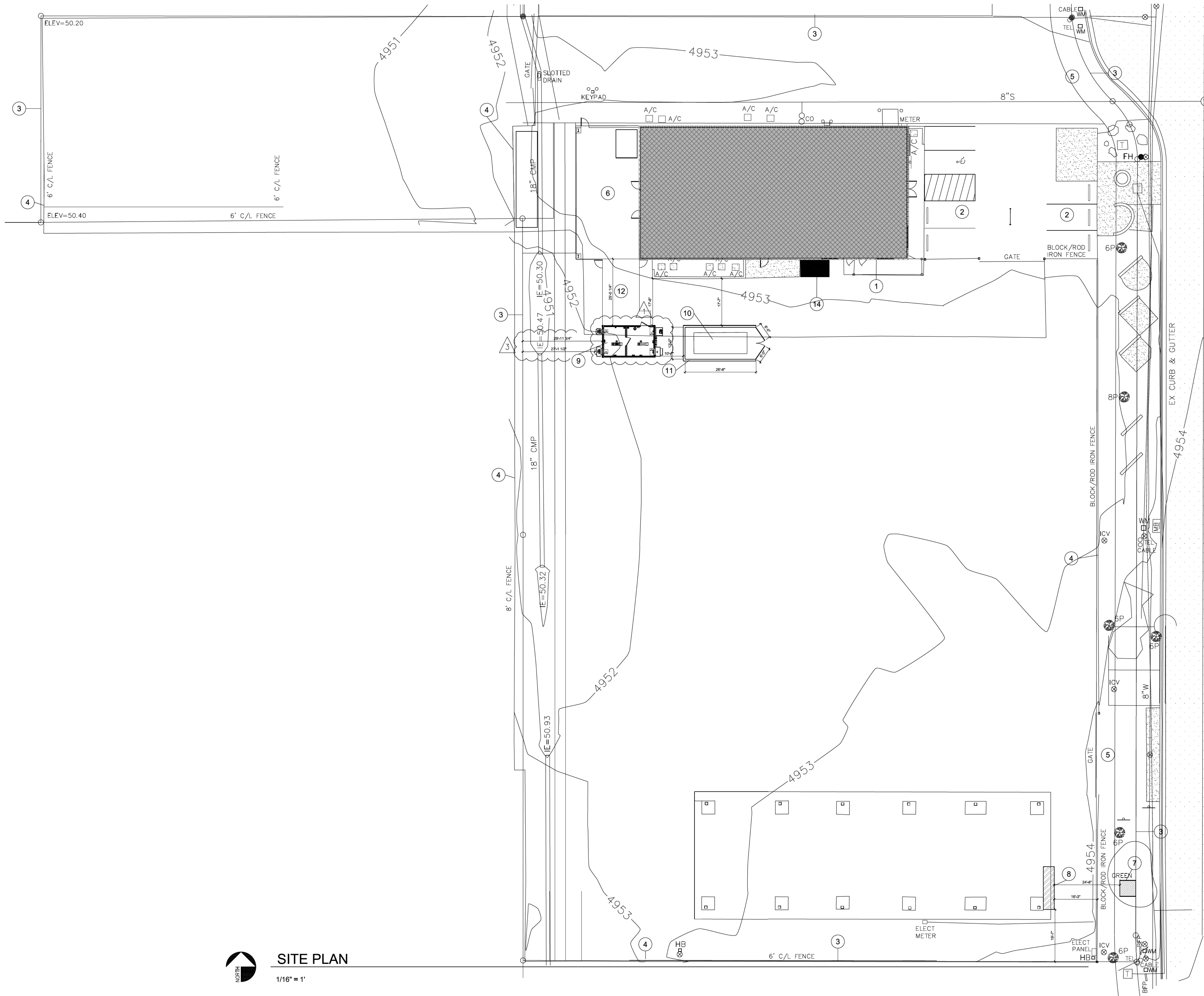
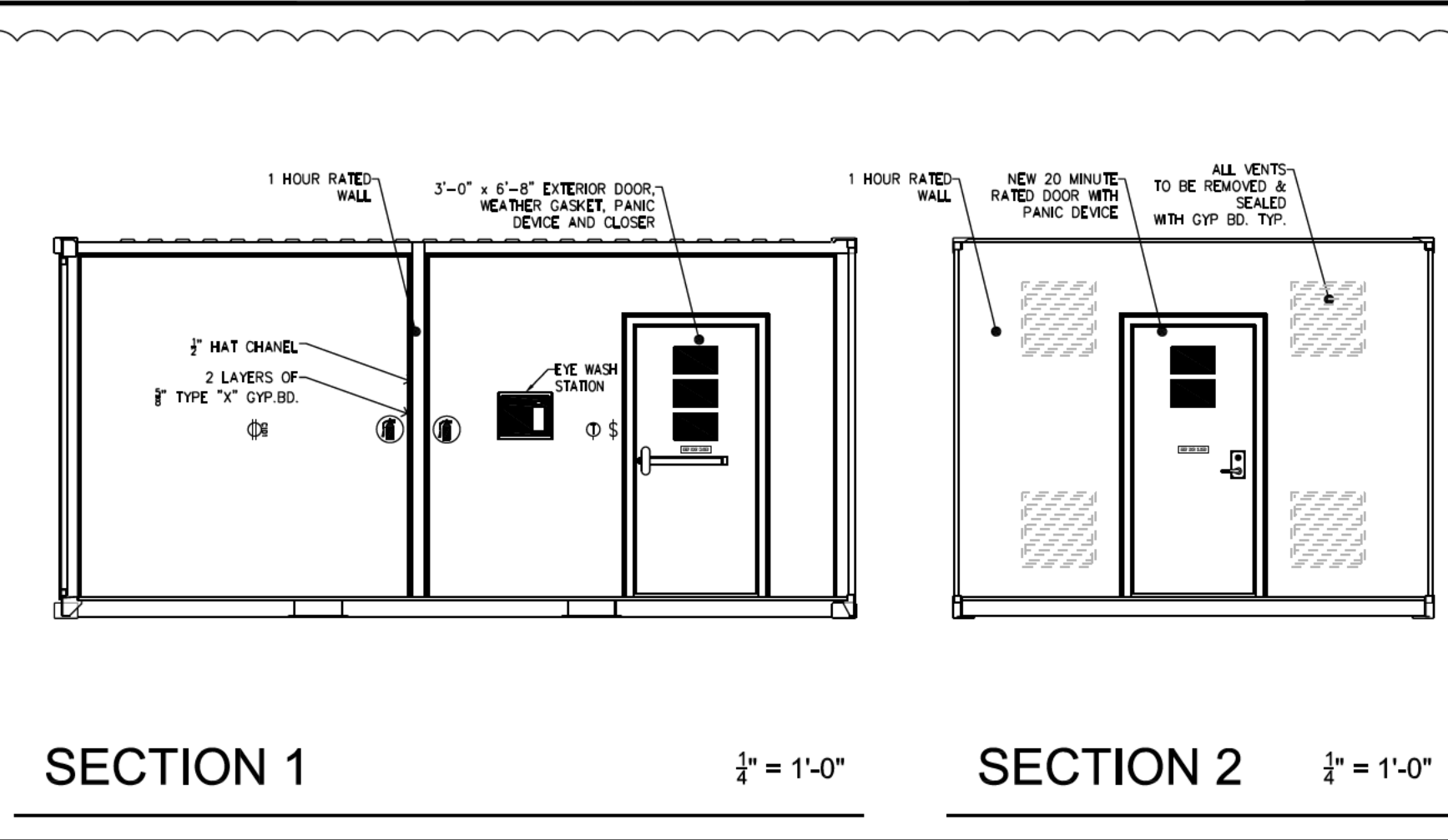
