ABBREVIATIONS

ABBREVIATIONS ABBRV ANCHOR BOLT AB ABV ABOVE AFF ABOVE FINISHED FLOOR APPROX APPROXIMATELY BLDG BUILDING BLKG **BLOCKING** BLK BLOCK BLW BELOW BEAM BM BTM BOTTOM CHS CHILLED WATER SUPPLY CHR CHILLED WATER RETURN CENTERLINE CL CLG CEILING CLR CLEAR CMU CONCRETE MASONARY UNIT COL COLUMN CONC CONCRETE COND CONDENSATE CONN CONNECTION CONT CONTINUOUS DIA DIAMETER DIAG DWG DIAGONAL DRAWING DRWGS DRAWINGS DWN DOWN EXISTING (E) ΕA EACH **ELEVATION** EL ELECTRIC ELEC ELEV **ELEVATION** EQ EQUIPMENT EQUIP EQUIPMENT EXH **EXHAUST** FIN FLG FINISHED FLANGE FRM FROM FACE OF MASONRY FOM F.J. FLOOR JOIST FL FLOOR FOOT FT G GAS GA GAUGE GALV. GALVANIZED GDW GYPSUM DRYWALL GPM GALLONS PER MINUTE HORIZ HORIZONTAL HORSEPOWER HP HEIGHT ΗT HSS HIGH STRENGTH STEEL ID INTERIOR DIMENSION LBS POUNDS (WEIGHT) LONG LEG HORIZONTAL LLH LONG LEG VERTICAL LLV MANF MANUFACTURER MAX MAXIMUM MINIMUM MIN METAL MTL M.B. MACHINE BOLT (N) NEW NOM NOMINAL NTS NOT TO SCALE 0C ON CENTER OD - O.D. OUTSIDE DIAMETER OPP **OPPOSITE** OVERHEAD OVRHD POC POINT OF CONNECTION POUNDS PER SQUARE INCH PSI REF REFERENCE REIF **REINFORCING STEEL** REQTS REQUIREMENTS

SMOKE DETECTOR

SHUT-OFF VALVE

SPECIFICATIONS

TOTALLY ENCLOSED FAN COOLED MOTOR

SHEET

SIMILAR

STAGGER

STANDARD

TOP OF STEEL

TUBE SECTION

UNDERGROUND

WIDE FLANGE SHAPE

WATER COLUMN

UNLESS OTHERWISE NOTED

TYPICAL

VERTICAL

WITH

WITHOUT

STEEL TOP

SD SHT

SIM

SOV

SPEC

STAG

STD

STL

(T)

TS

(TYP)

UGND

U.N.O. VERT.

WC

W/

W/O

W OR WF

TEFC TOS



CAMPUS MAP

<u>V. DATE</u>

MOORPARK COLLEGE STUDENT SERVICES ANNEX HVAC REPLACEMENT



APPLICABLE CODES

LIST OF CALIFORNIA CODE OF REGULATIONS APPLICABLE CODES AS OF JAN. 1ST, 2020

ALL WORK SHALL CONFORM TO 2019 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) 2022 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 CCR

2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR

2022 CALIFORNIA ELECTRIC 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 FIRE CODE (CFC), PART 9, TITLE 24 CCR

2022 CALIFORNIA REFERENCED STANDARDS CODE (CRSC), PART 11, PART 12, TITLE 24 CCR

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

PARTIAL LIST OF APPLICABLE NFPA STANDARDS NFPA 90A STANDARD FOR THE INSTALLATION OF AIR CONDITIONING SYSTEMS 2021 EDITION

OWNER CONTACT

DIRECTOR OF FACILITIES, MAINTENANCE, AND OPERATIONS JOHN SINUTKO 7075 CAMPUS DRIVE, MOORPARK CA. 93021 805 378-1454 jsinutko@vcccd.edu

M1 M2 M3 M4

HUGH MCTERNAN 838 E. Front St. Ventura Ca. 93001 805 653-1722 hugh@aegroupme.com

ELECTRICAL ENGINEER KEN LUCCI - LUCCI & ASSOCIATES

AE Group Mechanical Engineers 838 East Front Street Ventura, California 93001-2925 (805) 653-1722 hugh@aegroupme.com

COLLEGE R P A R K M O \bigcirc 7075 CAMPUS ROAD, MOORPARK, CALIFORNIA 93021 VENTURA COUNTY COMMUNITY COLLEGE DISTRICT

(# OF PAGES TOTAL= 9)

- TITLE SHEET & CAMPUS MAP MECHANICAL SCHEDULE & NOTES MECHANICA FLOOR PLAN MECHANICAL ROOF PLAN
- **MECHANICAL & STRUCTURAL DETAILS**
- E100 GENERAL NOTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST
- ELECTRICAL SINGLE LINE DIAGRAM E200
- E201 ELECTRICAL PANEL SCHEDULES
- SITE ELECTRICAL PLAN E400
- FIRST FLOOR ELECTRICAL PLAN E40⁻
- ROOF ELECTRICAL PLAN

CONSULTANTS

MECHANICAL ENGINEER AND ENGINEER OF RECORD

- 3251 CORTE MALPASO UNIT 511, CAMARILLO CA 93012 805 389-6520 KEN@LUCCILAND.COM
- SCOPE OF WORK
 - DEMO EXISTING TEN PACKAGE ROOFTOP HEAT PUMP UNITS
 - INSTALL NEW UNITS ON EXISTING SUPPORTS SEE ELECTRICAL PLANS FOR SCOPE
 - **INSTALL NEW CONDENSATE DRAINS**
- INSTALL NEW CONTROLS.
- COMMISSION SYSTEMS



DEPARTMENT OF	SCALE: AS SHOWN	STUDENT SERVICE ANNEX HVAC REPLACEMENT PROJEC	Т	
	DATE:		SHEET NO.	
7075 CAMPUS RD.	2-2-23			
MOORPARK, CA. 93021 PHONE: (805) 378-1454 FAX: (805) 378-1593	BLDG. NO.	TITLE SHEET		

MECHANICAL NOTES

1. SCOPE OF WORK: WORK INCLUDES THE FOLLOWING: FURNISH AND INSTALL ALL EQUIPMENT AND CONTROLS SHOWN ON THE ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS AND DESCRIBED IN THESE NOTES. THE BOOK SPECIFICATIONS AND THE CONTRACT DOCUMENTS. WORK INCLUDES BUT IS NOT LIMITED TO: DEMOLITION OF TEN PACKAGE ROOFTOP HEAT PUMPS, DUCTING, CONDENSATE PIPING, AND CONTROLS. CONTRACTOR SHALL FURNISH AND INSTALL, MAKE OPERABLE, AND TEST ALL SYSTEMS AND MECHANICAL EQUIPMENT SHOWN ON THE PLANS AND DESCRIBED IN THE SPECIFICATIONS AND CONTRACT DOCUMENTS. IN CONNECTION THEREWITH CONTRACTOR SHALL ALSO FURNISH AND INSTALL ALL NECESSARY DEVICES, HARDWARE, AND SYSTEMS REQUIRED TO MAKE SAID EQUIPMENT PROPERLY AND SAFELY OPERABLE, INCLUDING BUT NOT LIMITED TO, INSULATION, FILTERS, DUCT SYSTEMS, CONTROL SYSTEMS, AND PATCHING,

2. INTERPRETATION OF DRAWINGS, SPECIFICATIONS OR CONTRACT DOCUMENTS. IF ANY BIDDER IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DRAWINGS, THE SPECIFICATIONS OR OTHER PORTIONS OF THE CONTRACT DOCUMENTS; FINDS DISCREPANCIES, ERRORS OR OMISSIONS THEREIN; OR FINDS VARIANCES IN ANY OF THE CONTRACT DOCUMENTS WITH APPLICABLE RULES, REGULATIONS, ORDINANCES AND/OR LAWS, A WRITTEN REQUEST FOR AN INTERPRETATION OR CORRECTION THEREOF MAY BE SUBMITTED TO THE ENGINEER. IT IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE BIDDER TO SUBMIT SUCH REQUEST IN SUFFICIENT TIME FOR THE PREPARATION OF A RESPONSE THERETO AND DELIVERY OF SUCH RESPONSE TO ALL BIDDERS PRIOR TO THE SCHEDULED CLOSING FOR RECEIPT OF BID PROPOSALS. ANY REQUEST OF ANY BIDDER, PURSUANT TO THE FOREGOING SENTENCE THAT IS MADE LESS THAN SEVEN DAYS PRIOR TO THE SCHEDULED CLOSING DATE FOR THE RECEIPT OF BID PROPOSALS SHALL BE DEEMED UNTIMELY. ANY INTERPRETATION OR CORRECTION OF THE CONTRACT DOCUMENTS WILL BE MADE ONLY BY WRITTEN ADDENDUM DULY ISSUED BY THE OWNER OR THE ENGINEER. A COPY OF ANY SUCH ADDENDUM WILL BE MAILED OR OTHERWISE DELIVERED TO EACH BIDDER RECEIVING A SET OF THE CONTRACT DOCUMENTS. NO PERSON IS AUTHORIZED TO RENDER AN ORAL INTERPRETATION OR CORRECTION OF ANY PORTION OF THE CONTRACT DOCUMENTS TO ANY BIDDER, AND NO BIDDER IS AUTHORIZED TO RELY ON ANY SUCH ORAL INTERPRETATION OR CORRECTION. FAILURE TO REQUEST INTERPRETATION OR CLARIFICATION OF THE DRAWINGS, THE SPECIFICATIONS OR OTHER PORTIONS OF THE CONTRACT DOCUMENTS PURSUANT TO THE FOREGOING SHALL BE DEEMED TO BE A WAIVER OF ANY DISCREPANCY, DEFECT, OR CONFLICT THEREIN.

3. DIMENSIONS. ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD. ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND ENGINEERING DRAWINGS BEFORE PROCEEDING WITH WORK. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON WORKING DRAWINGS. ALL SIZES OF EQUIPMENT AND MATERIALS SHALL BE VERIFIED WITH EQUIPMENT MANUFACTURER.

4. CODES AND STANDARDS: ALL WORK SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA), 2022 CALIFORNIA BUILDING CODE, THE 2022 CALIFORNIA MECHANICAL CODE, THE 2022 CALIFORNIA PLUMBING CODE, THE 2022 CALIFORNIA ELECTRIC CODE, THE STATE OF CALIFORNIA, EQUIPMENT MANUFACTURER'S RECOMMENDED PROCEDURES, AND STANDARD CONSTRUCTION PRACTICES. NOTE: WHERE TWO OR MORE CODES CONFLICT, THE MOST RESTRICTIVE SHALL APPLY. NOTHING IN THESE PLANS AND SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO APPLICABLE CODES.

5. SUBMITTALS REQUIRED: PRIOR TO ORDERING EQUIPMENT AND MATERIALS, CONTRACTOR SHALL FURNISH TO ENGINEER / OWNER SUBMITTALS AND SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIALS PROPOSED FOR USE IN THIS PROJECT. ORDERING OF EQUIPMENT AND MATERIALS SHALL ONLY PROCEED AFTER SATISFACTORY REVIEW OF ALL SUBMITTALS BY CONTRACTOR / ENGINEER / OWNER. COPIES OF ALL OWNER'S MANUALS, WARRANTIES AND OTHER WRITTEN INFORMATION REGARDING SYSTEMS SHALL BE PRESENTED TO OWNER PRIOR TO THE COMPLETION OF THE PROJECT.

6. CONSTRUCTION OBSERVATION: IN ADDITION TO THE REQUIREMENT FOR OBTAINING INSPECTIONS BY THE LOCAL JURISDICTION, CONTRACTOR SHALL NOTIFY ENGINEER AT APPROPRIATE TIMES DURING THE CONSTRUCTION PROCESS SO THAT ENGINEER CAN VISIT SITE TO BECOME GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF CONTRACTOR'S WORK AND TO DETERMINE IF THE WORK IS PROCEEDING IN GENERAL ACCORDANCE WITH THE CONTRACT DOCUMENTS.

7. UNIT LOCATIONS: EQUIPMENT AND SYSTEM LOCATIONS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL STRUCTURAL MEMBERS AND EXISTING CONDITIONS IN THE FIELD, AND LOCATE UNITS AND DUCTWORK TO AVOID INTERFERENCE. ANY SIGNIFICANT DEVIATIONS FROM THE PLANS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER. ALLOW CLEARANCE FOR DUCTWORK AND PIPING. ALL CLEARANCES REQUIRED BY UNIT MANUFACTURER SHALL BE MAINTAINED. ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH CODES AND THE RECOMMENDED INSTALLATION PROCEDURES PUBLISHED BY THE MANUFACTURER.

8. DUCTWORK & PIPING: CONTRACTOR SHALL INSTALL NEW DUCTWORK AND PIPING IN THE APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS. ALL DUCTWORK & PIPING SHALL BE SECURELY ANCHORED TO THE BUILDING IN AN APPROVED MANNER THAT WILL RENDER IT FREE FROM VIBRATION AND LATERAL MOVEMENT. CONTRACTOR SHALL PROVIDE WITHOUT COST TO THE OWNER ALL REQUIRED TRANSITIONS AND OFFSETS TO AVOID CONFLICTS WITH STRUCTURE AND OTHER TRADES.

