

## HVAC GENERAL NOTES

- GENERAL:**
- ALL MECHANICAL EQUIPMENT AND INSTALLATIONS SHALL CONFORM WITH THE REQUIREMENTS OF THE 2009 INTERNATIONAL MECHANICAL CODE, THE 2009 INTERNATIONAL BUILDING CODE, 2009 INTERNATIONAL ENERGY CONSERVATION CODE, APPLICABLE ASHRAE AND SMACNA STANDARDS, STATE AMENDMENTS, NFPA 90A, 101, UNDERWRITERS LABORATORIES (OR ETC) AND ALL APPLICABLE LOCAL CODES, AMENDMENTS, AND ORDINANCES.
  - PRIOR TO PURCHASING ANY MATERIALS OR STARTING ANY WORK, CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, DUCTWORK SIZES AND LOCATIONS, EQUIPMENT, ETC. SHOWN ON THE DRAWINGS OR AFFECTING THIS WORK AND SHALL REPORT ANY DEVIATIONS TO THE ARCHITECT.
  - SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER/ARCHITECT PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY MECHANICAL EQUIPMENT. SHOP DRAWINGS SHALL INCLUDE: ALL EQUIPMENT SCHEDULED OR SPECIFIED ON THE DRAWINGS; DUCTWORK DRAWN TO 1/4" SCALE OR THE SCALE SHOWN ON THE DRAWINGS; REFRIGERANT PIPING AND CONTROL WIRING SCHEMATICS CERTIFIED BY THE AIR CONDITIONING EQUIPMENT MANUFACTURER.
  - ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER.
  - ALL HVAC COMPRESSORS SHALL HAVE EXTENDED 5-YEAR MANUFACTURER'S WARRANTY.
  - FOR EXACT LOCATION OF OUTDOOR AIR CONDITIONING UNITS SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
  - PORTIONS OF DUCTWORK AND PIPE INSULATION VISIBLE THROUGH AIR DISTRIBUTION DEVICES IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
  - MOUNT THERMOSTATS AND SENSORS 4'-0" AFF UNLESS NOTED OTHERWISE. COORDINATE THERMOSTAT LOCATIONS WITH OTHER TRADES. LOCATE HUMIDISTAT AND CO2 SENSOR ADJACENT TO SYSTEM THERMOSTAT WHERE APPLICABLE.
  - ANY EXISTING WALL, FLOOR, OR CEILING SURFACE THAT IS DISTURBED DURING THE COURSE OF THE HVAC WORK SHALL BE REPAIRED TO MATCH NEW AND/OR EXISTING CONDITIONS.
  - AFTER CONSTRUCTION, THE ENTIRE HVAC SYSTEM SHALL BE TESTED, ADJUSTED, AND BALANCED TO DELIVER THE AIR QUANTITIES SHOWN ON THE DRAWINGS. SUBMIT CERTIFIED (MBC OR NEBB) TEST AND BALANCE REPORT TO THE ARCHITECT FOR APPROVAL. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
  - CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECT.
  - AIR HANDLING AND FAN COIL UNITS LOCATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE INSTALLED WITH AN AUXILIARY CONDENSATE DRAIN PAN UNDER THE UNIT. PROVIDE AN ELECTRIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION IN SECONDARY DRAIN PAN.
  - ALL PIPE AND DUCT PENETRATIONS OF FIRE AND/OR SMOKE-RATED ASSEMBLIES SHALL BE FIRE-STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE AS MANUFACTURED BY TREMO, HILT, 3M OR APPROVED EQUAL.
  - PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILING AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEMS. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS OR NECESSARY TO ACCESS DAMPERS, VALVES, ETC. COORDINATE EXACT LOCATION OR ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.
  - ALL MECHANICAL EQUIPMENT SHALL BE LABELED WITH A SEMI-RIGID PLASTIC LAMINATE NAMEPLATE WITH 2" HIGH WHITE LETTERS ON A BLACK BACKGROUND SECURELY AFFIXED TO THE EQUIPMENT. THE NAMEPLATE SHALL SHOW THE EQUIPMENT TAG USED ON THESE DRAWINGS.
  - PROTECT ALL DUCT AND EQUIPMENT OPENINGS DURING CONSTRUCTION WITH PLASTIC. ALL RETURN AIR OPENINGS SHALL BE PROVIDED WITH MERV-8 TEMPORARY FILTRATION IF SYSTEMS ARE OPERATED DURING CONSTRUCTION.
  - LABEL ALL WAREHOUSE ROOFTOP EQUIPMENT ON THE UNDERSIDE OF THE ROOF DECK WITH DESIGNATION TO MATCH CONSTRUCTION DOCUMENTS. LABELS TO BE MINIMUM 12-INCH HIGH LETTERS/DIGITS TO BE VISIBLE FROM GROUND LEVEL.
- MECHANICAL/ELECTRICAL COORDINATION:**
- CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. SHOP DRAWING SUBMITTALS SHALL CLEARLY STATE THAT THE ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT HAS BEEN COORDINATED WITH THE ELECTRICAL CONTRACT DOCUMENTS AND THE ELECTRICAL CONTRACTOR.
  - ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND THE ELECTRICAL DRAWINGS.
  - ALL REQUIRED CONTROL WIRING (INCLUDING POWER WIRING REQUIRED FOR CONTROL PANELS, DEVICES, ETC.) NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. WIRING IN HVAC PLENUM SPACES SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.
  - UNLESS NOTED OTHERWISE, TRANSFORMERS, CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED WITH THE EQUIPMENT IT SERVES AND INSTALLED BY THE MECHANICAL CONTRACTOR. MOTOR STARTERS FOR HVAC EQUIPMENT SHALL BE FURNISHED WITH THE MOTOR OR APPARATUS WHICH IT OPERATES. MOTOR STARTER INSTALLATION SHALL BE BY THE DIVISION 16 CONTRACTOR.
- ARISIDE:**
- ALL FANS SUPPLYING MORE THAN 2000 CFM OF AIR TO ANY SPACE AND ALL RECIRCULATING FAN SYSTEMS SERVING AREAS OF EGRESS SHALL BE INSTALLED WITH A SMOKE DETECTOR IN THE SUPPLY DUCTWORK. DUCT SMOKE DETECTORS SHALL BE INSTALLED IN THE RETURN AIR PATH OF AIR DISTRIBUTION SYSTEMS UTILIZING A COMMON SUPPLY AND/OR RETURN AIR PLENUM WITH A COMBINED DESIGN CAPACITY GREATER THAN 2000 CFM. THE SMOKE DETECTOR SHALL BE WIRED TO STOP THE FAN UPON DETECTION OF SMOKE, AND SIGNAL THE BUILDING FIRE ALARM CONTROL PANEL. THE SMOKE DETECTOR SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR, MOUNTED IN THE DUCT BY THE MECHANICAL CONTRACTOR, AND WIRED BY THE ELECTRICAL CONTRACTOR.
  - SUPPLY, RETURN AND O.A. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL AS RECOMMENDED IN SMACNA DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL JOINTS AND SEAMS IN ALL SHEET METAL DUCTWORK SHALL BE SEALED WITH DUCT SEALER MEETING SCAQMD RULE 1168 - CARLISLE HARDCAST DUCT-SEAL 321 OR EQUAL.
  - SHEET METAL SUPPLY, RETURN, & O.A. DUCTWORK IN NON-AIR CONDITIONED AREAS SHALL BE INSULATED WITH 3" THICK, 0.75 LB/FT<sup>3</sup> DENSITY FIBERGLASS BLANKET INSULATION WITH FOL VAPOR BARRIER, U.L. LISTED, R=10.2. PUNCTURES AND TEARS IN THE FOL JACKET SHALL BE PATCHED WITH FOL TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER.
  - EXTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL WITH ALL SEAMS CAULKED AND SEALED WEATHERTIGHT. THE DUCT SHALL THEN BE LINED WITH 2" THICK DUCT LINER BOARD (MINIMUM R-6). COAT THE EXTERIOR OF THE ENTIRE DUCT SURFACE WITH A RUST INHIBITIVE PAINT. SUBMIT COLOR CHART TO THE ARCHITECT.
  - ALL OPEN ENDED DUCTS AND FAN OUTLETS SHALL HAVE 3" X 3" HARDWARE CLOTH AFFIXED TO THE OPENING.
  - EXHAUST DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED TO SMACNA STANDARDS AND SHALL NOT BE INSULATED UNLESS NOTED OTHERWISE.
  - ALL DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE PER SMACNA STANDARDS.
  - FLEXIBLE DUCTWORK SHALL BE THERMAFLEX M-WE U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT OR EQUAL, R=8.0 (2-1/4" THICK, 0.75 PCF DENSITY FIBERGLASS WITH METALLIZED POLYESTER FILM VAPOR BARRIER). AIR CONNECTORS ARE NOT ACCEPTABLE. FLEX DUCT DIAMETER SHALL MATCH DUCT NECK DIAMETER. PROVIDE ROUND GALVANIZED STEEL DUCT RINGULDS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 8'-0". FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED. INSTALL FLEXIBLE DUCTWORK SUPPORTS AT ALL ROUND NECK INLETS/OUTLETS EQUAL TO THERMAFLEX FLEX-FLOW ELBOW.
  - ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH A SPIN-IN FITTING WITH SCOOOP AND BALANCING DAMPER (EXCEPT WHERE INSTALLED ABOVE INACCESSIBLE CEILING, THE DAMPER SHALL BE OMITTED AND PROVIDED IN THE AIR DEVICE NECK).
  - IN ADDITION TO EXTERNAL INSULATION REQUIREMENTS, LINE ALL SHEET METAL DUCTWORK A MINIMUM OF 10'-0" (OR AS INDICATED) DOWNSTREAM OF ALL AIR HANDLING UNITS, FAN COIL UNITS AND ROOFTOP UNITS. DUCT LINER SHALL BE 1" THICK, 3 LB/FT<sup>3</sup> DENSITY (MINIMUM R VALUE 4.0 OR AS REQUIRED BY APPLICABLE ENERGY CODE), CERTAINTED TOUGHGUARD 2" OR EQUAL, BY KNAUF OR JOWNS-MANVILLE. THE LEADING EDGE OF THE DUCT LINER SHALL HAVE A SHEET METAL NOSING.
  - DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.
  - EXTERNAL STATIC PRESSURE (ESP) DOES NOT INCLUDE COIL, CASING OR FILTER PRESSURE DROP.
  - INSTALL FIRE DAMPERS IN ALL RATED WALLS, FLOOR AND CEILING PENETRATIONS. FIRE DAMPERS SHALL BE THE DYNAMIC TYPE WITH BLADES OUT OF THE AIRSTREAM WHERE POSSIBLE. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED ASSEMBLIES. PROVIDE ACCESS DOORS IN DUCTWORK AT EACH FIRE DAMPER LOCATION. INSTALL SMOKE DAMPERS IN ALL DUCT PENETRATIONS THROUGH SMOKE RATED WALLS. WHERE DUCTS PENETRATE WALLS THAT CARRY BOTH FIRE AND SMOKE RATINGS, THE DAMPERS INSTALLED SHALL BE COMBINATION FIRE AND SMOKE DAMPERS. ALL DAMPERS SHALL BE U.L. 555 AND/OR 555S LABELED.
  - LOCATIONS OF GRILLES, REGISTERS, & DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT LOCATIONS WITH LIGHTS, CEILING GRID, ETC. AND ARCHITECTURAL REPEATED CEILING PLAN.
- PIPING:**
- REFRIGERANT PIPING SHALL BE TYPE L OR REFRIGERATION SERVICE COPPER TUBING WITH BRAZED JOINTS. SUCTION PIPING SHALL BE INSULATED WITH 3/4" MANULITE AEROTUBE II PIPE INSULATION SLID OVER TUBING WITHOUT CUTTING. ALL JOINTS AND SEAMS SHALL BE SEALED WITH ADHESIVE.
  - CONDENSATE FROM ALL AIR CONDITIONING EQUIPMENT SHALL BE TRAPPED AND ROUTED TO THE NEAREST ROOF/FLOOR DRAIN. CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC (EXCEPT INSULATED COPPER IN HVAC PLENUMS). CONDENSATE SHALL BE PUMPED AS REQUIRED.
- BUILDING AUTOMATION SYSTEM:**
- PROMOTE BUILDING AUTOMATION SYSTEM FOR DIRECT DIGITAL CONTROL AND MONITORING OF ALL HVAC EQUIPMENT, WITH OPERATOR WORKSTATION AND FULL GRAPHICAL OPERATOR INTERFACE. SYSTEM SHALL HAVE CAPABILITY TO INTERFACE WITH LIGHTING CONTROL PANELS FOR ZONED LIGHTING CONTROL AND HAVE LOAD SHEDDING CAPABILITY. SYSTEM SHALL BE TRACE TRACER SUMMIT OR EQUAL.

**NOTE:**  
MECHANICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL CHARACTERISTICS OF ALL HVAC EQUIPMENT (VOLTAGE, PHASE, ETC.) WITH THE ELECTRICAL CONTRACTOR AND ELECTRICAL PLANS, BEFORE ORDERING ANY MECHANICAL EQUIPMENT. ANY SUBSEQUENT MISMATCH BETWEEN MECHANICAL EQUIPMENT ELECTRICAL REQUIREMENTS AND THE ELECTRICAL SERVICE, AS DESIGNED AND PROVIDED SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.

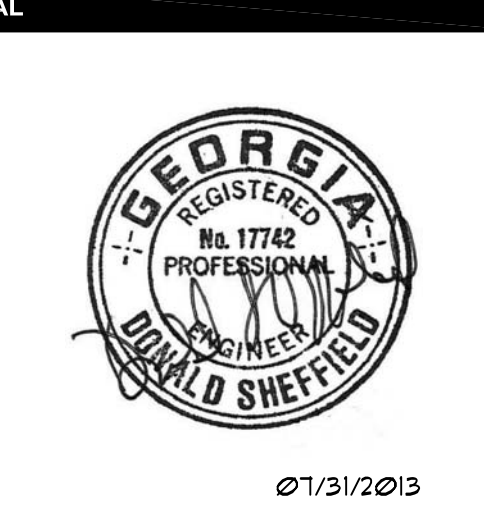
HVAC LEGEND								
SYMBOL	DESCRIPTION	ABBREVIATIONS	SYMBOL	DESCRIPTION	ABBREVIATIONS	SYMBOL	DESCRIPTION	ABBREVIATIONS
	BACK DRAFT DAMPER	BDD		1000 BTUH/HR	MBH		GARAGE EXHAUST FAN	GEF
	CEILING DIFFUSER	CD		ABOVE CEILING	A/C		GARAGE SUPPLY FAN	GSF
	CEILING RETURN GRILLE	CRA		ABOVE FINISHED FLOOR	AFF		HEAT EXCHANGER	HEX
	DIFFUSER TAG, TYPE "A", BALANCED FOR 100 CFM, 6"Ø NECK	---		ADJUSTABLE FREQUENCY DRIVE	AFD		INTAKE HOOD	IH
	DROP	D		AIR-COOLED CONDENSING UNIT	ACU		KITCHEN HOOD EXHAUST FAN	KEF
	DUCT SIZE - RECTANGULAR	---		AIR CONDITIONER	A.C.		KITCHEN MAKE-UP AIR UNIT	KMU
	DUCT SIZE - ROUND	---		AIR HANDLER	AH		LEAVING AIR TEMPERATURE	LAT
	DUCT SMOKE DETECTOR	---		AIR HANDLING UNIT	AHU		LEAVING WATER TEMPERATURE	LWT
	DUCT TRANSITION	---		AIR SEPARATOR	AS		MAKE-UP AIR	MA
	EQUIPMENT DESIGNATION	---		BOILER	B		MAKE-UP AIR UNIT	MAU
	FIRE DAMPER (HORIZONTAL)	FD		BOOSTER FAN	BF		NORMALLY CLOSED	NC
	FIRE DAMPER (VERTICAL)	FD		BOTTOM OF DUCT	BOD		NORMALLY OPEN	NO
	FLEXIBLE DUCT	---		CABINET UNIT HEATER	CUH		ON CENTER	OC
	HUMIDISTAT	H		CHILLER	CH		OPPOSED BLADE DAMPER	OBD
	LINED DUCT	---		CHILLED WATER PUMP	CHWP		OUTSIDE AIR	OA
	MANUAL VOLUME DAMPER	MVD		COMBINATION FIRE/SMOKE DAMPER	FSD		POWERED INDUCTION UNIT	PIU
	MOTORIZED DAMPER	MD		CONDENSATE DRAIN	CD		REFRIGERANT LIQUID	RL
	RETURN AIR DUCT TURNED DOWN	---		CONDENSATE RECEIVER & PUMP	CRP		REFRIGERANT SUCTION	RS
	RETURN AIR DUCT TURNED UP	---		CONDENSER WATER	CW		RELIEF HOOD	RH
	RISE	R		CONDENSER WATER PUMP	CWP		RETURN AIR	RA
	SIDEWALL SUPPLY REGISTER OR GRILLE	---		COOLING TOWER	CT		ROOF TOP UNIT	RTU
	SIDEWALL RETURN AIR REGISTER OR GRILLE	---		DEAERATOR	DA		SELF CONTAINED AIR CONDITIONING UNIT	SCU
	SMOKE DAMPER	---		DUCT ACCESS DOOR	AD		STAINLESS STEEL (TYPE 316 U.L.O.)	SS
	SPIN IN FITTING W/ DAMPER & FLEX DUCTWORK	---		DUCT SILENCER	DS		STATIC PRESSURE (N. W.C.)	SP
	SUPPLY AIR DUCT TURNED DOWN	---		DRY BULB	DB		SUPPLY AIR	SA
	SUPPLY AIR DUCT TURNED UP	---		ELECTRIC BASEBOARD HEATER	EBH		SUPPLY FAN	SF
	THERMOSTAT, WALL MOUNTED	TSTAT		ELECTRIC DUCT HEATER	EDH		SUPPLY GRILLE	SG
	TURNING VANES	---		ELECTRIC CEILING HEATER	ECH		SUPPLY REGISTER	SR
	UNDER CUT (DOOR) 1"	UC		ELECTRIC UNIT HEATER	EUH		STEAM BOILER	SB
	WALL LOUVER INTAKE	WL		ELECTRIC WALL HEATER	EWH		STEEL RELIEF HOOD	SRH
	WALL LOUVER EXHAUST	WL		ENERGY RECOVERY UNIT	ERU		TOILET EXHAUST FAN	TEF
	CARBON DIOXIDE SENSOR, WALL MOUNTED	---		ENTERING AIR TEMPERATURE	EAT		TOP OF DUCT	TOD
	HYDROGEN SENSOR, WALL MOUNTED	---		ENTERING WATER TEMPERATURE	EWT		UNLESS NOTED OTHERWISE	UNO
				EXHAUST FAN	EF		VARIABLE AIR VOLUME UNIT	VAV
				EXHAUST REGISTER	ER		VARIABLE FREQUENCY DRIVE	VFD
				EXPANSION TANK	ET		WALL LOUVER	WL
				EXTERNAL STATIC PRESURE (N. W.C.)	ESP		WET BULB	WB
				FAN COIL UNIT	FCU		DUCTLESS SPLIT-SYSTEM INDOOR UNIT	DSI
				FLY FAN	FF		DUCTLESS SPLIT-SYSTEM OUTDOOR UNIT	DSO

