SPLIT SYSTEM HEAT PUMP UNITS SCHEDULE

NO.	MAKE & MODEL	OUTDOOR UNIT MCA	MFA	V	PH	HZ	SEER / EER	HSPF	TONAGE	WT.LBS.	CAPACITY RANGE BTUH COOLING	CAPACITY RANGE BTUH HEATING	SERVICE	QUANT.	REMARKS
HP 1	CARRIER 25HHA448A003	28.8	50	230	1	60	14.0 / 11.5	8.2	4	276	47,060	46,580	DINING RM & KITCHEN	1	SUCTION LINE 1/2", LIQUID LINE 1/4" (1)(2)(3)
HP 2	CARRIER 25HHA460A003	33.4	50	230	1	60	14.0 / 11.5	8.2	5	288	60,060	47,520	ENTIRE STORE	1	SUCTION LINE 1/2", LIQUID LINE 1/4" (1)(2)(3)

INDOOR FANCOIL UNIT SCHEDULE

FC-UNIT NO.	MAKE & MODEL	CLG/HTG BTU	AIRFLOW CFM (LO-MID-HI)	REFRIG. TYPE	ESP	FLA	MCA	V	PH	HZ	WT.LBS.
FC 1	CARRIER FX4DNF049L00	47,060 BTU 46,580 BTU	1,600	R-410A	0.5"	6.0	7.50	230	1	60	185
FC 2	CARRIER FX4DNF061L00	47,520 BTU 58,220 BTU	2,000	R-410A	0.5"	6.0	7.50	230	1	60	185

NOTES

(1) PROVIDE 208/1P DISCONNECT SWITCH.

(2) PROVIDE CONDENSATE DRAIN AND CONDENSATE PUMP AS NEEDED.

(3) INSTALL AS PER MANUFACTURER RECOMMENDS.

WITH APPROVAL OF ARCHITECT/GC UNIT CAN BE SUBSTITUTED WITH APPROVED EQUAL.

EXHAUST AND MAKE-UP AIR FANS SCHEDULE

SYMBOL	MAKE	MODEL	CFM	S.P	ELECTRICAL HP	V	PH	HZ	WT.(LBS)	QUANTITY	SERVICE	REMARKS
EF 1	BROAN	QTRE100S	100	0.2	36.3 WATT	120	1	60	12.6	3	TOILETS	FAN UNIT IS CEILING MOUNTED W/BACK DRAFT DAMPER, DISC. SWITCH INTERLOCK WITH BATHROOM LIGHT SWITCH.
EF 2	CAPTIVE AIRE	DU180HPA	1,950	1.5	1.5	230	1	60	188	1	PIZZA OVEN HOOD	[E] FAN UNIT IS ROOF MOUNTED ON MANUFACTURER PAD, DISC. SWITCH INTERLOCK WITH MAKE-UP AIR FAN & HAVC..
EF 3	CAPTIVE AIRE	DU240HFA	4,217	2.0	5.0	230	1	60	313	1	MAIN HOOD	[E] FAN UNIT IS ROOF MOUNTED ON MANUFACTURER PAD, DISC. SWITCH INTERLOCK WITH MAKE-UP AIR FAN & HAVC..
EC 1	CAPTIVE AIRE	A2-200	6,167	0.5	5.0	230	1	60	853	1	WHOLE KITCHEN	[E] MAKE-UP AIR FAN UNIT IS ROOF MOUNTED ON MANUFACTURER PAD, DISC. SWITCH INTERLOCK WITH EF-2 & EF-3 & HAVC.

MECHANICAL EQUIPMENT AND FAN SCHEDULES

SCALE NONE (4)

GENERAL NOTES

Ductwork:

1. All air conditioning ducts shall comply with chapter 6 of the uniform mechanical code. All transverse joints to be substantially airtight with tape, mastic, gasketing or other means; all low pressure ductwork sized equal to or less than 0.1" w.g./100 ft.
2. Duct supports and anchorage shall comply with UMC 604(a) and table 6–E.
3. Round ductwork may be used instead of rectangular ductwork if space permits.
4. If flexible ductwork is used, it may not be bent or compressed in any way.
5. Manual volume dampers to be installed in all branch take–offs. All dampers to have locking quadrants.
6. Duct sizes shown are net sizes required. Lined ducts shall be increased in size to accommodate lining without loss of area.
7. Provide mastic or duct tape joint sealant to seal transverse joints on air supply ducts installed in locations where air leakage through the joints would be non–beneficial to the occupied area temperature requirements. And, seal longitudinal joints on low–pressure supply ducts where internal static pressure exceed 0.75" of water pressure.

Air Devices:

1. Arrows at ceiling diffusers indicate the air throw pattern. Coordinate with architectural drawings and reflected ceiling plans for exact location of all diffusers and registers and louvers.
2. Supply diffusers and registers to be J & J model 1444(Modular type) or 1210 (Perforated Modular type) for ceiling installation and/or 90DV for side–wall installation or approved equal with key operated opposed blade damper unit.
3. Return and exhaust air registers to be J & J model ALEC–5 or 1290 for ceiling installation and/or 90V for side–wall installation or approved equal with key operated opposed blade damper unit.

Insulation:

1. Mineral fiber insulation shall be installed in joint spaces whenever a plumbing pipe or duct penetrates a floor–ceiling assembly or where such pipe or duct passes through the plane of floor–ceiling assembly from within a wall. The insulation shall be installed to a point 12" beyond the pipe or duct.
2. Ceiling concealed supply and return ducts shall be covered all sides with 2" thick 3/4 lb./cu. ft. or with 1" thick 1.5 lb./cu. ft. density fiberglass insulation, or 1" thick 3 lb./cu. ft. mineral fiber board, or material with a conductance of 0.30 or less, applied with 2" lapped joints securely and neatly wired and fastened to duct; the insulation to be certified by California Energy Commission; (John Mansville is accepted) when ductwork penetrate insulated walls or roof, the hole must be sealed with an approved poly seal material.
3. All insulation materials shall be certified by the manufacturer as complying with the California quality standard for insulation material.
4. All supply and return air ductwork exposed to weather (or in equipment room) to be lined with 1–1/2" thick 1.5 lb./cu. ft. density fiberglass insulation.

Code:

1. Provide a 3/4" minimum condensate drain line from each A/C unit to an approved disposal area. Condensate water shall not drain over a public way. The drain shall have a slope of not less than 1/8 inch per foot and shall be of approved corrosion–resistant pipe. In projects with limited ceiling space, the cooling equipment shall be installed close or adjacent to the walls with a lavatory. (This work is under plumbing section, refer to plumbing drawings).
2. Mount wall mounted thermostats 4' – 0" above finished floor.
3. Each single system with one or more air conditioning units providing heating or cooling in excess of 2000 CFM or air serving more than one occupancy, shall have smoke detectors (Product of combustion) and shall be installed in the main return air duct ahead of any outside air inlet and also in the supply duct downstream of the filters. Activation of the smoke shall cause the unit to shut down and activate the Fire Alarm system. (UMC 1009). If there are a number of air conditioning units serving one area, or there is a common return air plenum for a number of air conditioning units, all smoke detectors must be interconnected to shut–off all equipment even when smoke is detected by only one smoke detector. Duct velocity and pressure differential may have to be verified for each duct smoke detector location in accordance with U.L. listing and EC110–3(B). Automatic shutoffs need not be installed when all rooms have direct exit to the exterior of the building.
4. All work shall comply with requirements of all applicable codes, laws, ordinances and regulations of all authorities having jurisdiction. This contractor shall obtain and pay for all permits, additional plan check fees, inspections, etc. and furnish signed, certified and acceptable copies to the owner for his record.
5. Contractor shall provide fire dampers at fire rated penetrations.
6. Access to inspect, service, repair and replacement without removing permanent construction to all equipment shall be provided. Unless otherwise specified, not less than 30 inches of working space and platform shall be provided.
7. Toilet rooms without windows or window area less than 5% of toilet floor area, shall have a mechanically operated exhaust system capable of providing a complete change of air every 10 minutes (6 air change per hour). Toilet exhaust ducts shall be directly connected to the outside and shall be of smooth, non–absorbent and non–combustible surface material.
8. All OSA intakes must be 10 feet minimum away from all plumbing or appliance vents (or 3'–0" minimum below appliance vents). OSA inlets shall be covered with screen having 1/4" opening. UMC, Sec. 706 (g). OSA quantity for each area shall be per UBC, Sec. 605.
9. Environmental exhaust, such as bathroom, dryer vent, etc. shall terminate at least 3 feet from property line, any operable window, and 10 feet away from any fresh air intake.
10. All penetrations in fire walls and floor–and roof–ceiling assemblies requiring protected opening shall be fire–stopped provide fire stopping specifications including manufacturer and report of approved testing agency.
11. All penetrations or openings in construction assemblies for piping, heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings.

Energy:

1. Back–draft dampers for all exhaust and fan systems shall be provided.
2. All water heating and air conditioning equipment, shower heads and faucets shall be C.E.C. certified.
3. Automatic temperature control device for regulation of space temperature shall be equipped with night set back and have the ability to operate the heating and the cooling in sequence. Control shall be adjustable to provide a range of up to 10 degrees F between full heating and full cooling and have a capability of terminating all heating at a temperature no more than 70 degrees F and cooling at a temperature no less than 78 degrees F.
4. At least one automatic space temperature control device (thermostat) shall be provided for each zone and/or each separate HVAC system. (Not more than one floor of building shall be included).
5. All air conditioning units to be furnished with maintenance manuals, schedules and tags.
6. All air conditioning units to be equipped with a readily accessible manually adjustable automatic means of reducing the energy used for HVAC during period of non use or alternate use of the building space or zones served by the system, such as a time clock or time switch.
7. Each mechanical or gravity ventilating unit, except attic ventilators shall be equipped with an automatic type normally closed outside air damper to serve as a means of providing air volume reduction and/or shut–off when ventilation is not required. (Does not apply to combustion air openings).

Quality control:

1. Provide as built drawings and submit copies to the owner.
2. It is the specific intent of this design conditions that the entire system including equipment, ductwork, air outlets/inlets and all other parts be noiseless and free of vibration transmission. Provide and install vibration isolators or dampers, sound insulation pads, flexible connectors and similar material as required. Install volume dampers on all ducts as far as possible from air inlet/outlet. Make the necessary noise or vibration corrections by installing these items at no cost to the owner.
3. Perform tests before final acceptance and under the supervision of the architect and/or owner. Furnish all labor and instruments for tests.
4. Upon completion of and after cleaning of system and equipment, carefully adjust for normal operation of the automatic parts of heating, ventilating and air conditioning systems.
5. Equipment and ductwork exposed to weather must be weatherproofed.
6. When More than one piece of equipment are installed on roof or a common area, label each piece equipment to identify the area it serves.
7. Contractor shall balance air system to the CFM capacity as shown on floor plan.
8. Appliances designed to be fixed in position shall be securely fastened in place.

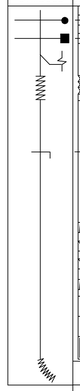
Coordination with other trades:

1. The drawings are in part diagrammatic and are intended to convey the scope of the work; they indicate the general arrangement and approximate sizes of equipment, ductwork, piping, outlets, etc. Follow the drawings as closely as practical in laying out the work, be guided by the conditions at the job and consult the construction drawings of the other trades to become familiar with all conditions affecting the work.
2. All required, indicated or shown HVAC ductwork, piping and equipment which conflict with the work of other trades such as structural members, electrical, plumbing, fire sprinkler lines and equipment, roof platforms/curbs, sky lights, attic vents, etc. shall be moved, offset or re–routed by the contractor free of charge . Major conflict shall be brought to the attention of the architect before the final installation.
3. Verify with architectural and structural drawings for exact location of duct openings through roof and walls.
4. Contractor should visit the job site during the construction and verify all the conditions, locations and dimensions before starting work, ordering equipment and duct/pipe fabrication.
5. Furnishing and installation of all low volt. Wiring for mechanical systems shall be by the mechanical contractor.
6. All necessary equipment curbs, runners, platforms, roofing, patching, cutting, rating shafts, furring, flashing and painting shall be by the general contractor.
7. All necessary drains, gas, condensate drains with traps, including final connections shall be by the plumbing contractor.
8. Furnishing and installation of all line volt. Wiring, all low and line volt conduits and auxiliaries for mechanical systems shall be by the electrical contractor. The conduit for low voltage wiring of mechanical system exposed to the weather shall be approved for exterior use and be by the electrical contractor.

MECHANICAL GENERAL NOTES

SCALE NONE (5)

AIR CONDITIONING SYMBOLS & ABBREVIATIONS



SYMBOLS	ABBR	DESCRIPTION	ABBR	DESCRIPTION
	FD	FIRE DAMPER	GA	GAUGE
	FSD	COMB. FIRE/SMOKE DAMPR	AC	AIR CONDITIONING
	APV	AIR PROPORTIONING VANE	B.H.P	BRAKE HORSEPOWER
	F.C.	FELEXIBLE DUCT CONN.	BDD	BACK–DRAFT DAMPER
	TH	THROAT & SIZE	O.C.	ON CENTER
	TV	TURNING VANES	COMP	COMPRESSOR
	MVD OR VD	MANUAL VOLUME DAMPER W/INDIVIDUAL BLADE QUADRANTS	(M)	UNDER DIV. 15
			DB	DRY BULB
		DUCT SIZE NOTATION FIRST DIMENSION IS FOR NEAR SIDE	WB	WET BULB
			EXT	EXTERNAL
	OBD	OPPOSED BLADE DAMPER	OPNG	OPENING
	PBD	PARALLEL BLADE DAMPER	CFM	CUBIC FEET/MINUTE (CFM)
T H		HEATING COIL T–STAT	T	THERMOSTAT
	–HO	–HAND OPER.(QUADRANT)	FPM	FEET PER MINUTE
	BFT	BOTTOM FLAT TRANSITION	HP	HORSEPOWER
	TFT	TOP FLAT TRANSITION	(E)	UNDER DIV. 16
	LINE	PLENUM OR DUCT LINER	MBH	THOUSAND BTU PER HOUR
	FLEX	FLEXIBLE DUCT	NIC	NOT IN CONTRACT
		EXHAUST DUCT SECTION	CD	CEILING DIFFUSER
			CR	CEILING REGISTER
			CG	CEILING GRILLE
		RETURN DUCT SECTION	TR	TOP REGISTER
			BR	BOTTOM REGISTER
		SUPPLY DUCT SECTION	RH	RELATIVE HUMIDITY
			REQ'D	REQUIRED
	EXH	EXHAUST	S.P	STATIC PRESSURE
	OSA	OUTSIDE AIR FLOW	(SD)	DUCT SMOKE DETECTOR
U	UC	UNDERCUT DOOR	TYP	TYPICAL FOR
HWS	HWS	HEATING HOT WATER SUPPLY	Ø	DIAMETER OR ROUND
HWR	HWR	HEATING HOT WATER RETURN	UTR	UP THRU ROOF
CWS	CWS	COOLING TOWER WATER SUPPLY		GATE VALVE
CWR	CWR	COOLING TOWER WATER RETURN		UNION
CHWS	CHWS	CHILLED WATER SUPPLY		BALANCING COCK
				CHECK VALVE
CHWR	CHWR	CHILLED WATER RETURN		BUTTERFLY VALVE
	P.O.C	POINT OF CONNECTION		MORORIZED VALVE
	F.C.	FAN COIL		STRAINER WITH BLOW DOWN VALVE
		EXISTING WORK TO BE DEMOLISHED		EXISTING WORK TO REMAIN

