

NATURAL SCIENCES BUILDING

ADDITION AND REMODELING

ARCHITECTURAL DRAWINGS

No.	DESCRIPTION
A-0	TITLE SHEET
A-1	SITE DEMOLITION PLAN - ROOF PLAN
A-2	SITE DEVELOPMENT PLAN
A-3	FLOOR PLAN - NEW ADDITION
A-4	REFLECTED CEILING PLAN - DOOR AND FINISH SCHEDULES
A-5	EXTERIOR ELEVATIONS
A-6	BUILDING SECTIONS
A-7	ASTRO LECTURE HALL AND TOILET PLANS
A-8	INTERIOR ELEVATIONS
A-9	INTERIOR ELEVATIONS
A-10	EXISTING BUILDING - FLOOR PLAN, CEILING PLAN AND INTERIOR ELEVATIONS
A-11	EXISTING BUILDING - CHEMISTRY LAB REMODELING
A-12	LANDSCAPE PLAN
A-13	SITE DEVELOPMENT AND LANDSCAPE PLAN - LIBRARY COURT
I-1	SITE IRRIGATION PLAN - NATURAL SCIENCES
I-2	SITE IRRIGATION PLAN - LIBRARY COURT
I-3	IRRIGATION DETAILS

STRUCTURAL DRAWINGS

No.	DESCRIPTION
S-1	GENERAL NOTES AND TYPICAL DETAILS
S-2	CARPENTRY NOTES AND TYPICAL DETAILS
S-3	FLOOR FRAMING AND FOUNDATION PLANS
S-4	ROOF FRAMING PLANS
S-5	STRUCTURAL SECTIONS
S-6	STRUCTURAL SECTIONS
S-7	STRUCTURAL SECTIONS

MECHANICAL DRAWINGS

No.	DESCRIPTION
M-1	MECHANICAL FLOOR PLAN
M-2	MECHANICAL SCHEDULE, DIAGRAMS AND DETAILS
P-1	PLUMBING - SITE PLAN
P-2	PLUMBING - FLOOR PLANS
P-3	PLUMBING - FLOOR PLAN

ELECTRICAL DRAWINGS

No.	DESCRIPTION
E-1	SITE PLAN, SYMBOL LISTS AND DETAILS
E-2	FIXTURE SCHEDULE AND DETAILS
E-3	ONE LINE DIAGRAM AND PANEL SCHEDULES
E-4	FLOOR PLAN - LIGHTING
E-5	FLOOR PLAN - POWER AND SIGNAL
E-6	MULTI-PURPOSE ASTRO LECTURE HALL LIGHTING AND SIGNALS
E-7	SITE DEVELOPMENT AND LANDSCAPE PLAN - LIBRARY COURT

LEGEND AND ABBREVIATIONS

ABBREVIATIONS

ALUM.	- ALUMINUM	GA.	- GAUGE
@	- AT	G.B., GYP. BD.	- GYPSUM BOARD
ADJ.	- ADJUSTABLE	GL.	- GLASS
ACOUST.	- ACOUSTICAL		
BD.	- BOARD	HORIZ.	- HORIZONTAL
BLK.	- BLOCK	HR.	- HOUR
BLKG.	- BLOCKING	HDW.	- HARDWARE
BOTT.	- BOTTOM	HT.	- HEIGHT
BLDG. BD.	- BUILDING BOARD	INT.	- INTERIOR
		INCL.	- INCLUDE
		INSUL.	- INSULATION
CAB.	- CABINET		
C.B.	- CHALK BOARD	LG.	- LEG
CEIL.	- CEILING	L.W.	- LIGHT WEIGHT
CEM.	- CEMENT		
CER.	- CERAMIC	MECH.	- MECHANICAL
C.H.	- CEILING HEIGHT	MFG.	- MANUFACTURER
CL., CLR.	- CLEAR	MIN.	- MINIMUM
COL.	- COLUMN	MTL.	- METAL
CONC.	- CONCRETE		
COND.	- CONDITION	N.I.C.	- NOT IN CONTRACT
CONF.	- CONFERENCE	NO.	- NUMBER
CONT.	- CONTINUOUS		
CORR.	- CORRIDOR	OFF.	- OFFICE
COV.	- COVERED		
		PAV'G.	- PAVING
DBL.	- DOUBLE	PLY.	- PLYWOOD
DECK'G	- DECKING	PL.	- PLATE
DET., DTL.	- DETAIL	PT.	- POINT
D.F.	- DRINKING FOUNTAIN	PROJ.	- PROJECTOR
DIM. PT.	- DIMENSION POINT	PLAS. LAM.	- PLASTIC LAMINATE
D.N.	- DOWN		
DR.	- DOOR	RM.	- ROOM
D.S.	- DOWNSPOUT	REQ'D.	- REQUIRED
DWG.	- DRAWING	R.W.	- RETAINING WALL
		RWD., REDWD.	- REDWOOD
ELECT.	- ELECTRICAL	REF.	- REFERENCE
EXFAN.	- EXPANSION		
EQ.	- EQUAL	SH., SHT.	- SHEET
EXP.	- EXPOSED	SIM.	- SIMILAR
		SCHED.	- SCHEDULE
F.D.	- FLOOR DRAIN	S.S.	- STAINLESS STEEL
F.E.C.	- FIRE EXTINGUISHER CABINET	SQ.	- SQUARE
FIN.	- FINISH	STL.	- STEEL
FIX.	- FIXED	STOR.	- STORAGE
FL., FLR.	- FLOOR	STRUCT.	- STRUCTURAL
F.O.C.	- FACE OF CONCRETE	S.E.D.	- SEE ELECTRICAL
F.O.S.	- FACE OF STUD		- DRAWINGS
F.H.C.	- FIRE HOSE CABINET	S.S.D.	- SEE STRUCTURAL
FOLD'G.	- FOLDING		- DRAWINGS
F.H.W.S.	- FLAT HEAD WOOD SCREW	S.M.D.	- SEE MECHANICAL
			- DRAWINGS
		S.P.D.	- SEE PLUMBING
		SUSP.	- DRAWINGS
			- SUSPENDED
		THK.	- THICKNESS
		THRES.	- THRESHOLD
		TYP.	- TYPICAL
		V.A.T.	- VINYL ASBESTOS TILE
		W/	- WITH
		W.P.	- WATERPROOF
		WD.	- WOOD

1 A GRID LINE

SECTION LETTER
SHEET NUMBER

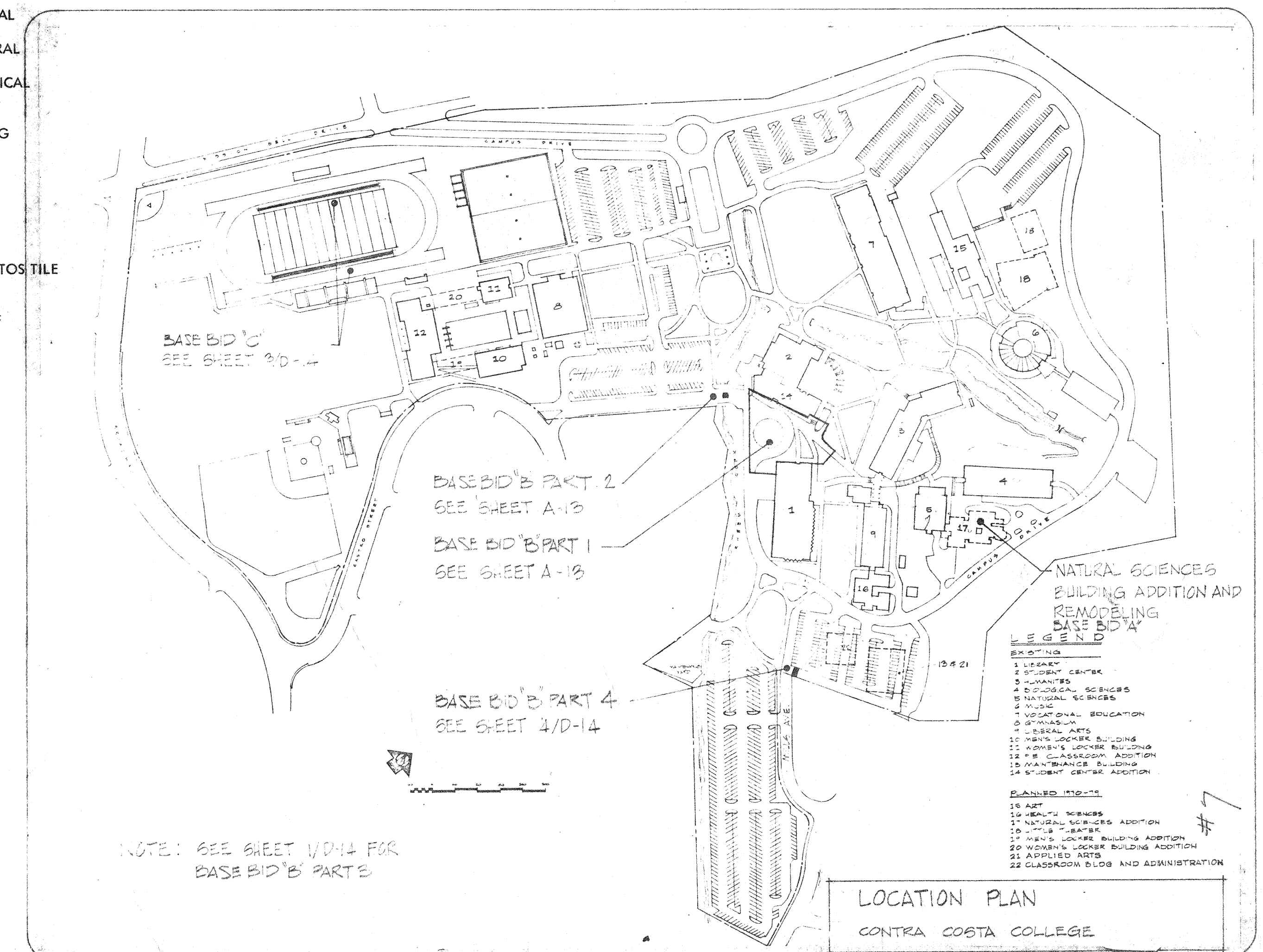
ROOM NUMBER

DOOR NUMBER

WINDOW TYPE

SHEET NUMBER
8 1/2 x 11" DETAIL SHEET

NOTE:
SEE SHEETS A-3 & A-4 FOR LEGEND
AND ABBREVIATIONS NOT SHOWN ON
THIS SHEET



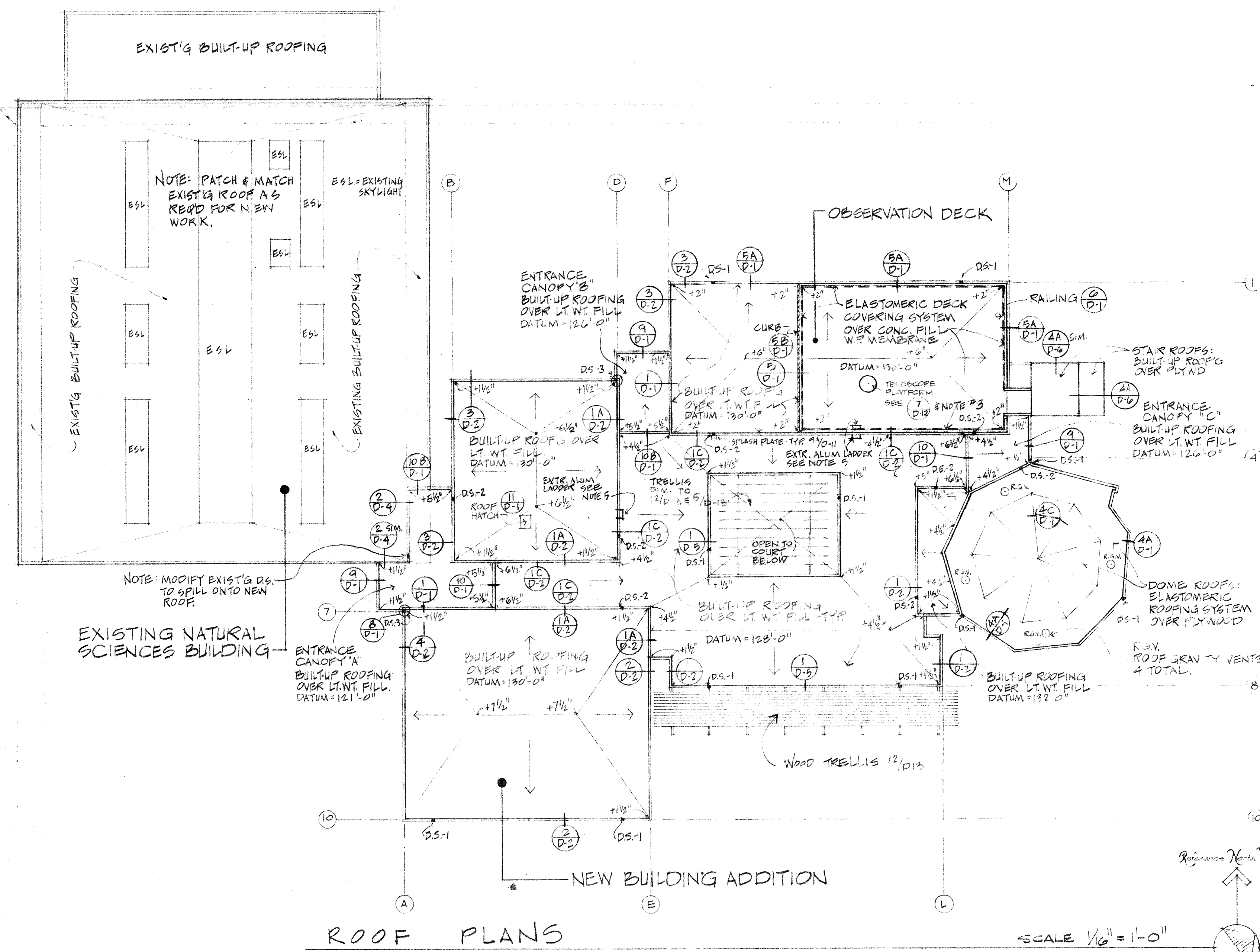
ARCHITECT
STRUCT. ENGINEER
CONSULT. ENGINEER

APPROVED
DATE: 12-12-73
BY: [Signature]
FOR: [Signature]

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CONTRA COSTA COLLEGE
J. S. NANCE ARCHITECT
P. D. CIANCHI ARCHITECT
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TITLE SHEET
NATURAL SCIENCES BUILDING
ADDITION AND REMODELING
CONTRA COSTA COLLEGE
SAN PABLO, CALIFORNIA

SHEET
OF
DATE
12-12-73
JOB No.
100-71

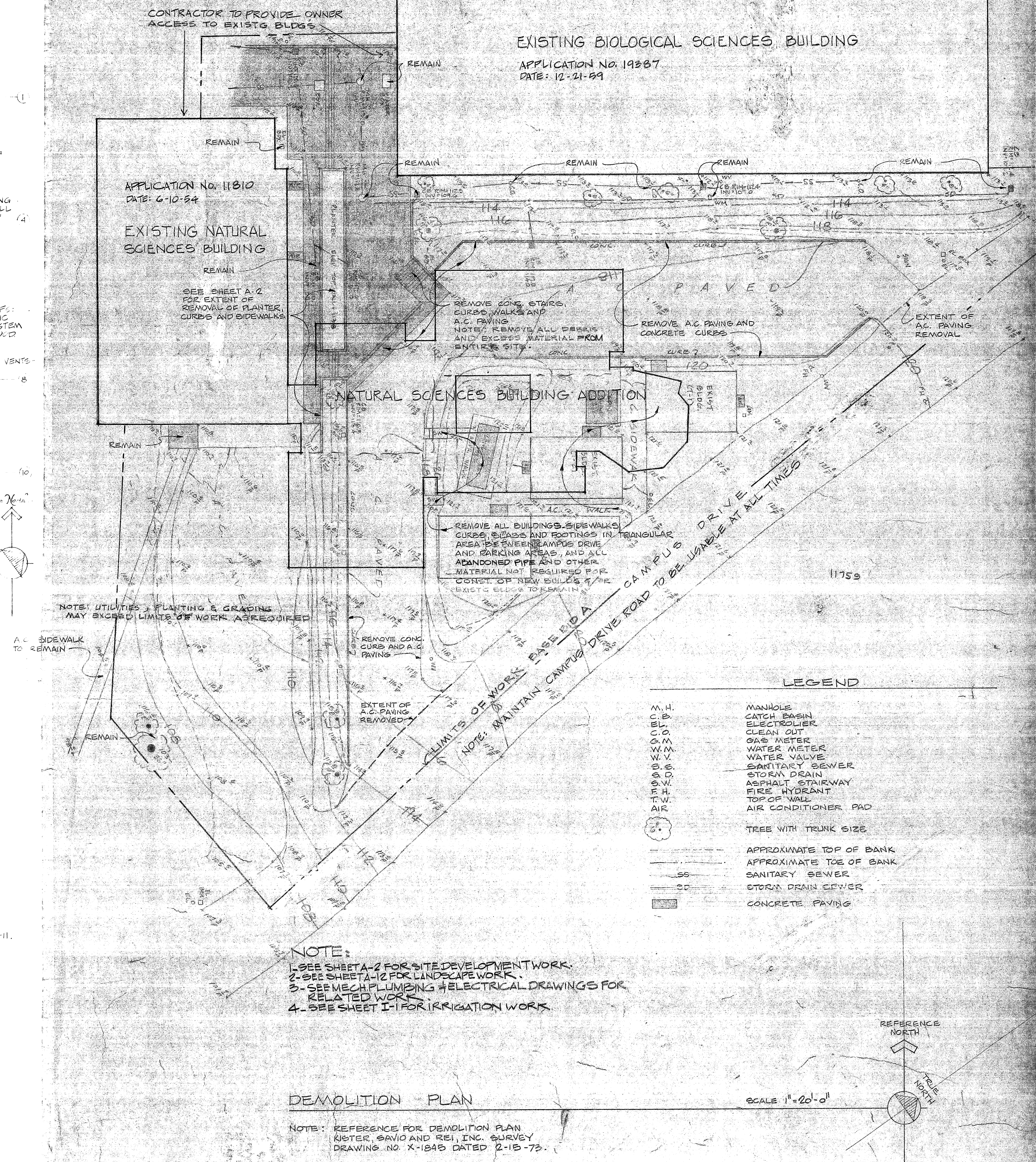


NOTES

1. SLOPE & WARP ALL ROOF LIGHT WEIGHT & CONC FILL TO DRAIN TO GUTTERS.
2. REFER TO BUILDING SECTIONS FOR DATUM ELEVATIONS.
3. CONTRACTOR TO INSTALL EXISTING TELESCOPE FURNISHED BY OWNER. SEE DET. 710-12.
4. PROVIDE SPLASH PLATES AT ALL ROOF TERMINATED D.S. - SEE 9A/D-11.
5. a. PROVIDE EXTRUDED ALUMINUM LADDER FROM OBSERVATION DECK (DATUM 130'-0") TO "OPEN COURT ROOF" (DATUM 128'-0"). LADDER SHALL BE SIDES OVER RAIL TYPE.
- b. PROVIDE EXTRUDED ALUMINUM LADDER FROM "OPEN COURT ROOF" (DATUM 128'-0") TO ROOF OVER FACULTY (DATUM 130'-0"). LADDER SHALL BE SIDES EXTENDING OVER HIGH ROOF TYPE.

