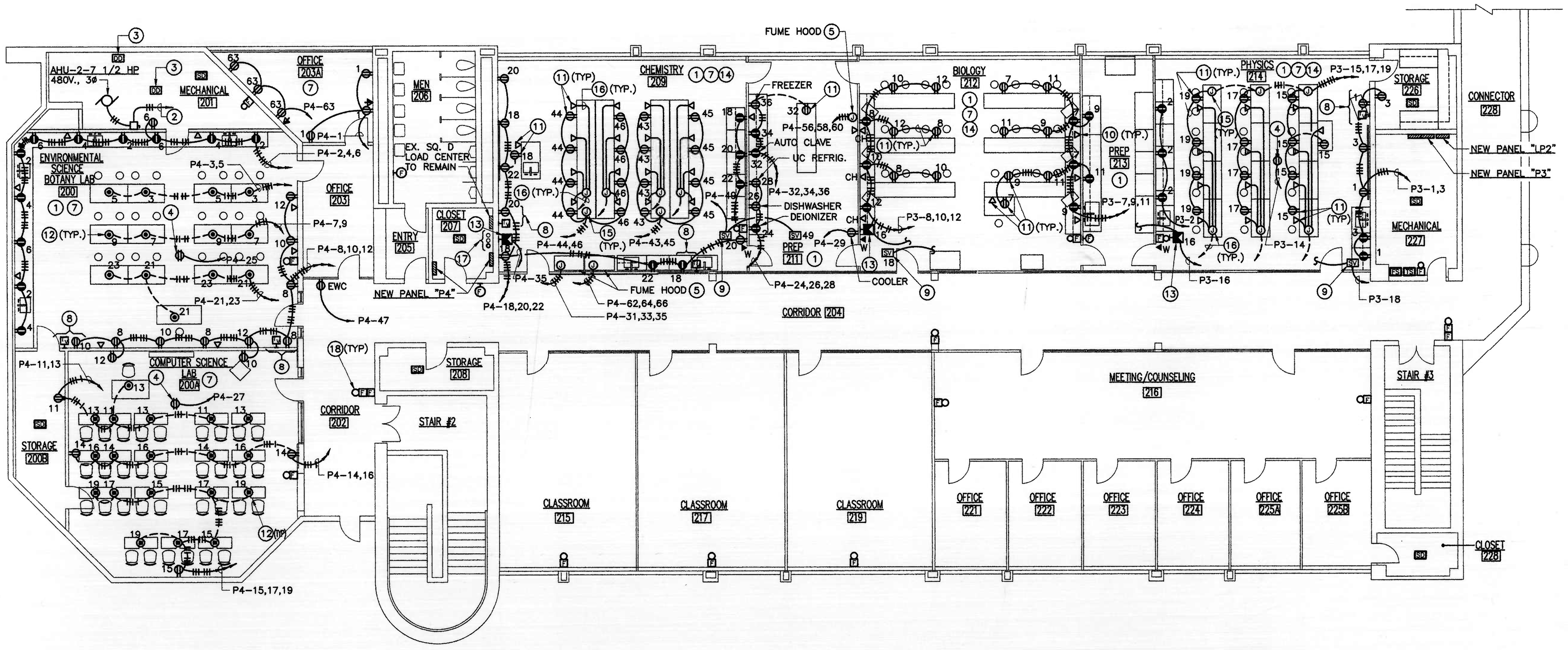


CLASSSROOM BUILDING – SECOND FLOOR PLAN – POWER & COMMUNICATIONS

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

DRAWING NOTES:

(1) ALL DEVICES IN THIS ROOM SHALL BE GROUND FAULT INTERRUPTER TYPE (GFI).

(2) INTERCEPT EXISTING BRANCH CIRCUIT FEEDING EXISTING AHU-2 AND EXTEND TO NEW AHU-2. BRANCH CIRCUIT ORIGINATES IN EXISTING PANEL "MSS" LOCATED IN LOWER LEVEL MECHANICAL ROOM. REFER TO DRAWING E-10 FOR LOCATION OF PANEL "MSS" AND DRAWING E-5 FOR LOCATION OF EXISTING AHU-2.

