

NOTE:  
1. SEE SHEET M-001 FOR LEGEND AND ABBREVIATIONS.

**SPECIFICATIONS & NOTES:**  
CONTRACTOR SHALL VISIT THE SITE TO DETERMINE PRE-EXISTING CONDITIONS AND ALL WORK NECESSARY PRIOR TO BEGINNING WORK. ALL REQUIREMENTS AND EXISTING CONDITIONS IN THE FIELD. GENERAL SCHEMATIC LAYOUT IS INDICATED. ALL OFFSETS, DIMENSIONS, AND EXISTING CONDITIONS AND DIMENSIONS SHALL BE FIELD VERIFIED.  
OBTAIN NECESSARY PERMITS AND PAY ASSOCIATED FEES.  
COORDINATE ANY SERVICE DISRUPTIONS WITH THE OWNER.  
INSTALL ALL COMPONENTS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. ALL LOCAL CODES AND STANDARDS AND UNIFORM DRAWINGS ARE DIAGNOSTIC ONLY. FIELD-VENIFY ALL EXISTING CONDITIONS. COORDINATE INSTALLATIONS WITH OTHER TRADES.  
THE INTENTION OF THESE CONTRACT DOCUMENTS IS TO CALL FOR FINISHED WORK, FULLY TESTED AND READY FOR OPERATION. ANY COMPONENTS OR MATERIALS NOT LISTED IN THE CONTRACT DOCUMENTS SHALL BE REQUIRED FOR THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAY ASSOCIATED FEES. ANY DISCREPANCIES OR QUESTIONS OF INTENT, THE CONTRACTOR SHALL REFER THE MATTER TO THE ARCHITECT FOR DECISION BEFORE START OF ANY RELATED WORK.  
PERFORM WORK IN ACCORDANCE WITH LOCAL CODES.  
SEAL ALL DUCT AND PIPE PENETRATIONS WITH FIRE SEALANT.  
OBSERVE THE OWNER'S CLEANLINESS PROTOCOLS.

**METAL DUCTWORK:** DUCTWORK: ASTM A653 GALVANIZED STEEL SHEET, LOCK-FORMING QUALITY, AND 99.99 ZINC COATING. ALL DUCTWORK SHALL BE FINISHED AND INSTALLED IN ACCORDANCE WITH SMACK GROUNDWORK. PERCENT OF THE TOTAL AIR QUANTITIES SHALL BE FIELD VERIFIED. SEAL ALL DUCT JOINTS WITH GASKETED CONNECTIONS, DUCTWAVE, OR EQUAL.  
DUCTWORK PRESSURE/SEAL CLASS: SUPPLY DUCTWORK UPSTREAM OF DUAL DUCT VAV TERMINAL UNITS. 6 INCH/CLASS A, DOWNSTREAM OF DUAL DUCT VAV TERMINAL UNITS. 2 INCH/CLASS C.  
INSULATE DUCTWORK WITH 1-1/2" F.R. BLANKET WITH VAPOR BARRIER JACKET EQUAL TO SCHLITZER WOODLIE TYPE 75, ASTM CLASS 1, WITH FSK FRANK. PROVIDE VOLUME DAMPERS AT ALL BRANCH DUCTS.  
**INSULATED FLEXIBLE DUCTS:** FLEXIBLE DUCTS SHALL BE INSULATED WITH 1-1/2" POLYURETHANE VAPOR BARRIER FILM R-VALUE = 4.2, UL 181, CLASS 1. MINIMUM LENGTH: 9 FEET.  
**DUAL DUCT VAV TERMINAL UNITS:** DUAL DUCT VAV TERMINAL UNITS SHALL BE PRESSURE INDEPENDENT, COMPLETE WITH SEPARATE INLET MULTI-POINT AIRFLOW SENSORS AND DAMPER ASSEMBLIES. THE TERMINAL CASING SHALL BE MINIMUM 20 GAUGE GALVANIZED STEEL. COMPLETE WITH UL 181 AND NFPA 255. DAMPERS OF HEAVY GAUGE STEEL. UNIT SHALL INCLUDE A PRESS-ATTENUATOR SECTION AS AN INTERNAL PART OF THE TERMINAL. MINIMIZE DOWNSTREAM STATIC PRESSURE.  
PROVIDE 24 VOLT CONTROL TRANSFORMER.  
**PLUMBING/TEMPERATURE CONTROLS:** ALL PLUMBING AND TEMPERATURE CONTROL SYSTEM TO SERVE THE RENOVATED AREA. ALL NEW CONTROLS SHALL BE ELECTRONIC/DOC. PROVIDE COMPLETE CONTROLS FOR VAV TERMINAL UNITS.