LEGEND

+1/8", +2", +4/8", +5/8", +7/8", +1 1/8" ETC.	REFERS TO TOP OF LT. WT. FILL AND TOP OF CONC. FILL ABOVE DATUM ELEVATION. DATUM REFERENCE TO TOP OF PLYWOOD SHEATHING IS TAKEN AS ±0".
DATUM +126'-0"	REFERS TO TOP OF PLYWOOD SHEATHING ELEVATION. (SEE BUILDING SECTIONS & DETAILS FOR DATUM NOT SHOWN)
DATUM +128'-0"	
DATUM +130'-0"	
DATUM +132'-0"	
LT. WT. FILL	LIGHT WEIGHT FILL
—————	DIRECTION OF SLOPE - WARP AS REQ'D - DRAIN TO GUTTER
-----	RAILING - SEE BUILDING SECTIONS SHEET A-G FOR EXTENT
~~~~~	CURB - SEE ROOF PLAN FOR EXTENT.
D.S.-1	2 1/2" Ø DOWNSPOUT - ROOF TO STORM DRAINAGE SYSTEM & GRADE.
D.S.-2	2" Ø DOWNSPOUT - FROM HIGH ROOF TO LOW ROOF. SEE DET. 9A/D-11.
D.S.-3	2" Ø DOWNSPOUT FROM HIGH ROOF TO LOW ROOF GUTTER, 2 1/2" Ø FROM LOW ROOF GUTTER TO STORM DRAINAGE SYSTEM & GRADE. SEE DET. 810-1 & 910-11.



- NOTE:**
1. SEE SHEET A-2 FOR SITE DEVELOPMENT WORK.
  2. SEE SHEET A-12 FOR LANDSCAPE WORK.
  3. SEE MECH PLUMBING & ELECTRICAL DRAWINGS FOR RELATED WORK.
  4. SEE SHEET I-1 FOR IRRIGATION WORKS.

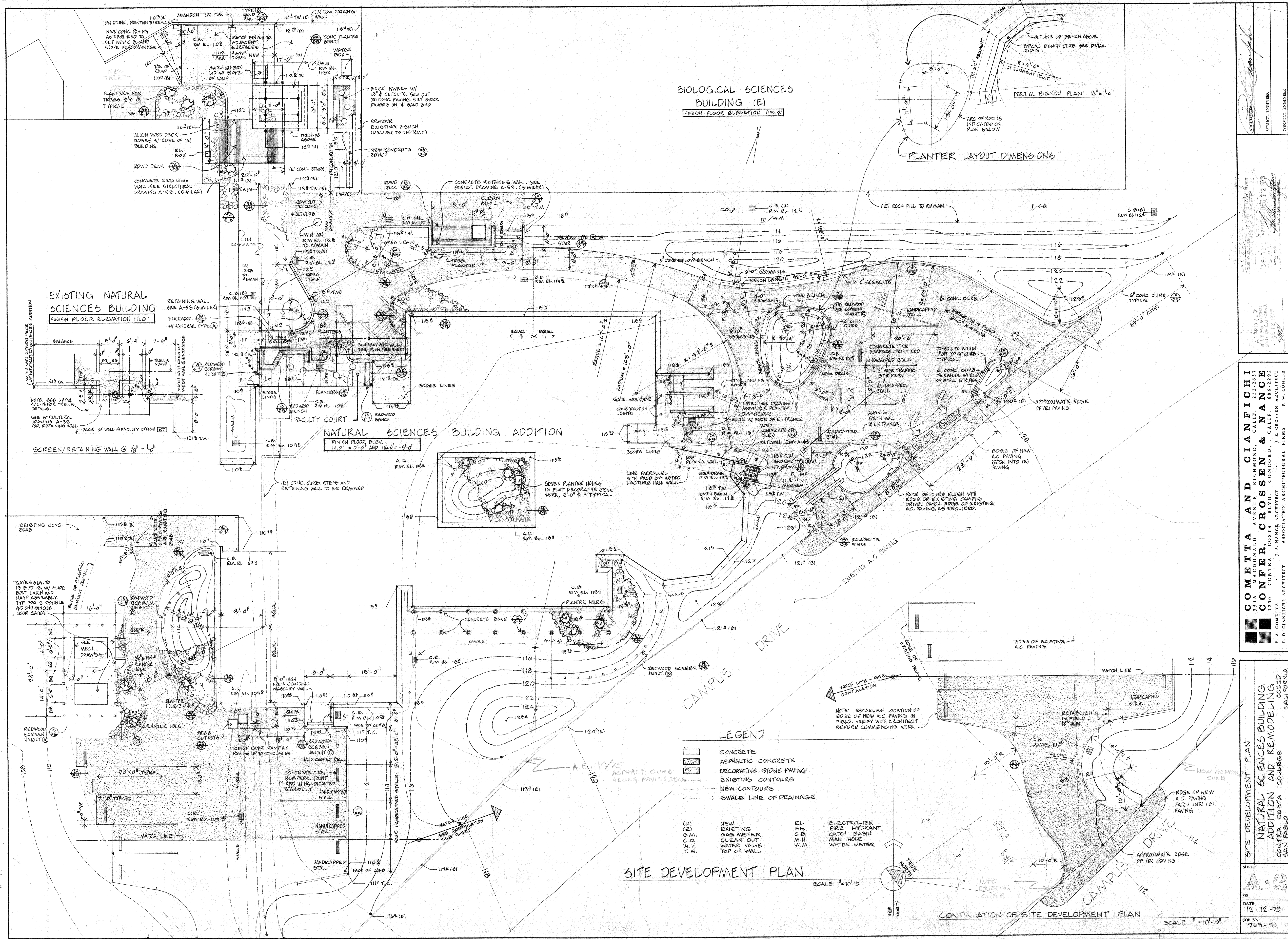
M.H.	MANHOLE
C.B.	CATCH BASIN
E.C.	ELECTROLYZER
C.O.	CLEAN OUT
G.M.	GAS METER
W.M.	WATER METER
W.V.	WATER VALVE
S.S.	SANITARY SEWER
S.D.	STORM DRAIN
S.W.	ASPHALT STAIRWAY
T.H.	FIRE HYDRANT
T.V.	TOP OF WALL
AIR	AIR CONDITIONER PAD
TS	TREE WITH TRUNK SIZE
---	APPROXIMATE TOP OF BANK
---	APPROXIMATE TOE OF BANK
SS	SANITARY SEWER
SD	STORM DRAIN COVER
---	CONCRETE PAVING

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 J. E. COMETTA ARCHITECT  
 J. E. CROSEN ARCHITECT  
 ASSOCIATED ARCHITECTURAL FIRMS

**SITE DEMOLITION PLAN - ROOF PLAN**  
**NATURAL SCIENCES BUILDING**  
**ADDITION & REMODELING**  
**CONNER, CROSEN & NANCE**  
**SAN PABLO**

**SHEET**  
**A-1**  
**OF**  
**DATE**  
**12-12-73**  
**JOB No.**  
**762-71**





BIOLOGICAL SCIENCES  
BUILDING (E)  
FINISH FLOOR ELEVATION 113.2

PLANTER LAYOUT DIMENSIONS

EXISTING NATURAL  
SCIENCES BUILDING  
FINISH FLOOR ELEVATION 111.0

NATURAL SCIENCES BUILDING ADDITION  
FINISH FLOOR ELEV. 111.0 = 0'-0" AND 116.0' = +5'-0"

- LEGEND
- CONCRETE
  - ASPHALTIC CONCRETE
  - DECORATIVE STONE PAVING
  - EXISTING CONTOURS
  - NEW CONTOURS
  - SWALE LINE OF DRAINAGE
- (N) NEW  
(E) EXISTING  
G.M. GAS METER  
C.O. CLEAN OUT  
W.V. WATER VALVE  
T.W. TOP OF WALL
- EL. ELEVATION  
F.H. FIRE HYDRANT  
C.B. CATCH BASIN  
M.H. MAN HOLE  
W.M. WATER METER

SITE DEVELOPMENT PLAN

CONTINUATION OF SITE DEVELOPMENT PLAN

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SITE DEVELOPMENT PLAN  
NATURAL SCIENCES BUILDING  
ADDITION AND REMODELING  
CONTRA COSTA COLLEGE  
SAN PABLO, CALIFORNIA

SHEET  
OF  
A-2  
DATE  
12-12-73  
JOB No.  
769-91



# GENERAL NOTES:

- OCCUPANCY GROUP C-1.
- TYPE OF CONSTRUCTION = TYPE IV, NON-RATED.
- TOTAL GROSS BUILDING AREAS:  
A. EXISTING NATURAL SCIENCE BUILDING = 9,700 SF  
B. NEW NATURAL SCIENCE BUILDING ADDITION = 12,102 SF
- CONTRACTOR TO REMOVE EXIST'G CABINET IN THE ART BUILDING (ON COLLEGE SITE) AND RELOCATE CABINETS IN ROOMS 109 & 110.

EXISTING BIOLOGICAL SCIENCES BUILDING

EXISTING NATURAL SCIENCES BUILDING  
FIN. FL. = 50'-0" (DATUM 111'-0")

SEE SHT. A-2 FOR SITE WORK

## WALL LEGEND

- 2"x6" OR 2"x4" STUD WALL. ALL INTERIOR WALLS TO EXTEND TO BOTTOM OF ROOF JOISTS OR UNDERSIDE OF ROOF SHEATHING. SEE DET. (3)
