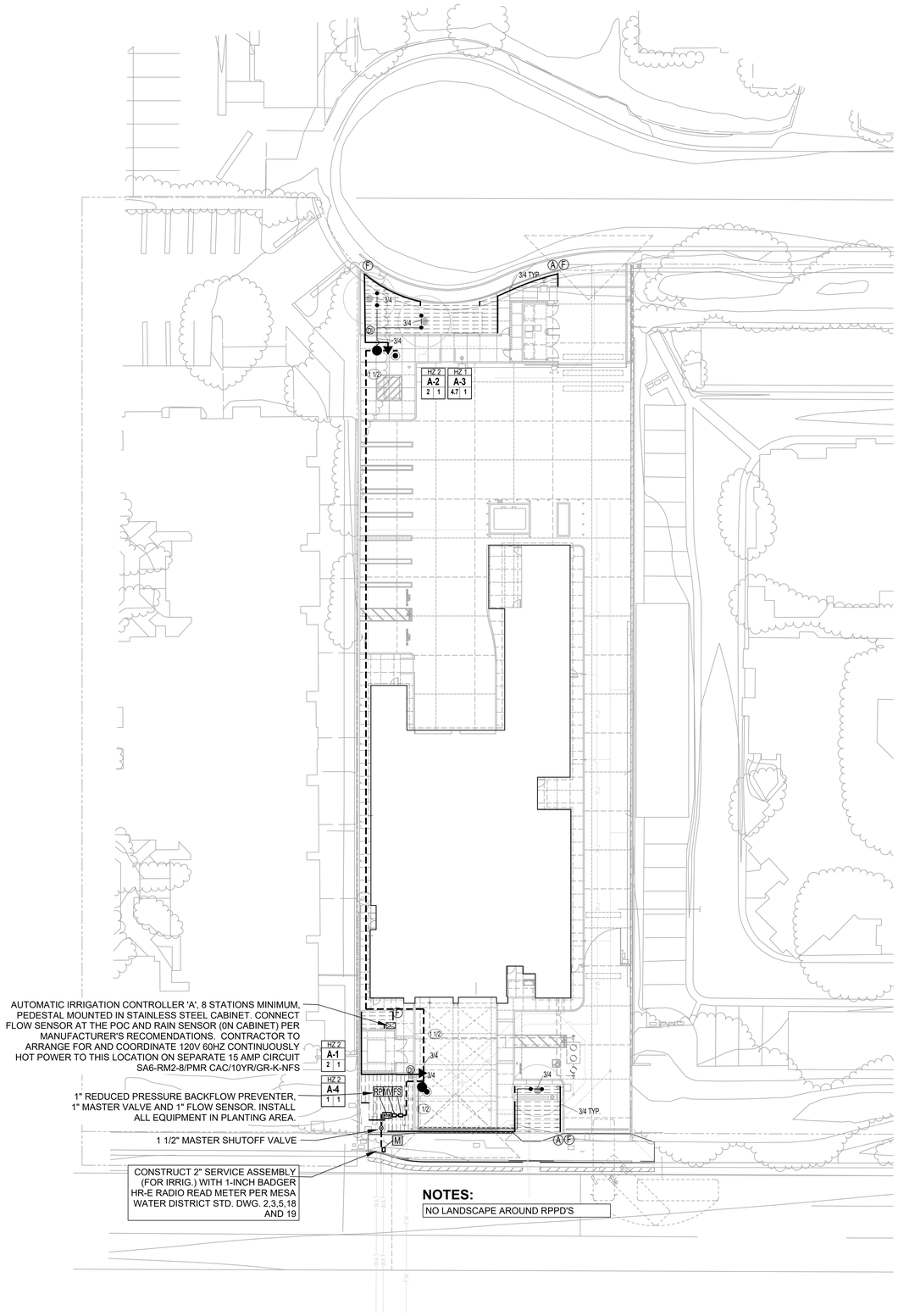
DRAWN: SCE | CHECKED:
DATE: 06/30/2026 | SCALE: AS NOTED
PROJECT NUMBER: 2109300

**SCE DESIGN - NEW METER AND SERVICE**

DRAWING NUMBER: **SCE1.1**

FILE NAME: 1869730_0.01.DWG SAVE: DATE 8/27/2025 10:02 AM SAVED BY CARRILMA
6/30/2026 10:51:52 AM
C:\Users\carrilma\Documents\2109300_CostaMesa_FS2_RS3_CENTRAL_CD_PCH_SC_20260616_Santa Division.rvt
PC SUBMITTAL v4

CM-07-01-2026




# IRRIGATION LEGEND

| SYMBOL | DESCRIPTION | PSI | GPM | RAD | MFGR/MODEL |
|---|---|---|---|---|---|
| ● | BUBBLER HEAD (2 PER TREE) | 30 | 0.5 | -- | RAIN BIRD RWS-B-C-1402 |
| — — | SUB SURFACE DRIPLINE, 18" SPACING, 18" O.C. | 30 | 0.01 | -- | RAIN BIRD XFS-09-18 |
| Ⓐ | DRIP IRRIGATION AIR/VACUUM RELIEF VALVE | | | | RAIN BIRD ARV-050 |
| Ⓕ | DRIP IRRIGATION FLUSH VALVE | | | | RAIN BIRD FLUSH CAP |
| Ⓓ | DRIP OPERATION INDICATOR | | | | RAIN BIRD OPERIND |
| ◉ | QUICK COUPLER VALVE | | | | RAIN BIRD 44LRC W/ 44K KEY & SH-1 SWIVEL |
| ⊗ | MASTER SHUT-OFF GATE VALVE, LINE SIZE, W/ BRONZE CROSS HANDLE | | | | NIBCO T-580 |
| M | WATER METER | | | | 1-INCH BADGER HR-E RADIO READ METER PER MESA WATER DISTRICT |
| M | MASTER VALVE | | | | NETAFIM LHM15TG1-ML |
| ● | REMOTE CONTROL VALVE | | | | RAIN BIRD EFB-CP SERIES BRASS VALVE, SCH 80 BALL VALVE |
| ▼ | REMOTE CONTROL VALVE FOR DRIP SYSTEMS | | | | RAIN BIRD EFB-CP SERIES BRASS VALVE, SCH 80 BALL VALVE<br>RAIN BIRD PRBOKCH100 PRESSURE REGULATING QUICK CHECK BASKET<br>RAIN BIRD DRIP SYSTEM OPERATION INDICATOR KIT ON EACH DRIP STATION |
| FS | FLOW SENSOR | | | | RAIN BIRD FS100P |
| RP | REDUCED PRESSURE BACKFLOW PREVENTER (VERIFY CONDITION AND SUITABILITY OF EXISTING BACKFLOW FOR POSSIBLE RE-INSTALLATION) | | | | FEBCO LF825Y W/ WILKINS 500Y STRAINER |
| CAC | AUTOMATIC IRRIGATION CONTROLLER, 8 STATION, PEDESTAL MOUNTED, WITH RAIN SENSOR ON CABINET | | | | RAINMASTER EAGLE PLUSB SA6-RM2-8/PMR CAC/10YR/GR-K-NFS W/ HUNTER MINI-CLIK SENSOR |
| | | | | | |
| ——— | LATERAL (NON-PRESSURE) PIPING, SIZE AS SHOWN | | | | SCH 40 |
| - - - | MAIN LINE (PRESSURE) PIPING, SIZE AS SHOWN IN OVALS | | | | SCH 80 |
| = = = | SLEEVE, PER PLAN, 2x DIAM OF CARRYING PIPE, MIN. | | | | SCH 40 |

