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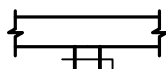
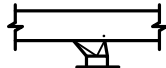
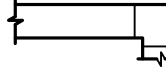
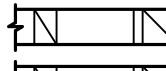
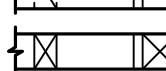
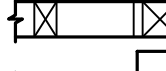
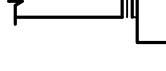
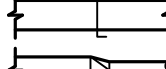
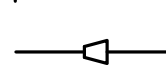


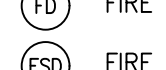
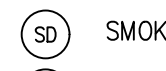
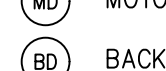


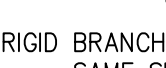


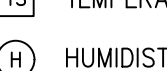


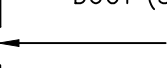

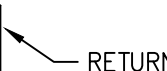






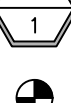



HEAT PUMP SCHEDULE											
GENERAL DATA						ELECTRICAL					
TAG	MFR/MODEL	LOCATION	WEIGHT (LBS)	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	VOLTAGE (V)	PHASE	HZ	MOCP	MCA	SEER
HP-1	LENNOX / ML14XP1-060-230	SEE PLANS	295	60.0	60.0	230	1	60	50.0	29.6	14
HP-2	LENNOX / ML14XP1-036-230	SEE PLANS	229	36.0	36.0	230	1	60	30.0	18.6	14
NOTES: A. PROVIDE LIQUID LINE FILTER DRYER AND SIGHT GLASS. B. PROVIDE PREFABRICATED EQUIPMENT SUPPORT RAILS. C. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH. D. STARTERS FOR ALL MOTORS SHALL BE FURNISHED INTEGRAL WITH UNIT. E. PROVIDE CONDENSER COIL HAIL GAURDS. F. PROVIDE HARD START KIT J. PROVIDE CRANK CASE HEATER.											

GRILLE, REGISTER AND DIFFUSER SCHEDULE							
MARK	MANUF.	MODEL	FACE TYPE	MOUNTING TYPE	FACE SIZE (IN.)	MAX NC	NOTES
SUPPLY							
CSD-1	TITUS	OMNI	PLAQUE FACE	LAY-IN	24x24	25	A,B,C
CSD-2	TITUS	OMNI	PLAQUE FACE	SURFACE	12x12	25	A,B,C
RETURN							
CRG-1	TITUS	SOF	EGGCRATE	LAY-IN	24x24	25	A,B,C
CRG-2	TITUS	SOF	EGGCRATE	LAY-IN	12x24	25	A,B,C
NOTES: A. NECK SIZE SHOWN ON DRAWINGS. B. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS. C. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING/WALL COLOR.							

