MANGINI

MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
(559) 627-0530

www.mangini.us

DATE:	October 16, 2026
MAI NO.:	24042
OPSC APPL. NO.:	
DSA APPL. NO.:	02-123774
DSA FILE NO.:	10-126

ADDENDUM FOR:

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CALIFORNIA

J. Ryan Morrelli **C-33128**
ARCHITECT
MANGINI ASSOCIATES INC.
4320 W. Mineral King Avenue, Visalia, CA 93291
PHONE: (559) 627-0530 FAX: (559) 627-1926

ADDENDUM NUMBER

3

NON-DSA

ADDENDUM NO. 3

TO PROSPECTIVE BIDDERS:

This Addendum forms a part of the Contract Documents and modifies the Contract Documents dated December 18, 2025, approved September 22, 2026 and Issued September 27, 2026.

Bidders shall acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

This Addendum consists of 2 printed pages and the following Attachments:

- Addendum 3 Letter by Rose, Sing, Eastham and Associates dated October 15, 2026.
- Addendum 3 Electrical Drawings by Rose, Sing, Eastham and Associates, revisions dated October 15, 2026.
- Addendum 3 Letter by Lawrence Engineering Group, dated October 16, 2026.
- Addendum 3 Fire Protection Drawings by Lawrence Engineering Group, revisions dated October 16, 2026.

CHANGES TO THE PROJECT MANUAL

None.

CHANGES TO THE DRAWINGS

ITEM NO. 3.1: Electrical:
Refer to attached Addendum 3 letter and drawings by Rose Sing Eastham and Associates, dated 10/15/26, for changes and clarifications to Electrical Drawings.

ITEM NO. 3.2: Mechanical and Fire Protection:
Refer to attached Addendum 3 letter and drawings by Lawrence Engineering Group, dated 10/16/26, for changes and clarifications to Mechanical and Fire Protection Drawings and Specifications.

END OF ADDENDUM NUMBER 3

Rose, Sing, Eastham and Associates

Electrical Consultants
131 S. Dunworth St. • Visalia, CA 93292-6705
Phone: (559) 733-2671 - E-Mail: seastham@rse-eng.com

October 16, 2026

Attn: Manuel Acosta
Re: Sanger U.S.D. Temperance New Elementary School.

Project NO: 24042

Manuel,
Please issue the following addendum #3 items.

General: See attached plans for requirements.

Item #1, Sheet #ES1.2R:
A. See revised Panel callout.

Item #2, Sheet #ES1.3R:
A. See new connections for Chiller Unit Heat Trace connections.

Item #3, Sheet #E1.1R:
A. See revised callout for Panel "EV2".

Item 4, Sheet #E9.1R:
A. See revised feeder to Panel "EV".
B. See revised utility connections to add Bus Duct secondary and primary information.
C. New information at Main Service.

Item #5, Sheet #E9.5R:
A. See revised distribution Panel "EV" dimensions.

Item #6, Sheet #E10.1R:
A. See revised Panel schedules names and connections.

Item #7, Sheet # E10.7R:
A. See revised Load and Short Circuit calculations.

This concludes addendum #3.

Regards,
Jeff Jackson

LAWRENCE
ENGINEERING GROUP

October 16, 2026

Mr. Manuel Acosta
Mangini Associates Inc
4320 West Mineral King Avenue
Visalia, CA 93291

LEG #25026 (M.A. #24042)

Subject: Sanger Unified School District
Temperance Elementary School
Addendum #3

Dear: Mr. Acosta

Please include with your next published addendum:

SPECIFICATIONS

1. Specification Section 230000, Paragraph 1.11, B:
   1.1. **REPLACE** "Substitutions: Substitutions affecting DSA review and approval, as a CCD" with "*Substitutions: Substitutions affecting structural attachment or fire and life safety require DSA review and approval, as a CCD.*"
2. Specification Section 230000, Paragraph 1.21, B:
   2.1. **ADD** the following to 1.21-B: "*Contractor shall obtain the services of a Seismic Design service to show supports and restraints for the project per the requirements shown on drawings. Mason Industries, or pre-approved equal. Note: Use of the "12 inch rule" does not exempt Contactor from this requirement."*
3. Specification Section 230001, Paragraph 2.6, B:
   3.1. **ADD** part B-19 with the following text: "*5 year parts and labor factory warranty.*"
4. Specification Section 230001, Paragraph 2.6, D:
   4.1. **ADD** part D-5 with the following text: "*5 year parts and labor factory warranty.*"
5. Specification Section 230001, Paragraph 2.6, E, 11:
   5.1. **REPLACE** all text in part E-11 with the following: "*5 year parts and labor factory warranty.*"
6. Specification Section 230001, Paragraph 2.6, F, 15:
   6.1. **REPLACE** all text in part F-15 with the following: "*5 year parts and labor factory warranty.*"
7. Specification Section 230001, Paragraph 2.4, I, 1:
   7.1. **REPLACE** "BRD" with "BRD or Pre-approved equal"

MECHANICAL DRAWINGS

1. Sheet M7.00, "Heat Pump Multi-Pipe Water Chiller Schedule":
    1.1. **ADD** missing accessory note #11: "*Provide Factory Heat Trace for all wetted components. Requires (2) 120V power circuits. First 120V circuit: 37.0A FLA, 46.25A MCA, 50.0A MOCP. Second 120V circuit: 37.0A FLA, 46.25A MCA, 50.0A MOCP. Mechanical Contractor to coordinate termination point with Electrical Contractor and Manufacturer*."
        1.1.1. Accessory Note #11 applies to WC-1.
2. Sheet M7.01, "Make-Up Air Unit Schedule":
    2.1. **ADD** missing accessory note #6: "*5 year parts and labor factory warranty."*
        2.1.1. Accessory Note #6 applies to MUA 2-1.
3. Sheet M7.02, "Air Handler Schedule – Part 1":
    3.1. **ADD** missing accessory note #13: "*5 year parts and labor factory warranty."*
        3.1.1. Accessory Note #13 applies to the following units: AH 2-3, 2-4, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 4-9
4. Sheet M7.03, "Air Handler Schedule – Part 2":
    4.1. **ADD** missing accessory note #13: "*5 year parts and labor factory warranty."*
        4.1.1. Accessory Note #13 applies to the following units: AH 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-7, 5-8, 5-9, 6-1, 6-2, 6-3, 6-4, 6-5, 6-6, 7-1, 7-2, 7-3
5. Sheet M7.04, "Air Handler With Return Fan Schedule":
    5.1. **ADD** missing accessory note #13: "*5 year parts and labor factory warranty."*
        5.1.1. Accessory Note #13 applies to AH 2-1 and AH 2-2.
6. Sheet M7.04, "Package Air Conditioning Schedule":
    6.1. **ADD** missing accessory note #11: "*5 year parts and labor factory warranty."*
        6.1.1. Accessory Note #11 applies to the following units: HP 1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7

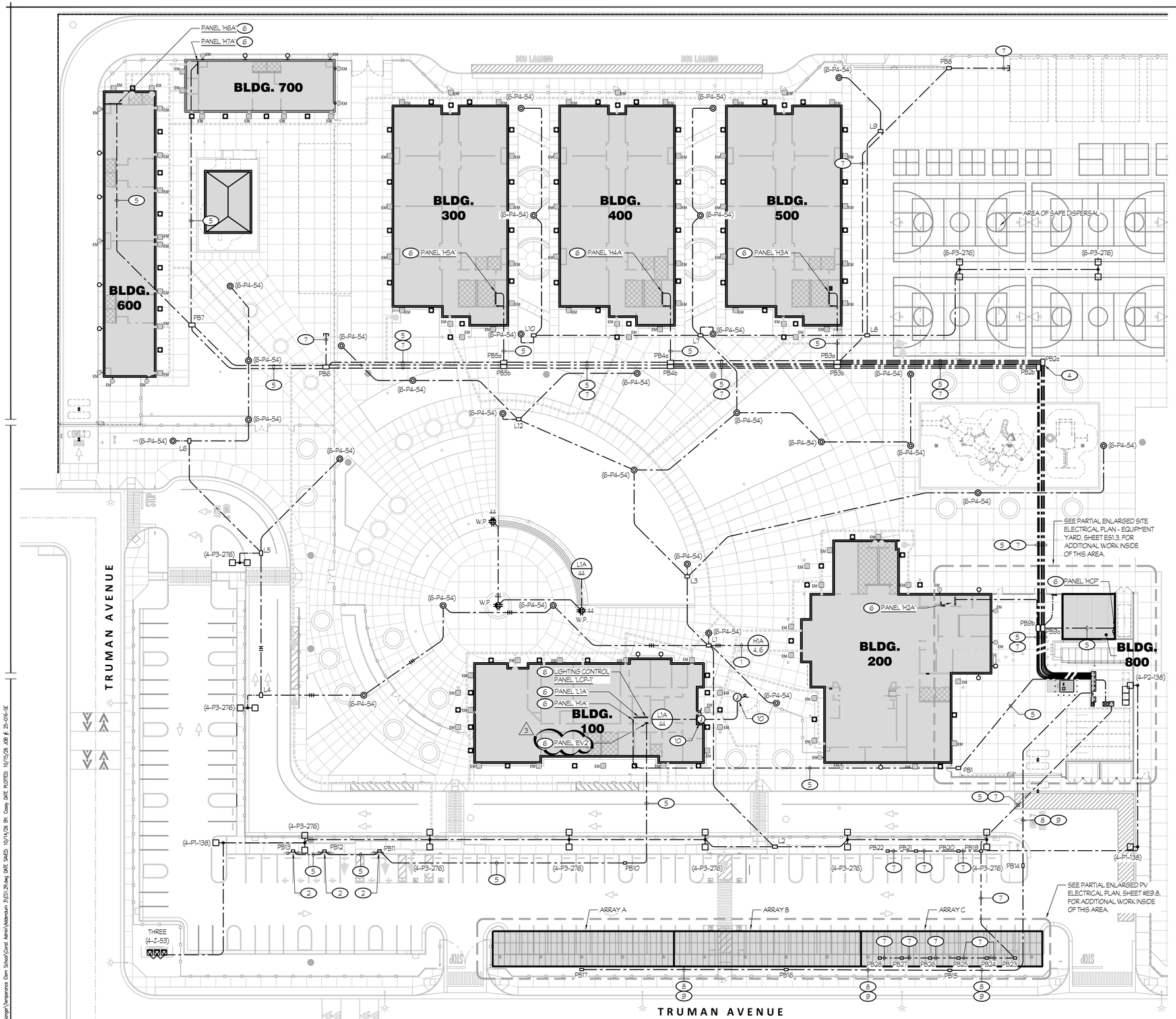
FIRE DRAWINGS

1. Sheet F3.00, "Building 300 Fire Protection Piping Plan":
    1.1. **REPLACE** sheet F.300 with the F3.00 sheet attached to this letter.
        1.1.1. A total of (8) Pendent Sprinklers to (4) small Alcoves were added in Hallway 302.
2. Sheet F3.01, "Fire Protection Piping Sections Buildings 300-500":
    2.1. **REPLACE** sheet F3.01 with F3.01 sheet attached to this letter.
        2.1.1. Section A Revised to reflect additional Sprinklers in Hallways, as reflected upon Sheets F3.00, F4.00, and F5.00
3. Sheet F4.00, "Building 400 Fire Protection Piping Plan":
    3.1. **REPLACE** sheet F4.00 with the F4.00 sheet attached to this letter.
        3.1.1. A total of (8) Pendent Sprinklers to (4) small Alcoves were added in Hallway 402.
        3.1.2. Relocated (4) Armovers w/ Pendent Sprinklers, and added (1) additional Pendent Sprinkler in Hallway 402.
4. Sheet F5.00, "Building 500 Fire Protection Piping Plan":
    4.1. **REPLACE** sheet F5.00 with the F5.00 sheet attached to this letter.
        4.1.1. A total of (8) Pendent Sprinklers to (4) small Alcoves were added in Hallway 502.
        4.1.2. Relocated (4) Armovers w / Pendent Sprinklers, and added (1) additional Pendent Sprinkler in Hallway 502.

Sincerely,
LAWRENCE ENGINEERING GROUP

Creighont Whaley

Creighont Whaley
Mechanical Designer



PARTIAL ENLARGED SITE ELECTRICAL PLAN

SCALE: 1" = 30'-0"

north

NOTES (THIS SHEET ONLY):

1. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL 'LCP-100'.
2. CONNECT TWO ELECTRIC VEHICLE CHARGING STATIONS, 208V 1ph, 40A EACH. PROVIDE AUTEL MAXICHARGER ULTRA DUAL PORT LEVEL 2 EV CHARGER WITH PEDSTAL AND POINT OF SALE. INSTALL EV CHARGER PER MANUFACTURER SPECIFICATIONS AND PER DETAIL #13/E9.3. COORDINATE EXACT "POINT-OF-CONNECTION" PRIOR TO ROUGH-IN.
3. ROUTE CIRCUIT(S) THROUGH LIGHTING CONTROL PANEL 'LCP-600'.
4. PULL BOX PER DETAILS #5/E9.4 AND #7/E9.4. TYPICAL, U.O.N..
5. FEEDER(S) PER ONE LINE DIAGRAM, #1/E9.1.
6. SEE RESPECTIVE POWER PLAN FOR EXACT LOCATION AND REQUIREMENTS.
7. SPARE CONDUITS PER ONE LINE DIAGRAM, #1/E9.1.
8. FEEDER PER SOLAR ONE LINE DIAGRAM, #1/E9.7.
9. SPARE CONDUITS PER SOLAR ONE LINE DIAGRAM, #1/E9.7.
10. CONNECT POWER FOR DOOR/GATE, 120V.