- 2-HOUR WALL TO UNDERSIDE OF ROOF SHEATHING, 1/2" W/ FIRE RETARDANT WOOD STUDS @ 16" O.C.
- 1-HOUR WALL TO UNDERSIDE OF ROOF SHEATHING.
- SOUND INSULATED WALL TO CEILING

REFERENCE NORTH

SCALE 1/8" = 1'-0"

## FLOOR PLAN

FINISHED FLOOR = +5'-0" (DATUM 116'-0") UNLESS SHOWN OTHERWISE

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FLOOR PLAN - NEW ADDITION  
NATURAL SCIENCES BUILDING  
ADDITION AND REMODELING  
CONTRA COSTA COLLEGE  
SAN PABLO, CALIFORNIA

SHEET  
DATE 12-12-73  
JOB No. 769-71



EXISTING NATURAL SCIENCES BUILDING

CLASSROOM 100  
FIN. CLG. + 12.0'-0"

CLASSROOM 102  
FIN. CLG. + 12.6'-0"

CLASSROOM 101  
FIN. CLG. + 12.6'-0"

FACULTY 107  
FIN. CLG. + 12.3'-0"

ENTRANCE CANOPY 108"

CEN. PLAS.

SAT

PREP 106  
FIN. CLG. + 12.0'-0"

SAT

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
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INTERIOR ROOM FINISH SCHEDULE												
ROOM NO.	ROOM NAME	FLOOR BASE		WALL MATERIAL					CEILING			REMARKS
		MAT.	MAT.	NORTH	WEST	SOUTH	EAST	FINISH	MAT.	TRIM	FIN.	
100	CUSTODIAN	VAT	R	GB	GB	GB	GB	SSE	GB		SSE	
101	CLASSROOM	VAT	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
102	CLASSROOM	VAT	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
103	WOMEN	CT	CT	CT	CT	CT	CT	—	GB		SSE	
104	PREP.	VAT	R	GB	GB	GB	GB	SSE	GB		SSE	GB ON HUNG 2x4
105	MEN	CT	CT	CT	CT	CT	CT	—	GB		SSE	GB ON HUNG 2x4
106	CLASSROOM	CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
107	FACULTY	CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
108	PREP.	VAT	R	GB	GB	GB	GB	SSE	GB		SSE	
109	GEOLOGY LAB.	CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
110	GEOLOGY PREP.	VAT	R	GB	GB	GB	GB	SSE	AT		—	ACOUSTICAL TILE GUAIED TO 30' GB ON FURRING L.
111	OFFICE	CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
112	MECHANICAL	VAT	R	GB	GB	GB	GB	SSE	GB		SSE	
113	CLASSROOM	CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
114	OFFICE	CA	CA	RKP	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
115		CA	CA	RKP	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
116		CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
117		CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
118		CA	CA	RKP	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
119		CA	CA	RKP	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
120		CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP	ST	SAT	RKP#ND	ST	
121		CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP	ST	SAT	RKP#ND	ST	
122		CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP	ST	SAT	RKP#ND	ST	
123		CA	CA	RKP	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
124		CA	CA	RKP/GB	RKP	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
125		CA	CA	RKP/GB	RKP	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
126		CA	CA	RKP/GB	RKP	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
127		CA	CA	RKP/GB	RKP	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
128		CA	CA	RKP/GB	RKP	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
129	OFFICE	CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP/GB	ST	SAT	RKP#ND	ST	
130	LECTURE PREP.	VAT	R	GB	GB	GB	GB	SSE	GB		SSE	
131	OFFICE	CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP/GB	ST	AT		—	ACOUST. TILE GUAIED TO 30' GB ON FURRING L.
132	M.P. ASTRO LECTURE	CA	R	—	SE INT. CL. ELEVATIONS	—	—	—	GB		SSE	