MECHANICAL SPECIFICATIONS											
1. GENERAL PROVISIONS: A. PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE COMPLETE INSTALLATION OF THE MECHANICAL SYSTEMS OUTLINED. B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATIONS OF COMPLIANCE OR APPROVAL AS REQUIRED BY AUTHORITIES. C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE. D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK. E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, PIPE, DUCT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE. F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED. G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECT FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE. H. INSPECTION OF THE SITE: THIS CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE MEP DRAWINGS, SPECIFICATIONS, DETAIL, AND THE SITE. THIS CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SPECIAL OR UNUSUAL PROBLEMS, CONFLICTS, OR OBSTRUCTIONS THAT AFFECT HIS BID. I. FOR THE PURPOSE OF CLEARNESS AND LEGIBILITY, THE MECHANICAL AND PLUMBING DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS AND FITTINGS REQUIRED FOR INSTALLATION. DO NOT SCALE DRAWINGS. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DATA AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION SECTIONS WHERE MECHANICAL WORK INTERFACES WITH OTHER TRADES. J. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS OR WITH CODE REQUIREMENTS, THE NOTE OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB OR HIGHER STANDARD SHALL PREVAIL. K. INSTALL MATERIALS AND SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. INSTALL MATERIALS IN PROPER RELATION WITH ADJACENT CONSTRUCTION AND WITH UNIFORM APPEARANCE FOR EXPOSED WORK. COORDINATE WITH WORK OF OTHER SECTIONS. COMPLY WITH APPLICABLE REGULATIONS AND CODE REQUIREMENTS. PROVIDE PROPER CLEARANCES FOR SERVING. L. INCLUDE ALL BASIC MATERIALS AND CONSTRUCTION METHODS INCLUDING PIPES, PIPE FITTINGS, AND SPECIALTIES AND SUPPORTING DEVICES, VALVES, PIPE AND VALVE IDENTIFICATION, PUMPS, VIBRATION ISOLATION, ETC. M. FURNISH ADEQUATE ACCESS PANELS AND DOORS TO ALLOW FOR FUTURE PIPING ALTERATIONS, REPLACEMENT, AND MAINTENANCE OF PIPING. PROPERLY IDENTIFY ALL ACCESS PANELS AND DOORS.						6. DUCTWORK: A. ALL DUCTWORK UNLESS OTHERWISE INDICATED SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A 527, LOCKFORMING QUALITY, WITH G60 ZINC COATING IN ACCORDANCE WITH ASTM A 525, AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS. B. DUCTWORK METAL GAUGES, REINFORCING, ETC SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION FOR A 2" WATER GAUGE STATIC PRESSURE. C. ALL FITTINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION. D. RECTANGULAR DUCT: 1. ELBOWS, UNLESS INDICATED OTHERWISE, SHALL BE CONSTRUCTED WITH CENTERLINE RADIUS OF NOT LESS THAN 1.5 DUCT WIDTH OR SQUARE ELBOWS WITH DOUBLE WALL STREAMLINE ELBOWS. TAKE-OFF FITTINGS: BRANCH DUCT TAKE-OFF FITTINGS FOR SUPPLY AND EXHAUST 2. DIFFUSER/REGISTERS SHALL INCLUDE AN INTEGRAL MANUAL VOLUME DAMPER WITH LOCKING QUADRANT, DAMPER NOT REQUIRED ON RETURN AIR, FOR RECTANGULAR TO ROUND TAKE-OFFS, UTILIZE A "BUCKLEY" MODEL 3300 & 3300D OR EQUAL. 3. RETURN AIR ACOUSTIC ELBOWS AND SOUND BOOTS SHALL BE A SQUARE ELBOW WITH NO TURNING VANES. 4. SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE A MINIMUM 1 TO 3. E. ROUND DUCT (SEE INSULATION SECTION FOR SPIRAL DUCT): 1. PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15 DEGREE CHANGE OF DIRECTION PER SECTION, UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45 DEGREE LATERALS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90 DEGREE BRANCHES ARE INDICATED PROVIDE CONICAL TYPE TEES. 2. SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3. 3. ROUND LONGITUDINAL SEAM DUCT: USE FOR RIGID METAL DUCT ON LEAVING SIDE OF DUCT IN CONCEALED LOCATIONS FOR EXTENSION TO FLEXIBLE DUCTWORK. F. SEAL ALL CONCEALED DUCTWORK JOINTS WITH NON-HARDENING, NON-MIGRATING MASTIC SEALANT, AS RECOMMENDED FOR SEALING SEAMS AND JOINTS IN DUCTWORK. OIL BASED CAULKING AND GLAZING COMPOUNDS SHALL NOT BE ACCEPTABLE. DUCTS SHALL BE SEALED TO THE CLASS LEVEL LISTED BELOW: (1) UNCONDITIONED SPACES: CLASS B CLASS C CLASS B (2) CONDITIONED SPACES (PLENUM): CLASS C CLASS B CLASS C SUPPLY 2"WO OR LESS EXHAUST RETURN G. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEET METAL SIZES. INCREASE SHEET METAL SIZES ACCORDINGLY TO ACCOUNT FOR THICKNESS OF DUCT LINER. H. WHETHER SHOWN ON PLANS OR NOT, PROVIDE MANUAL VOLUME DAMPERS IN EACH RUNOUT TO EACH SUPPLY DIFFUSER OR REGISTER. PROVIDE ACCESS PANELS TO DAMPERS LOCATED ABOVE HARD CEILINGS. I. PROVIDE AUXILIARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT DUCTWORK. J. WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRESTOPPING BETWEEN DUCT AND WALL. K. WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS OR EXTERIOR WALLS, AND ARE EXPOSED TO VIEW, CONCEAL SPACE BETWEEN OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAUGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-1/2". FASTEN TO DUCT AND WALL.					
