RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

ADDENDUM NO. 02

Bid #1491 BUILDING G HVAC Replacement Project
at
SANTA ANA COLLEGE

Address: 1530 WEST 17TH STREET, SANTA ANA, CA 92706

Project ID #2957.1, DSA #04-123961

April 16, 2026

Owner:
Rancho Santiago Community College District
2323 North Broadway, Room 112
Santa Ana, California 92706

RECEIPT OF THIS ADDENDUM MUST BE ACKNOWLEDGED ON BID FORM WHEN SUBMITTED

The following changes, additions, deletions or corrections shall become a part of the Contract Documents for the project named on the previous page and all other conditions shall remain the same. The Bidders shall be responsible for transmitting this information to all affected Subcontractors and Suppliers, prior to the closing of Bids. Prospective Bidders shall acknowledge receipt of all Addenda in the space provided on the Bid Proposal Form by the number (list every addenda). Failure to do so shall deem the Bid Proposal as non-responsive and subject the Bidder to disqualification.

Item No. AD 2-1 Modifications to the Scope of Work – Drawings and Specifications

Refer to Attached ADD_02_V1 Narrative and Drawings

Item No. AD 2-2 Responses to Questions

The following provides a response to the Bidder's Request for Pre-Bid Information submitted on the Pre-Bid Clarification Form. See attached for a total of (19) RFI Response(s).

Item No. AD 2-3 Building G Mechanical As-Builds

Refer to Attached for Building G Mechanical As-Builds.

Enclosure: ADD_02_V1
Nineteen (19) Pre-Bid Clarification Responses
Building G Mechanical As-Builds

This is the end of Addendum No. 2

Rancho Santiago Community College District (RSCCD)
Santa Ana College Building G - HVAC Replacement A#
04-123961
04/06/2026
ADD_02_V1

Addendum 02 V1 Narrative:

Addendum 02 V1 is made a part of the Contract Documents to the same extent as though it were originally included therein, with three key elements, subsequently described in greater detail:

- A 30-day metering was conducted in accordance with CEC 220.87 from 12/23/2025 to 2/4/2026 related to panels G1LC, G1LA, A, G & G1HA. With modifications as described below, it was determined that the electrical panels have sufficient capacity to accommodate the new electrical loads without additional meter reading being conducted.
- The project description on the cover sheet was clarified to better describe what is shown within the DSA-approved documents.
- The documents are clarified to state that duct-mounted detectors are located where they can be readily tested from the roof.

Addendum 02 V1 Documents:

All affected documents are clouded under Delta #2, as described herein.

I. ARCHITECTURAL DRAWINGS

1. SHEET A0.000, TITLE SHEET:
   a. Removed: "(2) ROOF MOUNTED VFR CONDENSING UNITS".
   b. Inserted: "(3) ROOF MOUNTED CONDENSING UNITS"

II. MECHANICAL DRAWINGS

1. SHEET m1.00, MECHANICAL ROOF PLAN (BUILDING 'G')
   a. Inserted: Keynote 8 at SF G-1 and SF G-2 with the statement, "DUCT-MOUNTED DETECTOR TO BE LOCATED SUCH THAT DETECTOR IS ACCESSIBLE FROM THE ROOF FOR TESTING."
2. DETAIL 3/S3.31
   a. Removed: From Heat Pump Condensing Unit Schedule, all five heat pumps.
   b. Inserted: "AM168HCVGJG/AA" AT HP G-1.1, "AM192HCVGJG/AA" AT HP G-1.2, and "MCY-MUB060" at HP G-3, HP G-4 and HP G-5 with updates to refrigerant type, minimum efficiency at each of the five. At HP G-5, electrical information was updated, as well.

III. ELECTRICAL DRAWINGS

1. SHEET E0.50, ELECTRICAL FIRST FLOOR PLAN BUILDING 'G':
   a. Removed: Circuit designation at HP G-4 and HP G-5.
   b. Inserted: "G1LA-36,38" at HP G-4 and "G1HA-14,16,18" at HP G-5.
2. SHEET E1.00, ELECTRICAL ROOF PLAN BUILDING 'G':
   a. Removed: Circuit designation at EF G-1

b. Inserted: “G1LA-40” at EF G-1

3. SHEET E3.00, ELECTRICAL ONE-LINE DIAGRAM:
   a. Inserted: “PRIOR TO DEMOLITION OF ANY EXSTING LOADS, 30-DAY METERING WAS CONDUCTED IN ACCORDANCE WITH CEC 220.87 FROM 12/23/2025 TO 02/04/2026. THE HIGHEST RECORDED PLASE AMPERAGE FOR EACH PANEL WAS AS FOLLOWS:
      A. PANEL G1LC: 99.218 a ON PHASE B, RECORDED ON 1/16/2026
      B. PANEL G1LA: 31.9081 A ON PHASE B, RECORDED ON 01/29/2026
      C. PANEL A: 3.4226 A ON PHASE A, REOCRDED ON 01/26/2026
      D. PANEL G: 4.3305 A ON PHASE C, RECORDED ON 01/16/2026
      E. PANEL G1HA: 91.0414 A ON PHASE A, RECORDED ON 01/16/2026

      BASED ON RECORDED MEATERING DATA, THE ELECTRICAL PANELS HAVE SUFFICENT CAPACITY TO ACCOMDOATE THE NEW ELECTRACL LOADS.” below ELECTRICAL PLAN NOTE 1
4. SHEET E.4.00
   a. Removed: Circuits 22, 24, 26, 28, 30 from Panel Schedule G1LC; circuits 14, 16, 18 from Panel Schedule G1HA, Circuits 11, 36, 38, 40 from Panel Schedule G1LA
   b. Inserted: “Spare” at circuits 22, 24, 26, 28, 30 in Panel G1LC and Circuits 11 in Panel Schedule G1LA
   c. Inserted: 3P, 20 Amp, 12 wire with 3,718 volt amps (A,B,C) at circuit 14, 16, 18 of Panel Schedule G1HA with the description “HP-G5 (C)”
   d. Removed: Circuit breaker size, wire size, voltage, circuit load, and circuit ampacity from circuit G1LC-22,24,26 of the COLTAGE DROP CALCULATOR – BRANCH CIRCUITS
   e. Inserted: 20 amps, 12 wire size, 480 voltage, 14 circuit load, 20 circuit ampacity at circuit G1LC-22,24,26 of the COLTAGE DROP CALCULATOR – BRANCH CIRCUITS

Rancho Santiago Community College District (RSCCD)
Santa Ana College Building G - HVAC Replacement
A# 04-123961
04/06/2026
ADD_02_V1

ADD_02_V1 Documents Included:

- Narrative with A/E stamp (3 pages).
- Revised drawing sheets with revision delta 1 (7 pages).

A/E Stamp:

Mark Anderson, Architect
END OF ADDENDUM NUMBER 02

AD 2-1 Updated Attachment A - Drawings

RSCCD - HVAC REPLACEMENT

SANTA ANA COLLEGE (SAC) - BUILDING G

1530 W 17th Street, Santa Ana, CA 92706

CONSTRUCTION DOCUMENT SET

DSA A# 04-123961

STATEMENT OF GENERAL CONFORMANCE

Statement of General Conformance

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, **INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS**

(Application No. 04-123961 File No. 30-C2)

☒ All drawings sheets included in this set not bearing my stamp and signature
☐ Drawing sheets denoted in the sheet index as follows: _____.
☐ Drawing sheets included under the following PC approval : _____.

Have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings(plans) in this state. It has been examined by me for:

1) Design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) Coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of Title 24, Part 1. *(Title 24, Part 1, Section 4-316 (b))*

I certify that: ☒ All drawings sheets included in this set not bearing my stamp and signature
☒ This drawing or page

☒ is/are in general conformance and ☒ have been coordinated		☐ is/are in general conformance and ☐ have been coordinated	
Signature	2/28/2025 Date	Signature	Date
Architect or Engineer designated to be in general responsible charge		Architect or Engineer designated to be in general responsible charge	
Print Name: MARK ANDERSON		Print Name	
License Number: C-31687	Expiration Date: JULY 31, 2025	License Number	Expiration Date

GENERAL NOTES

1. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
2. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR. A MINIMUM CLASS 3 INSPECTOR IS REQUIRED.
3. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
4. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR).
5. SUBSTITUTIONS AFFECTING ITEMS REGULATED BY THE DIVISION OF THE STATE ARCHITECT (DSA) REQUIRE DSA APPROVAL AS AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD). DSA APPROVAL SHALL BE OBTAINED PRIOR TO FABRICATION AND/OR INSTALLATION PER SECTION 4-338, PART 1, TITLE 24, CCR.
6. ALL CONSTRUCTION SHALL BE COMPLETED IN FULL COMPLIANCE WITH TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS. CONTRACTOR SHALL GIVE ALL APPLICABLE NOTICES REQUIRED BY CONTRACT AND/OR LAW AND COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS, ORDINANCES AND ORDERS BY JURISDICTIONS HAVING AUTHORITY OVER THE PROJECT.
7. THE CONTRACTOR SHALL STUDY THE CONTRACT DOCUMENTS AND SHALL IMMEDIATELY REPORT TO THE ARCHITECT IN WRITING ANY AND ALL ERRORS, INCONSISTENCIES OR OMISSIONS OBSERVED AND VERIFY ALL DIMENSIONS ON THE SITE PRIOR TO COMMENCING THE WORK. ALL DIMENSIONS AFFECTING MATERIALS OR EQUIPMENT WITH SPECIFIC TOLERANCES SHALL BE VERIFIED BY THE CONTRACTOR IN ADVANCE.
8. ALL DIMENSIONS ARE TO FACE OF FINISH OR CENTERLINE UNLESS NOTED OTHERWISE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTION PROGRAMS IN CONNECTION WITH THEIR WORK, AND FOR MAINTAINING APPROPRIATE INSURANCE TO PROTECT THE CONTRACTOR, ARCHITECT AND OWNER.
10. THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BY-PRODUCTS, SOLID PARTICULATE, CONSTRUCTION WASTE, OR WASH-WATER GENERATED ON THE CONSTRUCTION SITE OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, CONVEYED, OR DISCHARGED INTO THE STREET GUTTER, OR STORM DRAIN SYSTEM.
11. CONTRACTOR SHALL ERECT AND MAINTAIN TEMPORARY BARRICADES AND DUST PROOF PARTITIONS AS NEEDED FOR PROTECTION AGAINST ACCIDENT, AND TO MAINTAIN ADEQUATE PROTECTION OF HIS WORK AND THE OWNERS PROPERTY FROM DAMAGE, THEFT OR LOSS ARISING IN CONNECTION WITH THE WORK. ALL DAMAGE SO OCCURRING SHALL BE CURED, REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE ARCHITECT OR OWNER.
12. NO PART OF THE STRUCTURE SHALL BE OVERLOADED BEYOND ITS SAFE CARRYING CAPACITY BY THE PLACING OF MATERIALS, EQUIPMENT, TOOLS, MACHINERY OR ANY OTHER ITEMS.
13. PROTECT ALL FINISH FLOOR SURFACES FROM DAMAGE AND EQUIP MOBILE EQUIPMENT WITH PNEUMATIC TIRES.
14. THE INTENT OF THESE DRAWINGS IS TO PROVIDE A COMPLETE AND FINISHED JOB IN ALL RESPECTS. THE ARCHITECT SHALL BE THE SOLE INTERPRETER OF THE DOCUMENTS.
15. SEE MECHANICAL SPECIFICATIONS FOR TEMPORARY COOLING REQUIREMENTS DURING CONSTRUCTION.
16. GC TO VERIFY ALL NEW EQUIPMENT ARE EQUAL OR LESS IN WEIGHT TO THE EXISTING REPLACEMENT EQUIPMENT AT ROOF.

△1
17. THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT'S PROJECT MANAGER AND THE INFORMATION TECHNOLOGY SERVICES DEPARTMENT PRIOR TO CONNECTING ANY CAT-5 DATA CABLES TO THE WIDE AREA NETWORK (WAN) FOR IP-BASED HVAC EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR TERMINATING THE CAT-5 CABLES TO AN AVAILABLE NETWORK PATCH PANEL. UPON COMPLETION OF THE TERMINATION, THE DISTRICT WILL CONNECT THE PATCH CABLES TO THE NETWORK SWITCH AND PERFORM THE NECESSARY SWITCH PROGRAMMING. TO AVOID PROJECT DELAYS, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR IP ADDRESS INFORMATION TO THE DISTRICT'S PROJECT MANAGER DURING THE SUBMITTAL PHASE OF THE PROJECT.

ENERGY CODE NOTES:

1. THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.
2. LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).
3. MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.
4. ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.
5. A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTPS://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.
6. THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.
7. PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

FIRE AND LIFE SAFETY NOTES:

1. FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CBC CHAPTER 33 AND CFC CHAPTER 33.
2. A COMPLETED SITE FIRE SAFETY PLAN IS TO BE SUBMITTED TO THE DSA IN CONJUNCTION WITH THE FILING OF FORM DSA 102-IC: CONSTRUCTION START NOTICE / INSPECTION CARD REQUEST, INCLUSIVE OF COMPLETING SECTION 3 OF THE FORM PER DSA BU 24-05.
3. MAINTAIN THE INTEGRITY OF ALL EXISTING RATED ASSEMBLIES U.N.O. A COMPLETED SITE FIRE SAFETY PLAN IS TO BE SUBMITTED TO THE DSA IN CONJUNCTION WITH THE FILING OF FORM DSA 102-IC: CONSTRUCTION START NOTICE / INSPECTION CARD REQUEST, INCLUSIVE OF COMPLETING SECTION 3 OF THE FORM PER DSA BU 24-05.

PROJECT DATA

PROPERTY ADDRESS:
SANTA ANA COLLEGE (SAC)
BUILDING G
1530 W 17TH STREET
SANTA ANA, CA. 92706

OWNER:
RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT - RSCCD
2323 N. BROADWAY, SUITE 112
SANTA ANA, CA 92706
CONTACT: MARTIN GARCIA
SENIOR PROJECT MANAGER
FACILITY PLANNING DEPARTMENT, CONSTRUCTION AND SUPPORT SERVICES
P: 714.480.7514
E: Garcia_martin@rsccd.edu

ARCHITECT:
PACIFIC RIM ARCHITECTS
5912 BOLSA AVENUE, STE 212
HUNTINGTON BEACH, CA 92649
CONTACT: MARK ANDERSON, AIA, CAsp, LEED, AP - PRINCIPAL
P: 714.840.2100
F: 714.840.2101
E: mark@pacificrimarchitects.com

MECHANICAL ENGINEER:
HENDERSON ENGINEERS
510 WEST SIXTH STREET, SUITE 800
LOS ANGELES, CA 90014
BRYAN JIMENEZ, PE – PROJECT MANAGER
P: 213.254.4722
E: Bryan.Jimenez@hendersonengineers.com

STRUCTURAL ENGINEER:
HOUSE OF ENGINEERS INC.
YAS RABADI, SE - PRINCIPAL
9070 IRVINE CENTER DRIVE #200
IRVINE, CA 92618
P: 832.857-9765 , 949.767.0110
F: 949.769.2201
E: yaz@houseoe.com
WEBSITE: www.houseoe.com

DIRECT ALL INQUIRIES TO THE ARCHITECT.