9. MATERIALS - DUCTWORK: ALL NEW DUCTWORK FOR HVAC SYSTEMS SHALL BE GALVANIZED STEEL CONFORMING TO ASTM SPEC A525.

RECTANGULAR DUCTWORK SHALL BE MADE FROM GALVANIZED STEEL SHEETS. DUCT CONSTRUCTION, AND REINFORCING SHALL BE PER TABLES 6-1, 6-2, AND 6-3 OF THE CALIFORNIA MECHANICAL CODE. DUCTWORK SHALL BE OF THE FOLLOWING GAUGES: UP TO 12" - 26 GAUGE. 13"-30" - 24 GAUGE. CURVED ELBOWS SHALL HAVE CENTRALIZE RADIUS NOT LESS THAN THE WIDTH OF THE DUCT. WHERE ABRUPT TURNS AND ELBOWS ARE USED. TURNING VANES SHALL BE PROVIDED. TAKE-OFFS FROM MAIN DUCTS SHALL BE MADE WITH 45 DEGREE ANGLES WITH VOLUME DAMPERS WHERE SHOWN. ALL PANELS SHALL BE CROSS BROKEN TO ENSURE RIGIDITY.

10. BALANCING: FOLLOWING INSTALLATION, CONTRACTOR SHALL START UP AND BALANCE ALL HVAC SYSTEMS TO CONFORM TO AIR VOLUMES INDICATED ON PLANS. COPIES OF BALANCING RECORDS SHALL BE FURNISHED TO BUILDING OWNER AND PROJECT ARCHITECT. SEE BOOK SPECIFICATIONS FOR FURTHER REQTS. 11. CLEANUP: EVERY DAY, AND AFTER ALL WORK HAS BEEN COMPLETED, CONTRACTOR SHALL CLEAN ENTIRE JOB-SITE OF ALL DEBRIS ASSOCIATED WITH MECHANICAL SYSTEMS. EXPOSED PARTS WHICH ARE TO BE PAINTED SHALL BE THOROUGHLY CLEANED READY FOR PAINTING.

12. WIRING: ALL WIRING SHALL BE PERFORMED IN ACCORDANCE WITH NEC REQTS. ALL WIRING SHALL BE IN CONDUIT. ALL INTERIOR LOW VOLTAGE AND CONTROL WIRING SHALL BE IN WIREMOLD AND IN FAN ROOMS SHALL BE IN CONDUIT. EXPOSED CONDUIT SHALL BE INSTALLED IN A SQUARE, PLUMB, AND LEVEL MANNER WITH THOUGHT GIVEN TO THE FINAL APPEARANCES. PROVIDE TO ENGINEER SHOP DRAWING FOR CONTROL TRANSFORMER CONFIGURATIONS DETAILING CIRCUITS TO BE USED, LOAD CALCULATIONS, WIRE SIZES, AND LOCATIONS. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT NATIONAL ELECTRICAL CODE AND ELECTRICAL SPECIFICATIONS. ALL TRANSFORMERS SHALL BE PROTECTED BY PROPERLY SIZED CIRCUIT BREAKER OR FUSE(S). ALL TRANSFORMERS SHALL HAVE RESETABLE BREAKER ON THE LOAD SIDE. ALL LOW VOLTAGE CONTROL & COMMUNICATIONS WIRING SHALL BE DONE ACCORDING TO MANUFACTURERS INSTALLATION MANUAL. PROVIDE SUBMITTALS ON WIRE AND ENCLOSURES.

EV.	DATE

16. COORDINATION DURING CONSTRUCTION: THE CONTRACTOR SHALL COORDINATE ANY NECESSARY CHANGES IN WORK SCHEDULING WITH THE COLLEGE TO MINIMIZE THE DISRUPTION. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY HIS WORK TO BUILDING(S) AND EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.

17. CORRECTION OF WORK: THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK THE OWNER FINDS DEFECTIVE OR FAILING TO CONFORM TO THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BEAR ALL COSTS REQUIRED BY THE CONTRACT DOCUMENTS, IF ANY OF THE WORK IS FOUND TO BE DEFECTIVE OR NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL CORRECT IT PROMPTLY AFTER RECEIPT OF A WRITTEN NOTICE FROM THE OWNER TO DO SO.

18. AS-BUILT DRAWINGS SHALL BE GIVEN TO THE OWNER PRIOR TO ACCEPTANCE OF THE PROJECT. AS-BUILTS SHALL BE ON PRINTED SHEETS AND ON MAGNETIC MEDIA.

19. ALL DUCTING SHALL BE KEPT CLEAN DURING THE CONSTRUCTION PROCESS. DURING AIR BALANCE REVIEW THE DUCTING WILL BE INSPECTED FOR CLEANLINESS. SHOULD DEBRIS AND OR DUST BE FOUND IN THE DUCT SYSTEMS SHALL BE CLEANED PER NACDA STANDARDS.

22. CONDENSATE DRAINS SHALL TERMINATE AT DRYWELLS. DRAINS SHALL BE U.S. MANUFACTURED TYPE 'L' COPPER WITH WROT COPPER FITTINGS AND SOLDERED JOINTS. CONDENSATE DRAINS SHALL HAVE CLEAN-OUTS AT CHANGE OF DIRECTION AND SLOPE TO DRAIN. INSULATE INTERIOR CONDENSATE DRAINS WITH CLOSED CELL FOAM PIPE INSULATION.

GENERAL NOTES

1. CUTTING, BORING SAWCUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAILED ON THE DRAWINGS OR ACCEPTED BY THE MECHANICAL AND STRUCTURAL ENGINEER WITH THE APPROVAL OF DSA REPRESENTATIVE.



TAG	TYPE	MAKE & MODEL	OPERATING WEIGHT (LBS)
$\left< \begin{array}{c} AC \\ 1 \end{array} \right>$	ROOFTOP UNIT	BARD PH11361-B	365
$\left< \frac{AC}{2} \right>$	Rooftop Unit	BARD PH11481-B	450
$\left< \frac{AC}{3} \right>$	ROOFTOP UNIT	BARD PH11242	365

NEW UNITS SCHEDULE - HEAT PUMPS

TAG	TYPE	MAKE & MODEL	COOLING TOTAL CAPACITY (BTUH)	HEATING CAPACITY (BTUH)	NOMINAL TONS	EER2 SEER2	CFM	CFM OSA	OPERATING WEIGHT . (LBS)	ELI	EC-
	ROOFTOP HEAT PUMP	TRANE 5WCZ5036*3	35,000	33,000	3.0	11.5 15.2	1,100	160	373	208-3-60	
AC 2 A,B	ROOFTOP HEAT PUMP	TRANE 5WCZ5048*3	39,500	35,800	4.0	11.5 15.2	1400	200	353	208-3-60	
$\left< \begin{array}{c} AC \\ 3 \end{array} \right>$	ROOFTOP HEAT PUMP	TRANE 5WCZ5024	23,400	22,200	2.0	11.5 15.2	800	120	375	208-1-60	
$\left(\begin{array}{c} T\\ 1\end{array}\right)$	THERMOSTAT	EXISTING AUTOMATED	LOGIC CONTRO	DLS	REMOVE, I FOR SUPP REPLACE	REINSTALL & LEMENTAL EI ONE NON-FUI	RECONNECT LECTRICAL H NCTIONAL AL	EXISTING CO EAT CONTRO JTOMATED LO	ONTROLS WITH NE DL. MODIFY PROGI DGIC Z551 CONTRO	EW DISCRETE RAMMING ANI OLLER	. OU ጋ GI



AE Group Mechanical Engineers 838 East Front Street Ventura, California 93001-2925 (805) 653-1722 nugh@aegroupme.com

MOORPARK COLLEGE 7075 CAMPUS ROAD, MOORPARK, CALIFORNIA 93021 VENTURA COUNTY COMMUNITY COLLEGE DISTRICT

- 1. ALL CONTROL WORK SHALL BE PERFORMED BY AN AUTOMATED LOGIC DEALER 2. DISCONNECT (E) CONTROLS FROM (E) ROOFTOP UNITS. RECONNECT TO (N) ROOFTOP UNITS WITH ALL NEEDED CONDUIT, WIRE, CONNECTIONS, PROGRAMMING AND GRAPHICS.
- 3. ONE OF THE ALC CONTROLLERS IS FAULTY. REPLACE WITH NEW ALC Z551 CONTROLLER.
- 4. FUNCTION TEST ALL MODES OF OPERATION AT NEW UNITS.

TRICAL DATA		SUPPLEMENTAL HEAT KIT		ACCESSORIES	
MCA	MOCP	SUPPLEMENTAL HEAT KIT SEPARATE POWER SUPPLY			
20	30	208/1/60 3.7 KW	30 AMP FUSED DISCONNECT	R-454B REFRIGERANT, COILS. FILTER RACK 2"	E-COAT CONDENSER MERV 13 FILTERS.
23	30	208/1/60 3.7 KW	30 AMP FUSED DISCONNECT		
18	25	208/1/60 3.7 KW	30 AMP FUSED DISCONNECT		
ITPUT RAPHICS					



DEPARTMENT OF MAINTENANCE & OPERATIONS	SCALE: AS SHOWN	STUDENT SERVICE ANNEX HVAC REPLACEMENT PROJEC	Т	
MAINTENANCE & OF ERATIONS	DATE:		SHEET NO.	
7075 CAMPUS RD.	2-2-23			
MOORPARK, CA. 93021	BLDG. NO.	NOTES AND SCHEDULES	M1 I	
PHONE: (805) 378-1454 FAX: (805) 378-1593				



 î			
COND		COND	
COND			30x22 4 WA 600 CFM
	POD OO OO OO	Y CD (TYP)	

MECHANICAL FLOOR PLAN SCALE: 1/4"=1'0"

AE Group Mechanical Engineers
838 East Front Street
Ventura, California 93001-2925
(805) 653-1722
hugh@aegroupme.com

MOORPARK, CALIFORNIA 93021 VENTURA COUNTY COMMUNITY COLLEGE DISTRICT



DEPARTMENT OF MAINTENANCE & OPERATIONS	SCALE: AS SHOWN	STUDENT SERVICE ANNEX HVAC REPLACEMENT PROJEC	Т	
7075 CAMPUS RD.	DATE: 2-2-23	MECHANICAL FLOOR	SHEET NO.	
MOORPARK, CA. 93021 PHONE: (805) 378-1454 FAX: (805) 378-1593	BLDG. NO.	PLAN	M2	

 $\begin{array}{c} PROFESSION_{q} \\ PROFESSION_{q} \\$

	AC LC	3/4" (P-TR 3/4" (W/ W (TYP	CONDENSATE W/ RAP (TYP) CONDENSATE DWP VEATHER-TIGHT FL Y) SEE 2/M4	N ASHING		
 EV. DATE.						









MECHANICAL ROOF PLAN SCALE: 1/4"=1'0"

AE Group Mechanical Engineers
838 East Front Street
Ventura, California 93001-2925
(805) 653-1722
hugh@aegroupme.com

MOORARPARK, CALIFORNIA 93021 VENTURA COUNTY COMMUNITY COLLEGE DISTRICT





)

DEPARTMENT OF	SCALE: AS SHOWN	STUDENT SERVICE ANNEX HVAC REPLACEMENT PROJEC	Т	
	DATE:		SHEET NO.	
7075 CAMPUS RD.	2-2-23			
MOORPARK, CA. 93021 PHONE: (805) 378-1454 FAX: (805) 378-1593	BLDG. NO.	DETAILS		

