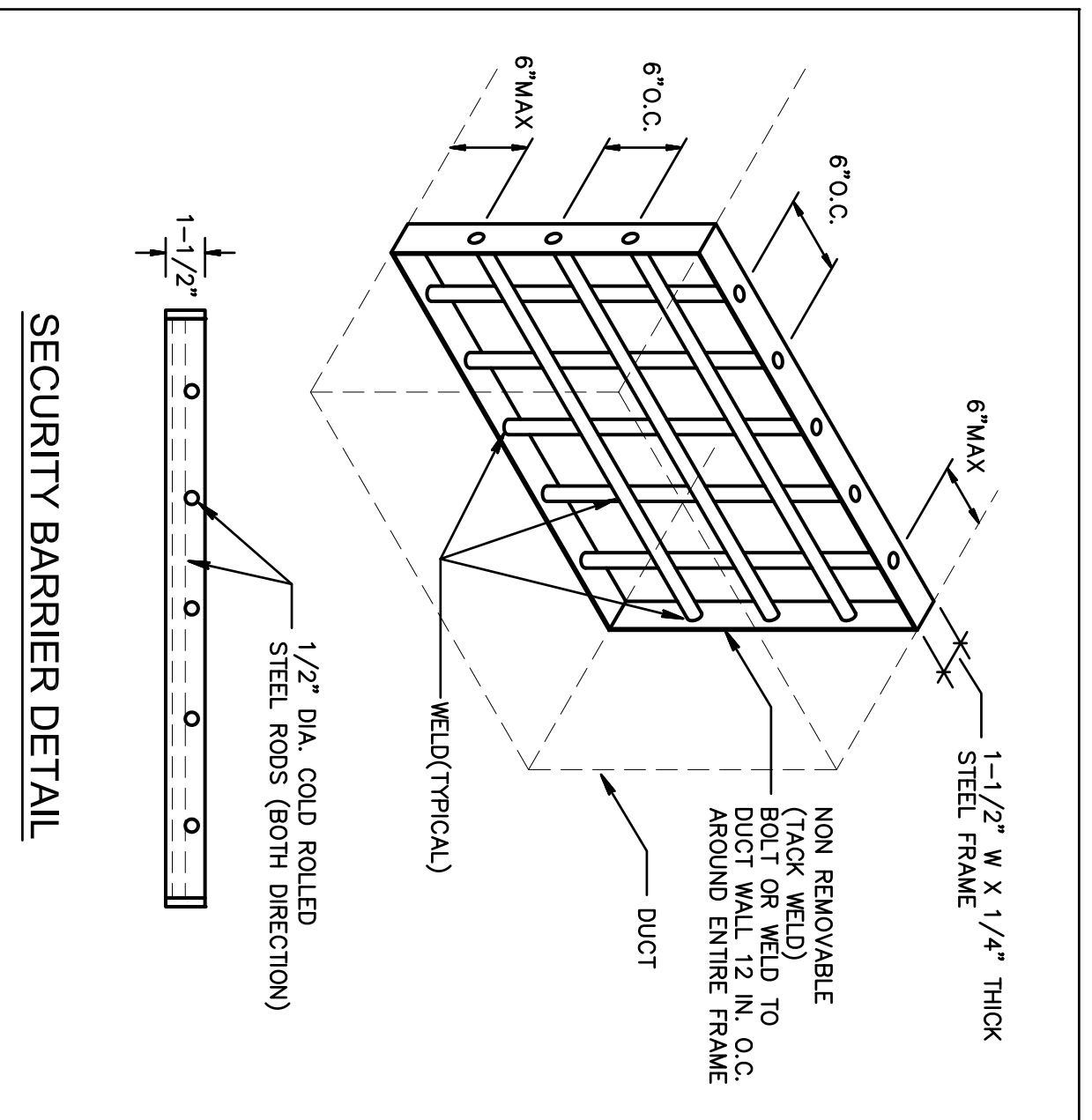


MECHANICAL GENERAL NOTES:

- THESE DRAWINGS ARE DIAGRAMATIC. ALL OFFSETS, FITTINGS, TRANSITIONS AND ACCESSORIES ARE NOT SHOWN. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL ITEMS REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. DO NOT SCALE DRAWINGS FOR INSTALLATION.
- ALL WORK SHALL BE PERFORMED IN A FIRST CLASS WORKMANLIKE MANNER BY LICENSED CONTRACTORS.
- THE CONTRACTOR SHALL OBTAIN AT HIS EXPENSE ALL NECESSARY FEES (PERMITS, AND TESTS).
- ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES. NO CONTRACTOR SHALL BID UNLESS FAMILIAR WITH THESE CODES.
- CORRECTION OF DEFECTS TO THIS WORK SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER. REPAIR AND REPLACEMENT FOR DAMAGE CAUSED BY THIS CONTRACTOR SHALL BE MADE PROMPTLY WITHOUT CHARGE TO THE OWNER.
- ALL WORK OF THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY INTERFERENCES THAT MAY DELAY PROGRESS OF CONSTRUCTION.
- THE CONTRACTOR SHALL INCLUDE THE WORK OF ALL REQUIRED SUB-CONTRACTORS IN HIS BID. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATIONAL SYSTEM AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- EQUIPMENT SHALL BEAR A U.L. OR OTHER RECOGNIZED LABEL.
- NAMEPLATES, WIRING DIAGRAMS, AND ENERGY RATINGS AS APPLICABLE.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND ACCESSORIES TO BE READY ACCESSIBLE FOR SERVICING, TESTING, BALANCING, AND REPLACEMENT.
- THE CONTRACTOR SHALL PROVIDE A WRITTEN GUARANTEE AGAINST DEFECTS IN ALL MATERIALS AND WORKMANSHIP FOR ONE YEAR FROM ACCEPTANCE WITH FOUR ADDITIONAL YEARS OF WARRANTY ON COMPRESSORS.
- THE CONTRACTOR SHALL PROVIDE THREE COPIES OF SUBMITTAL, DATA, SHOP DRAWINGS AND A COMPLETION OF THE PROJECT TWO SETS OF OPERATION AND MAINTENANCE MANUALS FOR ALL PROJECT ITEMS.
- PROVIDE ALL CONTROLS, STARTERS, CONTROL WIRING, DISCONNECTS, AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- THE HVAC CONTRACTOR IS RESPONSIBLE FOR MAINTAINING, ON SITE, A RECORD OF ALL FIELD AND SHOP DRAWING INSTALLATIONS. THE CONTRACTOR IS TO PROVIDE A FIELD AND SHOP DRAWING RECORD UPON COMPLETION, WHICH ARE SUITABLE FOR SUBMISSION TO THE BUILDING DEPARTMENT AND TO THE OWNER.
- PRIOR TO ACCEPTANCE BY THE OWNER THE SYSTEMS SHALL BE TESTED AND BALANCED BY THE CONTRACTOR. PROVIDE A WRITTEN REPORT.
- SUPPLY AND INSTALL DUCT MOUNTED SMOKE DETECTORS AS REQUIRED.
- COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS AND ARCHITECTURAL ELEMENTS.
- ALL GRILLES TO BE TITUS OR METALARE UNLESS OTHERWISE NOTED. SIZES AS SHOWN ON PLANS. ALUMINUM CONSTRUCTION.
- ALL DUCT WORK SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS AND LOCAL BUILDING CODES.
- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- ALL OUTSIDE AIR DUCTWORK SHALL BE SHEATHED WITH EXTERIOR R-6 INSULATION. PROVIDE BLANKET TYPE INSULATION IN CONCEALED SPACES, AND BOARD TYPE IN EXPOSED AREAS.
- ALL EXHAUST AIR DUCT SHALL BE GALVANIZED SHEET METAL CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH ASHRAE AND SMACNA STANDARDS.
- FLEXIBLE DUCT, WHERE SHOWN, SHALL BE U.L. CLASS 1, R-6 INSULATION.
- LOW PRESSURE SUPPLY AND RETURN RECTANGULAR DUCTWORK IS RIGID DUCTWORK. 1 IN. THICK, R-4.2 INSULATION.
- PROVIDE ELBOW TURNING VANES IN ALL RECTANGULAR DUCTS WHERE TURNS ARE GREATER THAN 45 DEGREES.
- PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST FANS.
- VERIFY ALL THERMOSTAT LOCATIONS WITH THE LANDLORD.
- CONDENSATE DRAIN PIPING SHALL BE ABOVE GRADE COPPER DRAIN, WASTE AND VENT FITTINGS. INSULATE ALL CONDENSATE PIPING W/3/4" IMCOA IMCOLOK PIPE INSULATION.



