

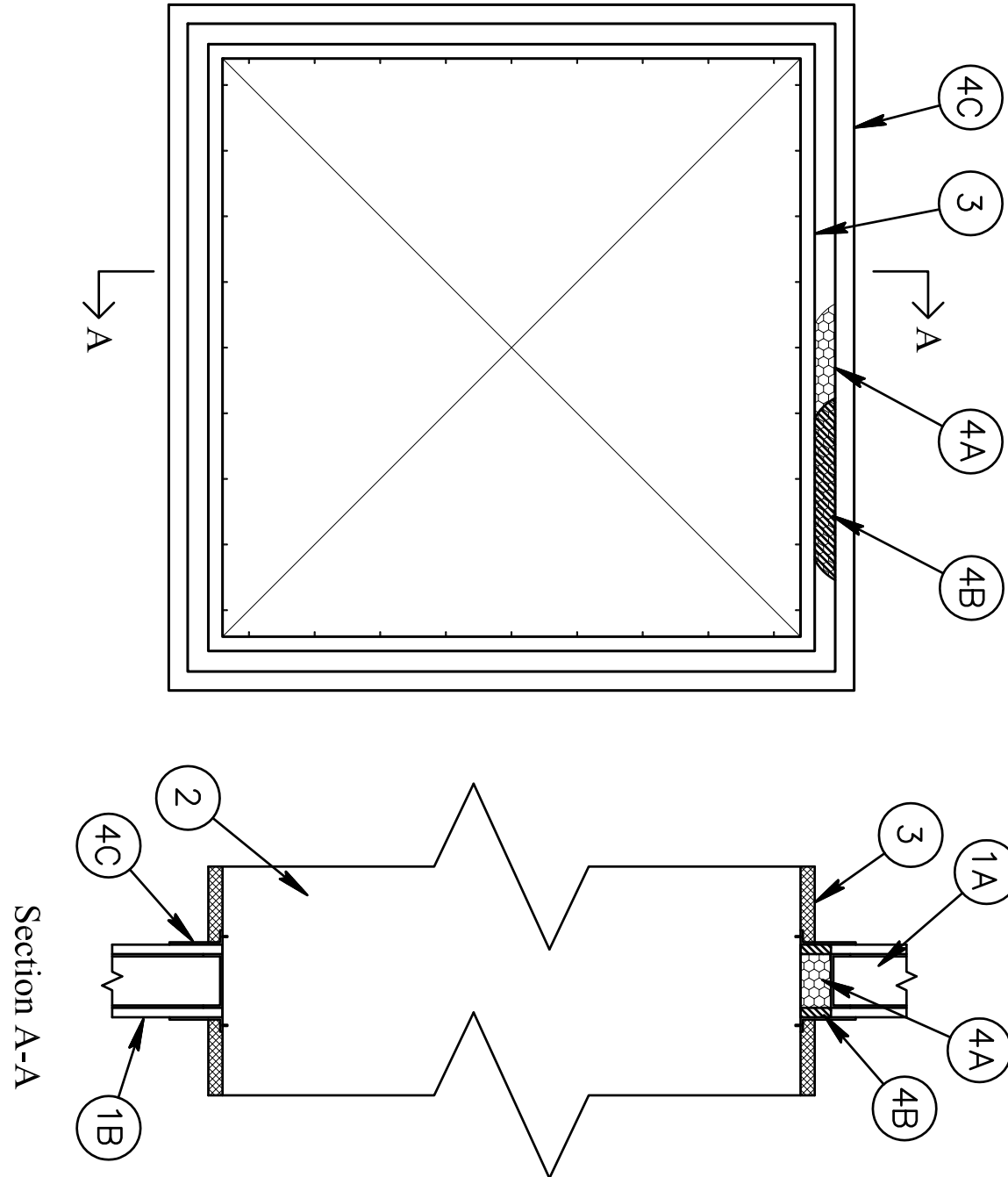
MECHANICAL GENERAL NOTES:

- 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 ON THE PROJECT. 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 RAININGS 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 AT 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 SERVICE, REPAIRS, AND REPLACEMENTS. THE CONTRACTOR IS TO PROVIDE NEATLY DRAWN COMPREHENSIVE AS-BUILT SET OF PLANS 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 METALLARE 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 SHEETMETAL 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 DUCTBOARD, 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 FINISH. INSULATE ALL CONDENSATE PIPING W/3/4" MCOA IMCOOLK PIPE INSULATION.

