GENERAL NOTES:

1. COORDINATE WITH ELECTRICAL CONTRACTOR TO INSURE N.E.C. REQUIRED CLEARENCES FROM DUCTWORK, PIPING, ETC. ARE MAINTAINED AROUND ELECTRICAL EQUIPMENT (PANELBOARDS, SWITCHBOARDS, DISCONNECTS, ETC.)
2. DUCTWORK DIMENSION SHOWN ON DRAWINGS ARE SHEETMETAL DIMENSIONS. NET FREE AREA SHALL BE SHEETMETAL DIMENSIONS LESS THE LINEAR THICKNESS ON LINED DUCTWORK.
3. CONTRACTOR SHALL REFER TO THE ELECTRICAL DRAWINGS FOR THE PROPER ELECTRICAL CHARACTERISTICS FOR ALL MOTORS, HEATERS, AND ALL OTHER ELECTRICAL DEVICES FURNISHED BY THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR ALL REQUIRED ELECTRICAL CONNECTIONS AND CIRCUITS, ETC. REQUIRED FOR MECHANICAL EQUIPMENT, HEATERS, CONTROLS, ETC.
4. FLEXIBLE DUCT RUNOUT SHALL NOT EXCEED 4'-0". FOR RUNOUTS LONGER THAN 4 FEET USE COMBINATION OF ROUND SHEETMETAL DUCT AND FLEXIBLE DUCT.
5. MOTORS SHALL BE DESIGNED TO OPERATE ON VOLTAGE SPECIFIED. CONTRACTOR FURNISHING LARGER MOTORS THAN THOSE INDICATED SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COST AND SHALL PAY ALL COSTS.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF EQUIPMENT BEFORE INSTALLATION.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL WORK AND MATERIALS TO ACCOMPLISH THE INTENT OF THE PLANS. PLANS INDICATE THE EXTENT, GENERAL CHARACTER AND LOCATION OF WORK DIAGRAMMATICALLY ONLY. WORK INDICATED BY HAVING MINOR DETAILS NOT SHOWN, SHALL BE FURNISHED COMPLETE, BY THIS CONTRACTOR, TO PERFORM THE FUNCTION INTENDED.
8. DUCT SMOKE DETECTOR SHALL BE FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR AND TO BE INSTALLED BY MECHANICAL CONTRACTOR. DUCT SMOKE DETECTORS SHALL BE POWERED BY FIRE ALARM SYSTEM.
9. CONTRACTOR TO PROVIDE A NEW SET OF FILTERS IN ALL HVAC EQUIPMENTS AT THE TIME OF SUBSTANTIAL COMPLETION PLUS ONE ADDITIONAL SET FOR ALL HVAC EQUIPMENTS.
10. ALL LOCAL GOVERNING CODES TO BE STRICTLY OBSERVED.
11. PUMPS SHALL BE SELECTED SO THAT THE OPERATING POINT ON THE SELECTED IMPELLER CURVE WILL BE AT OR THE LEFT OF THE POINT OF MAXIMUM EFFICIENCY.
12. PROVIDE MINIMUM 12X12 ACCESS DOORS IN DUCTWORK AND THRU ARCHITECTURAL FINISHES FOR FIRE DAMPERS.
13. MOUNT THERMOSTATS WHERE INDICATED ON THE DRAWINGS 60" AFF.
14. ALL CONTROL ELECTRICAL POWER WIRING SHALL BE FURNISHED AND INSTALLED BY THE CONTROL CONTRACTOR. POWER SOURCES SHALL BE TAKEN FROM THE NEAREST ELECTRICAL PANELS. CIRCUITS SHALL BE DEDICATED TO THE CONTROLS AND SHALL BE CLEARLY MARKED. POWER FOR CONTROLS SHALL NOT BE TAKEN FROM CIRCUITS BEING USED FOR OTHER PURPOSES.
15. ALL CONCRETE PADS FOR MECHANICAL EQUIPMENT SHALL BE PROVIDED BY GENERAL CONTRACTOR. MECHANICAL CONTRACTOR TO PROVIDE SIZE AND LOCATION OF PAD TO THE GENERAL CONTRACTOR.
16. PROVIDE AIR VENTS FOR HIGH POINTS AND DRAINS FOR LOW POINTS OF PIPEWORK.
17. MECHANICAL EQUIPMENT TO BE EQUIPPED WITH SUB METERS. REFER TO ELECTRICAL DRAWINGS FOR LOCATION. CONNECT SUB METERS TO BAS FOR MONITORING AND TRENDING.

