VAV TERMINAL UNIT SCHEDULE

VAV NO.	INLET SIZE DIA (IN.)	PRIMARY AIR CFM MAX	PRIMARY AIR CFM MIN	PRIMARY AIR VALVE MAX APD (IN WATER)	HOT WATER HEATING COIL EAT DB (°F)	HOT WATER HEATING COIL LAT DB (°F)	HOT WATER HEATING COIL CAPACITY (MBH)	HOT WATER HEATING COIL GPM	HOT WATER HEATING COIL WPD (FT. HD.)	HOT WATER HEATING COIL HW SUPPLY & RETURN (IN.)	SUPPLY FAN SIZE	SUPPLY FAN TOTAL CFM	SUPPLY FAN TSP	SUPPLY FAN MOTOR HP	SUPPLY FAN MOTOR FLA	ELECT CHAR V / PH	MODEL
1-01	12	1950	625	0.613	65.2	86.0	44.00	3.72	3.4	1	05SQ	1950	0.43	1	5.4	277-1	TRANE VSWF
1-02	12	1750	580	0.442	65.0	72.4	13.76	0.50	0.08	1/2	05SQ	1750	0.376	1	5.4	277-1	TRANE VSWF
1-04	6	500	125	0.48	64.1	99.0	17.8	1.5	0.6	1/2	03SQ	500	0.22	1/3	2.4	277-1	TRANE VSWF
1-05	8	560	160	0.20	65.7	95.0	17.8	1.3	0.4	1/2	03SQ	560	0.23	1/3	2.4	277-1	TRANE VSWF
1-06	6	350	120	0.22	64.9	90.6	9.8	0.5	0.1	1/2	03SQ	350	0.22	1/3	2.4	277-1	TRANE VSWF
1-07	4	200	75	0.03	64.4	98.5	7.4	0.5	0.2	1/2	02SQ	200	0.21	1/4	0.7	277-1	TRANE VSWF
1-08	8	655	215	0.17	65.1	82.9	10.7	0.5	0.1	1/2	03SQ	655	0.23	1/3	2.4	277-1	TRANE VSWF
1-09	4	200	75	0.03	64.4	98.5	7.4	0.5	0.2	1/2	02SQ	200	0.21	1/4	0.7	277-1	TRANE VSWF
1-10	8	520	170	0.18	65.1	83.8	10.6	0.5	0.1	1/2	03SQ	520	0.23	1/3	2.4	277-1	TRANE VSWF
1-11	6	800	250	0.40	65.0	82.0	14.5	0.7	0.1	1/2	03SQ	800	0.25	1/3	2.4	277-1	TRANE VSWF
1-12	4	525	200	0.09	64.9	95.0	17.5	0.6	0.5	1/2	02SQ	525	0.32	1/4	0.7	277-1	TRANE VSWF

EXHAUST FAN SCHEDULE

DESIG.	QUANTITY	SERVING	CFM	E.S.P. (IN.WC.)	FAN SPEED (RPM)	TYPE	DRIVE	ELECTRIC HP, VOLTS-PH	MANUFACTURER
EF-1	1	MEN 107, WOMEN 108	550	0.25	1,140	ROOF TOP	DIRECT	1/6, 277-1	GREENHECK G-101-B

NOTES:
1. PROVIDE PREFABRICATED ROOF CURB WITH HINGED BASE & CURB SEAL.
2. PROVIDE GALVANIZED MESH BIRDSCREEN.
3. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.