MECHANICAL LEGENDS

SCALE NONE (1)

APPLICABLE CODES:

2019	CRC	CALIFORNIA RESIDENTIAL CODE
2019	CMC	CALIFORNIA MECHANICAL CODE
2019	CPC	CALIFORNIA PLUMBING CODE
2019	CEC	CALIFORNIA ELECTRICAL CODE
2019	CSB	COUNT OF SAN BERNARDINO BUILDING CODE

APPLICABLE CODES

SCALE NONE (2)

BUILDING DEPARTMNET NOTES:

- ALL APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE PER BUILDING CODE.
- ALL APPLIANCES AND PLUMBING VENTS AND DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION, OR THREE (3) ABOVE THE OUTSIDE -AIR INTAKES FOR HVAC UNITS.
- AIR CONDITIONING REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS.
- AT THE TIME OF ROUGH INSTALLATION, OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATING EQUIPMENT, ALL DUCTS AND OF THE RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS TO REDUCE THE AMOUNT OF DUST, WATER, AND DEBRIS WHICH MAY ENTER THE SYSTEM. [CGBC 5.504.3]
- ALL AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS , INCLUDING, BUT NOT LIMITED TO, BUILDING CAVITIES, MECHANICAL CLOSETS, AIR-HANDLER BOXES AND SUPPORT PLATFORMS USED AS DUCTS OR PLENUM SHALL BE INSTALLED, SEALED AND INSULATED TO MEET THE REQUIREMENTS OF CHAPTER 6 OF THE 2019 CMC. SUPPLY- AIR AND RETURN-AIR DUCTS CONVEYING HEATED OR COOLED AIR SHALL BE INSULATED TO A MINIMUM LEVEL OF R-4.2 (R-8 IF INSULATED IN AN UNCONDITIONED SPACE) UNLESS DUCTS ARE IN CONDITIONED SPACE.
- THE THERMOSTATIC CONTROLS FOR HVAC SYSTEMS SHALL MEET THE FOLLOWING REQUIREMENTS AS APPLICABLE:

a) EACH SPACE CONDITIONING ZONE SHALL BE CONTROLLED BY AN INDIVIDUAL THERMOSTATIC
b) CONTROL THAT RESPONDS TO TEMPERATURE WITHIN THE ZONE AND MEETS THE FOLLOWING:

c) EACH THERMOSTATIC CONTROL SHALL BE CAPABLE OF BEING SET LOCALLY OR REMOTELY BY ADJUSTMENT OR SELECTION OF SENSORS TO CONTROL.

1) CONTROL HEATING DOWN TO 55°F OR LOWER
2) COMFORT COOLING UP TO 85°F OR HIGHER.

3) BOTH HEATING AND COOLING, THE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF PROVIDING A TEMPERATURE RANGE OF DEAD BAND OF AT LEAST 5°F WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

INSTALLATION OF DUCTS SHALL BE IN ACCORDANCE WITH SECTION 630.0 OF THE 2019 CMC.

- ALL DUCTWORK FOR HEATING AND COOLING SYSTEMS OR EVAPORATIVE COOLING SYSTEM SHALL BE CONDUCTED THROUGH DUCT SYSTEMS CONSTRUCTED OF METAL AS SET FORTH IN THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE. FACTORY MADE AIR DUCTS SHALL BE APPROVED FOR THE USE INTENDED OR SHALL COMPLY WITH THE 2019 CMC REFERENCED STANDARDS CHAPTER 17.
- JOINTS AND SEEMS FOR DUCT SYSTEMS SHALL COMPLY WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE. JOINTS OF DUCTS SYSTEMS SHALL BE MADE SUBSTANTIALLY AIRTIGHT BY MEANS OF TAPES, MASTICS,GASKETING, OR OTHER MEANS. CRIMP JOINTS FOR ROUND DUCTS SHALL HAVE A CONTACT LAP OF NOT LESS THAN 1-1/2" AND SHALL BE MECHANICALLY FASTENED BY MEANS OF NOT LESS THAN 3 SHEET-METALS SCREWS EQUALLY SPACED AROUND THE JOINT, OR AN EQUIVALENT FASTENING METHOD.
- DUCT SHALL BE SUPPORTED AT EACH CHANGE OF DIRECTION AND IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARD-METAL AND FLEXIBLE.

BUILDING DEPARTMENT NOTES

SCALE NONE (3)

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PRINTED DATE: 12-13-2021

DRAWN BY: R.T.E.

CHECKED BY: R.T.E.

PROJECT NO.: EMA–34–21

CLIENT:

DIAMOND AUTOMOTIVE CAFE

PROJECT NAME & ADDRESS:

55761 TWENTYNINE PALMS HWY
YUCCA VALLEY, CA 92284

APPROVALS

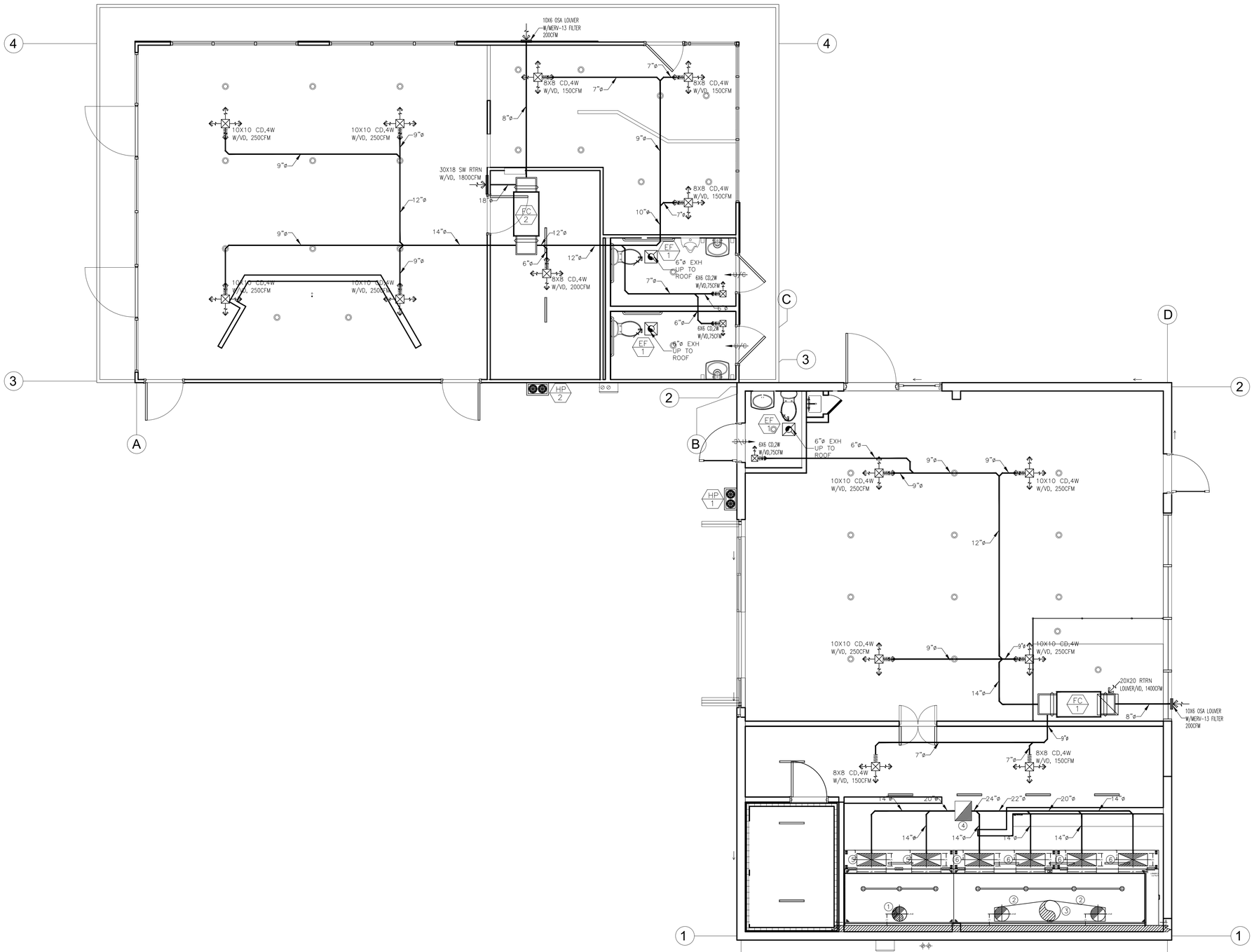
APPROVED BY	INITIALS	DATE
ISSUED FOR PLAN CHK	R.T.E.	DECEMBER 13, 2021

SHEET TITLE

MECHANICAL LEGENDS, EQUIPMENT AND FAN SCHEDULES, GENERAL NOTES

SHEET NUMBER

M-1



LIGHTING

4" Recessed

Fluorescent

KEY NOTES:

1. 14"ø PIZZA OVEN HOOD EXHAUST DUCT IN 3-M WRAP UP TO ROOF EF-2.
2. 14"ø EXHAUST DUCT IN 3-M WRAP ABOVE HOOD TO CONNECT TO MAIN RISER.
3. 20"ø EXHAUST DUCT IN 3-M WRAP UP TO ROOF EF-3.
4. 18X18 MAKE-UP AIR DUCT UP TO ROOF TO MUA-1.
5. 20X14 SUPPLY AIR DIFFUSER W/VD MTD ON HOOD 975CFM.
6. 20X14 SUPPLY AIR DIFFUSER W/VD MTD ON HOOD, 1,054CFM.

NEW MECHANICAL FLOOR PLAN

SCALE 1/4"=1'-0" (1)

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PRINTED DATE: 12-13-2021

DRAWN BY: R.T.E.

CHECKED BY: R.T.E.

PROJECT NO.: EMA-34-21

CLIENT:

DIAMOND AUTOMOTIVE CAFE

PROJECT NAME & ADDRESS:

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YUCCA VALLEY, CA 92284

APPROVALS

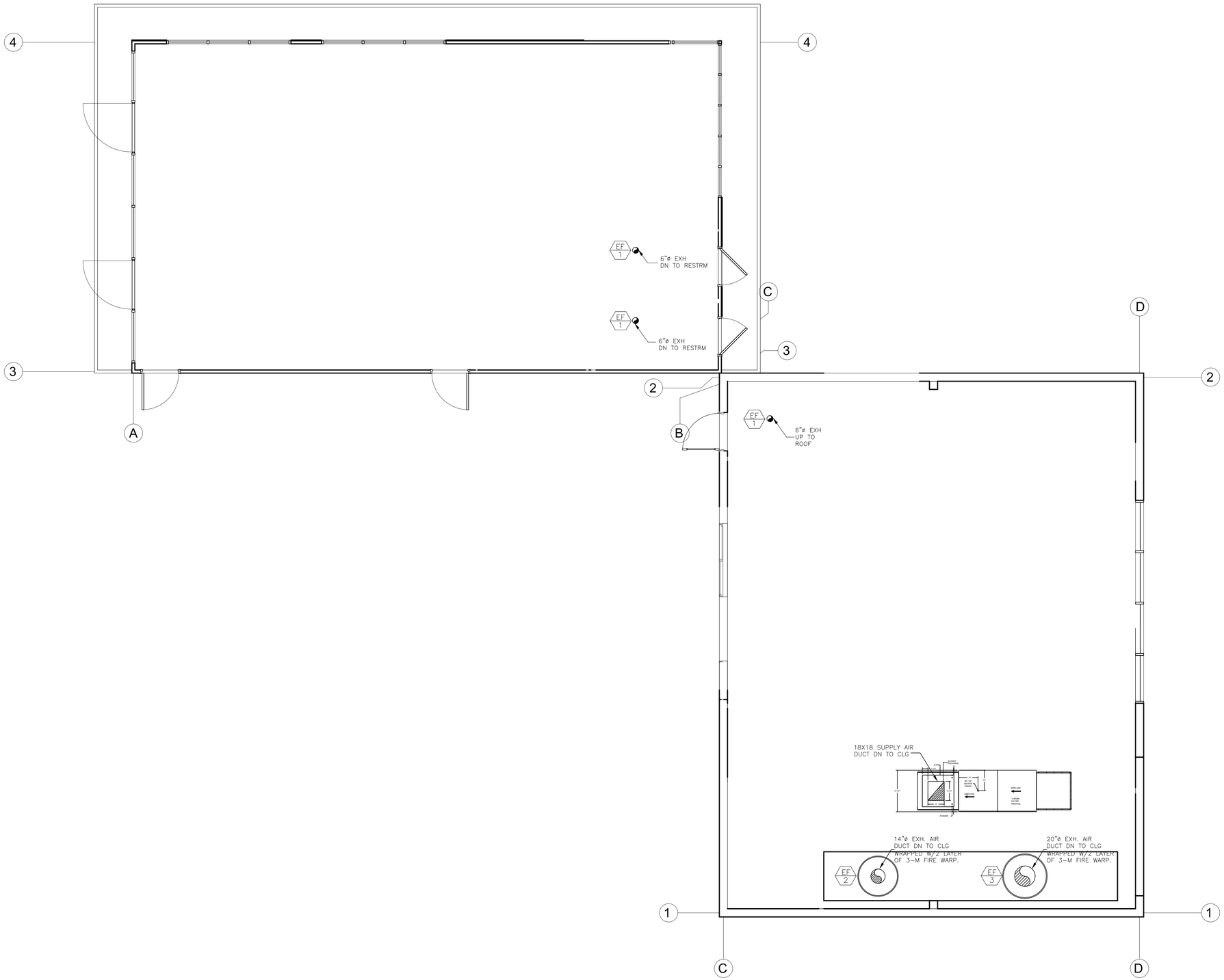
APPROVED BY	INITIALS	DATE
ISSUED FOR PLAN CHK	R.T.E.	DECEMBER 13, 2021

SHEET TITLE

NEW MECHANICAL FLOOR PLAN FOR BOTH BLDG.