SYMBOL LIST

- DUCT UNDER POSITIVE PRESSURE
- DUCT UNDER NEGATIVE PRESSURE
- SQUARE ELBOW WITH TURNING VANES
- ROUND TO RECTANGULAR TRANSITION
- NEW DUCTWORK
- FLEXIBLE CONNECTION
- MOTORIZED DAMPER
- FIRE DAMPER
- FD/SD — COMBINATION FIRE/SMOKE DAMPER
- BALANCING DAMPER
- BD — BACKDRAFT DAMPER
- R — DUCT INCLINED RISE IN DIRECTION OF FLOW
- D — DUCT INCLINED DROP IN DIRECTION OF FLOW
- SOUND LINED DUCTWORK
- FLEXIBLE DUCT
- D — CONDENSATE DRAIN
- HPS — HEAT PUMP SUPPLY
- HPR — HEAT PUMP RETURN
- THREE WAY AUTOMATIC VALVE
- UNION
- TWO WAY AUTOMATIC VALVE
- CHECK VALVE
- GATE VALVE
- DEZURIK VALVE
- P & T PLUG
- THERMOMETER
- PRESSURE GAGE
- GLOBE VALVE
- AIR VENT
- FLEXIBLE CONNECTION PIPING
- CONCENTRIC REDUCER
- STRAINER WHOSE END CONNECTION & CAP
- RELIEF VALVE
- R — PRESSURE REDUCING VALVE
- DIRECTION OF FLOW
- PIPE SLOPE DIRECTION
- U — UNDERCUT DOOR
- 12'Ø — INDICATES ROUND DUCT DIA. (INCHES)
- 12X12-SL — 1' SOUND LINED DUCT - SHEET METAL DIMENSION SHOWN
- 12X12-2SL — 2' SOUND LINED DUCT - SHEET METAL DIMENSION SHOWN
- VFD-1 — VARIABLE FREQUENCY DRIVE - PUMP No.
- A-75 — DIFFUSER DESIGNATION
  - CFM
  - DIFFUSER TYPE
- T — THERMOSTAT (NEW)
- S — SWITCH
- SD — DUCT SMOKE DETECTOR
- 10-300 — FRESH AIR DESIGNATION
  - CFM
  - DUCT SIZE DIAMETER - INCHES
- F — 22x22 FILTER BACK GRILLE
- T — BALL VALVE W/ T & P PORT
- T M — BALL VALVE W/ T & P PORT MEMORY STOP
- BALL VALVE W/ 2 PRESS. PORTS — AUTOMATIC BALANCING VALVE W/ 2 PRESS. PORTS
- CIRCUIT SETTER
- CO_2 — CO_2 SENSOR
- HP — WATER SOURCE HEAT PUMP UNIT
- HP — 18" - MINIMUM REQUIRED CLEARANCE

AC	AIR CONDITIONING UNIT
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AS	AIR SEPARATOR
CD	CEILING DIFFUSER / CONDENSATE DRAIN
CR	CEILING REGISTER
EA	EXHAUST AIR / EACH
ERU	ENERGY RECOVERY UNIT
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
F	FAN
FTG	FITTING
FD	FIRE DAMPER
FD/SDD	COMBINATION FIRE DAMPER/SMOKE DAMPER WITH BUILT-IN SMOKE DETECTOR AND FIRESTAT
GPM	GALLONS PER MINUTE
HP	HEAT PUMP
HPS	HEAT PUMP SUPPLY WATER
HPR	HEAT PUMP RETURN WATER
MIN	MINIMUM
NIC	NOT IN CONTRACT
NK	(DIFFUSER) NECK
OA	OUTSIDE AIR
P	PUMP
RA	RETURN AIR
SA	SUPPLY AIR
SDD	SMOKE DETECTOR WITH BUILT-IN SMOKE DETECTOR AND FIRESTAT
TR. G	TRANSFER GRILLE
T.R.	TOP REGISTER
TYP.	TYPICAL
VAV	VARIABLE AIR VOLUME

