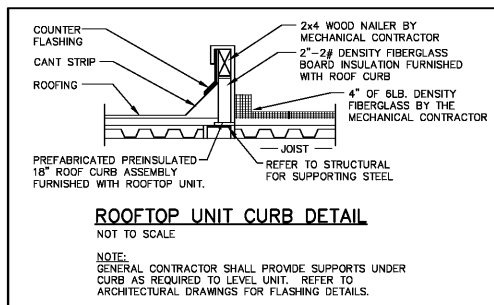
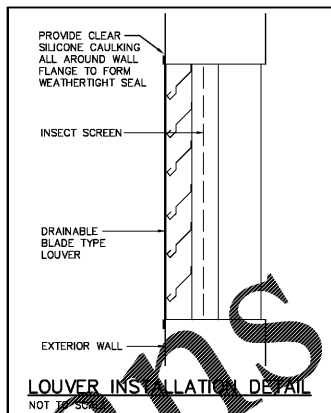


GAS UNIT HEATER INSTALLATION DETAILS
NOT TO SCALE

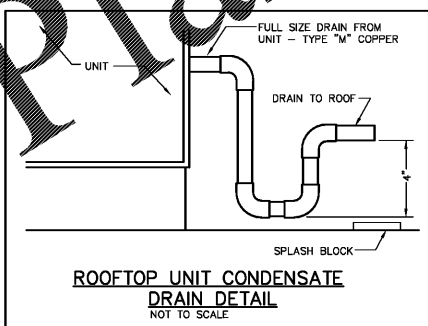


ROOFTOP UNIT CURB DETAIL
NOT TO SCALE

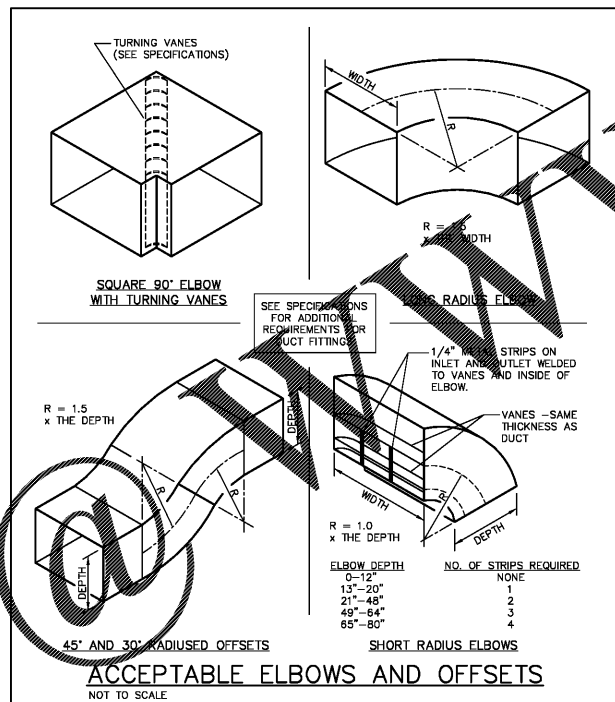
NOTE:
GENERAL CONTRACTOR SHALL PROVIDE SUPPORTS UNDER CURB AS REQUIRED TO LEVEL UNIT. REFER TO ARCHITECTURAL DRAWINGS FOR FLASHING DETAILS.



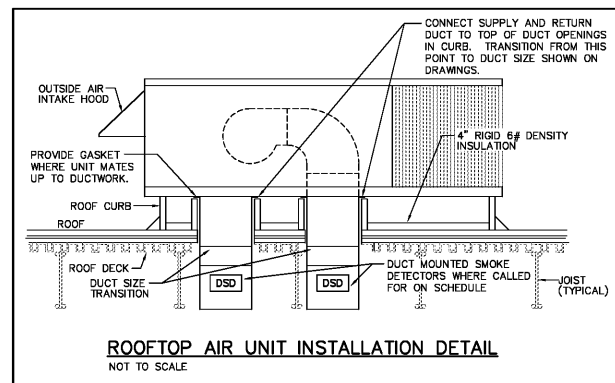
LOUVER INSTALLATION DETAIL
NOT TO SCALE



ROOFTOP UNIT CONDENSATE DRAIN DETAIL
NOT TO SCALE



ACCEPTABLE ELBOWS AND OFFSETS
NOT TO SCALE



ROOFTOP AIR UNIT INSTALLATION DETAIL
NOT TO SCALE

EXHAUST FAN SCHEDULE												
MARK	CFM	E.S.P. IN WG	HP	RPM	TIP SPEED	SONES	WEIGHT (LBS)	TYPE	DRIVE TYPE	CONTROL	VOLTS/PHASE	MANUFACTURER AND MODEL NUMBER
EF-1	700	0.25"	1/8	1442	3775	8.2	44	DOWNBLAST CENTRIFUGAL	BELT	BUILDING EMS	120/1	COOK 100 ACEB

