

Project Name: Crave Frozen Yogurt	
Date: 02/07/2013	
Unit : GOODMAN 4 TON HEAT PUMP	
Unit Total Supply Air: 1900 CFM	* Note: Second unit used for Yogurt machine cooling. Not included in OA Calculations

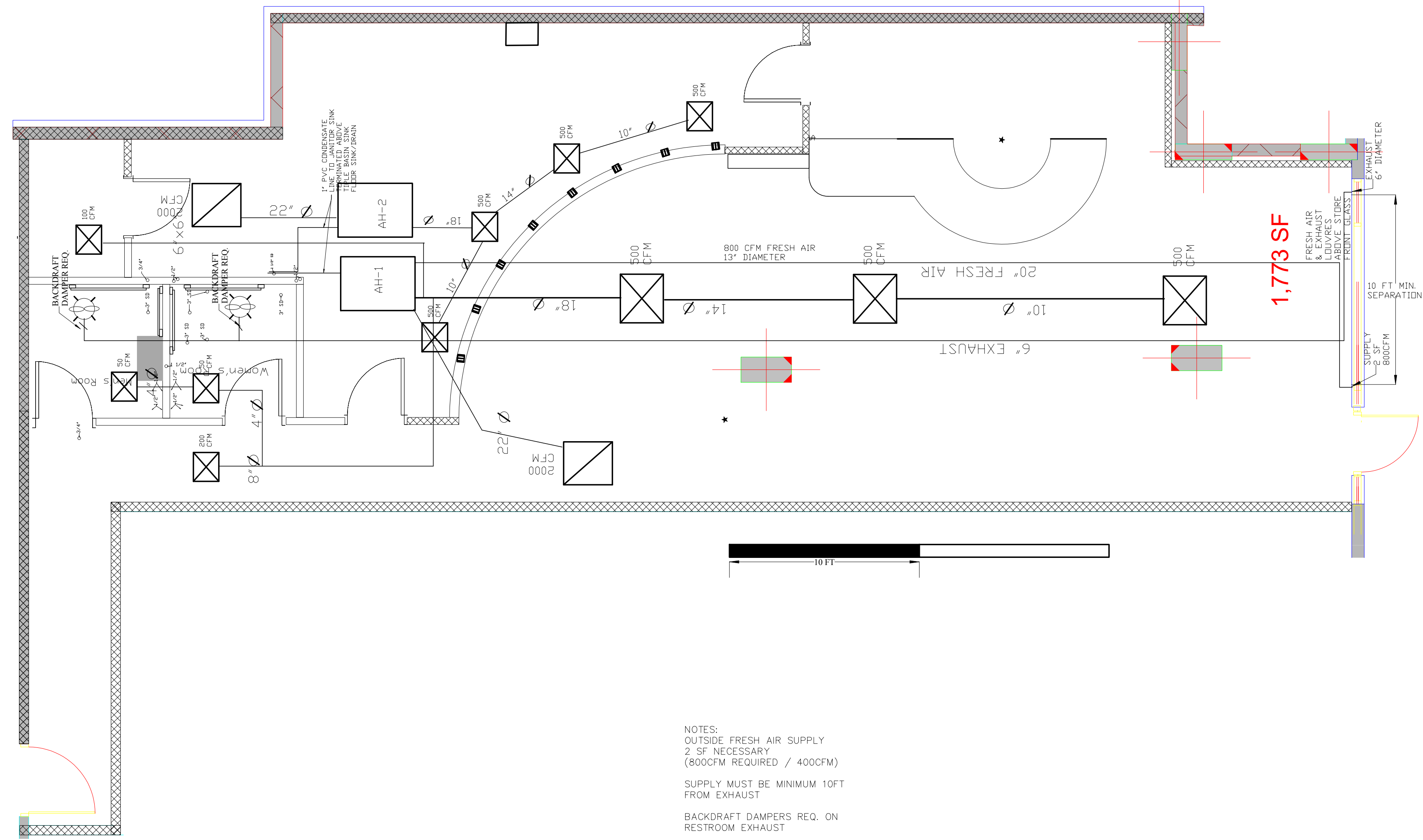
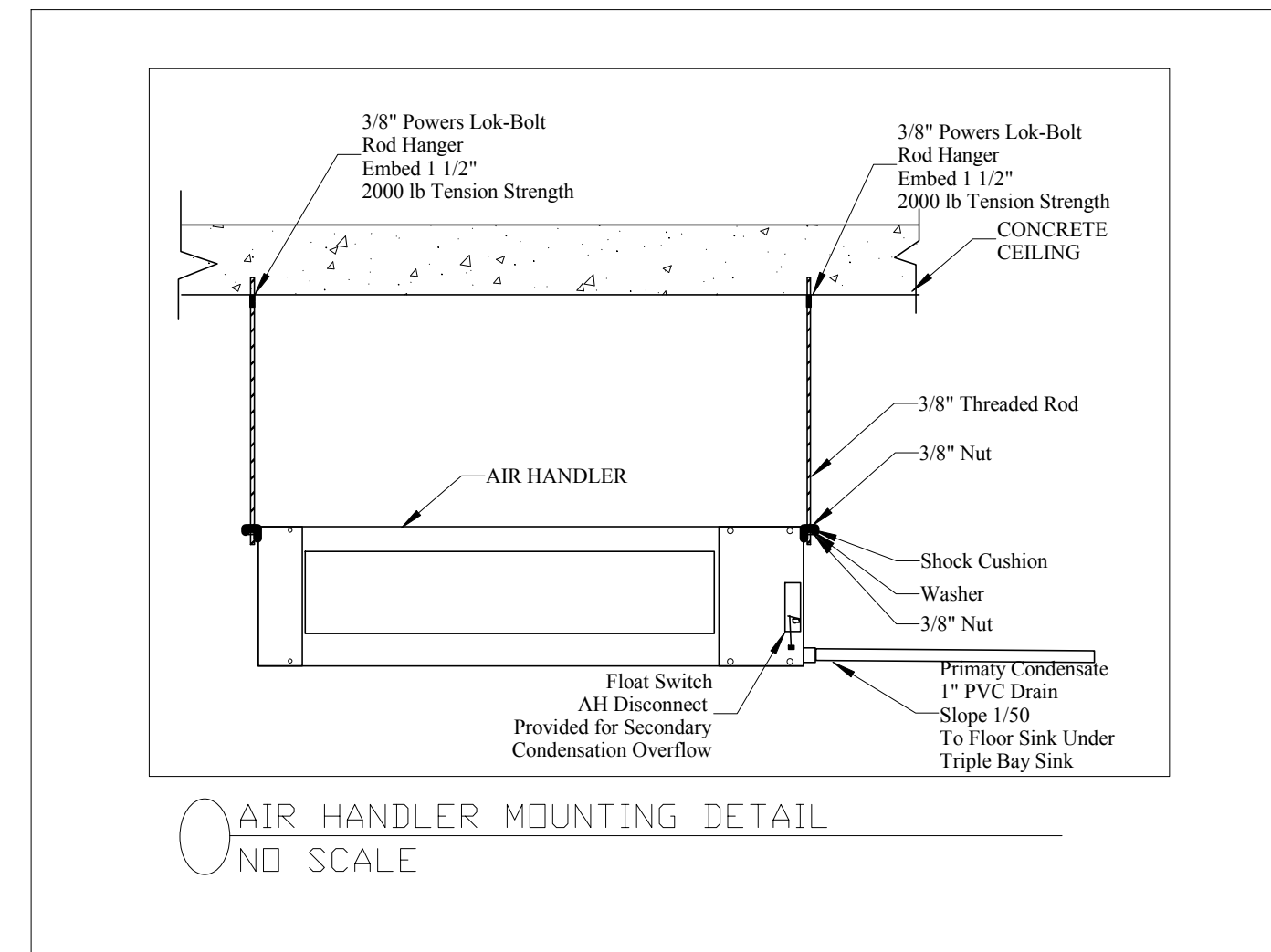
A	B	C	D	E	F	G	H	I	J	K	L	M
Room Number	Description	Area (ft²) (Az)	Area Outdoor Air Rate per VMC Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Occupant Load Rate per VMC Table 403.3 (People/1000 ft²)	Occupancy C x F/1000 Pz	Occupant Outdoor Air Rate per VMC Table 403.3 (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz=RpPz+RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz=Vbz/Ez)	Supply Air Design (Vpz)
	Dining Room	712	0.18	128	70	50	7.5	373.8	502.0	0.8	627.5	1500
	Kitchen	212	0	0	0	0	0	0.0	0.0	0.8	0.0	0
	Office	80	0.06	5	5	0	5	2.0	6.8	0.8	8.5	100
	Toilet	50	0	0	0	0	0	0.0	0.0	0.8	0.0	50
	Toilet	50	0	0	0	0	0	0.0	0.0	0.8	0.0	50
	Corridors	668	0.06	40	0	0	0	0.0	40.1	0.8	50.1	200
Totals		1772		173			50	375.8	548.8		686.1	1900

