

08/16/17

TEXAS Road House
 1570 W. KOGER CENTER DRIVE
 RICHMOND, VA 23235

DRAWN BY: REV
 CHECKED BY: DJR
 DATE: 05/01/17

REV	DATE	DESCRIPTION
1	7/26/17	OWNER CHANGES

The Construction Documents shall consist of all drawings, specifications, surveys, site reports, addenda and other information as a whole. None of this information or drawings shall be construed as a contract. The Construction Documents shall be interpreted as a whole. All discrepancies shall be resolved by the Construction Documents. The Construction Documents shall be interpreted as a whole. All discrepancies shall be resolved by the Construction Documents.

SHEET TITLE
 MECHANICAL PLAN

M1.0

UNIT	O.A. CFM / % OF SUPPLY	RETURN AIR CFM	SUPPLY AIR CFM	EXHAUST AIR CFM	PRESSURE AIR CFM
(E)RTU-1	1,000/20.0%	4,000	5,000	----	+1,000
(E)RTU-2	1,200/20.0%	4,800	6,000	----	+1,200
(E)RTU-3	1,200/20.0%	4,800	6,000	----	+1,200
(E)RTU-4	6,000/100%	----	6,000	----	+6,000
(E)RTU-5	1,200/20.0%	4,800	6,000	----	+1,200
RTU-6	575/ 24.0%	1,900	2,400	----	+575
EF-1	----	----	----	1,216	-1,216
EF-2	----	----	----	1,875	-1,875
EF-3	----	----	----	1,469	-1,469
EF-4	----	----	----	1,469	-1,469
EF-5	----	----	----	800	-800
EF-6	----	----	----	2,399	-2,399
EF-7	----	----	----	627	-627
EF-8	----	----	----	650	-650
EF-9	----	----	----	75	-75
TOTAL	11,175	20,225	31,400	10,580	+595

NOTE:
 MECHANICAL CONTRACTOR TO VERIFY THAT THE EXISTING ROOF TOP UNITS WERE INSTALLED WITH ECONOMIZERS AND BAROMETRIC RELIEF DAMPERS. IF EXISTING UNITS DO NOT HAVE ECONOMIZERS BAROMETRIC RELIEF DAMPERS, MECHANICAL CONTRACTOR IS TO INSTALL NEW ECONOMIZERS AND BAROMETRIC RELIEF DAMPER

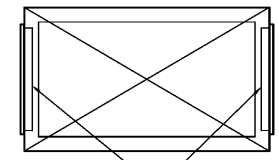
AIR BALANCE SCHEDULE N.T.S. H

NEW DINING ROOM ADDITION:	$((\text{OUTDOOR AIR CFM/PERSON}) \times (\text{DEFAULT NUMBER OF PEOPLE} - 70 \text{ PERSONS}/1000 \text{ SQ. FT. (NET OCCUPIABLE FLOOR AREA)))/\text{EFFECTIVENESS}$	422 CFM REQUIRED
	$((7.5 \text{ CFM/PERSON}) \times (45 \text{ PEOPLE}))/.8 =$	422 CFM REQUIRED
	$((.18 \text{ CFM}) \times (637 \text{ SQ. FT OCCUPIABLE FLOOR AREA}))/.8 =$	143 CFM REQUIRED
TOTAL OUTSIDE AIR REQUIRED		565 CFM REQUIRED
AHU-1 =	575 CFM PROVIDED	575 CFM PROVIDED

OUTSIDE AIR CALCULATION N.T.S. I

NOTE:
 1. OUTSIDE AIR CALCULATION BASED ON 2012 VIRGINIA MECHANICAL CODE RESTAURANT DINING ROOMS.
 2. OUTSIDE AIR CALCULATION BASED ON ADDITIONAL REQUIREMENTS DUE TO NEW SEATING ADDITION.

