GENERAL MECHANICAL NOTES:

- VERIFY ALL SITE CONDITIONS BEFORE COMMENCEMENT OF
- DUCTS SHOWN ON PLANS ARE DIAGRAMMATIC. DUCT SIZES SHOWN MAYBE REPLACED WITH EQUIVALENT RECTANGULAR AND/OR OVAL DUCTS AND RE-ROUTE TO SHORTEST POSSIBLE ROUTES TO SUIT FIELD CONDITIONS WITHOUT INTERFERENCE WITH OTHER TRADES AND AT NO ADDITIONAL COST TO OWNER.
- COORDINATE LOCATION OF ALL MECHANICAL EQUIPMENT INCLUDING SUPPLY AND RETURN DUCT WITH OTHER TRADES. INSTALL ALL MECHANICAL EQUIPMENT AND THEIR ACCESSORIES AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS INSTRUCTION AND APPLICABLE CODES. VERIFY ALL DIMENSIONS IN FIELD WITH THE ARCHITECTURAL DRAWINGS.
- 4. FURNISH AND INSTALL ALL TEMPERATURE CONTROLS IN ACCORDANCE WITH CONTRACT DOCUMENTS AND MANUFACTURER'S INSTRUCTION.
- ALL RECTANGULAR, AND ROUND DUCTS SHALL BE SIZED AS SHOWN ON THESE DRAWINGS, MINIMUM INTERNAL DIMENSIONS ARE GIVEN.
- 6. ALL SUPPLY AND RETURN DUCTS ARE SIZED FOR AIR VOLUME AND STATIC PRESSURE DROP WITHOUT INTERIOR INSULATION. SHOULD INTERIOR INSULATION BE USED, THE CONTRACTOR SHALL INCREASE THE DUCT SIZE ACCORDINGLY
- 7. ALL SUPPLY AND RETURN DUCTS SHALL BE INSULATED. INTERIOR OR EXTERIOR INSULATION MAY BE USED. INSULATION SHALL BE 2" THICK .75 LB/C.F DENSITY FIBERGLASS DUCT WRAP. K=.28 AT 75 DEGREES F. INSULATION SHALL HAVE ALUMINUM FOIL FACING VAPOR BARRIER. RECTANGULAR DUCTWORK MAY BE LINED WITH 1-1/2" THICK DUCT LINER INSTEAD OF WRAPPING.
- 3. ALL DUCTS SHALL BE CONNECTED TO THE TRUNK OR BRANCH DUCTS WITH A MINIMUM OF SIX SHEET METAL SCREWS AT EACH CONNECTION.
- INSTALL TURNING VANES IN ALL 90 DEG. DUCT ELBOWS
- AND AT ALL DUCT "TEES". 10. INSTALL ADJUSTABLE AIR VOLUME EXTRACTORS AT ALL

BRANCH TO MAIN DUCT CONNECTIONS.

- 11. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MOST RECENTLY PUBLISHED ASHRAE AND SMACNA STANDARDS. SEAL ALL JOINTS WITH DUCT TAPE (3M OR APPROVED EQUAL).
- 12. RECTANGULAR AND CIRCULAR METAL DUCT SHALL BE 26 GAUGE MILD GALVANIZED STEEL UNLESS NOTED OTHERWISE.
- 13. MANUFACTURERS MINIMUM CLEARANCE RECOMMENDATIONS SHALL BE MAINTAINED ON ALL EQUIPMENT AND DUCT WORK.
- 14. FILTERS SHALL BE EASILY REMOVABLE FOR CLEANING.
- 15. ALL CONTROL WIRING DIAGRAMS SHALL BE FURNISHED BY THE HVAC CONTRACTOR TO THE ELECTRICAL CONTRACTOR.
- 16. ALL CONTROL WIRING SHALL BE SUPPLIED BY ELECTRICAL CONTRACTOR FOR INSTALLATION.
- 17. THE CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF THE AIR BALANCE REPORT TO THE ARCHITECT OR OWNER.
- 18. FLEX DUCT HANGER STRIPS SHALL BE 1" #16 GA. MINIMUM.
- 19. THE CONTRACTOR SHALL COORDINATE ALL THERMOSTAT LOCATIONS WITH HVAC CONTRACT DOCUMENTS.
- 20. APPROVED LINING MATERIALS INSTALLED WITHIN DUCTS TO HAVE MOLD, HUMIDITY AND EROSION RESISTANT SURFACE THAT MEET THE REQUIREMENTS OF CMC STD. 6-1. CMC 605.
- 21. ALL FACTORY MADE AIR DUCT, IF USED, WILL BE CLASS 1 OR 0. CMC 603.2
- 22. INSULATION MATERIALS APPLIED TO THE EXTERIOR OF THE DUCTS LOCATED IN THE BUILDING TO HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND SMOKE-DENSITY NOT EXCEEDING 50 WHEN TESTED AS A COMPOSITE INSTALLATION. CMC 604.3
- 23. DUCTS WILL BE SUPPORTED PER THE MINIMUM REQUIREMENT OF UMC TABLE 6-E AND SHALL BE BRACED AND GUYED TO PREVENT LATERAL OR HORIZONTAL SWING. THE USE OF LATERAL OR HORIZONTAL SEISMIC RESTRAINT GUIDELINES PER "SMACNA" IS ALSO APPLICABLE. CMC 603.

#### **GENERAL ELECTRICAL NOTES:**

- THE EQUIPMENT ROUGH-INS AS SHOWN ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE, HOWEVER, IN SOME INSTANCES THE OWNER OR SUPPLIER MAY SUBSTITUTE OR THE EQUIPMENT MAY VARY FROM WHAT IS SHOWN. THEREFORE THE CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS WITH THE ARCHITECT AND OR OWNER PRIOR TO CONSTRUCTION.
- 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE N.E.C. AND STATE AND LOCAL CODES AS
- 3. WIRING #10 OR SMALLER TO BE TYPE THW OR THHN, WIRING #8 OR LARGER TO BE TYPE THHN OR THWN, ALL CONDUCTORS TO BE COPPER.
- 4. PANEL BOARDS SHALL BE AS MANUFACTURED BY SQUARE "D", ITE, GENERAL ELECTRIC OR EQUIVALENT.
- 5. ALL DISCONNECT SWITCHES SHALL BE RATED FOR GENERAL DUTY U.O.N.
- 6. STARTERS AND RELATED WIRING SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR. OVERLOAD UNITS SHALL BE INSTALLED AS PER GIVEN NAME PLATE DATA ON EQUIPMENT.
- 7. METER AND PANEL BOARDS SHALL BE LABELLED WITH RESPECT TO THEIR TITLE, VOLTAGE AND PHASE, I.E., 120/208 VOLTS, 3 PHASE, 4 WIRES OR 120/240 VOLTS, 1 PHASE, 3 WIRES LABELS SHALL BE PHENOLIC PLASTIC WITH WHITE LETTERS AND BLACK BACKGROUND. LABELS SHALL BE PERMANENTLY AFFIXED
- 8. PANEL BOARDS SHALL CONTAIN A TYPE WRITTEN DIRECTORY WITH A PLASTIC COVER AFFIXED TO THE INSIDE OF THE DOOR.
- 9. TRADE NAMES ARE GIVEN TO CLARIFY TYPE OF PRODUCT AND QUALITY DESIRED. SUBSTITUTION MAY BE MADE PENDING APPROVAL OF THE A/E UNLESS OTHERWISE NOTED.
- 10. CONTRACTOR SHALL VERIFY SERVICE VOLTAGE FROM UTILITY COMPANY AND BALANCE PANEL AS REQUIRED.
- 11. ALL REMOTE EQUIPMENT IN REMOTE AREAS SHALL HAVE DISCONNECT SWITCH AT EACH PIECE OF EQUIPMENT.
- 12. ALL EXTERIOR RECEPTACLES, JUNCTION BOXES AND SERVICE EQUIPMENT SHALL BE WEATHERPROOF AND GFI TYPE.
- 13. ALL EXTERIOR CONDUIT FOR WIRING SHOULD BE MINIMIZED BY ROUTING IN CEILING SPACE. NO EXTERIOR EXPOSED CONDUIT WILL BE ACCEPTED.
- 14. REFER TO THE MECHANICAL DRAWINGS FOR THE LOCATION OF THERMOSTATS, UNITS AND OTHER SPECIAL EQUIPMENT. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ALL CONDUITS, JUNCTION BOXES AND DISCONNECT SWITCHES, THERMOSTAT, CONTROL WIRING AND MATCHING RECEPTACLE FOR HEAT PUMP UNITS.
- 15. THE CONTRACTOR SHALL PROVIDE ROUNDING AS PER N.E.C. REQUIREMENTS.
- 16. ALL EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND SHALL BE INSTALLED AS PER LABELING, (IE: MAXIMUM FUSE SIZE MEANS FUSE PROTECTION REQUIRED).
- 17. ALL CONTROL DEVICES, (SWITCHES, THERMOSTATS, FIRE ALARM STATIONS, ETC.) TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA, SHALL BE MOUNTED AT MIN. C/L 36", MAX. C/L 48" FROM FLOOR FINISH.
- 18. ALL WIRING TO BE CONCEALED. WIRING IN CONCEALED SPACES WHERE PERMITTED BY LOCAL CODE SHALL BE TYPE (NMC) NON METALLIC CABLE OF THE SIZE INDICATED ON THE
- 19. RECEPTACLES IN COMMON WALLS TO BE IN SEPARATE STUD SPACES AT THE OTHER SIDE OF WALL. RECEPTACLES AND SWITCHES ON EXTERIOR WALLS SHALL BE PROVIDED WITH FOAM
- 20. PROVIDE NECESSARY WIRING FOR CONDENSING UNIT FOR AREAS INDICATED AND THERMOSTAT AS REQUIRED, LOCATE PER ACTUAL FIELD CONDITION.
- 21. NO OUTLET BOX SHALL EXCEED 18" AFF. EXCEPT ABOVE COUNTER TOP. JUNCTION BOXES SHALL BE INSTALLED FOR ALL TELEVISION, TELEPHONE AND THERMOSTAT OUTLETS. PLASTER RINGS, OPEN BACK BOXES OR MOUNTING PLATES ONLY SHALL NOT BE PERMITTED UNLESS SPECIFICALLY ALLOWED BY THE REGULATING AGENCY.
- 22. ACCESSIBLE ELECTRICAL SWITCHES SHALL COMPLY WITH CBC SECTION 1117B.6(5.1).
- 23. ACCESSIBLE OUTLETS SHALL COMPLY WITH CBC SEC. 1117B.6(5.2)

#### **GENERAL PLUMBING NOTES:**

- 1. FURNISH AND INSTALL ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED FOR, OR INCIDENTAL TO INSTALLATION OF A COMPLETE PLUMBING SYSTEM AS INDICATED IN THESE CONTRACT DOCUMENTS.
- 2. ALL WORK TO CONFORM TO STATE AND LOCAL CODES AND BE DONE IN WORKMANSHIP ACCEPTABLE TO THE ARCHITECT BY CRAFTSMAN OF THIS TRADE.
- 3. WASTE AND VENT PIPING SHALL BE CAST IRON, ABS SOIL PIPE OR PLASTIC PIPE PLUMBING NOT ALLOWED IN NON-RESIDENTIAL BUILDINGS. CPC SEC. 701.1.1.2.2.
- 4. COPPER TUBING ASTM 88, TYPE "K" ANNEALED WITH WROUGHT COPPER FITTINGS AND GRADE 95TA SOLDER JOINTS FOR PIPING BELOW GRADE
- 5. COPPER TUBING ASTM 88, TYPE "L" HARD DRAWN, W/ CAST BRASS OR WROUGHT COPPER FITTINGS AND GRADE 95TA SOLDER JOINTS FOR PIPING ABOVE GRADE.
- 6. REFER TO THE PLUMBING DRAWING FOR ADDITIONAL ITEMS FURNISHED AND INSTALLED AS PART OF THIS CONTRACT.
- 7. PURGE AND FLUSH ALL WATER LINES TO CLEAN PIPING ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS BEFORE MAKING FINAL CONNECTIONS.
- 8. EXTEND ALL CONDENSATE AND INDIRECT WASTE FOR FAN COIL UNITS AND ENERGY RECOVERY VENTILATION EQUIPMENT TO LOCAL FLOOR DRAIN OR FLOOR SINK MAINTAINING A 1/4" SLOPE.
- 9. VENTS ARE NOT PERMITTED WITHIN 10' OF OUTSIDE AIR INTAKE FOR HEATING, VENTILATING, AND AIR CONDITIONING EQUIPMENT.
- 10. ALL FLOOR DRAINS AND CLEANOUTS SHALL BE FLUSH WITH THE FINISH FLOOR.
- 11. CONTRACTOR TO VERIFY ALL REQUIRED SERVICE CONNECTION SIZES ON ALL FIXTURE AND EQUIPMENT PRIOR TO CONSTRUCTION.
- 12. PLUMBING CONTRACTOR TO PROVIDE ALL FITTINGS, DRAINS. TRAPS, TAILPIECE, ETC, TO COMPLETE THE PLUMBING SYSTEM.
- 13. FLASH AND COUNTERFLASH ALL OPENINGS THRU ROOFS. ALL ROOF VENTS LOCATED TOWARDS THE REAR OF THE BUILDING.
- 14. PLUMBER TO CONNECT ALL FIXTURES AND EQUIPMENT REQUIRING SAME.
- 15. ALL HOT AND COLD WATER LINES NOT SIZED ARE 1/2".
- 16. VERIFY SERVICE POINTS IN FIELD AND METERING LOCATIONS WITH LOCAL UTILITIES (GAS, DOMESTIC WATER AND SANITARY SEWER LINES). RE-ROUTE PIPING AS REQUIRED IN FIELD.
- 17. INSTALL SHUT-OFF, GATE VALVE AND UNION ON ALL EQUIPMENT HOT AND COLD WATER LINES.
- 18. INSTALL 1/2" ARMAFLEX INSULATION ON ALL HOT AND COLD WATER LINES ABOVE CEILING AND BELOW SLAB.
- 19. WHERE POSSIBLE, CONNECT ALL VENT PIPINGS TOGETHER TO MINIMIZE PENETRATION OF VENTS THRU ROOF.
- 20 PROVIDE WATER HAMMER ARRESTORS ON ALL COLD AND HOT WATER PIPING.
- 21. ALL FITTINGS, FIXTURES AND MATERIALS SHALL BE LISTED BY AN APPROVED TESTING AGENCY.
- 22. HOSE BIBBS SHALL BE PROTECTED BY AN APPROVED NON-REMOVABLE TYPE BACKFLOW PREVENTION DEVICE.
- 23. PIPING BE SECURED AT 48" INTERVALS AND AT CHANGES IN DIRECTIONS.
- 24. ALL GAS PIPING SHALL BE STANDARD WEIGHT BLACK IRON OR STEEL.