	GENERAL	NOTES		SYMBOLS	LIST OF DRAWINGS
	A. <u>GENERAL</u>	3. ALL CONDUIT RUNS SHALL BE CONCEALED, UNLESS SHOWN OTHERWISE. PROVIDE A PULL WIRE IN ALL EMPTY CONDUITS.		C RELAY CONTROLLED RECEPTACLE AT 18" AFF TO BOTTOM OF DEVICE, PROVIDE WITHIN 6'-0" OF NON CONTROLLED	E100 GENERAL NOTES, ABBREVIATIONS, SYMBOLS & DRAWING LIST
	1. <u>SCOPE</u> THE DRAWINGS AND THESE GENERAL NOTES DESCRIBE THE SCOPE OF WORK AND SYSTEMS. THE MATERIAL REQUIRED FOR THE WORK SHALL BE CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED, UNLESS SPECIFICALLY NOTED OTHERWISE. THE	4. EXISTING CONDITION SHOWN IS FROM AVAILABLE RECORD DRAWINGS AND VISUAL FIELD SURVEY AND SHOWN FOR REFERENCE CONTRACTOR SHALL VERIFY ACTUAL EXISTING CONDITION AT SITE.	CE ONLY.	RECEPTACLE. PROVIDE COVER PLATE WITH ENGRAVED "CONTROLLED". Image: Control contro control control control control control control contro	E200 ELECTRICAL SUNGLE LINE DIAGRAM & PANEL SCHEDULES E420 MECHANICAL EQUIPMENT POWER SCHEDULE E431 ROOF MECHANICAL FOLIDMENT POWER DI ANU NEW WORK
	WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING PRINCIPAL SYSTEMS AND EQUIPMENT. ALL ITEMS NOTED ON THE PLAN WHICH ARE NOT EXPLICITLY STATED AS EXISTING SHALL BE NEW.	 ALL WORK SHOWN IS NEW UNLESS SPECIALLY INDICATED AS EXISTING (X). ALL ELECTRICAL EQUIPMENT MOUNTING AND ANCHOR MUST CONFORM WITH LOCAL AND STATE SEISMIC CODES. 	HORAGE	GFCI RECEPTACLE AT 42" AFF TO BOTTOM OF DEVICE	E421 ROOF MECHANICAL EQUIPMENT POWER PLAN - NEW WORK
	 <u>PERMITS AND CHARGES</u> OBTAIN AND PAY FOR ALL NECESSARY CONSTRUCTION PERMITS, INSPECTION FEES, AND OTHER CHARGES BY AGENCIES HAVING JURISDICTION. 	E. <u>TELEPHONE SYSTEMS</u> PROVIDE RACEWAYS, AND ALL MATERIAL INCLUDING PULLING CABLE IN EACH RACEWAY AS REQUIRED FOR THE TELEPHONE SY PER THE TELEPHONE REQUIREMENTS. ALL CAT 6E CABLES SHALL BE TESTED & MEET CURRENT BICSI STANDARDS, A TEST REPORT DECEMBER 1000 DECEMBER 10000 DECEMBER 1000 DECEMBER 1000 DECEMBER 1000 DECEMBE	E SYSTEM DRT SIGNED	I.G. ISOLATED (ORANGE) GROUND DUPLEX RECEPTACLE, WALL MTD.@18"AFF, NEMA 5-20R U.O.N.	
	3. <u>REGULATIONS AND CODES</u> PROVIDE AND INSTALL ALL MATERIALS IN CONFORMANCE WITH THE 2022 C.E.C., CALIFORNIA ADMINISTRATIVE CODE TITLE 8,	BY A RCCD SHALL BE PROVIDED WITH THE DOCUMENTATION. F. <u>GROUNDING & BONDING</u> EUDNICH AND INSTALL COMPLETE BONDING AND CROUNDING SYSTEM AS REQUIRED BY CODES. CONTINUITY OF CROUNDING SY		DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, WALL MOUNTED @ +18"AFF AT BOTTOM OF DEVICE DUPLEX RECEPTACLE, WALL MOUNTED @ +18" TO BOTTOM OF DEVICE NEMA 5-20R U.O.N. TOP RECEPTACLE	
	AND OTHER CODES AND REGULATIONS HAVING JURISDICTION. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY AND THE MANUFACTURERS RECOMMENDATIONS.	FURNISH AND INSTALL COMPLETE BONDING AND GROUNDING SYSTEM AS REQUIRED BY CODES. CONTINUITY OF GROUNDING SH MAINTAINED MECHANICALLY AND ELECTRICALLY THROUGHOUT THE SYSTEM. A GREEN GROUNDING CODE SIZED CONDUCTOR SH CARRIED IN ALL CONDUITS.	SHALL BE SHALL BE	SWITCHED O DUPLEX RECEPTACLE, FLOOR MOUNTED, NEMA 5-20R	
	4. <u>VERIFYING EXISTING CONDITIONS</u> BEFORE SUBMITTING BID, BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREINAETER. BY THE ACT OF SUBMITTING A BID	 G. <u>INSTALLATION</u> IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROFOR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CONTRACT. TOWARD THIS END FURNISH ALL LABOR AND T 	PROVIDED D TOOLS	CEILING MOUNTED DUPLEX RECEPTACLE, 5-20R 2 → (2)DATA OUTLETS, 2 GANG 4SD BOX WITH DEVICES AND 4 CAT 6 CABLES FROM JACK TO IDF. PROVIDE 1-1/4"C	
	PROPOSAL FOR THE WORK, THE CONTRACTOR SHALL BE DESCRIDED HEREINAHER. BIT THE ACT OF SOBRITTING A BID PROPOSAL FOR THE WORK, THE CONTRACTOR SHALL BE DESCRIDED HEREINAHER. BIT THE ACT OF SOBRITTING A BID ACCEPT ALL CONDITIONS PRESENT AT THE SITE. NO REQUEST FOR ADDITIONAL PAYMENT WILL BE CONSIDERED AS VALID, DUE TO FAIL UPE TO ALLOW FOR CONDITIONS WHICH MAY EXIST.	NECESSARY AND FURNISH AND INSTALL ALL APPARATUS, MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL APPLICABLE CODES, INCLUDING ITEMS REQUIRED BUT NOT NORMALLY SHOWN, SUCH AS LAMPS, COUPLINGS, HANGERS, BRACK CLAMPS, BOXES, CONNECTORS AND HARDWARE. REFER ALSO TO WRITTEN SPECIFICATIONS FOR GENERAL, MECHANICAL AND	ACKETS,	 MINIMUM TO CABLE TRAY OR IDF IF NO CABLE TRAY IS PRESENT. (2)DATA OUTLETS, 2 GANG FLOOR BOX WITH DEVICES AND 2 CAT 6 CABLES PER NOTES & SPECIFICATION. PROVIDE 1-1/4"C MINIMUM TO CABLE TRAY OR IDE 	
	5. <u>COORDINATION</u>	ELECTRICAL SECTIONS. 2. PROCURE ALL PERMITS FROM LEGALLY CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTIONS AND PAY ALL COSTS FOR I	DR FEES	SPECIAL OUTLET, TYPE AS REQUIRED BY EQUIPMENT.	SCOPE OF WORK
	ELECTRICAL CONNECTION REQUIRED WHETHER WALLS. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTION REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT. ELECTRICAL EQUIPMENT LOCATIONS INDICATED ARE SHOWN DIAGRAMMATICALLY, EXACT LOCATION SHALL BE VERIFIED. SCALING OFF OF DRAWINGS	AND TESTS IN CONNECTION THEREWITH. COMPLY WITH CODES: NOTHING IN THESE PLANS AUTHORIZES DEVIATION FROM APPLICABLE CODES.		(J) JUNCTION BOX (CEILING MTD.) SIZE PER TABLE AND NEC ARTICLE 370 (J) JUNCTION BOX (WALL MTD.) SIZE PER TABLE AND NEC ARTICLE 370	PROVIDE POWER TO NEW HEAT PUMPS ON ROOF. ADD NEW PANEL & FEEDERS.
	SHALL BE DONE AT CONTRACTORS RISK. DO NOT SCALE DEVICES, LIGHTING FIXTURES OR ANY EQUIPMENT FROM PLANS. LIGHTING FIXTURE QUANTITIES AND LENGTHS SHALL BE CONTRACTORS RESPONSIBILITY. FIXTURES ARE SHOWN FOR CIRCUITING ONLY. CONTRACTOR TO VERIFY SIZES & QUANTITIES PRIOR TO BID.	 DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH HOMERUNS IN COOPERATION WITH OTHER TRADES TO SIM INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF ARCHITECT FOR VISUAL AND STRUCTURAL REASONS. 	SIMPLIFY	THERMOSTAT - 36" TO 48" AFF, BOTTOM & TOP OF BOX RESPECTIVELY T T TRANSFORMER	
	6. <u>SERVICE CONTINUITY</u> UNINTERRUPTED EXISTING ELECTRICAL POWER SHALL BE MAINTAINED TO OTHER TRADES FOR TEMPORARY POWER AREAS OF	 PROVIDE A CODE APPROVED DISCONNECT SWITCH OR BREAKER WITHIN SIGHT OF EVERY MOTOR AND FEED MOTORS NOT EQUI WITH "BUILT IN" PROTECTION THROUGH A MAGNETIC OR MANUAL STARTER WITH OVERLOAD HEATERS SIZED TO COMPLY WITH MOTOR MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES. 	QUIPPED /ITH	BRANCH CIRCUIT PANELBOARD - 240/120V, 1Ø, 3W OR 3Ø, 3W, 240VAC OR 120/208VAC, 3Ø, 4W. BRANCH CIRCUIT PANELBOARD - 480/277V, 1Ø, 3W OR 3Ø, 3 OR 4W	LIST OF APPLICABLE CODES
	THE SITE DURING CONSTRUCTION. PROVIDE ANY TEMPORARY SERVICES AS MAY BE REQUIRED. IDENTIFY AT BID TIME, ALL WORK TO BE DONE ON PREMIUM TIME AND THE TOTAL OVERTIME MAN-HOURS REQUIRED FOR COMPLETION.	5. FOR CONNECTIONS TO EXHAUST FANS, PUMPS, COMPRESSORS, SPACE HEATERS, WATER HEATERS, AQUASTATS, SOLENOID VALV AND OTHER MECHANICAL EQUIPMENT AND FOR CONDUITS AND WIRE REQUIRED BUT NOT NECESSARILY SHOWN ON THESE DRA	ALVES DRAWINGS	4'X8'X3/4" TELEPHONE BACKBOARD, MARINE PLYWOOD AND PAINTED WITH FIRE RESISTANT PAINT, PER OWNERS REPRESENTATIVE.	IST OF APPLICABLE CODES
	 AS BUILT PROVIDE RECORD DRAWINGS IN ACAD TO THE OWNER WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT. RECORD DRAWINGS SHALL BE SIGNED AND DATED BY CONTRACTOR PRIOR TO RELEASE OF FINAL RETENTION OF ALL 	 6. DO NOT RUN ANY CONDUIT IN SLAB IF ITS OUTSIDE DIAMETER EXCEEDS 1/3 THE THICKNESS OF THE SLAB. LOCATE CONDUITS WITHIN THE MIDDLE OF THE SLAP, WHERE CONDUITS ARE CROUDED IN PARALLEL PLANS, SPACE THEM 3", OR MORE ARAPT, WHILE 	TS	CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALLS, 20 CONDUIT RUN CONCEALED BELOW FLOOR OR UNDERGROUND 20	2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
	MONIES. 8. GUARANTEE	CONDUITS CROSS EACH OTHER, THICKEN SLAB PROPORTIONATELY OVER A HORIZONTAL AREA EQUAL TO TEN TIMES THE DIAME OF THE LARGEST CONDUIT. REFER ALSO TO DETAILS SHOWN	AMETER	0-10 - LIGHTING CONTROL 0-10V (PURPLE GRAY) 20	J22 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR D22 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR 2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR
	CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL LABOR AND MATERIALS ON ALL WORK AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR.	 SIZE OUTLET BOXES IN CONFORMITY WITH CODE FOR NUMBER AND GAUGE OF CONDUCTORS THEREIN, EXCEPT WHERE NOTED LARGER. MINIMUM BOX SIZE SHALL BE 4" SQUARE BY 1-1/2" DEEP. 	ED TO BE	E EMERGENCY CIRCUIT 20 P POWER CONDUCTORS 20	D22 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
	9. <u>SHOP DRAWINGS</u> SUBMIT SHOP DRAWINGS AND MATERIAL LIST FOR REVIEW PRIOR TO COMMENCING ANY WORK. ALL EQUIPMENT TO BEAR U.L.	8. ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL OP AT DIGHT ANGLES TO, COLUMN LINES OF BEAMS AND SEPARATED BY AT LEAST THREE (3) INCHES FROM WATER LINES WHERE	AND EL WITH, HENEVER	FLEXIBLE CONDUIT (WITH GROUND CONDUCTOR, PROVIDE LIQUID TIGHT CONDUIT IN ALL EXPOSED AREAS) 20	D22 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR APPLICABLE STANDARDS D22 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CCR FOR A LIST OF APPLICABLE STANDARDS, INCLUDING