APPROVALS

FILE #	APPLICATION #
10-126	02-123774

LICENSED ARCHITECT JAMES R. MORRELL No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS		
3	10.15.26	ADDENDUM 3

MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.2630 Office
(559) 627.1926 Fax

TITLE
PARTIAL ENLARGED SITE ELECTRICAL PLAN

ES1.2R

PROJECT 24042

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER KIRK ZANDER No. E-19789 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Z:\Drafting\Jobs\RSES\24042LS\Sanger\Temperance Elem School\Const Admin\Addendum 3\ES1.2R.dwg DATE SAVED: 10/14/26 BY: Casey DATE PLOTTED: 10/15/26 JOB # ZS-016-SE

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

AUTOMATIC FIRE SPRINKLER SYSTEM

ALL BUILDINGS HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM. HEAT DETECTORS HAVE BEEN OMITTED, IN CONCEALED ATTIC SPACES ABOVE CEILINGS AND SOFFITS, DUE TO THE AUTOMATIC FIRE SPRINKLER SYSTEM IS FULLY EQUIPPED IN THESE AREAS. C.F.C. 907.2.3.6.2.

COMPLETE AUTOMATIC FIRE ALARM SYSTEM PLAN SUBMITTAL

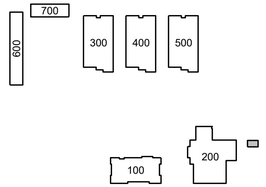
THE FIRE ALARM SYSTEM SHOWN ON THESE PLANS HAS BEEN SUBMITTED AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT. ANY SUBSTITUTION OF THE FIRE ALARM SYSTEM SHALL BE RESUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL PAY ANY ADDITIONAL FEES THAT ARE INCURRED DUE TO THIS SUBSTITUTION.

THE FIRE ALARM SYSTEM SHALL BE A TOTAL (COMPLETE) AUTOMATIC HEAT AND SMOKE DETECTION SYSTEM, PER C.F.C. SECTION 907.2.3.6, AND SHALL COVER EVERY ROOM AND/OR AREA. UPON THE ACTIVATION OF ANY INITIATION DEVICE THE FIRE ALARM SYSTEM SHALL ALERT ALL OCCUPANTS AND TRANSMIT THE ALARM, SUPERVISORY, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION (C.F.C. SECTION 907.2.3.5).

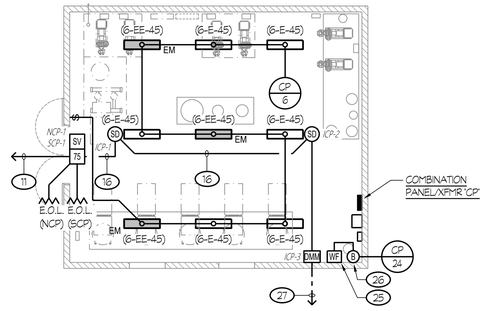
GENERAL NOTE:

1. VERIFY EXACT LOCATION AND REQUIREMENTS OF ALL HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. CONDUIT AND WIRING FOR CONTROLS, BOTH LINE AND LOW VOLTAGE, SHALL BE BY MECHANICAL CONTRACTOR.

3



KEY PLAN



ELECTRICAL PLAN - CENTRAL PLANT

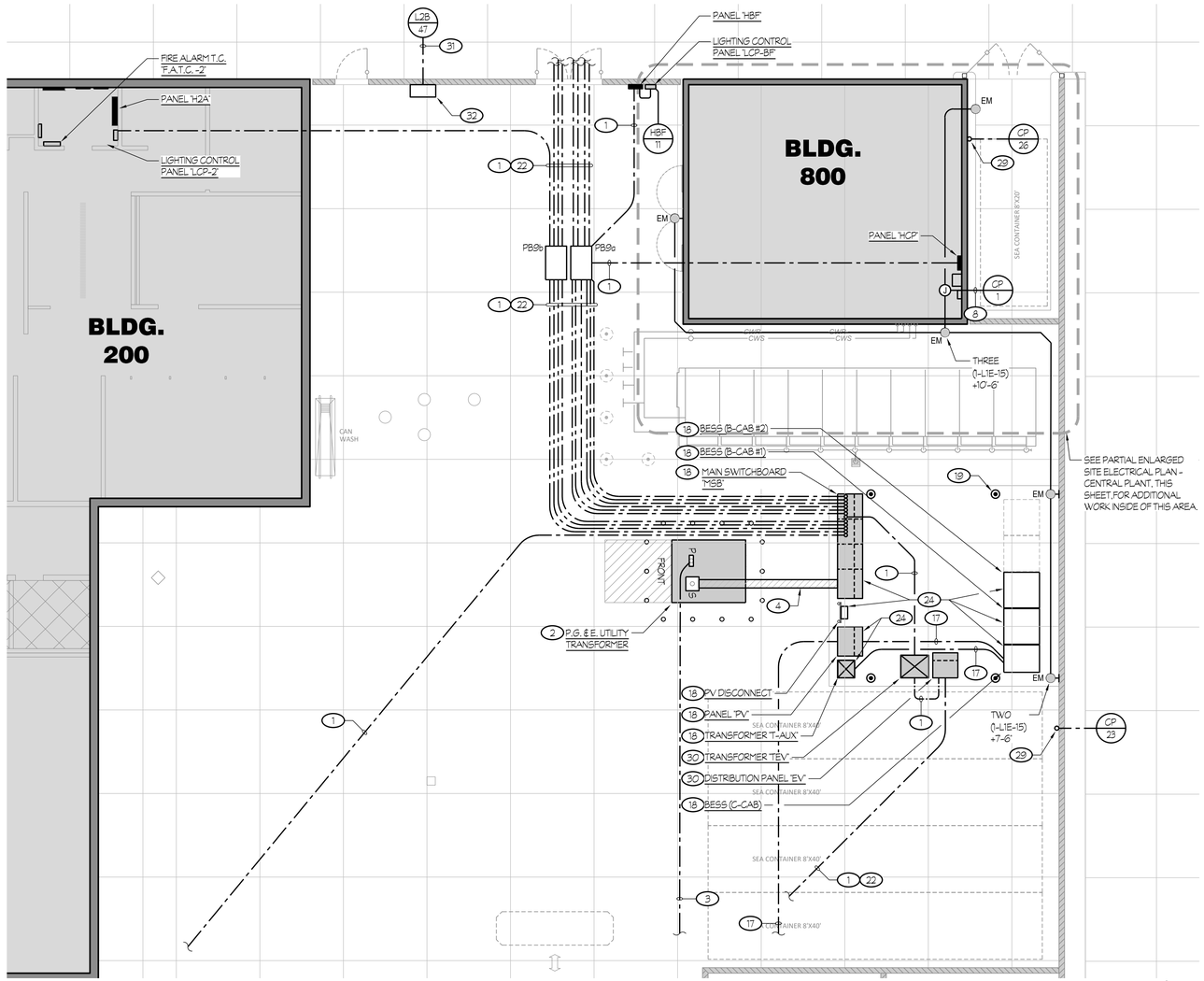
SCALE: 1/8" = 1'-0"

north

NOTES (THIS SHEET ONLY):

1. FEEDER PER ONE LINE DIAGRAM, #1/E9.1.
2. PROVIDE A 106' L x 90' W (STYLE I I E) CONCRETE PAD, BARRIER POSTS (FIXED AND REMOVABLE) AND GROUNDING FOR P.G.&E. PAD MOUNTED TRANSFORMER PER P.G.&E. REQUIREMENTS.
3. ONE 4"C (P.G.&E. 'PRIMARY') PER P.G.&E. REQUIREMENTS.
4. SECONDARY BUS DUCT PER P.G.&E. REQUIREMENTS.
5. SEE ONE LINE DIAGRAM #1/E9.1 FOR ADDITIONAL INFORMATION.
6. CONNECT EMS PANEL, 120V.
7. CONNECT TIME CLOCK, 120V.
8. ROUTE CIRCUIT THROUGH TIME CLOCK.
9. MOUNT PER DETAIL #9/E9.3.
10. MOUNT PER DETAIL #10/E9.3.
11. 1"C - ONE 'SFSP' CABLE, TWO 'SFA' CABLES, 2 #12 TO FIRE ALARM T.C. 'F.A.T.C. - 2' IN BUILDING 200.
12. CONNECT WH-2, 3.69 H.P., 208V, 1ph.
13. 3/4" - 2 #10 + 1 #10 GND.
14. CONNECT WSS-1, 120V.
15. CONNECT BP-1, 460V, 3ph.
16. 3/4"C - ONE 'FA' CABLE, TYPICAL, U.O.N..
17. FEEDERS AND SPARE CONDUITS PER SOLAR ONE LINE DIAGRAM, #1/E9.7.
18. MOUNT PER DETAILS #1/E9.5 AND #1/E9.6. REFER TO SHEETS #E9.1, E9.7 AND E9.10 FOR WARNING LABELS AND LOCATIONS.
19. BONDING AND GROUNDING PER DETAIL #6/E9.4. TYPICAL OF 4.
20. CONNECT CIRC PUMP, 120V.
21. 3/4" - 3 #10 + 1 #10 GND.
22. SPARE CONDUITS PER ONE LINE DIAGRAM, #1/E9.1.
23. CONNECT TRAP PRIMER, 120V.
24. REFER TO SHEETS #E9.1, E9.8 AND E9.10 FOR WARNING LABELS AND LOCATIONS.
25. CONNECT THE WATERFLOW SWITCH AT FIRE SPRINKLER RISER. COORDINATE EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR. RUN 1/2"C - 2 #14 FROM DUAL MONITOR MODULE TO THE WATERFLOW SWITCH. PROVIDE JUNCTION BOX AND LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AS REQUIRED.
26. CONNECT ELECTRIC BELL. ROUTE BRANCH CIRCUITING THRU THE WATERFLOW SWITCH. COORDINATE EXACT LOCATION WITH THE FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.
27. RUN 1/2"C - 2 #14 TO THE SUPERVISORY SWITCH AT THE POST INDICATOR VALVE 'P.I.V.'. REFER TO PARTIAL SITE ELECTRICAL PLAN, SHEET #ES1.4, FOR CONTINUATION.
28. PROVIDE HEAVY DUTY RATED, FUSED SAFETY SWITCH, NEMA 3R WITH LOCKABLE COVER. PROVIDE FUSES, SIZE AND TYPE PER MANUFACTURER'S RECOMMENDATION. MOUNT PER DETAIL #12/E9.3.
29. POWER FOR SEA TRAIN.
30. MOUNT PER DETAILS #1/E9.5 AND #3/E9.6.
31. 3/4" - 3 #8 + 1 #10 GND.
32. CONNECT BOX TRUCK CHARGER, 208V, 1ph.
33. CONNECT HEAT TRACE, 120V AT CHILLER CONTROLLER. COORDINATE EXACT CONNECTION POINT WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. TYPICAL OF 2.
34. 3/4"C - 2 #8 + 1 #10 GND.

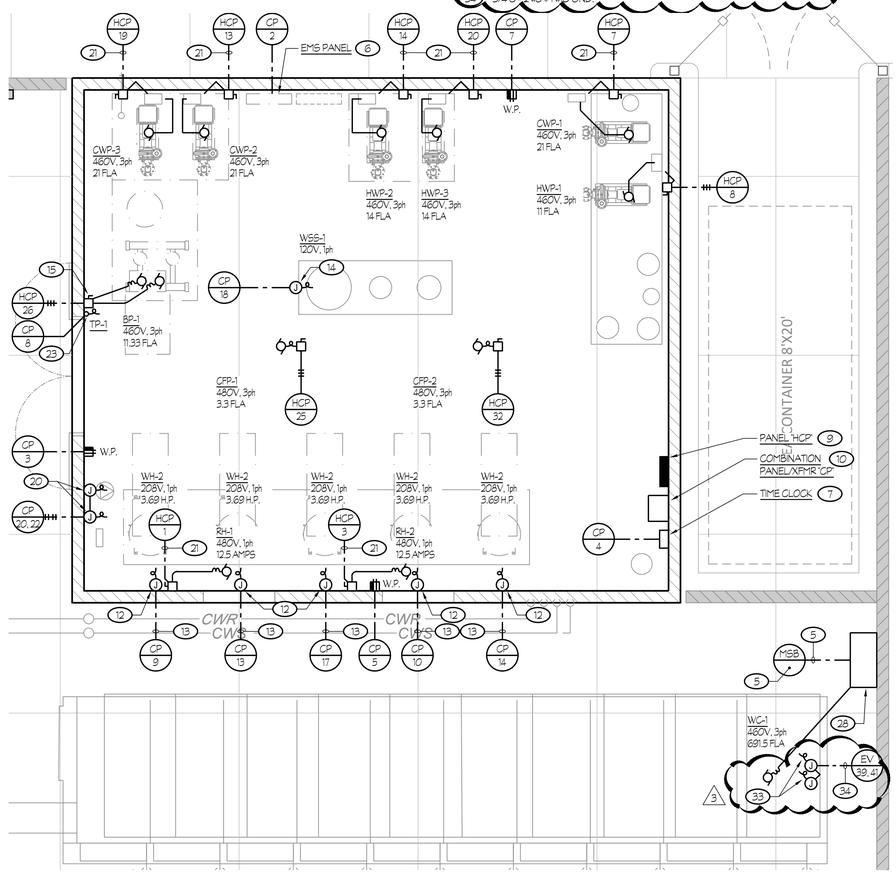
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PARTIAL ENLARGED SITE ELECTRICAL PLAN - EQUIPMENT YARD

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

north



PARTIAL ENLARGED ELECTRICAL PLAN - CENTRAL PLANT

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

north

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER — ERIK K. EASTHAM — No. E-19180 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — JAMES R. MORRELLI — No. C-33128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