SCOPE OF WORK

PROJECT DESCRIPTION:

MECHANICAL
MECHANICAL SCOPE CONSISTS OF REMOVAL AND REPLACEMENT OF EXISTING HVAC EQUIPMENT WITH NEW LIKE FOR LIKE ENERGY EFFICIENT HVAC EQUIPMENT. HVAC EQUIPMENT WILL CONSIST OF AIR HANDLING UNITS, SPLIT SYSTEMS, EXHAUST FANS, AND MAKE-UP AIR FANS. HVAC REPLACEMENT CONSISTS OF (1) HEAT PUMP AIR HANDLING UNIT MOUNTED ON AN EXISTING INTERIOR CONCRETE PAD WITH (3) ROOF MOUNTED GRADE CONDENSING UNITS, (3) SPLIT SYSTEM VRF FCUS WITH (3) CONDENSING UNITS MOUNTED ON NEW EXTERIOR CONCRETE PAD, AND (12) EXHAUST FANS. △2

PLUMBING △2
PLUMBING SCOPE OF CONSISTS OF REMOVAL AND REPLACEMENT OF EXISTING CONDENSATE DRAIN LINES FROM HVAC EQUIPMENT.

ELECTRICAL
ELECTRICAL SCOPE OF CONSISTS OF DE-ENERGIZATION AND DISCONNECTION OF POWER TO HVAC UNITS THAT ARE INDICATED TO BE REPLACED, REMOVAL AND REPLACEMENT OF DISCONNECT SWITCHES AND BREAKERS AS NECESSARY AND EXTENSION/REPLACEMENT OF CONDUCTORS AND CONDUIT AS NECESSARY AND REPLACEMENT OF DISCONNECT SWITCHES AND BREAKERS AND EXTENSION/REPLACEMENT OF CONDUIT AND CONDUCTORS AS NECESSARY FOR (1) HEAT PUMP AIR HANDLING UNIT, (2) VRF CONDENSING UNITS, (3) SPLIT SYSTEM VRF FCUS, (3) CONDENSING UNITS, AND (12) EXHAUST FANS. △1

ADD ALTERNATE ONE: ~~REPLACEMENT OF FAN COIL UNITS IN CLASSROOMS G106 AND G107, THEIR ASSOCIATED CONDENSING UNITS, REFRIGERANT LINES, ELECTRICAL CONNECTIONS AND NEW STRUCTURAL SUPPORT HANGERS ARE PART OF ALTERNATE ONE.~~

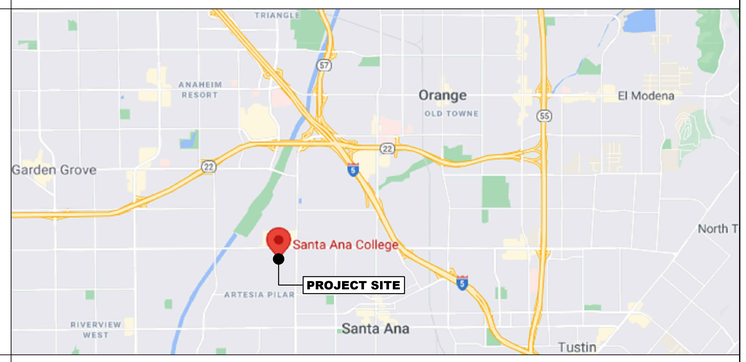
CODE DATA

EXISTING BUILDING CODE DATA

RSCCD - SAC BUILDING G:

CONSTRUCTION TYPE:	II - A
BUILDING OCCUPANCY:	FIRST LEVEL - Group B SECOND LEVEL - Group A - 2.1
NUMBER OF STORY:	2 STORIES
BUILDING HEIGHT:	± 41'- 6" (EXISTING)
YEAR BUILT:	1954
FIRE PROTECTION:	1 HR SPRINKLERED
ACCESSIBLE PATH OF TRAVEL:	This project is an " HVAC ONLY " project.

VICINITY MAP



AERIAL MAP

SYMBOLS

- GRID LINE (FACE OF STUD, FACE OF MASONRY, AND CENTERLINE OF COL.)
- SECTION CALLOUT (BUILDING)
- EXTERIOR ELEVATION INDICATOR
- INTERIOR ELEVATION IDENTIFICATION (SEE INTERIOR ROOM SCHEDULE)
- DETAIL IDENTIFICATION
- ROOM NAME & NUMBER
- WINDOW TYPE ELEVATION
- DOOR NUMBER
- KEYNOTE SYMBOL
- MATERIAL/FINISH SYMBOL
- CEILING HEIGHT
- WALL TYPE

APPLICABLE CODES

ALL WORK DONE UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE PROJECT MANUAL, SPECIFICATIONS, DRAWINGS AND CONSTRUCTION CRITERIA OF THE TENANT, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION. ANY MODIFICATIONS TO THE CONTRACT WORK REQUIRED BY SUCH AUTHORITIES SHALL BE PERFORMED. APPLICABLE CODES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2022 CALIFORNIA BUILDING CODE, (CBC), PART 2, TITLE 24 CCR
2022 CALIFORNIA ELECTRICAL CODE, (CEC), PART 3, TITLE 24 CCR
2022 CALIFORNIA MECHANICAL CODE, (CMC), PART 4, TITLE 24 CCR
2022 CALIFORNIA PLUMBING CODE. (CPC), PART 5, TITLE 24 CCR
2022 CALIFORNIA ENERGY CODE, PART 6 TITLE 24 CCR
2022 CALIFORNIA FIRE CODE, (CFC), PART 9, TITLE 24 CCR
2022 CALIFORNIA EXISTING BUILDING CODE, (CEBC), PART 10 TITLE 24 CCR
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, (CAL GREEN), PART 11 TITLE 24 CCR
2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12 TITLE 24 CCR
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

APPLICABLE STANDARDS:
FOR THE LIST OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR	GA.	GAUGE	R., RAD.	RADIUS
ALT	ALTERNATE	G.C.	GENERAL CONTRACTOR	R.C.P.	REFLECTED CEILING PLAN
BRG.	BEARING	GYM.	GYMNASIUM	REQ'D	REQUIRED
BLDG.	BUILDING	G.W.B.	GYPSUM WALL BOARD	REV.	REVISION
B.O.	BOTTOM OF	H., HT..	HEIGHT	RR	RESTROOM
B.O.S.	BOTTOM OF SOFFIT	HOR.	HORIZONTAL	RM.	ROOM
BTM.	BOTTOM	INSUL.	INSULATION	R.O.	ROUGH OPENING
CLG.	CEILING	LAV.	LAVATORY	SIM.	SIMILAR
C.L.	CENTER LINE	MFR.	MANUFACTURER	SPEC.	SPECIFICATION
C.J.	CONTROL JOINT	MAX.	MAXIMUM	SQ.	SQUARE
CONST.	CONSTRUCTION	MIN.	MINIMUM	SS	STAINLESS STEEL
DIA.	DIAMETER	MISC.	MISCELLANEOUS	STD.	STANDARD
DIM.	DIMENSION	MECH.	MECHNICAL	TYP.	TYPICAL
(E)	EXISTING	(N)	NEW	TEL.	TELEPHONE
ELECT.	ELECTRICAL	N.I.C.	NOT IN CONTRACT	U.N.O.	UNLESS NOTED
E.J.	EXPANSION JOINT	NWC	NORMAL WEIGHT CONCRETE		OTHERWISE
EQ.	EQUAL	O.C.	ON CENTER	VERT.	VERTICAL
FT.	FEET	O/	OVER	VFY.	VERIFY
F.F.	FINISH FLOOR	OPP.	OPPOSITE	V.I.F.	VERIFY IN FIELD
FLUOR.	FLUORESCENT	P.A.F.	POWDER ACTUATED FASTENER	W/	WITH
		PL.	PLATE	W/O	WITHOUT
				WD.	WOOD

SHEET INDEX

	ARCHITECTURAL		MECHANICAL
A.000	TITLE SHEET	M0.00	COVER SHEET
A.001	SITE PLAN	MD0.50	MECHANICAL DEMOLITION FIRST FLOOR PLAN - BUILDING 'G'
A.201	FIRST FLOOR PLAN - BUILDING 'G'	MD0.51	MECHANICAL DEMOLITION SECOND FLOOR PLAN - BUILDING 'G'
A.202	SECOND FLOOR PLAN - BUILDING 'G'	MD1.00	MECHANICAL DEMOLITION ROOF PLAN - BUILDING 'G'
A.203	FIRST FLOOR REFLECTED CEILING PLAN - BUILDING 'G'	M0.50	MECHANICAL FIRST FLOOR PLAN - BUILDING 'G'
A.204	SECOND FLOOR REFLECTED CEILING PLAN - BUILDING 'G'	M0.51	MECHANICAL SECOND FLOOR PLAN - BUILDING 'G'
A.205	ROOF PLAN - BUILDING 'G'	M1.00	MECHANICAL ROOF PLAN - BUILDING 'G'
A.301	ENLARGED PLANS, SECTIONS, ELEVATIONS, AND DETAILS	M3.00	MECHANICAL DETAILS
A.302	ENLARGED PLANS, SECTIONS, ELEVATIONS, AND DETAILS	M5.00	MECHANICAL SCHEDULES
A.401	BUILDING SECTIONS - BUILDING 'G'	M6.00	MECHANICAL CONTROLS
A.501	FIRE RATED ASSEMBLY SYSTEM	M6.01	MECHANICAL CONTROLS
		M8.00	COMPLIANCE FORMS
		M8.01	COMPLIANCE FORMS
	STRUCTURAL		**FIRE ALARM**
S0.01	GENERAL NOTES	FA0.00	COVER SHEET
S0.02	GENERAL NOTES	FA0.50	FIRE ALARM FIRST FLOOR PLAN - BUILDING 'G'
S2.30	EXISTING ROOF FRAMING WITH EQUIPMENT ANCHORAGE - BUILDING "G"	FA0.51	FIRE ALARM SECOND FLOOR PLAN - BUILDING 'G'
S3.30	FRAMING DETAILS		
S3.31	FRAMING DETAILS		
	ELECTRICAL		
E.000	COVER SHEET		
ED0.50	ELECTRICAL DEMOLITION FIRST FLOOR PLAN - BUILDING 'G'		
ED1.00	ELECTRICAL DEMOLITION ROOF PLAN - BUILDING 'G'		
E0.50	ELECTRICAL FIRST FLOOR PLAN - BUILDING 'G'		
E1.00	ELECTRICAL ROOF PLAN - BUILDING 'G'		
E3.00	ELECTRICAL ONE-LINE DIAGRAM		
E4.00	ELECTRICAL SCHEDULES		

TOTAL 39 SHEETS

pacific rim architects
5912 bolsa ave | ste 212
huntington beach | ca 92649
ph: 714.840.2100 fx: 714.840.2101
www.pacificrimarchitects.com

LICENSED ARCHITECT MARK D. ANDERSON NO. C-31687 EXP: 07/27 STATE OF CALIFORNIA

SEAL:

DATE:	NO:	REVISION:
10.28.2024		DSA SUBMITTAL
02.28.2025		DSA RESUBMITTAL
05.02.2025		DSA 2nd RESUBMITTAL
08.22.2025	△1	ADDENDUM 01
11.15.2025		ADD 01-V2 RESUBMITTAL
04.06.2026	△2	ADDENDUM 02

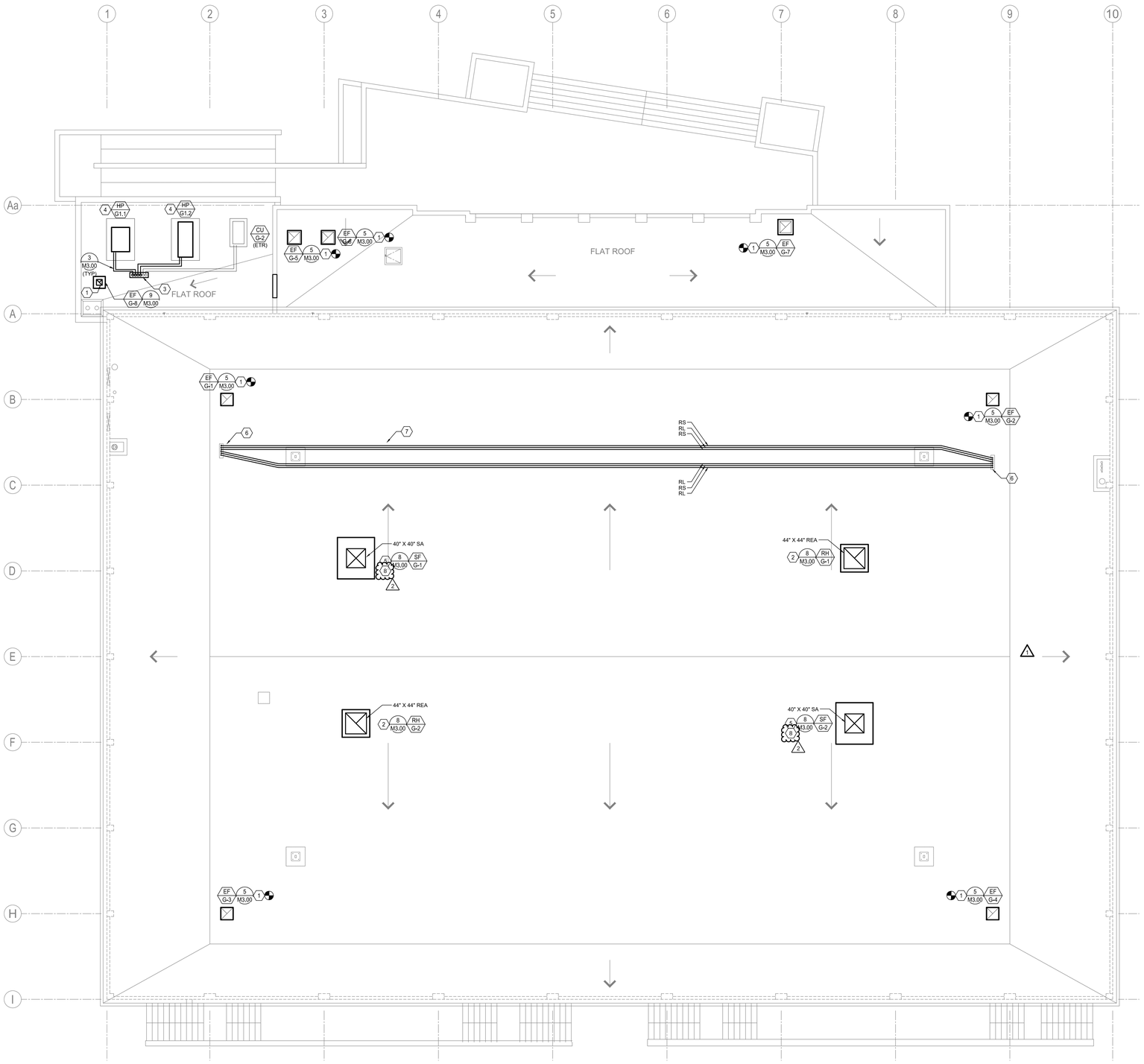
RSCCD HVAC REPLACEMENT
Santa Ana College (SAC)
Building G
1530 W 17th Street Santa Ana, CA 92706

TITLE SHEET

SHEET TITLE:

DATE:
DESIGNED BY: STAFF
PROJECT NUMBER PRA-RSCCD-01

SHEET
A.000



N 1 MECHANICAL ROOF PLAN
SCALE: 1/8"=1'-0"

MECHANICAL PLAN NOTES:

1. INSTALL NEW EXHAUST FAN IN SAME LOCATION OF EXISTING EXHAUST FAN AND RE-USE CURB AND OPENING. PROVIDE CURB ADAPTER WHERE REQUIRED BASED ON DIFFERENCES IN EQUIPMENT DIMENSIONS. CONNECT FAN TO EXISTING DUCTWORK WITH NEW FLEXIBLE CONNECTOR.
2. INSTALL NEW RELIEF HOOD IN SAME LOCATION OF EXISTING EXHAUST FAN AND PROVIDE NEW CURB
3. EXISTING ROOF PENETRATION ASSEMBLY TO REMAIN FOR USE IN NEW WORK.
4. NEW HEAT PUMP CONDENSING UNIT TO BE ANCHORED TO EXISTING CONCRETE PAD.
5. INSTALL NEW SUPPLY FAN IN SAME LOCATION OF EXISTING EXHAUST FAN AND PROVIDE NEW CURB.
6. ROUTE REFRIGERANT LINES DOWN THRU ROOF. SEE M0.51 FOR CONTINUATION. REFRIGERANT LINES TO HAVE A 2" DROP FOR WATER TO DRIP OFF OF BEFORE ENTERING PELICAN HOOD. LINES TO BE SLOPED UPHILL WHEN ENTERING PELICAN HOODS. SEE ARCHITECTURAL DRAWINGS. REFERENCE DETAIL 2/A205
7. ROOF PIPE SUPPORT REFER TO DETAIL 3/A205. TYP.
8. DUCT-MOUNTED DETECTOR TO BE LOCATED SUCH THAT DETECTOR IS ACCESSIBLE FROM THE ROOF FOR TESTING. 1 2

pacific rim architects
5912 bolsa ave | ste 212
huntington beach | ca 92649
ph: 714.840.2100 fx: 714.840.2101
www.pacificrimarchitects.com

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
2250001552

4/6/2026

LICENSED PROFESSIONAL ENGINEER
BRYAN JIMENEZ
M 38619
EXPIRES: 9/30/2027
MECHANICAL
STATE OF CALIFORNIA

SEAL:

DATE:	NO:	REVISION:
10.28.2024		DSA SUBMITTAL
02.28.2025		DSA RE-SUBMITTAL
05.02.2025		DSA 2ND RE-SUBMITTAL
08.22.2025	1	ADDENDUM 01
04.06.2026	2	ADDENDUM 02

RSCCD HVAC REPLACEMENT
Santa Ana College (SAC)
Building G
1530 W 17th Street Santa Ana, CA 92706

MECHANICAL ROOF PLAN BUILDING 'G'

SHEET TITLE:

DATE:

DESIGNED BY: HEI

PROJECT NUMBER PRA-RSCCD-01

SHEET
M1.00

BRYAN . JIMENEZ

AIR HANDLING UNIT SCHEDULE (HEAT PUMP) - BLDG G

MARK	MANUFACTURER	MODEL	UNIT TYPE	SUPPLY FAN									RETURN FAN										COOLING COIL									HEAT PUMP HEATING COIL						FAN LEAVING CONDITIONS			MIN O/A CFM	FILTERS		DISC TYPE	STARTER TYPE	WEIGHT (LBS)	NOTES
				FAN TYPE	FAN QTY	CFM	ESP (IN)	BHP	NOM HP	VFD (Y/N)	V/PH	MCA	MOCP	FAN TYPE	FAN QTY	CFM	ESP (IN)	BHP	NOM HP	VFD (Y/N)	V/PH	MCA	MOCP	TH (MBH)	SH (MBH)	EAT (°F DB)	EAT (°F WB)	LAT (°F DB)	LAT (°F WB)	REFR TYPE	NO OF CIRCUITS	MIN NO STAGES	MAX APD (IN)	MAX VEL (FPM)	ROWS / FPI	MIN OUT (MBH)	EAT (°F DB)	LAT (°F DB)	MAX APD (IN)	MAX VEL (FPM)	MIN NO STAGES	COOLING (°F DB)	COOLING (°F WB)	HEATING (°F DB)		MERV	SP LOSS				
AHU-G-1	ALLIANCE AIR	12D50X57.10.8.W.H.R	SINGLE ZONE VAV	PLENUM	1	9,250	0.60	5.84	7.5	Y	460/3	13.8	24.8	PLENUM	1	7,900	0.60	2	3	Y	460/3	6.0	10.8	352.1	259.70	79.3	65.4	53.5	52.4	R-410A	2	VARIABLE	0.55	550	5/13	380.1	59.31	97	0.55	550	VARIABLE	55	53	100	2315	13	1	VFD	VFD	6500	A-T

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

A. PROVIDE FACTORY MOUNTED VARIABLE FREQUENCY DRIVE FOR BOTH SUPPLY AND RETURN FANS.
B. PROVIDE SHAFT GROUNDING SYSTEM ON MOTOR. REFER TO MOTOR SPECIFICATION FOR ADDITIONAL INFORMATION.
C. PROVIDE SEPARATE POWER CONNECTION FOR THE SUPPLY AND RETURN FAN TO MATCH EXISTING CONDITIONS.
D. SPECIFIED FAN ESP ACCOUNTS FOR DUCT LOSSES EXTERNAL TO UNIT. ESP EXCLUDES UNIT INLET AND OUTLET OPENING LOSSES.
E. PROVIDE MOTOR HORSEPOWER TO OVERCOME INTERNAL UNIT STATIC PRESSURE DROP PLUS SPECIFIED EXTERNAL STATIC PRESSURE DROP. NOMINAL MOTOR HP SHALL BE NO LARGER THAN THE FIRST AVAILABLE NOMINAL MOTOR SIZE GREATER THAN THE REQUIRED BHP.
F. UNIT SHALL BE DRAW THRU CONFIGURATION.
G. MOUNT NEW AIR HANDLING UNIT ON EXISTING CONCRETE PAD. COORDINATE WITH MANUFACTURER AND SPECIFICATIONS ON MOUNTING REQUIREMENTS.
H. REFER TO DETAIL 8 ON SHEET S3.30 FOR ANCHORAGE INFORMATION.
J. PROVIDE FLOOD DETECTOR SWITCH TO SHUT OFF UNIT WHEN WATER IS PRESENT IN PRIMARY DRAIN PAN.
K. MANUFACTURER AND CONTRACTOR TO ENSURE NOTHING IS INSTALLED ON TOP OF NAMEPLATE.
L. PROVIDE A FACTORY APPLIED COIL CORROSION COATING TO EVAPORATOR COIL WHICH IS CAPABLE OF WITHSTANDING GREATER THAN 6,000 HOURS OF THE ASTM B117 SALT SPRAY TEST.
M. PROVIDE DX COIL WITH MULTIPLE CIRCUITS THAT ARE INTERLACED CONFIGURATION. COORDINATE NUMBER OF CIRCUITS FOR DX COIL WITH CONDENSING UNIT SERVING THIS UNIT.
N. PROVIDE RETURN AIR DAMPERS AND A SPLIT OUTSIDE AIR DAMPER SECTION. SIZE ONE OUTSIDE AIR SECTION FOR THE MIN O/A CFM. SIZE THE SECOND OUTSIDE AIR SECTION FOR ECONOMIZER OPERATION.
O. UNIT SHALL BE DOUBLE WALL CONSTRUCTION WITH STAINLESS STEEL DRAIN PANS.
P. CONTROLS CONTRACTOR SHALL SHIP ALL END DEVICES, CONTROLLERS, AND WIRING DIAGRAMS TO THE AHU MANUFACTURER FOR FACTORY INSTALLATION. CONTROLS CONTRACTOR SHALL TEST AND SIGN OFF ON THE CONTROLS INSTALLATION PRIOR TO UNIT SHIPMENT.
Q. PROVIDE RF AND SF AIRFLOW MONITORING (PIEZO RING) WITH TRANSMITTER.
R. AHU MANUFACTURER SHALL INSTALL SAMSUNG UC KIT FOR INTERFACE WITH HEAT PUMPS
S. UNIT SHALL BE SHIPPED IN SECTIONS, AND BOLTED TOGETHER IN PLACE BY THE INSTALLING CONTRACTOR. FACTORY SHALL INSTALL ALL CONDUIT FOR ELECTRICAL AND CONTROLS WIRING. UNIT WILL SHIP WITH WIRES PULLED THROUGH CONDUIT IN ONE SECTION, AND WILL NEED TO BE PULLED THROUGH REMAINING SECTIONS IN THE FIELD BY INSTALLING CONTRACTOR.
T. PROVIDE FACTORY BACNET MS/TP CARD. BACNET INTERFACE CARD SHALL BE INSTALLED IN AN OUTDOOR RATED ENCLOSURE.

NOTES APPLICABLE TO AHU, FAN COIL UNIT, AND HEAT PUMP SCHEDULES ON THIS SHEET.

- CONTRACTOR TO PROVIDE BACNET CONNECTION TO EXISTING CAMPUS BMS/EMS BACKBONE, AND MAP TO EXISTING TRIDIUM / NIAGARA FRONT END SYSTEM. CONTRACTOR TO DETERMINE IF BACNET MS/TP TO IP ROUTER IS REQUIRED AND SHALL FURNISH & INSTALL DEVICE AT NO ADDITIONAL CHARGE TO THE DISTRICT.

- CONTROLS CONTRACTOR TO COORDINATE WITH CAMPUS IT DEPARTMENT / M&O SHOP IF STATIC IP ADDRESSES ARE REQUIRED.

- CONTRACTOR TO COORDINATE WITH DISTRICT OFFICE / SAC IT AND O & M CAMPUS PERSONNEL FOR BMS / EMS ACCESSIBILITY.

- CONTRACTOR TO VERIFY THAT EXISTING WIRING, CONDUIT, AND CABLE IS USABLE PRIOR TO RE-USE.

- (AHU ONLY) CONTRACTOR TO FURNISH & INSTALL NEW CONDENSATE PIPING (INCLUDING P-TRAP) FROM HVAC UNIT TO DRAIN.

- (CUs AND FCUs ONLY) CONTRACTOR TO FURNISH & INSTALL LOW VOLTAGE CONDUIT AND WIRING BETWEEN THE OUTSIDE CONDENSING UNITS AND THE INDOOR FAN COIL UNITS.

HEAT PUMP CONDENSING UNIT SCHEDULE - BLDG G

MARK	SERVICE	MANUFACTURER	MODEL	REFR TYPE	COOLING CAPACITY					HEATING CAPACITY				ELECTRICAL				WEIGHT (LBS)	ANCHORAGE DETAIL	NOTES
					TH (MBH)	AMBIENT (DB)	MIN EFF (EER)	MIN EFF (SEER)	MIN EFF (IEER)	CAP (MBH)	AMBIENT (DB)	MIN EFF (COP 47°F)	MIN EFF (HSPF)	MCA	MOCP	V/PH	DISC TYPE			
HP G-1.1	AHU G-1	SAMSUNG	AM168HCVGJC/AA	R-32	160	94	10.5	N/A	21.2	180	39	3.67	N/A	29	35	460/3	NF	675	4/S3.30	A, C-E, G-O
HP G-1.2	AHU G-1	SAMSUNG	AM192HCVGJC/AA	R-32	184	94	11.0	N/A	22.1	206	39	3.55	N/A	34	40	460/3	NF	850	4/S3.30	A, C-E, G-O
HP G-3	FCU G-3	CARRIER	MCY-MUD060	R-454B	60	94	N/A	19.5	N/A	66	39	N/A	10.1	37	40	208/1	NF	325	6/S3.30	B-O
HP G-4	FCU G-4	CARRIER	MCY-MUD060	R-454B	60	94	N/A	19.5	N/A	66	39	N/A	10.1	37	40	208/1	NF	325	6/S3.30	B-O
HP G-5	FCU G-5	CARRIER	MMY-MUD096	R-454B	96	94	11.1	N/A	21.9	108	39	4.4	N/A	17.5	20	460/3/60	NF	700	7/S3.30	B-O

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

A. REFER TO SHEET M6.00 FOR SINGLE ZONE VAV AHU CONTROL DRAWING, POINTS LIST, AND SEQUENCE.
B. REFER TO SHEET M6.01 FOR FAN COIL UNIT CONTROL DRAWING, POINTS LIST, AND SEQUENCE.
C. EQUIPMENT CAPACITY SCHEDULED IS MINIMUM CAPACITY THAT MUST BE PROVIDED AT AMBIENT TEMPERATURE INDICATED.
D. CONTRACTOR SHALL VERIFY WITH EQUIPMENT SUPPLIER EXACT QUANTITY AND SIZE OF REFRIGERANT PIPING.
E. PROVIDE LIQUID LINE FILTER DRYER AND SIGHT GLASS.
F. PROVIDE CONCRETE HOUSEKEEPING PAD PER SPECIFICATIONS AND DETAIL 1 ON SHEET S3.30.
G. DISCONNECT SWITCH PROVIDED BY ELECTRICAL CONTRACTOR.
H. STARTERS FOR ALL MOTORS SHALL BE PROVIDED INTEGRAL WITH UNIT.
J. COORDINATE SIZE OF CONDUCTOR TERMINATION LUGS WITH CONDUCTOR SIZES SHOWN ON ELECTRICAL DRAWINGS.
K. PROVIDE CONDENSER COIL HAIL GUARDS.
L. PROVIDE A FACTORY APPLIED COIL CORROSION COATING TO CONDENSER COIL WHICH IS CAPABLE OF WITHSTANDING GREATER THAN 6,000 HOURS OF THE ASTM B117 SALT SPRAY TEST.
M. INSTALL REFRIGERANT PIPING BETWEEN CONDENSING UNIT AND INDOOR UNIT IN COMPLIANCE WITH MANUFACTURER RECOMMENDATIONS.
N. PROVIDE FACTORY BACNET MS/TP CARD. BACNET INTERFACE CARD SHALL BE INSTALLED IN AN OUTDOOR RATED ENCLOSURE.
O. MANUFACTURER AND CONTRACTOR TO ENSURE NOTHING IS INSTALLED ON TOP OF NAMEPLATE.

