

OUTSIDE AIR REQUIREMENTS												
ROOM PURPOSE	ROOM CLASSIFICATION	UNIT SERVED	GROSS FLOOR AREA (SQ. FT.)	ASHRAE 62.1-2007 AREA OA RATE/ (CFM/SF) (CFM)	DEFAULT OCCUPANCY (#/1000 S.F.)	ASHRAE 62.1-2007 PEOPLE OA RATE/ REQUIREMENTS (CFM/PER.) (CFM)	ZONE AIR DISTRIBUTION EFFECTIVENESS	TOTAL OA REQ'D (CFM)	SYSTEM NUMBER	ACTUAL OUTSIDE AIR (CFM)	REMARKS	
1. SALES AREA	SALES	AHU-1	1,519	0.12	182	15	23	7.5	171	0.8	441	
2. FITTING AREA	DRESSING ROOMS	AHU-2	472	0.12	57	15	9	7.5	68	0.8	155	
3. STOCK AREA	STORAGE ROOM	AHU-2	562	0.12	67	-	-	-	-	0.8	84	
4. JANITORS	STORAGE ROOM	AHU-2	6	0.12	1	-	-	-	-	0.8	1	
5. TOILET #1	TOILET ROOMS	AHU-2	57	-	-	-	-	-	-	0.8	-	
6. TOILET #2	TOILET ROOMS	AHU-2	54	-	-	-	-	-	-	0.8	-	
7. CORRIDOR #1	CORRIDOR	AHU-2	48	0.06	3	-	-	-	-	0.8	4	
8. CORRIDOR #2	CORRIDOR	AHU-2	41	0.06	2	-	-	-	-	0.8	3	
9. MEZZANINE STORAGE #1	STORAGE ROOM	AHU-2	173	0.12	21	-	-	-	-	0.8	26	
10. MEZZANINE STORAGE #2	STORAGE ROOM	AHU-2	693	0.12	83	-	-	-	-	0.8	104	
11. CASHWRAP	SALES	AHU-1	118	0.12	14	15	2	7.5	13	0.8	34	
<b>TOTAL</b>			<b>3,743</b>				<b>TOTAL</b>			<b>818</b>	<b>TOTAL</b>	<b>895</b>

ELECTRIC DUCT HEATER SCHEDULE														
MARK	MANUFACTURER	MODEL	COIL FACE DIMENSIONS			VELOCITY (FPM)	ENTERING/ LEAVING AIR TEMP.(DEG F.)	CAPACITY (BTU/HR)	STATIC PRESSURE DROP (INCHES IN WATER)	ELECTRICAL				REMARKS
			WIDTH (IN)	HEIGHT (IN)						KW	STAGES	VOLTAGE	PHASE	
DH-1	INDEECO	QUA	34	14		1,090	58,0/85.1	119,420	0.07	35	3	208	3	1, 2, 3, 5, 6, 7
DH-2	INDEECO	QUA	22	14		911	53,8/90.6	76,770	0.05	22.5	2	208	3	1, 2, 4, 5, 6

REMARKS:

- PROVIDE INTERNAL DISCONNECT SWITCH, LINE VOLTAGE WALL THERMOSTAT, AND ALL NECESSARY TRANSFORMERS, ETC.
- ELECTRIC DUCT HEATER SHALL BE U.L. RATED AND INSTALLED ACCORDINGLY TO MAINTAIN U.L. RATING. PROVIDE STANDARD THERMAL CUT-OUT AND AIRFLOW SWITCH; PROVIDE MERCURY CONTACTORS.
- INTERLOCK WITH AHU-1. HEATER SHALL NOT BE ENERGIZED WHEN AHU-1 IS NOT RUNNING.
- INTERLOCK WITH AHU-2. HEATER SHALL NOT BE ENERGIZED WHEN AHU-2 IS NOT RUNNING.
- PROVIDE FAN RELAY.
- PROVIDE WITH SCR CONTROL WITH DUCT SENSOR.
- PROVIDE BOTTOM MOUNTED TERMINAL BOX

LOUVER SCHEDULE											
ITEM	FUNCTION	MANUFACTURER	MODEL	AIRFLOW (CFM)	PRESSURE DROP (IN H2O)	VELOCITY (FPM)	SIZE WIDTH X HEIGHT (IN)	FREE AREA (SQ. FT.)	DEPTH (IN)	BLADE ANGLE	REMARKS
L-1	INTAKE (OA)	RUSKIN	ELF6375DXH	5,550	0.075	706	42" X 48"	7.86	6"	37.5°	1,2,3
L-2	EXHAUST/RELIEF (EF-1&RA)	RUSKIN	ELF6375DXH	5,840	0.065	743	42" X 48"	7.86	6"	37.5°	1,2,3

REMARKS:

- PROVIDE WITH BIRD/INSECT SCREEN
- COORDINATE EXACT LOUVER LOCATION IN FIELD. PAINT TO MATCH WALL COORDINATE WITH ARCHITECT PRIOR TO ORDERING.
- PROVIDE FLANGES AS REQUIRED.