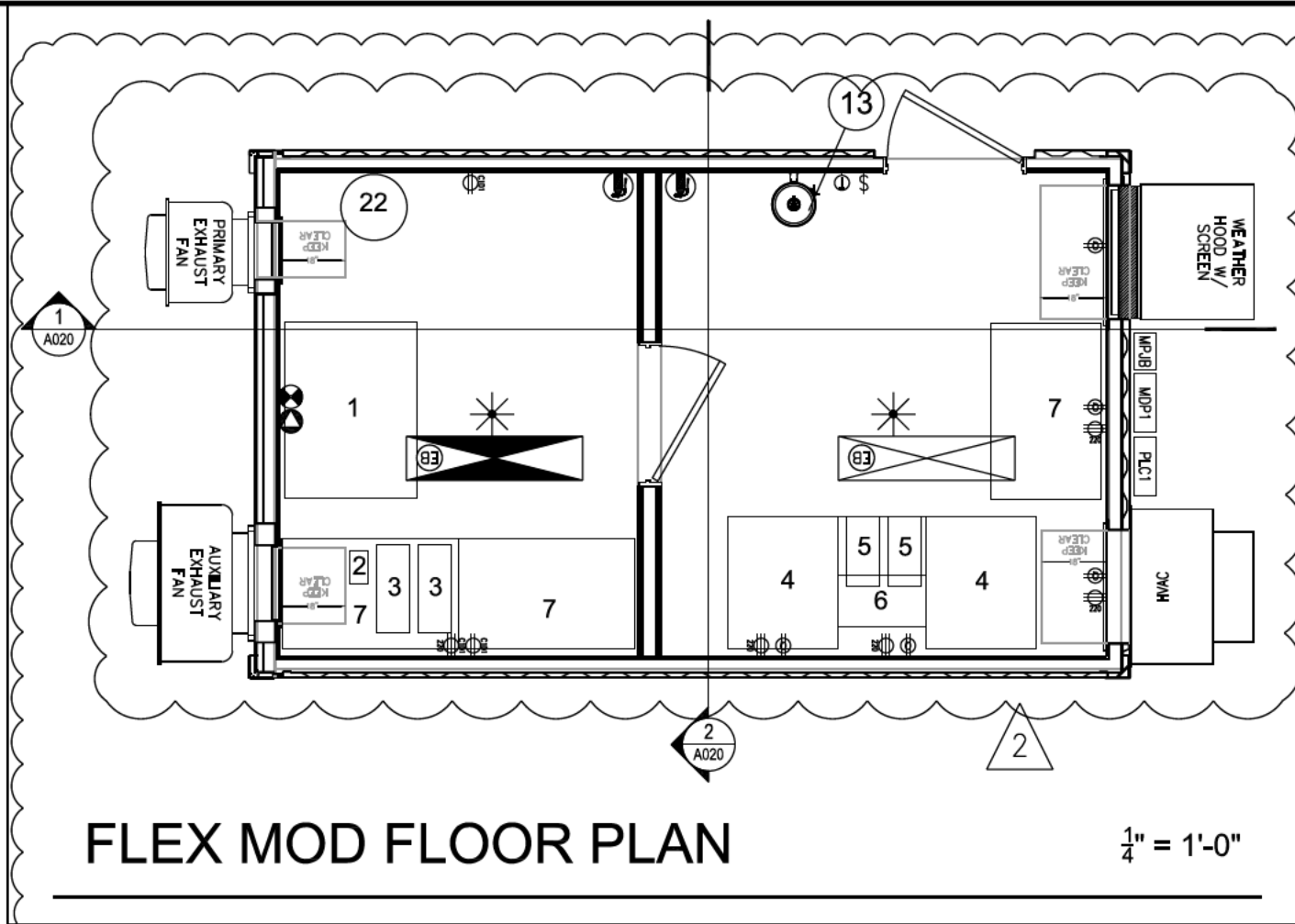