	FOR CONFORMANCE PRIOR TO SUBMITTAL. SUBMIT THREE HARD COPY SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO PURCHASING ALL BREAKER MOUNTING HARDWARE, DISCONNECT SWITCHES, FUSES, CONTROLLERS, LIGHTING FIXTURES, LIGHT	THEY RUN LONG SIDE OR ACROSS SUCH LINES CONDUIT SHALL NOT BE RUN BELOW CABLE TRAYS OR LIGHT FIXTURES WITHOU SPECIFIC APPROVAL OF THE OWNERS REPRESENTATIVE. HANGERS SHALL BE FASTENED TO STEEL, CONCRETE OR MASONRY, BUT TO PIPING HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORT	HOUT BUT NOT PPORTS	HASH MARKS INDICATE QUANTITY OF #12 CONDUCTORS. NO HASH MARKS INDICATE (2)#12AWG. (PROVIDE GROUND CONDUCTOR IN ALL CONDUITS.)	D22 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.
	10. CONTRACTOR BID	EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUBMITTED TO ENGINEER FOR APPROVAL OF APPEARANCE. AL HANGERS MUST BE UNIFORMLY SPACED AND NEATLY INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IN REQUIRED FOR SUPPORT FUNCTION. CONTRACTOR SHALL SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH NEAT ENVICED ADDEADANCE.	ALL ANCE AND	WHERE NO NUMBER IS INDICATED, THE CONDUCTORS ARE #12AWG(MIN.) CONDUIT SIZE IS AS REQUIRED BY ELECTRICAL CODE.	
	CUNTRACTOR'S BID SHALL BE BASED ON ALL WORK SHOWN ON THE PLANS AND AS SPECIFIED. IF CONTRACTOR PROPOSES TO SUBSTITUTE FOR EQUIPMENT SPECIFIED, HE SHALL SUBMIT HIS REQUEST FOR CONSIDERATION OF THE OWNER AND ENGINEER PRIOR TO BID IN WRITING. ALL SUBSTITUTIONS MUST BE REVIEWED BY THE ENGINEER IN WRITING. SUCH REVIEW SHALL NOT	PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES. 9. ALL RECEPTACLES SHALL BE MOUNTED AT 18" PER ADA REQUIREMENTS UNLESS NOTED OTHERWISE. MEASURED FROM BOTTOM	OM OF	INDICATES A HOMERUN TO PNL 2LA, CKTS 1-3-5 WITH SHARED NEUTRAL &	
	RELIEVE THE CONTRACTOR COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, AND THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ANY CHARGES RESULTING FROM HIS PROPOSED SUBSTITUTIONS WHICH AFFECT OTHER PARTS OF HIS OWN WORK, THE OWNER, ENGINEER OF RECORD OR THE WORK OF	BOX. 10. ALL DISTRIBUTION BOARDS, SWITCHBOARDS AND TRANSFORMERS THAT ARE FLOOR MOUNTED SHALL BE MOUNTED ON 2" THIC	HICK	→2LA 1-3-5,7 →	A AMPERES (F) FRONT NO NORMALLY OPEN AF AMP FRAME/AMP FUSE FA FIRE ALARM NC NORMALLY CLOSED AFC AVAILABLE FAULT CURRENT FS SHALLOW FLOOR BOX OH OVERHEAD AFE APOVE FINISCHED FLOOD FT EFET D DOVERHEAD
	OTHER CONTRACTORS. B. <u>MATERIAL AND INSTALLATION</u>	HOUSEKEEPING PAD. TRANSFORMER SHALL BE ON VIBRATION ISOLATION PADS AND CONNECTED WITH FLEXIBLE CONDUIT. 11. CONTRACTOR SHALL EXAMINE PLANS AND VERIFY IN FIELD LOCATIONS OF ALL FIRE RATED WALLS, CEILINGS AND FLOORS.			AFF ABOVE FINISHED FLOOK FI FEI P POWER OR POLE AIC AMP INTERRUPTING CURRENT GC GENERAL CONTRACTOR PBO PROVIDED BY OTHERS ARCH ARCHITECT GFI GROUND FAULT INTERRUPTER PNL PANEL AS AMP SWITCH CHOL CPOLIND DVC PVL PANEL
	ALL WORK AND MATERIAL SHALL CONFORM TO THE LATEST RULES OF THE GOVERNING ELECTRICAL CODE AND INSTALLATION SHALL BE OF THE LATEST INDUSTRY STANDARDS OF WORKMANSHIP.	CONTRACTOR SHALL SEAL ALL ELECTRICAL SYSTEM PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS AND FLOORS WITH LISTED MATERIAL APPROVED BY THE AUTHORITY HAVING JURISDICTION.	ITH U.L.		AS AMP SWITCH GND GROUND PV PHOTO VOLTAIC ASTM AMERICAN SOCIETY OF HP HORSEPOWER (R) REMOVED TESTING MATERIAL(S) ID IDENTIFICATION RGS RIGID GALVANIZED STEEL AT AMP TUP
	ALL INSTALLED MATERIALS AND EQUIPMENT SHALL BE LISTED U.L., NRTL OR LISTED AND APPROVED BY AN APPROVED TESTING LABORATORY.	 ALL SWITCHES SHALL BE MOUNTED 36" TO 48" MEASURED FROM BOTTOM & TOP OF BOX RESPECTIVELY. PANEL CIRCUIT DIRECTORY SHALL COMPLY WITH CEC 408.4. 	-	Image: margin bit is a state of the stat	AT AMPTRIP AT AMPTRIP ATS AUTOMATIC TRANSFER SWITCH FRAME RAME RAME RM ROOM AWG AMERICAN WIRE GAGE IG ISOLATED GROUND SN SYSTEM NEUTRAL BKBD BACKBOARD IB IUNCTION BOX SPD SURGE PROTECTION DEVICE
	 <u>CONDUITS</u> CONDUIT SHALL BE EMT, PVC, IMC, RIGID OR FLEXIBLE STEEL TYPE. CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH UL-1. A GROUND WIRE IS REQUIRED IN ALL FLEXIBLE CONDUIT AND UNDERGROUND CONDUIT. BUSHINGS SHALL BE INSTALLED 	14. PROVIDE 90% COMPACTION OR SAND SLURRY OVER ALL UNDERGROUND CONDUITS, USE ONLY CLEAN FILL.	-		C CONDUIT OR CEILING K KILO TO TO TO TO THE CLOCKS CB CIRCUIT BREAKER KVA KILO VOLT AMPS=1000VA TTB TELEPHONE TERMINAL BOARD CONT CONTINUATION LC LIGHTING CONTACTOR TTC TELEPHONE TERMINAL CABINET
	ON ALL COMMUNICATION, TELEPHONE & SPEAKER CONDUITS. PROVIDE 3/16" NYLON PULL STRING IN ALL EMPTY CONDUITS. NO MC, BX OR AC90 SHALL BE PERMITTED. FLEXIBLE STEEL CONDUIT RUNS SHALL BE LIMITED TO A MAXIMUM LENGTH OF 6 FOOT. ALL CONNECTIONS SHALL BE COMPRESSION & NOT SCREW TYPE.	 H. <u>ADDITIONAL NOTES</u> MARKING - UNDERGROUND SYSTEM SHALL BE LEGIBLY MARKED "UNDERGROUND SYSTEM" AT THE SOURCE OR FIRST DISCONNE MEANS OF THE SYSTEM. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. 	INECTING	SEE KEY NOTE #1 AS INDICATED ON DRAWING P SWITCH WITH PILOT LIGHT @ 42"AFE	CKT CIRCUIT LCL LONG CONTINUOUS LOAD TR TRANSFORMER CLG CEILING LV LOW VOLTAGE TVSS TRANSIENT VOLTAGE SURGE CO CONDUIT ONLY M METER SUPPRESSOR
	SWITCHES AND RECEPTACLES PROVIDE 2000 NEWA RATED SWITCHES AND RECEPTACLES OF SPECIFICATION GRADE, ALL SWITCHES SHALL BE RATED FOR 120	(250.21)(C) 2. PROVIDE SWITCH AND RECEPTACLE HEIGHTS PER STATE OF CALIFORNIA ACCESSIBLE REQUIREMENTS.		\$ 3ab 3-WAY SWITCH, a & b INDICATES LIGHT FIXTURE TO BE SWITCHED (EACH A 3-WAY) MOUNTED @ 42" AFF \$ switch workstop \$ 100 action \$ switch workstop	CTV CABLE TELEVISION MC METAL CLAD TYP TYPICAL (CU) COPPER MDF MAIN DISTRIBUTION FRAME UG UNDERGROUND CW COLD WATER PIPE MIN. MINIMUM UL UNDERWRITERS LABORATORY
	AND/OR 277 VOLT AND RECEPTACLES SHALL BE NEMA 5-20R. IN ALL OFFICES AND OFFICE AREAS DEVICES SHALL BE DECORA SERIES TYPE WITH COLOR SELECTION BY CONTRACTOR/OWNERS REPRESENTATIVE.	3. THE ISSUANCE OF A PERMIT SHALL NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERRORS ON PLANS OR FROM PREVENTING ANY VIOLATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AN DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AN DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION OF THE CODES ADOPTED BY THE CITY, RELEVANT LAWS, ORDINANCES, RULES AND DECLUATION	ON THESE AND/OR	Switch Moonted @ +42 AFF M MOTOR RATED SWITCH s.b.c.d	DISDISCONNECTMTDMOUNTEDUONUNLESS OTHERWISE NOTEDDSDISCONNECT SWITCHMTBMAIN TELEPHONE BACKBOARDUNSWUNSWITCHEDDWGDRAWINGMTGMOUNTINGVVOLTS/VOLTAGE
	3. FEEDERS AND BRANCH CIRCUITS IDENTIFICATION IDENTIFY FEEDERS WITH THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, LOAD END, AND IN PULL ROYES WITH E 2 CODE OF ADDROVED WIDE MARKER. IDENTIFY BRANCH CIRCUITS WITH LD. MARKERS, THE	 FOR FIRE RATED WALL/CEILING PENETRATION AND/OR MEMBRANE PENETRATION, COMPLETE NRTL CLASSIFICATION SHEETS SH PROVIDED TO THE INSPECTOR AT THE TIME OF INSPECTION FOR THE LISTED RATED ASSEMBLY. 	SHALL BE	CIRCUIT SWITCH LEGS WALL SWITCHES	ECDELECTRICAL CONTRACTORMVMEDIUM VOLTAGEVAVOLT AMPSEMEMERGENCY LIGHT/FEEDERMHMAN HOLEVDVOLTAGE DROPEMTELECTRICAL METAL TUBINGMFGMANUFACTURERWWATTS/WATTAGE OR WIRE
	CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, AT ALL SPLICES, IN JUNCTION BOXES, AND IN OUTLETS. USE PLASTIC COATED SELF-STICKING MARKERS SUCH AS THOMAS & BETTS E-Z CODE FOR IDENTIFICATION OF COMPLETED SELF-STICKING MARKERS SUCH AS THOMAS & DET TERMINAL AND OUTLETS WITH DEPENDENT	 EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGRO CONDUCTORS AT THE PANELBOARD WHERE THE BRANCH CIRCUIT ORIGINATES. (210.4) 	GROUNDED	60AS DISCONNECT SWITCH, 60AMP SWITCH, 35 AMP FUSE, 3 POLE W/ OVERCURRENT PROTECTION U.O.N.	EOR ENGINEER OF RECORD NEC NATIONAL ELECTRICAL CODE WP WEATHERPROOF EPR ETHYLENE PROPYLENE RUBBER (N) NEW W/ WITH EVCS ELECTRIC VEHICLE CHARGING NIC NOT IN CONTRACT (X) EXISTING
	CONDUCTORS. IDENTIFY SIGNAL & COMMUNICATION CABLES AT TERMINAL AND OUTLET UNIQUELY WITH PERMANENT LABELING.	 MULTIWIRE BRANCH CIRCUITS SUPPLYING POWER TO THE PARTITION SHALL BE PROVIDED WITH A MEAN TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS AT THE PANELBOARD WHERE THE BRANCH CIRCUIT ORIGINATES. (605.7))	Image: Weight of the second	STATION NL NIGHT LIGHT ¢ PHASE
	4. <u>CONDUCTORS</u> DELIVER ALL CONDUCTORS TO THE JOB SITE IN ORIGINAL UNBROKEN CARTON OR REEL, PROPERLY TAGGED WITH U.L. LABEL, SIZE, TYPE, MANUFACTURER, TRADE NAME AND THE DATE OF MANUFACTURE. (MUST BE MANUFACTURED WITHIN 6 MONTHS)	7. PROVIDE SEPARATE SUBMITTAL; OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND APPROVALS FOR ALL FIRE ALARM SYSTEM INSTALLATIONS AND/OR MODIFICATIONS FROM THE FIRE DEPARTMENT.	ЕМ — 1	3P 100AS 60AF FUSED DISCONNECT SWITCH 100AMP SWITCH RATING WITH 60 AMP FUSES, 3 POLE	SITE/AREA MAP
	PROVIDE COPPER CONDUCTORS #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. PROVIDE STRANDED COPPER CONDUCTORS FOR ALL WIRING. USE CONDUCTORS WITH 90°C THHN/THWN 600 VOLTS INSULATION, UNLESS OTHERWISE NOTED. CONDUCTOR SIZE NO.1 AWG AND SMALLER WITH 90 DEGREE C INSULATION ARE TO USE THE 60 DEGREE	8. ALL NEW OVERCURRENT DEVICES INSTALLED IN EXISTING PANELS/SWITCHBOARDS SHALL MATCH THE MAKE, MODEL AND INTERRUPTING CAPACITY OF THE EXISTING OVERCURRENT DEVICES.		200AF) 150AT MOLDED CASE CIRCUIT BREAKER 200 AMP FRAME, 150 AMP TRIP RATING, 3 POLE	