ELECTRIC AIR CURTAIN SCHEDULE										
MARK	MFR	MODEL	AIRFLOW RATE - HIGH (CFM)	MOTOR (#/HP)	DOOR WIDTH (INCHES)	HEATING CAPACITY (BTU/HR)	ELECTRICAL		WEIGHT (LBS.)	REMARKS
							INPUT KW	VOLT/PH/HZ		
HAC-1	MARS	STD272-2E	5100	2 / 0.5	72	40,944	12	208/3/60	180	1

REMARKS:

- AIR CURTAIN SHALL BE MANUFACTURED BY MARS WITH THE FOLLOWING:
- INTEGRAL FACTORY MOUNTED DISCONNECT SWITCH.
- CONTROLLED BY DOOR CONTACTS AND ONLY TO OPERATE WHEN INSIDE TEMPERATURE IS BELOW 68F DEGREES AND AHU-1 IS NOT IN COOLING MODE. PROVIDE NECESSARY ACCESSORIES FOR PROPER OPERATION.
- AIR VENT SPEED SWITCH.
- PROVIDE HEATER IN PEARL WHITE COLOR, COORDINATE WITH MANUFACTURER AND ARCHITECTURAL DRAWINGS.

FAN SCHEDULE									
MARK	MFR	MODEL	CFM	S.P. (IN W.G.)	ELECTRICAL		OPER WT (LBS)	REMARKS	
					H.P.	VOLT/PH/HZ			
EF-1	LOREN COOK	70 SQN-B	290	0.625	1/4	120/1/60	80	1,2	

REMARKS:

- PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH AND BACKDRAFT DAMPER.
- EXHAUST FAN TO BE CONTROLLED THRU SCENE 2 CONTROLLER. REFER TO ELECTRICAL DRAWINGS.

ELECTRIC UNIT HEATER SCHEDULE							
MARK	MFR	MODEL	HEATING CAPACITY (BTU/HR)	ELECTRICAL			REMARKS
				INPUT KW	AMPS	VOLT/PH/HZ	
UH-1	QMARK	MUH05-81	17,000	5.0	24.0	208/3/60	1
WUH-1	QMARK	HT1502SS	5,120	1.5	12.5	120/1/60	2,3
WUH-2	QMARK	HT1502SS	5,120	1.5	12.5	120/1/60	2,3
WUH-3	QMARK	HT1502SS	5,120	1.5	12.5	120/1/60	2,3

REMARKS:

- PROVIDE WALL MOUNTED THERMOSTAT AND INTEGRAL DISCONNECT SWITCH.
- PROVIDE SELF-CONTAINED THERMOSTAT AND INTEGRAL DISCONNECT SWITCH.
- WUH: "WALL UNIT HEATER", HEATER SHALL BE RECESSED IN WALL.

MOTORIZED DAMPER AND OPERATOR SCHEDULE																		
ITEM	SYSTEM	SERVICE	MANUFACTURER	MODEL	REF. DRAWING	QTY	FAIL POSITION	DAMPER INFORMATION			DAMPER SIZE		OPERATOR INFORMATION				REMARKS	
								CONFIGURATION	DAMPER TYPE	SEALS	WIDTH	HEIGHT	QTY	MANUFACTURER	MODEL	TYPE		CONTROL SIGNAL
MD-1	AHU-1	OUTSIDE AIR	RUSKIN	CD355	M1-0	1	CLOSED	OPPOSED BLADE	CLASS II VOLUME	SANOPRENE	42	14	1	T.A.C.	MS41-7153	ELECTRIC	24 VAC	1,2,3
MD-2	AHU-1	RETURN AIR	RUSKIN	CD355	M1-0	1	OPEN	OPPOSED BLADE	CLASS II VOLUME	SANOPRENE	20	32	1	T.A.C.	MS41-7153	ELECTRIC	24 VAC	1,2,3
MD-3	AHU-2	OUTSIDE AIR	RUSKIN	CD355	M1-0	1	CLOSED	OPPOSED BLADE	CLASS II VOLUME	SANOPRENE	42	14	1	T.A.C.	MS41-7153	ELECTRIC	24 VAC	1,2,3
MD-4	AHU-2	RETURN AIR	RUSKIN	CD355	M1-0	1	OPEN	OPPOSED BLADE	CLASS II VOLUME	SANOPRENE	20	32	1	T.A.C.	MS41-7153	ELECTRIC	24 VAC	1,2,3

REMARKS:

- MANUAL OVERRIDE.
- VERIFY AND COORDINATE DUCT/DAMPER SIZE WITH CONTROLS CONTRACTOR.
- FAILS "CLOSED" TO OUTSIDE AIR, "OPEN" TO RETURN AIR.