- EXHAUST FAN SCHEDULE NOTES:
- ALL UNITS SHALL BE U.L. LISTED AND AMCA CERTIFIED.
 - ALL FANS TO HAVE BACKDRAFT DAMPER, AND MOTOR STARTER.
 - ROOF FAN ACCESSORIES: WEATHERPROOF DISCONNECT, ALUMINUM BIRDSCREEN, 12" ROOF CURB.
 - REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PACKAGE AIR UNIT SCHEDULE														
MARK	CFM	E.S.P. IN. WG	EVAP. FAN HP	OUTSIDE AIR CFM	COOLING CAPACITY @ AIR CONDITIONS			GAS HEATING CAPACITIES (MBH)		WEIGHT (LBS)	ELECTRICAL DATA			MANUFACTURER AND MODEL NUMBER
					SENS	TOTAL	INCL. TONS	INLET	OUTPUT		VOLTS/Φ	F.L.A.	MOCP	
*PAU-1	2,000	0.6	1	250	48.2	63.1	5	80	64	543	208/3Φ	23.4	40	TRANE YSC060
*PAU-2	2,000	0.6	1	250	48.2	63.1	5	80	64	543	208/3Φ	23.4	40	TRANE YSC060
*PAU-3	1,600	0.6	1	160	47	49	4	80	64	500	208/3Φ	22.0	35	TRANE YSC048
*PAU-4	1,600	0.6	1	160	47	49	4	80	64	500	208/3Φ	22.0	35	TRANE YSC048
*PAU-5	2,000	0.6	1	250	48.2	63.1	5	80	64	543	208/3Φ	23.4	40	TRANE YSC060
*PAU-6	2,000	0.6	1	250	48.2	63.1	5	80	64	543	208/3Φ	23.4	40	TRANE YSC060

- PACKAGE AIR UNIT SCHEDULE NOTES:
- ALL UNITS SHALL BE U.L. LISTED AND AGA APPROVED. ALL COMPRESSORS SHALL HAVE A 5 YEAR WARRANTY.
 - ALL UNITS SHALL BE FURNISHED COMPLETE WITH R-410A REFRIGERANT, DISPOSABLE 2" PLEATED AIR FILTERS (FARR #30 OR APPROVED EQUAL), BASE RAILS, CONDENSER COIL HAIL GUARDS, HINGED ACCESS DOORS AND LOW AMBIENT COOLING CONTROL (OPTIONAL).
 - * DENOTES UNIT SHALL BE PROVIDED WITH A DUCT MOUNTED SMOKE DETECTOR. BOTH THE SUPPLY AND RETURN AIRWAYS SHALL BE WIRING TO SHUT DOWN EACH INDIVIDUAL UNIT ON DETECTION PER IMC & NFPA. DETECTORS SHALL BE FURNISHED AND INSTALLED IN THE DUCT BY THE MECHANICAL CONTRACTOR. DUCT SMOKE DETECTORS SHALL BE ACCESSIBLE.
 - PROVIDE EACH UNIT WITH TYPE "M" COPPER CONDENSATE DRAIN WITH 1" DEEP P-TAP AND SPLASH BLOCK.
 - PROVIDE EACH UNIT WITH ECONOMIZER CYCLE AND POWER EXHAUST.
 - PROVIDE EACH UNIT WITH 24V DIGITAL PROGRAMMABLE THERMOSTAT WITH BATTERY BACK-UP. SUMMER/WINTER AUTO CHANGEOVER AND NIGHT SETBACK. PROVIDE THERMOSTAT WITH MULTI-STEP KEYPAD WITHOUT WITH TEMPORARY OVERRIDE CAPABILITY. (HONEYWELL T7350 OR APPROVED EQUAL).
 - CONTRACTOR SHALL PROVIDE AND INSTALL EACH UNIT WITH PRE-INSULATED, 2\"/>

GRILLE, REGISTER, AND DIFFUSER SCHEDULE					
MARK	SERVICE	DESCRIPTION	CONSTRUCTION/ FINISH	ACCESSORIES AND FEATURES	MANUFACTURER AND MODEL NUMBER
ER	EXHAUST REGISTER	12" x 1/2" x 1/2" EXHAUST FACE GRILLE	ALUMINUM / WHITE	T-BAR FRAME OPPOSED BLADE DAMPER	KRUEGER SERIES EGG-5

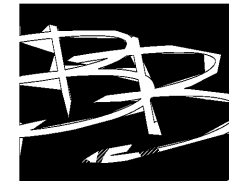
- GRILLE, REGISTER, AND DIFFUSER SCHEDULE NOTES:
- VERIFY FRAME STYLE, FINISH, AND RATINGS OF ALL CEILING AND WALLS WITH ARCHITECT PRIOR TO ORDERING EQUIPMENT. PROVIDE SQUARE TO ROUND TRANSITIONS AS REQUIRED. UNLESS TO MEETING REQUIREMENTS SET FORTH HERE AND IN THE PROJECT SPECIFICATIONS, THE LISTED MANUFACTURERS WILL BE CONSIDERED FOR SUBSTITUTION: PRICE, TITUS, METALAIR.