	COLUMN OF THE CODE, TABLE 310-16, TO DETERMINE AMPACITY. CONDUCTORS #1/0 AWG AND LARGER WITH 75 DEGREE AND 90 DEGREE INSULATION ARE TO USE THE 75 DEGREE COLUMN OF CODE, TABLE 310-16, TO DETERMINE AMPACITY. (110.14C) WHERE THE NUMBER OF CONDUCTORS IN A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITY OF EACH	9. RACEWAY SEALS. CONDUITS OR RACEWAYS THROUGH WHICH MOISTURE MAY CONTACT LIVE PARTS SHALL BE SEALED OR PLUG EITHER OR BOTH ENDS.	UGGED AT	CCTV-VERIFY MOUNTING LOCATION AND REQUIREMENTS WITH CLIENT/OWNER.	
	CONDUCTOR SHALL BE REDUCED PER TABLE 310.15(B)(3)(a). 5. LIGHTING FIXTURES_	10. ALL 15-20 AMP 120 VOLTS, SINGLE PHASE RECEPTACLES WITHIN KITCHEN AND FOOD PREPARATION AREAS TO BE GFCI PER NEC	NEC 210.8.	COLOR CODE FOR CONDUCTORS	
	PROVIDE LIGHTING FIXTURES WITH ELECTRONIC DRIVERS PER SCHEDULE. NO SUBSTITUTIONS OF FIXTURES SHALL BE PROVIDED WITHOUT THE APPROVAL OF THE ENGINEER -OF-RECORD.	 ALL LIGHT FIXTURES WITHIN KITCHEN AND FOOD PREPARATION AREAS TO BE SHATTER PROOF. REFRIGERATION DETECTION - DETECTION AND ALARM SYSTEMS SHALL BE POWERED AND SUPERVISED AS REQUIRED FOR FIRE SYSTEMS IN THE FIRE CODE. (2016 CMC 1121 2) 	F RE ALARM	PROVIDE CONDUCTOR COLOR CODE AS FOLLOWS: 120/208VAC,3Ø,4W: BLUE,BLACK,RED FOR PHASE CONDUCTORS AND WHITE FOR NEUTRAL, GREEN FOR GROUND.	
	6. <u>PANELBOARDS (BID SQUARE D; PROVIDE GE ALTERNATE BID)</u> DISTRIBUTION AND LIGHTING PANELBOARDS WITHIN PROJECT AREA SHALL BE OF THE COPPER BUS THREE PHASE, FOUR WIRE DISTRIBUTED PHASING TYPE. CIRCUITING SHALL BE ARRANGED TO PROVIDE, AS NEARLY AS POSSIBLE, AN EVENLY BALANCED	13. PROVIDE LOCAL DISCONNECTS FOR ALL HARDWIRED EQUIPMENT THAT IS NOT "WITHIN SIGHT" OF THE SOURCE PANEL.		277/480VAC,3Ø,4W: ORANGE,BROWN,YELLOW FOR PHASE CONDUCTORS AND WHITE FOR NEUTRAL, GREEN FOR GROUND.	
	LOAD ON ALL PHASES. PANELBOARDS SHALL BE BOLT-ON CIRCUIT BREAKER TYPE. AVAILABLE FAULT CURRENT IS STATED ON PANELBOARD SCHEDULE. PROVIDE PANEL IDENTIFICATION NAMEPLATE (ENGRAVED ON-ADHESIVE 1/2" MINIMUM LETTERS) AND TYPEWRITTEN LIST OF CIRCUITS IN THE DIRECTORY FRAME.	14. MULTIPLE RACEWAYS CONTAINING MORE THAN 3 CURRENT CARRYING CONDUCTORS SHALL COMPLY WITH [2016 CEC, 310.15(B) 15. THE IDENTIFICATION OF EVERY CIRCUIT OF A PANEL BOARD AND SWITCHBOARD SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLE	5(B)(2)(A)].	DERATING TABLE	
	7. <u>STRUCTURAL SUPPORT</u> FACH SECTION OF FLOOR MOUNTED SWITCHBOARD, DISTRIBUTION BOARD, MCC, FTC, SHALL BE BOLTED TO THE CONCRETE	EVIDENT, AND SPECIFIC PURPOSE OR USE AND SHALL INCLUDE SUFFICIENT DETAIL TO ALLOW EACH CIRCUIT TO BE DISTINGUI FROM ALL OTHERS. 2016 C.E.C 408.4 - PROVIDE MORE DETAIL ON PANEL SCHEDULE CIRCUIT DESCRIPTIONS.	GUISHED	NEC #310-8 ADJUSTMENT FACTORS	
	HOUSEKEEPING PAD USING (6) 3/4"-10 GRADE 2 BOLTS AND CONICAL WASHERS TORQUED TO 70LB-FT. PROVIDE MINIMUM 4000 PSI STRENGTH CONCRETE BELOW ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT. THE TOP OF ALL FLOOR MOUNTED ELECTRICAL FOLURMENT TO THE BUILDING STRUCTURE IN A SEISMICAL LY APPROVED MANNER	16. A SINGLE RECEPTACLE INSTALLED ON AN INDIVIDUAL BRANCH CIRCUIT SHALL HAVE AN AMPERE RATING OF NOT LESS THAN TH THE BRANCH CIRCUIT. INDICATE THE RECEPTACLE RATING. (210.21(B)(1))	THAT OF (a)	(a) MORE THAN THREE CURRENT-CARRYING CONDUCTORS IN A RACEWAY OR CABLE. WHERE THE NUMBER OF CURRENT-CARRYING CONDUCTORS IN A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITIES SHALL BE REDUCED AS SHOWN IN THE FOLLOWING TABLE:	
	8. <u>ELECTRICAL CERTIFICATION</u> "ELECTRICAL CERTIFICATION "ELECTRICALS" PERFORMING WORK ON THIS PROJECT SHALL BE CLIPPENTLY CERTIFIED IN ACCORDANCE WITH THE STATE OF	 PROVIDE RECEPTACLE OUTLETS WHEREVER CORD CONNECTED EQUIPMENT WILL BE USED. (210.50(B)) WHERE THE DISCONNECTS ARE NOT PROVIDED WITHIN SIGHT FROM THE EQUIPMENT IT SUPPLIES, THE SWITCH OR CIRCUIT B 	T BREAKER	NUMBER OF CURRENT-CARRYING PERCENT OF VALUES IN TABLES AS ADJUSTED CONDUCTORS FOR AMBIENT TEMPERATURE IF NECESSARY	
	CALIFORNIA AB931 AND THE DIVISION OF APPRENTISHIP STANDARDS SECTION 3099. C. <u>DEMOLITION</u>	MUST INCLUDE PROVISIONS FOR ADDING A LOCK, AND THESE PROVISIONS MUST REMAIN WITH THE EQUIPMENT. THESE LOCKI PROVISIONS HAVE TO BE PART OF THE EQUIPMENT, EITHER INHERENT TO THE EQUIPMENT DESIGN OR AS A ACCESSORY FEATU CAN BE INSTALLED ON THE EQUIPMENT. [410.141(B), 422.31(B), 424.19, 440.14 EXCEPTION NO. 1, 600.6(A)(2)(3), 620.51(A) EX	ATURE THAT	4 THROUGH 6 80 7 THROUGH 9 70	EATME PA
	1. NOTIFY THE OWNER IMMEDIATELY WHEREVER EXISTING EQUIPMENT IS ENCOUNTERED WHICH MUST BE RELOCATED DUE TO THE NEW CONSTRUCTION, AND WHICH IS NOT INDICATED ON THE PLANS.	19. STANDARD NON-LOCKING STRAIGHT-BLADE RECEPTACLES IN 120- AND 250-VOLT CONFIGURATION AT WET/DAMP LOCATION AR	ARE	10 THROUGH 20 50 21 THROUGH 30 45 31 THROUGH 40 40 41 AND APOLYE 77	HSSIG FH
	 ALL REMOVED MATERIALS AND EQUIPMENT WHICH ARE SALVAGEABLE SHALL REMAIN THE PROPERTY OF THE OWNER. DELIVER SUCH SALVAGED MATERIALS AND EQUIPMENT ON THE PREMISES AS DIRECTED BY OWNER, AND NEATLY PILE OR STORE THEM AND PROTECT FROM DAMAGE. REMOVE FROM PREMISES AND DISPOSE OF ALL MATERIALS CONSIDERED BY THE OWNER TO BE SCRAP. 	REQUIRED TO BE LISTED WEATHER-RESISTANT TYPE. [CEC 400.8(A)].	WH	41 AND ABOVE 35 WHERE SINGLE CONDUCTORS OR MULTICONDUCTOR CABLES ARE STACKED OR BUNDLED LONGER THAN 24 INCHES (610 mm) WITHOUT MAINTAINING SPACING AND ARE NOT INSTALLED IN PACEWAYS. THE ALLOWARD AMPACTRY OF EACH CONDUCTOR SHALL BE DEDUCED AS	
	3. ALL DEVICES, CIRCUITS CONDUCTORS, FEEDERS ETC., WHEN NOTED TO BE REMOVED, SHALL BE REMOVED TO THE LAST ACTIVE DEVICE. ALL OVER-CURRENT PROTECTION AND DISCONNECT DEVICES NO LONGER UTILIZED BUT REMAINING AS LAST ACTIVE DEVICE SHALL BE		SHC	EXCEPTION NO. 1: WHERE CONDUCTORS OF DIFFERENT SYSTEMS AS PROVIDED IN SECTION 200.2 ARE INSTALLED IN A COMMON	HSC
	 4. DISCONNECT AND MAKE SAFE ALL ELECTRICAL SYSTEMS ON SITE AND IN WALL, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL. 		RAC 220	RACEWAY OR CABLE, THE DERATING FACTORS SHOWN ABOVE SHALL APPLY TO THE NUMBER OF POWER AND LIGHTING (ARTICLES 210, 215, 220, AND 230) CONDUCTORS ONLY.	
	 REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY AND RE-LABEL DEVICES AS SPARES 		EXC	EXCEPTION NO. 2: FOR CONDUCTORS INSTALLED IN CABLE TRAYS, THE PROVISIONS OF SECTION 318-11 SHALL APPLY.	
	 REMOVE ADAMOONED WIRKING TO SOURCE OF SOTHER AND RE EABLE DEVICES AS STARES. REMOVE ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT CONDUIT FLUSH WITH WALLS AND FLOOR. AND PATCH SURFACES. 		(61)	(610mm).	
	 DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVICING THEM IS ABANDONED AND REMOVE. PROVIDE BLANK COVER FOR ABANDONED OUTLETS WHICH ARE NOT REMOVED. 		IF T NOM EXC	IF THOSE CONDUCTORS HAVE PHYSICAL PROTECTION IN THE FORM OF RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, OR RIGID NONMETALLIC CONDUIT HAVING A LENGTH NOT EXCEEDING 10 FEET (3.05m) ABOVE GRADE AND THE NUMBER OF CONDUCTORS DOES NOT EXCEED FOUR.	
	9. DISCONNECT AND REMOVE ABANDONED LUMINAIRES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER		EXC	EXCEPTION NO. 5: FOR OTHER LOADING CONDITIONS, ADJUSTMENT FACTORS AND AMPACITIES SHALL BE PERMITTED TO BE CALCULATED UNDER SECTION 310-15(b)	
	 REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS 		(FN RAC	(FNC): SEE APPENDIX B, TABLE B-310-11 FOR ADJUSTMENT FACTORS FOR MORE THAN THREE CURRENT-CARRYING CONDUCTORS IN A RACEWAY OR CABLE WITH LOAD DIVERSITY.	
	PAINEL AS APPROPRIATE. 12. BEGINNING OF DEMOLITION MEANS CONTRACTOR ACCEPTS EXISTING CONDITIONS.		(b)	(b) MORE THAN ONE CONDUIT, TUBE, OR RACEWAY. SPACING BETWEEN CONDUITS, TUBING, OR RACEWAYS SHALL BE MAINTAINED.	
	 D. EXECUTION 1. CAREFULLY PROTECT ALL WALLS, TRIM, FLOORS, EQUIPMENT UTILITY LINES AND MATERIALS. WHEN WORKING ON FINISHED SURFACES, LIMIT DAMAGE TO THE CONFINES AS MUCH AS POSSIBLE AND RECTORE TO THE OPICINAL CONDITION ALL SUPPOCES 				
	WHICH ARE DAMAGED BECAUSE OF THE INSTALLATION OF THIS WORK. 2. EQUIPMENT, MATERIALS AND SUPPLIES REMOVED FOR PROTECTION SHALL BE REPLACED IN ORIGINAL LOCATIONS. ANY MATERIALS				
	DAMAGED SHALL BE REPLACED WITH NEW MATERIALS OF LIKE KIND AND QUALITY. 3. DO ALL DRILLING, CUTTING, CHANNELING AND PATCHING REQUIRED TO INSTALL ELECTRICAL WORK AS INDICATED OR HEREIN				Exp. 09/30/2026
	SPECIFIED. ALL HOLES, CURBS, ETC., IN FLOORS, CEILINGS AND WALLS SHALL BE PATCHED, UNLESS INDICATED OTHERWISE. PAINT ALL NEW ELECTRICAL RACEWAYS, CABINETS, ENCLOSURES AND FITTINGS PENETRATING INTO FIRE RATED ENVELOPES, SPACES, ETC.				CALLED CALLED
DATE	لل الم الم الم الم الم الم الم الم الم ا	م المالية المحالية ال	$\overline{}$		DEPARTMENT OF SCALE: STUDENT SERVICE ANNEX AS SHOWN HV/AC REDI ACEMENT DROJECT
	CONSULTING E 3251 CORTE MALPASO.	ELECTRICAL ENGINEERS Mechanical Engineers M #511 838 East Front Street .		UKFAKKUULLE	MAINTENANCE & OPERATIONS Date: 2-24-23 GENERAL NOTES, SYMBOLS, Sheet NO.
	CAMARILLO, CA 93012- (805) 389-6520	8094 Ventura, California 93001-2925 FAX (805) 389-6519 Ventura, California 93001-2925 hugh@aegroupme.com V E	ENTU	URA COUNTY COMMUNITY COLLEGE DIS	MOORPARK, CA. 93021ABBREVIATIONS, & DRAWINGE100T R I C TPHONE: (805) 378-1454 FAX: (805) 378-1593BLDG. NO.LIST