(3) PROVIDE DUCT TYPE SMOKE DETECTORS IN THE RETURN AND SUPPLY DUCTS AND INTERCONNECT TO SHUTDOWN AHU UNIT UPON ACTIVATION OF EITHER DETECTOR. COORDINATE WORK WITH MECHANICAL CONTRACTOR.

(4) CEILING MOUNT RECEPTACLE FOR PROJECTOR. FIELD COORDINATE EXACT LOCATION.

(5) MAKE ALL CONNECTIONS TO EXHAUST FAN, LIGHTS, RECEPTACLES, SWITCH, ETC. FURNISHED WITH FUME HOOD.

(6) THE CEILING SPACE IS USED AS A RETURN AIR PLENUM AND ALL CABLING MUST BE PLENUM RATED OR INSTALLED IN CONDUIT.

(7) ALL CIRCUITS IN THIS ROOM SHALL HAVE SEPARATE NEUTRAL CONDUCTORS.

(8) MOUNT OUTLETS TO SUIT TELEVISION. PROVIDE TELEVISION OUTLET BOX WITH EMPTY CONDUIT TO CEILING SPACE. TERMINATE WITH NYLON BUSHING AND PULL STRING.

(9) MAKE CONNECTION TO GAS SOLENOID VALVE SERVING THIS LAB AS REQUIRED. REFER TO MECH. DWGS. FOR EXACT LOCATION.

(10) EXTEND CAT5E CABLE IN 3/4" CONDUIT FROM EACH DATA OUTLET AND TERMINATE IN COMPUTER ROOM ON FIRST FLOOR WITH 20' OF CABLE SLACK. OWNER SHALL MAKE FINAL CONNECTION IN COMPUTER ROOM. REFER TO RISER DIAGRAM ON DWG. E-11.

(11) MOUNT DUPLEX RECEPTACLE AND DATA OUTLET IN FRONT OF FURNITURE. CONCEAL BRANCH CIRCUIT WIRING IN FURNITURE AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS OF FURNITURE.

(12) POKE FLOOR FLOOR OUTLET WITH DUPLEX RECEPTACLE AND DUPLEX RJ45 JACK. REFER TO DETAIL ON DRAWING E-1 AND RISER DIAGRAM ON DRAWING E-11.

(13) PROVIDE "EMERGENCY POWER OFF" BUTTON TO DEENERGIZE CIRCUITS VIA CONTACTOR SERVING RESPECTIVE CLASSROOM. BUTTON SHALL BE SHROUDED TO PREVENT FALSE ACTIVATION. MOUNT 54" AFF WITH SIGN ABOVE.

(14) EXTEND ALL CIRCUITS (EXCEPT CONTROL CIRCUIT TO EMERGENCY POWER OFF PUSHBUTTON) WITHIN CHEMISTRY LAB AND PREP 211 VIA CONTACTORS "a" (24 POLE), BIOLOGY AND PREP 213 VIA VIA CONTACTOR "b" (10 POLE) AND PHYSICS VIA CONTACTOR "c" (10 POLE). ALL CONTACTORS SHALL BE ASCO 917 SERIES MECHANICALLY HELD WITH SOLID STATE CONTROL MODULE FOR TWO (2) WIRE CONTROL. MOUNT CONTACTORS ABOVE CEILING WITHIN RESPECTIVE LAB IN AN ENCLOSURE. MAKE CONNECTION TO CONTACTOR RELAYS FROM RESPECTIVE EMERGENCY POWER OFF CONTROL CIRCUIT AS REQUIRED.

(15) CORE DRILL EXISTING FLOOR SLAB AND EXTEND BRANCH CIRCUITS IN CEILING SPACE BELOW. CONCEAL BRANCH CIRCUIT WIRING IN FURNITURE TO EACH RECEPTACLE AS REQUIRED.

(16) CORE DRILL EXISTING FLOOR SLAB AND EXTEND FOUR (4) SETS OF 2-4PR CAT5E CABLE IN CEILING SPACE BELOW TO COMPUTER ROOM ON FIRST FLOOR. PROVIDE 20' OF CABLE SLACK IN COMPUTER ROOM. OWNER SHALL MAKE FINAL CONNECTION IN COMPUTER ROOM. EXTEND AND CONCEAL CABLE IN FURNITURE TO EACH DATA OUTLET.

