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GENERAL INFORMATION

G000 COVER SHEET

ARCHITECTURAL

TYPICAL INFORMATION

X/A502 EXTERIOR FINISH SCHEDULE
X/A501 EXTERIOR DETAILS - SINGLE-PLY ROOFING
X/A502 EXTERIOR DETAILS

BUILDING K

K/A101 FLOOR PLAN
K/A201 REFLECTED CEILING PLAN
K/A300 DEMOLITION ROOF PLAN
K/A301 ROOF PLAN
K/A401 EXTERIOR ELEVATIONS

STRUCTURAL

TYPICAL INFORMATION

X/S101 TYPICAL PROJECT INFO & WOOD DETAILS

ELECTRICAL

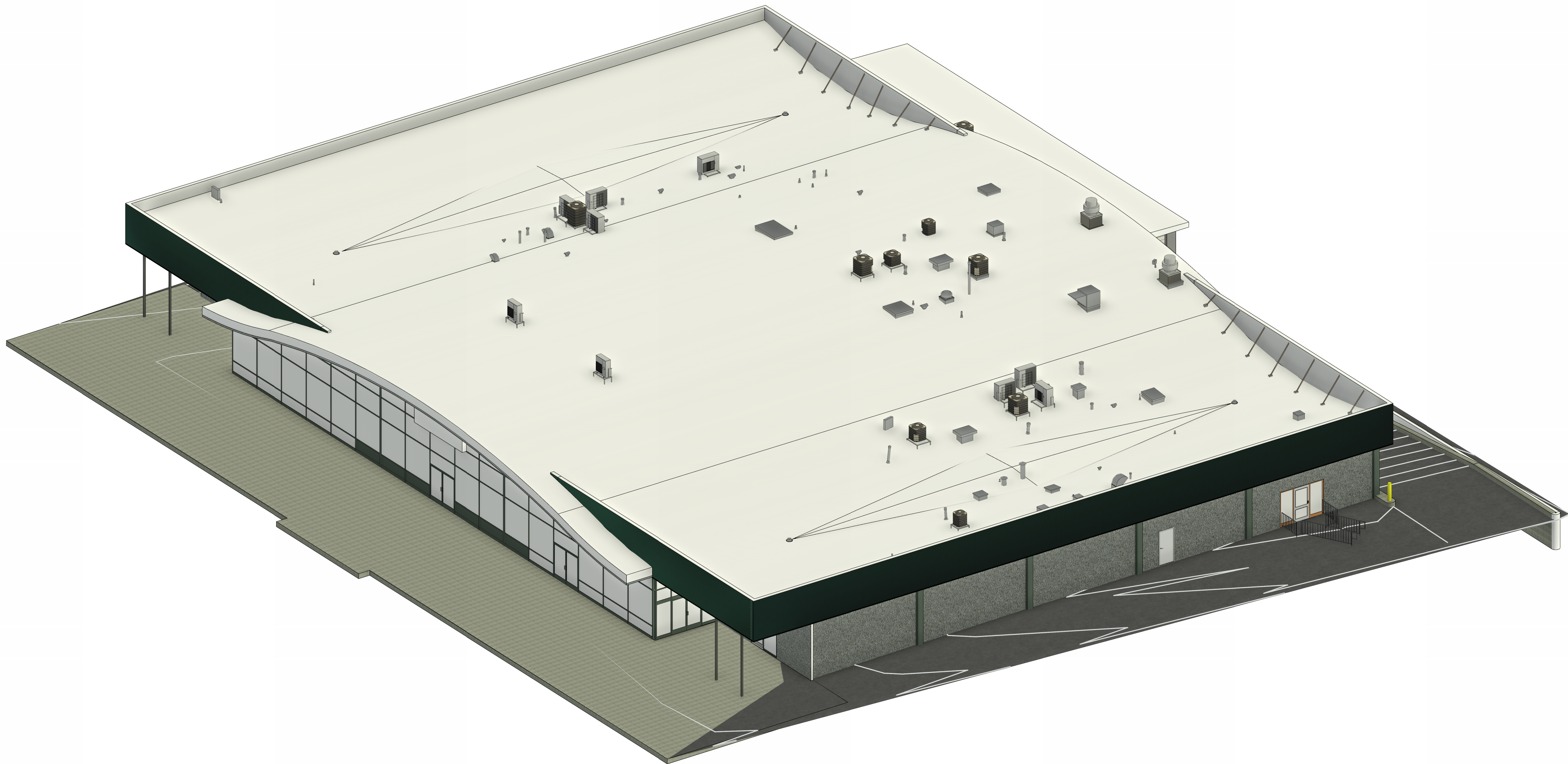
TYPICAL INFORMATION

X/E101 ELECTRICAL SYSTEMS - SYMBOLS, NOTES, AND DETAILS
X/E201 FIRE ALARM SYSTEMS - SYMBOLS, NOTES, AND DETAILS
X/E202 FIRE ALARM SYSTEMS - SINGLE LINE DIAGRAM AND CLACULATIONS

BUILDING K

K/E101 ELECTRICAL PLAN
K/E201 ROOF ELECTRICAL PLAN
K/E301 FIRE ALARM SYSTEM PLAN

TOTAL SHEETS: 16



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ARCHITECTURE ■ PLANNING ■ INTERIORS



N14 Vicinity Map

All work shall be performed in accordance with current applicable codes and standards including, but not limited to, the following:

California Code of Regulations (CCR)
CCR-15: Title 5-Education
CCR-18: Title 8-Industrial Safety
CCR-119: Title 19-Public Safety
CCR-Title 24:

Building Codes and Standards:

2022 California Building Standards Administrative Code (Part 1, Title 24, CCR)
2022 California Building Code, Volumes 1 and 2 (Part 2, Title 24, CCR)
2022 California Electrical Code (Part 3, Title 24, CCR)
2022 California Mechanical Code (Part 4, Title 24, CCR)
2022 California Plumbing Code (Part 5, Title 24, CCR)
2022 California Energy Code (Part 6, Title 24, CCR)
2022 California Elevator Safety Construction Code (Part 7, Title 24, CCR)
2022 California Fire Code, Part 9, Title 24, CCR)
2022 California Referenced Standards Code (Part 12, Title 24, CCR)
2022 California Green Building Standards Code
NFPA 13, 2022 Edition, The Installation of Automatic Sprinkler Systems
NFPA 14, 2019 Edition, Installation of Standpipe
NFPA 24, 2019 Edition, Installation of Private Fire Service Mains and their Appurtenances
NFPA 72, 2022 Edition, National Fire Alarm Code

Division of the State Architect (DSA):
SSS: Structural Safety Section
ACS: Access Compliance Section
FLS: Fire Life Safety
Interpretation of Regulation Manual

J14 Applicable Codes

Notes:
1. The Contractor Shall Be Responsible For The Preparation and Submittal Of The Deferred Approval Items To The Division Of The State Architect (DSA) For Review and Approval Prior To The Installation. The Submittal Shall Comply With The Requirements Of Specification Section 013300: Submittals.
2. Installation of Deferred Approval items shall not be started until Contractor's drawing, specifications, and engineering calculations for the actual system(s) to be installed have been reviewed by the Architect and/or the Structural Engineer, and approved by the DSA.

Description of Deferred Item
None

G14 Deferred Approval

Re-roofing Project:

- Remove existing roof system down to the face of the roof sheathing.
- Add equipment curbs and platforms.
- Remove and replace fascia boards, parapet caps, etc.
- Install new roofing system.

Fire Alarm Project:

- Install a new fire alarm system.
- Install a new public announcement system.
- Remove and re-install the existing T-Bar ceiling tiles.
- Replace all broken acoustic tiles; Assume 15% acoustical ceiling tile damage and breakage for rooms with acoustical ceiling tiles, and provide new ceiling tiles to match the existing ceiling tiles. The actual ceiling tiles may vary from room to room, based on the date the buildings were constructed

B14 Project Description

Agency Approval

ELECTRICAL

Hardin-Davidson Engineering
1400 N. Fresno Street, Suite 200
Owens, CA 93612
T (559) 323-4595
F (559) 323-4528

STRUCTURAL

Brooks Ransom Associates
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SIERRA VISTA CHARTER HIGH SCHOOL
Tulare Joint Union High School District
351 N K ST, TULARE, CA 93274

Darden Project Number: 2369

Date: 05/22/2024



Project Information

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Architect

No.	Revision/Submission	Date

Revision

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G000

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A1	EXTERIOR FINISH SCHEDULE
1/4" = 1'-0"	

X/A201

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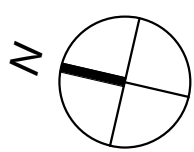
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A1

Floor Plan

1/8" = 1'-0"



Agency Approval

SYMBOLS

- Existing wall
- 1 Hr. Corridor Wall / Fire Partition (1 Hr. Fire Resistive Construction, 20 Min. Door Assemblies, 45 Min. Window Assemblies)
- 1 Hr. Fire Barrier - (1 Hr. Fire Resistive Construction, 60 Min. Door Assemblies)
- 1 Hr. Occupancy Separation / Fire Barrier - (1 Hr. Fire Resistive Construction, 45 Min. Door Assemblies, 45 Min. Window Assemblies)
- 2 Hr. Fire Wall (2 Hr. Fire Resistive Construction, 1-1/2 Hr. Door Assemblies)
- 2 Hr. Fire Barrier (2 Hr. Fire Resistive Construction, 1-1/2 Hr. Door Assemblies)
- Room name
- Room Designation

NOTES

1. FIRE RESISTIVE ASSEMBLIES
- a. All Through Penetrations and Wall Membrane Penetrations through Walls of Fire Resistive Construction shall be protected in accordance with their Fire Resistant Ratings.
- b. All Walls of Fire and/or Smoke Resistant Construction shall be Permanently Identified with Signs or Stenciling indicating rating and size (Not less than 3 inches (76 mm) in height with a minimum 3/8 inch (9.5 mm) stroke in a contrasting color incorporating the following wording: FIRE AND/OR SMOKE BARRIER - RATED, PROTECT, E.A.S. OPENINGS. Signs or Stenciling shall be located above openings on both sides of the wall, located 12" (317 mm) from ends of wall and at intervals not to exceed 20' (6096 mm) horizontally along the wall or partition. Note: "R" indicates the hourly rating of the wall or partition.

L18

Floor Plan Legend

No Scale

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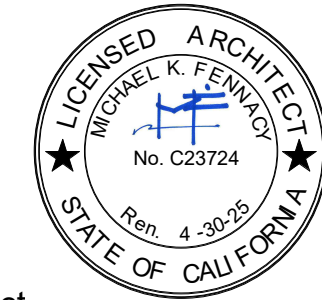
Project

K STREET
FLOOR PLAN

Drawing

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Agency Approval

SYMBOLS

- MECHANICAL Air Supply Grill
- MECHANICAL Air Return Grill
- MECHANICAL Exhaust Fan
- FIRE PROTECTION Fire Sprinkler Head
- PLUMBING Overflow Drain
- ACOUSTICAL CEILINGS Suspended Ceiling Compression Strut Splay Wire location
- ROOF ACCESSORIES Roof Hatch
- ELECTRICAL Light Fixture, Recessed Unless Noted Otherwise (h) = Pendant Mounted (s) = Surface Mounted
- ELECTRICAL Fire Alarm Device, Heat Detector
- ELECTRICAL Fire Alarm Device, Smoke Detector
- ELECTRICAL Speaker
- GYPSUM BOARD Refer to Interior Finish Schedule
- ACOUSTICAL CEILINGS Refer to Plan for Type
- ACOUSTICAL CEILINGS Refer to Plan for Type
- PLUMBING Roof Drain, Refer to Plumbing
-

ABBREVIATIONS

- ACT Acoustical Ceilings, Tile, Suspended, Unless Noted Otherwise
- CLS Ceiling
- CP CEMENT PLASTER, System
- ET Existing
- GB GYPSUM BOARD, Type 'X' Unless Noted Otherwise
- GLB GLUE-ANIMATED CONSTRUCTION, Beam
- HT Hanger
- MD METAL DECK
- TYP Typical
- SM Stair
- CH Chandelier
- DS Downspout
- OD Overflow Drain
- UNO Unless Noted Otherwise

NOTES

H18

Reflected Ceiling Legend

No Scale

A/A201_ Reflected Ceiling Legend
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Tulare Joint Union High School District
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Project

