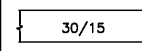
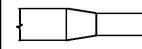
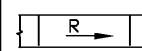
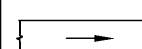

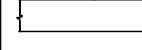
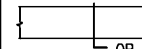
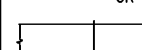


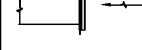


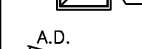
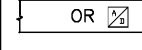
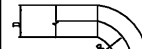

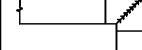
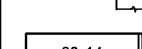
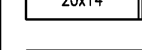
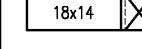
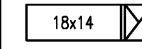
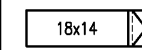











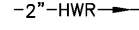

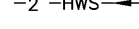
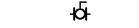

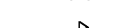

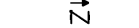

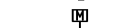


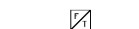

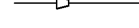



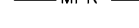
DUCTWORK SYMBOLS

	SHEET METAL DUCT DIMENSIONS, INCHES. FIRST DIMENSION IS TOP SHOWN. DIMENSIONS ARE NET. EXCLUSIVE OF INTERNAL INSULATION
	TRANSITION
	CHANGE IN DUCT ELEVATION RISE (R) DROP (D)
	DIRECTION OF FLOW IN DUCT
	SPIN-IN FITTING AND BALANCING DAMPER WITH LOCKING QUADRANT OPERATOR
	MANUAL VOLUME DAMPER
	MOTORIZED DAMPER
	SIDEWALL SUPPLY GRILLE OR REGISTER
	SIDEWALL RETURN OR EXHAUST GRILLE OR REGISTER
	200 SUPPLY DIFFUSER, TYPE 'A', 200CFM
	300 EXHAUST GRILLE, TYPE 'B', 300CFM
	A.D. OR DUCT ACCESS PANEL
	RADIUS ELBOW R=1.5D
	SQUARE ELBOW WITH TURNING VANES
	20x14 SUPPLY DUCT TURNING UP
	18x14 SUPPLY DUCT TURNING DOWN
	18x14 EXHAUST DUCT TURNING UP
	18x14 EXHAUST DUCT TURNING DOWN
	FLEXIBLE DUCT
	FD FIRE DAMPER AT WALL (PROVIDE ACCESS DOOR)
	FSD COMBINATION FIRE/SMOKE DAMPER (PROVIDE ACCESS DOOR)
	DD DUCT MOUNTED SMOKE DETECTOR (PROVIDE ACCESS DOOR)
	FLOW DIRECTION
	TU-101 TERMINAL BOX 101 WITH HOT WATER REHEAT
	LABORATORY CONTROL AIR VALVE








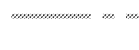
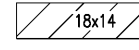
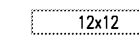

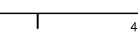
DUCTWORK SYMBOLS CONT.

	① THERMOSTAT, MOUNT AT 48" AFF
	DUCT-MOUNTED, COMBINATION TEMPERATURE/HUMIDITY SENSOR
	DUCT-MOUNTED, TEMPERATURE SENSOR
	USER ADJUSTABLE, ROOM TEMPERATURE SENSOR, MOUNTED 44" AFF, ADJACENT TO LIGHT SWITCH
	ROOM DIFFERENTIAL PRESSURE SENSOR FOR INDICATION OF AIRFLOW DIRECTION BETWEEN ADJACENT SPACES.
	02 OXYGEN DEPLETION SENSOR ALARM
	→ 100 AIRFLOW DIRECTION AND ESTIMATED FLOW FROM CLEAN-TO-DIRTY SIDE OF ROOM.

PIPING SYMBOLS

	-2"-HWR HEATING HOT WATER RETURN WITH FLOW DIRECTION AND PIPE SIZE INDICATED
	-2"-HWS HEATING HOT WATER SUPPLY WITH FLOW DIRECTION AND PIPE SIZE INDICATED
	BALL VALVE
	GATE VALVE
	REGULATING VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	MOTOR OPERATED VALVE
	GLOBE VALVE
	STEAM TRAP
	CONCENTRIC PIPE REDUCER
	ECCENTRIC PIPE REDUCER
	MPS MEDIUM PRESSURE STEAM PIPING
	MPR MEDIUM PRESSURE CONDENSATE PIPING
	LPS LOW PRESSURE STEAM PIPING
	LPR LOW PRESSURE GRAVITY STEAM RETURN
	PCWS PROCESS CHILLED WATER SUPPLY
	PCWR PROCESS CHILLED WATER RETURN
	PCR PUMPED CONDENSATE RETURN