(17) APPROXIMATE LOCATION OF EXISTING SLEEVES THROUGH FLOOR FOR COMMUNICATION CABLES. PROVIDE NEW 4" CONDUIT SLEEVE THROUGH FLOOR SLAB FOR INSTALLATION OF NEW COMMUNICATION CABLES TO COMPUTER ROOM ON FIRST FLOOR. FIELD COORDINATE EXACT LOCATION AND MAINTAIN FIRE INTEGRITY OF FLOOR SLAB AS REQUIRED.

(18) ALL NEW FIRE ALARM DEVICES SHALL BE INSTALLED RECESSED. REUSE EXISTING BOXES AND CONDUIT WHERE APPLICABLE. CHASE WALLS NEATLY AND PATCH TO MATCH ADJACENT AREA AS REQUIRED.

PANEL SCHEDULE : **P3** (SECTION 1) — AMP BUS CAP : **225A** — **225A** MAIN BREAKER
MOUNTING : **SURFACE** — PHASE : **3** — WIRE : **4** — VOLTS : **208/120** — A.I.C. **10K** — LOCATION: **MECHANICAL 227**

CKT.	DESCRIPTION	BREAKER		VOLT-AMP			CKT.	DESCRIPTION	BREAKER		VOLT-AMP		
		P	AMPS	ØA	ØB	ØC			P	AMPS	ØA	ØB	ØC
1	RECEPTACLES	1	20	800			2	RECEPTACLES	1	20	600		
3	RECEPTACLES	1	20		600		4	EXISTING	1	20		800	
5	RECEPTACLES	1	20			1000	6	SPARE	1	20			–
7	RECEPTACLES	1	20	800			8	RECEPTACLES	1	20	600		
9	RECEPTACLES	1	20		600		10	RECEPTACLES	1	20		600	
11	RECEPTACLES	1	20			600	12	RECEPTACLES	1	20			600
13	SPARE	1	20	–			14	PROJECTOR	1	20	1200		
15	RECEPTACLES	1	20		600		16	EMERG. POWER OFF BUTTON	1	20		–	
17	RECEPTACLES	1	20			800	18	GAS SOLENOID VALVE	1	20			–
19	RECEPTACLES	1	20	800			20	EF#12	1	15	896		
21	–	–	–		386		22	EF#11	1	15		696	
23	EF#15	3	15			386	24	EXISTING	1	20			600
25	–	–	–	386			26	EF#11	1	15	864		
27	EXISTING	1	20		400		28	EF#9	1	20		1176	
29	EXISTING	1	20			600	30	EXISTING	1	20			600
31	EXISTING	1	20	800			32	SPARE	1	20	–		
33	EXISTING	1	20		600		34	SPARE	1	20		–	
35	EXISTING	1	20			400	36	SPARE	1	20			–
37	SPARE	1	20	–			38	TVSS	3	30	–		
39	SPARE	1	20		–		40					–	
41	SPARE	1	20			–	42						–
	SUB-TOTAL			3186	3586	3986		SUB-TOTAL			3960	3072	2200
								TOTAL (SECTION 1)			7146	6658	6186

PROVIDE WITH 200% RATED NEUTRAL BUS

PANEL SCHEDULE : **P3** (SECTION 2) — AMP BUS CAP : **225A** — **225A** MAIN LUGS
MOUNTING : **SURFACE** — PHASE : **3** — WIRE : **4** — VOLTS : **208/120** — A.I.C. **10K** — LOCATION: **MECHANICAL 227**