K STREET

REFLECTED CEILING PLAN

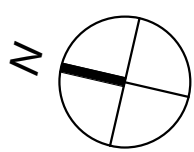
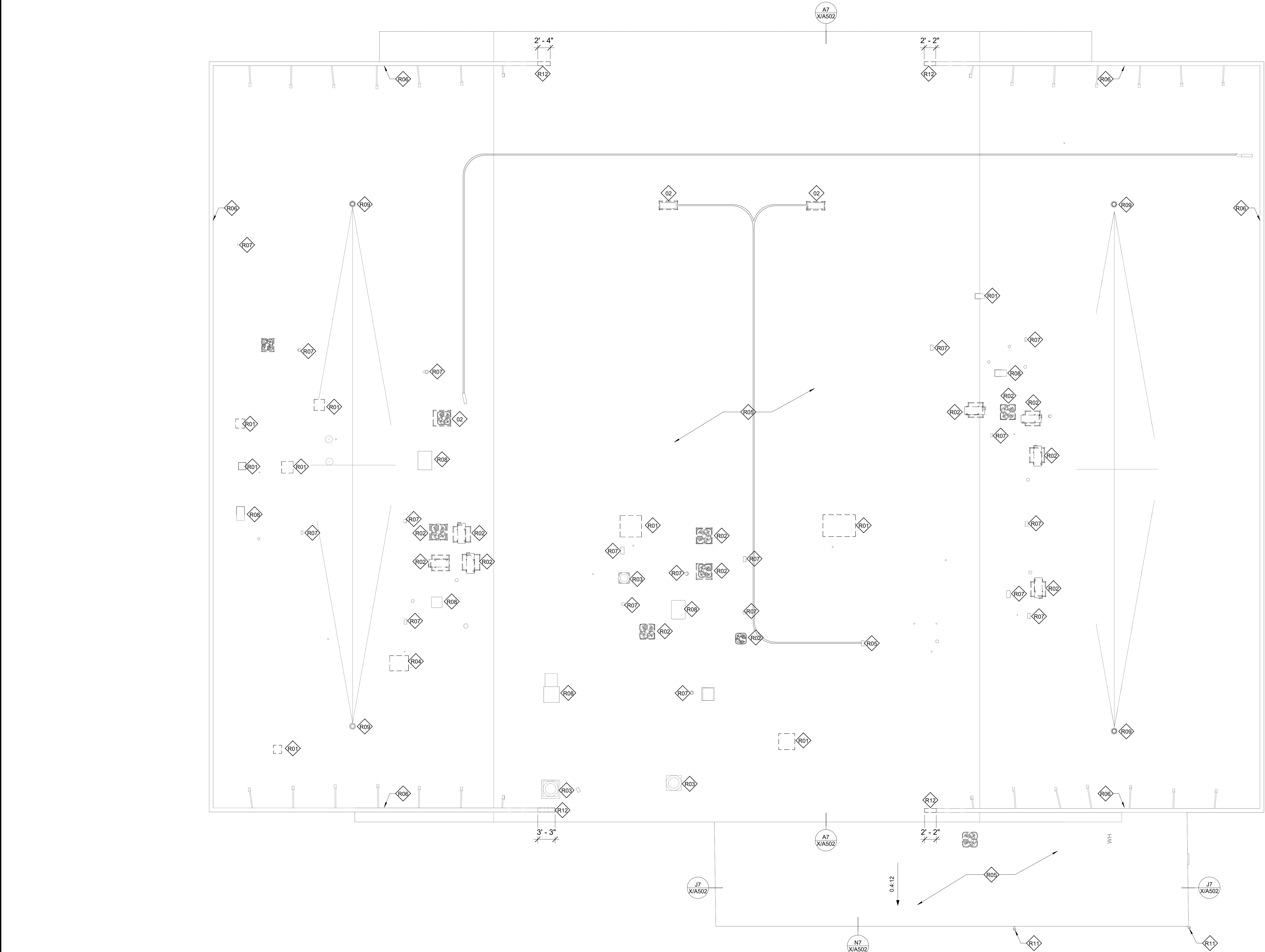
Drawing

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Agency Approval

SYMBOLS

- PLUMBING, Roof Drain
- ROOF ACCESSORIES, Roof Hatch
- Flue
- Remove Plumbing Flue, flashing and all accessories. Refer to Plumbing plan.
- PV
- Remove Plumbing Vent flashing and all accessories. Protect the existing plumbing vent for re-use. See Plumbing.

NOTES

Where flues are removed from service, install a 18-Ga sheet metal plate over the sheathing cut-out.

Refer to Specification Section SELECTIVE DEMOLITION and Plumbing, Mechanical, and Electrical Drawings and Specifications

Refer to Specification Section CUTTING AND PATCHING, Exterior Building Enclosure. Where Demolition work is indicated, the contractor shall remove and reinstall any or all items necessary to install new work. Existing areas affected by demolition work shall be patched and repaired to match existing construction.

Remove materials, equipment, and finishes indicated by demolition key notes, and otherwise required for the new work to be installed. Remove, cut, and patchwork to minimize damage and provide means of restoring products and finishes to their original condition.

Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction.

Where new work abuts or aligns with existing, provide conditions for a smooth and even transition. The patching work shall match existing adjacent work in texture and appearance. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate the existing surfaces along a straight line at a natural line of division and make recommendations to the architect.

Any damage resulting from the demolition activity shall be corrected at no additional expense to the owner, and all surfaces cleaned and ready to receive new work.

DEMOLITION KEYNOTES

- SELECTIVE DEMOLITION.
Remove curb. Replace full plywood sheathing panel.
- SELECTIVE DEMOLITION.
Remove and re-set HVAC Unit, on a new curb. Disconnect and reconnect all services for a complete and functional system. See Electrical Drawings
- SELECTIVE DEMOLITION.
Remove and re-set HVAC exhaust fan, on a new curb. Disconnect and reconnect all services for a complete and functional system. See Electrical Drawings
- SELECTIVE DEMOLITION.
Remove and Roof Access Hatch.
- SELECTIVE DEMOLITION.
Remove Roofing system down to the face of the plywood.
- SELECTIVE DEMOLITION.
Remove Roofing from face of parapet wall.
Remove and salvage for re-use, the Sheet Metal parapet caps and flashing's.
- SELECTIVE DEMOLITION.
Remove roofing from Plumbing Vents. Protect Roof Vent.
- SELECTIVE DEMOLITION.
Remove roofing from Mechanical Vents. Protect Roof Vent.
- SELECTIVE DEMOLITION.
Remove roof drain to add secondary overflow roof drain.
- SELECTIVE DEMOLITION.
Existing wood framed cricket. Remove roofing system down to the face of the plywood.
Remove and salvage sheet metal counter flashing.
- SELECTIVE DEMOLITION.
Remove and re-install security devices on new fascia boards.
- SELECTIVE DEMOLITION.
Remove portion of parapet wall to allow at least 8" of wall above roof to indicated dimension or next stud or roof joist.

H18

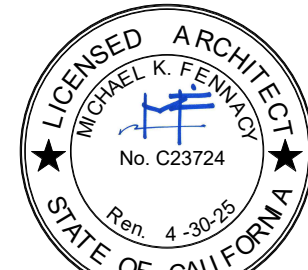
Demolition Roof Plan Legend

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K STREET
DEMOLITION ROOF PLAN

Drawing

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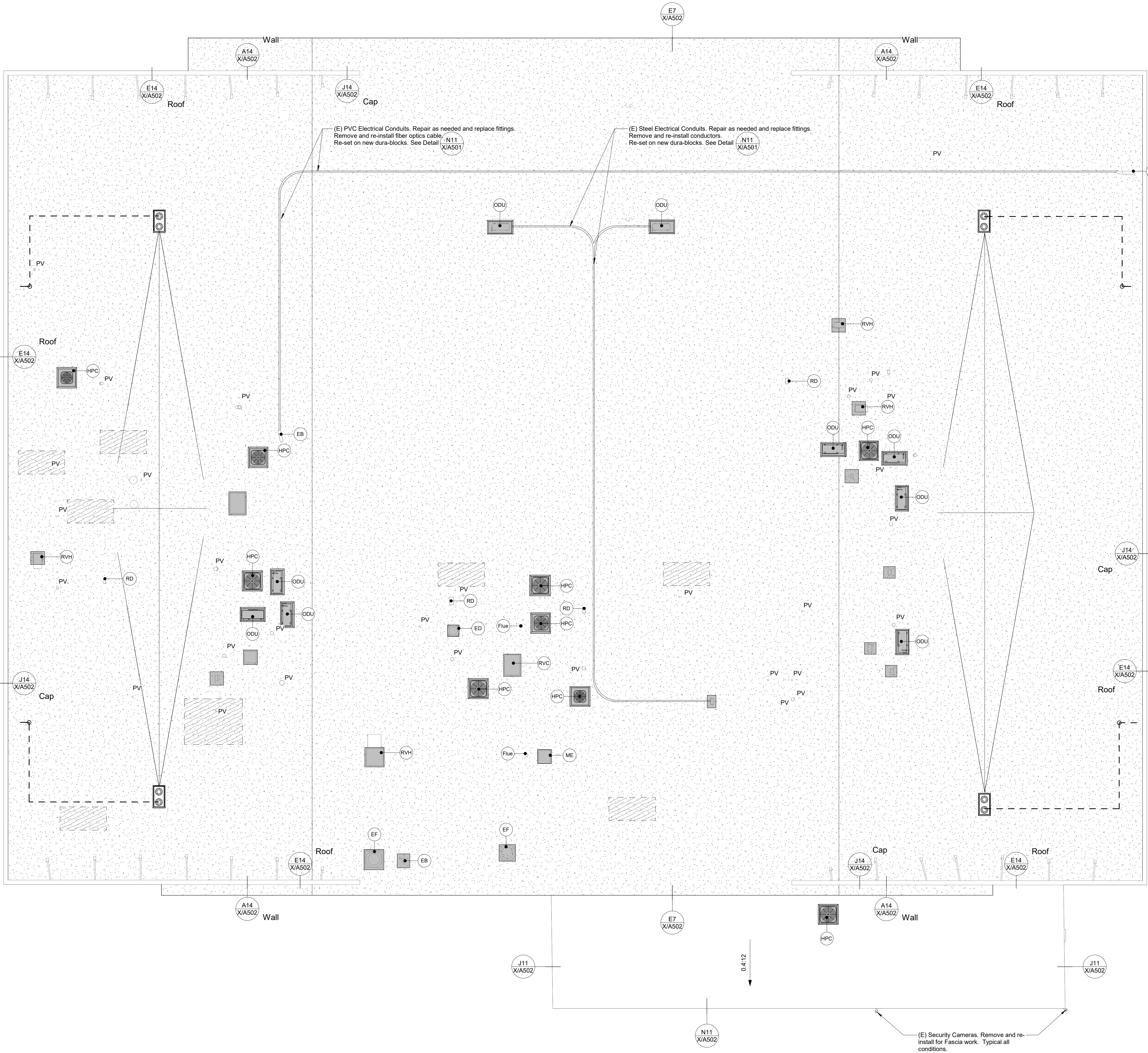
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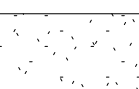
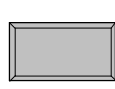
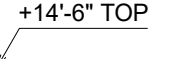
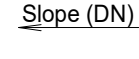
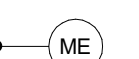
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A1
1/8" = 1'-0"

Roof Plan



SYMBOLS

-  PLUMBING, Roof Drain and Overflow.
"Jay R. Smith" #1310Y-E-C-R-CIDG, cast iron body roof drain, with 12" diameter galvanized cast iron dome, extension, sump receiver, and underdeck clamp, overflow drain to be "Jay R. Smith" #1310Y-WD4-E-C-R-CIDG, with 4" high exterior water dam height. See Detail A11 X/A501 N7 X/A501
-  SINGLE-PLY ROOFING, System
Refer to Detail N14 X/A501
-  PLUMBING, Vent. See Detail A7 X/A501
-  ROUGH CARPENTRY, Infill existing opening. Remove affected plywood panels, edge to edge. Install new exterior grade plywood sheathing to match. See Structural drawings for notes and nailing requirements.
-  ROOF ACCESSORIES, Roof Curb, or Roof Platform. For details and structural upgrades see Details A1 A4 X/A501 X/A501
-  +14'-6" TOP
Elevation above finish floor
-  Slope (DN)
Direction of slope
-  (E) Exhaust Duct. Re-set on new Curb. See A1 X/A501
-  (E) Water Heater Flue vent. Repair sheet metal flue and fit up for new roof conditions. See J7 X/A501
-  Mechanical Heat Pump Condensing Unit. Secured to ROOF ACCESSORIES, Roof Curb. See Details A4 X/A501
-  (E) Mechanical, Out Door Unit. Re-set on new Platform. See A1 X/A501
-  (E) Misc. Equipment. Re-set on new platform. See A4 J4 X/A501 X/A501
-  (E) Roof Duct. Repair existing and fit up for new roof conditions.
-  (E) Roof Vent Cap. Re-set on new curb. See A1 J4 X/A501 X/A501
-  (E) Roof Vent Hood. Re-set on new curb. See A1 J4 X/A501 X/A501