SHEET NUMBER

M-2



ROOF MECHANICAL PLAN

SCALE 1/4"=1'-0" (1)

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STATE OF CALIFORNIA

PRINTED DATE: 12-13-2021

DRAWN BY: R.T.E.

CHECKED BY: R.T.E.

PROJECT NO.: EMA-34-21

CLIENT: **DIAMOND AUTOMOTIVE CAFE**

PROJECT NAME & ADDRESS: 55761 TWENTYNINE PALMS HWY YUCCA VALLEY, CA 92284

APPROVALS

APPROVED BY	INITIALS	DATE
ISSUED FOR PLAN CHK	R.T.E.	DECEMBER 13, 2021

SHEET TITLE

NEW MECHANICAL ROOF PLAN

SHEET NUMBER

M-3

LIST OF COOKING EQUIPMENT UNDER HOOD#1:

PIZZA OVEN

EXHAUST AIR FLOW AS PER CAPTIVE AIRE UL HOOD	8'-8"X4'-0" →	1,950 CFM
EXHAUST AIR PROVIDED	→	1,950 CFM
DUCT SIZE	→	14"ø, 1.06 SF
DUCT AIR VELOCITY	→	1,839.6 FPM
NO. FILTERS	→	6 CAPTRATE SOLO FILTERS
FILTER SIZE	→	20"X16"
PRESS. LOSS	→	-0.818"
CFM PER FILTER	→	325 CFM
MAKE-UP AIR PROVIDED BY "HP-1"	→	0.0 CFM
MAKE-UP AIR PROVIDED BY EC-1 UNIT	→	1,950 CFM

SPECIFIC NOTE:

UPON COMPLETION OF INSTALLATION OF THE VENTILATION SYSTEM SERVING COMMERCIAL KITCHEN HOOD(S) CONTRACTOR SHALL PROVIDE A PERFORMANCE TEST TO VERIFY THE RATE OF AIRFLOW AND PROPER OPERATION OF THE HOOD EXHAUST SYSTEM AS SPECIFIED IN "UMC" CHAPTER-5. CONTRACTOR SHALL PROVIDE THE NECESSARY TEST EQUIPMENT AND DEVICES FOR THIS TEST.

LIST OF COOKING EQUIPMENT UNDER HOOD#1:

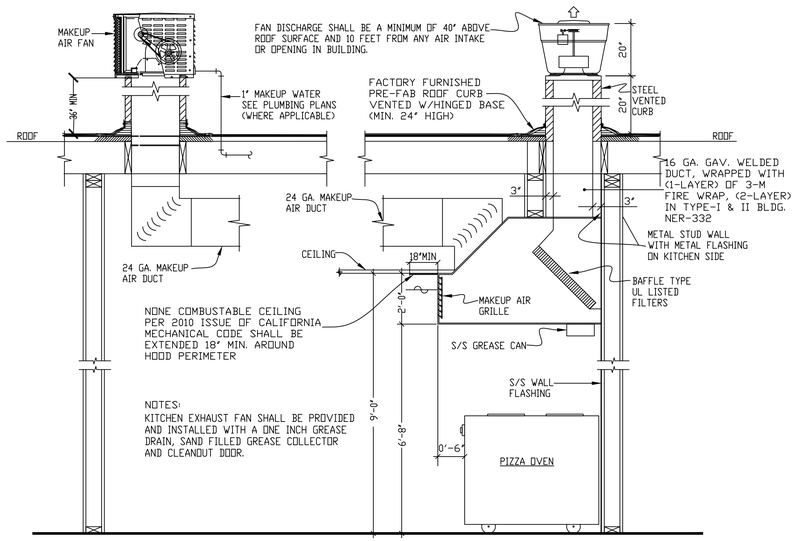
8-BURNER STOVE FRYER
CONVECTION OVEN 36"GRIDDLE
36"GRILL TOP
8-BURNER STOVE.

EXHAUST AIR FLOW REQUIRED PER CAPTIVE AIR UL HOOD	15'-4"X4'-0" →	4,217 CFM
EXHAUST AIR PROVIDED	→	4,217 CFM
DUCT SIZE	→	20"ø, 2.18 SF
DUCT AIR VELOCITY	→	1,934.4 FPM
NO. FILTERS	→	11 CAPTRATE SOLO FILTERS
FILTER SIZE	→	20"X16"
PRESS. LOSS	→	-1.062"
CFM PER FILTER	→	383.31 CFM
MAKE-UP AIR PROVIDED BY "HP-1"	→	0.0 CFM
MAKE-UP AIR PROVIDED BY EC-1 UNIT	→	4,217FM

SPECIFIC NOTE:

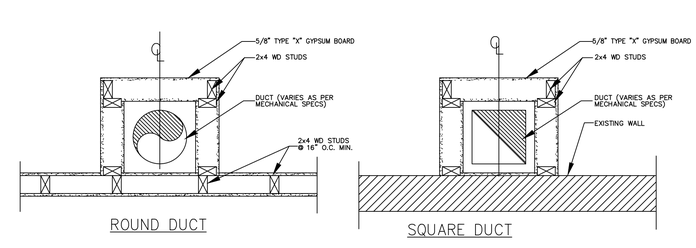
UPON COMPLETION OF INSTALLATION OF THE VENTILATION SYSTEM SERVING COMMERCIAL KITCHEN HOOD(S) CONTRACTOR SHALL PROVIDE A PERFORMANCE TEST TO VERIFY THE RATE OF AIRFLOW AND PROPER OPERATION OF THE HOOD EXHAUST SYSTEM AS SPECIFIED IN "UMC" CHAPTER-5. CONTRACTOR SHALL PROVIDE THE NECESSARY TEST EQUIPMENT AND DEVICES FOR THIS TEST.

TYPE-I EXHAUST HOOD CALCULATION — SCALE NONE — 1

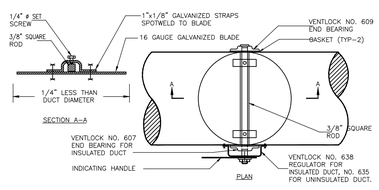


TYPE-I KITCHEN EXHAUST FAN & MAKE UP INSTALLATION
SCALE NONE

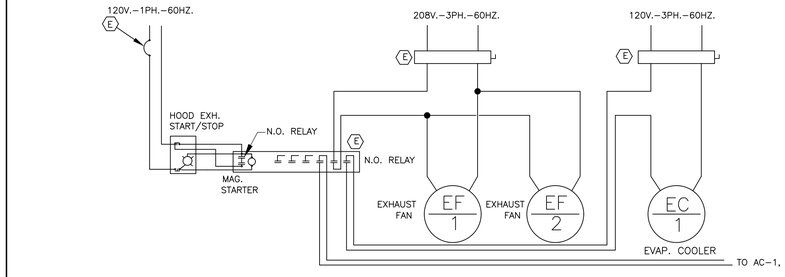
HOOD EXHAUST & MAKE-UP AIR INSTALLATION DETAIL — SCALE NONE — 2



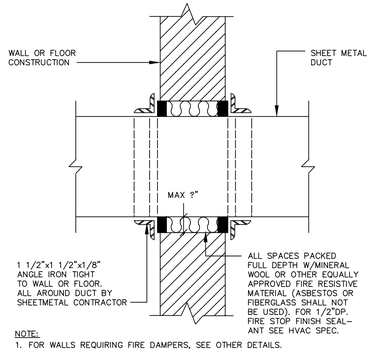
ONE-HOUR SHAFT DETAIL — SCALE NONE — 5



ROUND VOLUME DAMPER INSTALLATIOIN — SCALE NONE — 4

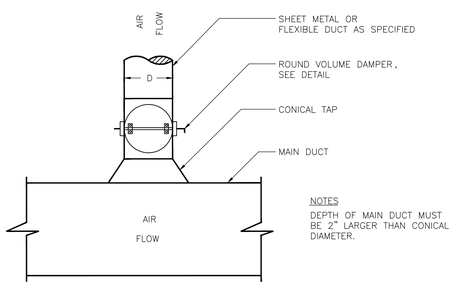


KITCHEN EXHAUST FANS & EVAP. COOLER INTERLOCK WIRING DIAGRAM — SCALE NONE — 3



NOTE:
1. FOR WALLS REQUIRING FIRE DAMPERS, SEE OTHER DETAILS.