DESIGN CONDITIONS	
SITE LOCATION:	JACKSON COUNTY, GEORGIA 34.27N LAT., 83.83W LONG. 1276 FEET ELEVATION ASHRAE 90.1-2004 CLIMATE ZONE 3A
DESIGN CONDITIONS:	23.0°F WINTER DESIGN DRY BULB (ASHRAE 99.6%) 90.3°F DRY BULB AND 73.7°F MEAN COINCIDENT WET BULB SUMMER DESIGN (ASHRAE 1%) 65°F WINTER INDOOR DESIGN DRY BULB (HEATING - WAREHOUSE) 78°F DRY BULB AND 50% RH INDOOR DESIGN (COOLING - WAREHOUSE) 70°F WINTER INDOOR DESIGN DRY BULB (HEATING - OFFICE AREA) 75°F DRY BULB AND 50% RH INDOOR DESIGN (COOLING - OFFICE AREA)
CALCULATIONS BASED ON ASHRAE DESIGN CRITERIA AND CALCULATION METHODOLOGY.	
NO CAPACITY HAS BEEN INCLUDED IN THIS DESIGN FOR FUTURE ADDITIONS.	

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**MACGREGOR ASSOCIATES ARCHITECTS**

2839 Paces Ferry Road, Suite 500  
Atlanta, Georgia 30339  
T 770.432.9400 F 770.432.9934



CONSULTANT

4275 SHACKLEFORD RD, SUITE 200  
NORCROSS, GA 30093-2997  
V: (770) 447-5547 F: (770) 448-0262

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PROJECT INFORMATION

## HomeGoods

**DISTRIBUTION CENTER**

125 LOGISTICS CENTER PARKWAY  
JEFFERSON, GEORGIA 30549



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THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH EACH PHASE OF HIS WORK.  
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DATE	PROJECT NO.
07/31/2013	2013-018

SHEET TITLE

## NOTES, LEGEND, & ABBREVIATIONS - H.V.A.C.

SHEET NUMBER

# M-001

FOR CONSTRUCTION

HVLS FANS									
TAG	MODEL	DUTY	CFM	S.P.	MOTOR SIZE	RPM	DRIVE	WEIGHT (Lb)	ACCESSORIES
HVLS-A	SERCO VELOCITY SF24XL2006	HVLS CIRCULATION - 24 FT.	376,804	---	2 HP	VARIABLE	DIRECT	232	1,2
HVLS-B	SERCO VELOCITY SF10XL1006	HVLS CIRCULATION - 10 FT.	83,025	---	1 HP	VARIABLE	DIRECT	181	1,2

NOTES:  
1. WAREHOUSE CIRCULATION FANS (HVLS) SHALL BE SUSPENDED FROM STRUCTURE AS AN ASSEMBLY. SEE WAREHOUSE PLAN FOR LOCATIONS.  
ACCESSORIES:  
1. FIRE ALARM PACKAGE - COORDINATE EMERGENCY SHUTDOWN WITH FIRE PROTECTION CONTRACTOR.  
2. BACKSET CONTROL MODULE INTERFACED WITH BUILDING AUTOMATION SYSTEM - COORDINATE ALL FANS TO BE CONTROLLED VIA BAS OPERATOR'S STATION.  
SELECTION BASED ON PRODUCTS BY SERCO. EQUAL PRODUCTS BY BIG ASS FANS, MACROAIRE.

GRILLE, REGISTERS & DIFFUSERS										
TAG	MANUFACTURER	SERIES	CFM	DUTY	NECK (IN. DIA.)	FACE SIZE	DAMPER	MATERIAL	TYPE	ACCESSORIES
A	TITUS	TMS	SEE DWGS	SUPPLY	SEE DWGS	24X24	YES	STEEL	SQUARE CONE FACED DIFFUSER	2
B	TITUS	50F	SEE DWGS	RETURN	SEE DWGS	24X24	YES	ALUMINUM	EGG CRATE FACE GRILLE	2
C	TITUS	TMS	SEE DWGS	SUPPLY	SEE DWGS	12X12	YES	STEEL	SQUARE CONE FACED DIFFUSER	2
D	TITUS	TBD10	SEE DWGS	SUPPLY	SEE DWGS	48" LONG	YES	STEEL	LINEAR SLOT DIFFUSER	2,3,4
E	TITUS	TISSO-4	SEE DWGS	SUPPLY	SEE DWGS	24X24	NO	STEEL	VAV DIFFUSER	5
F	TITUS	CT-700L	SEE DWGS	TRANSFER	SEE DWGS	SEE DWGS	NO	STEEL	DOOR GRILLE VISION PROOF	6
G	TITUS	50F	SEE DWGS	EXHAUST	SEE DWGS	12X12	YES	ALUMINUM	EGG CRATE FACE REGISTER	2
H	TITUS	50F	SEE DWGS	EXHAUST	SEE DWGS	24X24	YES	ALUMINUM	EGG CRATE FACE REGISTER	
I										
J										
K										
L										

NOTES:  
1. REFER TO ARCHITECTURAL DRAWINGS FOR TYPE OF CEILING AND / OR SUSPENSION SYSTEM.  
2. FINISH SHALL BE OF THE TYPE AND COLOR SELECTED BY THE ARCHITECT. SUBMIT CHART FOR SHOP DRAWINGS.  
ACCESSORIES:  
1. FIXED LOUVERS: 45 DEG. DEFLECTION, 3/4" BLADE SPACING.  
2. PROVIDE ADAPTOR FRAME FOR SURFACE MOUNT APPLICATION WHERE APPLICABLE.  
3. (2) 1/2" SLOTS  
4. INSULATED PLENUM  
5. THERMAL VARIABLE VOLUME DIFFUSER  
6. AUXILIARY FRAME  
EQUIPMENT SELECTIONS BASED ON PRODUCTS BY PRICE. EQUAL PRODUCTS, SUBJECT TO COMPLIANCE WITH ALL CRITERIA, BY TITUS, NAILOR, METAL AIRE.

FANS											
TAG	MANUFACTURER	MODEL	DUTY	CFM	S.P. (IN. W.G.)	MOTOR SIZE (HP)	RPM	DRIVE	SONES	WEIGHT (Lb)	ACCESSORIES
EF-1	PENN-BARRY	ZEPHYR JR. ZJI	TOILET EXHAUST	150	0.5"	125W	1200	DIRECT	3.4	20	1,2,4,5,6
EF-2	PENN-BARRY	ZEPHYR JR. ZJI	TOILET EXHAUST	150	0.5"	125W	1200	DIRECT	3.4	20	1,2,4,5,6
EF-3	PENN-BARRY	ZEPHYR JR. ZJI	TOILET EXHAUST	150	0.5"	125W	1200	DIRECT	3.4	20	1,2,4,5,6
EF-4	PENN-BARRY	ZEPHYR JR. ZJI	TOILET EXHAUST	150	0.5"	125W	1200	DIRECT	3.4	20	1,2,4,5,6
EF-5	PENN-BARRY	DOMEX DX12B	TOILET EXHAUST	900	0.5"	1/4	875	BELT	10.3	98	1,6,7,8
EF-6	PENN-BARRY	DOMEX DX12B	TOILET EXHAUST	1275	0.5"	1/4	1000	BELT	11.0	98	1,6,7,8
EF-7	PENN-BARRY	DOMEX DX12B	TOILET EXHAUST	1,200	0.5"	1/4	975	BELT	11.0	98	1,6,7,8
EF-8	PENN-BARRY	DOMEX DX12B	TOILET EXHAUST	1175	0.5"	1/4	970	BELT	11.0	98	1,6,7,8
EF-9	PENN-BARRY	ZEPHYRETTE ZT	TOILET EXHAUST	75	0.375"	49W	1200	DIRECT	3.0	20	1,2,4,5,6
EF-P1	PENN-BARRY	DOMEX DX30B	FIRE PUMP VENTILATION	7,000	0.15"	3/4	500	BELT	12.1	210	6,9,13

ACCESSORIES:  
1. GRAVITY BACK DRAFT DAMPER  
2. WIRE INTO WALL SWITCH. COORDINATE WITH ELECTRICAL DWGS.  
3. SOLID STATE SPEED CONTROLLER MOUNTED AT FAN FOR INITIAL BALANCE.  
4. DESIGNER GRILLE  
5. HANGING COLATORS.  
6. DISCONNECT SWITCH.  
7. PREFABRICATED INSULATED ROOF CURB  
8. PROVIDE BUILDING AUTOMATION SYSTEM (BAS) INTERLOCK  
9. SHORT WALL HOUSING, FLUSH EXTERIOR WITH GASK GASKARD  
10. FAN SHALL BE INTERLOCKED WITH LIGHTS, SEE ELECTRICAL DWGS  
11. ALUMINUM BIRD SCREEN  
12. CONTINUOUS OPERATION  
13. CONTROL BY WALL THERMOSTAT WITH SWITCHING SUB-BASE FOR MANUAL OVERRIDE  
14. MOTORIZED DISCHARGE SHUTTER/DAMPER WITH EDGE SEALS, FLUSH EXTERIOR MOUNTING  
EQUIPMENT SELECTIONS BASED ON PRODUCTS BY PENN-BARRY. EQUAL PRODUCTS BY GREENHECK, COOK.

ELECTRIC HEATERS										
TAG	MANUFACTURER	MODEL No.	APPLICATION	MOUNTING	K.W.	CFM	FAN HP	RPM	WEIGHT (Lb)	ACCESSORIES
EMH-A	RAYWALL	APH	WALL HEATER	WALL	3.0	245	FRAC.	1400	55	2,3,4
EMH-B	RAYWALL	APH	WALL HEATER	WALL	1.5	245	FRAC.	1400	55	2,3,4
EMH-P1	RAYWALL	5100	UNIT HEATER	WALL	5.0	100	1/125	1550	25	1,2,3,4
ECH-A	RAYWALL	RCH	CEILING HEATER	RECESSED	5.0	400	FRAC.	1300	50	2,3,4

ACCESSORIES:  
1. FAN DELAY  
2. DISCONNECT SWITCH  
3. AUTO-RESET THERMAL OVER LOADS  
4. INTEGRAL TAMPERPROOF THERMOSTAT  
EQUIPMENT SELECTIONS BASED ON PRODUCTS BY RAYWALL. EQUAL PRODUCTS BY MARKEE, Q-MARK.

SPLIT SYSTEM HEAT PUMP													
TAG	MODEL No.	AHU/HPU	TOTAL CFM	OUTDOOR AIR CFM	ESP	MBH TOTAL COOL	MBH SENS. COOL	MBH INTL HEAT	MAX FAN HP	AUX. HEAT KW	MIN SEER	MIN HSPF	ACCESSORIES
AHU/HPU-1	GAMASBOA18/4TWB3018		600	60	0.4	18	12.6	18	1/3	5	13.0	8.0	1,2,3,4,5
AHU/HPU-2	GAMASBOA18/4TWB3018		600	60	0.4	18	12.6	18	1/3	5	13.0	8.0	1,2,3,4,5

NOTES:  
A. COOLING CAPACITY BASED ON DAT 55 DEG F. AMBIENT, 80 DEG F. DB/67 DEG. F. WB ENTERING AIR TEMPERATURE.  
B. HEATING CAPACITY BASED ON 47 DEGREES F. DB ENTERING OUTDOOR UNIT.  
ACCESSORIES:  
1. FACTORY INSTALLED ELECTRIC HEAT WITH THERMAL OVERLOADS  
2. SINGLE POINT POWER CONNECTION.  
3. DUAL SET POINT AUTOMATIC CHANGEVER THERMOSTAT & SUB-BASE  
4. DISCONNECT FOR EACH AIR HANDLER AND HEAT PUMP  
5. COMPRESSOR ANTI-RECYCLE CONTROL  
SELECTIONS BASED ON PRODUCTS BY TRANE. EQUAL PRODUCTS BY CARRIER, LENNOX, YORK/JCL

WALL LOUVERS								
TAG	MODEL No.	SIZE WxH (INCHES)	CFM	MAX. PRESS. DROP (IN. W.C.)	OPERATOR	INTERLOCK	FRAME	ACCESSORIES
WL-P1	EA-680D	48"X48"	7000	0.15"	ELEC.	EF-1	ALUMINUM	1,2,3,4,5

NOTES:  
A. FINAL COLOR SELECTION SHALL BE MADE BY ARCHITECT AT TIME OF SHOP DRAWINGS APPROVAL.  
B. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF LOUVERS.  
ACCESSORIES:  
1. PROVIDE ELECTRIC ACTUATOR W/ ALL NECESSARY DAMPER LINKAGES AND MOUNTING HARDWARE.  
2. INTERLOCK LOUVER W/ ASSOCIATED FANS AS SCHEDULED.  
3. ADJUST ACTUATORS & LINKAGES TO PROVIDE FULL OPENING & CLOSING OF THE LOUVER.  
4. KYNAR FINISH  
5. INSET SCREEN  
SELECTIONS BASED ON ARROW. APPROVED EQUALS BY GREENHECK, RUSKIN.