(1 1/2) MAINLINE SIZES

| | | |
|---|---|---|
| | HZ 1 | HYDROZONE |
| CONTROLLER | A-1 | SEQUENCE NUMBER |
| APPROXIMATE GPM | 6 \| 1 | VALVE SIZE, INCHES |

| HYDROZONES | |
|---|---|
| 1 MIXED PLANTING | DRIP |
| 2 TREE DEEP WATER | BUBBLER |

MAWA — MAWA = ETO - EFFECTIVE RAIN X IN TO GAL X( (ET ADJ FACTOR X TOTAL AREA) + (SPECIAL AREA X 0.55) )

| ET DATA FROM: | IRVINE | | | | |
|---|---|---|---|---|---|
| ETO | EFFECTIVE PRECIP | IN TO GAL | ET ADJ FACTOR | TOTAL AREA | SPECIAL AREAS |
| 49.9 | 0.00 | 0.620 | 0.45 | 1795 | 0 |
| MAWA = | 28,446 | GAL/YEAR | | | |

EAWU — EAWU = (ETO - EFFECTIVE RAIN) x IN TO GAL x( (PF/IE x AREA)

| HYDRO ZONE | DESCRIPTION | WATER USE | PLANT FACTOR (PF) | IRRIGATION METHOD | IRRIGATION EFFICIENCY (IE) | ETAF (PF/IE) | SQ FT AREA (HA) | ETAF x HA | EAWU |
|---|---|---|---|---|---|---|---|---|---|
| 1 | MIXED | MED | 0.20 | DRIP | 0.81 | 0.247 | 1795 | 443.21 | 13,712 |
| 2 | TREE DEEP WATER | LOW | 0.10 | BUBBLER | 0.75 | 0.133 | 200* | 26.67 | 825 |
| | | | | REGULAR AREA TOTAL | | | | | 14,537 |
| | | | | SPECIAL LANDSCAPE AREA TOTAL | | | | | 0 |
| | | | | **TOTAL EAWU** | **14,537** | **MAWA** | **28,446** | **DIFFERENCE** | **(13,909)** |

*** NOTE: THE TREE HYDROZONE SHOWS ADDITIONAL SQUARE FOOTAGE TO ALLOW FOR DEEP WATERING OF THE TREES. ALL TREES ARE WITHIN THE MIXED HYDROZONE AREAS, SO THERE IS NO CHANGE TO THE TOTAL SQUARE FOOTAGE IRRIGATED.**

## IRRIGATION NOTES

1 EXISTING UTILITIES AND CONDITIONS: PRIOR TO CUTTING INTO THE SOIL OR PAVING, LOCATE ALL CABLES, CONDUITS, AND OTHER UTILITIES THAT ARE COMMONLY FOUND UNDERGROUND, AND TAKE PROPER PRECAUTIONS NOT TO DAMAGE OR DISTURB SUCH IMPROVEMENTS. IF A CONFLICT EXISTS BETWEEN SUCH OBSTACLES AND THE PROPOSED WORK, PROMPTLY NOTIFY OWNER WHO WILL ARRANGE FOR RELOCATIONS IF REQUIRED. PROCEED IN THE SAME MANNER IF ROCK LAYERS OR ANY OTHER CONDITIONS ENCOUNTERED UNDERGROUND MAKE CHANGES ADVISABLE.

2 THE INSTALLATION OF THE IRRIGATION SYSTEM SHALL CONFORM TO ALL APPLICABLE REGULATIONS AND CODES.

3 THE IRRIGATION SYSTEM IS SHOWN DIAGRAMMATICALLY FOR CLARITY. LOCATE ALL PIPING, HOSE, EQUIPMENT AND APPURTENANCES WITHIN PROPERTY LINE AND WITHIN THE PLANTING AREAS SHOWN UNLESS NOTED OR DIRECTED OTHERWISE. LOCATE ALL VALVES AND VALVE BOXES 6" MIN., 12" MAX FROM PAVING. LOCATE QUICK COUPLER VALVES AT THE EDGE OF PLANTING AREAS. LOCATE PRESSURE MAIN LINES WITHIN 18" OF EDGE OF PLANTING AREAS.

4 ALL PIPE AND WIRING UNDER PAVING & ROADWAYS SHALL BE SLEEVED. COORDINATE SLEEVE INSTALLATION WITH OTHER TRADES TO ENSURE PROPER AND TIMELY INSTALLATION IN LOCATIONS REQUIRED. PIPES MAY BE SLEEVED TOGETHER IF AN EQUIVALENT INCREASE IN SLEEVE SIZE IS MADE.

5 ALL BRASS PIPE AND FITTINGS TO BE IPS RED BRASS, STANDARD PIPE SIZE, SCHEDULE 40. ALL COPPER PIPE AND FITTINGS TO BE TYPE "K" COPPER. PROVIDE DIELECTRIC COUPLINGS BETWEEN DISSIMILAR METALS.

6 USE THREE WRAPS OF TEFLON PIPE TAPE FOR ALL THREADED CONNECTIONS.

7 SPLICES SHALL BE MADE ONLY IN PULL BOXES OR VALVE CONTROL BOXES.

8 SYSTEM DESIGN IS BASED ON A DESIGN PRESSURE OF 50 PSI.

10 WIRING IS BASED ON THE USE OF ONE 24 VOLT DC REMOTE CONTROL VALVE OPERATING AT ONE TIME. ALLOWANCE IS MADE FOR OPENING/CLOSING SEQUENCES.

11. THE USE OF A MANUFACTURER'S NAME AND MODEL OR CATALOG NUMBER IS FOR THE PURPOSE OF ESTABLISHING THE STANDARD OF QUALITY AND CONFIGURATION DESIRED ONLY. DESIGN OF THIS IRRIGATION SYSTEM IS BASED ON MATERIALS SHOWN. IF OTHER EQUIPMENT IS SUBSTITUTED, WITH APPROVAL, DESIGN REQUIREMENTS ARE TO BE ADJUSTED ACCORDINGLY.

12. UNLESS NOTED OTHERWISE ON PLANS, ALL LATERAL END RUNS ARE TO BE 3/4 INCH SIZE.

13. ADJUST PLANT MATERIAL LOCATION TO AVOID BLOCKING IRRIGATION COVERAGE.

14 POC IS TO EXISTING IRRIGATION SYSTEMS AND EQUIPMENT.

15 FINAL LOCATION OF CONTROLLER AND ELECTRICAL POC SHALL BE CONFIRMED WITH DISTRICT'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.

16 MAINLINE, GATE VALVES, QUICK COUPLER VALVES AND REMOTE CONTROL VALVES ARE SHOWN WITHIN PAVING FOR CLARITY ONLY. ACTUAL MAINLINEAND EQUIPMENT LOCATIONS ARE TO BE WITHIN PLANTING AREAS, A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES.

