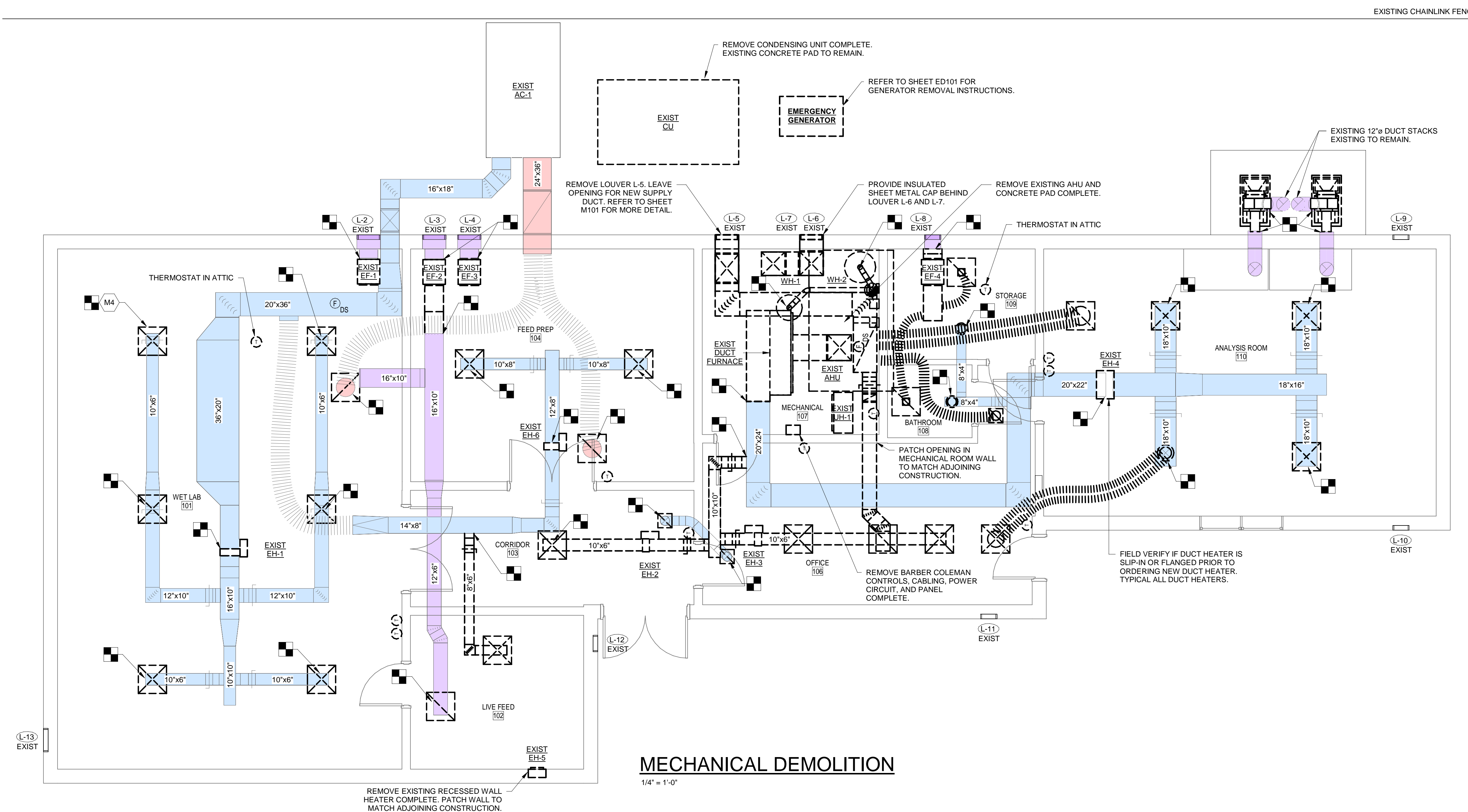


**SHEET NOTES**

M4 REMOVE AIR TERMINAL, MANUAL VOLUME DAMPERS IN EXISTING DUCTWORK AND RUNOUTS ARE EXISTING TO REMAIN. TYPICAL ALL AIR TERMINALS U.O.N.

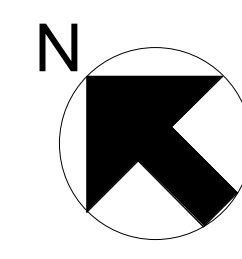
**GENERAL NOTES**

- A. THICK DASHED LINES INDICATE ITEMS FOR REMOVAL (U.O.N) AND THIN SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.
- B. UNLESS OTHERWISE NOTED, PATCH SURFACE(S) TO MATCH ADJOINING CONSTRUCTION AND FINISH FOR ANY ITEMS REMOVED BY THIS CONTRACTOR IN EXISTING TO REMAIN WALLS, CEILINGS, FLOORS, ETC.



**MECHANICAL DEMOLITION**  
1/4" = 1'-0"

	DRAWING INFORMATION		KSU NUTRITION BUILDING HVAC		DRAWING NO. <b>MD101</b>	
	A&E FILE NO.	00000	MECHANICAL DEMOLITION			
	DRAWING DATE	2023-11-15	COMMONWEALTH OF KENTUCKY FINANCE AND ADMINISTRATION CABINET DEPARTMENT FOR FACILITIES AND SUPPORT SERVICES DIVISION OF ENGINEERING FRANKFORT, KENTUCKY			
	DRAWN BY	TRC	ACCOUNT NO.	456-281E-4542-00		
CHECKED BY		TRC	257 Regency Circle - Lexington, KY 40503 Office 859-402.0221 • www.cckky.com		AS BUILT DATE	
PHASE		RTA	CONNOLLY CONSULTING ENGINEERS, PLLC		DECA LOG #	
RTA DATE		2023-11-15	REVISION HISTORY OF DRAWINGS			
			DESCRIPTION OF REVISION	DATE	DESCRIPTION OF REVISION	DATE
			1	4		
			2	5		
			3	6		