**TESTING, ADJUSTING AND BALANCING (TAB) AND COMMISSIONING:** TESTING, ADJUSTING AND BALANCING (TAB) AND COMMISSIONING SHALL BE PERFORMED BY AND INDEPENDENT T-4-B AGENCY. T-4-B ALL NEW AIR INLETS AND OUTLETS, INCLUDING DESIGN AND ACTUAL CFM.  
T-4-B NEW DUAL DUCT VAV TERMINAL UNITS.

**REGISTER, DIFFUSER & GRILLE SCHEDULE**

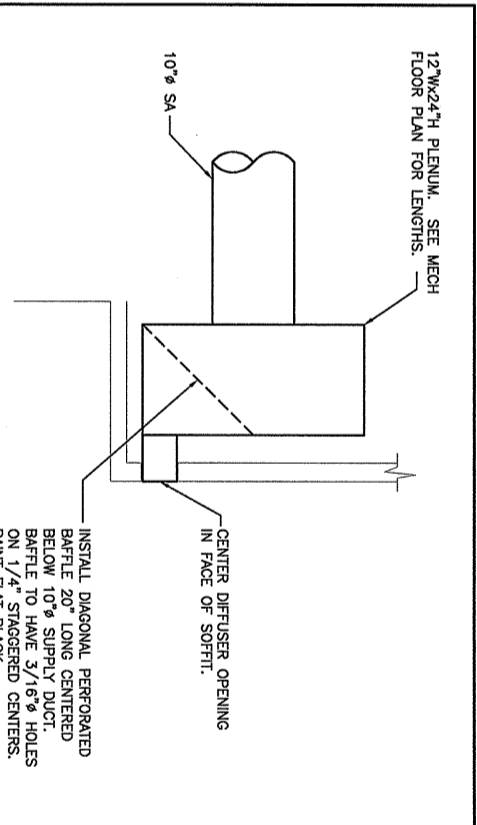
TAG	MAX CFM	NECK SIZE	TYPE	ΔP	MAX NO.	TITUS MODEL NO.	NOTES
S-1	0-175	8"ø	LAV-IN	0.08"	16	TDC-999, S2	(1)(2)
S-2	176-275	8"ø	LAV-IN	0.08"	19	TMS-2424	(1)(3)
S-3	276-435	10"ø	LAV-IN	0.07"	22	TMS-2424	(1)(3)
S-4	40/FT	-	SURFACE	0.07"	16	FI-10	(4)
S-5	200	8"ø	LAV-IN	0.08"	20	TDC-12x12, A4	(1)
R-1	0-1280	20x20	LAV-IN	0.03"	16	50F	(1)
R-2	400	12x12	LAV-IN	0.037"	12	50F	(1)

NOTES: (1) WHITE FINISH (2) TWO-WAY THROW (3) FOUR-WAY THROW (4) SINGLE 1" SLOT, SIREWALL EXPOSED FLANGE INSTALLATION. BAKED ENAMEL FINISH IN CUSTOM COLOR SELECTED BY OWNER. PROVIDE ALL FITTING NECESSARY FOR COMPLETE INSTALLATION INCLUDING BLANK-OFF PANELS, GASKETS, AND END CAPS.