17 LATERAL LINES ARE SHOWN WITHIN PAVING FOR CLARITY ONLY. ACTUAL LOCATIONS ARE WITHIN PLANTING AREAS.

18 BUBBLERS SHALL BE ALIGNED WITH TREES AT EDGE OF ROOTBALL AND EDGE OF PLANTING PIT, AND AS DIRECTED BY OWNER'S AUTHORIZED REPRESENTATIVE. CONFIRM ALL LAYOUTS IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO COMMENCING WORK.

19 TREE LOCATIONS TAKE PRECEDENCE OVER IRRIGATION HEADS.

20 ANTI-DRAIN VALVES OR CHECK VALVES ARE TO BE USED WHERE LOW POINT RUNOFF MAY OCCUR.

21 ALL COMPONENTS TO BE OF LEAD FREE COMPOSITION.

22 POTABLE WATER IS TO BE USED ON THIS SITE.

N
TRUE NORTH
SCALE: 1" = 20'-0"

I HAVE COMPLIED WITH THE CRITERIA OF THE WATER USE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS. I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE PRESCRIPTIVE COMPLIANCE OPTION OF MWELO.

APPLICANT _____ DATE _____

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT — BRUCE OU C-34832 EXP. 10-31-27 — STATE OF CALIFORNIA

REGISTERED LANDSCAPE ARCHITECT — JOSEPH KING 5241 — RENEWAL 08/31/2027 — STATE OF CALIFORNIA

CONSULTANT
CORNERSTONE STUDIOS, INC.
951 E Santa Ana Blvd.
Santa Ana, CA 92701
714. 973. 2200 Voice
714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE • URBAN DESIGN • PLANNING • RESOURCE ANALYSIS

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: JL | CHECKED: JK |
| DATE: 01/16/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

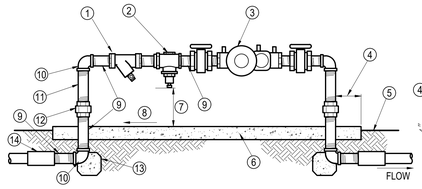
IRRIGATION PLAN

DRAWING NUMBER: L1.1

1/12/2026 8:07:04 AM
C:\Users\kuser\Documents\21093W_CostaMesa_FS2_RDI_CENTRAL_CD_PC1_RE_Sierra Chason_Sierra Chason.rvt

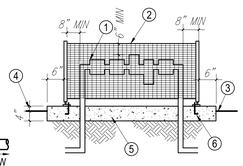
PC SUBMITTAL XZ

CM-07-01-2026




1. WYE STRAINER, REPLACE HOSE BIBB W/ STOP COCK
2. PRESSURE REGULATOR (IF REQUIRED)
3. REDUCED PRESSURE TYPE BACKFLOW PREVENTER W/ GATE VALVES & TEST COCKS
4. 6" MIN ALL AROUND
5. FINISH GRADE
6. CONCRETE BASE 6" MIN THICK
7. 12" MIN CLEAR
8. SLOPE TO EDGES
9. SHORT BRASS NIPPLE
10. BRASS ELL
11. THREADED BRASS RISER
12. BRASS UNION
13. THRUST BLOCKS - SIZE AS REQUIRED FOR SOIL TYPE
14. PIPE ADAPTER AS REQUIRED

OUTLET FITTINGS TYPICAL TO INLET FITTINGS

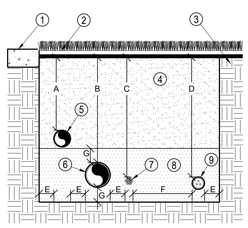



1. BACKFLOW PREVENTER ASSEMBLY
2. STAINLESS STEEL EXPANDED METAL LOCKABLE ENCLOSURE, SIZE AS REQ'D
3. FINISH GRADE
4. 2" IN GROUND COVER, FLUSH IN TURF
5. 6" THICK MIN. CONCRETE PAD. SLOPE 0.5% ALL SIDES TO DRAIN
6. ANCHOR BOLTS PER MANUFACTURER'S RECOMMENDATION

SEE DETAIL "D", THIS SHEET FOR TRENCH DEPTHS

## A REDUCED PRESSURE BACKFLOW PREVENTER BACKFLOW ENCLOSURE

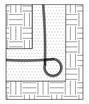
NTS




1. PAVING OR CURB EDGE
2. FINISH GRADE
3. UNDISTURBED SOIL
4. CLEAN COMPACTED BACKFILL
5. LATERAL PIPE
6. PRESSURE MAIN LINE PIPE
7. CONTROL WIRES. LAY NEXT TO MAINLINE. BUNDLE AND TAPE AT TEN FOOT INTERVALS
8. CLEAN SAND BACKFILL
9. 120V POWER WIRES IN SCH 40 CONDUIT

TIE A 36" LOOP IN ALL WIRING AT ALL CHANGES OF DIRECTION GREATER THAN 30 DEGREES, UNTIE AFTER ALL CONECTIONS HAVE BEEN MADE

| DIMENSION | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1/2" TO 1 1/2" SIZE | 12 | 18" | 20" | 18" | 6" | 24" | 6" |
| 2" TO 2 1/2" IN SIZE | 12" | 18" | 20" | 18" | 6" | 24" | 6" |
| 3" AND LARGER | 18" | 24" | 26" | | 6" | 24" | 6" |

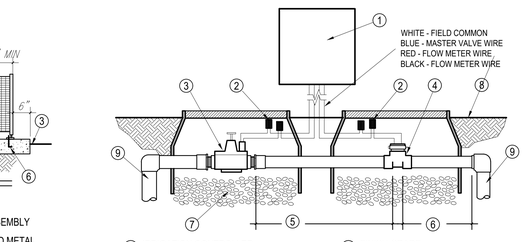


PLAN VIEW - N.T.S.

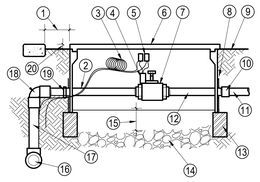
SNAKE ALL PLASTIC PIPING WITHIN TRENCHES
INSTALL ALL PIPE IN ACCORD WITH MANUFACTURERS SPECIFICATIONS

## B FLOW SENSOR IN-LINE

NTS



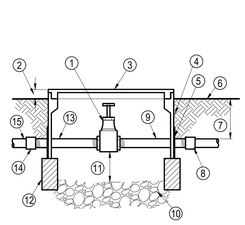

1. IRRIGATION CONTROLLER
2. EPOXY CONNECTORS
3. MASTER VALVE
4. FLOW SENSOR
5. 30" MIN. CLEAR OF FITTINGS, DIRECTION CHANGES
6. 18" MIN. CLEAR OF FITTINGS, DIRECTION CHANGES
7. 2 CU FT 3/4" GRAVEL, TYP.
8. FINISH GRADE
9. PVC MAINLINE



