MECHANICAL LEGEND

NAME	SYMBOL	ABBREVIATION
HEATING SYSTEM WATER SUPPLY		
HEATING SYSTEM WATER RETURN		
CHILLED WATER SUPPLY	CH	CH
CHILLED WATER RETURN	CHR	CHR
CONDENSATE DRAIN	D	D
GATE VALVE		
GLOBE VALVE		
CHECK VALVE		
TEMPERATURE REGULATING VALVE		
PLUG VALVE OR BALANCING COCK		
UNION		
PIPE ANCHOR		
PIPING DROP WITH RESPECT TO FLOW		
PIPING RISE WITH RESPECT TO FLOW		
PIPING TEE OUT TOP		
PIPING TEE OUT BOTTOM		
HOSE BIBB	H.B.	H.B.
THERMOSTAT		C=CONCEALED, G=GUARD, N=NIGHT
SMOKE SENSOR		G=GUARD
AIR VENT		
SUPPLY AIR OUTLET	C.F.M. 12" X 8"	12" X 8" OUTLET SIZE
RETURN AND EXHAUST AIR INLET	C.F.M. 12" X 8"	12" X 8" INLET SIZE
SUPPLY DUCT		
RETURN DUCT		
EXHAUST DUCT		
DUCT TRANSITION - REDUCTION SYMMETRICAL		
DUCT TRANSITION - REDUCTION ONE SIDE		
DUCT TRANSITION - REDUCTION VERTICAL		
DUCT DROP WITH RESPECT TO FLOW	D	
DUCT RISE WITH RESPECT TO FLOW	R	
BALANCING DAMPER		
DUCT SIZE (1ST FIGURE WIDTH, 2ND FIGURE=DEPTH)	12X10 OR 12X10	
SUPPLY DUCT SECTION		
EXHAUST OR RETURN AIR DUCT SECTION		
FIRE DAMPER		FD
SMOKE DETECTOR		
THERMAL DETECTOR		
EXHAUST REGISTER		ER
EXHAUST GRILLE		EG
RETURN GRILLE		RG
RETURN AIR REGISTER		RAR
RETURN AIR GRILLE		RAG
SUPPLY RISER		
EXHAUST RISER		
RELIEF OR RETURN DECK OPENING		
ROOF EXHAUST FAN & SCHEDULE DESIGNATION		REF-
IN-LINE EXHAUST FAN & SCHEDULE DESIGNATION		IEF-
UNIT VENTILATOR & SCHEDULE DESIGNATION		UV-
CABINET HEATER & SCHEDULE DESIGNATION		CH-
CONVECTOR & SCHEDULE DESIGNATION		CV-
UNIT HEATER & SCHEDULE DESIGNATION		UH-
AIR HANDLING UNIT & SCHEDULE DESIGNATION		AHU-
FAN COIL UNIT & SCHEDULE DESIGNATION		FCU-
CEILING DIFFUSER		DIFF
FIN TUBE RADIATION, TYPE, & LENGTH		FT- -
VENTILATING CONTRACTOR		VC
MECHANICAL CONTRACTOR		MC
ELECTRICAL CONTRACTOR		EC
TEMPERATURE CONTROL CONTRACTOR		TCC
COLD WATER		C.W.
120° HOT WATER		H.W.
TEMPERED WATER		T.W.
DOMESTIC HOT WATER RETURN		H.W.R.
GAS LINE	G.	G.
CAST IRON STORM DRAIN	S.	S.
CAST IRON SANITARY WASTE		W.
VITRIFIED TILE STORM SEWER	/	V.T.S.
VITRIFIED TILE SANITARY SEWER	//	V.T.
CONCRETE PIPE STORM SEWER	/	C.P.S.
PLUMBING VENTS		
SILL COCK	S.C.	S.C.
ROOF DRAIN	R.D.	R.D.
FLOOR DRAIN	F.D.	F.D.
SHOWER HEAD AND CONTROL VALVE		
INSIDE ROOF CONDUCTOR	R.C.	R.C.
CLEAN OUT	C.O. C.O.	C.O.
WATER CLOSET		W.C.
URINAL		UR.
LAVATORY		LAV.
MOP SINK		M.P.
ELECTRIC WATER COOLER		E.W.C.
[illegible]		
[illegible]		S.S.
[illegible] HYDRANT		
FIRE LINE	F.	
INVERT		IN.
NORTH		N.
SOUTH		S.
EAST		E.
WEST		W.
ELEVATION		EL.
[illegible] DRAIN	O.S.D.	O.S.D.

ROOF EXHAUST FAN SCHEDULE

NO.	AREA EXHAUSTED	JENN-AIR MODEL NUMBER	BACK-DRAFT DAMPER	C.F.M.	SP. "OF W.C.	MOTOR DATA R.P.M.	H.P.	VOLTS	Ø	POWER CIRCUIT	CONTROL NOTE #1	SEE NOTE
[illegible]	A-124, A-130	153NBCR	16" X 16"	1700	1/4	930	1/3	115	1	1L1-31	M	1, 2
[illegible]	A-129	121NBCR	12" X 12"	140	1/4	750	1/6	115	1	1L1-29	ZONE #1	1, 2, 3
3.	B-104, B-1[illegible]	121NBCR	12" X 12"	890	1/4	950	1/6	115	1	1L1-29	ZONE #1	1, 2, 3
[illegible]	[illegible]	121NBCR	12" X 12"	180	1/4	750	1/6	115	1	1L1-27	T	1, 2

NOTES:

1. CONTROL DESIGNATIONS: (ZONE #) FAN TO BE CONTROLED AUTOMATICALLY BY TEMPERTURE CONTROL ZONE SHOWN; (M) FAN TO BE CONTROLLED BY MANUAL SWITCH PROVIDED BY ELECTRICAL CONTRACTOR; (T) FAN TO BE CONTROLED BY THERMOSTAT CLOCK PROVIDED BY TEMPERATURE CONTROL CONTRACTOR.
2. INSTALL FAN ON CURB PROVIDED BY THE GENERAL CONTRACTOR.
3. TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE PRESSURE ELECTRIC SWITCHES TO CONTROL EXHAUST FANS AS FOLLOWS:

ZONE #1 ROOM #A-129

UNIT HEATER SCHEDULE

NO.	ROOM SERVED	MODEL NUMBER	TYPE AND ARRANGEMENT	M.B.H.	FAN SPEED R.P.M.	[illegible] G.P.M.	POWER CIRCUIT	C.F.M. STANDARD AIR	SEE NOTE
1	A-204	60-S	HORIZONTAL	34.6	1550	3.5	1L4-11	815	1, 2
2	A-205	60-S	HORIZONTAL	34.6	1550	3.5	1L4-11	815	1, 2
3	A-201 A-201A	60-S	HORIZONTAL	34.6	1550	3.5	1L3-14	815	1, 2
4	A-202	60-S	HORIZONTAL	34.6	1550	3.5	1L2-15	815	1, 2
5	A-203	60-S	HORIZONTAL	34.6	1550	3.5	1L1-21	815	1, 2

NOTES:

1. HEATING CAPACITIES ARE BASED ON 70°F. ENTERING AIR AND 210°F. ENTERING WATER. FINAL AIR TEMPERATURE SHALL BE 110°F. TO 140°F..
2. MOTORS SHALL BE MULTI-SPEED, 120 VOLTS, 1 PHASE, 60 HERTZ.

CLASSROOM UNIT VENTILATOR SCHEDULE

NO.	ROOM SERVED	TYPE	TRANE MODEL NUMBER	MINIMUM OF OUTDOOR AIR	MOTOR DATA H.P.	V.	Ø	HEATING CAPACITY MBH	GPM	OUTDOOR AIR INTAKE SIZE	POWER CIRCUIT	COOLING CAPACITY MBH	GPM	SEE NOTE
1	A-131	TN	TUV12	12%	1/4	115	1	32.1	1	BY OTHERS	1L4-12	38.3	8	1, 2, 3, 4, 5
2	A-132	TN	TUV12	12%	1/4	115	1	32.1	1	BY OTHERS	1L4-10	38.3	8	1, 2, 3, 4, 5
3	A-133	TN	TUV12	12%	1/4	115	1	32.1	1	BY OTHERS	1L4-10	38.3	8	1, 2, 3, 4, 5

NOTES:

1. HEATING CAPACITIES ARE BASED ON ONE ROW AUXILIARY HEATING COIL, 70°F RETURN AIR, -10°F OUTDOOR AIR AND 210°F ENTERING WATER. COOLING CAPACITIES ARE BASED ON 42°F ENTERING WATER.
2. MOTOR SHALL BE MULTI-SPEED.
3. PROVIDE ACCESSIBLE HOSE BIBB IN CABINET FOR SYSTEM DRAIN.
4. OUTDOOR AIR INTAKE LOUVER BY ROOFING CONTRACTOR.
5. HIGH CAPACITY COIL.

FAN COIL UNIT SCHEDULE

NO.	ROOM SERVED	TRANE MODEL NUMBER	CABINET TYPE	POWER CIRCUIT	C.F.M.	COOLING CAPACITIES SENSIBLE MBH	TOTAL MBH	GPM	HEATING CAPACITIES MBH	GPM	WALL RECESS DEPTH	SEE NOTE
1	A-138	B22AL03	VERTICAL	1L1-32	300	6.95	9.90	1.95	18.0	2.0	--	1, 2, 3
2	A-139	B22AL02	VERTICAL	1L1-32	200	4.65	5.90	1.25	15.0	2.0	--	1, 2, 3
3	B-102	B22AL03	VERTICAL	1L1-32	300	6.95	9.90	1.95	18.0	2.0	--	1, 2, 3

NOTES:

1. HEATING CAPACITIES ARE BASED ON ONE ROW AUXILIARY HEATING COIL, 70°F ENTERING AIR, 210°F ENTERING WATER AND HIGH SPEED OPERATION.
2. COOLING CAPACITIES ARE BASED ON 42°F ENTERING WATER.
3. MOTOR SHALL BE MULTI-SPEED, 120 VOLTS, 1 PHASE, 60 HERTZ.

CABINET HEATER SCHEDULE

NO.	ROOM SERVED	TRANE MODEL NUMBER	TYPE AND ARRANGEMENT	MBH	FAN SPEED RPM	WATER RATE GPM	POWER CIRCUIT	CFM STANDARD AIR	WALL RECESS DEPTH	SEE NOTE
1	A-103	D16A006	HORIZONTAL CABINET	35.8	700	1.50	1L4-7	370	---	1, 2, 3
2	A-105	D16A002	HORIZONTAL CABINET	13.1	700	0.75	1L3-10	145	---	1, 2, 3
3	A-135	E46A002	HORIZONTAL RECESSED	13.1	700	0.75	1L3-10	145	---	1, 2, 3
4	A-108	E46A003	HORIZONTAL RECESSED	19.7	700	1.00	1L3-9	200	---	1, 2, 3
5	A-123	E46A003	HORIZONTAL RECESSED	19.7	700	1.00	1L2-14	200	---	1, 2, 3
6	A-125	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L2-11	570	---	1, 2, 3
7	A-127	D16A002	HORIZONTAL CABINET	13.1	700	0.75	1L2-11	145	---	1, 2, 3
8	A-134	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L4-7	570	---	1, 2, 3
9	A-112	H46A002	VERTICAL RECESSED	13.1	700	0.75	1L3-9	145	9"	1, 2, 3
10	A-117	H46A002	VERTICAL RECESSED	13.1	700	0.75	1L2-14	145	9"	1, 2, 3
11	B-101	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L1-33	570	---	1, 2, 3
12	B-101	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L1-33	570	---	1, 2, 3
13	B-101	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L1-33	570	---	1, 2, 3
14	B-101	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L1-34	570	---	1, 2, 3
15	B-104	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L1-34	570	---	1, 2, 3
16	B-104	E46A008	HORIZONTAL RECESSED	48.3	525	3.00	1L1-34	570	---	1, 2, 3

NOTES:

1. HEATING CAPACITIES ARE BASED ON 70°F. ENTERING AIR, AND 210°F. ENTERING WATER AT LOW SPEED OPERATION. FINAL AIR TEMPERATURE SHALL BE 110°F. TO 140°F..
2. MOTORS SHALL BE MULTI-SPEED 115 VOLT, 1 PHASE, 60 HERTZ.
3. PROVIDE ACCESSIBLE HOSE BIBB IN CABINET FOR SYSTEM DRAIN.

CONVECTOR SCHEDULE

NO.	ROOM SERVED	AIRTHERM MODEL NUMBER	DEPTH	LENGTH	HEIGHT	M.B.H.	WALL RECESS DEPTH	SEE NOTE
1	A-102	FRG	4"	36"	24"	3.9	4"	1, 2
2	A-106	FRG	4"	48"	32"	6.4	4"	1, 2
3	A-107	FRG	4"	48"	32"	6.4	4"	1, 2
4	A-110	FRG	4"	20"	24"	1.9	4"	1, 2
5	A-114	FRG	4"	20"	24"	1.9	4"	1, 2
6	A-118	FRG	4"	20"	24"	1.9	4"	1, 2
7	A-121	FRG	4"	20"	24"	1.9	4"	1, 2
8	A-126	FRG	4"	36"	24"	3.9	4"	1, 2
9	A-136	FRG	4"	20"	24"	1.9	4"	1, 2
10	A-140	FRG	4"	20"	24"	1.9	4"	1, 2
11	A-141	FRG	4"	20"	24"	1.9	4"	1, 2
12	B-115	FRG	4"	36"	24"	3.9	4"	1, 2
13	B-103	FRG	4"	20"	24"	1.9	4"	1, 2
14	B-107	FRG	4"	20"	24"	1.9	4"	1, 2
15	B-108	FRG	4"	44"	32"	5.8	4"	1, 2
16	A-109	FRG	4"	20"	24"	1.9	4"	1, 2

NOTES:

1. HEATING CAPACITIES ARE BASED ON 20°F. WATER TEMPERATURE DROP, 70°F. ENTERING AIR 210°F. ENTERING WATER TEMPERATURE.
2. PROVIDE ACCESSIBLE HOSE BIBB IN CABINET FOR SYSTEM DRAIN.

