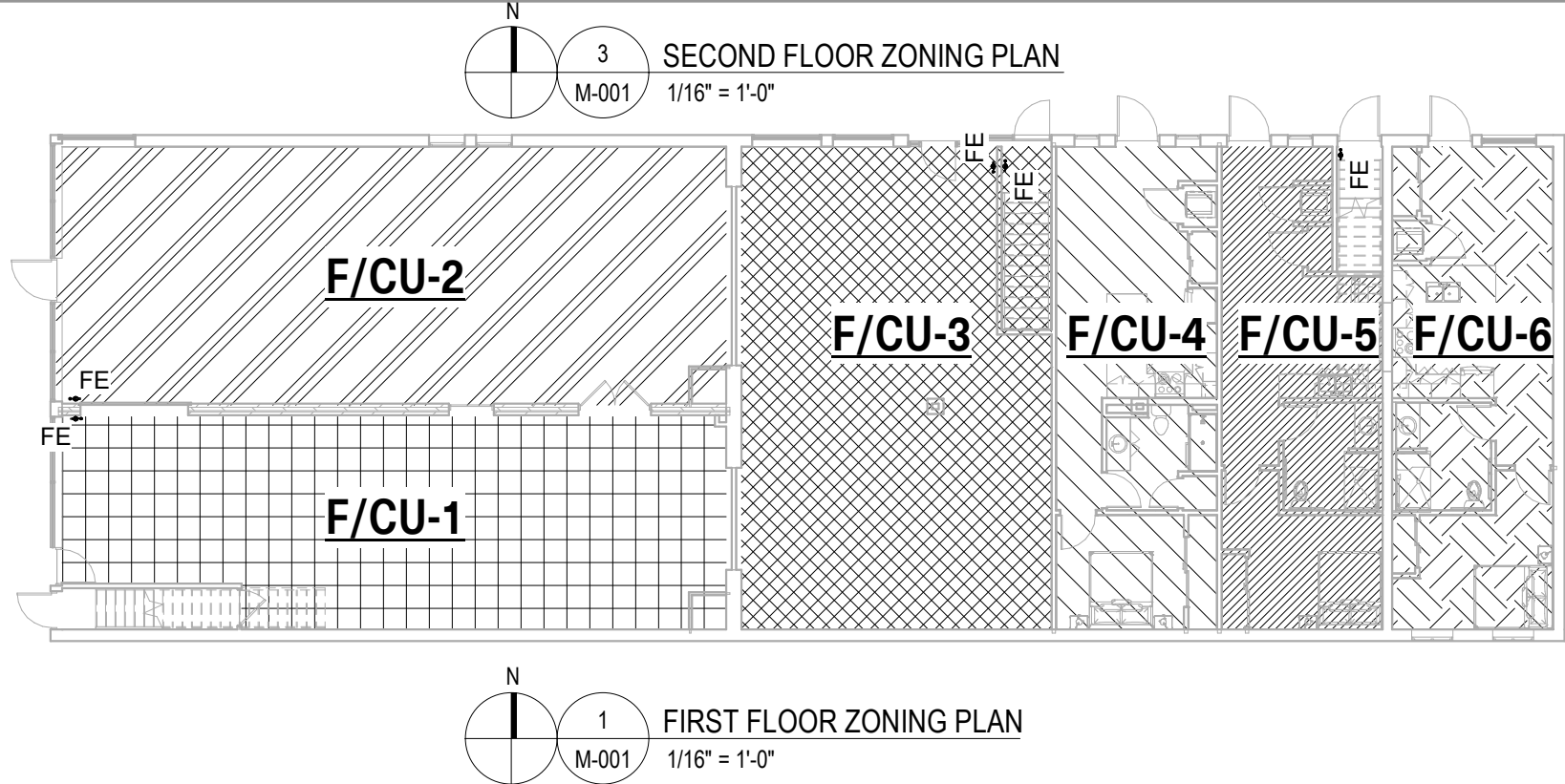
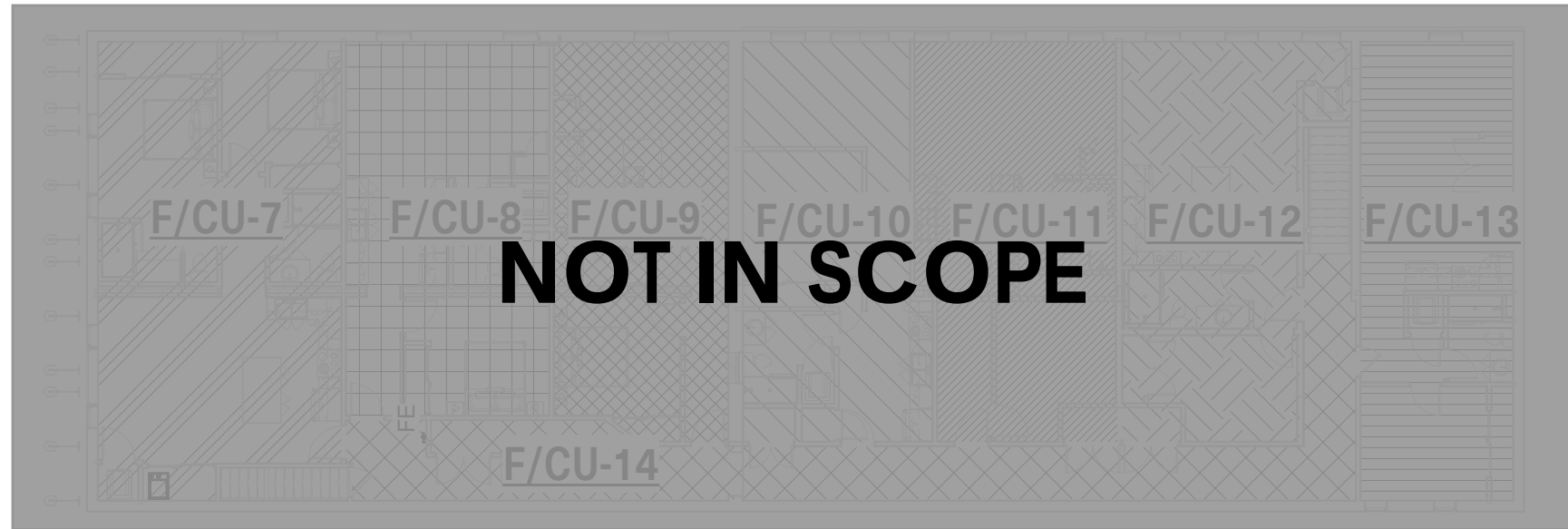




TEMPERATURE CONTROLS SCHEMATIC SYMBOLS				ABBREVIATIONS AND DESCRIPTIONS				SYMBOLS AND NOTATION STANDARDS			
MS	MOTOR STARTER	CONTACTS - NORMALLY CLOSED		A	COMPRESSED AIR	LRA	LOCKED ROTOR AMPS		DASHED LINES INDICATE PIPING ROUTED BELOW SLAB OR GRADE	FINNED TUBE ELEMENT LENGTH FINNED TUBE ELEMENT HEAT IN MBH GALLONS PER MINUTE FOR ELEMENT	
S/S	START/ STOP RELAY	CONTACTS - NORMALLY OPEN		ACC	AIR COOLED CONDENSER	LTU	LAB AIR TERMINAL UNIT		HATCH MARKS INDICATE EQUIPMENT OR MATERIALS TO BE DISCONNECTED AND REMOVED	SUPPLY DIFFUSER TYPE 1 (SCHEDULED) 8" DIAMETER NECK SIZE TWO DIFFUSERS WITH 100 CFM	
CS	CURRENT SWITCH	PUSH BUTTONS - NORMALLY CLOSED		AFB	ABOVE FINISHED FLOOR	LWB	LEAVING WET BULB		LIGHT LINE WEIGHT INDICATES EXISTING EQUIPMENT OR REFERENCED INFORMATION	S-1 80	
AHU	AIR HANDLING UNIT			ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS	MCA	MINIMUM CIRCUIT AMPACITY		HEAVY LINE WEIGHT INDICATES NEW WORK	X - X" X MBH X GPM	
LS	LIMIT SWITCH	PUSH BUTTONS - NORMALLY OPEN		AUX	AUXILIARY	MAT	MIXED AIR TEMPERATURE		MANUAL VOLUME DAMPER	EQUIPMENT TAG	
AV	ACID VENT			AV	ACID VENT	MFR	MANUFACTURER		FIRE DAMPER DYNAMIC, VERTICAL OR HORIZONTAL	CONSTRUCTION NOTES	
AVTR	ACID VENT THROUGH ROOF			MIN	MINIMUM	MV	MANUAL AIR VENT		SMOKE DAMPER, VERTICAL OR HORIZONTAL	THERMOSTAT/ TEMPERATURE SENSOR	
AW	ACID WASTE			MISC	MISCELLANEOUS	NC	NOISE CRITERIA		EXHAUST/RETURN/TRANSFER ARROW	NEW CONNECTION	
BAS	BUILDING AUTOMATION SYSTEM			MMBH	MILLION BRITISH THERMAL UNITS PER HOUR	NFPA	NATIONAL FIRE PROTECTION AGENCY		COMBINATION FIRE & SMOKE DAMPER, HORIZONTAL	SUPPLY ARROW	
BCU	BLOWER COIL UNIT			M/S	MOTOR STARTED	NIC	NOT IN CONTRACT		COMBINATION FIRE & SMOKE DAMPER, VERTICAL	BLANK OFF SECTION	
BOD	BACK DRAFT DAMPER			MV	MANUAL AIR VENT	NO	NORMALLY OPEN		PIPE ENDCAP	VENT THROUGH ROOF	
BFP	BACK FLOW PREVENTER			NPCW	NON POTABLE COLD WATER	NP	NOT POTABLE		PIPE ELBOW DOWN	PIPE ELBOW UP	