FIRE PROTECTION NOTES N.T.S. J

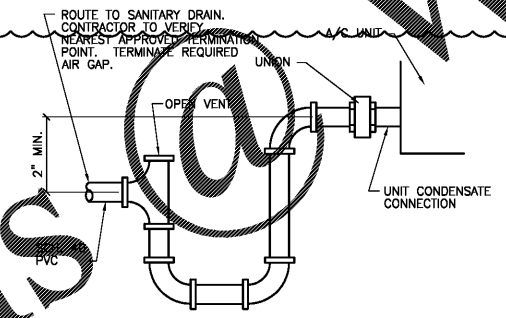


SUPPLY AIR REGISTER WITH OPD

SUPPLY REGISTER MOUNTING DTL. N.T.S. C

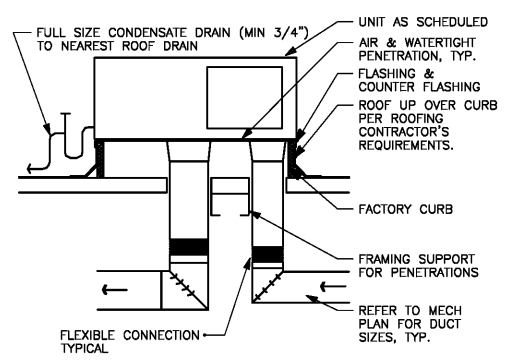
NOT USED N.T.S. D

NOT USED N.T.S. E



- NOTES:
 1. CONDENSATE PIPING SHALL BE INSULATED W/ 3/4" ARMAFLEX (OR EQ.)
 2. CONDENSATE PIPING SHALL BE SLOPED AT 2% TO POINT OF DISCHARGE.