REV.	DA

DRAWING FILENAME: 23-714E100	
DRAFTER: CM02	

PATHNAME



Copyright Lucci and Associates Consulting Electrical Engineers. Deviations from this drawing will not be made without their expressed written permission. L.A.I.# 23-714 PAPER SIZE 36"x24"



ELECTRICAL SINGLE LINE DIAGRAM





22

2025

≥ Σ 14

DATE:

\23\71

Ü

PATHNAN



					(VERIFY BREAKER SIZ	ES)	■ NEMA 1 ■ COPPI	ER BUSS
			SOURCE CS	VOLTAGE A.I.C. <u>10</u> ,0	<u>120/200</u> PHASE 000	<u> </u>	MAIN LUGS ONLY	
			PANEL LOCATION ELECTRIC	CAL ROOM BUS AMPE	RE RATING 400 (300A FEED)	SURFACE MOUNTING	
			L I'I C I C I C I C S P T L C T E	LOAD(VA) BRKR A B C POLE AMP Ck	KT PHASE CKT AMP POLE	LOAD(VA) A B C	CIRCUIT DESCRIPTION	I C I S P T C T E
			AC-1A AC-1A	2500 30 2500	$1 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 4 \\ 3 \\ 3$	2500 2500	AC-1F AC-1F	
			AC-1A AC-1B	2500 3	5 7 8 30	2500	AC-1F	
			AC-1B	2500		2500	AC-1G	
			AC-1B AC-1C	2500 3 1 2500 30 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2500	AC-1G AC-2A	
			AC-1C AC-1C	2500 1 2500 3 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2500 2500	AC-2A AC-2A	+++
			AC-1D	2500 30 1		2500	AC-2B AC-2B	
			AC-1D	2500 3 2		2500	AC-2B	
			AC-1E AC-1E	2500 2500 2		2500	AC-3 AC-3	
			AC-1E	2500 3 2 12500 12500 12500	29 + + + 30	12500 12500 12500	TOTALS	
				PHASE A	PHASF B		C .	
				РНАSF А 25000	PHΔSF R 25000		- · C 25000	
						PHASE (C 20E	
					TOR HACI, NEI LACE HAC WIT	H NEW LARGER PANEL V	WITH ALL HAC1 BREAKERS	/LOADS
			PANEL NUMBER HAC1	NEW MOUNTED AD	DJACENT TO HAC (USE 120/208 PHASE	HACR BREAKER)	WITH ALL HAC1 BREAKERS	/LOADS ER BUSS
			PANEL NUMBER <u>HAC1</u> SOURCE <u>HAC</u>	NEW MOUNTED AD VOLTAGE A.I.C.	DJACENT TO HAC (USE <u>120/208</u> PHASE 000	HACR BREAKER)	WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS	/LOADS ER BUSS ER200
			PANEL NUMBER <u>HAC1</u> SOURCE <u>HAC</u> PANEL LOCATION <u>ADJACEN</u>	NEW MOUNTED AD VOLTAGE A.I.C. <u>10,0</u> T TO HAC BUS AMPE	DJACENT TO HAC (USE 120/208 PHASE 000 ERE RATING 225 BRKR	HACR BREAKER) LOAD(VA)	WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING	/LOADS ER BUSS ER 200
			PANEL NUMBER <u>HAC1</u> SOURCE <u>HAC</u> PANEL LOCATION <u>ADJACEN</u> L C T E CIRCUIT DESCRIPTION L C T E AC-1A (HEAT)	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 T TO HAC BUS AMPE LOAD(VA) BRKR LOAD(VA) CK 2150 30	DJACENT TO HAC (USE <u>120/208</u> PHASE 000 ERE RATING <u>225</u> KT PHASE CKT AMP POLE 1 + + 2 30	HACR BREAKER) <u>3</u> WIRE <u>4</u> LOAD(VA) A B C 2150	 WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) 	/LOADS ER BUSS ER 200 M R L S P T C T E
			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L I C I L I C I L I AC-1A (HEAT) AC-1B (HEAT)	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 T TO HAC BUS AMPE LOAD(VA) BRKR 2150 2150 2150	DJACENT TO HAC (USE <u>120/208</u> PHASE <u>000</u> ERE RATING <u>225</u> KT PHASE CKT AMP POLE 1 4 2 5 4 6 30	HACR BREAKER) <u>3</u> WIRE <u>4</u> LOAD(VA) A B C 2150 2150 2150 2150	 ■ NEMA 1 ■ COPPI ■ MAIN CIRCUIT BREAKI ■ SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2B (HEAT) 	/LOADS ER BUSS ER 200 ER 200 E
			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L $\stackrel{R}{_{C}}$ $\stackrel{L}{_{I}}$ circuit description L $\stackrel{R}{_{C}}$ $\stackrel{L}{_{I}}$ circuit description AC-1A (HEAT) AC-1A (HEAT) AC-1B (HEAT) AC-1B (HEAT)	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 T TO HAC BUS AMPE LOAD(VA) BRKR 2150 2150 2150 2150 2150	DJACENT TO HAC (USE <u>120/208</u> PHASE 000 ERE RATING 225 KT PHASE CKT AMP POLE 1 4 2 5 6 30 7 8 2 0 10 20	HACR BREAKER) <u>3</u> WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150	 NEMA 1 COPPI MAIN CIRCUIT BREAKING SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) 	/LOADS
			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L_{C}^{C} I_{E}^{C} I_{E}^{C} Variable L CIRCUIT DESCRIPTION L_{C}^{C} I_{E}^{C} I_{E}^{C} L_{C}^{C} I_{E}^{C} I_{E}^{C} I_{E}^{C} I_{E}^{C} L_{C}^{C} I_{E}^{C} I_{E	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TTO HAC BUS AMPE LOAD(VA) BRKR 2150	DJACENT TO HAC (USE <u>120/208</u> PHASE 000 ERE RATING <u>225</u> KT PHASE CKT AMP POLE 1 4 2 5 6 30 7 8 2 9 10 30 12 2 2 2	H NEW LARGER PANEL HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150	 NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) 	/LOADS
			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACENPANEL LOCATIONADJACEN $L C S P P I I ECIRCUIT DESCRIPTIONL C S P I EAC-1A (HEAT)AC-1A (HEAT)AC-1B (HEAT)AC-1B (HEAT)AC-1C (HEAT)AC-1C (HEAT)AC-1C (HEAT)AC-1D (HEAT)AC-1D (HEAT)$	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 T TO HAC BUS AMPE LOAD(VA) BRKR CK 2150 2 30 2 2150 2 30 2 2150 2 30 2 2150 2 30 2 2150 2 30 30 30 2150 2 30 30 30 30 2150 2 30 30 30 30 30 30 2150 2 30	DJACENT TO HAC (USE 120/208 PHASE 000 PHASE BRKR CKT PHASE A B C CKT A B C 230 3 4 2 30 3 4 2 30 4 2 5 6 7 8 9 10 11 12 12 2 13 16	H NEW LARGER PANEL V HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150	 ■ NEMA 1 ■ COPPI ■ MAIN CIRCUIT BREAKERS ■ SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SPARE 	/LOADS
ROUND			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACEN L_{c} I_{s} P_{p} I_{t} CIRCUIT DESCRIPTION L_{c} I_{s} L_{c} $I_{$	NEW MOUNTED AD VOLTAGE VOLTAGE A.I.C. 10,0 T TO HAC BUS AMPE LOAD(VA) BRKR CK 2150 2 30 2 2150 2 30 2 2150 2 30 2 2150 2 30 30 30 2150 2 30 30 30 30 2150 2 30 30 30 30 30 30 30 2150 2 30 1 30 1 30 1 2150 2 30 1 30 1 1 2150 2 1 30 1 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 1 <th1< th=""> 2150</th1<>	DJACENT TO HAC (USE 120/208 PHASE 000 PHASE BRKR CKT PHASE ABC 225 KT PHASE CKT ABC 230 3 4 2 5 6 30 7 8 2 9 10 30 11 12 2 13 16 2 14 30 16 15 16 2 19 20 20 1	HACR BREAKER) <u>3</u> WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 	 NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SPARE SPARE SPARE SPARE SPARE SPARE SPARE 	/LOADS
ROUND			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACEN L_{C} N_{P} L_{C} N_{C}	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 A.I.C. 10,0 BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP CK 2150 2 30 2 1 2150 2 30 1 2150 2 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 30 1 30 1 2150 30 1 30 2 2150 30 2 1 2150 30 2 1 2150 30 2 <t< td=""><td>$\begin{array}{c c} \hline DJACENT TO HAC (USE \\ \hline 120/208 PHASE \\ \hline 000 \\ \hline ERE RATING 225 \\ \hline CKT PHASE A B C A BRKR \\ \hline PHASE A B C A A P POLE \\ \hline 1 & 2 & 30 \\ \hline 3 & 4 & 2 \\ \hline 5 & 6 & 30 \\ \hline 7 & 8 & 2 \\ \hline 9 & 10 & 30 \\ \hline 11 & 12 & 2 \\ \hline 9 & 10 & 30 \\ \hline 12 & 2 & 2 \\ \hline 14 & 30 \\ \hline 15 & 16 & 2 \\ \hline 14 & 30 \\ \hline 15 & 16 & 2 \\ \hline 14 & 30 \\ \hline 15 & 16 & 2 \\ \hline 17 & 18 & 20 & 1 \\ \hline 19 & 20 & 20 & 1 \\ \hline 19 & 22 & 20 & 1 \\ \hline 21 & 22 & 20 & 1 \\ \hline 22 & 24 & 20 & 1 \\ \hline 12 & 24 & 20 & 1 \\ \hline \end{array}$</td><td>H NEW LARGER PANEL V HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 - 2150 </td><td> WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE </td><td>/LOADS</td></t<>	$\begin{array}{c c} \hline DJACENT TO HAC (USE \\ \hline 120/208 PHASE \\ \hline 000 \\ \hline ERE RATING 225 \\ \hline CKT PHASE A B C A BRKR \\ \hline PHASE A B C A A P POLE \\ \hline 1 & 2 & 30 \\ \hline 3 & 4 & 2 \\ \hline 5 & 6 & 30 \\ \hline 7 & 8 & 2 \\ \hline 9 & 10 & 30 \\ \hline 11 & 12 & 2 \\ \hline 9 & 10 & 30 \\ \hline 12 & 2 & 2 \\ \hline 14 & 30 \\ \hline 15 & 16 & 2 \\ \hline 14 & 30 \\ \hline 15 & 16 & 2 \\ \hline 14 & 30 \\ \hline 15 & 16 & 2 \\ \hline 17 & 18 & 20 & 1 \\ \hline 19 & 20 & 20 & 1 \\ \hline 19 & 22 & 20 & 1 \\ \hline 21 & 22 & 20 & 1 \\ \hline 22 & 24 & 20 & 1 \\ \hline 12 & 24 & 20 & 1 \\ \hline \end{array}$	H NEW LARGER PANEL V HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 - 2150 	 WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE 	/LOADS
ROUND			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACEN $L C S P T$ $L CIRCUIT DESCRIPTION$ $L C S P T$ $L CIRCUIT DESCRIPTION$ $L A C-1A (HEAT)$ $A C-1A (HEAT)$ $A C-1B (HEAT)$ $A C-1B (HEAT)$ $A C-1B (HEAT)$ $A C-1C (HEAT)$ $A C-1C (HEAT)$ $A C-1D (HEAT)$ $A C-1D (HEAT)$ $A C-1E (HEAT)$ $A C-1E (HEAT)$ $A C-1E (HEAT)$ $A C-1E (HEAT)$ $A C-1F (HEAT)$ $A C-1F (HEAT)$ $A C-1F (HEAT)$ $A C-1G (HEAT)$ $A C-1G (HEAT)$	NEW MOUNTED AD VOLTAGE VOLTAGE A.I.C. 10,0 TTO HAC BRKR CK A B C POLE AMP CK 2150 2 30 2 3<	$\begin{array}{c c} \hline D \\ \hline D$	H NEW LARGER PANEL V HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 - 2150 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	 WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE 	/LOADS
ROUND			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACEN $L \\ C \\ $	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 A.I.C. 10,0 BUS AMPE TO HAC BRKR CK A B C POLE AMP CK 2150 2 30 2 30 2 2 2 30 2 2 1 2 30 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 2 <td>DJACENT TO HAC (USE 120/208 PHASE 000 225 BRKR 000 225 CKT ABC 2 3 4 2 5 6 30 7 8 2 9 10 30 11 12 2 13 16 2 14 30 1 15 16 2 16 2 1 12 20 1 13 16 2 14 30 1 15 16 2 16 2 1 17 18 20 1 12 26 20 1 12 28 20 1 13 30 20 1</td> <td>HACR BREAKER) </td> <td> ■ NEMA 1 ■ COPPI ■ MAIN CIRCUIT BREAKERS ■ SURFACE MOUNTING ■ CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) SPARE </td> <td>/LOADS</td>	DJACENT TO HAC (USE 120/208 PHASE 000 225 BRKR 000 225 CKT ABC 2 3 4 2 5 6 30 7 8 2 9 10 30 11 12 2 13 16 2 14 30 1 15 16 2 16 2 1 12 20 1 13 16 2 14 30 1 15 16 2 16 2 1 17 18 20 1 12 26 20 1 12 28 20 1 13 30 20 1	HACR BREAKER) 	 ■ NEMA 1 ■ COPPI ■ MAIN CIRCUIT BREAKERS ■ SURFACE MOUNTING ■ CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) SPARE 	/LOADS
ROUND			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACEN $L C S P P E$ IC T ECIRCUIT DESCRIPTIONAC-1A (HEAT)AC-1A (HEAT)AC-1B (HEAT)AC-1B (HEAT)AC-1B (HEAT)AC-1C (HEAT)AC-1D (HEAT)AC-1D (HEAT)AC-1E (HEAT)AC-1E (HEAT)AC-1E (HEAT)AC-1E (HEAT)AC-1F (HEAT)AC-1F (HEAT)AC-1G (HEAT)AC-1C (HEAC)AC-1C (HEAC)AC-1C (HEAC)AC-1C (HEAC)AC-1C (HEA	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP CK 2150 2 30 2 3 2 2 1 2 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 2	DJACENT TO HAC (USE <u>120/208</u> PHASE 000 ERE RATING 225 KT PHASE CKT AMP POLE 1 2 30 3 4 2 5 6 30 7 8 2 9 10 30 1 12 2 1 4 30 1 5 16 2 1 3 16 2 1 4 30 1 5 16 2 1 4 30 1 5 16 2 1 4 30 1 5 16 2 1 7 18 20 1 1 9 20 20 1 1 9 20 20 1 2 10 30 1 1 2 2 1 4 30 1 1 2 2 1 2 2 1 1 2 2 1 2 3 1 3 3 1 3 2 1 3 3 1 3 4 3 4 3 5 1 3 4 1 3 6 1 3 7 1 3 6 1 3 7 1	HACR BREAKER) 3 WIRE 4 C 2150 - - - - - - - - - - - - - - - - <	WITH ALL HAC1 BREAKERS ■ NEMA 1 ■ MAIN CIRCUIT BREAKERS ■ SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE	/LOADS
