

	BD	BALANCING DAMPER
		CEILING RETURN OR TRANSFER REGISTER/GRILLES
		EXHAUST GRILLES
		CEILING SUPPLY DIFFUSERS
		CONICAL TEE
	FD	HORIZONTAL FIRE DAMPER
	FD	VERTICAL FIRE DAMPER
	SD	VERTICAL SMOKE DAMPER
	F/SD	VERTICAL FIRE/SMOKE DAMPER
		FLEXIBLE DUCT CONNECTION
	DROP	DECLINED DROP WITH RESPECT TO AIRFLOW
	RISE	INCLINED RISE WITH RESPECT TO AIRFLOW
	Ø	INDICATES ROUND DUCTWORK
		MITERED ELBOW WITH TURNING VANES
	M	MOTORIZED CONTROL DAMPER
		RADIUS ELBOW
		SUPPLY DUCT TURNING UP (ROUND OR RECTANGULAR)
		RETURN DUCT TURNING UP (ROUND OR RECTANGULAR)
		EXHAUST DUCT TURNING UP (ROUND OR RECTANGULAR)
		OUTSIDE AIR DUCT TURNING UP (ROUND OR RECTANGULAR)
		SUPPLY DUCT TURNING DOWN (ROUND OR RECTANGULAR)
		RETURN DUCT TURNING DOWN (ROUND OR RECTANGULAR)
		EXHAUST DUCT TURNING DOWN (ROUND OR RECTANGULAR)
		OUTSIDE AIR DUCT TURNING DOWN (ROUND OR RECTANGULAR)
	10X10	SQUARE OR RECTANGULAR DUCTWORK
		VOLUME DAMPER
		TAKEOFF WITH 45° THROAT
		RETURN, EXHAUST OR TRANSFER AIR FLOW
		SUPPLY AIR FLOW
		DUCT CROSSING
		RECTANGULAR DUCT TURNING DOWN WITH CHANGE OF DIRECTION
		ROUND DUCT TURNING DOWN WITH CHANGE OF DIRECTION
		TERMINATION OF DUCT WITH BRANCH CONNECTIONS
		RECTANGULAR TO ROUND DUCT TRANSITION
	SA	SUPPLY AIR DUCTWORK
	RA	RETURN AIR DUCTWORK
	EA	EXHAUST AIR DUCTWORK
	OA	OUTSIDE AIR DUCTWORK
	MA	MAKEUP AIR DUCTWORK
	SD	DUCT SMOKE DETECTOR
	P	STATIC PRESSURE SENSOR
	DPT	DIFFERENTIAL PRESSURE TRANSDUCER

1. ALL MECHANICAL WORK SHALL BE IN STRICT COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND STANDARDS.
2. ALL DIMENSIONS AND ELEVATIONS FOR NEW EQUIPMENT, DUCTWORK, PIPING AND APPARATUS ARE APPROXIMATE AND ARE ONLY FOR CONTRACTOR'S GUIDANCE. CONTRACTOR SHALL SUBMIT DIMENSIONS AND ELEVATIONS VERIFIED IN THE FIELD. DUCTWORK AND PIPING INDICATED ON THE DRAWINGS, SECTIONS AND PERSPECTIVE VIEWS ARE SHOWN DIAGRAMMATICALLY. DUCT AND PIPE ELEVATIONS IN EXACT LOCATIONS SHALL BE DETERMINED BY THE INSTALLING CONTRACTOR AND DETAILED ON THE SHOP DRAWINGS.
3. ALL DUCT DIMENSIONS INDICATED ON PLAN ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR MUST ACCOUNT FOR THE THICKNESS OF EXTERIOR INSULATION WHEN DETERMINING INSTALLATION CLEARANCES.
4. THE CONTRACTOR SHALL TEMPORARILY COVER ALL EXPOSED DUCT AND PIPE OPENINGS WITH A NON-COMBUSTIBLE MATERIAL, AND SEAL THEM AIRTIGHT TO PREVENT CONTAMINATION OF THE RESPECTIVE SYSTEMS DURING CONSTRUCTION.
5. CONTRACTOR SHALL REMOVE AND DISPOSE OF OFFSITE ALL DEMOLISHED WORK IN AN ACCEPTABLE AND SAFE MANNER AND SHALL KEEP ALL NON-WORK AREAS CLEAN AND SAFE.
6. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.