#### **HANDICAPPED GENERAL NOTES:**

INDIVIDUALS IN WHEELCHAIRS HAVE DIFFICULTY IN REACHING EITHER HIGH OR LOW WALL MOUNTED OUTLETS OR CONTROLS. PERSONS WITH LIMITED VISION CAN MORE READILY FIND SUCH CONTROLS WHEN ALL ARE INSTALLED AT A UNIFORM HEIGHT ABOVE THE FLOOR.

#### APPLICATION

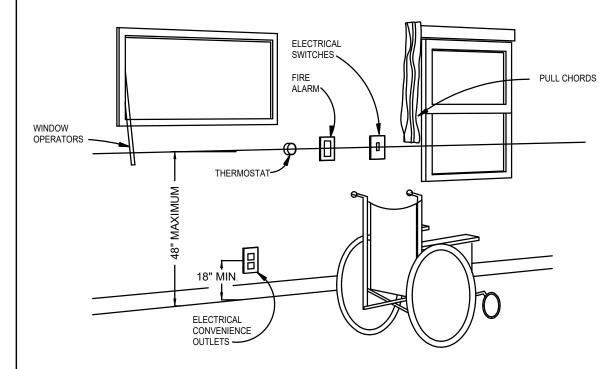
\* SWITCHES CONTROLLING LIGHTING, RECEPTACLE OUTLETS, APPLIANCES, HEATING AND AIR CONDITIONING AND VENTILATION EQUIPMENT. REQUIREMENTS NOT APPLICABLE TO EXISTING BUILDING WHEN ENFORCING AGENCY DETERMINE COMPLIANCE CREATES UNREASONABLE HARDSHIP.

\* CENTER OF SWITCHES NOT LESS THAN 3 FT. OR MORE THAN 4 FT. ABOVE FLOOR.

- RECEPTACLE OUTLETS \* CENTER OF 15, 20, AND 30 AMP RECEPTACLES
- (EXCEPT PERMANENTLY INSTALLED BASEBOARD HEATERS) NOT LESS THAN 18" ABOVE FLOOR. \* FLOOR OUTLETS ACCEPTABLE NEXT TO SLIDING

PANELS OR WALLS AND OTHER SPECIAL

- CONVENIENCE LOCATIONS. \* BASEBOARD OUTLETS ACCEPTABLE IN RELOCATABLE PARTITIONS, WINDOW WALLS.
- REF. TITLE 24,



	DUCT SCHEDUI	_E
СЕМ	DUCT	SIZES
C.F.M.	ROUND	RECTANGULAR
50	4" Ø	5" x 3"
75	5" Ø	6" x 4"
100	6" Ø	7" x 4"
150	7" Ø	10" x 4"
200	8" Ø	10" x 6"
250 TO 300	9" Ø	12" x 6"
350 TO 400	10" Ø	14" x 6"
425 TO 700	12" Ø	16" x 8"
725 TO 1200	14" Ø	16" x 12"
1225 TO 1700	16" Ø	16" x 14"
1750 TO 2200	18" Ø	20" x 14"
2250 TO 2600	20" Ø	20" x 16"
2650 TO 3000	22" Ø	22" x 18"

#### ELECTRICAL SYMBOLS LIST

CEILING MOUNTED FLUORESCENT FIXTURE AND BOX

WALL MOUNTED FLUORESCENT FIXTURE AND BOX

├─○─ CEILING OR PENDANT MOUNTED FLUORESCENT STRIPLIGHT AND BOX CEILING MOUNTED LIGHT FIXTURE AND BOX

WALL MOUNTED LIGHT FIXTURE AND BOX. SEE ARCH ELEVATIONS FOR MOUNTING HEIGHT  $^{\odot}$ 

CEILING MOUNTED POWER TRACK WITH JUNCTION BOX AND TRACK LIGHTING FIXTURES ATTACHED, EACH TRIANGLE REPRESENTS A LIGHT FIXTURE

ILLUMINATED EXIT SIGN AND JUNCTION BOX, CEILING, WALL MOUNTED, SHADED PORTION INDICATES FACE(S)\_ ON SIGN, ARROW INDICATES DIRECTIONAL ARROWS IN FACE.

EMERGENCY BATTERY PACK WITH FIXTURES AND BOX, +7'-6" AFF (UON) SINGLE POLE, SINGLE THROW SWITCH AND BOX, WALL MOUNTED, +44" AFF

SINGLE POLE SWITCH AND BOX, LOWER CASE LETTER INCICATES CIRCUIT OR LAMPS CONTROLLED BY SWITCH, +44" AFF

THREE WAY SWITCH AND BOX, +44" AFF

JUNCTION OR OUTLET BOX - MOUNT ABOVE CEILING WITH BLANK COVER (F=FLUSH IN FINISHED CEILING)

WALL MOUNTED JUNCTION OR OUTLET BOS WITH GALNK COVER, FLUSH, HEIGHT AS INDICATED.

HORSEPOWER RATED TOGGLE SWITCH WITH THERMAL OVERLOADS.

TELEPHONE OUTLET, FLUSH MOUNT IN WALL, +16" AFF WITH 3/4"C. AND PULLCORD UP TO ABOVE ACCESSIBLE CEILING SPACE.

MOTOR OUTLET AND FLEX CONNECTION TO MOTOR.

PANELBOARD, 120/208V, 3 PHASE, 4W U.O.N., FLUSH, SURFACE.

WP WEATHERPROOF

JUNCTION BOX

F FUSED DISCONNECT

<u>MECHANICAL SYMBOLS LIST</u>

SUPPLY DIFFUSER-4 WAY

SUPPLY DIFFUSER-3 WAY

RETURN AIR GRILL DEVICE MARK
DIFFUSER/GRILLW/LOUVER SYMBOL

AIR QUANTITY (CFM) THERMOSTAT MOUNTED 4' AFF (UON)

/MAIN DUCT BRANCH DUCT
VOLUME DAMPER (VD) SUPPLY AIR

RETURN AIR FIRE / SMOKE DAMPER

PLUMBING LEGEND DESCRIPTION S. OR W. NEW SEWER OR WASTE PIPE BELOW GRADE S. OR W. NEW SEWER OR WASTE PIPE ABOVE GRADE NEW VENT PIPE NEW COLD WATER PIPE C.W. H.W. NEW HOT WATER PIPE H.W.R. | NEW HOT WATER RETURN PIPE NEW GAS PIPE G. S.W. NEW SOFT WATER PIPE F.C.O. FLOOR CLEANOUT G.C.O. GRADE CLEANOUT HUB DRAIN FLOOR DRAIN FLOOR SINK H.B. HOSE BIBB  $\longrightarrow \bowtie$ S.O.V. SHUT-OFF VALVE INDIRECT WASTE WATER HAMMER ARRESTOR V.R. VENT RISER V.T.R. VENT THROUGH ROOF

R.I.C.

ROUGH-IN CONNECT



300 FRANK OGAWA PL, STE. 105 OAKLAND, CA 94612 TEL: (510) 465-9800 FAX: (510) 893-3566

**PROJECT** 

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET HAYWARD, CA 94541



REVISIONS BY SUB APP. DESCRIPTION GENERAL NOTES

ARTURO O. CABRERA. P.E.

GERALD CABRERA

CHECKED:

APPROVED:

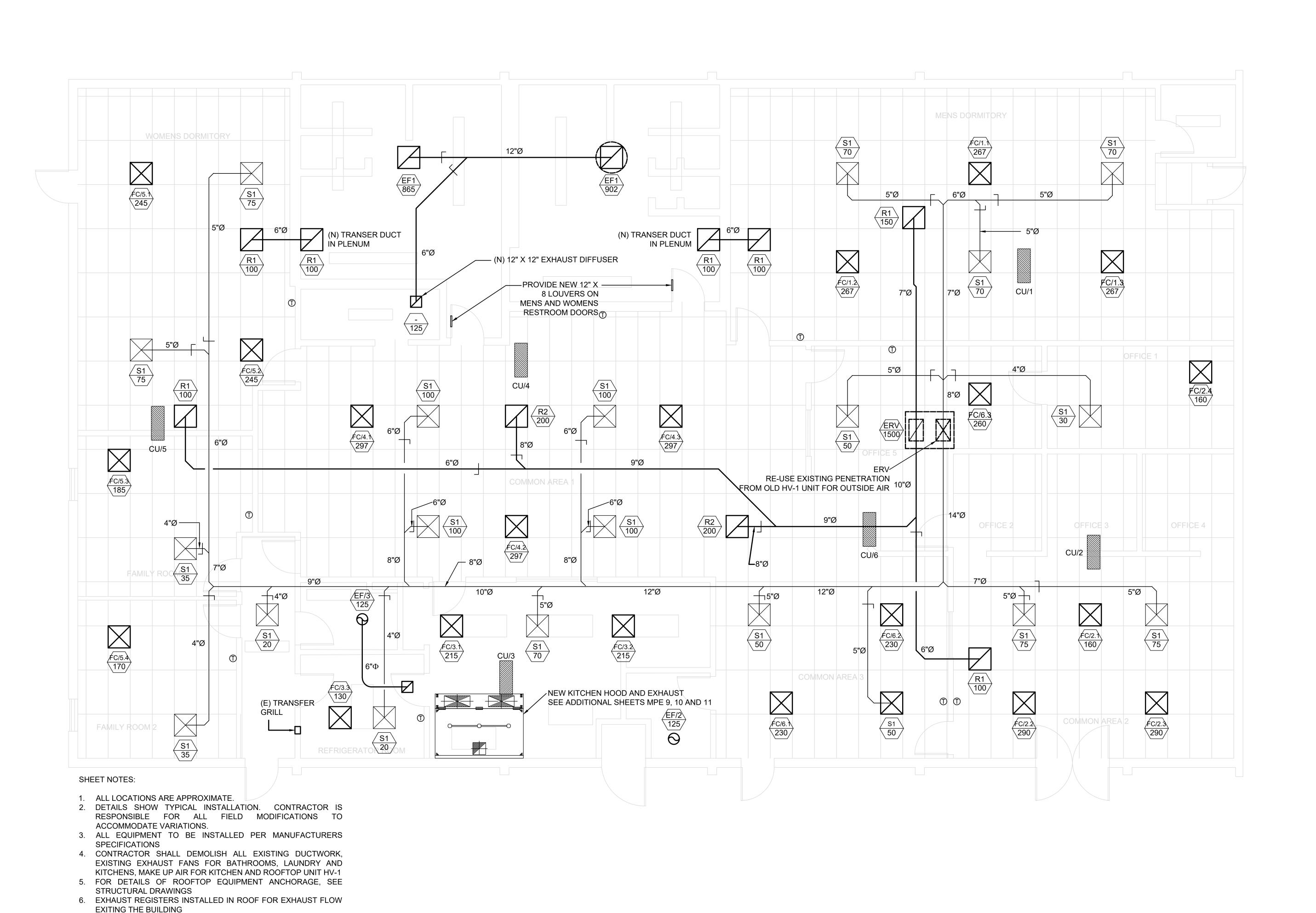
NOVEMBER 8, 2018

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300 FRANK OGAWA PL, STE. 105 OAKLAND, CA 94612 TEL: (510) 465-9800 FAX: (510) 893-3566

PROJECT:

HAYWARD HOMELESS SHELTER
TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET HAYWARD, CA 94541



			REVISIO		
REV.	DATE	BY	SUB	APP.	DESCRIPTION

SHEET NAME:

MECHANICAL PLAN

ARTURO O. CABRERA, P.E.

GERALD CABRERA

CHECKED:

APPROVED:

NOVEMBER 8, 2018

CADD FILENAME

SIZE: SCALE

CONTRACT NO. REV.