2. MOTORS: A. PROVIDE THERMAL OVERLOAD PROTECTION FOR EACH MOTOR PROVIDED BY THIS WORK.						7. FLEXIBLE DUCT: A. ATCO #086 (R-6), OR EQUAL. B. FACTORY APPLIED INSULATION AND VAPOR BARRIER, 1-1/2" THICK. C. MAXIMUM LENGTH OF 6'-0".					
3. PIPING A. CONDENSATE DRAIN AND INDIRECT WASTE (ABOVEGROUND) 1. PVC DWV PIPE, SCHEDULE 40, SOLVENT JOINT. 2. INSTALL AT 1/8" PER FOOT SLOPE.						8. SMOKE DETECTORS: A. UNITS MOUNTED IN THE DUCTWORK SHALL BE A DUCT MOUNTED UL LISTED PHOTO-ELECTRIC SELF-CONTAINED SMOKE DETECTOR WITH HOUSING. UNITS SHALL BE EQUAL TO SIMPLEX #4098-4687. THE SAMPLING TUBE SHALL BE #2098-9804. LENGTH AS REQUIRED FOR DUCT. B. DUCT DETECTOR REMOTE TEST STATION SHALL BE SIMPLEX #4098-9842 WITH REMOTE ALARM INDICATOR. POWER-ON INDICATOR, TONE-ALERT, TONE-ALERT SILENCE SWITCH, AND TEST/RESET SWITCH. DEVICES SHALL BE MOUNTED IN APPROVED LOCATION BY LOCAL AHJ. WHERE DUCT SMOKE DETECTORS ARE NOT RESETTABLE FROM THE PROTECTED PREMISES FIRE ALARM SYSTEM, A LISTED ALARM/SUPERVISORY INDICATOR WITH AN INTEGRAL RESET SWITCH SHALL BE PROVIDED. C. PROVIDE AND INSTALL A PHOTO-ELECTRIC SMOKE DETECTOR IN THE RETURN AIR DUCT FOR EACH HVAC UNIT AS INDICATED ON THE FLOOR PLANS. DETECTORS ARE TO BE PROVIDED WITH A SUB-BASE CONTAINING AUXILIARY RELAY CONTACTS. RELAY CONTACTS SHALL BE WIRED INTO UNIT CONTROL WIRING SO AS TO SHUT DOWN UNIT IN THE CASE OF SMOKE DETECTION. PROVIDE ALL CONTROL WIRING. ELECTRICAL CONTRACTOR SHALL PROVIDE 120V POWER TO EACH DETECTOR. D. SMOKE DETECTORS SHALL BE INTERLOCKED. IN ALARM CONDITION OF A SINGLE DETECTOR ALL UNITS SHALL SHUT DOWN.					
4. INSULATION AND DUCT LINING: A. ALL INSULATIONS AND ACCESSORIES SHALL HAVE A FIRE HAZARD CLASSIFICATION WITH A FLAME SPREAD RATING OF NOT OVER 25, A FUEL CONTRIBUTION RATING OF NOT OVER 50, AND A SMOKE DEVELOPMENT RATING OF NOT OVER 50, IN ACCORDANCE WITH NFPA. B. DUCTWORK INSULATION: 1. DUCT COVERING: 3/4 LB/CF, FIBERGLASS BLANKET WITH FACTORY APPLIED VAPOR BARRIER AND FACING. THICKNESS AS SCHEDULED, INSTALLATION IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. DUCT COVERING SHALL BE MINIMUM R-6. a. SUPPLY AIR DUCT: 2" b. RETURN AIR DUCT: 2"						9. REMODELING WORK: A. THIS PROJECT INVOLVES CONSTRUCTION INSIDE AN EXISTING STRUCTURE. CONTRACTORS, BY SUBMITTING A BID ARE DEEMED TO BE COMPLETELY FAMILIAR WITH THE EXISTING CONDITIONS OF THE BUILDING AS IT INFLUENCES THE WORK DESCRIBED. NO CLAIMS FOR EXTRA COMPENSATION WILL BE CONSIDERED FOR EXISTING CONDITIONS VISIBLE OR REASONABLY INFERRABLE FROM A CAREFUL EXAMINATION OF THE EXISTING BUILDING CONDITIONS. B. CONTRACTOR SHALL INSPECT THE EXISTING FIELD CONDITIONS AT THE SITE AND THE CONTRACT DOCUMENTS PRIOR TO THE START OF ANY WORK TO DETERMINE WHAT EFFECT THE EXISTING CONDITIONS WILL HAVE ON THE WORK POTENTIAL. CONTRACTOR SHALL REPORT DISCREPANCIES TO THE ARCHITECT AND INCLUDE IN THE BID ALL COSTS REQUIRED TO MAKE THE WORK MEET EXISTING CONDITIONS. C. CONTACT UTILITY LOCATING SERVICE TO LOCATE EXACT LOCATION OF UTILITIES BELOW GRADE. D. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED. E. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE. F. REMOVE ALL PIPING TO BE DEMOLISHED BACK TO PIPE MAIN OR EDGE OF PROJECT AREA AND CAP PIPE. G. PIPING AND DUCTS EMBEDDED IN FLOORS, WALLS, AND CEILINGS MAY REMAIN IF SUCH MATERIALS DO NOT INTERFERE WITH NEW INSTALLATIONS. PIPING AND DUCTS TO REMAIN SHALL BE APPROVED BY THE ARCHITECT. REMOVE MATERIALS ABOVE ACCESSIBLE CEILINGS. DRAIN AND CAP PIPING AND DUCTS ALLOWED TO REMAIN ABOVE CEILING OR BELOW FLOOR, CONCEALED FROM VIEW, EXCEPT AS OTHERWISE NOTED. PATCH FLOOR TO MATCH EXISTING. H. PIPE AND DUCT SHALL BE CONCEALED WITH NEW OR EXISTING CONSTRUCTION WHENEVER POSSIBLE, UNLESS INDICATED OTHERWISE. I. DEMOLITION: DISCONNECT, DEMOLISH, AND REMOVE ABANDONED MECHANICAL AND PLUMBING MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN. ALL WORK SHOWN DASHED IS TO BE DEMOLISHED. WORK SHOWN LIGHT IS EXISTING TO REMAIN. REFER TO ARCHITECTURAL PLANS FOR FURTHER EXTENT OF DEMOLITION REQUIRED.					
5. TESTING, BALANCING AND CLEANING: A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR COVERED WITH INSULATION. B. DUCTWORK AND PIPING SHALL BE BALANCED BY QUALIFIED BALANCING PERSONNEL WHO HAVE PREVIOUS EXPERIENCE WITH BALANCING PROCEDURES AND ARE FAMILIAR WITH TESTING AND BALANCING PROCEDURES OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). 1. BALANCING SHALL INCLUDE THE BALANCING OF THE EQUIPMENT AND AIR DISTRIBUTION SYSTEMS TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION PERFORMANCE OF ALL EQUIPMENT AND AUTOMATIC CONTROLS. 2. WITH IN 30 DAYS OF THE COMPLETION OF THE TESTING AND BALANCING WORK, SUBMIT THE TEST AND BALANCING REPORT BEARING THE SIGNATURE OF THE TEST AND BALANCE ENGINEER. THE REPORTS SHALL BE CERTIFIED PROOF THAT THE SYSTEMS HAVE BEEN TESTED, ADJUSTED, AND BALANCED IN ACCORDANCE WITH THE REFERENCED STANDARDS; ARE AN ACCURATE REPRESENTATION OF HOW THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING. REPORTS SHALL BE BOUND IN A VINYL BINDER AND THE BINDER LABELLED OR MAY BE AN ELECTRONIC PDF SUBMITTAL.											