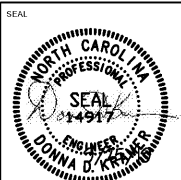
GENERAL SYMBOLS

	CONNECTED TO EXISTING
	POINT OF CONNECTION BETWEEN EXISTING TO BE REMOVED AND EXISTING TO REMAIN
	PLAN OR DETAIL NO.
	DRAWING NUMBER
	SECTION NUMBER
	SHOWN ON DRAWING NUMBER
	KEYED NOTE NUMBER
	1-HOUR RATED FIRE WALL
	2-HOUR RATED SHAFT WALL
	18x14 EXISTING DUCT OR EQUIPMENT TO BE DEMOLISHED
	12x12 FADED LINE TYPE ON PIPING, DUCTWORK AND EQUIPMENT INDICATES EXISTING, TYPICAL.
	X-HWS AN 'X' PRECEDING A PIPE OR EQUIPMENT ID INDICATES EXISTING. E.G. EXISTING HOT WATER SUPPLY.

ABBREVIATIONS

CL	CENTER LINE	EF	EXHAUST FAN	NOM	NOMINAL
L	ANGLE	EFF	EFFICIENCY	NPSH	NET POSITIVE SUCTION HEAD
Ø	ROUND, DIAMETER OR PHASE	EJ	ELECTRONIC HEATER	NRS	NON RISING STEM
#	POUNDS OR NUMBER	ES	EXPANSION JOINT	NTS	NOT TO SCALE
A	COMPRESSED AIR	EL	ELEVATION	OA	OXYGEN
ABB	ABBREVIATION	ELEC	ELECTRICAL EQUIPMENT	OBD	OPPOSED BLADE DAMPER
ABV CLG	ABOVE CEILING	ESP	EXTERNAL STATIC PRESSURE	OC	ON CENTER
ACCU	AIR COOLED CONDENSING UNIT	EWT	ENTERING WATER TEMPERATURE	OD	OUTSIDE DAMPER
ACTFM	AIR CHANGES PER HOUR	EXH	EXHAUST	OFCL	OWNER FURNISH, CONTRACTOR INSTALLED
ACU	AIR CONDITIONING UNIT	EXIST	EXISTING	OFOI	OWNER FURNISHED, OWNER INSTALLED
AC/HR	AIR CHANGES PER HOUR	F	FAHRENHEIT	OPP	OPPOSITE
AD	ACCESS DOOR OR AREA DRAIN	FD	FIRE DAMPER	OSAY	OUTSIDE SCREW AND YOKE PUMP
ADC	AIR DIFFUSION COUNCIL	FCU	FAN COIL UNIT	P	PUMP
AFF	ABOVE FINISHED FLOOR	FFE	FINISHED FLOOR	PBD	PARALLEL BLADE DAMPER
AFG	ABOVE FINISHED GRADE	FL	FLOOR	PR	PUMPED CONDENSATE RETURN
AHU	AIR HANDLING UNIT	FLR	FLOOR	PCHWP	PRIMARY CHILLED WATER PUMP
ALUM	ALUMINIUM	FLX	FLEXIBLE	PD	PRESSURE DROP
ALT	ALTERNATE	FOB	FLAT ON BOTTOM	PPH	POUNDS PER HOUR
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION	FOR	FUEL OIL RETURN	PRV	PRESSURE REDUCING VALVE
ANSI	AMERICAN NATIONAL STANDARD ASSOCIATION	FOS	FUEL OIL SUPPLY	PSI	POUNDS PER SQUARE INCH
AP	ACCESS PANEL	FOT	FLAT ON TOP	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
APPROX	APPROXIMATE	FOV	FUEL OIL VENT	PSIG	POUNDS PER SQUARE INCH GAUGE
ARCH	ARCHITECTURAL	FF	FEET PER MINUTE	P SLV	PIPE SLEEVE
ASHRAE	AMERICAN SOCIETY OF HEATING REFRIGERATING AND AIR CONDITIONING ENGINEERS	FFS	FEET PER SECOND	PT	POINT
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS	FT	FOOT	PVC	POLYVINYL CHLORIDE
AUTO	AUTOMATIC	FTG	FOOTING	QTY	QUANTITY
AV	ACID VENT	FURN	FURNISH	RA	RETURN AIR
AW	ACID WASTE	FWG	FEET WATER GAUGE	RCU	REFRIGERANT CONDENSING UNIT
AWWA	AMERICAN WATER WORKS ASSOCIATION	G	NATURAL GAS	RD	RECORD
BBB	BOILER BLOWDOWN	GAL	GALLONS	RECIRC	RECYCLE
BFP	BACKFLOW PREVENTER	GALV	GALVANIZED	RED	REDUCING
BFW	BOILER FEED WATER	GC	GENERAL CONTRACTOR	REINFC	REINFORCING
BHP	BRAKE HORSEPOWER	GPH	GALLONS PER HOUR	REINFD	REQUIRED REINFORCING
BLR	BOILER	GPM	GALLONS PER MINUTE	REQ'D	REQUIRED
BM	BEAM	GW	GALVANIZED WROUGHT IRON	RET	RETURN
BOD	BOTTOM OF DUCT	HD	HUB DRAIN OR HEAT DETECTOR	REV	REVISION
BOP	BOTTOM OF PIPE	HGR	HANGER	RF	RETURN RAIN