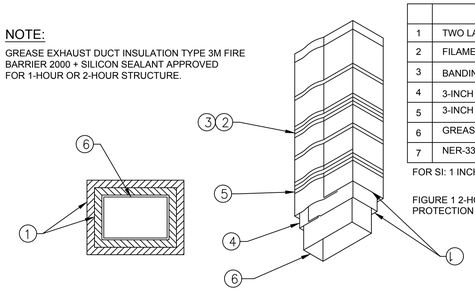
DETAIL OF CAULKING OF DUCT PIERCING WALLS & FLOORS — SCALE NONE — 8



NOTES
DEPTH OF MAIN DUCT MUST BE 2" LARGER THAN CONICAL DIAMETER.

ROUND DUCT CONICAL TAP INSTALLATIOIN DETAIL — SCALE NONE — 7

NOTE:
GREASE EXHAUST DUCT INSULATION TYPE 3M FIRE BARRIER 2000 + SILICON SEALANT APPROVED FOR 1-HOUR OR 2-HOUR STRUCTURE.



	LEGEND
1	TWO LAYERS FIREMASTER DUCT WRAP
2	FILAMENT TAPE
3	BANDING
4	3-INCH PERIMETER OVERLAP
5	3-INCH LONGITUDINAL OVERLAP
6	GREASE DUCT
7	NER-332

FOR SI: 1 INCH=25.4 MM — UL # YYET-R9700

FIGURE 1 2-HOUR FIRE-RESISTIVE PROTECTION SYSTEM FOR GREASE DUCTS

3M-FIRE WRAP DETAIL & SPECIFICATION — SCALE NONE — 6

CONSULTING ENGINEERS
MECHANICAL - ELECTRICAL - PLUMBING
2277 TOWNSGATE RD. SUITE 216
WESTLAKE VILLAGE CA 91361
TELE: 805-371-7450 E-MAIL: RTERRAN@VERIZON.NET

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER — KRISHNA C.V. KUMAR — No. M22176 — Exp. 12/31/21 — MECHANICAL — STATE OF CALIFORNIA

PRINTED DATE: 12-13-2021
DRAWN BY: R.T.E.
CHECKED BY: R.T.E.
PROJECT NO.: EMA-34-21

CLIENT:

CLIENT: DIAMOND AUTOMOTIVE CAFE

PROJECT NAME & ADDRESS: 55761 TWENTYNINE PALMS HWY YUCCA VALLEY, CA 92284

APPROVALS

APPROVED BY	INITIALS	DATE
ISSUED FOR PLAN CHK	R.T.E.	DECEMBER 13, 2021

SHEET TITLE

HOOD EXHAUST, CALCULATION, HOOD AND MISCELLANEOUS DETAILS

SHEET NUMBER

M-4

CERTIFICATE OF COMPLIANCE NRCC-MCH-E

This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 1 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

A. GENERAL INFORMATION

01	Project Location (city)	YUCCA VALLEY	04	Total Conditioned Floor Area	2,708
02	Climate Zone	14	05	Total Unconditioned Floor Area	
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	

☐ Office (B) ☑ Retail (M) ☐ Non-refrigerated Warehouse (S)
☐ Hotel/ Motel Guest Rooms (R-1) ☐ School (F) ☐ Healthcare Facility (H)
☐ High-Rise Residential (R-2/R-3) ☐ Relocatable Class Bldg (E) ☑ Other (Write In): COFFEE SHOP

[1] *FOOTNOTES: Climate zone can be determined on the California Energy Commission's website at http://www.energy.ca.gov/maps/renewable/building_climate_zones.html*

B. PROJECT SCOPE

Table Instructions: Include any mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

My project consists of (check all that apply)

01 Air System(s)	02 Wet System Components	03 Dry System Components
☑ Heating Air System	☐ Water Economizer	☐ Air Economizer
☑ Cooling Air System	☐ Pumps	☐ Electric Resistance Heat
Mechanical Controls	☐ Hydronic System Piping	☐ Fan Systems
☑ Mechanical Controls	☐ Cooling Towers	☑ Ductwork
	☐ Chillers	☑ Ventilation
	☐ Boilers	☐ Zonal Systems/ Terminal Boxes

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01 System Summary		02 Pumps		03 Fans/ Economizers		04 System Controls		05 Ventilation		06 Terminal Box Controls		07 Distribution		08 Cooling Towers		09 Compliance Results
§110.1, §110.2, §140.4 (See Table F)	AND	§140.4(k) (See Table G)	AND	§140.4(c), §140.4(e) (See Table H)	AND	§110.2, §120.2, §140.4(f) (See Table I)	AND	§120.1 (See Table J)	AND	§140.4(d) (See Table K)	AND	§120.3, §140.4(l) (See Table L)	AND	§110.2(e)2 (See Table M)		
Yes	AND		AND		AND	Yes	AND	Yes	AND		AND	Yes	AND			COMPLIES
																Mandatory Measures Compliance (See Table Q for Details) COMPLIES

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 2 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.
Selections made in Table O have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Table Instructions: Complete the following equipment schedules to show compliance with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b)2 for alterations.

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (Btu/h) §140.4 (a&b)						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 & Title 20	Smallest Size Available[1] §140.4(a)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
HP-1/FC-1	Unitary heat pumps	Air cooled, split (1 phase)	Yes	46,580	46,580	27,600	23,400	47,060	10,350	48,000
HP-2/FC-2	Unitary heat pumps	Air cooled, split (1 phase)	Yes	46,580	46,580	27,600	23,400	47,060	10,350	48,000

[1] *FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §140.4(a). Healthcare facilities are excepted.*
[2] *It is common proctice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.*
[3] *If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.*
[4] *Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).*

Table Continued

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 3 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Min Efficiency Required per Tables 110.2/ Title 20	Design Efficiency	Efficiency Unit	Min Efficiency Required per Tables 110.2/ Title 20	Design Efficiency

G. PUMPS

This Section Does Not Apply

H. FAN SYSTEMS & AIR ECONOMIZERS

This Section Does Not Apply

I. SYSTEM CONTROLS

Table Instructions: Complete the following Table to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats §110.2(b) & (c)[1], §120.2(a) or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(g)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
HP-1/CF-1	single zone	≤ 25,000 ft²	Setback Thermostat	Auto Timeswitch	Auto Timeswitch	NA: PTAC, PTHP, Rm AC, HP	Included	NA: No operable windows
HP-2/FC-2	single zone	≤ 25,000 ft²	Setback Thermostat	Auto Timeswitch	Auto Timeswitch	NA: PTAC, PTHP, Rm AC, HP	Included	NA: No operable windows

Table Continued

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 4 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft²)	Thermostats §110.2(b) & (c)[1], §120.2(a) or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(g)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)

[1] *FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*
** NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.*
EX: System 1: SA Temp Reset: Exempt because zones compliant with §140.4(d); EXCEPTION 1 to §140.4(f)

J. VENTILATION AND INDOOR AIR QUALITY

Table Instructions: Complete the following Table to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☑	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project includes new or altered high-rise residential dwelling units.
03	☐	Check the box if the project is using natural ventilation in any spaces to meet required ventilation rates per §120.1(c)2.