PLUMBING FIXTURE SCHEDULE

ITEM	FIXTURE	WASTE	VENT	C.W.	H.W.	FIXTURE MOUNTING HEIGHT
P-1	WATER CLOSET	4"	2"	1"	---	15" TO RIM
P-2	URINAL	2"	1 1/2"	3/4"	---	20" TO RIM
P-3	LAVATORY	1 1/2"	1 1/2"	1/2"	1/2"	31" TO RIM
P-4	LAVATORY	1 1/2"	1 1/2"	1/2"	1/2"	31" TO RIM
P-5	SERVICE SINK	3"	1 1/2"	3/4"	3/4"	STANDARD
P-6	MOP SINK	3"	1 1/2"	3/4"	3/4"	FLOOR MOUNTED
P-7	WATER COOLER	1 1/2"	1 1/2"	1/2"	---	40" TO RIM
P-8	DRINKING FOUNTAIN & CUSPIDOR	1 1/2"	1 1/2"	1/2"	---	40" TO RIM
P-9	SHOWER HEAD & MIXING VALVE	---	---	1/2"	1/2"	6'-0" TO SHOWER HEAD
P-10	SHOWER HEAD & SHUT-OFF VALVE	---	---	1/2"	1/2"	6'-0" TO SHOWER HEAD
P-11	CABINET SINK	1 1/2"	1 1/2"	1/2"	1/2"	STANDARD
P-12	CABINET SINK	1 1/2"	1 1/2"	1/2"	1/2"	STANDARD
P-13	WHEEL CHAIR WATER FOUNTAIN	1 1/2"	1 1/2"	1/2"	---	33" TO SPOUT
P-14	ICE MACHINE	---	---	1/2"	---	---

NOTES:

1. ALL BRANCH SIZES SHOWN IN THE ABOVE SCHEDULE ARE INDIVIDUAL BRANCH SIZES TO FLUSH VALVES, FAUCETS, BUBBLERS, ETC.
2. WATER CLOSETS AND URINALS SHALL BE FLUSH VALVE OPERATED.
3. MECHANICAL CONTRACTOR SHALL CONSULT WITH THE ARCHITECT'S REPRESENTATIVE BEFORE ROUGHING-IN ANY WATER CLOSETS.
4. ALL FIXTURES, INCLUDING DRINKING FOUNDTAINS AND WATER COOLERS, SHALL HAVE A CHROME-PLATED KEY OPERATED VALVE EXPOSED AT THE FIXTURE.
5. PROVIDE 3/4" CHROME-PLATED HOSE BIBB UNDER EACH BATTERY OF LAVATORIES.

COPPER FIN TUBE RADIATION SCHEDULE

TYPE	SHAW-PERKINS MODEL NUMBER	BTU PER FOOT	TUBE DIA.	FIN SIZE	NUMBER OF ROWS	FINS PER FOOT	TYPE OF COVER	SEE NOTE
A	DCL-1	1750	1 1/4"	4 1/4" X 4 1/4"	1	40	CROWNLINE	1

NOTES:

1. HEATING CAPACITIES ARE BASED ON 70°F. ENTERING AIR, 20°F. TEMPERATURE DROP, 210°F. ENTERING WATER TEMPERATURE.

AIR HANDLING UNIT SCHEDULE

NO.	AREA SERVED	TYPE	TRANE MODEL NUMBER	CFM STANDARD AIR	MAXIMUM FAN OUTLET VELOCITY FPM	MINIMUM EXTERNAL STATIC PRESSURE WATER COLUMN	MINIMUM FAN MOTOR HP	MINIMUM PERCENT OF OUTDOOR AIR	SEE NOTE
A-1	GYMNASIUM	HEATING & VENTILATING	25	16000	820	1.0	15	20%	1, 2, 3, 4
A-2	GYMNASIUM	HEATING & VENTILATING	25	16000	820	1.0	15	20%	1, 2, 3, 4
A-3	GYMNASTICS	HEATING & VENTILATING	6	3650	728	1.0	3	20%	1, 2, 3, 4
A-4	GYMNASTICS	HEATING & VENTILATING	6	3650	728	1.0	3	20%	1, 2, 3, 4
A-5	WRESTLING	HEATING & VENTILATING	8	5000	674	1.0	5	25%	1, 2, 3, 4
A-6	LOCKER ROOMS	HEATING & VENTILATING	12	6750	642	1.0	5	0-100%	1, 2, 3, 4

NOTES:

1. ALL EQUIPMENT SHALL BE SELECTED IN STRICT ACCORDANCE WITH THE MAXIMUM AND MINIMUM QUANTITIES SHOWN.
2. UNIT SHALL HAVE BLOW-THRU ARRANGEMENT.
3. MOTOR DATA: 460 VOLTS, 3 PHASE, 60 HERTZ, 1750 RPM.
4. UNITS SHOULD BE COMPLETE WITH FULL DRAIN PAN TO FACILITATE FUTURE CLEANING AND WASHDOWN.

AIR HANDLING UNIT HEATING COIL SCHEDULE

NO.	CFM STANDARD AIR	TOTAL LOAD BTU	ENTERING AIR DRY BULB °F.	LEAVING AIR DRY BULB °F.	WATER MAXIMUM GPM	MAXIMUM PRESSURE DROP (FT.)	AIR FRICTION LOSS IN. W.C.	MAXIMUM FACE VELOCITY FPM	FINS PER FOOT	NUMBER OF ROWS	SEE NOTE
A-1	16000	885,360	54°	105°	45.6	1.7	0.27	665	162	2	1, 2, 3
A-2	16000	885,360	54°	105°	45.6	1.7	0.27	665	162	2	1, 2, 3
A-3	3650	201,970	54°	105°	10.4	0.1	0.33	649	86	2	1, 2, 3
A-4	3650	201,970	54°	105°	10.4	0.1	0.33	649	86	2	1, 2, 3
A-5	5000	298,400	50°	105°	15.4	0.1	0.37	667	101	2	1, 2, 3
A-6	6750	256,300	70°	105°	13.2	0.1	0.17	578	118	2	1, 2, 3

NOTES:

1. CAPACITIES ARE BASED ON -10 F OUTDOOR AIR, 70 F ROOM AIR AND 210 F ENTERING WATER.
2. ALL EQUIPMENT SHOWN SHALL BE SELECTED IN STRICT ACCORDANCE WITH THE MAXIMUM AND MINIMUM QUANTITIES SHOWN.
3. STANDARD SERPENTINE COIL.

INLINE EXHAUST FAN SCHEDULE

NO.	AREA EXHAUSTED	JENN-AIR MODEL NUMBER	C.F.M.	SP. "OF W.C.	MOTOR DATA R.P.M.	H.P.	VOLTS	Ø	POWER CIRCUIT	CONTROL NOTE #1	SEE NOTE
1	A-112	125ILB	2096	3/8"	1800	3/4	460	3	1H2-31	ZONE #3	1, 2, 3
2	A-106, A-107, A-110 A-113, A-114	121ILB	680	3/8"	900	1/6	115	1	1L3-11	ZONE #3	1, 2, 3
3	A-117	123ILB	1348	3/8"	1300	1/3	115	1	1L3-11	ZONE #3	1, 2, 3
4	A-115, A-116	122ILB	881	3/8"	1060	1/4	115	1	1L3-13	ZONE #3	1, 2, 3
5	A-118, A-119, A-121	121ILB	541	3/8"	900	1/6	115	1	1L3-13	ZONE #3	1, 2, 3
6	A-126, A-127	123ILB	1279	3/8"	1260	1/3	115	1	1L2-7	ZONE #5	1, 2, 3
7	A-105, A-135, A-137	123ILB	1348	3/8"	1348	1/3	115	1	1L3-17	ZONE #2	1, 2, 3
8	A-102, A-103	122ILB	1174	3/8"	1200	1/4	115	1	1L4-13	ZONE #1	1, 2, 3
9	A-101 VENTILATION TRENCH	123ILB	1531	3/8"	1410	1/3	115	1	1L3-15	H	1, 2, 3, 4
10	A-128 VENTILATION TRENCH	122ILB	1280	3/8"	1260	1/4	115	1	1L2-18	H	1, 2, 3, 4

NOTES:

1. CONTROL DESIGNATIONS: (ZONE #) FAN TO BE CONTROLLED AUTOMATICALLY BY TEMPERATURE CONTROL ZONE SHOWN; (M) FAN TO CONTROLLEDY BY MANUAL SWITCH PROVIDED BY THE ELECTRICAL CONTRACTOR; (H) FAN TO BE CONTROLLED BY HUMIDISTAT,PROVIDED BY ELECTRICAL CONTRACTOR.
2. FAN SHALL HAVE VIBRATION ISOLATORS AS RECOMMENDED BY THE FAN MANUFACTURER AND AS APPROVED BY THE ARCHITECT.
3. ALL HANGERS, RODS, PLATFORMS, ETC., REQUIRED TO SUSPEND FANS SHALL BE FURNISHED BY THE VENTILATING CONTRACTOR.
4. FAN IS CONTROLLED AUTOMATICALLY BY HUMIDISTAT FURNISHED BY ELECTRICAL CONTRACTOR AND INSTALLED IN THE WOOD FLOOR VENTILATION TRENCH.

DIFFUSER SCHEDULE

TYPE	KRUEGER MODEL NUMBER	NECK SIZE	PATTERN	DAMPER SIZE	SEE NOTE
A	SH-4-0BD-FR23	9" X 9"	4-WAY	9" X 9"	1
B	SH-4-0BD-FR23	15" X 15"	4-WAY	15" X 15"	1
C	SH-4-0BD-FR23	18" X 18"	4-WAY	18" X 18"	1
D	SH-4-0BD-FR23	21" X 21"	4-WAY	24" X 24"	1

NOTES:

1. DIFFUSER SHALL BE FULLY ADJUSTABLE.

GENERAL NOTES
(APPLY TO ALL SHEETS)

1. ALL WORK SHOWN IS NEW AND BY THE MECHANICAL TRADES UNLESS OTHERWISE NOTED.
2. ALL EXISTING BUILDING SURFACES, WALLS, FLOORS, ETC., WHICH ARE TO BE EXPOSED, DISTURBED, CUT OR PARTIALLY REMOVED BY THE MECHANICAL TRADES IN ABANDONING, REMOVING, RELOCATING, REPLACING, OR INSTALLING MECHANICAL EQUIPMENT, PIPING, DUCTWORK, ETC., WILL BE PATCHED AND REPAIRED BY THE PROPER CONTRACTOR AND PAID FOR BY THE MECHANICAL TRADES UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE MECHANICAL TRADES SHALL COORDINATE THIS WORK WITH THE OTHER CONTRACTORS AND SHALL ONLY EXPOSE, DISTURB, CUT, OR REMOVE THE MINIMUM AREA OF SUCH SURFACES NECESSARY TO PERFORM HIS WORK.
3. ALL DASHED LINES NOT OTHERWISE NOTED ON THE PLANS INDICATE LOCATION OF BULKHEADS, CANOPIES, OR ROOF OVERHANGS PROVIDED BY OTHERS.
4. ALL WATER AND WASTE LINES UNDER THE FLOOR SLAB SHALL CONTINUE FULL SIZE OF THE HORIZONTAL RUN. THE VERTICAL SUPPLY RISER TO FIXTURES SHALL BE REDUCED TO THE SIZE REQUIRED BY THE FIXTURE FLUSH AT THE FLOOR OR WALL SURFACE.
5. THE MECHANICAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT THE JOB SITE AND ADJUST HIS WORK ACCORDING TO ANY VARITIONS OR DEVIATIONS TO CONDITIONS SHOWN ON THE DRAWINGS.
6. ALL THERMOSTATS SHALL BE APPROXIMATELY 4'-8" ABOVE FINISHED FLOOR AND LINED UP VERTICALLY WITH LIGHT SWITCHES UNLESS OTHERWISE NOTED OR DIRECTED BY THE ARCHITECT.
7. ARROWS ON HOT WATER AND CHILLED WATER MAINS INDICATE DIRECTION OF FLOW. PITCH MAINS UP A MINIMUM OF 1" IN 50'-0" IN DIRECTION OF SUPPLY WATER FLOW.
8. ALL AUTOMATIC TEMPERATURE REGULATING VALVES SHALL BE SIZED FOR FIVE POUND WATER PRESSURE DROP.
9. PROVIDE DRAIN VALVES INSIDE ENCLOSURES OF ALL HEATING OR COOLING UNITS WHICH ARE SUPPLIED FROM OVERHEAD MAINS.
10. ALL FAN COIL UNIT CONDENSATE DRAINS ABOVE GRADE SHALL BE TYPE "L" HARD COPPER TUBING AND SHALL BE SIZED AS FOLLOWS: 1" DRAIN FOR ONE COIL, 1-1/4" DRAIN FOR TWO COILS, 1-1/2" DRAIN FOR THREE COILS, 2" DRAIN FOR FOUR OR MORE COILS. ALL BELOW GRADE DRAINS SHALL BE 2" EXTRA HEAVY CAST IRON SOIL PIPE AND SHALL SLOPE 1/8" PER FOOT UNLESS OTHERWISE NOTED.
11. HEATING AND COOLING RUNOUTS TO CONVECTORS AND FAN COIL UNITS SHALL BE 3/4" FOR UNITS UNDER 4 GPM AND 1" FOR UNITS OVER 4 GPM, AND 1" TO ALL FINNED TUBE, CABINET HEATERS, AND UNIT HEATERS UNLESS OTHERWISE NOTED.
12. ALL OUTDOOR AIR INTAKE DUCTWORK SHALL BE LINED WITH 1" INSULATION. ALL LOW VELOCITY HEATING AND VENTILATING SUPPLY DUCTWORK TERMINATING AT DIFFUSERS AND REGISTERS SHALL BE LINED WITH 1/2" INSULATION. ALL RETURN DUCTWORK SHALL BE LINED WITH 1/2"INSULATION. ALL EXHAUST DUCTWORK SHALL BE INSULATED WHERE NOTED ON DRAWINGS.
13. ALL DUCTWORK AND PIPING RUN ABOVE CEILING SHALL BE RUN TO AVOID LIGHTING FIXTURES, JOISTS, BEAMS, ETC., AS APPROVED BY THE ARCHITECT.
14. ALL SHEET METAL DUCTWORK RUN ABOVE THE ROOF SHALL BE 20 GAUGE (MINIMUM) UNLESS OTHERWISE NOTED.
15. PROVIDE ACCESS PANEL AND BAFFLES IN ALL AIR HANDLING UNIT MIXING BOXES.
16. ALL SANITARY AND STORM DRAINS INSIDE OF THE BUILDING SHALL SLOPE A MINIMUM OF 1/4" PER FOOT UNLESS OTHERWISE NOTED.
17. ALL DOMESTIC WATER BRANCH PIPING SHOWN RUNNING HORIZONTALLY IN CEILING SPACE, BELOW FLOOR SLAB, ETC. SHALL BE A MINIMUM 3/4" SIZE.
18. ALL STORM SEWERS 12" IN DIAMETER AND LARGER SHALL BE CONCRETE PIPE, SEE SPECIFICATIONS.
19. VALVE ALL CHILLED WATER, HEATING SYSTEM WATER AND DOMESTIC WATER BRANCHES IN FAN ROOMS AND MECHANICAL ROOMS. THE MECHANICAL CONTRACTOR SHALL ALSO PROVIDE AND INSTALL VALVES IN ALL SYSTEMS AS REQUIRED TO FACILITATE THE OPERATION OF VARIOUS SYSTEMS DURING CONSTRUCTION.
20. ALL PIPING IN PIPE SPACES AND TUNNELS SHALL BE RUN AS CLOSE TO WALLS AS POSSIBLE TO ALLOW MAXIMUM ACCESS.
21. ALL DOMESTIC WATER PIPING HEADERS LOCATED IN PIPE CHASES SHALL BE THE SAME SIZE AS THE BRANCH MAIN DROPS INDICATED ON THE DRAWINGS AND ALL AIR CHAMBERS LOCATED IN PIPE CHASES SHALL BE ONE PIPE SIZE LARGER THAN THE BRANCH MAIN DROPS.
22. THERMOSTATS IN MECHANICAL EQUIPMENT ROOMS SHALL BE SET AT 50°F.