Do not utilize Occupant Diversity without specific approval from the Authority Having Jurisdiction	Occupant Diversity $D=Pz/(\text{Sum All Zones } Pz)$	Uncorrected O.A. $V_{oz}=D*(\text{Sum all zones } RpPz+\text{Sum all zones } RzAz)$	Total Outdoor Air Required	Percentage of Outdoor Air
	1.000	548.8	784	41%

System Population (Ps) Diversity	Method
95	IMC Chart

HVAC EQUIPMENT SCHEDULE						
UNIT	BRAND	MODEL	TONS	VOLTAGE	MCA	MCB
HP-1	GOODMAN	G-GSZ130481	4	208	19.9	45
HP-2	GOODMAN	G-GSZ130601	5	208	26.4	60
AH-1	GOODMAN	G-ARUF48014	4	208	5.9	15
AH-2	GOODMAN	G-AVPTC426014	5	208	5.9	15

HEAT PUMPS TO BE LOCATED IN G1 LEVEL DIRECTLY BELOW TENANT SPACE



NOTES:
 OUTSIDE FRESH AIR SUPPLY
 2 SF NECESSARY (800CFM REQUIRED / 400CFM)
 SUPPLY MUST BE MINIMUM 10FT FROM EXHAUST
 BACKDRAFT DAMPERS REQ. ON RESTROOM EXHAUST
 RESTROOM EXHAUST FANS TO BE ON IN CONJUNCTION WITH LIGHT SWITCH

ADDENDUMS/REVISIONS

- 2-B-13 RDN ADDED MOUNTING DETAIL FOR AH'S
- PROVIDE CONDENSATION DRAINS FOR AH'S
- MOVED EXHAUST LOCATION FOR RESTROOM EXHAUST
- FRESH AIR CALCULATION RUN WITH SINGLE UNIT
- SUPPLY MOVED FROM CORRIDOR

Crave Frozen Yogurt
 STRAFFORD H. CASSELL
 37 Tyler View
 Bumpass, VA 23024
 804-270-9500
 CLASS A Contract
 Lic # 2.705.129556A



PROPOSED FLOORPLAN
 SELF SERVICE FROZEN YOGURT
 2750-C Gallows Road
 Vienna, VA

STATUS	
DATE	02/10/2013
SHEET NO	M 1

CRAVE FLOORPLAN V1

Building Code Analysis	
Analysis Items:	Code Section Reference
1. Applicable Codes	USBC 2009, IBC 2009, IMC 2009 IPC 2009, NEC 2008, IFGC 2009, IFC 2009, IECC 2009, ICC ANSI A117.1
2. Occupancy Classification	B
3. Type of Construction	1A - Fire Resistant Non-combustible
4. Fire Sprinklers	YES
5. Fire Alarm	NO
6. Height Allowable	NA
7. Stories Allowable	NA
8. Area Allowable	NA
9. Occupant Load	49
10. Number of Exits Required	1 Required 2 Provided
11. Fire Resistance Rating Requirements for Building Elements (specify areas receiving spray applied fire protection)	TYPE 1A 3 Hr. Exterior Walls 3 Hr. Structural Frame 2 Hr. Floor/Ceiling Assembly 1 1/2 Hr. Roof Protection
12. Protection of Openings Due to Location on Property and Maximum Area of Exterior Wall Openings	NA
13. Spaces Requiring Fire-Resistance-Rated Separation (Specify spaces requiring separation and hourly rating):	NA
14. Non-separated or Separated Uses with Required Calculations: NA	NA
15. Roof Covering Material Class: NA	NA
16. Required Plumbing Fixtures	Lavatories Required: 1F 1M Lavatories Provided: 1F 1M Water Closets Required: 1F 1M Water Closets Provided: 1F 1M Service Sink Provided: 1