BOT	BOTTOM	HOW	HAND-OFF-AUTOMATIC	RH	RELATIVE HUMIDITY
BTU	BRITISH THERMAL UNIT	HORZ	HORIZONTAL	RL	RAIN LEADER OR REFRIGERANT LIQUID
BTUM	BRITISH THERMAL UNIT PER HOUR CAPACITY	HP	HIGH PRESSURE OR HORSEPOWER	RM	ROOM
CAP	CELSIUS	HPR	HIGH PRESSURE CONDENSATE RETURN	RPM	REVOLUTIONS PER MINUTE
CD	CONDENSATE DRAIN, CEILING DIFFUSER	HPS	HIGH PRESSURE STEAM	RS	RISSING STEAM OR REFRIGERANT SUCTION
CF	CHEMICAL FEED	H'STAT	HUMIDISTAT	SA	SUPPLY AIR
CFH	CUBIC FEET PER HOUR	HT	HEIGHT	SCH	SCHEDULE
CFM	CUBIC FEET PER MINUTE	HTG	HEATING	SCHWP	SECONDARY CHILLED WATER PUMP
CHWP	CHILLED WATER PUMP	HVAC	HEATING, VENTILATING & AIR CONDITIONING	SCFM	STANDARD CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN	HWR	HEATING WATER RETURN	SD	SMOKE DAMPER OR STORM DRAIN
CHWS	CHILLED WATER SUPPLY	HWS	HEATING WATER SUPPLY	SECT	SECTION
CI	CAST IRON	ID	INSIDE DIAMETER	SF	SUPPLY FAN
CLG	CEILING	INV	INVERT	SM	SHEET METAL
CO	CLEAN OUT	IST	JOIST	SMACHNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
COL	COLUMN	IT	ITCHEN	SP	STATIC PRESSURE OR SURGE PROTECTED SPECIFICATION
CONC	CONCRETE	KW	KILOWATT	SQ	SQUARE
CONN	CONNECTION	KWH	KILOWATT HOUR	SRV	SAFETY RELIEF VALVE
CONSTR	CONSTRUCTION	LAB	LABORATORY	SS	SERVICE SINK, STAINLESS STEEL OR SANITARY SEWER
CONTR	CONTRACTOR	LAT	LEAVING AIR TEMPERATURE	STA	STATION
COORD	COORDINATE	LB/HR	POUNDS PER HOUR	STM	STEAM
COORD	COORDINATE OF PERFORMANCE	LP	LOW PRESSURE	SYM	SYMBOL OR SYMMETRICAL
COP	COEFFICIENT OF PERFORMANCE	LPR	LOW PRESSURE CONDENSATE RETURN	SYS	SYSTEM
CT	COPING TOP	LPS	LOW PRESSURE STEAM	T & B	TOP AND BOTTOM
CTE	CONNECT TO EXISTING (AT THIS POINT)	LWT	LEAVING WATER TEMPERATURE	TAB	TEST AND BALANCE
CTR	CENTER	M	MAXIMUM	TD	TRENCH DRAIN
CU	COPPER	MAX	MAXIMUM	TOC	TOP OF CURB
CU FT	CUBIC FOOT	MECH	MECHANICAL	TOD	TOP OF DUCT
CU YD	CUBIC YARD	MEZZ	MEZZANINE	TOP	TOP OF PIPE
CDWP	COLD WATER OR CITY WATER CONDENSER WATER PUMP	MFG	MANUFACTURING	TOS	TOP OF STEEL
CDWR	COLD WATER OR CITY WATER CONDENSER WATER RETURN	MFR	MANUFACTURER	TSTAT	THERMOSTAT
CDWS	COLD WATER OR CITY WATER CONDENSER WATER SUPPLY	MH	MANHOLE	TYP	TYPICAL
CDYD	COLD WATER OR CITY WATER CONDENSER WATER SUPPLY CUBIC YARD	MIN	MINIMUM	UF	UNDER FLOOR
DAP	DUCT ACCESS PANEL	MOD	MOTOR OPERATED DAMPER	UN	UNIT HEATER
DB	DRY BULB	MTD	MOUNTED	UL	UNDERWRITERS LABORATORIES
DG	DOOR GRILLE	MVD	MANUAL VOLUME DAMPER	V	VENT
DI	DUCT HEATER	N	NITROGEN	VAC	VACUUM (SUCTION)
DI	DUCTILE IRON	NC	NORMALLY CLOSED	VERT	VERTICAL
DIA	DIAMETER	NEC	NATIONAL ELECTRIC CODE	VLV	VALVE
DN	DOWN	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	VOL	VOLUME
DD	DUCT MOUNTED SMOKE DETECTOR	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	W/	WITH
DP	DIFFERENTIAL PRESSURE	NO	NOT IN CONTRACT	W/O	WITHOUT
DPR	DAMPER	NIC	NORMALLY OPEN, NITROUS OXIDE, NUMBER	WB	WET BULB
DWG	DRAWING	NO	NORMALLY OPEN, NITROUS OXIDE, NUMBER	WG	WATER GAUGE
DX	DIRECT EXPANSION			WP	WEATHERPROOF
EA	EACH, EXHAUST AIR				
EAT	ENTERING AIR TEMPERATURE				

