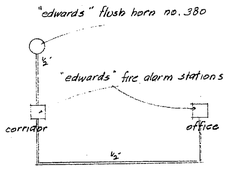
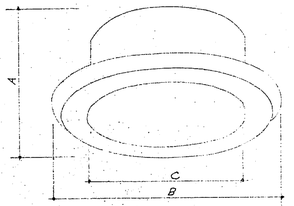
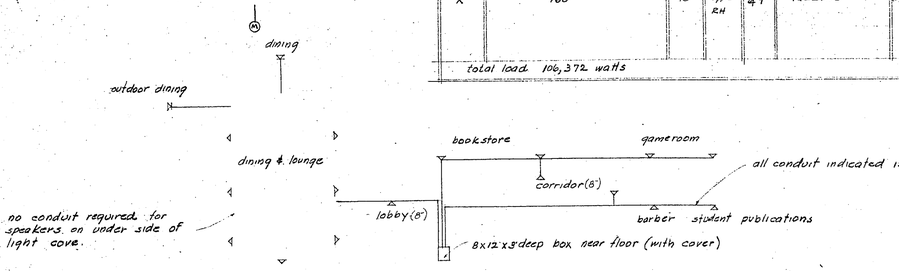


FIRE ALARM SYSTEM not to scale



model	A	B	C	speaker size accommodated	number required
CP8	4⅝"	13"	8½"	8"	3
CP1012	7"	17⅞"	12½"	10" and 12"	15

LOWELL SPEAKERS not to scale
(provide with appropiate baffles)



CONDUIT & SPEAKERS FOR P.A. ROUGH-IN diagramatic only

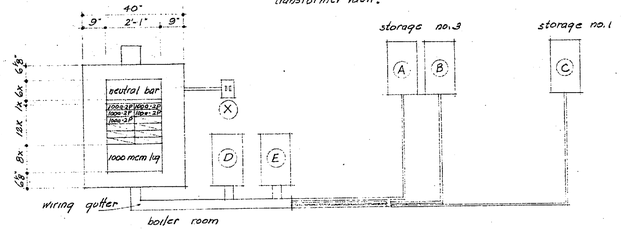
FIXTURES

No.	MANUFACTURER	CAT. No.	WATTS	DESCRIPTION
A	prescolite	1015-6715	150	trescoel lens, baked alum. finish - recessed type
B	"	1313-6730	300	" " " " " "
C	silvray	S-L 12	300	ceiling mounted reflector
D	alobox	al-3140	100	porcelain receptor
E	prescolite	a-52	100	satin brass finish - wall mounted.
F	"	b-54-2	200	" " " " "
G	swivelier	730	300	adjustable channel lights on "3000 wiremold
H	all-brite	84496-430	400	4 - 72 watt 96" t-12 slimline
J	" "	84296-430	200	2 - 72 watt 96" t-12 slimline
K	miremold	215W96	100	1 - 72 watt 96" t-12 slimline
L	"	213W48	100	1 - 38 watt 48" t-12 slimline
M	silvray	S-L 11-2	150	ceiling mounted reflector
X	art metal	3406	40	exit lights - white glass with green letters
Y	art metal	3408	40	" " " " " " "

CIRCUIT BREAKERS

SYMBOL	LOAD IN WATTS	AMPS	WIRE	CON.	TRUMBULL NO.	AMPS	POLE
A	21, 300	100	(3) #3 type RH	1¼ϕ	TQL2010 with TQL201FA cover	(16) @ 15 a.	1
						(3) @ 20 a.	1
						(1) spare @ 20 a	1
B	21, 503	100	(3) #3 type RH	1¼ϕ	TQL2010 with TQL201FA cover	(18) @ 15 a	1
						(2) @ 20 a	1
C	20, 659	100	(3) #3 type RH	1¼ϕ	TQL2010 with TQL201FA cover	(14) @ 15 a	1
						(4) @ 20 a	1
						(2) spares @ 15 a	1
D	20, 180	100	(3) #3 type RH	1¼ϕ	TQL2010 with TQL2015A cover	(7) @ 15 a	1
						(5) @ 20 a	1
						(2) @ 20 a	2
						(2) @ 15 a	2
E	22, 570	100	(3) #3 type RH	1¼ϕ	TQL2010 with TQL2015A cover	(9) @ 15 a	1
						(3) @ 15 a	2
						(1) @ 40 a	2
						(2) @ 20 a	1
						(6) spares @ 15 a	1
X	160	40	(3) #12 type RH	¾"ϕ	TQL2405	(1) @ 15 a	1
						(1) space	

total load 106,372 watts



convertible circuit breaker panelboard - 27x high "trumbull" cat. no. CB4021 with CB4021S cover. with (5) 100 amp 2 pole breaker and provision for (7) future breakers