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4

Room Requirements MASTER														
Payson Extraction FlexMod Lab - Phase 1														
Room	Qty	Identifier	Equipment	Lead Times	Manufacturer	Model	Tabletop?	Dimensions (Inches) (DxWxH)	Amps	Wattage	HP	Voltage	Phase	Notes
Flexmod C101	1	1	Best Large 10lb Hydrocarbon Machine (Steel Only)		BirzyBee	10lb Live/w/DeWax		3' x 4' x 7'	NA	NA	NA	NA	NA	
Flexmod C101	1	2	Diaphragm Vac Pump		Weich	2019		8.8" x 5" x 8.8"	2.5A			115V/60Hz		
Flexmod C101	2	3	Chiller -20		Polyscience	S007R-20	Yes	22"x9"x25"	12A			120/240	1	Needs Dedicated Circuit
Flexmod C102	4	4	4 Ovens + 2Racks		Cascade	CDD-5 Benchtop	Yes	34.1"W x 28.1"D x 38.75"H	4x 20A			120/220		https://cascadenvironments.com/shop/vacuum/vacuum-ovens/vacuum-oven-pa-chagers/hvo-5b-double-up/
Flexmod C102	2	5	Aligent IDP-15 Scroll Vac Pump		Aligent	IDP-15	Yes	9" x 19" x 14"	15A		75HP	125V	1	
Flexmod C102	1	6	ThermoFisher RV1400 Cold Trap		ThermoFisher	RV1-400	Yes	24" x 14" x 13"	10A			115V/50/60 Hz	1	
Flexmod C101 & Flexmod C102	3	7	Stainless Steel tables		Uline	Uline Deluxe	No	30" x 48" 16 Gauge	NA	NA	NA	NA	NA	
Flexmod C102	1	8	Walk-In Freezer -20 (20' x 10')		TBD	Neg -20 F	No	20' x 10'	TBD					
Flexmod C101	1	22	Oil Waste Can		Uline	NA	No	18" Diameter	NA					For disposal of post-processed material for disposal. Needs to have backup power.