PLUMBING FIXTURE SCHEDULE

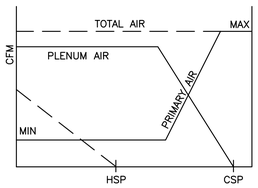
DESIG	DESCRIPTION	SAN	VENT	CW	HW	REMARKS
P-1	WATER CLOSET	4"	2"	1"	--	WALL MOUNTED FLUSH VALVE
P-1A	WATER CLOSET	4"	2"	1"	--	WALL MOUNTED FLUSH VALVE ADA COMPLIANT
P-2	URINAL	2"	1 1/2"	3/4"	--	WALL MOUNTED
P-3	LAVATORY	1 1/2"	1 1/2"	1/2"	1/2"	ADA COMPLIANT
P-4	SERVICE SINK	3"	2"	3/4"	3/4"	
P-5	KITCHEN SINK	2"	2"	1/2"	1/2"	
P-6	WATER COOLER	1 1/2"	1 1/2"	1/2"	--	ADA COMPLIANT (HIGH/LOW)
P-7	WATER CLOSET	4"	2"	1"	--	FLOOR MOUNTED FLUSH VALVE
P-7A	WATER CLOSET	4"	2"	1"	--	FLOOR MOUNTED FLUSH VALVE ADA COMPLIANT

NOTES:
1. REFER TO NOTES 2 AND 3 ON 1/P201 FOR FLUSH VALVE, LAVATORY FAUCET TYPES; BATTERY OR LOW VOLTAGE HARD-WIRED.

ELECTRIC HEATER SCHEDULE

DESIG.	SERVING	CFM	CAP. (MBH)	KW	TYPE	ELECTRIC VOLTS-PH	MANUFACTURER OR EQUAL
EH-1	VESTIBULE	175	5.12	1.5	WALL MOUNTED FAN FORCED WALL HEATER	277-1	MARKEL G3323TD-RP

NOTES:
1. PROVIDE UNIT WITH INTERGRAL THERMOSTAT.
2. PROVIDE UNIT WITH 2" SEMI RECESS EXTENDER.



(TEMPERATURE SET POINT)

COOLING OCCUPIED:
UNIT DELIVERS MAXIMUM CONSTANT AIR FLOW WITH PRIMARY AIR VALVE SET AT MAXIMUM CFM TO SATISFY COOLING SETPOINT (CSP). WHEN CSP IS SATISFIED, PRIMARY VALVE MODULATES TO MINIMUM POSTION.

HEATING OCCUPIED:
UPON DROP IN SPACE TEMPERATURE BELOW HSP (ADJUSTABLE), PRIMARY AIR VALVE REACHES MINIMUM AND PLENUM AIR MIX REACHES MAX FAN CFM TO SPACE. AS TEMPERATURE CONTINUES TO DROP HOT WATER HEATING VALVE OPENS TO SATISFY HSP.

UNOCCUPIED:

EMS SHALL ENERGIZE UNIT FAN AND OPEN HEATING VALVE WHEN SPACE TEMPERATURE DROPS BELOW NIGHT SETPOINT OF 55'F (ADJUSTABLE).

UNITS PROVIDED WITH OCCUPANCY SENSOR

UNIT SHALL NORMALLY BE IN UNOCCUPIED MODE. UPON OCCUPANCY SENSOR BEING ENERGIZED, UNIT SHALL ENERGIZE AND OPERATE IN EITHER COOLING OR HEATING OCCUPIED MODE AS DIRECTED BY THE BAS.

MORNING WARM UP:

VAV UNIT FAN SHALL BE ENERGIZED, HEATING VALVE SHALL BE OPEN, AND PRIMARY AIR VALVE SHALL BE AT CLOSED SETTING WHEN SYSTEM IS IN MORNING WARM UP.

VAV SERIES FAN POWERED REHEAT CONTROL

EXHAUST FANS SHALL BE CONTROLLED BY THE RESTROOM LIGHT SWITCH PROVIDED UNDER DIV. 16.. THE FAN SHALL BE ENERGIZED WHEN THE SWITCH IS FLIPPED TO THE 'ON' POSITION AND DE-ENERGIZED WHEN FLIPPED TO THE 'OFF' POSITION.

ROOF MOUNTED EXHAUST FAN CONTROL (EF-1)

ELECTRIC WALL HEATER EH-1,SHALL BE CONTROLLED THROUGH AN INTEGRAL THERMOSTAT TO MAINTAIN SPACE TEMP. SETTING (72'F ADJ.).

