

1 MECHANICAL PLAN - OVERALL PLAN
SCALE: 1/16"=1'-0"

- GENERAL NEW NOTES:**
- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
 - EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
 - COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
 - AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN FOR NEW INSTALLATION DURING WORK. REPAIR DAMAGE CAUSED DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
 - ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED.
 - NEW MECHANICAL EQUIPMENT AND DUCTWORK ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
 - REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
 - COORDINATE LOCATION OF ROOF MOUNTED HVAC EQUIPMENT AND ROOF PENETRATIONS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
 - INDOOR AIR QUALITY MEASURES: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS GOTTEN WET AT ANY TIME DURING CONSTRUCTION. DRYING THE INSULATION IS NOT ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR PLENUM INCLUDING DUST. AN INDEPENDENT PROFESSIONAL DUCT CLEANING COMPANY SHALL VACUUM CLEAN ANY DUCTWORK CONNECTED TO HVAC UNITS THAT WERE OPERATED DURING THE CONSTRUCTION PERIOD AFTER NEW FILTERS ARE INSTALLED AND PRIOR TO TURNING SYSTEM OVER TO THE OWNER.
 - INSTALL DUCTWORK PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
 - OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT AND DUCTWORK SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF.
 - COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
 - SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
 - COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
 - ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
 - DUCTWORK CROSSING FIRE RATED WALLS OR OTHER FIRE RATED ASSEMBLIES SHALL BE MINIMUM 2# GAUGE SHEET METAL.
 - LOCATE AND SET THERMOSTATS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL DEVICES 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. PROVIDE INSULATED BACKING FOR THERMOSTATS MOUNTED ON EXTERIOR BUILDING WALLS. INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 16.
 - COORDINATE THE LOCATION AND ELEVATION OF WALL-MOUNTED DEVICES WITH PRESENTATION BOARDS, DISPLAY CABINETS, SHELVES OR OTHER COMPONENTS SHOWN ON THE ARCHITECTURAL DRAWINGS THAT ARE TO BE INSTALLED UNDER OTHER DIVISIONS. CONTRACTOR WILL NOT BE REIMBURSED FOR RELOCATION OF WALL-MOUNTED DEVICES CAUSED BY A LACK OF COORDINATION.
 - PROVIDE A MANUAL BALANCING DAMPER IN EACH BRANCH DUCT TAKEOFF FROM MAIN SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCTS.
 - PROVIDE A PREFABRICATED 45 DEGREE, HIGH EFFICIENCY, RECTANGULAR/ROUND BRANCH DUCT TAKEOFF FITTING WITH MANUAL BALANCING DAMPER AND LOCKING QUADRANT FOR BRANCH DUCT CONNECTIONS AND TAKE-OFFS TO INDIVIDUAL DIFFUSERS, REGISTERS AND GRILLES.
 - BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
 - RIGID DUCTWORK INSULATION: PROVIDE 3/4 LB DENSITY, 2-1/2" (R-6) THICK, INSULATION WRAP ON RIGID ROUND AND RECTANGULAR, CONCEALED, SUPPLY AND RETURN AIR DUCTS AND ON OUTSIDE AIR DUCTS. FURNISH AND INSTALL THICK 2 LB DENSITY, 1-1/2" (R-6) INTERNAL DUCT LINER ON EXPOSED RECTANGULAR SUPPLY AND RETURN AIR DUCTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS, INCREASE SHEET METAL SIZES ACCORDINGLY. FURNISH AND INSTALL THICK 3 LB DENSITY, 2" (R-8) INTERNAL DUCT LINER ON EXTERIOR EXPOSED RECTANGULAR SUPPLY AIR DUCTS.
 - PROVIDE THERMAFLEX TYPE M-KE, FLEXMASTER TYPE B, OR APPROVED EQUAL FLEXIBLE DUCTWORK. FLEXIBLE DUCTWORK SHALL BE LISTED UNDER UL 181 AS CLASS 1 AIR DUCT AND BE PROVIDED WITH INTEGRAL R-6, 3/4 LB DENSITY FIBERGLASS INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH AND SHALL BE INSTALLED AND SUPPORTED TO AVOID SHARP BENDS AND SAGGING.
 - RIGIDLY SUSPEND UNIT HEATER FROM STRUCTURE WITH SUPPORTING ANGLES AND ALL-THREAD HANGING RODS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE EQUIPMENT VENTS AND FLUES PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS AND EQUIPMENT SPECIFICATIONS. KEEP PENETRATIONS THROUGH ROOF A MINIMUM OF 10'-0" FROM HVAC EQUIPMENT FRESH AIR INLETS AND 2'-0" FROM ROOF PARAPETS.
 - PROVIDE WALL MOUNTED LOUVERS AND DAMPERS WITH SUITABLE MOUNTING FRAME TO MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL DRAWINGS.
 - PROVIDE A NEW SET OF AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.
 - PROVIDE SMOKE DAMPERS, AS APPLICABLE, IN DUCTWORK AT CEILINGS AND WALLS AT LOCATIONS SHOWN ON THE PLANS. SMOKE DAMPERS SHALL CONFORM TO NFPA AS APPLICABLE. COORDINATE SLEEVE LENGTH WITH REQUIREMENTS OF INSTALLED LOCATION.

Seal:

Revisions:

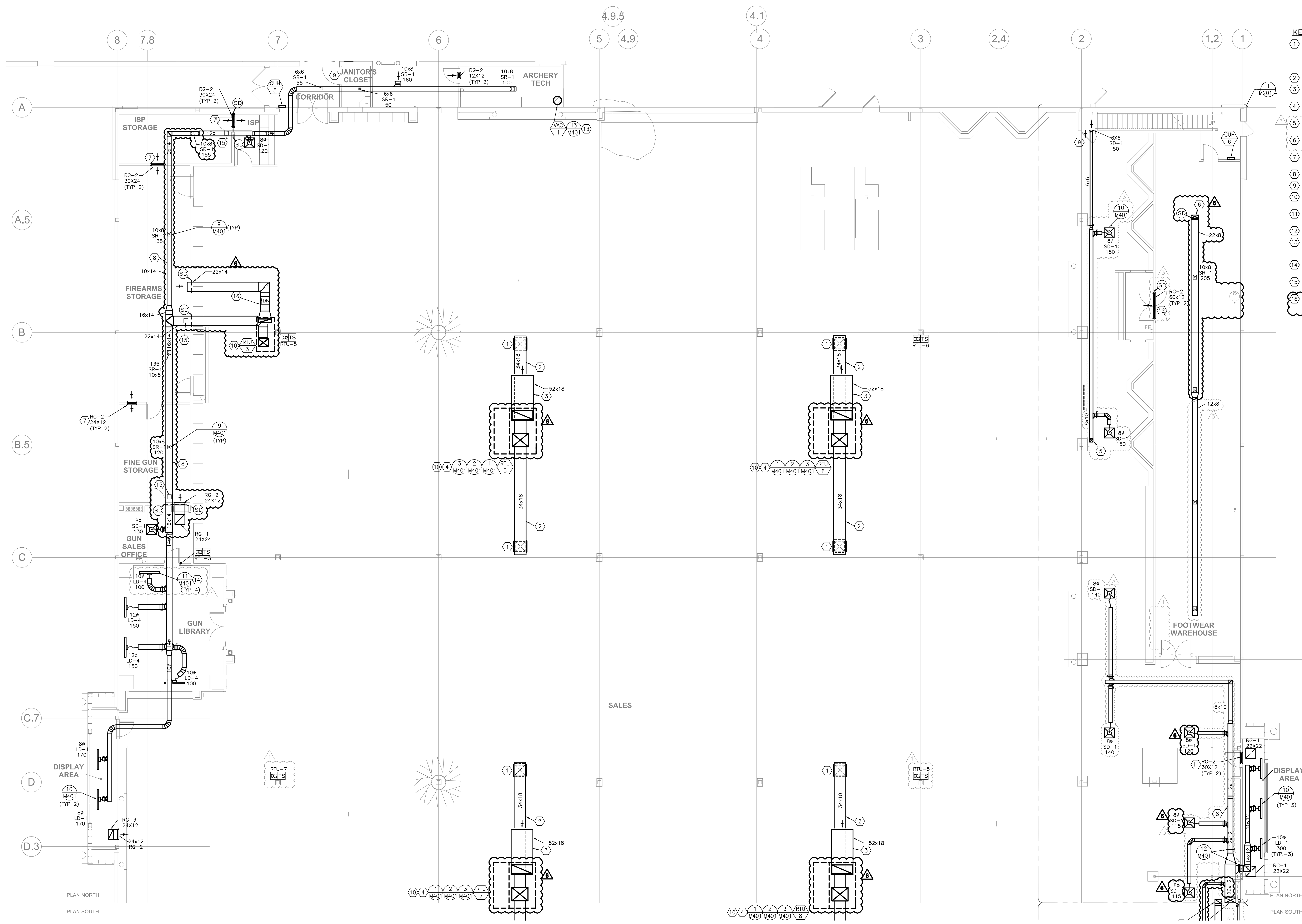
Drawing Set:
BID AND PERMIT SET

Drawing Type:
MECHANICAL PLAN - OVERALL PLAN

Drawn By: SK
Date: 09.03.10

Sheet Number:

M201.1



- GENERAL DEMOLITION NOTES:**
- REFER TO SHEET M201.1 FOR GENERAL NEW NOTES.
- KEY NOTES:**
- PROVIDE 3750 CFM, 4WAY THROW DROP BOX AND MOUNT HIGH AS POSSIBLE BETWEEN JOISTS. DROP BOX DIFFUSER BASIS OF DESIGN AES OR APPROVED EQUAL. DROP BOX DIFFUSER SHALL BE 18" GAGE GALVANIZED STEEL, OPPOSED BLADE DAMPER, 24X24 SUPPLY DUCT CONNECTION, AND 10X20 LOUVERS.
 - ROUTE DUCT HIGH AS POSSIBLE BETWEEN JOIST.
 - ROUTE RETURN DUCT UP IN JOIST SPACE AND TIGHT TO UNDERSIDE OF ROOF DECK. COVER RETURN AIR INLET WITH BIRD SCREEN.
 - LOCATE THE ROOFTOP UNIT OVER THE EXISTING ROOF PENETRATION. COORDINATE WITH STRUCTURAL.
 - ROUTE 8X10 SUPPLY DUCT UP TO MEZZANINE LEVEL. REFER TO MEZZANINE PLAN 1 ON SHEET M201.4 FOR CONTINUATION.
 - ROUTE 12X12 SUPPLY DUCT UP TO MEZZANINE LEVEL. REFER TO MEZZANINE PLAN 1 ON SHEET M201.4 FOR CONTINUATION.
 - PROVIDE TRANSFER AIR GRILLE 18" BELOW ROOF DECK. COORDINATE WITH EXACT LOCATION WITH ARCHITECT.
 - ROUTE SUPPLY DUCT OVER SHELVING.
 - REFER TO ARCHITECTURAL DRAWINGS FOR DOOR UNDERCUT.
 - REFER TO PLUMBING DRAWINGS FOR GAS AND CONDENSATE PIPE ROUTING.
 - PROVIDE TRANSFER GRILLE HIGH AS POSSIBLE AND OVER SHELVING.
 - PROVIDE TRANSFER GRILLE HIGH AS POSSIBLE.
 - THE 4" Ø VACUUM PIPING SHALL BE SUPPORTED FROM WALL. COORDINATE VACUUM LINE DROPS WITH EQUIPMENT LOCATIONS ON DESK.
 - THE SLOT DIFFUSERS SHALL NOT BE VISIBLE. COORDINATE FINAL LOCATION WITH MILLWORK.
 - PROVIDE 10"X10" ACCESS PANEL FOR ACCESS TO SMOKE DAMPER. ACCESS DOOR SHALL BE LOCATED WITHIN 12" FROM DAMPER.
 - ROUTE RETURN DUCT UP IN JOIST SPACE AND TIGHT TO UNDERSIDE OF ROOF DECK. TRANSITION DOWN BELOW JOIST MEMBERS WITH A 45° ELBOW FITTING.

MECHANICAL PLAN - PLAN NORTH
 SCALE: 1/8"=1'-0"

Seal:

Revisions:
 ▲ 09.17.10 ADDENDUM 1
 ▲ 10.21.10 Bulletin #1
 ▲ 12.16.10 Bulletin #4

Drawing Set:
 OUT TO BID/LL/PERMIT

Drawing Type:
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 FLOOR PLAN - NORTH

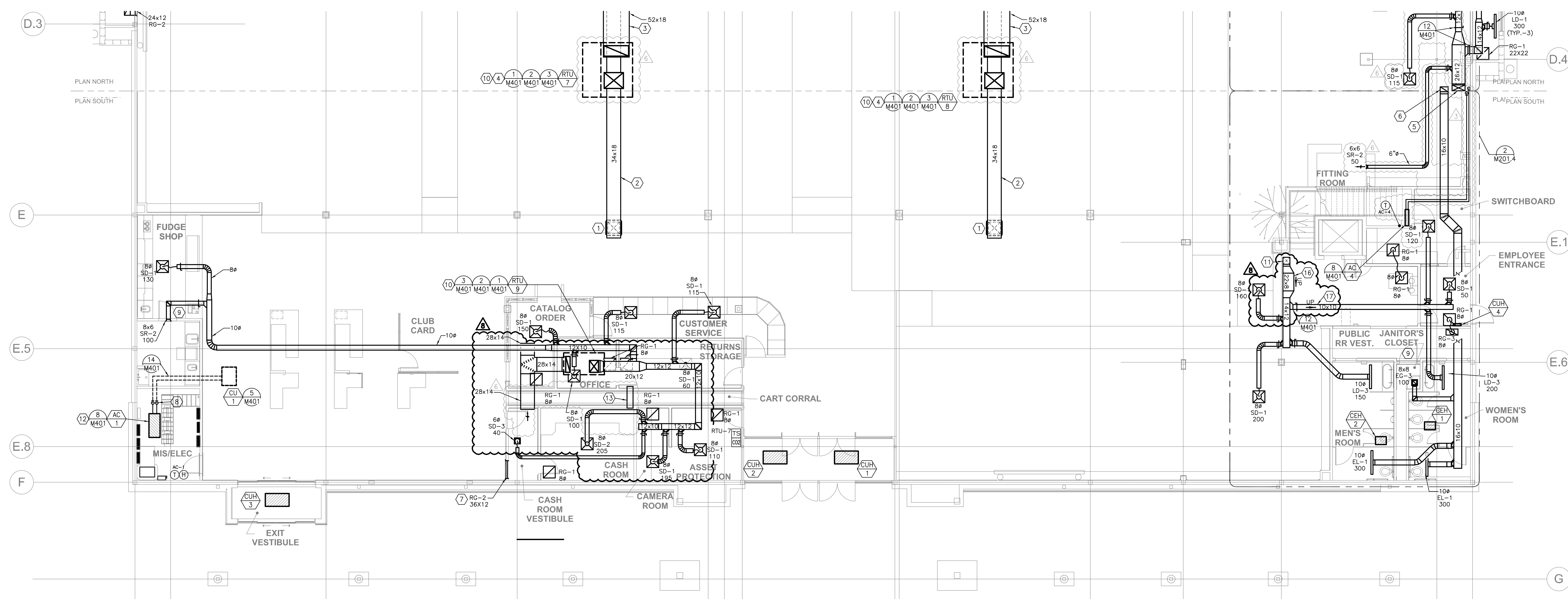
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GENERAL DEMOLITION NOTES:

1. REFER TO SHEET M201.1 FOR GENERAL NEW NOTES.

KEY NOTES:

- 1 PROVIDE 3750 CFM, 4WAY THROW DROP BOX AND MOUNT HIGH AS POSSIBLE BETWEEN JOISTS. DROP BOX DIFFUSER BASIS OF DESIGN AES OR APPROVED EQUAL. DROP BOX DIFFUSER SHALL BE 18" GAGE GALVANIZED STEEL, OPPOSED BLADE DAMPER, 24X24 SUPPLY DUCT CONNECTION, AND 10X20 LOUVERS.
- 2 ROUTE DUCT HIGH AS POSSIBLE BETWEEN JOIST.
- 3 ROUTE RETURN DUCT UP IN JOIST SPACE AND TIGHT TO UNDERSIDE OF ROOF DECK. COVER RETURN AIR INLET WITH BIRD SCREEN.
- 4 LOCATE THE ROOFTOP UNIT OVER THE EXISTING ROOF PENETRATION. COORDINATE WITH STRUCTURAL.
- 5 ROUTE 26X12 SUPPLY DUCT UP TO MEZZANINE LEVEL. REFER TO MEZZANINE PLAN 2 ON SHEET M201.4 FOR CONTINUATION.
- 6 ROUTE 16X10 EXHAUST DUCT UP TO MEZZANINE LEVEL. REFER TO MEZZANINE PLAN 2 ON SHEET M201.4 FOR CONTINUATION.
- 7 PROVIDE TRANSFER AIR GRILLE 18" BELOW ROOF DECK. COORDINATE WITH EXACT LOCATION WITH ARCHITECT.
- 8 ROUTE THE SUCTION AND LIQUID REFRIGERANT PIPING FROM CONDENSING UNIT (CU-1) LOCATED ON ROOF DOWN TO AC-1. SIZE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS.
- 9 REFER TO ARCHITECTURAL DRAWINGS FOR DOOR UNDERCUT.
- 10 REFER TO PLUMBING DRAWINGS FOR GAS AND CONDENSATE PIPE ROUTING.
- 11 ROUTE 14X14 SUPPLY DUCT UP TO MEZZANINE LEVEL. REFER TO MEZZANINE PLAN 2 ON SHEET M201.4 FOR CONTINUATION.
- 12 REFER TO PLUMBING DRAWINGS FOR CW AND CONDENSATE PIPE ROUTING.
- 13 PROVIDE 18X12 TRANSFER DUCT ABOVE CEILING.
- 14 NOT USED
- 15 REFER TO PLUMBING DRAWINGS FOR CONDENSATE PIPE ROUTING.
- 16 TRANSITION 22X8 DUCT HIGH AS POSSIBLE AFTER THE FIRE SPRINKLER PIPING.
- 17 TRANSITION 10X10 UP HIGH AS POSSIBLE IN--BETWEEN THE JOISTS. ROUTE DUCT OVER THE SPRINKLER PIPING.



1 MECHANICAL PLAN - PLAN SOUTH
SCALE: 1/8"=1'-0"

Seal:

Revisions:
 10.21.10 Bulletin #1
 12.16.10 Bulletin #4
 01.17.11 Bulletin #6

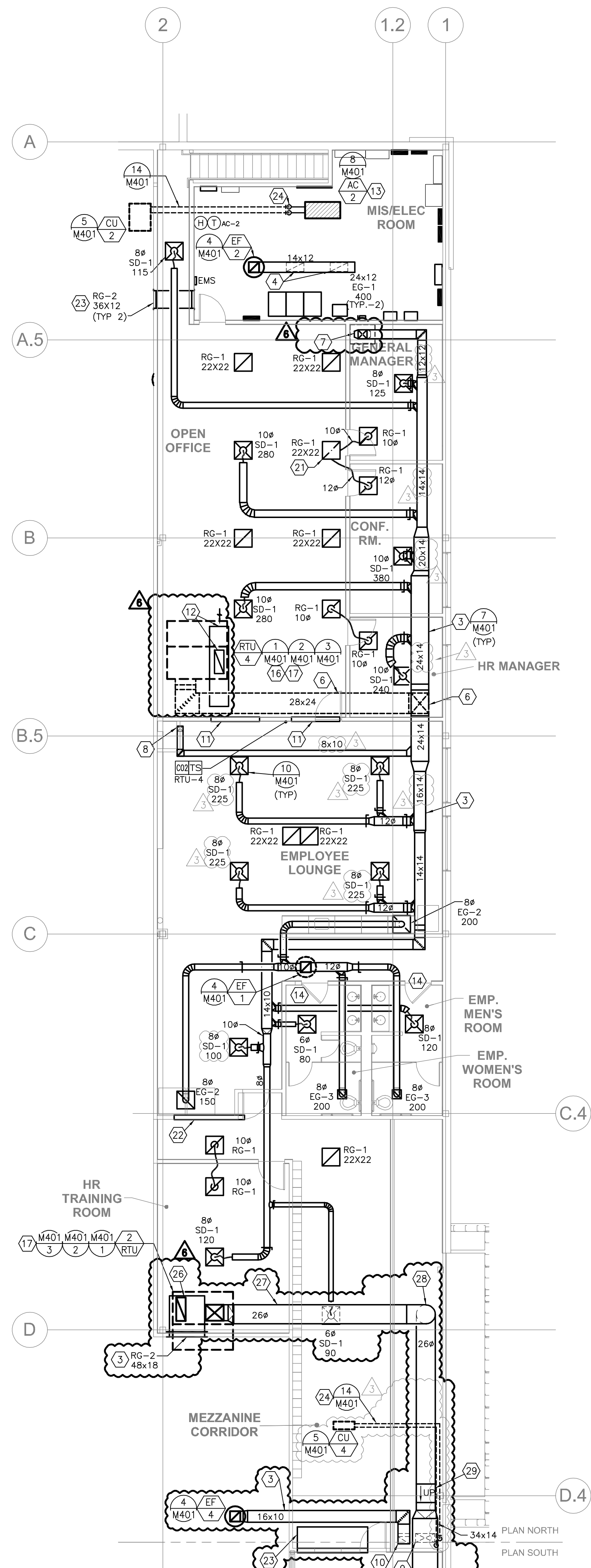
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OUT TO BID/LL/PERMIT

Drawing Type:
MECHANICAL PLAN - PLAN SOUTH

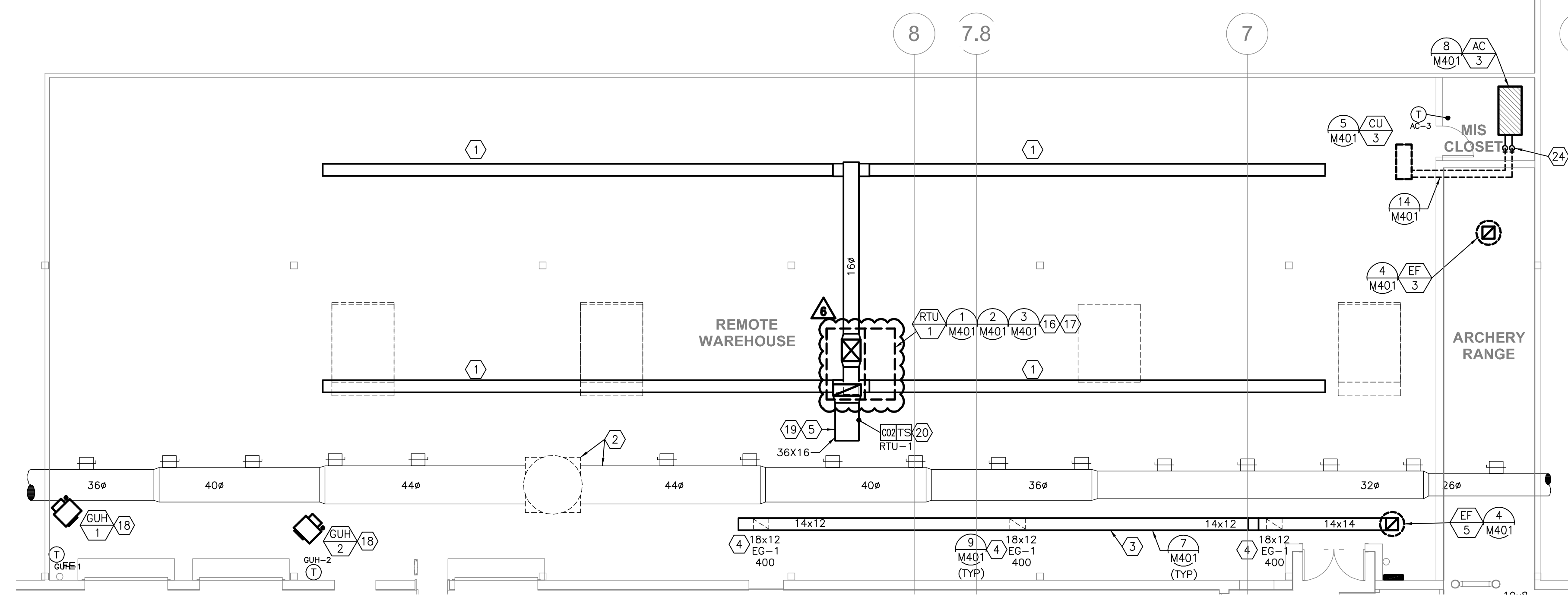
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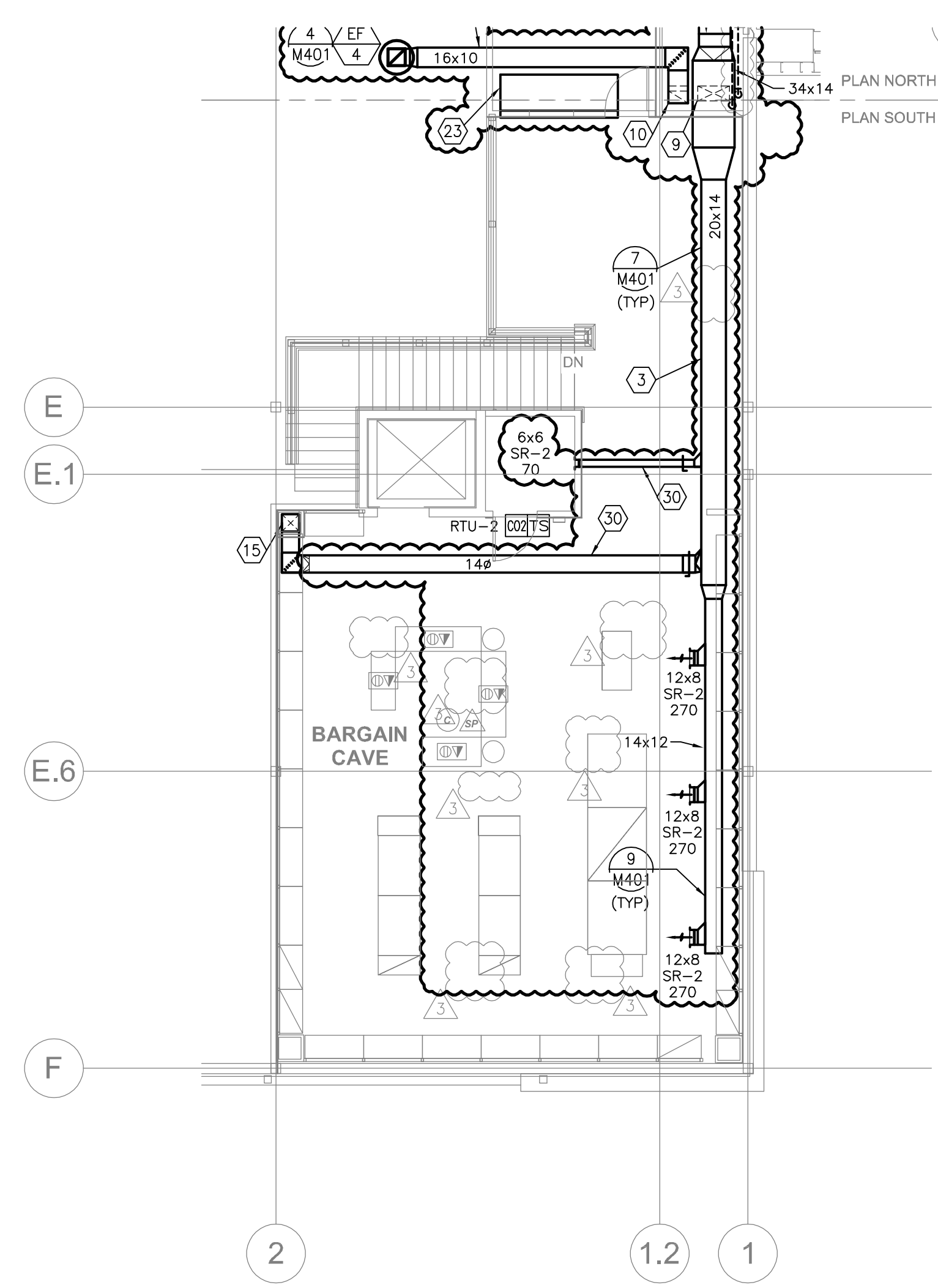
M201.3