3	10.15.26	ADDENDUM 3

MANGINI ARCHITECTURE INGENUITY.
MANGINI ASSOCIATES INC.
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(559) 627.0530 Office
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TITLE
PARTIAL ENLARGED SITE ELECTRICAL PLANS - EQUIPMENT YARD & CENTRAL PLANT

ES1.3R

PROJECT 24042

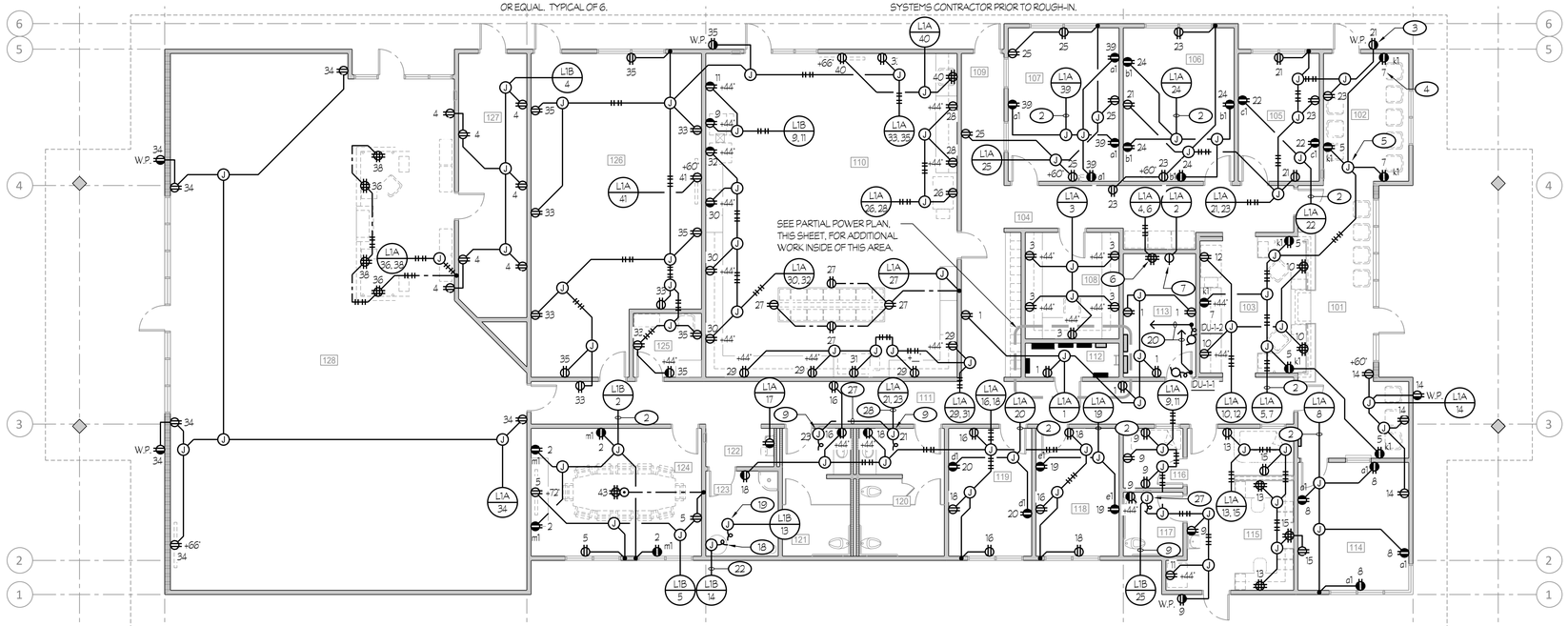
Z:\Drafting\Jobs\PDF\SCHOOLS\Sanger\Temperance Elem. School\Const Admin\Addendum 3\ES1.3R.dwg [DATE SAVED: 10/14/26 BY: Casey [DATE PLOTTED: 10/15/26 JOB #: 25-016-SE

GENERAL NOTE:

1. REFER TO DETAIL #1/E9.4 FOR CONDUIT SUPPORT DETAILS.

NOTES (THIS SHEET ONLY):

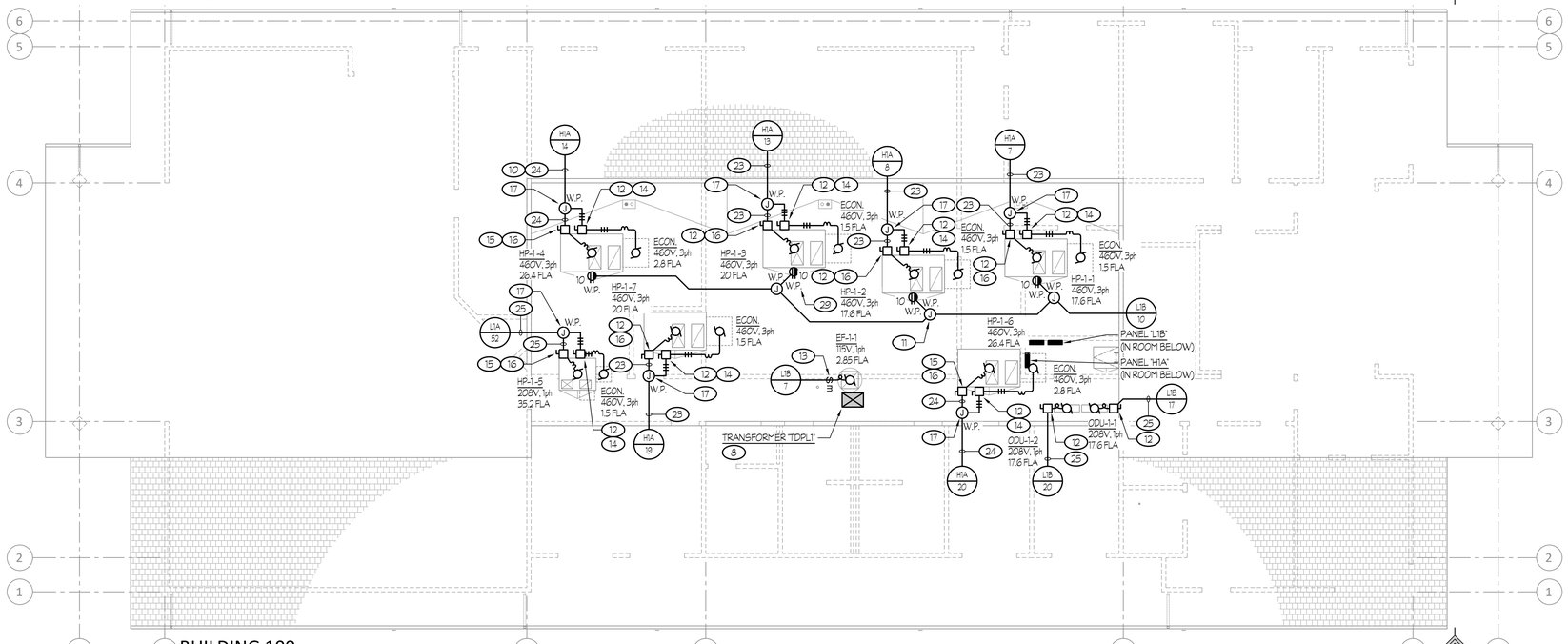
1. MOUNT PANEL PER DETAIL #2/E9.4.
2. ROUTE CIRCUIT THROUGH RECEPTACLE RELAY PACK. SEE SHEET #E1.2 FOR POWER RELAY PACK LOCATION.
3. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT +18" A.F.F., PROVIDE A DIE-CAST WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER, RED-DOT #CKSUV OR EQUAL. TYPICAL OF 6.
4. NUMBER BY DEVICE DENOTES CIRCUIT DEVICE IS TO BE CONNECTED ON, TYPICAL.
5. DENOTES JUNCTION BOX IN ACCESSIBLE ATTIC SPACE. TYPICAL, U.O.N..
6. PROVIDE DEDICATED DOUBLE DUPLEX RECEPTACLE FOR HORIZONTAL CROSS-CONNECT. COORDINATE AND VERIFY EXACT LOCATION WITH DATA SYSTEMS CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A 30A, 1-POLE RECEPTACLE (NEMA 5-30R) FOR I.D.F. CONNECTIONS.
8. MOUNT TRANSFORMER PER DETAIL #11/E9.4.
9. CONNECT HAND DRYER, 120V.
10. TYPICAL AT ALL H.V.A.C. EQUIPMENT: ROUTE BRANCH CIRCUITING UP THRU OPENING OF ROOF CURB & THEN THRU UNIT TO DISCONNECT SWITCH. PROVIDE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT INSIDE UNIT FOR ROUTING OF CONDUCTORS.
11. MOUNT JUNCTION BOX IN ACCESSIBLE ATTIC SPACE BELOW. TYPICAL, U.O.N..
12. PROVIDE 30A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
13. PROVIDE A MOTOR RATED NON-FUSED DISCONNECT SWITCH AND MOUNT ONTO EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
14. PROVIDE ENGRAVED NAMEPLATE: 'ECONOMIZER DISCONNECT'.
15. PROVIDE 60A, 3-POLE HEAVY-DUTY FUSED SAFETY SWITCH IN A NEMA 3R ENCLOSURE AND MOUNT ONTO H.V.A.C. UNIT. PROVIDE FUSES PER MANUFACTURER RECOMMENDATIONS. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
16. PROVIDE AND ENGRAVED NAMEPLATE: 'HP DISCONNECT'.
17. PROVIDE A NEW N3R SCREW COVER CAN (8" SQ. x 4" DP.) AND LOCATE AT WHERE THE BRANCH CIRCUIT ROUTES UP THRU THE ROOF.
18. CONNECT WATER HEATER, 208, 3ph, 4,500 WATTS.
19. CONNECT CIRC PUMP, 120V.
20. RUN A T'C TO RESPECTIVE ODU FOR CONTROLS. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL.
21. MOUNT DISTRIBUTION PANEL PER DETAIL #4/E9.4.
22. 3/4"C - 3 #12 + 1 #12 GND.
23. 3/4" - 3 #10 + 1 #10 GND.
24. 1" - 3 #8 + 1 #10 GND.
25. 3/4" - 2 #10 + 1 #10 GND.
26. CONNECT EMS PANEL. SEE MECH'L PLANS FOR EXACT LOCATION AND REQUIREMENTS.
27. 1/2"C - 2 #10 + 1 #10 GND.
28. 3/4"C - 4 #10 + 1 #10 GND.
29. WEATHER-RESISTANT G.F.C.I. DUPLEX RECEPTACLE AT ROOF CURB PLATFORM. MOUNT INSIDE A WEATHERPROOF OUTLET BOX EQUIPPED WITH WEATHERPROOF 'WHILE-IN-USE' LOCKABLE COVER. ROUTE BRANCH CIRCUITING UP OPENING OF ROOF CURB AND THEN THRU SIDEWALL. COVER SHALL BE A RED-DOT #CKSUV OR EQUAL. TYPICAL OF 4.



BUILDING 100

POWER PLAN

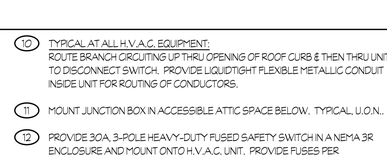
SCALE: 1/8" = 1'-0"



BUILDING 100

ROOF ELECTRICAL PLAN

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

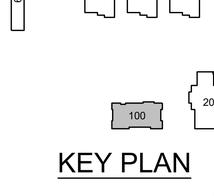


PARTIAL POWER PLAN

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

ROOM LEGEND

#	ROOM NAME	CEILING HEIGHT	#	ROOM NAME	CEILING HEIGHT
101	LOBBY	VARIES	115	NURSE	+9'-0"
102	STUDENT WAITING	VARIES	116	RECOVERY ROOM	+9'-0"
103	RECEPTION DESK	+9'-0"	117	TOILET	+9'-0"
104	HALL	+10'-0"	118	OFFICE	+9'-0"
105	OFFICE	+9'-0"	119	OFFICE	+9'-0"
106	PRINCIPAL	+9'-0"	120	WOMEN	+9'-0"
107	V. PRINCIPAL	+9'-0"	121	MEN	+9'-0"
108	WORK ROOM	+10'-0"	122	HALL	+10'-0"
109	HALL	+10'-0"	123	JANITOR	+9'-0"
110	TEACHER WORK ROOM	+10'-0"	124	CONFERENCE	+9'-0"
111	HALL	+10'-0"	125	QUIET ROOM	+9'-0"
112	ELECTRICAL	+10'-0"	126	ELOP	+10'-0"
113	DATA	+10'-0"	127	STORAGE	+9'-0"
114	ELOP OFFICE	+9'-0"	128	LIBRARY	VARIES



KEY PLAN

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

REGISTERED PROFESSIONAL ENGINEER
KIRK S. EASTHAM
No. E-9788
Exp. 6/30/27
ELECTRICAL
STATE OF CALIFORNIA

APPROVALS

FILE #	APPLICATION #
10-126	02-123774

LICENSED ARCHITECT
JAMES R. MORRELL
No. C-33128
REN. 05-31-27
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS
1 10.15.26 ADDENDUM 3