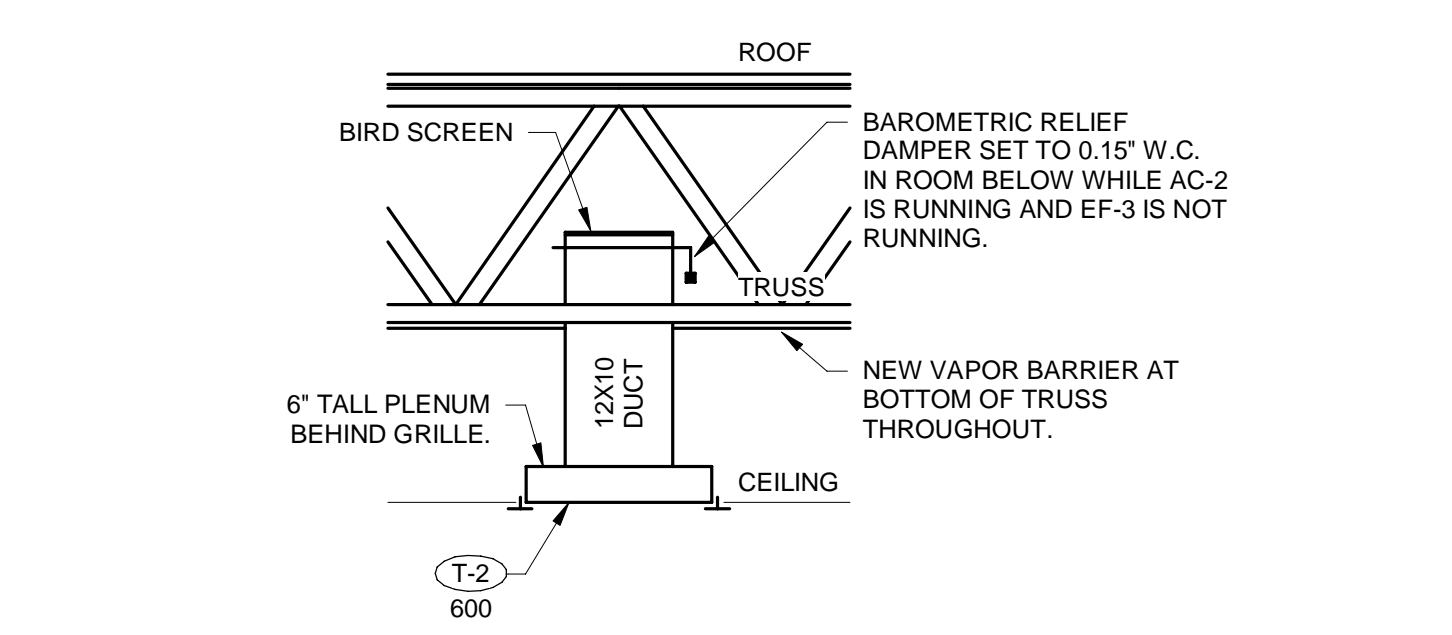
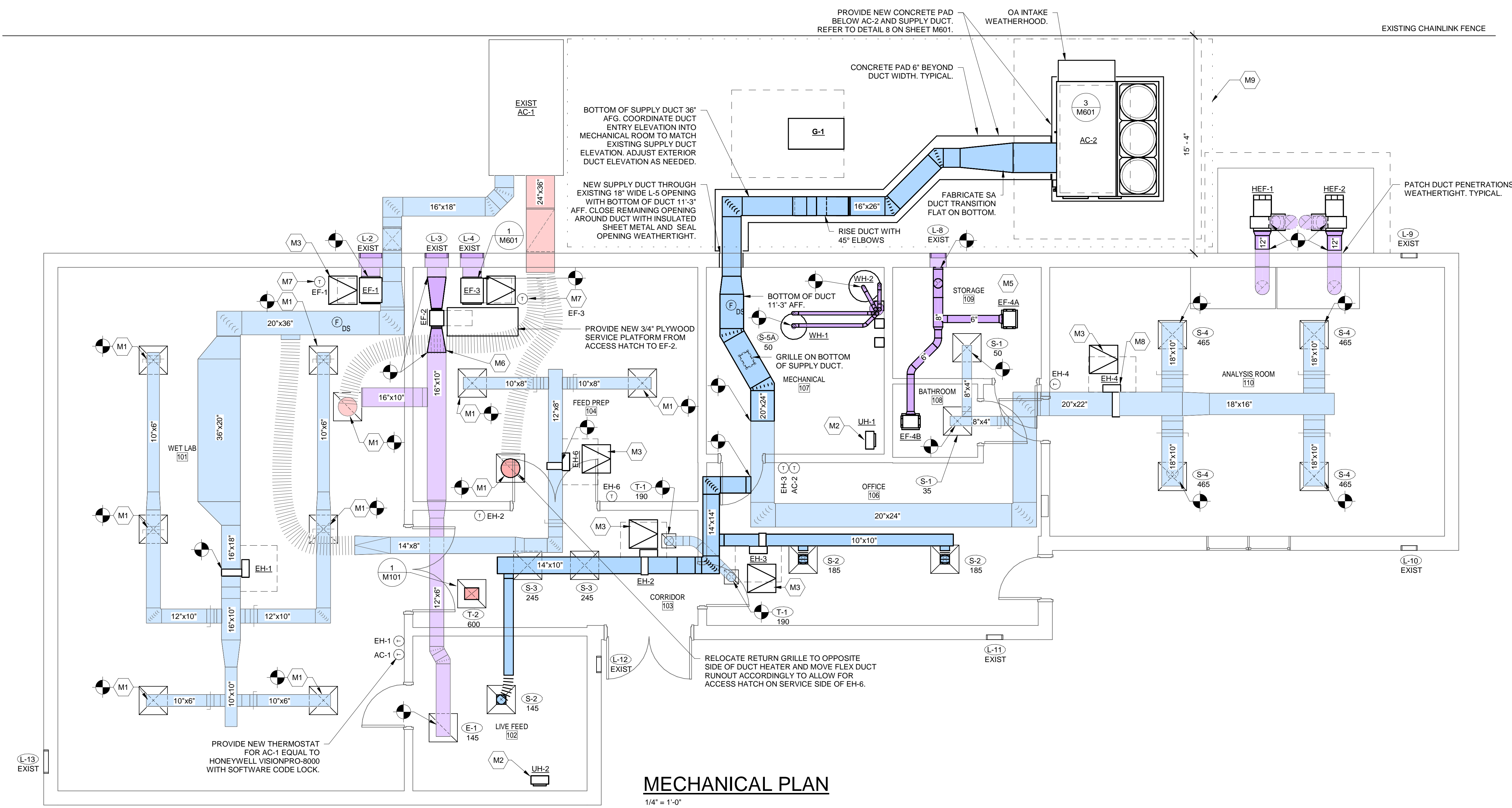


**SHEET NOTES**

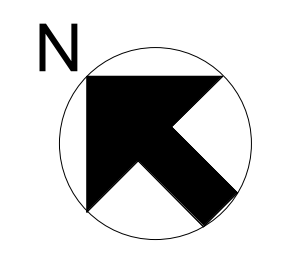
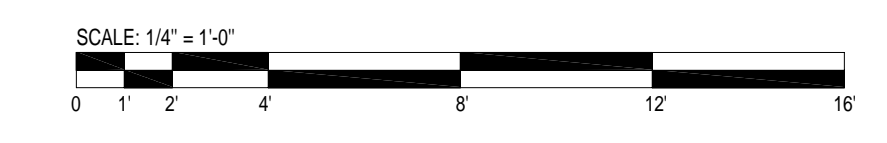
- M1 REPLACE ALL SUPPLY AND RETURN AIR TERMINALS SERVING AC-1. FIELD VERIFY EXISTING INLET SIZES FOR EACH TERMINAL AND REPLACE WITH IDENTICAL INLET SIZE TERMINAL EQUAL TO TITUS TMSAA FOR SUPPLY AND TITUS 350RL FOR RETURN. ALL NEW GRILLES TO HAVE OPPOSED BLADE FACE DAMPER. ON GRILLES WHERE AIRFLOW IS NOT INDICATED, NEW FACE DAMPER POSITION SHALL BE WIDE OPEN.
- M2 PROVIDE MOUNTING BRACKET FOR UNIT HEATER. BOTTOM OF HEATER 7'-0" AFF.
- M3 PROVIDE 20" X 20" STEEL ACCESS HATCH EQUAL TO ACUDOR ED-2002 THROUGH VAPOR BARRIER AND INTO ATTIC SPACE TO SERVICE MECHANICAL EQUIPMENT. HATCH TO ALIGN WITH EXISTING LAY-IN CEILING T-BAR FRAME FOR EASE OF ACCESS. TYPICAL WHERE INDICATED ON PLANS.
- M5 REPLACE ACT CEILING TILES IN STORAGE ROOM.
- M6 PROVIDE INLET AND OUTLET DUCT TRANSITIONS TO EXISTING DUCTWORK IAW DETAILS ON SHEET M601. TYPICAL ALL NEW FANS U.O.N.
- M7 PROVIDE FAN THERMOSTAT IN ATTIC. INSTALL ON WOOD FRAMING NEAR ACCESS HATCH IN AN ACCESSIBLE AND VISIBLE LOCATION.
- M8 ALL NEW DUCT HEATERS TO BE SIDE ACCESS. PATCH DUCTS AS REQUIRED. FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING. TYPICAL ALL NEW DUCT HEATERS.
- M9 PROVIDE GEOTECH OR EQUAL SOFT WEED FABRIC WITH DGA GRAVEL BEHIND BUILDING IN AREA INDICATED WITH DASHED LINE BETWEEN THE EXHAUST FAN CONCRETE PAD AND AC-1.

**GENERAL NOTES**

- A. PROVIDE AN 8 MIL THICK REINFORCED CONTINUOUS VAPOR BARRIER EQUAL TO REED INDUSTRIES GRIFPOLYN T-66 AT THE BOTTOM OF THE ROOF TRUSSES ACROSS THE WHOLE BUILDING. SECURE VAPOR BARRIER TO BOTTOM OF WOOD TRUSSES WITH 1X2 FURRING STRIPS THE FULL LENGTH OF EACH TRUSS. SECURE FURRING STRIPS TO TRUSSES ON 3 FOOT CENTERS USING 2.5" EPOXY COATED DECK SCREWS. PROVIDE NEW #1 BATT INSULATION ABOVE VAPOR BARRIER WHERE EXISTING BATT INSULATION IS MISSING OR DETERIORATED.
- B. INSTALLATION OF VAPOR BARRIER WILL REQUIRE MULTIPLE PHASES. COORDINATE PHASING WITH USING AGENCY PRIOR TO INSTALLATION.
- C. ALL CONDENSATE DRAIN PIPING SHALL BE 1.25" SIZE UON AND INSULATED WITH 3/4" ARMAFLEX.