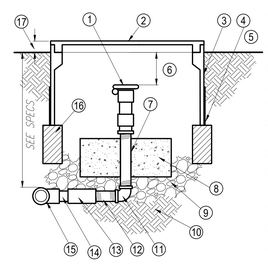
1. 6" MIN, 12" MAX FROM FIXED IMPROVEMENTS
2. 3" MIN. SCH 80 PVC NIPPLE (TxT)
3. 18" MIN EXPANSION LOOPS
4. SOLENOID
5. EPOXY CONNECTORS
6. PLASTIC VALVE BOX W/ LOCKING COVER MARKED "RCV"
7. REMOTE CONTROL VALVE
8. COVER OPENINGS W/ 15# FELT OR LANDSCAPE FABRIC
9. FINISH GRADE
10. SCH 80 ADAPTER (FxF)
11. LATERAL PIPING
12. 3" MIN. SCH 80 NIPPLE (TxT)
13. SET VALVE BOX ON FOUR (4) BRICKS
14. 2 CU. FT. PEA GRAVEL
15. 2" MIN. 6" MAX CLEAR
16. PVC SCH 80 TEE OR ELL AT MAIN
17. SCH 80 PVC PIPE. LENGTH AS REQ'D
18. SCH 80 PVC ELL (SxT)
19. BUNDLE & TAPE CONTROL WIRES TO PIPE
20. 3" CLEAR

## C MASTER SHUTOFF GATE VALVE

NTS



1. GATE VALVE, LINE SIZE
2. 1" IN GROUND COVER, FLUSH IN TURF
3. PLASTIC VALVE BOX W/ LOCKING COVER MARKED "GV"
4. EXTENSIONS AS REQUIRED
5. COVER OPENINGS WITH LANDSCAPE FABRIC
6. FINISH GRADE
7. SEE DETAIL "I", THIS SHEET
8. SCH 80 PVC ADAPTER (FxF)
9. SCH 80 PVC NIPPLE (TxT)
10. 2 CU FT PEA GRAVEL MIN.
11. 2" MIN 6" MAX CLEAR
12. SET BOX ON FOUR BRICKS
13. SCH 80 PVC NIPPLE (TxT)
14. SCH 80 PVC ADAPTER (FxF)
15. PVC MAIN



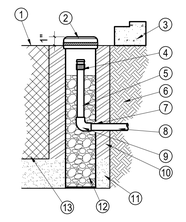

1. QUICK COUPLER VALVE W/ LOCKING RUBBER CAP
2. PLASTIC VALVE BOX W/ LOCKING COVER MARKED "QCV"
3. EXTENSIONS AS REQUIRED
4. COVER OPENINGS WITH LANDSCAPE FABRIC
5. FINISH GRADE
6. 3" MIN., 6" MAX CLEAR
7. THREADED BRASS RISER. LENGTH AS REQUIRED
8. 1 CU FT CONCRETE BASE
9. 2 CU FT PEA GRAVEL MIN.
10. UNDISTURBED OR 95% COMPACTED SOIL
11. BRASS ELL
12. 3" LONG THREADED BRASS NIPPLE
13. SCH 80 PVC ADAPTER (SxT)
14. SCH 80 PVC PIPE. LENGTH AS REQUIRED
15. SCH 80 PVC TEE OR ELL AT MAIN
16. SET BOX ON FOUR BRICKS
17. 1" IN GROUND COVER, FLUSH IN TURF

ALL BRASS FITTINGS TO BE RED BRASS

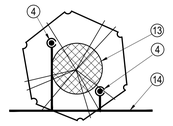
USE TEFLON PIPE TAPE ON ALL THREADED FITTINGS

## D DRIP CONTROL VALVE

NTS



SECTION



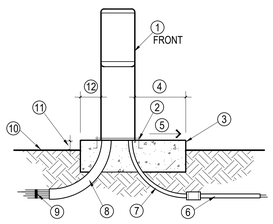
PLAN

1. FINISH GRADE
2. 4" DIA. RUBBER DRAIN CAP. SECURE W/ SS HOSE CLAMP
3. CONCRETE WALK OR OTHER FIXED IMPROVEMENTS WHERE OCCURS
4. BUBBLER HEAD
5. SCH 80 NIPPLE, LENGTH AS REQ'D
6. NATIVE SOIL
7. DRILL THROUGH 4 INCH DRAIN PIPE
8. PVC LATERAL LINE
9. 1/2 INCH DIAMETER PVC ELL (SxT)
10. BACKFILL
11. NATIVE SOIL BACKFILL
12. 4" DIA. X 36" LONG PERFORATED DRAIN PIPE. FILL W/ 3/4" GRAVEL.
13. ROOT BALL
14. PVC LATERAL LINE PIPE

USE TEFLON PIPE TAPE ON ALL THREADED FITTINGS

## E PIPE & WIRE TRENCHING

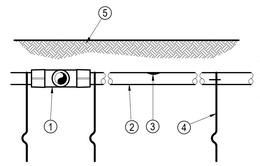
NTS




1. AUTOMATIC IRRIGATION CONTROLLER IN STAINLESS STEEL ENCLOSURE. FACE TOWARD ADJACENT PAVED SURFACE.
2. ANCHOR BOLTS PER MANUFACTURER'S RECOMMENDATION
3. 6" MIN THICK CONCRETE BASE
4. 18" MIN
5. SLOPE 0.5% TO ALL SIDES
6. 3/4" PVC ELEC. CONDUIT W/ 120VAC 60 HZ CONTINUOUSLY HOT ELECTRICAL POWER
7. 3/4" LONG SWEEP ELEC. PVC ELL
8. 4" DIA LONG SCH 40 SWEEP ELL FOR 24VDC CONTROL WIRING
9. BUNDLE AND TAPE CONTROL WIRES AT 10' INTERVALS
10. FINISH GRADE
11. 2" CLEAR
12. 6" CLEAR, THREE SIDES

## F MASTER & REMOTE CONTROL VALVE

NTS

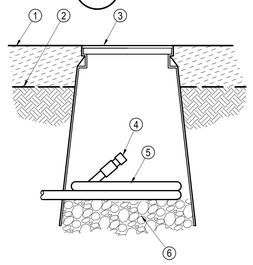


1. COMPRESSION TEE
2. SUBSURFACE DRIP LINE
3. IN-LINE EMITTER
4. TIEDOWN STAKE / LANDSCAPE PIN
5. FINISH GRADE

NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, F0UR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. INSERTION PLOW AND TRENCHED INSTALLATIONS DO NOT REQUIRE TIE DOWN STAKES.

## G QUICK COUPLER VALVE

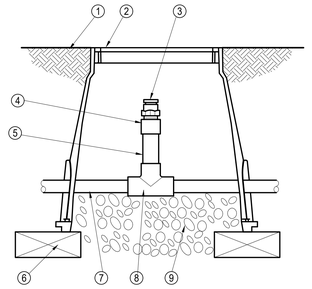
NTS



1. TOP OF MULCH LAYER
2. FINISH GRADE
3. EMITTER BOX
4. COMPRESSION FITTING AND FLUSH CAP
5. 12" LENGTH OF SOLID DRIP HOSE
6. 3-INCH MIN. DEPTH OF 3/4" WASHED GRAVEL

## H TREE BUBBLER

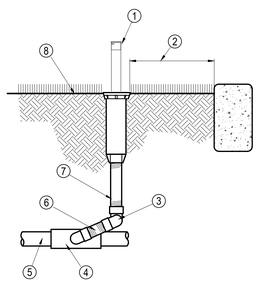
NTS



1. FINISH GRADE
2. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
3. ½" AIR RELIEF VALVE: RAIN BIRD ARV-12 TO BE INSTALLED AT HIGH POINTS IN DRIP ZONE
4. PVC SCH 40 FEMALE ADAPTER
5. PVC SCH 80 RISER
6. BRICK (1 OF 2)
7. PVC HEADER PIPE
8. PVC SCH 40 TEE
9. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL

## I IRRIGATION CONTROLLER - PEDESTAL MOUNT

NTS



1. 6" BODY WITH POP-UP INDICATOR
2. 6" MIN. 8" MAX. FROM FACE OF FIXED IMPROVEMENTS
3. PVC ELL & 2 POLYETHYLENE STREET ELLS. INSTALL SO THEY TIGHTEN WITH DOWNWARD THRUST OF RISER
4. TEE OR ELL
5. LATERAL PIPING
6. 4" SCH 80 PVC NIPPLE
7. SCH 80 PVC RISER
8. FINISH GRADE

## J SUBSURFACE DRIP LINE

NTS

## K FLUSH VALVE

NTS

## L AIR RELIEF VALVE

NTS

## M DRIP OPERATION INDICATOR

NTS

## MESA WATER DISTRICT STANDARD WATER CONSTRUCTION NOTES

1 ENGINEERING PLAN CHECK/INSPECTION FEE AND PERFORMANCE GUARANTEE BOND SHALL BE PAID AND APPLICATION/ PERMIT (A.P.) COMPLETED BY THE APPLICANT PRIOR TO THE APPROVAL OF THE PLANS AND ISSUANCE OF THE A.P. FEES SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.

2 CAPACITY CHARGES SHALL BE COLLECTED BY MESA WATER AT THE TIME OTHER FEES ARE COLLECTED PRIOR TO APPROVAL OF PLANS AND SERVICE AGREEMENT. THIS FEE SHALL BE IN ACCORDANCE WITH MESA WATER RATES AND DEPOSIT SCHEDULE.

3 WATER MAINS WILL BE INSTALLED ACCORDING TO THE LATEST STANDARDS AND SPECIFICATIONS OF MESA WATER.

4 CONTRACTOR TO HAVE, ON THE JOB SITE, A COPY OF THE LATEST STANDARD SPECIFICATIONS AT ALL TIMES.

5 CONTRACTOR SHALL SCHEDULE INSPECTIONS A MINIMUM OF 24 HOURS IN ADVANCE AND IN ACCORDANCE WITH THE INSPECTION CHECKLIST REQUIREMENTS. TO SCHEDULE AND INSPECTION, CALL (949) 207-5518.

6 A CASH PERFORMANCE GUARANTEE BOND SHALL BE HELD ONE YEAR AFTER MESA WATER'S NOTICE OF COMPLETION TO GUARANTEE WORK PERFORMED BY THE CONTRACTOR.

7 SEPARATION BETWEEN SANITARY SEWER AND WATER MAINS SHALL BE A MINIMUM OF 10' HORIZONTAL, 1' VERTICAL (ABOVE SEWER)

8 A 15' WATER MAIN EASEMENT WILL BE GRANTED TO MESA WATER® FOR MAINTENANCE PURPOSES, 5' FOR WATER SERVICES (7.5' EACH SIDE OF MAIN; 2.5' EACH SIDE OF SERVICE). EASEMENT DOCUMENTS ARE TO BE SUBMITTED TO MESA WATER FOR APPROVAL PRIOR TO A PERMIT BEING ISSUED.

9 SERVICE LATERALS WILL BE SET TO GRADE BY CONTRACTOR PRIOR TO THE INSTALLATION OF WATER METERS AND BOXES (PER MESA WATER'S STANDARD DRAWINGS #1, #2 AND #3).

10 WATER METER WILL NOT BE INSTALLED NOR WATER TURNED ON UNTIL THE BACKFLOW DEVICES REQUIRED FOR THE BUILDING AND IRRIGATION SYSTEMS HAVE BEEN INSTALLED, TESTED, APPROVED, AND CERTIFIED. CONTACT CROSS CONNECTION CONTROL AT 949-631-1291.

11 PROTECT EXISTING UTILITIES IN PLACE.

12 WATER MAINS SHALL HAVE 42" MINIMUM COVER TO FINISH GRADE.

13 RAISE EXISTING WATER VALVE COVERS TO GRADE (PER MESA WATER STANDARD DRAWING #14).

14 INSTALL FIRE HYDRANT PER MESA WATER STANDARD DRAWING #4 OR #4B.

15 INSTALL BLOW-OFF PER MESA WATER STANDARD DRAWING #9.

16 WATER MAINS WILL BE TESTED AT 225 P.S.I. FOR FOUR HOURS.

17 BACKFILL MATERIAL IN PIPE ZONE WILL HAVE A SAND EQUIVALENT OF 30 OR GREATER.

18 THE BACKFILL ABOVE THE PIPE ZONE WILL BE COMPACTED PER MESA WATER STANDARD DRAWING #18, AND BE IN COMPLIANCE WITH CITY OF COSTA MESA STANDARD DRAWING 813.

19 CHIP 2" 'W" IN CURB FACE TO IDENTIFY WATER SERVICE LOCATION.

20 INSTALL THRUST OR GRAVITY BLOCKS PER MESA WATER STANDARD DRAWING #11 OR #12.

21 CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO TRENCHING.

22 CONTRACTOR TO INSTALL TEMPORARY TAPS FOR TESTING AND CHLORINATION PRIOR TO CONNECTING TO EXISTING MAINS.

23 CONTRACTOR TO RETURN ALL EQUIPMENT REMOVED TO MESA WATER YARD, AND DISPOSE OF OTHER MATERIAL (I.E., BROKEN CONCRETE AND NATIVE SOIL, ETC.) AT CONTRACTOR'S EXPENSE.

24 WATER METERS AND BOXES TO BE INSTALLED BY MESA WATER BUT PAID FOR BY APPLICANT/OWNER.

25 A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON ALL WATER METERED SERVICES TO ANY CONDOMINIUM UNIT OVER TWO STORIES OR FIVE OR MORE UNITS ON ONE METERED SERVICE. CONTACT CROSS CONNECTION CONTROL AT 949-631-1291.

26 IRRIGATION METERS SHALL REQUIRE A REDUCED PRESSURE PRINCIPLE ASSEMBLY.

27 IN LANDSCAPED AREAS, NO TREES SHALL BE LOCATED IN MESA WATER EASEMENT OR WITHIN 7.5' OF ANY MESA WATER FACILITY.

28 A REDUCED PRESSURE PRINCIPLE ASSEMBLY SHALL BE REQUIRED ON METERED WATER SERVICES TO ALL INDUSTRIAL BUILDINGS.

29 A DOUBLE CHECK DETECTOR ASSEMBLY WITH COMBINATION FLOW METER WILL BE REQUIRED ON FIRE LINE SERVICES, PER STANDARD 22.

30 FIRELINE SERVICES SHALL NOT BE TURNED ON UNTIL THE MESA WATER ENGINEERING DEPARTMENT HAS RECEIVED A LETTER FROM THE OWNER, OR OWNER'S AUTHORIZED AGENT, REQUESTING IT AND STATING THAT THE PLUMBING IS READY FOR THE FIRELINE TO BE TURNED ON. THE LETTER MUST ALSO CONTAIN MESA WATER'S FILE NUMBER, SIZE AND SERIAL NUMBER OF THE DEVICE, AND JOB ADDRESS.