ABBREVIATIONS

- (E) Existing
TOP Top of Parapet Framing
FO Frm. Face of Framing
OD PLUMBING, Overflow Drain
RD Roof Drain
TOB Top of Parapet Brace Framing
TOP Top of Framing
TOM Top of Masonry
OH Opposite Hand
FOS Face of Stud
Sim. Similar
Typ. Typical

NOTES

1. At (E) Conduit risers and penetrations, remove and replace with new risers, suitable for the new roof system and roof warranty. Typical all conditions. See Detail E7 X/A501

G18

Roof Plan Legend

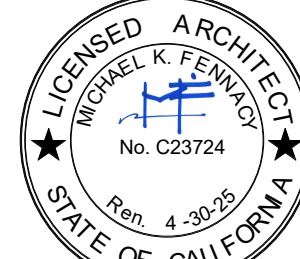
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Tulare Joint Union High School District
351 N K ST, TULARE, CA 93274 Project

K STREET
ROOF PLAN

Drawing

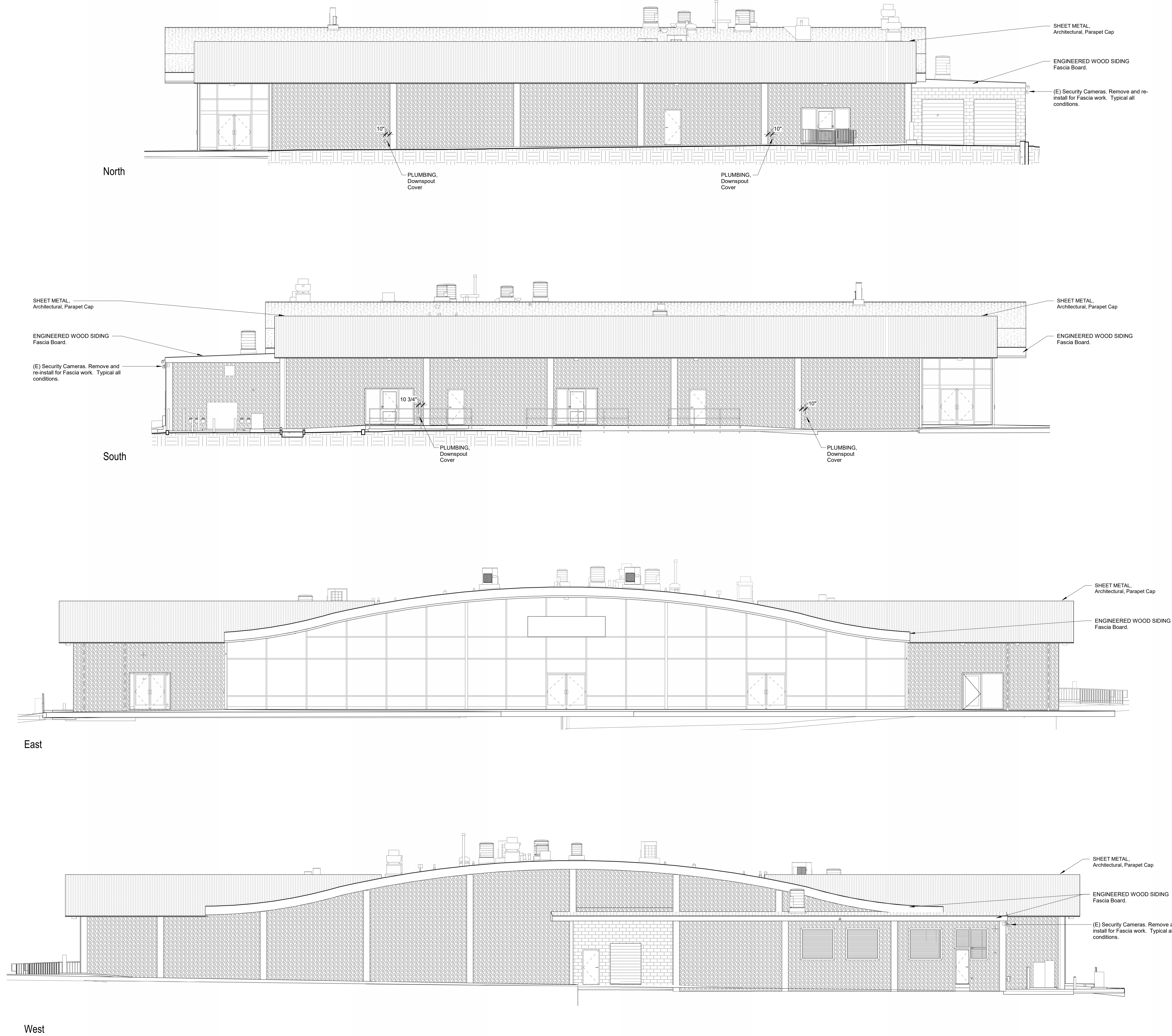
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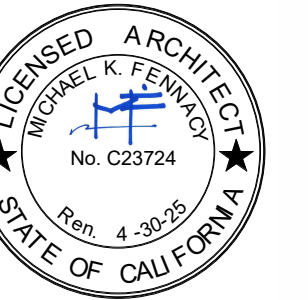
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Project

K STREET
EXTERIOR ELEVATIONS

Drawing

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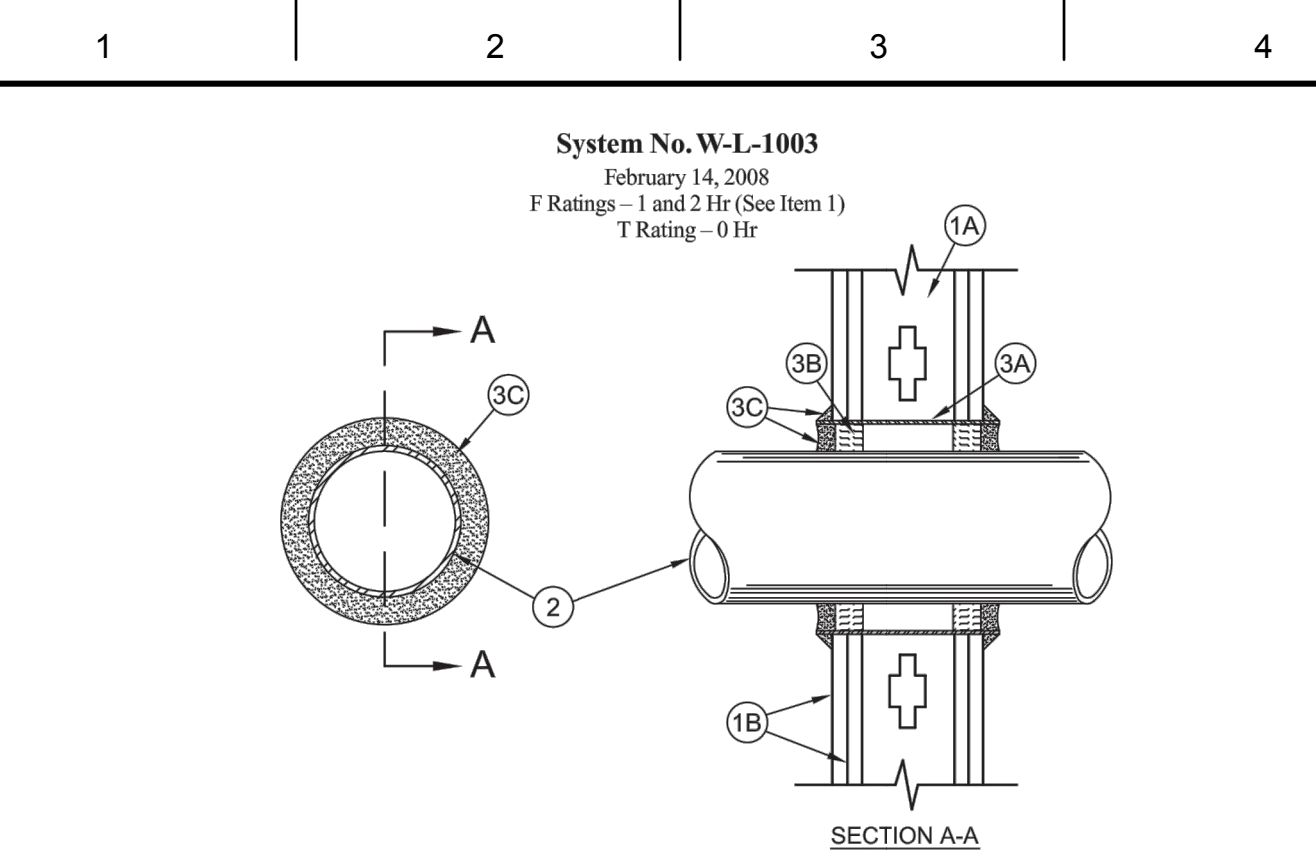