1 MECHANICAL PLAN - MEZZANINE NORTH
SCALE: 1/8"=1'-0"

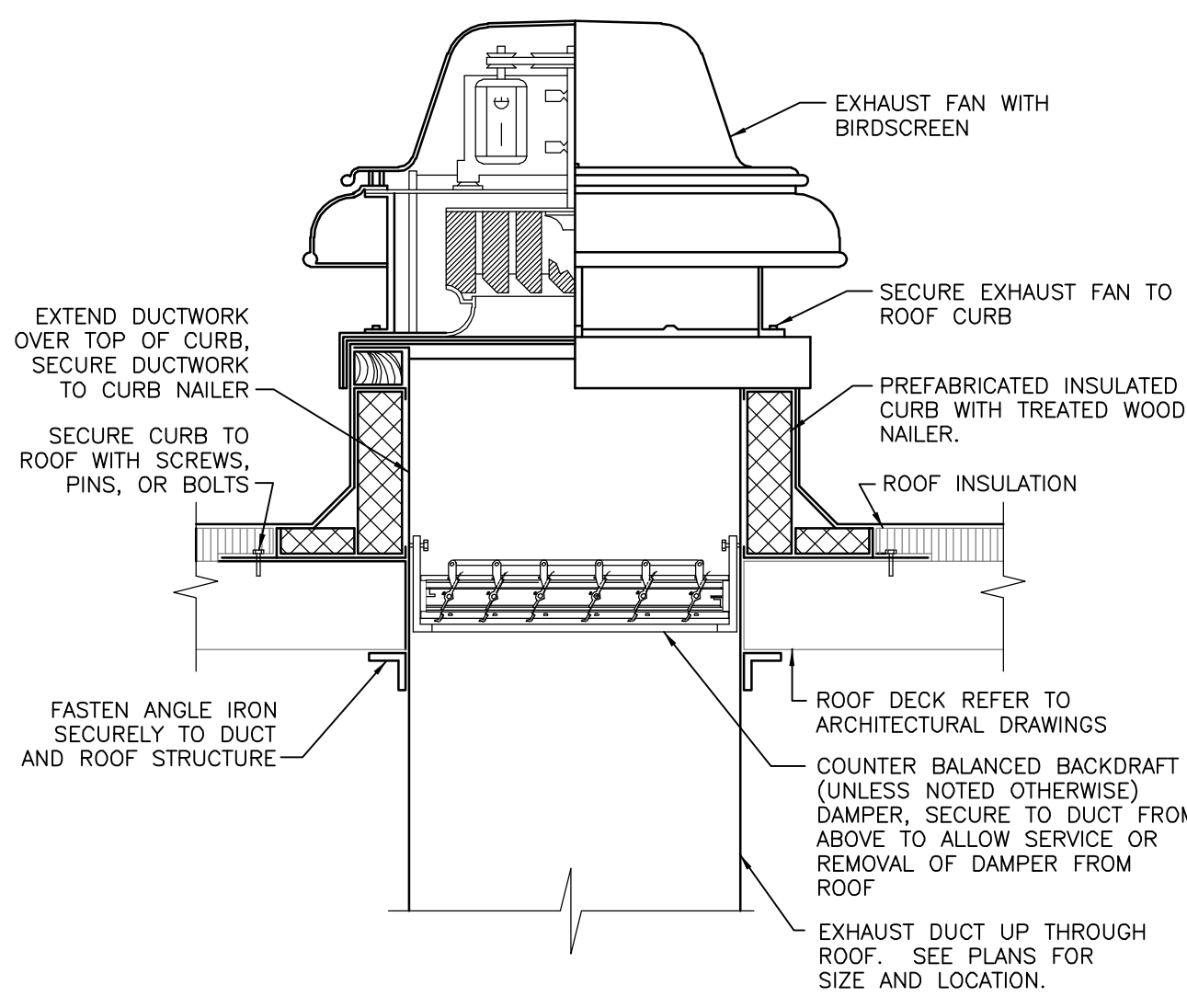


3 MECHANICAL PLAN - REMOTE WAREHOUSE
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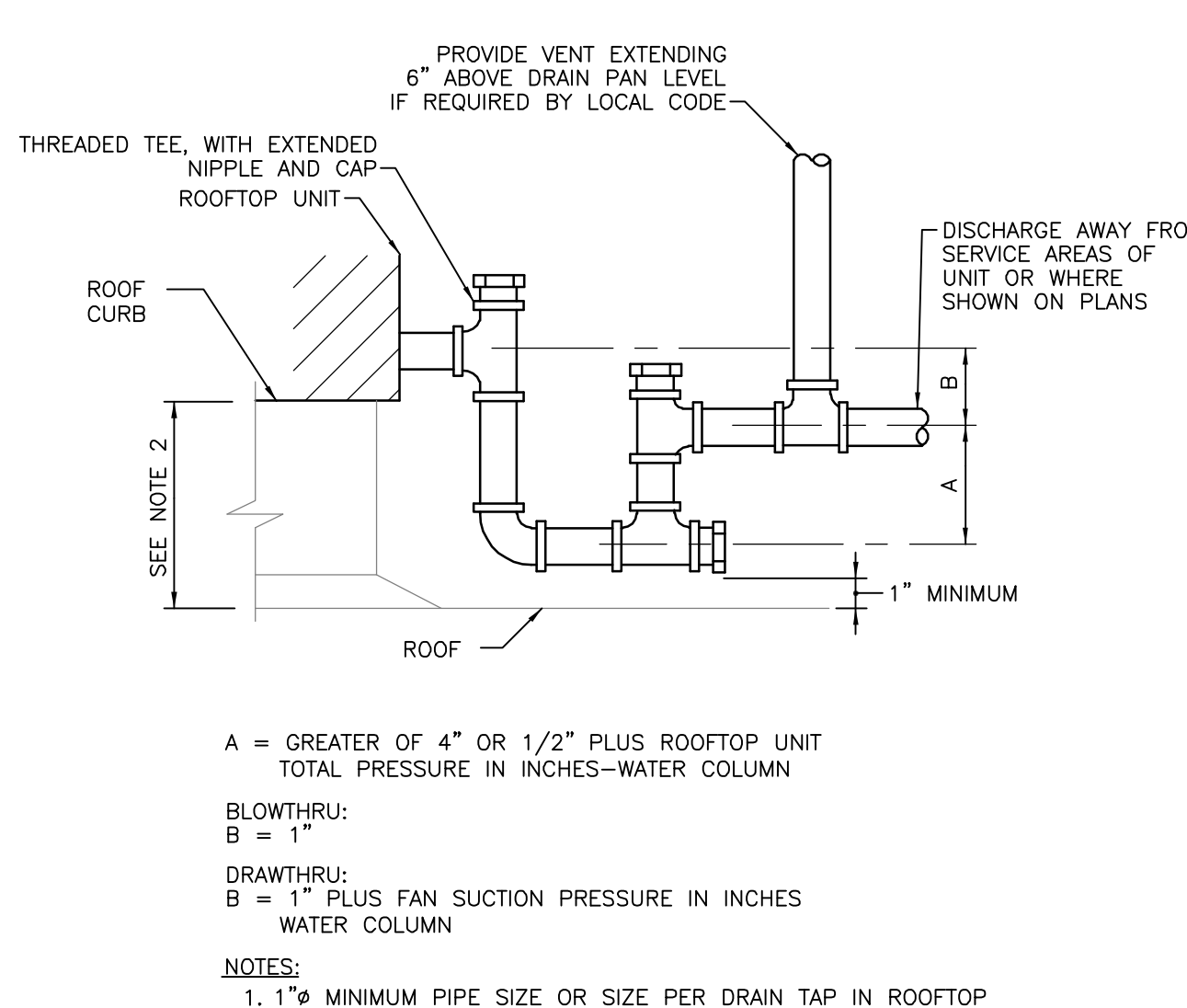


2 MECHANICAL PLAN - MEZZANINE SOUTH
SCALE: 1/8"=1'-0"

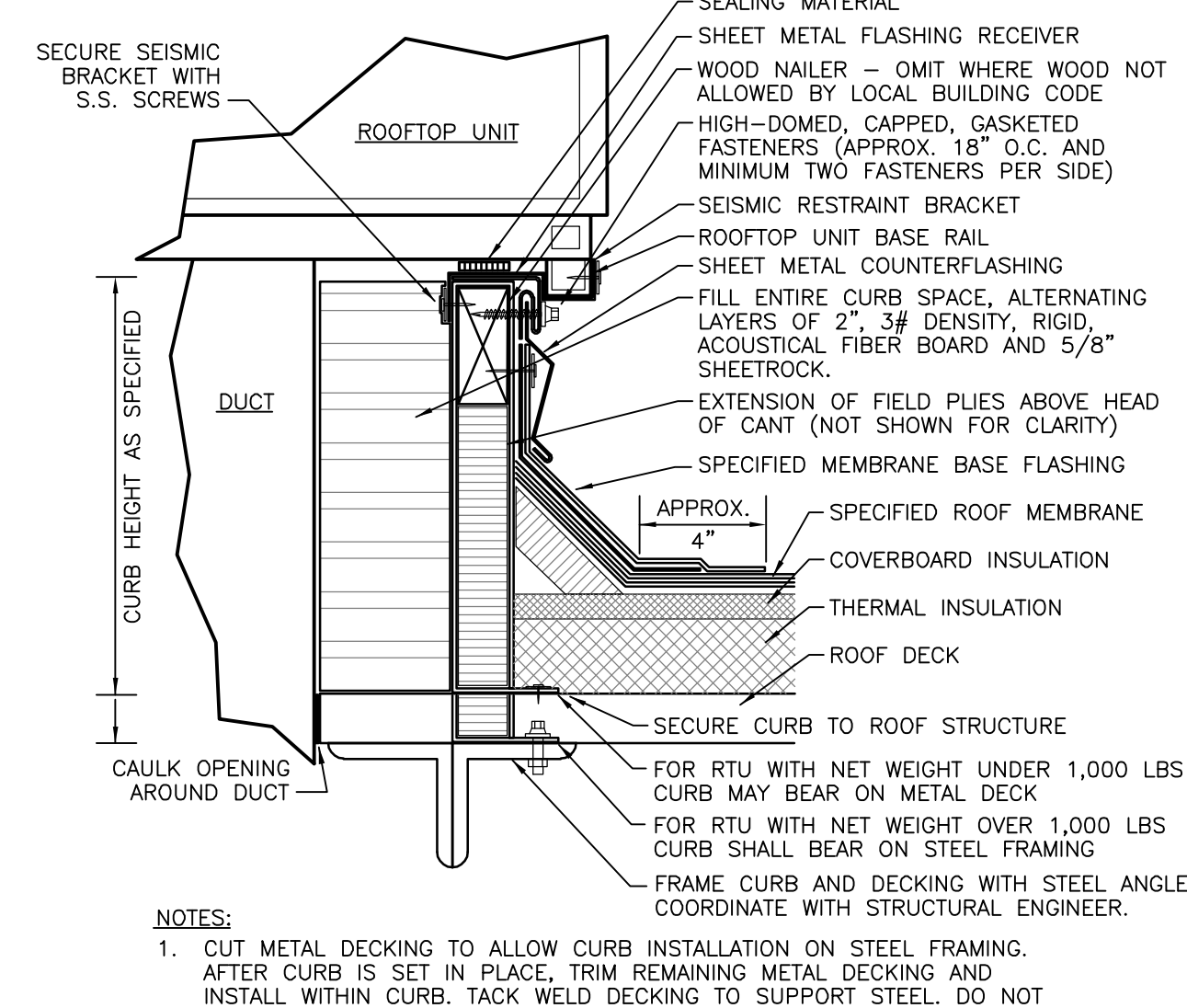
- GENERAL DEMOLITION NOTES:**
- REFER TO SHEET M201.1 FOR GENERAL NEW NOTES.
- KEY NOTES:**
- PROVIDE 750 CFM, 12" FABRIC DUCT. ROUTE HIGH AS POSSIBLE BELOW JOIST. FABRIC DUCT BASIS OF DESIGN: DUCTSOX OR APPROVED EQUAL. FABRIC SHALL BE UL CLASSIFIED COATED POLYESTER (DURATEX). COLOR TO BE SELECTED BY ARCHITECT.
 - EXISTING LANDLORD SMOKE EVACUATION EXHAUST FAN (ON ROOF) AND DUCTWORK.
 - ROUTE DUCT HIGH AS POSSIBLE BETWEEN JOIST.
 - MOUNT GRILLE UNDERSIDE OF DUCT.
 - ROUTE RETURN DUCT BETWEEN JOISTS, TIGHT TO ROOF DECK.
 - SUPPLY DUCT ROUTED ON ROOF. ROUTE 28X24 DUCT DOWN THROUGH ROOF.
 - ROUTE 12X12 SUPPLY DUCT DOWN, TRANSITION DUCT TO 22X8 IN THE VERTICAL BEFORE PENETRATING THE MEZZANINE FLOOR. REFER TO M201.2 FOR CONTINUATION.
 - ROUTE 8X10 SUPPLY DUCT DOWN. REFER TO M201.2 FOR CONTINUATION.
 - ROUTE 28X12 SUPPLY DUCT DOWN. REFER TO M201.3 FOR CONTINUATION.
 - ROUTE 18X10 EXHAUST DUCT DOWN. REFER TO M201.3 FOR CONTINUATION.
 - PROVIDE 60X12 WALL OPENING ABOVE CEILING.
 - ROUTE 26X12 RETURN DUCT BETWEEN JOIST SPACE. CONNECT 28X18 RETURN DUCT FROM 26X12 DUCT TO ROOF TOP UNIT RETURN DUCT CONNECTION.
 - REFER TO PLUMBING DRAWINGS FOR CW AND CONDENSATE PIPE ROUTING.
 - REFER TO ARCHITECTURAL DRAWINGS FOR DOOR UNDERCUT.
 - ROUTE 14X14 SUPPLY DUCT DOWN. REFER TO SHEET M201.3 FOR CONTINUATION.
 - LOCATED THE ROOFTOP UNIT OVER THE EXISTING ROOF CURB. COORDINATE WITH STRUCTURAL.
 - REFER TO PLUMBING DRAWINGS FOR GAS AND CONDENSATE PIPE ROUTING.
 - PROVIDE 4" FLUE UP THROUGH ROOF WITH ROOF CAP. SIZE ROOF CAP AND FLUE PER MANUFACTURER'S RECOMMENDATIONS. TERMINATE FLUE 3'-0" ABOVE ROOF.
 - COVER RETURN AIR INLET WITH BIRD SCREEN.
 - MOUNT THE TEMPERATURE AND CO2 SENSOR IN THE RETURN AIR DUCT.
 - PROVIDE 22X22X14 PLENUM BOX OVER GRILLE.
 - PROVIDE 96X12 WALL OPENING ABOVE CEILING.
 - PROVIDE 96X12 TRANSFER GRILLE HIGH AS POSSIBLE.
 - ROUTE THE SUCTION AND LIQUID REFRIGERANT PIPING FROM CONDENSING UNIT (CU) LOCATED ON ROOF DOWN TO AC. SIZE REFRIGERANT LINES PER MANUFACTURER'S RECOMMENDATIONS.
 - NOT USED.
 - 32X12 RETURN DUCT DROP FROM ROOF TOP UNIT. TAP INTO 48X18 RETURN AIR PLENUM BOX BELOW.
 - ROUTE 26" ROUND SUPPLY AIR DUCT IN JOIST WEBBING.
 - 26" SUPPLY DUCT DROP ROUTED BELOW GIRDER.
 - TRANSITION SUPPLY DUCT UP WITH 45° ELBOWS. ROUTE DUCT AS HIGH AS POSSIBLE.
 - ROUTE SUPPLY DUCT IN JOIST SPACE. ROUTE DUCT IN BETWEEN THE JOIST WEBBING.
 - MOUNT THE GRILLE AS HIGH AS POSSIBLE.