ROUND			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACEN $L \\ S \\ C \\ S \\ C \\ C \\ C \\ S \\ C \\ C \\ C$	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP CK 2150 2 30 2 30 2 2 30 2 2 30 2 2 30 2 2 1 2 2 1 2<	DJACENT TO HAC (USE 120/208 PHASE 000 225 BRKR 000 225 CKT ABC CKT ABC CKT AMP POLE 1 2 30 20 3 4 2 30 20 7 8 2 9 10 30 20 11 12 2 2 30 20 1 13 16 2 10 30 10 14 30 20 1 10 20 10 13 24 20 1 11 22 10 14 30 20 1 11 12 2 10 14 30 20 1 12 2 10 10 15 16 2 1 20 1 10 10 12 2 20 1 10 20 10 10	HACR BREAKER) 3 WIRE 4 B 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 - </td <td> WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SPARE<!--</td--><td>/LOADS</td></td>	 WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SPARE<!--</td--><td>/LOADS</td>	/LOADS
ROUND			PANEL NUMBERHAC1SOURCEHACPANEL LOCATIONADJACEN $L \\ S \\ S \\ S \\ F \\ P \\ F \\ S \\ S \\ F \\ F \\ S \\ S \\ F \\ F \\ S \\ S$	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP CK 2150 2 30 2 3	DJACENT TO HAC (USE 120/208 PHASE 000 225 BRKR 000 225 CKT BRKR 000 225 CKT AMP 01 2 30 2 03 4 2 30 2 03 4 2 30 2 03 4 2 30 2 04 12 2 30 30 31 14 30 2 1 30 31 15 16 2 30 20 1 12 22 20 1 32 31 16 2 1 32 31 32 33 17 18 20 1 32 33 34 34 17 28 20 1 32 33 34 34 34 18 36 36 36 36 37 38 38 </td <td>HACR BREAKER) 3 WIRE 4 B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 - - -<td> WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE S</td><td>/LOADS</td></td>	HACR BREAKER) 3 WIRE 4 B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 - - - <td> WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE S</td> <td>/LOADS</td>	 WITH ALL HAC1 BREAKERS NEMA 1 COPPI MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE S	/LOADS
ROUND			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L M R L Z PANEL LOCATION ADJACEN L M R L Z NUMBER LOCATION ADJACEN L M R L L CIRCUIT DESCRIPTION ADJACENT L M R L L M R L L AC-1A (HEAT) AC-1A (HEAT) AC-1B (HEAT) AC-1B (HEAT) AC-1C (HEAT) AC-1C (HEAT) AC-1D (HEAT) AC-1E (HEAT) AC-1F (HEAT) AC-1F (HEAT) AC-1G (HEAT) AC-1G (HEAT) AC-1G (HEAT) <	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP CK 2150 2 30 2 2 4 2150 2 30 2 2 4 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 30 1 2 2150 2 30 2 2 1 2150 2 30 2 2 2 2150 2 30 2 30 2 <th< td=""><td>DJACENT TO HAC (USE 120/208 PHASE 000 TRE RATING 225 $\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150</td><td> ■ NEMA 1 ■ COPPI ■ MAIN CIRCUIT BREAKERS ■ SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SP</td><td>/LOADS</td></th<>	DJACENT TO HAC (USE 120/208 PHASE 000 TRE RATING 225 $\begin{array}{c ccccccccccccccccccccccccccccccccccc$	HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150	 ■ NEMA 1 ■ COPPI ■ MAIN CIRCUIT BREAKERS ■ SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SP	/LOADS
ROUND			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L N R L C S P L CIRCUIT DESCRIPTION L N R L AC-1A (HEAT) A AC-1A (HEAT) AC-1B (HEAT) A AC-1B (HEAT) AC-1C (HEAT) A AC-1D (HEAT) AC-1D (HEAT) A AC-1D (HEAT) AC-1E (HEAT) A AC-1E (HEAT) AC-1F (HEAT) A AC-1G (HEAT) AC-1G (HEAT) A SPACE SPACE B SPACE <td>NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP 2150 2 30 2 2150 2 30 2 2150 2 30 2 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 1 1 1 2150 2 1 30 1 1 2150 2 2 1 1 1 1 2150 2 30 2 2 1 1 2150 2 30 2 2 2 2 2150 2 30 2 2 2 2 <</td> <td>DACENT TO HAC (USE 120/208 PHASE 000 225 BRKR 000 225 CKT PHASE CKT A B C CKT AMP 1 4 2 3 4 2 5 6 30 2 7 8 2 2 9 10 30 2 1 12 2 2 1 12 2 2 1 12 2 2 1 16 2 1 16 2 1 20 1 18 20 1 2 2 19 20 20 1 2 12 24 20 1 2 19 20 20 1 2 12 24 20 1 3 13 32 34 36 3 30 20</td> <td>HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150</td> <td>WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE</td> <td>/LOADS</td>	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP 2150 2 30 2 2150 2 30 2 2150 2 30 2 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 30 1 2150 2 1 1 1 1 2150 2 1 30 1 1 2150 2 2 1 1 1 1 2150 2 30 2 2 1 1 2150 2 30 2 2 2 2 2150 2 30 2 2 2 2 <	DACENT TO HAC (USE 120/208 PHASE 000 225 BRKR 000 225 CKT PHASE CKT A B C CKT AMP 1 4 2 3 4 2 5 6 30 2 7 8 2 2 9 10 30 2 1 12 2 2 1 12 2 2 1 12 2 2 1 16 2 1 16 2 1 20 1 18 20 1 2 2 19 20 20 1 2 12 24 20 1 2 19 20 20 1 2 12 24 20 1 3 13 32 34 36 3 30 20	HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150	WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE	/LOADS
ROUND			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L M R L L M R L I I AC-1A (HEAT) I I AC-1A (HEAT) I I AC-1B (HEAT) I I AC-1B (HEAT) I I AC-1C (HEAT) I I AC-1C (HEAT) I I AC-1D (HEAT) I I AC-1E (HEAT) I I AC-1F (HEAT) I I AC-1F (HEAT) I I AC-1G (HEAT) I I SPACE I I SPACE I I SP	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BRKR CK A B C POLE AMP CK A B C POLE AMP CK 2150 2 30 2 30 2 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 30 1 2 1 2150 2 30 2 2 1 2150 2 30 2 2 1 2150 2 30 2 2 2 2150 2 30 2 30 2 33	DJACENT TO HAC (USE 120/208 PHASE 000 225 BRKR CKT BRKR ABC CKT BRKR 2 30 2 3 4 2 5 6 30 2 7 8 2 2 9 10 30 2 11 12 2 2 13 4 2 2 9 10 30 2 9 10 30 2 11 12 2 2 13 16 2 1 14 30 1 2 2 15 16 2 1 2 2 14 30 20 1 1 12 2 2 1 1 12 2 2 1 1 13 30 20 1 1 13 34 36 <t< td=""><td>HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150</td><td>WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKERS MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC</td><td>/LOADS</td></t<>	HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150	WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKERS MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC	/LOADS
ROUND			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L N L CIRCUIT DESCRIPTION ADJACEN L N L CIRCUIT DESCRIPTION L AC-1A (HEAT) AC-1A (HEAT) AC-1B (HEAT) AC-1B (HEAT) AC-1C (HEAT) AC-1C (HEAT) AC-1D (HEAT) AC-1C (HEAT) AC-1E (HEAT) AC-1E (HEAT) AC-1E (HEAT) AC-1F (HEAT) AC-1F (HEAT) AC-1G (HEAT) AC-1G (HEAT) AC-1G (HEAT)	Image: constraint of the second se	DJACENT TO HAC (USE 120/208 PHASE 000 SEE RATING 225 KT PHASE CKT AMP POLE 1 4 2 5 6 30 7 3 4 2 5 6 30 7 3 4 2 5 6 30 7 3 4 2 2 30 7 8 2 9 10 30 30 2 1 12 2 1 12 2 1 12 2 1 12 2 1 1 12 2 1 1 12 2 1 <t< td=""><td>HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150</td><td>WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKI MAIN CIRCUIT BREAKI CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE</td><td>/LOADS</td></t<>	HACR BREAKER) 3 WIRE 4 LOAD(VA) A B 2150	WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKI MAIN CIRCUIT BREAKI CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE	/LOADS
XQUND			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACENT L R L CIRCUIT DESCRIPTION L R L CIRCUIT DESCRIPTION L AC-1A (HEAT) AC-1A (HEAT) AC-1B (HEAT) AC-1B (HEAT) AC-1B (HEAT) AC-1C (HEAT) AC-1C (HEAT) AC-1C (HEAT) AC-1E (HEAT) AC-1E (HEAT) AC-1F (HEAT) AC-1F (HEAT) AC-1F (HEAT) AC-1G (HEAT) AC-1F (HEAT) AC-1G (HEAT) AC-1G (HEAT)<	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR A B C 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 1 2150 2 2 2150 2 2 2150 2 2 2150 30 2 2150 30 2 2150 30 2 2150 2 3 10750 8600 1 PHASE A 154 ALL BREAKERS ARE HACR TY NONE	DJACENT TO HAC (USE 120/208 PHASE 000 225 RE RATING 225 KT PHASE BRKR 10 30 2 3 4 2 5 6 30 2 9 10 30 2 11 12 2 2 3 4 2 2 9 10 30 2 11 16 2 1 12 2 20 1 13 16 2 1 14 30 2 1 12 2 20 1 13 30 20 1 14 30 20 1 133 34 36 37 34 36 37 38 36 37 38 36 36 37 38 39 40 40 40 40 40 40 40 <td>HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 - 10 - - - - - - - - - - - - -</td> <td>WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-3 (HEAT) SPARE SP</td> <td>/LOADS</td>	HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 2150 - 10 - - - - - - - - - - - - -	WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAKERS SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-3 (HEAT) SPARE SP	/LOADS
			PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L C S C ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN AC-10 (HEAT) AC-14 (HEAT) AC-18 (HEAT) AC-16 (HEAT) AC-10 (HEAT) AC-10 (HEAT) AC-10 (HEAT) AC-11 (HEAT) AC-11 (HEAT) AC-12 (HEAT) AC-12 (HEAT) AC-13 (HEAT) AC-14 (HEAT) AC-16 (HEAT) AC-16 (HEAT) AC-16 (HEAT) AC-16 (HEAT) AC-16 (HEAT) AC-16 (HEAT) AC-16 (HEAT) SPACE SPACE SPACE SPACE D SPACE D	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR CK A B C POLE AMP CK 2150 2150 2 1 30 1 2150 2150 2 1 30 1 2150 2150 2 1 1 1 1 2150 2150 2 1 1 1 1 1 1 2150 2 1 30 1 <t< td=""><td>DJACENT TO HAC (USE 120/208 PHASE 000 225 CKT BRKR ABC 230 ABC 230 ABC 230 ABC BRKR ABC BRKR ABC 230 ABC 230 ABC 230 ABC 24 ABC 20 ABC 20 10 ABC 30 20 10 ABC 30 30</td><td>HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 -</td><td>WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAK SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SPA</td><td>/LOADS</td></t<>	DJACENT TO HAC (USE 120/208 PHASE 000 225 CKT BRKR ABC 230 ABC 230 ABC 230 ABC BRKR ABC BRKR ABC 230 ABC 230 ABC 230 ABC 24 ABC 20 ABC 20 10 ABC 30 20 10 ABC 30 30	HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 -	WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAK SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) AC-3 (HEAT) SPARE SPA	/LOADS
KOUND	ΣΑ.	RKCOL	PANEL NUMBER HAC1 SOURCE HAC PANEL LOCATION ADJACEN L M R L COCATION ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN ADJACEN AC-10 (HEAT) AC-14 (HEAT) AC-16 (HEAT) AC-1	NEW MOUNTED AD VOLTAGE A.I.C. 10,0 TO HAC BUS AMPE LOAD(VA) BRKR A B C POLE AMP 2150 2 30 2 2150 2 30 2 2150 2 30 2 2150 2 30 1 2150 2 30 1 2150 2 30 1 2150 2 1 30 2 2150 2 30 1 2150 2 30 2 1 2150 2 30 2 2 2150 2 30 2 2 2150 2 30 2 2 2150 2 30 2 2 2150 2 30 2 2 2150 2 3 3 3 - - 3 3 - 3	DJACENT TO HAC (USE 120/208 PHASE 000 ERE RATING 225 KT PHASE CKT AMP POLE 1 4 2 30 2 3 4 2 30 2 4 2 30 2 1 3 4 2 2 30 2 1 12 2 30 2 1 13 16 2 1 2 2 1 14 30 2 1 2 2 1 1 14 30 20 1 2 2 1 1 15 26 20 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 </td <td>H NEW LARGER PANEL (HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 4300 4300 PHASE O PHASE O</td> <td>WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAK SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) A</td> <td>LOADS</td>	H NEW LARGER PANEL (HACR BREAKER) 3 WIRE 4 LOAD(VA) A B C 2150 2150 2150 2150 2150 2150 2150 2150 2150 4300 4300 PHASE O PHASE O	WITH ALL HAC1 BREAKERS NEMA 1 MAIN CIRCUIT BREAK SURFACE MOUNTING CIRCUIT DESCRIPTION AC-2A (HEAT) AC-2A (HEAT) AC-2B (HEAT) AC-2B (HEAT) AC-3 (HEAT) A	LOADS





