

**GENERAL NEW WORK NOTES**

- DUCTWORK AND PIPING SHALL BE KEPT AS TIGHT TO STRUCTURE AS POSSIBLE. PROVIDE TRANSITIONS OR OFFSETS IN DUCTWORK AND PIPING AS REQUIRED TO MAINTAIN ELEVATION.
- OPEN END DUCTS SHALL BE PROVIDED WITH 1/2" BIRD SCREEN OVER DUCT OPENING.
- AIR DISTRIBUTION SYSTEMS SHALL BE CONSTRUCTED PER SMACNA REQUIREMENTS AND AS SPECIFIED.
- COORDINATE INSTALLATION OF MECHANICAL EQUIPMENT WITH OTHER TRADES. PROVIDE OFFSETS, RISERS OR TRANSITIONS REQUIRED TO AVOID CONFLICTS OR TO MAINTAIN REQUIRED ELEVATIONS.
- DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATION OF SIDEWALL AND CEILING AIR DEVICES.
- CEILING ARE USED AS RETURN AIR PLENUM. NO COMBUSTIBLE MATERIALS ARE ALLOWED IN THE PLENUM.
- WHERE FLEXIBLE DUCT CONNECTIONS OF AIR DEVICES TO BRANCH DUCTS ARE INDICATED FLEXIBLE DUCT LENGTH SHALL NOT EXCEED 5'-0" MAXIMUM.
- INSTALL PIPING AND DUCTWORK SO THAT VALVES AND DAMPERS ARE ACCESSIBLE.
- INSTALL THERMOSTATS WITH CENTERLINE AT 4'-0" ABOVE FINISHED FLOOR. COORDINATE LOCATIONS WITH LIGHT SWITCHES AND OTHER ROOM CONTROL DEVICES AS DIRECTED BY THE ARCHITECT.
- PROVIDE ACCESS PANELS TO ALLOW ACCESS TO ITEMS LOCATED ABOVE HARD CEILING OR IN SHAFTS. ACCESS PANELS SHALL NOT BE INSTALLED IN FINISHED CEILING IN COMMON PUBLIC AREAS.
- PROVIDE FIRESTOP SYSTEMS AT PENETRATIONS OF FIRE RATED ASSEMBLIES.
- PROVIDE RIGGING, LIFTING, HOISTING, AND SCAFFOLDING AS REQUIRED FOR THE INSTALLATION OF MECHANICAL EQUIPMENT INCLUDING ROOFTOP EQUIPMENT.
- PROTECT DUCT INTERIORS FROM CONSTRUCTION DUST AND DEBRIS, MOISTURE, AND OTHER FOREIGN MATERIALS PRIOR TO AND AFTER INSTALLATION.
- REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATING OF WALLS, PARTITIONS AND FLOORS.

**ABBREVIATIONS**

SYMBOL	ABBR.	DEFINITION
		REMOVE EXISTING TO THIS POINT
		CONNECT NEW TO EXISTING AT THIS POINT
	AFF.	ABOVE FINISHED FLOOR
	AFG.	ABOVE FINISHED GRADE
	AHU	AIR HANDLING UNIT
	APD	AIR PRESSURE DROP
	ATC	AUTOMATIC TEMPERATURE CONTROL
	BTUH	BRITISH THERMAL UNITS PER HOUR
	CFH	CUBIC FEET PER HOUR
	CFM	CUBIC FEET PER MINUTE
	CUH	CABINET UNIT HEATER
$\emptyset$	DB	DRY BULB
	DIA.	DIAMETER
	DN.	DOWN
	DWG.	DRAWING
	EAT	ENTERING AIR TEMPERATURE
	EF	EXHAUST FAN
	ESP	EXTERNAL STATIC PRESSURE
	EWT	ENTERING WATER TEMPERATURE
	EX	EXISTING
	EXH	EXHAUST
	FCU	FAN COIL UNIT
	FD	FIRE DEPARTMENT
	GPH	GALLONS PER HOUR
	GPM	GALLONS PER MINUTE
	HP	HORSEPOWER
	IN.	INCHES
	INV. ELEV.	INVERT ELEVATION
	KW	KILOWATTS
	LAT	LEAVING AIR TEMPERATURE
	LWT	LEAVING WATER TEMPERATURE
	MAX	MAXIMUM
	MBH	ONE THOUSAND BTU
	MFG	MANUFACTURER
	MIN	MINIMUM
	NA	NOT APPLICABLE
#	NO	NUMBER
	OA	OUTSIDE AIR
	OED	OPEN END DUCT
	OSD	OPEN SITE DRAIN
	RM.	ROOM
	RPM	REVOLUTIONS PER MINUTE
	RTU	ROOF TOP UNIT
	SF	SQUARE FEET
	TYP	TYPICAL
	V / Ph / Hz	VOLTS / PHASE / HERTZ
	VIF	VERIFY IN FIELD
	VTR	VENT THRU ROOF
	WC	WATER COLUMN
	WG	INCHES WATER GAUGE
	W	WITH
	WB	WET BULB
	WPD	WATER PRESSURE DROP

NOTE: ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE USED.