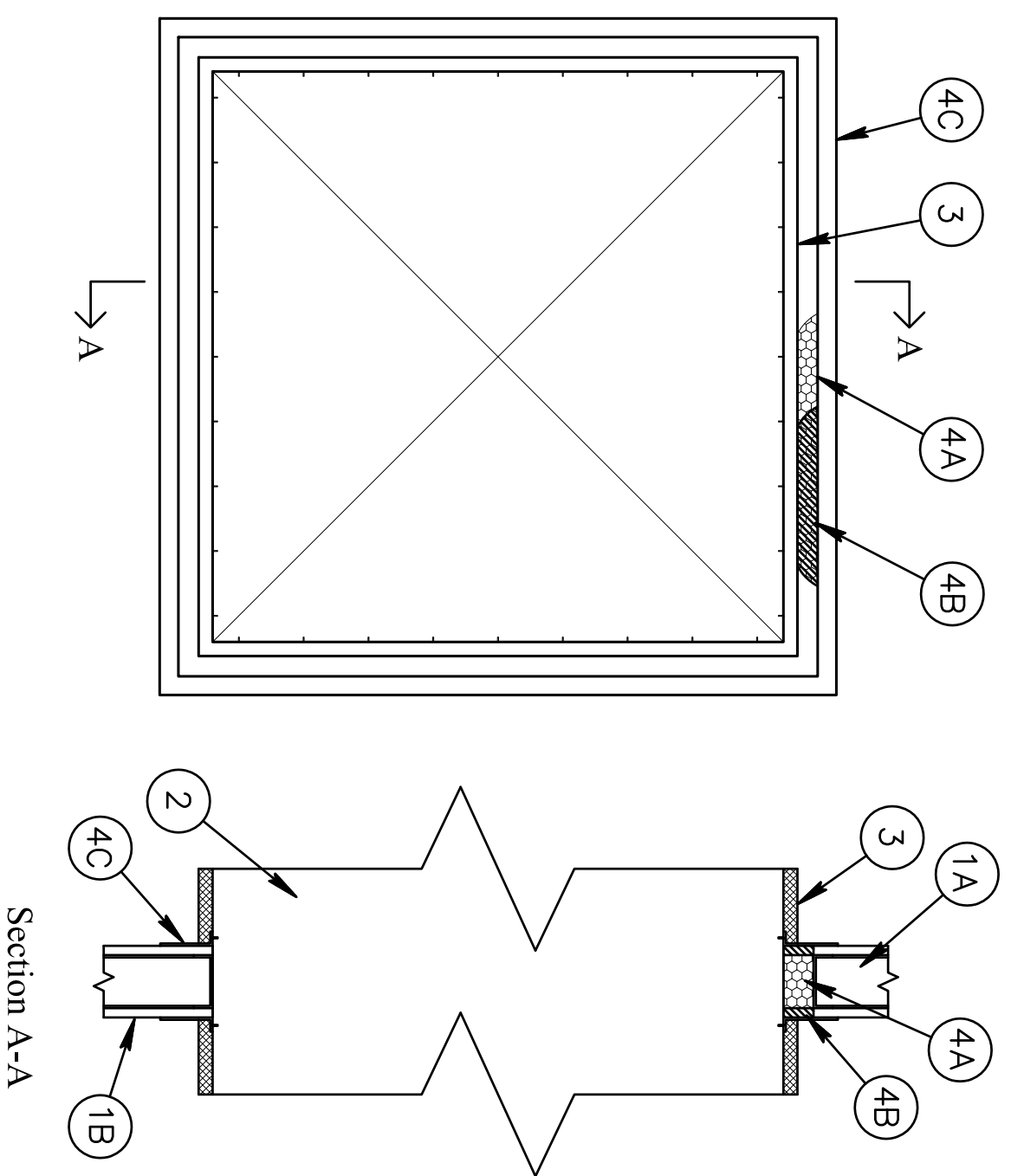
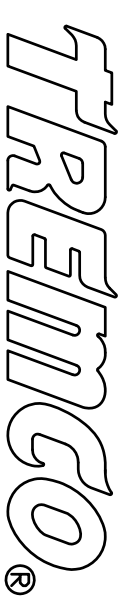
System No. W-1-7173