PACKAGED DX ROOFTOP AIR CONDITIONER																
TAG	MANUFACTURER	MODEL No.	NOMINAL TONS	FAN DATA				COOLING COIL				HEATING DATA			WEIGHT (LB)	ACCESSORIES
				TOTAL CFM	MIN OA CFM	MAX FAN HP	ESP	TOTAL MBH	SENSIBLE MBH	EAT DB./WB (DEB. F.)	EFFICIENCY EER/SEER	MBH IN (NAT. GAS)	MBH OUT	THERMAL EFFICIENCY (%)		
RTU-A	TRANE	YCD151	12.5	5000	500	2.00	0.50"	149.6	113.4	80/67	12.0/-	150	122	80	2335	1,2,3,4,5,7,8,9,12,14,15,16,17,18,19
RTU-B	TRANE	YCD181	15	6000	600	3.00	0.50"	181.5	138.0	80/67	12.0/-	250	203	80	2366	1,2,3,4,5,7,8,9,12,14,15,16,17,18,19
RTU-C	TRANE	YCD241	20	8000	800	5.00	0.50"	259.0	192.5	80/67	11.0/-	250	203	80	2409	1,2,3,4,5,7,8,9,12,14,15,16,17,18,19
RTU-1	TRANE	YHC047	4	1590	260	1.00	075"	50.4	37.1	80/67	-/17.5	80	64	80	946	1,2,3,6,8,9,10,11,12,13,14,15,16,17,19
RTU-2	TRANE	YHC047	4	1590	260	1.00	075"	50.4	37.1	80/67	-/17.5	80	64	80	946	1,2,3,6,8,9,10,11,12,13,14,15,16,17,19
RTU-3	TRANE	4YCC3024	2	800	140	0.25	0.50"	23.0	16.1	80/67	11.0/13.0	64	51.2	80	348	1,2,3,6,8,9,10,12,15,16,17
RTU-4	TRANE	4YCC3024	2	800	140	0.25	0.50"	23.0	16.1	80/67	11.0/13.0	64	51.2	80	348	1,2,3,6,8,9,10,12,15,16,17
RTU-5	TRANE	YHC092	7.5	3000	300	1.50	075"	92.0	68.6	80/67	12.6/-	150	120	80	1388	1,2,3,4,5,7,8,9,11,12,14,15,16,17,19
RTU-6	TRANE	YHC067	5	2000	280	1.00	075"	60.0	45.3	80/67	-/17.2	80	64	80	969	1,2,3,6,8,9,10,11,12,13,14,15,16,17,19
RTU-7	TRANE	YHC097	3	1200	140	0.50	0.50"	36.2	26.8	80/67	-/17.5	80	64	80	722	1,2,3,6,8,9,10,11,12,13,14,15,16,17,19
RTU-8	TRANE	YHC047	4	1600	160	1.00	0.50"	50.5	37.2	80/67	-/17.5	80	64	80	946	1,2,3,6,8,9,10,11,12,13,14,15,16,17,19
RTU-9	TRANE	YHC120	10	4000	660	3.00	075"	119.1	93.1	80/67	12.5/-	200	160	80	1600	1,2,3,4,5,7,8,9,11,12,13,14,15,16,17,19
RTU-10	TRANE	YHC120	10	4000	600	3.00	075"	119.1	93.1	80/67	12.5/-	200	160	80	1600	1,2,3,4,5,7,8,9,11,12,13,14,15,16,17,19
RTU-11	TRANE	YHC097	3	1200	100	0.50	075"	36.2	26.8	80/67	-/17.5	80	64	80	722	1,2,3,6,8,9,10,11,12,14,15,16,17,19
RTU-12	TRANE	YHC120	10	4000	490	3.00	075"	119.1	93.1	80/67	12.5/-	200	160	80	1600	1,2,3,4,5,7,8,9,11,12,13,14,15,16,17,19
RTU-13	TRANE	YHC072	6	2400	160	1.00	075"	72.0	54.9	80/67	12.6/-	120	96	80	987	1,2,3,4,5,7,8,9,11,12,13,14,15,16,17,19

NOTES:  
1. COOLING CAPACITIES BASED ON ENTERING AIR TEMPERATURE SCHEDULED AND 95 DEG. F. DB ENTERING OUTDOOR UNIT.  
2. SEER/EER RATINGS ARE BASED AT 80 DEG. F. DB / 67 DEG. F. WB ENTERING THE EVAPORATOR COIL AND 95 DEG. F. DB ENTERING CONDENSER COIL.  
ACCESSORIES:  
1. PRE FABRICATED INSULATED STRUCTURAL ROOF CURB (SEE SPECIFICATIONS)  
2. BAS COMPATIBLE (BAS) CONTROLLER / COMMUNICATION INTERFACE / SPACE SENSORS)  
3. COMPRESSOR ANTI-RECYCLE CONTROLS  
4. SMOKE DETECTOR FURNISHED & INSTALLED BY RTU MFG. WITH AUXILIARY CONTACTS FOR FIRE ALARM MONITORING AND GLOBAL SYSTEM SHUTDOWN  
5. ECONOMIZER WITH DIFFERENTIAL ENTHALPY CONTROLS.  
6. MOTORIZED OUTSIDE AIR DAMPER  
7. POWERED EXHAUST  
8. SINGLE POINT POWER CONNECTION  
9. PROVIDE DISCONNECT AND GFC CONVENIENCE OUTLET (CONVENIENCE OUTLET TO BE POWERED AHEAD OF UNIT DISCONNECT)  
10. LOW AMBIENT OPERATION WITH HEAD PRESSURE CONTROL TO 0 DEG. F.  
11. DEHUMIDIFICATION (HOT GAS REHEAT) & HUMIDITY SENSOR/HUMIDISTAT  
12. 5-YEAR COMPRESSOR WARRANTY & 10-YEAR HEAT EXCHANGER WARRANTY  
13. DEMAND CONTROLLED VENTILATION (DCV) CONTROL WITH MODULATING OA DAMPER AND CO2 SPACE SENSOR  
14. HINGED ACCESS PANELS  
15. R-410A REFRIGERANT  
16. PROVIDE SLOPED STAINLESS STEEL OR NON-CORROSIVE DRAIN PAN  
17. UL1 CLASS 2 MERV 13 FILTERS  
18. INTERNALLY LINED DROP PLENUM WITH 4-WAY DRUM LOUVER DISTRIBUTION, UNITED ENTERTEC "DPO" OR EQUAL  
19. HAIL GUARDS  
EQUIPMENT SELECTIONS BASED ON PRODUCTS BY TRANE. EQUAL PRODUCTS, SUBJECT TO COMPLIANCE WITH ALL CRITERIA, BY CARRIER, LENNOX, YORK/JCL

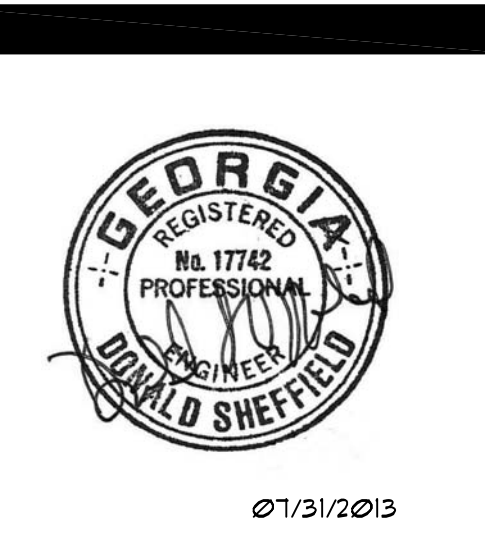
DUCTLESS SPLIT SYSTEM													
TAG	MANUFACTURER	TYPE	MODEL No. FCU/COND. UNIT	SERVES	TOTAL CFM	MAX FAN HP	ESP	MBH TOT COOL	MBH SENS COOL	MIN SEER	MBH TOT HEAT	ACCESSORIES	
AC-1/CU-1	DAIKIN	DUCTLESS	PKA-A12/PUM-A12	TELCO ROOM	380	30 WATTS	0.00	12.0	8.4	13.8	N/A	1,2,3,4,5,6,7	

NOTES:  
A. COOLING CAPACITY BASED ON 80 DEG. F. DB/67 DEG. F. WB INDOOR ENTERING AIR TEMPERATURE AND 95 DEG. F. DB ENTERING OUTDOOR UNIT.  
B. HEATING CAPACITY BASED ON 47 DEGREES F. DB ENTERING OUTDOOR UNIT.  
ACCESSORIES:  
1. LOW AMBIENT CONTROL DOWN TO 0 DEG. F.  
2. WASHABLE FILTER.  
3. INDOOR AC UNIT POWERED FROM OUTDOOR UNIT, OUTDOOR DISCONNECT PROVIDED BY DIV. 26 ELECTRICAL  
4. PROVIDE WIRE REMOTE CONTROLLER OPTION  
5. PROVIDE CONDENSATE PUMP WITH CHECK VALVE.  
6. PROVIDE R-410a REFRIGERANT.  
7. PROVIDE INTERCONNECTING POWER WIRING FROM OUTDOOR UNIT TO INDOOR  
EQUIPMENT SELECTIONS BASED ON PRODUCTS BY MITSUBISHI. EQUAL PRODUCTS, SUBJECT TO COMPLIANCE WITH ALL CRITERIA, BY SANYO, I.G., FRIEDRICH.

COMPUTER ROOM AIR CONDITIONERS										
TAG	MODEL No.	CFM	E.S.P.	FAN HP	MBH TOTAL COOL	MBH SENS COOL	DESIGN CONDITIONS	HUMIDIFIER (W/HR)	RW REHEAT	NOTES/ACCESSORIES
CRAC-1,2	LIBERT DS-070	9,000	0.2"	5	214.9	191.0	73F/45%RH	22	25	1 THROUGH 18
CRAC-3,4	LIBERT DS-070	9,000	0.2"	5	214.9	191.0	73F/45%RH	22	25	1 THROUGH 18

NOTE: CAPACITIES BASED ON 105 DEGREES F. AMBIENT TEMPERATURE.  
NOTES/ACCESSORIES:  
1. DOWNFLOW, FRONT RETURN, AIR-COOLED DX PRECISION COOLING UNITS, PRIMARY/STANDBY  
2. SEMI-HERMETIC COMPRESSORS WITH 4 STAGES OF UNLOADING  
3. FRONT ACCESS/SERVICEABILITY  
4. BELT DRIVE CENTRIFUGAL FANS  
5. DUAL REFRIGERATION CIRCUITS  
6. STEAM GENERATING CANISTER HUMIDIFIER  
7. CONDENSATE PUMP, DUAL-FLOAT, 145 GPH @ 20 FT. HEAD, WITH ALARM INDICATION AND UNIT SHUTDOWN UPON HIGH WATER LEVEL  
8. RETURN AIR SMOKE DETECTOR / SENSOR WITH SUPERVISION CONTACTS  
9. DEHUMIDIFICATION CYCLE  
10. 4" THICK MERV 11 FILTERS  
11. 3-STAGE ELECTRIC REHEAT, STAINLESS STEEL FIN TUBULAR  
12. ROOF MOUNTED AIR-COOLED CONDENSING UNIT  
13. WALL MOUNTED GRAPHICAL CONTROL PANEL INCORPORATING LEAD/LAG FUNCTION (LIBERT 1-COM)  
14. INTERFACE WITH FIRE SUPPRESSION SYSTEM TO DEACTIVATE UPON ALARM INITIATION  
15. NON-LOCKING DISCONNECT SWITCH  
17. FLOOR STAND FOR 12-INCH RAISED FLOOR  
18. FACTORY RETURN AIR PLENUM MOUNTED ON TOP OF UNIT WITH FRONT FACING RETURN AIR GRILLE  
SELECTIONS BASED ON PRODUCTS BY LIBERT. APPROVED EQUAL BY STULZ, DATA-AIRE.

**1 EQUIPMENT SCHEDULES - H.V.A.C.**  
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T 770.432.9400 F 770.432.9934

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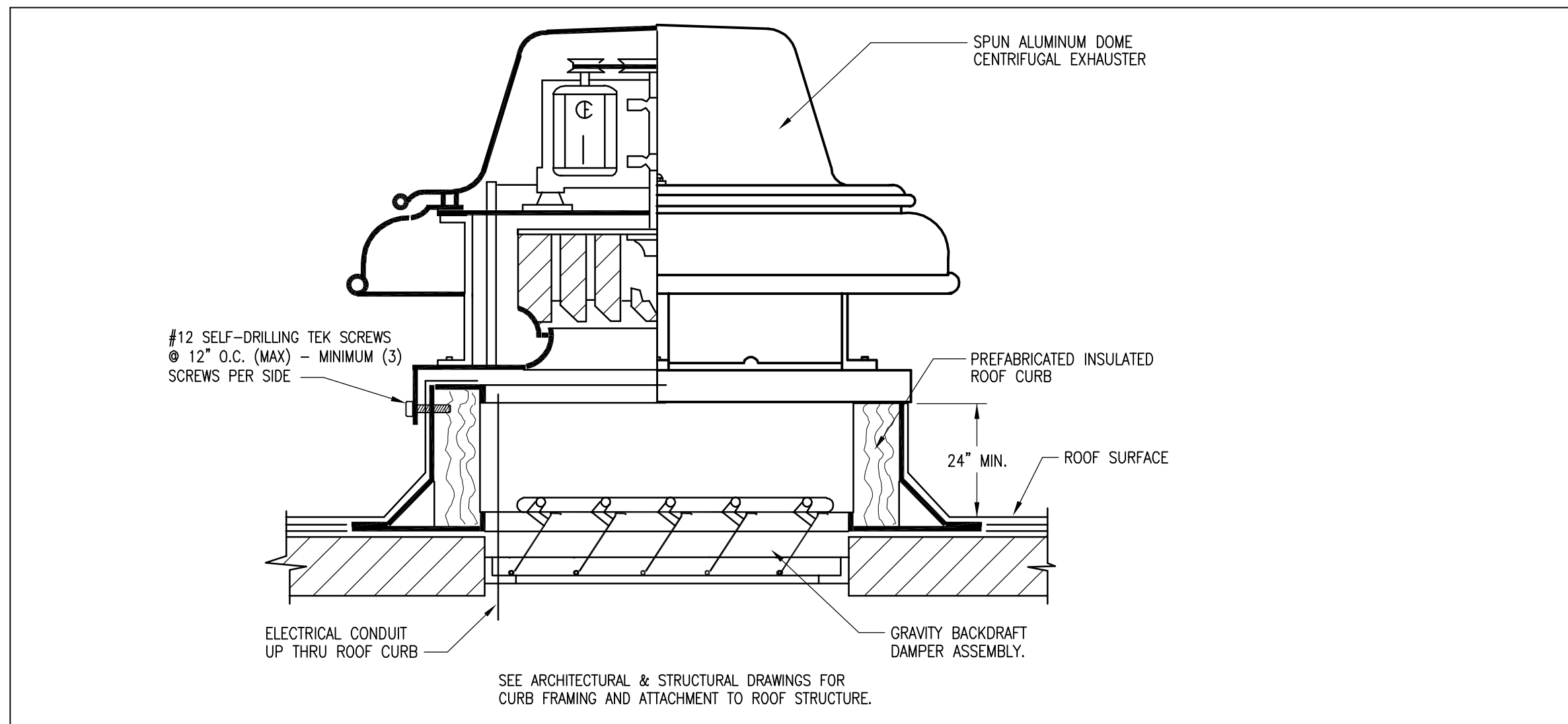
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SHEET TITLE  
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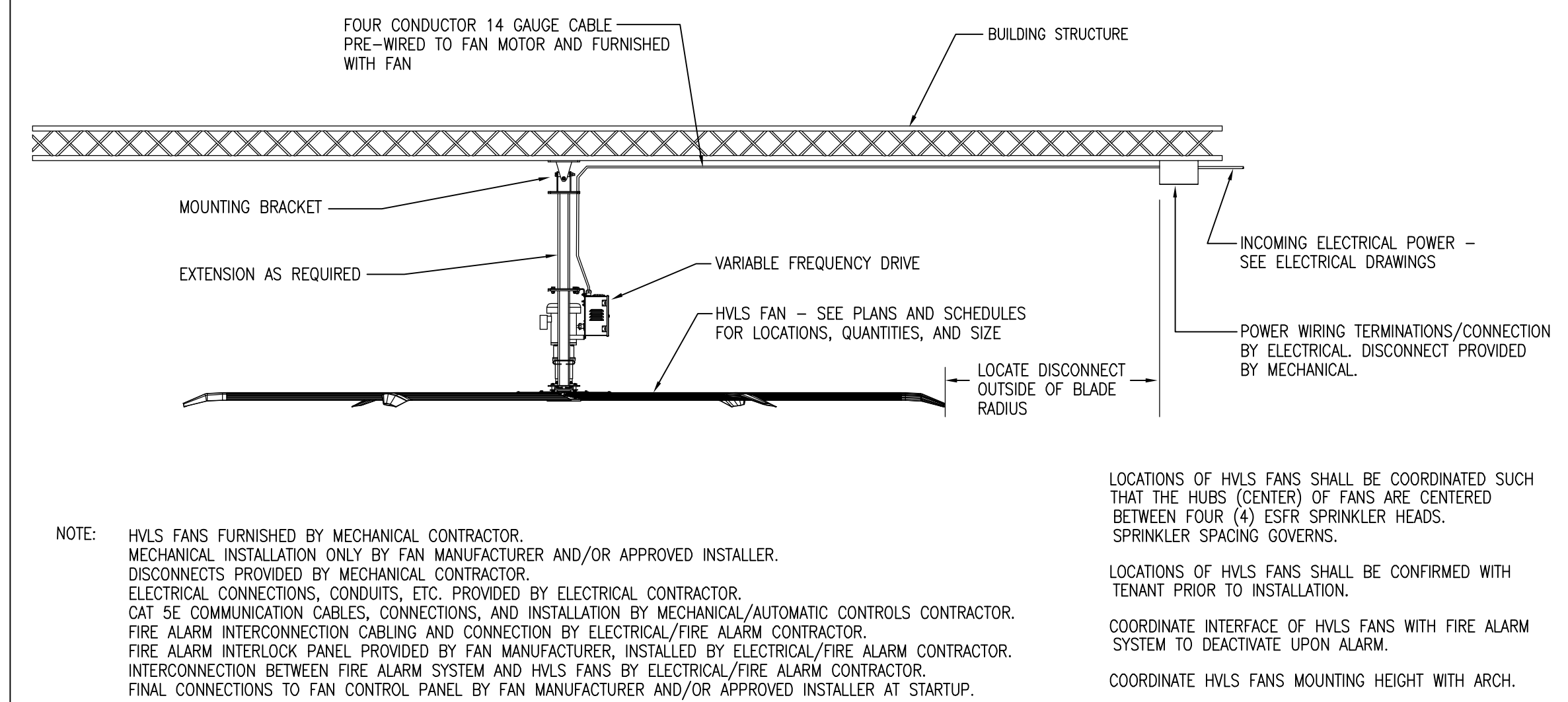
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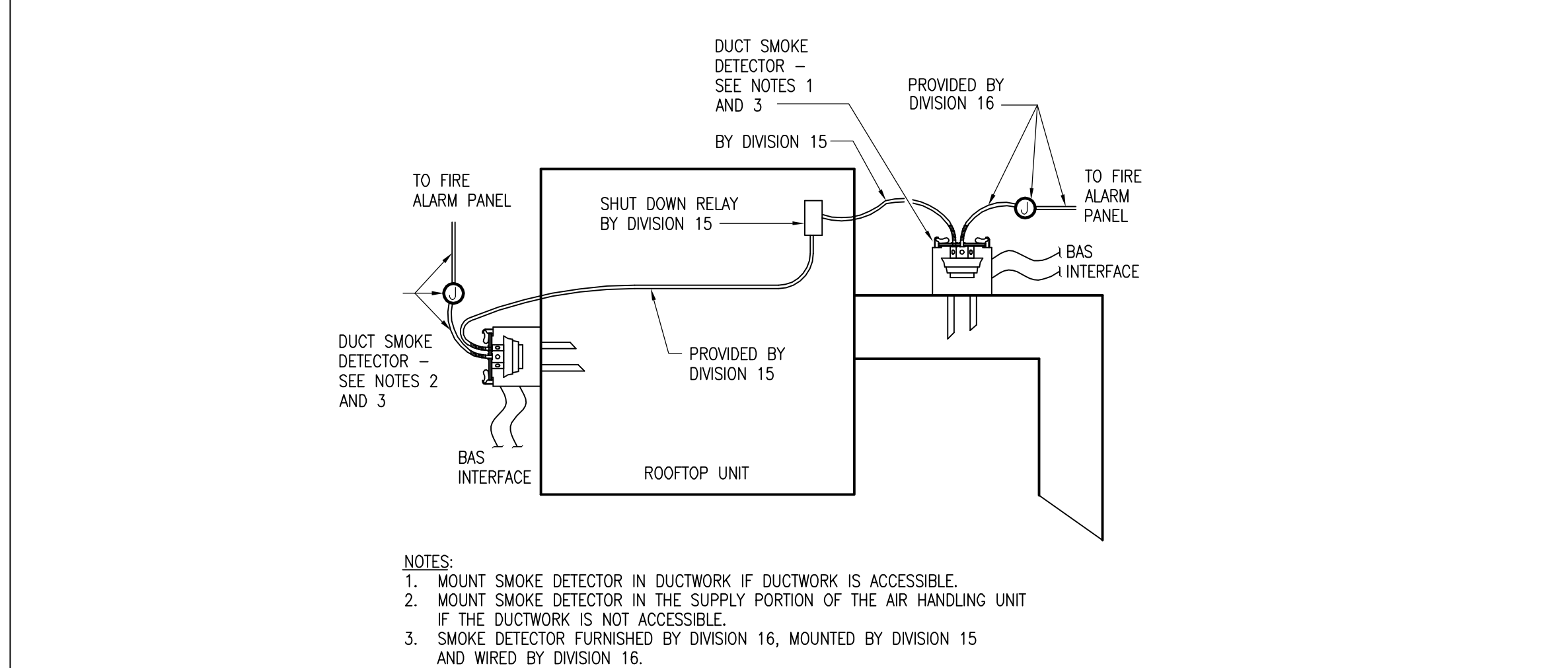
**10 ROOF-MTD. CENTRIFUGAL EXHAUST FAN DETAIL**