GAS UNIT HEATER SCHEDULE									
MARK	TYPE	AGA GAS HEATING CAPACITIES		FAN DATA			WEIGHT (LBS)	MANUFACTURER AND MODEL NUMBER	
		INPUT MBH	OUTPUT MBH	CFM	RPM	HP			
GUH-1	SEPARATED COMBUSTION	100	87.2	1345	1050	1/30	120/1	3.9	100
GUH-2	SEPARATED COMBUSTION	100	87.2	1345	1050	1/30	120/1	3.9	100
GUH-3	SEPARATED COMBUSTION	100	87.2	1345	1050	1/30	120/1	3.9	100
GUH-4	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190
GUH-5	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190
GUH-6	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190
GUH-7	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190
GUH-8	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190
GUH-9	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190
GUH-10	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190
GUH-11	SEPARATED COMBUSTION	200	166	2562	1050	1/6	120/1	4.6	190

- GAS UNIT HEATER SCHEDULE NOTES:
- ALL UNITS SHALL BE AGA APPROVED.
 - FURNISH EACH UNIT COMPLETE WITH EXHAUST AND INTAKE FLUES, CONCENTRIC VENT TERMINATION KIT, INTEGRAL POWER EXHAUSTER, AND STAINLESS STEEL SECONDARY HEAT EXCHANGER.
 - EACH UNIT SHALL HAVE A LOW VOLTAGE REMOTE THERMOSTAT FOR CONTROL. EACH THERMOSTAT SHALL HAVE A LOCKING METAL COVER (BEKO MODEL BTGM-1) FOR PROTECTION.

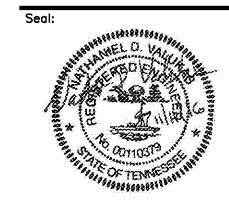
ELECTRIC HEAT SCHEDULE						
MARK	TYPE	CAPACITY MBH	KW/STEPS	VOLTS/Φ	CONTROL	MANUFACTURER AND MODEL NUMBER
EH-1	WALL MOUNTED UNIT HEATER	25.6	7.5/1	208/3Φ	UNIT MOUNTED THERMOSTAT	MARKEL 5100 SERIES
EH-2	WALL MOUNTED UNIT HEATER	25.6	7.5/1	208/3Φ	UNIT MOUNTED THERMOSTAT	MARKEL 5100 SERIES
EH-3	WALL MOUNTED UNIT HEATER	25.6	7.5/1	208/3Φ	UNIT MOUNTED THERMOSTAT	MARKEL 5100 SERIES
EH-4	CEILING RECESSED FORCED AIR HEATER	6.8	2.0/1	208/1Φ	UNIT MOUNTED THERMOSTAT	MARKEL 3480 SERIES
EH-5	CEILING RECESSED FORCED AIR HEATER	6.8	2.0/1	208/1Φ	UNIT MOUNTED THERMOSTAT	MARKEL 3480 SERIES
EH-6	WALL MOUNTED UNIT HEATER	25.6	7.5/1	208/3Φ	UNIT MOUNTED THERMOSTAT	MARKEL 5100 SERIES
EH-7	CEILING RECESSED FORCED AIR HEATER	6.8	2.0/1	208/1Φ	UNIT MOUNTED THERMOSTAT	MARKEL 3480 SERIES
EH-8	WALL MOUNTED UNIT HEATER	17.1	5.0/1	208/3Φ	UNIT MOUNTED THERMOSTAT	MARKEL 5100 SERIES
EH-9	WALL MOUNTED UNIT HEATER	17.1	5.0/1	208/3Φ	UNIT MOUNTED THERMOSTAT	MARKEL 5100 SERIES
EH-9	WALL MOUNTED UNIT HEATER	17.1	5.0/1	208/3Φ	UNIT MOUNTED THERMOSTAT	MARKEL 5100 SERIES

- ELECTRIC HEATER SCHEDULE NOTES:
- ALL UNITS TO BE U.L. LISTED.
 - FURNISH ALL HEATERS WITH AN INTEGRAL ELECTRICAL DISCONNECT.
 - PROVIDE ADJUSTABLE HORIZONTAL LOUVERS AND SWIVEL TYPE WALL MOUNTING BRACKETS FOR WALL MOUNTED UNIT HEATERS.



Barry Byrd ARCHITECTURE

P.O. Box 5482
Knoxville, TN 37928
(865) 687-6500



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Project Name:
GERMANTOWN2

Drawn By:
SJS

Revisions:

No.	DATE	DESCRIPTION

Project Title:

RETAIL SPACE

Poplar Avenue &
Exeter Road

Location:
Germantown, TN

Sheet Contents:
DETAILS & SCHEDULES - HVAC

Date:
November 11, 2016

Sheet Number:
M-211

Order Plans