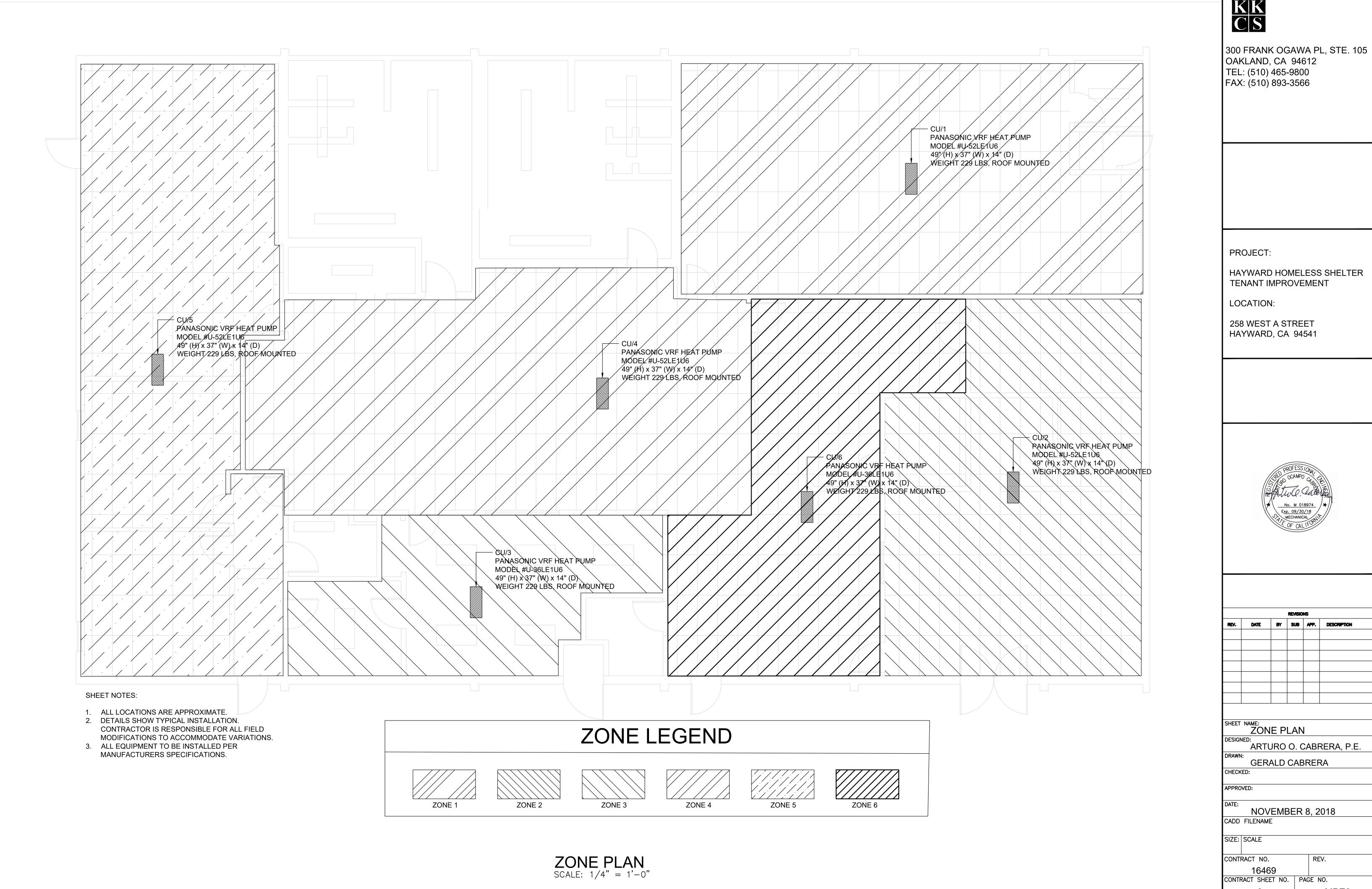
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MPE2

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

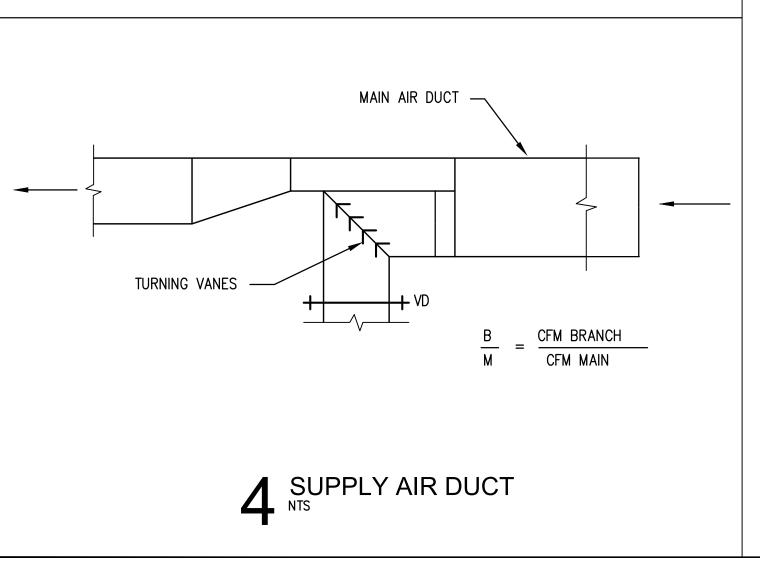
7. REVISE EXISTING ROOFTOP EQUIPMENT CURBS FOR ALL NEW

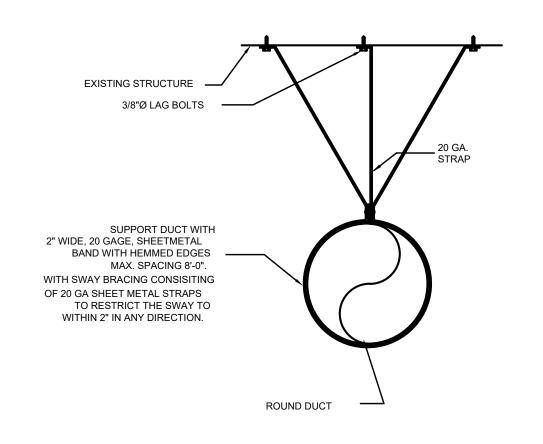
**EQUIPMENT** 



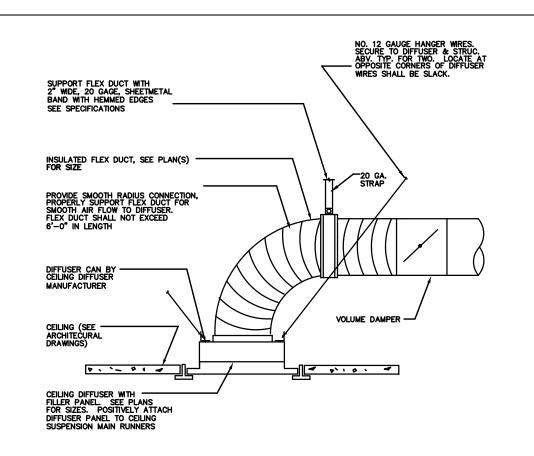
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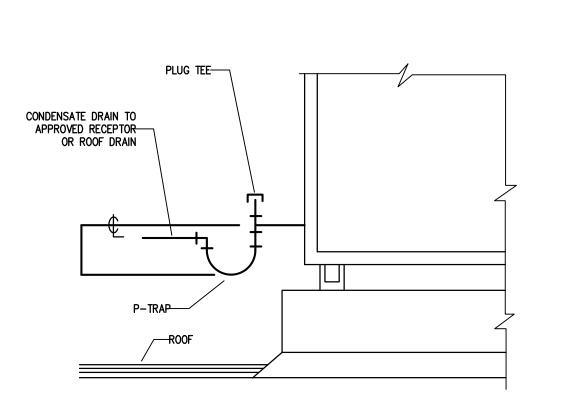




# 2 CEILING DIFFUSER MOUNTING DETAILS



# CONDENSATE ROOF DRAIN DETAIL



# 6 MECHANICAL EQUIPMENT SCHEDULE

MARK	MANUFACTURER	MODEL	AREA SERVED OR	C	APACITY	,	CFM	SP	AMPS	ELECTRICAL	WEIGHT	DIMENSIONS (IN)	REMARKS
			LOCATION	COOLING		ATING OUTPUT				DATA	(LBS)	HxWxD	
FC/1.1, 1.2, 1.3, 2.2, 2.3, 3.1., 3.2, 4.1, 4.2, 4.3, 5.1, 5.2, 6.3	PANASONIC	S-18MY2U6	OFFICES, KITCHEN, DORMITORIES, COMMON AREAS	19000		21000	HIGH/MED/LOW 365/345/300		.37A	208-230V / 1 PHASE/ 60 HZ	40	10-1/4" X 22-3/4"   X 22 <sub>-</sub> 3/4"	PROVIDE 1" CONDENSATE DRAIN FOR EACH AIR HANDLER AND RUN TO NEAREST APPROVED SANITARY DRAIN
FC/2.1, 2.4, 3.3, 6.1, 6.2, 5.3, 5.4	PANASONIC	S-09MY2U6	OFFICES, REFRIGERATOR ROOM	9000		11000	HIGH/MED/LOW 339/307/258		.25A	208-230V / 1 PHASE/ 60 HZ	40	1 X '7'7_'3/4"	PROVIDE 1" CONDENSATE DRAIN FOR EACH AIR HANDLER AND RUN TO NEAREST APPROVED SANITARY DRAIN
CU/1,2,4,5	PANASONIC	U-52LE1U6	ROOF MOUNTED OUTDOOR	52000		58000			22A 5.72 KW 30 MOCP	208-230V / 1 PHASE/ 60 HZ	247	49" X 37" X 14"	CONDENSING UNIT LOCATED ON ROOF
CU/3,6	PANASONIC	U-36LE1U6	ROOF MOUNTED OUTDOOR	39000		43000			13A 4.85 KW 30 MOCP	208-230V / 1 PHASE/ 60 HZ	229	49" X 37" X 14"	CONDENSING UNIT LOCATED ON ROOF
EF/1	DOMEX	DX16Q1	MENS AND WOMENS RESTROOMS				1839	.875"	1/2 HP		56	I	EXHAUST FAN FOR MENS AND WOMENS RESTROOM
EF/2,3	BROAN	QT130LE	RESTROOM, LAUNDRY ROOM				130		.3A	120V, 60 HZ	10		EXHAUST FAN FOR RESTROOM AND LAUNDRY ROOMS
EF/4	CAPTIVE-AIRE	DU85HFA	KITCHEN EXHAUST				1920	1	9.8A	115V, 1 PHASE	98	23" X 23" X 20"	EXHAUST FAN FOR KITCHEN HOOD
MUA	CAPTIVE-AIRE	A1-G10	KITCHEN MAKE-UP AIR				1728	0.5	6.8A	115V, 1 PHASE	455	21" X 21" X 20"	MAKE-UP AIR FOR KITCHEN HOOD
R1	TITUS	PAR 24 X 24 6''' DIA	MENS AND WOMENS DORMITORIES, COMMON AREAS				100						MOUNTING TYPE 3, RETURN AIR PERFORATED CEILING DIFFUSER, T-BAR
R2	TITUS	PAR 24 X 24 8''' DIA	MENS AND WOMENS DORMITORIES, COMMON AREAS				200						MOUNTING TYPE 3, RETURN AIR PERFORATED CEILING DIFFUSER, T-BAR
S1	TITUS	OMNI 1 24 X 24 6" DIA	VARIOUS ROOMS				20-50						MOUNTING TYPE 3, SUPPLY AIR PERFORATED CEILING DIFFUSER, T-BAR
ERV			ALL AREAS				1500	1		240V / 1 PHASE/ 60 HZ			ROOF MOUNTED. REPLACE EXISTING HV/1 WITH ERV UNIT. PROVIDE 1" CONDENSATE

HVAC LOAD CALCULATIONS NO SCALE
NO SCALE

MECHANICAL EQUIPMENT SCHEDULE

902 125 125

Room Description	Area (A) of Room (Sq. Ft.)	of Room (FT <sup>3</sup> )	Air Rate (AR) per CMC Table 402.1 (CFM/Person)	CFM = (AR)(V/60)	Adjusted CFM	BTU Area Load	Tons	Zones	Condensing Unit (CU)	Fan Coil Unit (FC/x)
Mens Dormitory	965	9650	5.0	804	800	1351	3.38	1	CU/1	FC/1.1, FC/1.2, FC/1.3
Office 1	157	1570	5.0	131	130	220	0.55	2	CU/2	FC/2.1
Office 2	68		5.0	57	60	95	0.24	2	CU/2	FC/2.1
Office 3	68	680	5.0	57	60	95	0.24	2	CU/2	FC/2.1
Office 4	68	680	5.0	57	60	95	0.24	2	CU/2	FC/2.1
Common Area 2	700	7000	5.0	583	580	980	2.45	2	CU/2	FC/2.2, FC/2.3
Kitchen	344	3440	7.5	430	430	482	1.20	3	CU/3	FC/3.1, FC/3.2
Refrigerator Room	105	1050	7.5	131	130	147	0.37	3	CU/3	FC/3.3
Common Area 1	1072	10720	5.0	893	890	1501	3.75	4	CU/4	FC/4.1, FC/4.2, FC/4.3
Womens Dormitory	592	5920	5.0	493	490	829	2.07	5	CU/5	FC/5.1, FC/5.2
Family Room 1	222	2220	5.0	185	180	311	0.78	5	CU/5	FC/5.3
Family Room 2	206	2060	5.0	172	170	288	0.72	5	CU/5	FC/5.4
Common Area 3	372	3720	7.5	465	460	521	1.30	6	CU/6	FC/6.1, FC/6.2
Office 5	310	3100	5.0	258	260	434	1.09	6	CU/6	FC/6.3
Zone 1 Total Load	965.00	9650.00	5.00	804.17	800.00	1351.00	<i>3.38</i>			
Zone 2 Total Load	1061.00	10610.00	25.00	884.17	890.00	1485.40	3.71			
Zone 3 Total Load	449.00	4490.00	15.00	561.25	560.00	628.60	1.57			
Zone 4 Total Load	1072.00	10720.00	5.00	893.33	890.00	1500.80	<i>3.75</i>			
Zone 5 Total Load	1020.00	10200.00	15.00	850.00	840.00	1428.00	3.57			
Zone 6 Total Load	682.00	6820.00	12.50	<i>723.33</i>	720.00	954.80	2.39			
Totals	4567.00	45670.00	65.00	4716.25	4700.00	6393.80	18.37			
		*All rooms below	are considered no	n-habitable space,	thus zero load. Ca	Iculations are show	vn for exhaust air r	equirement*		
Room Description	Area (A) of Room (Sq. Ft.)	Volume (V) of Room (FT <sup>3</sup> )		CFM = (AC*V)/60	Adjusted CFM					

(FT<sup>3</sup>)

500.00

500.00

15.00

15.00

15.00

125.00

346.00

50.00

50.00

Womens Bathroom

Mens Bathroom

HVAC LOAD CALCULATIONS



300 FRANK OGAWA PL, STE. 105 OAKLAND, CA 94612 TEL: (510) 465-9800 FAX: (510) 893-3566

PROJECT:

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET

HAYWARD, CA 94541



			REVISIO	NS	
REV.	DATE	BY	SUB	APP.	DESCRIPTION
		1	1	1 1	
SHEET	NAME: MEC	CHA	NIC	AL C	ETAILS
DESIGN	JFD.				