31 IF A 13D SPRINKLER SYSTEM IS NOT A FLOW THROUGH SYSTEM, THEN A TESTABLE BACKFLOW DEVICE NEXT TO BUILDING SHALL BE INSTALLED. MESA WATER® INSPECTOR TO VERIFY FLOW THROUGH SYSTEMS. MESA WATER® INSPECTOR SHALL VERIFY FLOW THROUGH 13D FIRE SPRINKLER SYSTEMS BY:
- TURNING OFF HOUSE VALVE
- CHECKING FOR FLOW ON FLOW THOUGH CONNECTION (I.E., TOILET OR SINK)

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
www.pbk.com

# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
BRUCE OU
C-34832
REN. 10-31-27
STATE OF CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
WEI-JUNG KUO
No. 6146
Date 10-31-27
STATE OF CALIFORNIA

CONSULTANT
CORNERSTONE STUDIOS, INC.
951 E Santa Ana Blvd.
Santa Ana, CA 92701
714. 973. 2200 Voice
714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE • URBAN DESIGN • PLANNING • RESOURCE ANALYSIS

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| #1 | | | REVISIONS |

| | |
|---|---|
| DRAWN: JL | CHECKED: JK |
| DATE: 01/16/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

IRRIGATION DETAILS

DRAWING NUMBER: L1.2

1/12/2026 8:27:04 AM
C:\Users\Jackson\Documents\2109300_CostaMesa_FS2_RS3_CENTRAL_CS_ACI_BC_Sierra-Choice_Sierra-Choice.rvt

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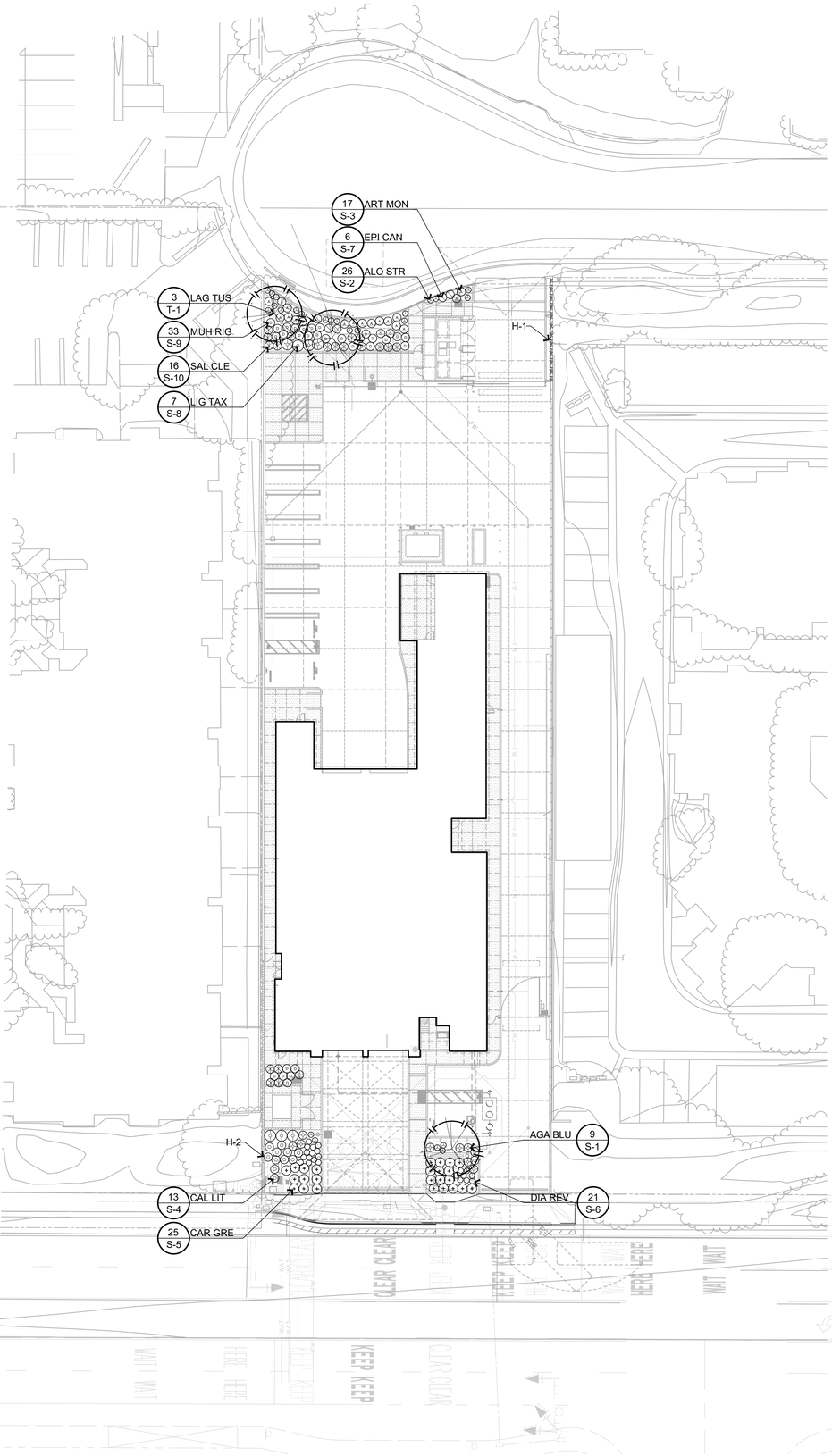
CM-07-01-2026




## PLANTING LEGEND

| SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | QTY. | DETAIL REF. |
|---|---|---|---|---|---|
| **TREES** | | | | | |
| T-1 | LAGERSTROEMIA FAURIEI 'TUSCARORA' | TUSCARORA CRAPE MYRTLE | 36" BOX | 3 | DETAIL A, D/ SHEET L2.2 |
| **SHRUBS** | | | | | |
| S-1 | AGAVE 'BLUE FLAME' | BLUE FLAME AGAVE | 5 GAL. @ 3' O.C. | 9 | DETAIL C/ SHEET L2.2 |
| S-2 | ALOE STRIATA | CORAL ALOE | 5 GAL. @ 2' O.C. | 26 | DETAIL C/ SHEET L2.2 |
| S-3 | ARTEMISIA 'MONTARA' | MONTARA SAGEBRUSH | 5 GAL. @ 3' O.C. | 17 | DETAIL B, E/ SHEET L2.2 |
| S-4 | CALLISTEMON 'LITTLE JOHN' | LITTLE JOHN DWARF BOTTLEBRUSH | 5 GAL. @ 3' O.C. | 13 | DETAIL B, E/ SHEET L2.2 |
| S-5 | CARISSA M. 'GREEN CARPET' | GREEN CARPET NATAL PLUM | 5 GAL. @ 3.5' O.C. | 25 | DETAIL B, E/ SHEET L2.2 |
| S-6 | DIANELLA REVOLUTA 'LITTLE REV' | LITTLE REV FLAX LILY | 5 GAL. @ 2' O.C. | 21 | DETAIL B, E/ SHEET L2.2 |
| S-7 | EPILOBIUM CANUM | CALIFORNIA FUCHSIA | 5 GAL. @ 3' O.C. | 6 | DETAIL B, E/ SHEET L2.2 |
| S-8 | LIGUSTRUM 'TAXANUM' | WAXLEAF PRIVET | 5 GAL. @ 4' O.C. | 7 | DETAIL B, E/ SHEET L2.2 |
| S-9 | MUHLENBERGIA RIGENS | DEERGRASS | 5 GAL. @ 3' O.C. | 33 | DETAIL B, E/ SHEET L2.2 |
| S-10 | SALVIA CLEVELANDII | CLEVELAND SAGE | 5 GAL. @ 3' O.C. | 16 | DETAIL B, E/ SHEET L2.2 |
| **HARDSCAPE** | | | | | |
| H-1 | ROCK MULCH - 4" TO 8", DURANGO BY DECORATIVE STONE SOLUTION OR APPROVED EQUAL | | | 50 SF | DETAIL F/ SHEET L2.2 |
| H-2 | CONCRETE MOW CURB | | | | DETAIL H/ SHEET L2.2 |