FAN COIL UNIT SCHEDULE (HEAT PUMP) - BLDG G

MARK	MANUFACTURER	MODEL	SUPPLY FAN				COOLING COIL					TOTAL	HEAT PUMP HEATING COIL				MIN	ELECTRICAL					WEIGHT (LBS)	NOTES
			CFM	ESP (IN)	TH (MBH)	SH (MBH)	EAT (°F DB)	EAT (°F WB)	LAT (°F DB)	LAT (°F WB)	REFR TYPE	HTG CAP (MBH)	AMBIENT (DB)	EAT (°F DB)	LAT (°F DB)	O/A (CFM)	V/PH	MCA	MOCP	DISC TYPE	STARTER TYPE		
FCU-G-3	CARRIER	MMD-UP054	1,575	0.8	54.0	51.3	80.0	67.0	59.0	57.4	R410A	60.0	38.9	70	85	ETR	208/3	3.6	15	NF	MFG	100	A-S
FCU-G-4	CARRIER	MMD-UP054	1,575	0.8	54.0	51.3	80.0	67.0	59.0	57.4	R410A	60.0	38.9	70	85	ETR	208/3	3.6	15	NF	MFG	100	A-S
FCU-G-5	CARRIER	MMD-UP096	3,000	0.6	96.0	91.2	80.0	67.0	59.0	57.4	R410A	108.0	38.9	70	85	ETR	208/3	7.4	15	NF	MFG	220	A-S

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NOTES:

A. ASSOCIATED CONDENSING UNIT SHALL BE BY THE SAME MANUFACTURER.
B. FOR COOLING, EQUIPMENT SIZED FOR 94°F AMBIENT TEMPERATURE. HEAT PUMP HEATING CAPACITY BASED ON AMBIENT TEMPERATURE LISTED.
C. UTILIZE THE UNIT INTEGRAL FILTER RACK. PROVIDE 2" MERV 13, PLEATED THROWAWAY AIR FILTERS.
D. PROVIDE WITH BACK INLET CONNECTION.
E. PROVIDE WITH FRONT OUTLET CONNECTION.
F. PROVIDE BACNET MS/TP CONTROLLER FOR INTEGRATION INTO EXISTING BAS.
G. PROVIDE FACTORY MOUNTED STARTER AND DISCONNECT SWITCH INSTALLED ON SERVICE SIDE OF UNIT.
H. PROVIDE SINGLE POINT POWER CONNECTION.
J. PROVIDE MOTOR HORSEPOWER TO OVERCOME INTERNAL UNIT STATIC PRESSURE DROP PLUS SPECIFIED EXTERNAL STATIC PRESSURE DROP. NOMINAL MOTOR HP SHALL BE NO LARGER THAN THE FIRST AVAILABLE NOMINAL MOTOR SIZE GREATER THAN THE REQUIRED BHP.
K. PROVIDE WITH SPRING VIBRATION ISOLATION AND ALL-THREAD HANGING RODS.
L. TOTAL HEATING CAPACITY INCLUDES THE HEAT PUMP HEATING COIL CAPACITY AT THE AMBIENT DRY BULB TEMPERATURE LISTED.
M. SELECT EQUIPMENT FOR ELEVATION OF 115 FEET ABOVE SEA LEVEL.
N. PROVIDE UNIT WITH MANUFACTURER'S INTEGRAL FLOOD DETECTOR IN PRIMARY DRAIN PAN THAT WILL SHUT OFF UNIT WHEN PRIMARY DRAIN IS BLOCKED.
O. PROVIDE A FACTORY APPLIED COIL CORROSION COATING TO EVAPORATOR COIL WHICH IS CAPABLE OF WITHSTANDING GREATER THAN 6,000 HOURS OF THE ASTM B117 SALT SPRAY TEST.
P. MANUFACTURER AND CONTRACTOR TO ENSURE NOTHING IS INSTALLED ON TOP OF NAMEPLATE.
Q. PROVIDE FACTORY BACNET MS/TP CARD.
R. PROVIDE UNIT WITH ZS2P-HCM-CAR THERMOSTAT TO REPLACE EXISTING ALERTON THERMOSTAT.
S. REFER TO DETAIL 6 ON SHEET M3.00 FOR ANCHORAGE INFORMATION.

ROOF HOOD SCHEDULE - BLDG G

MARK	SERVICE (INTAKE, EXHAUST)	MANUFACTURER	MODEL	CFM	MAX THROAT VEL (FPM)	MAX APD (IN)	THROAT (L" x W")	CURB (L" x W")	UNIT WEIGHT (LBS)	ADAPTER CURB WEIGHT (LBS)	ANCHORAGE DETAIL	NOTES
RH G-1	RELIEF	GREENHECK	WRH	9000	700	0.10	44" X 44"	52" X 52"	200	180	8/M3.00	A-C
RH G-2	RELIEF	GREENHECK	WRH	9000	700	0.10	44" X 44"	52" X 52"	200	180	8/M3.00	A-C

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NOTES:

A. PROVIDE WITH INTEGRAL BIRDSCREEN.
B. PROVIDE INSULATED ROOF CURB WITH MINIMUM HEIGHT REQUIRED TO MAINTAIN BOTTOM OF EQUIPMENT A MINIMUM OF 8 INCHES ABOVE FINISHED ROOF SURFACE. PROVIDE SLOPED CURB IF NEEDED TO MATCH ROOF SLOPE. COORDINATE WITH ROOF INSULATION THICKNESS AND ROOF TAPER AT INSTALLED LOCATION. COORDINATE CURB TYPE WITH DRAWINGS.
C. PROVIDE INTEGRAL BACKDRAFT DAMPER.

FAN SCHEDULE - BLDG G

MARK	SERVICE DESCRIPTION	MANUFACTURER	MOUNTING	MODEL	CFM	ESP (IN)	BHP	NOM HP	FAN RPM	DRIVE (BELT/DIRECT)	VFD (Y/N)	ELECTRICAL			WEIGHT (LBS)		ANCHORAGE DETAIL	NOTES
												V/PH	DISC TYPE	STARTER TYPE	EQUIPMENT	CURB ADAPTER		
EF-G-1	EXHAUST	GREENHECK	ROOF	G-120-VG	850	0.12	1/4	1065	DIRECT	N	115/1	NF	MFR	50	N/A	5/M3.00	A, B, D, E, G, K, L	
EF-G-2	EXHAUST	GREENHECK	ROOF	G-120-VG	850	0.12	1/4	1065	DIRECT	N	115/1	NF	MFR	50	N/A	5/M3.00	A, B, D, E, G, K, L	
EF-G-3	EXHAUST	GREENHECK	ROOF	G-120-VG	850	0.5	0.12	1/4	1065	DIRECT	N	115/1	NF	MFR	50	N/A	5/M3.00	A, B, D, E, G, K, L
EF-G-4	EXHAUST	GREENHECK	ROOF	G-120-VG	850	0.5	0.12	1/4	1065	DIRECT	N	115/1	NF	MFR	50	N/A	5/M3.00	A, B, D, E, G, K, L
EF-G-5	EXHAUST	ACME	ROOF	PV165E2	1170	0.5	0.17	1/4	863	BELT	N	115/1	DIV 26	DIV26	100	N/A	5/M3.00	A-B, E, G, K, L
EF-G-6	EXHAUST	ACME	ROOF	PV165E2	1170	0.5	0.17	1/4	863	BELT	N	115/1	DIV 26	DIV26	100	N/A	5/M3.00	A-B, E, G, K, L
EF-G-7	EXHAUST	ACME	ROOF	PRN163F	1585	0.5	0.25	1/3	1100	DIRECT	N	115/1	DIV 26	DIV26	125	N/A	5/M3.00	A, B, D, E, G, K, L
EF-G-8	EXHAUST	GREENHECK	ROOF	CUBE-120	1050	0.5	0.19	1/4	1183	BELT	N	115/1	NF	MFR	65	N/A	9/M3.00	A-C, E, G, K, L
SF G-1	SUPPLY	GREENHECK	ROOF	RBF-3H30-30	9000	0.5	1.52	2	1118	BELT	N	208/1	NF	MFR	560	285	8/M3.00	B, C, E-L
SF G-2	SUPPLY	GREENHECK	ROOF	RBF-3H30-30	9000	0.5	1.52	2	1116	BELT	N	208/1	NF	MFR	560	285	8/M3.00	B, C, E-L

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NOTES:

A. PROVIDE BIRDSCREEN AND GRAVITY BACKDRAFT DAMPER.
B. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
C. PROVIDE WITH MANUFACTURER'S FAN SPEED CONTROLLER FOR BALANCING PURPOSES.
D. PROVIDE WITH MANUFACTURER'S ELECTRONICALLY COMMUTATED (EC) MOTOR.
E. NOMINAL MOTOR HP SHALL BE NO LARGER THAN THE FIRST AVAILABLE NOMINAL MOTOR SIZE GREATER THAN THE BHP
F. PROVIDE FAN WITH MERV 4 CLEANABLE ALUMINUM MESH FILTERS.
G. SCHEDULED WEIGHT IS THE MAXIMUM ALLOWABLE OPERATING WEIGHT OF THE EQUIPMENT AND CURB WHERE APPLICABLE.
H. PROVIDE UNIT WITH VERTICAL SUPPLY AIR DUCT DISCHARGE THROUGH UNIT CURB.
J. PROVIDE UNIT WITH MOTORIZED INTAKE DAMPERS.
K. PRIOR TO DEMOLITION, CONTRACTOR SHALL PERFORM PRE-CONSTRUCTION TESTING ON ALL EXISTING UNITS TO CONFIRM AIRFLOW CFM, FAN EXTERNAL STATIC PRESSURE, AND FAN RPM. ENGINEER WILL REVIEW MEASURED DATA AND PROVIDE UPDATED EQUIPMENT SELECTIONS IF NECESSARY TO ALIGN WITH EXISTING CONDITIONS. VALUES SHOWN ON THE EQUIPMENT SCHEDULES REPRESENT DATA OBTAINED FROM AS-BUILTS & EQUIPMENT NAMEPLATES AND MAY DIFFER FROM EXISTING CONDITIONS.
L. MANUFACTURER AND CONTRACTOR TO ENSURE NOTHING IS INSTALLED ON TOP OF NAMEPLATE.

pacific rim architects
5912 bolsa ave | ste 212
huntington beach | ca 92649
ph: 714.840.2100 fx: 714.840.2101
www.pacificrimarchitects.com

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
2250001552

4/6/2026

LICENSED PROFESSIONAL ENGINEER — BRYAN JIMENEZ — M 38619 — EXPIRES: 9/30/2027 — MECHANICAL — STATE OF CALIFORNIA

SEAL:

DATE:	NO:	REVISION:
10.28.2024		DSA SUBMITTAL
02.28.2025		DSA RE-SUBMITTAL
05.02.2025		DSA 2ND RE-SUBMITTAL
08.22.2025	1	ADDENDUM 01
04.06.2026	2	ADDENDUM 02

RSCCD HVAC REPLACEMENT
Santa Ana College (SAC)
Building G
1530 W 17th Street Santa Ana, CA 92706

MECHANICAL SCHEDULES

SHEET TITLE:

DATE:

DESIGNED BY: HEI

PROJECT NUMBER PRA-RSCCD-01

SHEET
M5.00

BRYAN JIMENEZ

ELECTRICAL GENERAL NOTES:

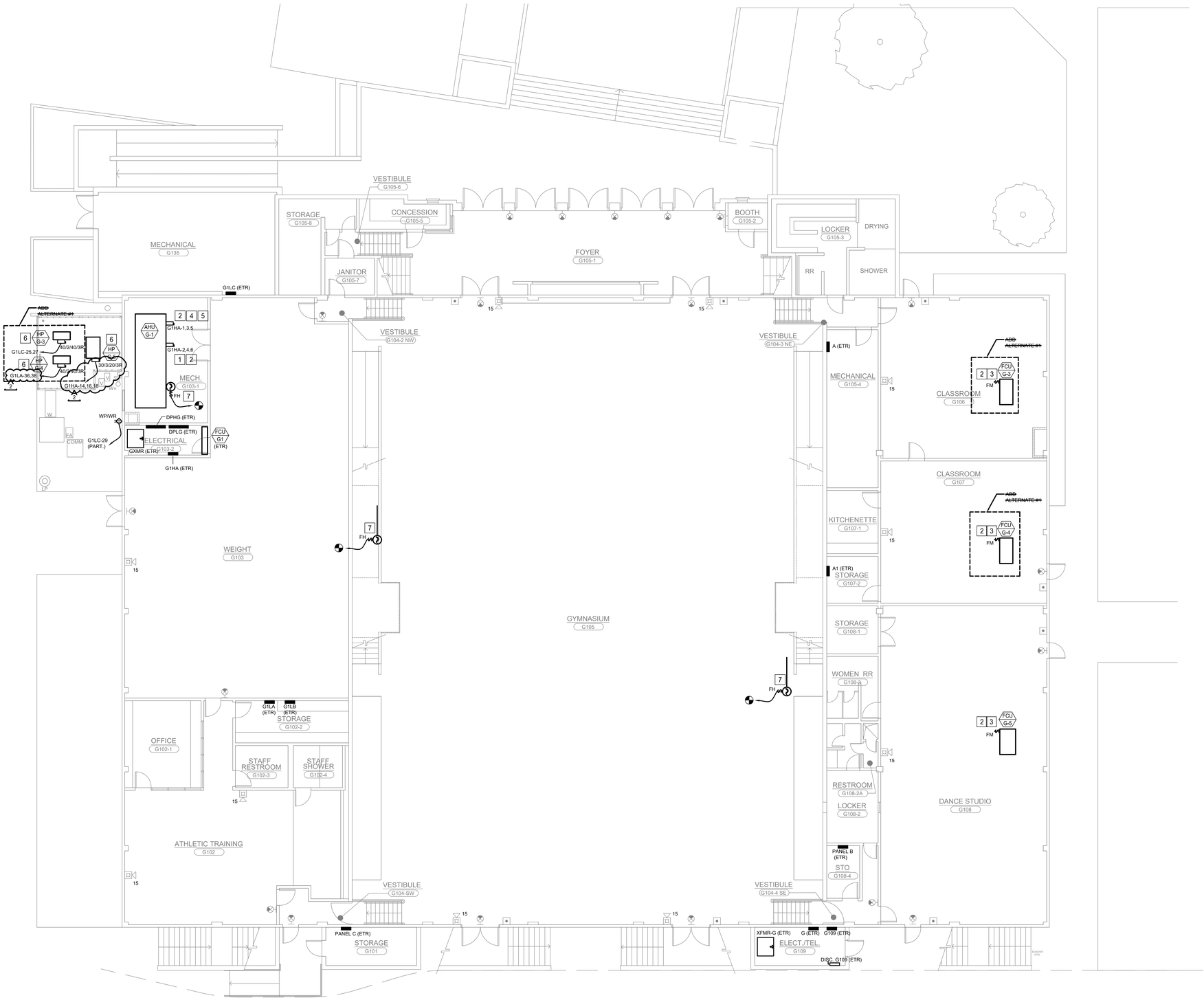
A. HVAC SERVICE RECEPTACLES ARE EXISTING TO REMAIN AND ARE NOT AFFECTED BY EQUIPMENT REPLACEMENT.

B. ALL EXIT SIGNS AND EMERGENCY LIGHTS ARE EXISTING TO REMAIN.

C. ~~EQUIPMENT SHOWN MARKED WITHIN BOUNDARIES AS "ADD ALTERNATE #1" SHALL BE BID AS ALTERNATE SCOPE AND INCLUDE ALL DEVICES, EQUIPMENT, CONDUIT AND WIRING REQUIRED FOR INSTALLATION OF NEW UNITS.~~

☐ ELECTRICAL PLAN NOTES:

1. EXTEND AND CONNECT EXISTING 480V/3PH BRANCH CIRCUIT TO NEW RETURN FAN. LOAD ADDED IS LESS THAN OR EQUAL TO THE LOAD REMOVED.
2. DISCONNECT SWITCH AND STARTER FURNISHED BY EQUIPMENT MANUFACTURER. COORDINATE INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
3. EXTEND AND CONNECT EXISTING 208V/3PH BRANCH CIRCUIT TO NEW FAN COIL UNITS. LOAD ADDED IS LESS THAN OR EQUAL TO THE LOAD REMOVED.
4. VFD AND DISCONNECT SWITCH FOR SUPPLY AND RETURN FAN FURNISHED BY MANUFACTURER AND FACTORY INSTALLED.
5. PROVIDE NEW CONDUCTORS IN EXISTING CONDUIT FOR NEW SUPPLY/RETURN FAN. SEE PANEL SCHEDULES ON SHEET E4.00 FOR ADDITIONAL INFORMATION.
6. EXISTING CONDENSING UNITS AND ASSOCIATED FAN COIL UNITS MUST REMAIN OPERATIONAL UNTIL INSTALLATION OF NEW UNITS (CU/FCU G-3, G-4, G-5) IS UNDERWAY AS PART OF THE BUILDING G ELECTRICAL SCOPE OF WORK. CONTRACTOR TO COORDINATE WITH THE DISTRICT ON PROJECT PHASING TO ENSURE EXISTING SYSTEMS ARE NOT SHUTDOWN PRIOR TO CONSTRUCTION IN BUILDING G.
7. PROVIDE CONDUIT WITH PULL STRING FROM EXISTING FIRE ALARM SYSTEM TO LOCATION OF NEW DUCT MOUNTED SMOKE DETECTOR. DETECTOR AND WIRING PROVIDED BY MECHANICAL CONTRACTOR. COORDINATE INSTALLATION WITH OTHER TRADES.