ARTURO O. CABRERA, P.E. GERALD CABRERA

APPROVED:

NOVEMBER 8, 2018

CADD FILENAME SIZE: SCALE

CONTRACT NO. REV.

CONTRACT SHEET NO. | PAGE NO.



#### ECO-i™Submittal Data

U-52LE1U6

Heat Pump: 52,000 btu VRF Outdoor Unit Previous Model Number: CHX05252

Location: \_\_\_\_ Engineer:\_\_\_\_ Submitted to: \_\_

Construction: Submitted by: \_\_\_\_\_ Drawing#:

Capacities				
	Power input	Ducted	Non- Ducted	Mix
Cooling: Btu/h	4.57KW	51,500	52,000 5 <sup>-</sup>	,750
SEER		14.6	17.4	16
Heating: Btu/h	4.58KW	57,500	8,500 58	,000
HSPF		7.7	9.6	8.6
<b>Cooling Mode Nominal Cor</b>	nditions			
Indoor: °F DB/°F WB	80/67			
Outdoor: °F DB	95			
Pipe Length: Feet	25			
Level Difference: Feet	0			
<b>Heating Mode Nominal Cor</b>	ditions			
Indoor: °F DB	70			
Outdoor: °F DB/°F WB	47/43			
Pipe Length: Feet	25			
Level Difference: Feet	0			
Operating Range				
Cooling: °F DB	14 to 11	3		
Heating: °F WB	-4 to 59			
Compressor				
Quantity/Type	1 Invert	er Driven	Rotary	
Capacity Control Range: %	10 - 100	)		
Fan				
Quantity/Type	2 Prope	ller		
Fan Motor Output: W	90			
Power Supply				
V/PH/Hz.	208 - 23	30/1/60		
Minimum Circuits Amps (MCA):Amps	29			
Max. Overcurrent Protection (MOCP)	50			

otection Devices Overcurrent (CT Method) Yes

Data is subject to change

**CERTIFICATIONS & LISTINGS** 

**Domex Direct & Belt Drive Fans** 

PennBarry certifies that the Domex direct drive

and belt drive models shown herein are licensed

accordance with AMCA publication 211 and AMCA

publication 311 and comply with the requirements

Domex High Capacity Belt Drive Fans

PennBarry certifies that the Domex high capacity

models shown on pages 25 - 27 are licensed

based on tests and procedures performed in

accordance with AMCA publication 211 and

omply with the requirements of the AMCA

to bear the AMCA seal. The ratings shown are

based on tests and procedures performed in

of the AMCA Certified Ratings Program.

to bear the AMCA seal. The ratings shown are

Certified Ratings Program.

Domex fans carry the UL label, UL 705, (ZACT),

cUL Certification

**High Velocity Hurricane Zone (HVHZ)** 

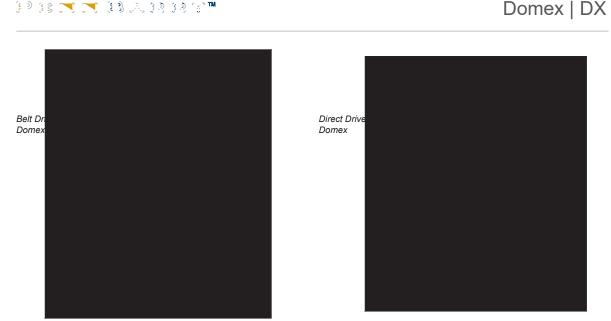
Miami-Dade NOA # 14-0311.03

Florida Product Approval #12339

Texas Department of Insurance #RV-48

Data is Subject to Change.

## → PANASONIC 4 TON UNIT



#### **INTRODUCTION**

**Domex Series of Centrifugal Fans** 

Domex fans are ideal for general purpose exhaust applications including: bathrooms, garages, general kitchen areas, offices, churches, dormitories, factories, large warehouses and other relatively clean air applications.

They feature a weather-resistant, seamless spun aluminum housing which works in conjunction with a patented wheel design and deeply spun inlets to provide smooth quiet air flow through the ventilator. The centrifugal wheels are aluminum, nonoverloading, backward inclined, robotically welded, and dynamically balanced. The optional high wind construction makes Domex fans particularly suited for high wind hurricane

**Domex Direct Drive Series** Model: DX (V/S/R/Q/Q1/Q2)

• Static pressure up to 1.25 in. wg. Flow capacity up to 4,561 CFM. • High wind construction (-HW) option available.

**Domex Standard Duty Belt Drive Series** Model: DX (B)

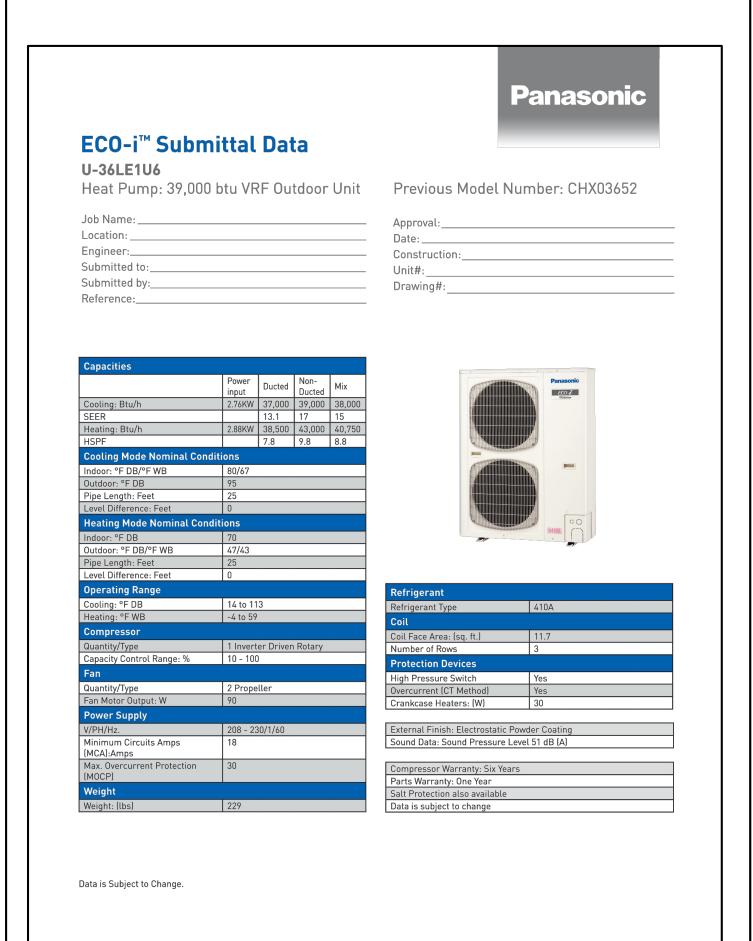
• Static pressure up to 1.5 in. wg. • Flow capacity up to 19,442 CFM • High wind construction (-HW) option available.

Domex High Capacity Belt Drive Series Model: KB, JB, MB

• Static pressure up to 1.5 in. wg. • Flow capacity up to 46,640 CFM

www.PennBarryMooving Your Way

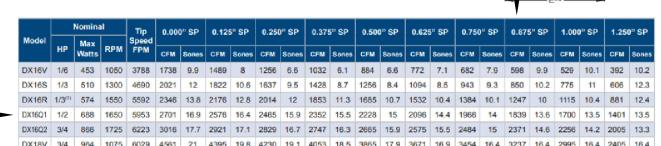
5 DOMEX EXHAUST FAN SPECIFICATIONS



PANASONIC 3 TON UNIT

## DX16 & DX18 | DIRECT DRIVE

DX16V/S/R, Q1 & Q2 0.064" 16 ga. 0.064" 28 ½ 22 ½ 20 ½ x 20 ½ 16 x 16 56 lbs DX18V 0.080" 14 ga. 0.064" 39 31 28 ½ 20 78 lbs All dimensions are in inches. \*Outside dimension of curb should be 1 1/2" less than "E" dimension.



Performance shown is for installation Type A: Free Inlet, Free Outlet. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the air stream.

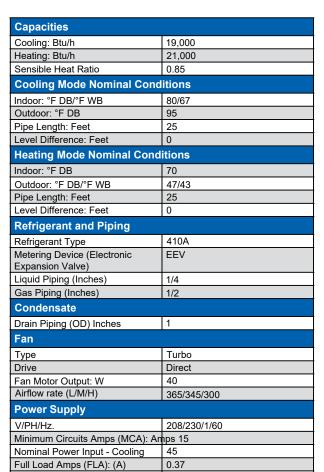
6 DOMEX EXHAUST FAN SPECIFICATIONS

Domex fans are only one component of a total system. As such, fan performance is directly affected by the system. It is critical that system designers determine the actual system loss to ensure that the actual flow is specified in the system design.

ECO-i™Submittal Data S-18MY2U6

Submitted to: \_\_\_\_\_ Submitted by:\_\_\_\_\_ Reference: \_\_\_\_\_

Indoor Unit: 4 Way Mini Cassette



Coil Face Area: (sq. ft.) 2.83

Built in Drain Pump Wired, Wireless or Simple Remote

Data is Subject to Change.

Max. Overcurrent Protection

3 PANASONIC FAN COIL UNIT

# 

**SPECIFICATION SHEET** 

## **MODEL QT130LE** FAN / LIGHT / NIGHT LIGHT

TYPICAL SPECIFICATION

Fan shall have corrosion resistant galvanized steel housing

or wall cap using 6" round or 4" round ductwork.

with four-point mounting capability. It shall be ducted to a roof

Blower assembly shall be removable, have a centrifugal-type

blower wheel, and a permanently lubricated motor designed

6" round damper/duct connector and 6" round to 4" round

Bulbs shall be (2) 18W (max.) high efficiency, type GU24

based fluorescents, and separate 4W (max.) type C7 night

Air delivery shall be no less than 130 CFM and sound level

(130 CFM / 2.0 Sones when using 6" round to 4" round duct

reducer). All air and sound ratings shall be certified by HVI.

Fan shall be ENERGY STAR@qualified and have an energy

Fan shall be U.L. Listed for use over bathtubs and showers

Fan shall be U.L. Listed for use in insulated ceilings

when connected to a GFCI protected branch circuit (ceiling

efficient permanent split capacitor motor.

no greater than 1.5 Sones when using 6" duct connector

Fan shall be Broan Model QT130LE.

for continuous operation.

(Type I.C.).

duct reducer shall be included.

### **DESCRIPTION**

- Plug-in, permanently lubricated motor engineered for continuous operation Dynamically balanced centrifugal blower wheel for
- quiet, efficient performance · Low RPM for quiet operation
- Airflow-smoothing baffles reduce turbulence
- Rugged, galvanized steel construction • 6" round duct connector with tapered sleeve and no
- metallic clatter • 6" round to 4" round duct reducer included - allows
- connection of 4" round ductwork • 7-5/8" height allows for 2" x 8" ceiling installations Sturdy, easy, four-point mounting directly to joist
- Includes unique spacer (patented) for mounting to engineered "I" joists • Can be mounted in ceilings up to 12/12 pitch
- Polymeric construction • Innovative design - the result of extensive research with
- designers and consumers Energy efficient lighting - (2) 18W (max.) high efficiency, type GU24 based fluorescent bulbs (included), and 4W
- (max) type C7 night light bulb (included) Durable steel reflector with white enamel finish CONTROLS (Purchase separately):
- Refer to Broan's catalog for a complete line of accessories to effectively adapt these fans to your construction requirements.
- U.L. Listed for use over bathtubs and showers when connected to a GFCI protected branch circuit (ceiling mount only).