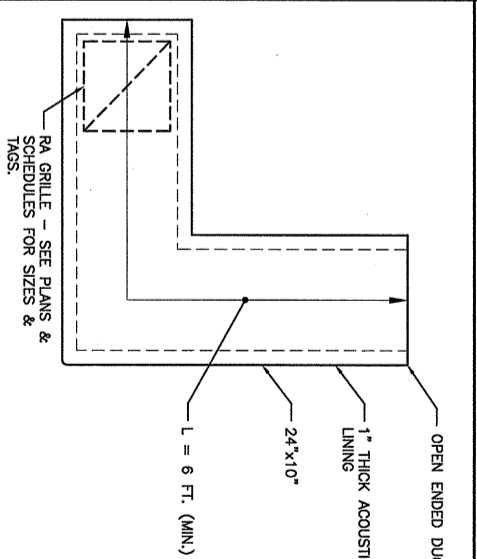
**DUAL DUCT VAV TERMINAL SCHEDULE**

TAG	INLET SIZE	COOLING MINIMUM CFM	HEATING MINIMUM CFM	MAX. PRESSURE DROP (INCHES W.G.)	TITUS MODEL NO.	NOTES
DDWV 1-5	7"	400	400	0.29	DEWV-A	(1)
DDWV 1-8	7"	400	400	0.29	DEWV-A	(1)
DDWV 1-48	9"	765	765	0.18	DEWV-A	(1)
DDWV 1-48	12"	1110	1110	0.23	DEWV-A	(1)

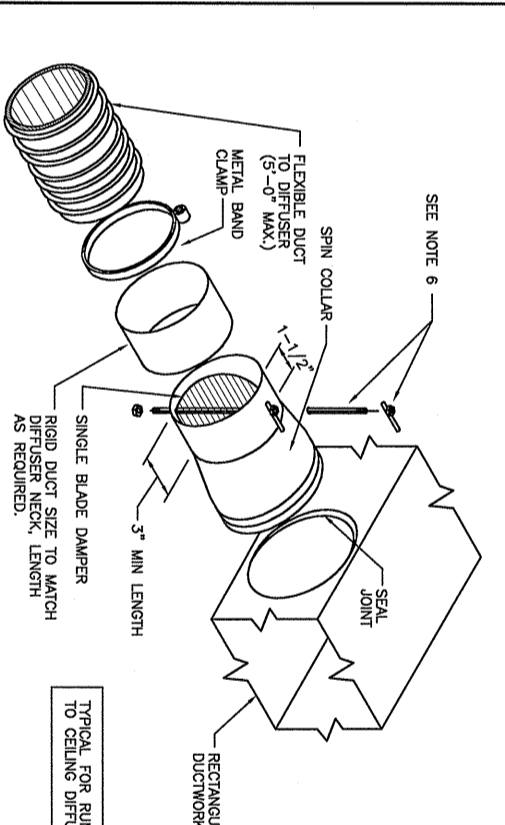
NOTES: (1) PROVIDE ATTENUATOR



**E10 SOFFIT DETAIL**  
NOT TO SCALE



**E15 ACOUSTICAL RETURN DUCT DETAIL**  
NOT TO SCALE



**A10 SPIN COLLAR FLEXIBLE DUCT CONNECTOR W/ DAMPER**  
NOT TO SCALE

- NOTES:**
- SUPPORT IN ACCORDANCE WITH SMACK GUIDELINES.
  - BAND FLEX TO COLLAR 1/2" MINIMUM FROM OUTBOARD END OF COLLAR.
  - INSTALL SPIN COLLAR DAMPER IN TAB CONTRACTOR.
  - POP INLET OR SHEET METAL SPRINGS, MINIMUM 3 EA AT 120° INTERVALS. CONNECTING STOVEPIPE TO COLLAR. INTERFERE W/ DAMPER.
  - SEAL JOINTS WITH SPECIFIED SEALANTS TO PREVENT LEAKAGE.
  - INSTALL LOCKING QUADRANT AND HANDLE ON BOTTOM OF DUCT FOR EASY SERVICE (SHOWN ON TOP FOR USE OF ILLUSTRATION ONLY).
  - SUPPORT FLEXIBLE DUCT TO PREVENT KINKING AND SHARP TURNS.

**A10 SPIN COLLAR FLEXIBLE DUCT CONNECTOR W/ DAMPER**  
NOT TO SCALE

**ISSUED FOR CONSTRUCTION**  
10-30-03

CURRENT ISSUE STATUS:

REV	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	10-30-03

PROJECT TITLE:  
**UNUM PROVIDENT H01 CONFERENCE ROOMS**  
PORTLAND, MAINE

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**SCHEDULES, DETAILS AND SPECIFICATIONS**

PROJECT NO: M-002-03125  
SHEET NO: M-002