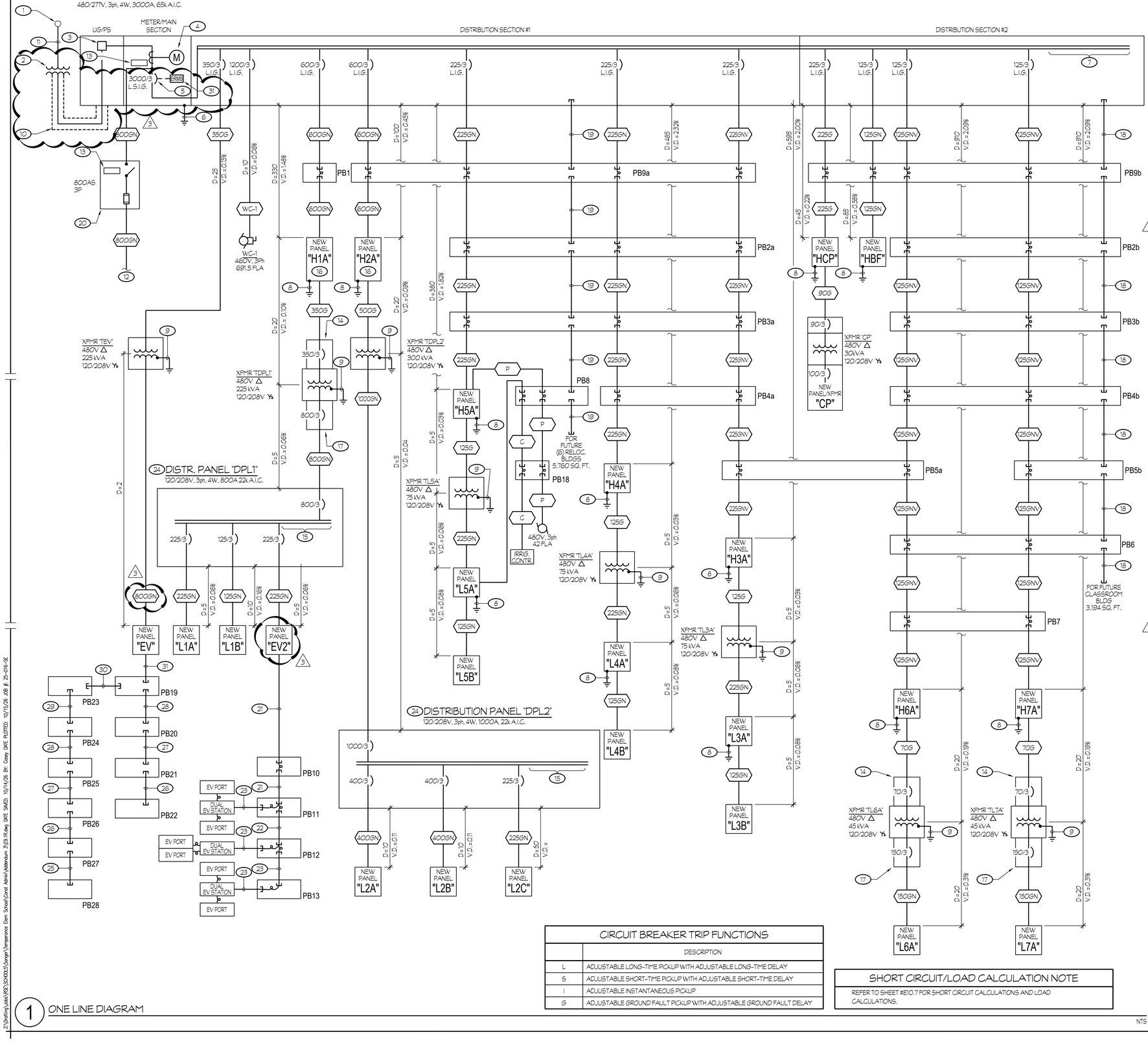
MANGINI ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4330 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
BUILDING 100
POWER PLAN
AND ROOF
ELECTRICAL PLAN

E1.1R

PROJECT **24042**

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1 ONE LINE DIAGRAM

NTS

CIRCUIT BREAKER TRIP FUNCTIONS

	DESCRIPTION
L	ADJUSTABLE LONG-TIME PICKUP WITH ADJUSTABLE LONG-TIME DELAY
S	ADJUSTABLE SHORT-TIME PICKUP WITH ADJUSTABLE SHORT-TIME DELAY
I	ADJUSTABLE INSTANTANEOUS PICKUP
G	ADJUSTABLE GROUND FAULT PICKUP WITH ADJUSTABLE GROUND FAULT DELAY

SHORT CIRCUIT/LOAD CALCULATION NOTE

REFER TO SHEET #E10.7 FOR SHORT CIRCUIT CALCULATIONS AND LOAD CALCULATIONS.

ONE LINE DIAGRAM NOTES (THIS SHEET ONLY):

1. EXISTING P.G.&E. POWER POLE. VERIFY EXACT LOCATION AND RISER QUADRANT WITH P.G.&E. PRIOR TO ROUGH-IN.
2. PROVIDE A 10'6" L x 9'0" W (STYLE I I E) CONCRETE PAD, BARRIER POSTS (FIXED AND REMOVABLE) AND GROUNDING FOR P.G.&E. PAD MOUNTED TRANSFORMER PER P.G.&E. REQUIREMENTS.
3. PROVIDE LANDING LUGS PER P.G.&E. REQUIREMENTS.
4. PROVIDE METERING FACILITIES PER P.G.&E. REQUIREMENTS.
5. MAIN CIRCUIT BREAKER SHALL BE 100% RATED ELECTRONIC TYPE, EQUIPPED WITH LONG-TIME, SHORT-TIME, INSTANTANEOUS-OFF TYPE AND GROUND FAULT TYPE CONFIGURATIONS. MAIN CIRCUIT BREAKER SHALL ALSO BE EQUIPPED WITH A TRIP INDICATOR AND LOCAL CURRENT METER SQUARE D #RK SERIES OR EQUAL.
6. 1 #3/0 TO GROUNDING ELECTRODE SYSTEM PER DETAIL #9/E9.4.
7. PROVIDE SPACE AND MOUNTING HARDWARE FOR A MINIMUM OF ONE 125A, 3-POLE CIRCUIT BREAKER AND TWO 225 AMP, 3-POLE CIRCUIT BREAKERS.
8. BOND AND GROUND REMOTE PANEL PER DETAIL #9/E9.4.
9. BOND AND GROUND TRANSFORMER PER DETAIL #9/E9.4.
10. BUS DUCT (P.G.&E. "SECONDARY") PER P.G.&E. REQUIREMENTS.
11. ONE 5"C (P.G.&E. "PRIMARY") PER P.G.&E. REQUIREMENTS.
12. SEE SOLAR ONE LINE DIAGRAM, #1/E9.7 FOR CONTINUATION.
13. PROVIDE SOLAR NAME PLATE AS REQUIRED BY C.E.C.. SEE SHEET #E9.7 FOR ADDITIONAL INFORMATION.
14. PRIMARY CIRCUIT BREAKER IN NEMA 3R ENCLOSURE.
15. PROVIDE INCHES OF CIRCUIT BREAKER MOUNTING SPACE FROM KEYNOTE (24).
16. SQUARE 'D', I-LINE #HCP OR EQUAL WITH 72" OF CIRCUT BREAKER MOUTNING SPACE. REFER TO PANEL SCHEDULE FOR ADDITIONAL PANEL INFORMATION.
17. SECONDARY CIRCUIT BREAKER IN NEMA 3R ENCLOSURE.
18. TWO SPARE 4"C (WITH NYLON PULL ROPE).
19. TWO SPARE 3"C (WITH NYLON PULL ROPE).
20. NEMA 3R HEAVY DUTY FUSED DISCONNECT SWITCH.
21. 1 1/4"C - 6 #6 + 1 #8 GND.
22. 1"C - 4 #8 + 1 #10 GND.
23. 1"C - 2 #8 + 1 #10 GND.
24. SQUARE 'D', 'HCM', I-LINE OR EQUAL WITH 54" OF CIRCUIT BREAKER MOUNTING SPACE.
25. 1-1/2"C SPARE (WITH NYLON PULL ROPE).
26. TWO 1-1/2"C SPARE (WITH NYLON PULL ROPE).
27. FOUR 1-1/2"C SPARE (WITH NYLON PULL ROPE).
28. SIX 1-1/2"C SPARE (WITH NYLON PULL ROPE).
29. EIGHT 1-1/2"C SPARE (WITH NYLON PULL ROPE).
30. TEN 1-1/2"C SPARE (WITH NYLON PULL ROPE).
31. EIGHTEEN 1-1/2"C SPARE (WITH NYLON PULL ROPE).
3. PROVIDE AN ENERGY REDUCING MAINTENANCE SWITCH (E.R.M.S.) WITH A LOCAL STATUS INDICATOR TO COMPLY WITH C.E.C. 240.87. WHEN THE SWITCH IS IN THE INSTANTANEOUS PICK-UP SETTING, IT MUST DEFAULT TO NO MORE THAN TWICE (2X) THE AMPERAGE OF THE SENSOR RATING.

NEW FEEDER SCHEDULE:

(ALL CONDUCTORS IN 480V OR 480/277V UNDERGROUND FEEDERS SHALL BE CU-XHHW-2. ALL OTHER CONDUCTORS , INCLUDING THE EQUIPMENT GROUNDING CONDUCTOR, SHALL BE CU-THWN-2 FOR #8 AWG OR LARGER AND CU-THWN FOR #10 AWG OR SMALLER).

70G	1"C - 3 #6 + 1 #8 GND.
90G	1 1/2"C - 3 #4 + 1 #8 GND.
125G	1-1/2"C - 3 #2 + 1 #6 GND.
125GN	1-1/2"C - 4 #2 + 1 #6 GND.
225GN	TWO 2"C - 4 #1/0 + 1 #4 GND IN EACH.
150GN	1-1/2"C - 4 #1 + 1 #6 GND.
225G	2"C - 3 #4/0 + 1 #4 GND.
225GN	2-1/2"C - 4 #4/0 + 1 #4 GND.
225GNV	3"C - 4 #350 kcmil + 1 #1 GND.
350G	3"C - 3 #400 kcmil + 1 #1/0 GND.
400GN	3-1/2"C - 4 #500 kcmil + 1 #2 GND.
500G	TWO 3"C - 3 #250 kcmil + 1 #3/0 GND EACH.
600GN	TWO 3"C - 4 #350 kcmil + 1 #1 GND EACH.
800GN	TWO 3"C - 4 #500 kcmil + 1 #1/0 GND EACH.
1200GN	FOUR 3"C - 4 #350 kcmil + 1 #2/0 GND EACH.
WC-1	TWO 4"C - 3 #750 kcmil + 1 #3/0 GND IN EACH.
P	1 1/4"C - 3 #4 + 1 #6 GND.
C	1"C - 2 #10 + 1 #10 GND.

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

LICENSED ARCHITECT JAMES R. MORRELL No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS

3	10.15.26	ADDENDUM 3

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4330 West Mineral King Avenue
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www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE: ONE LINE DIAGRAM

E9.1R

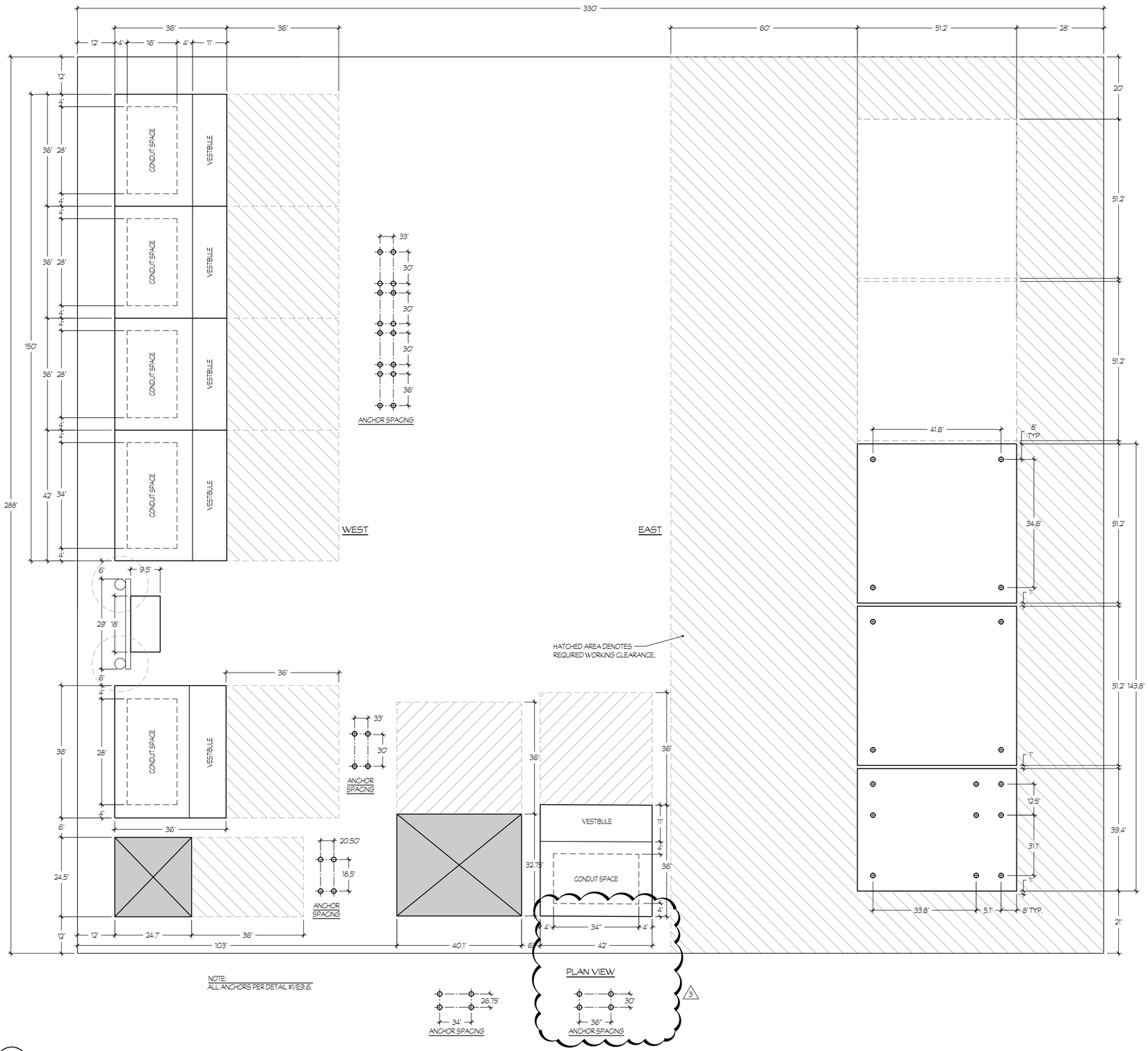
PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER KIRK EATON No. E-19760 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