PROJECT STATISTICS

PROJECT PALO VERDE - TONTO, PAYSON

OWNER PAYSON 200 LLC
4810 E PRESIDIO RD
SCOTTSDALE, AZ 85254

PROJECT DESCRIPTION: CONNECTION OF PREMANUFACTURED FLEXMOD SPACE TO EXISTING GROW BUILDING

APN: 304-56-010B

SECTION TOWNSHIP RANGE: 26 2N 2E

ZONING M-1 LIGHT INDUSTRIAL

OCCUPANCY B, F-1

CONSTRUCTION TYPE V-8

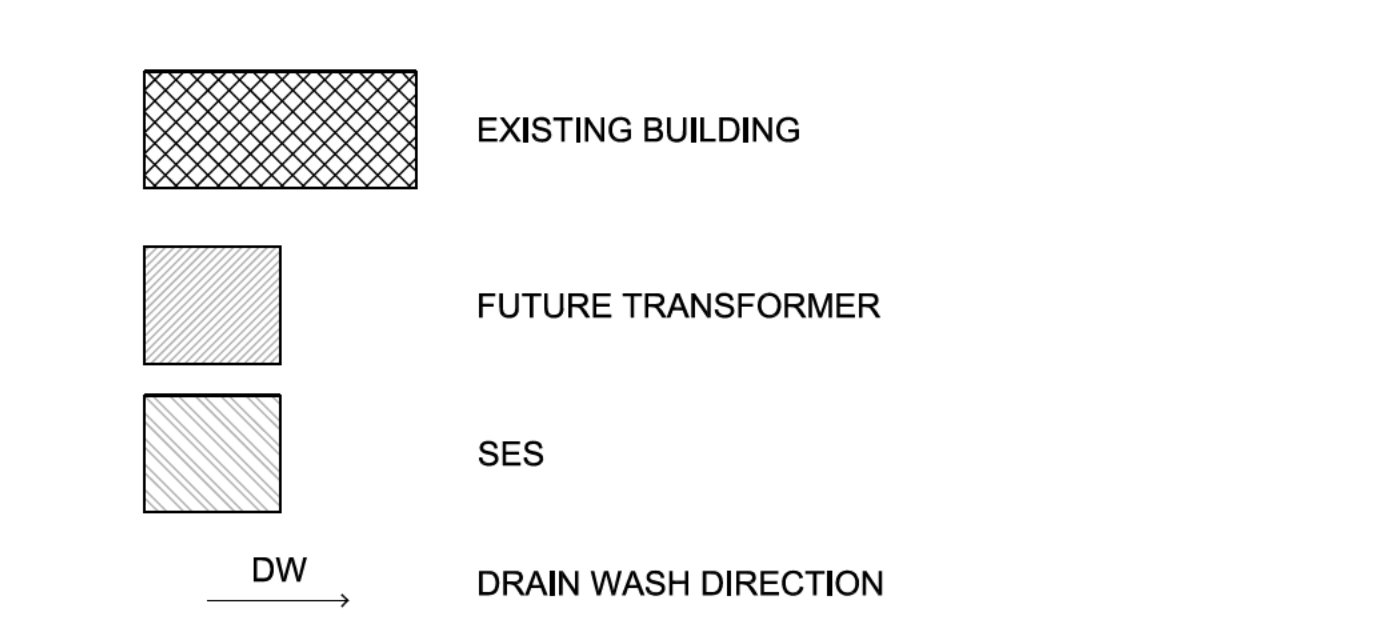
CONSTRUCTION CODES
ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES
AND AMENDMENTS PER THEIR ADOPTING ORDINANCES.

2012 INTERNATIONAL BUILDING CONSTRUCTION CODE
2011 NATIONAL ELECTRICAL CODE
2012 UNIFORM PLUMBING CODE
2012 INTERNATIONAL MECHANICAL CODE
2012 INTERNATIONAL ENERGY CONSERVATION CODE
PAYSON ZONING ORDINANCE
2012 INTERNATIONAL FIRE CODE

KEYNOTES

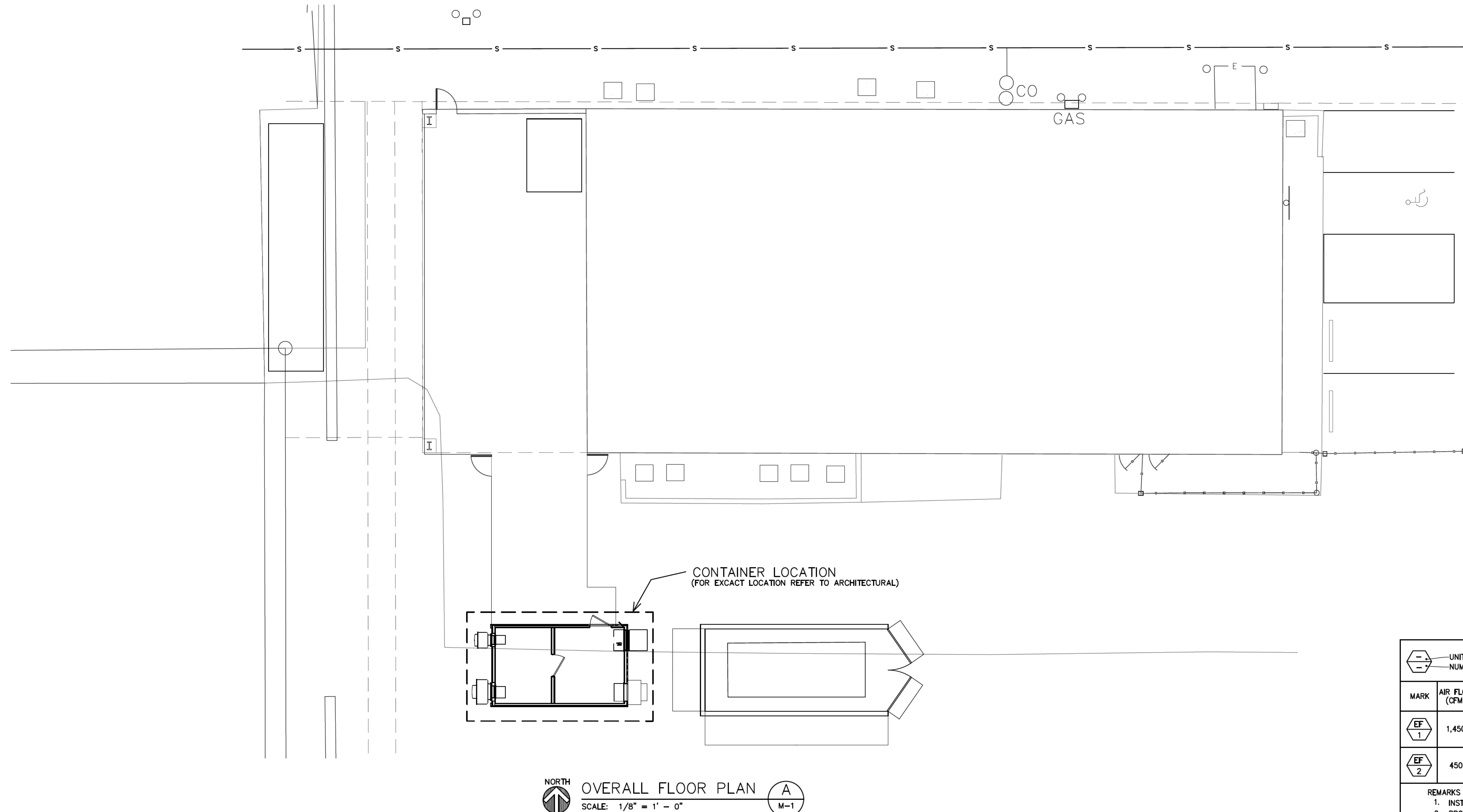
- 1 EXISTING BUILDING
- 2 PARKING LOT
- 3 PROPERTY LIMIT
- 4 METAL FENCE
- 5 ACCESS
- 6 OUTDOOR COVERED AREA
- 7 FUTURE TRANSFORMER LOCATION
- 8 SES
- 9 FLEXMOD CONTAINER UNIT STAGE 1
- 10 MOBILE GENERATOR
- 11 NOISE BUFFERING WALL AROUND MOBILE GENERATOR, SPLIT FACE BLOCK MASONRY AND CORRUGATED METAL GATE, BOTH PAINTED TO MATCH EXISTING BUILDING.
- 12 GATED AND COVERED ACCESS PATH TO FLEX-MOD UNIT.
- 13 PORTABLE EYE-WASH (NO PLUMBING)
- 14 LPG STORAGE AREA
- 15 MAXIMUM ALLOWABLE BUTANE IN BUILDING AT ANY ONE TIME IS 100LB.