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

pacific rim architects
5912 bolsa ave | ste 212
huntington beach | ca 92649
ph: 714.840.2100 fx: 714.840.2101
www.pacificrimarchitects.com

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
2250001552

LICENSED PROFESSIONAL ENGINEER
MICHAEL THOMAS DERMYER
E 23429
EXPIRES: 9/31/2027
ELECTRICAL
STATE OF CALIFORNIA
04/07/2026

SEAL:

DATE:	NO:	REVISION:
10.28.2024		DSA SUBMITTAL
02.28.2025		DSA RE-SUBMITTAL
05.02.2025		DSA 2ND RE-SUBMITTAL
08.22.2025	1	ADDENDUM 01
04.06.2026	2	ADDENDUM 02

RSCCD HVAC REPLACEMENT
Santa Ana College (SAC)
Building G
1530 W 17th Street Santa Ana, CA 92706

ELECTRICAL FIRST FLOOR PLAN BUILDING 'G'

SHEET TITLE:

DATE:

DESIGNED BY: HEI

PROJECT NUMBER PRA-RSCCD-01

SHEET
E0.50

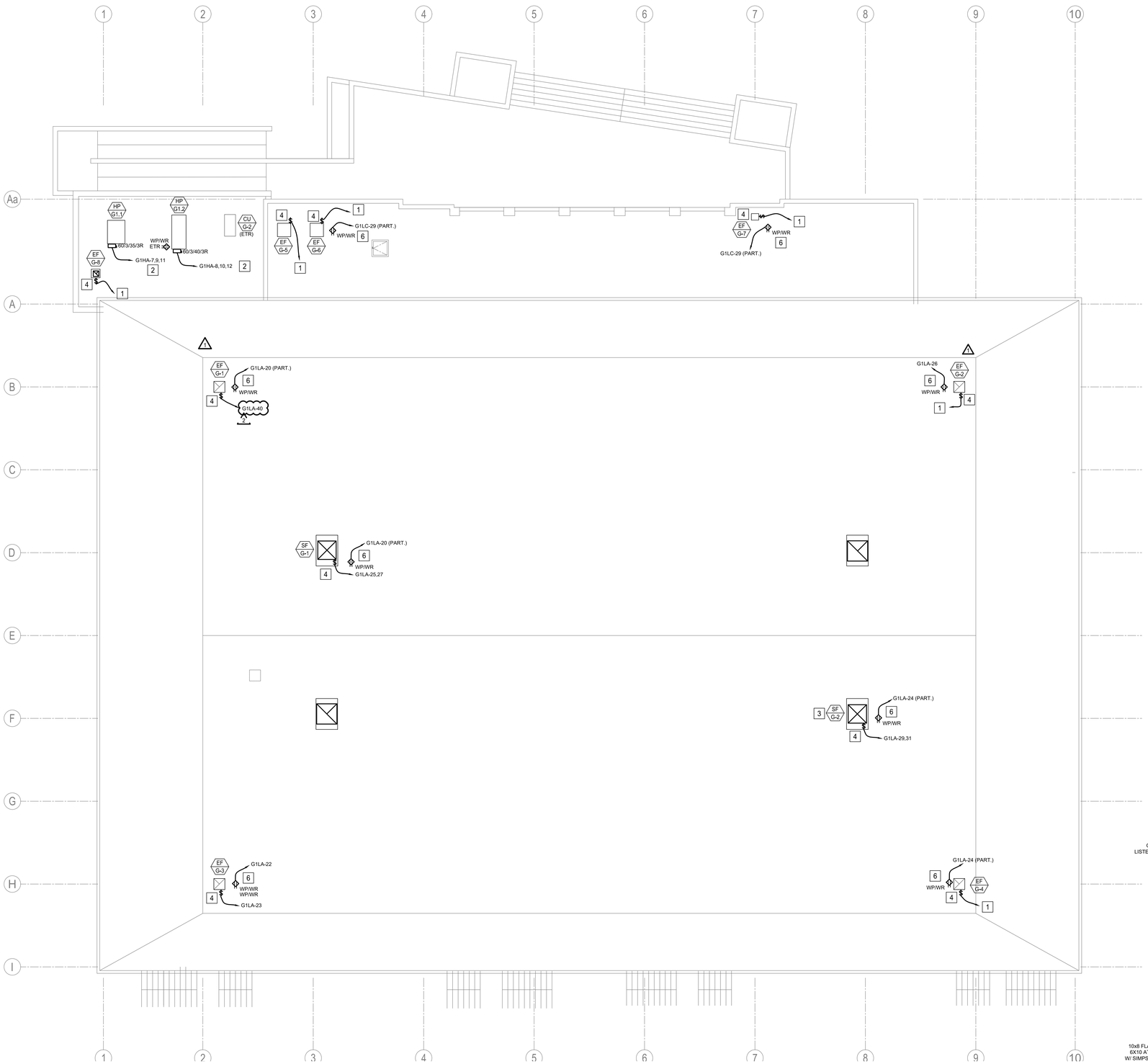
MICHAEL T. DERMYER

ELECTRICAL GENERAL NOTES:

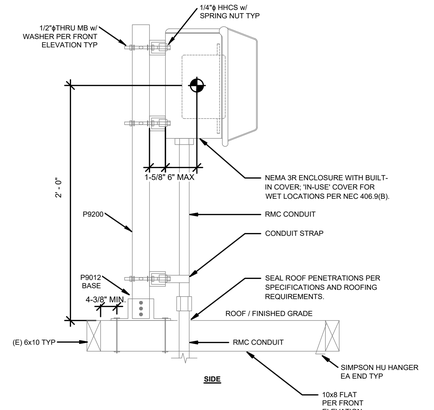
A. HVAC SERVICE RECEPTACLES ARE EXISTING TO REMAIN AND ARE NOT AFFECTED BY EQUIPMENT REPLACEMENT.

ELECTRICAL PLAN NOTES:

1. EXTEND AND CONNECT EXISTING 120V/1PH BRANCH CIRCUIT TO NEW EXHAUST FAN . LOAD ADDED IS LESS THAN OR EQUAL TO LOAD REMOVED.
2. EXTEND AND CONNECT EXISTING 480V/3PH BRANCH CIRCUIT TO NEW HEAT PUMP CONDENSING UNIT. LOAD ADDED IS LESS THAN OR EQUAL TO LOAD REMOVED.
3. EXTEND AND CONNECT EXISTING BRANCH CIRCUIT TO NEW SUPPLY FAN. LOAD ADDED IS LESS THAN OR EQUAL TO LOAD REMOVED.
4. DISCONNECT SWITCH AND STARTER FURNISHED BY EQUIPMENT MANUFACTURER. COORDINATE INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR.
5. CONNECT NEW MAINTENANCE RECEPTACLE FROM THE LINE SIDE OF THE EXISTING CIRCUIT FOR THE EQUIPMENT BEING REPLACED. TOTAL COMBINED ADDED LOAD FOR THE EQUIPMENT AND RECEPTACLE IS LESS THAN OR EQUAL TO THE LOAD BEING REMOVED.
6. PROVIDE STRUCTURAL SUPPORT FOR REQUIRED MAINTENANCE RECEPTACLE. STRUCTURAL SUPPORT SHALL BE SEPARATE FROM UNIT TO MAINTAIN ALL WORKING CLEARANCES AND SHALL BE COMPATIBLE WITH ROOFING SYSTEM TO MAINTAIN ALL ROOF WARRANTIES. MAINTAIN A MINIMUM OF 4FT CLEAR IN FRONT OF ALL DISCONNECTING MEANS AND RECEPTACLES. SUPPORT SHALL BE A MINIMUM OF 11FT FROM EDGE OF ROOF TO ENSURE OSHA WORKING CLEARANCE FROM ROOF EDGE. REFER TO DETAIL #2 ON THIS SHEET FOR ADDITIONAL INFORMATION.



1 ELECTRICAL ROOF PLAN
SCALE: 1/8"=1'-0"



2 EXTERIOR UNISTRUT MOUNT RECEPTACLE
SCALE: NTS

pacific rim architects
5912 bolsa ave | ste 212
huntington beach | ca 92649
ph: 714.840.2100 fx: 714.840.2101
www.pacificrimarchitects.com

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RSCCD HVAC REPLACEMENT
Santa Ana College (SAC)
Building G
1530 W 17th Street Santa Ana, CA 92706

ELECTRICAL ROOF PLAN BUILDING 'G'

SHEET TITLE:

DATE:

DESIGNED BY: HEI

PROJECT NUMBER PRA-RSCCD-01

SHEET
E1.00

MICHAEL T. DERMYER

ONE-LINE GENERAL NOTES:

A. ALL EQUIPMENT SHOWN IS EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.

ELECTRICAL PLAN NOTES:

1. METER READING IS NECESSARY TO DETERMINE IF THE EXISTING ELECTRICAL EQUIPMENT HAS CAPACITY TO ACCOMMODATE ADDITIONAL LOADS. PROVIDE 30-DAY DEMAND METERING AT FEEDER/EQUIPMENT INDICATED IN ACCORDANCE WITH CEC 220.87. RECORDING SESSION SHALL BEGIN IMMEDIATELY AFTER AWARD OF CONTRACT AND PRIOR TO DEMOLITION OF ANY EXISTING LOADS. PROVIDE A WRITTEN REPORT OF DEMAND VALUES TO ENGINEER FOR REVIEW IMMEDIATELY UPON COMPLETION OF RECORDING SESSION. ENGINEER SHALL THEN EVALUATE LOADS TO DETERMINE IF FURTHER WORK OR EQUIPMENT CHANGES WILL BE REQUIRED PRIOR TO CONNECTION OF NEW LOADS.

PRIOR TO DEMOLITION OF ANY EXISTING LOADS, 30-DAY METERING WAS CONDUCTED IN ACCORDANCE WITH CEC 220.87 FROM 12/23/2025 TO 02/04/2026. THE HIGHEST RECORDED PHASE AMPERAGE FOR EACH PANEL WAS AS FOLLOWS:

A. PANEL G1LC: 99.218 A ON PHASE B, RECORDED ON 1/16/2026
B. PANEL G1LA: 31.9081 A ON PHASE B, RECORDED ON 01/29/2026
C. PANEL A: 3.4226 A ON PHASE A, RECORDED ON 01/26/2026
D. PANEL G: 4.3305 A ON PHASE C, RECORDED ON 01/16/2026
E. PANEL G1HA: 91.0414 A ON PHASE A, RECORDED ON 01/16/2026

BASED ON RECORDED METERING DATA, THE ELECTRICAL PANELS HAVE SUFFICIENT CAPACITY TO ACCOMMODATE THE NEW ELECTRICAL LOADS.

2

ONE LINE GENERAL NOTES:

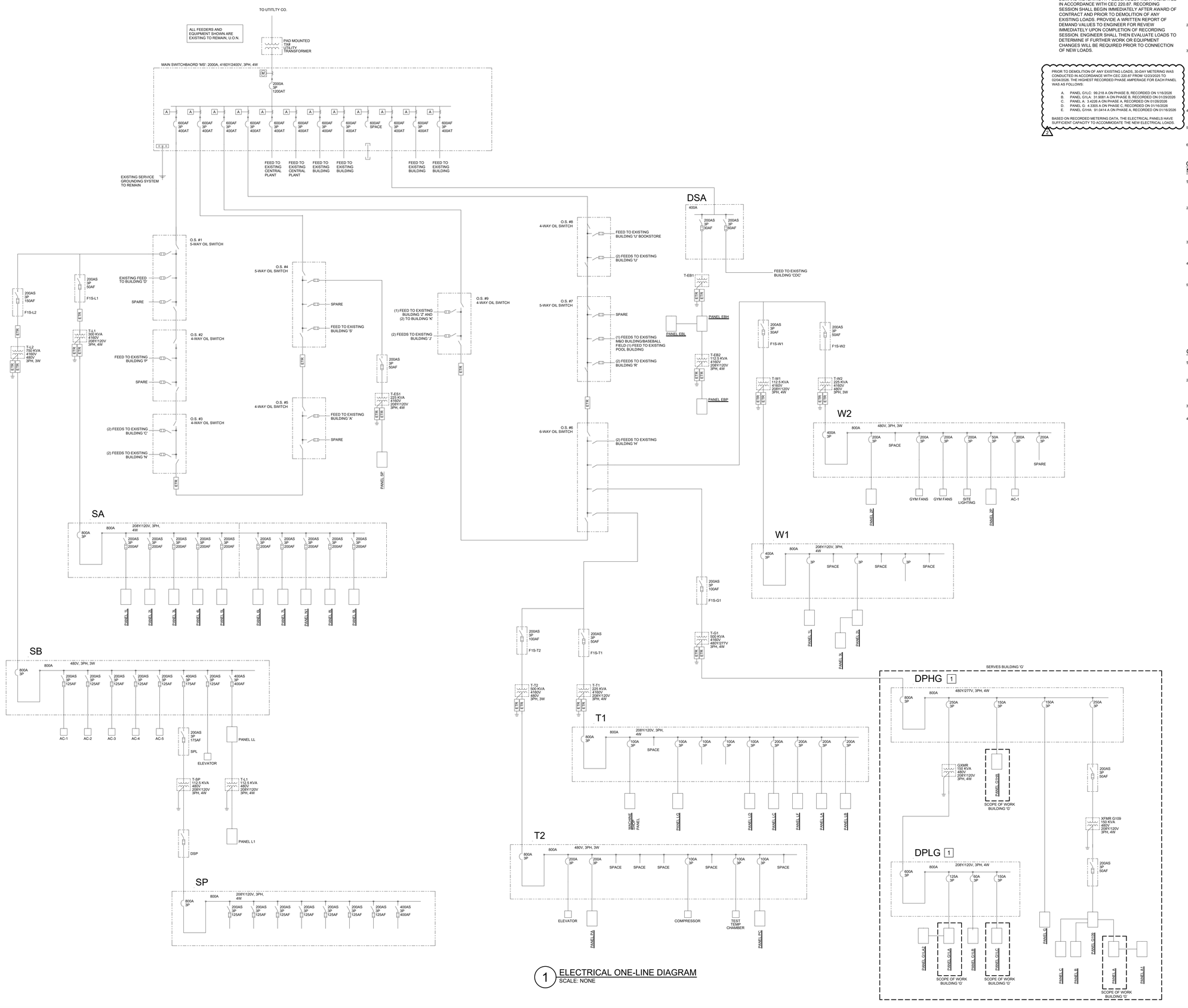
1. ATHE INFORMATION SHOWN IN THE VOLTAGE DROP CALCULATION SCHEDULE ARE SHOWN FOR CALCULATION PURPOSES ONLY. CONTRACTOR SHALL NOT USE THE CONDUIT TYPES, CONDUCTOR TYPES, SIZES, QUANTITIES OR LENGTHS FOR TAKEOFFS OR BIDDING PURPOSES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THIS SCHEDULE AND OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL NOTIFY ENGINEER OF AS-BUILT CONDITIONS THAT CONSTITUTE A CHANGE FROM WHAT IS SHOWN BELOW; THIS INCLUDES CONDUCTOR LENGTHS DIFFERING BY MORE THAN 10A.
2. FEEDER NUMBER DESIGNATIONS PRECEDED BY "Y" INDICATE THAT THE CONDUCTORS ARE UP-SIZED DUE TO VOLT-DROP CONSIDERATIONS. EQUIPMENT GROUND WIRE SHALL BE INCREASED IN SIZE PER CODE. PROVIDE LUG ADAPTERS AS NEEDED IN ORDER TO PROPERLY LAND CONDUCTORS AT TERMINATION(S).
3. FEEDER SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNLESS NOTED OTHERWISE. NUMBER DESIGNATIONS PRECEDED BY "A" INDICATE THAT THE SIZE IS BASED ON ALUMINUM (AL) WIRE. AL CONDUCTOR SIZES ARE BASED ON XHHW-2 INSULATION, UNLESS NOTED OTHERWISE. AL WIRE MAY BE SUBSTITUTED FOR CU FEEDERS AS ALLOWED BY CODE, SPECIFICATIONS AND OWNER, UNLESS NOTED OTHERWISE. AT CONTRACTOR'S OPTION, CU WIRE MAY BE SUBSTITUTED FOR AL, UNLESS NOTED OTHERWISE. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS, UNLESS NOTED OTHERWISE. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC. ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. INSTALL FEEDERS OVERHEAD AS HIGH AS PRACTICABLE AND ORTHOGONALLY ALONG BUILDING STRUCTURE, UNLESS NOTED OTHERWISE. COORDINATE FINAL ROUTING WITH OTHER TRADES.
5. PROVIDE CIRCUIT BREAKER FRAME SIZE AND TERMINATIONS FOR CONDUCTORS SHOWN. TRIP UNIT MODULE RATING SHALL NOT EXCEED RATING SHOWN.
6. PROVIDE PERMANENT LABELS ON FRONT OF ELECTRICAL EQUIPMENT ENCLOSURES PER SPECIFICATIONS, INDUSTRY STANDARDS, AND LOCAL REQUIREMENTS.