WALL MOUNTED ELECTRIC HEATER CONTROL

1. THE BUILDING IS EQUIPPED WITH A BUILDING AUTOMATION SYSTEM (BAS) THAT IS REQUIRED TO BE USED FOR MONITORING AND CONTROL OF TENANT HVAC EQUIPMENT.

GENERAL ATC NOTES

FIRE PROTECTION NOTES:

1. EXISTING SPRINKLER HEAD LAYOUT SHALL BE MODIFIED TO ACCOMMODATE THE NEW TENANT LAYOUT.
2. SPRINKLER MODIFICATIONS SHALL BE DESIGNED & INSTALLED TO COMPLY WITH NFPA 13.
3. SPRINKLER SYSTEM LAYOUT DRAWINGS SHALL BE PREPARED BY THE FIRE PROTECTION CONTRACTOR. DRAWINGS SHALL BE REVIEWED BY ARCHITECT/ENGINEER & APPROVED BY THE REGULATING AGENCIES INCLUDING THE OWNER'S INSURANCE CARRIER, IF REQUIRED, PRIOR TO THE START OF WORK.
4. SPRINKLER HEADS SHALL BE LOCATED IN CENTERS OF CEILING TILES.

ABBREVIATIONS

ABBREV	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
CFH	CUBIC FEET HOUR
CFM	CUBIC FEET MINUTE
CX	CONNECT TO EXISTING
DIFF	DIFFUSER
DB	DRY BULB
EAT	ENTERING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
EX	EXISTING
EXH	EXHAUST
EXTR	EXISTING TO REMAIN
(FLOOR PLAN -M-1)	FOR CONTINUATION SEE FLOOR PLAN ON DRAWING M-1
GR	GRILLE
GPM	GALLONS PER MINUTE
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
MBH	THOUSAND BTU/HR
OA	OUTSIDE AIR
RA	RETURN AIR
REG	REGISTER
RX	REMOVE EXISTING
SA	SUPPLY AIR
TSP	TOTAL STATIC PRESSURE
V-PH	VOLT-PHASE
VTR	VENT THROUGH ROOF