941 North Meridian Street, Indianapolis, Indiana 46204

EVERETT I. BROWN Company
Architects & Engineers

LETTER OF TRANSMITTAL

RECD. 9/9/87

DATE 9/4/87 JOB NO.

TO MR. JACK OKEY
LAWRENCE TWP. MSD
2601 EAST 56TH
INDIANAPOLIS, INDIANA
46226

LAWRENCE CENTRAL HIGH SCHOOL

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via ______ the following items:
☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ Consultant's Comments
☐ First Submittal ☐ Resubmittal ☐ Final Submittal

COPIES	DATE	NO.	DESCRIPTION
1-SET	9/4/87		MECHANICAL "AS BUILT" DRAWINGS ON LAWRENCE CENTRAL HIGH SCHOOL (REVISED)

THESE ARE TRANSMITTED as checked below:
☐ For approval ☐ Approved as submitted ☐ Resubmit ____ copies for approval
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REMARKS ______

COPY TO ______

SIGNED: W. L. Bafendele

If enclosures are not as noted, kindly notify us at once.

AS-BUILT
REVISED

JAMES W. [illegible]ERTS REGISTERED 8583 STATE OF INDIANA PROFESSIONAL ENGINEER

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LAWRENCE CENTRAL HIGH SCHOOL

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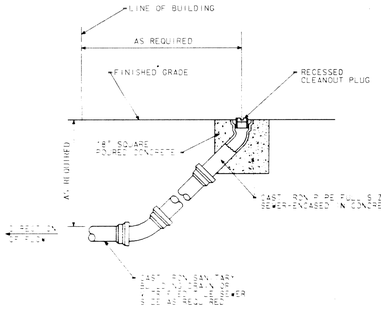
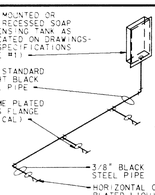
PROJECT 851-190
DATE MAR. 24, 1986
REVISED

NO. M-1
OF 9



DETAIL OF TYPICAL OUTSIDE CLEANOUT

NO SCALE

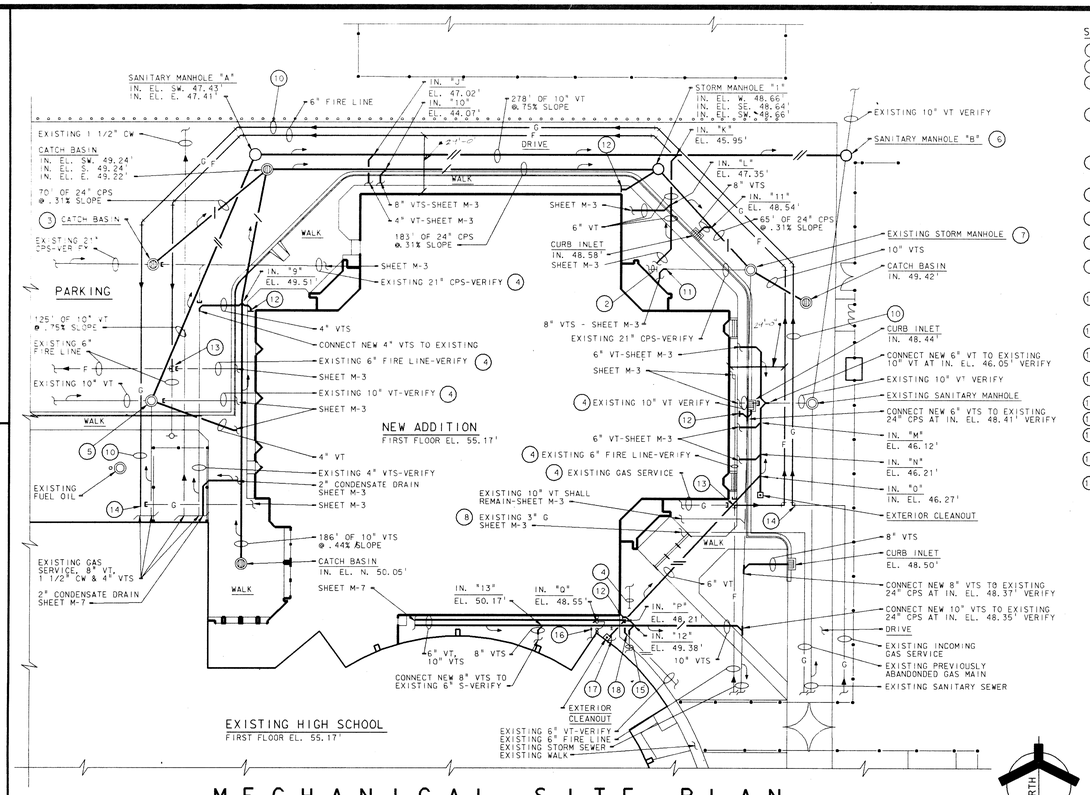


NOTES:

1. TOP OF SOAP TANK SHALL BE LOCATED 6'-6" ABOVE FLOOR.
2. THE NUMBER OF SOAP DISPENSING VALVES AND PIPING LAYOUT VARIES ACCORDING TO INDIVIDUAL TANK LOCATIONS AS SHOWN ON THE PLANS. SOAP SUPPLY PIPE HEADER IS 3/4" STANDARD WEIGHT BLACK STEEL WITH 3/8" BLACK STEEL PIPE BRANCHES TO INDIVIDUAL SOAP DISPENSING VALVES AT ALL LOCATIONS.

SOAP DISPENSING SYSTEM INSTALLATION DIAGRAM

NO SCALE

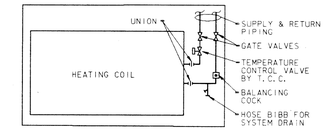


MECHANICAL SITE PLAN

SCALE: 1" = 30'

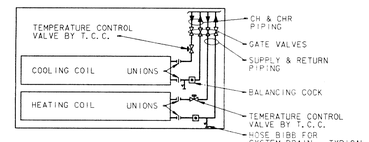
SITE PLAN NOTES:

1. SEE SHEET M-1 FOR GENERAL NOTES, LEGEND AND SCHEDULES.
2. ALL CATCH BASINS AND CURB INLETS WILL BE PROVIDED BY OTHERS.
3. NEW CATCH BASIN IS TO BE CONSTRUCTED OVER EXISTING 21" CPS. COORDINATE WITH GENERAL CONTRACTOR. EXISTING IN. EL. W. 49.48' VERIFY. PLUG IN. EL. E., IN. EL. NE. 49.44'.
4. EXISTING UTILITY SHALL REMAIN IN SERVICE UNTIL NEW CONSTRUCTION IS COMPLETE THEN SHALL BE CUT, PLUGGED, CAPPED AND ABANDONED IN PLACE OUT OF SERVICE. REMOVE ANY PART OF EXISTING UTILITY THAT INTERFERES WITH NEW MECHANICAL CONSTRUCTION.
5. EXISTING SANITARY MANHOLE AND 10" VT AT IN. EL. 48.36' VERIFY. PLUG IN. EL. E.; CONNECT NEW 10" VT AT IN. EL. NE. 48.35' AND NEW 4" VT AT IN. EL. SE. 48.37'.
6. CONSTRUCT NEW SANITARY MANHOLE OVER EXISTING 10" VT. EXISTING 10" VT IN. EL. 45.94' VERIFY, IN. EL. W. 45.95'.
7. CONNECT NEW 24" CPS TO EXISTING STORM MANHOLE AT IN. EL. NW. 48.46' VERIFY. CONNECT NEW 10" VT AT IN. EL. SE. 49.29'.
8. REMOVE ANY PART OF PREVIOUSLY ABANDONED GAS THAT INTERFERES WITH NEW MECHANICAL CONSTRUCTION.
9. ALL SEWERS LOCATED WITHIN 10 FEET ON EITHER SIDE OF A WATER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT WATER WORKS GRADE CAST IRON PIPE.
10. NEW INCOMING GAS SERVICE BY CITIZENS GAS COMPANY. ALL COSTS INVOLVED IN REROUTING THE INCOMING GAS SERVICE SHALL BE PAID FOR BY THE OWNER.
11. CUT EXISTING 21" CPS AND CONNECT NEW 8" VTS AT IN. EL. 48.64' VERIFY.
12. CONNECT 6" VTS TO PERIMETER DRAIN PROVIDED BY G.C. - SEE SHEET S-1.
13. CONNECT NEW 6" FIRE LINE TO EXISTING. CAP AND ABANDON EXISTING UNUSED FIRE LINE, SEE NOTE #4.
14. CONNECT NEW INCOMING GAS SERVICE TO EXISTING, SEE NOTE #10.
15. EXISTING 8" VTS. CONNECT NEW 8"VTS AT IN. EL. 51.17'.
16. EXISTING 4" W VERIFY. DISCONNECT EXISTING 6" VT AND CONNECT NEW 6" VT.
17. EXISTING 2" W. DISCONNECT EXISTING 4" VT AND CONNECT NEW 6" VT AT IN. EL. 49.55' VERIFY.
18. EXISTING 6" VT, CUT AND CONNECT NEW 6" VT AT IN. EL. 49.60' VERIFY.



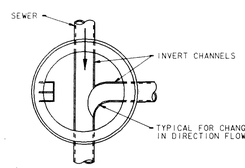
CABINET HEATER PIPING DIAGRAM

NO SCALE

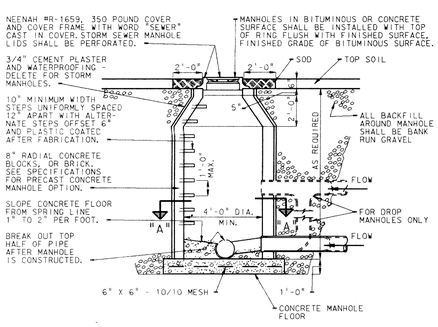


FAN COIL PIPING DIAGRAM

NO SCALE (HEATING, COOLING & PIPE SYSTEM)

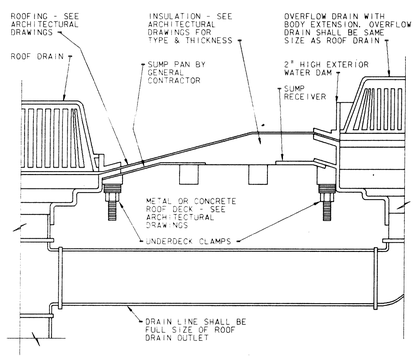


SECTION "A - A"