Table Continued

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 5 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

Table Continued

Nonresidential and Hotel/ Motel Ventilation Systems

04	05	06	07
System Name:	System Design OA CFM Air Flow[1]:	System Design Transfer Air CFM:	Air Filtration per §120.1(c) and §141.0(b)2[2]

08	09	10	11	12	13	14	15	16
	Mechanical Ventilation Required per §120.1(c)3[3]					Exh. Vent. per §120.1(c)4		DCV or Occupant Sensor Controls per §120.1(d)3, §120.1(d)5 & §120.2(e)3[4]
Space Name or Item Tag	Occupancy Type[4]	Conditioned Floor Area (ft²)	# of showerheads/ toilets	# of people[4]	Required Min OA CFM	Required Minimum CFM	Provided per Design CFM	
								DCV
								Occ Sensor
								DCV
								Occ Sensor
								DCV
								Occ Sensor

17	Total System Required Min OA CFM		18	Ventilation for this System Complies?	

[1] *FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system.*
[2] *Air filtration requirements apply to the following three system types per §120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*
[3] *Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 6 of 11
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[1] *See Standards Tables 120.1-A and 120.1-B*
[2] *For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.*
[3] *§120.2(e)3 requires systems serving rooms that are required by §130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by §130.1(c).*

K. TERMINAL BOX CONTROLS

This Section Does Not Apply

L. DISTRIBUTION (DUCTWORK AND PIPING)

Table Instructions: Complete the following tables to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(l) for duct leakage testing.

Duct Leakage Sealing

The answers to the questions below apply to the following duct system(s):	CF-1	Duct leakage testing triggered for these systems?	No

11	No	The scope of the project includes only duct systems serving healthcare facilites.	
12	No	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13	Yes	The space conditioning system serves less than 5,000 ft² of conditioned floor area.	
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:	
	☑	Outdoors	
	☑	In a space directly under a roof that has a U-factor greater than the U-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces	
	☑	In an unconditioned crawlspace	
	☑	In other unconditioned spaces	
15	Yes	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16	Yes	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17		Duct system shall be sealed in accordance with the California Mechanical Code.	

M. COOLING TOWERS

This Section Does Not Apply

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 7 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
◉		NRCI-MCH-01-E - Must be submitted for all buildings.	☐	☐

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 8 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

◉	○	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. *Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.*	☐	☐
◉	○	NRCA-MCH-03-A Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".	☐	☐
○	◉	NRCA-MCH-04-A Air Distribution Duct Leakage	☐	☐
○	◉	NRCA-MCH-05-A Air Economizer Controls	☐	☐
○	◉	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.	☐	☐
○	◉	NRCA-MCH-07-A Supply Fan Variable Flow Controls	☐	☐
○	◉	NRCA-MCH-08-A Valve Leakage Test	☐	☐
○	◉	NRCA-MCH-09-A Supply Water Temperature Reset Controls	☐	☐
○	◉	NRCA-MCH-10-A Hydronic System Variable Flow Controls	☐	☐
○	◉	NRCA-MCH-11-A Automatic Demand Shed Controls	☐	☐
○	◉	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	☐	☐
○	◉	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	☐	☐
○	◉	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance *NOTE: This form does not automatically move to "Yes". If Distributed Energy Storage DX AC Systems are included in the scope, permit applicant should move this form to "Yes".*	☐	☐
○	◉	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance *NOTE: This form does not automatically move to "Yes". If Chilled Water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External Melt, Ice Harvester, Brine, Ice-Slurry, Eutectic Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapulated (Ice Ball) Systems are included in the scope, permit applicant should move this form to "Yes".*	☐	☐
◉	○	NRCA-MCH-16-A Supply Air Temperature Reset Controls	☐	☐
○	◉	NRCA-MCH-17-A Condenser Water Temperature Reset Controls	☐	☐
○	◉	NRCA-MCH-18 Energy Management Control Systems	☐	☐
◉	○	NRCA-MCH-19 Occupancy Sensor Controls	☐	☐
○	◉	NRCA-MCH-20 Multi-Family Ventilation	☐	☐
○	◉	NRCA-MCH-21 Multi-Family Envelope Leakage	☐	☐

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: DIAMOND AUTOMOTIVE CAFE | Report Page: Page 9 of 11
Project Address: 55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284 | Date Prepared: AUGUST 15, 2021

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Providers registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
○	◉	NRCV-MCH-04-H Duct Leakage Test *NOTE: Must be completed by a HERS Rater*	☐	☐
○	◉	NRCV-MCH-24 Enclosure Air Leakage Worksheet *NOTE: Must be completed by a HERS Rater*	☐	☐
○	◉	NRCV-MCH-27 High-rise Residential *NOTE: Must be completed by a HERS Rater*	☐	☐
○	◉	NRCV-MCH-32 Local Mechanical Exhaust *NOTE: Must be completed by a HERS Rater*	☐	☐

CONSULTING ENGINEERS
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TEL/ E: 805-371-7460 E-MAIL: RTEMPLAW@VERIZON.NET

CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER — KRISHNA C.V. KUMAR — No. M22176 — Exp. 12/31/21 — MECHANICAL — STATE OF CALIFORNIA

PRINTED DATE: 12-13-2021
DRAWN BY: R.T.E.
CHECKED BY: R.T.E.
PROJECT NO.: EMA-34-21
CLIENT:

CLIENT: **DIAMOND AUTOMOTIVE CAFE**
PROJECT NAME & ADDRESS: 55761 TWENTYNINE PALMS HWY YUCCA VALLEY, CA 92284

APPROVALS

APPROVED BY	INITIALS	DATE
ISSUED FOR PLAN CHK	R.T.E.	DECEMBER 13, 2021

SHEET TITLE
TITLE-24 COMPLIANCE FORMS AND MANDATORY NOTES

SHEET NUMBER
MT-24-1

TITLE-24 COMPLIANCE FORMS, MANDATORY NOTES

SCALE NONE 1

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 12/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	DIAMOND AUTOMOTIVE CAFE	Report Page:	Page 10 of 11
Project Address:	55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284	Date Prepared:	AUGUST 15, 2021

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

Table Instructions: Indicate where mandatory measures are documented in the plan set or construction documentation. For any mandatory measures that do not apply, mark the plan sheet or construction document location as "N/A", any active cells that are left blank will result in non-compliance in Table C.