OOR AIR CALCULATIONS							
UNIT	AREA (SQ-FT)	OCCUPANCY CLASSIFICATION	OCCUPANT DENSITY, PEOPLE/1000 SQ-FT	FIXED SEATING QUANTITY	OUTDOOR AIRFLOW RATE PER PERSON (Rp), CFM/PERSON	AREA OUTDOOR AIRFLOW RATE IN BREATHING ZONE (Ra), CFM/SQ-FT	REQUIRED AIR FLOW, CFM
TOTAL	316	RECEPTION	30	-	5	0.06	83.0
	1170	HEALTH CLUB/WEIGHTS	10	-	20	0.06	380.3
	220	OFFICE LOBBY	10	-	5	0.06	30.3
	100	PATIENT ROOM 1	10	-	25	0.06	38.8
	100	PATIENT ROOM 2	10	-	25	0.06	38.8
	86	LAUNDRY	10	-	25	-	26.9
	45	STORAGE	-	-	-	0.12	6.8
						TOTAL	604.6

AIR HANDLING UNIT SCHEDULE																								
MARK	AREA SERVED	MANUFACTURER	MODEL	FLOW	FAN DATA					AHU ELECTRICAL					ELECTRIC HEAT STRIP							WEIGHT (LBS)	NOTES	
					TYPE	QTY	HP	CFM	ESP (IN. WC)	VOLTAGE	PHASE	HZ	MOCP	MCA	RATED SIZE	VOLTAGE	PHASE	INPUT (kW)	MCA		MOCP			
																			Ckt 1	Ckt 2	Ckt 1			Ckt 2
AHU-1	OFFICE	LENNOX	CBA25UH-060-230-10	HORIZONTAL	DIRECT	1	1	1550	0.5	240	1	60	15	9.5	20 KW	240	1	20.0	50.0	50.0	60	60	190	1,2
AHU-2	OFFICE	LENNOX	CBA25UH-036-230-10	HORIZONTAL	DIRECT	1	1/3	1200	0.5	240	1	60	15	4.9	10 KW	240	1	10.0	53.0	-	60	-	168	1,2
NOTES: 1 FURNISH ELECTRICAL CONTRACTOR WITH MANUFACUTER'S ELECTRIC HEAT STRIP REPLACEMENT CIRCUIT BREAKER. 2 PROVIDE UNIT WITH FACTORY MOUNTED DISCONNECT SWITCH AND STARTER.																								