NO SCALE



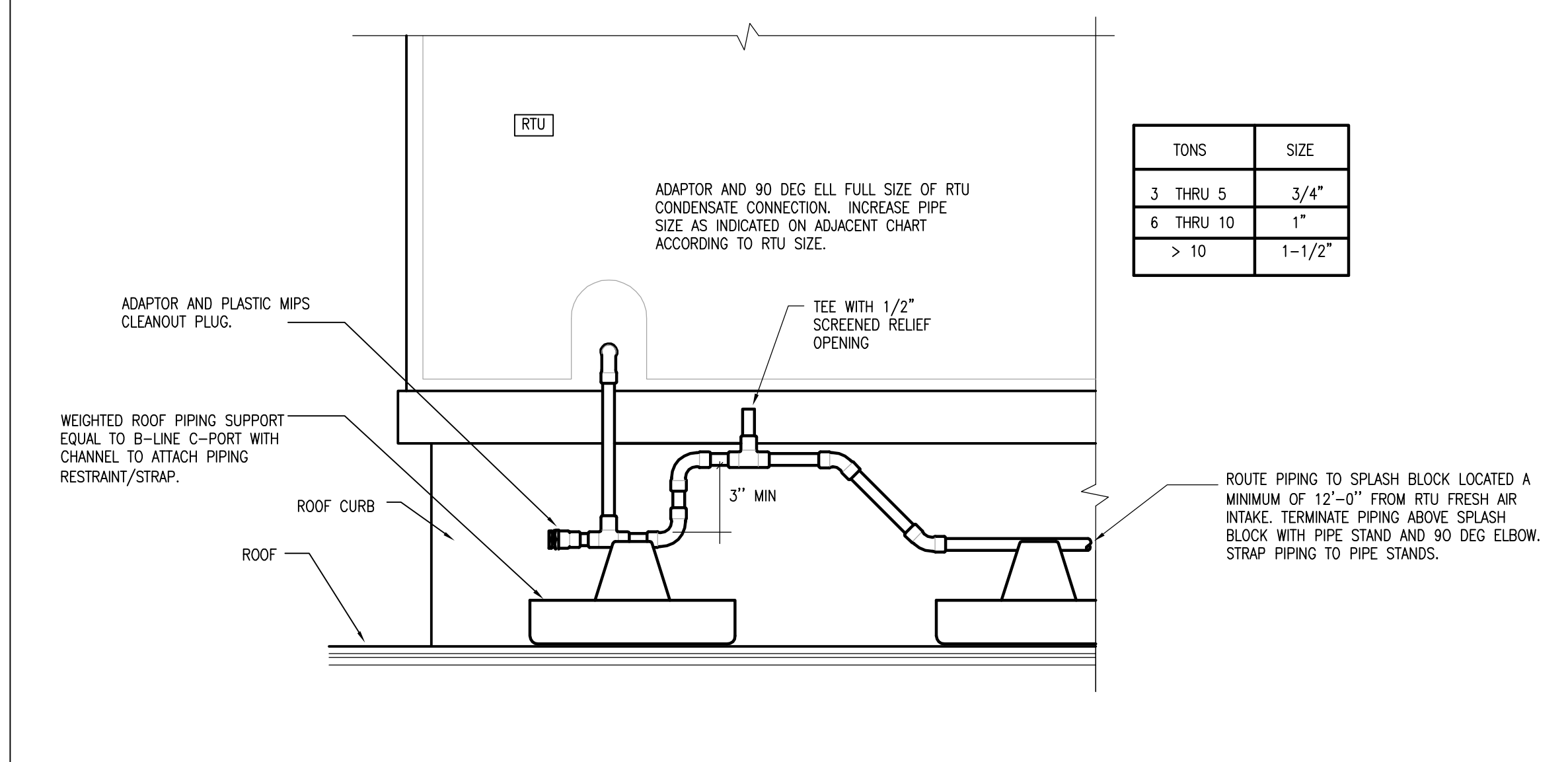
**7 HIGH VOLUME LOW SPEED (HVLS) FAN DETAIL**

NO SCALE



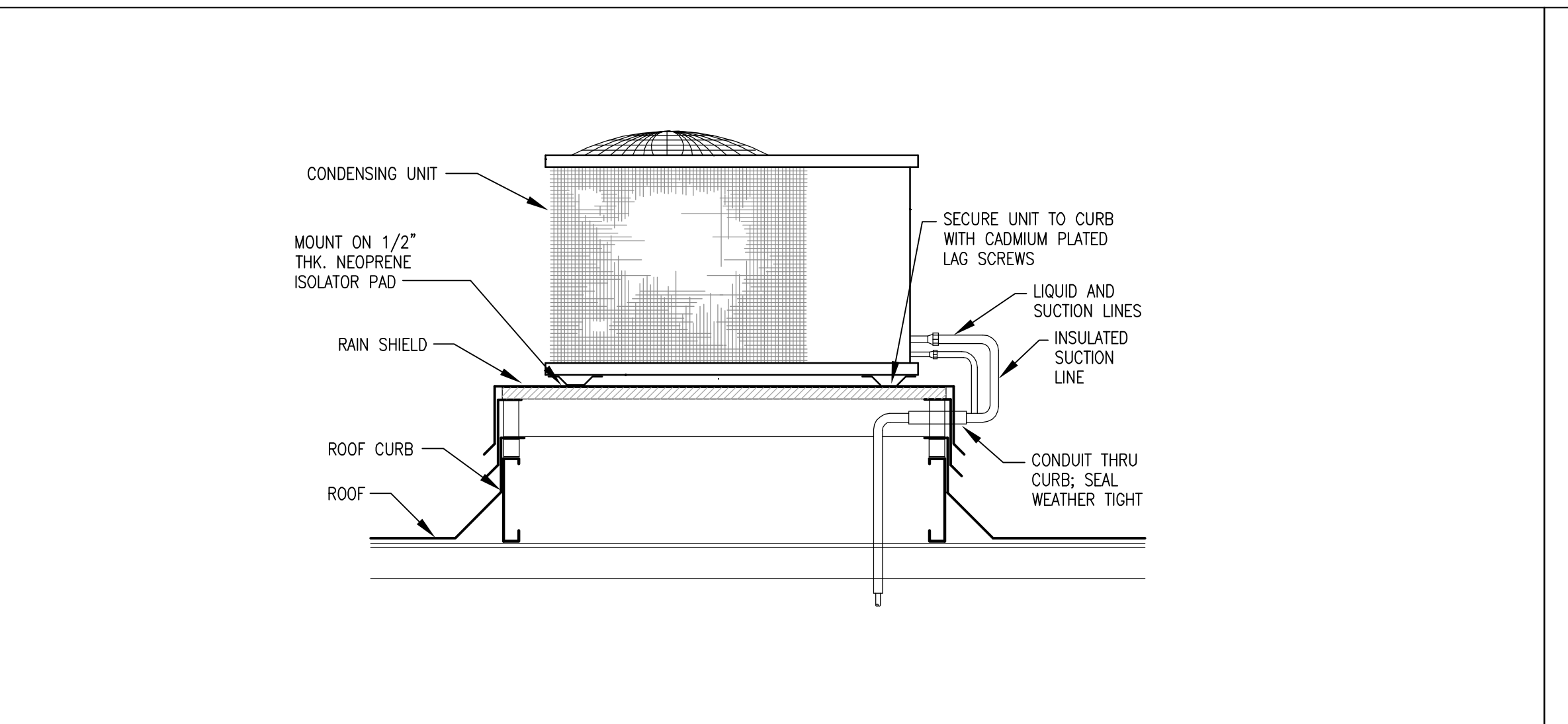
**4 FIRE ALARM INTERFACE SCHEMATIC**

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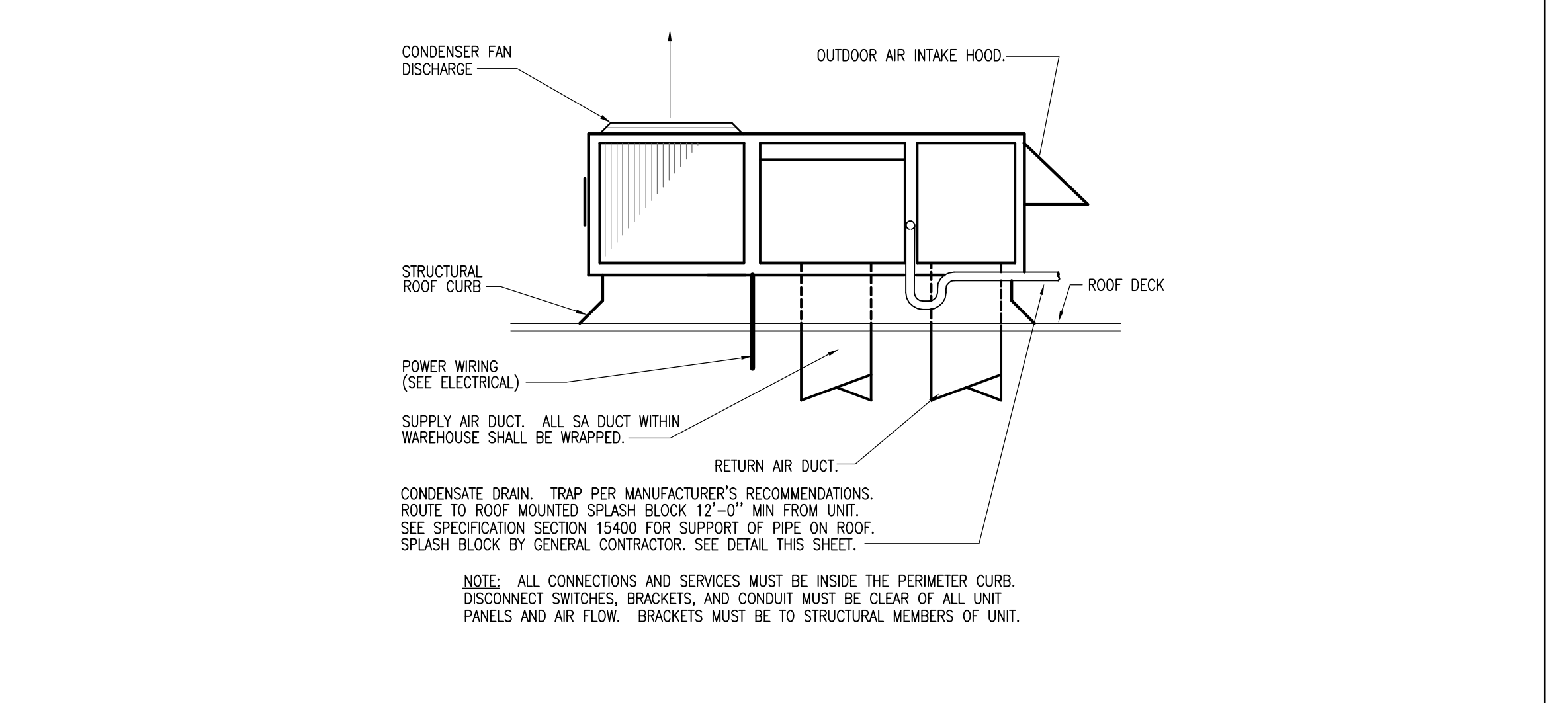
**1 RTU CONDENSATE DRAIN DETAIL**

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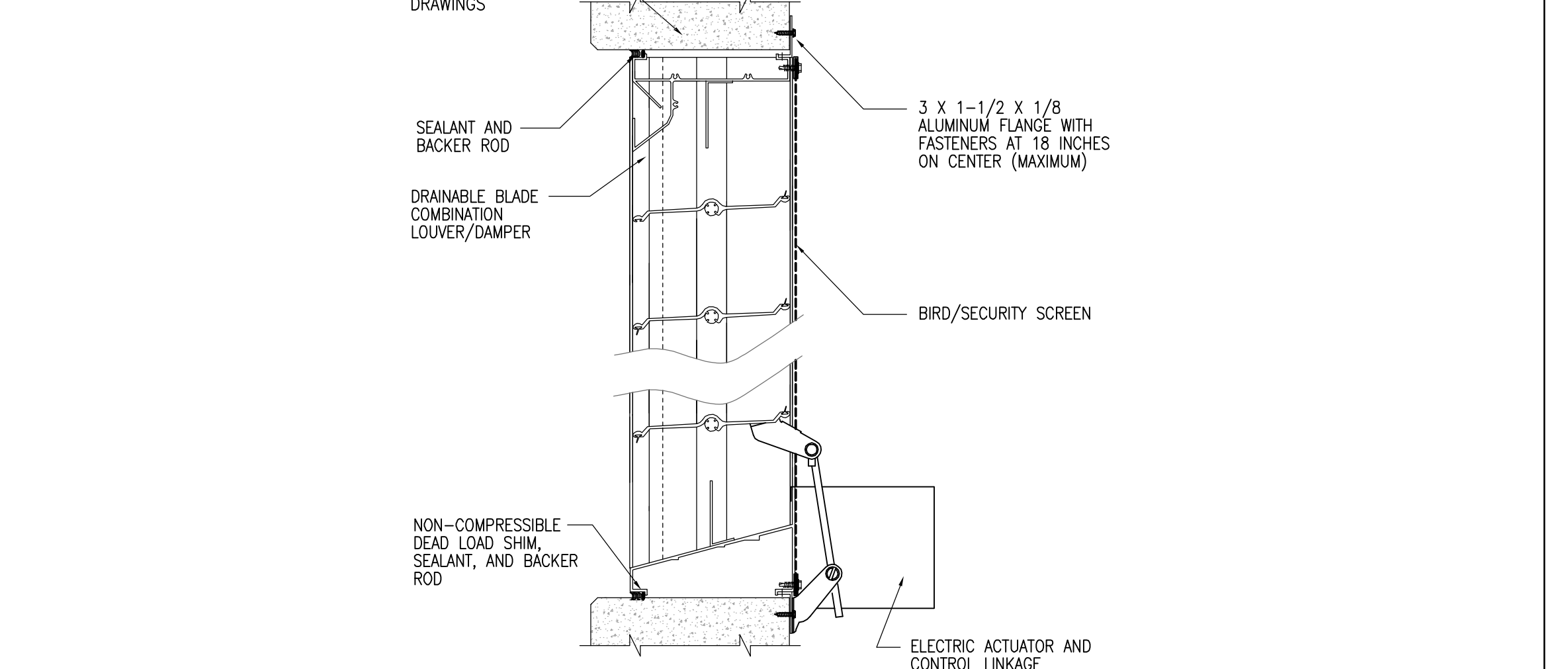
**11 ROOF CONDENSING UNIT MOUNTING DETAIL**