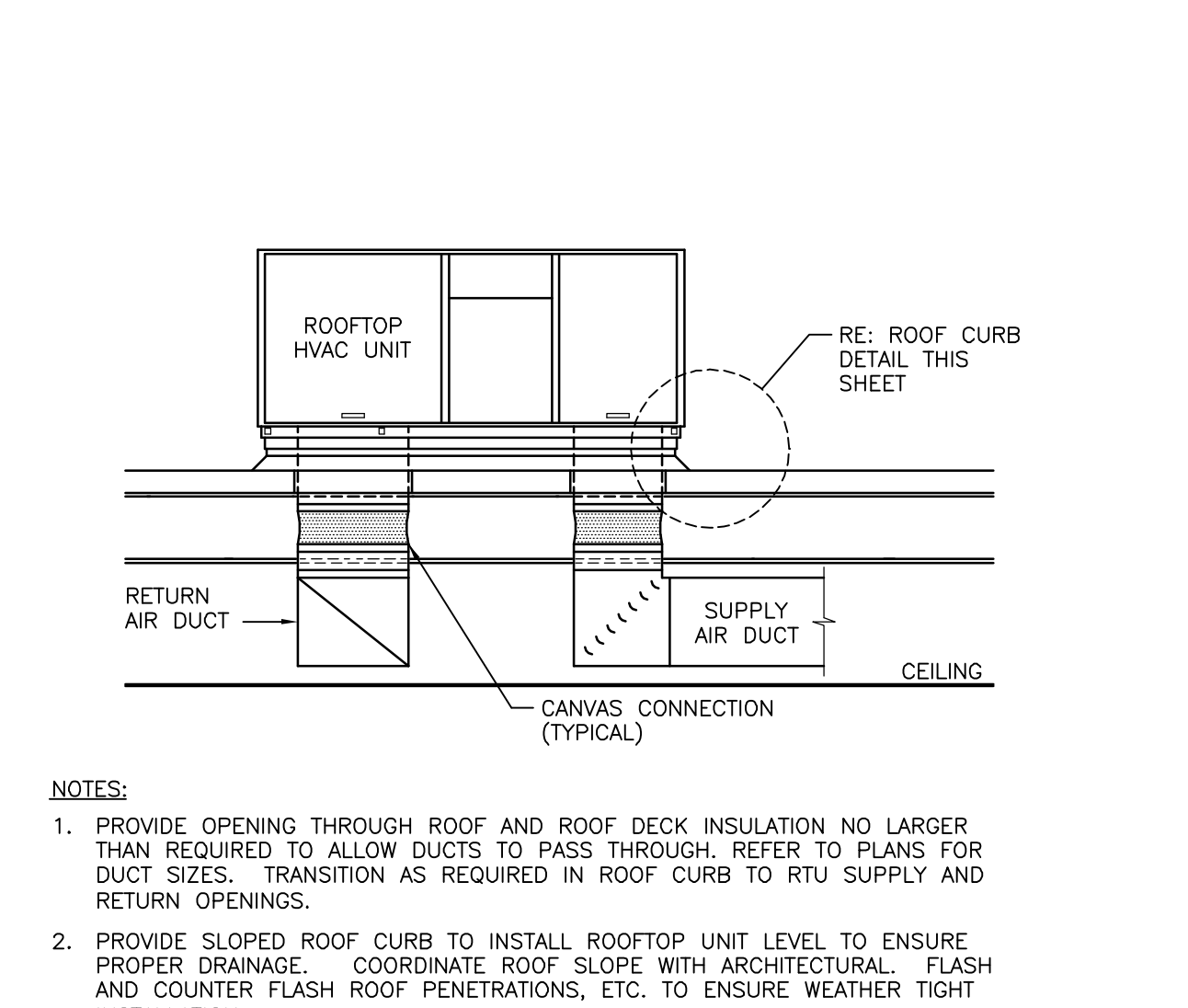
4 DOWNBLAST EXHAUST FAN DETAIL
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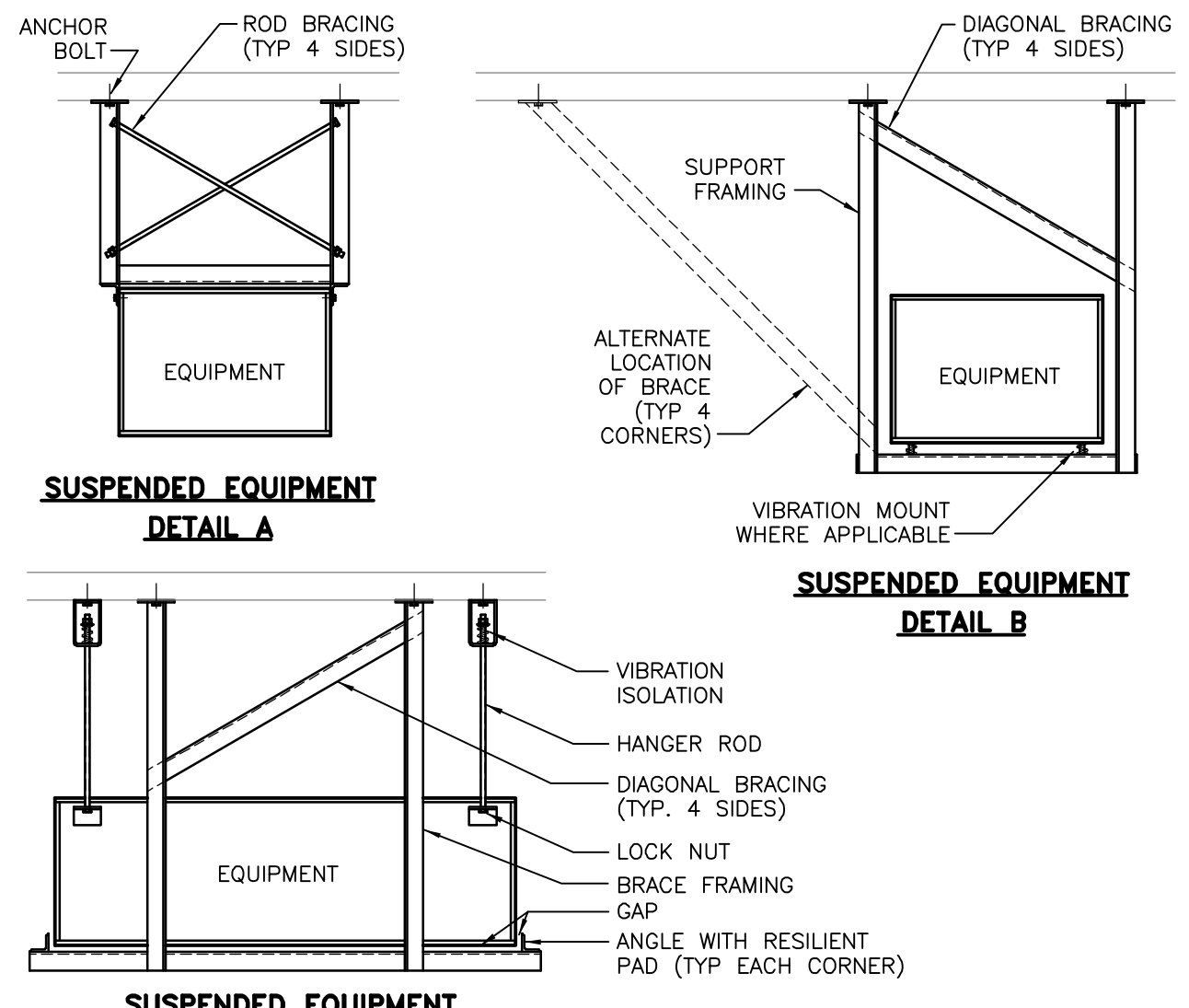
3 CONDENSATE DRAIN TRAP
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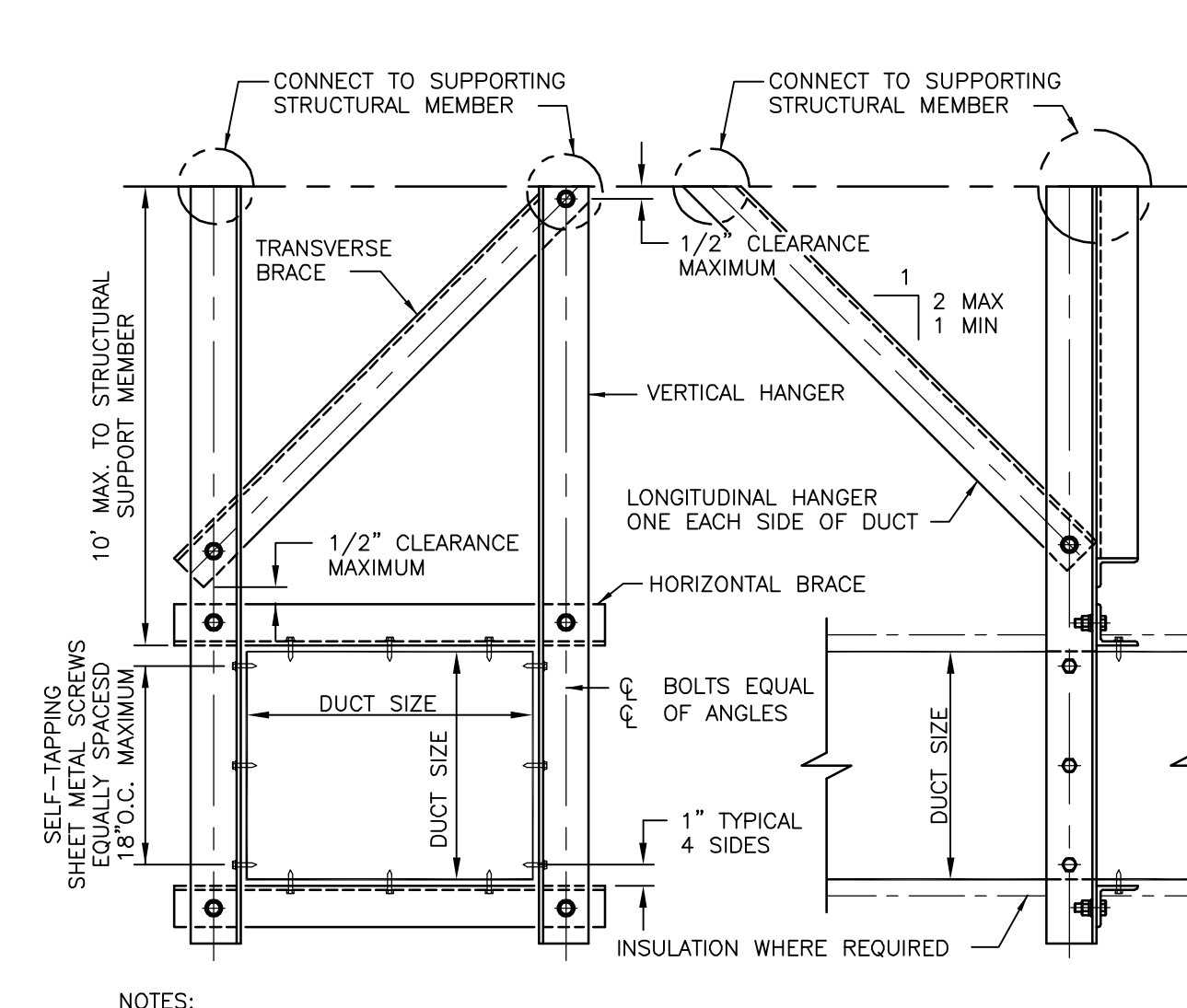
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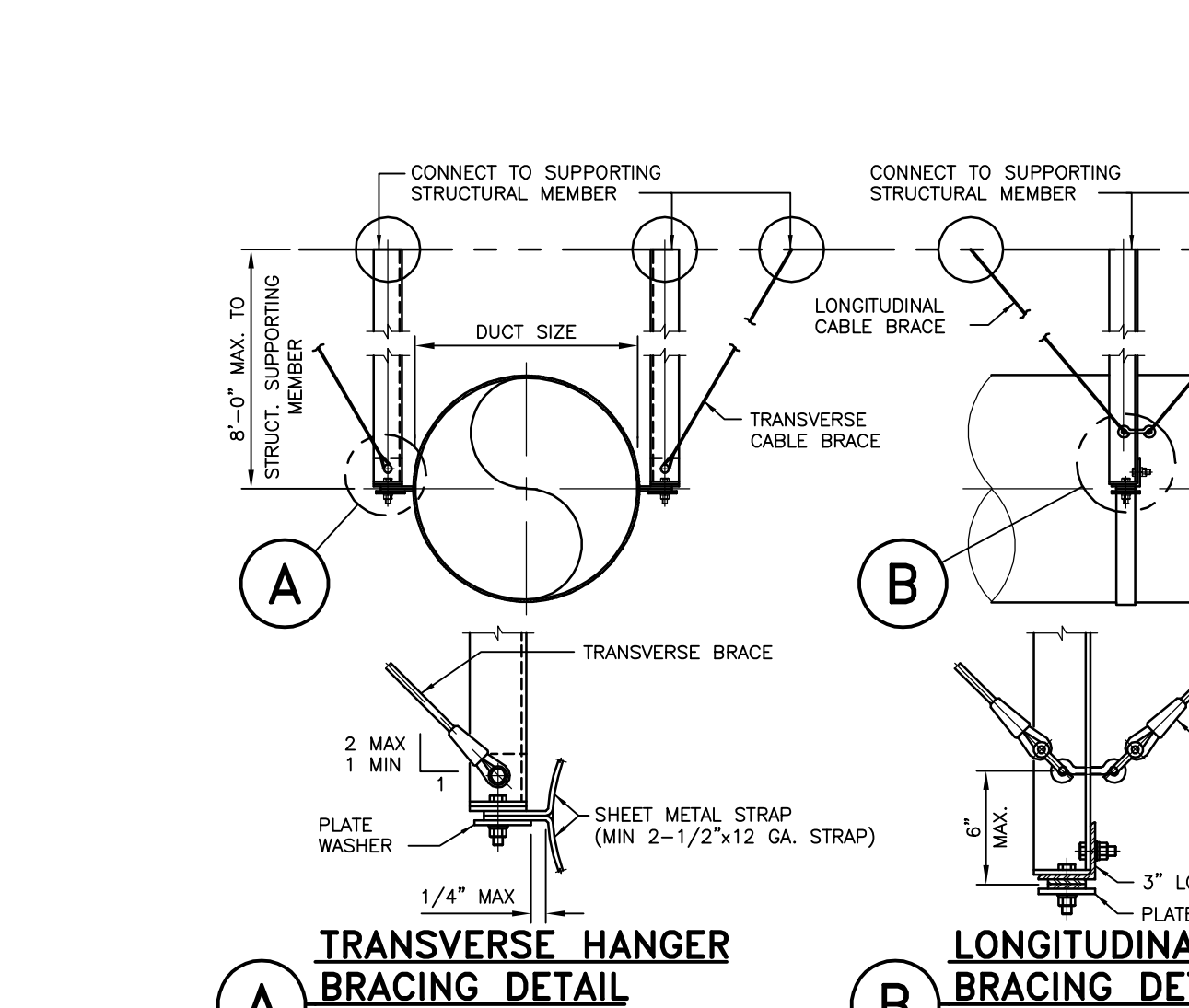
1 ROOFTOP UNIT WITH DUCTWORK DETAIL
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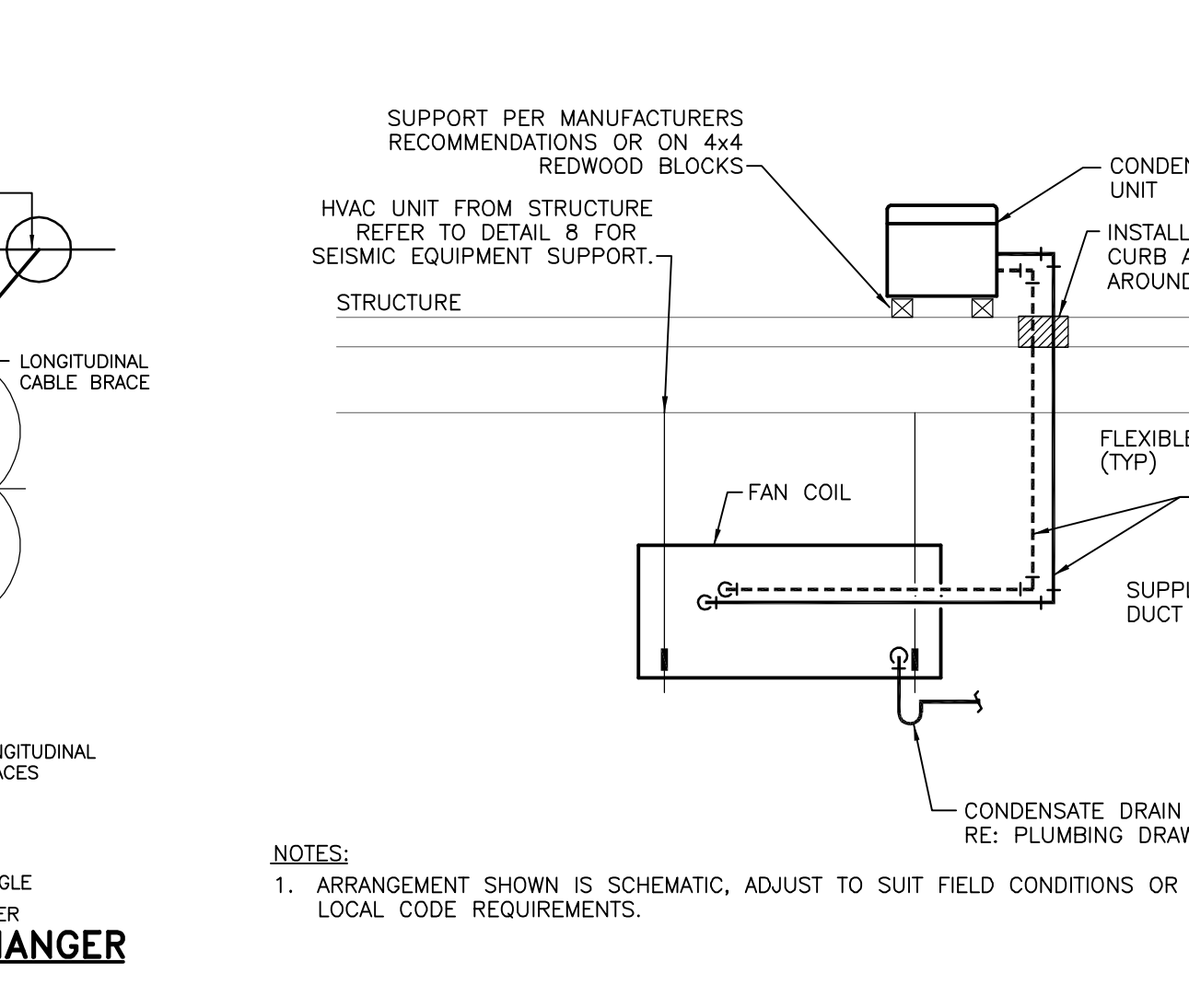
8 SEISMIC SUPPORT DETAIL FOR HUNG EQUIPMENT
NO SCALE