133	VESTIBULE	CA	CA	RKP/GB	RKP/GB	RKP/GB	RKP/GB	ST	SAT	WD	ST	
134	LOBBY	CA	R	VF/GB	VF/GB	VF/GB	VF/GB	ST	SAT	WD	ST	
135	CORRIDOR	CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
136		CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	WD	ST	
137		CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
138		CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	RKP#ND	ST	
139	CORRIDOR	CA	R	VF/GB	VF/GB	VF/GB	VF/GB	—	SAT	WD	ST	
MATERIAL LEGEND</												

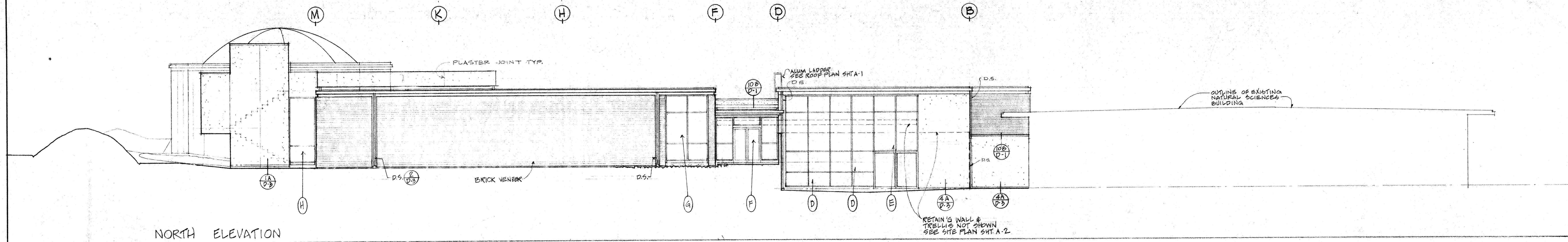


# DOOR SCHEDULE

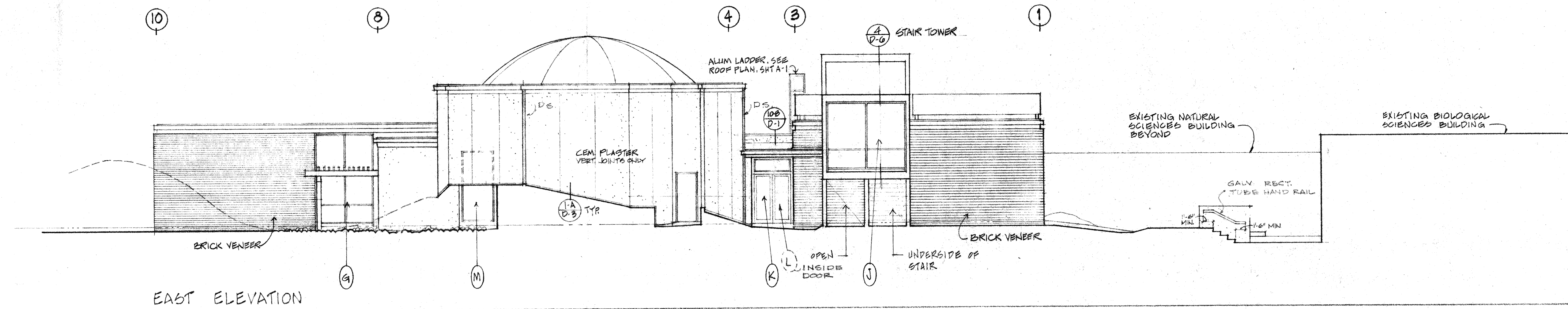
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J. E. COMETTA  
12200 CONTRA COSTA BLVD.  
CONCORD, CALIF 94520  
J. S. NANCE ARCHITECT

NO.	DOOR			SIGN	FRAME	DETAILS			HARDWARE GROUP	REMARKS
	SIZE	TYPE	MATERIAL		MAT.	HEAD	JAMB	SILL		
1	5'10" x 7'-0"	A	ALUMINUM		ALUM.	4E/0-5	5F/0-5	4F/0-5	1	
2	6'-0" x 7'-0"	A	ALUMINUM		ALUM.	4E/0-5	4E/0-5	4F/0-5	1	
3	8'-0" x 7'-0"	B	ALUMINUM		ALUM.	6C/0-5	5L/0-5	6B/0-5	1	
4	6'-0" x 7'-0" x 1 3/4"	B	H.M.		H.M.	3/0-1	6A/0-8	1/0-8	2	1 1/2 HR. LABEL DOOR & FRAME
5	3'-0" x 7'-0" x 1 3/4"	E	H.M.		H.M.	6B/0-8	6B/0-8	6C/0-8	3	
6-12	8'-0" x 7'-0"	B	ALUMINUM		ALUM.	6C/0-5	2AB/0-5	6B/0-5	2	
13-20	6'-0" x 7'-0"	B	ALUMINUM		ALUM.	6C/0-5	2AB/0-8	6B/0-8	2	
21	3'-0" x 7'-0" x 1 3/4"	E	H.M.		H.M.	6C/0-8	6B/0-8	6C/0-8	4	
22	5'-10" x 7'-0" x	F	WOOD			2B/0-8	3B/0-8	2B/0-8	5	
23	3'-10" x 7'-0" x	F				3B/0-8	2B/0-8	2B/0-8	6	20 MIN. LABEL DOOR & FRAME
24	2'-10" x 7'-0" x	G		WOMEN		4C/0-8	4E/0-8	2A/0-8	7	20 MIN. LABEL DOOR & FRAME
25	3'-0" x 7'-0" x	Gv				4A/0-8	4A/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
26	3'-0" x 7'-0" x	G				4A/0-8	4A/0-8	2B/0-8	9	
27	3'-0" x 7'-0" x	G				4A/0-8	4A/0-8	2B/0-8	9	
28	3'-0" x 7'-0" x	Gv				4A/0-8	4A/12-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
29	2'-10" x 7'-0" x	G		MEN		4E/0-8	4E/0-8	2A/0-8	7	20 MIN. LABEL DOOR & FRAME
30	3'-0" x 7'-0" x 1 3/4"	G	WOOD		H.M.	4A/0-8	4A/0-8	2B/0-8	3	20 MIN. LABEL DOOR & FRAME
31	6'-0" x 7'-0"	A1	ALUMINUM		ALUM.	4E/0-5	5F/0-5	4F/0-5	13	
32	3'-0" x 7'-0" x 1 3/4"	Gv	WOOD		H.M.	3A/0-8	3A/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
33	3'-0" x 7'-0" x	Gv				3A/0-8	3A/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
34	3'-0" x 7'-0" x	Gv				3A/0-8	3A/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
35	3'-0" x 7'-0" x	G	WOOD			3D/0-8	3D/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
36	3'-0" x 7'-0" x	G	H.M.			1/0-4	1/0-4	ALUM.	3	
37	3'-0" x 7'-0" x	C	WOOD			6A/0-8	5A/0-8	2B/0-8	9	20 MIN. LABEL DOOR & FRAME
38	3'-0" x 7'-0" x 1 3/4"	Gv	WOOD			3B/0-8	3B/0-8	2B/0-8	8	
39	6'-0" x 7'-0"	B1	ALUMINUM			6C/0-5	3B/0-5	6A/0-5	2	
40	3'-0" x 7'-0" x 1 3/4"	Gv	WOOD			3C/0-8	3C/0-8	2B/0-8	10	
41	3'-0" x 7'-0" x	G				5B/0-8	5B/0-8	2B/0-8	10	1 HR. LABEL DOOR & FRAME
42	3'-0" x 7'-0" x	Gv				5A/0-8	5A/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
43-58	3'-0" x 7'-0" x	Gv				3B/0-8	3B/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAMES
59	3'-0" x 7'-0" x	G				5C/0-8	5C/0-8	2B/0-8	10	
60	3'-0" x 7'-0" x	Gv				3D/0-8	3D/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
61	3'-0" x 7'-0" x	Gv				3C/0-8	3C/0-8	2B/0-8	8	20 MIN. LABEL DOOR & FRAME
62	3'-0" x 7									

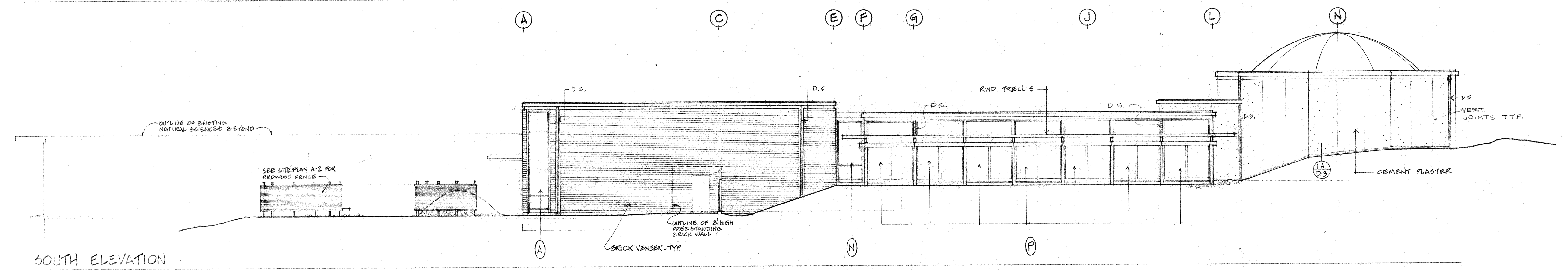




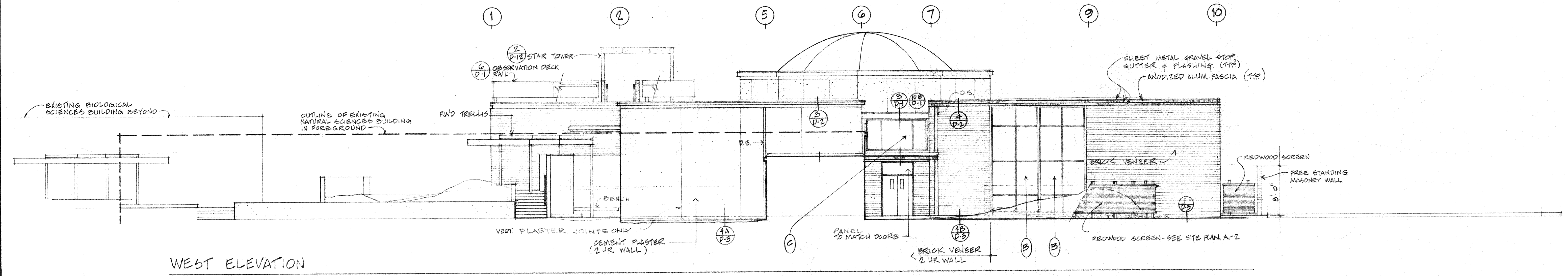
NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION

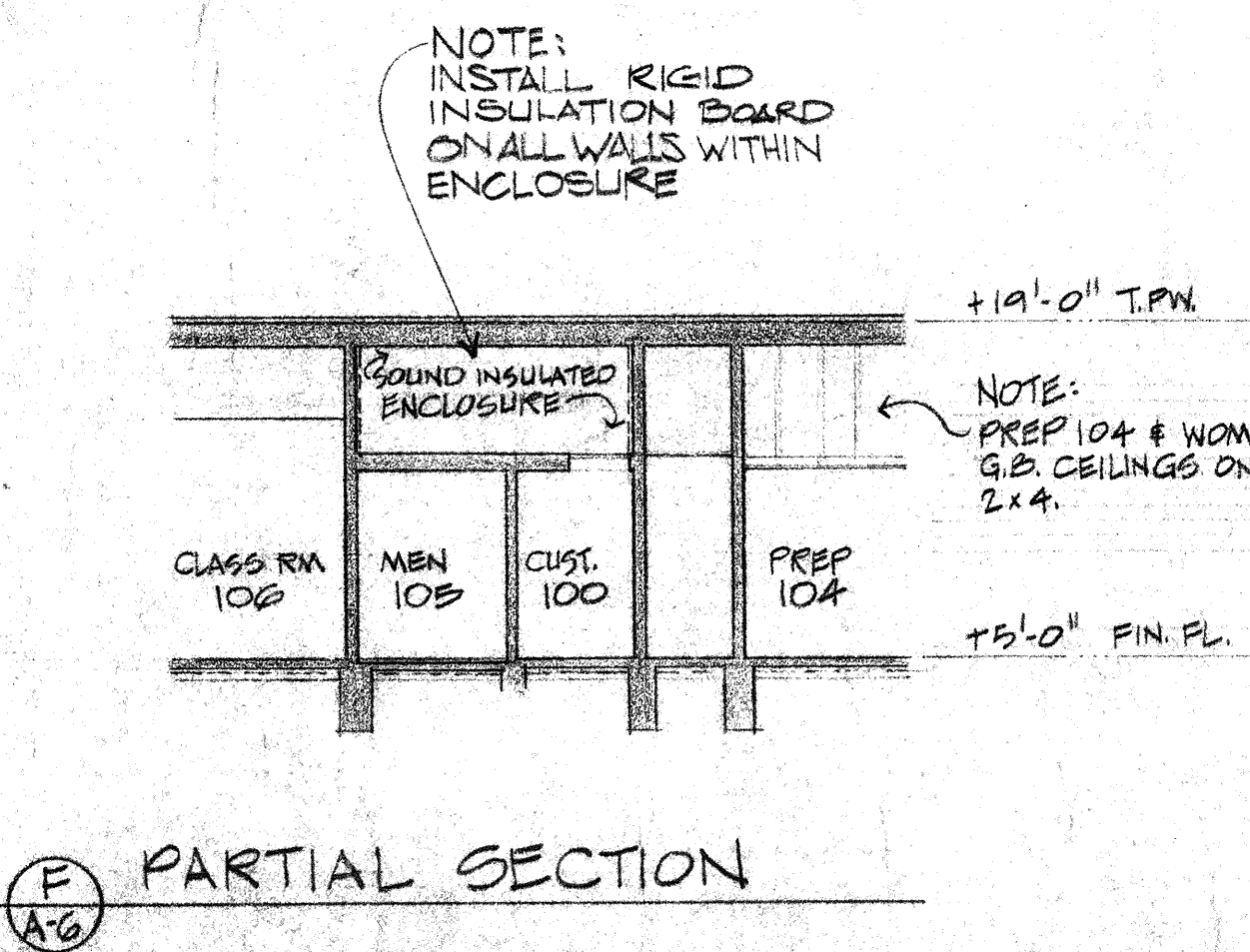
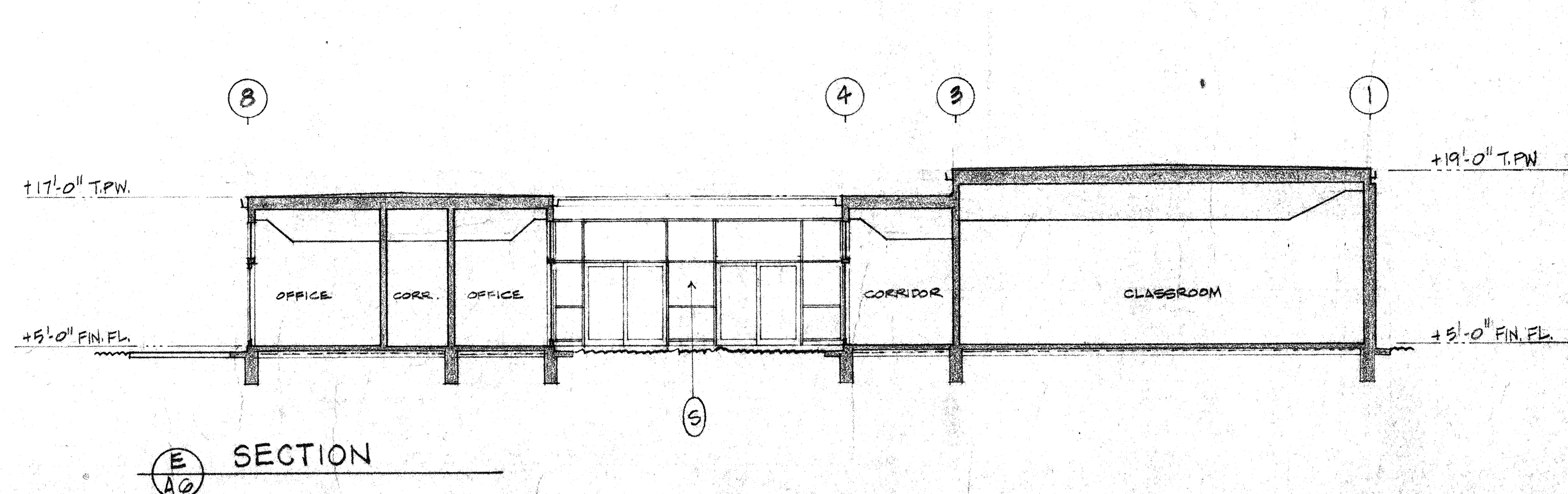
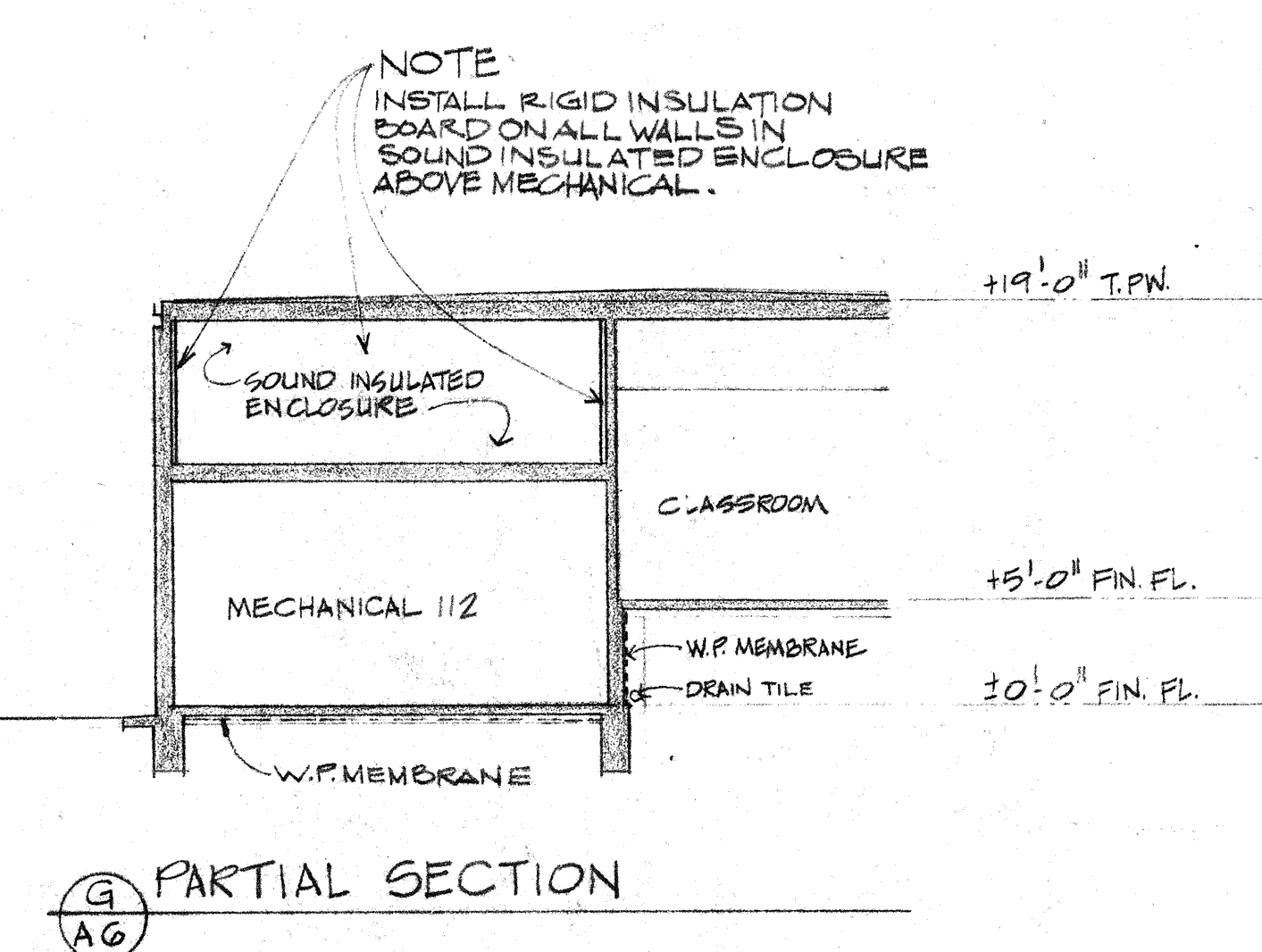
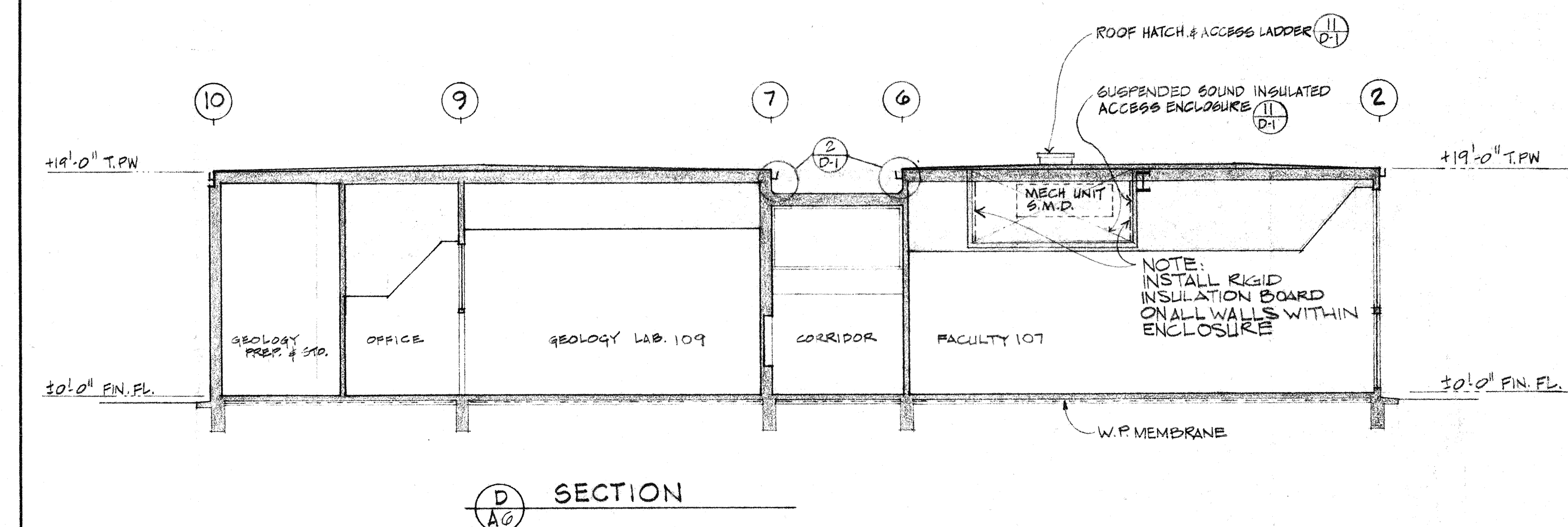
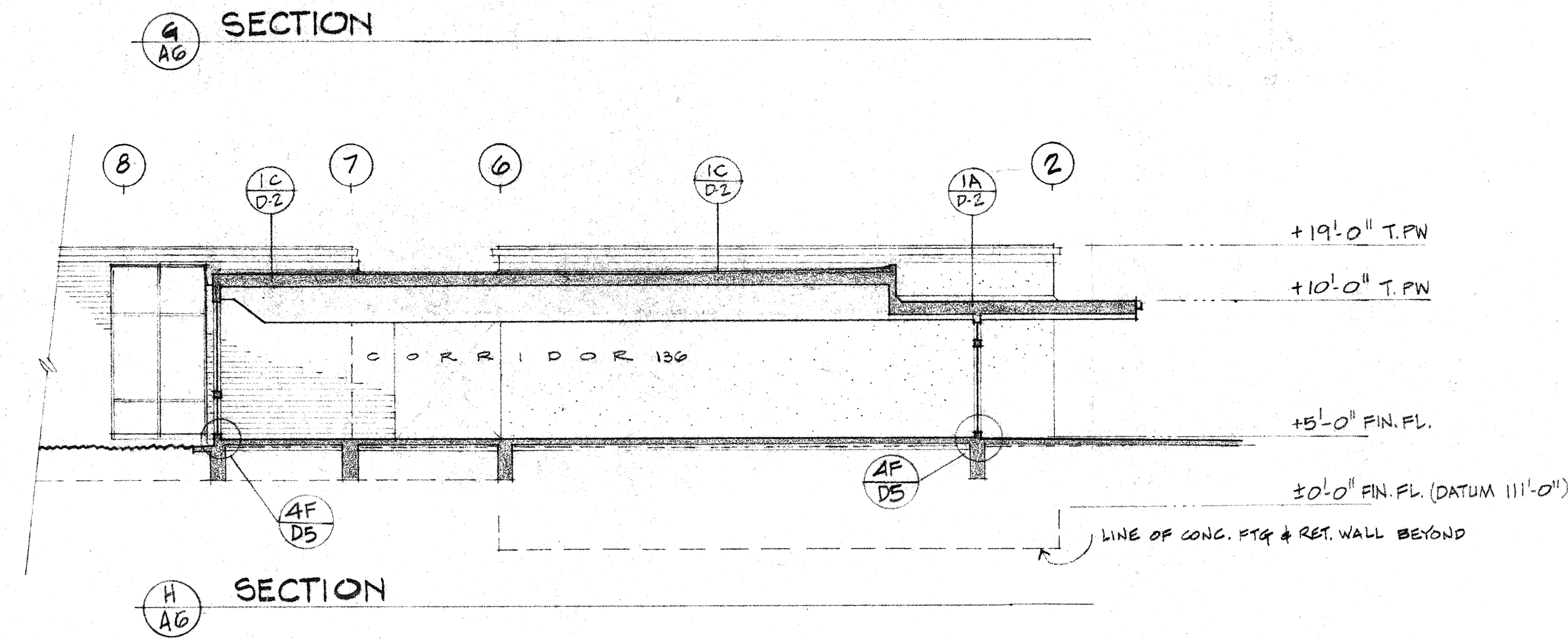
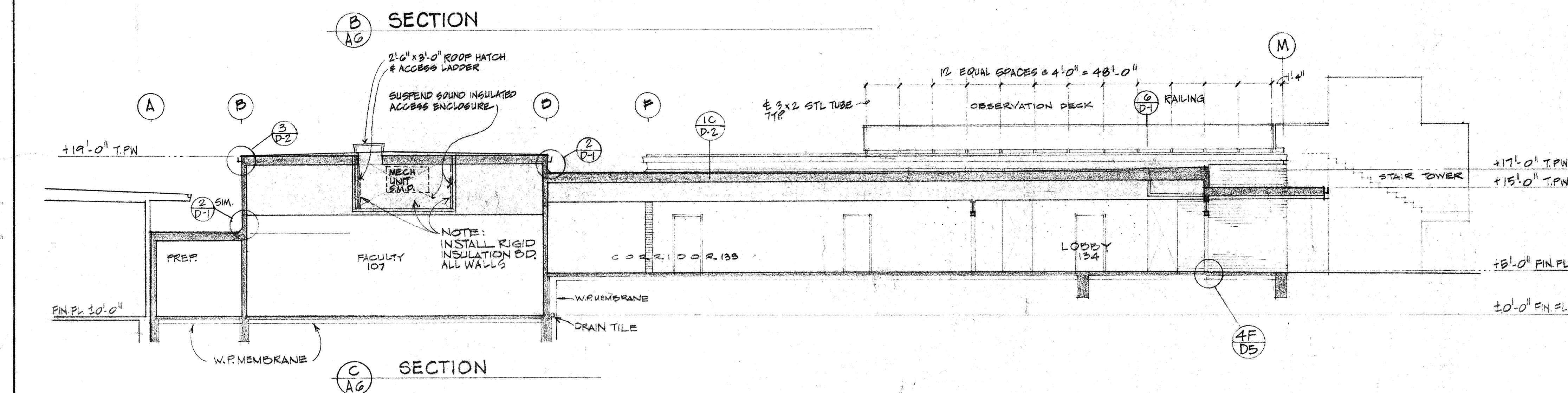
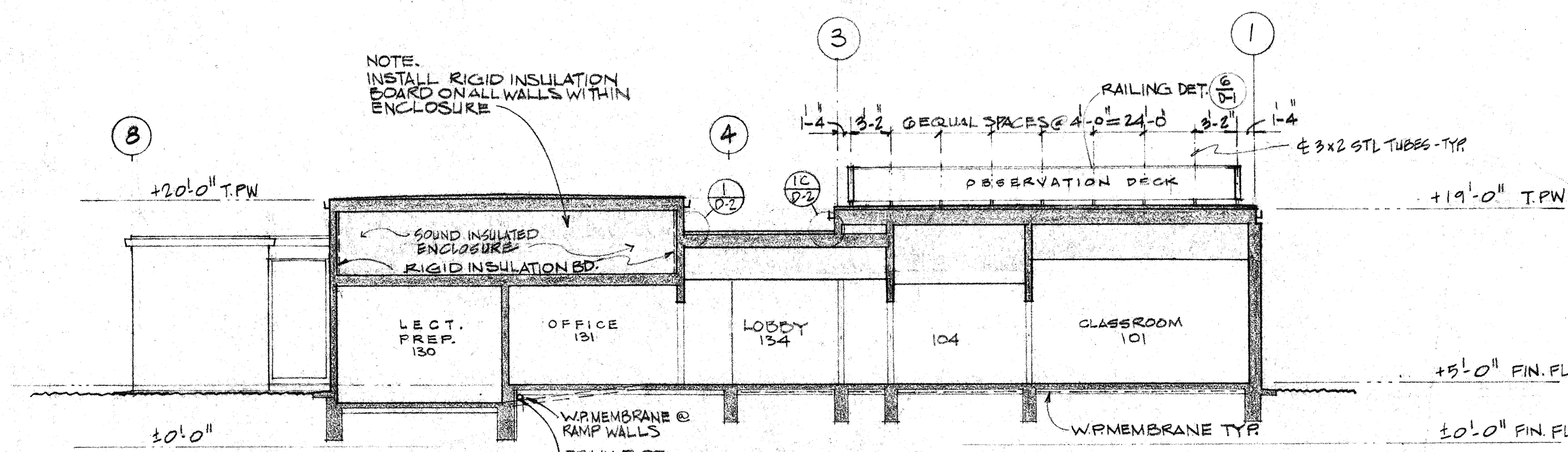
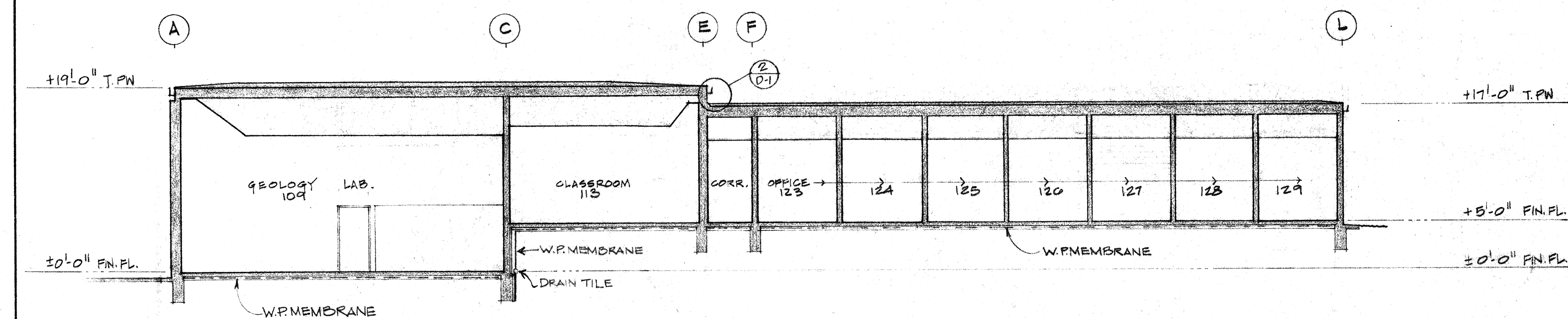
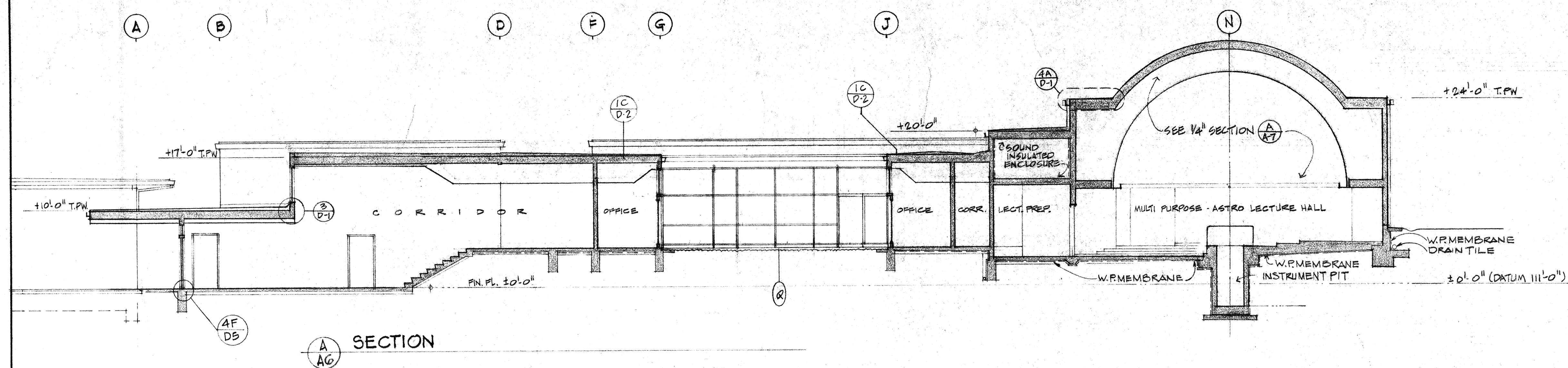


WEST ELEVATION

- GENERAL NOTES:
1. PROVIDE WEEP HOLES AT BOTTOM COURSE OF ALL MASONRY VENEER WALLS.
  2. CEMENT PLASTER WALLS TO HAVE VERT. EXP. JOINTS ONLY.

ARCHITECT: <i>[Signature]</i> STRUCT. ENGINEER: <i>[Signature]</i> CONSULT. ENGINEER: <i>[Signature]</i>	
APPROVED FOR CONSTRUCTION DATE: 12-12-73 BY: <i>[Signature]</i>	
<b>COMETTA AND CIANCHI</b> 3516 MACDONALD AVENUE RICHMOND, CALIF. 94804 <b>CONFER, CROSSEN &amp; NANCE</b> 1200 CONTRA COSTA BLVD. CONCORD, CALIF. 94622 E. A. COMETTA J. S. NANCE, ARCHITECT J. E. CROSSEN, ARCHITECT P. D. CIANCHI, ARCHITECT ASSOCIATED ARCHITECTURAL FIRMS P. W. CONFER	
EXTERIOR ELEVATIONS NATURAL SCIENCES BUILDING ADDITION AND REMODELING CONTRA COSTA COLLEGE SAN PABLO CALIFORNIA	
SHEET <b>A-5</b> OF DATE 12-12-73 JOB No. 769-71	





SCALE 1/8" = 1'-0"

ARCHITECT: *Cometta and Cianfichi*  
 STRUCT. ENGINEER: *J. E. Croesen*  
 CONSULT. ENGINEER: *P. W. Conner*

COMETTA AND CIANFICHI  
 3516 MACDONALD AVENUE RICHMOND, CALIF. 94804  
 CONFER, CROSEN & NANCE  
 1200 CONTRA COSTA BLVD. CONCORD, CALIF. 94622  
 E. A. COMETTA, J. E. CROSEN, ARCHITECTS  
 P. D. CIANFICHI, ARCHITECT ASSOCIATED ARCHITECTURAL FIRMS

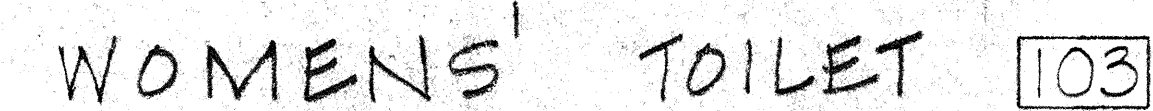
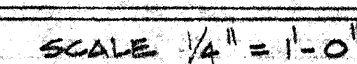
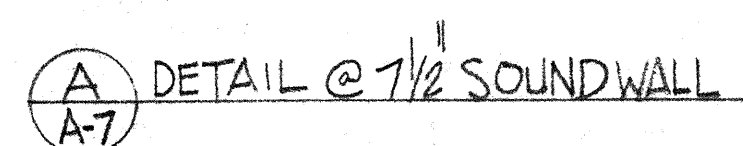
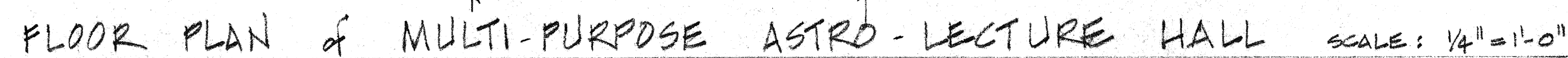
BUILDING SECTIONS  
 NATURAL SCIENCES BUILDING  
 ADDITION AND REMODELING  
 CONTRA COSTA COLLEGE  
 SAN PABLO, CALIFORNIA

SHEET  
 OF  
 DATE 12-12-73  
 JOB No. 769 - 71

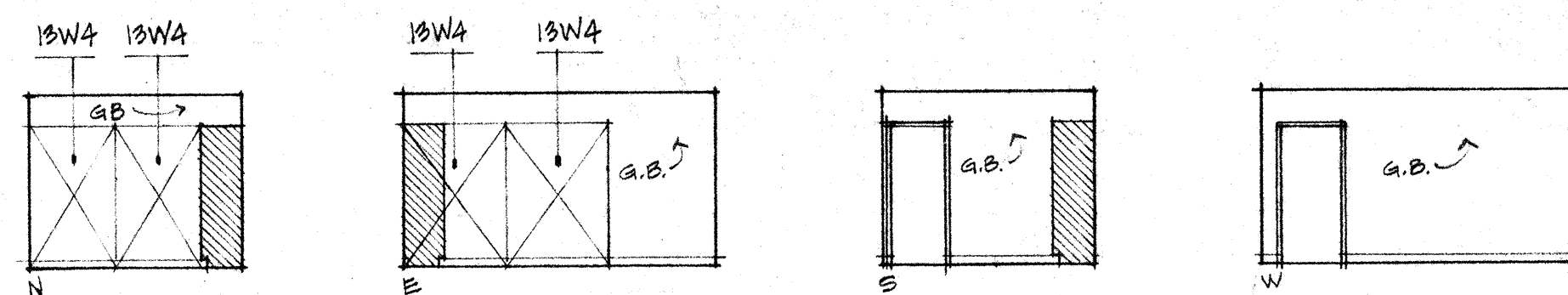


1. ALL CEILING, WALLS, FLOORS AND ALL EXPOSED PIPES, CONDUITS, DUCTS WITHIN THE ENCLOSED SPACE BETWEEN THE DOME & ROOF SHALL BE SPRAY PAINTED FLAT BLACK.

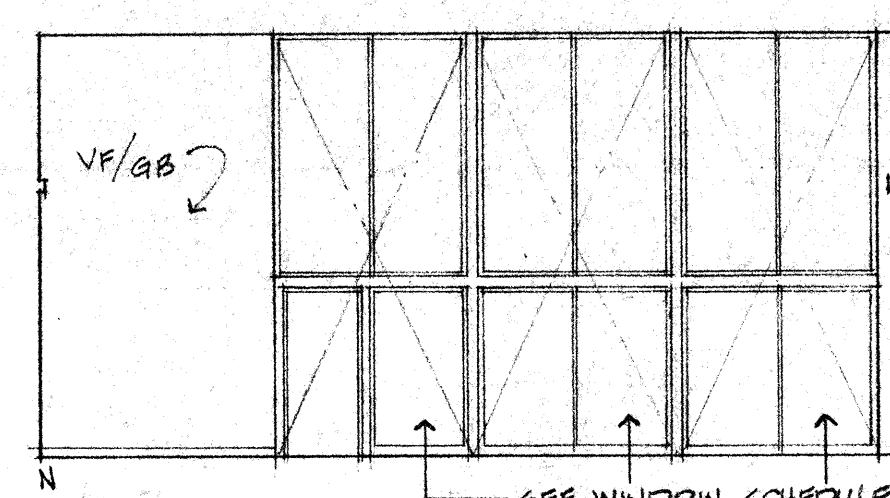
2. 1" SOUND INSULATION OVER ALUMINUM THERMAL SHEET INSULATION OVER 2X3 STRIPPING @ 24" O.C. OVER ENTIRE UNDERSIDE OF DOME TO PERIMETER OF WALLS 2X3 FASTEN W/ #12 @ 4'-0" MAX. FASTEN @ TOP W/ SCREW BYS #14 @ A.
- ELASTOMERIC ROOFING SYSTEM



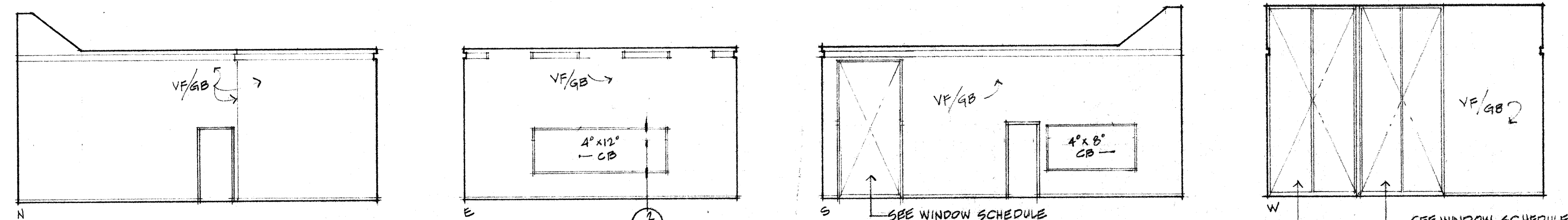




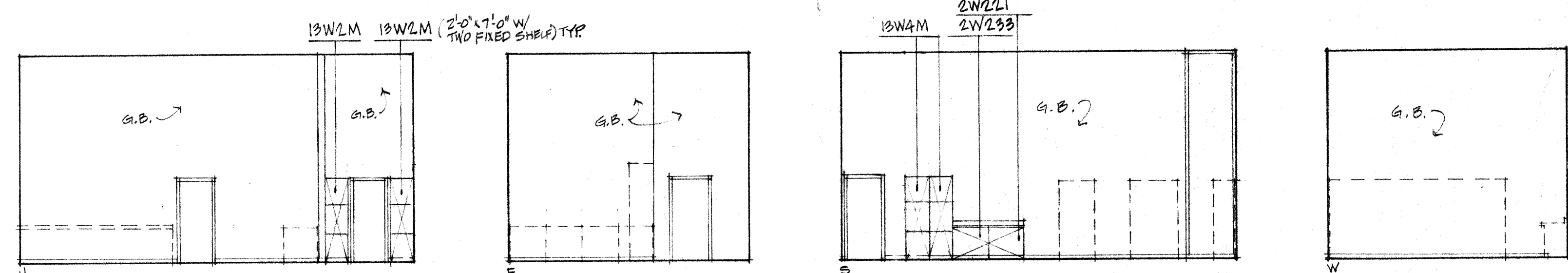
108 PREP



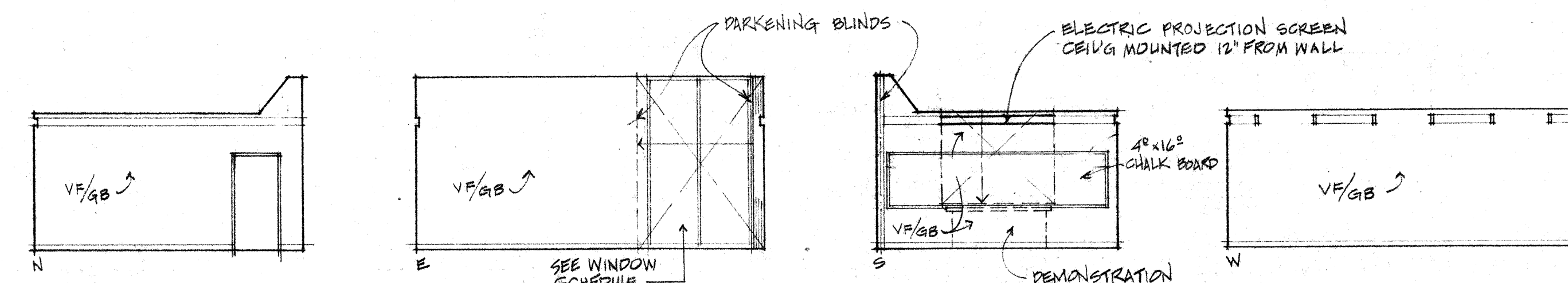
107 FACULTY OFFICE



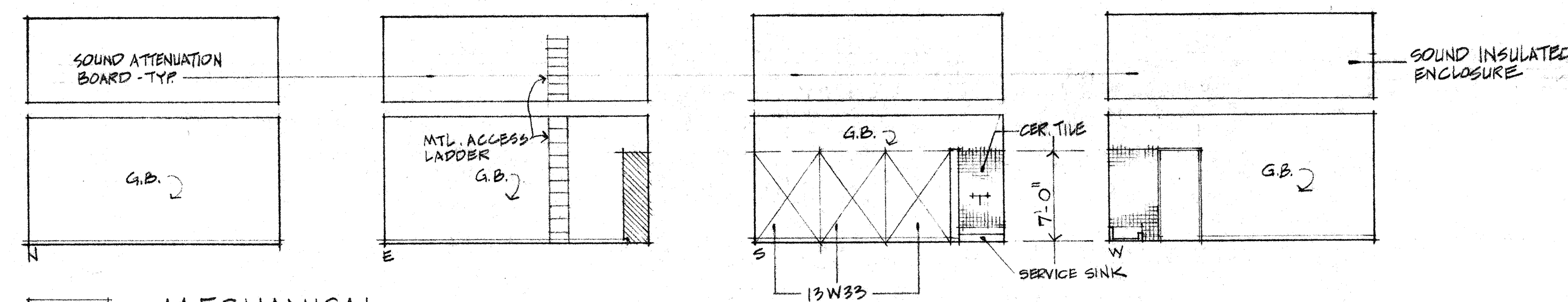
109 GEOLOGY LAB



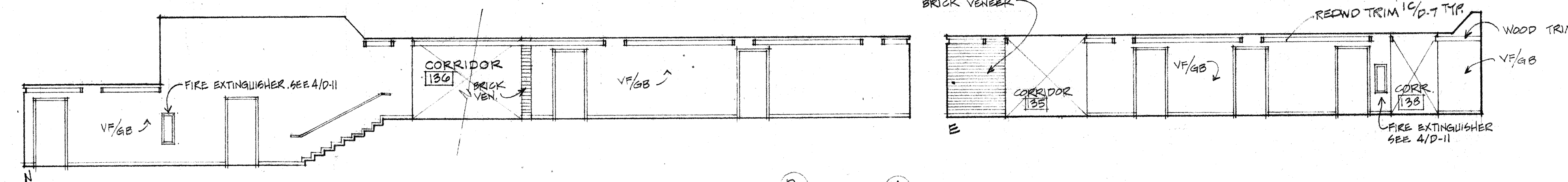
110 GEOLOGY PREP



113 CLASSROOM



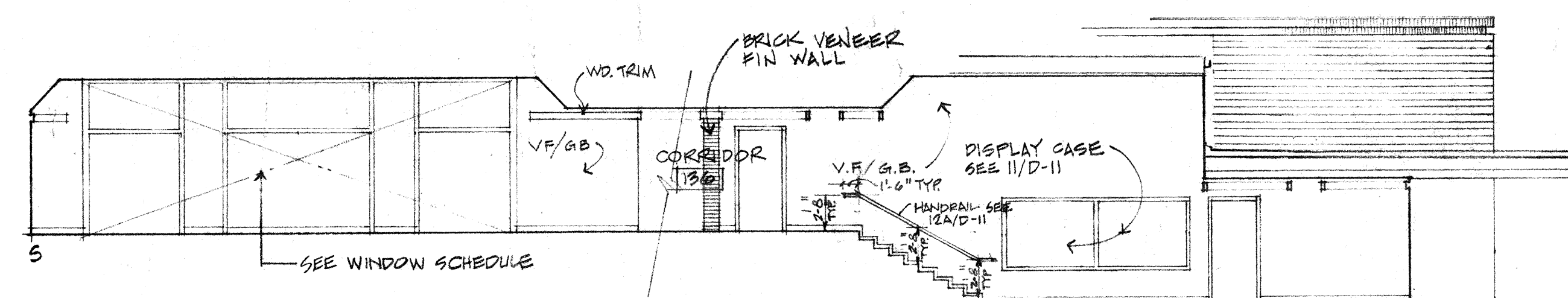
112 MECHANICAL



137 CORRIDOR

135 CORRIDOR

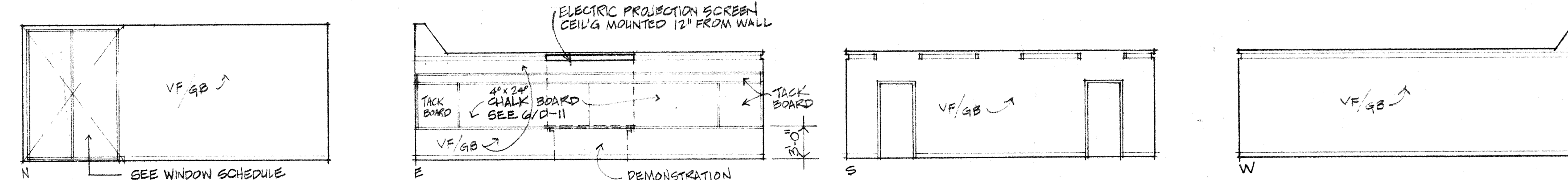
136 CORRIDOR



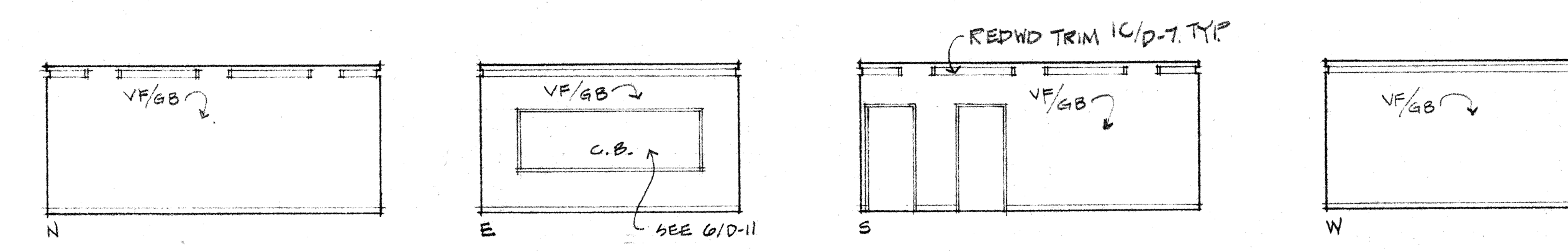
135 CORRIDOR

137 CORRIDOR

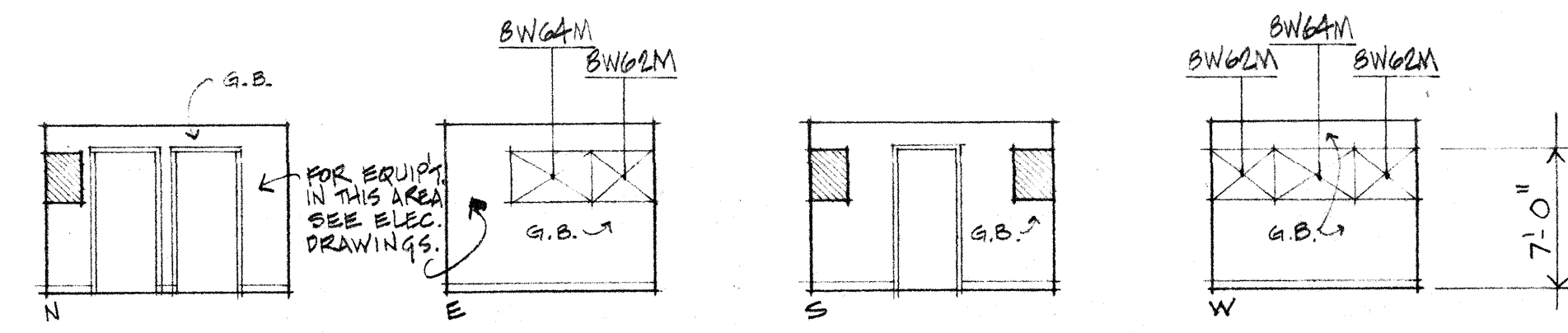
GENERAL NOTES:  
SEE SHEET A-9 FOR APPLICABLE NOTES



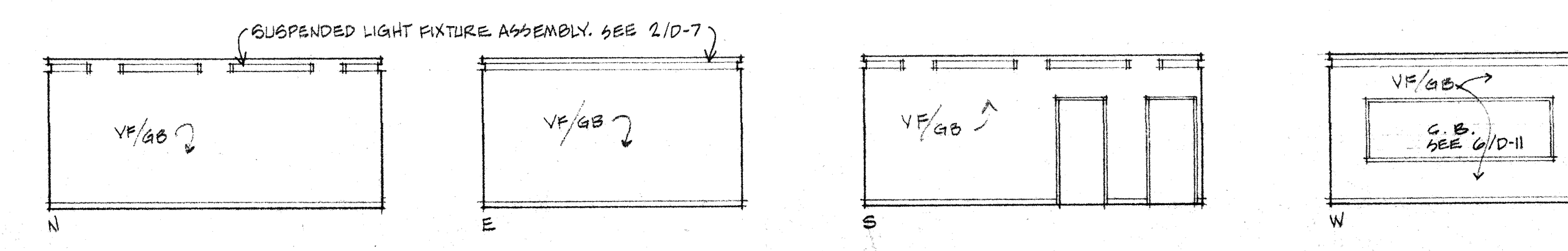
106 CLASSROOM



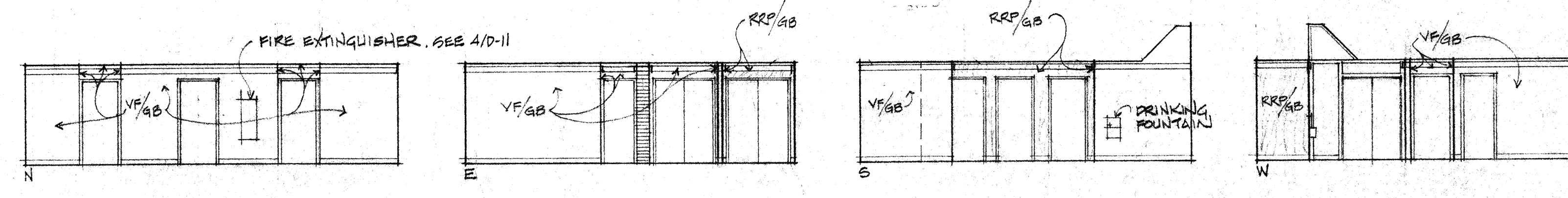
102 CLASSROOM



104 PREP



101 CLASSROOM



134 LOBBY

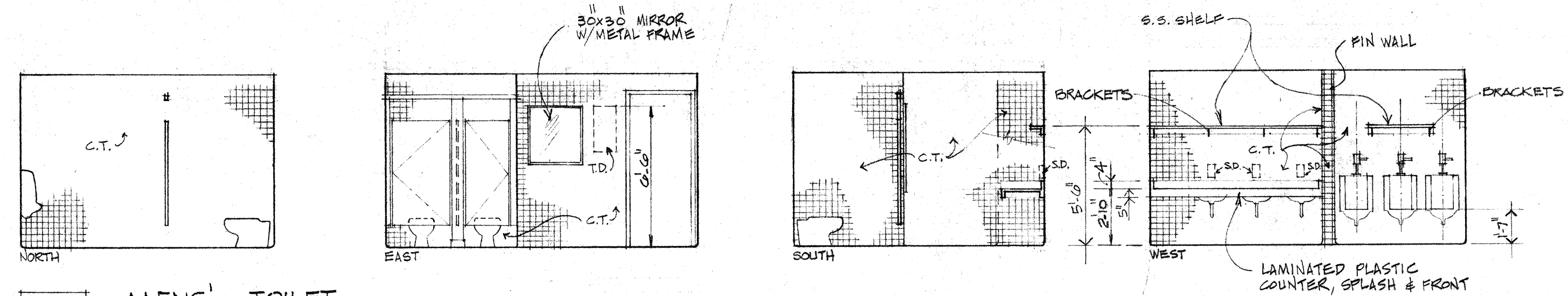


# GENERAL NOTES:

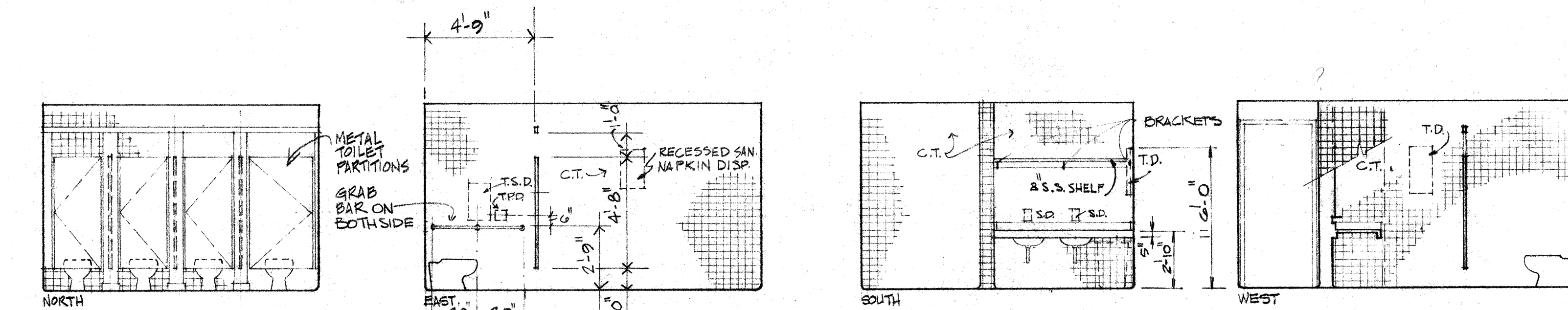
1. SEE FINISH SCHEDULE, SHEET A-4, FOR FINISH LEGEND