GENERAL PROJECT NOTES

1. UNLESS OTHERWISE INDICATED, PIPING SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE. INTERMEDIATE STRUCTURAL SUPPORTS SHALL BE PROVIDED IN AN APPROVED MANNER AS REQUIRED TO MEET MINIMUM SUPPORT SPACING REQUIRED BY THE SPECIFICATIONS.
2. COORDINATE THE INSTALLATION OF LIGHTING FIXTURES WITH PIPING, DUCTWORK, AIR DEVICES, SPRINKLERS AND EQUIPMENT BEING INSTALLED IN THE FACILITY SUCH THAT PIPING, DUCTWORK, AIR DEVICES, AND EQUIPMENT DO NOT BLOCK OR IMPEDE LIGHTING.
3. PROVIDE HANGERS, ANCHORS, ETC... ON PIPING PER SUPPORT MANUFACTURER'S RECOMMENDATIONS.
4. INSTALL PIPING SO THAT VALVING IS ACCESSIBLE. PROVIDE ACCESS PANELS PER SPECIFICATIONS.
5. INSTALL DUCTWORK SO THAT VOLUME DAMPERS, HEATING COILS, ETC... CONTROLS ARE ACCESSIBLE. PROVIDE ACCESS PANELS PER SPECIFICATIONS.
6. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING CONSTRUCTION TYPES AND DETAILS. FIELD VERIFY EXISTING BEAMS AND STEEL JOIST SIZES AND LOCATIONS.
7. COORDINATE THE INSTALLATION OF SUPPLY AND RETURN AIR DEVICES, AND DUCTWORK WITH EXISTING: HEATING SYSTEM, DOMESTIC WATER, AND SANITARY. IF THE INSTALLATION DEVIATES FROM THE CONTRACT DRAWINGS, SERVICEABILITY & MAINTENANCE MUST BE MAINTAINED TO VALVING, EQUIPMENT, ETC...
8. INSTALL EQUIPMENT, IE: VAV'S, IN SUCH A MANNER AS TO PROVIDE ADEQUATE SPACE FOR MAINTENANCE AND EQUIPMENT ACCESS.
9. MOUNTING HEIGHT OF THERMOSTATS SHALL BE 48" A.F.F. AND/OR AS DIRECTED BY THE ARCHITECT.
10. REPLACE FILTERS SERVING HVAC EQUIPMENT PRIOR TO FINAL BALANCING OF AIR DISTRIBUTION SYSTEMS.
11. THE SPRINKLER SYSTEM MODIFICATIONS SHALL BE DESIGNED & COORDINATED WITH DUCTWORK, PIPING, LIGHTING, EQUIPMENT AND ARCHITECTURAL REFLECTED CEILING PLANS. NO CHANGE ORDERS SHALL BE ACCEPTED.
12. FIRE STOP ALL PIPING AND DUCT PENETRATIONS THRU FIRE WALLS, IN ADDITION PROVIDE FIRE/SMOKE DAMPERS IN ALL DUCTS THAT PASS THROUGH FIRE WALLS AND CEILINGS. REFER TO ARCHITECTURAL DWG'S FOR FIRE WALL LOCATIONS.
13. EXISTING: PIPING, VALVING, DUCTWORK & ELECTRIC CONDUITS, ETC... DO EXIST WITHIN THE CEILING SPACES OTHER THAN THAT WHICH IS SHOWN ON THE CONTRACT DRAWINGS.
14. COORDINATE NEW & DEMOLITION WORK WITH EXISTING WORK TO REMAIN SO AS NOT TO DAMAGE EXISTING WORK. ANY DAMAGE TO EXISTING WORK TO REMAIN SHALL BE REPLACED/REPAIRED AT NO COST TO THE OWNER.
15. PATCH EXISTING WALLS AND FLOORS TO MATCH EXISTING WHERE NEW MECHANICAL UTILITIES SUCH AS PIPING ATC WIRING AND TUBING, DUCTS, ETC. PENETRATES EXISTING WALLS AND FLOORS. CONTRACTOR SHALL ALSO PATCH WALLS AND FLOORS TO MATCH EXISTING WHERE EXISTING PIPING, WIRING, TUBING, DUCTS, ETC. ARE BEING REMOVED AND PENETRATES EXISTING WALLS.
16. SUPPLY AND RETURN AIR DUCT OPENINGS NOT BEING REUSED SHALL BE PATCHED AND REPAIRED AIR TIGHT IN ACCORDANCE WITH SMACNA STANDARDS.
17. FIELD CHECK PREMISES PRIOR TO SUBMITTING BID TO BECOME ACQUAINTED WITH EXISTING CONDITIONS AND TO DETERMINE BEST MANNER FOR INSTALLATION. DETAILS OF PROPOSED DEPARTURES DUE TO ACTUAL FIELD CONDITIONS OR OTHER CAUSES SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FINAL INSTALLATION. NO EXTRAS SHALLL BE PAID IN INSTANCES WHERE DISCREPANCIES ARISE AND THE INSTALLER HAS FAILED TO VERIFY JOB SITE CONDITIONS.
18. COORDINATE MOTORS AND OTHER ELECTRICAL EQUIPMENT FURNISHED UNDER DIV. 23 WITH DIV. 26.