August 2008

F Rating - 1 and 2 Hr (See Item 1)

T Rating - 0 Hr

(UL/ULC)



- Wall Assembly** - The 1 or 2 hr fire-rated gypsum board/wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
 A. **Studs** - Wall framing shall consist of min. 1-1/2 in. wide steel channel studs spaced max. 24 in. OC. Additional steel studs shall be used to completely frame the opening.
 B. **Gypsum Board** - 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory. Max. area of opening is 73.7 sq ft with max. dimension of 104 in.

The hourly F Rating of the freestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

- Steel Duct** - Max. 100 in. by 100 in. galv. steel duct to be installed either concentrically or eccentrically within the freestop system. The duct shall be constructed and reinforced in accordance with SMACNA construction standards. Steel ducts to be rigidly supported on both sides of the wall assembly.
- Bats and Blankets** - Non 1-1/2 in. thick glass fiber bat or blanket (min. 3/4 pcf) jacketed on the outside with a foil-semi-heat facing. Longitudinal and transverse joints sealed with aluminum foil tape. During the installation of the fill material, the bat or blanket shall be compressed 50% such that the annular space within the freestop system shall be min. 1/2 in. to max. 2 in.

See Bats and Blankets (BRNY) category in the Building Materials Directory for names of manufacturers. Any bat or blanket meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index 50 or less may be used.

- Freestop System** - The freestop system shall consist of the following:

- Packing Material** - Min. 5/8 or 4/8 in. thickness of min. 4 pcf mineral wool batt insulation firmly packed into the opening as a permanent form for 1 hr or 2 hr fire-rated walls, respectively. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.
- Fill, Void or Cavity Material** - Sealed - Min. 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall.