LEGEND



SITE PLAN
1/16" = 1'

- 1 SANITATION COMMENTS
05/07/19
- 2 CITY COMMENTS
05/08/19
- 3 CITY COMMENTS
06/18/19
- 4 REVISIONS
07/15/19



KEY NOTES:

1. PRE-FABRICATED AUXILIARY PACKAGED VERTICAL WALL MOUNTED UNIT REMAINS. FOR MODEL REFER TO SCHEDULE ON THIS SHEET.
2. SPLIT SYSTEM (WALL MOUNTED) FCU LOCATION. FOR MODEL REFER TO SCHEDULE ON THIS SHEET. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
3. SPLIT SYSTEM (ON ROOF INSTALLED) CU. FOR MODEL REFER TO SCHEDULE ON THIS SHEET. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
4. EXPLOSION PROOF SPLIT SYSTEM (WALL MOUNTED) FCU LOCATION. FOR MODEL REFER TO SCHEDULE ON THIS SHEET. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
5. EXPLOSION PROOF SPLIT SYSTEM (ON ROOF INSTALLED) CU. FOR MODEL REFER TO SCHEDULE ON THIS SHEET. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
6. EXPLOSION PROOF WALL MOUNTED EXHAUST FAN. FOR MODEL REFER TO SCHEDULE. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. THE FAN SHALL BE IN MODE "ON" CONTINUOUSLY WHEN THE LIGHTING IS ON. THE FAN SHALL BE INSTALLED BOTTOM 12" A.F.F., COORDINATE W/PROCESSING STAFF.
7. EXPLOSION PROOF WALL MOUNTED AUXILIARY EMERGENCY EXHAUST FAN. FOR MODEL REFER TO SCHEDULE. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. THE FAN SHALL BE INSTALLED BOTTOM 12" A.F.F., COORDINATE W/PROCESSING STAFF.
8. 32"x16" BAROMETRIC INTAKE DAMPER LOCATION. INSTALL HEPA 500 FILTER. MANUFACTURER: GREENHECK MODEL: BR-32
9. 16"x16" BAROMETRIC INTAKE DAMPER LOCATION. INSTALL HEPA 500 FILTER. MANUFACTURER: GREENHECK MODEL: BR-32
10. PRE-FABRICATED INTAKE DAMPER WITH WEATHER HOOD. MANUFACTURER: GREENHECK MODEL: VCD-42 REMAINS.
11. ORIGINAL OVEN VENT UP THRU ROOF TO DAY LIGHT.
12. GAS DETECTION UNIT, FOR MORE INFO REFER TO MANUFACTURER'S DOCUMENTS.
13. INTERIOR HORN, FOR MORE INFO REFER TO MANUFACTURER'S DOCUMENTS.



