



Sea-Tac International Airport

Facilities and Infrastructure System
Mechanical System Standards

APPENDIX D

Mechanical Equipment Schedules

Revised January 1, 2023

AIR HANDLING UNITS

EQUIP ID	LOCATION	SERVES	SUPPLY FAN												RETURN FAN												OUTDOOR VENTILATION	COILS		FILTERS		OPER BASIS OF DESIGN		REMARKS				
			TYPE	BLADE TYPE	FLOW: CFM	TSP: IN. WG	ESP: IN. WG [1]	FAN TYPE	SPEED: RPM	WHEEL DIA: IN	MAX BHP	MOTOR HP	VOLTS/ PHASE	VIBRATION ISOLATION	FAN MODULATION	TYPE	BLADE TYPE	FLOW: CFM	TSP: IN. WG	ESP: IN. WG [1]	FAN TYPE	SPEED: RPM	WHEEL DIA: IN	MAX BHP	MOTOR HP	VOLTS/ PHASE	VIBRATION ISOLATION	FAN MODULATION	MIN FLOW: CFM	COOLING [2]	HEATING [2]	PRE[3] FILTER	FINAL[3] FILTER		MAX LBS	MANU-FACTUER	MODEL	
** OPERATING CONDITIONS	10	11							10		10		10	10						10		10		10		10	10							10	10			
** OPERATING CONDITIONS	10	11							10		10		10	10						10		10		10		10	10							10	10			
** OPERATING CONDITIONS	10	11							10		10		10	10						10		10		10		10	10							10	10			
** OPERATING CONDITIONS	10	11							10		10		10	10						10		10		10		10	10							10	10			
** OPERATING CONDITIONS	10	11							10		10		10	10						10		10		10		10	10							10	10			
** OPERATING CONDITIONS	10	11							10		10		10	10						10		10		10		10	10							10	10			
** OPERATING CONDITIONS	10	11							10		10		10	10						10		10		10		10	10							10	10			
GENERAL NOTES: *AIR HANDLING EQUIPMENT SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **AIR HANDLING EQUIPMENT SHALL BE SET TO OPERATING CONDITIONS. ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.																																						
NOTES: 1. STATIC PRESSURE EXTERNAL TO THE UNIT. DOES NOT INCLUDE ALLOWANCE FOR FILTER LOADING. 2. SEE COIL SCHEDULES 3. SEE FILTER SCHEDULE																																						

AIR HANDLING UNIT FILTER

AIR HANDLING UNIT EQUIP ID	PRE-FILTER								FINAL FILTER								GAS PHASE FILTER								REMARKS
	TYPE	MANU- FACTURER	CLEAN PD: IN. WG	FINAL PD: IN. WG	EFF: %	MERV	MAX FACE VEL: FPM	QTY/SIZE	TYPE	MANU- FACTURER	CLEAN PD: IN. WG	FINAL PD: IN. WG	EFF: %	MERV	MAX FACE VEL: FPM	QTY/SIZE	TYPE	MANU- FACTURER	CLEAN PD: IN. WG	EFF: %	MERV	MAX FACE VEL: FPM	FILTER: QTY/SIZE		
* **OPERATING CONDITIONS	11	11			11	11		11	11	11			11	11		11	11	11		11	11		11		
* **OPERATING CONDITIONS	11	11			11	11		11	11	11			11	11		11	11	11		11	11		11		
* **OPERATING CONDITIONS	11	11			11	11		11	11	11			11	11		11	11	11		11	11		11		
* **OPERATING CONDITIONS	11	11			11	11		11	11	11			11	11		11	11	11		11	11		11		
* **OPERATING CONDITIONS	11	11			11	11		11	11	11			11	11		11	11	11		11	11		11		
GENERAL NOTES: *FILTERS SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **FILTERS SHALL BE SET TO OPERATING CONDITIONS. FILTERS SHALL BE CLASSIFIED BY U.L. MINIMUM EFFICIENCY REPORTING VALUE (MERV) IN ACCORDANCE WITH ASHRAE STANDARD 52.2 FILTERS WITH MERV 1 TO MERV 4 SHALL ALSO BE TESTED IN ACCORDANCE WITH ASHRAE STANDARD 52.1																									
NOTES:																									