	DRAWING INFORMATION		KSU NUTRITION BUILDING HVAC		DRAWING NO. <b>M101</b>
	A&E FILE NO.	00000	MECHANICAL PLAN		
	DRAWING DATE	2023-11-15	COMMONWEALTH OF KENTUCKY FINANCE AND ADMINISTRATION CABINET DEPARTMENT FOR FACILITIES AND SUPPORT SERVICES DIVISION OF ENGINEERING FRANKFORT, KENTUCKY		
DRAWN BY	TRC	ACCOUNT NO.	4562814543-00	257 Regency Circle • Lexington, KY 40503 Office 859.402.0221 • www.cckky.com	AS BUILT DATE
CHECKED BY	TBC				DECA LOG #
PHASE	RTA	<small>REVISION HISTORY OF DRAWINGS</small>			
RTA DATE	2023-11-15	<small>DESCRIPTION OF REVISION</small>	<small>DATE</small>	<small>DESCRIPTION OF REVISION</small>	<small>DATE</small>
		1		4	
		2		5	
		3		6	



## PACKAGED AIR HANDLING UNIT SCHEDULE

1. PROVIDE MOTOR HORSEPOWER AND DRIVE COMPONENTS AS REQUIRED TO DELIVER CFM AND STATIC PRESSURE SCHEDULED.
2. UPON DETECTION OF SMOKE, UNIT FAN SHALL SHUT DOWN AND ANNUNCIATE AT FIRE ALARM SYSTEM.
3. CAPACITIES BASED UPON 56F DB / 78F WB OAT, 68F / 50% RH INDOOR TEMPERATURES.
4. SCHEDULED COOLING CAPACITY IS AT FULL LOAD CONDITIONS. UNIT SHALL HAVE FULLY MODULATING, VARIABLE SPEED, INVERTER SCROLL COMPRESSORS.
5. PROVIDE WITH COIL HAIL GUARDS.
6. PROVIDE TEN YEAR HEAT EXCHANGER, FIVE YEAR COMPRESSOR, ONE YEAR ALL OTHER PARTS WARRANTY.
7. PROVIDE UNIT WITH HOT GAS REHEAT SYSTEM "DEHUMIDIZER" DEHUMIDIFICATION CONTROLS AND DUCT MOUNTED HUMIDISTAT.
8. PROVIDE WITH MANUFACTURER'S PROGRAMMABLE THERMOSTAT.
9. EQUIPMENT BY OTHER MANUFACTURERS NOT LISTED MUST BE SUBMITTED FOR ENGINEER'S WRITTEN APPROVAL PRIOR TO BIDDING.
10. PROVIDE UNIT WITH INTERNAL DISCONNECT AND POWERED 120V RECEPTACLE.
11. PROVIDE FACTORY STARTUP.
12. PROVIDE AUXILIARY CONTACT FOR HEF-1,2 STARTUP. REFER TO ELECTRICAL PLANS FOR FIELD WIRING DETAILS.
13. PROVIDE MANUFACTURER'S RUBBER VIBRATION ISOLATORS.
14. PROVIDE MANUFACTURER'S OUTSIDE AIR INTAKE WEATHERHOOD.

MARK	AREA SERVED	MANUFACTURER	MODEL	WEIGHT	NOMINAL TONS	SUPPLY AIR (CFM)	OA CFM	ESP	SENS. CAP	TOTAL CLG. CAP	HTG CAP INPUT	HTG CAP OUTPUT	IEER	VOLTPH	MCA	MAOP	REMARKS	
DOAS	AC-2	ANALYSIS LAB	FLOAIRE	RTU3-1.300-18-FA-20T	2551 lb	20	3000	3000	1.00 in-wg	149000.0 Btu/h	263300.0 Btu/h	255000.0 Btu/h	207000.0 Btu/h	18.2	208 V / 3	88 A	100 A	ALL

### HVAC DESIGN CRITERIA

HVAC SYSTEM	SUMMER		WINTER	
	OUTSIDE		OUTSIDE	
	DB	WB	DB	
ALL UNITS	95	78		3

### DEFAULT HEAT/COOL SETPOINTS

Zone Type or Name/Number	SETPOINT	
	Heating	Cooling
ANALYSIS LAB	75°F	68°F
ALL OTHER SPACES SERVED BY AC-2	75°F	72°F

### ELECTRIC DUCT HEATERS

- REMARKS:
1. UNIT SHALL BE U.L. LISTED.
  2. AUTOMATIC RESET THERMAL SAFETY SWITCH FOR PRIMARY OVER TEMPERATURE PROTECTION.
  3. TOP MOUNTED CONTROL BOX FOR ACCESSIBILITY.
  4. PROVIDE MANUFACTURER'S AIRFLOW SWITCH.
  5. PROVIDE WITH STAND ALONE MODULATING THERMOSTAT EQUAL TO HONEYWELL T87980.
  6. PROVIDE NOISELESS MODULATING SOLID STATE RELAY.

MARK	MANUFACTURER	MODEL	MOUNTING TYPE	CFM	PD (IN. W.C.)	DIMENSIONS (IN)	KW	STAGES	VOLT / PH	REMARKS
EH-1	GREENHECK	IDHE	SLIP-IN	2125	0.025"	16" x 18"	7000 W	MODULATING	208 V/ 3PH	ALL
EH-2	GREENHECK	IDHE	SLIP-IN	635	0.025"	14" x 10"	8700 W	MODULATING	208 V/ 3PH	ALL
EH-3	GREENHECK	IDHE	SLIP-IN	390	0.020"	10" x 10"	5200 W	MODULATING	208 V/ 3PH	ALL
EH-4	GREENHECK	IDHE	SLIP-IN	1850	0.015"	20" x 22"	20200 W	MODULATING	208 V/ 3PH	ALL
EH-6	GREENHECK	IDHE	SLIP-IN	470	0.025"	12" x 8"	2500 W	MODULATING	208 V/ 3PH	ALL

### BUILDING AIR BALANCE SCHEDULE

	EXIST AC-1	AC-2	EF-2	EF-4A,B	HEF-1,2	TOTAL
OUTSIDE AIR	[1] 615 CFM	3000 CFM	--	--	--	3,615 CFM
EXHAUST AIR	--	--	145 CFM	175 CFM	2000 CFM	2,320 CFM
						TOTAL : + 1,295 CFM

- NOTES:  
 1. OA CFM FROM ORIGINAL DRAWINGS PRIOR TO AHU REPLACEMENT IN 2016.  
 2. ATTIC VENTILATION FANS NOT INCLUDED IN BUILDING AIR BALANCE.

### EXHAUST FAN SCHEDULE

1. PROVIDE WITH FAN MANUFACTURER'S RUBBER VIBRATION ISOLATION SUSPENSION KIT.
2. PROVIDE WITH SOLID STATE SPEED CONTROL BY FAN MANUFACTURER FOR INTERNAL MOUNTING.
3. PROVIDE FAN WITH INTEGRAL BACKDRAFT DAMPER.
4. FAN TO START AND STOP VIA LIGHTING OCCUPANCY SENSOR.
5. FAN TO START AND STOP VIA THERMOSTAT.
6. FAN TO START AND STOP VIA WALL SWITCH.
7. FAN TO RUN CONTINUOUS.
8. UNLESS OTHERWISE NOTED IN SPECIFICATIONS, ACCEPTABLE ALTERNATE MANUFACTURERS ARE COOK, PRICE. EQUIPMENT BY OTHER MANUFACTURERS NOT LISTED MUST BE SUBMITTED FOR ENGINEER'S WRITTEN APPROVAL PRIOR TO BIDDING.
9. PROVIDE DISCHARGE AT 45° ANGLE ORIENTATION. PROVIDE MANUFACTURER'S DIRECT MOUNTED SPRING ISOLATORS.
10. FAN SHALL BE CAPABLE OF OPERATING AT 1,250 CFM AT 0.5" ESP.

MARK	MANUFACTURER	MODEL	AREA SERVED	EA CFM	RUNOUT SIZE	ESP	RPM	WATTS	VOLTPH	SONES	REMARKS
EF-1	GREENHECK	SQ-120	ATTIC VENTILATION	450	SEE PLAN	0.30 in-wg	586	100 W	120 V/1PH	3.1	1.3,5,8
EF-2	GREENHECK	SQ-70	WET LAB EXHAUST	145	SEE PLAN	0.25 in-wg	1550	35 W	120 V/1PH	4.5	1.3,7,8
EF-3	GREENHECK	SQ-120	ATTIC VENTILATION	900	SEE PLAN	0.40 in-wg	1140	125 W	120 V/1PH	6.1	1.3,5,8
EF-4A	GREENHECK	SP-A125	STORAGE	100	6# U.O.N.	0.25 in-wg	1100	25 W	120 V/1PH	0.7	3,6,8
EF-4B	GREENHECK	SP-A125	BATHROOM	75	6# U.O.N.	0.25 in-wg	1100	25 W	120 V/1PH	0.7	3,6,8
HEF-1	GREENHECK	USF-12-VG	HOOD EXHAUST	1000	15# U.O.N.	0.50 in-wg	1687	1080 W	208 V/3PH	14.6	2.3,7,8,9,10
HEF-2	GREENHECK	USF-12-VG	HOOD EXHAUST	1000	15# U.O.N.	0.50 in-wg	1687	1080 W	208 V/3PH	14.6	2.3,7,8,9,10

### HVAC SYSTEM SEQUENCE OF CONTROLS

**AC-2**  
 THE DOAS SHALL DELIVER 50F DB (ADJ.) SUPPLY AIR AT ALL TIMES WHEN IN OPERATION USING ITS STAND-ALONE INTEGRATED CONTROLS SYSTEM.