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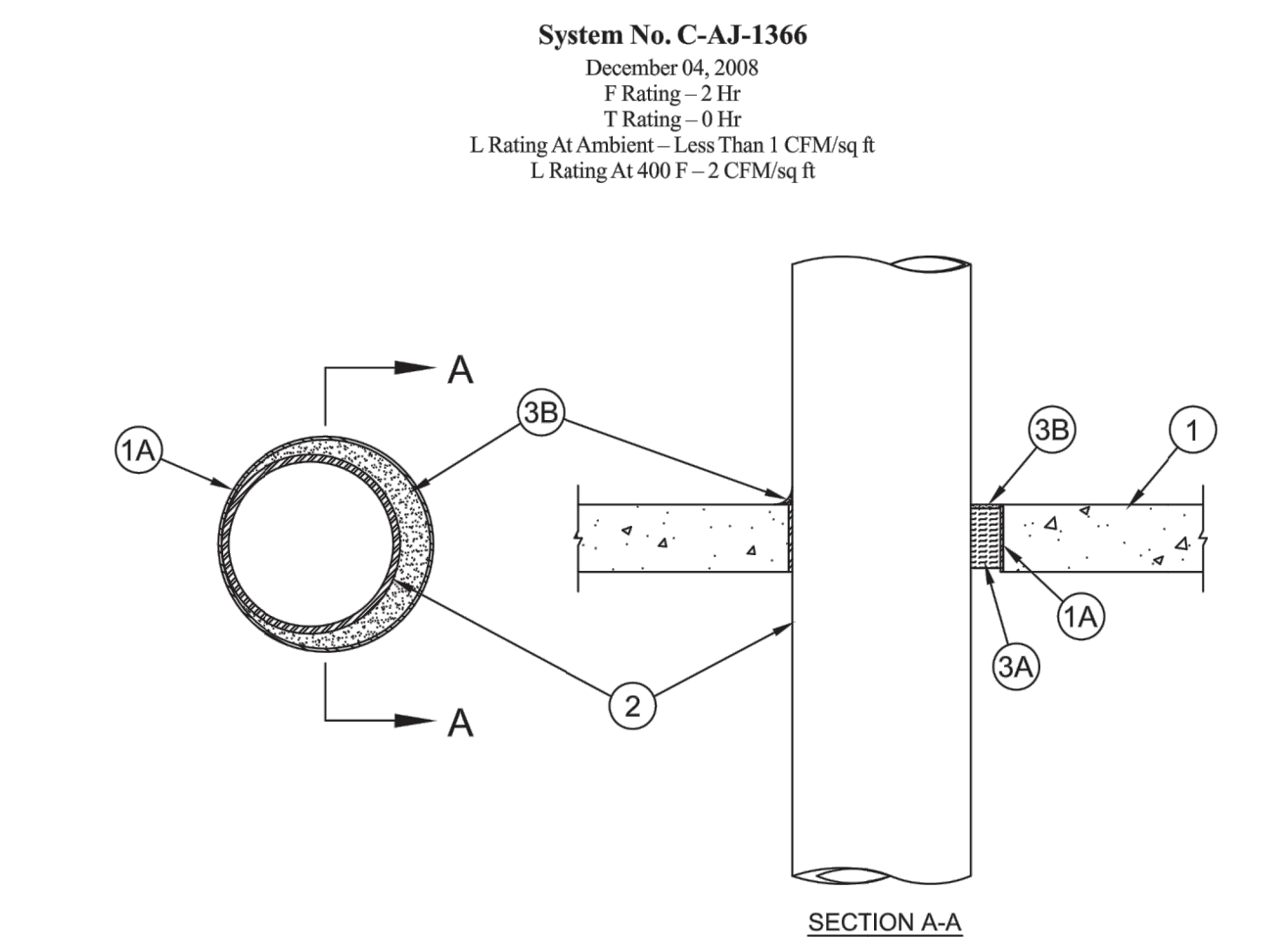
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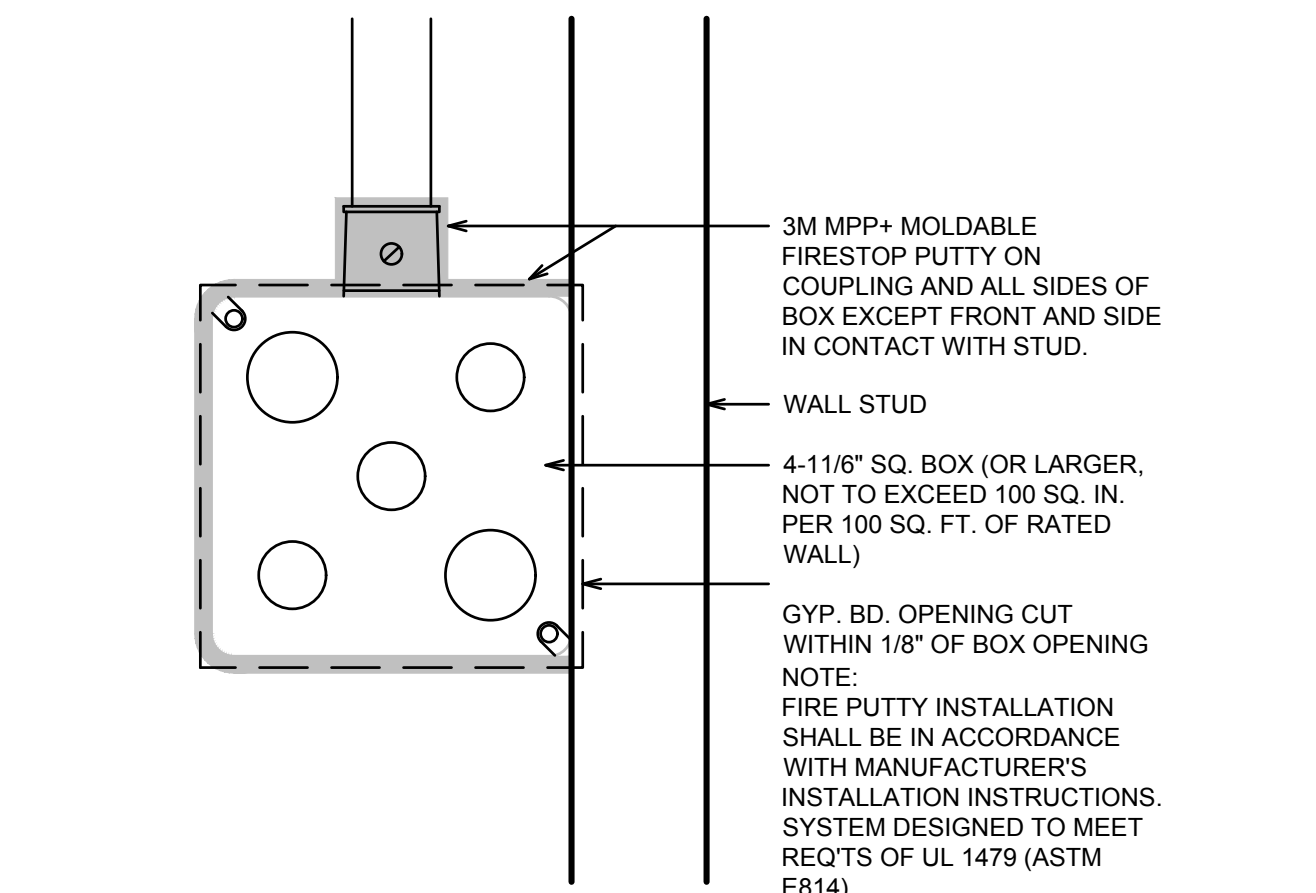


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- Floor or Wall Assembly**—Min 2.12 (2.44) mm thick reinforced lightweight or normal weight (1000-150 or 1600-2400 kg/m³) concrete floor or wall, 76 mm (3 in.) thick (64 mm thick for normal weight) or normal weight (1000-150 or 1600-2400 kg/m³) concrete wall may also be used. For 1.51 Classified Concrete, use 1000-150 kg/m³ (2200 lb/ft³) concrete. Wall may also be 1000-150 kg/m³ (2200 lb/ft³) concrete with 1.51 Classified Concrete facing of wall.
- Steel Concrete Slabs (CAZT) category in the Fire Resistance Directory for names of manufacturers.**
- A. Steel Strengthened**—Min 100 N (254 mm) (diagonal) or smaller (Schedule 100) (or heavier) steel pipe sleeve cast into concrete floor or wall.
- B. Steel Pipe**—Min 100 N (254 mm) (diagonal) or smaller (Schedule 100) (or heavier) steel pipe sleeve cast into concrete floor or wall.
- C. Penetrant**—One metallic pipe, tubing or opening should be installed either concentrically or eccentrically within the fireproof system.
- D. The mutual space between tube and penetrating cable must be min 6 mm (0.25 in.) to max 76 mm (3.25 in.). Penetrants to be rigidly supported on both sides of the assembly. The following table gives sizes of cables and tubes that may be used:**
- | Cable | Pipe |
|---|------|
| A. Steel Pipe —Min 8 in. (203 mm) (diagonal) or smaller (Schedule 100) (or heavier) steel pipe. | |
| B. Iron Pipe —Min 8 in. (203 mm) (diagonal) or smaller steel or ductile iron pipe. | |
| C. Conduit —Min 4 in. (102 mm) (diagonal) or smaller rigid steel conduit. | |
| D. Conduit —Min 4 in. (102 mm) (diagonal) or smaller steel or ductile iron pipe. | |
| E. Copper Tubing —Min 4 in. (102 mm) (diagonal) or smaller (Type E or F) (or heavier) copper tube. | |
| F. Copper Pipe —Min 4 in. (102 mm) (diagonal) or smaller (regular or heavier) copper pipe. | |
- Fireproof System**—The details of the fireproof system shall be as follows:
- Packing Material**—Min 2 in. (51 mm) thick (1.51 Classified Concrete) of mineral wool or mineral wool packing firmly packed against opening as a permanent form. Packing material to be recessed from top surface of floor or both surfaces of wall up to accommodate the required thickness of material.
- Fill, Void or Cavity Materials**—Cath. Min 1.27 in. (32 mm) thick (1.51 Classified Concrete) applied within the annulus, flush with top surface of floor or both surfaces of wall. Min 1.28 in. (33 mm) thick (1.51 Classified Concrete) applied to the penetrant/concrete interface at the point contact between the top surface of floor or both surfaces of wall and the cable.
- 3M COMPANY—FireGuard 150®**

E1	Conduit Penetration Fire Stop Detail
No Scale	



A1	Electrical Box in Fire Rated Wall Detail
No Scale	

ELECTRICAL GENERAL NOTES

- ALL WORK SHALL MEET THE LATEST ADOPTED ADDITIONS OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 24 AND ALL OTHER APPLICABLE REGULATIONS, WHICH INCLUDE:
- | | |
|--------------------------------------|------|
| CALIFORNIA BUILDING CODE | 2022 |
| CALIFORNIA ELECTRICAL CODE | 2022 |
| NON RESIDENTIAL CEC ENERGY STANDARDS | 2022 |
2. NOTHING IN THE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
3. IT IS THE INTENTION OF THESE PLANS AND SPECIFICATIONS TO COVER EVERYTHING REQUIRED TO PROVIDE FOR COMPLETE AND OPERATIVE SYSTEMS. THE CONTRACTOR IS TO FURNISH LABOR, MATERIALS, TRANSPORTATION, EQUIPMENT, MISCELLANEOUS SERVICES, ETC. REQUIRED TO ACCOMPLISH THIS RESULT. ANYTHING WHICH MAY BE REASONABLY CONSTRUED AS A NECESSARY PART OF THE INSTALLATION IS TO BE INCLUDED, WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED.
4. THE CONTRACTOR SHALL EXAMINE THE SITE AND EXISTING CONDITIONS AND MAKE ALLOWANCES IN THE BID FOR ANY CONDITIONS NOT SHOWN ON THE ELECTRICAL DOCUMENTS.
5. THE PLANS AND SPECIFICATIONS ARE INTENDED TO BE USED AS CONSTRUCTION GUIDELINES AND ARE NOT THE TOTAL INSTRUMENT OF CONTRACT DOCUMENTS. IT IS NOT THE INTENTION OF ANY PARTY TO ENTER AN ENFORCEABLE CONTRACT WORK AMONG THE PARTIES. VERIFY THE SCOPE OF WORK WITH THE ARCHITECT AND THE GENERAL CONTRACTOR.
6. ELECTRICAL ROUTING IS DIAGRAMMATIC ONLY. ACTUAL ROUTING & PHYSICAL CONDITIONS MAY VARY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL ROUTING, CONNECTIONS, & PROVISION OF ALL APPURTENANCES NECESSARY FOR A COMPLETE & OPERATING SYSTEM.
7. ELECTRICAL EQUIPMENT SHALL HAVE AN APPROVED TESTING LABORATORY LABEL ATTACHED (UL, CSA ETC.) PER CEC 110.2.
8. PROVIDE LABELING AND DIRECTORIES FOR ALL SWITCHBOARDS AND PANELBOARDS PER CEC 408.4.
9. ELECTRICAL EQUIPMENT SHALL HAVE A SHORT CIRCUIT CURRENT RATING CAPABLE OF WITHSTANDING THE AVAILABLE SHORT CIRCUIT CURRENT PER CEC 110.9.
10. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 36" DEEP WORK CLEARANCES IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 120/208V 30/40 AMP PER CEC 110.26.
11. PROVIDE MINIMUM 30" WIDE x 78" HIGH x 42" DEEP WORK CLEARANCES IN FRONT OF PANELS, SERVICE OR EQUIPMENT RATED AT 127/480V 30/40 AMP PER CEC 110.26.
12. ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUIT OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE MOUNTED BETWEEN 15" AFF AND 48" AFF AND SHALL COMPLY WITH CBC SECTION 11B-308. THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. IF THE REACH IS OBSTRUCTED (E.G. BY CASEWORK, COUNTERS, ETC.) RECEPTACLES SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN CBC 11B-308.2.2 AND 11B-308.3.2.
13. CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, OR COOLING, HEATING AND VENTILATING EQUIPMENT SHALL BE MOUNTED BETWEEN 15" AFF AND 48" AFF AND SHALL COMPLY WITH CBC SECTION 11B-308. THE LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND THE HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. IF THE REACH IS OBSTRUCTED (E.G. BY CASEWORK, COUNTERS, ETC.) SWITCHES AND CONTROLS SHALL BE LOCATED WITHIN THE REACH RANGES SPECIFIED IN CBC 11B-308.2.2 AND 11B-308.3.2.
14. ALL WALL AND SURFACE MOUNTED FIXTURES PROTRUDING IN THE PATH OF TRAVEL (POT) OR COMMON PEDESTRIAN WAYS SHALL COMPLY WITH CBC 11B-307.2, OR SHALL BE MOUNTED LESS THAN 37" AFF GREATER THAN 80" AFF, OR SHALL BE PROVIDED WITH A BARRIER CONFORMING TO CBC 11B-307.4.
15. EMERGENCY EGRESS LIGHTING SHALL PROVIDE A MINIMUM LUMINANCE OF 1 FOOTCANDLE AT THE WALKING SURFACE FOR A MINIMUM OF 90 MINUTES.
16. FIRE ALARM EQUIPMENT SHALL BE SERVED BY DEDICATED FIRE ALARM BRANCH CIRCUITS PER NFPA 72 10.6.5.1.2. THE CIRCUIT NUMBER SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM EQUIPMENT PER NFPA 10.6.5.2.1. THE CIRCUIT BREAKER SHALL BE EQUIPPED WITH RED HANDLE AND LOCK-ON DEVICE, AND PERMANENTLY IDENTIFIED AS "FIRE ALARM CIRCUIT" PER NFPA 72 10.6.5.2.2, 10.6.5.2.3, 10.6.5.2.4, AND 10.6.5.4.
17. WIRING FOR 120/208V AND 277/480V SYSTEMS SHALL BE "MIN. #12 AWG THHN/THWN-2 COPPER.
18. FEEDERS SIZE #4 AND LARGER SHALL BE MEAGER TESTED. TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER.
19. COLORS/FINISHES/MATERIALS FOR ALL ELECTRICAL DEVICES, PLATES, LIGHT FIXTURES, ETC. SHALL BE CHOSEN BY THE ARCHITECT.
20. PROVIDE PERMANENT LOCK-OPEN DEVICES ON CIRCUIT BREAKERS SERVING ELECTRIC WATER HEATERS TO MEET THE REQUIREMENTS OF CEC 422.31.
21. CONTRACTOR SHALL EXTEND ALL SIGNAL AND FIRE ALARM SYSTEMS AS REQUIRED. MODIFY HEAD-IN-EQUIPMENT TO ACCOMMODATE NEW DEVICES AS REQUIRED. VERIFY THE CONDITION AND EXPANDABILITY OF ALL HEAD-IN-EQUIPMENT PRIOR TO BID AND MODIFY ACCORDINGLY.
22. CALL UTA UNDERGROUND ALERT AND VERIFY WITH DISTRICT THE DESIRED ROUTING AND LOCATIONS OF UNDERGROUND CONDUITS AND STRUCTURES PRIOR TO TRENCHING.
23. EXISTING EQUIPMENT TO BE REMOVED AND/OR REPLACED SHALL BE DELIVERED TO THE DISTRICT MAINTENANCE DEPARTMENT OR DISPOSED OF, AT THE DISCRETION OF THE DISTRICT.
24. ALL CONDUITS UNDER CONCRETE OR ASPHALT WILL HAVE 24" MINIMUM COVER OF ROCK FREE NATIVE SOIL. METALLIC WARNING TAPE AT 12" AND NO ENCASEMENT REQUIRED. ALL CONDUITS THAT HAVE 24" MINIMUM COVER WITH A POTENTIAL OF LESS THAN 250 VOLTS TO GROUND, THAT ARE NOT UNDER ASPHALT AND/OR CONCRETE SHALL REQUIRE 1,500 PSI CONCRETE ENCASEMENT. METALLIC WARNING TAPE AT 12" AND A MINIMUM COVER FROM TOP OF ENCASEMENT OF 24". ALL CONDUITS THAT HAVE 24" MINIMUM COVER WITH A POTENTIAL OF LESS THAN 250 VOLTS TO GROUND, THAT ARE NOT UNDER ASPHALT AND/OR CONCRETE WILL HAVE 30" MINIMUM COVER OF NATIVE SOIL. METALLIC WARNING TAPE AT 12" AND NO ENCASEMENT REQUIRED.
25. INSTALL GALVANIZED RIGID STEEL RISERS & ELBOWS WHERE THEY OCCUR. WRAP GALVANIZED RIGID STEEL BELOW GRADE. PVC SHALL NOT BE INSTALLED ABOVE GRADE.
26. CONDUIT INSTALLED ABOVE GRADE SHALL BE MIN. 3/4" TRADE SIZE. CONDUIT BELOW GRADE SHALL BE MIN. 1" TRADE SIZE.
27. PROVIDE (4) 1" CONDUIT STUDS FROM NEW ELECTRICAL PANEL TO ACCESSIBLE ATTIC SPACE FOR FUTURE CABLE.
28. CIRCUIT BREAKERS SERVING FIRE ALARM EQUIPMENT SHALL HAVE A RED HANDLE AND LOCK-ON DEVICE.
29. HOLES ARE NOT ALLOWED THROUGH TOP PLATES OF BEARING WALLS AND SHEAR WALLS.
30. INCLUDE FIRE STOP SYSTEMS REQUIRED FOR ALL WORK AFFECTED BY FIRE RATED ASSEMBLIES.
31. INCLUDE ALL WORK REQUIRED TO INVESTIGATE, DEMOLISH, & RECONNECT EXISTING ITEMS.
32. ALL LOW VOLTAGE EQUIPMENT SHALL BE DEENERGIZED PRIOR TO DEMO WORK. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO LIVE EQUIPMENT.