01	02
	Plan sheet or construction document location
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block:	Yes — M-1

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 12/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-MCH-E
Project Name:	DIAMOND AUTOMOTIVE CAFE	Report Page:	Page 11 of 11
Project Address:	55761 TWENTY NINE PALMS HWY, YUCCA VALLEY, CA 92284	Date Prepared:	AUGUST 15, 2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

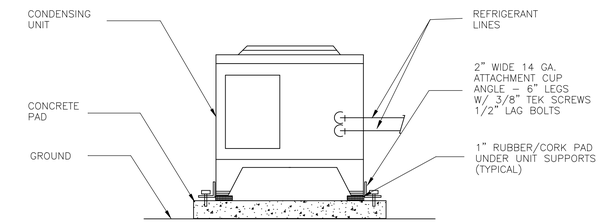
Documentation Author Name:	RASOUL T. EMRANI	Documentation Author Signature:	Rasoul T. Emrani
Company:	EMA CONSULTING ENGINEERS	Signature Date:	DECEMBER 12, 2021
Address:	2277 TOWMSGATE RD., SUITE 216	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	WESTLAKE VILLAGE, CA 91361	Phone:	805-371-7460

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	KRISHNA KUMAR	Responsible Designer Signature:	Krishna C.V. Kumar
Company :	EMACONSULTING ENGINEERS	Date Signed:	DECEMBER 12, 2021
Address:	2277 TOWNSGATE RD., SUITE 216	License:	M-22176
City/State/Zip:	WESTLAKE VILLAGE, CA 91361	Phone:	805-371-7460

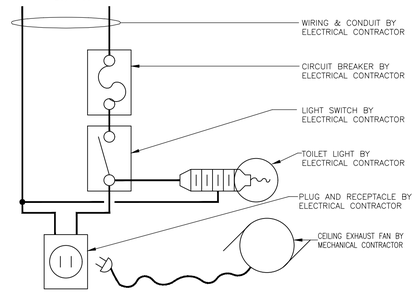
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: http://www.energy.ca.gov/title24/2019standards December 2021

TITLE-24 COMPLIANCE FORMS, MANDATORY NOTES — SCALE NONE — 1

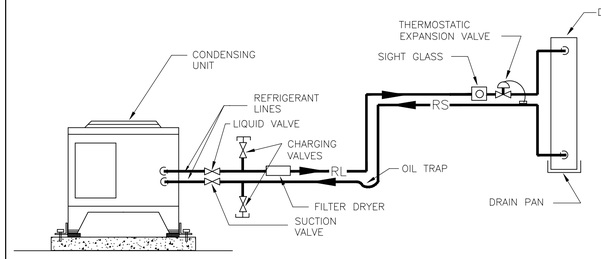


NOTES:
1. PIPE CONDENSING UNIT IN ACCORDANCE W/ UNIT MANUFACTURER INSTRUCTIONS.
2. CONCRETE PAD TO BE MINIMUM 6" WIDER THAN UNIT BASE AT EACH END.

CONDENSING UNIT INSTALLATION DETAIL — SCALE NONE — 3

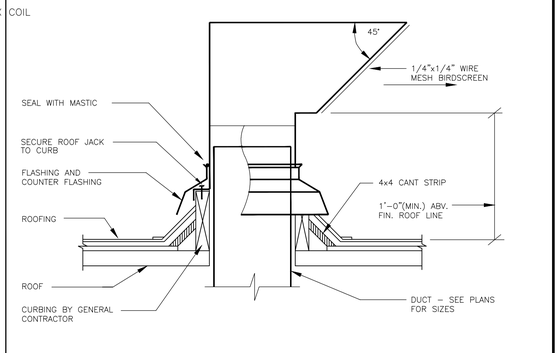


EXAHUST FAN WIRING DIAGRAM — SCALE NONE — 2

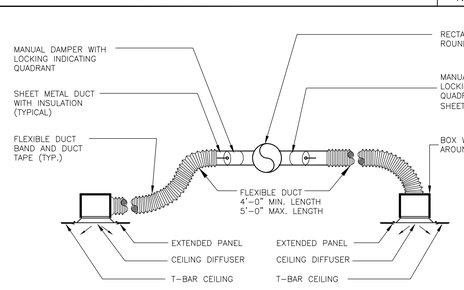


NOTES:
1. PIPING OF CONDENSING UNIT SHALL ALSO BE IN ACCORDANCE WITH UNIT MANUFACTURER INSTRUCTIONS.
2. VALVES AND DEVICES SHOWN MAY BE INTERNAL PART OF CONDENSING UNITS OR FAN COILS AND THEY MAY NOT BE REQUIRED.

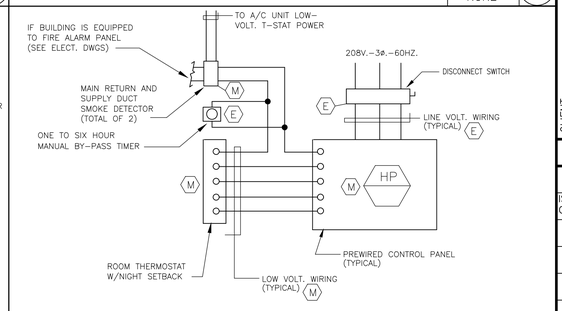
CONDENSING UNIT PIPING DETAIL — SCALE NONE — 5



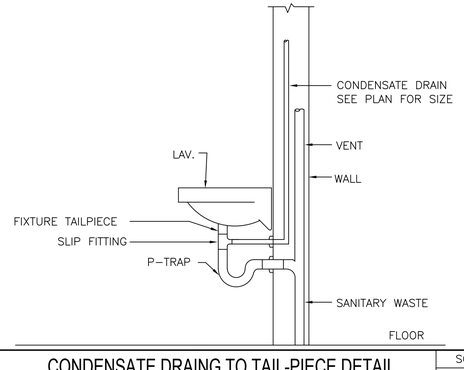
ROOF JACK DETAIL — SCALE NONE — 4



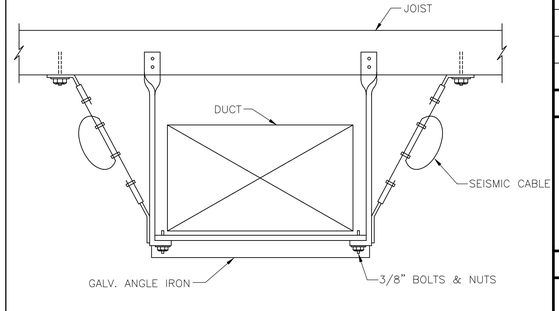
REGISTER AND DUCTWORK INSTALLATION DETAIL — SCALE NONE — 7



PACKAGE UNIT WIRING DIAGRAM — SCALE NONE — 6



CONDENSATE DRAING TO TAIL-PIECE DETAIL — SCALE NONE — 9



DUCT SUPPORT DETAIL — SCALE NONE — 8

CONSULTING ENGINEERS
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CONSULTANTS:

REGISTERED PROFESSIONAL ENGINEER — KRISHNA C.V. KUMAR — No. M22176 — Exp. 12/31/21 — STATE OF CALIFORNIA

PRINTED DATE: 12-13-2021
DRAWN BY: R.T.E.
CHECKED BY: R.T.E.
PROJECT NO.: EMA-34-21

CLIENT:

CLIENT: **DIAMOND AUTOMOTIVE CAFE**

PROJECT NAME & ADDRESS: 55761 TWENTYNINE PALMS HWY YUCCA VALLEY, CA 92284

APPROVALS

APPROVED BY	INITIALS	DATE
ISSUED FOR PLAN CHK	R.T.E.	DECEMBER 13, 2021

SHEET TITLE

TITLE-24 COMPLIANCE FORMS AND MANDATORY NOTES AND DETAILS

SHEET NUMBER

MT-24-1