**HEE-1,2**  
 1. FUME HOOD EXHAUST FANS SHALL BE INTERLOCKED TO START AND STOP WITH AC-2 SUPPLY FAN, USING THE EXISTING EXHAUST FAN MOTOR STARTERS AND THE AC-2 FAN INTERLOCK TERMINALS.

**EH-1,2,3,4,6**  
 1. ELECTRIC DUCT HEATERS SHALL OPERATE WITH A STAND ALONE MODULATING THERMOSTAT.

### UNIT HEATER SCHEDULE

- REMARKS:
1. FURNISH WITH INTEGRAL TAMPER OFF THERMOSTAT AND ALL REQUIRED CONTROL COMPONENTS INSIDE HEATER CABINET.
  2. UNIT SHALL BE U.L. LISTED.
  3. PROVIDE WITH INTERNAL MEANS OF DISCONNECT.
  4. UNLESS OTHERWISE NOTED IN SPECIFICATIONS, ACCEPTABLE ALTERNATE MANUFACTURERS ARE MODINE, TRANE, INDECO. EQUIPMENT BY OTHER MANUFACTURERS NOT LISTED MUST BE SUBMITTED FOR ENGINEER'S WRITTEN APPROVAL PRIOR TO BIDDING.

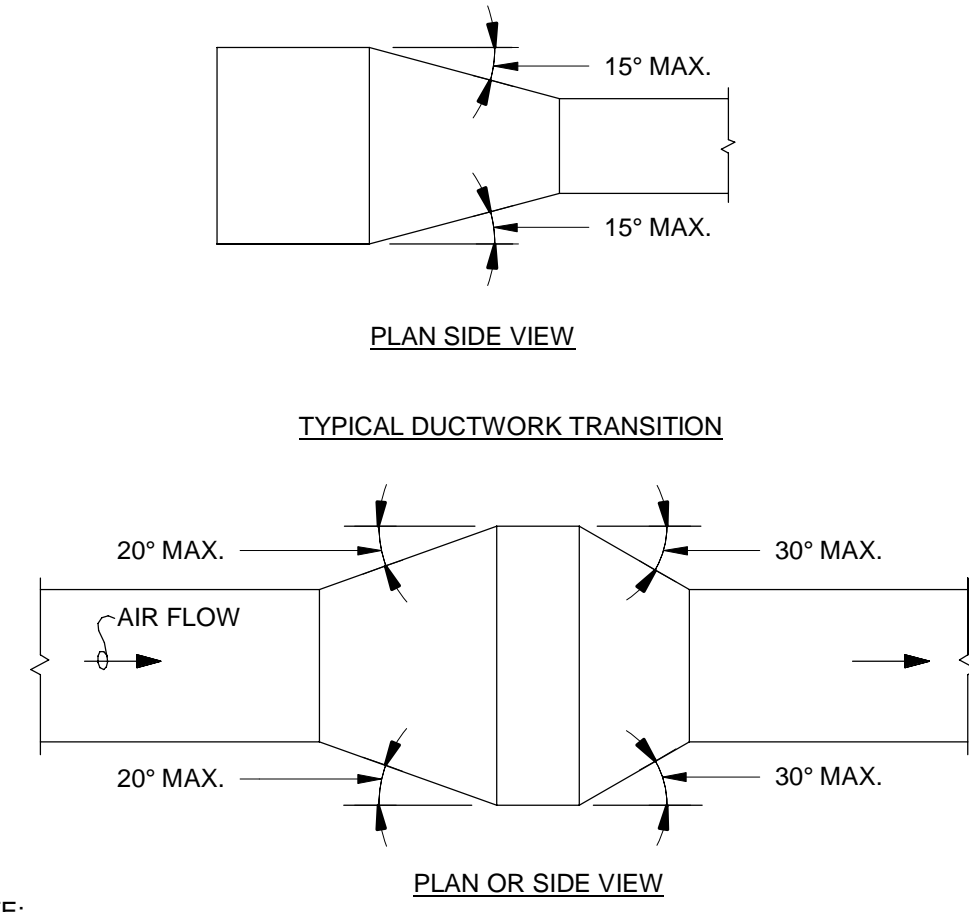
MARK	MANUFACTURER	MODEL	MOUNTING TYPE	CFM	AMPS	KW	VOLT / PH	REMARKS
UH-1	MARKEL	F2F5103N	WALL BRACKET	400	9 A	3 W	208 V/ 3PH	ALL
UH-2	MARKEL	F2F5103N	WALL BRACKET	400	9 A	3 W	208 V/ 3PH	ALL

### AIR TERMINAL SCHEDULE

1. FINISH TO BE SELECTED BY ARCHITECT/OWNER. COORDINATE MOUNTING WITH CEILING TYPES - i.e. WIDE GRID, NARROW GRID, DRY WALL, PLASTER, ETC.
2. MAXIMUM DIFFUSER NO = 35.
3. PROVIDE DUCT TO DIFFUSER/GRILLE THROAT TRANSITION AS REQUIRED.
4. PROVIDE LAY-IN MODULE PANEL FOR ALL DEVICES NOT INDICATED AS SURFACE MOUNTED.
5. SUFFICI 'A' INDICATED SURFACE MOUNTED DEVICE.
6. PROVIDE INTEGRAL OPPOSED BLADE FACE DAMPER FOR BALANCING GRILLES BELOW CEILING.

MARK	MANUFACTURER	MODEL	DESCRIPTION	GRILLE SIZE	PANEL SIZE	RUNOUT	CFM	AIR PATTERN	REMARKS
E-1	TITUS	350RL	STEEL 35° FIXED BLADE PARALLEL TO LONG DIM.	1'-0" x 1'-0"	2'-0" x 2'-0"	6 # U.O.N.	0 - 225	--	1,2,3,4,6
R-4	TITUS	350RL	STEEL 35° FIXED BLADE PARALLEL TO LONG DIM.	2'-0" x 2'-0"	2'-0" x 2'-0"	SEE PLANS	0 - 1500	--	1,2,3,4,6
S-1	TITUS	TMSAA	ALUM. ADJUSTABLE LOUVER FACE	1'-0" x 1'-0"	2'-0" x 2'-0"	6 # U.O.N.	0 - 110	4-WAY ADJUSTABLE	1,2,3,4,6
S-2	TITUS	TMSAA	ALUM. ADJUSTABLE LOUVER FACE	1'-0" x 1'-0"	2'-0" x 2'-0"	8 # U.O.N.	0 - 225	4-WAY ADJUSTABLE	1,2,3,4,6
S-3	TITUS	TMSAA	ALUM. ADJUSTABLE LOUVER FACE	2'-0" x 2'-0"	2'-0" x 2'-0"	10 # U.O.N.	0 - 350	4-WAY ADJUSTABLE	1,2,3,4,6
S-4	TITUS	TMSAA	ALUM. ADJUSTABLE LOUVER FACE	2'-0" x 2'-0"	2'-0" x 2'-0"	14 # U.O.N.	0 - 465	4-WAY ADJUSTABLE	1,2,3,4,6
S-5A	TITUS	300FL	ALUM. ADJUSTABLE DOUBLE DEFLECTION	1'-0" x 0'-8"	1'-0" x 0'-8"	SEE PLANS	0 - 100	4-WAY ADJUSTABLE	1,2,3,5,6
T-1	TITUS	350RL	STEEL 35° FIXED BLADE PARALLEL TO LONG DIM.	1'-0" x 1'-0"	1'-0" x 1'-0"	6 # U.O.N.	0 - 225	--	1,2,3,4,6
T-2	TITUS	350RL	STEEL 35° FIXED BLADE PARALLEL TO LONG DIM.	2'-0" x 2'-0"	2'-0" x 2'-0"	SEE PLANS	0 - 1500	--	1,2,3,4,6
T-3	TITUS	350RL	STEEL 35° FIXED BLADE PARALLEL TO LONG DIM.	2'-0" x 2'-0"	2'-0" x 2'-0"	SEE PLANS	0 - 1500	--	1,2,3,4,6