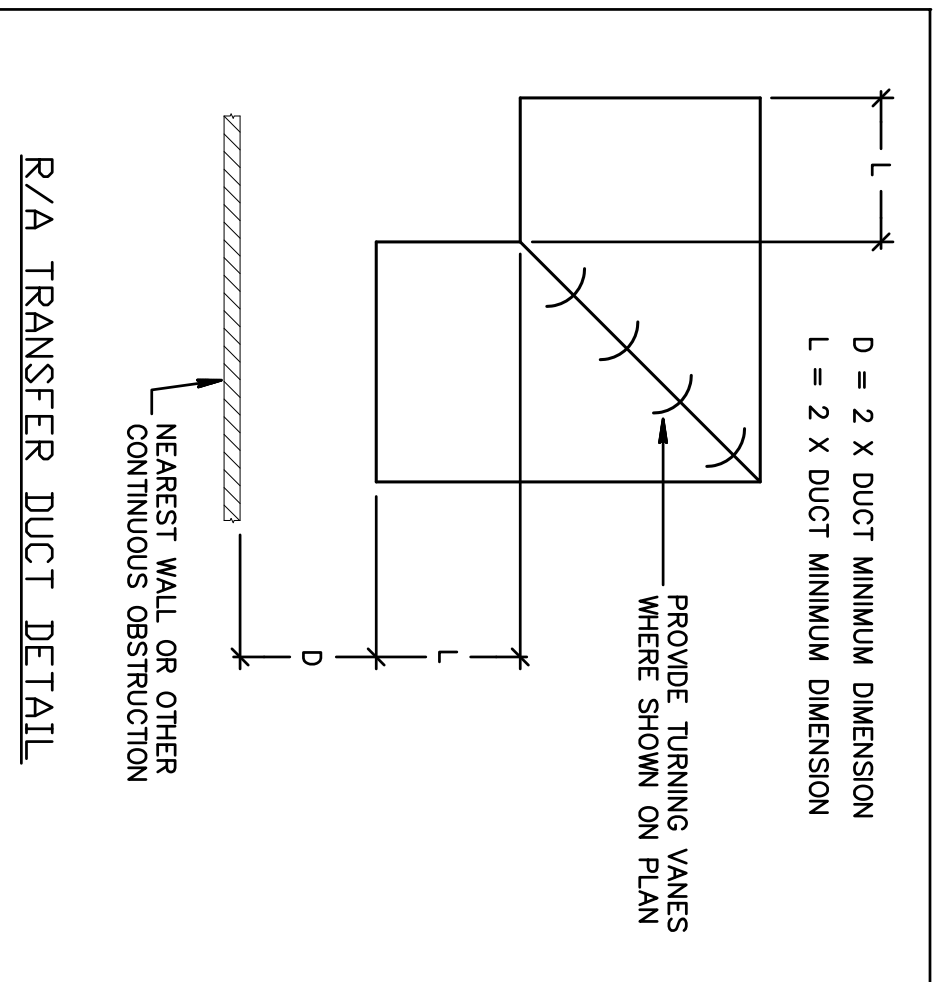
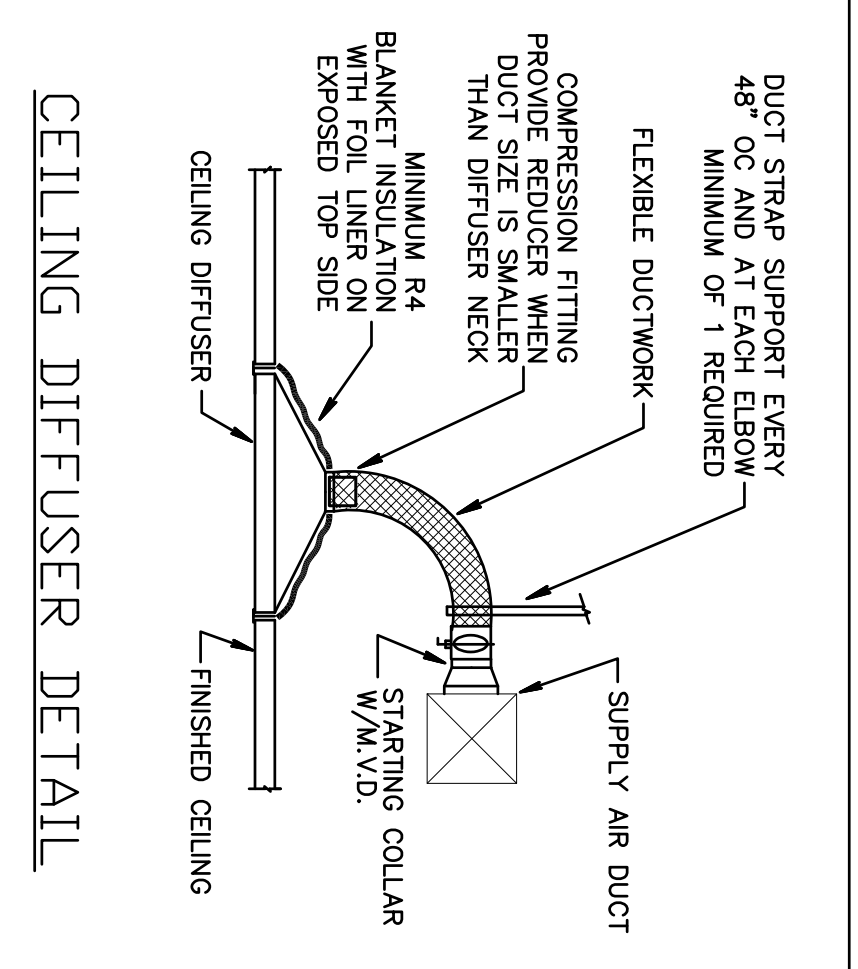
TREMCO INC. - TREKSTOP Immiscible Acrylic or TREKSTOP 1A+

- Steel Reinforcing Angles** - Min. No. 16 gauge (0.059 in.) galv. steel angles sized to lap steel duct a min. of 1 in. and lap wall surfaces and min. of 2 in. angled attached to steel duct on both sides of wall with min. No. 10 steel sheet metal screws spaced a max. of 1 in. from each end of steel duct and spaced a max. of 6 in. OC.