TOTAL LANDSCAPE AREA: 1,725 SF

BOTANICAL NAME (ABBREVIATED)
PLANT COUNT
PLANT REF.
SF 100 SPE GEN
A-1

## PLANTING NOTES :

1. WORK SHALL MEET THE REQUIREMENTS OF ALL LOCAL, STATE, AND FEDERAL GOVERNING CODES, ORDINANCES, LAWS, REGULATIONS, SAFETY ORDERS AND DIRECTIVES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF/HERSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES.
3. CONTRACTOR MUST CHECK ALL SITE CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED. WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY OF COSTA MESA. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
4. ALL PLANT QUANTITIES ARE IDENTIFIED BY TYPICAL SYMBOLS. REFER TO PLANT LEGEND FOR QUANTITIES. PLANT QUANTITIES ARE APPROXIMATE AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM ALL PLANT QUANTITIES PRIOR TO BIDDING. IN THE EVENT OF DISCREPANCIES IN PLANT COUNT, QUANTITIES INDICATED BY PLANT SYMBOLS SHALL PREVAIL.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FURNISH PLANT MATERIAL FREE OF PESTS OR DISEASE.
6. ALL PLANT MATERIAL DELIVERED TO THE SITE SHALL BE APPROVED BY THE CITY OF COSTA MESA PRIOR TO INSTALLATION.
7. ALL PLANT MATERIAL SHALL BE SET OUT AS SHOWN ON PLAN. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE CITY OF COSTA MESA.
8. ALL SHRUB AREAS NOT PLANTED IN TURF AND LESS THAN 4:1 SLOPE SHALL BE COVERED WITH 3" ORGANIC MULCH. SUBMIT 1 CU. FT. SAMPLE PRIOR TO APPLICATION.
9. ANY TREE SHOWN ON PLAN TO BE INSTALLED LESS THAN 5' (THREE FEET) CLEAR DISTANCE FROM CENTERLINE OF TRUNK TO ANY CURB, WALKWAY, OR FOUNDATION, SHALL BE INSTALLED IN A ROOT CONTROL BARRIER. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
10. MINIMUM 2 SOIL SAMPLES SHALL BE TAKEN BY CONTRACTOR AFTER GRADING OPERATIONS ARE COMPLETED FOR SOIL FERTILITY AND AGRICULTURAL SUITABILITY BY AN APPROVED LABORATORY. SEE SPECIFICATIONS FOR SOIL AMENDMENTS SPECIFIED FOR BIDDING PURPOSES ONLY. SUBMIT SOIL REPORT TO THE CITY OF COSTA MESA. SOIL AMENDMENTS SHALL BE AS PER RECOMMENDATIONS IN SOILS REPORT.
11. CONTRACTOR SHALL NOTIFY THE CITY OF COSTA MESA 48 HOURS PRIOR TO COMMENCEMENT OF WORK TO COORDINATION OPERATIONS.
12. THE CITY OF COSTA MESA SHALL BE THE SOLE JUDGE AS TO WHEN THE MAINTENANCE PERIOD BEGINS.
13. ALL PLANTING AREAS SHALL BE UNDERPLANTED WITH GROUNDCOVER OR PROVIDED WITH COMPOST OR WOOD MULCH.

N
TRUE NORTH
SCALE: 1" = 20'-0"

PBK
SOUTHERN CALIFORNIA
8163 ROCHESTER AVENUE, SUITE 100
RANCHO CUCAMONGA
CALIFORNIA 91730-0729
TEL: 909-987-0909
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# COSTA MESA FIRE STATION No. 2 RECONSTRUCTION

COSTA MESA FIRE & RESCUE DEPARTMENT

800 BAKER STREET
COSTA MESA, CA 92626

LICENSED ARCHITECT
BRUCE OU
C-34832
REN. 10-31-27
STATE OF CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
JEFFREY KUNG
No. 6064
RENEWAL 08/31/2027
STATE OF CALIFORNIA

**CONSULTANT**

CORNERSTONE STUDIOS, INC.
951 E Santa Ana Blvd. Santa Ana, CA 92701
714. 973. 2200 Voice
714. 973. 0203 Fax
LANDSCAPE ARCHITECTURE • URBAN DESIGN • PLANNING • RESOURCE ANALYSIS

| NO | DATE | BY | DESCRIPTION |
|---|---|---|---|
| 4 | | | REVISIONS |

| | |
|---|---|
| DRAWN: JL | CHECKED: JK |
| DATE: 01/16/26 | SCALE: AS NOTED |
| PROJECT NUMBER: 2109300 | |

LANDSCAPE PLAN

DRAWING NUMBER: L2.1

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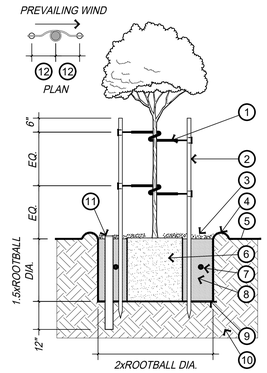
PC SUBMITTAL #2

CM-07-01-2026



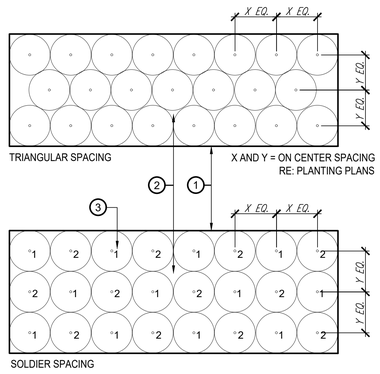

*Detail Legend*

1. TREE SUPPORT, MFG. "VIT" TWIST BRACE OR APPROVED EQUAL.
2. PLUMB LODGEPOLE TREE STAKE, 2"x10'-0".
3. KEEP 2" THICK LAYER OF ORGANIC MULCH 6" CLEAR OF TREE TRUNK
4. FLOOD 3" DEEP WATER BASIN TO PLUMB TREE TRUNK & SET GRADE OF ROOTBALL
5. FINISH GRADE
6. ROOTBALL, INSTALL 1" ABOVE GRADE.
7. FERTILIZER TABLET, SEE SPECS.
8. SEE SPECS FOR AMMENDED BACKFILL MIX.
9. SCARIFY PLANTING PIT EDGE
10. SITE SOIL, UNDISTURBED
11. FILL 3" PERF. PIPE W/ 3/4" CRUSHED ROCK CAP w/ ATRIUM GRATE, FOR 24" BOX & LARGER, UNLESS INDICATED OTHERWISE BY OWNER'S (OR CITY'S) REPRESENTATIVE
12. 12" FOR MDL TB24 FOR 15 GAL TREE OR 18" FOR MDL TB36 FOR 24" TO 36" BOX

NOTE: MIN. (2) TIES [TOP & BOTTOM] REQUIRED. USE 3RD TIE WHEN NECESSARY TO HOLD TREE IN UPRIGHT POSITION.