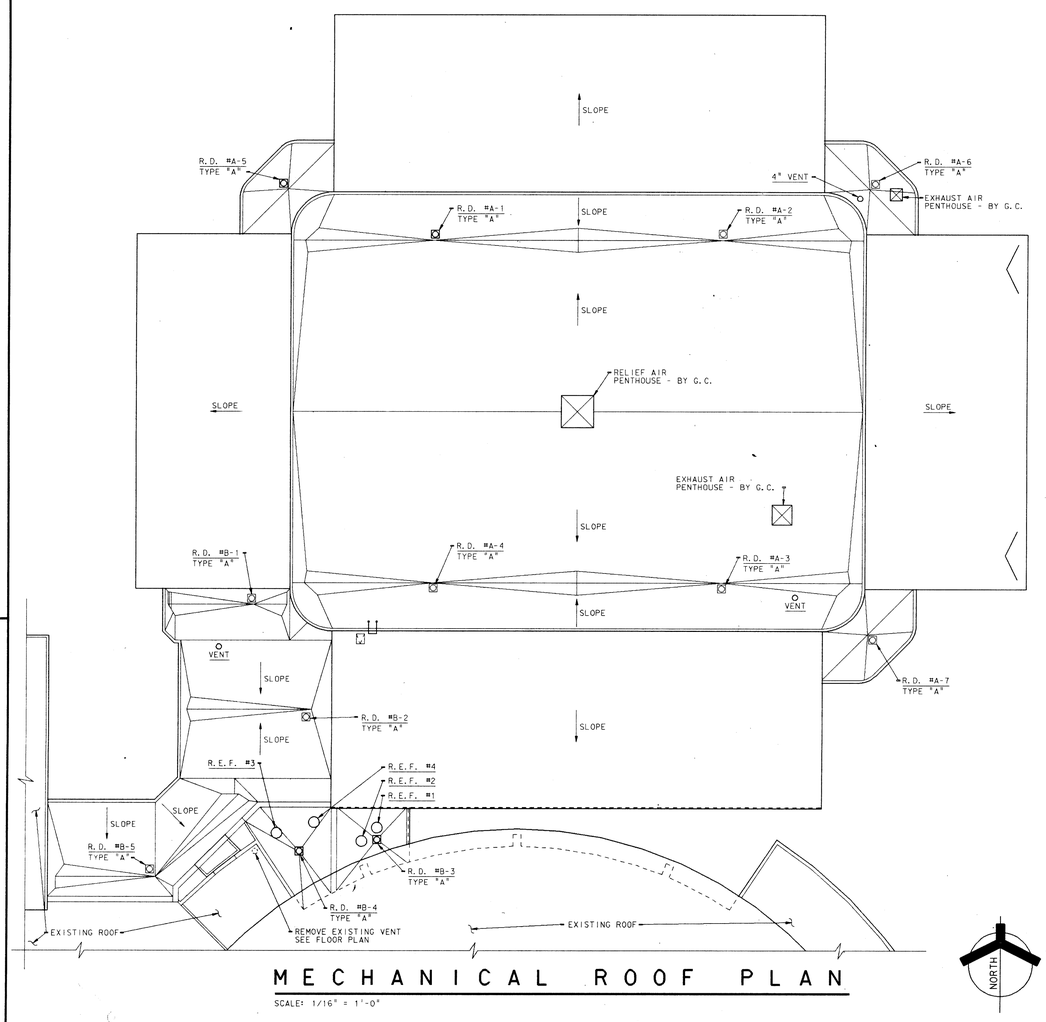
TYPICAL MANHOLE

NO SCALE



ROOF OVERFLOW DRAIN

NO SCALE

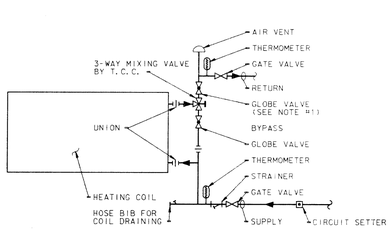


MECHANICAL ROOF PLAN

SCALE: 1/16" = 1'-0"

ROOF PLAN NOTES:

1. ALL VENTS NOT OTHERWISE NOTED ARE 3" PLUMBING VENTS.
2. ALL WORK SHOWN ON THIS SHEET IS BY MECHANICAL TRADES UNLESS OTHERWISE NOTED.
3. PROVIDE DECK CLAMPS FOR ALL ROOF DRAINS INSTALLED IN METAL DECK OR SIMILAR ROOF CONSTRUCTION. OVERFLOW DRAINS SHALL BE PROVIDED WITH DECK CLAMPS, SUMP RECEIVERS, DRAIN BODY EXTENSIONS AND 2" HIGH EXTERIOR WATER DAM. SEE DETAIL ON THIS SHEET. ALL ROOF DRAINS SHALL HAVE OVERFLOW DRAINS.
4. NO ROOF DRAIN SHALL BE SET WITHOUT PRIOR CONSULTATION WITH THE ARCHITECT'S FIELD REPRESENTATIVE. IN GENERAL, ALL ROOF DRAINS SHALL BE SET ON THE STRUCTURAL DECK AND NOT ON THE ROOF INSULATION.
5. THE MECHANICAL CONTRACTOR SHALL FIELD CUT THE SMALL ROOF OPENINGS REQUIRED FOR PLUMBING VENTS AND ROOF DRAIN OVERFLOW LINES.

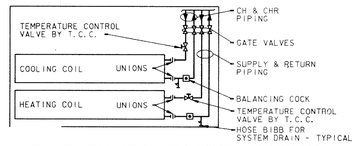


NOTE:

1. PROVIDE PLUG COCK INSTEAD OF GLOBE VALVE FOR PIPE SIZES 1-1/4" AND SMALLER.

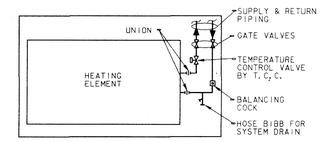
TYPICAL HOT WATER HEATING COIL PIPING DIAGRAM

NO SCALE (3-WAY VALVE)



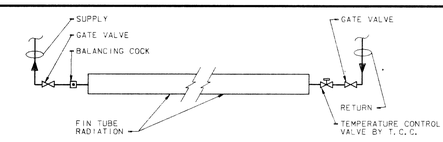
UNIT VENTILATOR PIPING DIAGRAM

NO SCALE (HEATING & COOLING)



CONVECTOR PIPING DIAGRAM

NO SCALE



TYPICAL FIN TUBE RADIATION PIPING DIAGRAM

NO SCALE

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LAWRENCE CENTRAL HIGH SCHOOL

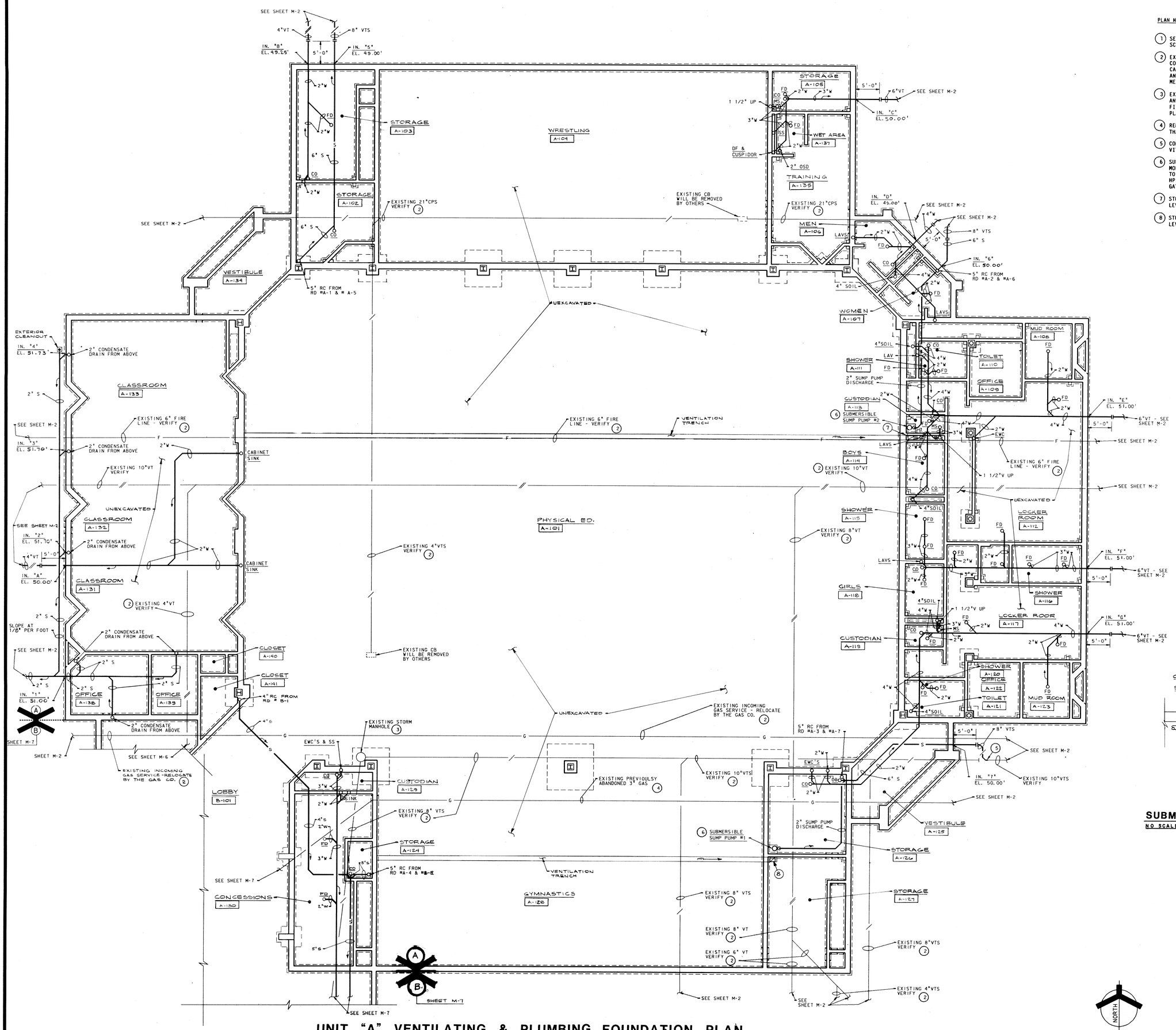
JAMES W. ROBERTS REGISTERED 8683 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT	DATE	REVISED
851-190	MAR. 24, 1986	

NO. M-2
OF 9

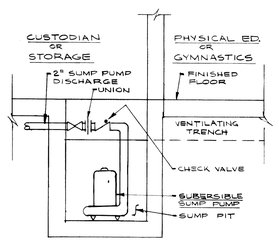
PLAN NOTES

1. SEE SHEET M-1 FOR GENERAL MECHANICAL NOTES, LEGEND AND SCHEDULES.
2. EXISTING UTILITY SHALL REMAIN IN SERVICE UNTIL NEW CONSTRUCTION IS COMPLETE THEN SHALL BE CUT, PLUGGED, CAPPED AND ABANDONED IN PLACE OUT OF SERVICE. REMOVE ANY PART OF EXISTING UTILITY THAT INTERFERES WITH NEW MECHANICAL CONSTRUCTION.
3. EXISTING STORM MANHOLE VERIFY. REMOVE COVER AND RIM AND TURN OVER TO OWNER. FILL INVERTS WITH CEMENT. FILL MANHOLE WITH SAND, BREAK IN TOP AND ABANDON IN PLACE OUT OF SERVICE.
4. REMOVE ANY PART OF EXISTING PREVIOUSLY ABANDONED GAS THAT INTERFERES WITH NEW MECHANICAL CONSTRUCTION.
5. CONNECT NEW 8" VITRIFIED TILE SEWER TO EXISTING 10" VITRIFIED TILE SEWER AT INVERT ELEVATION 49.51'.
6. SUBMERSIBLE SUMP PUMPS #1 AND #2 SHALL BE ENPO COMPANY MODEL #AU, OR AN APPROVED EQUAL. HAVING THE CAPACITY TO PUMP 30 GPM AT 8 FEET OF HEAD. MOTOR DATA: 1/3 HP, 115 VOLT, 1-PHASE, 60 HERTZ, 1750 RPM. PROVIDE GATE AND CHECK VALVE IN PUMP DISCHARGE LINE.
7. STUB 18" X 12" EXHAUST DUCT INTO OPENING AT FLOOR LEVEL. SEAL AIRTIGHT. SEE SHEET M-9 FOR CONTINUATION.
8. STUB 14" X 12" EXHAUST DUCT INTO OPENING AT FLOOR LEVEL. SEAL AIRTIGHT. SEE SHEET M-8 FOR CONTINUATION.



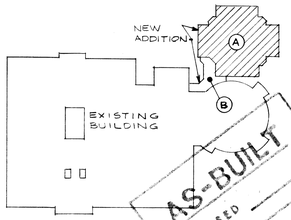
UNIT "A" VENTILATING & PLUMBING FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



SUBMERSIBLE SUMP PUMP DETAIL

NO SCALE



KEY PLAN

NO SCALE

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LAWRENCE CENTRAL HIGH SCHOOL

James W. Roberts

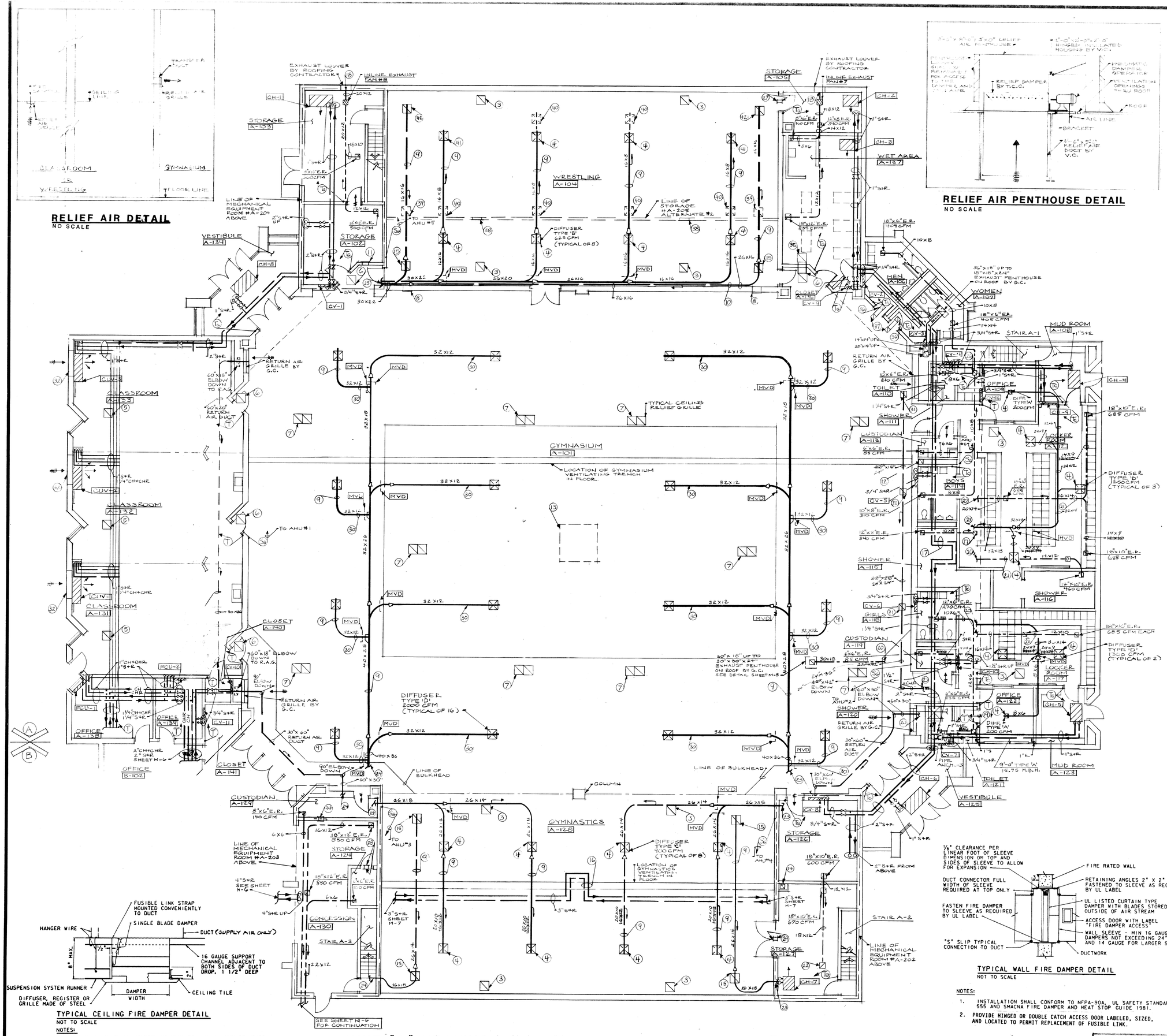
JAMES W. ROBERTS REGISTERED 8583 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT 851-190	DATE MARCH 24, 1986	REVISED