U.L. Listed for use in insulated ceilings (Type I.C.) 3-Year Warranty

Broan-NuTanewhbGanHantford, Wisconsin REFERENCE QTY. REMARKS Project Location Architect Engineer Contractor Submitted by

99045452B

7 BROAN EXHAUST FAN SPECIFICATIONS



#### ECO-i™ Submittal Data **Panasonic**

S-09MY2U6 Indoor Unit: 4 Way Mini Cassette

Drain Piping (OD) Inches

Submitted By:



Built in Drain Pump Washable Filters Wired,Wireless or Simple Remote Remote Sensor Option

Capacities: Cooling: Btu/h Heating: Btu/h 11,000 .75 Sensible Heat Ratio **Cooling Mode Nominal Conditions:** Indoor: °F WB/ °F DB Outdoor: °F DB Pipe Length: Feet Level Difference: Feet **Heating Mode Nominal Conditions:** Indoor: °F DB Outdoor: °F DB/ °F WB Pipe Length: Feet Level Difference: Feet Refrigerant and Piping: Refrigerant Type EEV Metering Device (Electronic Expansion Valve) Liquid Piping (inches) Gas Piping (inches)

Direct Fan Motor Output: W Airflow rate (H/M/L) 339/307/258 Power Supply: 208/230/1/60 V/PH/Hz. Minimum Circuits Amps (MCA):Amps Nominal Power Input - Cooling Full Load Amps (FLA): (A) Max. Overcurrent Protection (MOCP) Nominal Power Input - Heat Weight:(lbs) Sound Level (H/M/L) 5' below unit Coil Face Area:(sq. ft.)

Number of Rows: Data is subject to change.

PANASONIC FAN COIL UNIT

KK CS 300 FRANK OGAWA PL, STE. 105

OAKLAND, CA 94612 TEL: (510) 465-9800 FAX: (510) 893-3566

PROJECT:

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET HAYWARD, CA 94541

Exp. 09/30/18

REVISIONS

MECHANICAL SPECS

GERALD CABRERA

APPROVED:

NOVEMBER 8, 2018

SIZE: SCALE

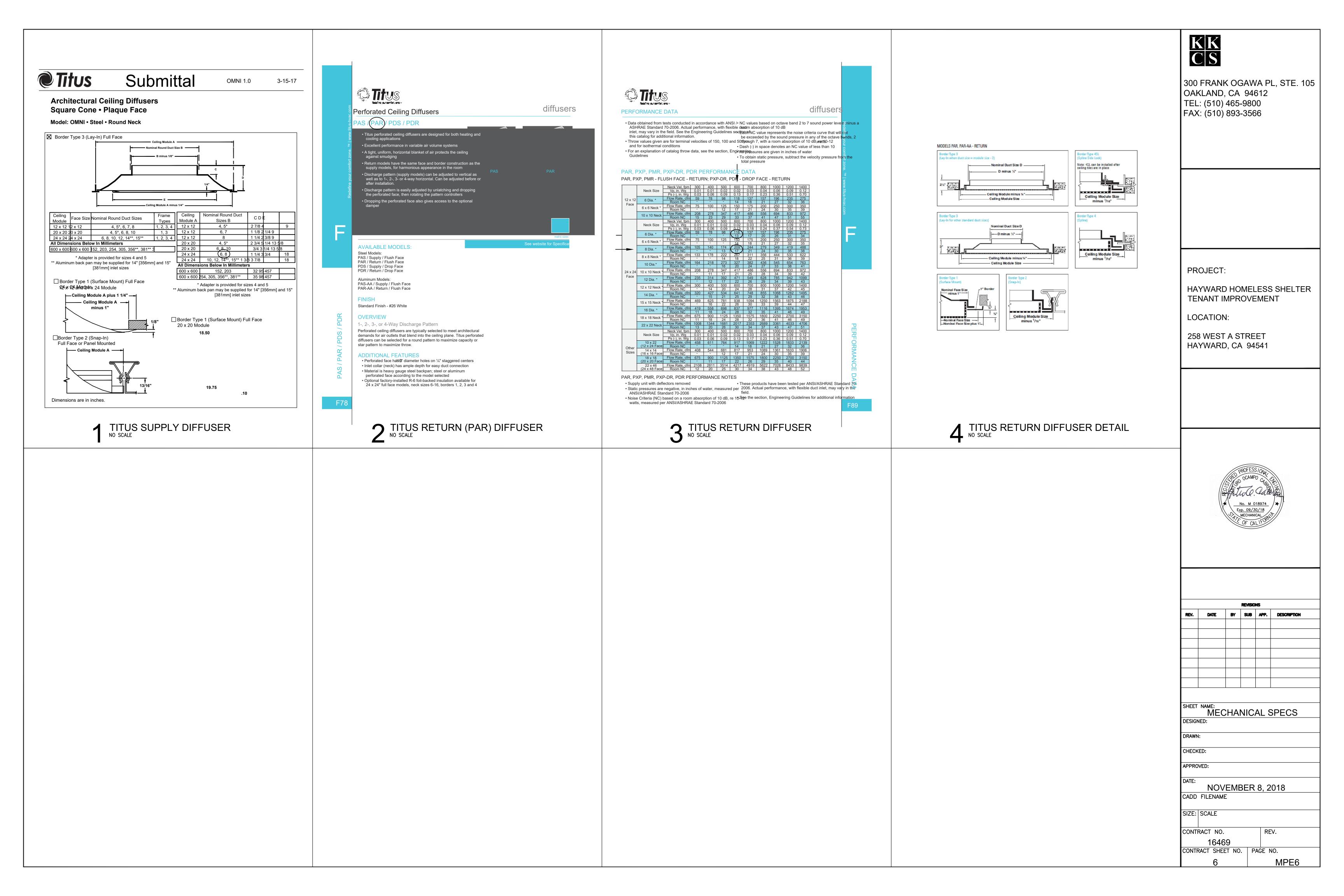
CONTRACT NO. REV.

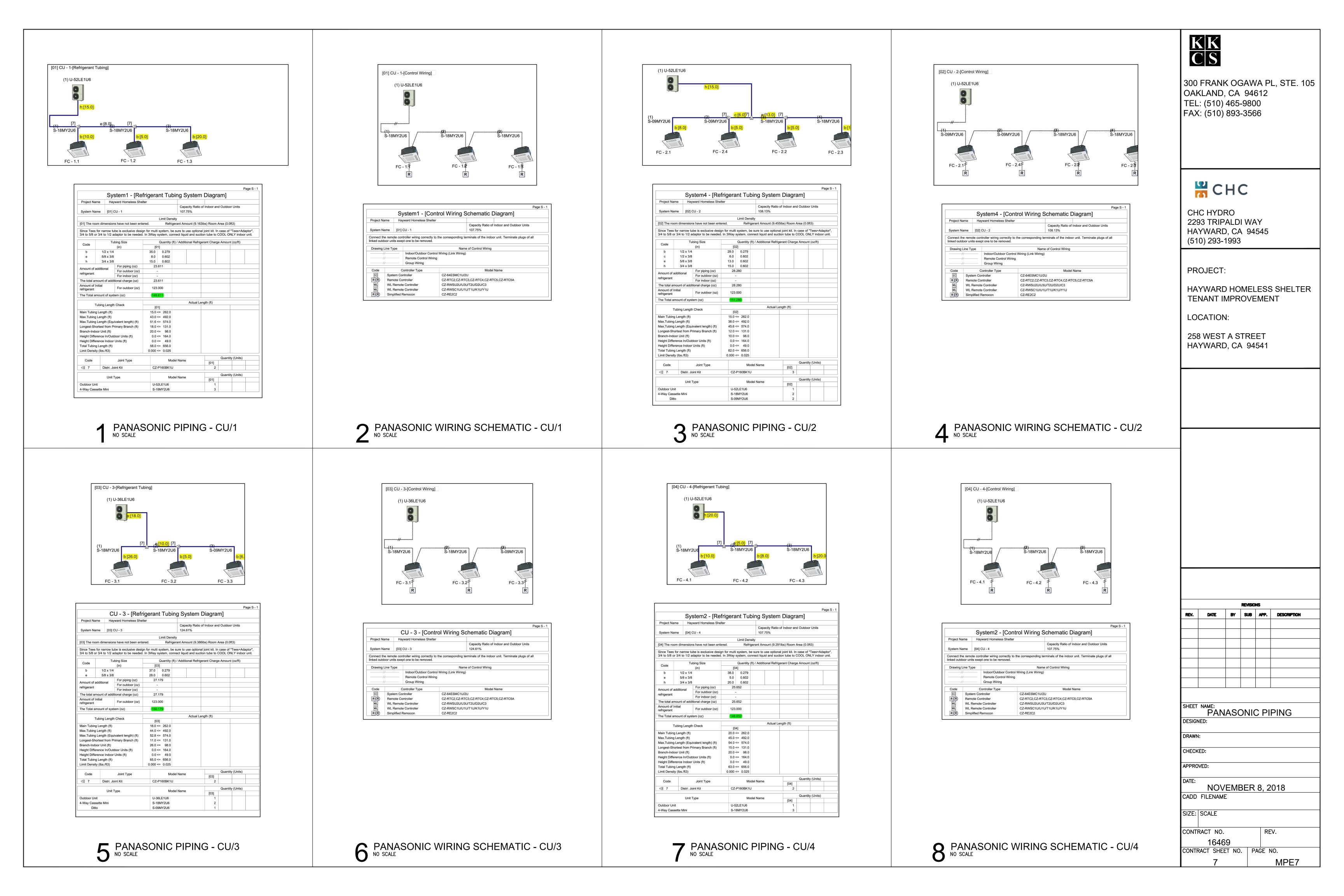
ARTURO O. CABRERA, P.E.

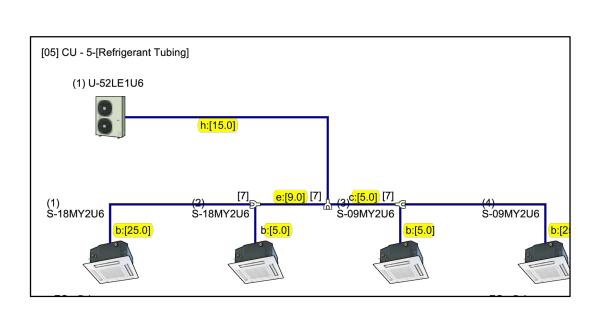
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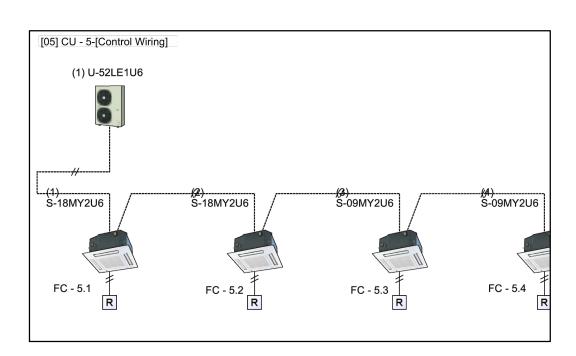






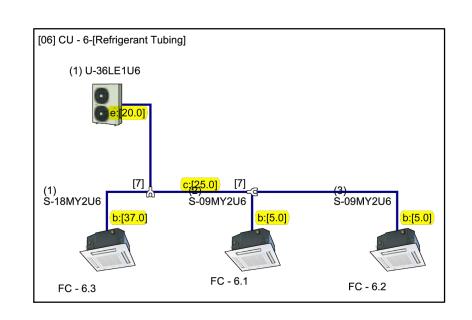
	Sv	stem3 - [Re	friger	ant Tub	ina Syste	m Г	)iagr:	aml	F	Page S - 1		
Project Na		ward Homeless Shel		ant rub	T Cysto	)III L	nagr	amı				
Flojectiva	ille illa	waru i lomeiess She	iei		Capacity Ratio of Indoor and Outdoor Units							
System Na	me [05]	CU - 5			108.13%	. ,						
·				Limit Dens	ity							
[05] The roo	om dimensior	s have not been ente	ered.		erant Amount (9.	.825lbs	Room A	Area (0.0	ft3)			
		be is exclusive design			,					antar"		
		daptor to be needed										
Code	Τι	bing Size		Quantity (f	t) / Additional Re	efrigerar	nt Charg	e Amoun	t (oz/ft)			
Code		(in)	[(	)5]								
b	1/2 x 1/4		60.0	0.279								
С	1/2 x 3/8		5.0	0.602								
е	5/8 x 3/8		9.0	0.602								
h	3/4 x 3/8		15.0	0.602								
Amount of a	additional	For piping (oz)	34	.198								
refrigerant		For outdoor (oz)		-								
		For indoor (oz)		-								
		tional charge (oz)	34	.198								
Amount of I refrigerant	nitial	For outdoor (oz)	123	3.000								
The Total a	mount of sys	tem (oz)	157	<mark>.198</mark>								
	Fubing Length	Chook			Actua	l Lengtl	ı (ft)					
'	ubing Lengu	CHECK	[(	)5]								
Main Tubing	g Length (ft)		15.0	<= 262.0								
Max.Tubing	Length (ft)		49.0	<= 492.0								
Max.Tubing	Length (Equ	ivalent length) (ft)	58.8	<= 574.0								
Longest-Sh	ortest from P	rimary Branch (ft)	24.0	<= 131.0								
Branch-Indo	oor Unit (ft)		25.0	<= 98.0								
-		door Units (ft)		<= 164.0								
-	rence Indoor	Units (ft)		<= 49.0								
	g Length (ft)			<= 656.0								
Limit Densit	ty (lbs./ft3)		0.000	<= 0.025								
Code		Joint Type		Mod	lel Name		[05]	Quantit	ty (Units)			
<b>-</b> ⊴ 7	Distri. Jo	oint Kit	CZ	-P160BK1U			3					
	Unit <sup>1</sup>	Гуре		Mod	lel Name			Quantit	ty (Units)			
							[05]					
Outdoor Un				52LE1U6			1					
4-Way Cass				18MY2U6			2					
Ditt	to		S-0	9MY2U6			2					