BHP	BRAKE HORSE POWER			OA	OUTSIDE AIR	OS&Y	OUTLET VELOCITY		BACKFLOW PREVENTER	ISOLATION VALVE	
BOD	BOTTOM OF DUCT			OAT	OUTSIDE AIR TEMPERATURE	OV	OUTLET VELOCITY		ISOLATION VALVE	BALANCE VALVE	
BOP	BOTTOM OF PIPE			ORD	OVERFLOW ROOF DRAIN	PCR	PROCESS COOLING RETURN		BALANCE VALVE	BALANCE VALVE WITH FLOW MEASURING	
BTU	BRITISH THERMAL UNIT			OSD	OPPOSED BLADE DAMPER	PCS	PROCESS COOLING SUPPLY		CONTROL VALVE	BALL VALVE	
BTUH	BRITISH THERMAL UNIT PER HOUR			PH	PERIMETER HEAT	PD	PRESSURE DROP (FEET OF WATER)		GAS VALVE (MANUAL)	PIPE CONTINUATION	
C	COMMON			PHR	PERIMETER HEAT RETURN	PS	PUMPED STORM		PRESSURE REGULATING VALVE	OUTSIDE STEM AND YOKE VALVE	
CAP	CAPACITY			PHS	PERIMETER HEAT SUPPLY	PSI	POUNDS PER SQUARE INCH		OUTSIDE STEM AND YOKE VALVE WITH TAMPER SWITCH	CHECK VALVE	
CC	COOLING COIL			PRV	PRESSURE REDUCING VALVE	PSIA	POUNDS PER SQUARE INCH - ABSOLUTE		PIPE FLEXIBLE CONNECTION	PIPE UNION	
CD	CONDENSATE DRAIN			PS	PUMPED STORM	PSIG	POUNDS PER SQUARE INCH - GAUGE		CLEAN OUT - PIPE FLANGE	CLEAN OUT - IN FLOOR	
CFH	CUBIC FEET PER HOUR			PW	PROCESS WATER	PWR	PROCESS WATER RETURN		PUMP	PUMP	
CFM	CUBIC FEET PER MINUTE			PWS	PROCESS WATER SUPPLY	RA	RETURN AIR		HOSE BIBB	WALL HYDRANT	
CH	CHILLER			RA	RETURN AIR	RAT	RETURN AIR TEMPERATURE		WATER METER	FLOOR DRAIN/ SINK	
CHW	CHILLED WATER			RC	ROOF CONDUCTOR	RC	ROOF CONDUCTOR		FLOW MEASURING DEVICE	THERMOMETER	
CHWS	CHILLED WATER SUPPLY			RCP	RADIANT CEILING PANEL	RD	ROOF DRAIN		INTERIOR CLEAR DUCTWORK DIMENSIONS: WIDTHxHEIGHT	PRESSURE GAUGE AND COCK	
CHWR	CHILLED WATER RETURN			RF	RETURN FAN	RH	RELATIVE HUMIDITY		INTERIOR CLEAR DUCTWORK DIMENSIONS: ROUND; DIAMETER	AIR VENT - MANUAL	
CND	CONDENSATE			RH	RELATIVE HUMIDITY	RH	RELATIVE HUMIDITY		INTERIOR CLEAR DUCTWORK DIMENSIONS: OVAL; WIDTHxHEIGHT	AIR VENT - AUTOMATIC	
CO	CLEAN OUT			RL	REFRIGERANT LIQUID	RL	REFRIGERANT LIQUID		SUPPLY AIR DUCT UP	PRESSURE RELIEF VALVE	