CKT.	DESCRIPTION	BREAKER		VOLT-AMP			CKT.	DESCRIPTION	BREAKER		VOLT-AMP		
		P	AMPS	ØA	ØB	ØC			P	AMPS	ØA	ØB	ØC
43	SPACE	1	–	–			44	SPACE	1	–	–		
45	SPACE	1	–		–		46	SPACE	1	–		–	
47	SPACE	1	–			–	48	SPACE	1	–			–
49	SPACE	1	–	–			50	SPACE	1	–	–		
51	SPACE	1	–		–		52	SPACE	1	–		–	
53	SPACE	1	–			–	54	SPACE	1	–			–
55	SPACE	1	–	–			56	SPACE	1	–	–		
57	SPACE	1	–		–		58	SPACE	1	–		–	
59	SPACE	1	–			–	60	SPACE	1	–			–
61	SPACE	1	–	–			62	SPACE	1	–	–		
63	SPACE	1	–		–		64	SPACE	1	–		–	
65	SPACE	1	–			–	66	SPACE	1	–			–
67	SPACE	1	–	–			68	SPACE	1	–	–		
69	SPACE	1	–		–		70	SPACE	1	–		–	
71	SPACE	1	–			–	72	SPACE	1	–			–
73	SPACE	1	–	–			74	SPACE	1	–	–		
75	SPACE	1	–		–		76	SPACE	1	–		–	
77	SPACE	1	–			–	78	SPACE	1	–			–
79	SPACE	1	–	–			80	SPACE	1	–	–		
81	SPACE	1	–		–		82	SPACE	1	–		–	
83	SPACE	1	–			–	84	SPACE	1	–			–
	SUB-TOTAL			–	–	–		SUB-TOTAL			–	–	–
								TOTAL (SECTION 2)			–	–	–
								TOTAL (SECTION 1 & 2)			7146	6658	6186
								TOTAL KVA					19.9

PANEL SCHEDULE : **P4** (SECTION 1) * — AMP BUS CAP : **225A** — **225A** MAIN BREAKER
MOUNTING : **SURFACE** — PHASE : **3** — WIRE : **4** — VOLTS : **208/120** — A.I.C. **10K** — LOCATION: **CLOSET 207**

CKT.	DESCRIPTION	BREAKER		VOLT-AMP			CKT.	DESCRIPTION	BREAKER		VOLT-AMP		
		P	AMPS	ØA	ØB	ØC			P	AMPS	ØA	ØB	ØC
1	RECEPTACLES	1	20	800			2	RECEPTACLES	1	20	800		
3	RECEPTACLES	1	20		400		4	RECEPTACLES	1	20		800	
5	RECEPTACLES	1	20			400	6	RECEPTACLES	1	20			600
7	RECEPTACLES	1	20	400			8	RECEPTACLES	1	20	600		
9	RECEPTACLES	1	20		400		10	RECEPTACLES	1	20		800	
11	RECEPTACLES	1	20			600	12	RECEPTACLES	1	20			600
13	RECEPTACLES	1	20	800			14	RECEPTACLES	1	20	800		
15	RECEPTACLES	1	20		600		16	RECEPTACLES	1	20		600	
17	RECEPTACLES	1	20			600	18	RECEPTACLES	1	20			1000
19	RECEPTACLES	1	20	800			20	RECEPTACLES	1	20	800		
21	RECEPTACLES	1	20		600		22	RECEPTACLES	1	20		800	
23	RECEPTACLES	1	20			400	24	DEIONIZER	1	20			600
25	PROJECTOR	1	20	1200			26	DISHWASHER	1	20	1200		
27	PROJECTOR	1	20		1200		28	UC REFRIGERATOR	1	20		800	
29	COOLER	1	20			1200	30	ROOF RECEPTACLES	1	20			600
31	FUME HOOD	1	20	1000			32	AUTO CLAVE	1	20	600		
33	FUME HOOD	1	20		1000		34	RECEPTACLE	1	20		200	
35	FUME HOOD	1	20			1000	36	FREEZER	1	20			1200
37	SQ. 'D' LOAD CTR	3	60	5000			38	TVSS	3	30	–		
39					5000		40					–	
41						5000	42						–
	SUB-TOTAL			9600	9200	9200		SUB-TOTAL			5200	3800	4800
								TOTAL (SECTION 1)			14800	13000	14000