	TEMPERATURE SENSOR
	TEMPERATURE/HUMIDITY SENSOR
	DUCT SMOKE DETECTOR
	INDICATES TO DEMOLISH
	GAS METER
	GAS SHUTOFF VALVE
	EXTENT OF DEMOLITION
	POINT OF CONNECTION
	DIFFUSER/ REGISTER/ GRILLE NO. AS SHOWN ON PLAN AND SCHEDULE
	SG,RG,TG,EG
	AIRFLOW, CFM

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT		
CLIMATE ZONE		
WINTER DRY BULB:	3A - WARM/HUMID	23 °F
SUMMER DRY BULB		93 °F
INTERIOR DESIGN CONDITIONS		
WINTER DRY BULB		50 °F
SUMMER DRY BULB	DESIGN NOT CONTROLLED	
RELATIVE HUMIDITY	DESIGN NOT CONTROLLED	
BUILDING HEATING LOAD:		158.2 MBH
BUILDING COOLING LOAD:	DESIGN NOT CONTROLLED	
MECHANICAL SPACING CONDITIONING SYSTEM		
UNITARY		
DESCRIPTION OF UNIT:		SEE SCHEDULES
HEATING EFFICIENCY:		SEE SCHEDULES
COOLING EFFICIENCY:		SEE SCHEDULES
SIZE CATEGORY OF UNIT:		SEE SCHEDULES
BOILER		
SIZE CATEGORY, IF OVERSIZED STATE REASON:		N/A
CHILLER		
SIZE CATEGORY, IF OVERSIZED STATE REASON:		N/A
LIST EQUIPMENT EFFICIENCIES:		SEE SCHEDULES

ABBREVIATION	TERM
ADJ	ADJUSTABLE
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION
AMP	AMPERE (AMP, AMPS)
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
CFM	CUBIC FEET PER MINUTE
CIP	CAST IN PLACE
CMU	CONCRETE MASONRY UNIT
COP	COEFFICIENT OF PERFORMANCE
DB	DRY BULB
DEG OR °	DEGREE
EA	EXHAUST AIR
EG	EXHAUST GRILLE
EAT	ENTERING AIR TEMPERATURE
ECM	ELECTRONICALLY COMMUTATED MOTOR
EER	ENERGY EFFICIENCY RATIO
ESP	EXTERNAL STATIC PRESSURE
F	FAN
°F	FAHRENHEIT
FLA	FULL LOAD AMPS
FT	FEET
HC	HOT WATER COIL
HGT OR H	HEIGHT
HP	HORSEPOWER
HR	HOURL(S)
IN.	INCH
IN.-WG	INCHES WATER GAUGE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
L	LOUVER
MAX	MAXIMUM
MBH	1000 BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MCWB	MEAN COINCIDENT WET BULB
MIN.	MINIMUM
MOCp	MAXIMUM OVER CURRENT PROTECTION
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
OZ	OUNCE
OA	OUTSIDE AIR
%	PERCENT
RA	RETURN AIR
RG	RETURN GRILLE
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SF	SQUARE-FEET
SG	SUPPLY GRILLE
SQ	SQUARE
TG	TRANSFER GRILLE
TYP	TYPICAL
UH	UNIT HEATER
V/PH/Hz	VOLT/PHASE/HERTZ
VTR	VENT THROUGH ROOF
W	WIDTH
WB	WET BULB