GENERAL NOTES:



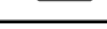

1. COORDINATE EXACT LOCATIONS OF DIFFUSERS AND GRILLES WITH LIGHTING AND ARCHITECTURAL PLANS.
2. INSTALLATION OF A HOOD EXTINGUISHING SYSTEM AND ANY MODIFICATIONS TO THE FIRE ALARM SYSTEM, WILL REQUIRE SEPARATE PERMITS FROM THE PAYSON FIRE DEPARTMENT. (IMC SECTION 509.1).
3. COORDINATE EXACT MOUNTING LOCATION OF T-STATS WITH ARCHITECTURAL PLANS. INSTALL T-STATS AT 48" A.F.F. INSTALL T-STATS PER LATEST ADA REQUIREMENTS.
4. BALANCE SYSTEM AS SHOWN.
5. IMC 2012 USED.

UNIT MARK NUMBER		EXPLOSION PROOF EXHAUST FAN SCHEDULE										REMARKS
MARK	AIR FLOW (CFM)	E.S.P. IN. WC	TYPE	DRIVE	RPM	ELECTRICAL			HP	MANUFACTURER/ MODEL # (OR EQUAL)	OPERATING WEIGHT (LBS)	
						VOLTS	PHASE	AMPS				
EF 1	1,450	0.20	WALL	DIRECT	1625	208	1	3.1	1/3	CANARM SD12-XPF	42	1, 2, 3, 4, 5
EF 2	450	0.20	WALL	DIRECT	1625	208	1	3.3	1/3	CANARM SD10-XPF	39	1, 2, 3, 5

REMARKS:

1. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE W/INTEGRAL GRILLE, BACKDRAFT DAMPER, BIRDSCREEN, AND FAN SPEED CONTROL.
3. PROVIDE SEPARATE SWITCH FOR FAN CONTROL.
4. AUXILIARY EXHAUST EMERGENCY FAN FOR VENTING.
5. EXPLOSION PROOF EXHAUST FAN.

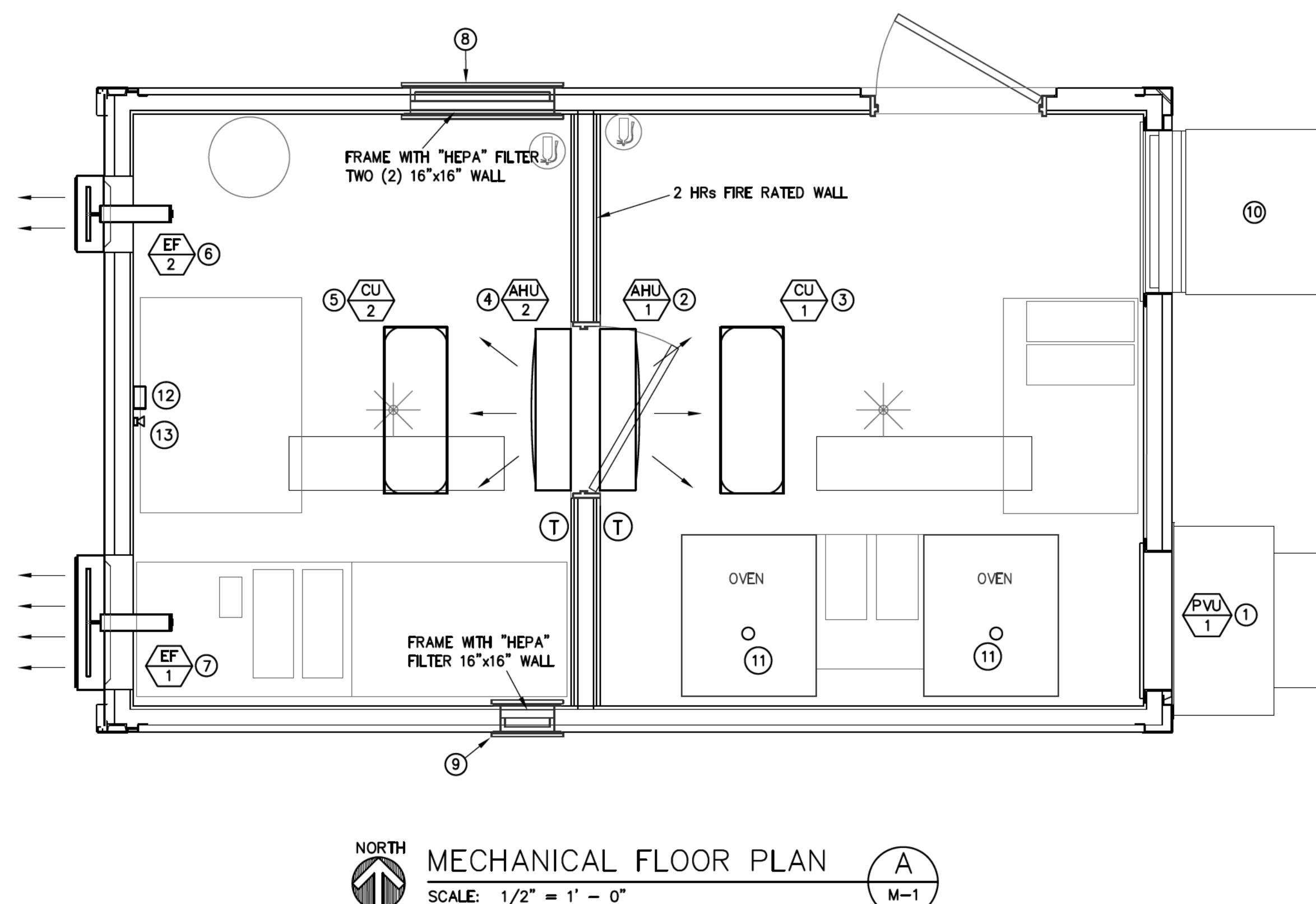
 UNIT MARK NUMBER		PACKAGE VERTICAL UNIT HEAT PUMP SCHEDULE														
MARK	TOTAL CFM	FAN RPM	OUTSIDE AIR	E.S.P. H ₂ O	EER/COP	ELECTRICAL			TEMPERATURES		COOLING		MANUFACTURER/ MODEL NUMBER OR EQUAL	OPER. WEIGHT	REMARKS	
						VOLTAGE	PHASE	MCA	DB/WB (°F)	TOTAL CAPACITY MBH	SENSIBLE CAPACITY MBH					
 1	1,650	—	—	0.2	10.7/3.2	208	3	58	73.3/63.2	57.5	41.4	BARO T60H1-B15	575	1, 2, 3, 4,		
NOTES																
1. PROVIDE ROOF CURB BY UNIT MANUFACTURER.																
2. PROVIDE UNIT WITH BIRDSCREEN AND BACKDRAFT DAMPER ON O/A INTAKE.																
3. PROVIDE UNIT WITH 2" THROW-AWAY FILTERS.																
4. PROVIDE AND INSTALL PROGRAMMABLE THERMOSTAT W/ LOCKING COVER, LOCATION INDICATED ON PLANS. PROVIDE ALL CONTROL WIRING, CONDUIT, TRANSFORMERS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.																
5. PROVIDE MECHANICAL EQUIPMENT RESTRAINT AS REQUIRED BY LOCAL CODE.																
NOTE: OUTSIDE AMBIENT TEMP. 95/60 °F																