NO. M-3
OF 9

RELIEF AIR DETAIL
NO SCALE

RELIEF AIR PENTHOUSE DETAIL
NO SCALE



UNIT "A" HEATING, VENTILATING, & AIR CONDITIONING FIRST FLOOR PLAN
SCALE: 1/8":1'-0"

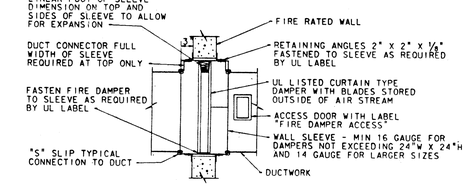
PLAN NOTES:

1. SEE SHEET M-1 FOR GENERAL MECHANICAL NOTES, LEGEND AND SCHEDULES.
2. ALL WORK SHOWN ON THIS SHEET IS BY MECHANICAL TRADES UNLESS OTHERWISE NOTED.
3. 24" x 24" RELIEF AIR GRILLE WITH FIRE DAMPER. SEE TYPICAL CEILING FIRE DAMPER DETAIL AND RELIEF AIR DETAIL THIS SHEET.
4. SUPPLY DIFFUSER SHALL HAVE FIRE DAMPER AS SHOWN IN TYPICAL CEILING FIRE DAMPER DETAIL THIS SHEET. ALTERNATE #2: DELETE THIS SUPPLY DIFFUSER FROM DRAWING. SEE NOTE 40.
5. 24" X 24" RELIEF AIR GRILLE WITH FIRE DAMPER. SEE TYPICAL CEILING FIRE DAMPER DETAIL AND RELIEF AIR DETAIL THIS SHEET.
6. 24" X 12" RELIEF AIR GRILLE IN SOFFIT.
7. TWO 24" X 24" RELIEF AIR GRILLES.
8. STAMPED STEEL GRILLE BY GENERAL CONTRACTOR.
9. DUCTWORK SHALL RUN BETWEEN JOISTS AS SHOWN.
10. RETURN AIR DUCT TO BE RUN DIRECTLY ABOVE SUPPLY AIR DUCT SHOWN.
11. 28" X 16" RELIEF AIR GRILLE CONNECTED BY 28" X 16" DUCT THROUGH WALL CENTERED ABOVE DOOR.
12. 18" X 12" UP. SEE SHEET M-8 FOR CONTINUATION.
13. RELIEF AIR PENTHOUSE ON ROOF BY GENERAL CONTRACTOR. SEE DETAIL THIS SHEET.
14. 14" X 12" UP. SEE SHEET M-8 FOR CONTINUATION.
15. 24" X 24" RETURN AIR GRILLE SHALL HAVE FIRE DAMPER AS SHOWN IN TYPICAL CEILING FIRE DAMPER DETAIL THIS SHEET. ALTERNATE #2: DELETE THIS RETURN AIR GRILLE FROM DRAWING. SEE NOTE 39.
16. 6'-0" X 4'-0" EXPANSION LOOP.
17. 5'-0" X 3'-0" EXPANSION LOOP.
18. EXHAUST DUCT SHALL CONNECT INTO LOUVER AS SHOWN IN DUCTWORK - LOUVER DETAIL ON THIS SHEET.
19. **12" X 8" UP TO MECHANICAL EQUIPMENT ROOM A-201.**
20. **SEE SHEET M-9, MECHANICAL EQUIPMENT ROOM A-201 FOR CONTINUTIONS.**
21. EXHAUST DUCTWORK SHALL RUN BETWEEN JOISTS.
22. 18" X 12" UP TO MECHANICAL ROOM A-202.
23. SEE SHEET M-8, MECHANICAL EQUIPMENT ROOM A-202, FOR CONTINUATION.
24. SEE SHEET M-8, MECHANICAL EQUIPMENT ROOM A-203, FOR CONTINUATION.
25. SEE SHEET M-9, MECHANICAL EQUIPMENT ROOM A-204, FOR CONTINUATION.
26. 14" X 14" UP TO MECHANICAL EQUIPMENT ROOM A-201.
27. 28" X 8" RELIEF AIR GRILLE CONNECTED BY 28" X 8" DUCT THROUGH WALL CENTERED ABOVE DOOR.
28. 18" X 8" RELIEF AIR GRILLE CONNECTED BY 18" X 8" DUCT THROUGH WALL CENTERED ABOVE DOOR WITH FIRE DAMPER.
29. 18" X 8" RELIEF AIR GRILLE CONNECTED BY 18" X 8" DUCT THROUGH WALL CENTERED ABOVE DOUBLE DOORS.
30. DUCTWORK SHALL RUN THROUGH WEB OF JOISTS.
31. 24" X 24" RETURN AIR GRILLE (LOCKER ROOM MAKE-UP AIR).
32. OUTDOOR AIR INTAKE BY ROOFING CONTRACTOR.
33. EXHAUST DUCTWORK SHALL BE COVERED WITH 1" INSULATION FROM BACKDRAFT DAMPER TO LOUVER.
34. TWO 22" X 22" TRANSFER GRILLES. 22" X 22" TRANSFER DUCT SLEEVE THROUGH WALL WITH FIRE DAMPER. SEE TYPICAL WALL FIRE DAMPER DETAIL THIS SHEET.
35. 24" X 12" RELIEF AIR GRILLE WITH FIRE DAMPER AND 24" X 12" TRANSFER DUCT TO RELIEF AIR GRILLE IN SOFFIT. SEE TYPICAL CEILING FIRE DAMPER DETAIL THIS SHEET.
36. 12" X 12" RELIEF AIR GRILLE WITH FIRE DAMPER AND 12" X 12" TRANSFER DUCT TO RELIEF AIR GRILLE.
37. 12" X 12" RELIEF AIR GRILLE IN SOFFIT.
38. **ALTERNATE #2: 24" X 24" RELIEF AIR GRILLE. OPENING BY GENERAL CONTRACTOR.**
39. **ALTERNATE #2: 24" X 24" RETURN AIR GRILLE SHALL HAVE FIRE DAMPER AS SHOWN IN TYPICAL CEILING FIRE DAMPER DETAIL THIS SHEET.**
40. **ALTERNATE #2: SUPPLY DIFFUSER SHALL HAVE FIRE DAMPER AS SHOWN IN TYPICAL CEILING FIRE DAMPER DETAIL AND RELIEF AIR DETAIL THIS SHEET.**
41. SUPPLY DIFFUSER SHALL HAVE FIRE DAMPER AS SHOWN IN TYPICAL CEILING FIRE DAMPER DETAIL AND RELIEF AIR DETAIL THIS SHEET.
42. 24" X 24" RETURN AIR GRILLE SHALL HAVE FIRE DAMPER AS SHOWN IN TYPICAL CEILING FIRE DAMPER DETAIL THIS SHEET.

TYPICAL CEILING FIRE DAMPER DETAIL
NOT TO SCALE

NOTES:

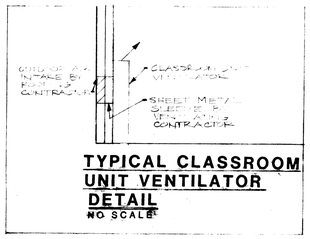
1. INSTALLATION SHALL CONFORM TO NFPA-90A, UL SAFETY STANDARD 555 AND SMACNA FIRE DAMPER AND HEAT STOP GUIDE 1981.
2. **DAMPER PROTECTED WITH FIREPROOF MATERIAL BOTH SIDES AND HELD OPEN WITH 160° FUSIBLE LINK.**



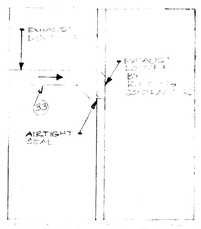
TYPICAL WALL FIRE DAMPER DETAIL
NOT TO SCALE

NOTES:

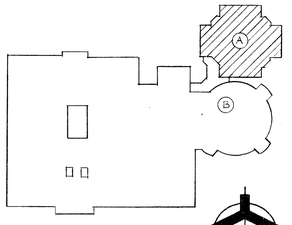
1. INSTALLATION SHALL CONFORM TO NFPA-90A, UL SAFETY STANDARD 555 AND SMACNA FIRE DAMPER AND HEAT STOP GUIDE 1981.
2. PROVIDE HINGED OR DOUBLE CATCH ACCESS DOOR LABELED, SIZED, AND LOCATED TO PERMIT REPLACEMENT OF FUSIBLE LINK.



TYPICAL CLASSROOM UNIT VENTILATOR DETAIL
NO SCALE



EXHAUST DUCTWORK AND LOUVER DETAIL
NO SCALE



KEY PLAN
NO SCALE

AS-BUILT
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ARCHITECTS ENGINEERS
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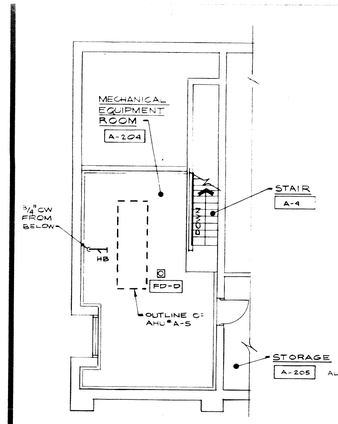
LAWRENCE CENTRAL HIGH SCHOOL

James W. Roberts

JAMES W. ROBERTS REGISTERED # 8533 STATE OF INDIANA PROFESSIONAL ENGINEER

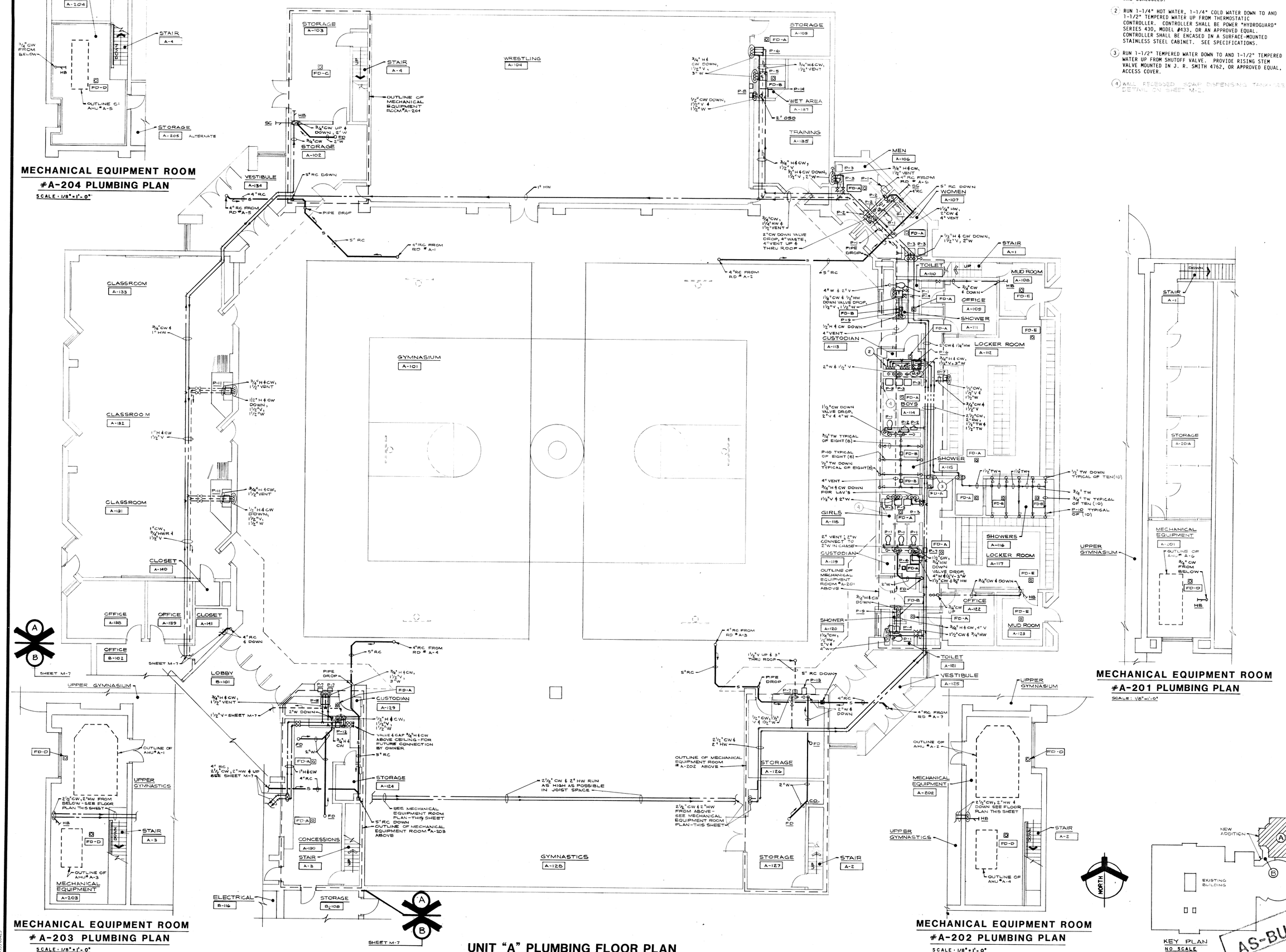
PROJECT	DATE	REVISED
851-190	MARCH 24, 1986	