	DRAWING INFORMATION		<b>KSU NUTRITION BUILDING HVAC</b>	
	A&E FILE NO.	00000	<b>MECHANICAL SCHEDULES</b>	
	DRAWING DATE	2023-11-15	<b>M501</b>	
	DRAWN BY	TRC	AS BUILT DATE	
CHECKED BY	TRC	ACCOUNT NO.	COMMONWEALTH OF KENTUCKY FINANCE AND ADMINISTRATION CABINET DEPARTMENT FOR FACILITIES AND SUPPORT SERVICES DIVISION OF ENGINEERING FRANKFORT, KENTUCKY	
PHASE	RTA	45-281E-KS45-00	257 Regency Circle - Lexington, KY 40503 Office 859.402.0221 • www.cckky.com	
RTA DATE	2023-11-15			DECA LOG #
REVISION HISTORY OF DRAWINGS				
DESCRIPTION OF REVISION		DATE	DESCRIPTION OF REVISION	
1		4		
2		5		
3		6		

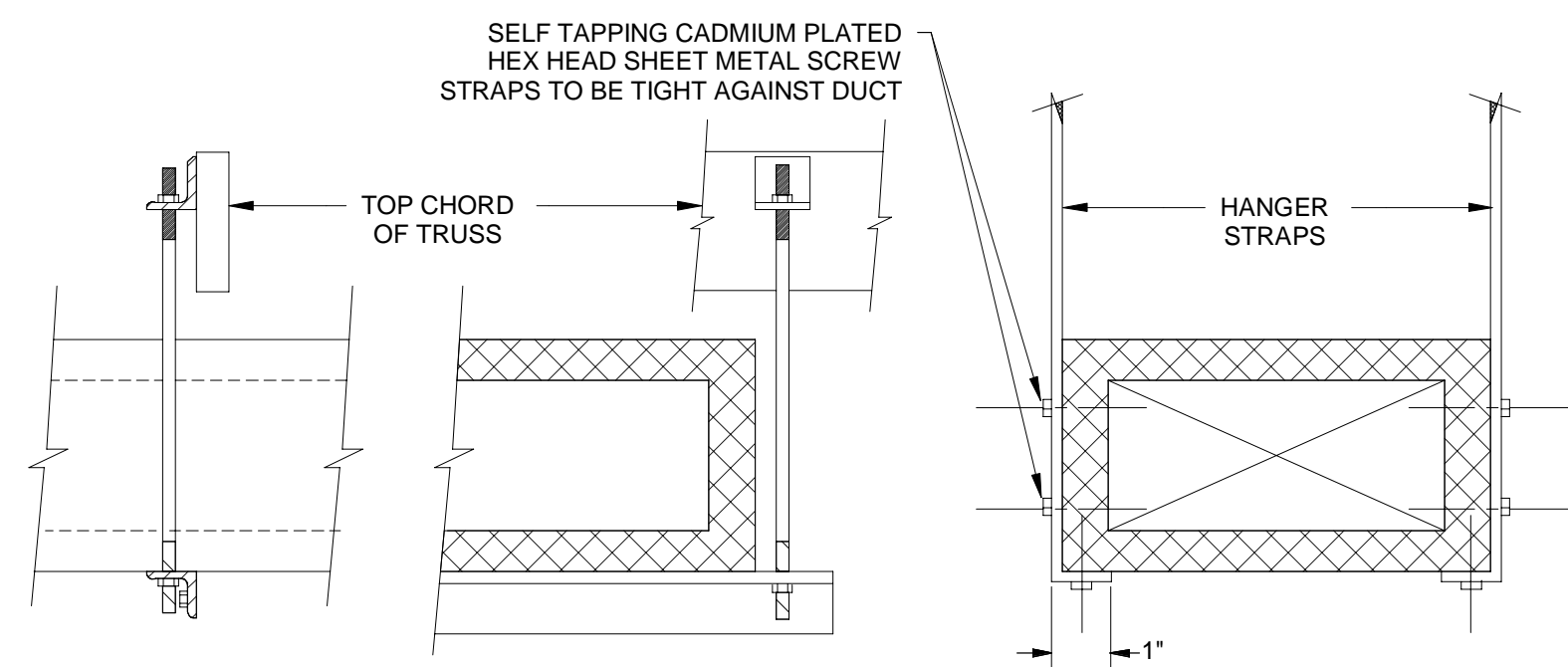


NOTE:  
UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.  
TYPICAL DUCTWORK TRANSITION WITH EQUIPMENT MOUNTED IN DUCT

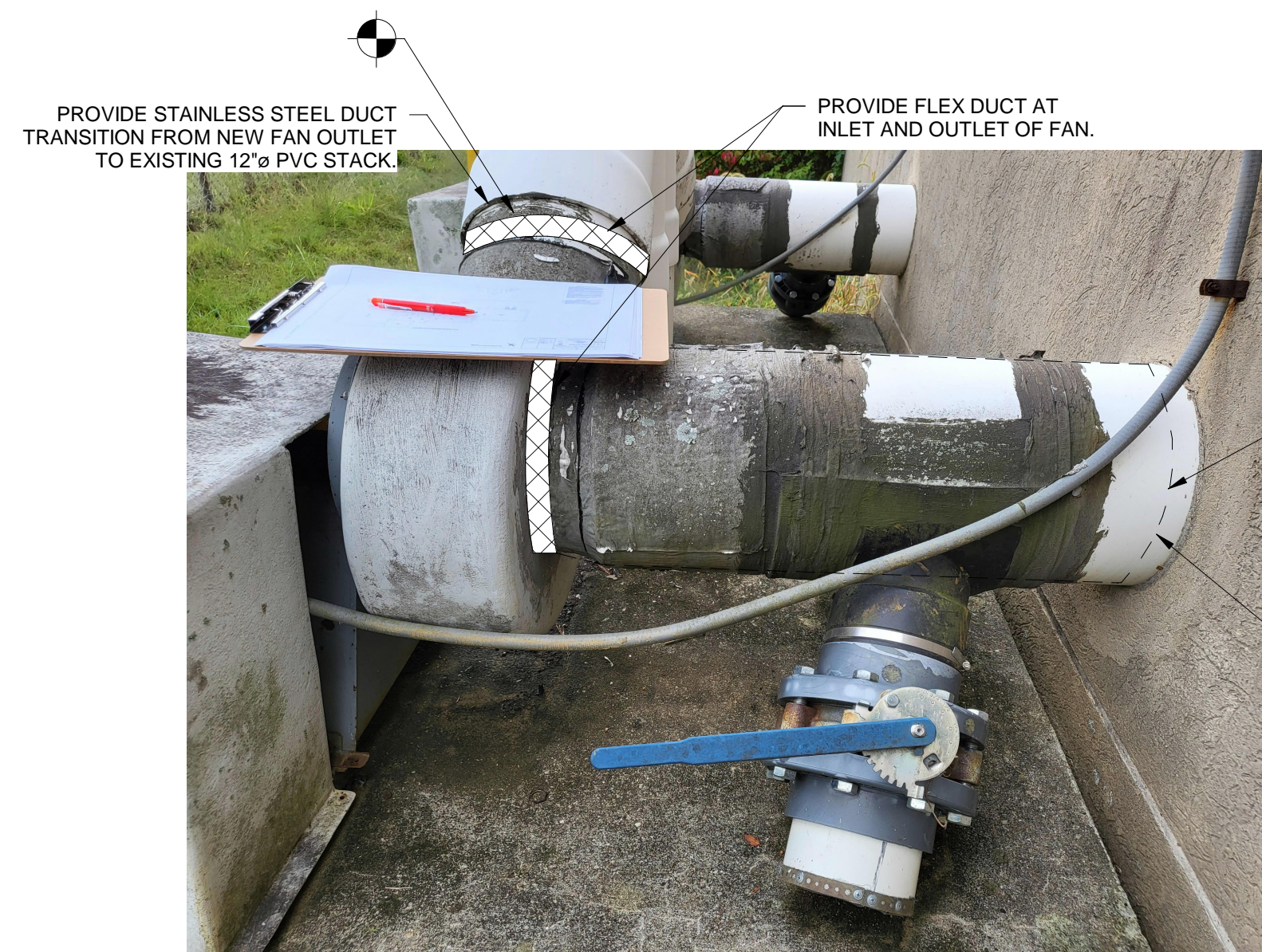
9 DUCTWORK TRANSITION DETAILS

HANGER SIZES FOR RECTANGULAR DUCT			
MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
30"	1" X 1/8" GAUGE STRAP	NONE REQUIRED	10'-0"
36"	1/4" ROUND ROD	1 1/2' x 1 1/2' x 1/8"	8'-0"
48"	1/4" ROUND ROD	2' x 2' x 1/8"	8'-0"
60"	5/16" ROUND ROD	2' x 2' x 1/8"	8'-0"
84"	3/8" ROUND ROD	2' x 2' x 1/8"	8'-0"

NO POP RIVETS ALLOWED



10 DUCT STRAP HANGER DETAIL



PROVIDE STAINLESS STEEL DUCT TRANSITION FROM NEW FAN OUTLET TO EXISTING 12\"/>

PROVIDE FLEX DUCT AT INLET AND OUTLET OF FAN.