## A Tree Planting (Double Stake)

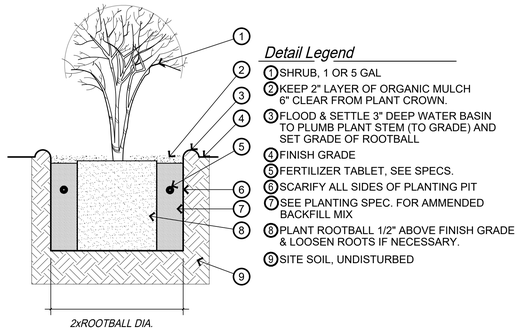
N.T.S.




1. EDGE OF PLANTING BED OR ADJACENT HARDSCAPE. GROUND COVER AND SHRUB SPACING MUST SHOW AN 18" - 24" MINIMUM SETBACK, OR AS NEEDED FROM PAVING (DEPENDING UPON SPECIES USED)
2. PLANT SPACING AS PER PLANS
3. ALTERNATION SEQUENCE WHEN TWO PLANT SPECIES OCCUR IN THE SAME PLANTING AREA

## E GROUND COVER SPACING (TRIANGULAR)

N.T.S.

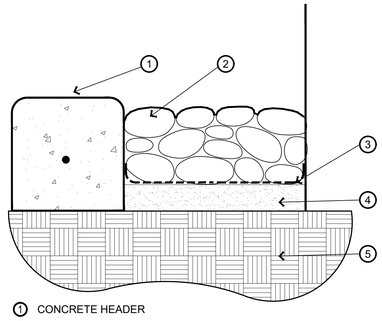



*Detail Legend*

1. SHRUB, 1 OR 5 GAL
2. KEEP 2" LAYER OF ORGANIC MULCH 6" CLEAR FROM PLANT CROWN.
3. FLOOD & SETTLE 3" DEEP WATER BASIN TO PLUMB PLANT STEM (TO GRADE) AND SET GRADE OF ROOTBALL
4. FINISH GRADE
5. FERTILIZER TABLET, SEE SPECS.
6. SCARIFY ALL SIDES OF PLANTING PIT
7. SEE PLANTING SPEC. FOR AMMENDED BACKFILL MIX
8. PLANT ROOTBALL 1/2" ABOVE FINISH GRADE & LOOSEN ROOTS IF NECESSARY.
9. SITE SOIL, UNDISTURBED

## B Shrub Planting

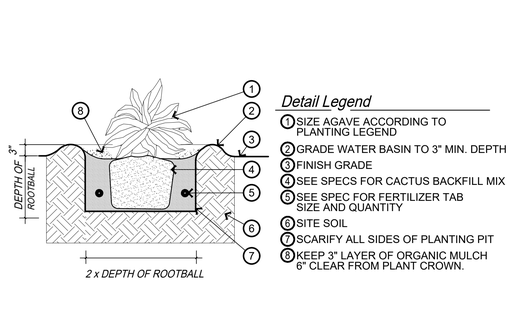
N.T.S.




1. CONCRETE HEADER
2. 4" TO 8" DIA. ROCK MULCH
3. WEED BARRIER CLOTH--AFTER EXCAVATION UNROLL FABRIC FUZZY-SIDE DOWN & CUT TO FIT UNDER ROCK MULCH. WRAP ENDS UP TO EDGES OF ADJACENT PAVING AND TRIM FABRIC WHERE EDGES ARE EXPOSED.
4. 2" SAND LEVELING BED
5. SUB-GRADE

## F ROCK MULCH

N.T.S.

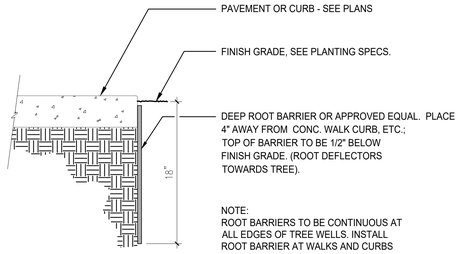



*Detail Legend*

1. SIZE AGAVE ACCORDING TO PLANTING LEGEND
2. GRADE WATER BASIN TO 3" MIN. DEPTH
3. FINISH GRADE
4. SEE SPECS FOR CACTUS BACKFILL MIX
5. SEE SPEC FOR FERTILIZER TAB SIZE AND QUANTITY
6. SITE SOIL
7. SCARIFY ALL SIDES OF PLANTING PIT
8. KEEP 3" LAYER OF ORGANIC MULCH 6" CLEAR FROM PLANT CROWN.

## C Agave planting

N.T.S.




NOTE:
ROOT BARRIERS TO BE CONTINUOUS AT ALL EDGES OF TREE WELLS. INSTALL ROOT BARRIER AT WALKS AND CURBS WHERE TREES ARE LOCATED WITHIN 5'-0" OF PAVING, FOR A DISTANCE OF 8'-0" MIN. EACH SIDE OF CENTERLINE TREE.

SECTION

## G Root Barrier

N.T.S.

| CONTAINER SIZE | NO. OF TABLETS | POSITION @ ROOTBALL |
|---|---|---|
| 1 GALLON | 1 | |
| 5 GALLON | 3 | |
| 15 GALLON | 4 | |
| 24" BOX | 6 | |
| 36" BOX | 8 | |

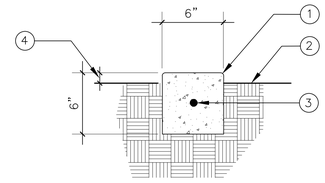
## D Planting Tablet Schedule

N.T.S.

LEGEND

1. CONCRETE MOW CURB - 1/2" RADIUS AT ALL EXPOSED EDGES.
2. FINISH GRADE
3. #4 REBAR (CONT.)
4. 1" FOR LAWN, 2" FOR GROUNDCOVER/SHRUB

NOTE: PROVIDE SCORE JOINTS AT 10'-0" O.C. AND 3/8" BITUMINOUS FELT EXPANSION JOINTS AT 20'-0" O.C. & ENDS




## H Concrete Mow Curb

N.T.S.

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SOUTHERN CALIFORNIA
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LICENSED ARCHITECT
BRUCE OU
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REN. 10-31-27
STATE OF CALIFORNIA

LICENSED LANDSCAPE ARCHITECT
MICHAEL JUNG KIM
No. 6004
30 April 2009
Riverside County
State
STATE OF CALIFORNIA

CONSULTANT
CORNERSTONE STUDIOS, INC.
951 E Santa Ana Blvd. Santa Ana, CA 92701
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LANDSCAPE DETAILS

DRAWING NUMBER: L2.2

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