ELECTRICAL SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	NOTES	SYMBOL	DESCRIPTION	NOTES
	SWITCHBOARD	REFER TO POWER SINGLE LINE DIAGRAM		TERMINAL CABINET	
	POWER PANEL	REFER TO PANEL SCHEDULE		"MAIN DISTRIBUTION FRAME"/"MAIN CROSS-CONNECT"	
	JUNCTION BOX	4-11/16" SQUARE BOX & COVER PLATE MIN.		"INTERMEDIATE DISTRIBUTION FRAME"/ "HORIZONTAL CROSS-CONNECT"	
	DISCONNECT SWITCH, FUSIBLE	DISCONNECT FUSING TO BE PER NAMEPLATE DATA.		"TEL. SYSTEM HEAD END"	
	COMBINATION STARTER/DISCONNECT SWITCH	REFER TO MECH. PLANS & SPECS.		"TEL. SYSTEM TERMINAL BLOCK"	
	MOTOR	REFER TO MECH. PLANS & SPECS.			
	EXHAUST FAN, CEILING MOUNTED	REFER TO MECH. PLANS & SPECS.			
	SINGLE CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT		IP PUBLIC ADDRESS SPEAKER, CEILING MOUNTED	PROVIDE CAT6 CABLE TO IDF.
	DUPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #TDR20-W		IP PUBLIC ADDRESS SPEAKER WALL MOUNTED, +96" U.O.N.	RUN 1" C. TO ACCESSIBLE ATTIC SPACE AND PROVIDE CAT6 CABLE TO IDF.
	QUADPLEX CONVENIENCE OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #TDR20-W		IP CLOCK / PUBLIC ADDRESS SPEAKER WALL MOUNTED, +96" U.O.N.	RUN 1" C. TO ACCESSIBLE ATTIC SPACE AND PROVIDE CAT6 CABLE TO IDF.
	GFI DUPLEX OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N.	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #GFTFR2-W		IP WP OUTDOOR PUBLIC ADDRESS SPEAKER, WALL MOUNTED, +96" U.O.N.	RUN 1" C. TO ACCESSIBLE ATTIC SPACE AND PROVIDE CAT6 CABLE TO IDF.
	WEATHERPROOF, GFI DUPLEX OUTLET AT +15" AFF TO BOTTOM OF BOX, U.O.N. W/ WEATHERPROOF IN-USE, METAL, LOCKABLE TYPE COVER	20A SPEC. GRADE, NEMA GROUNDED TAMPER RESISTANT, LEVITON #GFTFR2-W			
	DEVICES TO BE REMOVED				
	EXISTING CONDUIT/WIRING TO BE DEMOLISHED				
	EXISTING DEVICES				
	EXISTING CONDUIT/WIRING				
	WIRING IN CONDUIT, BELOW GRADE	3/4" CONDUIT MIN.			
	WIRING IN CONDUIT, IN WALL OR CEILING	3/4" CONDUIT MIN.; EMT CONCEALED AND ABV. 96" EXPOSED; GRS BELOWS 96" EXPOSED.			
	INDICATES INVERTER CIRCUIT WIRING	EMERGENCY CIRCUIT AND NORMAL CIRCUIT WIRING SHALL NOT BE RUN IN THE SAME RACEWAY			
	LOW VOLTAGE WIRING IN ATTIC SPACE	TYPE PER EQUIPMENT MANUFACTURER			
	CONDUIT RISER	3/4" CONDUIT MIN.			
	FLEXIBLE CONDUIT	3/4" CONDUIT MIN.			
	CONDUIT STUB AND CAP	3/4" CONDUIT MIN.			
	CROSS HATCHES INDICATE NUMBER OF #12 AWG. CONDUCTORS IN CONDUIT, WHEN MORE THAN TWO. WIRE SIZE INDICATED ON PLANS WHEN OTHER #12 AWG. PROVIDE GROUND PER CEC 250. PROVIDE DEDICATED NEUTRAL FOR EACH CIRCUIT.	3/4" CONDUIT MIN.			
	CURVED CROSS HATCHES INDICATE #14 AWG PURPLE & GRAY CONDUCTORS FOR DIMMING CONTROL.	3/4" CONDUIT MIN.			
	HOME RUN (TO PANEL "A", CIRCUIT "15")	3/4" CONDUIT MIN.			
(E)	"EXISTING"				
U.O.N.	"UNLESS OTHERWISE NOTED"				
WP	"WEATHERPROOF" / NEMA 3R				
GFI	"GROUND FAULT INTERRUPTER"				

Agency Approval

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FIRE ALARM GENERAL NOTES

1. THE FIRE ALARM CONTRACTOR SHALL PRODUCE DETAILED AND COMPLETE FIRE ALARM PLANS AND CALCULATIONS, ASSEMBLE CUT SHEETS, AND SUBMIT ALL DOCUMENTS TO THE AUTHORITY HAVING JURISDICTION (AHJ) IN ORDER TO OBTAIN A PERMIT.
2. FIRE ALARM SYSTEM: ADDRESSABLE, CLASS B, AUTOMATIC.
3. ALL WORK SHALL CONFORM TO THE 2022 EDITION OF NFPA 72, AND THE 2022 EDITION OF CBC, CEC, AND CFC.
4. INSTALLATION OF THE FIRE ALARM SYSTEM (FAS) SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY AHJ.
5. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A AHJ PROJECT INSPECTOR. (THE LOCAL FIRE AUTHORITY MAY WITNESS THE TEST).
6. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR THE INSTALLATION.
7. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
8. AHJ, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
9. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL, OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
10. MICROPHONE ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
11. WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR ENTIRE LENS WITHIN AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
12. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE.
13. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY SPACE WITHIN A BUILDING THAT MAY BE OCCUPIED AND BE INTELLIGIBLE.
14. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN, PRIOR TO "EVAC" ANNOUNCEMENT. THE CARBON MONOXIDE SIGNAL SHALL SOUND A FOUR-PULSE TEMPORAL PATTERN PER NFPA 72, 18.4.3.2.
15. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
16. VISUAL DEVICES SHALL NOT EXCEED 2 FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN 1 FLASH PER SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
17. UNDERGROUND AND EXTERIOR CONDUITS SHALL HAVE WATERTIGHT FITTINGS AND WIRE APPROVED FOR WET LOCATIONS.
18. ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
19. PER CEC STANDARDS, ALL WIRING SHALL BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE WIRE. ANY CONNECTION SHALL BE BY LUG CONNECTION AT A DEVICE OR AT A FATC TERMINAL BLOCK ONLY. ALL BOXES TO BE SIZED PER CEC.
20. SMOKE DETECTORS SHALL NOT BE CLOSER THAN 12" FROM FIRE SPRINKLERS NOR 36" FROM SUPPLY AIR DIFFUSERS. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION, NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
21. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY, OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS, AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS. OWNER STANDARDS MAY BE MORE STRINGENT.
22. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS' SPECIFICATIONS. ANY SINGLE DEVICE SHALL NOT EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
23. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A LOCKING DEVICE WITH RED MARKING PER NFPA 72, SECTION 10.6.5.4 AND 10.6.5.2.3 TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT THE FIRE PANEL/EXTENDERS.
24. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION IN COMPLIANCE WITH NFPA 72, SECTION 7.5.6.
25. CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48".

FIRE ALARM CABLING INSTALLATION NOTES

1. FIRE ALARM CABLING SHALL BE INSTALLED IN A RACEWAY SYSTEM, EXCEPT AS NOTED BELOW.
2. IT SHALL BE ACCEPTABLE TO INSTALL FIRE ALARM CABLING FOR SLC, NAC, EVIAC, AND FA NETWORK OPEN AIR IN ATTIC SPACES ABOVE T-BAR CEILINGS. FIRE ALARM CABLING SHALL BE INSTALLED ON DEDICATED J-HOOKS, SEPARATE FROM OTHER SYSTEMS.
3. WHEREVER A HARD LID CEILING SYSTEM IS PRESENT, THE FIRE ALARM CABLING SHALL BE INSTALLED IN CONDUIT IN THE ATTIC SPACE ABOVE THE CEILING.

26. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC 901.6.2.
27. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTIONS WITH FINAL TEST. FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATIONS SHALL BE LISTED AS EITHER UL/FX (CENTRAL STATION) OR UL/US (REMOTE AND PROPRIETARY) BY UNDERWRITERS LABORATORY (UL) OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD FM 3011. A COPY OF ALL DEVICES REPORTED TO THE CENTRAL STATION SHALL BE PROVIDED TO THE OWNER'S ELECTRONICS DEPARTMENT.
28. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
29. ALL WIRING IS SHOWN DIAGRAMMATICALLY. SUBJECT TO AHJ APPROVAL, CONTRACTOR MAY VARY SEQUENCE OF CIRCUITRY; HOWEVER, ALL CIRCUITS SHALL BE CONTINUOUS AND SUPERVISED.
30. ALL CONNECTIONS SHALL BE PROPERLY LABELED BY CONDUCTOR AND SHALL HAVE STA-KON LUG CONNECTORS. PANDUIT TAG (TIE WRAP) SEPARATELY.
31. FIRE ALARM TERMINAL CABINETS SHALL HAVE SUFFICIENT SPACE, TERMINAL BOARDS AND SCREW TERMINAL CONNECTORS TO ALLOW CONNECTION OF ALL CONDUCTORS SHOWN. PROVIDE BARRIER TO SEPARATE FIRE ALARM SYSTEM WHEN TERMINAL CABINET IS SHARED WITH NON-FIRE ALARM SYSTEMS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT WITH HIS OTHER SHOP DRAWINGS DETAILED DRAWINGS OF HIS PROPOSED CONNECTIONS AT EACH FIRE ALARM TERMINAL CABINET PRIOR TO COMMENCING ANY WORK.
32. ALL NAC CIRCUIT CONDUCTORS SHALL BE #12 AWG, STRANDED (19 STRANDS OR LESS) COPPER, UNLESS OTHERWISE NOTED.
33. SET END-OF-LINE RESISTORS IN DISTRIBUTION TERMINAL CABINETS.
34. BATTERIES SHALL BE STAMPED WITH DATE OF MANUFACTURE.
35. INSTALLATION OF FAS EQUIPMENT SHALL BE BY AN AUTHORIZED ENGINEERED SYSTEM DISTRIBUTOR FOR THE EQUIPMENT SPECIFIED BY THE MANUFACTURER FOR SALES, SERVICE, INSTALLATION AND MAINTENANCE. PROVIDE CERTIFICATIONS WITH EQUIPMENT SUBMITTALS. SUBMITTALS BY FIRMS NOT FULFILLING THIS REQUIREMENT WILL BE AUTOMATICALLY REJECTED.
36. THE FAS INSTALLER SHALL BE NICET LEVEL 2 CERTIFIED.
37. THE FAS INSTALLER SHALL PROVIDE ALL FACTORY WARRANTIES TO THE OWNER AT THE CLOSE UP OF THE PROJECT.
38. THE FAS INSTALLER SHALL PROVIDE WRITTEN CERTIFICATION USING NFPA 72 INSPECTION AND TESTING FORMS AND SHALL CERTIFY THAT THE INSTALLATION, TESTING, AND OPERATION CONFORM IN ALL RESPECTS TO THE REQUIREMENTS AS SET FORTH IN TITLE 19 OF THE CALIFORNIA CODE OF REGULATIONS AND PART 3, ARTICLE 760 OF TITLE 24 OF THE C.C.R. AND C.B.C. SECTION 907. THE CONTRACTOR SHALL SUBMIT THE COMPLETED FAS CERTIFICATION AND DESCRIPTION FORM TO DIVISION OF STATE ARCHITECT.
39. INCLUDE ALL DEMOLITION OF EXISTING FIRE ALARM SYSTEM WHETHER SPECIFICALLY SHOWN OR NOT. REMOVE ALL CABLING & UNUSED EXPOSED RACEWAY & OUTLETS. BLANK OFF ALL UNUSED WALL & HARD CEILING OUTLETS, REMOVE ALL UNUSED OUTLETS IN TEE-BAR CEILING & REPLACE ACOUSTIC TILES. RETURN ALL DEVICES, APPLIANCES, & CONTROL PANELS TO OWNER IF REQUESTED BY OWNER DURING CONSTRUCTION.
40. WHEN FIRE ALARM WORK WILL DISABLE PORTIONS OF THE EXISTING FAS, PROVIDE ALL REQUIRED OVERTIME AND FIRE WATCH IN SCOPE OF WORK.
41. WHERE FIRE ALARM DEVICES ARE BEING INSTALLED IN OTHERWISE INACCESSIBLE AREAS, PROVIDE AN ALLOWANCE FOR THE INSTALLATION OF ACCESS PANELS AND ALL WORK ASSOCIATED WITH THE INSTALLATION THE CONTRACTOR SHALL CUT ALL THE OPENINGS. THE SIZE OF THE ACCESS PANEL SHALL BE DETERMINED BY THE MAN ACCESS REQUIREMENTS. PROVIDE PAINT GRADE ACCESS DOORS AND PAINT TO MATCH THE COLOR & SHEEN OF THE EXISTING CEILING.
42. FIRE ALARM SYSTEM INSPECTION, TESTING, AND MAINTENANCE SHALL COMPLY WITH NFPA 72, CHAPTER 14.
43. PROVIDE FIRE ALARM RECORD DOCUMENTS CABINET NFPA 72, 7.7.2.

- EVERY NEW FIRE ALARM SYSTEM SHALL PROVIDE A DOCUMENTATION CABINET, INSTALLED AT THE SYSTEM CONTROL PANEL OR OTHER APPROVED LOCATION.
- THE DOCUMENTATION CABINET SHALL BE PROMINENTLY LABELED, "FIRE ALARM SYSTEM RECORD DOCUMENTS".
- ALL RECORD AND TESTING DOCUMENTATION SHALL BE STORED IN THE CABINET.
- CONTENTS SHALL BE ACCESSIBLE BY AUTHORIZED PERSONNEL ONLY.
- WHERE CABINET IS INSTALLED IN A LOCATION OTHER THAN THE SYSTEM CONTROL UNIT, ITS LOCATION SHALL BE IDENTIFIED AT THE SYSTEM CONTROL UNIT.

PROVIDE SYSTEM DOCUMENTS AS APPLICABLE:

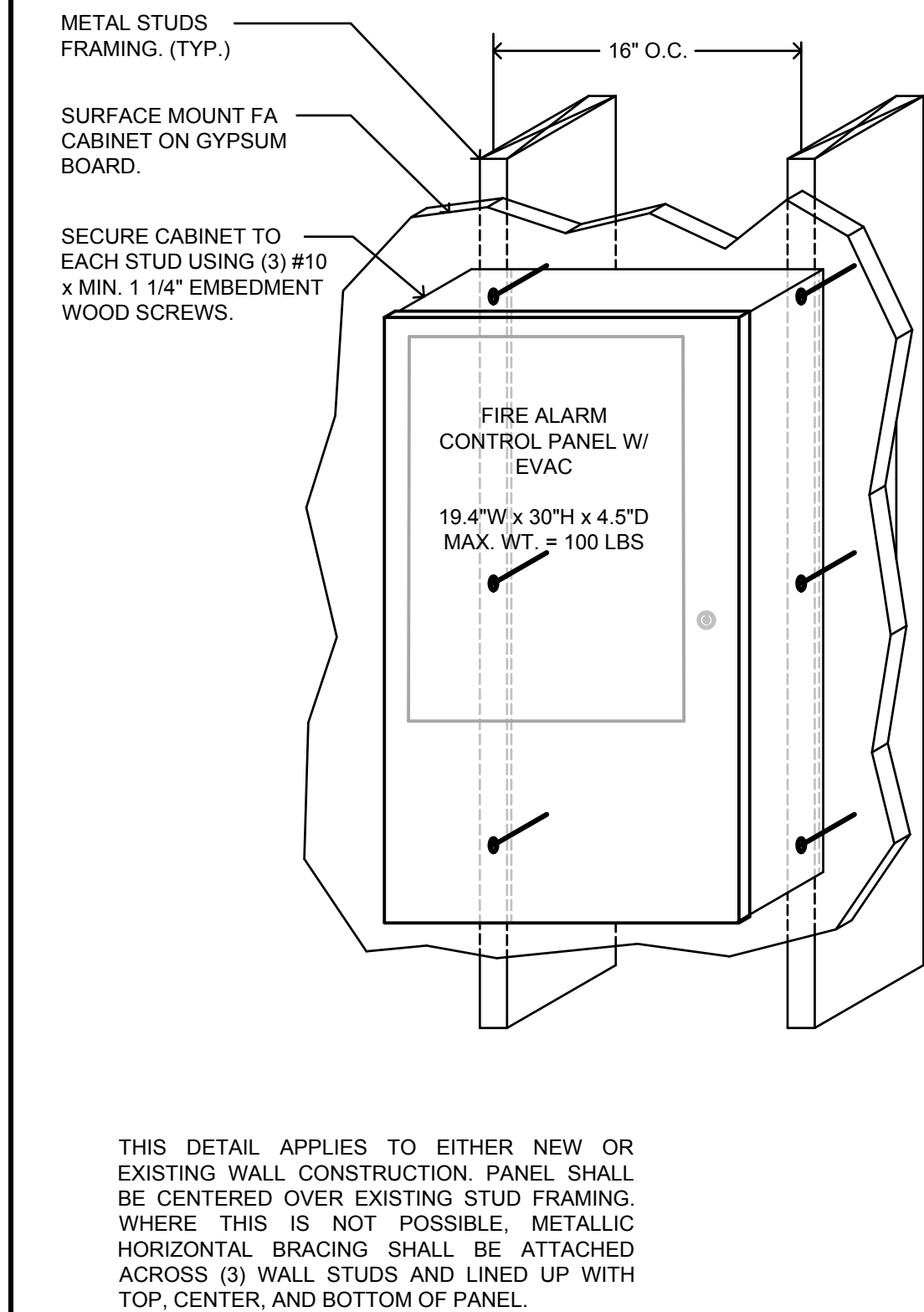
- RECORD DRAWINGS/AS-BUILTS
- EQUIPMENT CUT SHEETS & CA SFM LISTINGS
- ALTERNATIVE MEANS AND METHODS
- PERFORMANCE BASED DESIGN DOCUMENTATION (NFPA 72, 7.3.7)
- SYSTEM RECORD OF COMPLETION & ANY SUPPLEMENTAL INSPECTION AND TESTING DOCUMENTATION (NFPA 72, 7.8.2)
- EMERGENCY RESPONSE PLAN (NFPA 72, 7.3.8)
- EVALUATION DOCUMENTATION (NFPA 72, 7.3.9)
- RISK ANALYSIS DOCUMENTATION (NFPA 72, 7.3.8)
- SOFTWARE & FIRMWARE CONTROL DOCUMENTATION (NFPA 72, 23.2.2)

FIRE ALARM SYMBOL SCHEDULE

SYMBOL	DESCRIPTION	EQUIPMENT	CSFM
	FIRE ALARM CONTROL PANEL W/ EMERGENCY VOICE/ALARM COMMUNICATION	GAMEWELL-FCI E3 SERIES W/ILI-M8-E3, DACT-E3, ASM-16, LCD-E3, PM-9, MMO-6SF, INI-VGC, AM-50-70	7165-1703-0125
	INTERNET/5G COMMUNICATOR	TELULAR "TELGUARD" TG-7FS	7300-1402-0504
	LOCAL OPERATING CONSOLE W/ ANNUNCIATOR & PAGING MICROPHONE (W/ FLUSH WALL MOUNTED CABINET)	GAMEWELL-FCI #E3-LOC W/ ASM-16, NGA, INI-VGC, INCG-MIC	7165-1703-0125
	MANUAL PULL STATION	GAMEWELL-FCI #MS-7	7150-1703-0109
	SMOKE DETECTOR, PHOTOELECTRIC DETECTOR BASE	GAMEWELL-FCI #ASD-PL3 GAMEWELL-FCI #B300-6	7272-1703-0501 7300-1653-0109
	MONITOR MODULE	GAMEWELL-FCI #AMM-2F	7300-1703-0102
	RELAY MODULE	GAMEWELL-FCI #AOM-2SF	7300-1703-0102
	SPEAKER/VISIBLE NAC DEVICE, CEILING MTD (WATTS & cd INDICATED ON PLANS)	EATON WHEELLOCK #ELSPSTWC	7320-0785-0505
	SPEAKER/VISIBLE NAC DEVICE, WALL MTD (WATTS & cd INDICATED ON PLANS)	EATON WHEELLOCK #ELSPSTR	7320-0785-0505
	EXTERIOR SPEAKER, W/P, WALL MTD (WATTS INDICATED ON PLANS)	EATON WHEELLOCK #ET-1010-R	7320-0785-0105
	SPRINKLER RISER TAMPER SWITCH	SPECIFIED BY FIRE PROTECTION ENG.	
	SPRINKLER RISER FLOW SWITCH	SPECIFIED BY FIRE PROTECTION ENG.	
	SPRINKLER RISER BELL	SPECIFIED BY FIRE PROTECTION ENG.	