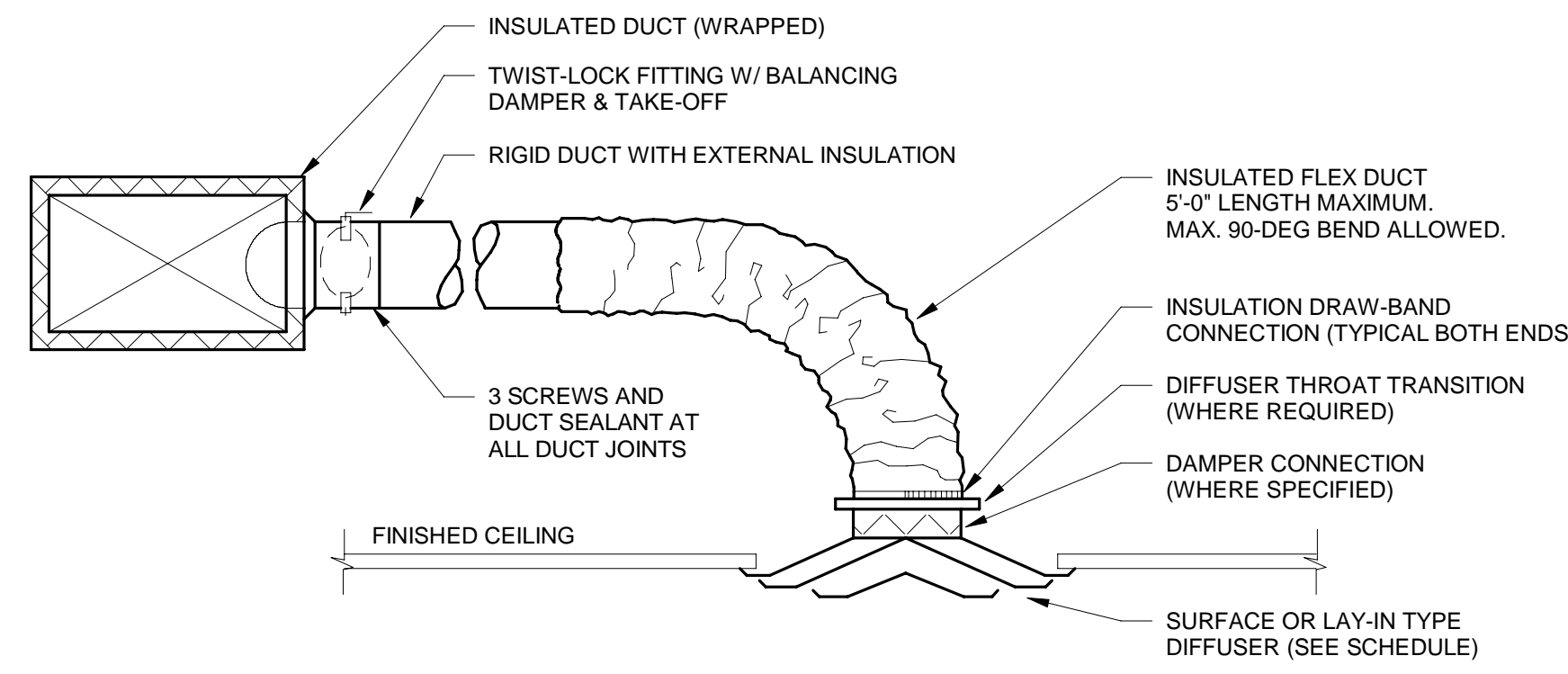
REMOVE EXISTING PVC PIPING 2\"/>

11 HOOD EXHAUST FAN DUCTING DETAIL

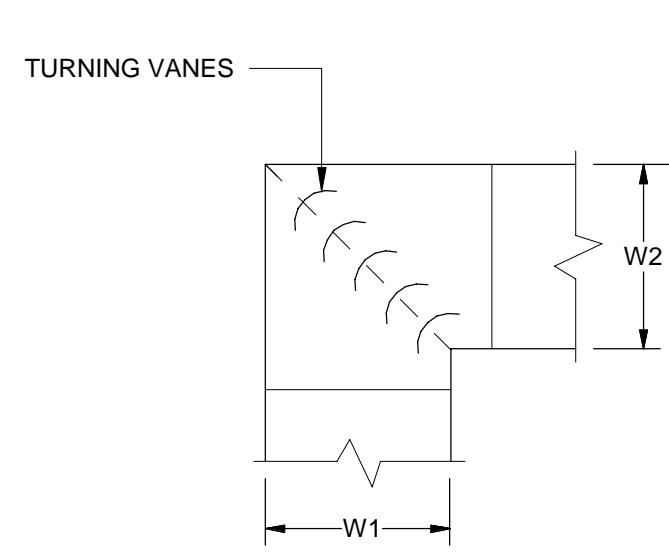
DIMENSION OF LONGEST SIDE - INCHES	SHEET METAL GAUGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINT & OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)			
			AT JOINTS			
			DRIVE SLIP	HEMMED S SLIP	ALTERNIT BAR SLIP	REINFORCED BAR SLIP
			MIN. IN.	RECOM-MEMDED GAUGE	RECOM-MEMDED GAUGE	RECOM-MEMDED GAUGE
UP THRU 12	26	NONE REQUIRED	1	26	26	24
13 - 18	24	NONE REQUIRED	1	24	24	24
19 - 30	24	1" X 1" X 1/8" @ 60 IN	1	24	24	24
31 - 42	22	1" X 1" X 1/8" @ 60 IN	1	24	22	22

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

12 DUCT CONSTRUCTION SCHEDULE

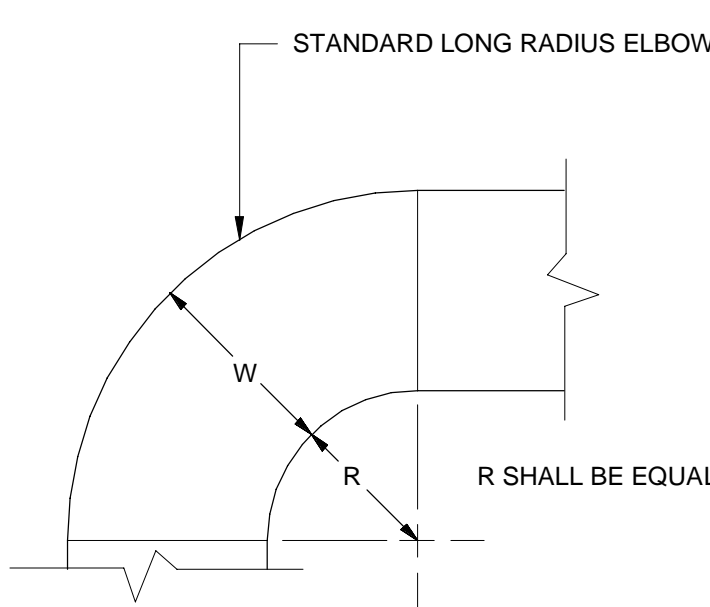


4 TYPICAL DUCT RUNOUT DETAIL



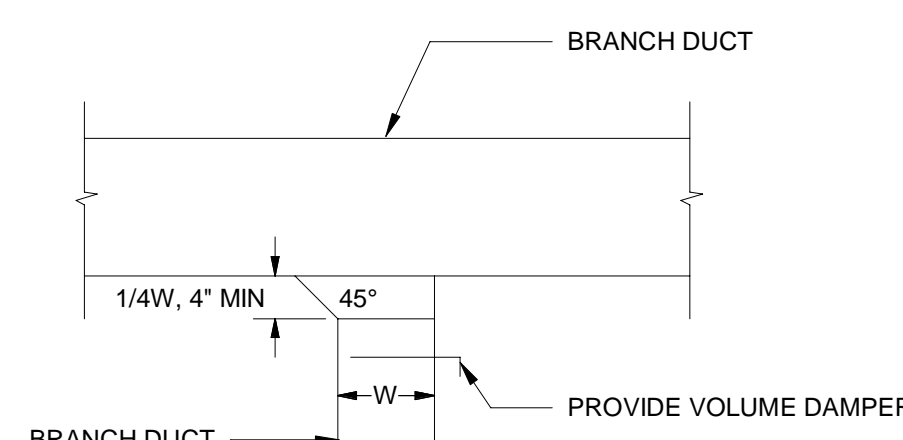
NOTES:  
1. MITERED ELBOWS ARE PREFERRED OVER RADIUS ELBOWS IN ALL RECTANGULAR DUCTS TO MAXIMIZE DUCT SYSTEM PERFORMANCE.  
2. ALL VANED ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.  
3. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE VANE TYPE, REGARDLESS OF W DIMENSION.  
4. ALL SINGLE VANES SHALL HAVE A 2 INCH RADIUS, 1 INCH MAXIMUM SPACE BETWEEN VANES AND A 3/4 INCH TRAILING EDGE.  
5. WHEN W1 EQUALS W2 AND W1 IS GREATER THAN 20 INCHES, VANES SHALL BE DOUBLE VANE TYPE.