*Bearing the UL Classification Mark

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See UL Fire Resistance Directory for additional information.

(UL/ULC)



AIR DISTRIBUTION SCHEDULE

MARK	MAKE	MODEL NO.	SIZE	NECK	MATERIAL	BORDER TYPE	MOUNTING TYPE	DAMPER	THROW	FINISH	REMARKS
A	TTUS	PAR-AA	24x24	6"ø	ALUMINUM	3	LAY-IN	AG-100	4 WAY	WHITE	SEE NOTES
B	TTUS	PAR-AA	24x24	8"ø	ALUMINUM	3	LAY-IN	AG-100	4 WAY	WHITE	SEE NOTES
C	TTUS	PAR-AA	24x24	10"ø	ALUMINUM	3	LAY-IN	AG-100	4 WAY	WHITE	SEE NOTES
RA	TTUS	PAR-AA	24x24	22x22	ALUMINUM	3	LAY-IN	-	-	WHITE	SEE NOTES
RB	TTUS	PAR-AA	-	12x12	ALUMINUM	1	SURFACE	-	-	WHITE	SEE NOTES

PROVIDE SAMPLE WITH OFF-WHITE FINISH TO ARCHITECT FOR APPROVAL.
PROVIDE ROUND FLEXIBLE DUCT RIGID SIZED TO MATCH S/A DIFFUSER NECK UNLESS NOTED OTHERWISE.
PROVIDE PLenum BOX ABOVE SUPPLY AND RETURN AIR GRILLES AS REQUIRED FOR DUCT CONNECTIONS. MINIMUM BOX HEIGHT IS 1/2 OF NECK WIDTH.
PROVIDE DAMPERS ONLY WHERE DUCT TAKE-OFF DAMPER IS NOT ACCESSIBLE.