MECHANICAL SYMBOLS			
THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ETC, ARE NECESSARILY USED ON THE DRAWINGS.			
HVAC EQUIPMENT & DUCTWORK			
	SPIN-IN FITTING WITH MANUAL VOLUME DAMPER		
	BRANCH DUCT WITH 45° RECTANGLE-ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER		
	ELBOW WITH TURNING VANES		
	RETURN, EXHAUST, OR OUTSIDE AIR DUCT UP		
	RETURN, EXHAUST, OR OUTSIDE AIR DUCT DOWN		
	SUPPLY AIR DUCT UP		
	SUPPLY AIR DUCT DOWN		
	EQUIPMENT WITH FLEXIBLE DUCT CONNECTION		
	MANUAL VOLUME DAMPER		
	SQUARE TO ROUND TRANSITION		
	DUCT TRANSITION		
	BRANCH DUCT		
	DUCT MOUNTED SMOKE DETECTOR		
	FIRE DAMPER		
	FIRE SMOKE DAMPER		
	SMOKE DAMPER		
	MOTORIZED DAMPER		
	BACKDRAFT DAMPER		
	VOLUME DAMPER		
	CARBON DIOXIDE SENSOR		
	HUMIDITY SENSOR		
	STATIC PRESSURE SENSOR		
	TEMPERATURE SENSOR		
	HUMIDISTAT		
	THERMOSTAT		
			
			
			
			
			
ABBREVIATIONS			
AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR
BAS	BUILDING AUTOMATION SYSTEM	MIN	MINIMUM
BD	BACKDRAFT	NC	NOISE CRITERIA
CFM	CUBIC FEET PER MINUTE	OA	OUTSIDE AIR
DDC	DIRECT DIGITAL CONTROL	RA	RETURN AIR
DX	DIRECT EXPANSION	SA	SUPPLY AIR
EX	EXHAUST AIR	SD	SMOKE DETECT DETECTOR
FFA	FROM FLOOR ABOVE	TFA	TO FLOOR ABOVE
FFB	FROM FLOOR BELOW	TFB	TO FLOOR BELOW
GPM	GALLONS PER MINUTE	TYP	TYPICAL
IN WC	INCHES OF WATER COLUMN	UNO	UNLESS NOTED OTHERWISE
MAX	MAXIMUM	W/	WITH
MBH	1000 BTU PER HOUR	W/O	WITHOUT
STANDARD MOUNTING HEIGHTS			
(AFF, UNLESS NOTES OTHERWISE)			
THERMOSTATS (USER ADJUSTABLE) (TOP OF DEVICE)			48"
CONTROLS (TOP OF DEVICE)			48"
ANNOTATION			
	PLAN WORK NOTE		
	MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)		
	CONNECTION POINT OF NEW WORK TO EXISTING		
	DETAIL REFERENCE UPPER NUMBER INDICATED DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER		
	SECTION CUT DESIGNATION		