			HAC	T	
DEPARTMENT OF MAINTENANCE & OPERATIONS	SCALE: AS SHOWN	STUDENT SERVICE ANNEX HVAC REPLACEMENT PROJEC	Т		
	DATE:	FLECTRICAL SINGLE LINE	SHEET NO.		
7075 CAMPUS RD.	2-24-23	DIACDAM & DANEL SCHEDULES			
MOORPARK, CA. 93021	BLDG. NO.	DIAGRAM & PANEL SCHEDULLS	E200		
PHONE: (805) 378-1454 FAX: (805) 378-1593			05 F		

APER SIZE 36"x24"

шd

4:52

TIME:

2025

14 May

DATE:

			MAKE	COOLING TOTAL CAPACITY	HEATING CAPACITY (BTUH)	NOMINAL TONS		0514	0514	OPERATING WEIGHT . (LBS)	ELE		DATA ,	REM	IARKS	ACCESSORIES	DISCONNE FUSE = L	CT (NEW) PN - RK	NEW FEEDER (C PANEL SCHE	IRCUIT PER EDULE)
	TAG	TYPE	& MODEL	(BTUH)	1		EER2 SEER2	CFM	OSA		POWER	MCA	MOCP	SUPPLEMENTAL SEPARATE POW	L HEAT VER SUPPLY		HEAT PUMP DISC (FUSE)	SUPPLY HEAT DISC (FUSE)	REUSE EXISTING CONDUIT ADD NEW CONDUCTORS	NEW CONDUIT & FEEDERS
QUANTITY 7)	$\left< \stackrel{\text{AC}}{1} \right>$	ROOFTOP HEAT PUMP 1A,1B,1C, 1D,1E,1F,1G	TRANE 4WHC3624B1000A	35,400	33,000	3.0	10.6 13.4	1,070	450	322	208-3-60	20	30	208/1/60	30 AMP FUSED DISCONNECT	R-410A REFRIGERANT, E-COAT CONDEN: COILS OUTSIDE AIR INTAKE. 2" MERV 1 FILTERS.	60A/3P (30 FUSE) NEMA 3R	30A/2P (30A FUSE) NEMA 3R	3/4"C-3#8 & 1#10 GND	3/4"C-2#10 & 1#10 GND
QUANTITY 2)	AC 2	ROOFTOP HEAT PUMP 1A,1B,1C, 1D,1E,1F,1G	TRANE 4WHC4024B1000A	39,500	35,800	3.5	10.6 13.4	1200	450	353	208-3-60	23	30	208/1/60	30 AMP FUSED DISCONNECT		60A/3P (30 FUSE) NEMA 3R	30A/2P (30A FUSE) NEMA 3R	3/4"C-3#6 & 1#10 GND	3/4"C-2#10 & 1#10 GND
QUANTITY 1)	$\begin{pmatrix} AC \\ 3 \end{pmatrix}$	ROOFTOP HEAT PUMP	TRANE 4WHC4024B1000A	24,200	22,200	2.0	10.6 13.4	800	250	322	208-1-60	18	25	208/1/60	30 AMP FUSED DISCONNECT	 	30A/3P (25A FUSE) NEMA 3R	30A/2P (30A FUSE) NEMA 3R	3/4"C-3#8 & 1#10 GND	3/4"C-2#10 & 1#10 GND
	$\begin{pmatrix} T \\ 1 \end{pmatrix}$	THERMOSTAT	VENSTAR T-4900													PROGRAMABLE W/ WIFI				

MOORPARK COLLEGE

7075 CAMPUS ROAD, MOORPARK, CALIFORNIA 93021

VENTURA COUNTY COMMUNITY COLLEGE DISTRICT

	<u>BB</u>	ارد. محف	تك لئه	<u>31/1</u>		まず	JJB.
	CONS	<u>UL</u> TI.	NG	ELECI	RICAL	, EN	GINE
251	CORTE	MALP	ASO,	#511			
AMA	RILLO,	CA 9	3012-	-8094			
805) 389–	6520		FAX	(805)	389-	-6519



Drafter:CM02 Pa Drawing:G:\23\71 May 14, 2025, 4:5 Attached XREFS: XREF:G:\23\714, XREF:G:\23\714, XREF:G:\23\714,

EXISTING UNITS SCHEDULE

	TAG	TYPE	MAKE & MODEL	OPERATING WEIGHT (LBS)
(QUANTITY 7)	AC 1A,1B,1C,1D, 1E,1F,1G	ROOFTOP UNIT	BARD PH11361-B	365
(QUANTITY 2)	AC 2A,2B	ROOFTOP UNIT	BARD PH11481-B	450
(QUANTITY 1)		ROOFTOP UNIT	BARD PH11242	365

NEW UNITS SCHEDULE - HEAT PUMPS

AE Group Mechanical Engineers 838 East Front Street Ventura, California 93001-2925 (805) 653-1722 hugh@aegroupme.com

SHEET NOTES:

- 1. FIELD VERIFY MECHANICAL EQUIPMENT LOCATIONS.
- 2. SEE ELECTRICAL SCHEDULE FOR MECHANICAL EQUIPMENT FOR ELECTRICAL REQUIREMENTS.
- 3. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES.
- 4. THE LOCATION OF ALL ROOF PENETRATIONS SHALL BE COORDINATED WITH THE ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS.
- 5. PROVIDE ROOF JACKS AND PROPERLY SEAL ALL ROOF PENETRATIONS TO A LEAK FREE CONDITION.
- 6. THE FINAL CONNECTIONS TO EQUIPMENT SHALL BE LIQUIDTIGHT FLEXIBLE METAL CONDUIT. INSTALL WITH ENOUGH SLACK TO PRECLUDE VIBRATION TRANSMISSION. SUPPORT SHALL BE PER N.E.C. ARTICLE 351-8
- 7. PROVIDE WEATHERPROOF AND EXTERIOR RATED DEVICES IN ALL EXTERIOR AREAS.
- 8. PROVIDE ALL DEVICES AS REQUIRED ON MECHANICAL CONTRACTOR SHOP DRAWINGS AND APPROVED SUBMITTALS.
- 9. NO CONDUIT/FEEDER SHALL BE PERMITTED ON THE ROOF WITH CRIPPLES, ALL FEEDERS SHALL BE RUN BENEATH THE ROOF.
- 10. ALL DISCONNECTS SHALL BE MOUNTED ON UNISTRUT ON AH UNIT.
- 11. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL ELECTRICAL DEVICES PRIOR TO BID, **ROUGH-IN & INSTALLATION.**
- 12. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
- 13. EACH DISCONNECT OR STARTER AND A SPARE SET OF FUSES SHALL BE CONTRACTOR PROVIDED.

KEY NOTES:

1 FOR FEEDER AND DISCONNECT INFORMATION SEE ELECTRICAL SCHEDULE FOR MECHANICAL EQUIPMENT THIS SHEET.



	DEPARTMENT OF	SCALE: AS SHOWN	STUDENT SERVICE ANNEX HVAC REPLACEMENT PROJEC	Т
┝		DATE:	MECHANICAL EQUIPMENT POWER	SHEET NO.
	7075 CAMPUS RD.	2-24-23		
	MOORPARK, CA. 93021	BLDG. NO.	SCHEDULL	E420
	PHONE: (805) 378-1454 FAX: (805) 378-1593			0F 5







Drafter:CM02 Paper 9 Drawng:G:2371714[EL May 14, 2025, 4:327 Attached XREFS: XREF:G:237714[MELX XREF: G:237714[ME] XREF:G:(237714[ME] XREF:G:(237714[ME])

шd

4:52

TIME:

2025

14 May

DATE:



SHEET NOTES:

- 1. FIELD VERIFY MECHANICAL EQUIPMENT LOCATIONS.
- 2. SEE ELECTRICAL SCHEDULE FOR MECHANICAL EQUIPMENT FOR ELECTRICAL
- REQUIREMENTS. 3. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES.
- 4. THE LOCATION OF ALL ROOF PENETRATIONS SHALL BE COORDINATED WITH THE
- ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS.
- 5. PROVIDE ROOF JACKS AND PROPERLY SEAL ALL ROOF PENETRATIONS TO A LEAK FREE CONDITION.
- 6. THE FINAL CONNECTIONS TO EQUIPMENT SHALL BE LIQUIDTIGHT FLEXIBLE METAL CONDUIT. INSTALL WITH ENOUGH SLACK TO PRECLUDE VIBRATION TRANSMISSION. SUPPORT SHALL BE PER N.E.C. ARTICLE 351-8.
- 7. PROVIDE WEATHERPROOF AND EXTERIOR RATED DEVICES IN ALL EXTERIOR AREAS.
- 8. PROVIDE ALL DEVICES AS REQUIRED ON MECHANICAL CONTRACTOR SHOP DRAWINGS AND APPROVED SUBMITTALS.
- 9. NO CONDUIT/FEEDER SHALL BE PERMITTED ON THE ROOF WITH CRIPPLES, ALL FEEDERS SHALL BE RUN BENEATH THE ROOF.
- 10. ALL DISCONNECTS SHALL BE MOUNTED ON UNISTRUT ON AH UNIT.
- 11. CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL ELECTRICAL DEVICES PRIOR TO BID, ROUGH-IN & INSTALLATION.
- 12. CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
- 13. EACH DISCONNECT OR STARTER AND A SPARE SET OF FUSES SHALL BE CONTRACTOR

- 2 RE-CONNECT TO (X) ELECTRICAL FEEDER, CHANGE OUT DISCONNECT/FUSE PER SCHEDULE AND RE-CONNECT THERMOSTAT WIRE (TYP).

RECONNECT ALL FA DEVICES TO AC UNITS



DEPARTMENT OF MAINTENANCE & OPERATIONS	SCALE: AS SHOWN	STUDENT SERVICE ANNEX HVAC REPLACEMENT PROJEC	Т
	DATE:	ROOF MECHANICAL FOLIDMENT	SHEET NO.
7075 CAMPUS RD.	2-24-23		
MOORPARK, CA. 93021	BLDG. NO.	POWER PLAN - NEW WORK	E421
PHONE: (805) 378-1454 FAX: (805) 378-1593			

ROOF RECEPTACLES ARE EXISTING