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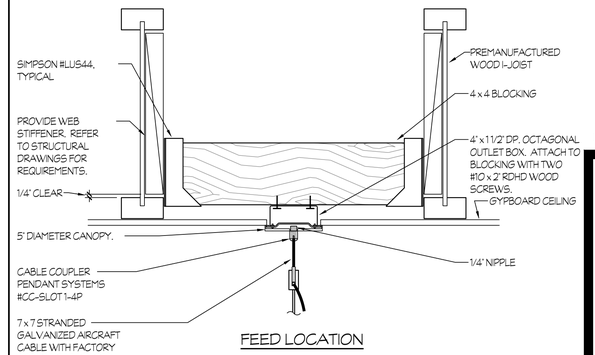
APPROVALS
FILE # 10-126
APPLICATION # 02-123774



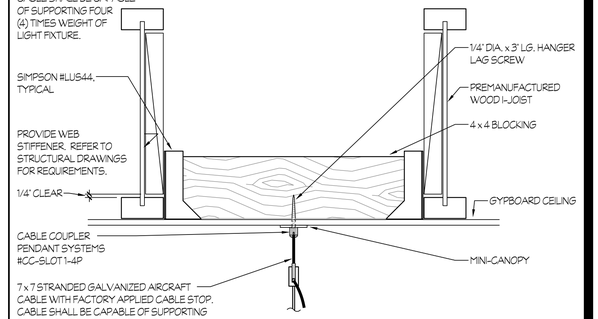
NOTE:
ALL ANCHORS PER DETAIL #1/E9.6.

1 MAIN SWITCHBOARD "MSB", PV DISCONNECT, PV PANEL AND BATTERY CABINET MOUNTING - PLAN VIEW

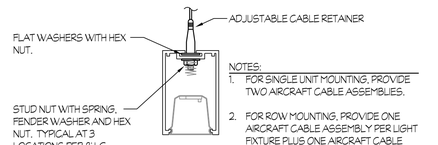
NTS



FEED LOCATION



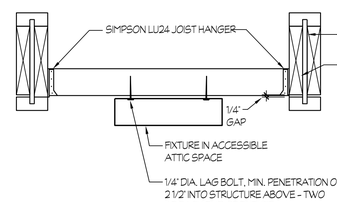
NON-FEED LOCATION



NOTES:
1. FOR SINGLE UNIT MOUNTING, PROVIDE TWO AIRCRAFT CABLE ASSEMBLIES.
2. FOR ROW MOUNTING, PROVIDE ONE AIRCRAFT CABLE ASSEMBLY PER LIGHT FIXTURE PLUS ONE AIRCRAFT CABLE ASSEMBLY PER ROW. PLACE ASSEMBLIES AT EACH END OF ROW AND AT EACH CONNECTION POINT BETWEEN ADJACENT LIGHT FIXTURES.

2 AIR CRAFT CABLE MOUNTING

NTS



3 FIXTURE TYPE "Y" AND "YE" MOUNTING

NTS

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Visalia, California 93292-6705

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TITLE
DETAILS

E9.5R

PROJECT 24042

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APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

480/277V, 3 PH, 4 W — 22K BREAKER A.I.C.
125 A. BUSSING — 125 A. MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
30 CIRCUIT — SURF MOUNTING

PANEL "HBF"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	3864			LIGHTS - BALL FIELD	SPARE				20/1	2
3	20/1		3864		LIGHTS - BALL FIELD	SPARE				20/1	4
5	20/1			3864	LIGHTS - BALL FIELD	SPARE				20/1	6
7	20/1	3864			LIGHTS - BALL FIELD	SPARE				20/1	8
9	20/1		3864		LIGHTS - BALL FIELD	SPARE				20/1	10
11	20/1			500	LIGHTING CONTROL PNL	SPARE				20/1	12
13	20/1				SPARE	SPARE				20/1	14
15	20/1				SPARE	SPARE				20/1	16
17	20/1				SPARE	SPARE				20/1	18
19	20/1				SPARE	SPARE				20/1	20
21	20/1				SPARE	SPARE				20/1	22
23	20/1				SPARE	SPARE				20/1	24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	7728	7728	4364	TOTAL CALCULATED
25% LCL/LML (VA) :	1932	1932	966	LOAD FOR PANEL:
TOTAL LOAD (VA) :	9660	9660	5330	24650 VA
TOTAL LOAD (AMPS) :	34.9	34.9	19.2	

120/208V, 3 PH, 4 W — 22K BREAKER A.I.C.
225 A. BUSSING — 225 A. MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
30 CIRCUIT — SURF MOUNTING

PANEL "EV2" (3)

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	40/2	3600			EV STATION	EV STATION			3600	40/2	2
3			3600					3600			4
5	40/2			3600	EV STATION	EV STATION	3600			40/2	6
7		3600							3600		8
9	40/2		3600		EV STATION	SPARE				20/1	10
11				3600		SPARE				20/1	12
13	40/2	3600			EV STATION	SPARE				20/1	14
15			3600			SPARE				20/1	16
17	20/1				SPARE	SPARE				20/1	18
19	20/1				SPARE	SPARE				20/1	20
21	20/1				SPARE	SPARE				20/1	22
23	20/1				SPARE	SPARE				20/1	24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	18000	14400	10800	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	18000	14400	10800	43200 VA
TOTAL LOAD (AMPS) :	150.0	120.0	90.0	

480/277V, 3 PH, 4 W — 22K BREAKER A.I.C.
600 A. BUSSING — 600 A. MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
42 CIRCUIT — SURF MOUNTING

PANEL "H1A"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	2401			LIGHTS - ADMIN	LIGHTS - EXTERIOR			450	20/1	2
3	20/1		2395		LIGHTS - LIBRARY, TWR	LIGHTS - PARKING LOT		2965		20/1	4
5	20/1				SPARE	LIGHTS - WALKWAY	1674			20/1	6
7	30/3	5291			HP-1-1/ECON., 19.1 FLA	HP-1-2/ECON., 19.1 FLA			5291	30/3	8
9			5291					5291			10
11				5291			5291				12
13	40/3	5956			HP-1-3/ECON., 21.5 FLA	HP-1-4/ECON., 29.2 FLA			8089	50/3	14
15			5956					8089			16
17				5956			8089				18
19	40/3	5956			HP-1-7/ECON., 21.5 FLA	HP-1-6/ECON., 29.2 FLA			8089	50/3	20
21			5956					8089			22
23				5956			8089				24
25					SPACE	SPACE					26
27					SPACE	SPACE					28
29					SPACE	SPACE					30
31					SPACE	SPACE					32
33					SPACE	SPACE					34
35					SPACE	SPACE					36
37	350/3	39917				SPACE					38
39			39917		TRANSFORMER "TL1A"	SPACE					40
41				39917		SPACE					42

(3)

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	81440	83949	80263	TOTAL CALCULATED
25% LCL/LML (VA) :	713	1340	419	LOAD FOR PANEL:
TOTAL LOAD (VA) :	82153	85289	80682	248123 VA
TOTAL LOAD (AMPS) :	296.6	307.9	291.3	

120/208V, 3 PH, 4 W — 22K BREAKER A.I.C.
800 A. BUSSING — 800 A. MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
42 CIRCUIT — SURF MOUNTING

PANEL "EV"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	40/2	3600			FUTURE EV STATION	FUTURE EV STATION			3600	40/2	2
3			3600					3600			4
5	40/2			3600	FUTURE EV STATION	FUTURE EV STATION	3600			40/2	6
7		3600							3600		8
9	40/2		3600		FUTURE EV STATION	FUTURE EV STATION		3600		40/2	10
11				3600			3600				12
13	40/2	3600			FUTURE EV STATION	FUTURE EV STATION			3600	40/2	14
15			3600					3600			16
17	40/2			3600	FUTURE EV STATION	FUTURE EV STATION	3600			40/2	18
19		3600							3600		20
21	40/2		3600		FUTURE EV STATION	FUTURE EV STATION		3600		40/2	22
23				3600			3600				24
25	40/2	3600			FUTURE EV STATION	FUTURE EV STATION			3600	40/2	26
27			3600					3600			28
29	40/2			3600	FUTURE EV STATION	FUTURE EV STATION	3600			40/2	30
31		3600							3600		32
33	40/2		3600		FUTURE EV STATION	FUTURE EV STATION		3600		40/2	34
35				3600			3600				36
37					SPACE	FUTURE EV STATION			3600	40/2	38
39	50/1		4440		CHILLER HEAT STRIP			3600			40
41	50/1			4440	CHILLER HEAT STRIP	SPACE					42

(3)

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	46800	51240	47640	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	46800	51240	47640	145680 VA
TOTAL LOAD (AMPS) :	390.0	427.0	397.0	

120/208V, 3 PH, 4 W — 22K BREAKER A.I.C.
225 A. BUSSING — NO MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
54 CIRCUIT — SURF MOUNTING

PANEL "L1A"

CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT
1	20/1	1080			RECEPT- ELEC., DATA RM	RECEPT - DATA RACK			2500	30/1	2
3	20/1		900		RECEPT - WORK ROOM	RECEPT - DATA RACK		1250		20/1	4
5	20/1			720	RECEPT - CONTROLLED	RECEPT - DATA RACK	1250			20/1	6
7	20/1	500			RECEPT- CONTROLLED	RECEPT- CONTROLLED			720	20/1	8
9	20/1		1080		RECEPT- NURSE	RECEPT- RECEPTION		900		20/1	10
11	20/1			800	RECEPT - REFRIGERATOR	RECEPT - COPIER	1500			20/1	12
13	20/1	900			RECEPT- NURSE	REECPT - CONFERENCE			720	20/1	14
15	20/1		720		RECEPT- NURSE	RECEPT- OFFICES, TOILET		900		20/1	16
17	20/1			370	RECEPT- E.D.F.	RECEPT- OFFICES, TOILET	900			20/1	18
19	20/1	360			RECEPT- CONTROLLED	RECEPT- CONTROLLED			360	20/1	20
21	20/1		720		RECEPT- OFFICES	RECEPT- CONTROLLED		360		20/1	22
23	20/1			900	RECEPT- OFFICES	RECEPT- CONTROLLED	720			20/1	24
25	20/1	900			RECEPT- OFFICES	RECEPT - COPIER			1500	20/1	26
27	20/1		720		RECEPT- T.W.R.	RECEPTER - COUNTER		1000		20/1	28
29	20/1			720	RECEPT- T.W.R.	RECEPT- T.W.R.	720			20/1	30
31	20/1	1500			RECEPT- COPIER	RECEPT- VENDING MACH.			1500	20/1	32
33	20/1		1260		RECEPT- ELOP	RECEPT- LIBR, EXTERIOR		1260		20/1	34
35	20/1			1260	RECEPT- ELOP	RECEPT- LIBRARY	720			20/1	36
37	20/1	500			RECEPT- LIBRARY	AUTO DEMAND RESPONSE			720	20/1	38
39	20/1		720		RECEPT - CONTROLLED	RECEPT- T.V.		500		20/1	40
41	20/1			500	RECEPT - T.V.	EF-1-2, 4.75 FLA	570			20/1	42
43	20/1	500			EMS PANEL	RECEPT - AMPITHEATER			540	20/1	44
45	20/1		1440		RECEPT - PV CANOPY	GATE/DOOR POWER		200		20/1	46
47	20/1			792	LIGHTS - PV CANOPY	SPARE				20/1	48
49					SPACE	SPACE					50
51					SPACE	HP-1-5, 35.2 FLA		4224		60/2	52
53					SPACE		4224				54

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	14800	18154	16666	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	198	LOAD FOR PANEL:
TOTAL LOAD (VA) :	14800	18154	16864	49818 VA
TOTAL LOAD (AMPS) :	123.3	151.3	140.5	

120/208V, 3 PH, 4 W — 22K BREAKER A.I.C.
225 A. BUSSING — NO MAIN BKR. — 5 3/4" MAX. ENCL. DEPTH
30 CIRCUIT — SURF MOUNTING

PANEL "L1B"

	CKT	BKR	LOAD: V.A. A	B	C	DESCRIPTION	DESCRIPTION	LOAD: V.A. C	B	A	BKR	CKT	
(1)	1	20/1	500			F.A. CONTROL PANEL	RECEPT - CONTROLLED			720	20/1	2	
(1)	3	20/1		500		LOCAL OPRTNG CONSOLE	RECEPT - STORAGE		1260		20/1	4	
	5	20/1			900	RECEPT- CONFERENCE	LIGHTING CONTROL PNL	500			20/1	6	
(2)	7	20/1	342			EF-1-1, 2.85 FLA	FIRE ALARM BELL			500	20/1	8	(1)
	9	20/1		1500		RECEPT- VENDING MACH.	RECEPT W.P. ON ROOF		720		20/1	10	
	11	20/1			1500	RECEPT- VENDING MACH.	RELAY MODULES	350			20/1	12	(1)
	13	20/1	85			CIRC PUMP				1500	20/3	14	
	15	20/1				SPARE	WH-1		1500			16	(2)
	17	30/2			2112	ODU-1-1, 17.6 FLA		1500				18	
	19		2112				ODU-1-2, 17.6 FLA			2112	30/2	20	
	21	20/1		1450		HAND DRYER			2112			22	
	23	20/1			1450	HAND DRYER	SPARE				20/1	24	
	25	20/1	1450			HAND DRYER	SPACE					26	
	27					SPACE	SPACE					28	
	29					SPACE	SPACE					30	

LOAD SUMMARY	A	B	C	
CONNECTED LOAD (VA) :	9321	9042	8312	TOTAL CALCULATED
25% LCL/LML (VA) :	0	0	0	LOAD FOR PANEL:
TOTAL LOAD (VA) :	9321	9042	8312	26675 VA
TOTAL LOAD (AMPS) :	77.7	75.4	69.3	

TYPICAL PANEL SCHEDULE NOTES:

(1) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, 'RED IN COLOR', SPACEAGE #ELOCK-FA OR EQUAL. PROVIDE AN ENGRAVED NAMEPLATE: 'FIRE ALARM CIRCUIT', WHITE LETTERS ON A RED BACKGROUND. MOUNT NAMEPLATE ONTO INTERIOR TRIM AND ADJACENT TO CIRCUIT BREAKER.