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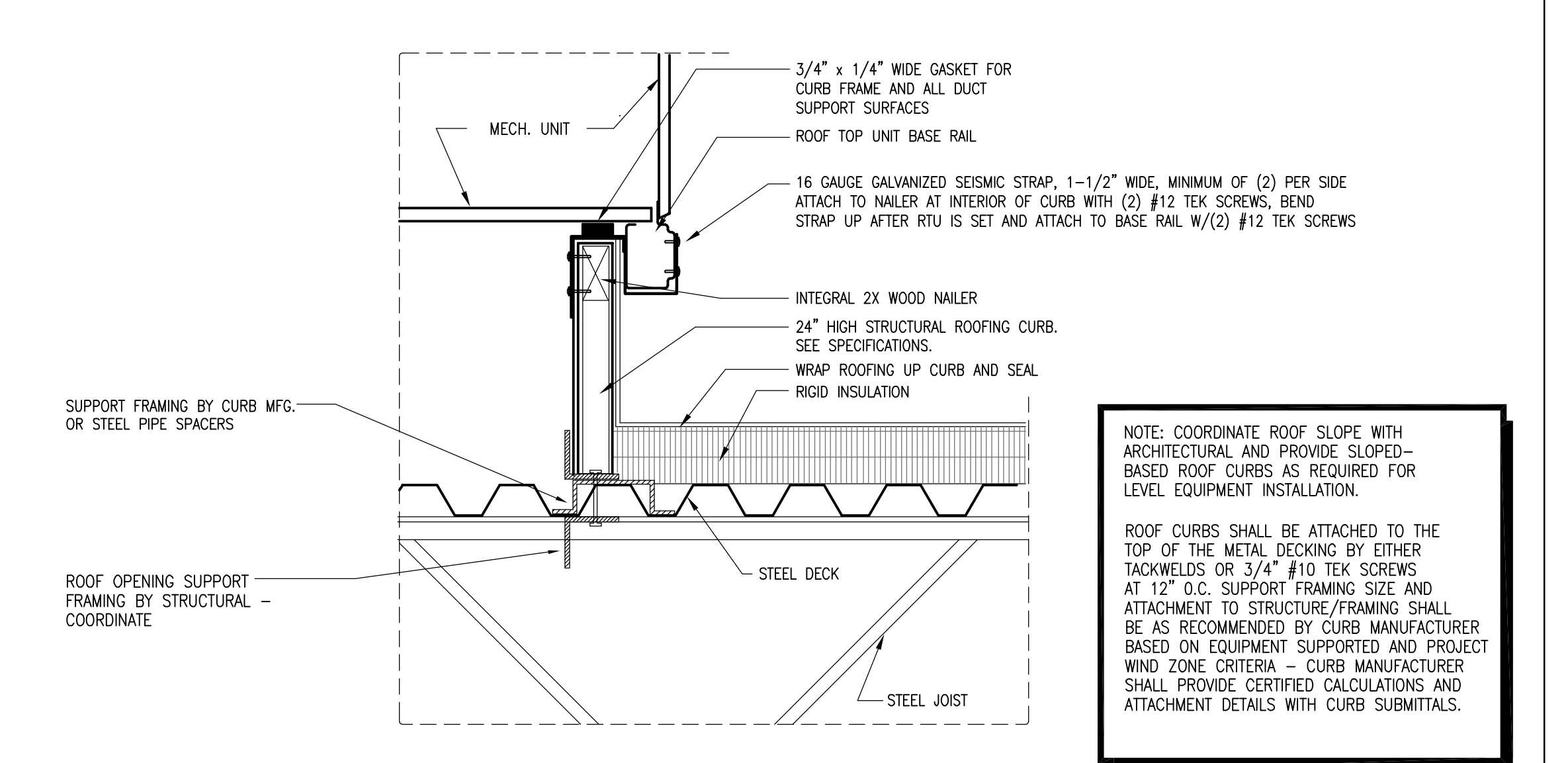
**8 ROOFTOP AIR CONDITIONER DETAIL**

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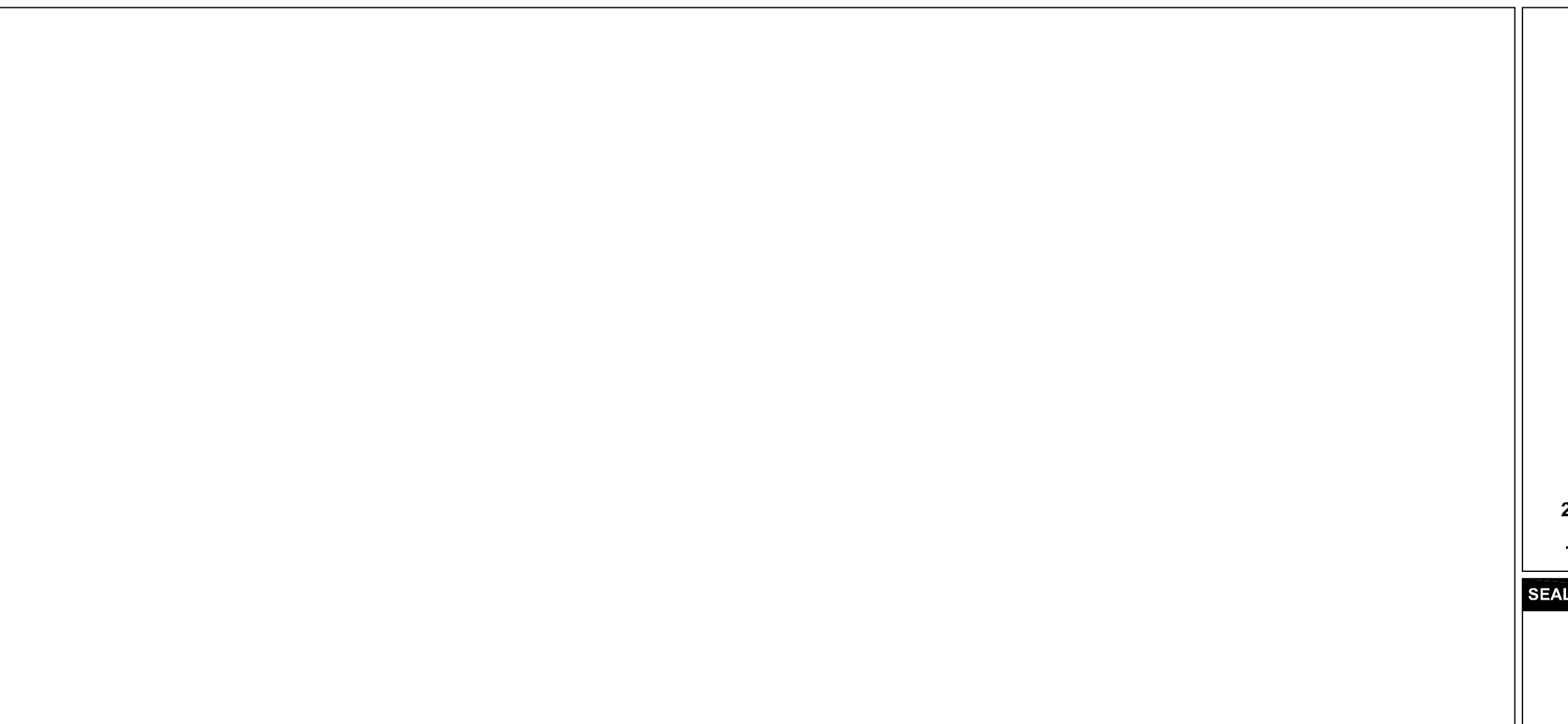
**5 WALL INTAKE LOUVER DETAIL**

NO SCALE



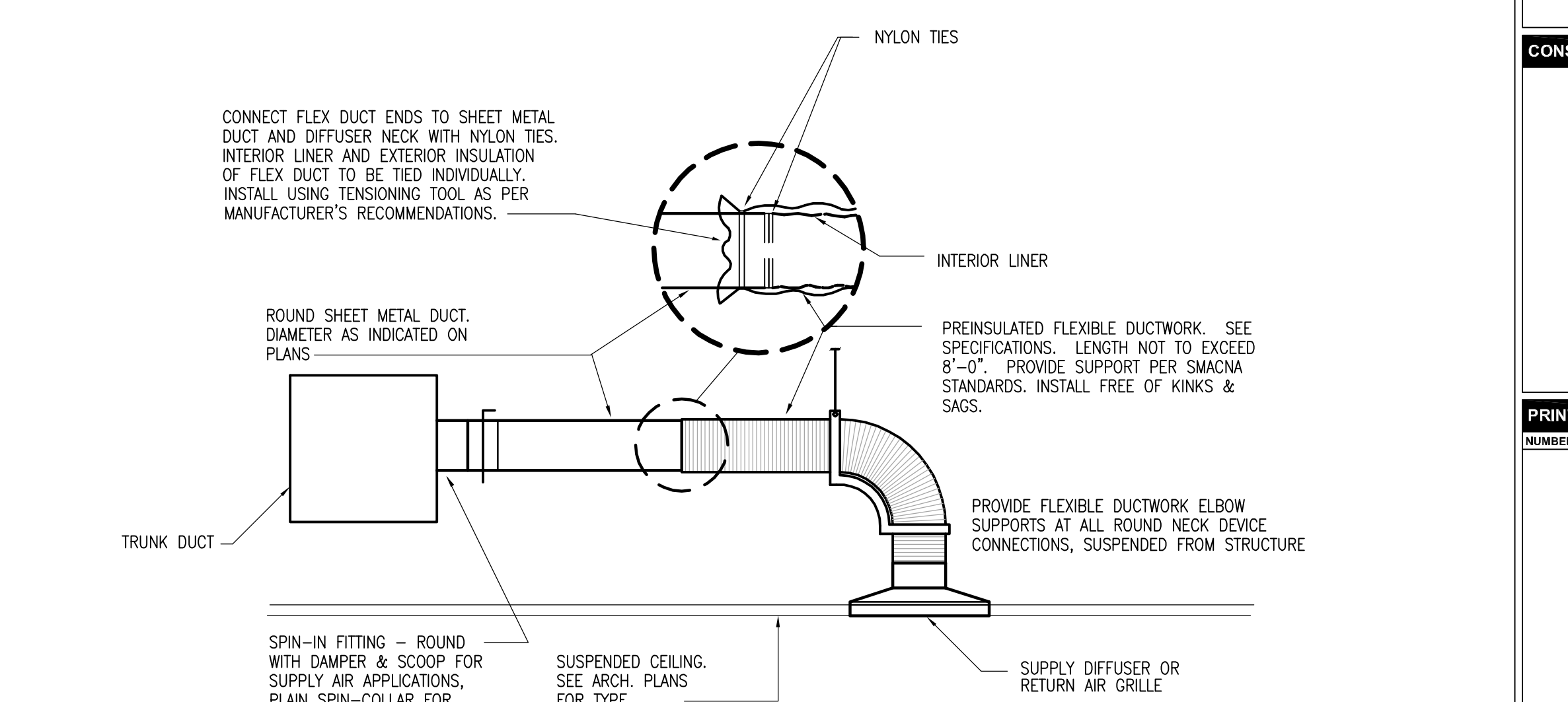
**2 MECHANICAL EQUIPMENT ROOF CURB DETAIL**

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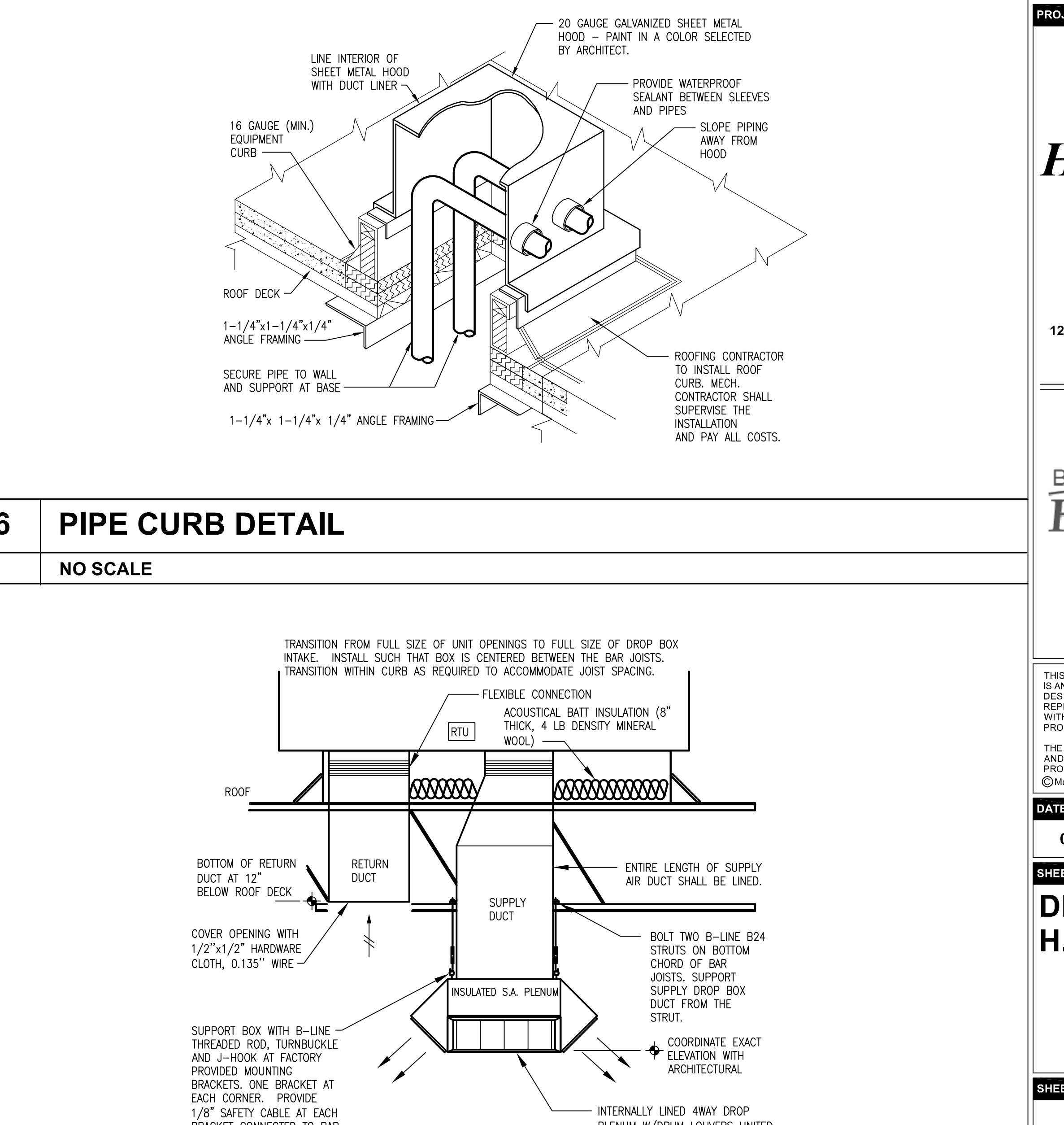
**9 FLEXIBLE DUCT TAKE-OFF DETAIL**

NO SCALE



**6 PIPE CURB DETAIL**

NO SCALE



**3 ROOFTOP UNIT DROP PLENUM DISTRIBUTION DETAIL**

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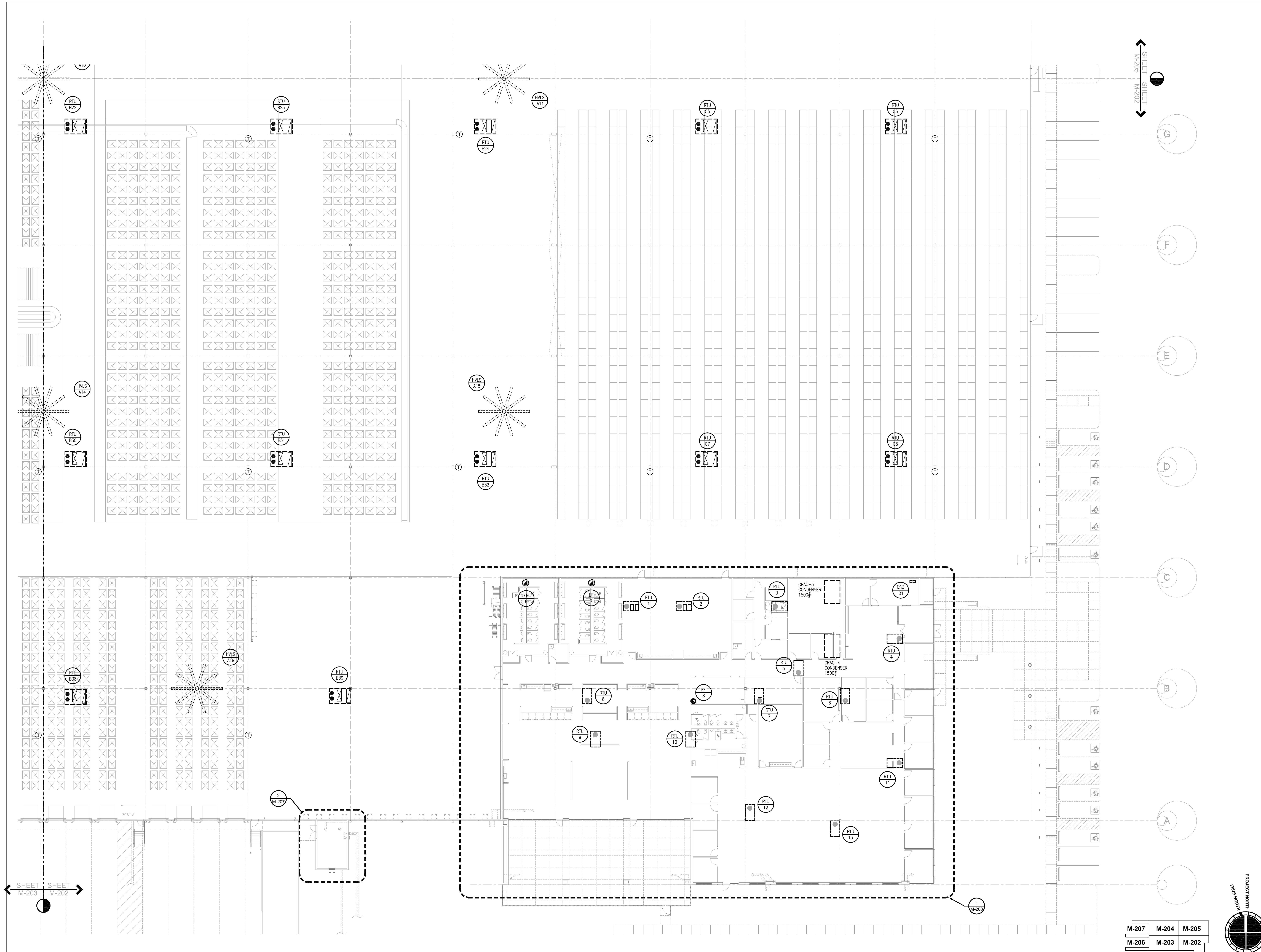
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**PARTIAL FLOOR PLAN - H.V.A.C.**