System No. W-L-7173

August 2008
F Rating - 1 and 2 Hr (See Item 1)
T Rating - 0 Hr
(UL/cUL)

TRENGCO®



- Wall Assembly** - The 1 or 2 hr fire-rated gypsum board/sand 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 3-1/2 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 firestop 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 firestop 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.
- Batts and Blankets** - Non 1-1/2 in. thick glass fiber batt or blanket (min 3/4 pcft) jacketed on the outside with a foil-scrim-raft facing. Longitudinal and transverse joints sealed with aluminum foil tape. During the installation of the fill material, the batt or blanket shall be compressed 50% such that the annular space within the firestop system shall be min 1/2 in to max 2 in.

See Batts and Blankets (IB/NV) category in the Building Materials Directory for names of manufacturers. Any batt 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.

- Firestop System** - The firestop system shall consist of the following:

- Packing Material** - Min 3-5/8 or 4-7/8 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** - Sealant - Min 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall.

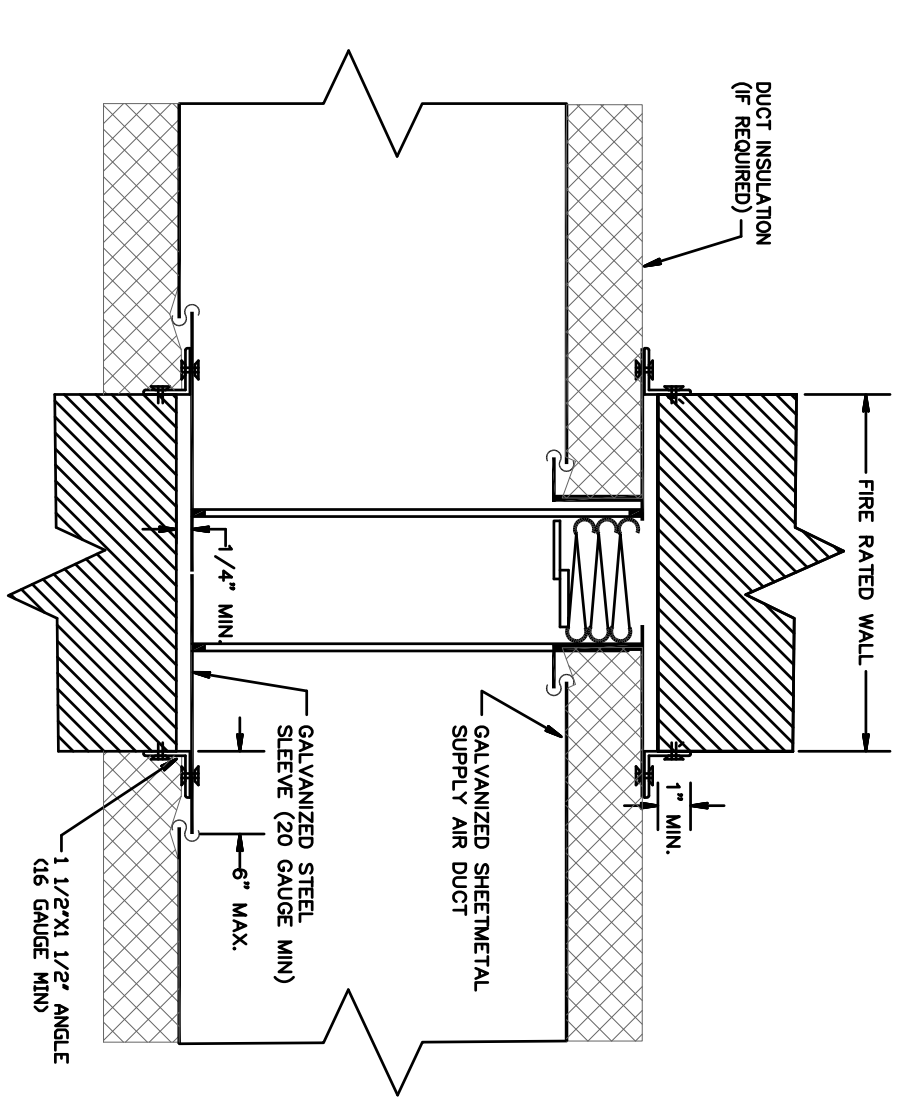
TRENGCO INC. - TREKstop Imminescent Acrylic or TREKstop 1A+

- Steel Retaining 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. Angles 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.