CO2	CARBON DIOXIDE			RS	REFRIGERANT SUCTON	RS	REFRIGERANT SUCTON		SUPPLY AIR DUCT DOWN	STRAINER WITH HOSE CONNECTION	
CP	CIRCULATING PUMP			RTU	ROOFTOP UNIT	SA	SUPPLY AIR		RETURN AIR DUCT UP	STRAINER	
CRU	CONDENSATE RETURN UNIT			SA	SOUND ATTENUATOR	SA	SOUND ATTENUATOR		RETURN AIR DUCT DOWN	REDUCER - CONCENTRIC	
CT	COOLING TOWER			SAN	SANITARY WASTE	SA	SOUND ATTENUATOR		RETURN AIR DUCT DOWN	REDUCER - ECCENTRIC	
CUH	CABINET UNIT HEATER			SF	SUPPLY FAN	SA	SOUND ATTENUATOR		FUNNEL FLOOR DRAIN - ELEVATION (DETAILS)	FLOOR DRAIN - ELEVATION (DETAIL)	
CW	DOMESTIC COLD WATER			SH	SHOWER	SA	SOUND ATTENUATOR		ACCESS DOOR		
CWS	CONDENSER WATER SUPPLY			SMR	SNOW MELT RETURN	SA	SOUND ATTENUATOR		FLEXIBLE CONNECTOR		
CWR	CONDENSER WATER RETURN			SMS	SNOW MELT SUPPLY	SA	SOUND ATTENUATOR		VARIABLE FREQUENCY CONTROLLER		
DAT	DISCHARGE AIR TEMPERATURE			SP	STATIC PRESSURE	SA	SOUND ATTENUATOR		AUTOFLOW VALVE		
DB	DRY BULB			SPEC	SPECIFICATION	SA	SOUND ATTENUATOR				
DD	DUCT SMOKE DETECTOR			SOFT	SQUARE FEET	SA	SOUND ATTENUATOR				
DEG	DEGREE			S/S	START/STOP	SA	SOUND ATTENUATOR				
DFU	DRAINAGE FIXTURE UNIT			SS	SERVICE SINK	SA	SOUND ATTENUATOR				
DN	DOWN			ST	STORM	SA	SOUND ATTENUATOR				
DNZ	DOWNSPOUT NOZZLE			STM	STEAM	SA	SOUND ATTENUATOR				
DT	DOMESTIC TAP WATER			SW	SWITCH	SA	SOUND ATTENUATOR				
DWH	DOMESTIC WATER HEATER			TC	TEMPERATURE CONTROL	SA	SOUND ATTENUATOR				
DX	DIRECT EXPANSION COOLING			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
F	FIRE PROTECTION			TC	TEMPERATURE CONTROL	SA	SOUND ATTENUATOR				
FE	FAN COIL UNIT			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
FD	FLOOR DRAIN			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
FLA	FULL LOAD AMPS			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
FP	FIRE PUMP			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
FS	FLOOR SINK			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
FT	FEET			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