PANASONIC PIPING - CU/5
NO SCALE

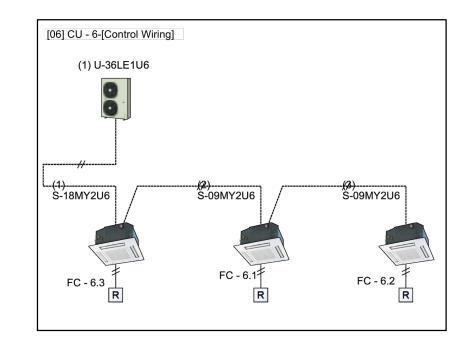


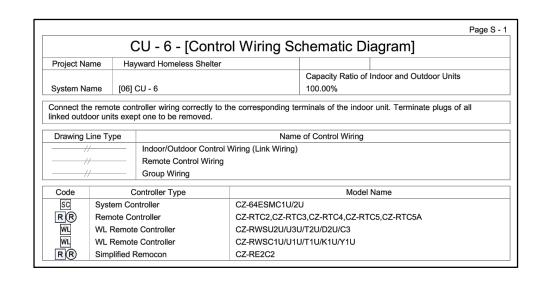
					Page			
		System3 - [Co	ontrol Wiring S	Schematic I	Diagram]			
Project N	lame	Hayward Homeless Shel	ter					
				Capacity Ratio of	Indoor and Outdoor Units			
System N	lame [	[05] CU - 5		108.13%				
Drawing	//	Indoor/Outdoor Cor	ntrol Wiring (Link Wiring)					
Drawing	Line Type	)	Name	e of Control Wiring				
	//	Remote Control Wi	ring					
	//	Group Wiring						
		Controller Type		Mode	l Name			
Code	System	Controller	CZ-64ESMC1U/2	U				
Code	Pomoto	e Controller	CZ-RTC2,CZ-RT	C3,CZ-RTC4,CZ-R	TC5,CZ-RTC5A			
	Kemou	mote Controller	CZ-RWSU2U/U3I	J/T2U/D2U/C3				
SC			CZ-RWSC1U/U1U/T1U/K1U/Y1U					
SC R R	WL Re	mote Controller	CZ-RWSC1U/U1	J/T1U/K1U/Y1U				

2 PANASONIC WIRING SCHEMATIC - CU/5



									_				F	Page S
			J - 6 - [Refr		int	Lubir	g Sy	ystem	١L	iagr	amj			
Project Na	me	Hayv	vard Homeless Shel	ter										
					Capacity Ratio of Indoor and								its	
System Na	me [0	6] C	U - 6				100	.00%						
					L	imit Densi	у							
[06] The ro	om dimen	sions	s have not been ente	ered.		Refrige	rant An	nount (10.	.200	lbs) Roo	m Area	(0.0ft3)		
			ne is exclusive designation to be needed.											
0 - 1 -		Tub	ing Size		C	Quantity (ft	/ Addit	ional Refi	riger	ant Cha	rge Amo	unt (oz/	ft)	
Code			(in)		[06]				Ť					
b	1/2 x	1/4		47.0	<u> </u>	0.279			$\top$					
С	1/2 x	3/8		25.0	)	0.602								
е	5/8 x	3/8		20.0	)	0.602								
Amount of	additional		For piping (oz)		10.20	)3								
	additional	Ī	For outdoor (oz)		-									
refrigerant			For indoor (oz)	-										
The total ar	mount of a	dditi	onal charge (oz)	40.203										
Amount of I refrigerant	Amount of Initial					123.000								
The Total a	mount of	syste	em (oz)	16	3.20	)3								
			_					Actual	Len	ath (ft)				
	Fubing Ler	ngth	Check		[06]				T	, , ,				
Main Tubin	g Length (	ft)		20.0 <= 262.0										
Max.Tubing	Length (f	t)		57.	0 <=	492.0								
Max.Tubing	Length (I	Equiv	valent length) (ft)	68.	4 <=	574.0								
Longest-Sh	ortest fror	n Pri	mary Branch (ft)	7.	0 <=	131.0								
Branch-Inde	oor Unit (f	:)	. ,	37.	0 <=	98.0								
Height Diffe	erence In/0	Outd	oor Units (ft)	0.	0 <=	164.0								
Height Diffe	rence Ind	oor l	Jnits (ft)	0.	0 <=	49.0								
Total Tubin	g Length (	ft)		92.	0 <=	656.0								
Limit Densi	ty (lbs./ft3	)		0.00	0 <=	0.025								
Cada			Inint Tons			Mad	el Name				Qua	ntity (Ur	nits)	
Code			Joint Type			iviode	n Naifie	,		[06]				
<b>-</b> ⊴ 7	Distri	. Joi	nt Kit	С	Z-P1	160BK1U				2	2			
	116	oit T	4/00			Mode	l Name				Qua	ntity (Ur	nits)	
	U	nit T	уре			iviode	n Naine	,		[06]				
Outdoor Un	iit			U	-36L	.E1U6					1			
4-Way Cas	sette Mini			S-18MY2U6							1			
Dit	to			S-09MY2U6					2			1		





KK CS 300 FRANK OGAWA PL, STE. 105 OAKLAND, CA 94612 TEL: (510) 465-9800 FAX: (510) 893-3566



CHC HYDRO 2293 TRIPALDI WAY HAYWARD, CA 94545 (510) 293-1993

PROJECT:

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET HAYWARD, CA 94541

4 PANASONIC WIRING SCHEMATIC - CU/6

SHEET NAME:
PANASONIC PIPING

APPROVED:

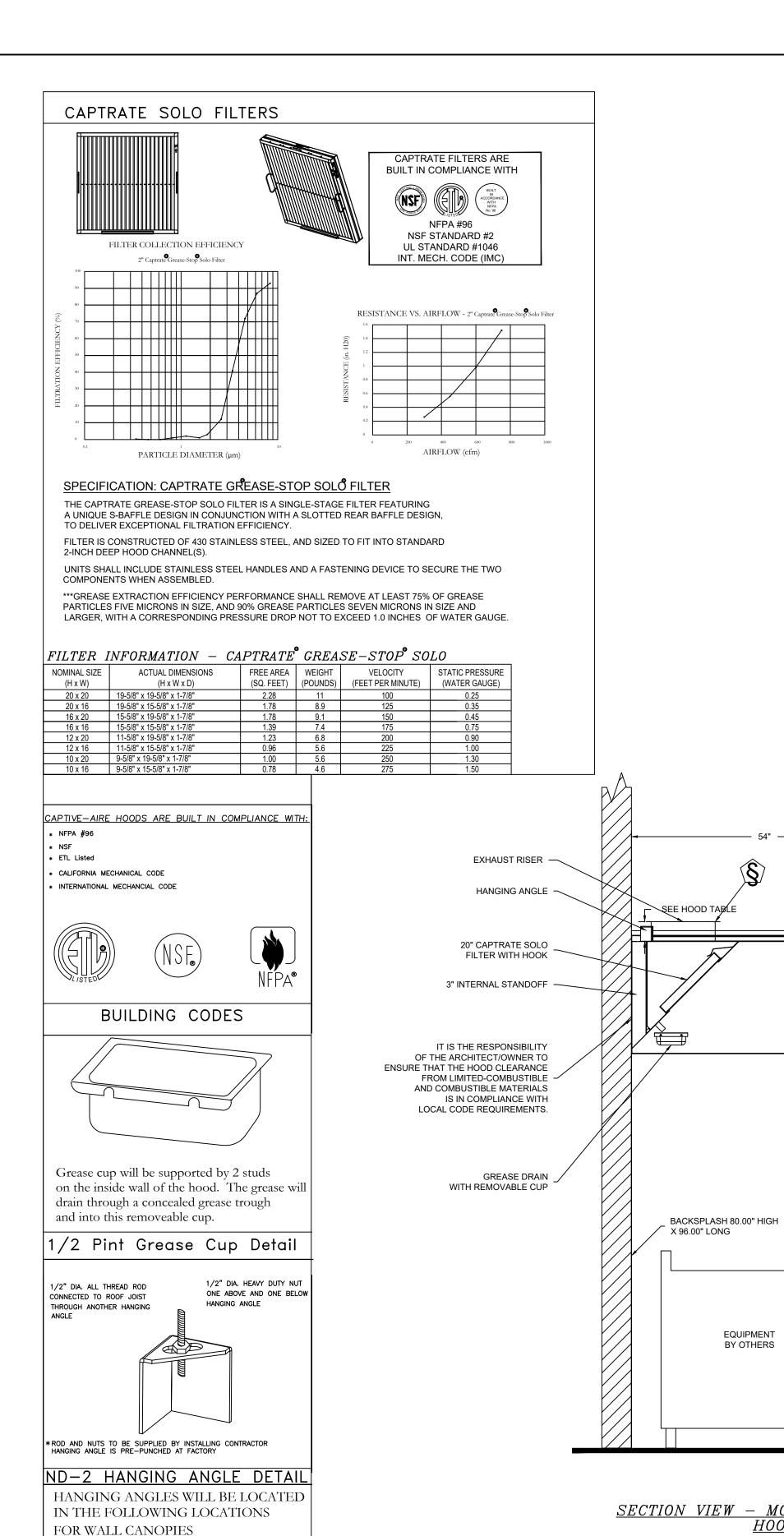
NOVEMBER 8, 2018 CADD FILENAME

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CONTRACT NO. REV. CONTRACT SHEET NO. PAGE NO.

MPE8

3 PANASONIC PIPING - CU/6



DIM FROM FROM

2.25"

Captrate Solo Filter

HOOD STYLE FROM FRONT SIDES (24" High Hood)

4.125" 2.25"

2.25" 2.25"

HANGING ANGLE LOCATIONS

ALL OTHER HOOD MODELS CONTACT

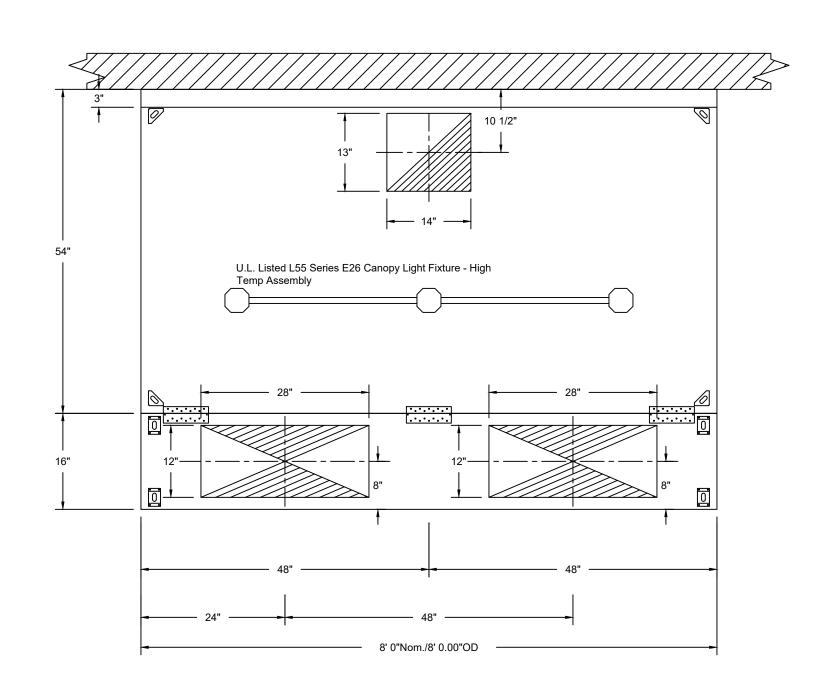
CAPTIVE AIRE FOR HANGING ANGLE

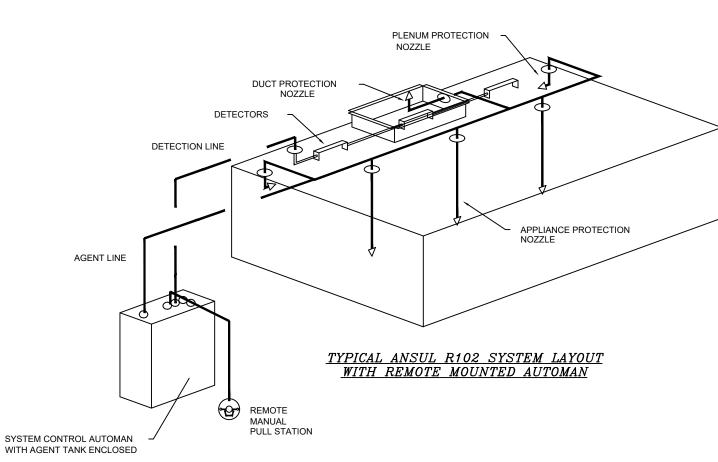
ND-2 (-WI)

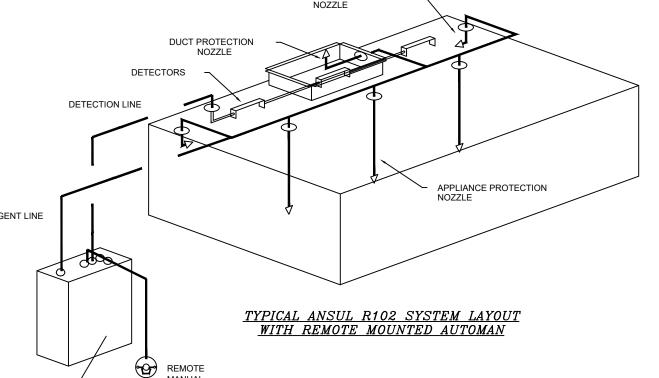
Exhaust only

VHB (-B)

LOCATIONS







492 LBS

NO

ainles<u>s Steel Backsplash</u> and Sidesplash finish S/S of the same guage and material as the hoods. It will be supplied with Batton strips and end strips as needed to close all seams and edges.