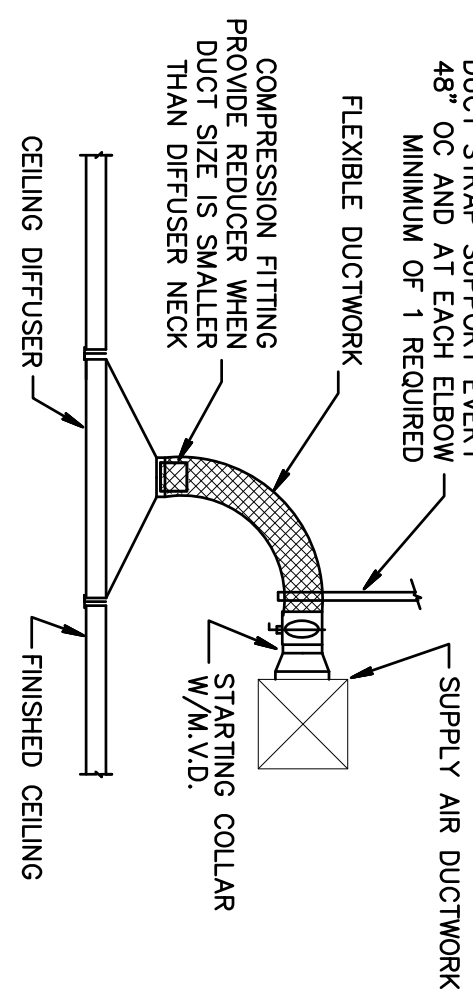
*Bearing the UL Classification Mark

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See UL Fire Resistance Directory for additional information.

(UL/cUL)

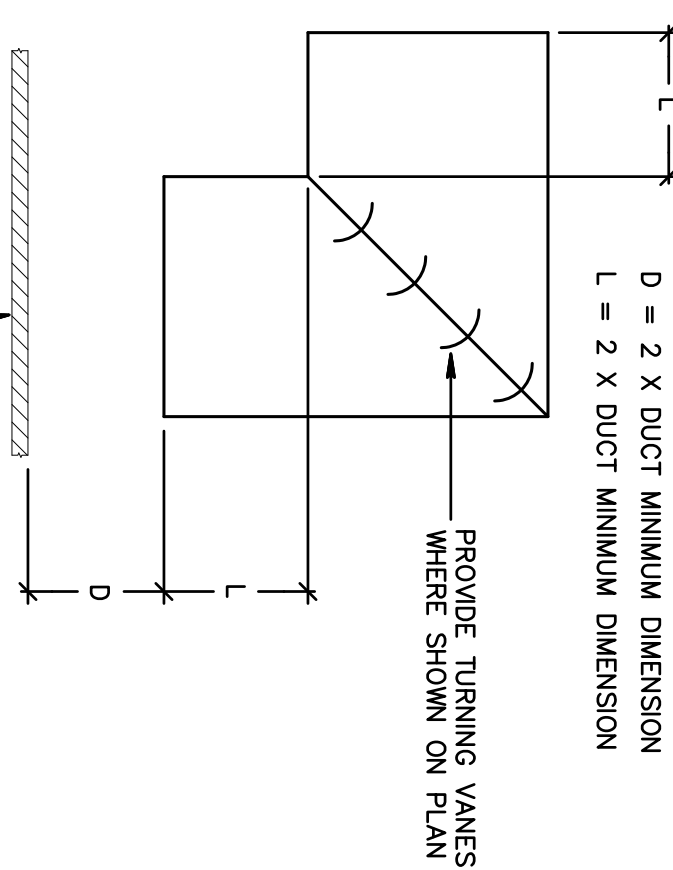


TYPE "B" FIRE DAMPER
WITH INTEGRAL SLEEVE



NOTE: DO NOT PROVIDE DUCT TAKE-OFF WITH VOLUME DAMPER ABOVE INACCESSIBLE CEILINGS. PROVIDE DAMPER AT DIFFUSER.