2. SEE REFLECTED CEILING PLAN, SHEET A-4, FOR WALL FINISH DETAILS & CEILING.
3. SEE CABINET NOTES SHEET 2/D-10 FOR CABINETS.
4. SEE DETAIL SHEETS GROUP D-9 FOR INTERIOR FINISH DETAILS.

## NOTE:

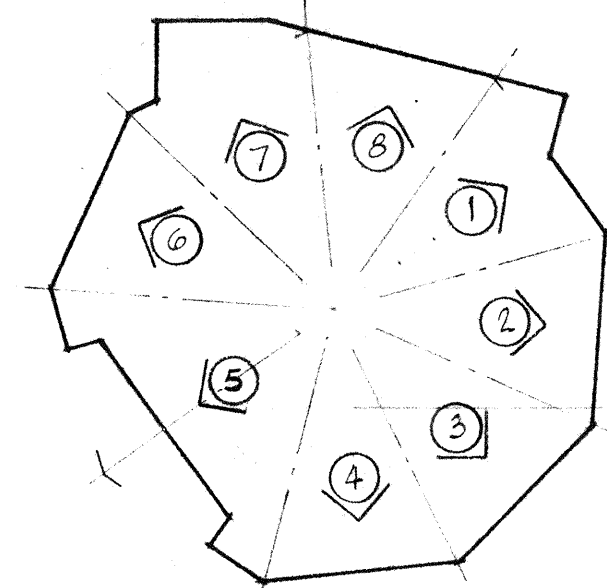
1. TOILET ROOM ACCESSORY ABBREV.  
S.D. = SOAP DISPENSER  
T.D. = TOWEL DISPENSER  
T.P.D. = TOILET PAPER DISPENSER  
T.S.D. = TOILET SEAT DISPENSER
2. TOILET ROOM ACCESSORIES: SOAP DISP., TOILET PAPER DISP., TOILET SEAT DISP. & TOWEL DISP. ARE NOT IN THIS CONTRACT. (N.I.C.) BACKING FOR THE ABOVE ACCESSORIES SHALL BE PROVIDED UNDER THIS CONTRACT AND BE LOCATED AS SHOWN AND/OR DIRECTED BY ARCHITECT.
3. S.D., T.D., RECESS. SAN. NAPKIN, N.I.C. PROVIDE BACKING ONLY.



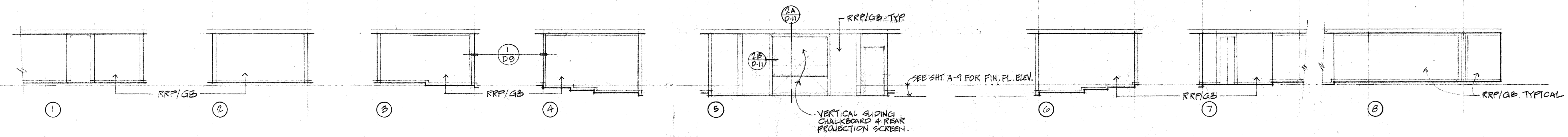
105 MENS' TOILET



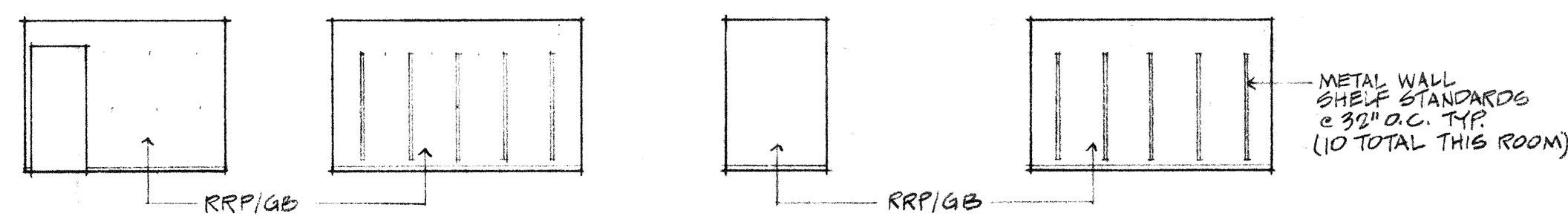
103 WOMENS' TOILET



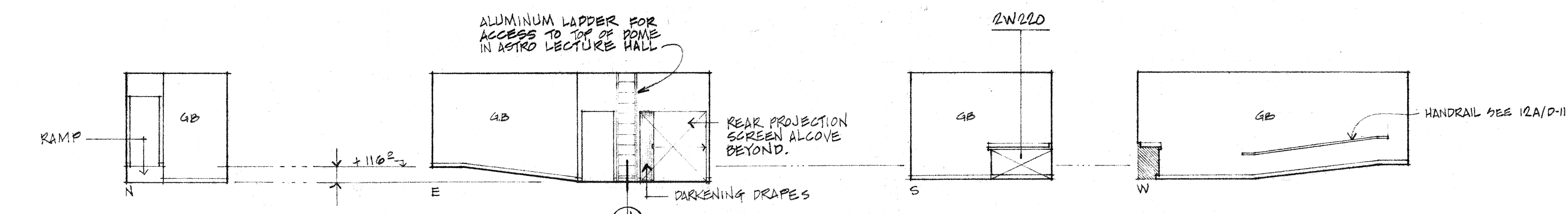
KEY to ELEVATIONS  
NO SCALE



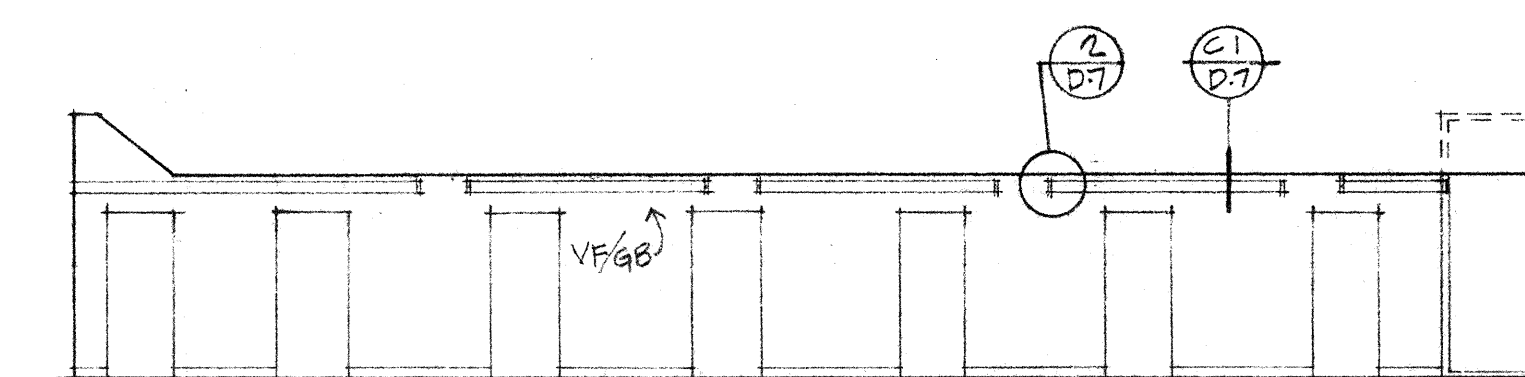
132 MULTI PURPOSE - ASTRO LECTURE HALL



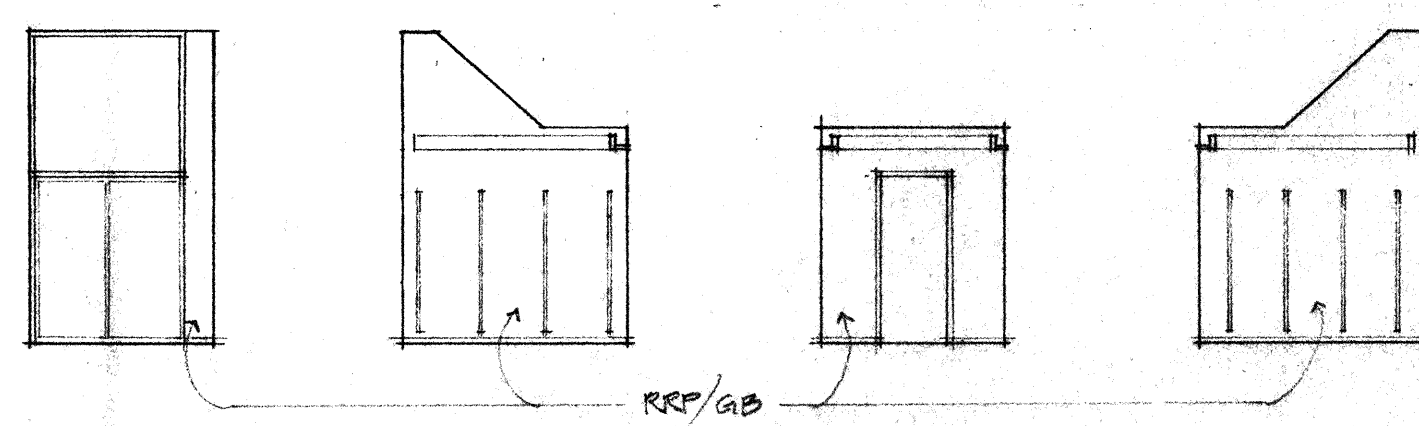
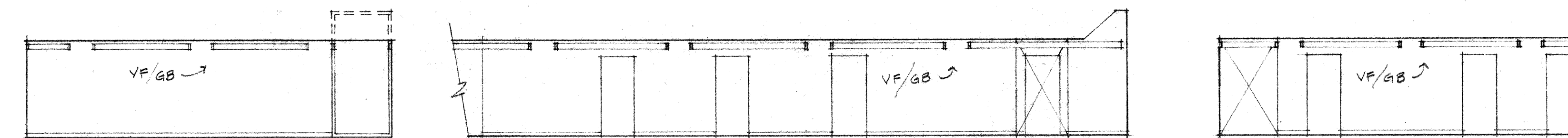
131 FACULTY OFFICE



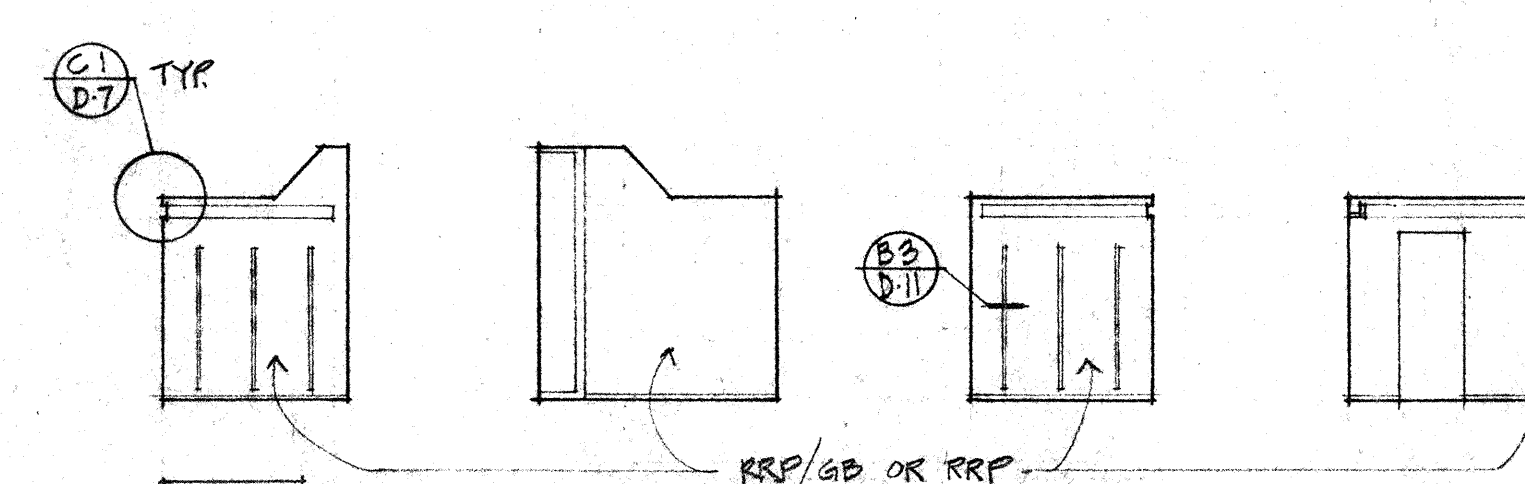
130 ASTRO LECTURE PREP.



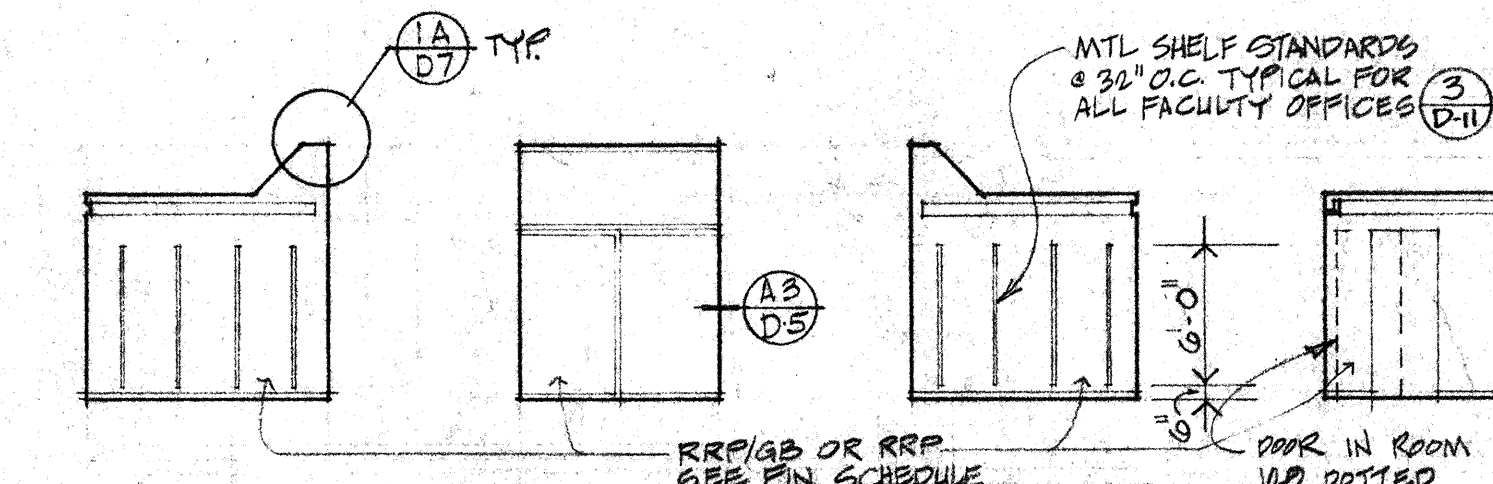
138 CORRIDOR



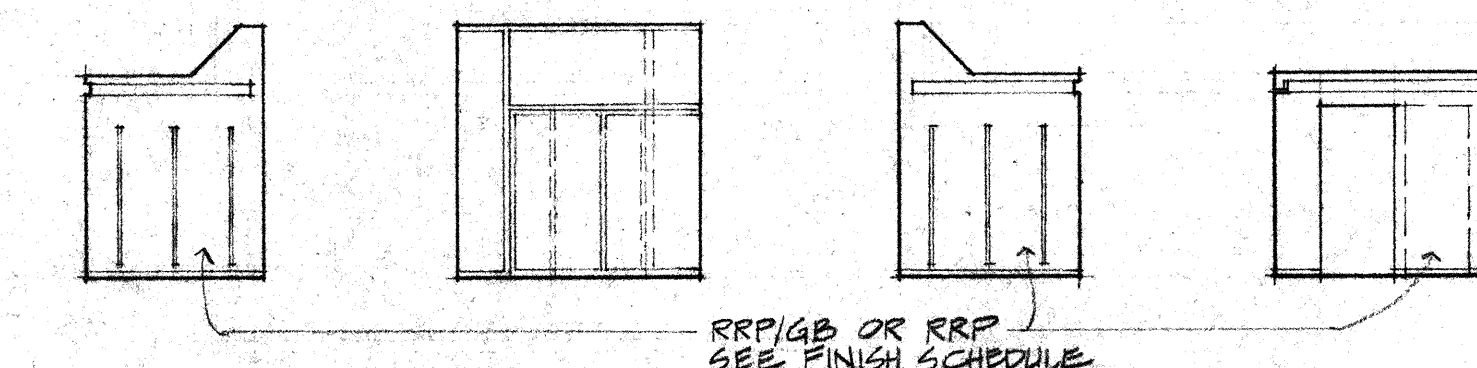
111 FACULTY OFFICE



114 FACULTY OFFICE



123 FACULTY OFFICE  
124, 125, 126, 127, 128 & 129 SIMILAR

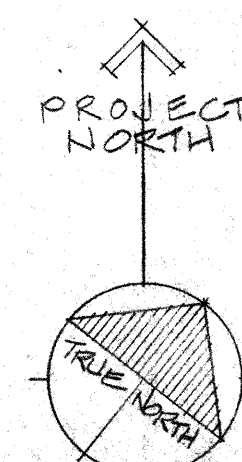


115 FACULTY OFFICE  
116, 117, 118, 119 & 120 SIMILAR BUT OPPOSITE HAND



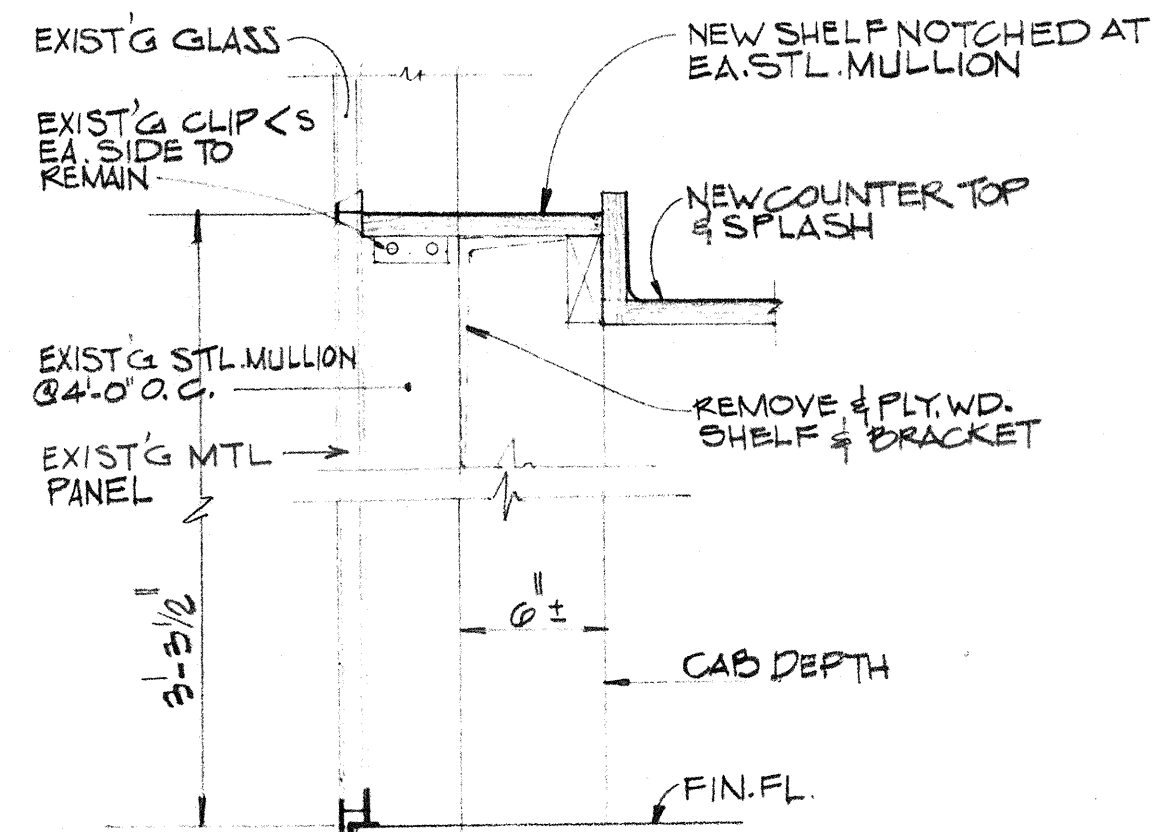
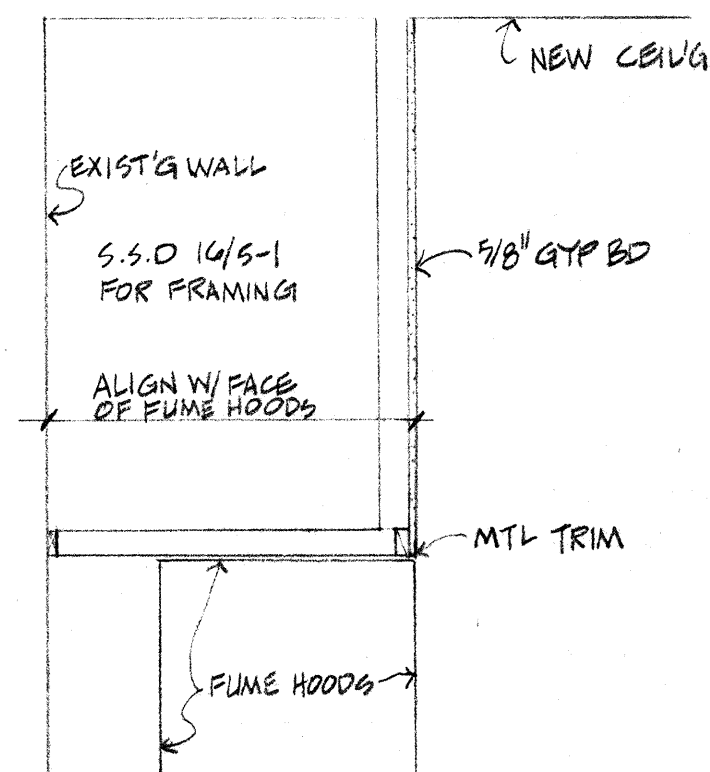
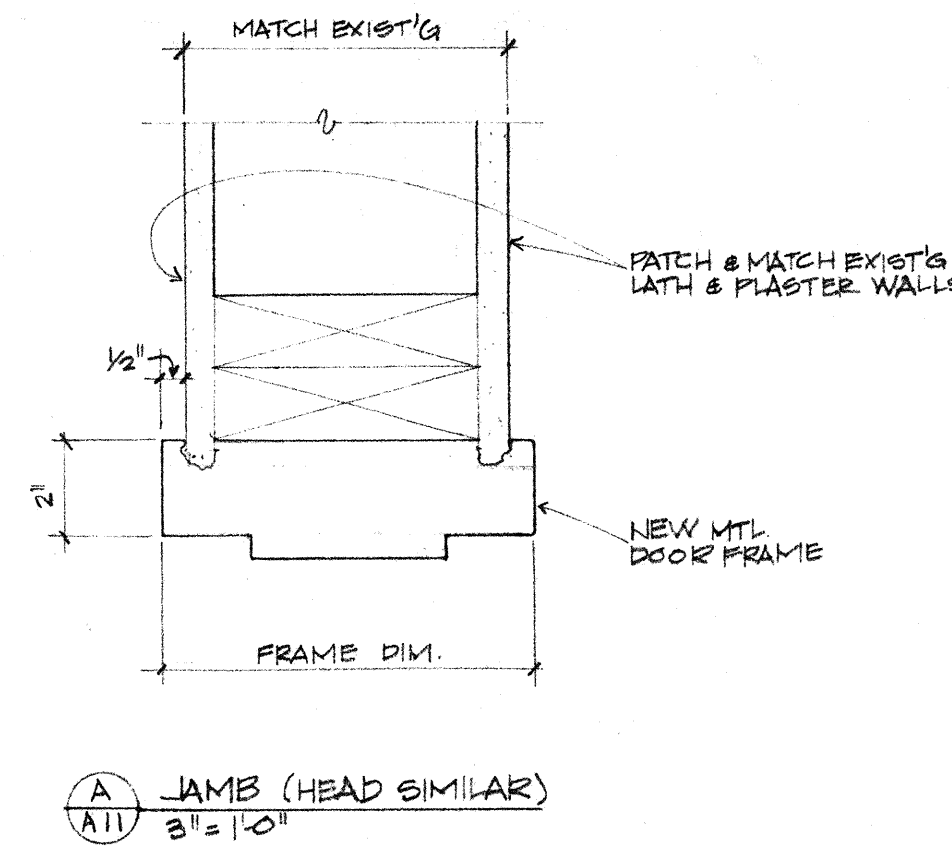


NATURAL SCIENCE ADDITION  
FOR FLOOR PLAN  
OF THIS BUILDING  
SEE SHEET NO A-3

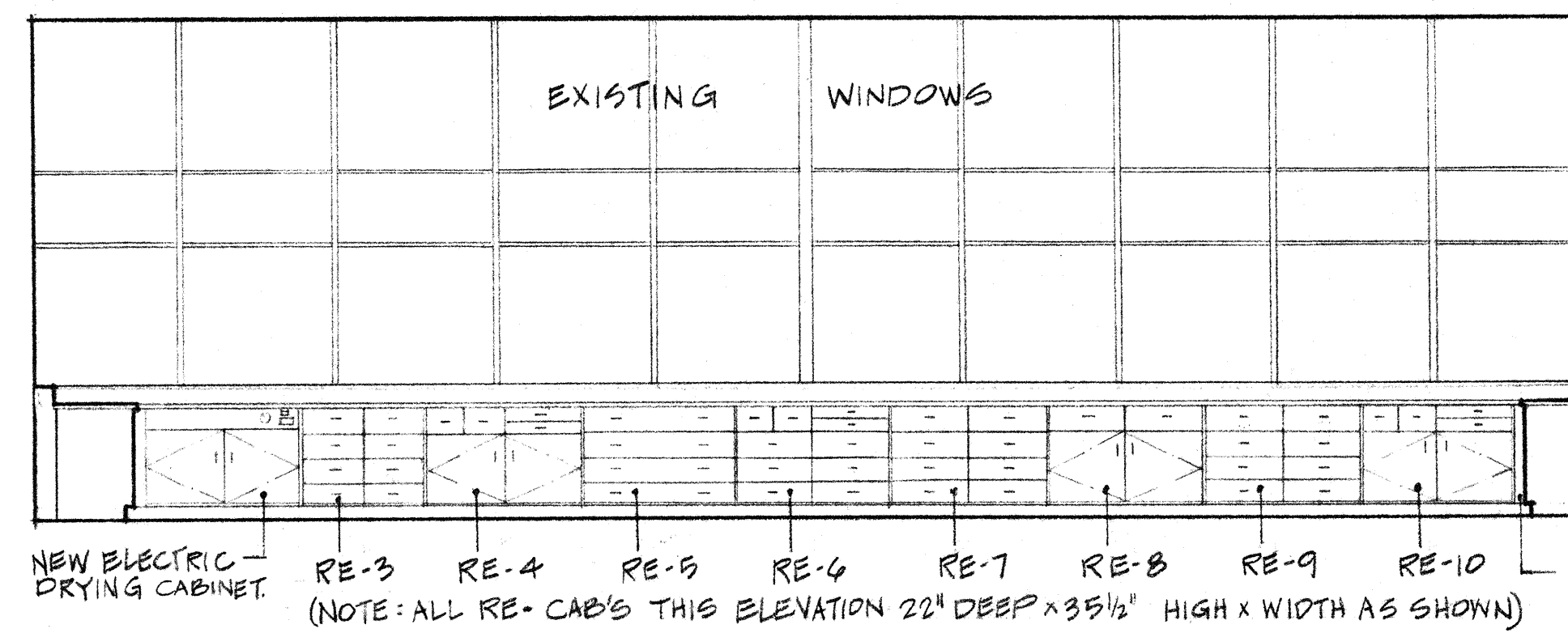
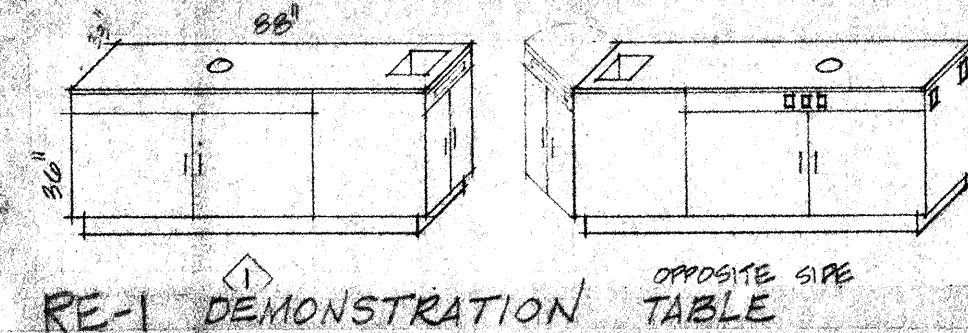
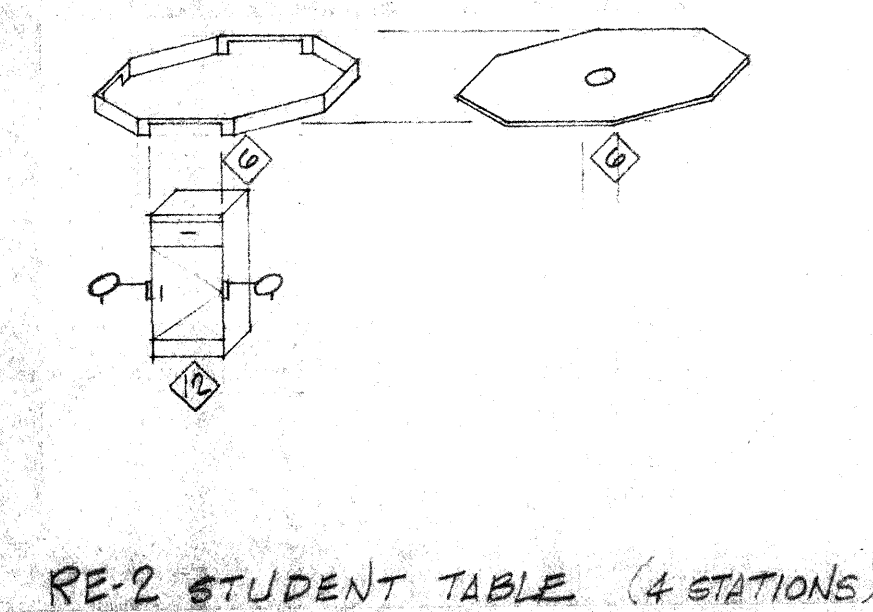


SCALE:  $1/8'' = 1'-0''$

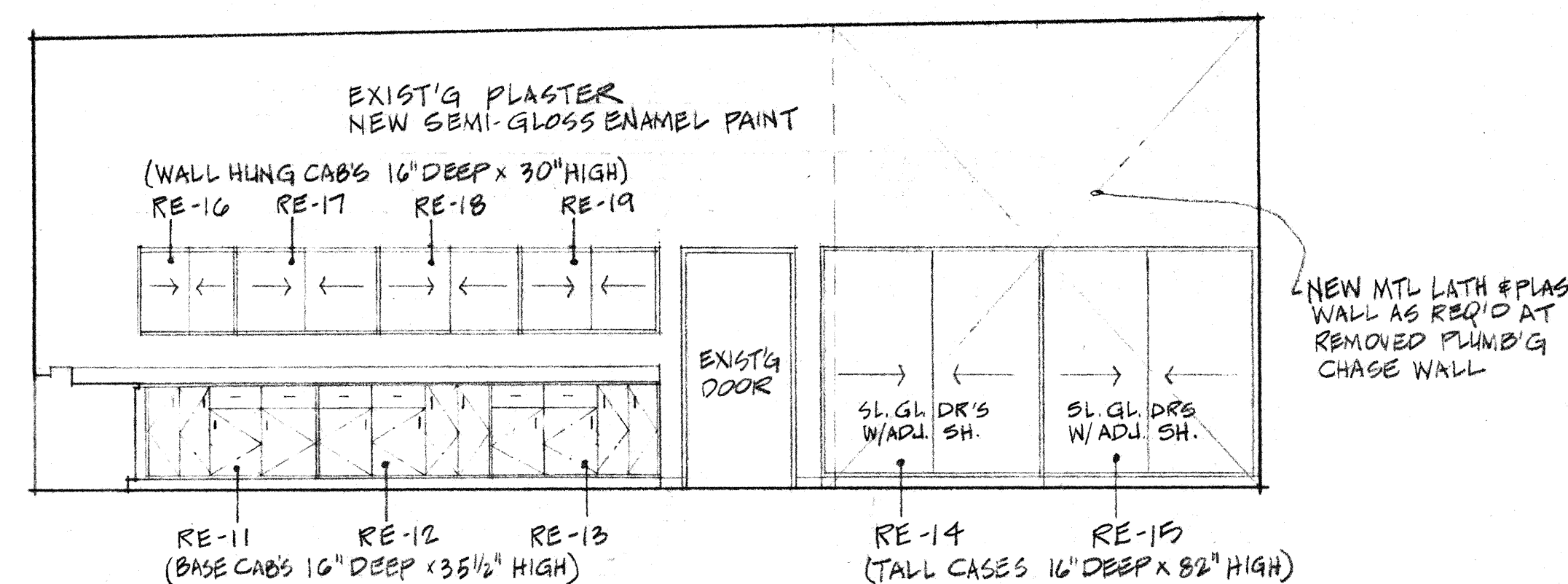




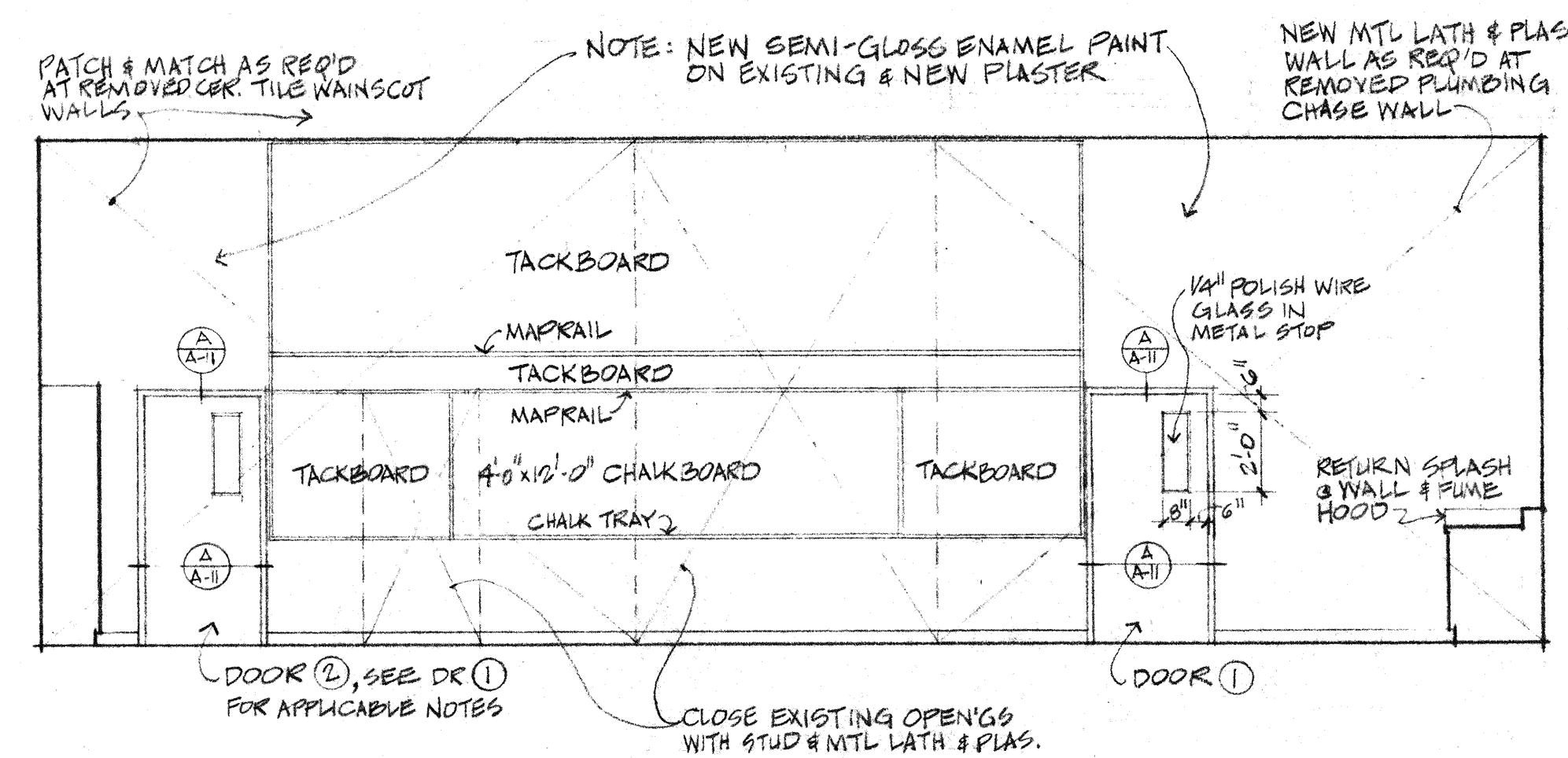
C SHELF DETAIL @ EXIST'G WINDOWS  
SCALE 1/2" = 1'-0"



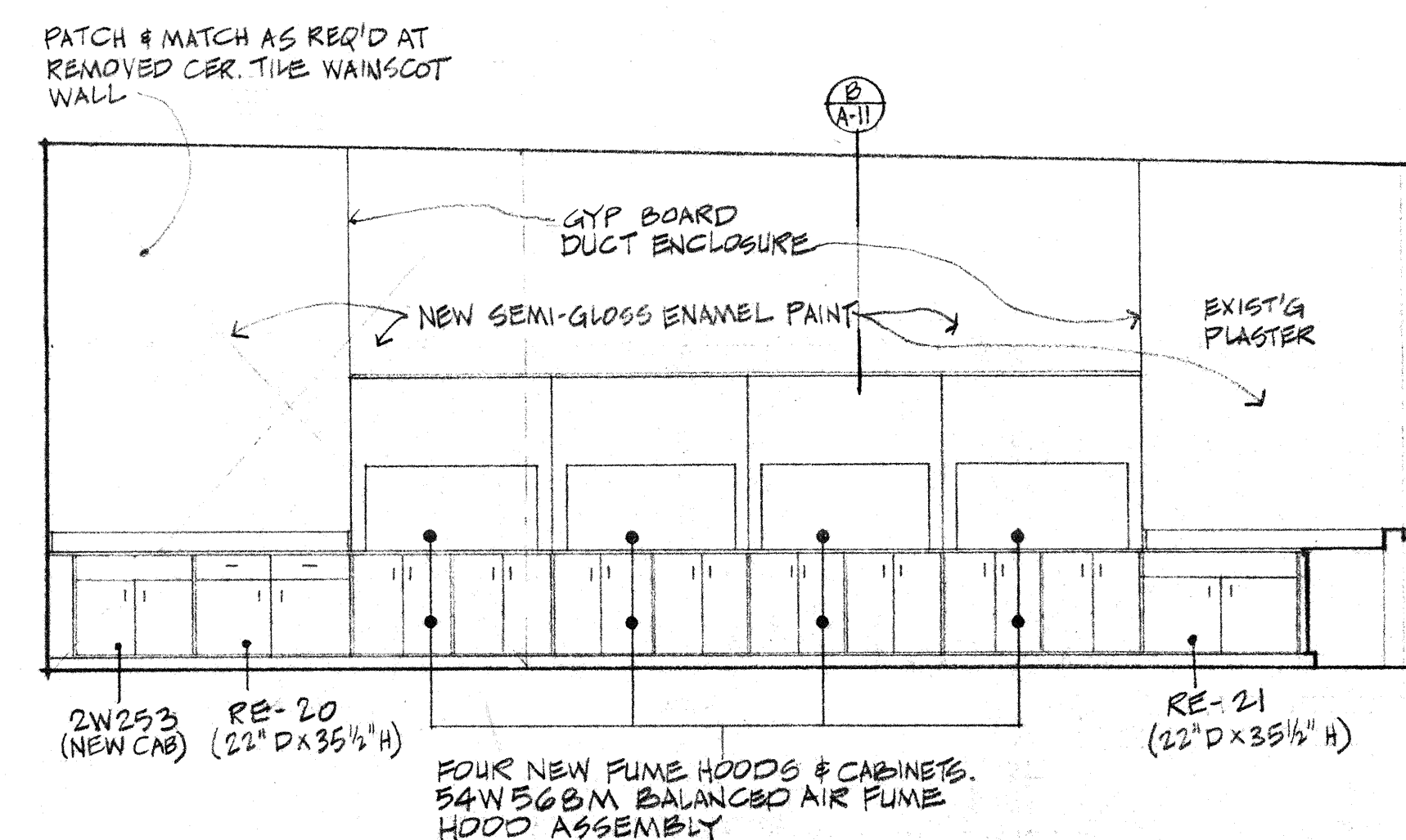
EAST ELEVATION



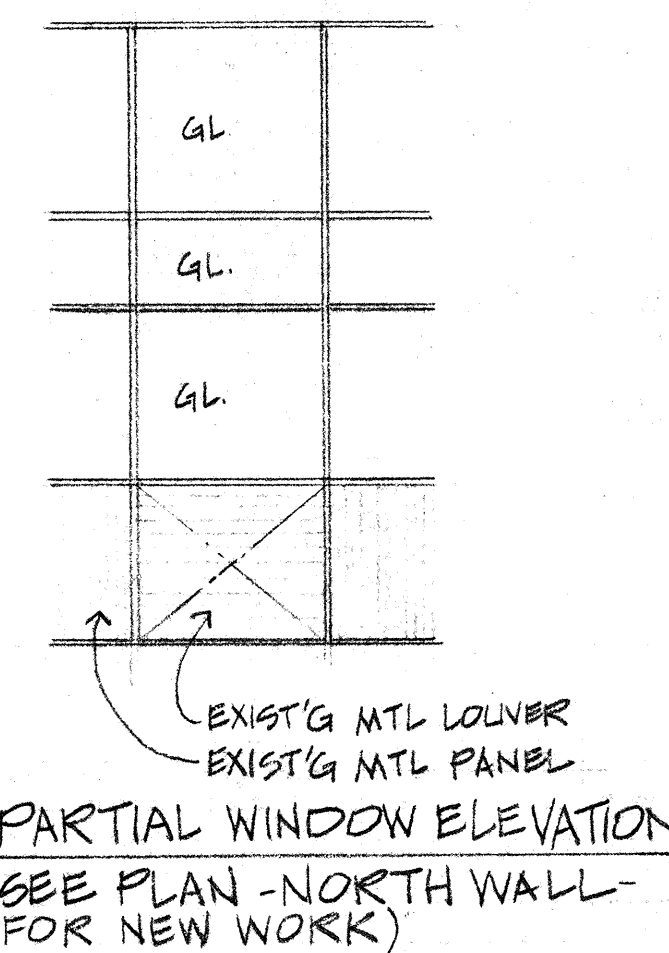
SOUTH ELEVATION



WEST ELEVATION



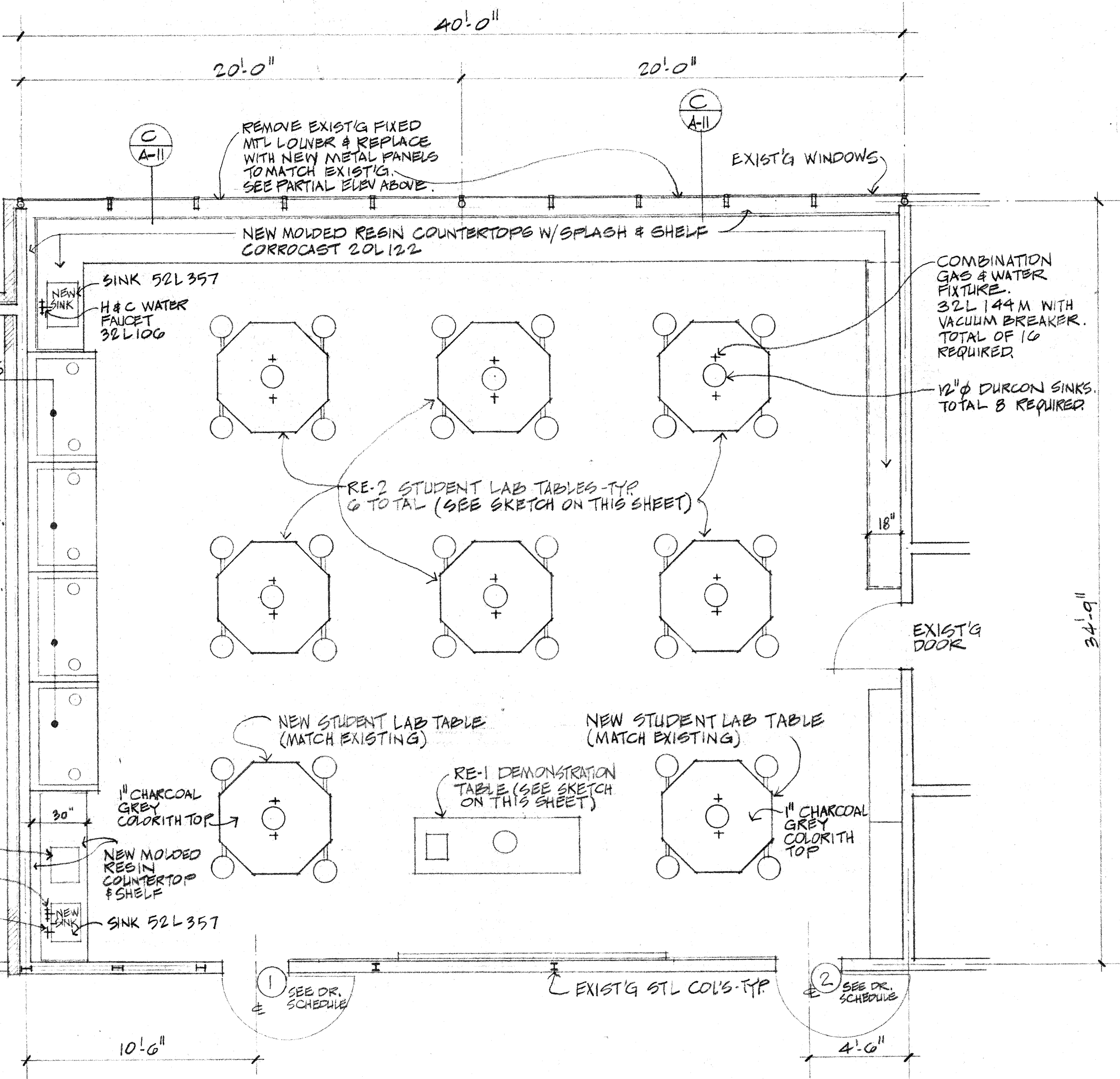
NORTH ELEVATION



PARTIAL WINDOW ELEVATION  
(SEE PLAN-NORTH WALL-FOR NEW WORK)

FOUR NEW FUME HOODS  
54\"/>

NEW CHEMICAL DRYING OVEN  
H&C WATER FAUCET 32 L 106  
DISTILLED WATER FAUCET 32 L 133



DOOR SCHEDULE ① & ②  
• SIZE: 3'-0\"/>

PARTIAL PLAN - CHEMISTRY LAB REMODELING (SEE FLOOR PLAN-SHEET A-10)  
SCALE: 1/4" = 1'-0"

# GENERAL NOTES

1. PATCH & MATCH ALL WORK.
2. ALL WALLS (EXISTING & NEW) SHALL BE PAINTED SEMI-GLOSS ENAMEL.
3. REMOVE EXIST'G CEILING TILE & INSTALL NEW TO MATCH.
4. INSTALL NEW VINYL ASBESTOS TILE FLOOR & NEW 4\"/>

ARCHITECT: J. E. GROSSEN  
STRUCT. ENGINEER: J. E. GROSSEN  
CONSULT. ENGINEER: J. E. GROSSEN  
APPROVAL: J. E. GROSSEN  
DATE: 12-12-73  
JOB NO: 769-71

COMETTA AND CIANCHI  
3516 MACDONALD AVENUE, RICHMOND, CALIF. 94804  
CONFER, GROSSEN & NANCE  
1200 CONTRA BLVD., CONCORD, CALIF. 94609  
E. A. COMETTA, J. S. NANCE, ARCHITECTS  
P. D. CIANCHI, ARCHITECT  
ASSOCIATED ARCHITECTURAL FIRMS

EXISTING BUILDING - CHEMISTRY LAB REMODELING  
NATURAL SCIENCES BUILDING  
ADDITION AND REMODELING  
CONTRA COSTA COLLEGE  
SAN PABLO, CALIFORNIA

SHEET  
A-11  
OF  
DATE  
12-12-73  
JOB NO.  
769-71



STUDENT ACTIVITIES BUILDING

EXPANSION JOINT