**MECHANICAL LEGEND**

SYMBOL	ABBR.	DEFINITION
	SA	SUPPLY AIR DUCT
	RA	RETURN AIR DUCT
	EA	EXHAUST AIR DUCT
	VD	VOLUME DAMPER
	FD	FIRE DAMPER
	BDD	BACK DRAFT DAMPER
	MOD	MOTOR OPERATED DAMPER
		FLEXIBLE DUCTWORK (MAX 5 FT LENGTH)
	UH	UNIT HEATER
	UC / DL	1" DOOR UNDERCUT / DOOR LOUVER
	T	THERMOSTAT
	SD	SMOKE DETECTOR
	A / 100	AIR DEVICE DESIGNATION CUBIC FEET OF AIR PER MINUTE
		FLEXIBLE CONNECTION
		PLUG VALVE
		BALL VALVE
		SHUT OFF VALVE (SEE SPECIFICATIONS)
		GLOBE VALVE
		GAS COCK
		UNION
		PIPE ANCHOR
		PIPE GUIDE
	RL	REFRIGERANT LIQUID PIPING
	RS	REFRIGERANT SUCTION PIPING
	G	NATURAL GAS PIPING
	CD	CONDENSATE DRAIN PIPING
		CAPPED PIPE
		PIPE BREAK
		PIPE UP
		DROP IN PIPE
		TOP PIPE CONNECTION
		BOTTOM PIPE CONNECTION

NOTE ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE USED.

**HVAC DESIGN CRITERIA**

- WEATHER DATA: (ASHRAE 2013 FUNDAMENTALS: BALTIMORE/WASHINGTON AIRPORT)
 

SUMMER (0.4%):	94.0°F DB / 74.9°F WB
WINTER (99%):	17°F DB
- INDOOR SPACE DESIGN CONDITIONS:
 

	COOLING	HEATING
OFFICE	75°F DB / 50% RH	70°F DB / 30% RH
SALES AREA	75°F DB / 50% RH	70°F DB / 30% RH
- GENERAL DESIGN LOAD REQUIREMENTS:
 

LIGHTING:	1.4 W/SF
EQUIPMENT:	1.5 W/SF
PEOPLE:	250 BTU/H/PERSON (SENSIBLE) 200 BTU/H/PERSON (LATENT)
- GENERAL EXHAUST CRITERIA:
 

TOILET ROOMS:	2 CFM/SF OR 75 CFM/FLUSH FIXTURE WHICHEVER IS GREATER
JANITOR CLOSETS:	6 ACH OR 100 CFM MINIMUM
- VENTILATION RATES:
 

	NO. OF PEOPLE	CFM PER PERSON	CFM PER SF
OFFICE:	1	5	0.06
SALES AREA	15 PER 1000SF	7.5	0.12
- OCCUPANCY SCHEDULE: 24 HOUR / 7 DAYS PER WEEK
- BUILDING ENVELOPE CRITERIA:
 

WALL U-VALUE:	0.08
ROOF U-VALUE:	0.03
GLASS U-VALUE:	0.5
GLASS SHGC:	0.55
- HEATING AND COOLING LOAD CALCULATIONS PERFORMED IN ACCORDANCE WITH CARRIER HOURLY ANALYSIS PROGRAM.

**COMcheck Software Version 4.0.5.3**  
**Mechanical Compliance Certificate**

**Project Information**

Energy Code: 2015 IECC  
 Project Title: Dash In #079  
 Location: Severn, Maryland  
 Climate Zone: 4a  
 Project Type: New Construction

Construction Site: Severn, MD  
 Owner/Agent: \_\_\_\_\_  
 Designer/Contractor: \_\_\_\_\_

**Additional Efficiency Package**  
 Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

**Mechanical Systems List**

Quantity: 1  
 System Type & Description: HVAC System 1 (Single Zone)  
 Heating: 1 each - Central Furnace, Gas, Capacity = 150 kBtu/h  
 Proposed Efficiency = 88.00% E1, Required Efficiency = 88.00% E1  
 Cooling: 1 each - Single Package DX UH, Capacity = 120 kBtu/h, Air Cooled Condenser, Air Economizer  
 Proposed Efficiency = 12.20 E2R, Required Efficiency = 11.00 E2R (12.2 E2R)  
 Fan System: FAN SYSTEM 1 | WHOLE BUILDING - Compliance (Motor nameplate HP method) | Passes

Fans:  
 FAN 1 Supply, Constant Volume, 4000 CFM, 3.5 motor nameplate hp, 0.5 fan efficiency

Water Heater 1:  
 Gas Instantaneous Water Heater, Capacity: 0 gallons, Input Rating: 90 Btu/h w/ Circulation Pump  
 Proposed Efficiency: 0.67 EF, Required Efficiency: 0.67 EF

**Mechanical Compliance Statement**  
 Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2015 IECC requirements in COMcheck Versions 4.0.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

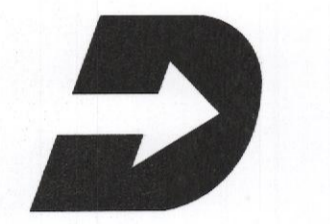
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 17 JAN 2019



**DASH IN**  
 STORE #079  
 QUARTERFIELD RD - SEVERN, MD

REV #	ISSUE/DESCRIPTION	DATE

SHEET TITLE:  
**MECHANICAL DATA SHEET**

DRAWING DATE:  
 01 APRIL 2017

DRAWN BY: MVM REVISION BY: MGH

PROJECT #  
 2889

SHEET #

**M-001**

FILE NAME:  
 2889 - M-001.dwg