(2) PROVIDE A LOCK-ON DEVICE AT THIS CIRCUIT BREAKER, SPACEAGE #ELOCK-FA OR EQUAL.

(3) PROVIDE SUB-FEED CIRCUIT BREAKER KIT.

LICENSED ARCHITECT — JAMES R. MORRELL — No. C-33128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS
3 — 10.15.25 — ADDENDUM 3

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0630 Office
(559) 627.1926 Fax

TITLE
BUILDING 100
PANEL SCHEDULES

E10.1R

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER — KIRK D. EASTHAM — No. E-19786 — Exp. 6/30/27 — ELECTRICAL — STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth – (559)733-2671
Visalia, California 93292-6705

Z:\Drafting\Jobs\RSE\SJ24003\Sanger\Temperance Elem School\Const Admin\Addendum 3\E10.1R.dwg DATE SAVED: 10/14/25 Br. Casey DATE PLOTTED: 10/15/25 JOB # J25-016-SE

LOAD CALCULATION:

BUILDING 100	
LIGHTS x 125%	12.6 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	27.7 kVA
H.V.A.C. x 125%	192.6 kVA
MISCELLANEOUS x 100%	12.25 kVA
(6) E.V. STATIONS x 100%	43.2 kVA
TOTAL	288.35 kVA
AT 120/208V 3ph 4W	346.8 AMPS
BUILDING 200	
LIGHTS x 125%	8.7 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.6 kVA
H.V.A.C. x 125%	71.4 kVA
MISCELLANEOUS x 100%	21.8 kVA
COOKING EQUIPMENT x 65%	139.6 kVA
TOTAL	261.1 kVA
AT 120/208V 3ph 4W	314.1 AMPS
BUILDING 300	
LIGHTS x 125%	8.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.8 kVA
H.V.A.C. x 125%	42.8 kVA
MISCELLANEOUS x 100%	12.75 kVA
TOTAL	83.85 kVA
AT 120/208V 3ph 4W	100.9 AMPS
BUILDING 400	
LIGHTS x 125%	8.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.8 kVA
H.V.A.C. x 125%	42.8 kVA
MISCELLANEOUS x 100%	12.75 kVA
TOTAL	83.85 kVA
AT 120/208V 3ph 4W	100.9 AMPS
BUILDING 500	
LIGHTS x 125%	8.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	19.8 kVA
H.V.A.C. x 125%	42.8 kVA
MISCELLANEOUS x 100%	48.2 kVA
TOTAL	119.3 kVA
AT 120/208V 3ph 4W	143.5 AMPS
BUILDING 600	
LIGHTS x 125%	5.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	12.3 kVA
H.V.A.C. x 125%	22.5 kVA
MISCELLANEOUS x 100%	16.3 kVA
TOTAL	56.6 kVA
AT 120/208V 3ph 4W	68.1 AMPS
BUILDING 700	
LIGHTS x 125%	2.8 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	10.4 kVA
H.V.A.C. x 125%	16.2 kVA
MISCELLANEOUS x 100%	4.2 kVA
TOTAL	33.6 kVA
AT 120/208V 3ph 4W	40.4 AMPS
BUILDING 800	
LIGHTS x 125%	0.32 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	0.54 kVA
H.V.A.C. x 125%	142.1 kVA
MISCELLANEOUS x 100%	20.25 kVA
TOTAL	163.04 kVA
AT 120/208V 3ph 4W	196.107 AMPS
SITE	
BALL FIELD LIGHTS x 125%	24.2 kVA
MISCELLANEOUS x 100%	191.5 kVA
(19) FUTURE E.V. STATIONS x 100%	136.8 kVA
(6) FUTURE RELOCS	123 kVA
TOTAL	475.5 kVA
AT 120/208V 3ph 4W	572 AMPS
FUTURE BUILDING	
LIGHTS x 125%	5.5 kVA
RECEPTACLES (FIRST 10 kVA @ 100%, REMAINDER @ 50%)	12.3 kVA
H.V.A.C. x 125%	22.5 kVA
MISCELLANEOUS x 100%	16.3 kVA
TOTAL	56.6 kVA
AT 120/208V 3ph 4W	68.1 AMPS
GRAND TOTAL FOR ALL BUILDINGS	1,622 kVA
AT 480/277V 3ph 4W	1,952 AMPS

THEREFORE THE 3000 AMP SERVICE IS ADEQUATE.

SHORT CIRCUIT CURRENT (SCC) CALCULATIONS

DESIGNATION	CALCULATED SCC	MINIMUM EQUIPMENT A.I.C. RATING
MAIN SWITCHBOARD 'MSB'	65,000 (3)	65,000
PANEL 'H1A'	20,732	22,000
DISTRIBUTION PANEL 'DPL1'	10,453	22,000
PANEL 'L1A'	10,125	22,000
PANEL 'L1B'	8,935	22,000
PANEL 'EV2'	10,125	22,000
PANEL 'H2A'	34,728	35,000
DISTRIBUTION PANEL 'DPL2'	15,215	22,000
PANEL 'L2A'	14,352	22,000
PANEL 'L2B'	14,352	22,000
PANEL 'L2C'	10,344	22,000
PANEL 'H3A'	7,472	22,000
PANEL 'L3A'	3,715	22,000
PANEL 'L3B'	3,606	22,000
PANEL 'H4A'	6,874	22,000
PANEL 'L4A'	3,646	22,000
PANEL 'L4B'	3,541	22,000
PANEL 'H5A'	8,525	22,000
PANEL 'L5A'	4,309	22,000
PANEL 'L5B'	4,163	22,000
PANEL 'H6A'	4,440	22,000
PANEL 'L6A'	1,826	22,000
PANEL 'H7A'	4,440	22,000
PANEL 'L7A'	1,826	22,000
PANEL 'HCP'	36,424	35,000
PANEL 'HBP'	13,285	22,000
PANEL 'EV'	12,215 (3)	22,000

(1) SERIES RATINGS MAY BE USED TO ACHIEVE THE REQUIRED MINIMUM EQUIPMENT A.I.C. RATING. PROVIDE AN ENGRAVED NAMEPLATE WHICH INDICATES THIS APPLICATION TO COMPLY WITH C.E.C. ARTICLES 110.22(C), 240.83(C) AND 240.86(B).

(2) THE SHORT CIRCUIT CURRENT CALCULATIONS AND MINIMUM EQUIPMENT A.I.C. RATINGS ARE "PRELIMINARY" AND ARE FOR BIDDING PURPOSES ONLY. THE SHORT CIRCUIT AND PROTECTIVE DEVICE COORDINATION STUDY, REQUIRED BY THE PROJECT MANUAL, WILL DETERMINE THE ACTUAL SHORT CIRCUIT CURRENT VALUES.

(3) THE AVAILABLE FAULT CURRENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT TO COMPLY WITH C.E.C. ARTICLE 110.24. THE FIELD MARKING SHALL INCLUDE THE DATE THAT THE FAULT CURRENT CALCULATION WAS PERFORMED. THE LABEL SHALL BE PRINTED IN COLOR AND ON SELF-ADHESIVE NYLON OR VINYL DIE CUT STOCK.

APPROVALS

FILE # 10-126 APPLICATION # 02-123774

LICENSED ARCHITECT JAMES R. MORRELL No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS
3 10.15.26 ADDENDUM 3

MANGINI ARCHITECTURE | INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE
CALCULATIONS

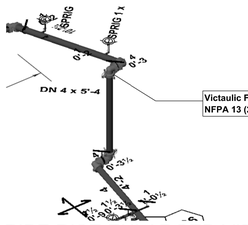
E10.7R

PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER KIRK S. [illegible] No. E-19780 Exp. 6/30/27 ELECTRICAL STATE OF CALIFORNIA

Rose Sing Eastham & Associates
Electrical Consultants
131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

Z:\Drafting\Jobs\RSES\25-0103.S\Sanger\Temperance Elem. School\Const. Admin\Addendum 3\E10.7R.dwg DATE SAVED: 10/14/26 BY: Casey DATE PLOTTED: 10/15/26 JOB #: 25-0116-SE



PIPE RISE ENLARGED VIEW

SCALE: N.T.S.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces:
Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK3001	XT1	116	5.6	Upright	½	Quick	Brass	200°F	
	Viking	VK680	QREC	1	8	Horizontal Concealed Sidewall	¾	Quick	Brass	165°F	
	Viking	VK4621		94	5.6	Concealed Pendent	½	Quick	Brass	155°F	
	Viking	VK481		3	5.6	Horizontal Concealed Sidewall	½	Quick	Brass	205°F	
				Total = 214							

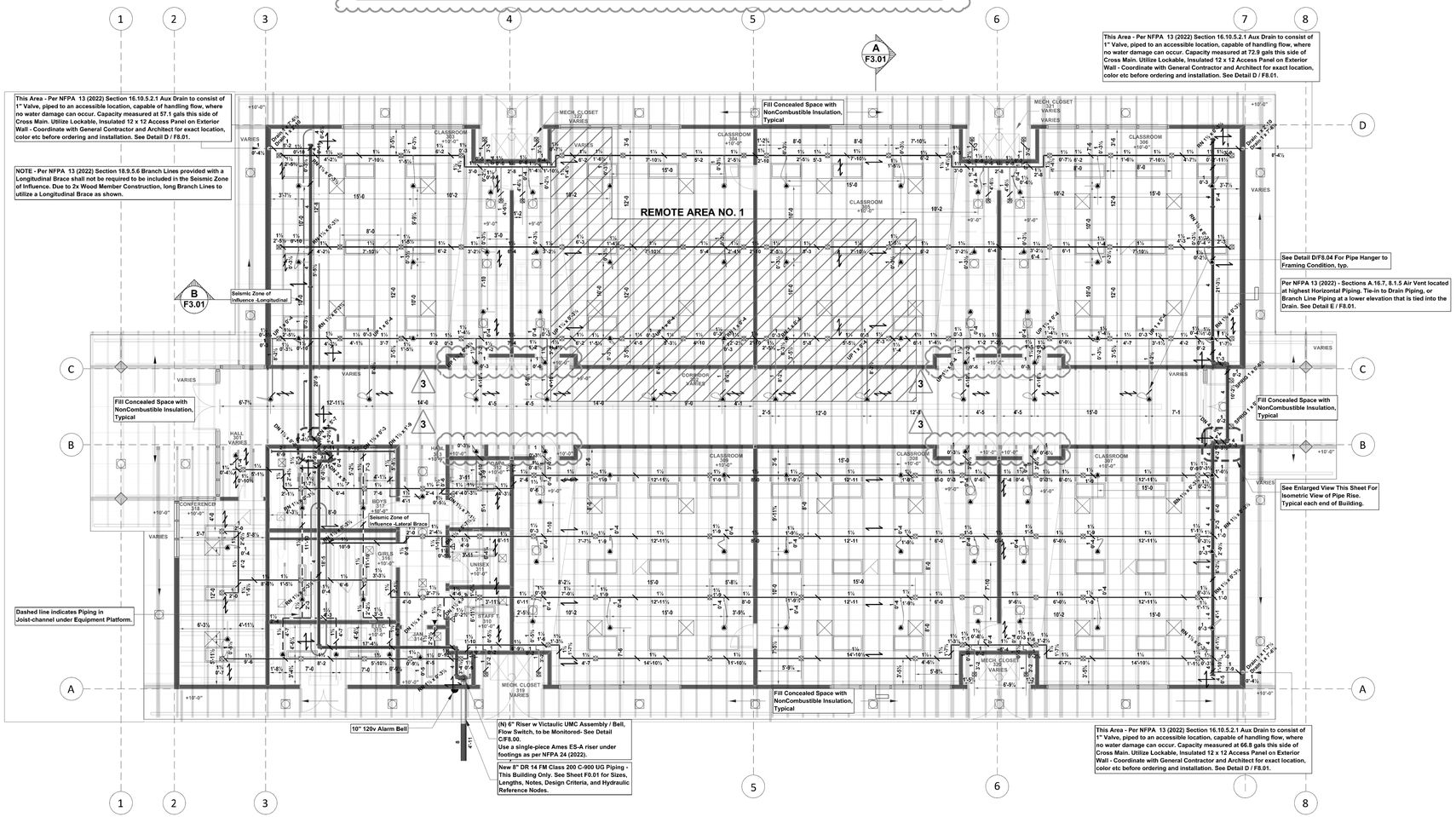
Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1440.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	15 (8' x 12' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95
TOTAL PRESSURE REQUIRED	34.444
BASE of RISER (gpm) (BOR)	239.95
BASE of RISER (psi) (BOR)	24.885
SAFETY MARGIN (psi)	+16.182 (32.0%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area