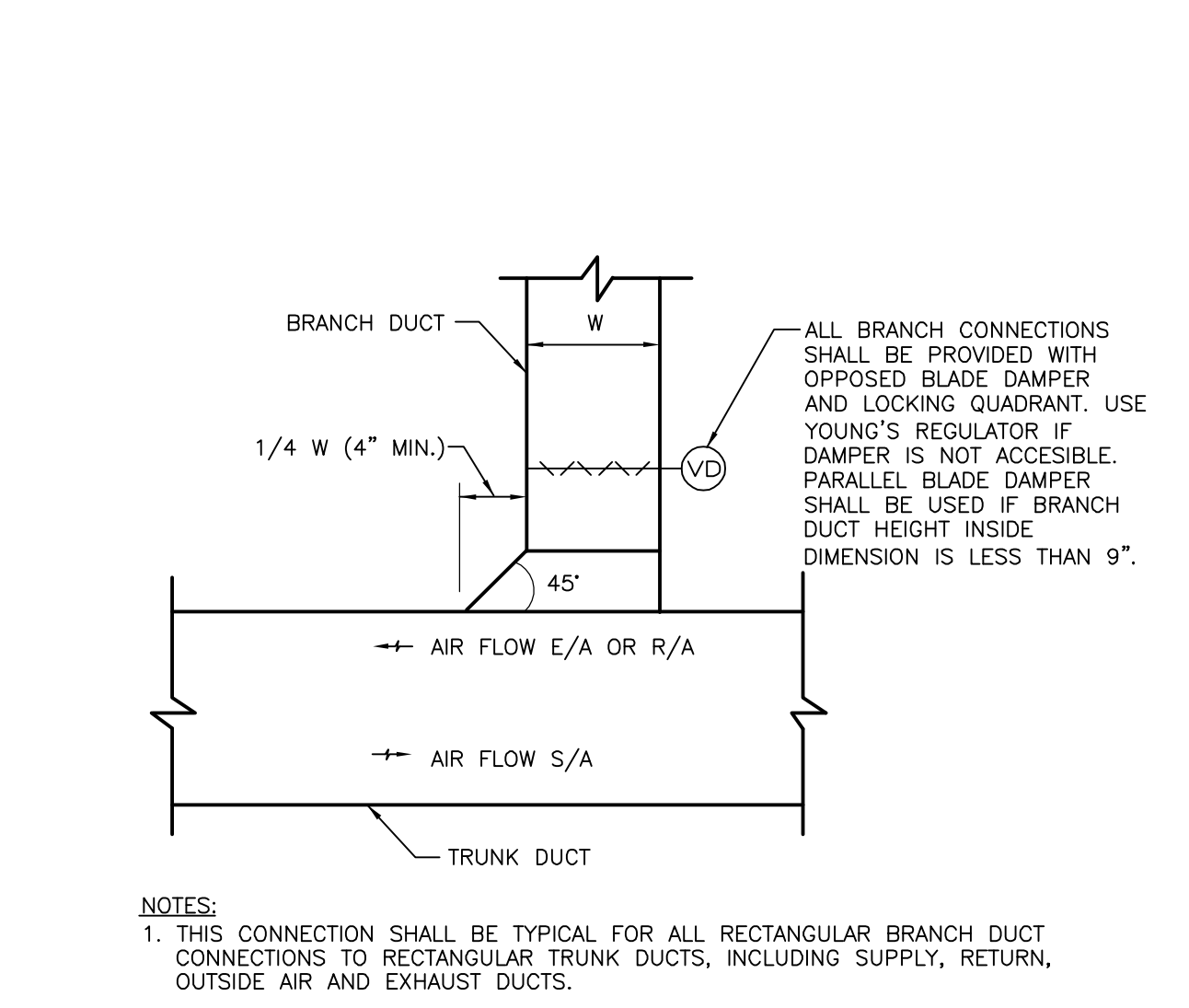
7 CENTER SEISMIC BRACING FOR RECTANGULAR DUCTS
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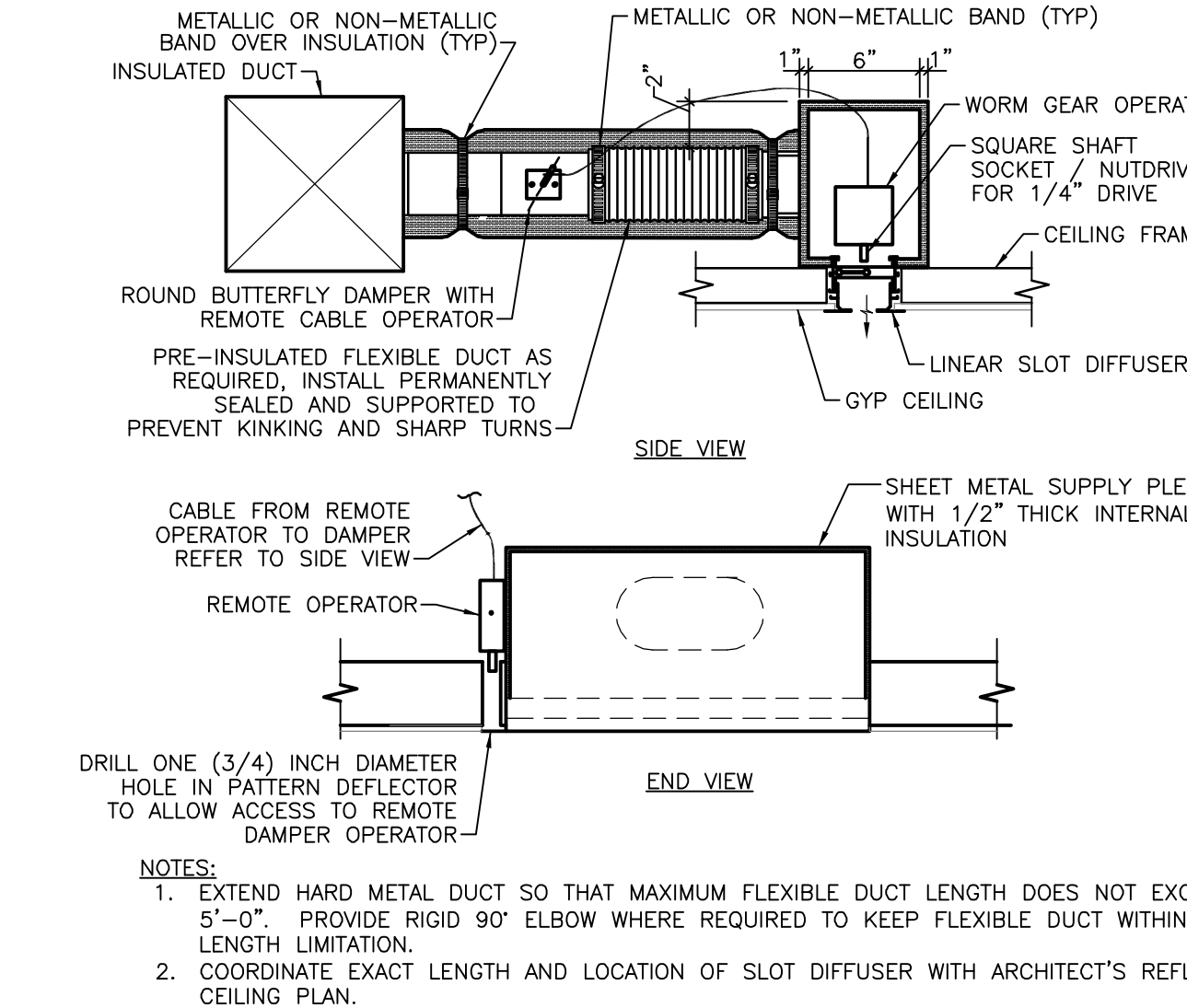
6 DOUBLE HANGER SEISMIC CABLE BRACING FOR ROUND DUCTS UP TO 84\"/>