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CONSTRUCTION DOCUMENT

**BRW&S-H2GO
Field Operations and
Administrative
Complex
FUEL/WASH/STORAGE -
BUILDING 06**

152 GREGORY ROAD
BELVILLE, N.C. 28451

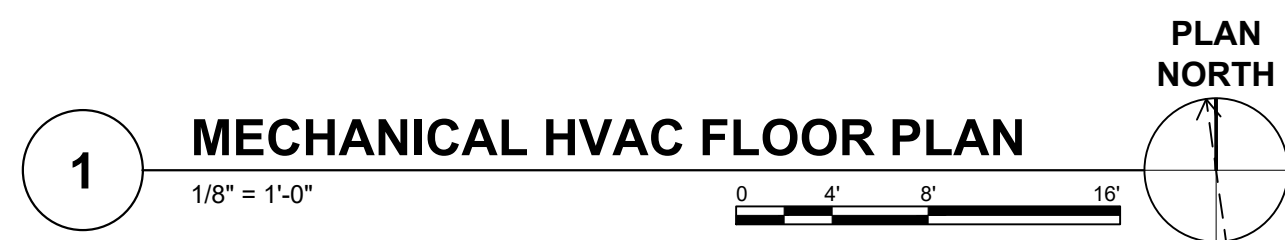
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FAILURE OR TROUBLE CONDITION OF THE GAS DETECTOR SHALL ACTIVATE A LOCAL TROUBLE INDICATION AND ENERGIZE PV3. L4 SHALL OPEN UPON OPERATION OF PV3. FAILURE OF THE GAS DETECTOR OR DEMAND VENTILATION CONTROL CIRCUIT SHALL NOT DISABLE CONTINUOUS OPERATION OF PV2.

1. ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, AND CONTROLS SHALL BE COORDINATED, LOCATED, AND INSTALLED SO AS NOT TO INTERFERE WITH THE INSTALLATION, OPERATION, MAINTENANCE, AND CLEARANCES OF OTHER TRADES.

- 1 SUSPEND GAS UNIT HEATER FROM STRUCTURE ABOVE. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES FOR PROPER OPERATION, SERVICE, AND MAINTENANCE . COORDINATE HEIGHT ABOVE FINISHED FLOOR WITH G. C. TO AVOID CONFLICTS WITH OBSTRUCTIONS AND VEHICLES ENTERING AND LEAVING WORK BAY. INSTALL VENTING SYSTEM THROUGH ROOF IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL AND JURISDICTIONAL CODES, AS WELL AS THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. SEE 2M-501 FOR FURTHER INFORMATION.
- 2 INSTALL IN LINE POWER VENTILATOR IN VERTICAL ORIENTATION IN LOCATION SHOWN. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES FOR PROPER OPERATION, SERVICE AND MAINTENANCE. EXTEND EXHAUST DUCTWORK FROM IN LINE FAN TO A POSITION 12" MAXIMUM ABOVE FINISHED FLOOR. END OF EXHAUST DUCTWORK MUST BE COVERED WITH 1/2" MESH SCREEN GUARD. SEE 1M-501 FOR FURTHER INFORMATION.
- 3 SUSPEND IN LINE POWER VENTILATOR FROM STRUCTURE IN LOCATION SHOWN. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES FOR PROPER OPERATION, SERVICE AND MAINTENANCE. COORDINATE HEIGHT ABOVE FINISHED FLOOR WITH G. C. TO AVOID CONFLICTS WITH OBSTRUCTIONS AND VEHICLES ENTERING AND LEAVING WORK BAY. OPEN END OF EXHAUST FAN MUST BE COVERED WITH 1/2" MESH SCREEN GUARD.
- 4 SUSPEND IN LINE POWER VENTILATOR FROM STRUCTURE IN LOCATION SHOWN. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES FOR PROPER OPERATION, SERVICE AND MAINTENANCE. COORDINATE HEIGHT ABOVE FINISHED FLOOR WITH G. C. TO AVOID CONFLICTS WITH OBSTRUCTIONS AND VEHICLES ENTERING AND LEAVING WORK BAY. INTERLOCK POWER VENTILATOR WITH ASSOCIATED LOUVER AND MOTORIZED DAMPER. OPEN END OF EXHAUST FAN MUST BE COVERED WITH 1/2" MESH SCREEN GUARD.
- 5 INSTALL WALL-MOUNTED MACURCO CX-12 CO & NO2 SENSOR (OR EQUAL) AT APPROXIMATELY 5' ABOVE FINISHED FLOOR. INTERLOCK TO ENERGIZE ASSOCIATED POWER VENTILATOR UPON DETECTION OF GAS ABOVE SAFETY LIMIT. PROVIDE RED HORN AND STROBE ACCESSORY AND WALL MOUNT DIRECTLY ABOVE SENSOR AT APPROXIMATELY 8' ABOVE FINISHED FLOOR. SEE POWER VENTILATOR SCHEDULE FOR FURTHER INFORMATION.