SHEET NUMBER

**M-202**

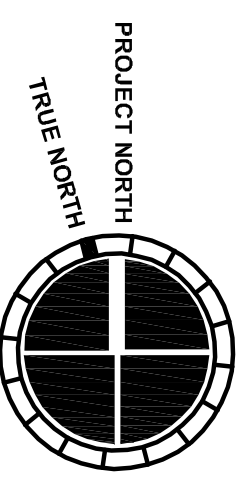
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SHEET M-205  
M-202

SHEET M-203  
M-202

M-207	M-204	M-205
M-206	M-203	M-202



**1 PARTIAL FLOOR PLAN - H.V.A.C.**

1/16" = 1'-0"

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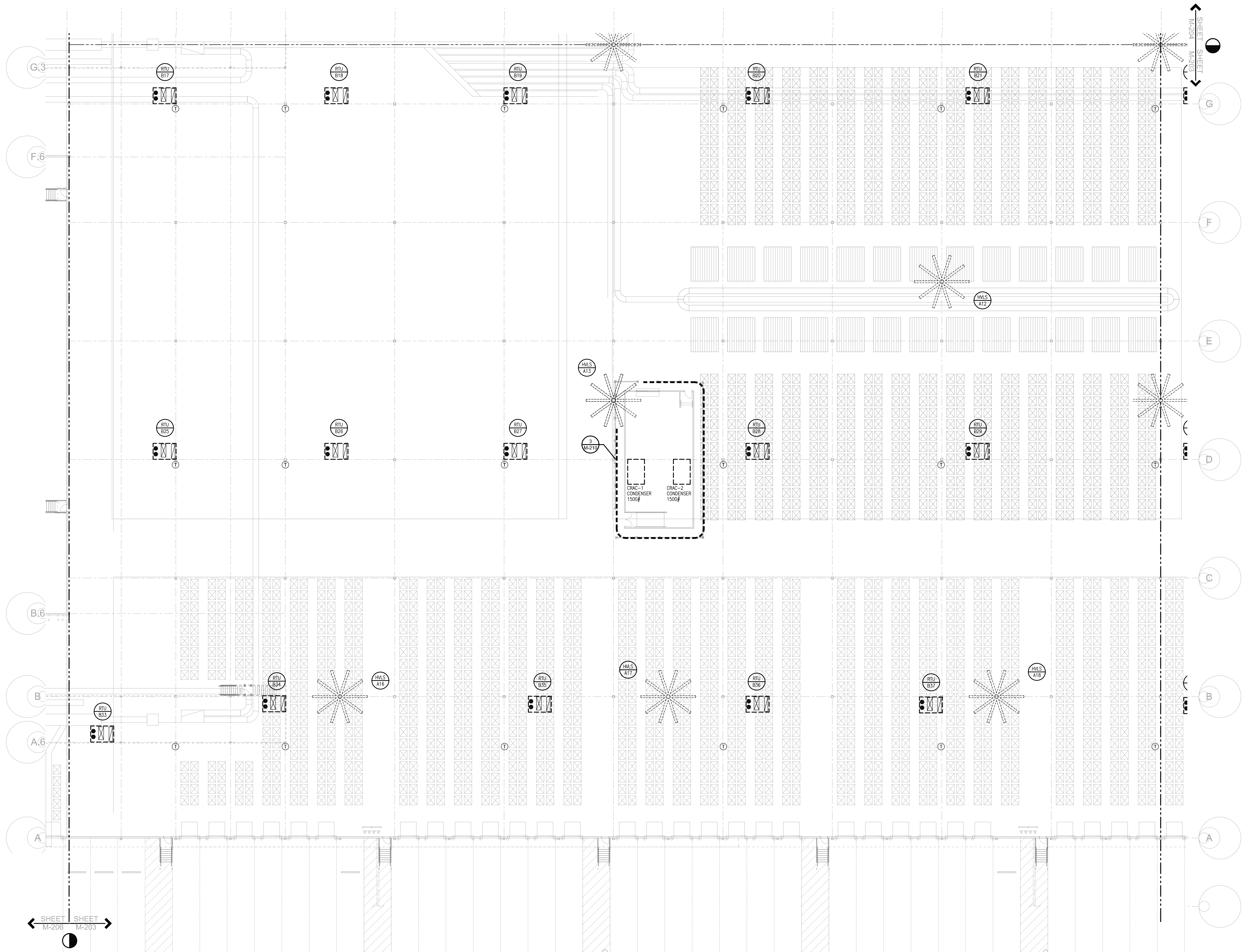
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**PARTIAL FLOOR PLAN - H.V.A.C.**

SHEET NUMBER

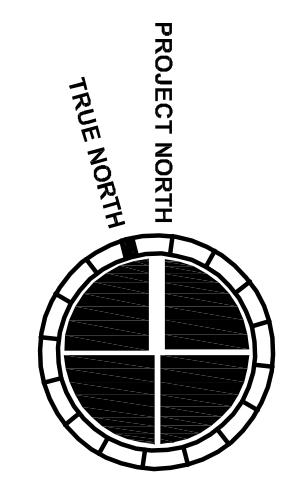
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SHEET M-206 ← SHEET M-203

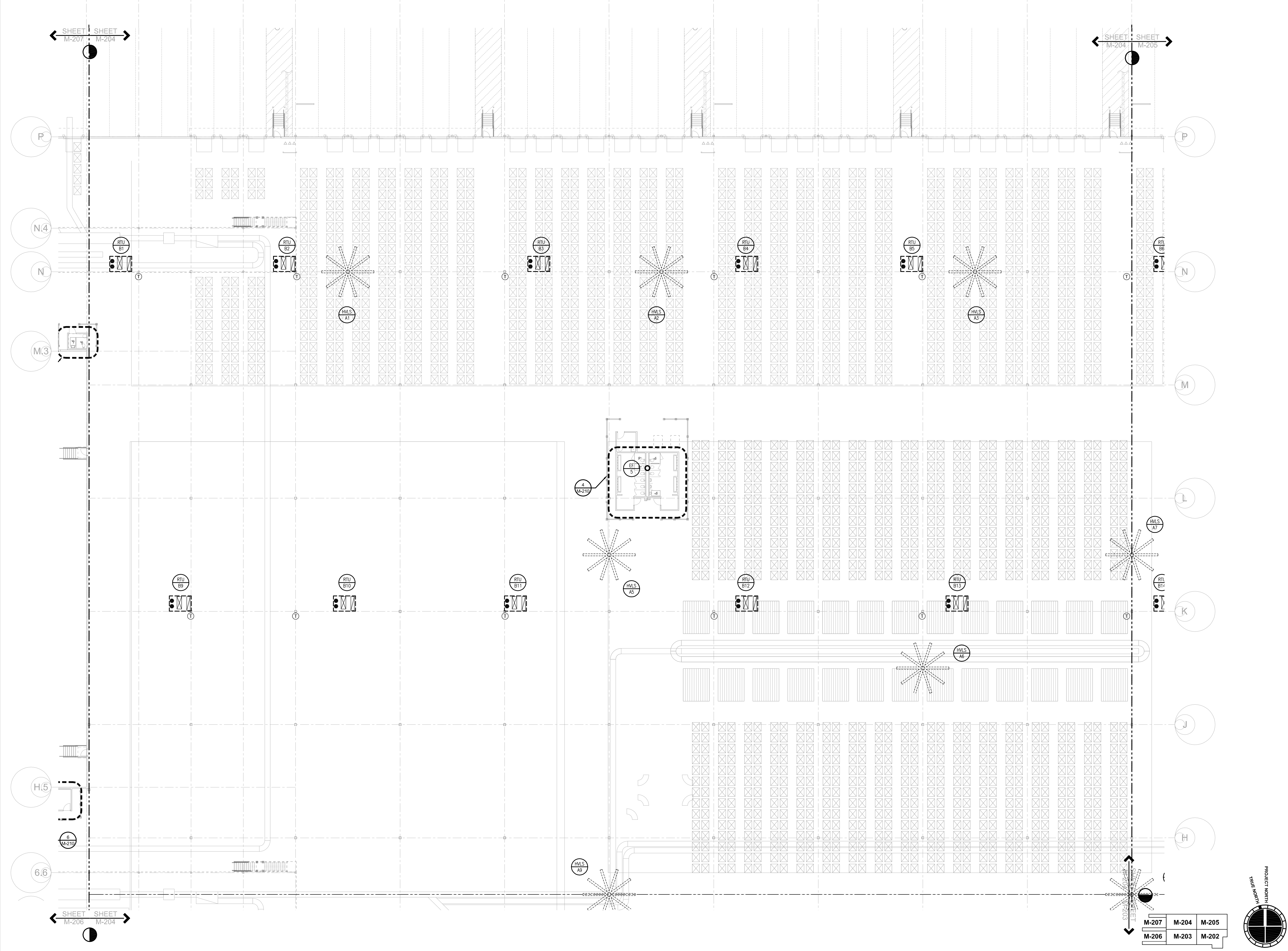
M-207	M-204	M-205
M-206	M-203	M-202



**1 PARTIAL FLOOR PLAN - H.V.A.C.**

1/16" = 1'-0"

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07/31/2013	2013-018

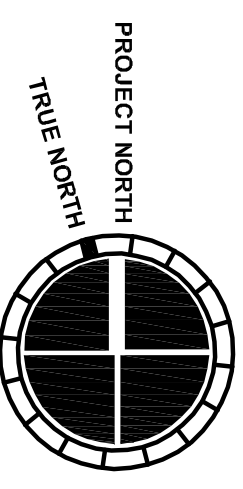
**SHEET TITLE**

**PARTIAL FLOOR PLAN - H.V.A.C.**

**SHEET NUMBER**

**M-204**

**FOR CONSTRUCTION**



M-207	M-204	M-205
M-206	M-203	M-202

SHEET M-207 SHEET M-204

SHEET M-204 SHEET M-205

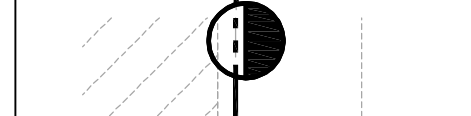
SHEET M-206 SHEET M-204

**1 PARTIAL FLOOR PLAN - H.V.A.C.**

1/16" = 1'-0"

6/4/2013 11:37:17 AM

SHEET M-204  
SHEET M-205



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07/31/2013	2013-018

SHEET TITLE

**PARTIAL FLOOR PLAN - H.V.A.C.**

SHEET NUMBER

**M-205**

FOR CONSTRUCTION

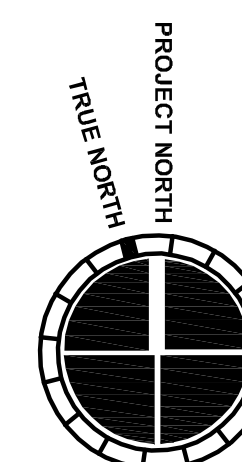
**1 PARTIAL FLOOR PLAN - H.V.A.C.**

1/16" = 1'-0"

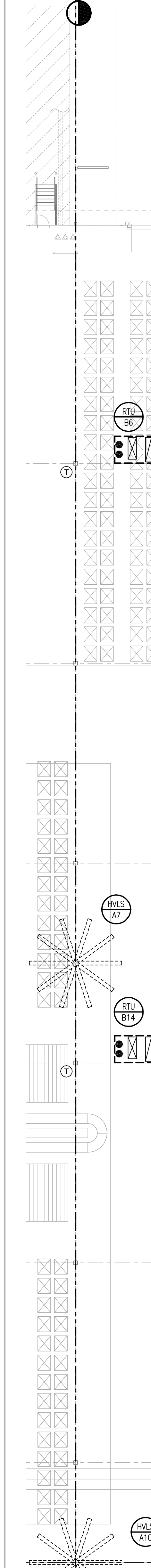
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SHEET M-204  
SHEET M-205

M-207	M-204	M-205
M-206	M-203	M-202



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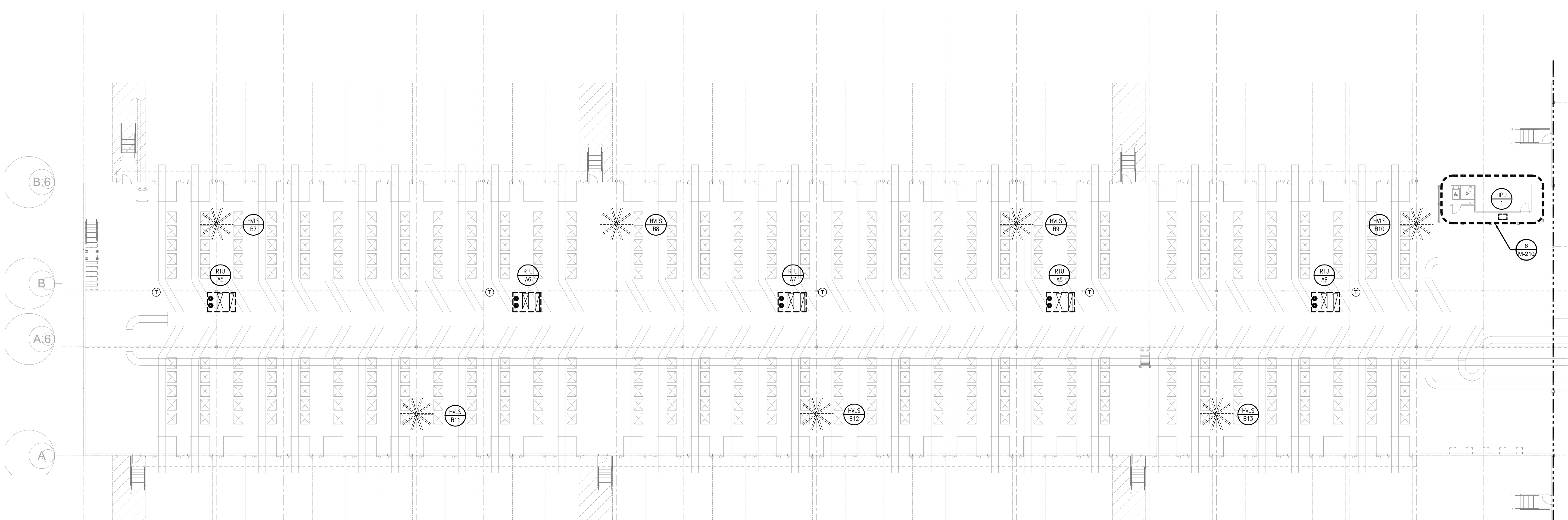
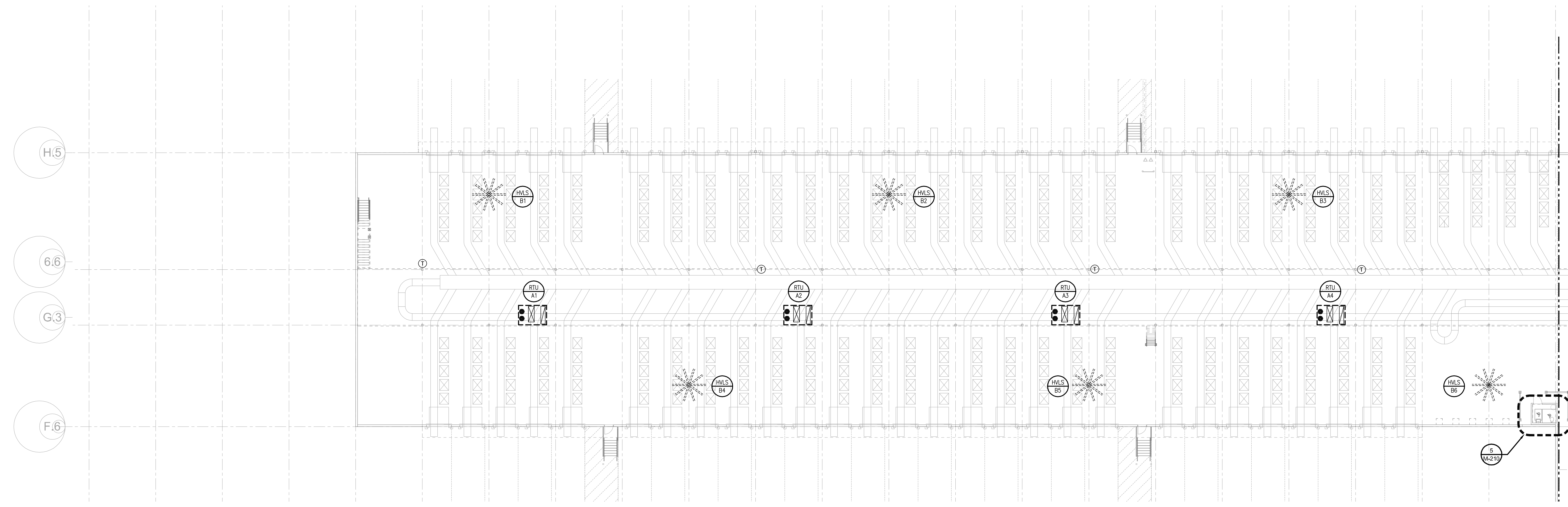
DATE	PROJECT NO.
07/31/2013	2013-018