FIRE ALARM SYMBOL SCHEDULE

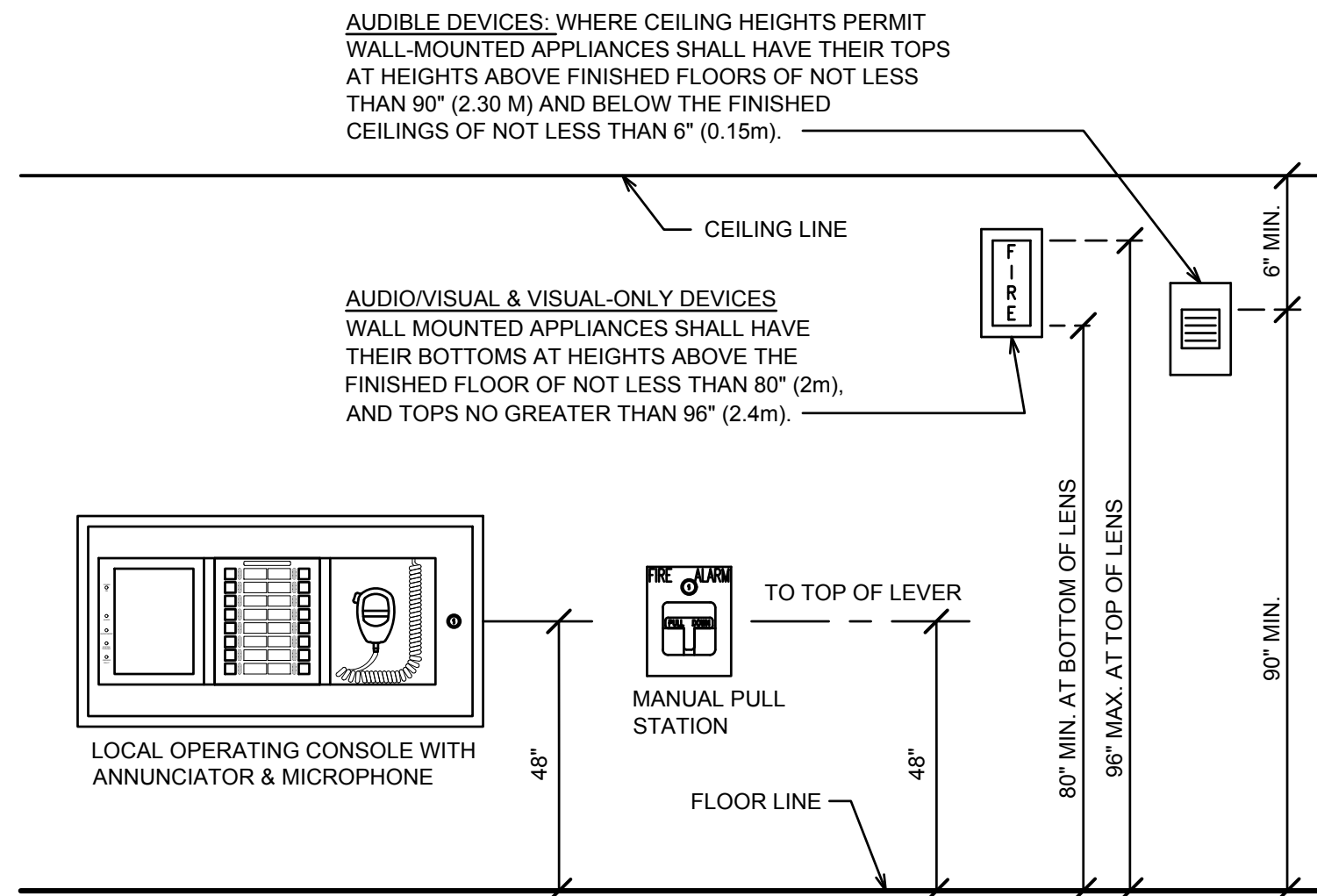
SYMBOL	NAME	DESCRIPTION
A	SIGNALING LINE CIRCUIT (SLC) CABLE WEST PENN #D990	16/2 TWISTED PAIR, STRANDED, LOW CAPACITANCE FA POWER LIMITED, RISER CABLE (FPLR)
AW	SIGNALING LINE CIRCUIT (SLC) CABLE, OSP WEST PENN #AQ225	16/2 TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
B	NOTIFICATION APPLIANCE CKT (NAC) CABLE WEST PENN #9985	12/2 TWISTED PAIR, STRANDED FA POWER LIMITED, RISER CABLE (FPLR)
BW	NOTIFICATION APPLIANCE CKT (NAC) CABLE, OSP WEST PENN #AQ227	12/2 TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
C	EM. VOICE/ALARM COMM. (EVIAC) CABLE WEST PENN #HF995	18/2 SHIELDED TWISTED PAIR, STRANDED FA POWER LIMITED CABLE (FPL)
CW	EM. VOICE/ALARM COMM. (EVIAC) CABLE, OSP WEST PENN #AQ295	16/2 SHIELDED TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
D	INITIATING DEVICE CIRCUIT (IDC) CABLE WEST PENN #9945	14/2 TWISTED PAIR, STRANDED FA POWER LIMITED, RISER CABLE (FPLR)
DW	INITIATING DEVICE CKT (IDC) CABLE, OSP WEST PENN #AQ226	14/2 TWISTED PAIR, STRANDED, AQUASEAL FA POWER LIMITED CABLE (FPL)
G	POWER CABLE WEST PENN #9985	12/2 TWISTED PAIR, STRANDED FA POWER LIMITED, RISER CABLE (FPLR)



A10 Fire Alarm Panel Surface Mounting Detail
No Scale

ACTION \ INITIATION CONDITION	FIRE SPRINKLER TAMPER SWITCH, POST INDICATOR VALVE	SMOKE, HEAT, OR DUCT DETECTOR, FIRE SPRINKLER FLOW SWITCH	POWER LOSS, SHORT CIRCUIT, GROUND FAULT
ANNUNCIATE TROUBLE			
ANNUNCIATE ALARM			
ANNUNCIATE SUPERVISORY			
INITIATE VISUAL NOTIFICATION APPLIANCES			
INITIATE EVAC SPEAKER APPLIANCES			
TRANSMIT TO CENTRAL STATION			
CLOSE FIRE/SMOKE DAMPER			
SHUTDOWN HVAC UNITS			
DOOR RELEASE			
ACCESS CONTROL OVERRIDE			

E13 Fire Alarm Sequence of Operations Matrix
No Scale

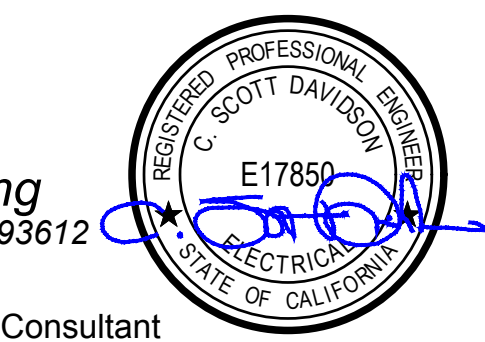


A13 Fire Alarm Wall Mounted Devices Elevation
No Scale

FIRE ALARM DEFERRED APPROVAL SUBMITTAL



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351 N K St, Tulare, CA 93274

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TYPICAL INFORMATION

FIRE ALARM SYSTEM - SYMBOLS, NOTES, AND DETAILS

Drawing



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5/20/2024 11:38:35 AM
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BATTERY CALCULATION

F.A. Control Panel 'FCP'

POWER REQUIREMENTS

	CURRENT [A]	
	SUPERVISORY	ALARM
ILI-MB-E3 (SLCs at max. output)	0.0810	0.1500
ILI-S-E3 (SLCs at max. output)	0.0810	0.1500
DACT-E3 (Communicator)	0.0180	0.0180
LCD-E3 (Panel Display)	0.0240	0.2800
ASM-16 (Panel Switches)	0.0110	0.1550
PM-9 (Power Supply)	0.0500	0.0500
INI-VG (Voice Gateway)	0.1500	0.1500
AM-50-70 (Amp. Speakers at max output)	0.0490	2.3000
MMQ-6SF (Multi-MOD Output Module)	0.0023	0.0400
INCC-MIC (Paging Microphone)	0.0010	0.0010
NGA (Annunciator)	0.2000	0.2000
NAC Circuits	-	2.0920
24VDC Auxiliary (Cellular Communicator)	0.0180	0.1100
TOTALS	0.6853	5.6960

BATTERY CAPACITY

SUPERVISORY POWER (24 HOURS)	= 24 Hr * .685A	= 16.446 Ahr
ALARM POWER (15 MINUTES)	= 0.25 Hr * 5.696A	= 1.424 Ahr
TOTAL POWER REQUIREMENT =		17.870 Ahr
MINIMUM BATTERY CAPACITY (includes 25% safety factor) =		23 Ahr

VOLTAGE DROP CALCULATION

NAC Circuit 'n1'

VD = Voltage Drop [V]
I = Current [A] (0.502A)
K = 12.9 (Copper Constant)
L = Distance to Load [ft.] (698')
CM = Circular Mils (#12 AWG = 6530)
V = Voltage [V] (24VDC)

$$VD = \frac{K \cdot I \cdot 2L}{CM} = \frac{12.9 \cdot 0.502 \cdot 2 \cdot 698}{6530} = 1.384 \text{ V}$$
$$VD\% = \frac{VD}{24} = 5.8\%$$

VOLTAGE DROP CALCULATION

NAC Circuit 'n2'

VD = Voltage Drop [V]
I = Current [A] (0.402A)
K = 12.9 (Copper Constant)
L = Distance to Load [ft.] (537')
CM = Circular Mils (#12 AWG = 6530)
V = Voltage [V] (24VDC)

$$VD = \frac{K \cdot I \cdot 2L}{CM} = \frac{12.9 \cdot 0.402 \cdot 2 \cdot 537}{6530} = 0.853 \text{ V}$$
$$VD\% = \frac{VD}{24} = 3.6\%$$

VOICE EVACUATION SPEAKER VOLTAGE DROP

Volt Drop Common Parameters														
		Volts		70.7		Volts								
		Wire Size		18		AWG								
		Wire Resistance		8.45		ohm/Kft								
		INDOOR					OUTDOOR					CIRCUIT LENGTH		
Type	Wattage Tap	1/8 W	1/4 W	1/2 W	1 W	2 W	1/2 W	1 W	2 W	4 W	8 W	Total Watts	Max Length	Actual Length
v1	20	2	11	1			2					10.5	3338	1265
v2	18	6	15	3			2					15.25	2298	1655

VOLTAGE DROP CALCULATION

NAC Circuit 'n3'

VD = Voltage Drop [V]
I = Current [A] (0.61A)
K = 12.9 (Copper Constant)
L = Distance to Load [ft.] (775')
CM = Circular Mils (#12 AWG = 6530)
V = Voltage [V] (24VDC)