NO. M-4
OF 9



MECHANICAL EQUIPMENT ROOM #A-204 PLUMBING PLAN

SCALE: 1/8" = 1'-0"



MECHANICAL EQUIPMENT ROOM #A-203 PLUMBING PLAN

SCALE: 1/8" = 1'-0"

UNIT "A" PLUMBING FLOOR PLAN

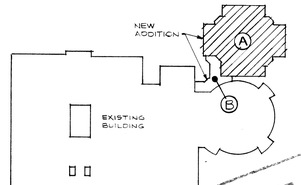
SCALE: 1/8" = 1'-0"

MECHANICAL EQUIPMENT ROOM #A-202 PLUMBING PLAN

SCALE: 1/8" = 1'-0"

MECHANICAL EQUIPMENT ROOM #A-201 PLUMBING PLAN

SCALE: 1/8" = 1'-0"



KEY PLAN
NO SCALE

PLAN NOTES

1. SEE SHEET M-1 FOR GENERAL MECHANICAL NOTES, LEGEND, AND SCHEDULES.
2. RUN 1-1/4" HOT WATER, 1-1/4" COLD WATER DOWN TO AND 1-1/2" TEMPERED WATER UP FROM THERMOSTATIC CONTROLLER. CONTROLLER SHALL BE POWER "HYDROGUARD" SERIES 430, MODEL #433, OR AN APPROVED EQUAL. CONTROLLER SHALL BE ENCASED IN A SURFACE-MOUNTED STAINLESS STEEL CABINET. SEE SPECIFICATIONS.
3. RUN 1-1/2" TEMPERED WATER DOWN TO AND 1-1/2" TEMPERED WATER UP FROM SHUTOFF VALVE. PROVIDE RISING STEM VALVE MOUNTED IN J. R. SMITH 4762, OR APPROVED EQUAL, ACCESS COVER.
4. WALL RECESSED SOAP DISPENSING TANK - SEE DETAIL ON SHEET M-2.

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LAWRENCE CENTRAL

James W. Roberts

JAMES W. ROBERTS #8583 STATE OF INDIANA REGISTERED PROFESSIONAL ENGINEER

AS-BUILT REVISED

PROJECT	DATE	REVISED
851-190	MARCH 24, 1986	

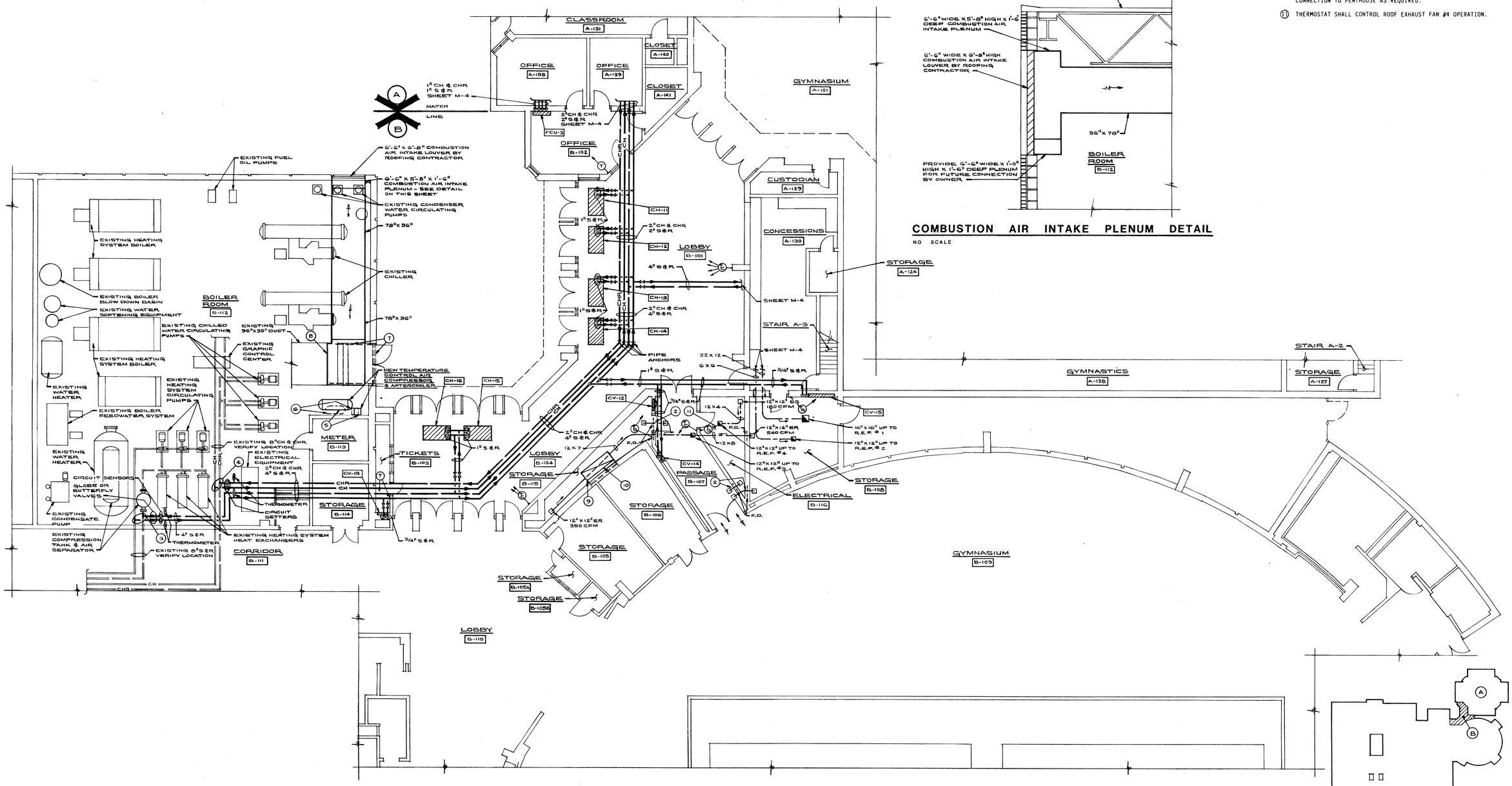
NO. M-5
OF 9

PLAN NOTES

1. SEE SHEET M-1 FOR GENERAL NOTES, LEGEND AND SCHEDULES.
2. 12" X 12" TRANSFER AIR GRILLES IN CEILING CONNECTED BY A 12" X 8" DUCT. PROVIDE FIRE DAMPER WHERE DUCT PASSES THROUGH WALL.
3. CONNECT NEW 4" SUPPLY AND RETURN TO EXISTING 8" SUPPLY AND RETURN AS REQUIRED.
4. CONNECT NEW 2" CHILLED WATER AND CHILLED WATER RETURN TO EXISTING 8" CHILLED WATER AND CHILLED WATER RETURN AS REQUIRED.
5. TEMPERATURE CONTROL AIR COMPRESSOR AND AFTERCOOLER SHALL BE PROVIDED AND INSTALLED BY THE TEMPERATURE CONTROL CONTRACTOR. AIR COMPRESSOR SHALL BE A DUPLEX RECIPROCATING TYPE MOUNTED ON A 200 GALLON HORIZONTAL RECEIVER - SEE SPECIFICATIONS. MOTOR DATA: (2) 5 H.P., 460 VOLTS, 3-PHASE, 60 HERTZ. AFTERCOOLER: 1/5 HP, 115 VOLT, 1-PHASE, 60 HERTZ. SEE SPECIFICATIONS.
6. DISCONNECT AND REMOVE EXISTING TEMPERATURE CONTROL AIR COMPRESSOR AND AFTERCOOLER AND TURN OVER TO THE OWNER.
7. DISCONNECT AND REMOVE EXISTING COMBUSTION AIR DUCTWORK FROM EXISTING WALL LOUVER. EXISTING LOUVER WILL BE REMOVED BY OTHERS.
8. CONNECT NEW COMBUSTION AIR DUCT TO EXISTING AS REQUIRED.
9. CONNECT NEW 7'-6" WIDE X 4'-6" HIGH X 3'-6" LONG PLENUM TO EXISTING OUTDOOR AIR INTAKE WALL OPENING AND PROVIDE AIRTIGHT SEAL. VERIFY EXACT EXISTING WALL OPENING SIZE BEFORE FABRICATING NEW DUCT. EXISTING OUTDOOR AIR INTAKE LOUVER IN EXISTING OPENING WILL BE REMOVED BY OTHERS.
10. 80" X 20" OUTDOOR INTAKE DUCT UP AND TERMINATE IN 8'-0" X 3'-0" X 2'-6" HIGH OUTDOOR AIR INTAKE PENTHOUSE PROVIDED BY OTHERS. PROVIDE AIRTIGHT DUCT CONNECTION TO PENTHOUSE AS REQUIRED.
11. THERMOSTAT SHALL CONTROL ROOF EXHAUST FAN #4 OPERATION.

COMBUSTION AIR INTAKE PLENUM DETAIL

NO SCALE



UNIT "B" HEATING, VENTILATING & AIR CONDITIONING FIRST FLOOR PLAN

SCALE 1/8" : 1'-0"

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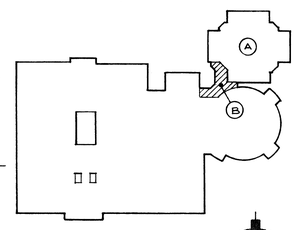

KEY PLAN
NO SCALE

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LAWRENCE CENTRAL HIGH SCHOOL