UNIT MARK NUMBER		DUCTLESS SPLIT SYSTEM SCHEDULE										REMARKS
INDOOR UNIT					OUTDOOR UNIT							
MARK	AIR FLOW (CFM)	ELECTRICAL VOLTAGE/PH/MCA	OPER. WEIGHT (LBS)	MANUFACTURER/ MODEL NUMBER OR EQUAL	MARK	COOLING CAPACITY AT STANDARD TEMP (BTU/H)	ELECTRICAL VOLTAGE/PH/MCA	OPER. WEIGHT (LBS)	EFFICIENCY SEER/HSFP	MANUFACTURER/ MODEL NUMBER OR EQUAL		
 FCU 1	705 (MEDIUM)	208/1/0.4	40	LG LSN243HLV	 CU 1	22,000	208/1/19.0	125	21.5/11.0	LG LSU243HLV	1, 2, 3	
 FCU 2	750	208/1/0.7	116	SAFE-AIR TECHNOLOGY AH-HW-D-24000-N-2-ICD1	 FCU 2	24,000	208/1/16.0	246	--	SAFE-AIR TECHNOLOGY CU-MS-H-D-24000-2-1CD1	1, 2, 3,	
NOTES 1. PROVIDE ALL REQUIRED MATERIALS & REFRIGERANT LINES FOR A COMPLETE INSTALLATION 2. INSTALL UNITS AS RECOMMENDED BY MANUFACTURER. 3. REFRIGERANT ____ R410A. 4. EXPLOSION PROOF DUCTLESS SPLIT SYSTEM (FCU & CU).												

SEQUENCE OF OPERATIONS:

EXTRACTION FAN ROOM:
THE FAN SHALL POWER ON BASED ON WALL SWITCH POSITION. ADDITIONALLY, WHEN FLAMMABLE GAS SENSOR SENSES 25% OF THE LOWER FLAMMABILITY LIMIT (8000 PPM ETHANOL) OR HIGHER, THE FAN AND GRAVITY DAMPER SHALL POWER ON. THE FLAMMABLE GAS ALARM SHALL REQUIRE MANUAL RESET.

FLAMMABLE GAS ALARMS:
FLAMMABLE GAS ALARMS SHALL ACTIVATE AN AUDIOVISUAL ALARM IN THE SPACE AT 25% OF THE LOWER FLAMMABILITY LIMIT (8000 PPM) OR HIGHER. IN THE ROOM 25% LFL LEVEL WILL ACTIVATE THE SHUNT TRIP BREAKER REMOVING POWER FROM THE OUTLETS, HVAC EQUIPMENT AND LIGHTS IN THE ALARMED SPACE AND SHALL ACTIVATE THE VENTILATION FAN IN THE ROOM. THE POWER, FAN AND ALARM SHALL REQUIRE A MANUAL RESET.