ONE LINE SUPPLEMENTAL GENERAL NOTES:

1. COORDINATE WORK WITH ARCHITECTURAL PHASING DRAWINGS TO PROPERLY STAGE TRANSITION TO PROVIDE POWER TO EXISTING, NEW AND TEMPORARY LOADS. MONITOR LOADS ON DISTRIBUTION SYSTEM TO MAKE SURE SHIFTING OF LOADS DOES NOT OVERLOAD ELECTRICAL EQUIPMENT.
2. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXISTING AIC/SCCR RATING OF EACH PANELBOARD/SWITCHBOARD. ALL NEW AND EXISTING OVER-CURRENT PROTECTION DEVICES (CIRCUIT BREAKERS AND FUSES) MUST HAVE AN AIC/SCCR RATING EXCEEDING THE AVAILABLE FAULT CURRENT AT THAT POINT IN THE SYSTEM. NOTIFY THE OWNER AND THE ENGINEER IF THE EXISTING EQUIPMENT DOES NOT COMPLY WITH THIS REQUIREMENT.
3. VERIFY THE INTEGRITY OF THE EXISTING GROUNDING ELECTRODE SYSTEM AND THAT THE NEUTRAL AND GROUND ARE PROPERLY BONDED TOGETHER AT THE POINT OF SERVICE ENTRANCE. NOTIFY OWNER AND THE ENGINEER OF ANY EXISTING DEFICIENCIES.
4. VACUUM CLEAN ALL NEW AND EXISTING ELECTRICAL EQUIPMENT ALTERED UNDER THIS PROJECT TO REMOVE FOREIGN DEBRIS AND DUST. ALL OPENINGS SHALL BE SEALED PER CODE; PROVIDE LISTED KNOCKOUT PLUGS AND CIRCUIT BREAKER BLANKS AS NEEDED.
5. AS APPLICABLE, OBTAIN THE FOLLOWING INFORMATION IN REGARD TO THE EXISTING ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM AND REPORT FINDINGS TO THE ENGINEER FOR ANALYSIS PRIOR TO BEGINNING CONSTRUCTION:
   A. AVAILABLE FAULT CURRENT DELIVERED AT THE POINT OF BUILDING SERVICE. INCLUDE THE AVAILABLE FAULT CURRENT DELIVERED TO THE DISTRIBUTION SYSTEM.
   B. TYPE OF SERVICE DISCONNECT OVER-CURRENT PROTECTION DEVICE, (FUSE OR CIRCUIT BREAKER), AMPERE RATING OF THE DEVICE AND AIC/SCCR RATING OF THE DEVICE.
   C. AIC/SCCR RATING AT EACH EXISTING SWITCHBOARD/PANELBOARD.

ONE LINE SUPPLEMENTAL SPECIFICATIONS:

1. GROUNDING ELECTRODE SYSTEM SHALL BE PER LOCAL REQUIREMENTS AND SHALL NOT BE LESS STRINGENT THAN THAT SPECIFIED IN THE CONSTRUCTION DOCUMENTS.
2. PROVIDE PROPERLY SIZED LUGS FOR ALL EQUIPMENT. CIRCUIT BREAKERS, AND OTHER ELECTRICAL DEVICES TO ACCOMMODATE INSTALLED CONDUCTORS. A LARGER FRAME, OVERSIZED LUGS OR NON-STANDARD PRODUCT MAY BE REQUIRED IN SOME INSTANCES. UTILIZE PIN ADAPTERS ONLY IF NECESSARY AND ONLY AS ALLOWED BY MANUFACTURER AND AHJ.
3. PROVIDE ANY AVAILABLE SPACE IN SWITCHBOARDS / PANELBOARDS WITH BUSSING.
4. PROVIDE TYPED FINAL CIRCUIT DIRECTORY FOR ALL PANELBOARDS TO REFLECT ACTUAL AS-BUILT CONDITIONS. COORDINATE FINAL ROOM NAMES, NUMBERS AND DESCRIPTIONS WITH OWNER PRIOR TO COMPLETION. CIRCUIT DESCRIPTIONS SHALL BE PER CODE AND SHALL BE DISTINGUISHABLE FROM ALL OTHERS.



1 ELECTRICAL ONE-LINE DIAGRAM
SCALE: NONE

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5912 bolsa ave | ste 212
huntington beach | ca 92649
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2250001552

LICENSED PROFESSIONAL ENGINEER
MICHAEL THOMAS DERMYER
E 23429
EXPIRES: 3/31/2027
ELECTRICAL
STATE OF CALIFORNIA
SEAL: 04/07/2026

DATE:	NO:	REVISION:
10.28.2024		DSA SUBMITTAL
02.28.2025		DSA RE-SUBMITTAL
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RSCCD HVAC REPLACEMENT
Santa Ana College (SAC)
Building G
1530 W 17th Street Santa Ana, CA 92706

ELECTRICAL ONE-LINE DIAGRAM

SHEET TITLE:

DATE:
DESIGNED BY: HEI
PROJECT NUMBER PRA-RSCCD-01

SHEET
E3.00

MICHAEL T. DERMYER

PANELBOARD: G1LC (ETR)

BUS AMPS: 225A
MAIN SIZE/TYPE: 150A MCB
VOLTS/PHASE: 208Y/120V, 3PH, 4W
SECTION: 1

FED FROM: SWITCHBOARD "DPLG"
AIC RATING: 10000; FULLY RATED
MOUNTING: SURFACE
SERVES: GENERAL POWER
LOCATION: ROOM G135

LINE-SIDE LUGS: MECHANICAL
EQUIPMENT GROUND BUS

	CKT NO.	DESCRIPTION	VOLTAMPS/PHASE A	B	C	WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE A	B	C	DESCRIPTION	CKT NO.	
EX	1	STORAGE / REST RM, LTG [E]	806			EX	20	1	1	20	EX	720			AUTO SOAP DISPENSER [E]	2	EX
EX	3	R1-EXTERIOR LTG. [E]		150		EX	20	1	2	20	EX		1,834		CU-G2 [E]	4	EX
EX	5	TOILETS 2ND FLOOR [E]			720	EX	20	1						1,834		6	
EX	7	HAND DRYER [E]	1,600			EX	20	1	1	20	EX	600			AUTO-FLUSH XFMR [E]	8	EX
EX	9	HAND DRYER [E]		1,600		EX	20	1	1	20	EX		600		AUTO-FLUSH XFMR [E]	10	EX
EX	11	HAND DRYER [E]			1,600	EX	20	1	1	20	EX			600	AUTO-FLUSH XFMR [E]	12	EX
EX	13	HAND DRYER [E]	1,600			EX	20	1	1	20	EX	600			AUTO-FLUSH XFMR [E]	14	EX
EX	15	FCU-G1 [E]		200		EX	20	2	1	20	EX		1,080		CONV. RECEPT. [E]	16	EX
	17				200				**1**	**20**	**EX**			**1,392**	**EF G-5 & EF G-6 (M)**	18	R
EX	19	R1-EXTERIOR LTG. [E]	420			EX	20	1	1	20	EX	600			SPARE	20	EX
EX	21	HAND DRYER [E]		1,600		EX	20	1	1	20					SPARE	22	EX
EX	23	HAND DRYER [E]			1,600	EX	20	1	1	20					SPARE	24	EX
N	25	**HP-G3**	3,200			**8**	**40**	2	1	20					SPARE	26	EX
	27			3,200					1	20					SPARE	28	EX
VD,R	29	**RCPT - EXTERIOR ELEC RM**			540	**10**	**20**	1	1	20					SPARE	30	EX
		SUBTOTAL	7,826	6,750	4,660							2,820	3,114	3,420	SUBTOTAL		

TOTAL PHASE A - VA	10,146	LOAD		CONN. VA	DF	LOAD		CONN. VA	DF										
AMPS	85	COOLING	[C]	6,400	1.00	REFRIG	[F]		1.00										
TOTAL PHASE B - VA	10,264	HEATING	[H]		0	SIGNAGE	[S]		1.25										
AMPS	86	LIGHTING	[L]		1.25	KITCHEN	[K]		1.00										
TOTAL PHASE C - VA	8,486	RECEPTACLES	[R]	1,260	1.0/.5	EXISTING	[E]	19,844	1.00										
AMPS	71	MOTORS	[M]	216	1.00	LRG MTR .5 HP		1,176	1.25	TOTAL DEMAND									
TOTAL PNLBD - VA	28,896	SUPP HEAT	[U]		1.00	SHOW WND [W]			1.25	29,190 VA									
AMPS	80	MISC EQUIP	[Z]		1.00	LTG TRACK			1.00	81 A									

PANELBOARD NOTES

PANELBOARD: G1HA (ETR)

BUS AMPS: 225A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 480Y/277V, 3PH, 4W
SECTION: 1

FED FROM: SWITCHBOARD "DPHG"
AIC RATING: 18000; FULLY RATED
MOUNTING: SURFACE
SERVES: MECHANICAL EQUIPMENT
LOCATION: ELEC ROOM

LINE-SIDE LUGS: MECHANICAL
EQUIPMENT GROUND BUS

	CKT NO.	DESCRIPTION	VOLTAMPS/PHASE A	B	C	WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE A	B	C	DESCRIPTION	CKT NO.	
	1		3,664										2,865			2	
N	3	**AH-G1 SUPPLY FAN (M)**		3,664		**10**	**30**	**3**	**3**	**15**	**EX**		2,865		**AG-G1 RETURN FAN (M)**	4	EX
	5				3,664									2,865		6	
	7		6,957									8,125				8	
N	9	**HP-G1.1 (C)**		6,957		**EX**	**35**	**3**	**3**	**40**	**EX**		8,125		**HP-G1.2 (C)**	10	N
	11				6,957									4,125		12	
	13												3,718			14	
EX	15	SPARE				EX	15	3	**3**	**20**	**12**		3,718		**HP-G6 (C)**	16	N
	17													3,718		18	
	19															20	
EX	21	SPARE				EX	15	3	3	15	EX				SPARE	22	EX
	23															24	
	25															26	
EX	27	SPARE				EX	15	3	3	15	EX				SPARE	28	EX
	29															30	
EX	31	SPARE				EX	20	1	1	20	EX				SPARE	32	EX
EX	33	SPARE				EX	20	1	1	20	EX				SPARE	34	EX
EX	35	SPARE				EX	20	1	1	20	EX				SPARE	36	EX
EX	37	EQUIPPED SPACE				EX		1					12,000			38	
EX	39	EQUIPPED SPACE				EX		1	3	50	EX		12,000		50/3 WATER HEATER [E]	40	EX
EX	41	EQUIPPED SPACE				EX		1						12,000		42	
		SUBTOTAL	10,621	10,621	10,621							26,708	26,708	26,708	SUBTOTAL		

TOTAL PHASE A - VA	37,329	LOAD		CONN. VA	DF	LOAD		CONN. VA	DF										
AMPS	135	COOLING	[C]	45,246	1.00	REFRIG	[F]		1.00										
TOTAL PHASE B - VA	37,329	HEATING	[H]		0	SIGNAGE	[S]		1.25										
AMPS	135	LIGHTING	[L]		1.25	KITCHEN	[K]		1.00										
TOTAL PHASE C - VA	37,329	RECEPTACLES	[R]		1.0/.5	EXISTING	[E]	36,000	1.00										
AMPS	135	MOTORS	[M]	21,626	1.00	LRG MTR: 7.5HP		9,115	1.25	TOTAL DEMAND									
TOTAL PNLBD - VA	111,987	SUPP HEAT	[U]		1.00	SHOW WND [W]			1.25	114,266 VA									
AMPS	135	MISC EQUIP	[Z]		1.00	LTG TRACK			1.00	137 A									

PANELBOARD NOTES

PANELBOARD: G1LA (ETR)

BUS AMPS: 225A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120V, 3PH, 4W
SECTION: 1

FED FROM: DPLG
AIC RATING: CONTRACTOR TO VERIFY & NOTIFY EOR
MOUNTING: SURFACE
SERVES: POWER AND LIGHTING
LOCATION: STORAGE G102-2

LINE-SIDE LUGS: MECHANICAL
EQUIPMENT GROUND BUS

	CKT NO.	DESCRIPTION	VOLTAMPS/PHASE A	B	C	WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE A	B	C	DESCRIPTION	CKT NO.	
EX	1	WEIGHT ROOM RCPTS [E]	360			EX	20	1	1	20	EX	360			TRAINING ROOM RCPTS [E]	2	EX
EX	3	WEIGHT ROOM RCPTS [E]		360		EX	20	1	1	20	EX		360		TRAINING ROOM RCPTS [E]	4	EX
EX	5	WEIGHT ROOM RCPTS [E]			360	EX	20	1	1	20	EX			360	TRAINING ROOM RCPTS [E]	6	EX
EX	7	MECH/TRAIN RCPT [E]	180			EX	20	1	1	20					SPARE	8	
EX	9	MECH/TRAIN RCPT [E]		180		EX	20	1	1	20					SPARE	10	
	11	SPARE					20	1	1	20					SPARE	12	
	13	SPARE					20	1	1	20	EX	600			R-WEIGHT ROOM LTG [E]	14	EX
EX	15	TRAINING RM EGRESS LTS [E]		300		EX	20	1	1	20	EX		600		R-WEIGHT ROOM LTG [E]	16	EX
EX	17	TRAINING RM LIGHTING [E]			900	EX	20	1	1	20	EX			600	R-WEIGHT ROOM LTG [E]	18	EX
EX	19	OFFICE LIGHTING [E]	300			EX	20	1	**1**	**20**	**10**	**360**			**ROOF RECEPTACLES 1 [R]**	20	R,VD
EX	21	OFFICE/MECH LIGHTING [E]		300		EX	20	1	**1**	**20**	**10**		**180**		**ROOF RECEPTACLES 2 [R]**	22	R,VD
VD,R	23	**EF-G3 [M]**			**696**	**12**	**20**	1	**1**	**20**	**10**			**360**	**ROOF RECEPTACLES 3 [R]**	24	R,VD
VD,N	25	**SF-G1 [M]**	**1,372**			**10**	**20**	**2**	**1**	**20**	**10**	**180**			**ROOF RECEPTACLES 4 [R]**	26	R,VD
	27			**1,372**					1	20					SPARE	28	
VD,N	29	**SF-G2 [M]**			**1,372**	**10**	**20**	**2**	1	20	EX			200	LCP [E]	30	EX
	31		**1,372**						1	20	EX	720			FIRE ALARM PANEL [E]	32	EX
	33			2,100					1	20	EX		1,200		BACKBOARD [E]	34	EX
EX	35	PANEL G1LA2 [E]			2,100	EX	60	3	**2**	**40**	**8**			**3,200**	**HP-G4 (C)**	36	N
	37		2,100									**3,200**				38	
EX	39	WATER HEATER MECH [E]		2,200		EX	30	1	**1**	**20**	**10**		**696**		**EF G-1 [M]**	40	R,VD
	41	SPARE					20	1							SPARE	42	
		SUBTOTAL	5,884	6,812	5,428							5,420	3,036	4,720	SUBTOTAL		