PANELBOARD HOOKUP ⅜"=1'-0"

CIRCUIT SCHEDULE

LOCATION	number of outlets	type of fixture	OUTLETS: convenience	plug-in strip	ceiling	bracket	cove lighting	exit	unit ventilator	unit heater	exhaust fan	roof exhaust fan	kitchen equipment	motors	heat cable	WATTS: each outlet	circuit total	circuit number	amps protection	poles	REMARKS
gameroom	2	H			•											400	800	C-1	15	1	
"	2	H			•											400					
storage no. 1	1	B			•											300					
storage no. 2	1	M			•											150	1250	C-2	15	1	
corridor & inform	7	A			•											150					
vault	1	D			•											100	1150	C-3	15	1	
inform, direct. & sto. off.	4	J			•											200					
entry to toilets	2	A			•											150					
janitor	1	D			•											100	1200	C-4	15	1	
boys & girls toilet	4	B			•											300					
pipe space	1	D			•											100	1300	C-5	15	1	
barber & stud. public.	6	J			•											200					
barber	1	F		•												200	1400	C-6	20	1	
bookstore	20			•												69	1380	C-7	15	1	outlets - 30" o.c.
"	15			•												69	1035	C-8	15	1	" " "
"	10			•												69					" " "
gameroom	2		•													200	1090	C-9	15	1	
storage no. 1	4			•												69					outlets - 30" o.c
stor. no. 1 & gameroom	2		•													200	674	C-10	15	1	
game rm, bookstr-corr.	5		•													200	1000	C-11	15	1	
student publications	15			•												69	1035	C-12	15	1	outlets - 30" o.c.
barber, sto. pub. & boys	4		•													200					
barber	12			•												69	1635	C-13	20	1	outlets - 30" o.c.
boys & girls toilet	2										•					145					
student officers & girls	2		•													200					
director & stu. officers	9			•												69	1110	C-14	15	1	outlets - 30" o.c.
toilet, direc. & sto. officers	5		•													200	1000	C-15	15	1	
director																	1000	C-16	15	1	future p.a. system
bookstore & gameroom	7		•													200	1400	C-17	20	1	floor outlets
" " "	7		•													200	1400	C-18	20	1	
bookstore & gameroom	3			•												345	1040	D-1	20	1	⅙ HP 1ϕ
lobby & corridor	2				•											368					⅙ HP - 1ϕ
corridor	1														•	368	1100	D-2	20	1	electric drink & fountn
lounge & dining	4			•											•	345	1380	D-3	20	1	⅙ HP 1ϕ
chimney	1					•									•	850	530	D-4	15	1	⅛ HP - 1ϕ
roof	2						•								•	345	690	D-5	15	1	⅙ HP - 1ϕ
boiler room	1														•	690	690	D-6	15	1	⅓ HP - 1ϕ - draft fan
kitchen	1														•	850	850	D-7	20	1	½ HP - 1ϕ ice cream
"	1														•	690	690	D-8	15	1	⅓ HP - 1ϕ soda fountain
"	1														•	4000	4000	D-9-10	20	2	4 kw griddle
"	1														•	4000	4000	D-11-12	20	2	4 kw fry kettle
"	1														•	525					hot food
"	1														•	425	950	D-13	15	1	hot food
"	1														•	850	850	D-14	20	1	½ HP - 1ϕ water cooler
"	1														•	530	530	D-15	15	1	¼ HP - 1ϕ milk cooler
boiler room	1														•	530	530	D-16	15	1	¼ HP - 1ϕ compressor
" "	1														•	1175	1175	D-17-18	15	2	⅜ HP - 1ϕ pump
" "	1														•	1175	1175	D-19-20	15	2	" " "
lounge, dining & lobby	3	X			•											40					
east entrance	1	Y			•											40	160	X-1	15	1	