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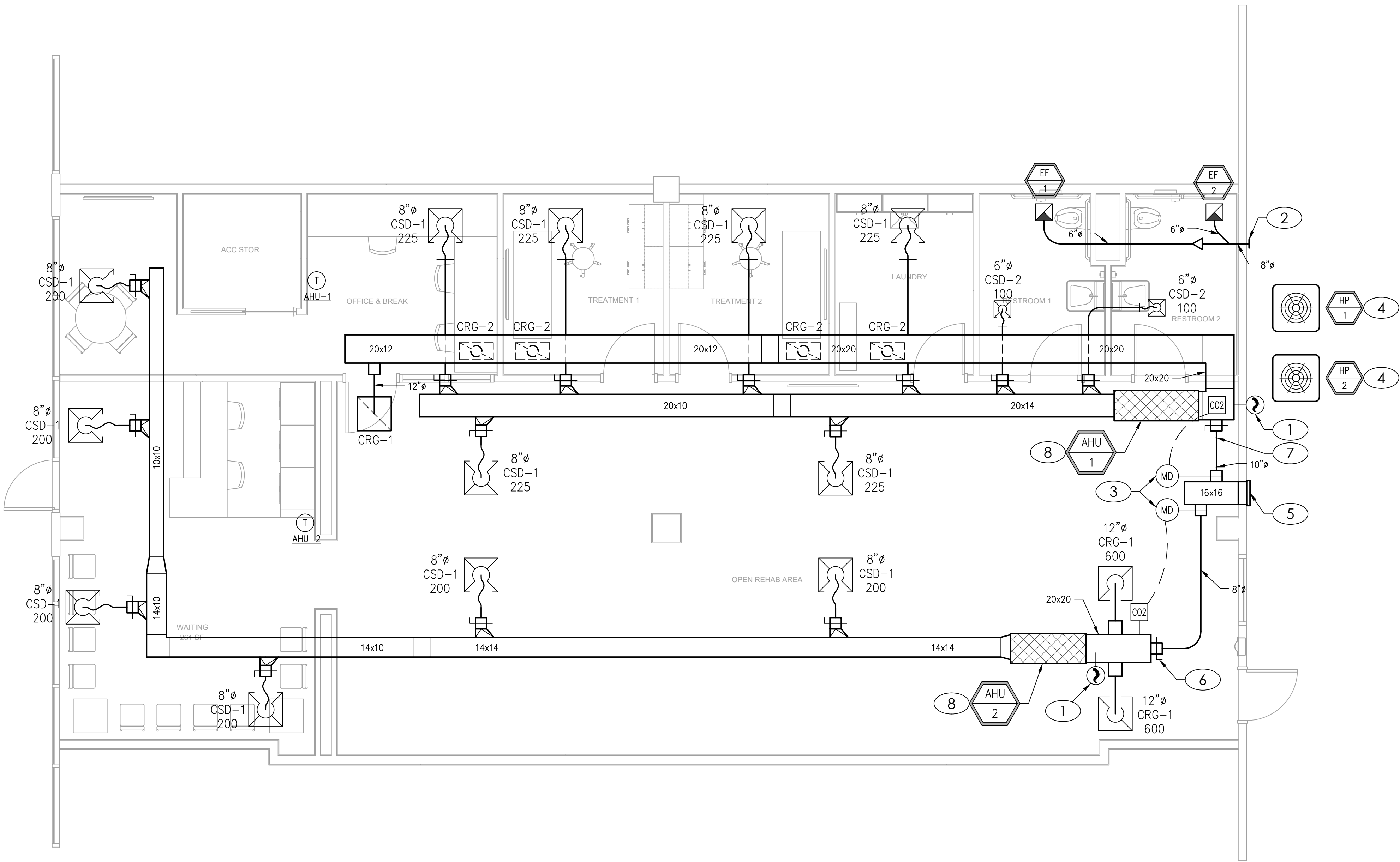
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GENERAL NOTES