GENERAL MECHANICAL/PLUMBING DEMOLITION NOTES (APPLIES TO ALL MECHANICAL DEMOLITION WORK BEING PERFORMED)

1. NOTIFY THE OWNER, IN WRITING, AT LEAST FOURTEEN (14) DAYS IN ADVANCE OF ALL REQUIRED SHUTDOWNS OF WATER, SEWER, FIRE PROTECTION, GAS, ELECTRICAL SERVICE, OR OTHER UTILITIES. UPON WRITTEN RECEIPT OF APPROVAL FROM OWNER, SHUTDOWNS SHALL BE PERFORMED BETWEEN THE HOURS OF SIX (6) P.M. AND SIX (6) A.M. OR AS DIRECTED OTHERWISE BY THE OWNER AT NO ADDITIONAL CONTRACT COST. AT THE END OF EACH WORK DAY SHUT DOWN ALL SERVICE SHALL BE RESTORED SO THAT NORMAL USE OF UTILITIES CAN CONTINUE.
2. WHEN WORKING IN AND AROUND THE EXISTING BUILDING, CARE SHALL BE EXERCISED WITH REGARD TO PROTECTION OF EXISTING STRUCTURE AND MECHANICAL AND ELECTRICAL SERVICES WHICH SHALL REMAIN.
3. REPAIR, REPLACE, OR RESTORE TO THE SATISFACTION OF THE ARCHITECT ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.
4. THE EXISTING CONDITIONS (DUCTWORK, PIPING, EQUIPMENT, AND MATERIALS) SHOWN ON THE CONTRACT DOCUMENTS, ARE BASED ON INFORMATION OBTAINED FROM THE AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND SHALL BE CONSIDERED DIAGRAMMATIC. THE CONTRACTOR SHALL FIELD VERIFY EXACT SIZES AND LOCATIONS OF ALL DUCTWORK, PIPING, EQUIPMENT, AND MATERIALS PRIOR TO COMMENCING WITH NEW AND DEMOLITION WORK.
5. EXISTING MECHANICAL AND ELECTRICAL WORK INDICATED TO BE REMOVED: (PIPES, VALVES, DUCTS, ETC.) SHALL BE REMOVED TO A POINT BELOW THE FINISHED FLOORS OR BEHIND FINISHED WALLS AND CAPPED. TERMINATION POINTS SHALL BE FAR ENOUGH BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF THE NORMAL THICKNESS OF FINISHED MATERIAL.
6. EXISTING PIPING NO LONGER REQUIRED TO REMAIN IN SERVICE SHALL BE DISCONNECTED AND REMOVED BACK TO EXISTING ASSOCIATED SERVICE MAIN UNLESS OTHERWISE INDICATED OR NOTED ON THE CONTRACT DRAWINGS. REMOVE EXISTING PIPE HANGERS, SUPPORTS, VALVES, ETC. EXISTING PIPING INDICATED OR REQUIRED TO REMAIN IN SERVICE OR IN PLACE SHALL BE CAPPED, PLUGGED OR OTHERWISE SEALED. NO EXISTING PIPING SHALL BE LEFT OPEN ENDED.
7. EXISTING DUCTWORK INDICATED TO BE DISCONNECTED AND REMOVED SHALL INCLUDE RELOCATED AIR DEVICES, HANGERS, SUPPORTS, ETC. DUCTWORK SHALL BE CAPPED WITH SIMILAR GAGE SHEET METAL. SECURE CAP(S) WITH SHEET METAL SCREWS AND SEAL WITH DUCT SEALER. NO EXISTING DUCTWORK SHALL BE LEFT UNCAPPED.
8. PATCH TO MATCH EXISTING ALL NEW AND EXISTING OPENINGS IN WALLS, CEILINGS AND FLOOR SURFACES DAMAGED OR CREATED BY DEMOLITION WORK. PATCHING SHALL MATCH EXISTING ADJACENT SURFACES AS TO THICKNESS, TEXTURES, MATERIALS AND COLOR. ALL PATCHING SHALL BE PERFORMED TO THE SATISFACTION OF THE ARCHITECT AND AT NO ADDITIONAL CONTRACT COST.
9. ALL DEMOLISHED EQUIPMENT SHALL BE OFFERED TO TRI-COUNTY COUNCIL PRIOR TO DISPOSAL. EQUIPMENT RETAINED BY THE OWNER SHALL BE STORED WHERE DIRECTED BY THE OWNER. ANY EQUIPMENT THE OWNER DOES NOT WISH TO RETAIN SHALL BE DISPOSED OF, OFF SITE, BY THE CONTRACTOR.