BUILDING 300 FIRE PROTECTION PIPING PLAN

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

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

	Seismic Coefficient (Cp)		
Pipe (in.)	Cp ≤ 0.50	0.5 < Cp ≤ 0.71	Cp > 0.71
1"	43	36	28
1-1/4"	46	38	29
1-1/2"	49	41	31
2"	53	44	34

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER — JOHN W. CARLSON — No. M34846 Exp. 6-30-26 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101 Fresno, CA 93720
(559) 431-0101 FAX (559) 431-1362
25026

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

LICENSED ARCHITECT — JAMES R. MONTEILH — No. C-33128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

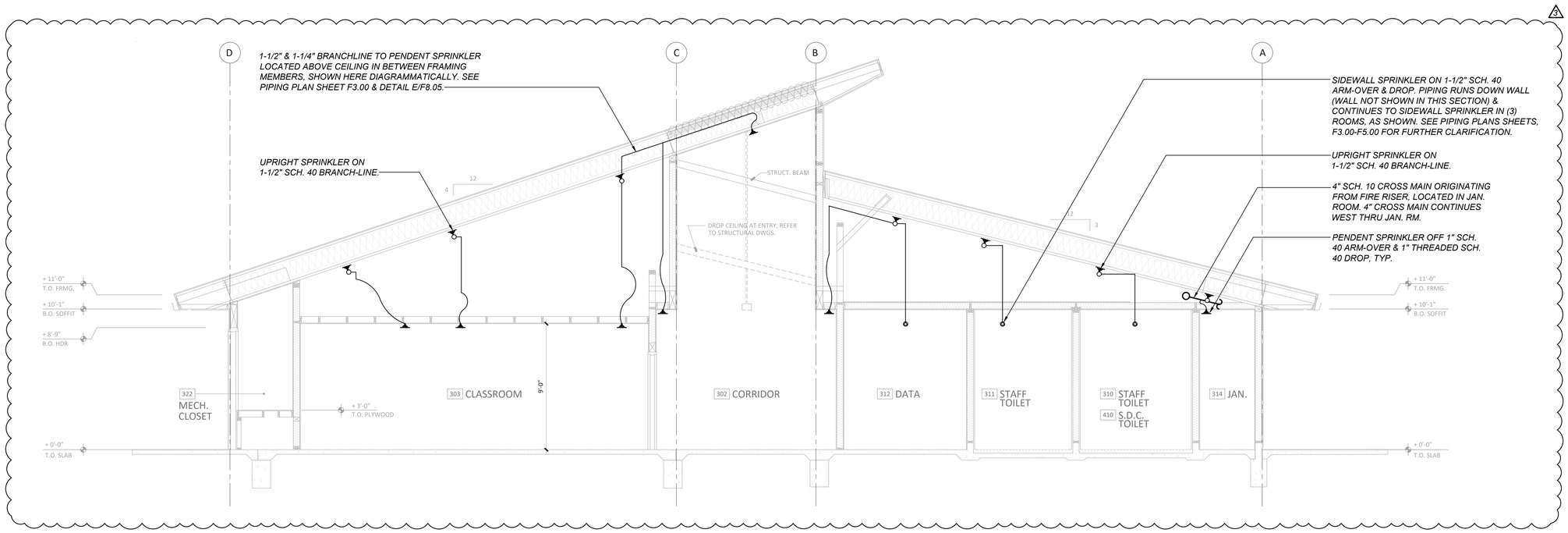
REVISIONS		
3	10-16-26	ADDENDUM 3

MANGINI ARCHITECTURE / ENGINEERING
MANGINI ASSOCIATES INC.
4300 W. Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627 1926 Office
(559) 627 1926 Fax

TITLE
BUILDING 300
FIRE PROTECTION
PIPING PLAN

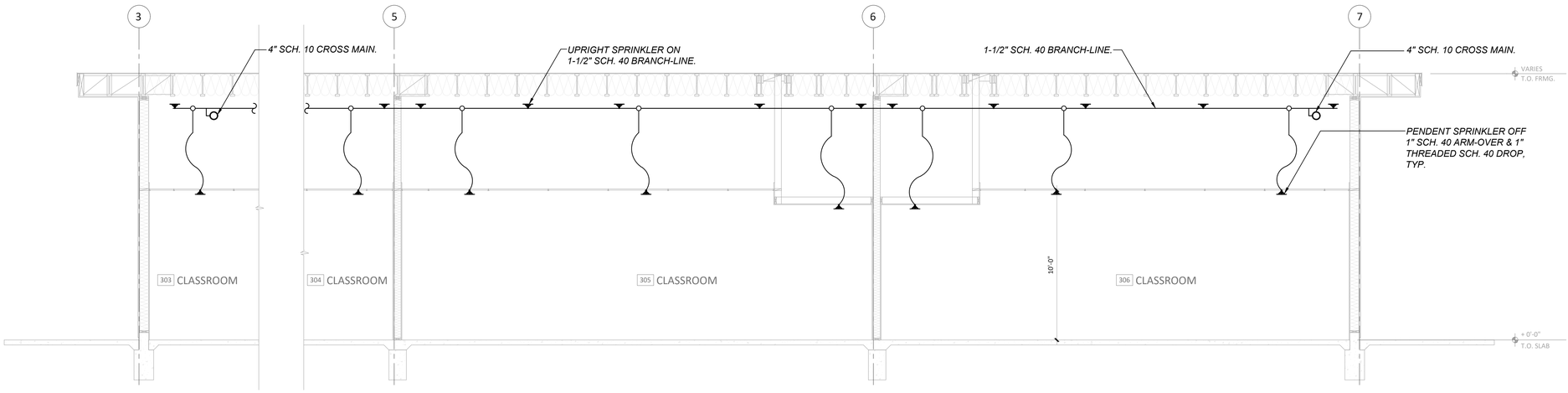
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PROJECT 24042



(A) SECTION - BLDGS 300-500

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



(B) SECTION - BLDGS 300-500

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

APPROVALS

FILE # 10-126 | APPLICATION # 02-123774

LICENSED ARCHITECT JAMES R. MORRELL No. C-33128 REN. 05-31-27 STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL

SANGER UNIFIED SCHOOL DISTRICT

SANGER, FRESNO COUNTY, CA

REVISIONS

3 10-16-26 ADDENDUM 3

MANGINI | ARCHITECTURE INGENUITY

MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291

www.mangini.us
(559) 627-0530 Office
(559) 627-1926 Fax

TITLE

FIRE PROTECTION PIPING SECTIONS BLDGS. 300-500

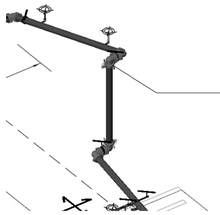
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PROJECT 24042

REGISTERED PROFESSIONAL ENGINEER BRIAN W. CARLSON No. M34846 Exp. 6-30-28 MECHANICAL STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
25026
Fresno, CA 93727
FAX (559) 431-1362

15 October 2026 8:43 AM P:\2025\25026 Sanger USD Temperance ES\4-Drawings\6 F\F3.01 - Bldg 300-500 Fire Sections.dwg tim



Victaulic Flexible Coupling Per NFPA 13 (2022) Section 18.2.3.1.

PIPE RISE ENLARGED VIEW

SCALE: N.T.S.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces:
Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

3

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
	Viking	VK3001	Viking	2	5.6	Upright		Quick	Brass	200°F	
	Viking	VK680	QREC	1	8	Horizontal Concealed Sidewall		Quick	Brass	165°F	
	Viking	VK3001	XT1	114	5.6	Upright	⅛	Quick	Brass	200°F	
	Viking	VK4621		94	5.6	Concealed Pendent	⅛	Quick	Brass	155°F	
	Viking	VK481		4	5.6	Horizontal Concealed Sidewall		Quick	Brass	205°F	
				Total = 215							

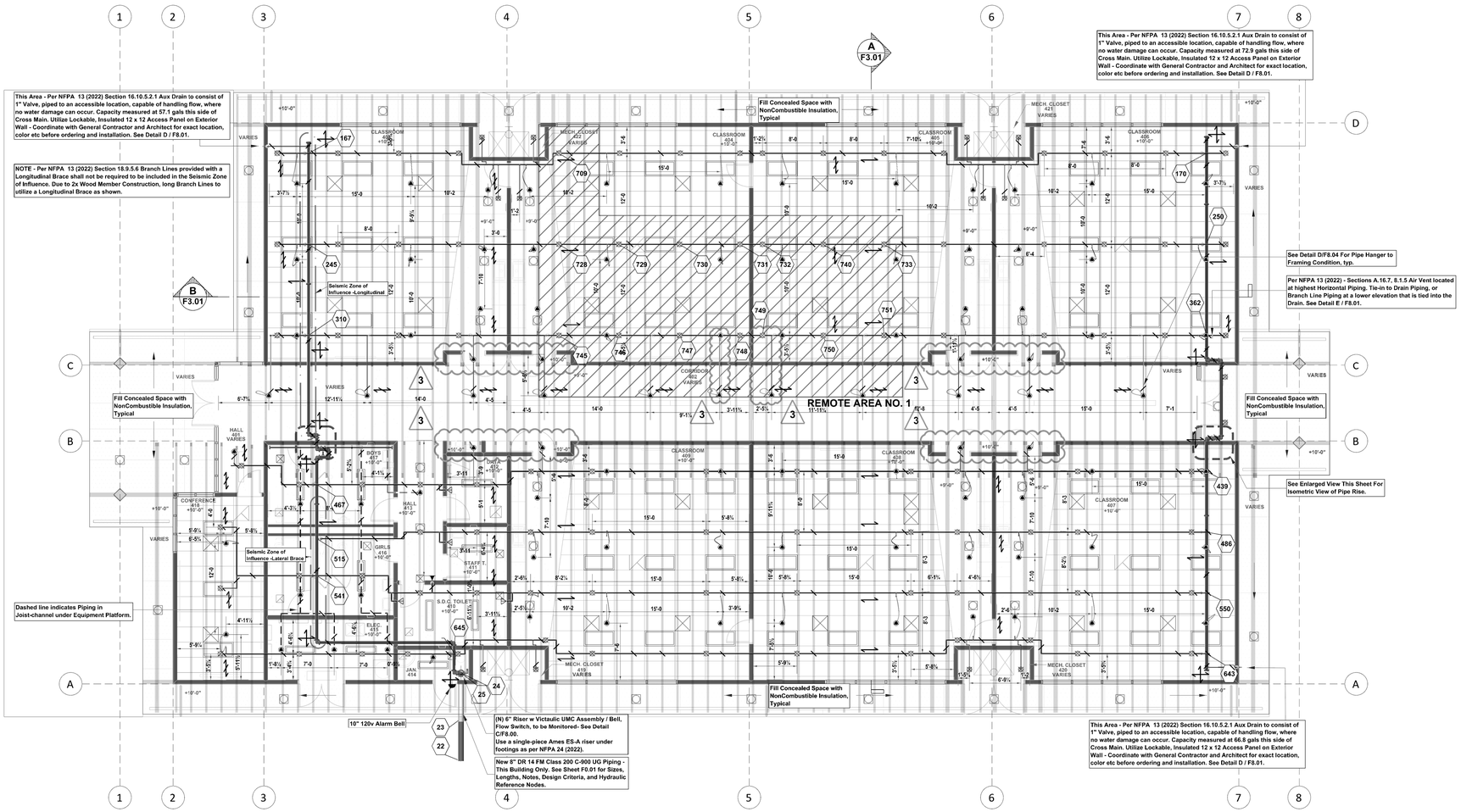
Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1440.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	15 (8' x 12' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95
TOTAL PRESSURE REQUIRED	34.440
BASE of RISER (gpm) (BOR)	239.95
BASE of RISER (psi) (BOR)	24.907
SAFETY MARGIN (psi)	+16.186 (32.0%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area



BUILDING 400 FIRE PROTECTION PIPING PLAN

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

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
- FIRE PENETRATION THRU RATED WALL
- FLEX DROP W/ PENDENT SPRINKLER

Sprinkler Brace / Hanger Legend

Symbol	Description	Detail Reference
	LATERAL SEISMIC BRACE (Perpindicular)	F8.04 - F8.05
	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