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POWER VENTILATOR SCHEDULE

[illegible]

GAS-FIRED UNIT HEATER SCHEDULE

DRAWING CODE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	ALTERNATE APPROVED MANUFACTURERS	FUEL	TYPE FAN	COMBUSTION / CONTROL	VENTING	GAS				INLET AND FLUE OUTLET (IN)	MIN. AIRFLOW (CFM)	MOTOR		VOLTAGE (V/PH/Hz)	FLA (A)	MCA (A)	MOCp (A)	APPROXIMATE MOUNTING HEIGHT (FT)	NOTES	ACCESSORIES	
								INPUT (MBH)	OUTPUT (MBH)	EFF.(%)	INLET PRESS (IN WC)			HP	RPM								
GUH1	RE-VERBER	FA-100-SS	STERLING, REZNOR	NATURAL GAS	PROPELLER	SEPARATED COMBUSTION / SINGLE STAGE	PER MFR.	100		80	80	5-14	4	1,500	1/8	1,075	120/1/60	5.2	-	-	16.0	1.2	A,B,C,D,E,F,G
GUH2	RE-VERBER	FA-100-SS	STERLING, REZNOR	NATURAL GAS	PROPELLER	SEPARATED COMBUSTION / SINGLE STAGE	PER MFR.	100		80	80	5-14	4	1,500	1/8	1,075	120/1/60	5.2	-	-	14.0	1.2	A,B,C,D,E,F,G
GUH3	RE-VERBER	UH-60-SS	STERLING, REZNOR	NATURAL GAS	PROPELLER	SEPARATED COMBUSTION / SINGLE STAGE	PER MFR.	60		48	80	5-14	4	975	1/12	1,625	120/1/60	4.0	-	-	16.0	1.2	A,B,C,D,E,F,G
NOTES:	1 REFER TO SPECIFICATIONS FOR FURTHER INFORMATION. 2 VENT IN ACCORDANCE WITH BUILDING CODE AND MANUFACTURER'S INSTRUCTIONS.																						
ACCESSORIES:	A FAN ON-OFF AUTOMATIC SWITCH B AGA APPROVED 12" REGULATOR C WALL MOUNTED THERMOSTAT. (SINGLE STAGE) D 304 STAINLESS STEEL UNIT JACKET AND DISCHARGE LOUVERS E CONCENTRIC TERMINAL VENT KIT F FOUR-POINT SUSPENSION KIT G 409 STAINLESS STEEL HEAT EXCHANGER																						

LOUVER SCHEDULE

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CONSTRUCTION DOCUMENT

**BRW&S-H2GO
Field Operations and
Administrative
Complex
FUEL/WASH/STORAGE -
BUILDING 06**

152 GREGORY ROAD
BELVILLE, N.C. 28451

DATE RELEASED: 09.01.2026
REVISION DATES:

PROJECT NO.: 24055

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MECHANICAL SCHEDULES

Building 06

06-M-601