SCORED JOINT

BROOM FINISH

LIBRARY

CAMPUS DRIVE

(18) DIA

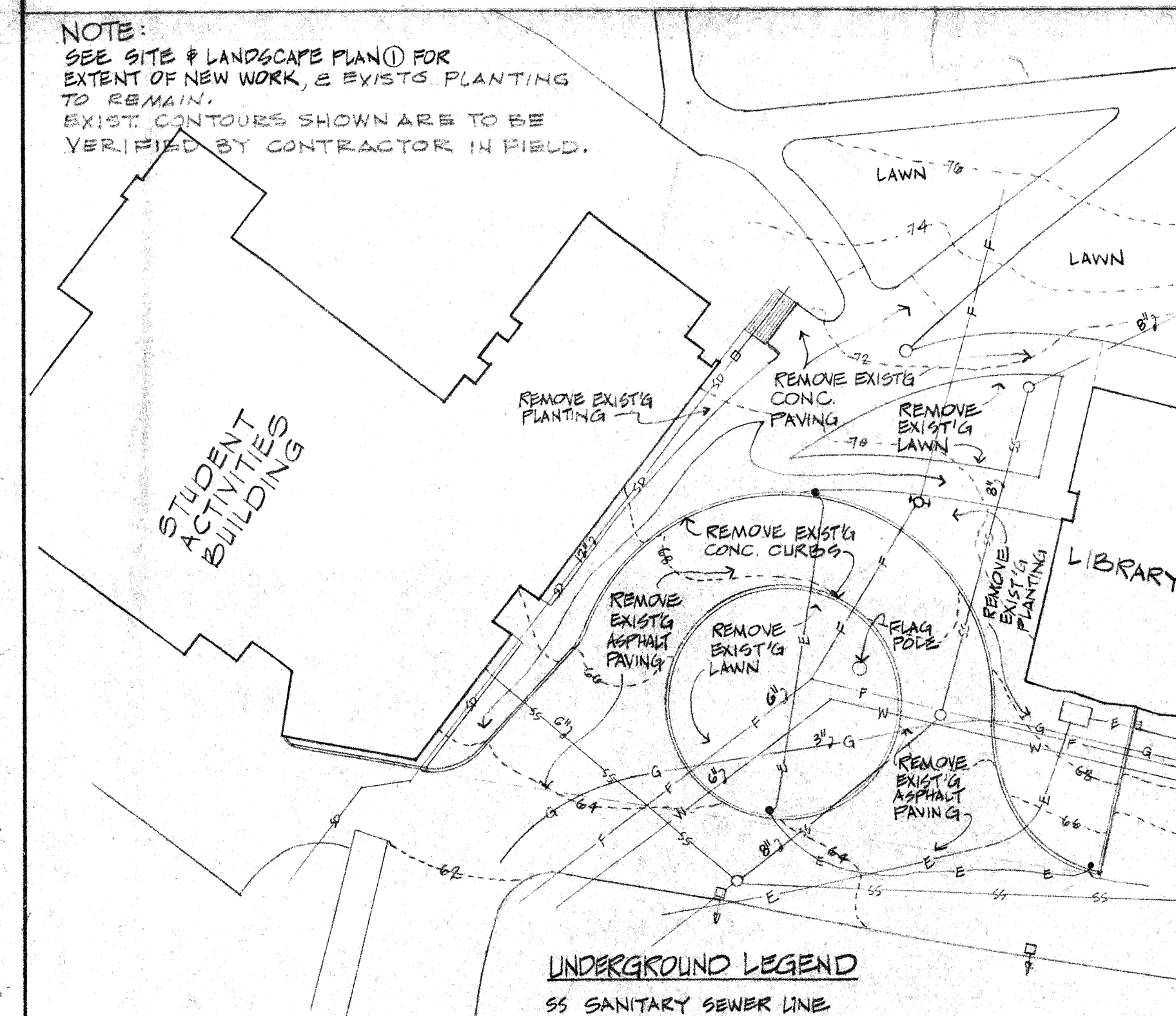
(16) DIA

TYPICAL EXPANSION JOINT  
DETAIL. SEE DETAIL

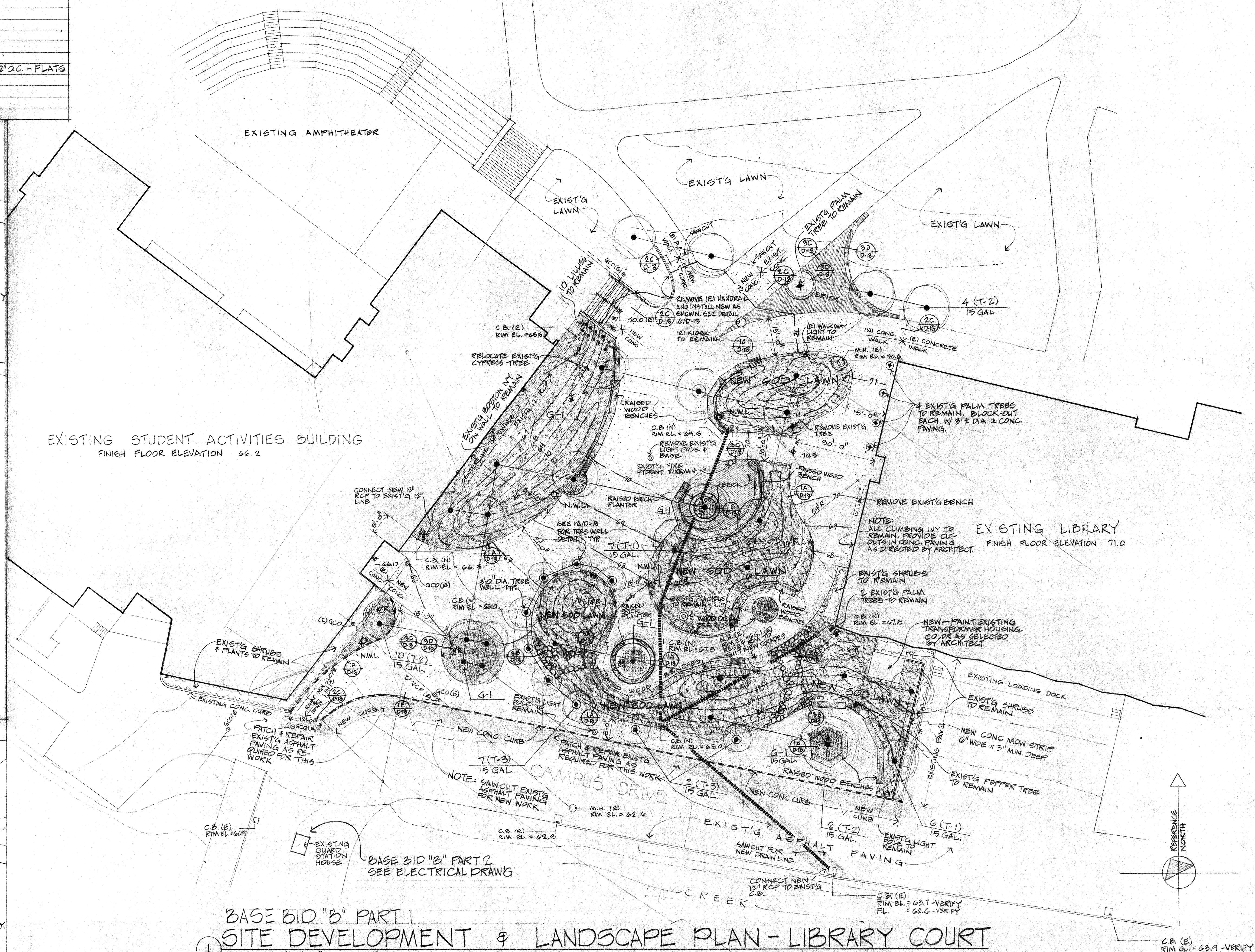
TYPICAL SCORED JOINT  
DETAIL. SEE DETAIL

SCALE  $\frac{1}{32}'' = 1'-0''$

NOTE:  
SEE SITE & LANDSCAPE PLAN ① FOR  
EXTENT OF NEW WORK, & EXIST. PLANTING  
TO REMAIN.  
EXIST. CONTOURS SHOWN ARE TO BE  
VERIFIED BY CONTRACTOR IN FIELD.




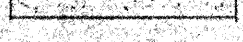








② SCALE: 1" = 40'



## GENERAL NOTES

1. ALL NEW WORK SHALL BE STAKED OUT FOR ARCHITECT'S APPROVAL AND ANY ADJUSTMENTS BEFORE INSTALLATION OF NEW WORK.
2. ANY EXISTING CONDITIONS, WHETHER SHOWN OR NOT AND ANY NEW WORK SHOWN WHICH WOULD OBVIOUSLY INTERFERE WITH THE NEW INTENDED USE OF THAT AREA SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
3. ALL ACCESS ROADS SHALL BE KEPT CLEAR AT ALL TIMES.
4. FOR WOOD BENCH DETAILS SEE SHEET 10/D-1/3 AND PARTIAL BENCH PLAN AT TOP OF SHEET A-2.

LEGEND

	NEW CONCRETE WALK. 4" CONC. WITH #4 REINF BARS @ 18" OC BOTH WAY, AND 4" MINIMUM ROCK BASE.	(E) - EXISTING
	NEW SOD LAWN. SEED TO MATCH EXISTING. PROVIDE MINIMUM 6" NEW TOPSOIL.	M.H. - MANHOLE
	NEW BRICK PAVING.	GCO - GRADE CLEANOUT
	NEW GROUND COVER. USE EXIST'G TOPSOIL.	(N) - NEW
	NEW ASPHALT PAVING.	CB - CATCH BASIN
	NEW CONTOUR	N.W.L. - NEW WALKWAY LIGHT - 4 TOTAL
	NEW TREES - SEE PLANT LIST.	
	NEW 12" REINF CONC PIPE	----- NEW CONCRETE CURB
	NEW WOOD BENCH	
	NEW DECORATIVE STONE PAVING	

BASE BID 0 PAK 1 #12

NATURAL SCIENCES BUILDING  
ADDITION & REMODELING  
CONTRA COSTA COLLEGE  
SAN PABLO  
CCCC  
CALIFORNIA

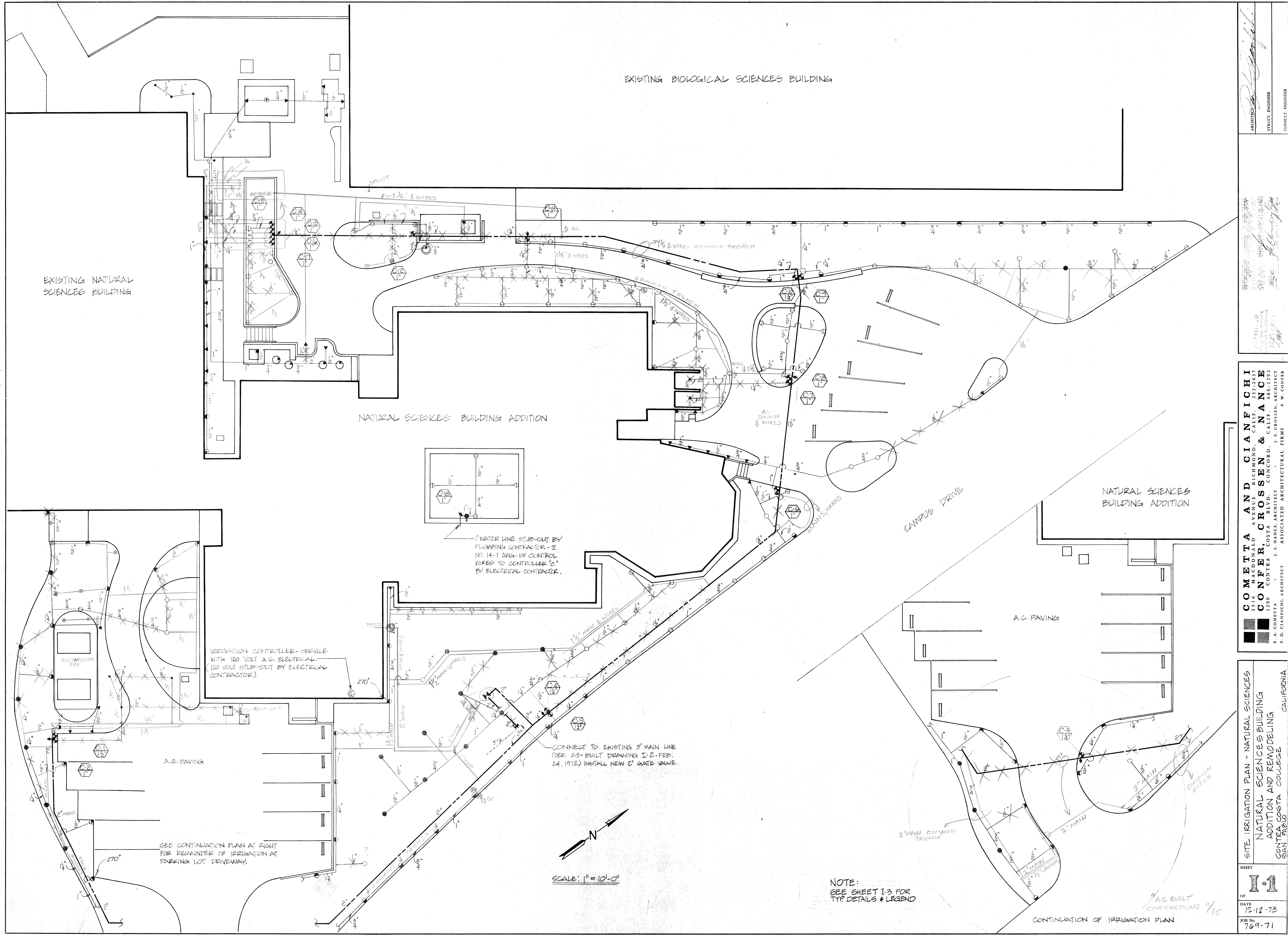
EET  
 A-13  
 DATE  
 12-12-73  
 B No.  
 769-71

**MACDONALD, CRAMER & CONFER, CROSSEN & NANCE**  
 3516 AVENUE RICHMOND, CALIF. 232-2637  
 2200 CONTRA COSTA BLVD. CONCORD, CALIF. 686-2292  
 J. S. NANCE, ARCHITECT J. E. CROSSEN, ARCHITECT  
 CH1, ARCHITECT ASSOCIATED ARCHITECTURAL FIRMS P. W. CONFER

APPROVED  
SOUTHERN MARSHALL  
STATE OF CALIFORNIA  
DEC 12 1973

ARCHITECT *[Signature]*  
STRUCT. ENGINEER  
CONSULT. ENGINEER





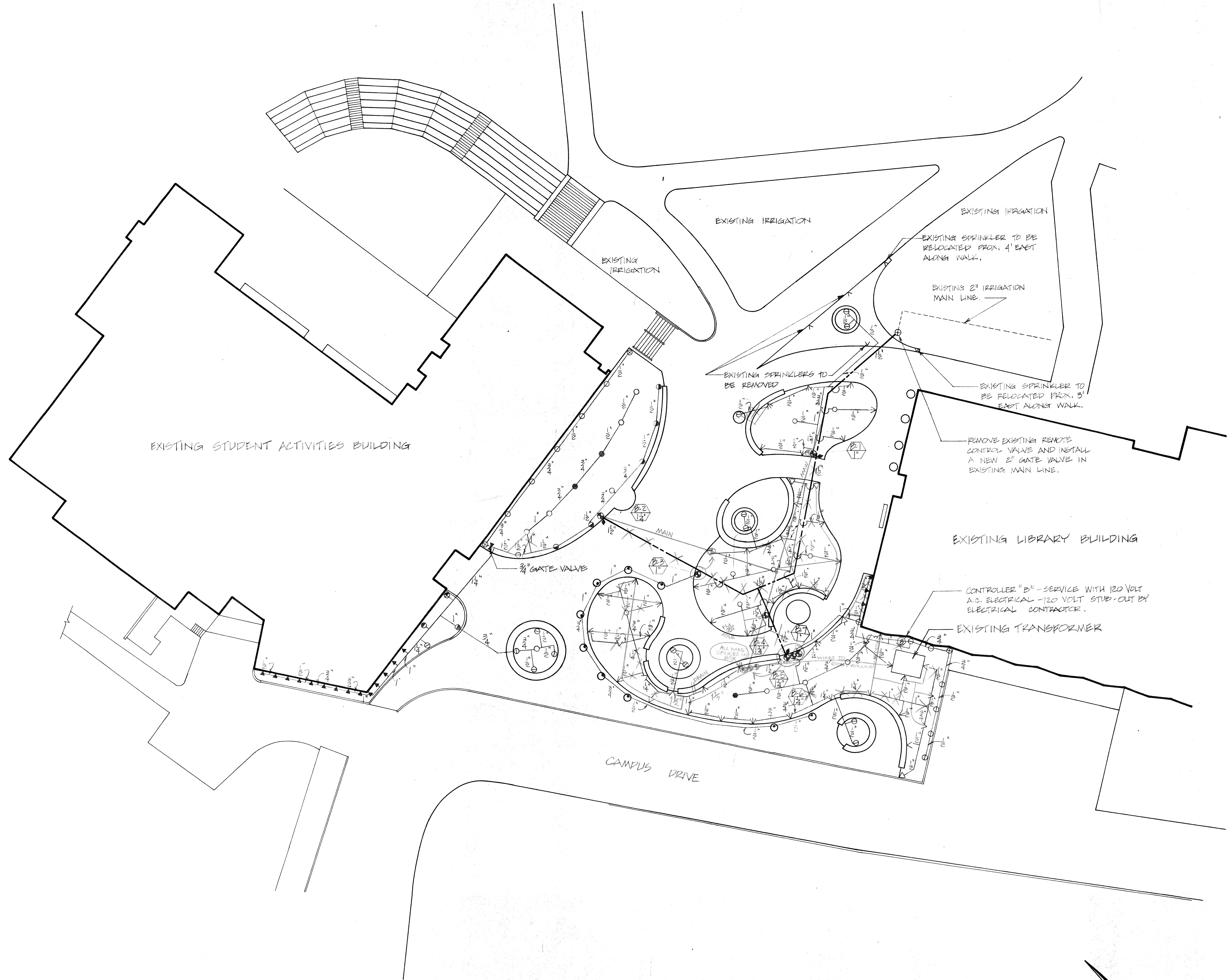
ARCHITECT: J. S. Crossen  
STRUCT. ENGINEER: P. D. Cianfichi  
CONSULT. ENGINEER: J. S. Crossen

APPROVED: J. S. Crossen  
DATE: 12-12-73  
JOB NO: 769-71

**COMETTA AND CIANFICHI**  
P.O. BOX 1000, RICHMOND, CALIF. 94801  
**C. CONFER, CROSSEN & NANCE**  
1000 COSTA BLVD., CONCORD, CALIF. 94622  
P.O. BOX 1000, RICHMOND, CALIF. 94801  
J. S. Crossen, Architect  
P. D. Cianfichi, Architect

SITE IRRIGATION PLAN - NATURAL SCIENCES  
BUILDING ADDITION AND REMODELING  
SAN PABLO STATE COLLEGE  
CALIFORNIA  
SHEET  
**I-1**  
OF  
DATE  
12-12-73  
JOB NO  
769-71





NOTE:  
SEE SHEET I-3 FOR  
TYP DETAILS & LEGEND

SCALE: 1" = 1'-0"

ARCHITECT  
STRUCT. ENGINEER  
CONSULT. ENGINEER

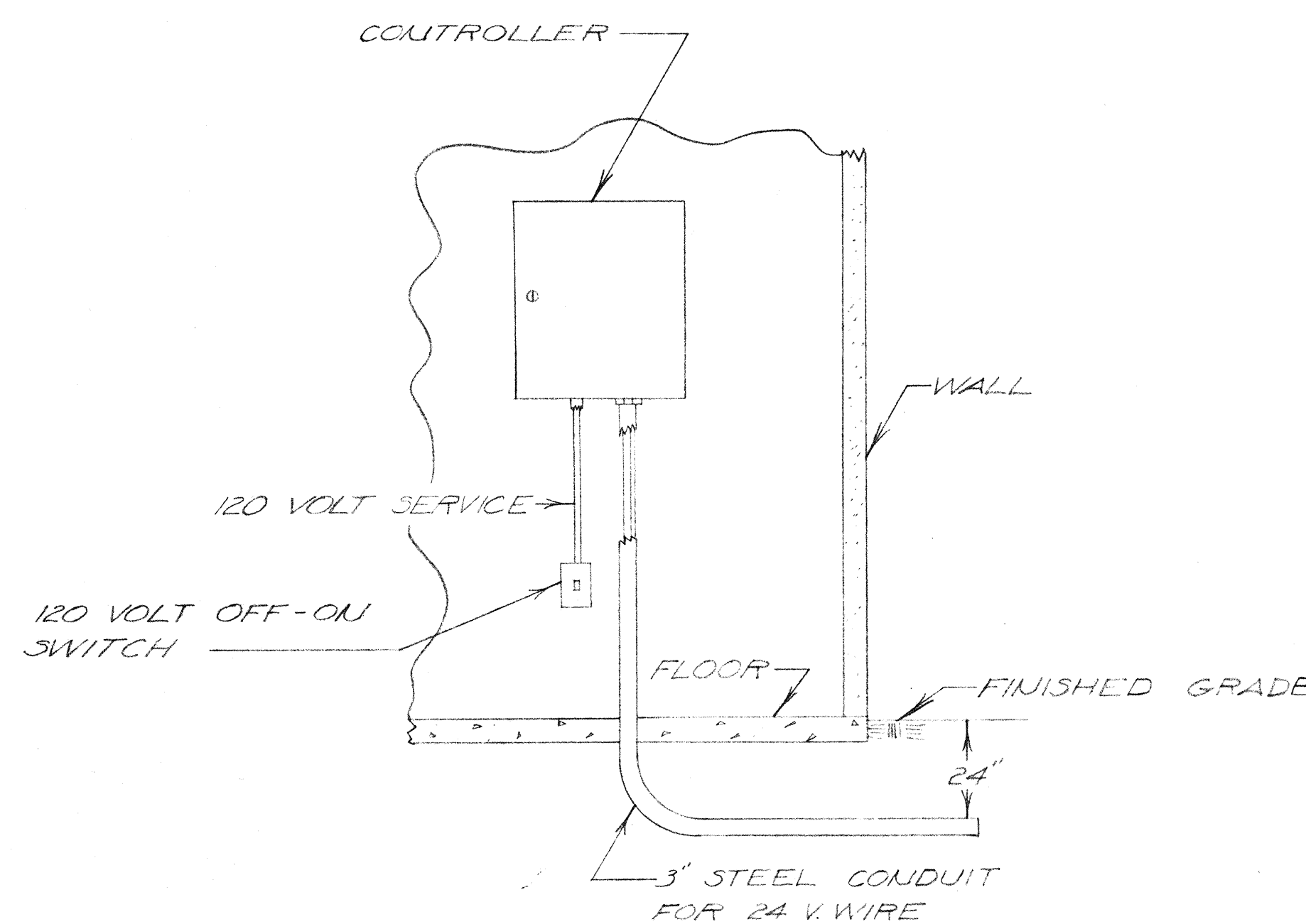
APPROVED  
STATE OF CALIFORNIA  
DEC 12 1973  
DEC 12 1973

**COMETTA AND CIANFICHI**  
3516 MACDONALD AVE. RICHMOND, CALIF. 94804  
**CONFER, CROSSEN & NANCE**  
1200 CONTRA BLVD. CONCORD, CALIF. 94622  
E. A. COMETTA J. S. NANCE ARCHITECT J. E. CROSSEN ARCHITECT P. W. CONFER  
P. D. CIANFICHI, ARCHITECT ASSOCIATED ARCHITECTURAL FIRMS

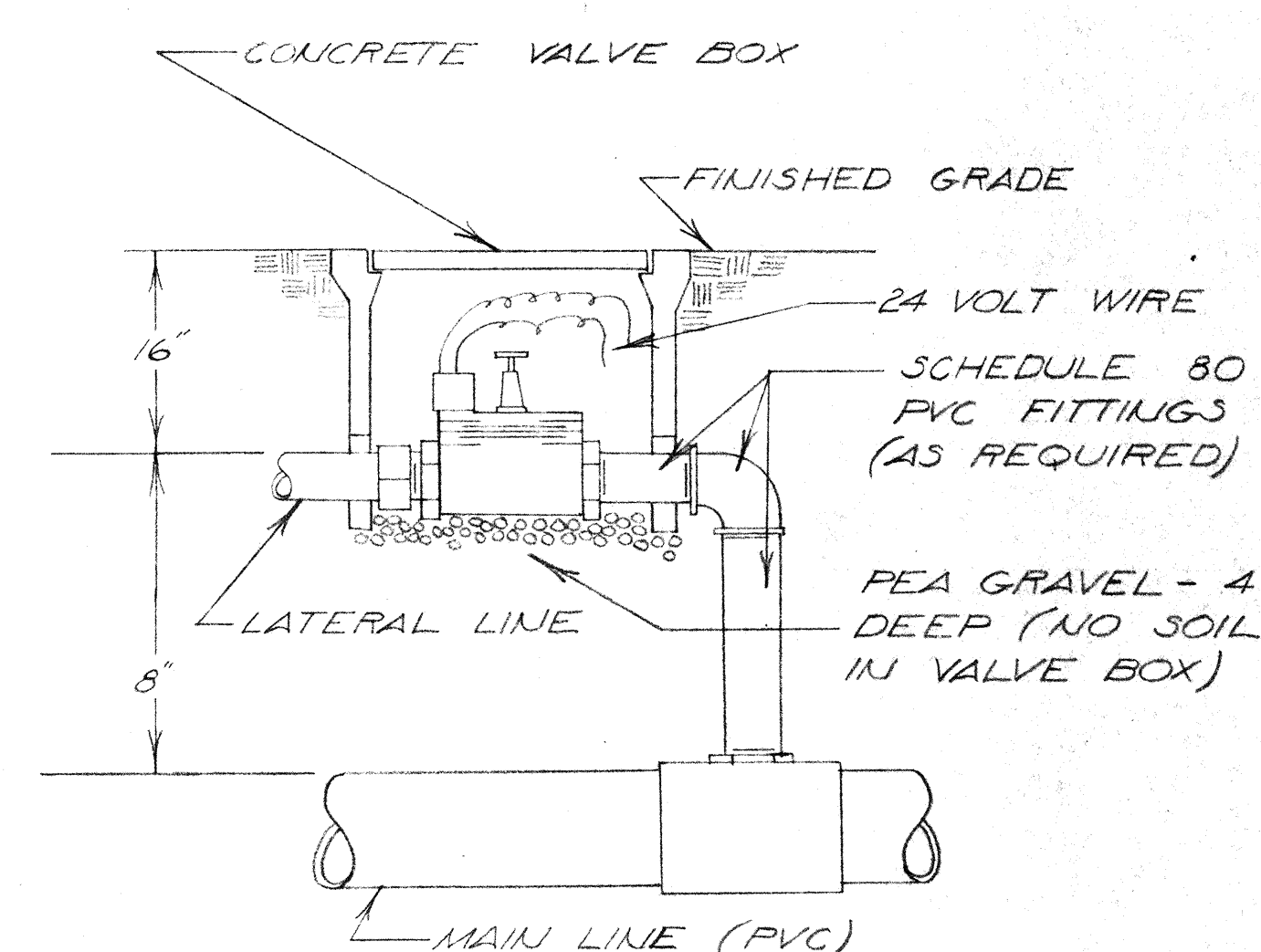
SITE IRRIGATION PLAN - LIBRARY COURT  
NATURAL SCIENCES BUILDING  