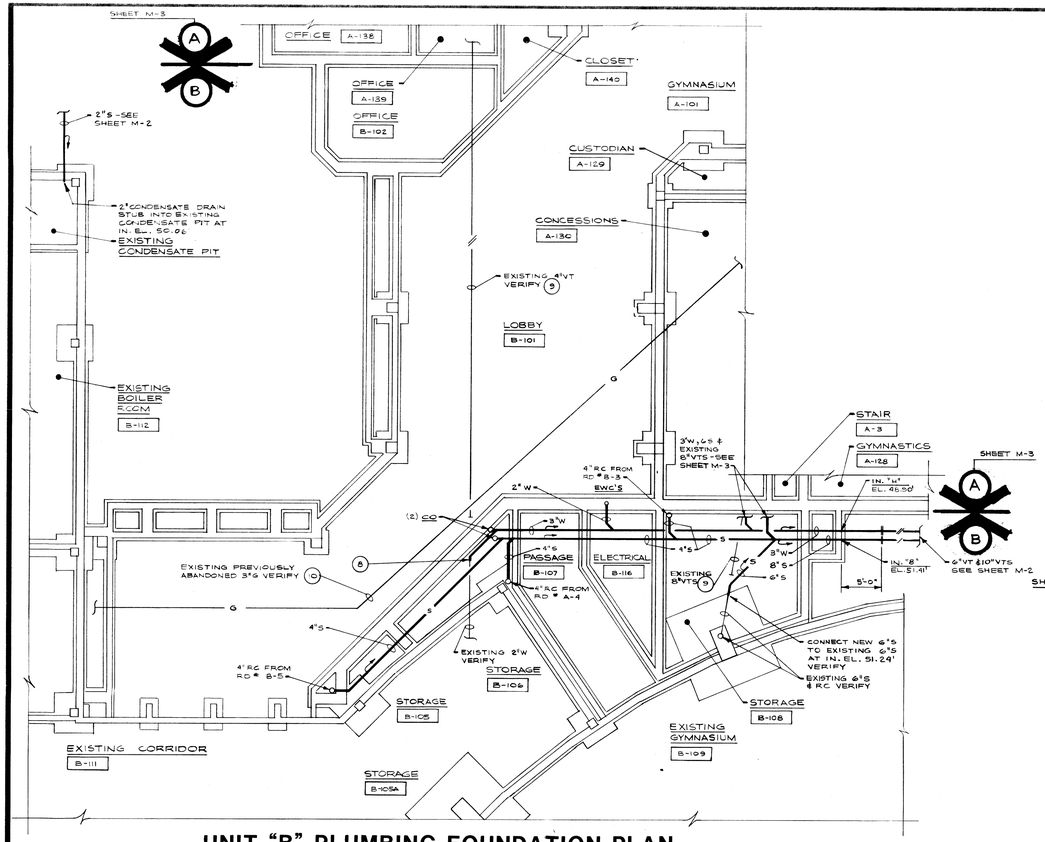
James W. Roberts

JAMES W. ROBERTS #8583 STATE OF INDIANA REGISTERED PROFESSIONAL ENGINEER

PROJECT	DATE	REVISED
851-190	MAR. 24, 1986	

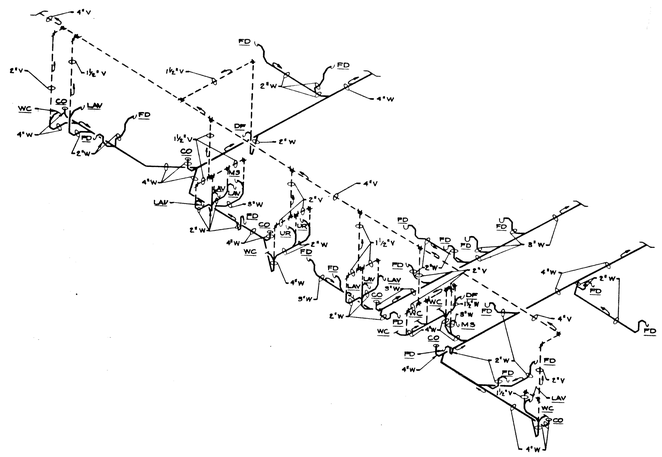
NO. M-6
OF 9

BRUNING 40-5383-66425



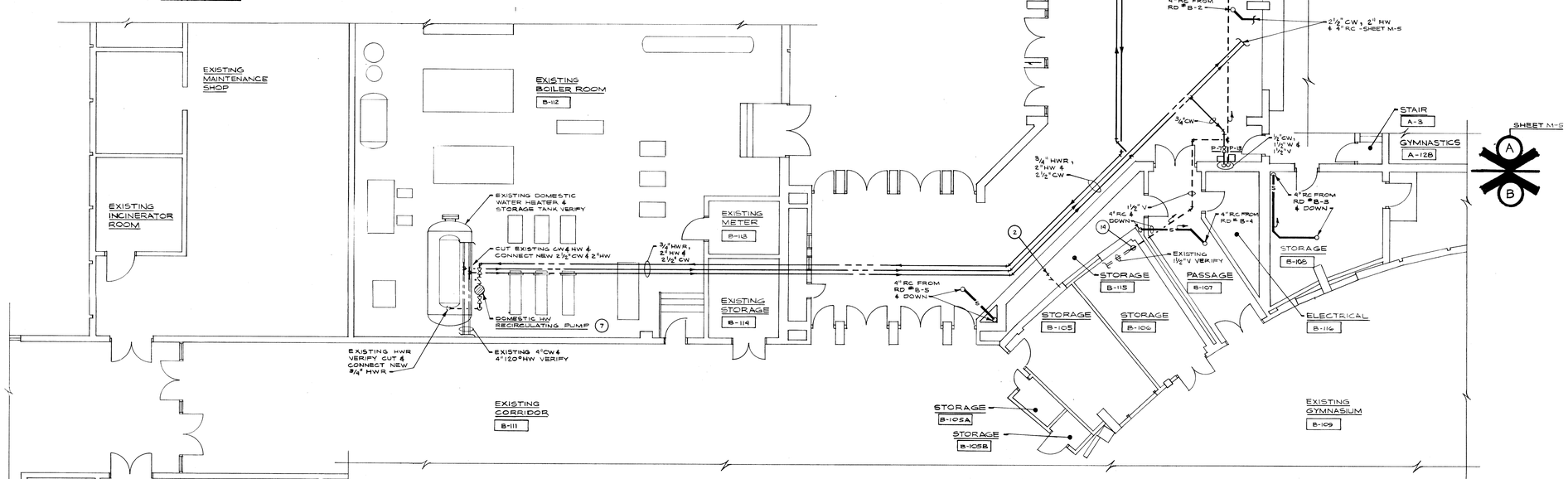
UNIT "B" PLUMBING FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



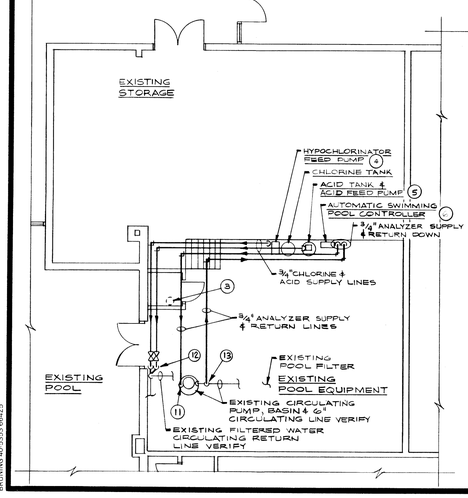
WASTE AND VENT PIPING ISOMETRIC FOR SHOWER AND LOCKER AREAS UNIT "A"

NO SCALE



UNIT "B" PLUMBING FLOOR PLAN

SCALE: 1/8" = 1'-0"



PLAN NOTES

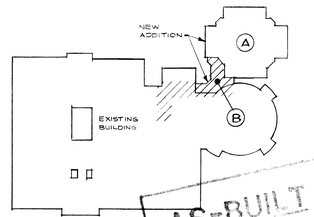
1. SEE SHEET M-1 FOR GENERAL MECHANICAL NOTES, LEGEND, AND SCHEDULES.
2. EXISTING SILL COCK VERIFY, DISCONNECT AND REMOVE. REMOVE COLD WATER SUPPLY TO A POINT BELOW FINISHED WALL SURFACE THEN CUT, PLUG, AND CAP.
3. DISCONNECT AND TURN OVER TO OWNER EXISTING GAS CHLORINE SYSTEM. REMOVE ALL RELATED PIPING TO WALL, FLOOR OR CEILING SURFACE AND CUT, PLUG, AND CAP.
4. HYPOCHLORINATOR FEED PUMP

   PUMP SHALL BE WALLACE AND TIERNAN MODEL #A747 OR AN APPROVED EQUAL. SEE SPECIFICATIONS. MOTOR DATA: 1/4 HP, 115 VOLT, 60 HERTZ, 1-PHASE, 1725 RPM.
5. ACID FEED PUMP

   PUMP SHALL BE WALLACE AND TIERNAN MODEL #94-200 OR AN APPROVED EQUAL. SEE SPECIFICATIONS. ELECTRICAL DATA: 115 VOLT, 1-PHASE, 60 HERTZ.
6. AUTOMATIC SWIMMING POOL CONTROLLER

   ANALYZER SHALL BE STRANTROL MODEL #390R WITH RECORDER OR APPROVED EQUAL. SEE SPECIFICATIONS. PROVIDE 2" X 2" X 1/8" FRAME AND 5/8" OUTDOOR PLYWOOD ANCHORED ON LOW WALL FOR STRANTROL MOUNTING. MOUNT AT 36" TO BOTTOM ABOVE FINISHED FLOOR. ELECTRICAL DATA: 115 VOLT, 20 AMPS, 60 HERTZ.
7. DOMESTIC HOT WATER RECIRCULATING PUMP

   PUMP SHALL BE BELL & GOSSETT BOOSTER SERIES MODEL #B2 OR AN APPROVED EQUAL CAPABLE OF PUMPING 10 GPM AT 10 FEET OF HEAD. PUMP SHALL START AND STOP ON 10° TEMPERATURE VARIATION IN RETURN MAINS. MOTOR DATA: 1/6 HP, 115 VOLTS, 1-PHASE, 60 HERTZ, 1750 RPM.
8. CONNECT NEW 3" WASTE TO EXISTING 2" WASTE AT INVERT ELEVATION 49.90'. VERIFY.
9. EXISTING UTILITY SHALL REMAIN IN SERVICE UNTIL NEW CONSTRUCTION IS COMPLETE, THEN SHALL BE CUT, PLUGGED, CAPPED AND ABANDONED IN PLACE OUT OF SERVICE. REMOVE ANY PART OF EXISTING UTILITY THAT INTERFERES WITH NEW MECHANICAL CONSTRUCTION.
10. REMOVE ANY PART OF EXISTING PREVIOUSLY ABANDONED GAS THAT INTERFERES WITH NEW MECHANICAL CONSTRUCTION.
11. TERMINATE 3/4" ANALYZER RETURN IN EXISTING CIRCULATING PUMP BASIN.
12. CONNECT NEW CHEMICAL TREATMENT LINES TO EXISTING CIRCULATING RETURN LINE.
13. CONNECT NEW 3/4" ANALYZER TO 6" CIRCULATING PUMP DISCHARGE LINE.
14. EXISTING 1-1/2" VENT UP AND THROUGH ROOF - VERIFY. REMOVE VENT THROUGH ROOF AND CONNECT NEW 1-1/2" VENT.



KEY PLAN

NO SCALE

AS-BUILT REVISED

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LAWRENCE CENTRAL HIGH SCHOOL

JAMES W. ROBERTS REGISTERED PROFESSIONAL ENGINEER #8583 STATE OF INDIANA

PROJECT	DATE	REVISED
851-190	MARCH 24, 1986	

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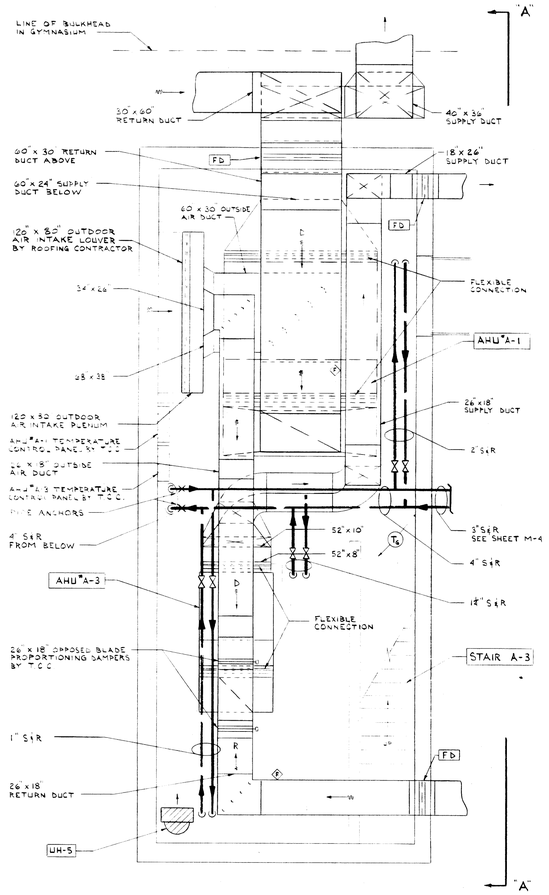
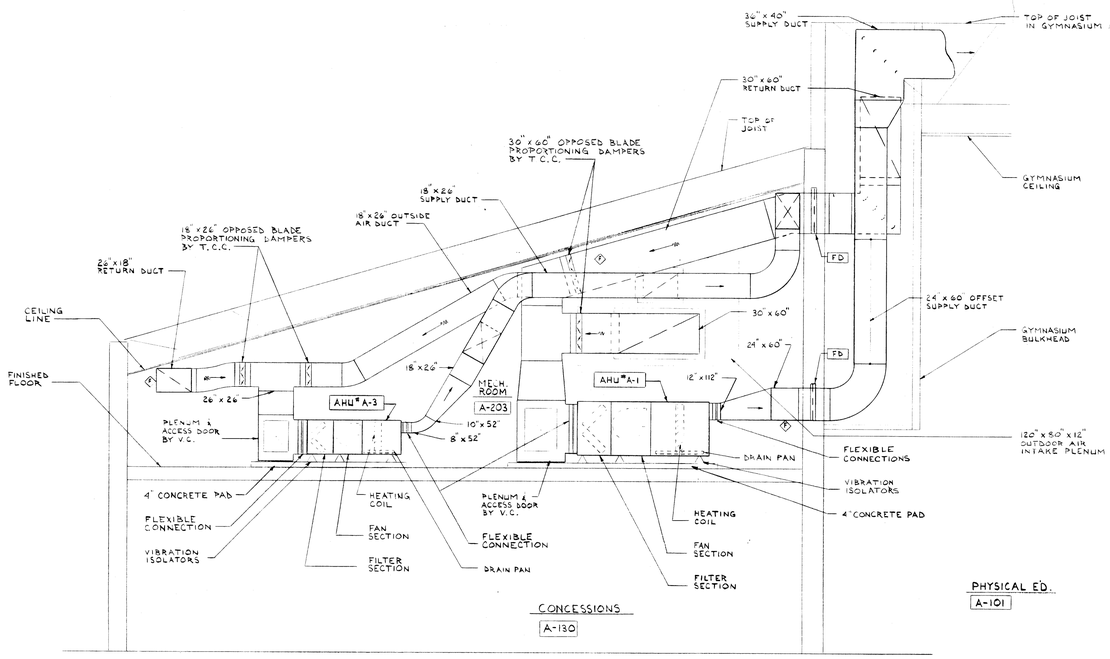
BRUNING 40 5353 66425



MECHANICAL EQUIPMENT ROOM A-203

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

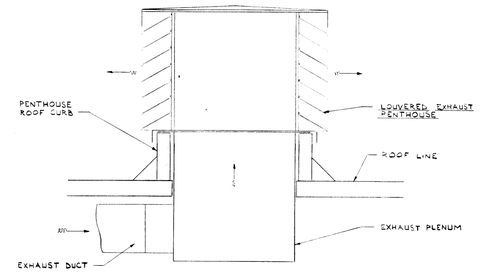


SECTION "A-A"

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

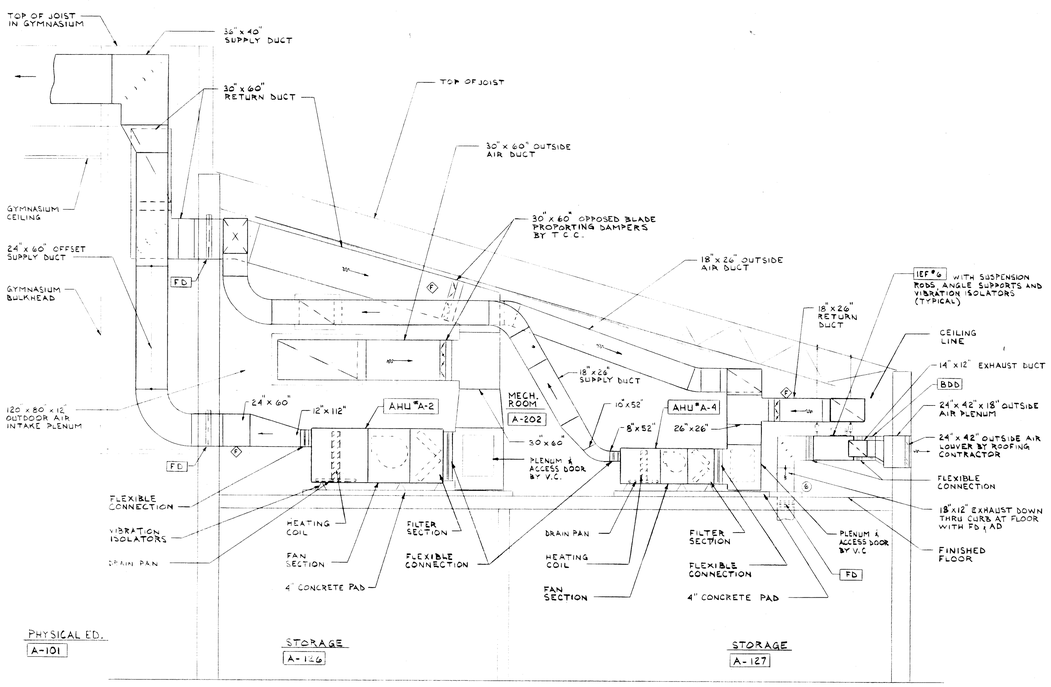
PLAN NOTES:

1. ALL LOW PRESSURE SUPPLY AND RETURN DUCTWORK SHALL BE LINED WITH 1/2" DUCT LINER.
2. ALL DIMENSIONS SHOWN ARE SHEET METAL DIMENSIONS.
3. ALL EXHAUST DISCHARGE DUCT FROM INLINE EXHAUST FANS SHALL BE COVERED WITH 1" INSULATION.
4. ALL SUSPENDED UNITS TO BE SUPPORTED FROM TOP CHORD OF JOIST.
5. ALL DUCT PENETRATIONS THROUGH MECHANICAL ROOM FLOORS AND WALLS SHALL HAVE FIRE DAMPERS WITH ACCESS DOORS.
6. CURB OPENING SIZES TO BE VERIFIED FROM FIRE DAMPER SCHEDULE WHERE TYPE "B" FIRE DAMPERS ARE REQUIRED.
7. PROVIDE DRAIN PAN FOR ALL AIR HANDLING UNIT HEATING COILS WITH 1-1/4" DRAIN LINE TERMINATING OVER NEAREST DRAIN.