Batton Strip Detail

 $\frac{SECTION\ VIEW\ -\ MODEL\ 5424ND-2-PSP-F}{HOOD\ -\ \#1}$ 

85% See Filter Spec.

**EQUIPMENT** BY OTHERS

H001	) INF	ORMATION	- Job#.	<i>355384</i>	1																								
HOOD	T. 0	MODEL	, ENOTH	MAX.	TOTAL		E)	KHAUST I	PLENUM RISER(S				TOTAL	Н	OOD		CONFIG.		TORATE	ED SU.	$\frac{PPLY}{\mid}$	<i>PLENU</i> ∣	<u>JM(S)</u>				RISER(S	;)	
NO.	TAG	MODEL	LENGTH	COOKING TEMP.	1	M WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.	SUPPLY CFM	CONST	RUCTION	END TO END	ROW	HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	WIDTH	LENG.	DIA.	CFM	S.P.
1		5424 ND-2-PSP-F	8' 0"	600 Deg.	1920	13"	14"	4"		1920	1519	-0.660"	1459		0 SS Exposed	ALONE	ALONE	1		Front	96"	16"	6"	MUA MUA	12"	28" 28"		729 729	0.200" 0.200"
<u> </u>	<u>INF</u>	<u>ORMATION</u>		-				ı									-1	I [						WOX	12			725	
		FILTER(S)							LIGHT(S	)							ILITY CAB	BINET(S)						FIRE	Е НО	OD			
HOOD	TAG						FIGUENIO		20010					WIRE					FIRE S	YSTEM		ELE	CTRICAL		SWITCHE	<u></u> S		EM HANG	
NO.	. TYPE	PE	QTY. HI	EIGHT   LE	ENGTH   EF	EFFICIENCY @ 7 MICRONS (		QTY. TYPE			GUARD	LOCATION	SI	ZE	TYPE		SIZI	E	— МС	ODEL#		QUANTIT	ΓΥ		G WG				

L55 SERIES E26 CANOPY LIGHT FIXTURE -

HIGH TEMP ASSEMBLY, INCLUDES CLEAR THERMAL AND SHOCK RESISTANT GLOBE (L55 FIXTURE)

FIELD WRAPPER 17.00" HIGH

(SEE HOOD OPTIONS TABLE)

- ATTACHING PLATES SUPPLY RISER WITH

24" NOM.

48.0" MAX

L55 Series E26

VOLUME DAMPER

23.5% OPEN STAINLESS STEEL PERFORATED PANEL

> These products and others are available for demonstration at the Northern CA display center --For more information or questions Contact--Captive Aire Systems 1110 Burnett Ave, Suite G, Concord, CA 94520 Phone: (925)962-1999, Fax (925)566-8565 Email reg92@captiveaire.com

KK CS

300 FRANK OGAWA PL, STE. 105 OAKLAND, CA 94612 TEL: (510) 465-9800 FAX: (510) 893-3566

## CAPTIVEAIRE

CAPTIVEAIRE 1110 BURNETT AVE. SUITE G CONCORD, CA 94595 (925) 962-1999

PROJECT:

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET HAYWARD, CA 94541

REVISIONS BY SUB APP. DESCRIPTION SHEET NAME: KITCHEN HOOD

DESIGNED: DRAWN:

CHECKED:

APPROVED:

NOVEMBER 8, 2018 CADD FILENAME

SIZE: SCALE 3/4" = 1'-0" CONTRACT NO.

REV. 16469 CONTRACT SHEET NO. | PAGE NO.

EXHAUST FAN INFORMATION - Job#3553841

<u></u>		TITLE OF CHILITIES OF CO.	, <sub>11</sub>										
FAN UNIT NO.	TAG	FAN UNIT MODEL#	CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS.)	SONES
1		DU85HFA	1920	1.000	1373	0.750	0.5130	1	115	9.8	608 FPM	98	16

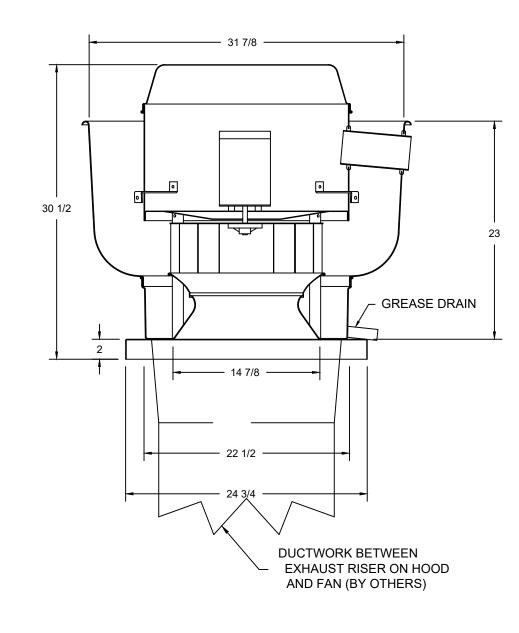
MUA FAN INFORMATION - Job#3553841

FAN UNIT NO.	TAG	FAN UNIT MODEL#	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP.	RPM	H.P.	B.H.P.	Ø	VOLT	FLA		EVAP COOLER ENTERING WB TEMP.	EVAP COOLER LEAVING DB TEMP.	EVAP COOLER LEAVING WB TEMP.	WEIGHT (LBS.)	SONES
2		A1-G10	G10	A1	ı	1728	0.500	814	0.750	0.4410	1	115	6.8	90.0°F	65.0°F	70.0°F	65.0°F	455	15.4

CURB ASSEMBLIES

NO.	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	36 LBS	Curb	23.000"W x 23.000"L x 20.000"H Vented Hinged
2	# 2	29 LBS	Curb	21.000"W x 21.000"L x 20.000"H
·	# 2		Rail	4.000"W x 4.000"L x 36.000"H

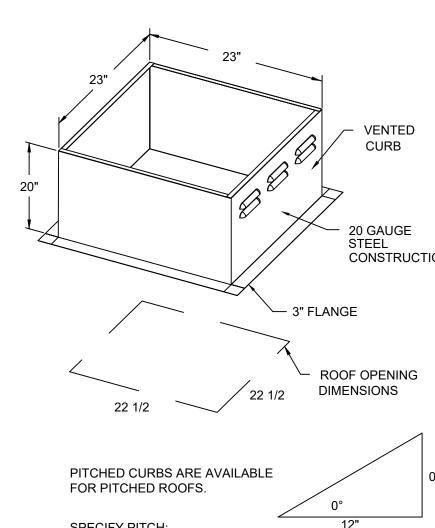
#### FAN #1 DU85HFA - EXHAUST FAN



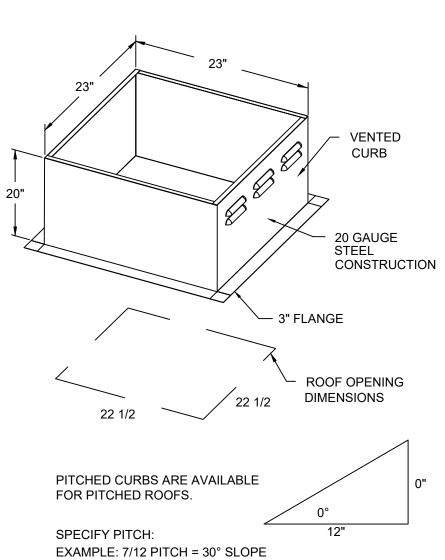
#### FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS)
- ROOF MOUNTED FANS - RESTAURANT MODEL

- WEATHERPROOF DISCONNECT
- GREASE CLASSIFICATION TESTING
- NORMAL TEMPERATURE TEST
- WHILE EXHAUSTING AIR AT 300°F (149°C)
- WOULD CAUSE UNSAFE OPERATION.
- ABNORMAL FLARE-UP TEST
- AN UNSAFE CONDITION.



- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL
- INTERNAL WIRING
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE)
- HIGH HEAT OPERATION 300°F (149°C)
- EXHAUST FAN MUST OPERATE CONTINUOUSLY
- UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY
- DETERIORATING EFFECTS TO THE FAN WHICH
- EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS
- AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE
- <u>OPTIONS</u>

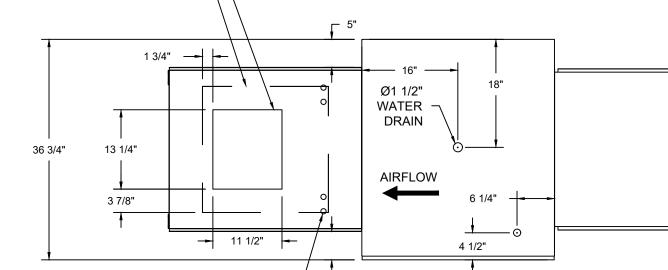


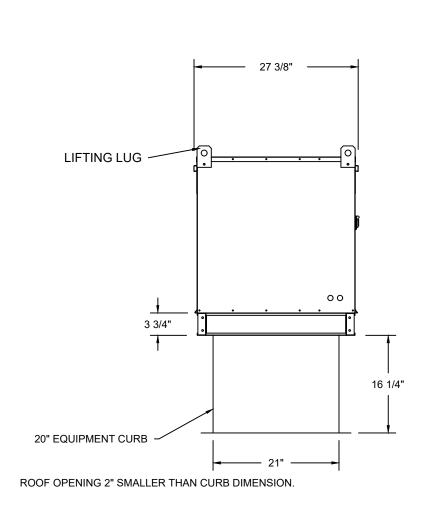
## FAN #2 A1-G10 - SUPPLY FAN

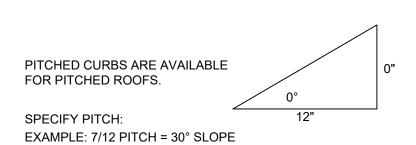
- 1. UNTEMPERED SUPPLY UNIT WITH 10" BLOWER IN SIZE #1 HOUSING 2. EVAP COOLER (LPD CELDEK) – W/INTAKE HOOD W/EZ FILTERS
- 3. DOWN DISCHARGE AIR FLOW RIGHT -> LEFT 4. 120V WIRING CONNECTION TO ENERGIZE EVAPORATIVE COOLERS FROM UNTEMPERED SUPPLY FANS.
- NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE UNLESS OTHERWISE SPECIFIED. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.

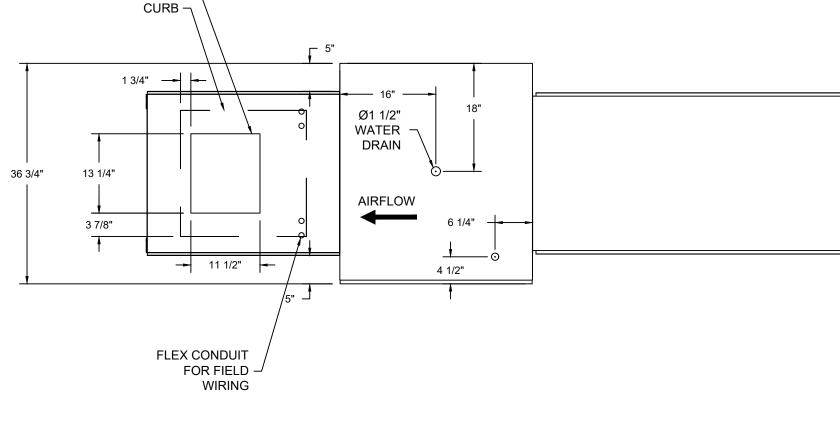
BLOWER DISCHARGE-

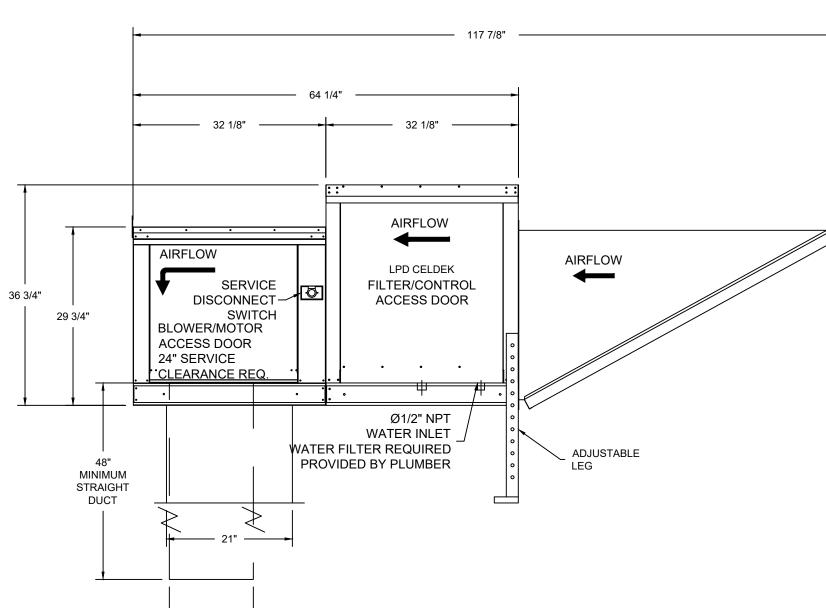
SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14" x 48" LONG.