IMC 2006 PHASE 2A VENTILATION SCHEDULE

Room	Area	people	Area CFM	People CFM	Total	Final
Wn-111	577	19		285	285	290
Wn-113	572	19		285	285	290
Wn-115	1260	60		900	900	900
Wn125A	890	0	89		89	90
WN-112	380	12		180	180	180
Wn-114	408	16		240	240	240
WN-116	438	16		240	240	240
					TOTAL	2230
Wn-211	1138	17		340	340	340
Wn-215	1281	17		340	340	340
WN-225A	890	0	89		89	90
Wn-212	539	19		285	285	290
WN-214	563	19		285	285	290
					TOTAL	1350
Wn-311	1138	17		340	340	340
Wn-315	1281	17		340	340	340
WN-325A	890	0	89		89	90
WN-312	203	4		60	60	80
Wn-314	431	19		285	285	290
WN-316	450	19		285	285	290
					TOTAL	1430

IMC 2006 PHASE 2A VENTILATION SCHEDULE

Room	Area	people	Area CFM	People CFM	Total	Final
WN-125B	475	0	47.5		47.5	50
WN-117	608	20		300	300	300
WN-119	490	20		300	300	300
Wn-128	616	21		315	315	320
					TOTAL	970
WN-225B	475	0	47.5		47.5	50
WN-217	607	20		300	300	300
WN-219	493	20		300	300	300
WN-222	628	20		300	300	300
					TOTAL	950
Wn-317	594	20		300	300	300
WN-319	496	20		300	300	300
WN-324	394	20		300	300	300
Wn-326	389	20		300	300	300
WN-325B	475	0	47.5		47.5	50
					TOTAL	1250

SUBMISSION

02.14.11	PERMIT SUBMISSION

SEAL

KEY PLAN

LANDSCAPE ARCHITECT
CLINTON AND ASSOCIATES.
5200 BALTIMORE AVENUE SUITE 201
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410.381-7100

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WOODLEY NORTH

NATIONAL CATHEDRAL SCHOOL FOR GIRLS

MOUNT ST. ALBAN, WASHINGTON, D.C.