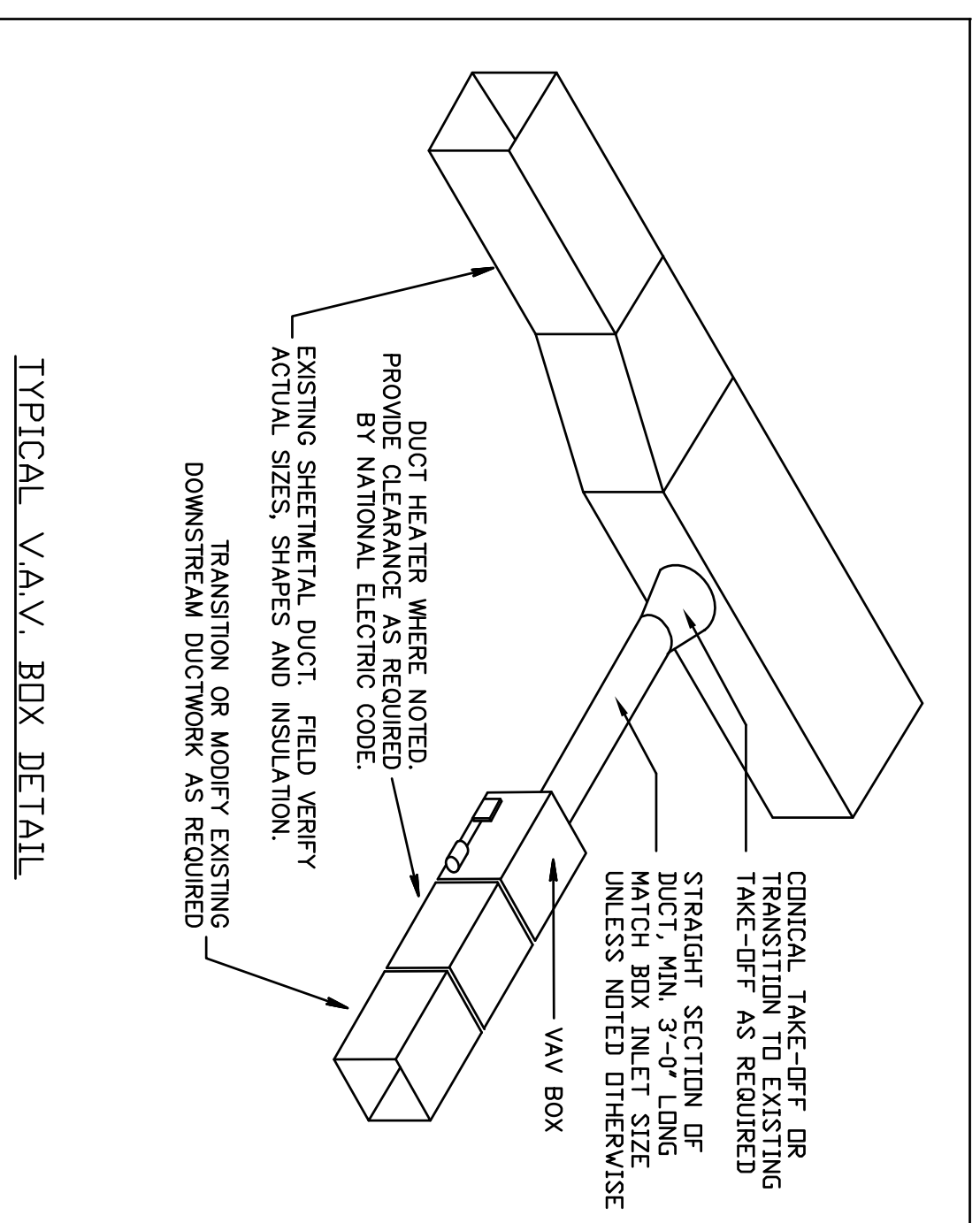
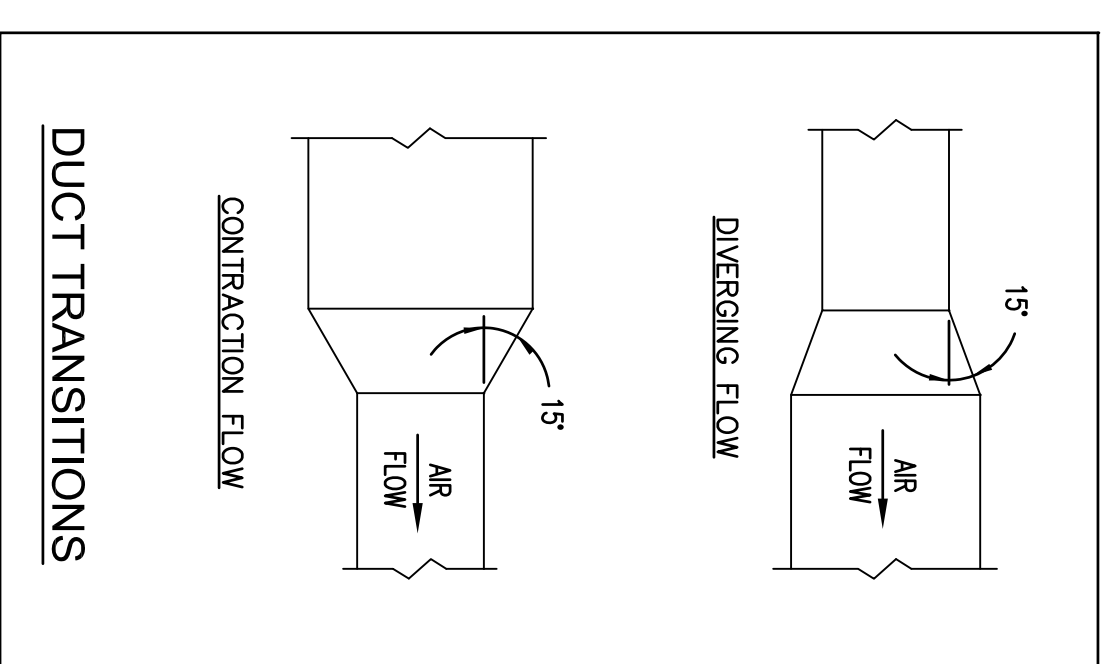
VAV TERMINAL BOX SCHEDULE (CARRIER)