TOTAL PHASE A - VA	11,104	LOAD		CONN. VA	DF	LOAD		CONN. VA	DF										
AMPS	93	COOLING	[C]		1.00	REFRIG	[F]		1.00										
TOTAL PHASE B - VA	9,848	HEATING	[H]		0	SIGNAGE	[S]		1.25										
AMPS	82	LIGHTING	[L]		1.25	KITCHEN	[K]		1.00										
TOTAL PHASE C - VA	10,148	RECEPTACLES	[R]	1,080	1.0/.5	EXISTING	[E]	16,740	1.00										
AMPS	85	MOTORS	[M]	6,880	1.00	LRG MOTOR			1.25	TOTAL DEMAND									
TOTAL PNLBD - VA	31,100	SUPP HEAT	[U]		1.00	SHOW WND [W]		6,400	1.25	32,700 VA									
AMPS	86	MISC EQUIP	[Z]		1.00	LTG TRACK			1.00	91 A									

PANELBOARD NOTES

PANELBOARD: A (ETR)

BUS AMPS: 225A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 120/240V, 1PH, 3W
SECTION: 1

FED FROM: G109
AIC RATING: 10000; FULLY RATED
MOUNTING: SURFACE
SERVES: GENERAL POWER
LOCATION: G105-4

LINE-SIDE LUGS: MECHANICAL
EQUIPMENT GROUND BUS

	CKT NO.	DESCRIPTION	VOLTAMPS/PHASE A	B	WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE A	B	DESCRIPTION	CKT NO.	
	1	CLASSROOM LIGHTS [E]	1,000		EX	15	1	1	15	EX	1,000		CLASSROOM LIGHTS [E]	2	
	3	CLASSROOM LIGHTS [E]		1,000	EX	15	1	1	15	EX		1,000	CLASSROOM LIGHTS [E]	4	
	5	OFFICE LIGHTS [E]	300		EX	15	1	1	15	EX	300		KITCHEN LIGHTS [E]	6	
	7	LAVATORY LIGHTS AND FAN [E]		600	EX	15	1	1	15	EX		300	OFFICE LIGHTS [E]	8	
	9	ATTIC LIGHTS [E]	300		EX	15	1	1	15	EX	600		OUTSIDE LIGHTS [E]	10	
	11	CLASSROOM RECEPTACLES [E]		900	EX	15	1	1	15	EX		600	FOYER LIGHTS [E]	12	
	13	LAVATORY OUTLETS [E]	360		EX	15	1	1	15	EX	720		KITCHEN OUTLETS [E]	14	
	15	OFFICE VENT FAN [E]		100	EX	15	1	**1**	**15**	**EX**		**696**	**EF G-2 [M]**	16	R
	17	GYM CEILING RECEPTACLE [E]	180		EX	15	1								
	19	GYM CEILING RECEPTACLE [E]		180	EX	15	1	2	60	EX	2,500		PANEL A1	18	
	21	**EF-G7 [M]**	**696**		**EX**	**15**	**1**					2,500		20	
R	23	GYM CEILING RECEPTACLE [E]		180	EX	15	1	1	15	EX	180		GYM CEILING RECEPTACLE [E]	22	
		SUBTOTAL	2,836	2,960							5,300	5,276	SUBTOTAL	24	

TOTAL PHASE A - VA	8,136	LOAD		CONN. VA	DF	LOAD		CONN. VA	DF										
AMPS	68	COOLING	[C]		1.00	REFRIG	[F]		1.00										
TOTAL PHASE B - VA	8,236	HEATING	[H]		0	SIGNAGE	[S]		1.25										
AMPS	69	LIGHTING	[L]		1.25	KITCHEN	[K]		1.00										
TOTAL PNLBD - VA	16,372	RECEPTACLES	[R]		1.0/.5	EXISTING	[E]	14,980	1.00										
AMPS	68	MOTORS	[M]	1,392	1.00	LRG MOTOR			1.25	TOTAL DEMAND									
		SUPP HEAT	[U]		1.00	SHOW WND [W]			1.25	16,372 VA									
		MISC EQUIP	[Z]		1.00	LTG TRACK			1.00	68 A									

PANELBOARD NOTES

VOLTAGE DROP CALCULATOR - BRANCH CIRCUITS

PROJECT:	RANCHO SANTIAGO HVAC REPLACEMENT - BUILDING G
LOCATION:	SANTA ANA, CA
CLIENT:	PACIFIC RIM ARCHITECTS
JOB NUMBER:	2250001552
DATE:	10/8/2024
CALCULATED BY:	K.JL

Circuit #	Identification	Circuit Breaker Size (Amps)	Conduit Type P or S	Conductor Material CU or AL	No. of Sets	Wire Size Ph/N	Voltage	Phase (1 or 3)	Circuit Length (Feet)	Power Factor (PF)	Circuit Load (Amps)	Circuit Ampacity (Amps)	Theta (radians)	Voltage Drop (Volts)	Voltage Drop (%)	Equipment Ground Size
G1HA-1,3,5	AH-G1 SUPPLY FAN	30	S	CU	1	10	480	3	40	0.85	13	30	0.5548	0.95	0.20%	10
G1HA-2,4,6	AH-G1 RETURN FAN	15	S	CU	1	12	480	3	30	0.85	11	20	0.5548	0.99	0.21%	14
G1HA-7,9,11	HP-G1.1	35	S	CU	1	6	480	3	50	0.85	26	55	0.5548	1.01	0.21%	*8*
G1HA-8,10,12	HP-G1.2	60	S	CU	1	4	480	3	50	0.85	31	55	0.5548	1.21	0.25%	*8*
G1LC-22,24,26	HP-G5	20	S	CU	1	12	480	3	50	0.85	14	20	0.5548	2.10	0.44%	12
G1LC-25,27	HP-G3	40	S	CU	1	8	208	1	40	0.85	31	40	0.5548	1.73	0.83%	10
G1LC-28,30	HP-G4	40	S	CU	1	8	208	1	40	0.85	31	40	0.5548	1.73	0.83%	10
G1LA-25,27	SF-G1	20	S	CU	1	10	208	1	90	0.85	14	30	0.5548	2.65	1.28%	*10*
G1LA-29,31	SF-G2	20	S	CU	1	10	208	1	130	0.85	14	30	0.5548	3.83	1.84%	*10*

PANELBOARD LEGEND

ABBREVIATIONS V1.01

AF	ARC FAULT CIRCUIT INTERRUPTER.
C#	CIRCUIT VIA CONTACTOR #.
CL	CIRCUIT VIA CURRENT LIMITING DEVICE.
D	DISCONNECT CIRCUITRY FOR REMOVED LOAD, UPDATE CIRCUIT DIRECTORY TO SPARE AND TURN OFF.
EM	EMERGENCY LIGHTING HANDLE-ON CLAMP.
EX	EXISTING.
F	FUTURE LOAD; NOTE AS SPARE AND TURN OFF.
FA	RED/HANDLE-ON CLAMP.
GF	GROUND-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER (5 mA).
GFEP	GROUND FAULT EQUIPMENT PROTECTION BREAKER (30 mA).
HT	PROVIDE HANDLE-TIE FOR MULTI-WIRE BRANCH CIRCUIT PER CODE.
IG	ISOLATED GROUND CIRCUIT.
L#	LIGHTING CONTROL SCHEME NUMBER.
LCK	HANDLE PADLOCKABLE-OFF DEVICE.
LO	HANDLE-ON CLAMP.
N	PROVIDE NEW CIRCUIT BREAKER.
OL	REFER TO ELECTRICAL ONE-LINE/RISER DIAGRAM.
PS	POWER-SWITCHING CIRCUIT BREAKER.
PSE	EMERGENCY POWER-SWITCHING CIRCUIT BREAKER.
R	REUSE EXISTING CIRCUIT BREAKER FOR NEW/REVISED LOAD.
RP	CIRCUIT VIA RELAY PANEL.
ST	SHUNT TRIP CIRCUIT BREAKER.
V	VERIFY EXISTING LOAD AND UPDATE DIRECTORY, IF UNUSED, NOTE AS SPARE AND TURN OFF.
VD	BRANCH CIRCUITRY HAS BEEN UPSIZED TO REDUCE VOLTAGE DROP. ADJUST GROUND WIRE SIZE PER CODE. PROVIDE LUG ADAPTORS IF REQUIRED.
Z	CORRECT/REPAIR EXISTING HAZARD TO MAKE CODE COMPLIANT INSTALLATION.

NOT ALL ABBREVIATIONS ARE USED.

pacific rim architects
5912 bolsa ave | ste 212
huntington beach | ca 92649
ph: 714.840.2100 fx: 714.840.2101
www.pacificrimarchitects.com

HENDERSON ENGINEERS
8345 LENEXA DRIVE, SUITE 300
LENEXA, KS 66214
TEL 913.742.5000 FAX 913.742.5001
WWW.HENDERSONENGINEERS.COM
2250001552

LICENSED PROFESSIONAL ENGINEER
MICHAEL THOMAS DERMYER
E 23429
EXPIRES: 9/31/2027
ELECTRICAL
STATE OF CALIFORNIA
04/07/2026

SEAL:

DATE:	NO:	REVISION:
10.28.2024		DSA SUBMITTAL
02.28.2025		DSA RE-SUBMITTAL
05.02.2025		DSA 2ND RE-SUBMITTAL
08.22.2025	1	ADDENDUM 01
04.06.2026	2	ADDENDUM 02

RSCCD HVAC REPLACEMENT
Santa Ana College (SAC)
Building G

1530 W 17th Street Santa Ana, CA 92706

ELECTRICAL SCHEDULES

SHEET TITLE:

DATE:
DESIGNED BY: HEI
PROJECT NUMBER PRA-RSCCD-01

SHEET
E4.00

MICHAEL T. DERMYER

AD 2-1 Responses to Questions

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 01

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	March 12, 2026		
FROM:	Teresa Pacific West Industries Inc.	EMAIL:	teresa.m@pacwestac.com
SPEC SECTION:	N/A	DRAWING NUMBER:	N/A

REQUESTED CLARIFICATION:

Can a C20 HVAC License classification bid as the prime for this project? The majority of the work falls under this classification, per the license description on the California Contractor's State Licemnse Board. C-20 - Warm-Air Heating, Ventilating and Air-Conditioning Contractor California Code of Regulations Title 16, Division 8, Article 3. A "B" license is typically required when a project involves two or more unrelated building trades; however, when the majority of the work falls within a single specialty classification, the specialty contractor may serve as the prime contractor and subcontract unrelated trades as needed.

A warm-air heating, ventilating and air-conditioning contractor fabricates, installs, maintains, services and repairs warm-air heating systems and water heating heat pumps, complete with warm-air appliances; ventilating systems complete with blowers and plenum chambers; air-conditioning systems complete with air-conditioning unit; and the ducts, registers, flues, humidity and thermostatic controls and air filters in connection with any of these systems. This classification shall include warm-air heating, ventilating and air-conditioning systems which utilize solar energy.

RESPONSE TO CLARIFICATION:

The District is requesting a B-General Contractor License. C20 License. contractor can be a subcontractor the General Contractor.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 02

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Can you please provide model and serial numbers for all existing supply fans and exhaust fans.

RESPONSE TO CLARIFICATION:

Refer to model and serial numbers listed below in Response to RFI No. 02 below.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

Item: ICE MACHINE
Location: G 102-1
Equipment Number:
Description: CRUSHED ICE MAKER
Manufacture: SCOTSMAN
Serial Number: 535888-05R
Model Number: FME 1204A8-32A
Estimated Life:

Item: AIR HANDLER
Location: ROOM 103-1
Equipment Number: AHUG1
Description: GREY ENCLOSURE HOUSING BLOWERS, MOTORS, COILS
Manufacture: ALLIANCE
Serial Number: 0606-1083-AHUG1
Model Number: 4NN-19.5-DW-EC-FF-DX-DW
Estimated Life:

Item: HEAT PUMP
Location: ROOF
Equipment Number: HP1
Description: GREY ENCLOSURE HOUSING COMPRESSOR, FANS
Manufacture: CARRIER
Serial Number: 2606G00060
Model Number: 38AQS016-641
Estimated Life:

Item: HEAT PUMP
Location: ROOF
Equipment Number: HP2
Description: GREY ENCLOSURE HOUSING COMPRESSOR, FANS
Manufacture: CARRIER
Serial Number: 2506GG40027
Model Number: 38AQS016-641
Estimated Life:

Item: CONDENSER
Location: ROOF
Equipment Number: MINI SPLIT 1
Description: GREY ENCLOSURE HOUSING COMPRESSOR, FANS
Manufacture: CARRIER
Serial Number: 1609X90084
Model Number: 38HDF036-3
Estimated Life:

Item: EVAPORATOR
Location: ROOM G103-W
Equipment Number: MINI SPLIT 1
Description: XPRESSION BY CARRIER LOCATED IN ELECTRICAL CLOSET
Manufacture: CARRIER

Serial Number: 3208Y50987
Model Number: 40NQCO18-036
Estimated Life:

Item: EXHAUST FAN
Location: ROOF
Equipment Number:
Description: ALUMINUM UPBLAST BLOWER – Next to Heat Pumps
Manufacture: GREENHECK
Serial Number: 119023460910
Model Number: CUBE-121-LMPG-QD
Estimated Life:

Item: FURNACE
Location: ROOM 110
Equipment Number:
Description: BROWN LENNOX CONSERVATOR 3
Manufacture: LENNOX
Serial Number: 5887D14087
Model Number: G16QSX-100-S
Estimated Life:

Item: AIR HANDLER
Location: ROOM 106
Equipment Number: 1
Description: AIR HANDLER ABOVE CEILING TILES DIRECT DRIVE 5 AMP MOTOR 200-230 V 1 PHZ 314 HP R22 REF FILTERS 18X18X1-1 RETURN, 21X27X1-1 UNIT
Manufacture: GENERAL ELECTRIC
Serial Number: 454783940
Model Number: BWE948C100D0
Estimated Life:
Item: Condenser
Location: Building-W ROOF
Manufacture: General Electric
Model #: BWR048A300A5
Serial #: 203604A40

Item: AIR HANDLER
Location: ROOM 107
Equipment Number: 2
Description: AIR HANDLER ABOVE CEILING TILES 5 AMP BLOWER MOTOR DIRECT DRIVE 200-230 V 1 PHZ 314 HP R22 REF
Manufacture: GENERAL ELECTRIC
Serial Number: 454767940
Model Number: BWE948C100D0
Estimated Life:
Item: Condenser
Location: Building-W ROOF
Manufacture: Carrier
Model #: 38YCC0605040
Serial #: 150E02766

Item: AIR HANDLER
Location: ROOM 108
Equipment Number: 3
Description: AIR HANDLER ABOVE CEILING TILES 10.6 AMP BLOWER BELT SIZE 4L640 200-230 V 1 PHZ 2 HP R22 REF FILTERS 24X25X1-2 UNIT, 20X20X1-RETURN AIR
Manufacture: Trane
Serial Number:
Model Number:
Estimated Life:
Item: Condenser
Location: Building-W ROOF
Manufacture: Trane
Model #: TWA09043AAB01AR00000000000000000000000
Serial #: 20072799YA

Item: EXHAUST FAN
Location: ROOF
Equipment Number:
Description: DOWNBLAST BLOWER-BATHROOM – Middle Roof
Manufacturer: CENTRI MASTER
Serial Number: 02D600820
Model Number: PV 165E2
Estimated Life:

Item: EXHAUST FAN
Location: ROOF
Equipment Number:
Description: DOWNBLAST BATHROOM EXHAUST - DIRECT DRIVE
Manufacture:
Serial Number:
Model Number.
Estimated Life:

Item: EXHAUST FAN
Location: ROOF
Equipment Number: 1
Description: EXHAUST FAN FOR BIG GYM
Manufacture: E BLAST
Serial Number:
Model Number: EB36-3
Estimated Life:

Item: EXHAUST FAN
Location: ROOF
Equipment Number: 2
Description: EXHAUST FAN FOR BIG GYM
Manufacture: E BLAST
Serial Number:
Model Number: EB36-3
Estimated Life:

Item: EXHAUST FAN
Location: ROOF
Equipment Number: 3
Description: EXHAUST FAN FOR BIG GYM
Manufacture: E BLAST
Serial Number:
Model Number: EB 36-3
Estimated Life:

Item: EXHAUST FAN
Location: ROOF
Equipment Number: 4
Description: EXHAUST FAN FOR BIG GYM
Manufacture: E BLAST
Serial Number:
Model Number: EB 36-3
Estimated Life:

Item: WINDOW AC
Location: ROOF
Equipment Number:
Description: WINDOW AC UNIT W/HEATING
Manufacture: FRIEDRICH
Serial Number:
Model Number: YS13L33
Estimated Life:

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 03

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Please provide as-builts.