5 RECTANGULAR MITERED DUCT ELBOW DETAIL

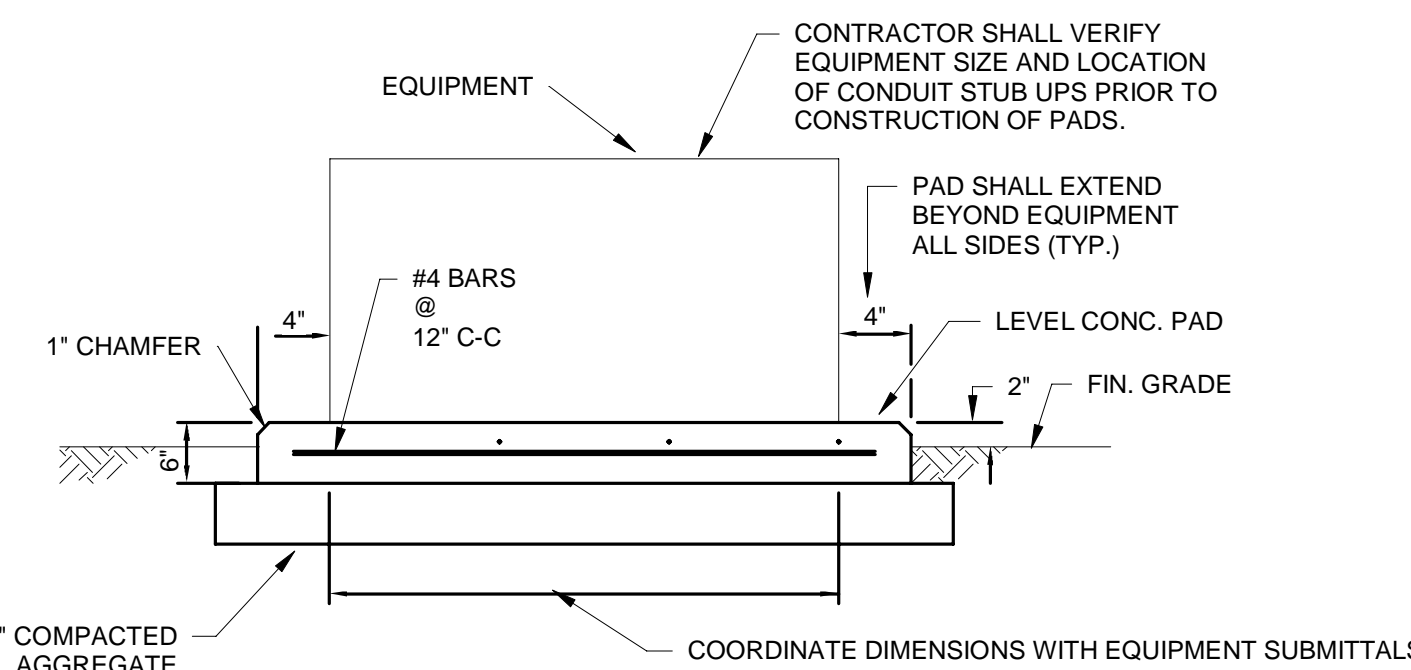


NOTES:  
1. SMOOTH RADIUS, DIE STAMPED ROUND ELBOWS ARE PREFERRED BUT NOT REQUIRED.  
2. ALL RECTANGULAR AND ROUND RADIUS ELBOWS SHALL BE LONG RADIUS TYPE (INSIDE ELBOW RADIUS EQUAL TO DUCT WIDTH/DIAMETER).  
3. 3 PIECE ROUND ELBOWS ARE UNACCEPTABLE. MITERED ROUND ELBOWS WITHOUT TURNING VANES ARE UNACCEPTABLE.  
4. SQUARE THROAT RADIUS BACK ELBOWS WITHOUT TURNING VANES AND SHORT RADIUS ELBOWS ARE UNACCEPTABLE.  
R SHALL BE EQUAL TO W