MECHANICAL LEGEND

SYMBOL	ABBREV	DESCRIPTION
	SP,SAN	SANITARY PIPE
D	D	DRAIN
CO CO	CO	CLEANOUT
	VP	VENT PIPE
	CW	COLD WATER
	HW	HOT WATER
	HWC	HOT WATER CIRCULATING
A	A	COMPRESSED AIR
G	G	GAS
F	F	FIRE LINE
EX HS	EX HS	EXISTING HEATING WATER SUPPLY
EX HR	EX HR	EXISTING HEATING WATER RETURN
H	H	HEATING WATER SUPPLY
HR	HR	HEATING WATER RETURN
		REMOVE EXISTING
		SHUTOFF VALVE
		CHECK VALVE
BWV	BWV	BACK WATER VALVE
		FLOW METER FITTING
		BALANCING VALVE
TP	TP	TRAP PRIMER
		RELIEF VALVE
MAV	MAV	MANUAL AIR VALVE
AAV	AAV	AUTOMATIC AIR VALVE
		STRAINER W/VALVE
		UNION
SA	SA	SHOCK ABSORBER
		FLOW SWITCH
		THERMOMETER
		PIPE TURNING UP
		PIPE TURNING DOWN
		TEE TURNING UP
		TEE TURNING DOWN
WH	WH	WALL HYDRANT
		DEMOLITION TO THIS POINT
		CONNECT TO EXISTING
R		GAS PRESSURE REGULATOR
T		THERMOSTAT
FDP	FDP	FLOOR DRAIN WITH TRAP PRIMER
FS	FS	FLOOR SINK
		SUPPLY DUCT TURNED UP
		SUPPLY DUCT TURNED DOWN
		RETURN, EXHAUST, OR OUTSIDE AIR DUCT TURNED UP
		RETURN, EXHAUST, OR OUTSIDE AIR DUCT TURNED DOWN
		FLEXIBLE DUCT CONNECTION
DD	DD	DUCT SMOKE DETECTOR
MVD	MVD	MANUAL VOLUME DAMPER
MOD	MOD	MOTOR OPERATED DAMPER
R		INCLINED DUCT RISE
D		INCLINED DUCT DOWN
		MATCH LINE
1 / 1		SECTION DESIGNATION
1 / 1		DETAIL DESIGNATION

MECHANICAL DRAWING LIST:

M001	LEGEND, SCHEDULES AND NOTES
M002	DETAILS
M101	FLOOR PLAN - MECHANICAL - DEMOLITION
M201	FLOOR PLAN - MECHANICAL - NEW WORK
M202	ROOF PLAN - MECHANICAL - NEW WORK
P100	FOUNDATION PLAN - PLUMBING - DEMOLITION
P101	FLOOR PLAN - PLUMBING - DEMOLITION
P200	FOUNDATION PLAN - PLUMBING - NEW WORK
P201	FIRST FLOOR PLAN - PLUMBING - NEW WORK
P300	SANITARY RISER DIAGRAM - DEMOLITION AND NEW WORK

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PROJECT TITLE

TCC/SHORE TRANSIT EXISTING BUILDING

31901 TRI-COUNTY WAY
SALISBURY, MD 21804

ISSUED
FOR BIDDING ONLY
DATE: 03/29/11

SHEET TITLE

SHEET TITLE

LEGEND, SCHEDULES AND NOTES

KEY PLAN

ISSUE BLOCK		
	03/29/11	ISSUED FOR BIDDING
	2/1/2011	ISSUED FOR BIDDING
MARK	DATE	DESCRIPTION

PROJECT NO:	2009145.00
DATE:	03/29/11
SCALE:	
DRAWN BY: MRW	PROJ MGR: TRC

M001

2010.0087