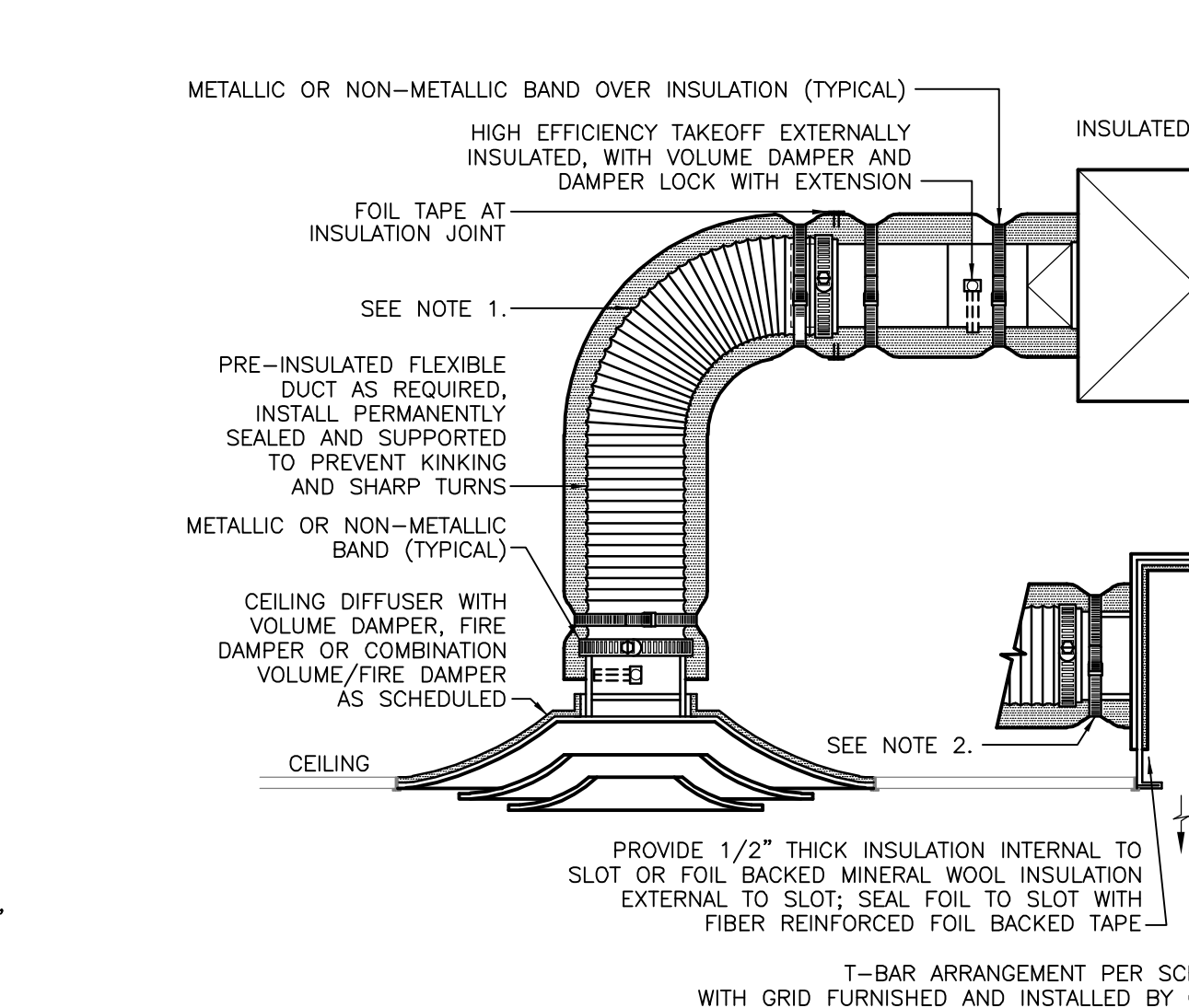
5 HORIZONTAL DX FAN COIL UNIT DETAIL WITH CONDENSING UNIT ON ROOF
NO SCALE



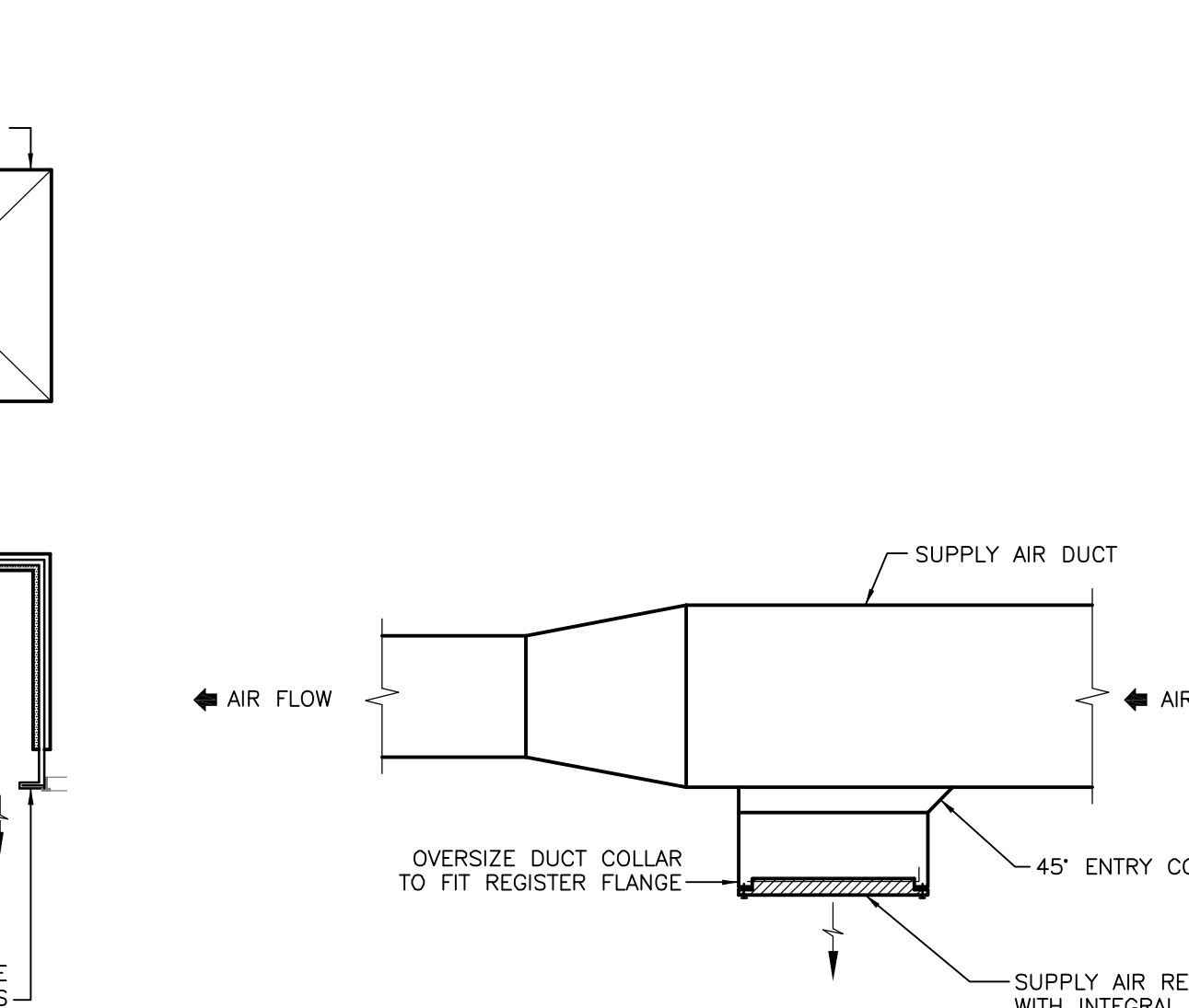
12 RECTANGULAR BRANCH TAP DETAIL
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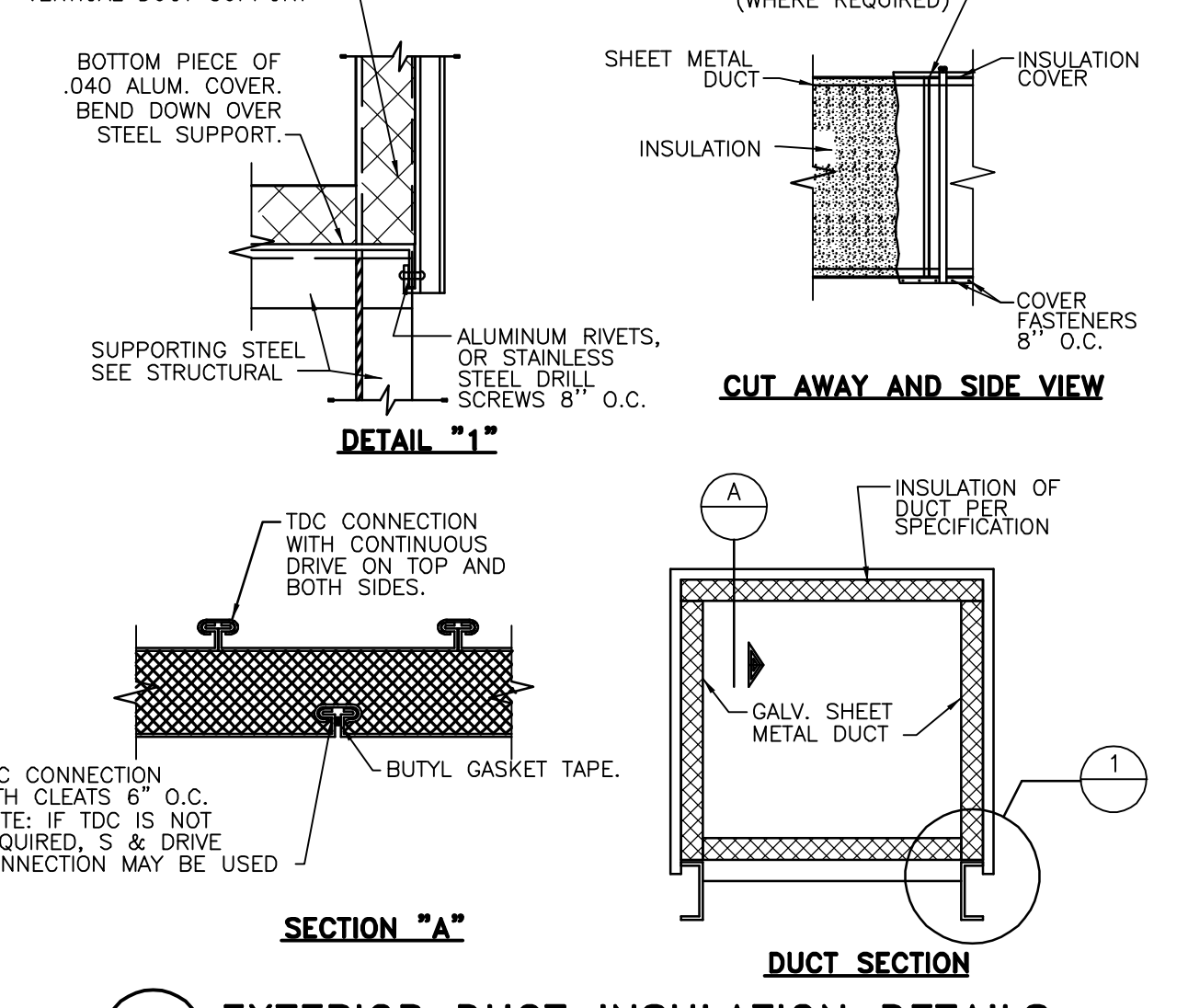
11 LINEAR SLOT DIFFUSER IN INACCESSIBLE CEILING DETAIL
NO SCALE



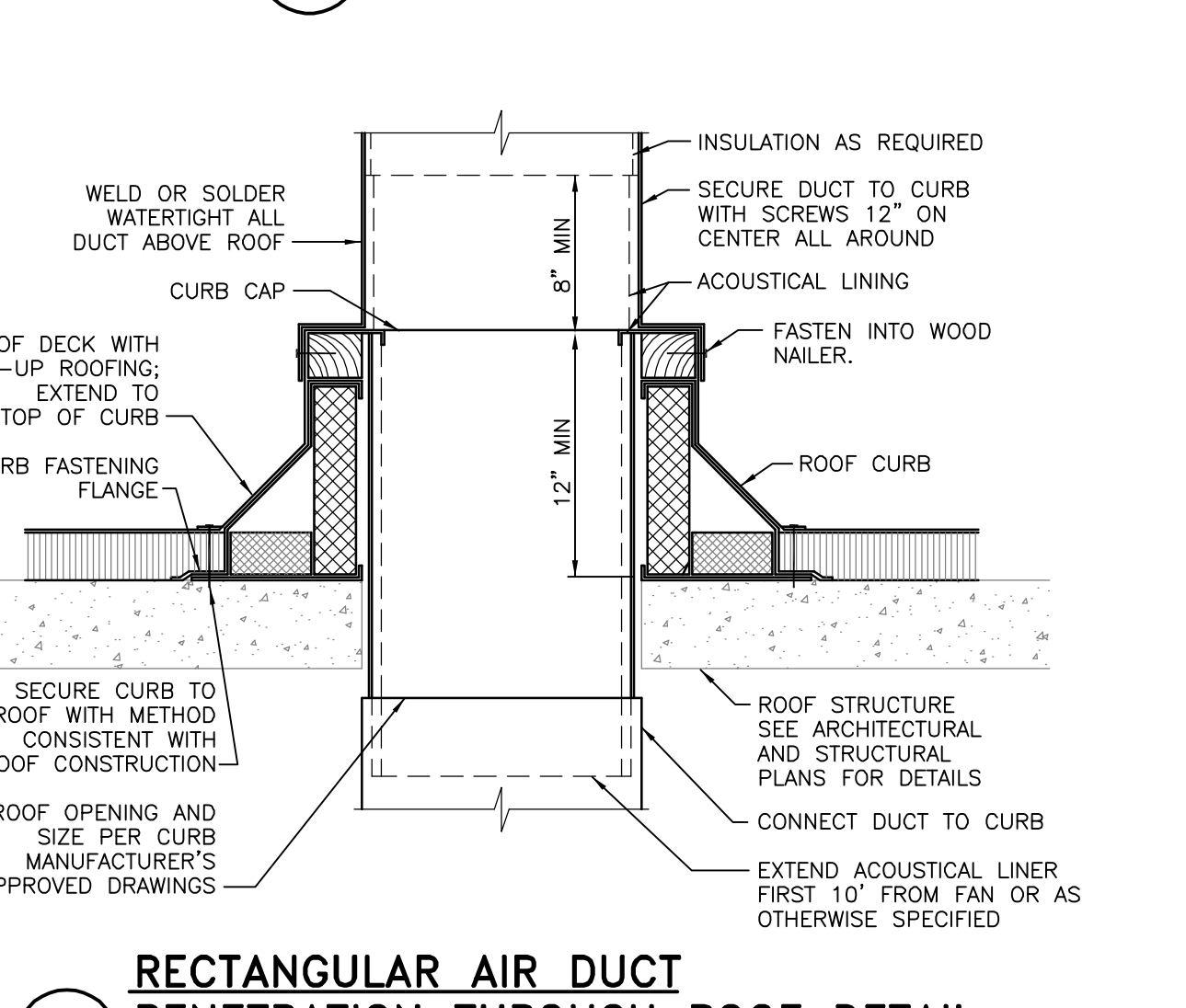
10 LAY-IN AND SLOT TYPE CEILING DIFFUSER DETAIL
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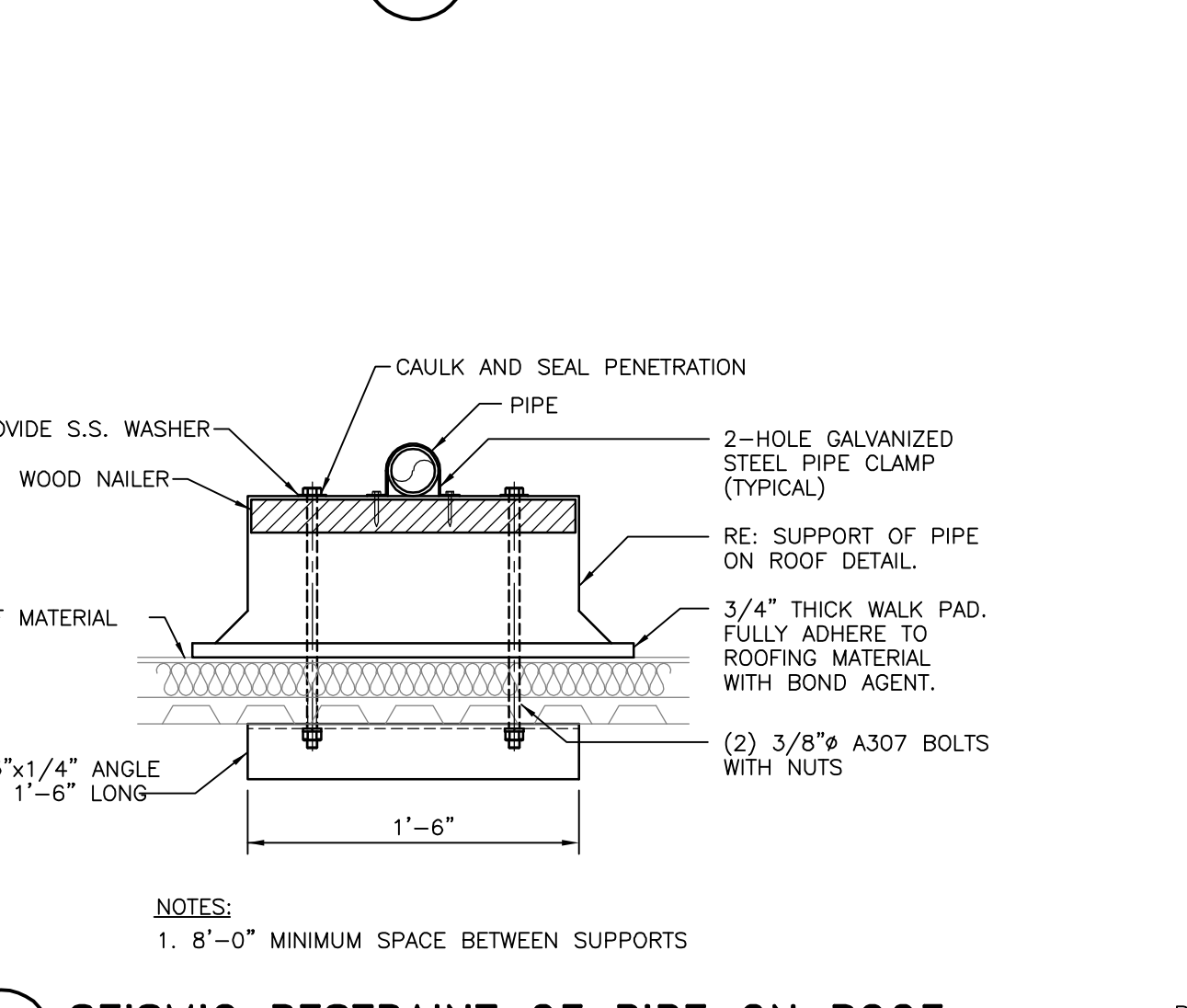
9 DUCT MOUNTED REGISTER DETAIL
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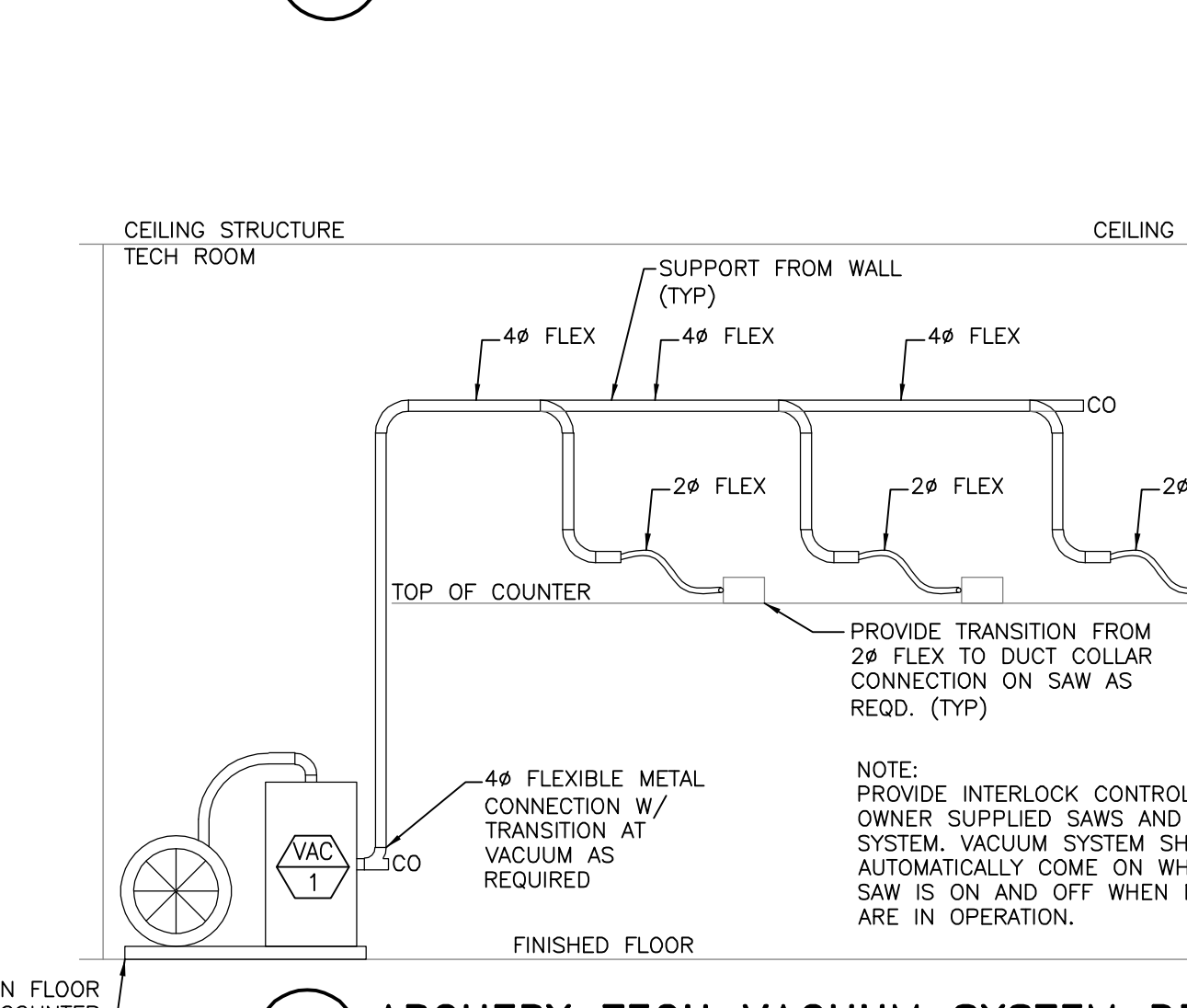
16 EXTERIOR DUCT INSULATION DETAILS
NO SCALE