6 LONG RADIUS ELBOWS DETAIL

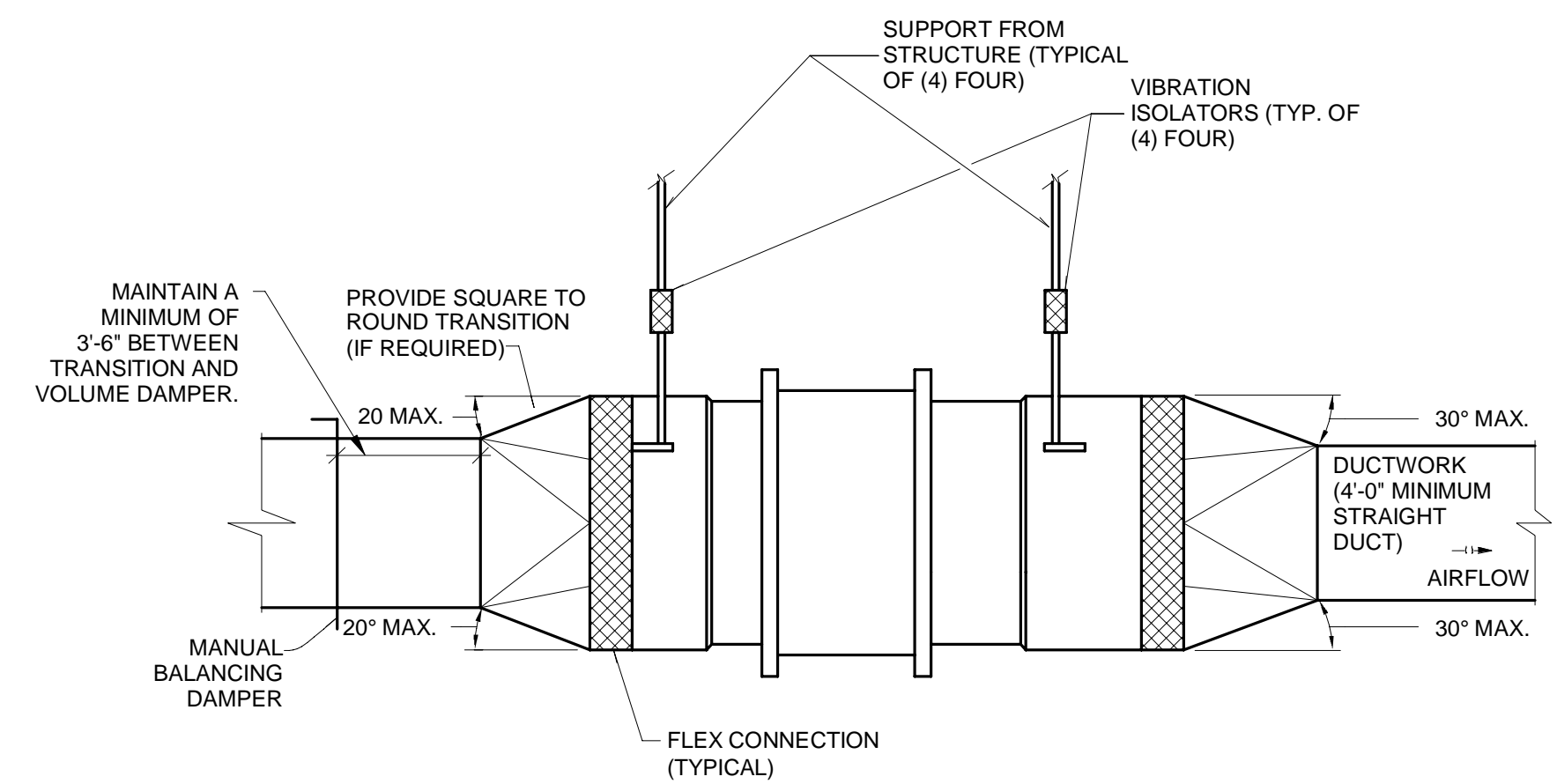


7 DUCT TAKE-OFFS DETAIL

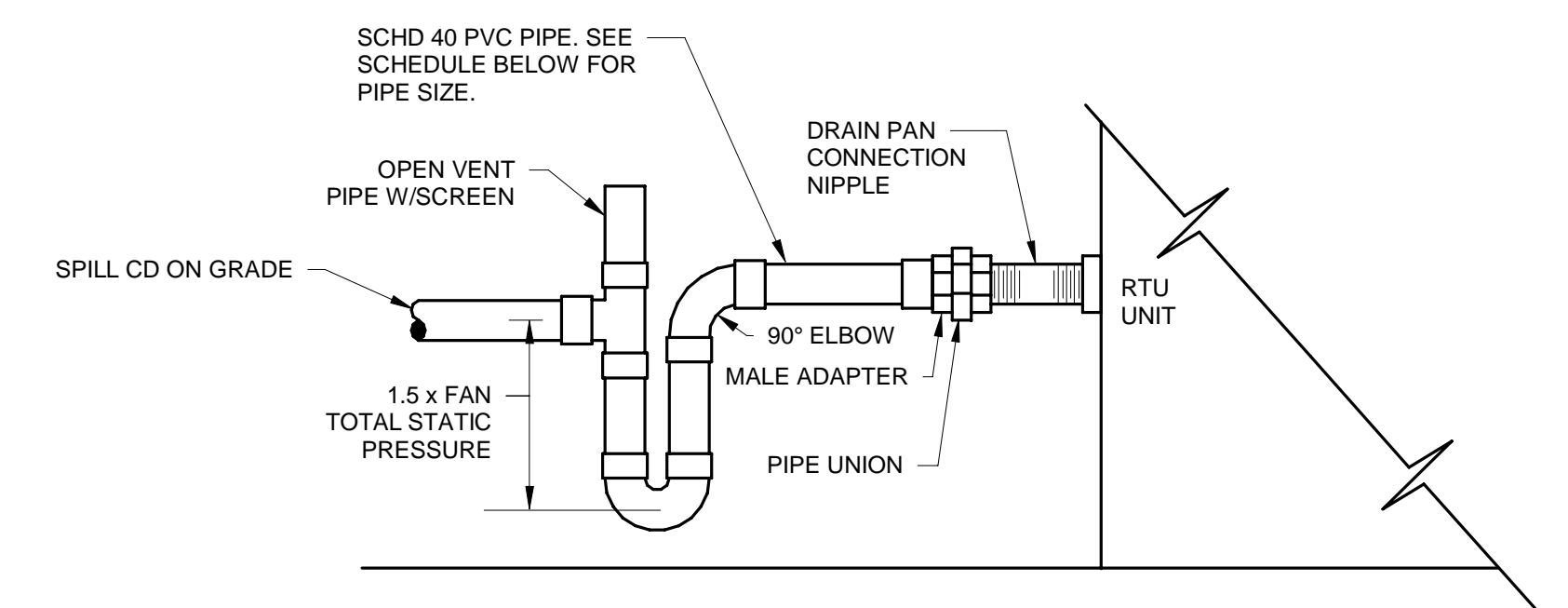


NOTE:  
1. PAD ELEVATION AND THICKNESS IS MINIMUM. ADJUST AS NEEDED FOR LEVEL PAD FOR LOCATION OF EQUIPMENT PAD.

8 TYPICAL EQUIPMENT PAD DETAIL



1 INLINE FAN INSTALLATION DETAIL

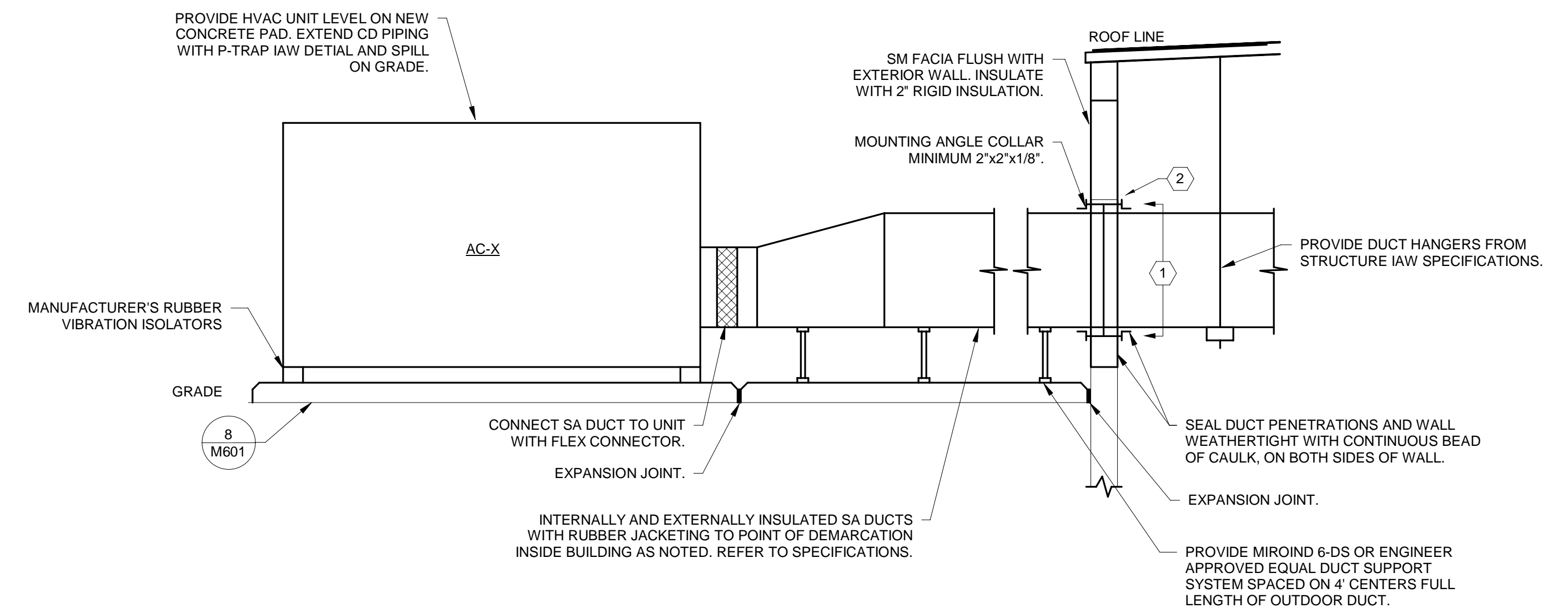


SIZING THE COOLING COIL CONDENSATE DRAIN PIPE							
COOLING CAPACITY (TONS)	<=2	2.5-5	6-30	31-50	51-175	176-300	301-400
PIPE SIZE (DIA)	3/4"	1"	1.25"	1.5"	2"	2.5"	3"

NOTE: WHERE HORIZONTAL RUNS AT LESS THAN 1/8\"/>

2 RTU CONDENSATE DRAIN DETAIL

AC-X DETAIL TAGGED NOTES:  
1. WRAP OUTDOOR SA DUCTWORK WITH RUBBER INSULATION JACKET (SEE SPECS) AND MAINTAIN CONTINUOUSLY THRU EXTERIOR WALL TO 12\"/>



3 GRADE MOUNTED HVAC UNIT AND DUCTWORK DETAIL

	DRAWING INFORMATION		KSU NUTRITION BUILDING HVAC		DRAWING NO. <b>M601</b>
	A&E FILE NO.	00000	MECHANICAL DETAILS		
	DRAWING DATE	2023-11-15	COMMONWEALTH OF KENTUCKY FINANCE AND ADMINISTRATION CABINET DEPARTMENT FOR FACILITIES AND SUPPORT SERVICES DIVISION OF ENGINEERING FRANKFORT, KENTUCKY		
DRAWN BY	TRC	ACCOUNT NO.	4562814543-00	AS BUILT DATE	
CHECKED BY	TRC	257 Regency Circle - Lexington, KY 40503 Office 859.402.0221 • www.cckky.com		DECA LOG #	
PHASE	RTA	REVISION HISTORY OF DRAWINGS			
RTA DATE	2023-11-15				
		DESCRIPTION OF REVISION	DATE	DESCRIPTION OF REVISION	DATE