### AHU/ACCU Selection Schedule (Manufacturer: TRANE)

Result Tags	AHU-1/ACCU-1	AHU-2/ACCU-2
Quantity	1	1
Model Number	TWE120 / TTA120	TAM4A0C60 / ATTA3060
Max. A.H. operating weight	lb	429
Min. A.H. operating weight	lb	393
External Static Pressure	in H2O	0.8
Relative humidity	%	50.84
Ambient	F	96
Cooling EWB	F	63.37
Cooling EDB	F	75.68
Airflow	cfm	3600
Minimum outside air Airflow	cfm	505
Max. Cond. operating weight	lb	424
Min. Cond. operating weight	lb	352
External plus component static pressure	in H2O	0.8
Outdoor motor power	kW	5.1
Indoor motor power	kW	1.16
Indoor motor RPM	rpm	750
Indoor mtr operating power	bhp	1.27
Cooling LWB	F	52.71
Cooling LDB	F	53.44
Net sensible capacity	MBh	87.22
Net total capacity	MBh	110.48
Latent capacity	MBh	23.26
Gross sensible capacity	MBh	91.21
Gross total capacity	MBh	114.48
Vertical rise	ft	20
Cond. location to A.H.		Below air handler
Line length - actual	ft	150
Elevation	ft	100
Indoor Blower Motor Size		Standard Motor
Metering device		Expansion valve
Evaporator face velocity	f/min	322
Evaporator rows	Each	4
Evaporator fin spacing	Each	168
Evaporator face area	sq ft	11.18
Saturated suction temp	F	46.29
Total power	kW	10.99
Compressor power	kW	8.13
Motor Type		Standard Motor
Condenser motor 1 FLA	A	5
MOP - cooling only unit	A	45
MCA - cooling only unit	A	41
MOP - A.H. for 230V w/elect heat	A	15
MCA - A.H.	A	7.8
MOP - A.H.	A	15
IPLV (system)	IPLV	11.5
IPLV (cond. unit only)	IPLV	0
EER @ AHRI (cond. unit only)	EER	12.2
EER @ AHRI (with air handler)	EER	11.2
Air handler electrical characteristics		208-230/3/60
Cooling electrical characteristics		208-230/3/60
Evaporator motor FLA	A	6.2
Condenser motor 2 FLA	A	0
Compressor 1 RLA	A	16
Compressor 2 RLA	A	16
Condensing unit type		Cooling only unit
Discharge temperature	F	116.51
Air handler minor design sequence		Minor design sequence A
Controls		Electromechanical controls (Std motor)
Heat pump minor design sequence		Minor design sequence A
Heat pump factory-installed options		Halfguard w/Rel. with LCI/Black Epoxy
Cooling minor design sequence		Minor design sequence A
Cooling factory-installed options		ReliaTel Controls
Cooling nominal capacity		10 Tons R-410A
Cooling unit product type		8-25 Ton Cooling Unit
Fan motor heat	MBh	3.23
Air handler refrigerant circuit		Dual Circuit - R410A
Air handler nominal capacity		10 Tons R-410A
5-25 ton air handler		5-25 Ton Convertible Air Handler
Cooling compressor		Dual Compressors-R410A Microchannel
Field applied voltage		208-230/3/60

FACTORY INSTALLED OPTIONS:

- INTEGRAL AIRSIDE ECONOMIZER CAPABILITY AND CONTROLLED BY TCS BASYS
- RELIA TEL MICROPROCESSOR CONTROL OPTION
- LOW AMBIENT, ANTI SHORT CYCLE
- TIME DELAY RELAY
- 5-YEAR COMPRESSOR PARTS WARRANTY
- HAIL GUARD FOR CONDENSING UNIT
- EPOXY COATING

NOTE

- LINE LENGTHS ESTIMATED, ACTUAL INSTALLED FIELD CONDITIONS SHALL BE VERIFIED INCLUDING SIZES AND ROUTING AND DETERMINE TOTAL RECHARGE OF REFRIGERANT. INSTALLING CONTRACTOR TO SUBMIT REFRIGERANT PIPING SHOP DRAWINGS IN ACCORDANCE WITH TRANE INSTALLATION MANUAL RECOMMENDATIONS BY THE SECOND WEEK OF CONSTRUCTION.

FIELD SUPPLIED, FIELD INSTALLED ACCESSORIES:

- 3 SETS OF 2" DEEP MERV 8 RATING

NEW STORE

GAP INC.  
CORPORATE ARCHITECTURE  
1 HARRISON STREET  
SAN FRANCISCO, CA 94105

STORE NO.: 7641

STORE NAME:  
PORTLAND

STORE LOCATION:  
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PROJ. I.D.: 0000053405

PROTOTYPE DATE: 09/4/15  
PROTOTYPE VERSION 4.1

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