14 RECTANGULAR AIR DUCT PENETRATION THROUGH ROOF DETAIL
NO SCALE



14 SEISMIC RESTRAINT OF PIPE ON ROOF
NO SCALE



13 ARCHERY TECH VACUUM SYSTEM DETAIL
NO SCALE

MECHANICAL SYMBOLS

NOTE: THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ETC. ARE NECESSARILY USED ON THE DRAWINGS.

PIPING	
CD	CONDENSATE DRAIN (CD)
ACD	AUXILIARY CONDENSATE DRAIN (ACD)
RL	REFRIGERANT LIQUID (RL)
RD	REFRIGERANT DISCHARGE (HOT GAS) (RD)
RS	REFRIGERANT SUCTION (RS)
HWS	HEATING HOT WATER SUPPLY (HWS)
HWR	HEATING HOT WATER RETURN (HWR)
CWS	CHILLED WATER SUPPLY (CWS)
CWR	CHILLED WATER RETURN (CWR)
HS	HEAT PUMP SUPPLY (HS)
HR	HEAT PUMP RETURN (HR)
LPS	LOW PRESSURE STEAM SUPPLY (LPS)
LPC	LOW PRESSURE STEAM CONDENSATE (LPC)
- - -	EXISTING PIPING TO BE REMOVED
- - -	EXISTING PIPING TO REMAIN
+	DIRECTION OF FLOW
+	BALL VALVE
+	CONTROL VALVE
+	THREE-WAY CONTROL VALVE
+	SHUTOFF VALVE
+	CHECK VALVE
+	BALANCING VALVE WITH PRESSURE PORTS
+	TRIPLE DUTY VALVE WITH PRESSURE PORTS
+	WATER METER
+	STRAINER
+	SOLENOID VALVE
+	PRESSURE GAUGE
+	THERMOMETER
+	PRESSURE AND TEMPERATURE TEST PLUG
+	UNION
+	FLANGE CONNECTION
+	ELBOW UP
+	ELBOW DOWN
+	TEE UP
+	TEE DOWN
+	REDUCER

HVAC EQUIPMENT & DUCTWORK

NOTE: ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. SEE SECTION 15250 OF THE SPECIFICATION FOR DUCTWORK TO RECEIVE INSULATION OR LINER.

+	EXISTING DUCTWORK OR EQUIPMENT TO REMAIN
+	EXISTING DUCTWORK OR EQUIPMENT TO BE REMOVED
+	BRANCH DUCT WITH 45° RECTANGLE-ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER
+	ELBOW WITH TURNING VANES
+	RETURN, EXHAUST, OR OUTSIDE AIR DUCT UP
+	RETURN, EXHAUST, OR OUTSIDE AIR DUCT DOWN
+	SUPPLY AIR DUCT UP
+	SUPPLY AIR DUCT DOWN
+	EQUIPMENT WITH FLEXIBLE DUCT CONNECTION
+	10\"/>
+	MANUAL VOLUME DAMPER
+	SQUARE TO ROUND TRANSITION
+	DUCT MOUNTED SMOKE DETECTOR (SD=SUPPLY/RD=RETURN)
+	FIRE DAMPER
+	FIRE SMOKE DAMPER
+	SMOKE DAMPER
+	VOLUME DAMPER
+	MOTORIZED DAMPER
+	BACKDRAFT DAMPER
+	CARBON DIOXIDE SENSOR
+	HUMIDITY SENSOR
+	PULL STATION
+	STATIC PRESSURE SENSOR
+	TEMPERATURE SENSOR
+	HUMIDISTAT
+	THERMOSTAT

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR
BAS	BUILDING AUTOMATION SYSTEM	MIN	MINIMUM
BD	BACKDRAFT DAMPER	NC	NOISE CRITERIA
CFM	CUBIC FEET PER MINUTE	OA	OUTSIDE AIR
DDC	DIRECT DIGITAL CONTROL	RA	RETURN AIR
DX	DIRECT EXPANSION	SA	SUPPLY AIR
EA	EXHAUST AIR	SD	SMOKE DUCT DETECTOR
FFA	FROM FLOOR ABOVE	TFA	TO FLOOR ABOVE
FFB	FROM FLOOR BELOW	TFB	TO FLOOR BELOW
GRM	GALLONS PER MINUTE	TYP	TYPICAL
IN WC	INCHES OF WATER COLUMN	UNO	UNLESS NOTED OTHERWISE
MAX	MAXIMUM	W/	WITH
MHH	1000 BTU PER HOUR	W/O	WITHOUT

STANDARD MOUNTING HEIGHTS

MECHANICAL (AFF, AFG, UNLESS NOTED OTHERWISE)	48"
THERMOSTATS (USER ADJUSTABLE)	48"
CONTROLS (CENTERLINE)	48"

ANNOTATION

(1)	MECHANICAL PLAN CALLOUT
(CU)	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
(C)	CONNECTION POINT OF NEW WORK TO EXISTING
(1)	DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER
(1)	LOWER NUMBER INDICATES SHEET NUMBER
(M)	SECTION CUT DESIGNATION

ROOFTOP UNIT SCHEDULE (NATURAL GAS HEAT)

MARK	MANUFACTURER	MODEL	NOMINAL TONS	UNIT TYPE	SYSTEM TYPE	FAN TYPE	DIRECT/BELT	SUPPLY FAN						COOLING COIL						HEAT EXCHANGER				V/PH	DISC. TYPE	WEIGHT LBS	NOTES					
								CFM	MIN HP	ESP (IN)	TSP (IN)	VFD (Y/N)	REFR. TYPE	TH (MBH)	SH (DB)	EAT	WB	LAT	WB	MAX VEL (FPM)	MIN. OUTPUT (MBH)	MIN. EFF. (%)	NOM. INPUT (MBH)					MIN. NO. STAGES	MIN. O/A CFM	MIN. EER	MCA	MOCP
RTU-1	AAON	RN008	8	SINGLE ZONE	CV	FC	DIRECT	3,000	3.0	1.0	1.6	VFD	R-410A	81.1	75.2	81.5	62.5	58.7	53.1	400	120	80	150	2	1200	11.5	23	35	480/3	FUSED	1210	A-R
RTU-2	AAON	RN010	10	SINGLE ZONE	CV	FC	DIRECT	3,400	3.0	1.0	1.9	VFD	R-410A	100.9	92.8	78.1	60.9	53.3	50.2	400	120	80	150	MODULATING	655	11.7	28	40	480/3	FUSED	1260	A-R
RTU-3	AAON	RQ005	5	SINGLE ZONE	CV	FC	DIRECT	2,000	2.0	0.8	1.7	ECM	R-410A	56.7	56.0	78.6	61.2	53.1	51.1	400	81	80	100	MODULATING	440	12.5	15	20	480/3	FUSED	910	A-R
RTU-4	AAON	RN010	10	SINGLE ZONE	CV	FC	DIRECT	4,000	5.0	1.0	2.4	VFD	R-410A	110.9	98.1	78.8	61.2	56.5	52.0	400	120	80	150	2	940	12.1	31	45	480/3	FUSED	1320	A-Q,S
RTU-5	AAON	RN020	20	SINGLE ZONE	CV	FC	DIRECT	7,500	7.5	1.0	2.0	VFD	R-410A	209.1	188.4	80.0	61.8	57.2	52.5	400	220.0	80	270	2	2310	12	53	60	480/3	FUSED	2700	A-R
RTU-6	AAON	RN020	20	SINGLE ZONE	CV	FC	DIRECT	7,500	7.5	1.0	2.0	VFD	R-410A	209.1	188.4	80.0	61.8	57.2	52.5	400	220.0	80	270	2	2310	12	53	60	480/3	FUSED	2700	A-R
RTU-7	AAON	RN020	20	SINGLE ZONE	CV	FC	DIRECT	7,500	7.5	1.0	2.0	VFD	R-410A	209.1	188.4	80.0	61.8	57.2	52.5	400	220.0	80	270	2	2310	12	53	60	480/3	FUSED	2700	A-R
RTU-8	AAON	RN020	20	SINGLE ZONE	CV	FC	DIRECT	7,500	7.5	1.0	2.0	VFD	R-410A	209.1	188.4	80.0	61.8	57.2	52.5	400	220.0	80	270	2	2310	12	53	60	480/3	FUSED	2700	A-R
RTU-9	AAON	RQ003	3	SINGLE ZONE	CV	FC	DIRECT	1,320	1.0	0.8	1.3	ECM	R-410A	31.1	29.6	76.8	60.8	56.5	52.0	400	49	80	60	MODULATING	150	13.4	13	15	480/3	FUSED	800	A-R

NOTES:

- A. PROVIDE REFERENCE ENTHALPHY ECONOMIZER WITH BAROMETRIC RELIEF DAMPER.
- B. EQUIPMENT SIZED FOR 95 °F AMBIENT TEMPERATURE.
- C. PROVIDE 2", 30% EFFICIENT PLEATED THROWAWAY AIR FILTERS.
- D. SPECIFIED FAN ESP ACCOUNTS FOR DUCT LOSSES EXTERNAL TO UNIT.
- E. SPECIFIED FAN TSP INCLUDES EXTERNAL DUCT AND INTERNAL FILTER, COIL AND CASING LOSSES. FILTER LOSS IS AT MAXIMUM 400 FPM.
- F. PROVIDE MANUFACTURER'S STANDARD INSULATED ROOF CURB WITH MINIMUM HEIGHT OF 12".
- G. BUILDING MANAGEMENT SYSTEM CONTRACTOR TO PROVIDE TEMPERATURE SENSOR, HUMIDITY SENSOR, AND CO2 SENSOR FOR EACH ROOFTOP UNIT.
- H. DIVISION 16 CONTRACTOR SHALL PROVIDE SMOKE DETECTORS IN RETURN AIR DUCTS.
- J. DISCONNECT SWITCH FURNISHED BY DIVISION 16 CONTRACTOR.
- K. STARTERS FOR ALL MOTORS SHALL BE FURNISHED INTEGRAL WITH UNIT.
- L. COORDINATE SIZE OF CONDUCTOR TERMINATION LUGS WITH CONDUCTOR SIZES SHOWN ON ELECTRICAL DRAWINGS.
- N. PROVIDE DUPLEX RECEPTACLE MOUNTED ON UNIT FOR FIELD WIRING.
- O. COOLING COIL LAT IS LEAVING AIR TEMPERATURE OF COIL.
- P. SELECT EQUIPMENT FOR ELEVATION OF 500 FEET ABOVE SEA LEVEL.
- Q. PROVIDE HEATER TO MEET OR EXCEED SCHEDULED MINIMUM MBH OUTPUT. NOMINAL INPUT IS BASED ON LISTED MANUFACTURER'S STANDARD PRODUCT.
- R. COORDINATE EQUIPMENT GAS LOAD WITH PLUMBING CONTRACTOR IF DIFFERENT FROM THAT SCHEDULED. MEET MINIMUM EFFICIENCY SCHEDULED.
- S. PROVIDE SUPPLY AND RETURN DUCT VERTICAL DISCHARGE.
- S. PROVIDE HORIZONTAL SUPPLY AND VERTICAL RETURN DUCT DISCHARGE.