AIR HANDLING UNIT - COOLING COIL

AIR HANDLING UNIT EQUIP ID	COOLING		AIR								WATER						REMARKS
	TOTAL COOLING MBH	SENSIBLE COOLING MBH	FLOW: CFM	MIN OA: CFM	EAT: DB F	EAT WB: F	LAT DB: F	LAT WB: F	MAX PD: IN. WG	MAX FACE VEL: FPM	FLOW: GPM	EWT: F	LWT: F	MAX PD: FT	ROWS	MAX FINS /INCH	
*																	
**OPERATING CONDITIONS					
*																	
**OPERATING CONDITIONS					
*																	
**OPERATING CONDITIONS					
*																	
**OPERATING CONDITIONS					
*																	
**OPERATING CONDITIONS					
GENERAL NOTES:																	
*COILS SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED.																	
**COILS SHALL BE SET TO OPERATING CONDITIONS.																	
NOTES:																	

AIR HANDLING UNIT - HEATING COIL

AIR HANDLING UNIT EQUIP ID	HEATING	AIR						WATER						REMARKS
	TOTAL HEATING MBH	FLOW: CFM	MIN OA: CFM	EAT: DB F	LAT: DB F	MAX PD IN. WG	MAX FACE VEL: FPM	FLOW: GPM	EW: F	LWT: F	MAX PD: FT	ROWS	MAX FINS PER INCH	
*														
**OPERATING CONDITIONS				11			11		11		11	11	11	
*														
**OPERATING CONDITIONS				11			11		11		11	11	11	
*														
**OPERATING CONDITIONS				11			11		11		11	11	11	
*														
**OPERATING CONDITIONS				11			11		11		11	11	11	
*														
**OPERATING CONDITIONS				11			11		11		11	11	11	
GENERAL NOTES: *COILS SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **COILS SHALL BE SET TO OPERATING CONDITIONS.														
NOTES:														

FANS

EQUIP ID	LOCATION	SERVES	FAN													OPER WEIGHT	BASIS OF DESIGN		REMARKS
			FAN TYPE	DRIVE TYPE	BLADE TYPE	FLOW: CFM	INLET AIR TEMP °F	TSP: IN. WG	SPEED: RPM	MAX BHP	MOTOR HP	ENCLOSURE TYPE	VOLT/ PHASE	VIBRATION ISOLATION	FAN MODULATION		MAX LBS	MANU-FACTURER	
*																			
**OPERATING CONDITIONS	"	"	"	"								"	"	"	"	"	"	"	
*																			
**OPERATING CONDITIONS	"	"	"	"								"	"	"	"	"	"	"	
GENERAL NOTES:																			
*FAN EQUIPMENT (MAIN EXHAUST, RETURN AND PRESSURIZATION FANS) SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED.																			
**FAN EQUIPMENT SHALL BE SET TO OPERATING CONDITIONS.																			
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.																			
NOTES:																			

FIRE/SMOKE DAMPERS

EQUIP ID	BASIS OF DESIGN		ELECTRICAL		REMARKS
	MANUFACTURER	MODEL	TORQUE LB-IN	VOLTAGE	
GENERAL NOTES: . .					
NOTES: .					

VAV FAN TERMINAL UNIT

[illegible]

GENERAL NOTES:
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.

NOTES:

1. STATIC PRESSURE EXTERNAL TO TERMINAL UNIT DOES NOT INCLUDE ALLOWANCE FOR FILTER LOADING.
2. NC VALUES CALCULATED USING MODELING ASSUMPTIONS BASED ON ARI 885-90, 1" INLET SP, 0.25" DOWNSTREAM SP, AND INLET SP, 0.25" DOWNSTREAM SP, AND 1" FIBERGLASS INSULATION.
3. FILTERS SHALL BE 1-INCH, PLEATED DISPOSABLE TYPE, 20-20 % EFFICIENCY (ASHRAE 52.1), UL LISTED.