PROVIDE WITH 200% RATED NEUTRAL BUS

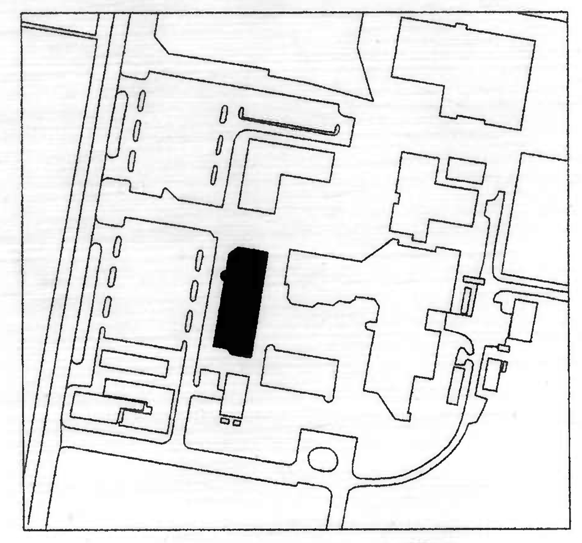
* PROVIDE SUB-FEED LUGS

PANEL SCHEDULE : **P4** (SECTION 2) — AMP BUS CAP : **225A** — **225A** MAIN LUGS
MOUNTING : **SURFACE** — PHASE : **3** — WIRE : **4** — VOLTS : **208/120** — A.I.C. **10K** — LOCATION: **CLOSET 207**

CKT.	DESCRIPTION	BREAKER		VOLT-AMP			CKT.	DESCRIPTION	BREAKER		VOLT-AMP		
		P	AMPS	ØA	ØB	ØC			P	AMPS	ØA	ØB	ØC
43	RECEPTACLES	1	20	800			44	RECEPTACLES	1	20	800		
45	RECEPTACLES	1	20		800		46	RECEPTACLES	1	20		800	
47	EWC	1	20			400	48	–	–	–			386
49	GAS SOLENOID VALVE	1	20	–			50	EF#13	3	15	386		
51	–	–	–		386		52	–	–	–		386	
53	EF#14	3	15			386	54	FUME HOOD	1	20			400
55	–	–	–	386			56	FUME HOOD	1	20	400		
57	EXISTING	1	20		200		58	FUME HOOD	1	20		400	
59	EXISTING	1	20			200	60	FUME HOOD	1	20			400
61	EXISTING	1	20	400			62	FUME HOOD	1	20	400		
63	RECEPTACLES	1	20		800		64	FUME HOOD	1	20		400	
65	EF#6	1	15			696	66	FUME HOOD	1	20			400
67	EF#2	1	15	864			68	EXISTING	1	20	400		
69	EXISTING	1	20		800		70	EXISTING	1	20		600	
71	EXISTING	1	20			800	72	SPARE	1	20			–
73	EXISTING	1	20	800			74	SPARE	1	20	–		
75	SPARE	1	20		–		76	SPARE	1	20		–	
77	SPARE	1	20			–	78	SPARE	1	20			–
79	SPACE	1	–	–			80	SPACE	–	–	–		
81	SPACE	1	–		–		82	SPACE	–	–		–	
83	SPACE	–	–			–	84	SPACE	–	–			–
	SUB-TOTAL			3250	2786	2482		SUB-TOTAL			2386	2586	1586
								TOTAL (SECTION 2)			5636	5372	4068
								TOTAL (SECTION 1 & 2)			20436	18372	18068
								TOTAL KVA					56.9

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

8 0 8 16



KEY PLAN
NOT TO SCALE

RENOVATIONS TO THE CLASSROOM BUILDING

CCBC DUNDALK CAMPUS
7200 Sollers Point Road
Baltimore, Maryland 21222-4694

CS&D

Architect
Cochran, Stephenson & Donkervoet, Incorporated
The Warehouse at Camden Yards
323 West Camden Street, Suite 700
Baltimore, Maryland 21201

Mechanical/Electrical Engineer
Gipe Associates, Inc.
Towson, Maryland

Civil/Structural Engineer
Carroll Engineering, Inc.

No.	Date	Revisions

Project No.: 0045-01

Date: 1/18/02

Scale: AS NOTED

Sheet Title:
CLASSROOM BUILDING – SECOND FLOOR PLAN – POWER & COMMUNICATIONS

Sheet No.: E-9

D-022185