RESPONSE TO CLARIFICATION:

As-builts will be provided to the awarded Contractor.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.) RFI No. 04

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

What is the ceiling type in the Mechanical room G135 where the new copper will be ran through

RESPONSE TO CLARIFICATION:

Robinson metal decking, Refer to image below in Response to RFI No. 04 below.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

RFI response No. 04

PRE-BID CLARIFICATION FORM RFI No. 05

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

What are the working hours for the class room work? Please confirm that the school will work with the contractor to move students out of the room so we can demo and reinstall the fan coils. Or Clarify that you want this work done after hours.

RESPONSE TO CLARIFICATION:

Per Part 2, Supplementary Conditions, Article 26 Hours of Work are;
Where a single shift is worked, eight (8) consecutive hours between {7:00AM} and {5:00PM} shall constitute a workday at the applicable prevailing wage rate(s).
OR
Forty (40) hours between (Monday – Saturday) {7:00AM} and {5:00PM} shall constitute a work week at the applicable prevailing wage rate(s); Sunday work is acceptable, subject to review and approval by the District's Project Manager.

Contractor is to include three (3) working weekends, Saturday and Sunday, working hours are to be from (7:00AM to 5:00PM) to minimize staff and or classroom disruption.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.) RFI No. 06

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Is there a control contractor for the building? If so, who? And do we need to use that contractor?

RESPONSE TO CLARIFICATION:

Climatec is the control contractor, although, the general contractor is not required to use them for the project.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 07

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

What Kind of controls system is the existing HVAC Equipment using?

RESPONSE TO CLARIFICATION:

Alerton Controls

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.) RFI No. 08

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Who

RESPONSE TO CLARIFICATION:

Unclear.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 09

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Do we need to clean existing ductwork in the building?

RESPONSE TO CLARIFICATION:

Please review plans and specifications.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 10

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Is there a fire alarm contractor for the building? If so, who? Do we have to use that contractor for this project?

RESPONSE TO CLARIFICATION:

Costco Fire Protection
General Contractor is not required to use them.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 11

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Please confirm that the Gym will not be used for the contract duration.

RESPONSE TO CLARIFICATION:

Project Manager and General Contractor will work together on minimizing impact to gym activities and make sure project maintains working progress schedule and completing project on a timely manner. Gym will be used during contract duration.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.) RFI No. 12

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

What are the working hours for the Gym work? Please confirm that the school will work with the contractor to keep students out of the gym so we can demo and reinstall the duct work and the other work that needs to be done. Or Clarify that you want this work done after hours?

RESPONSE TO CLARIFICATION:

Reference RFI No. 05 Response.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

RFI No. 13

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

For lift purposes can you please verify the lager entrance that leads directly into the gym.

RESPONSE TO CLARIFICATION:

Reference Sheet A.201

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.) RFI No. 14

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Is the roof under warranty?

RESPONSE TO CLARIFICATION:

See specification section 07510 – Roof Patching Existing Warranty.
Garland Roofing System Under Warranty. Repairs to be per Garland Repair Details.

PACIFIC RIM ARCHITECTS &
RSCCD 04/06/26

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END OF DOCUMENT

PRE-BID CLARIFICATION FORM

RFI No. 15

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

What is the roofing system for the building?

RESPONSE TO CLARIFICATION:

Steep slope roofs are asphalt shingle. Low slope roof is modified bitumen roofing system. Awarded Contractor shall field verify.

PACIFIC RIM ARCHITECTS 04/06/26

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END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.) RFI No. 16

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	3-24-26		
FROM:	Allison Mechanical, INC	EMAIL:	Office@Allison1.net
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Can you Please Verify Ceilings in class rooms G 106,107,108.

RESPONSE TO CLARIFICATION:

Suspended Acoustic Ceiling System. See Legend and General Notes on A2.03.

PACIFIC RIM ARCHITECTS 04/06/26

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END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 17

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	**March 24, 2026**		
FROM:	**Ali Badiee** **Mesa Energy Systems, Inc.**	EMAIL:	**abadiee@emcor.net**
SPEC SECTION:	**Section 230923 – 2.1.A.1.a**	DRAWING NUMBER:	

REQUESTED CLARIFICATION:

The specification for Section 230923 lists Delta Controls enteliBUS as the basis of design but identifies only one vendor (Southland Services/ENVISE). Since Delta Controls is supported by multiple locally qualified and factory-authorized integrators, please confirm whether the project may allow any certified Delta Controls vendor that meets all specification, programming, documentation, and turnover requirements.

RESPONSE TO CLARIFICATION:

This project requires Americal Logic Control, Delta, and Alerton control systems integrated into the District's frontend Tridium Niagara N4 workbench system using existing JACE equipment. Any vendors qualified and certified to work within these platforms are allowed to submit proposals for this project.

RSCCD 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 18

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	**March 24, 2026**		
FROM:	**Ali Badiee** **Mesa Energy Systems, Inc.**	EMAIL:	**abadiee@emcor.net**
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Are the AHU Outside Air and Economizer Outside Air Flow Monitor Stations to be provided the AHU Manufacturer or Controls Contractor?

RESPONSE TO CLARIFICATION:

Per note P of the AHU schedule, controls contractor to ship all end devices to manufacturer for installation.

PACIFIC RIM ARCHITECTS 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

PRE-BID CLARIFICATION FORM

(Email this completed form to FacilitiesBid@rsccd.edu. See Instructions to Bidders.)

RFI No. 19

PROJECT NAME:	Building G HVAC Replacement Project at Santa Ana College (SAC)		
PROJECT NUMBER:	2957.1	BID NUMBER:	1491
EMAIL TO: facilitiesbid@rsccd.edu			
DATE:	**March 24, 2026**		
FROM:	**Ali Badiee** **Mesa Energy Systems, Inc.**	EMAIL:	**abadiee@emcor.net**
SPEC SECTION:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Drawing M5.00 AHU note T states “Provide Factory BACnet MS/TP Card” Is this for the Supply Fan and Return Fan VFDs only, or what other equipment as well?

RESPONSE TO CLARIFICATION:

Applies to all equipment that communicates with the BMS.

PACIFIC RIM ARCHITECTS 04/06/26

Attach additional numbered sheets as necessary; however, only **one (1)** request shall be contained on each submitted form.

END OF DOCUMENT

Item No. AD 2-3 Building G Mechanical As-Builds

SANTA ANA COLLEGE GYMNASIUM
17TH & BRISTOL STREETS, SANTA ANA, CALIFORNIA
OWNER: SANTA ANA COLLEGE DISTRICT, SANTA ANA, CALIFORNIA

ARCHITECT'S SIGNATURE:
Harold Gimeno

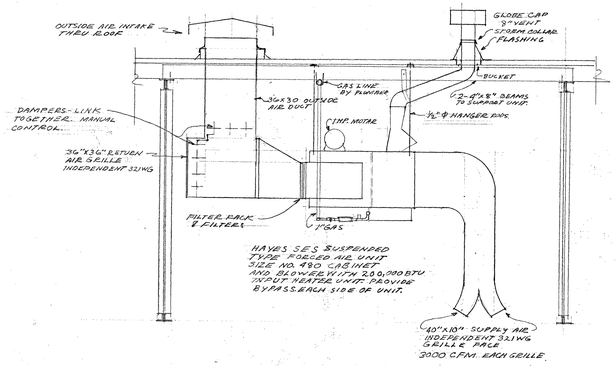
STATE APPROVAL:
STATE OF CALIFORNIA—DEPARTMENT OF PUBLIC WORKS
DIVISION OF ARCHITECTURE
T1659 APPROVED JUN 30 1954
APPLICATION NO. Per E. Maag
SDL PRINCIPAL STRUCTURAL ENGINEER

HEATING & VENTILATING

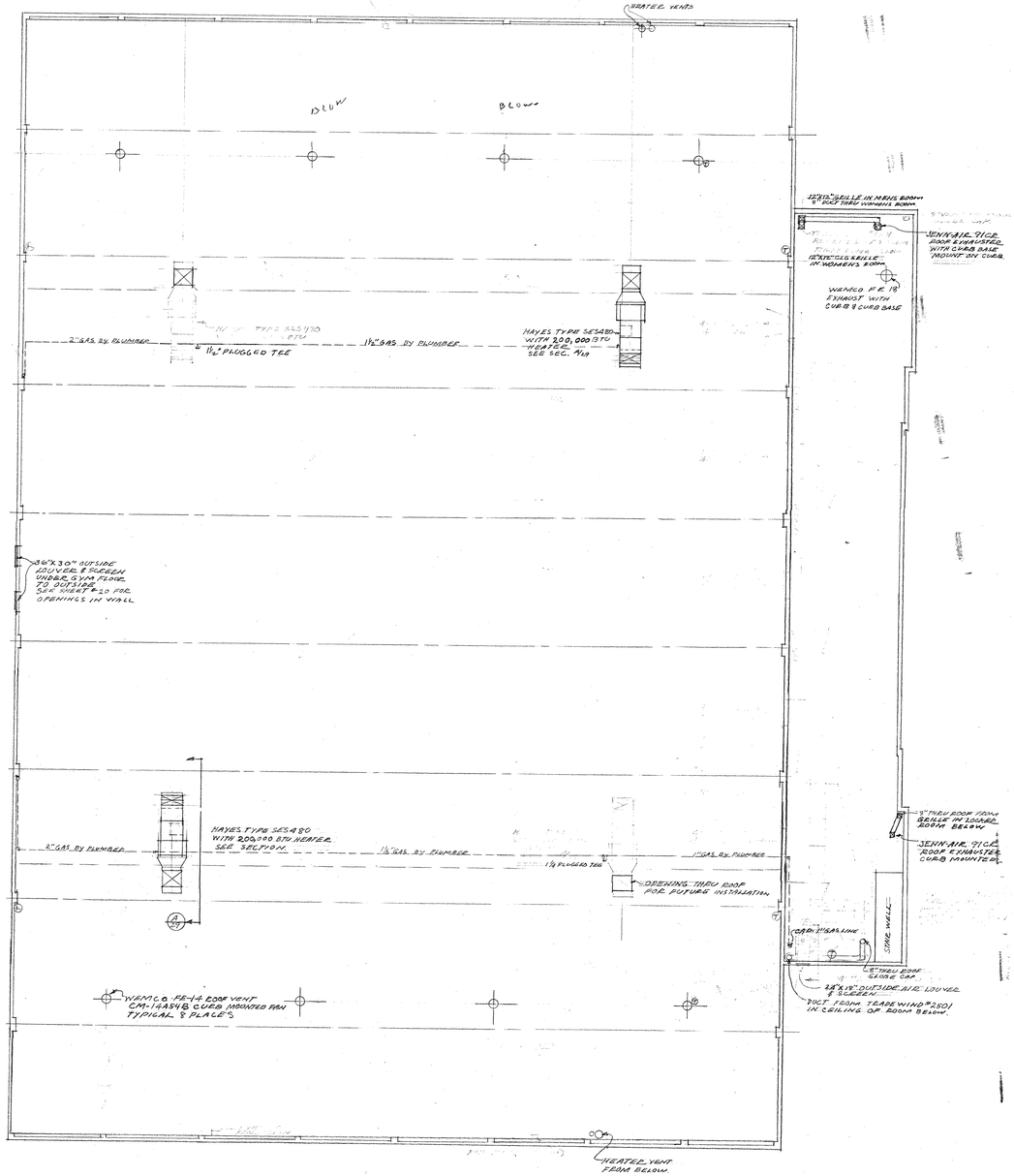
Harold Gimeno, A.I.A.
Member Engineers and Architects Institute
1416½ No. Main St. Kimberly 2-0060
Santa Ana, California

STAFF:	
HAROLD GIMENO	State License No. 526
ROBERT SCHERRER	" " " 7992
JOHN MAC FARLANE	" " " 4954
CLINTON DODGE	" " " 6380
EARNEST MEREDITH	Chief Draftsman
RAY HURTADO	Ass't " "

JOB NO: 5405
DATE: 2-4-54
DRAWN BY: R.S.
SHEET #: 28



SECTION A/29 SCALE: 3/8"=1'-0"



"GYM HEATING & VENTILATING SCALE: 1/8"=1'-0"

SANTA ANA COLLEGE GYMNASIUM
17TH & BRISTOL STREETS, SANTA ANA, CALIFORNIA

OWNER: SANTA ANA COLLEGE DISTRICT, SANTA ANA, CALIFORNIA

ARCHITECT'S SIGNATURE: Harold Gimeno

STATE APPROVAL:
STATE OF CALIFORNIA—DEPARTMENT OF PUBLIC WORKS
DIVISION OF ARCHITECTURE

APPLICATION NO. 1659 APPROVED JUN 30 1954
By E. Wray
DIVISION ARCHITECT, STRUCTURAL ENGINEER

HEATING & VENTILATING

Harold Gimeno, A.I.A.
Member Engineers and Architects Institute
1416½ No. Main St. Kimberly 2-0060
Santa Ana, California

STAFF:
HAROLD GIMENO State License No. 528
ROBERT SCHERRER " " " 7992
JOHN MACFARLANE " " " 4954
CLINTON DODGE " " " 6380
EARNEST MEREDITH Chief Draftsman
RAY HURTADO Ass't " "

JOB NO. 5305
DATE 2-4-54
DRAWN BY R.S.
SHEET # 29