SINGLE DUCT VAV AND CV TERMINAL UNIT

[illegible]

GENERAL NOTES:
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.

NOTES:

DWG. TITLE:

MECHANICAL EQUIPMENT SCHEDULES

DATE: Jan, 2014

DIAG. NO.

LAST REVISION: 1

SCH-102

FAN COIL UNIT

[illegible]

AIR CONDITIONING UNIT

[illegible]

SOUND ATTENUATOR

[illegible]

HOT WATER UNIT HEATER

[illegible]

DIFFUSERS AND GRILLES

[illegible]

DWG. TITLE:

MECHANICAL EQUIPMENT SCHEDULES

DATE: Jan, 2014

DATE: Jan, 2014	:	DIAG. NO.
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LAST REVISION: 1

LAST REVISION: 1	:	SCH-103
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DIAG. NO.

SCH-103

CENTRIFUGAL WATER CHILLERS

[illegible]

GENERAL NOTES:
EVAPORATOR AND CONDENSER VESSELS SHALL BE ASME LABELED.
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.

NOTES:

COOLING TOWERS

[illegible]

GENERAL NOTES:
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.

NOTES:

1. HEADER (HDR) PRESSURE DROP INCLUDES MAIN AND DISTRIBUTION PIPING AND SPRAY NOZZLES.

PUMPS

[illegible]

GENERAL NOTES:

*PUMPING EQUIPMENT (MAIN CHILLED WATER AND HEATING WATER SYSTEM PUMPS) SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED.

**PUMPING EQUIPMENT SHALL BE SET TO OPERATING CONDITIONS.

ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.

NOTES:

AIR SEPARATORS

[illegible]

GENERAL NOTES:
SEPARATORS SHALL BE ASME LABELED.

NOTES:

PLATE FRAME HEAT EXCHANGER

EQUIP ID	LOCATION	SERVES	CAPACITY		COOL FLUID				WARM FLUID				OPER WEIGHT	BASIS OF DESIGN		REMARKS
			MBH	HTG SURF: SQ FT.	FLOW: GPM	EWT: F	LWT: F	MAX PD: FT	FLOW: GPM	EWT: F	LWT: F	MAX PD: FT	MAX LBS	MANU-FACTURER	MODEL	
*																
**OPERATING CONDITIONS	55	55				55		55		55		55	55	55	55	
*																
**OPERATING CONDITIONS	55	55				55		55		55		55	55	55	55	
*																
**OPERATING CONDITIONS	55	55				55		55		55		55	55	55	55	
*																
**OPERATING CONDITIONS	55	55				55		55		55		55	55	55	55	
*																
**OPERATING CONDITIONS	55	55				55		55		55		55	55	55	55	

GENERAL NOTES:
 *PLATE FRAME HEAT EXCHANGER SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED (EXCEPTION: INSTALL HEATING SURFACE AREA FOR OPERATING CONDITIONS).
 **PLATE FRAME HEAT EXCHANGER SHALL BE SET TO OPERATING CONDITIONS.
 PLATE FRAME HEAT EXCHANGERS SHALL BE ASME LABELED.

NOTES:

EXPANSION TANKS

[illegible]

GENERAL NOTES:
EXPANSION TANKS SHALL BE ASME LABELED.

NOTES:

DWG. TITLE:

MECHANICAL EQUIPMENT SCHEDULES

DATE: Jan, 2014

LAST REVISION: 1

DIAG. NO.

SCH-104

STEAM BOILERS

[illegible]

GENERAL NOTES:
BOILER SHALL BE ASME LABELED WITH STATE APPROVED BOILER INSPECTION.
BOILER SHALL COMPLY WITH ANY FACTORY MUTUAL REQUIREMENTS.
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.