**PARTIAL FLOOR PLAN - H.V.A.C.**

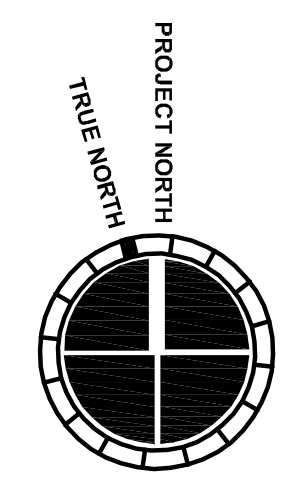
SHEET NUMBER

**M-206**

FOR CONSTRUCTION



M-207	M-204	M-205
M-206	M-203	M-202



**1 PARTIAL FLOOR PLAN - H.V.A.C.**

1/16" = 1'-0"

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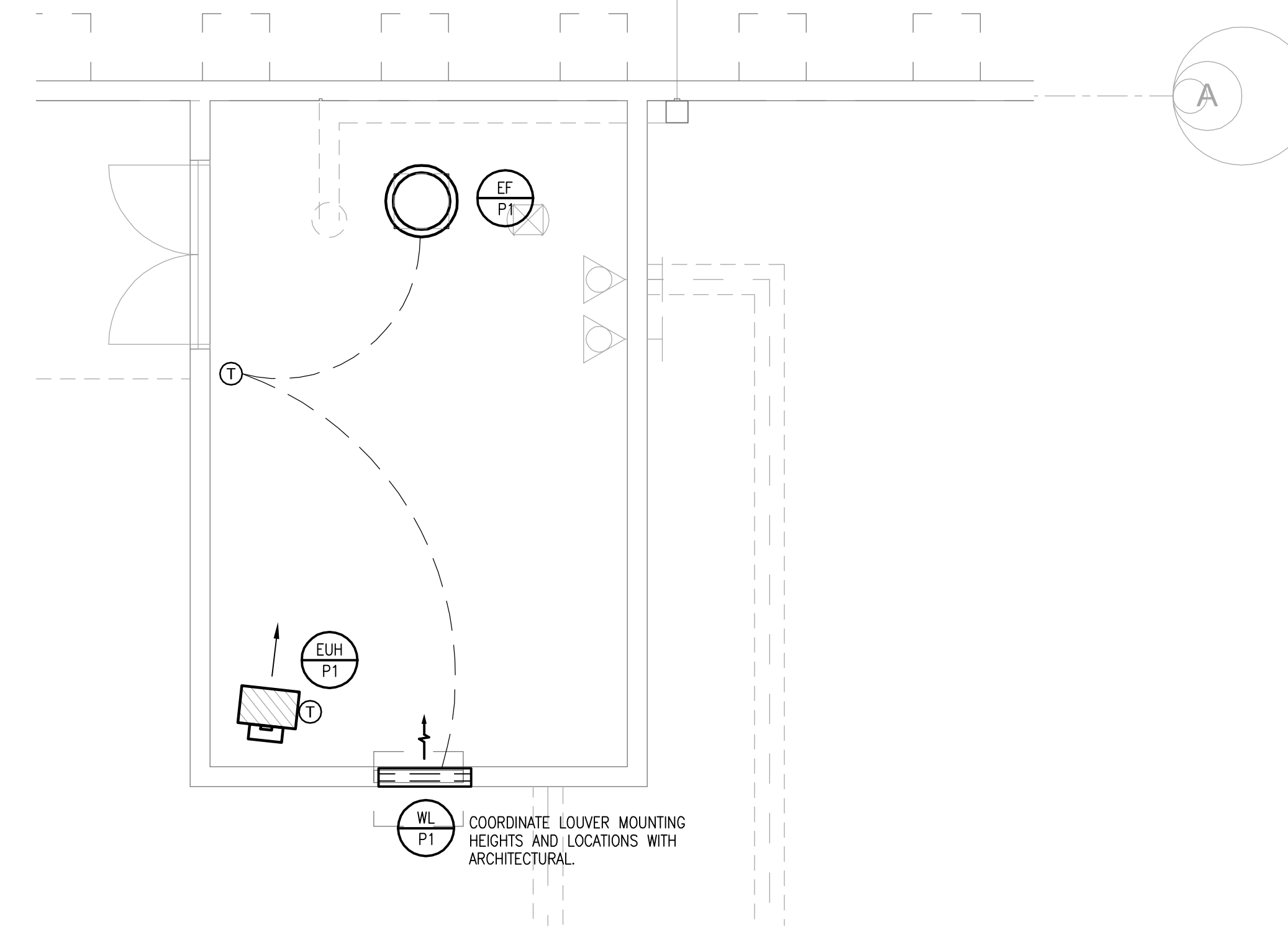
DATE	PROJECT NO.
07/31/2013	2013-018

**PARTIAL FLOOR PLAN AND ENLARGED PUMP HOUSE - H.V.A.C.**

SHEET NUMBER

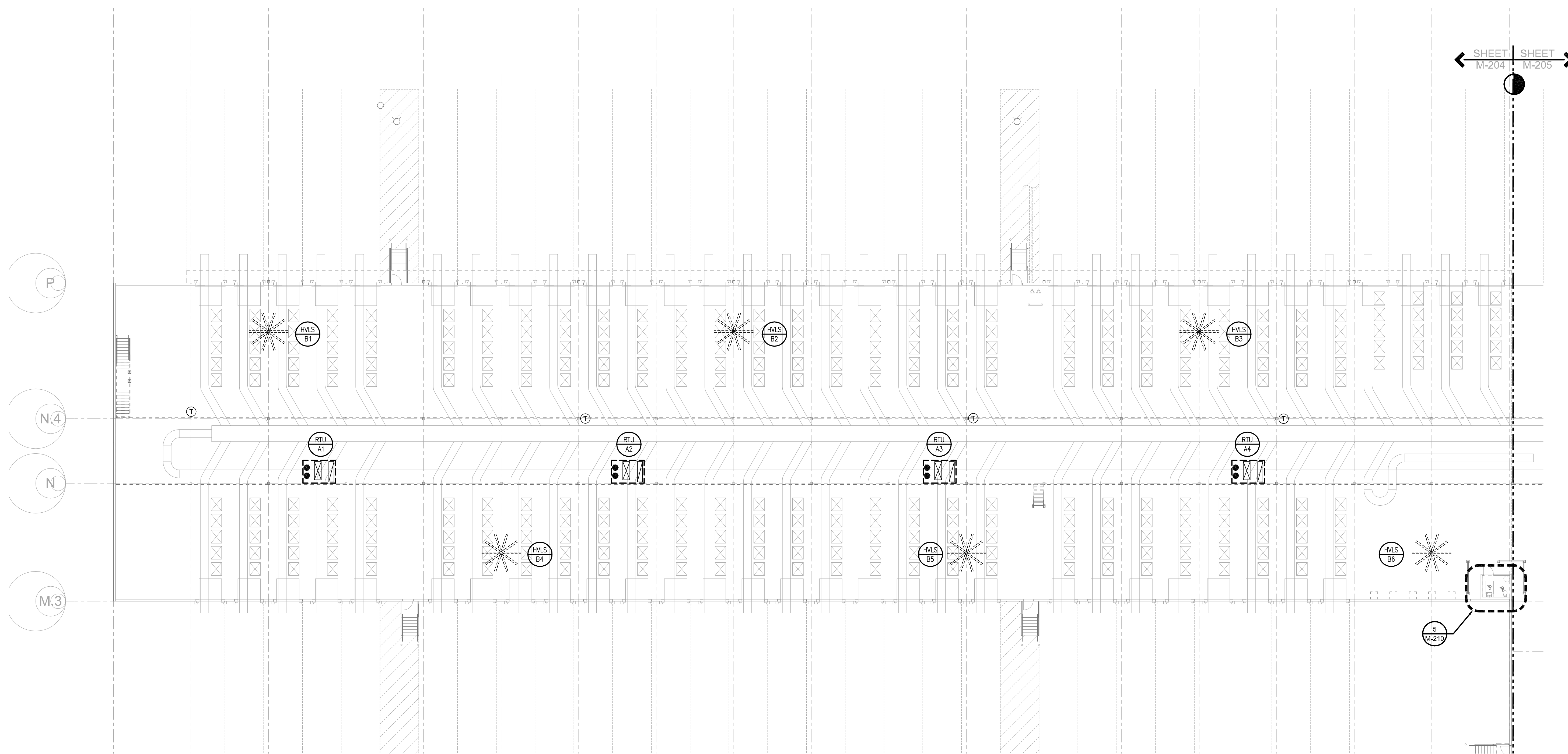
**M-207**

FOR CONSTRUCTION



**2 ENLARGED PUMP HOUSE - H.V.A.C.**

1/4" = 1'-0"



M-207	M-204	M-205
M-206	M-203	M-202

**1 PARTIAL FLOOR PLAN - H.V.A.C.**

1/16" = 1'-0"

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0100002	07/03/2013	ISSUED FOR BID/PERMIT

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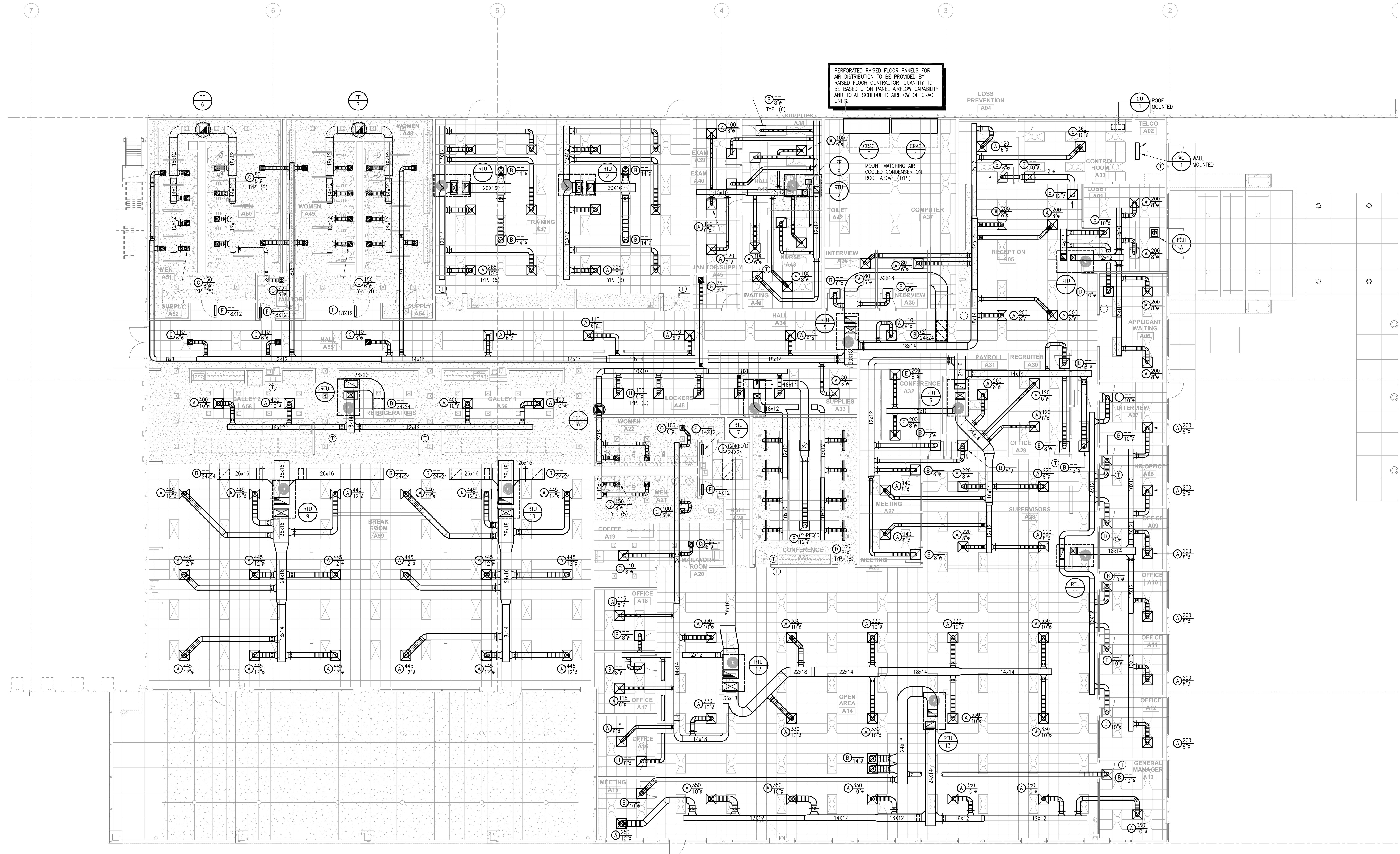
DATE	PROJECT NO.
07/31/2013	2013-018

SHEET TITLE  
**MAIN OFFICE FLOOR PLAN - H.V.A.C.**

SHEET NUMBER

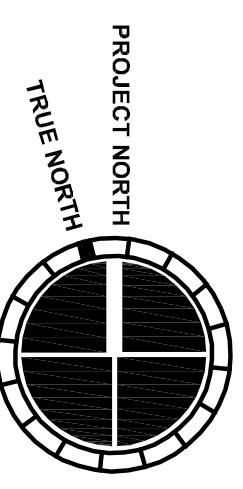
**M-208**

FOR CONSTRUCTION



PERFORATED RAISED FLOOR PANELS FOR AIR DISTRIBUTION TO BE PROVIDED BY RAISED FLOOR CONTRACTOR. QUANTITY TO BE BASED UPON PANEL AIRFLOW CAPABILITY AND TOTAL SCHEDULED AIRFLOW OF CRAC UNITS.

LOCATE BUILDING AUTOMATION SYSTEM PANEL IN COMPUTER ROOM A37 - COORDINATE LOCATION. BAS CONTROL WORKSTATION SHALL BE LOCATED IN MAINTENANCE OFFICE - COORDINATE/CONFIRM LOCATION WITH OWNER.



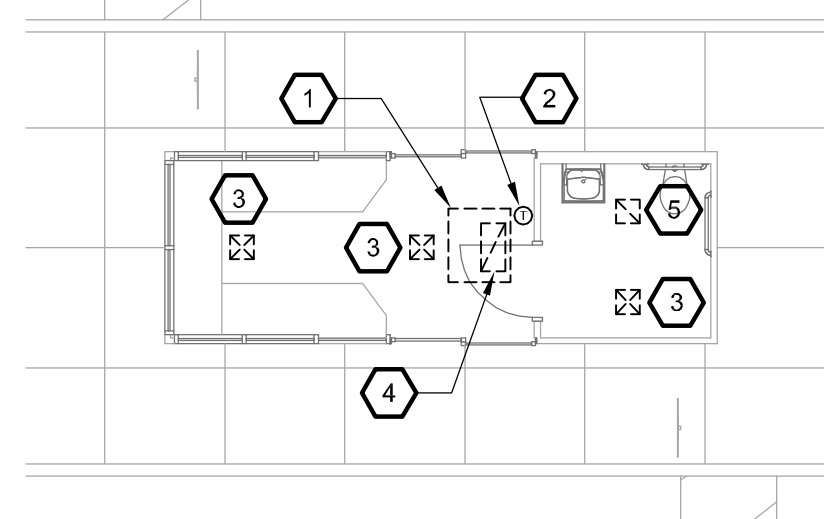
**1 MAIN OFFICE FLOOR PLAN - H.V.A.C.**

1/8" = 1'-0"

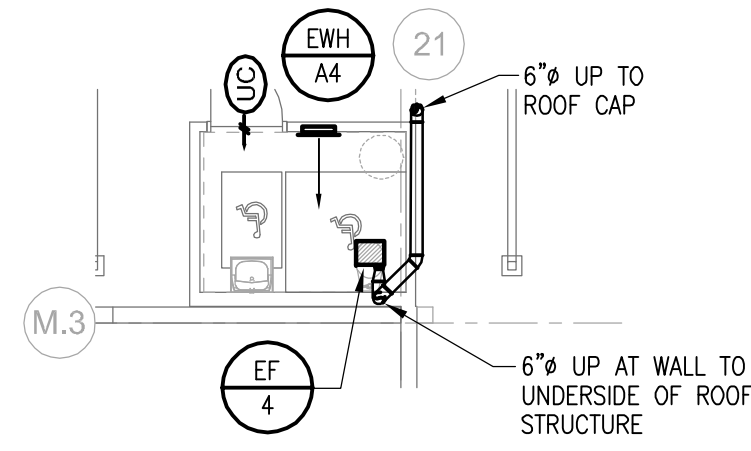
8/4/2013 11:33:17 AM



SEE ARCHITECTURAL SITE PLAN FOR GUARD HOUSE LOCATION.