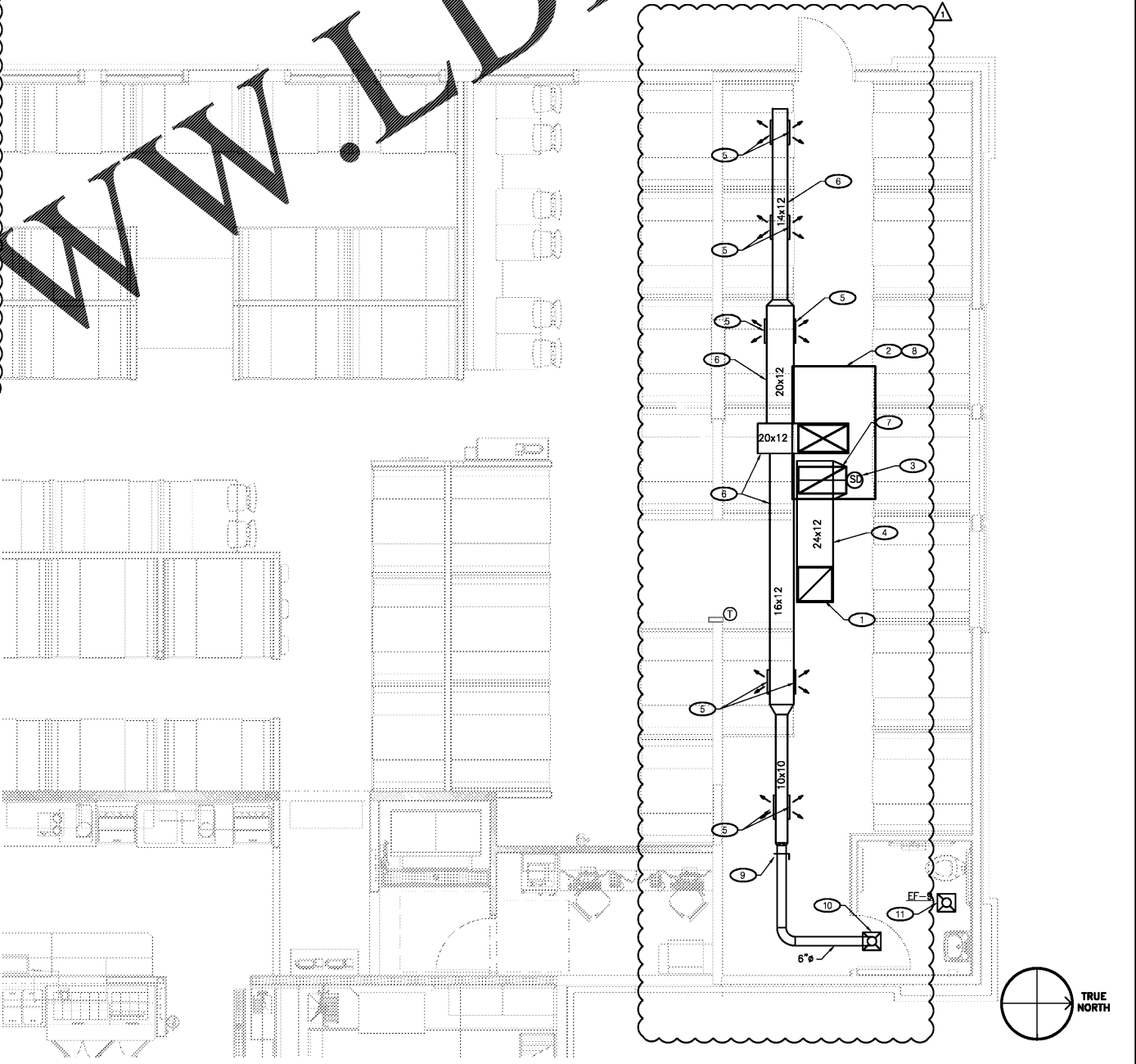
CONDENSATE DRAIN DETAIL N.T.S. F



RTU MOUNT DETAIL N.T.S. G

- 24"x24" RETURN REGISTER WITH INTEGRAL OPPOSED BLADE DAMPER - TITUS 350 ZFL OR EQUAL.
- RTU-6, NEW 6-TON ROOFTOP UNIT RTU-6, "TRANE" MODEL 4THC072E3CN, WEIGHT=1,041 LBS. (INCLUDES RTU, ROOF CURB, ECONOMIZER WITH BAROMETRIC RELIEF DAMPER AND DISCONNECT), (1) CIRCUIT AT 208V/3 PHASE, WITH (1) CIRCUIT AT AN MCA: 100.1 WITH AN MOCP: 110 CIRCUIT SHALL SERVE (1) HEATERS 36.0 KW, HIGH VELOCITY FILTERS AND "TRANE" BAYSTAT150A PROGRAMMABLE 3-HEAT/2-COOL THERMOSTAT, PROVIDE UNIT WITH OVERFLOW SWITCH IN DRAIN PAN. ROUTE CONDENSATE DRAIN TO CLOSEST ROOF DRAIN.
- SMOKE DETECTOR IN SUPPLY/RETURN AIR DUCTS AS REQUIRED BY LOCAL CODE TO SHUT DOWN UPON DETECTION OF SMOKE.
- UNIT FULL SIZE RETURN PLENUM WITH 1" LINER.
- 12"x6" DOUBLE DEFLECTION SUPPLY REGISTER WITH OPPOSED BLADE DAMPER - TITUS 300 FL OR EQUAL - BALANCE TO 235 CFM EACH UNLESS NOTED OTHER WISE.
- INTERNALLY LINED DUCT - DIMENSIONS ARE CLEAR DIMENSIONS. PAINT "FLAT BLACK" NO FLEX DUCT OR EXTERNAL INSULATION ARE ALLOWED. BOTTOM OF DUCT TO REMAIN LEVEL.
- FLEXIBLE DUCT CONNECTION.
- G.C. TO ENSURE THAT THE AIR-INTAKE OF THE NEW RTU IS TO BE PLACED NO LESS THAN 10'-0" FROM ANY EXHAUST FAN OR PLUMBING VENT STACK AS REQUIRED BY CODE. G.C. TO COORDINATE LOCATION OF RTU PRIOR TO ANY STRUCTURE OR ROOF CONSTRUCTION.
- BALANCING DAMPER.
- 12"x12" SUPPLY DIFFUSER WITH OPPOSED BLADE DAMPER TITUS - TMS OR EQUAL - BALANCE TO 50 CFM.
- NEW EF-9 CEILING MOUNTED EXHAUST FAN GREENHECK MODEL SP-B1110 - OR EQUAL, BALANCE TO 75 CFM. ROUTE 4" EXHAUST DUCT FROM EXHAUST FAN UP THRU ROOF AND TERMINATE WITH GOOSENECK. SEAL ROOF PENETRATION WEATHER TIGHT. MAINTAIN A MINIMUM OF 10'-0" CLEARANCE FROM ANY FRESH AIR OPENING.

KEY NOTES N.T.S. A



NEW MECHANICAL FLOOR PLAN 1/4"=1'-0" B

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