MARK	MODEL NO.	INLET	CFM MAX.	CFM MIN.	FAN CFM	HEATING FAN HP	KW	STEP	VOLT-PH-HZ	NOTES
VTV-1	4SM	10"ø	900	250	250	1/4	2.5	1	277-1-60	6
VTV-2	4SM	10"ø	875	250	250	1/4	2.5	1	277-1-60	6
VTV-3	4ST	8"ø	675	150	150	1/10	2.4	1	277-1-60	6
VTV-4	4SM	10"ø	850	250	250	1/4	2.5	1	277-1-60	6
VTV-5	3SE	10"ø	1200	500	-	-	-	-	277-1-60	6
VTV-6	3SE	8"ø	600	250	-	-	-	-	277-1-60	1 THRU 4
VTV-7	3SE	8"ø	250	0	-	-	-	-	277-1-60	1 THRU 4

SCHEDULE NOTES

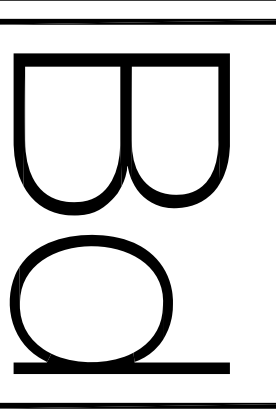
- PROVIDE FIELD MOUNTED CARRIER FOR CONTROLLER COMPATIBLE WITH EXISTING BUILDING MANAGEMENT SYSTEM
- PROVIDE ELECTRIC ACTUATOR COMPATIBLE WITH DDC CONTROLLER.
- PROVIDE CARRIER FOR ROOM TEMPERATURE SENSOR/THERMOSTAT WITH OVERRIDE CAPABILITY. MATCH EXISTING METHODS AND MATERIALS.
- TRANSITION FROM INLET SIZE TO SUPPLY DUCT SIZE AS SHOWN ON FLOOR PLAN.
- PROVIDE SUPPLY DUCT SIZED TO MATCH VAV BOX INLET UNLESS SHOWN OTHERWISE.
- AIR CONDITIONING CONTRACTOR SHALL PROVIDE AND INSTALL ALL CONTROLS, CONTROL WIRING & CONDUIT, POWER WIRING AND CONDUIT, AND ALL OTHER ITEMS NECESSARY FOR COMPLETE INSTALLATION AND CONTROL OF TERMINAL BOXES. SOFTWARE PROGRAMMING AND ADJUSTMENTS OF THE EXISTING BUILDING MANAGEMENT SYSTEM IS TO BE PROVIDED AS DIRECTED BY THE BUILDING MANAGEMENT COMPANY FOR EACH TERMINAL BOX. FIELD VERIFY SCOPE OF WORK AND COORDINATE WITH THE BUILDING MANAGEMENT COMPANY PRIOR TO BID.
- PROVIDE FACTORY SINGLE-STAGE HEATER WITH COMPLETE CONTROLS. MERCURY CONTACTORS, INTERLOCKING DOOR AND FAN, FUSED DISCONNECT SWITCH, U.L. LISTED AND LABELED.
- EXISTING UNIT TO REMAIN. VACUUM CLEAN UNIT INTERIOR. PROVIDE ANY REQUIRED MAINTENANCE AND NEW FILTER.
- RE-BALANCE SYSTEM AS INDICATED.

PRIOR TO BID, CONTRACTOR IS TO VERIFY WITH OWNER IF THERE ARE ANY EXISTING SPARE VAV TERMINAL BOXES WHICH MAY BE RE-USED IN PLACE OF NEW BOXES SHOWN IN SCHEDULE ABOVE.



HVAC DETAILS

NO SCALE



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palm beach gardens, fl 33418
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fax 772-409-8684
AA26001615

QUINTAROS PRIETO
1475 CENTREPARK
1475 CENTREPARK DR #130
WEST PALM BEACH, FL
PROJECT NUMBER 147508

REVISIONS

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DRAWN BY GD

CD

12/8/11



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