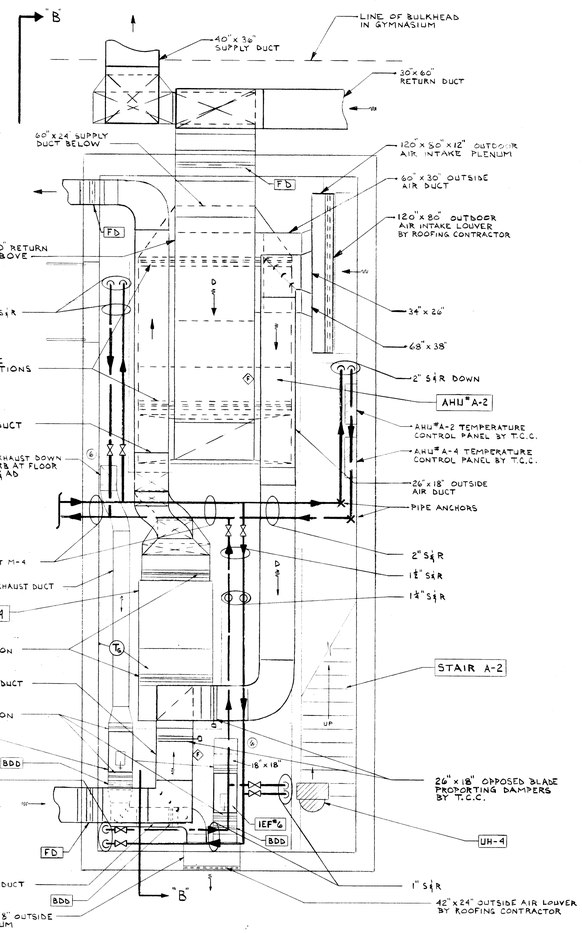
TYPICAL EXHAUST PENTHOUSE DETAIL

NO SCALE



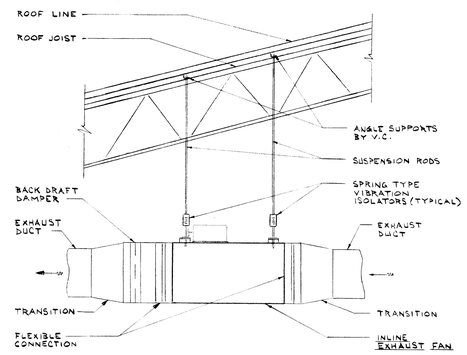
SECTION "B-B"

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



MECHANICAL EQUIPMENT ROOM A-202

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



TYPICAL INLINE EXHAUST FAN DETAIL

NO SCALE

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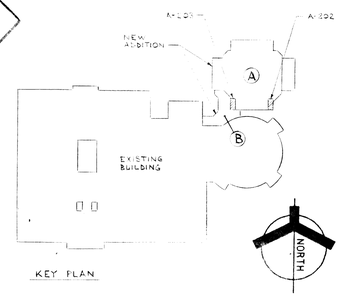

KEY PLAN

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LAWRENCE CENTRAL HIGH SCHOOL

James W. Roberts

JAMES W. ROBERTS #8583 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT	DATE	REVISED
861-190	MARCH 24, 1988	

NO. M-9
OF

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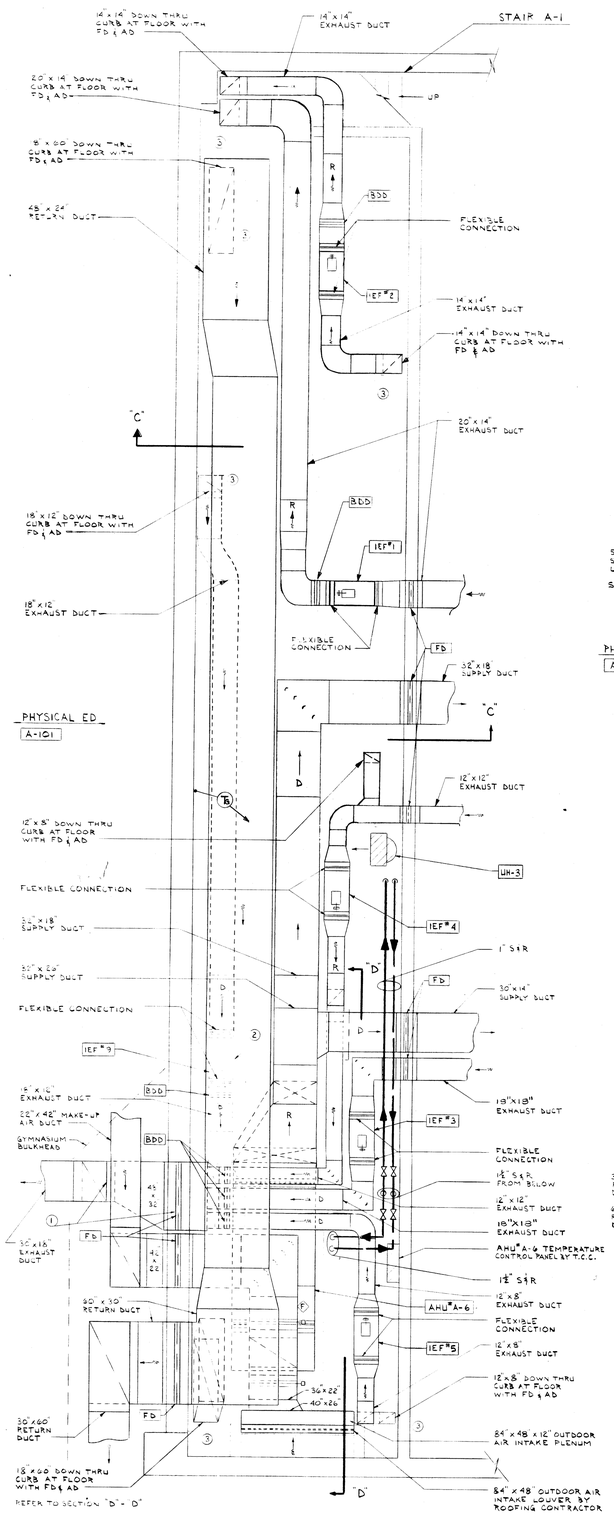
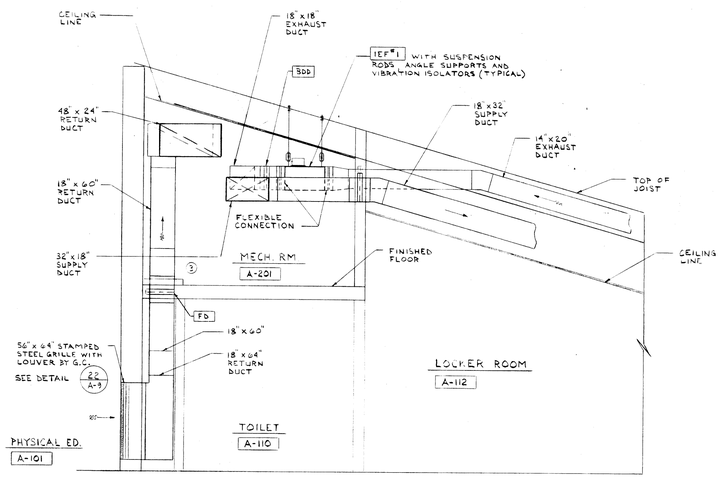
PLAN NOTES:

1. 48" X 32" X 32" EXHAUST PLENUM AND ALL DUCTWORK UP TO ROOFTOP LOUVERED PENTHOUSE SHALL BE COVERED WITH 1" INSULATION.
2. DO NOT PENETRATE RETURN AIR DUCT WITH SUSPENSION ROD AT IEF #9 .
3. CURB OPENING SIZES TO BE VERIFIED FROM FIRE DAMPER SCHEDULE WHERE TYPE "B" FIRE DAMPERS ARE REQUIRED.



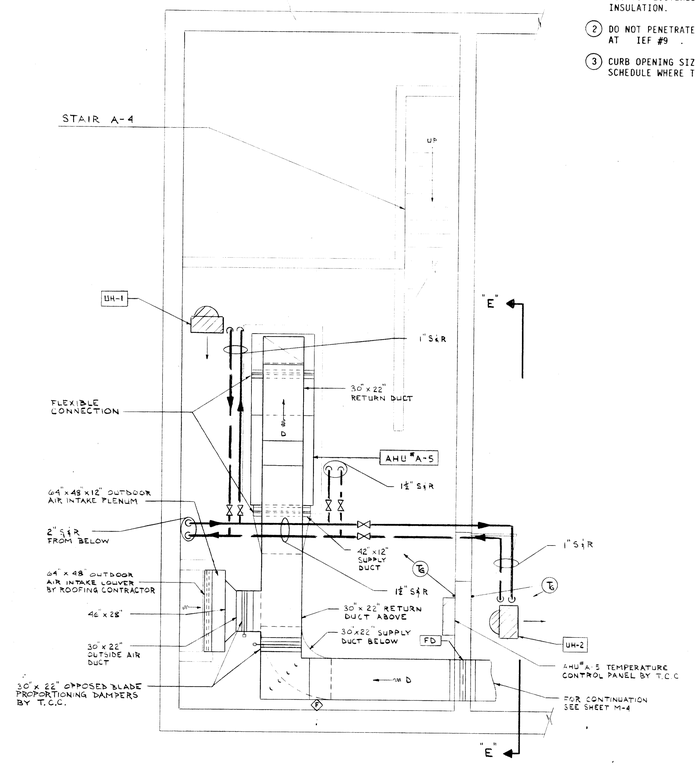
MECHANICAL EQUIPMENT ROOM A-201

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



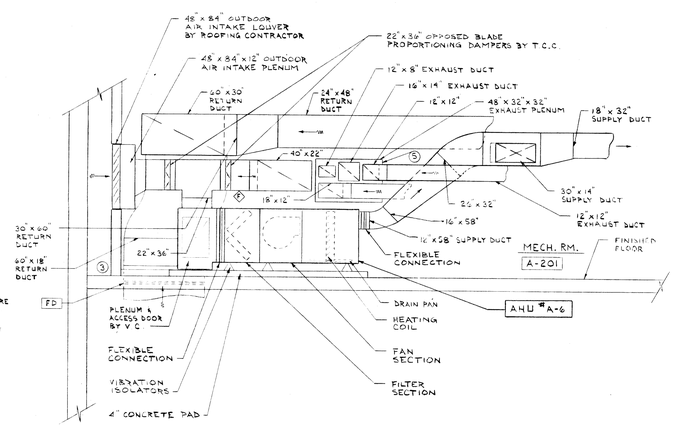
SECTION "C-C"

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



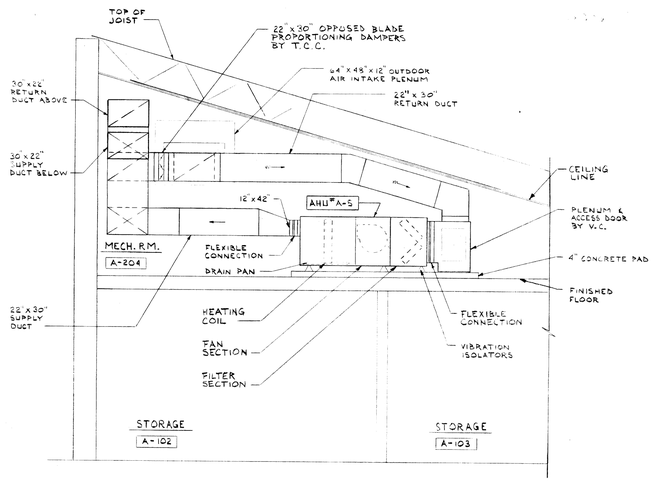
MECHANICAL EQUIPMENT ROOM A-204

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



SECTION "D-D"

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



SECTION "E-E"

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

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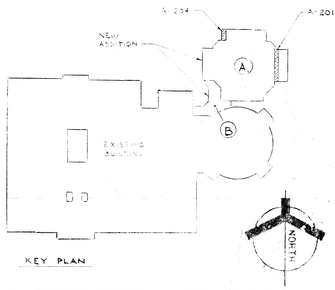

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W. ROBERTS REGISTERED '93

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