- A. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- B. COORDINATE INSTALLATION OF MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION AND AVOID CONFLICTS. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. VERIFY DUCT SPACE AVAILABLE ABOVE ALL CEILINGS PRIOR TO ANY FABRICATION OF INSTALLATION.
- C. NEW MECHANICAL EQUIPMENT, DUCTWORK AND PIPING ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AROUND EQUIPMENT.
- D. INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
- E. OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT, DUCTWORK AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE ROOF.
- F. ALL ROOF AND WALL PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. PROVIDE ALL REQUIRED SLEEVES, FLASHINGS, CURBS, REINFORCED ANGLES, SUPPORTING FRAMES, ETC. UNLESS THEY ARE SPECIFICALLY CALLED OUT TO BE FURNISHED BY OTHERS.

KEYED PLAN NOTES

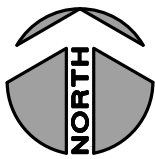
1. PROVIDE SMOKE DETECTOR IN RETURN AIR DUCT IN COMPLIANCE WITH NFPA 72. DUCT SMOKE DETECTOR SHALL BE CONNECTED TO THE FIRE ALARM SYSTEM. DUCT SMOKE DETECTORS SHALL BE INTERLOCKED TO SHUT DOWN ALL UNITS UPON DETECTION OF SMOKE.
2. 6" Ø DUCT FROM EACH EXHAUST FAN. COMBINE AND ROUTE 8" Ø EXHAUST DUCT TO WALL CAP. EXHAUST MUST DISCHARGE OUTDOORS. LOCATE A MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. SEAL WALL PENETRATION WEATHER TIGHT. PAINT CAP COLOR TO MATCH BUILDING.
3. IN FRESH AIR INTAKE DUCT PROVIDE MODULATING OA DAMPER CONNECTED TO RETURN AIR CO2 SENSOR, YOUNG REGULATOR CO. DEMAND AIR KIT DA-CO2-XX OR EQUAL PRODUCT.
4. CONDENSING UNIT AT GRADE OR ON ROOF ON ELEVATED PAD. COORDINATE LOCATION WITH GC. INSTALL PER MANUFACTURER'S INSTRUCTIONS MAINTAINING RECOMMENDED CLEARANCES. ROUTE REFRIGERANT LINES THOUGH WALL 18" AFG. WEATHER SEAL REFRIGERANT LINE PENETRATIONS OF BUILDING. PROVIDE ALL RECOMMENDED VALVES, FILTERS, FITTINGS, ETC. AND MAKE ALL NECESSARY CONNECTIONS TO HEAT PUMP AND AIR HANDLER.
5. AT WALL PROVIDE 16x16 INTAKE LOUVER EQUAL TO RUSKIN ELF675DX, MIN FREE AREA OF 0.73 SQ-FT. EXTEND 16x16 DUCT INTO PLENUM SPACE TO CONNECT FRESH AIR DUCTS. PAINT LOUVER COLOR TO MATCH BUILDING.
6. SET MANUAL OUTSIDE AIR DAMPER TO 260 CFM.
7. SET MANUAL OUTSIDE AIR DAMPER TO 350 CFM.
8. ROUTE 3/4" CONDENSATE DRAIN TO TAILPIECE OF LAVATORY. COORDINATE WITH PLUMBING CONTRACTOR TO PROVIDE Y-FITTING AT TAILPIECE.



MECHANICAL PLAN

SCALE : 1/4" = 1'-0"

1



PRIME PHYSICAL THERAPY

1161 NE RICE RD.

LEE'S SUMMIT, MO 64064

PROJECT

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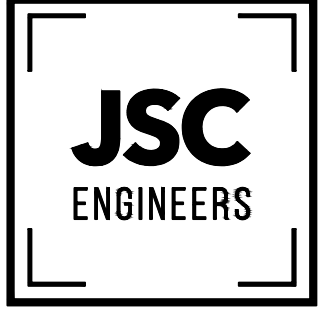
MECHANICAL PLAN

DATE: 06-03-2022

JOB NO.: 22-162

SHEET:

M11



MO COA NO. 2012003566 / KS COA NO. E-2818
1925 CENTRAL ST. SUITE #201
KANSAS CITY, MO 64108
phone: (816) 272-5289
email: jsmothers@jscengineers.com