FTR	FINNED TUBE RADIATION			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
G	NATURAL GAS			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
GA	GAUGE			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
GAL	GALLON			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
GRH	GRAVITY RELIEF HOOD			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
GPH	GALLON PER HOUR			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
GPM	GALLON PER MINUTE			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HB	HOSE BIBB			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HC	HEATING COIL			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HEPA	HIGH EFFICIENCY PARTICULATE ARRESTANCE			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HL	HIGH LIMIT			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HOA	HAND/OFF/AUTO			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HP	HEAT PUMP			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HP	HORSEPOWER			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HPLR	HEAT PUMP LOOP RETURN			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HPLS	HEAT PUMP LOOP SUPPLY			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HTG	HEATING			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HU	HORIZONTAL UNIT VENTILATOR			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HV	HEATING VENTILATION			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HVAC	HEATING, VENTILATION, AIR CONDITIONING			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HWH	HOT WATER HEATING			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HWHR	HOT WATER HEATING RETURN			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HWS	HOT WATER HEATING SUPPLY			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HW	DOMESTIC HOT WATER			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HWR	DOMESTIC HOT WATER RETURN			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HX	HEAT EXCHANGER			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
HZ	HERTZ			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
ID	INSIDE DIAMETER			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
IE	INVERT ELEVATION			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
IH	INTAKE HOOD			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
IN	INCHES			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
IN	INCHES			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
IW	INDIRECT WASTE			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
KW	KILOWATT			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
KWH	KILOWATT HOUR			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
LAT	LEAVING AIR TEMPERATURE			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
LAV	LAVATORY			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
LBS	POUNDS			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
LDB	LEAVING DRY BULB			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
LL	LOW LIMIT			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
LPC	LOW PRESSURE CONDENSATE			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				
LPS	LOW PRESSURE STEAM			TC	TEMPERING COIL	SA	SOUND ATTENUATOR				

SHEET LIST - MECHANICAL	
Sheet Number	Sheet Name
M-001	INDEX, SYMBOLS, & ABBREVIATIONS
M-002	STANDARD MATERIALS SCHEDULES
M-003	SPECIFICATIONS
M-004	SPECIFICATIONS
M-005	SPECIFICATIONS
M-015	MECHANICAL DEMOLITION PLANS
M-100	FIRE PROTECTION
M-201	BASEMENT DOMESTIC NEW WORK PLAN
M-202	DOMESTIC NEW WORK PLANS
M-211	BASEMENT SANITARY AND VENT PLAN
M-212	SANITARY AND VENT PLANS
M-401	BASEMENT MECHANICAL PLAN
M-402	MECHANICAL PLANS
M-403	ROOF MECHANICAL PLAN
M-601	DETAILS
M-602	DETAILS
M-601	DIAGRAMS
M-602	DIAGRAMS
M-700	SCHEDULES

DESIGN CONDITIONS		
	OUTSIDE AIR	RETURN AIR
COOLING DB (°F)	90.3	75
COOLING WB (°F)	73.4	--
HEATING DB (°F)	0	72
CLIMATE ZONE		5A
NOTE: DESIGN CONDITIONS BASED ON ASHRAE 2013 CLIMATIC DESIGN INFORMATION		