CIRCUIT SCHEDULE

LOCATION	number of outlets	type of fixture	OUTLETS: convenience	plug-in strip	ceiling	bracket	cove lighting	exit	unit ventilator	unit heater	exhaust fan	roof exhaust fan	kitchen equipment	motors	heat cable	WATTS: each outlet	circuit total	circuit number	amps protection	poles	REMARKS
dining	4	B			•											300	1200	a-1	15	1	
"	4	B			•											300	1200	a-2	15	1	
"	4	B			•											300	1200	a-3	15	1	
outdoor dining	6	A			•											150	900	a-4	15	1	
dining & lounge	10	K				•										100	1000	a-5	15	1	
" "	9	K				•										100					
" "	2	L				•										50	1000	a-6	15	1	
" "	10	K				•										100	1000	a-7	15	1	
" "	10	K				•										100	1000	a-8	15	1	
" "	9	K				•										100					
" "	2	L				•										50	1000	a-9	15	1	
" "	10	K				•										100	1000	a-10	15	1	
" "	10	K				•										100	1000	a-11	15	1	
" "	8	K				•										100					
" "	4	L				•										50	1000	a-12	15	1	
" "	10	K				•										100	1000	a-13	15	1	
" "	5	G				•										300	1500	a-14	20	1	
" "	4	G				•										300	1200	a-15	15	1	
" "	5	G				•										300	1500	a-16	20	1	
" "	4	G				•										300	1200	a-17	15	1	
lounge	5	B				•										300	1500	a-18	20	1	
lounge & dining	3	B				•										300	900	a-19	15	1	
kitchen	4	B			•											300	1200	b-1	15	1	
"	4	B			•											300	1200	b-2	15	1	
"	4	B			•											300	1200	b-3	15	1	
boiler room	3	C			•											300					
entry & toilet	2	A			•											150					
storage	1	M			•											150					
toilet	1											•				60	1410	b-4	20	1	
lobby	6	B			•											300	1800	b-5	20	1	
coats	3	A			•											150					
"	2	E				•										100					
bookstore	3	F				•										200	1250	b-6	15	1	
kitchen	1											•				145					
"	1											•				185					
kitchen, stor. no 3, entry	4			•												200	1130	b-7	15	1	
front entrance	4	A			•											150	600	b-8	15	1	
dining	18				•											69	1242	b-9	15	1	outlets 30" o.c.
lounge	17				•											69	1173	b-10	15	1	" " "
"	19				•											69	1310	b-11	15	1	" " "
"	9				•											69	620	b-12	15	1	" " "
boiler room	3		•													200	600	b-13	15	1	
kitchen	12				•											69	830	b-14	15	1	outlets - 30" o.c.
bookstore	2	H			•											400	800	b-15	15	1	
"	3	H			•											400	1200	b-16	15	1	
"	3	H			•											400	1200	b-17	15	1	
"	2	H			•											400	800	b-18	15	1	
canopy on north	4	A			•											150	600	b-19	15	1	
lounge & dining	6		•													200	1200	b-20	15	1	floor outlets
																	(no c-t. circuit)				
exterior soffit	9	A			•											150	1350	e-2	20	1	
exterior soffit	10	A			•											150	1500	e-3	20	1	
basement & transfr	12	D			•											100	1200	e-4	15	1	
basement	11	D			•											100	1100	e-5	15	1	
front walk	3													•		800	2400	e6-7	15	2	
outdoor dining & walk	3													•		800	2400	e8-9	15	2	
roof	3													•		800	2400	e-10-11	15	2	see sheet a-3
kitchen	1											•				9000	9000	e-12-13	40	2	
"	1											•	•			690	690	e-14	15	1	½ HP - 1ϕ pulverator
"	1											•				530	530	e-15	15	1	½ HP 1ϕ - dishwasher

electrical contractor provide box in vault for telephone company. 12"x 30"x 4" with cover. (up 39" to bottom)

TELEPHONE CONDUIT diagrammatic only

ELECTRICAL SCHEDULE

A STUDENT UNION BUILDING

EASTERN MONTANA COLLEGE OF EDUCATION

BILLINGS MONTANA

STATE OF MONTANA — REGISTERED ARCHITECT — NORDQUIST & SUNDELL — No. 271 — No. 316 — BILLINGS, MONTANA — LICENSED ARCHITECTS

NORDQUIST & SUNDELL ARCHITECTS BILLINGS, MONTANA

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