CEILING DIFFUSER DETAIL

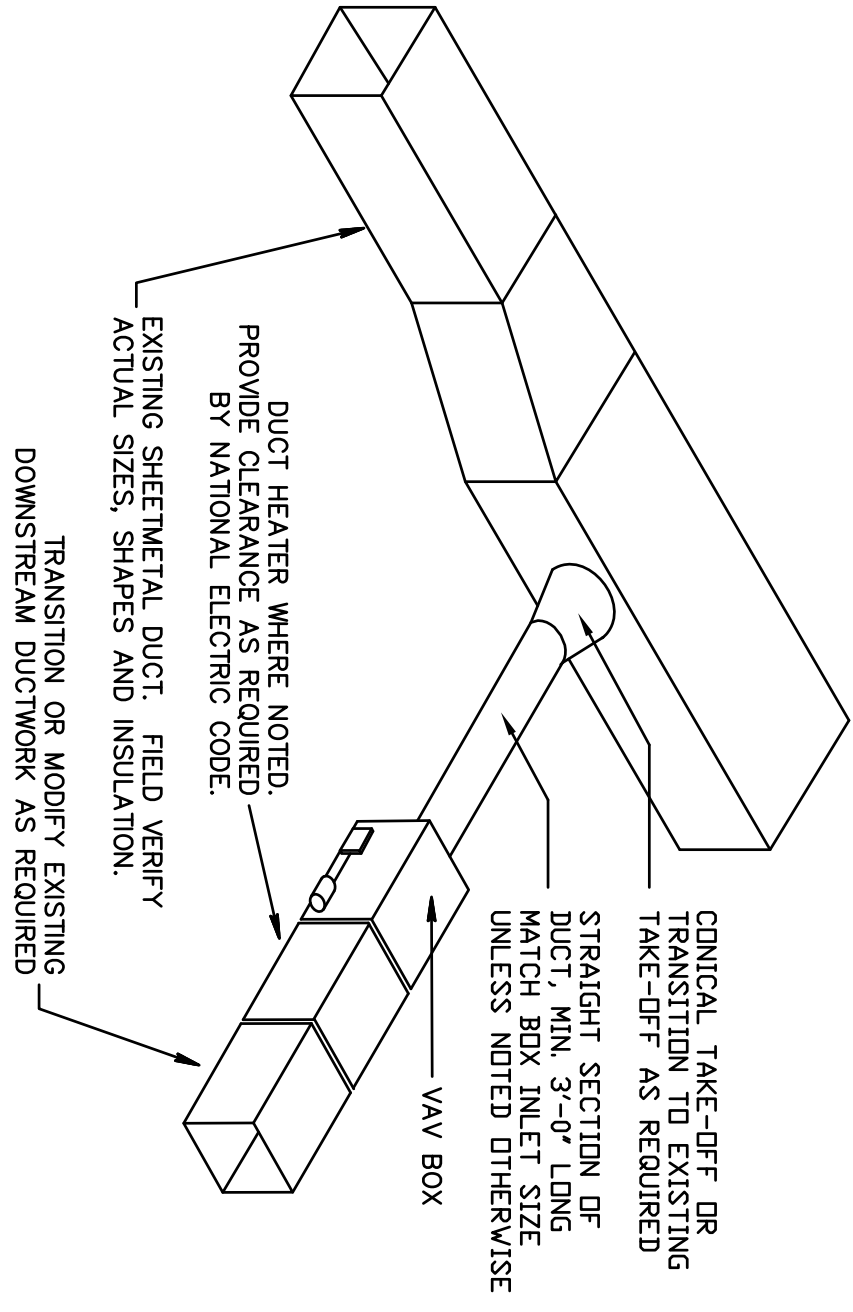


R/A TRANSFER DUCT DETAIL

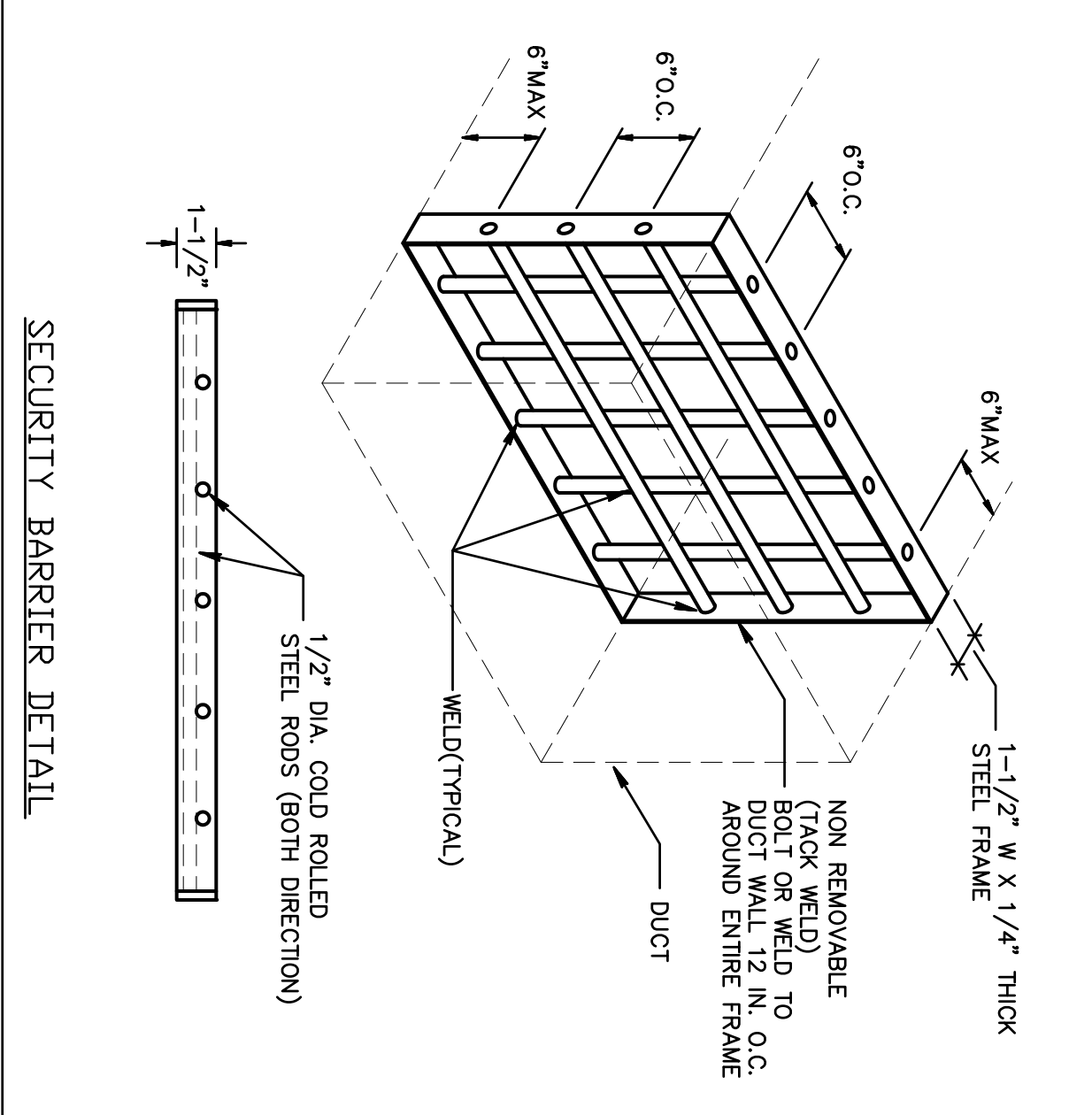
VAV TERMINAL BOX SCHEDULE

MARK	MANUF.	MODEL NO.	INLET SIZE	CFM MAX	CFM MIN	HEAT STEP	VOL-T-PH-HZ	REMARKS
V-9	TITUS	DES-V	12	1800	700	-	120-1-60	NOTES 1 & 2
V-11	TITUS	DES-V	10	1200	400	3	208-1-60	NOTES 1 TO 4
V-12	TITUS	DES-V	10	850	500	-	120-1-60	NOTES 1 & 2
V-14	TITUS	DES-V	12	1250	500	-	120-1-60	NOTES 1 TO 3
V-19	TITUS	DES-V	10	1200	400	-	120-1-60	NOTES 1 & 2

- EXISTING UNIT TO REMAIN, RE-BALANCE AS INDICATED.
- FIELD VERIFY EXISTING CONDITIONS PRIOR TO ANY WORK, REPORT ANY DISCREPANCIES TO ENGINEER FOR RESOLUTION.
- UNIT TO BE RE-LOCATED, TRANSITION FROM INLET SIZE TO SUPPLY DUCT AS SHOWN ON FLOOR PLANS.
- FIELD VERIFY MINIMUM CFM REQUIRED FOR HEATER



TYPICAL VAV. BOX DETAIL



SECURITY BARRIER DETAIL

HVAC DETAILS

NO SCALE

birse design inc.

5300 woodland lakes drive
palm beach gardens, fl 33418
phone 561-249-4001
fax 772-409-8684
AA26001615

Bd

WP ASSOCIATES

FAIRWAY OFFICE CENTER
7121 FAIRWAY DRIVE #400
PALM BEACH GARDENS, FL 33418

PROJECT NUMBER 712110

REVISIONS

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DRAWN BY GD

CD

2/8/2012

M-4

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PROJ.# 11-035