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M301	MECHANICAL SCHEDULES
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M501	HVAC CONTROLS LEGEND
M502	HVAC CONTROLS - FAN COIL UNIT - COOLING ONLY

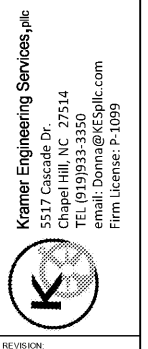


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DWG. NO.	M001

GENERAL RENOVATION NOTES

- THIS CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY ASBESTOS CONTAINING MATERIALS. IF ANY SUSPICIOUS MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY CEASE THE WORK IN THE AREA, SECURE THE INVOLVED AREA TO PREVENT INADVERTENT CONTAMINATION OR EXPOSURE, AND NOTIFY THE DESIGNER AND THE OWNER.
- ALL EXISTING BUILDING SAFETIES SUCH AS EXIT SIGNAGE, EXIT LIGHTS, FIRE ALARM, FIRE SPRINKLER AND OTHERS MUST REMAIN OPERATIONAL CONTINUOUSLY IN ORDER TO RETAIN BUILDING OCCUPANCY STATUS. ALL REQUIRED EXITS MUST BE KEPT AVAILABLE AND FREE OF OBSTRUCTION AT ALL TIMES.
- MECHANICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF VALVES, CONTROLS, MANUAL OR AUTOMATIC DAMPERS, TERMINAL UNITS, ETC. SUCH THAT THE WORK OF OTHER TRADES DOES NOT INTERFERE WITH REQUIRED MAINTENANCE ACCESS OF MECHANICAL EQUIPMENT.

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MECHANICAL LEGEND AND NOTES

UNC SCHOOL OF MEDICINE
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7th & 8th FLOORS FOR DERMATOLOGY

BID SET