DRAWING TITLE
DATA SHEET
-MECHANICAL

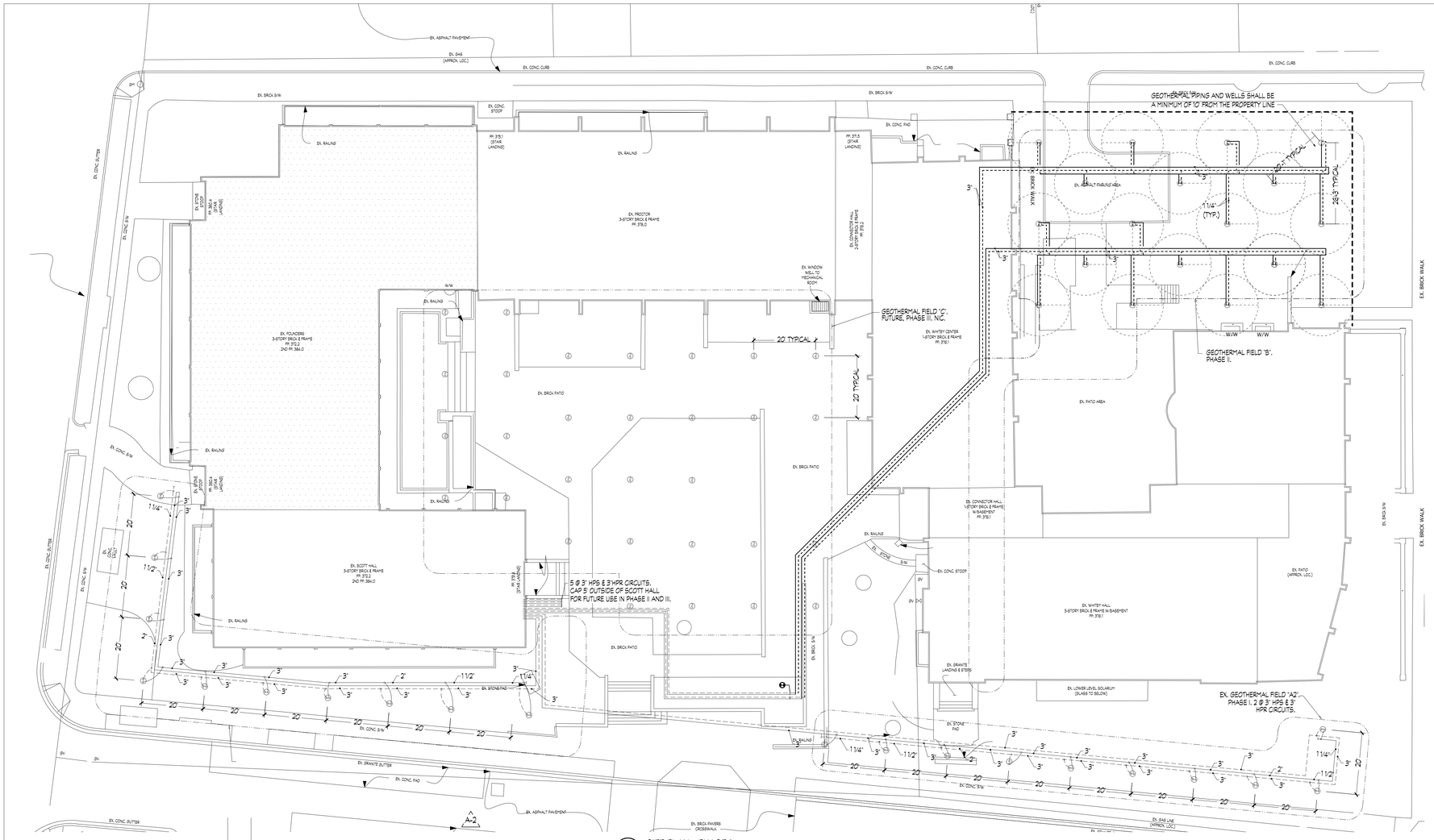
SCALE NONE

DATE FEBRUARY 14, 2011

M0.00

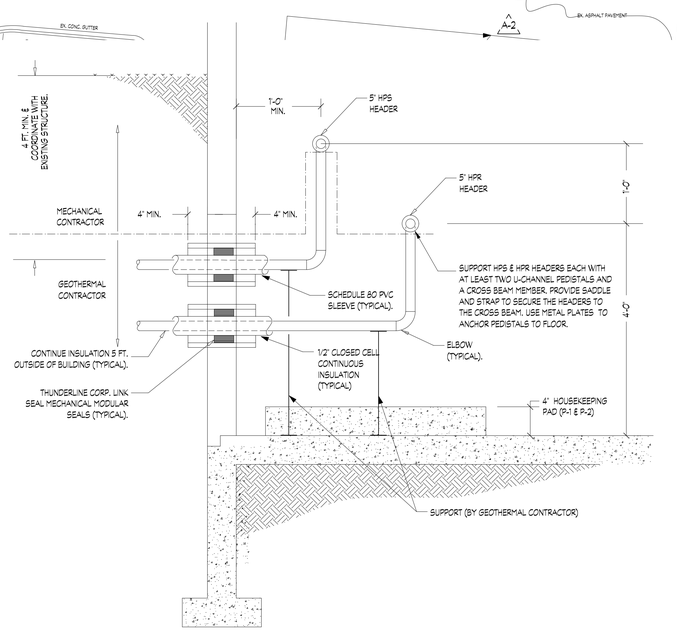
PHASE 2

ASE JOB# 1011_200

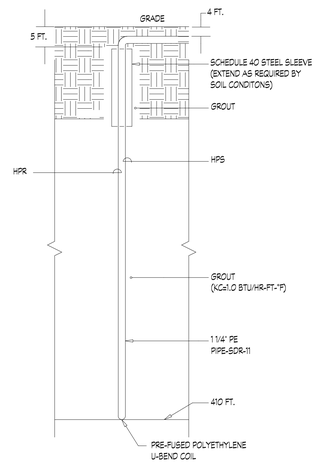


1 M1.00 SITE PLAN - PHASE 1
SCALE: 1/16" = 1'-0"

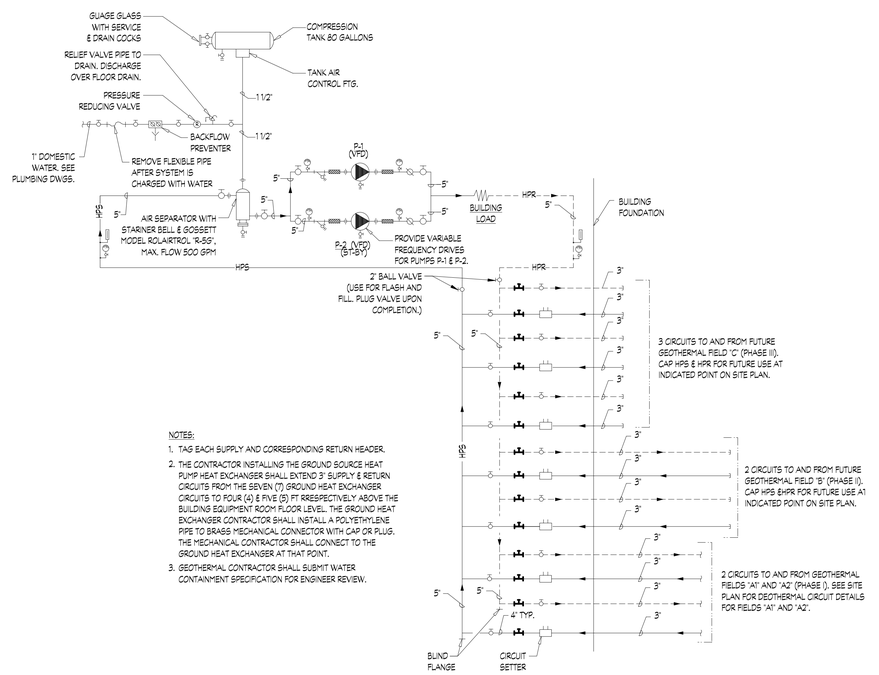
2 M1.01 PIPING SECTION THRU TRENCH - HPR & HPS
NOT TO SCALE



3 M1.00 DETAILS OF HPS & HPR BUILDING STUBOUT
NOT TO SCALE



4 M1.00 TYPICAL BORE HOLE DETAIL
NOT TO SCALE



NOTES:
1. TAG EACH SUPPLY AND CORRESPONDING RETURN HEADER.
2. THE CONTRACTOR INSTALLING THE GROUND SOURCE HEAT PUMP HEAT EXCHANGER SHALL EXTEND 3" SUPPLY & RETURN CIRCUITS FROM THE SEVEN (7) GROUND HEAT EXCHANGER CIRCUITS TO FOUR (4) & FIVE (5) FT RRESPECTIVELY ABOVE THE BUILDING EQUIPMENT ROOM FLOOR LEVEL. THE GROUND HEAT EXCHANGER CONTRACTOR SHALL INSTALL A POLYETHYLENE PIPE TO BRASS MECHANICAL CONNECTOR WITH CAP OR PLUG. THE MECHANICAL CONTRACTOR SHALL CONNECT TO THE GROUND HEAT EXCHANGER AT THAT POINT.
3. GEOTHERMAL CONTRACTOR SHALL SUBMIT WATER CONTAINMENT SPECIFICATION FOR ENGINEER REVIEW.

5 M1.00 DIAGRAM OF EARTH COUPLED HEAT PUMP PIPING SYSTEM
NOT TO SCALE

ASE JOB# 1011_200

SUBMISSION

02.14.11	PERMIT SUBMISSION

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WOODLEY NORTH

NATIONAL CATHEDRAL SCHOOL FOR GIRLS

MOUNT ST. ALBAN, WASHINGTON, D.C.