These products and others are available for demonstration at the Northern CA display center --For more information or questions Contact--Captive Aire Systems 1110 Burnett Ave, Suite G, Concord, CA 94520 Phone: (925)962-1999, Fax (925)566-8565 Email reg92@captiveaire.com



300 FRANK OGAWA PL, STE. 105 OAKLAND, CA 94612 TEL: (510) 465-9800 FAX: (510) 893-3566

#### **CAPTIVE AIRE**

CAPTIVEAIRE 1110 BURNETT AVE. SUITE G CONCORD, CA 94595 (925) 962-1999

#### PROJECT:

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

#### LOCATION:

258 WEST A STREET HAYWARD, CA 94541

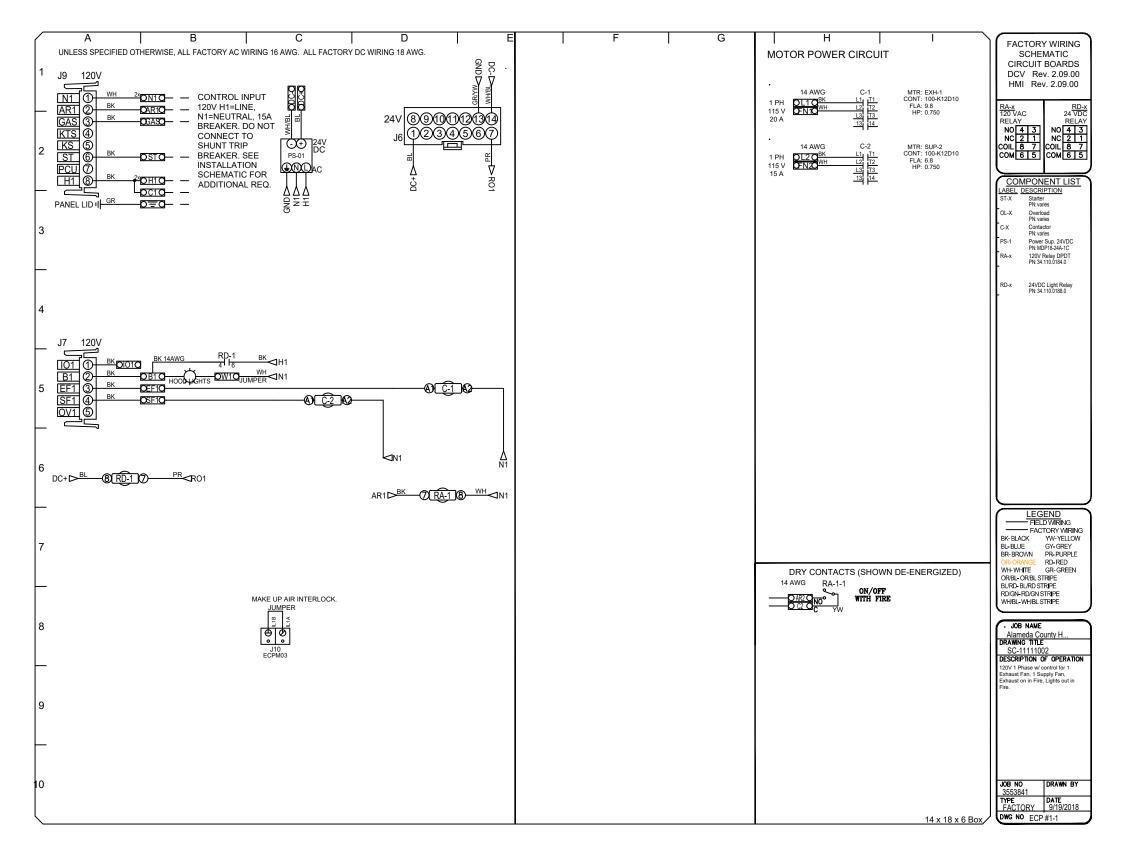
REVISIONS

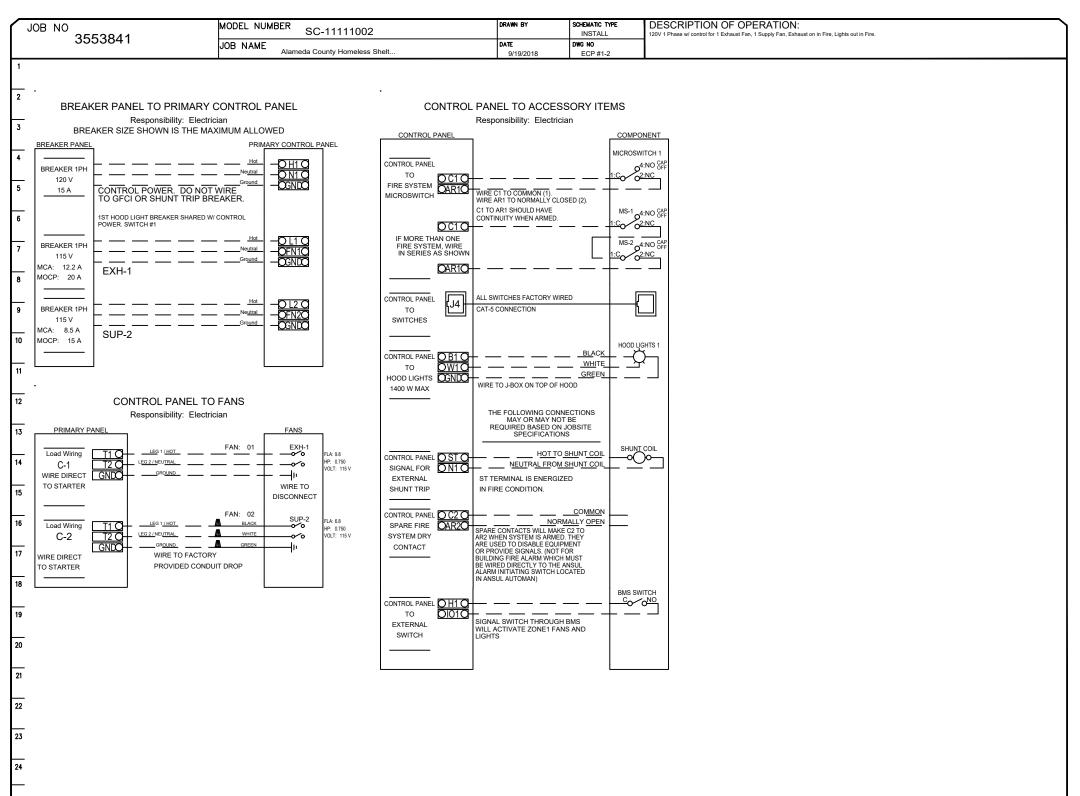
KITCHEN HOOD DRAWN: CHECKED: APPROVED:

NOVEMBER 8, 2018 CADD FILENAME

SIZE: SCALE 3/4" = 1'-0" CONTRACT NO. CONTRACT SHEET NO. | PAGE NO. MPE10 ELECTRICAL PACKAGE - Job#3553841

			* ******	333// 3333377								
NO.	0.	TAG	PACKAGE#	LOCATION	SWITCH	HES	OPTION	FANS CONTROLLED				
					LOCATION	QUANTITY		TYPE	ф	H.P.	VOLT	FLA
	,		SC-11111002	Wall Mount In SS Box	05 - SS Wall Mount Box	1 Light	Smart Controls Basic	Exhaust	1	0.750	115	9.8
1	'		SC-111111002	vvali iviourit in 55 Box		1 Fan	Smart Controls Basic	Supply	1	0.750	115	6.8







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PROJECT:

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET HAYWARD, CA 94541

KITCHEN HOOD DRAWN:

REVISIONS DATE BY SUB APP. DESCRIPTION

CHECKED:

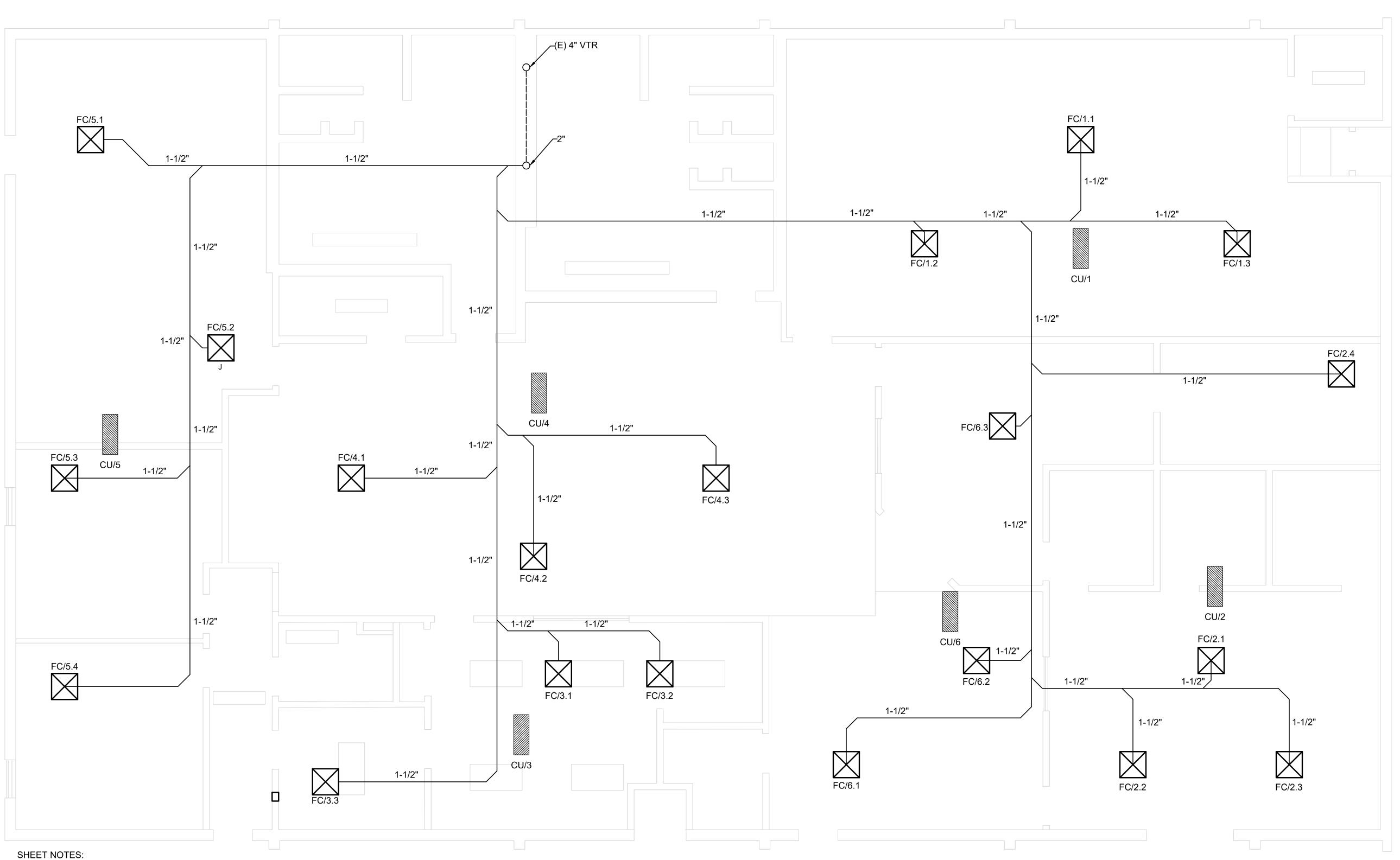
APPROVED:

NOVEMBER 8, 2018 CADD FILENAME

SIZE: SCALE 3/4" = 1'-0" CONTRACT NO. CONTRACT SHEET NO. | PAGE NO. MPE11

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- 1. ALL LOCATIONS ARE APPROXIMATE.
- 2. DETAILS SHOW TYPICAL INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD MODIFICATIONS TO ACCOMMODATE VARIATIONS.
- 3. ALL EQUIPMENT TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- 4. RUN CONDENSING UNIT (CU/1,2,3,4,5,6) DRAINS TO
- NEAREST ROOF DRAIN WITH <sup>1</sup>/<sub>4</sub>" SLOPE.

  5. RUN ALL FAN COIL UNITS TO (E) DRAIN LOCATED IN MEN/S / WOMENS RESTROOMS

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



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PROJECT:

HAYWARD HOMELESS SHELTER TENANT IMPROVEMENT

LOCATION:

258 WEST A STREET HAYWARD, CA 94541



SHEET NAME: PLUMBING PLAN

ARTURO O. CABRERA, P.E.

GERALD CABRERA CHECKED:

APPROVED:

NOVEMBER 8, 2018

CADD FILENAME

SIZE: SCALE

CONTRACT NO. REV. 16469

CONTRACT SHEET NO. PAGE NO. MPE14