ROOM EMERGENCY AIR-CHANGE TIME PERIOD	
V = VOLUME (CF)	
EXHAUST FAN CAPACITY (CFM)	
ACH = ROOM AIR CHANGE	
ACH = CFM x 60 MIN/V	
EXTRACTION ROOM VOLUME = 810 CF (90sf x 9h)	
THE GAS DETECTION SYSTEM SHALL BE DESIGNED TO ACTIVATE WHEN THE LEVEL OF FLAMMABLE GAS EXCEEDS 25 PERCENT OF THE LOWER FLAMMABLE LIMIT (LFL).	
EXHAUST FAN CAPACITY = 1,450 CFM @ 0.20 STATIC	
ACH = 107.4 (ONE ROOM AIR CHANGE OCCUR IN 0.6 MIN PERIOD OF TIME)	

EXHAUST SYSTEM OPERATION	
* SYSTEM DESIGN THE FLAMMABLE GAS DETECTION SYSTEM SHALL BE LISTED OR APPROVED AND SHALL BE CALIBRATED TO THE TYPES OF FUELS OR GASES USED FOR THE EXTRACTION PROCESS. THE GAS DETECTION SYSTEM SHALL BE DESIGNED TO ACTIVATE WHEN THE LEVEL OF FLAMMABLE GAS EXCEEDS 25 PERCENT OF THE LOWER FLAMMABLE LIMIT (LFL).	
* TRANSMITTER FOR FLAMMABLE GAS AND VAPOR SHALL BE INTERLOCKED WITH FCU-2 UNIT AND EMERGENCY EXPLOSION PROOF WALL MOUNTED EXHAUST FAN (EF-1).	
* AFTER HAZARDOUS GAS DETECTION, GAS DETECTOR SHALL SHUT DOWN FCU-2 AND START ROOM VENTING BY EMERGENCY EXPLOSION PROOF WALL MOUNTED EXHAUST FAN (EF-1).	
* DURING EMERGENCY ROOM VENTING, FCU-2 UNIT SHALL BE IN MODE "OFF", AND EXHAUST FAN WILL DISCHARGE 9100 CFM OF AIR TO OUTSIDE AND THE SAME (MAKE-UP) AIR AMOUNT SHALL BE RECOVERED BY WALL MOUNTED BAROMETRIC INTAKE DAMPER.	
* AFTER HAZARDOUS GAS DETECTION, EMERGENCY EXPLOSION PROOF WALL MOUNTED EXHAUST FAN SHALL BE IN MODE "ON" FOR MINIMUM 3.0 MINUTES (FIVE ROOM AIR CHANGES).	
* EXPLOSION PROOF EXHAUST FAN (EF-2) SHALL WORK CONTINUOUSLY WHEN THE LIGHTING IS "ON".	

FM1

ROOM EXTERIOR FLEX MOD				VOLTS 208Y/120V 3P 4W				AIC 10,000							
MOUNTING SURFACE				BUS AMPS 400				MAIN BKR 300							
FED FROM TFM				NEUTRAL 100%				LUGS STANDARD							
NOTE NEMA-3R															
CKT #	CKT BKR	CIRCUIT DESCRIPTION			KVA LOAD			CKT #	CKT BKR	CIRCUIT DESCRIPTION			KVA LOAD		
		A	B	C						A	B	C			
1	60/3	PVU-1			5.57			2	-/1	SPACE			0		
3					5.57			4	-/1	SPACE			0	0	
5					5.57			6	-/1	SPACE			0		0
7	-/1	SPACE			0			8	-/1	SPACE			0		
9	-/1	SPACE			0	0		10	20/2	EF-1			0.322		
11	-/1	SPACE			0		0	12							0.322
13	-/1	SPACE			0			14	20/2	EF-2			0.343		
15	20/1	EM. BALLAST/ LIGHTING			0.1			16					0.343		
17	20/1	E4 - OVEN			1.68			18	-/1	SPACE			0		0
19	20/1	E4 - OVEN			1.68			20	-/1	SPACE			0		
21	20/1	E4 - OVEN			1.68			22	-/1	SPACE			0		
23	20/1	E4 - OVEN			1.68	1.68		24	20/1	E5 - ALIGENT VAC PUMP					1.8
25	20/2	E3 - CHILLER-20			1.25	1.25		26	20/1	E6 - THERMOFISHER COLD TRAP			1.2		
27					1.25		1.25	28	20/1	E5 - ALIGENT VAC PUMP			1.8		
29	20/2	E3 - CHILLER-20			1.25			30	-/1	SPACE			0		
31					1.25			32	20/1	RECEPTACLE			0.36		
33	30/2	CU-1			1.66			34	20/1	C1D1 RECEPTACLE			0.18		
35					1.66			36	30/2	CU-2			1.46		1.46
37	20/2	FCU-1			0.042			38					0.073		
39					0.042			40	20/2	FCU-2			0.073		
41	20/1	E2 - DIAPHRAM VAC PUMP			0.3			42					0.073		
								TOTAL CONNECTED KVA BY PHASE					13.1	13	15.8
								TOTAL CONNECTED AMPS BY PHASE					110	108	132