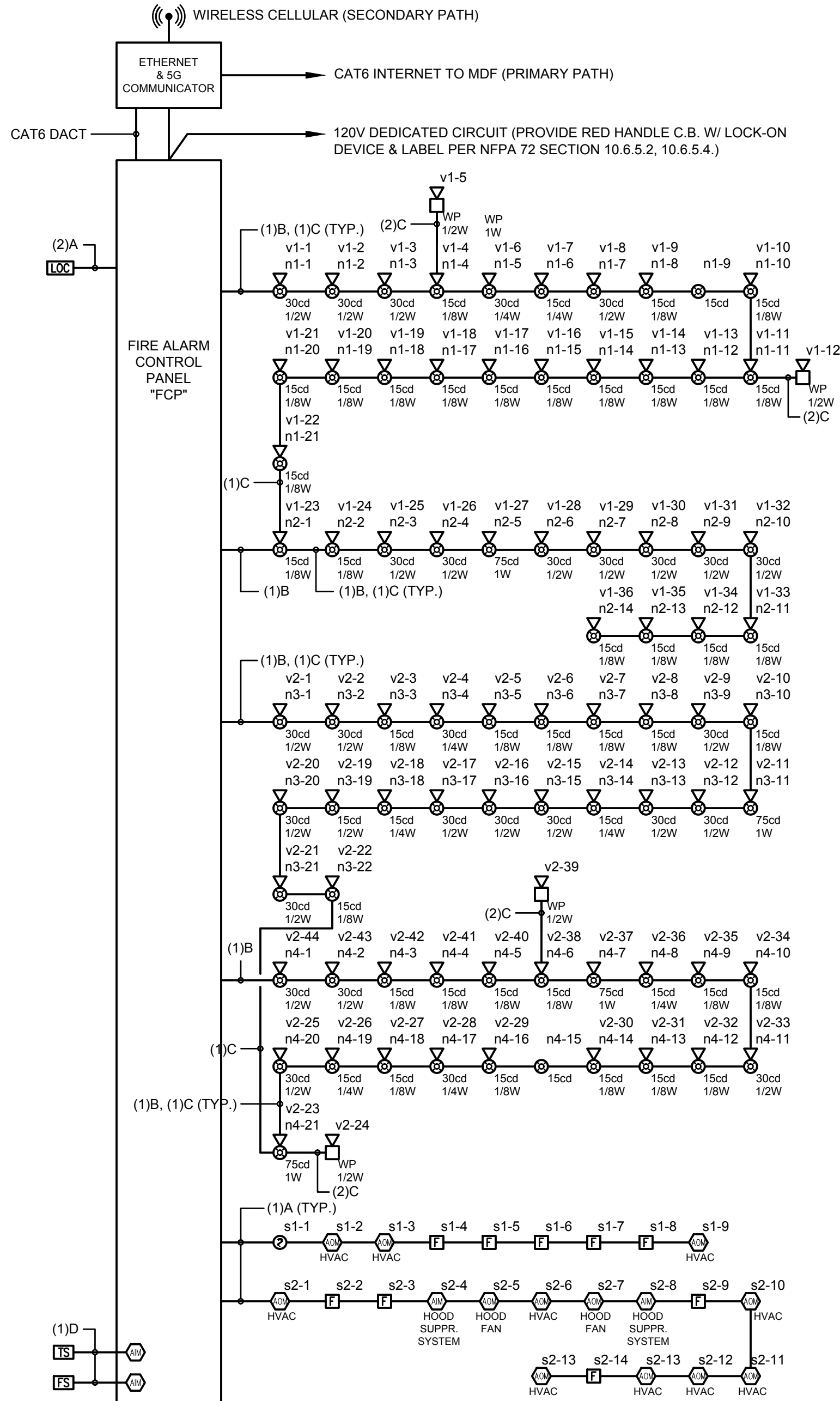
$$VD = \frac{K \cdot I \cdot 2L}{CM} = \frac{12.9 \cdot 0.61 \cdot 2 \cdot 775}{6530} = 1.868 \text{ V}$$
$$VD\% = \frac{VD}{24} = 7.8\%$$

VOLTAGE DROP CALCULATION

NAC Circuit 'n4'

VD = Voltage Drop [V]
I = Current [A] (0.578A)
K = 12.9 (Copper Constant)
L = Distance to Load [ft.] (770')
CM = Circular Mils (#12 AWG = 6530)
V = Voltage [V] (24VDC)

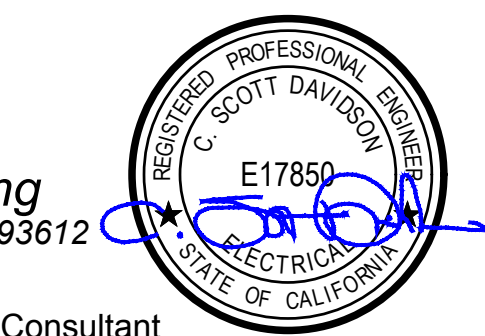
$$VD = \frac{K \cdot I \cdot 2L}{CM} = \frac{12.9 \cdot 0.578 \cdot 2 \cdot 770}{6530} = 1.758 \text{ V}$$
$$VD\% = \frac{VD}{24} = 7.3\%$$



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Project

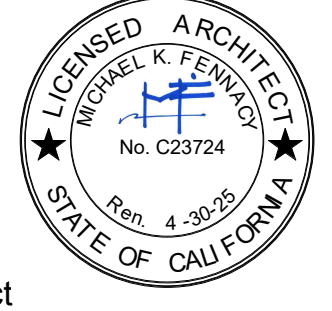
TYPICAL INFORMATION

FIRE ALARM SYSTEM - SINGLE LINE DIAGRAM AND
CALCULATIONS

Drawing

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Date: 05/20/2024	Reviewed By: SD	
		Sheet: _____ of: _____



Agency Approval

KEYNOTES

1. EXISTING POWER PANEL TO REMAIN.
2. EXISTING DATA MDF AND LOW VOLTAGE SYSTEMS HEAD END EQUIPMENT TO REMAIN.
3. EXISTING DATA IDF TO REMAIN.
4. EXISTING SIGNAL TERMINAL CABINET TO REMAIN.
5. INSTALL NEW FIRE ALARM CONTROL PANEL. CONNECT TO DEDICATED 120V/240V CIRCUIT. EXISTING BUILDING PANELBOARD CIRCUIT BREAKER TO BE EQUIPPED WITH RED HANDLE LOCK-ON DEVICE AND LABEL READING "FIRE ALARM CIRCUIT. DO NOT TURN OFF". SEE DETAIL A10/X/E201 FOR MOUNTING.

WALL SYMBOLS (PER ARCHITECTURAL PLAN)

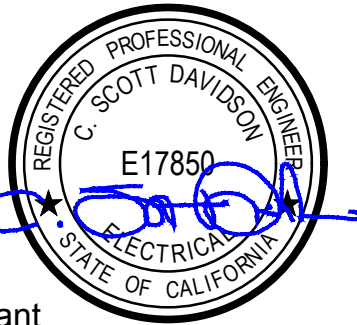
- 1 Hr. Corridor Wall - (1 Hr. Fire Resistive Construction, 20 Min. Door Assemblies, 45 Min. Window Assemblies)
- 1 Hr. Fire Barrier - (1 Hr. Fire Resistive Construction, 60 Min. Door Assemblies)
- 1 Hr. Occupancy Separation / Fire Partition - (1 Hr. Fire Resistive Construction, 45 Min. Door Assemblies, 45 Min. Window Assemblies)
- 2 Hr. Fire Wall - (2 Hr. Fire Resistive Construction, 1-1/2 Hr. Door Assemblies)
- 2 Hr. Fire Barrier - (2 Hr. Fire Resistive Construction, 1-1/2 Hr. Door Assemblies)

NOTE: All Through Penetrations and Wall Membrane Penetrations through Walls of Fire Resistive Construction shall be protected in accordance with their Fire Resistive Ratings.

CONDUIT PENETRATION THROUGH FIRE RATED WALL, INST
PER DETAIL E1/X/E101.
ELECTRICAL BOX IN FIRE RATED WALL, INSTALL PER DETAI



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Project

K STREET
ELECTRICAL PLAN

Drawing



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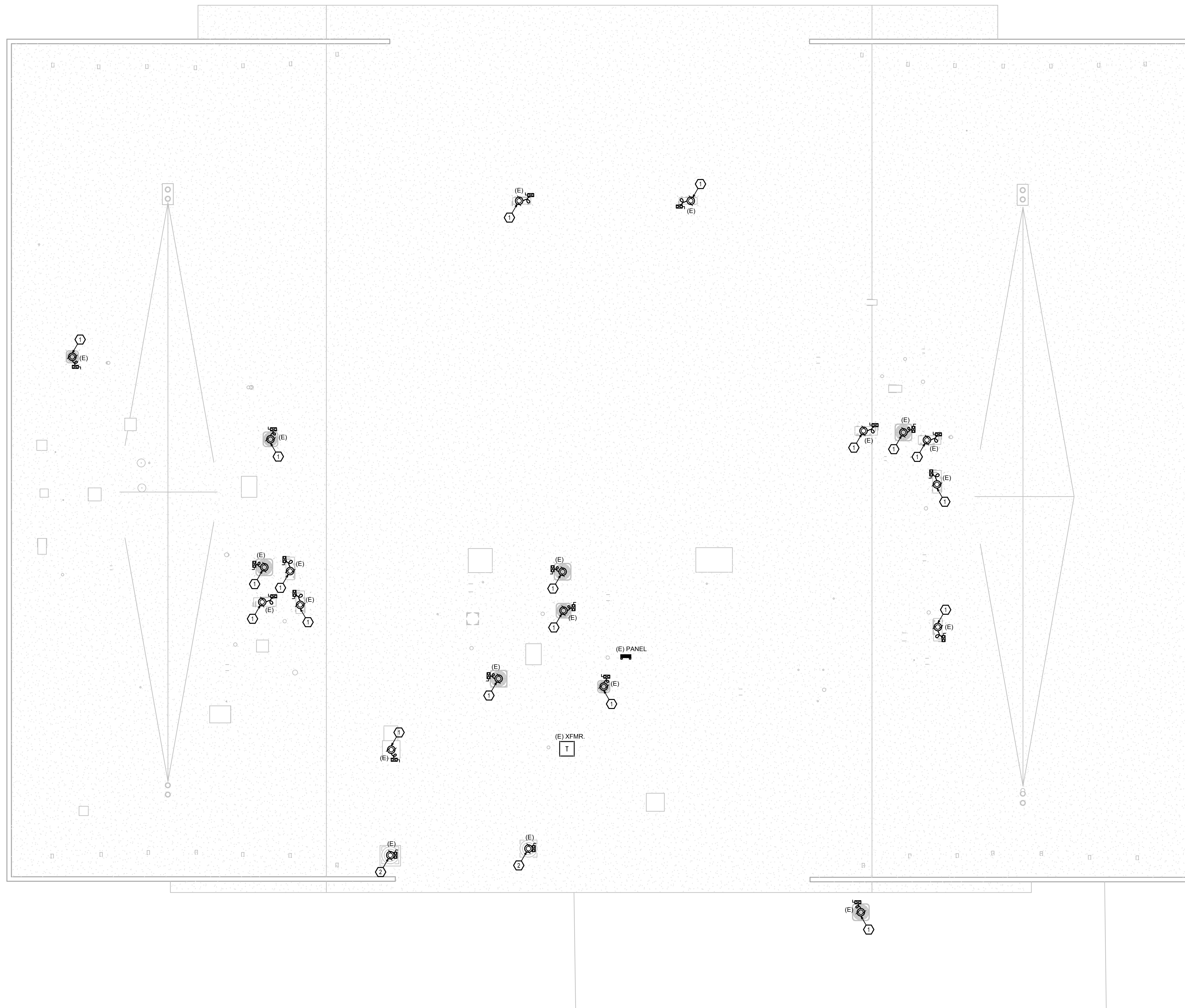
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Project Number: 2369	Checked By:	SD	
Date: 05/30/2024	Reviewed By:	SD	
			Sheet: _____ of: _____

Agency ApprovalKEYNOTES

1. DISCONNECT AND RECONNECT EXISTING HVAC UNIT AFTER NEW ROOFING BEEN INSTALLED. INTERLOCK/ CONTROL AS REQUIRED FOR COMPLETE AND FUNCTIONAL SYSTEM.
2. DISCONNECT AND RECONNECT EXISTING EXHAUST FAN AFTER NEW ROOFING BEEN INSTALLED. INTERLOCK/ CONTROL AS REQUIRED FOR COMPLETE AND FUNCTIONAL SYSTEM.



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K STREET

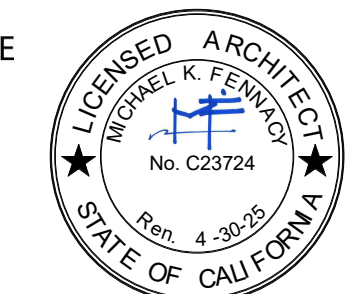
ROOF ELECTRICAL PLAN

Drawing



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No.	Revision/Submission	Date

Revision

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Project Number: 2260	Checked By: SD	

K/E201

0

A1	Roof Electrical Plan
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1/8" = 1'-0"

- WALL SYMBOLS (PER ARCHITECTURAL PLAN)

- NOTE: All Through Penetrations and Wall Membrane Penetrations through Walls of Fire Resistive Construction shall be protected in accordance with their Fire Resistive Ratings.

CONDUIT PENETRATION THROUGH FIRE RATED WALL, INSTALL PER DETAIL E1/X/E101.
ELECTRICAL BOX IN FIRE RATED WALL, INSTALL PER DETAIL E1/X/E101.

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Object

Drawing

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$$1/8'' = 1'-0''$$