Building is typical Wood Beam and Joist construction. All Design and Installation shall conform to NFPA 13 (2022), NFPA 24 (2019), CFC (2022), and County of Fresno Fire Prevention District / Building Department Standards.
In sloped areas, Fire Sprinkler Piping Mains to follow the slope of the Roof as shown.
All Electrical Rooms / Equipment Rooms / Storage Rooms (limited to Class I-II Commodities a maximum of 10'-0) and to be an Ordinary Group I Occupancy.
Auto Shop Main Open Area to be (limited to Class I-IV Commodities to a maximum of 10'-0) and to be an Ordinary Group II Occupancy.
Per NFPA 13 (2022) Table 10.2.4.2.1 (b) - The maximum Upright / Pendent Sprinkler in an Ordinary Group I or II Occupancy to be 130 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Table 10.2.4.2.1 (a) - The maximum Pendent Sprinkler in an Light Hazard Occupancy to be 225 sqft, with a maximum distance between Sprinklers of 15'-0.
Per NFPA 13 (2022) Section A.4.3.2 - All unused Attics to be a Light Hazard Occupancy.
Per NFPA 13 (2022) Section Table 10.2.4.2.1 (a) - Light Hazard Occupancy (unused Attics) with Non-Combustible Obstructed Construction to have a maximum Sprinkler Spacing of 225 sqft, with a maximum Sprinkler spacing of 15'-0.
Per NFPA 13 (2022) Section 10.2.6.1.2 - Non-Combustible Obstructed Construction Sprinkler Deflectors to be positioned in a horizontal plane of 1" to 6" below the structural members, to a maximum of 22" below the inside face of the Roof Deck.
Per NFPA 13 (2022) Section 9.5.4.2 - Sprinkler Deflectors shall be aligned parallel to ceilings, roofs, or the incline of stairs. Upright Sprinklers shall be installed with the frame arms parallel to the piping, unless listed otherwise.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Light Hazard Occupancy to be Hydraulically Calculated at a Density of .10 / 1500 sqft. minimum utilizing most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Figure 19.2.3.1.1 - Ordinary Group II Occupancy to be Hydraulically Calculated at a Density of .20 / 1500 sqft minimum utilizing the most demanding Sprinkler Spacing.
Per NFPA 13 (2022) Section 19.2.3.2.3.1 - Where listed Quick Response Sprinklers are used, a reduction in the Hydraulically Calculated System Area of Operation shall be permitted to be reduced without revising the Density as indicated in Figure 19.2.3.2.3.1. in Light Hazard Occupancy Only.
Per NFPA 13 (2022) Section 19.2.3.2.4 - System Area of Operation shall be increased by 30% without revising the density when the Roof Slope exceeds 1 in 6 (a rise of 2 units in a single run of 12 units, a Roof Slope of 16.7%) in non-storage applications.
Per NFPA 13 (2022) Section 16.10.5.2.3 - System(s) to be equipped with Auxiliary Drains. If trapped water in Existing Branch Line contains less than 5'-0 gallons an Auxiliary Drain shall not be required if Branch Line can be drained by the removal of a single Pendent Sprinkler.
Per NFPA 13 (2022) Handbook Sections 9.2.1.3 - 9.2.1.5, A.9.2.1.1, 9.2.1.1.1, 9.2.1.2, 9.2.1.12-14, 9.2.1.16-17 - No Sprinkler protection required for Non-Combustible Construction type attics, and concealed spaces as defined.
Per NFPA 13 (2022) Section 9.2.3.1, A.9.2.3.1 - Sprinklers protection not required for exterior projections are constructed with materials that are Non-Combustible.
Electrical Equipment Room to have no pass-through Piping. Coordinate with Electrical Contractor to ensure no Piping is installed above Electrical Equipment as per NFPA 72 (2022), and CFC 2022.
Per NFPA 13 (2022) Section 18.6.5 - Where Branch lines are supported by rods less than 6" long, from the top of the Pipe to the point of attachment to the Building Structure, no End-of Line Restraints required.

Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

This project: Use the values for Cp .50

Pipe (in.)	Seismic Coefficient (Cp)		
	Cp ≤ 0.50	0.5 < Cp ≤ .67	Cp > .67
1"	43	36	28
1-1/4"	46	39	31
1-1/2"	49	41	33
2"	53	45	36

All Lateral Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
All Hanger and Bracing Components are to be installed per NFPA 13 (2022), CBC / CFC (2022), and Manufacturer Installation Instructions.

RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER — ANDREW W. CARLSON — No. M34846 Exp. 6-30-26 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101, Fresno, CA 93720
(559) 431-0101 FAX (559) 431-1362
25026

APPROVALS
FILE # 10-126 APPLICATION # 02-123774

LICENSED ARCHITECT — JAMES R. MONTEITH — No. C-33128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

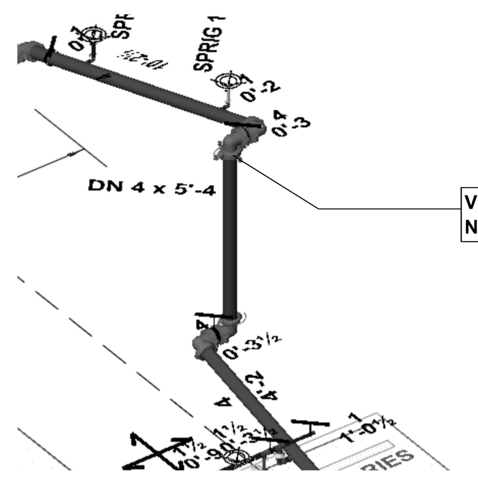
REVISIONS
3 10-16-26 ADDENDUM 3

MANGINI ARCHITECTURE / INTERIORS
MANGINI ASSOCIATES INC.
2000 W. Main Street, Suite 200 Visalia, California 93291
www.mangini.us
(559) 627-1926 Office
(559) 627-1926 Fax

TITLE
BUILDING 400
FIRE PROTECTION
PIPING PLAN

F4.00

PROJECT 24042



PIPE RISE ENLARGED VIEW

SCALE: N.T.S.

Per NFPA 13 (2022) 9.2.3.2 - Sprinkler shall be permitted to be Omitted from below the Exterior Projections of Combustible Construction, provided the Exposed Finish Material on the Exterior Projections are Non-Combustible / Limited-combustible, or Fire Retardant-Treated Wood (PSI Treated), and the Exterior Projections contain only Sprinklered Concealed Spaces - or any of the following Unsprinklered Combustible Concealed Spaces:
Combustible Concealed Spaces filled entirely with Noncombustible Insulation / Light or Ordinary Hazard Occupancies where Noncombustible / Limited-combustible Ceilings are directly attached to the bottom of Solid Wood Joists with enclosed spaces no greater than 160 cft, including space below insulation that is laid directly on top or within the Ceiling Joists in an otherwise Unsprinklered Attic.-, and Concealed Spaces over Isolated Small Exterior Projections not exceeding 55 sqft.

Sprinkler Legend

Symbol	Manufacturer	SIN	Model	Quantity	K-Factor	Type	Size	Response	Finish	Temperature	Note
Upright	Viking	VK3001	XT1	116	5.6	Upright	½	Quick	Brass	200°F	
Sidewall	Viking	VK680	QREC	1	8	Horizontal Concealed Sidewall	¾	Quick	Brass	165°F	
Pendent	Viking	VK4621		94	5.6	Concealed Pendent	½	Quick	Brass	155°F	
Sidewall	Viking	VK481		3	5.6	Horizontal Concealed Sidewall	½	Quick	Brass	205°F	
				Total = 214							

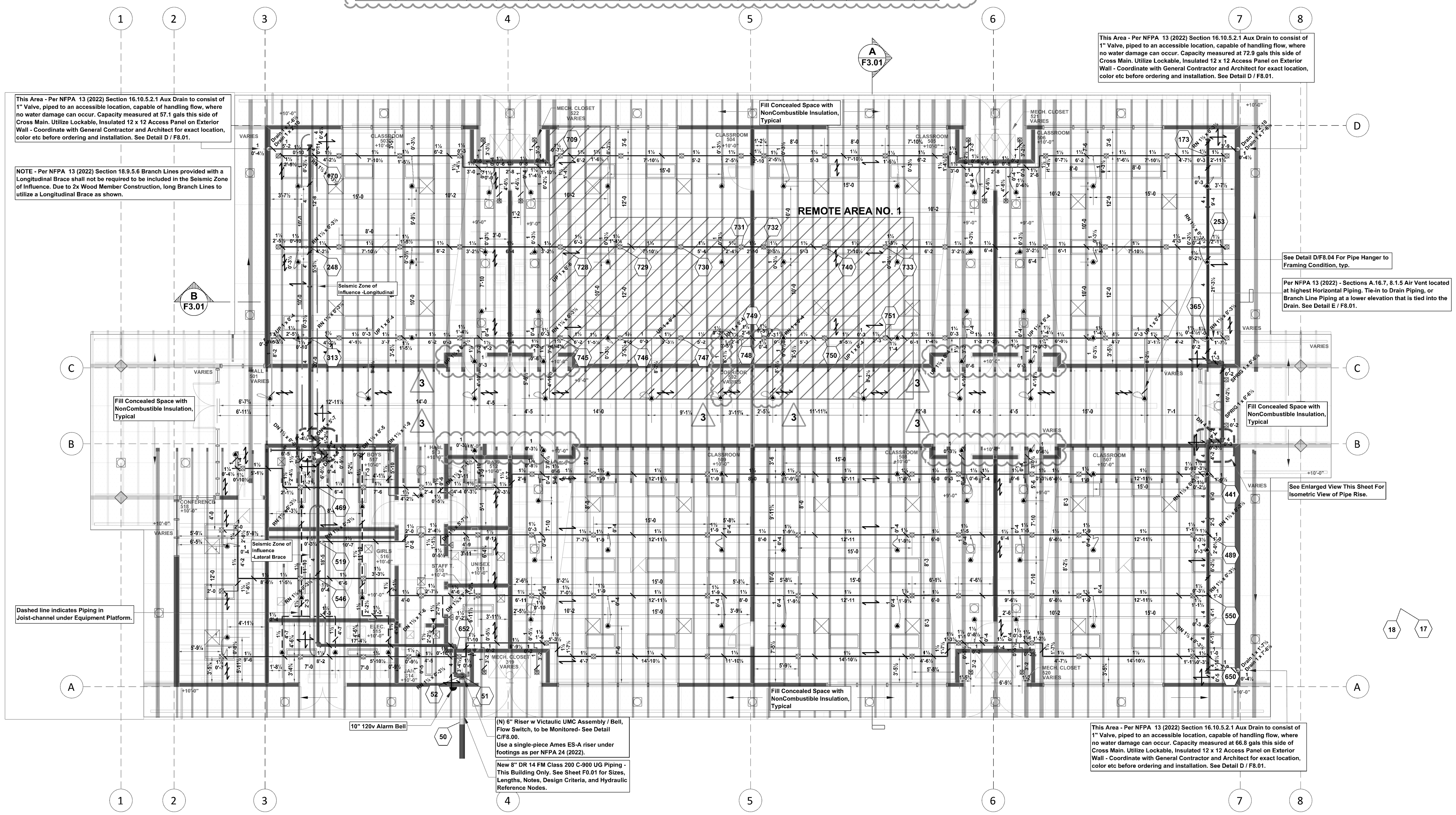
Hydraulic Information

Remote Area No. 1	
OCCUPANCY CLASSIFICATION	Light Hazard
DENSITY (gpm/ft²)	0.100 for 1170.00ft² (Actual 1440.00ft²)
TOTAL HOSE STREAMS	100.00
DRY CAPACITY	0.00gal
TOTAL HEADS FLOWING	15 (8' x 12' Spacing Typ.)
K-FACTOR	5.6
TOTAL WATER REQUIRED	339.95
TOTAL PRESSURE REQUIRED	34.347
BASE of RISER (gpm) (BOR)	239.95
BASE of RISER (psi) (BOR)	24.881
SAFETY MARGIN (psi)	+16.279 (32.2%)

Hydraulic Calculation Area per NFPA 13 (2022) Section 3.3.141.3, 19.2.1.2.4, and Figure 19.2.3.1.1 for Light Hazard Occupancy.

Hydraulic Calculation Area per NFPA 13 (2022) 3.3.141.3, 19.2.1.2.4(1), 19.2.3.1.1, Figure 19.2.3.1.1, 19.2.3.2.3.2, 19.2.3.2.3.3, and 19.2.3.2.4 for Light Hazard Occupancy.

Multiple Adjustments made for 10'-0 Max Ceiling Height (40% Reduction) and Sloping Roof over 2 units in 12 (30% Increase) = 1170 sqft minimum Remote Area



BUILDING 500 FIRE PROTECTION PIPING PLAN

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

Sprinkler Components Legend

- FLEXIBLE GROOVED COUPLING
- PIPING W/ GROOVED FITTINGS
- PIPING W/ THREADED FITTINGS
- PIPING W/ PENDENT SPRINKLER (Varies - See Details)
- PIPING W/ UPRIGHT SPRINKLER (Varies - See Details)
- SEISMIC SWING JOINT
- HYDRAULIC NODE REF
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Sprinkler Brace / Hanger Legend

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	LONGITUDINAL SEISMIC BRACE (Parallel)	F8.04 - F8.05
	4-WAY SEISMIC BRACE (Parallel / Perpindicular)	F8.04 - F8.05
	END OF LINE RESTRAINT	F8.04 - F8.05
	PIPE HANGERS	F8.04 - F8.05

Details are specific to construction type

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Per NFPA 13 (2022) Table 18.6.4 (a) Maximum Spacing of Steel Branch Line Retraints (ft)

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Pipe (in.)	Seismic Coefficient (Cp): Cp ≤ 0.50	0.5< Cp ≥ 0.71	Cp ≥ 0.71
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2"	53	45	31

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All Longitudinal Bracing of Mains to be spaced at Maximums notated per applicable Structural type Details.
Installation Contractor to verify all Hanger types, locations, and configurations with Project Structural Engineers before Installation.
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RATED WALL LEGEND	
1 HR RATED BARRIER	••••••••••••••••••••

REGISTERED PROFESSIONAL ENGINEER — W. CARLSON — No. M34846 — Exp. 6-30-28 — MECHANICAL — STATE OF CALIFORNIA

LAWRENCE ENGINEERING GROUP
4910 E. Clinton Way, Suite 101
(559) 431-0101
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FAX (559) 431-1362
25026

APPROVALS
FILE # 10-126
APPLICATION # 02-123774

LICENSED ARCHITECT — JAMES R. MORRELLI — No. C-33128 — REN. 05-31-27 — STATE OF CALIFORNIA

DATE: DECEMBER 18, 2025

NEW TEMPERANCE ELEMENTARY SCHOOL
SANGER UNIFIED SCHOOL DISTRICT
SANGER, FRESNO COUNTY, CA

REVISIONS		
3	10-16-26	ADDENDUM 3

MANGINI | ARCHITECTURE INGENUITY
MANGINI ASSOCIATES INC.
4320 West Mineral King Avenue
Visalia, California 93291
www.mangini.us
(559) 627.0530 Office
(559) 627.1926 Fax

TITLE
BUILDING 500
FIRE PROTECTION
PIPING PLAN

F5.00

PROJECT 24042