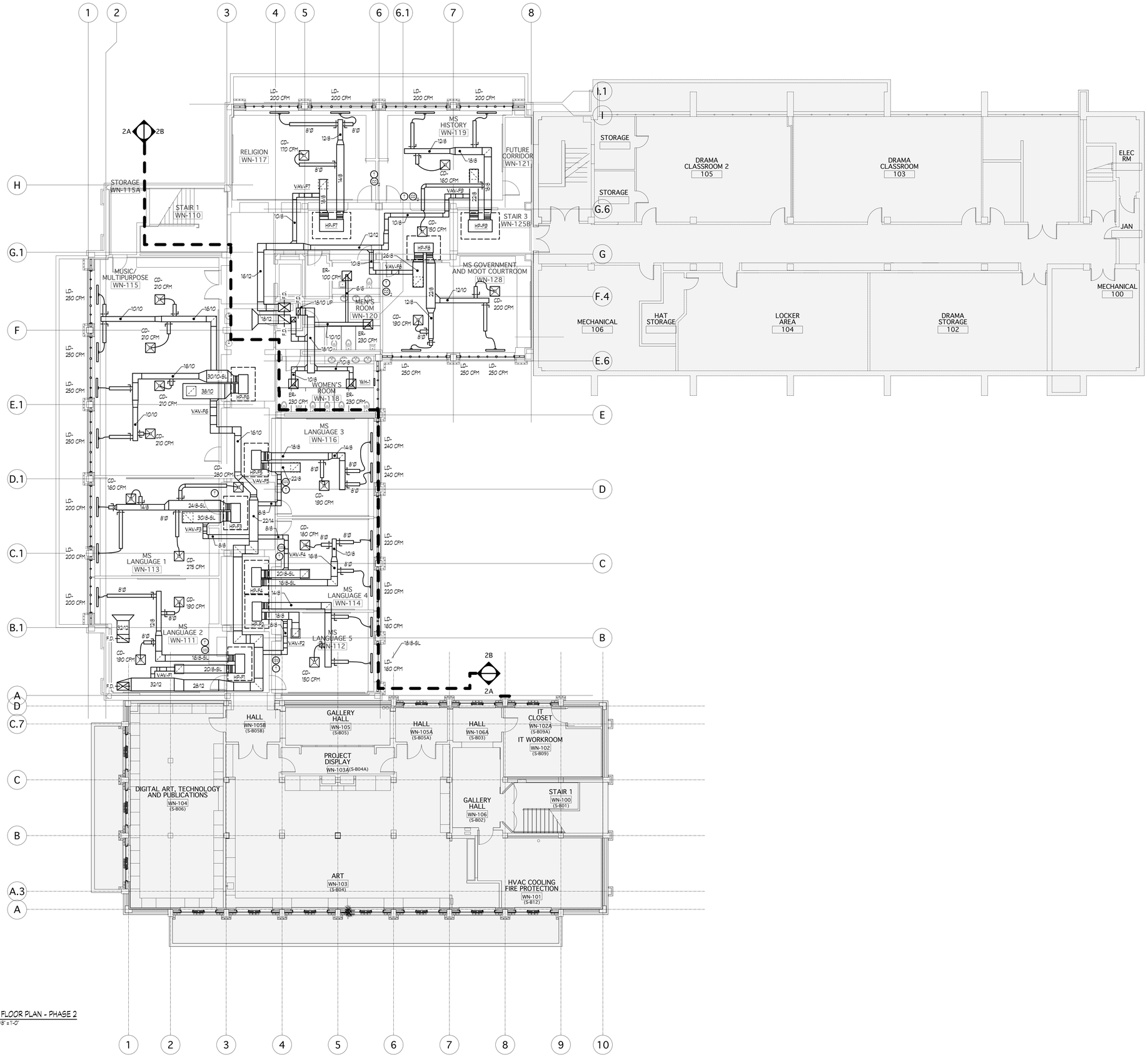
DRAWING TITLE
SITE PLAN
-MECHANICAL

0 16' 32'

SCALE 1/8"=1'-0"

DATE FEBRUARY 14, 2011

M1.00
PHASE 2



1 M2.01 FIRST FLOOR PLAN - PHASE 2
SCALE: 1/8" = 1'-0"

SUBMISSION

02.14.11	PERMIT SUBMISSION

SEAL

KEY PLAN

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WOODLEY NORTH

NATIONAL CATHEDRAL SCHOOL FOR GIRLS
MOUNT ST. ALBAN, WASHINGTON, D.C.

DRAWING TITLE
FIRST FLOOR PLAN
-MECHANICAL

0 8' 16'

SCALE 1/8"=1'-0"

DATE FEBRUARY 14, 2011

M2.01
PHASE 2

ASE JOB# 1011_200