NOTES:

CONDENSATE PUMPS & RECEIVER

[illegible]

GENERAL NOTES:
RECEIVER TANK SHALL BE ASME LABELED.
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.
PROVIDE SINGLE POINT ELECTRICAL CONNECTION.

NOTES:

STEAM TRAPS

[illegible]

NOTES:

ECONOMIZER

[illegible]

GENERAL NOTES:

NOTES:

HEAT EXCHANGER: STEAM TO WATER

EQUIP ID	LOCATION	SERVES	CAPACITY	STEAM		WATER					DIMENSIONS		OPER WEIGHT	BASIS OF DESIGN		REMARKS
			MBH	PRESSURE: PSIG	CAPACITY: LB/HR	EWT: F	LWT: F	FLOW: GPM	SCALE FACTOR	MAX PD: FT	DIA. IN.	LENGTH FT	MAX LBS	MANUFACTURER	MODEL	
*																
**OPERATING CONDITIONS	11	11		11		11	11		11	11	11	11	11	11	11	
*																
**OPERATING CONDITIONS	11	11		11		11	11		11	11	11	11	11	11	11	
*																
**OPERATING CONDITIONS	11	11		11		11	11		11	11	11	11	11	11	11	
*																
**OPERATING CONDITIONS	11	11		11		11	11		11	11	11	11	11	11	11	
*																
**OPERATING CONDITIONS	11	11		11		11	11		11	11	11	11	11	11	11	

GENERAL NOTES:
 *HEAT EXCHANGER SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED.
 **HEAT EXCHANGER SHALL BE SET TO OPERATING CONDITIONS.
 HEAT EXCHANGERS SHALL BE ASME LABELED.

NOTES

STEAM PRESSURE REDUCING STATION

[illegible]

NOTES:

PLUMBING DRAINS									
MARK	LOCATION	TYPE	OUTLET	TRIM			BASIS OF DESIGN		REMARKS
		DESCRIPTION	SIZE: IN	STRAINER	MATL	TRAP PRIMER	MANU-FACTURER	MODEL	
NOTES:									

PLUMBING FIXTURE CONNECTION							
MARK	DESCRIPTION	SERVICE SIZE CONNECTIONS (INCHES)					REMARKS
		COLD WATER	HOT WATER	TEMPERED WATER	WASTE	VENT	
NOTES:							

AIR COMPRESSOR												
EQUIP ID	LOCATION	SERVES	DESCRIPTION					VIBRATION ISOLATION	OPER WEIGHT	BASIS OF DESIGN		REMARKS
			TYPE	NOMINAL CAPACITY: SCFM	MIN DELIVERY PRESS: PSIG	COMPRESSOR MOTOR: HP	VOLT/ PHASE			MANU-FACTURER	MODEL	
GENERAL NOTES: RECEIVER TANK SHALL BE ASME LABELED. BELT GUARD SHALL BE OSHA APPROVED. ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.												
NOTES:												

WATER HEATERS: STEAM TO WATER											
EQUIP ID	LOCATION	SERVES	CAPACITY	STEAM		WATER			OPER WEIGHT	BASIS OF DESIGN	
				PRESSURE: PSIG	CAPACITY: LB/HR	ENT TEMP: F	LVG TEMP: F	FLOW: GPM		MANU-FACTURER	MODEL
GENERAL NOTES: DOMESTIC HOT WATER HEATERS: DOUBLE WALL INSTANTANEOUS WATER HEATER.											
NOTES:											

DESICCANT AIR DRYER											
EQUIP ID	LOCATION	SERVES	CAPACITY						VOLT/ PHASE	BASIS OF DESIGN	
			AIR FLOW: SCFM	COMPRESSED AIR PRESS: PSIG	INLET PRESS DEW POINT: F	OUTLET PRESS DEW POINT: F	MAX PRESS DROP: PSI			MANU-FACTURER	MODEL
GENERAL NOTES: ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION											
NOTES:											