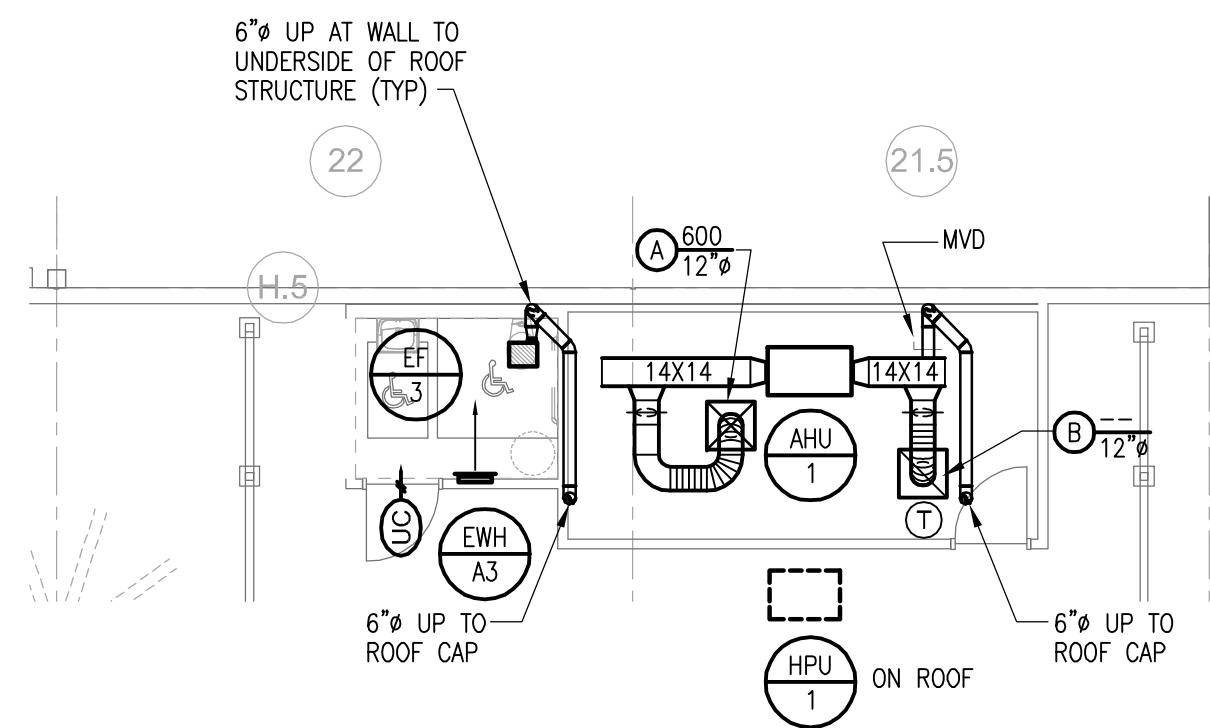


- 1 TWO-TON ROOF MOUNTED PACKAGED HEAT PUMP FURNISHED WITH GUARD HOUSE UNIT BUT SHIPPED LOOSE. INSTALLATION BY MECHANICAL CONTRACTOR. ALL FRAMING, SUPPLY REGISTERS, FILTERED RETURNS, DUCTS, THERMOSTAT WIRING, AND ROOF JUNCTION BOX ARE PRE-INSTALLED. ROOFTOP A/C UNIT, WALL-MOUNTED THERMOSTAT, AND NON-FUSED DISCONNECT ARE SHIPPED LOOSE FOR SITE INSTALLATION BY MECHANICAL.
- 2 WALL-MOUNTED LOW VOLTAGE THERMOSTAT
- 3 CEILING SUPPLY REGISTER
- 4 CEILING RETURN AIR GRILLE WITH FILTER FRAME
- 5 75 CFM EXHAUST FAN PRE-INSTALLED BY GUARD HOUSE MANUFACTURER



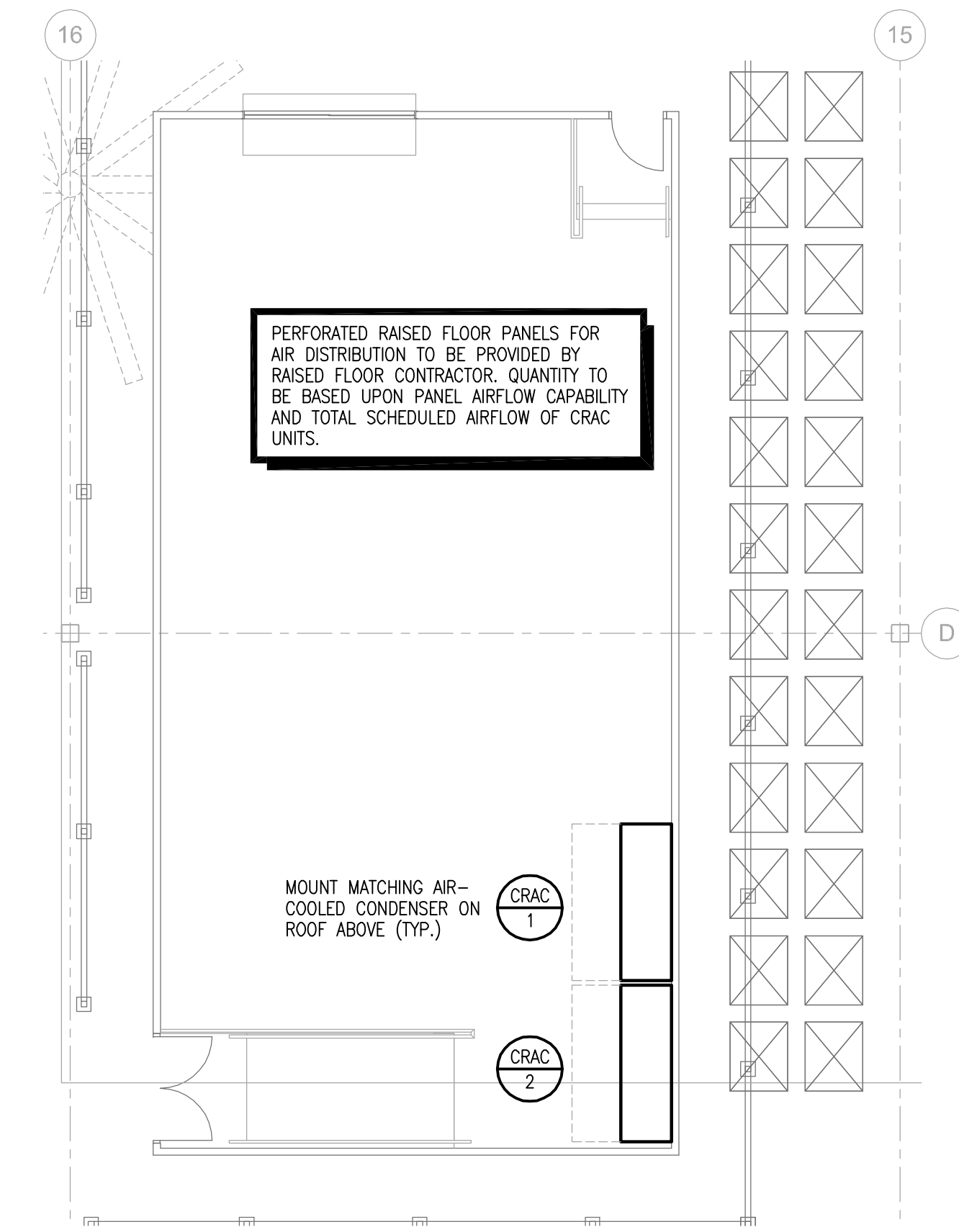
**7 PARTIAL PLAN - TOILET H01 - H.V.A.C.**

1/8" = 1'-0"



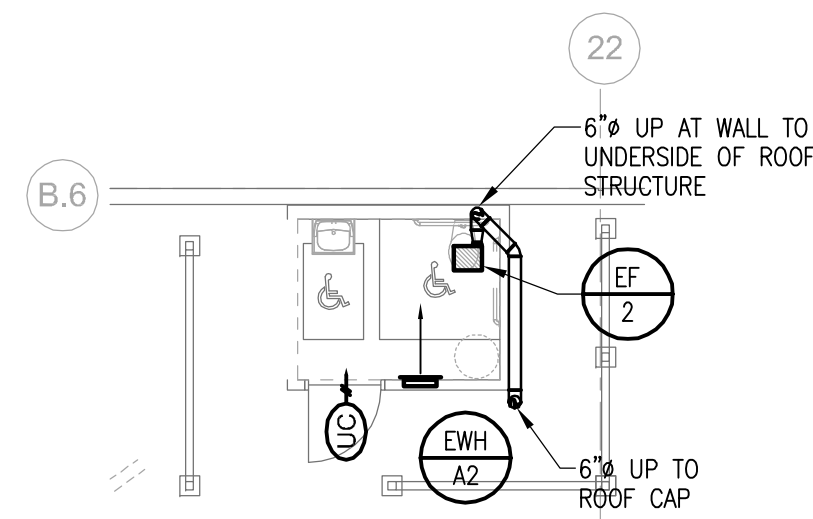
**6 PARTIAL PLAN - SHIPPING OFFICE & TOILET - H.V.A.C.**

1/8" = 1'-0"



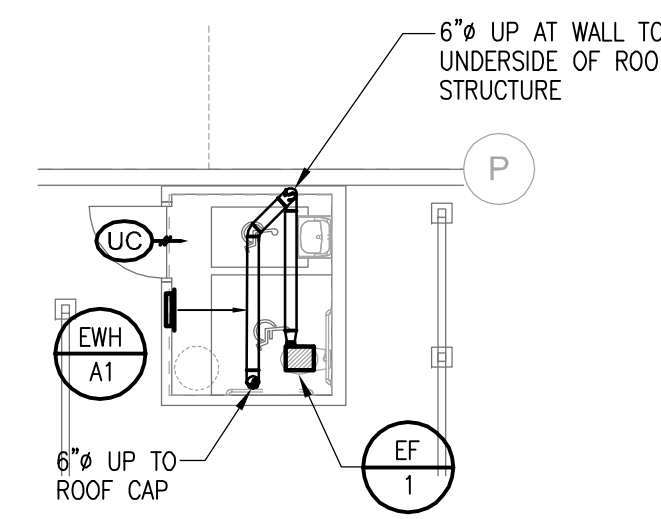
**3 PARTIAL PLAN - TICKET ROOM - H.V.A.C.**

1/8" = 1'-0"



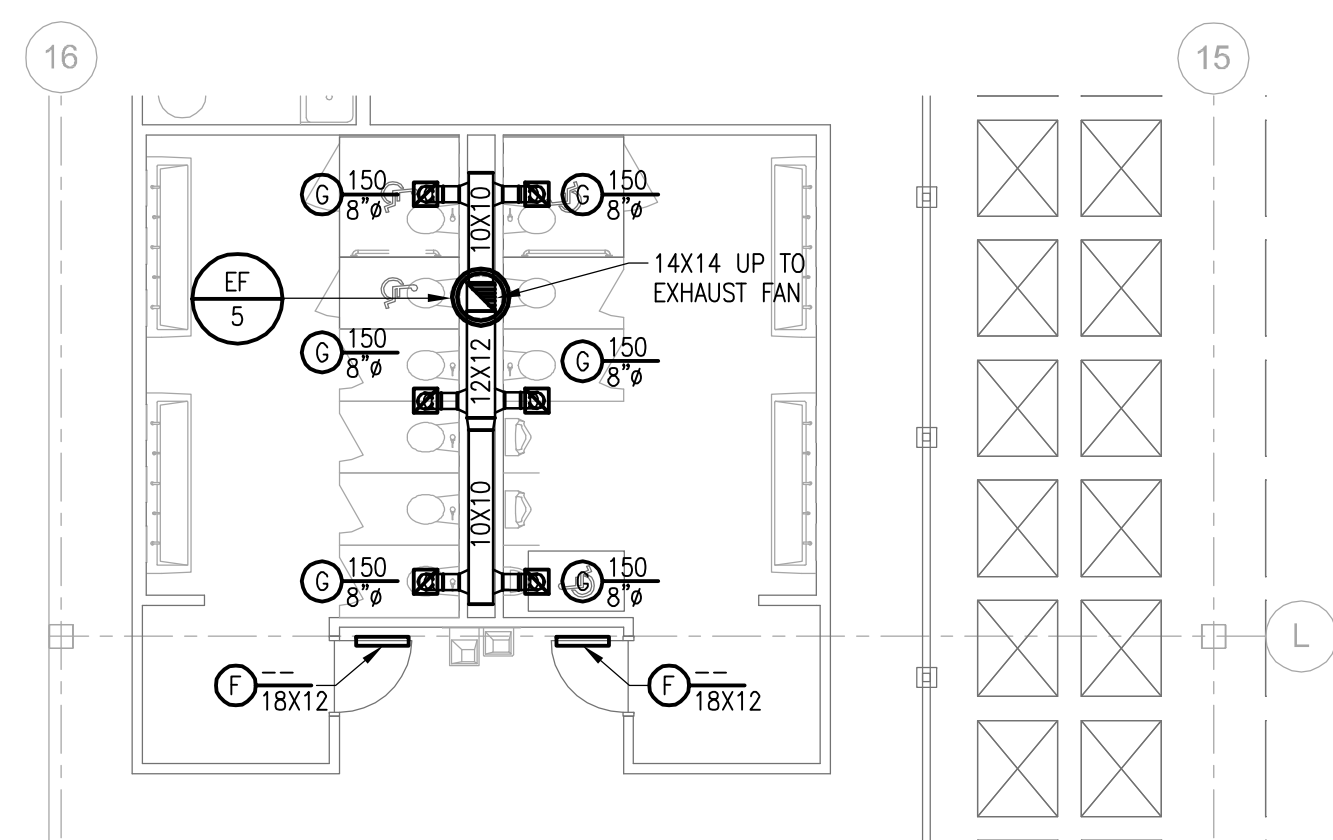
**5 PARTIAL PLAN - TOILET F01 - H.V.A.C.**

1/8" = 1'-0"



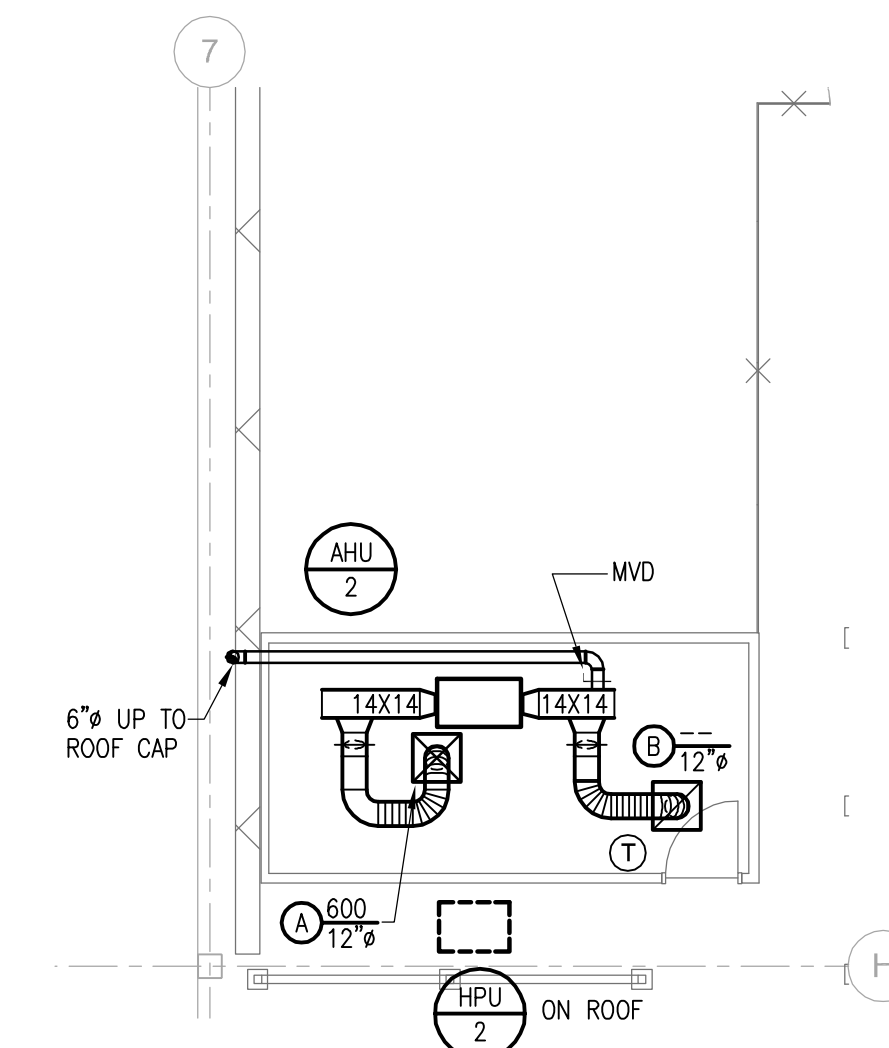
**2 PARTIAL PLAN - TOILET C01 - H.V.A.C.**

1/8" = 1'-0"



**4 PARTIAL PLAN - RESTROOMS- H.V.A.C.**

1/8" = 1'-0"



**1 PARTIAL PLAN - RECEIVING OFFICE - H.V.A.C.**

1/8" = 1'-0"



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**WAREHOUSE OFFICES AND RESTROOMS FLOOR PLANS - H.V.A.C.**

SHEET NUMBER

**M-210**

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