MIS SERVICE AND ELEVATOR ROOM UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	EVAPORATOR SECTION (AC)					V/PH	FLA	WEIGHT (LBS)	CONDENSING SECTION (CU)				REFR. TYPE	SINGLE POINT CON.			NOTES
				TC (MBH)	EAT (DB/WB)	MIN SEER/EER	V/PH	FLA				WEIGHT (LBS)	AMB (°F)	V/PH	FLA		WEIGHT (LBS)	FLA	V/PH	
AC-1/CU-1	LIEBERT	MMD36E	1000	31.8	72/60	13	277/1	12.1	250	PFH037A-L	95	277/1	6.4	250	R407	28.7	277/1	32.3/45	A-J	
AC-2/CU-2	LIEBERT	MMD36E	1000	31.8	72/60	13	277/1	12.1	250	PFH037A-L	95	277/1	6.4	250	R407	24.6	277/1	32.3/45	A-J	
AC-3/CU-3	LIEBERT	MMD18E	600	5.25	72/60	13	208/1	6.2	225	PFH020A-L	95	208/1	12.1	200	R407	---	---	---	A-D, G-K	
AC-4/CU-4	SANYO	12KLS71	294	11.9	72/60	17	---	---	20	CL1271	95	---	---	75	R410A	10.9	115/1	---/20	A-B,D,F-H	

NOTES:

- A. CONTRACTOR SHALL VERIFY WITH EQUIPMENT SUPPLIER EXACT ROUTING AND SIZE OF INSULATED REFRIGERANT PIPING. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- B. FACTORY PROVIDED INDOOR AND OUTDOOR UNITS WITH THEIR OWN STARTERS AND DISCONNECT SWITCHES.
- C. PROVIDE WALL MOUNTED CONTROLS (MINI DATA ALARM PROCESSOR II) WHICH PROGRAMS THE THERMOSTAT/HUMIDISTAT AND ALARM SETPOINTS.
- D. PROVIDE GENERAL ALARM INTERFACE TO THE ENERGY MANAGEMENT SYSTEM.
- E. PROVIDE CANISTER HUMIDIFIER - STEAM GENERATOR WITH CAPACITY OF 4.3 LB/HR.
- F. PROVIDE KIT FOR SINGLE POINT POWER CONNECTION AT THE CONDENSING UNIT.
- G. PROVIDE FIELD MOUNTED 115V/1 PH CONDENSATE PUMP.
- H. PROVIDE LOW AMBIENT CONTROL TO 0° F.
- J. PROVIDE SUPPLY AND RETURN GRILL KIT
- K. PROVIDE CANISTER HUMIDIFIER - STEAM GENERATOR WITH CAPACITY OF 2.5 LB/HR.

CABINET UNIT HEATER SCHEDULE (ELECTRIC)

MARK	LOCATION	MANUFACTURER	MODEL	OUTPUT (MBH)	OUTPUT (KW)	CFM	MOUNTING TYPE	INLET	OUTLET	RECESSED (IN.)	DIMENSION (IN.)	V/PH	NOTES
CUH-1	MAIN VESTIBULE	INDEECO	CU1	41	12	500	CEILING	FRONT	FRONT	10" (FULL)	48x26	480/3	B-E
CUH-2	MAIN VESTIBULE	INDEECO	CU1	41	12	500	CEILING	FRONT	FRONT	10" (FULL)	48x26	480/3	B-E
CUH-3	EXIT VESTIBULE	INDEECO	CU1	41	12	500	CEILING	FRONT	FRONT	10" (FULL)	48x26	480/3	B-E
CUH-4	EMP. ENTRANCE	INDEECO	WCI	6.8	2	160	WALL	FRONT	FRONT	4-5/16" (FULL)	16x20	277/1	A-E
CUH-5	ENTRANCE	INDEECO	WCI	27.3	8	320	WALL	FRONT	FRONT	SURFACE	16x20	277/1	A-E
CUH-6	SE STAIRS	INDEECO	WCI	13.7	4	160	WALL	FRONT	FRONT	SURFACE	16x20	277/1	A-E

NOTES:

- A. MOUNT 18 INCHES ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW.
- B. PROVIDE WITH UNIT MOUNTED THERMOSTAT.
- C. PROVIDE MANUAL SUMMER/WINTER CHANGE-OVER SWITCH
- D. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR MOUNTING SPECIFIED.
- E. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.

UNIT HEATER SCHEDULE (ELECTRIC)

MARK	LOCATION	MANUFACTURER	MODEL	OUTPUT (MBH)	OUTPUT (KW)	MIN. NO. OF STAGES	CFM	V/PH	MOUNTING	RECESSED (IN.)	DIMENSION (IN.)	NOTES
CEH-1	WOMEN TOILET	INDEECO	CCI	6.8	2	1	160	277/1	CEILING	4-5/16" (FULL)	16x22	C, E-G
CEH-2	MEN TOILET	INDEECO	CCI	6.8	2	1	160	277/1	CEILING	4-5/16" (FULL)	16x22	C, E-G
EUH-1	---	---	---	---	---	---	---	---	---	---	---	NOT USED

NOTES:

- A. MOUNT 10 FEET ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW.
- B. PROVIDE WITH WALL MOUNTED THERMOSTAT.
- C. PROVIDE MANUAL SUMMER/WINTER CHANGE-OVER SWITCH
- D. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR VERTICAL MOUNTING.
- E. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
- F. FULL RECESSED
- G. PROVIDE WITH UNIT MOUNTED THERMOSTAT.

FAN SCHEDULE

MARK	SERVICE (EA, RA, SA)	MANUFACTURER	MOUNTING	MODEL	CFM	ESP (IN)	DRIVE (BELT/DIRECT)	MIN. HP	FAN RPM	VFD (Y/N)	ELECTRICAL V/PH	NOTES
EF-1	EA-EMP TOILETS	GREENHECK	ROOF	GB	750	0.5	BELT	1/4	1270	N	115/1	A-C
EF-2	EA-ELEC/MIS	GREENHECK	ROOF	GB	800	0.5	BELT	1/4	1307	N	115/1	A-C
EF-3	EA-ARCHERY	GREENHECK	ROOF	GB	300	0.5	BELT	1/4	1155	N	115/1	A-C
EF-4	EA-PUBLIC TOILETS	GREENHECK	ROOF	GB	700	0.5	BELT	1/4	1334	N	115/1	A-C
EF-5	EA-WAREHOUSE	GREENHECK	ROOF	GB	1200	0.5	BELT	1/4	1262	N	115/1	A-C

NOTES:

- A. PROVIDE WITH MINIMUM 18" HIGH ROOF CURB, BIRDSCREEN AND BACKDRAFT DAMPER.
- B. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
- C. INTERLOCK FAN OPERATION WITH ENERGY MANAGEMENT SYSTEM.

PROJECT DESIGN CONDITIONS

SPACE SERVED	SUMMER MAXIMUM TEMPERATURE	SUMMER MAXIMUM RH %	WINTER MINIMUM TEMPERATURE	WINTER MINIMUM RH%
OUTSIDE AIR	91.2F	66.8 WB	13.5F	20%
SALES	75F	40%	72F	NA
OFFICE	75F	40%	70F	NA
STORAGE	78F	NA	68F	NA
MECH ROOM	85F	NA	65F	NA
DATA ROOM	72F	40%	68F	40%



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UNIT HEATER SCHEDULE (NATURAL GAS)									
MARK	MANUFACTURER	MODEL	MIN. INPUT (MBH)	MIN. OUTPUT (MBH)	MIN. EFF. (%)	CFM	MOTOR HP	V/PH	NOTES
GUH-1	REZNOR	UDAP100	105	87	80	1361	1/30	115/1	A-H
GUH-2	REZNOR	UDAP100	105	87	80	1361	1/30	115/1	A-H

NOTES:

A. MOUNT 10 FEET ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW.
 B. PROVIDE WITH WALL MOUNTED THERMOSTAT.
 C. PROVIDE MANUAL SUMMER/WINTER CHANGE-OVER SWITCH.
 D. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR VERTICAL MOUNTING.
 E. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
 F. PROVIDE WITH STAINLESS STEEL HEAT EXCHANGER.
 G. PROVIDE ELECTRONIC OPERATED GAS CONTROL VALVE.

CENTRAL VACUUM SYSTEM						
MARK	MANUFACTURER	MODEL	CAPACITY	ELECTRICAL		NOTES
				V/PH	AMPS	
VAC-1	AMERICAN VACUUM COMPANY	ARCO 1000S	98 CFM, 550 AIR WATTS	115/1	14.3	A

GRILLE, REGISTER AND DIFFUSER SCHEDULE									
MARK	MANUFACTURER	MODEL	FACE TYPE	MOUNTING LOCATION	FACE SIZE (IN)	MAX. NC	MAX. PRESS. DROP (IN. W.C.)	NOTES	
SD-1	TITUS	TMS	LOUVERED	LAY-IN	24x24	35	0.1	A-D,H	
SD-2	TITUS	TMS	LOUVERED	GYP.	24x24	35	0.1	A-D,H,J	
SD-3	TITUS	TMS	LOUVERED	GYP.	12x12	35	0.1	A-D,H	
SD-4	TITUS	TMS-AA	LOUVERED	LAY-IN	24x24	35	0.1	A-C,H,L	
SR-1	TITUS	300RL	LOUVERED	DUCT	NECK+1-3/4"	35	0.1	A,C-G,J	
SR-2	TITUS	300RL	LOUVERED	WALL	NECK+1-3/4"	35	0.1	A,C-G,J	
LD-1	TITUS	MPI-39	SLOT	LAY-IN	48x4 (4 -slot)	35	0.1	A,C,D,H,K	
LD-2	TITUS	MPI-39	SLOT	GYP.	48x2 (2 -slot)	35	0.1	A,C,D,H,J,K	
LD-3	TITUS	MP-39	SLOT	GYP.	48x2 (2 -slot)	35	0.1	A,C,H,L,N	
LD-4	TITUS	MPI-37	SLOT	GYP.	48x1 (2 -slot)	35	0.1	A,C,D,H,J,P	
RG-1	TITUS	350RL	LOUVERED	LAY-IN	24x24	35	0.1	A,C,D	
RG-2	TITUS	350RL	LOUVERED	WALL	NECK+1-3/4"	35	0.1	A,C-G	
RG-3	TITUS	350RL	LOUVERED	LAY-IN	24x12	35	0.1	A,C,D	
EG-1	TITUS	350RL	LOUVERED	DUCT	NECK+1-3/4"	35	0.1	A,C-G	
EG-2	TITUS	350RL	LOUVERED	LAY-IN	24x24	35	0.1	A, C-E, H	
EG-3	TITUS	350RL	LOUVERED	GYP.	12x12	35	0.1	A,C,H,J,L	
EL-1	TITUS	MP-39	SLOT	GYP.	48x3 (3 -slot)	35	0.1	A,C,H,L,N	

NOTES:

A. NECK SIZE SHOWN ON DRAWINGS.
 B. 4-WAY THROW PATTERN UNLESS OTHERWISE SHOWN ON DRAWINGS.
 C. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS.
 D. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING COLOR.
 E. FRONT BLADES PARALLEL TO LONG DIMENSION.
 F. DOUBLE DEFLECTION BARS SHALL BE ADJUSTABLE.
 G. PROVIDE NECK FOR DUCT CONNECTION.
 H. FRAME TYPE TO MATCH CEILING CONSTRUCTION, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.
 J. PROVIDE OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF DEVICE.
 K. PROVIDE BORDER TYPE TO MATCH CEILING CONSTRUCTION WITH FLANGE MOUNTING, AND INSULATED PLENUM WITH NECK.
 L. ALUMINUM CONSTRUCTION.
 M. COORDINATE COLOR SELECTION WITH ARCHITECT.
 N. PROVIDE BORDER TYPE TO MATCH CEILING CONSTRUCTION WITH FLANGE MOUNTING, AND PLENUM WITH NECK.
 P. PROVIDE BORDER TYPE TO MATCH CEILING CONSTRUCTION WITH CONCEALED MOUNTING, AND INSULATED PLENUM WITH NECK.

OUTSIDE AIR REQUIREMENTS							
AREA PURPOSE	GROSS FLOOR AREA (SQ. FT)	2010 ORGON MECHANICAL SPECIALTY CODE VENTILATION REQUIREMENTS				SYSTEM NUMBER	ACTUAL OUTSIDE AIR (CFM PER UNIT)
		CFM PER SQ. FT	CFM PER PERSON	NO. OF PEOPLE	CFM REQD.		
WAREHOUSE	6,950	0.06	-	-	417	RTU-1	1,200
BARGAIN CAVE	1,239	0.12	7.5	19	149		
SALES	2,728	0.12	7.5	41	327		
DISPLAY (South)	133	0.12	7.5	2	16		
EMPLOYEE ENTRANCE	78	0.06	-	-	5		
MEN'S TOILET ROOM	234	-	-	-	0		
PUBLIC TOILET HALL	59	0.06	-	-	4		
SWITCHBOARD	187	0.06	5	1	11		
WOMEN'S TOILET ROOM	206	-	-	-	0	RTU-2	655
ARCHERY RANGE	579	0.12	7.5	9	69		
ARCHERY TECH	174	0.06	5	1	10		
DISPLAY AREA (NORTH)	123	0.12	7.5	2	15		
FINE GUN STORAGE	276	0.12	-	-	33		
FIRE ARMS STORAGE	655	0.12	-	-	79		
GUN LIBRARY	520	0.12	7.5	8	62		
GUN SALES OFFICE	160	0.06	5	1	10		
HALL WAY	148	0.06	-	-	9		
ISP	90	0.06	5	0	5		
ISP STORAGE	231	0.12	-	-	28	RTU-3	440
CONFERENCE ROOM	203	0.06	5	10	50		
EMP MEN'S TOILET RM	112	-	-	-	0		
EMP WOMEN'S TOILET RM	128	-	-	-	0		
EMPLOYEE LOUNGE	770	0.06	5	39	195		
HALL NEAR LOUNGE	382	0.06	-	-	23		
STORAGE	48	0.12	-	-	6		
HALL/STAIRS	243	0.06	-	-	15		
FLEX ROOM	288	0.06	5	1	17		
GENERAL MANAGER	185	0.06	5	1	11		
MEZZANINE CATWALK	360	0.06	-	-	22		
HR MANAGER	138	0.06	5	1	8		
SALES	1,341	0.12	7.5	20	161		
FOOTWARE WAREHOUSE	1,676	0.12	-	-	201		
OPEN OFFICE	1,005	0.06	5	5	60	RTU-4	940
SALES	9,931	0.12	7.5	149	1,192	RTU-5	2,310
SALES	9,931	0.12	7.5	149	1,192	RTU-6	2,310
SALES	9,931	0.12	7.5	149	1,192	RTU-7	2,310
SALES	9,931	0.12	7.5	149	1,192	RTU-8	2,310
ACCET POTECTION	136	0.06	5.0	1	8		
CAMERA ROOM	66	0.06	5.0	0	4		
CASH ROOM	181	0.06	5.0	1	11		
CASH ROOM VESTIBULE	58	0.06	-	-	3		
CATALOG ORDER	139	0.12	7.5	2	17		
CUSTOMER SERVICE	174	0.12	7.5	3	23		
FUDGE SHOP	182	0.12	7.5	3	23		
OFFICE (RETURN)	80	0.06	5.0	0	5		
RETURN STORAGE	165	0.12	-	-	20	RTU-9	150
TOTAL =						6,913	TOTAL = 12,625



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