ADDITION AND REMODELING  
SAN PABLO STATE COLLEGE  
CALIFORNIA

SHEET  
**I-2**  
OF  
DATE  
12-12-73  
JOB NO.  
769-71

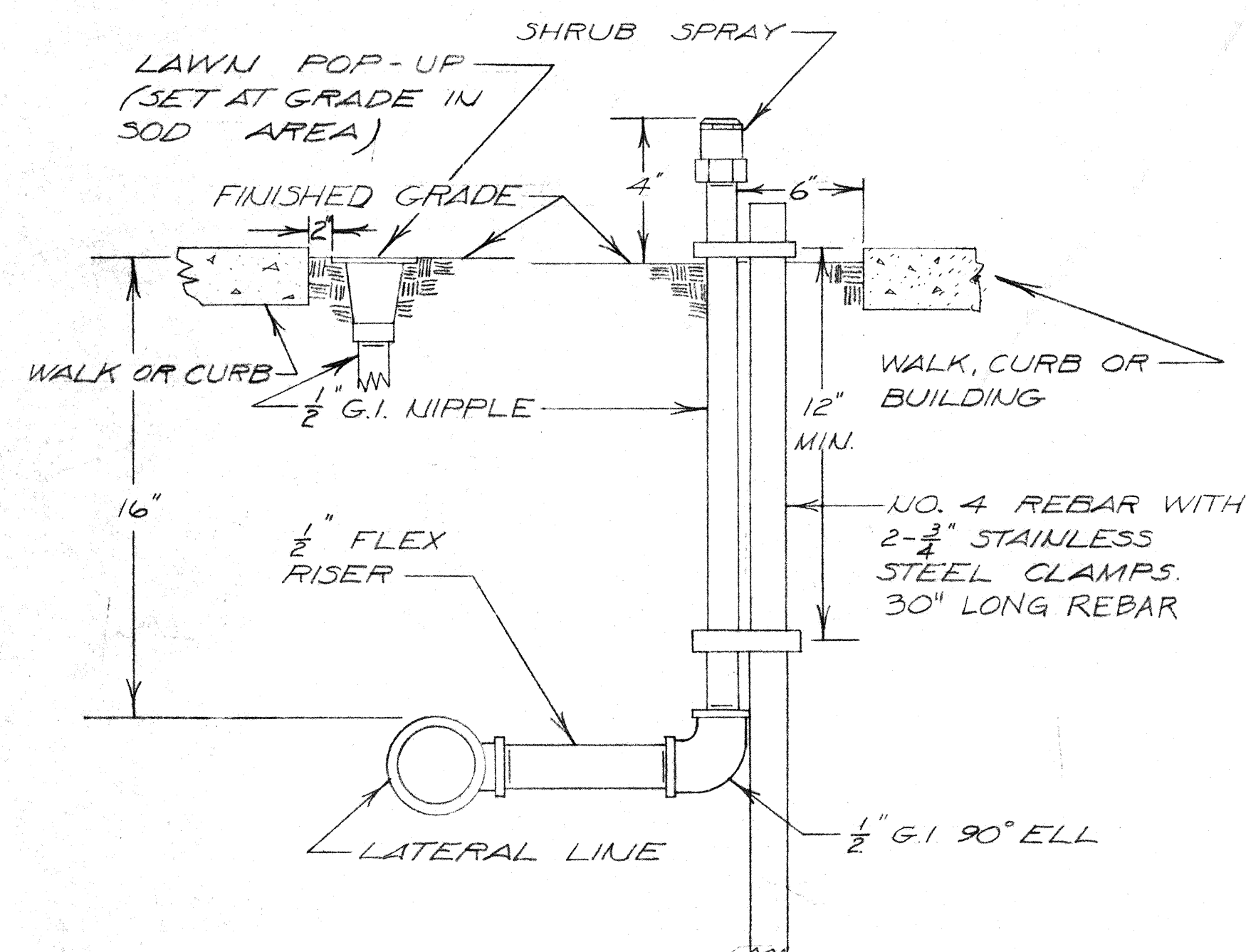




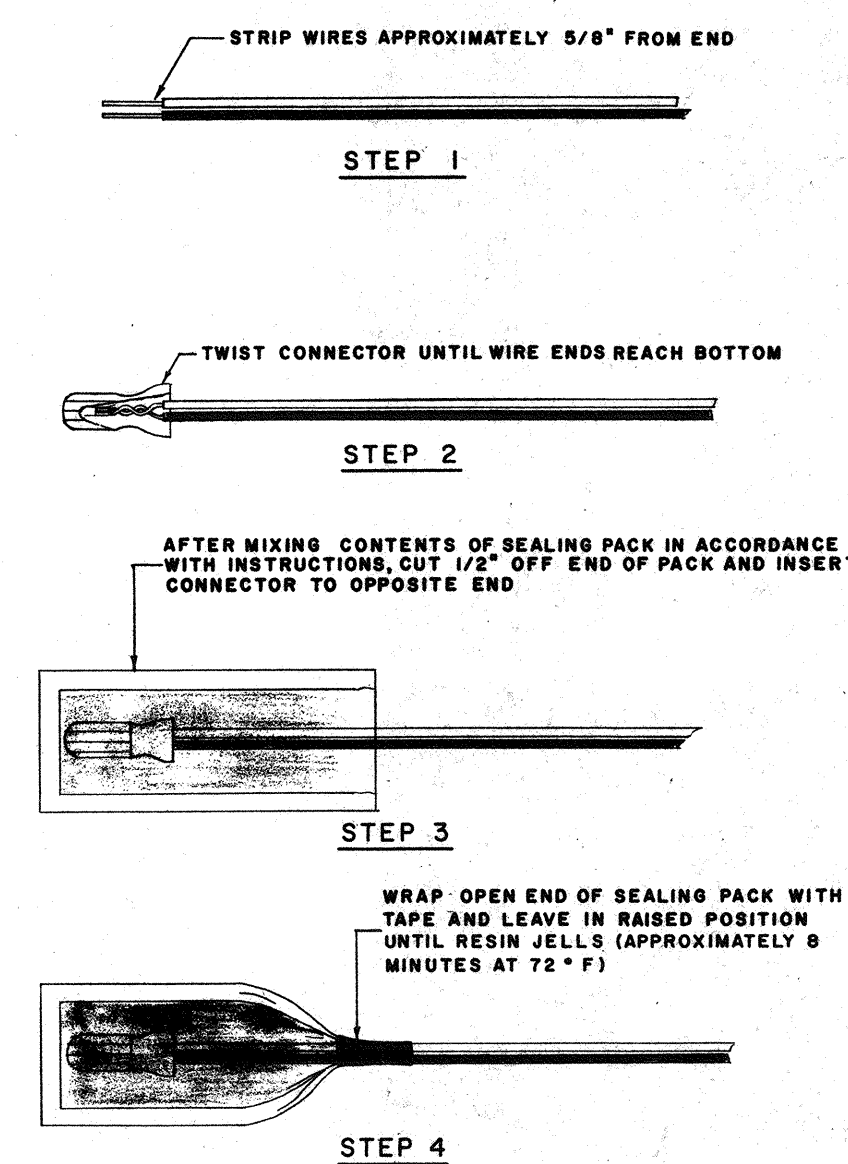
CONTROLLER DETAIL  
(NO SCALE)



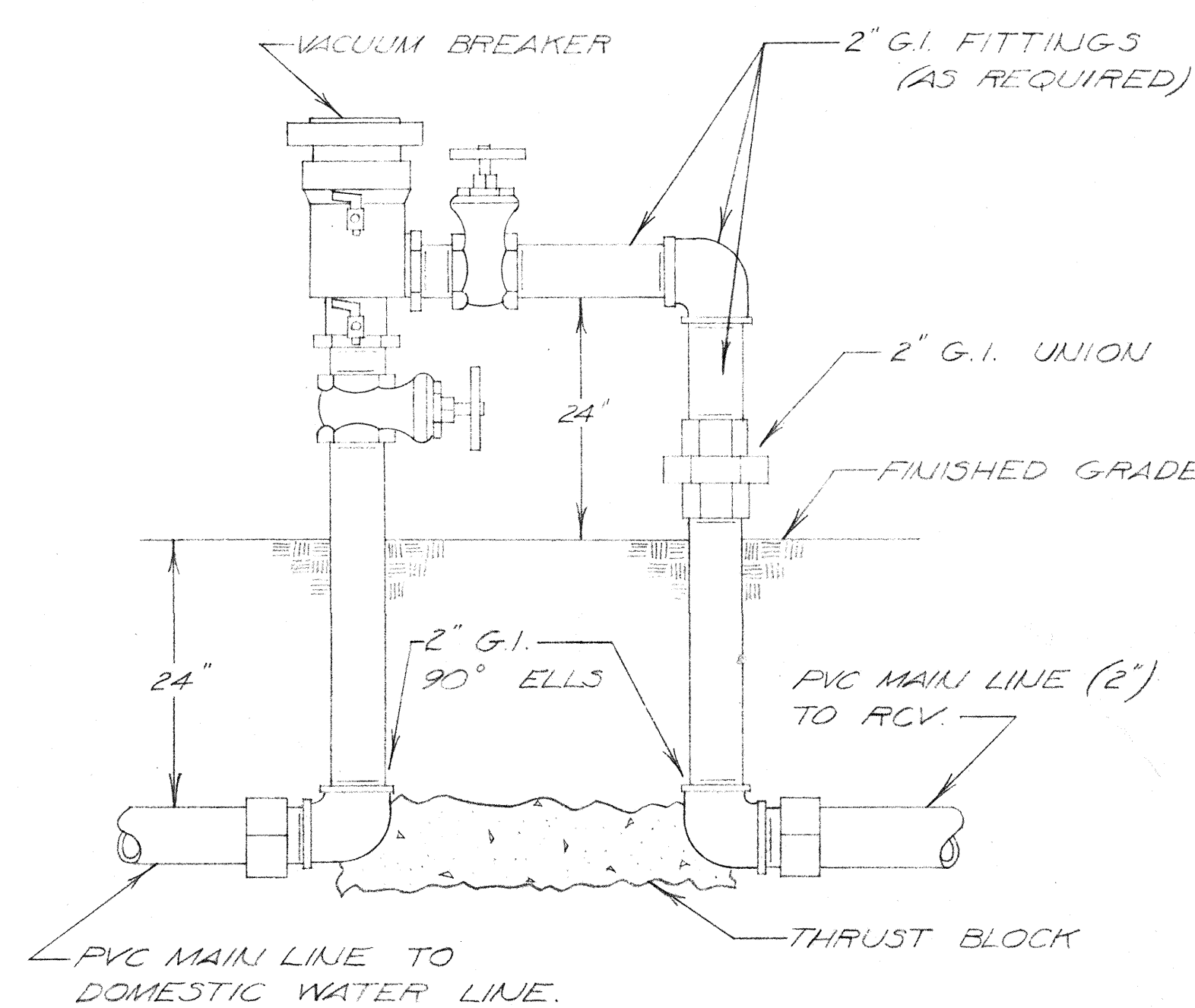
REMOTE CONTROL VALVE DETAIL  
(NO SCALE)



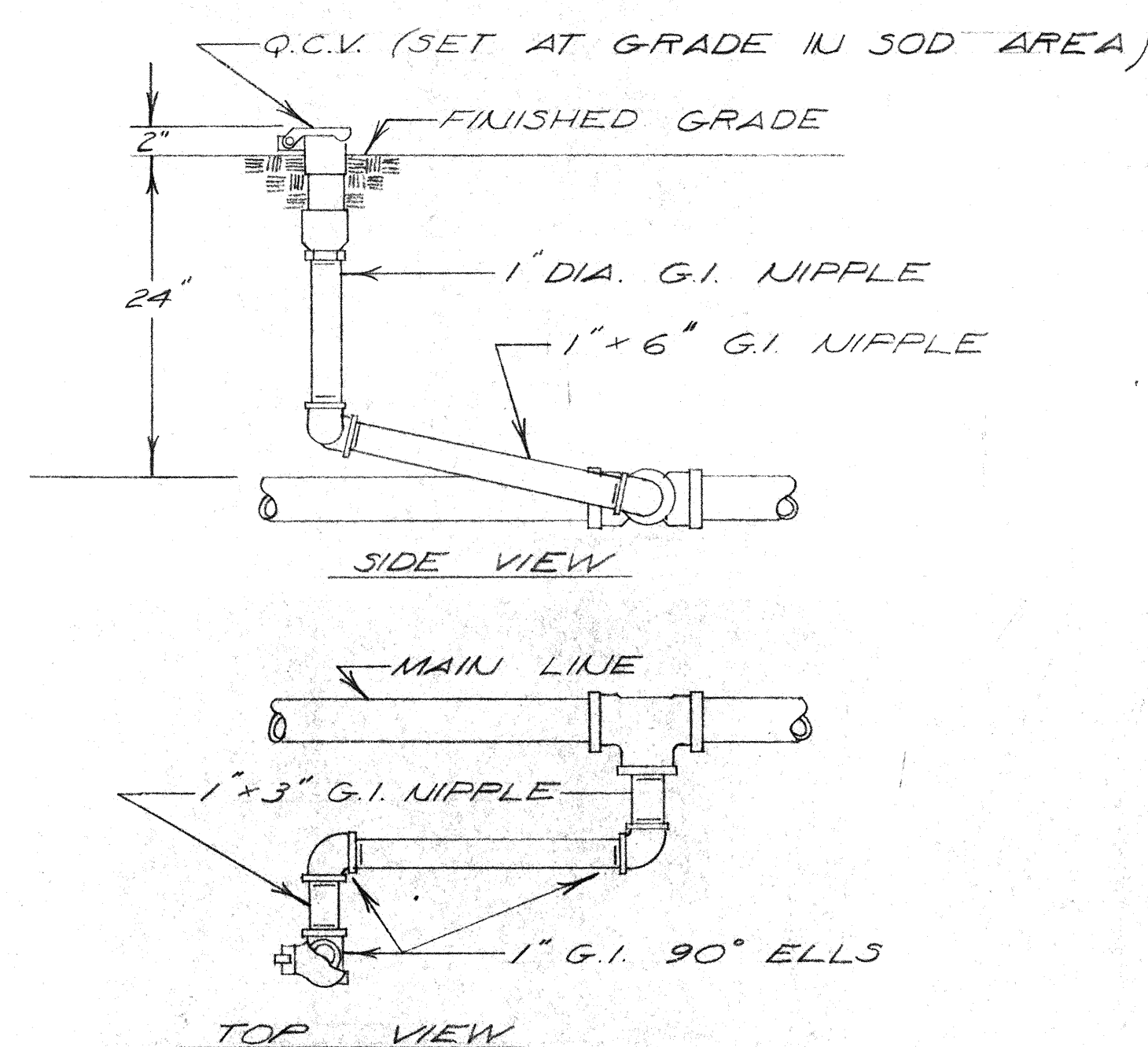
TYPICAL RISER DETAIL  
(NO SCALE)



TYPICAL WIRE CONNECTION DETAIL  
No. 55 (SCOTCHLOCK CONNECTOR No. 3578)



VACUUM BREAKER ASSEMBLY  
(NO SCALE)



QUICK COUPLING VALVE DETAIL  
(NO SCALE)

IRRIGATION LEGEND		
SYMBOL	NUMBER	DESCRIPTION
●	A-771-F.H.Q	RAIN BIRD SHRUB SPRAY
○	A-771-F.H.Q-U	"
⬤	2400-FLT-F.H.Q	" FLAT SHRUB SPRAY
⬤	2400-ST-E	" STRIP SHRUB SPRAY
⬤	2600-B	" BUBBLER
⬤	44-1"	" QUICK COUPLING VALVE
⬤	EF SERIES	" REMOTE CONTROL VALVE
⬤	RC-18W	" CONTROLLER
⬤	100 EF	REMOTE CONTROL VALVE WITH "710-1" FEBCO ATMOSPHERIC VACUUM BREAKER
⬤	RC 8 W	RAIN BIRD CONTROLLER
⬤	F-711-2"	SMR PRESSURE VACUUM BREAKER ASSEMBLY
⬤	171 F.H.Q - O	RAINBIRD LAWN POP-UP SPRAY
⬤	171 F.H.Q - U	"
CONTROLLER AND STATION NO. REMOTE CONTROL VALVE SIZE MAIN LINE: 1120-315 P.S.I. PVC PLASTIC PIPE WITH SCHEDULE 40 PVC FITTINGS. LATERAL LINE: 1120-200 P.S.I. PVC PLASTIC PIPE WITH SCHEDULE 40 PVC FITTINGS.		

ARCHITECT *[Signature]*  
STRUCT. ENGINEER  
CONSULT. ENGINEER

36 531  
APR 1973  
J. E. CROSSEN, ARCHITECT  
J. E. CROSSEN, ARCHITECT  
P. W. CONFER

COMETTA AND CIANFICHI  
3516 MACDONALD AVENUE RICHMOND, CALIF. 94804  
CONFER, CROSSEN & NANCE  
1200 CONTRA COSTA BLVD. CONCORD, CALIF. 94521  
E. A. COMETTA J. S. NANCE ARCHITECT J. E. CROSSEN, ARCHITECT P. W. CONFER  
ASSOCIATED ARCHITECTURAL FIRMS

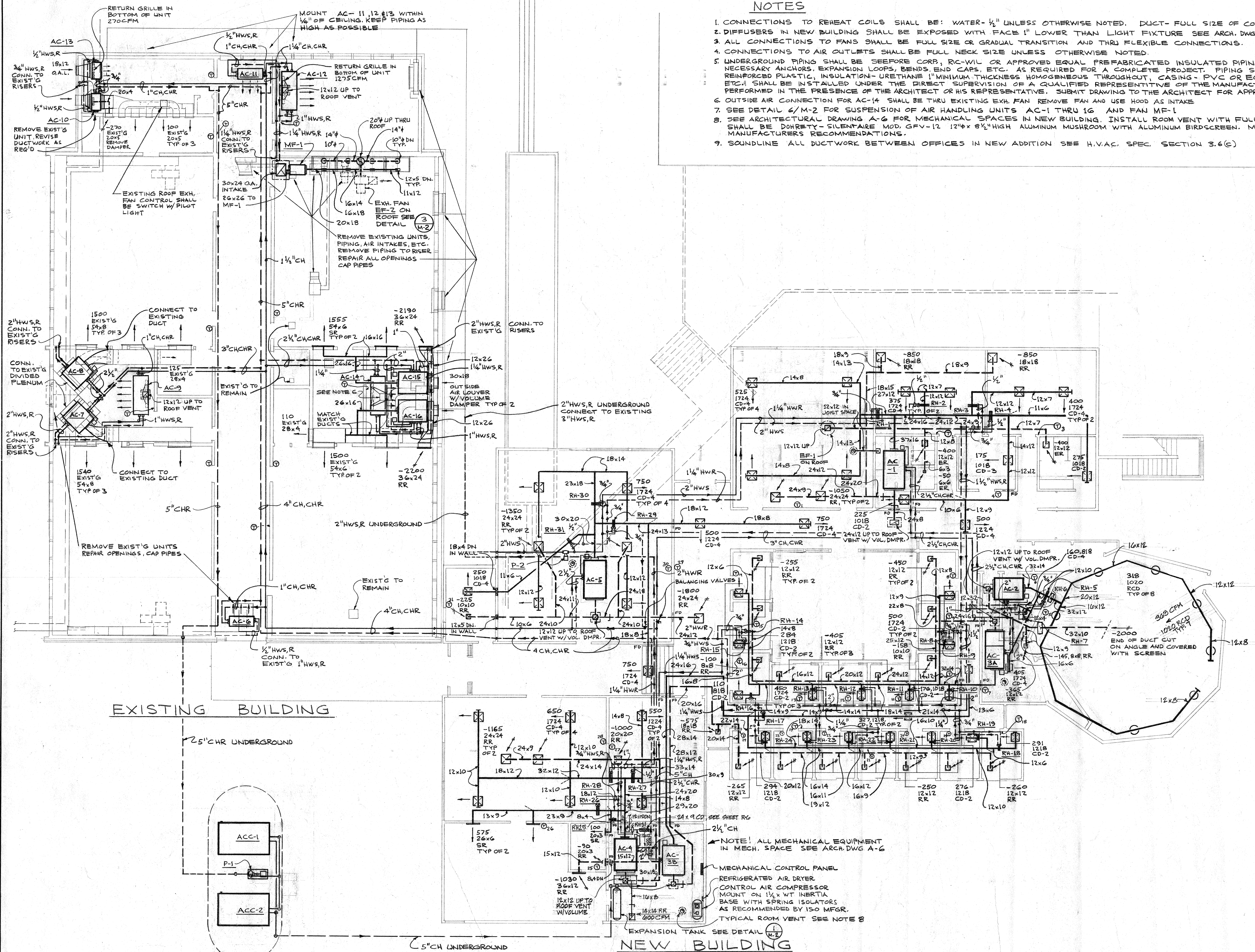
IRRIGATION DETAILS  
NATURAL SCIENCES BUILDING  
ADDITION AND REMODELING  
CONTRA COSTA COLLEGE  
SAN PABLO CALIFORNIA

SHEET  
103  
DATE  
12-12-73  
JOB No.  
10A-71



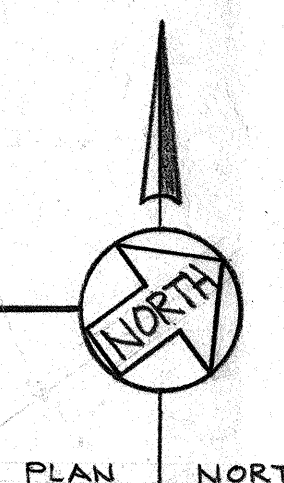
# NOTES

1. CONNECTIONS TO REHEAT COILS SHALL BE: WATER-1/2" UNLESS OTHERWISE NOTED. DUCT- FULL SIZE OF COIL OR GRADUAL TRANSITION
2. DIFFUSERS IN NEW BUILDING SHALL BE EXPOSED WITH FACE 1" LOWER THAN LIGHT FIXTURE SEE ARCH. DWGS. FOR ELEVATIONS AND EXACT LOCATION.
3. ALL CONNECTIONS TO FANS SHALL BE FULL SIZE OR GRADUAL TRANSITION AND THRU FLEXIBLE CONNECTIONS.
4. CONNECTIONS TO AIR OUTLETS SHALL BE FULL NECK SIZE UNLESS OTHERWISE NOTED.
5. UNDERGROUND PIPING SHALL BE SEEFORE CORP. RC-WIL OR APPROVED EQUAL PREFABRICATED INSULATED PIPING SYSTEM INCLUDING ALL NECESSARY ANCHORS, EXPANSION LOOPS, BENDS, END CAPS, ETC. AS REQUIRED FOR A COMPLETE PROJECT. PIPING SHALL BE: CARRIER PIPE-FIBERGLASS REINFORCED PLASTIC, INSULATION- URETHANE 1" MINIMUM THICKNESS HOMOGENEOUS THROUGHOUT, CASING- PVC OR EQUAL, CONDUIT CASING FIELD JOINTS, ETC. SHALL BE INSTALLED UNDER THE DIRECT SUPERVISION OF A QUALIFIED REPRESENTATIVE OF THE MANUFACTURER. AIR PRESSURE TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE ARCHITECT OR HIS REPRESENTATIVE. SUBMIT DRAWING TO THE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
6. OUTSIDE AIR CONNECTION FOR AC-14 SHALL BE THRU EXISTING EXH. FAN REMOVE FAN AND USE HOOD AS INTAKE
7. SEE DETAIL 6/M-2 FOR SUSPENSION OF AIR HANDLING UNITS AC-1 THRU 16 AND FAN MF-1
8. SEE ARCHITECTURAL DRAWING A-6 FOR MECHANICAL SPACES IN NEW BUILDING. INSTALL ROOM VENT WITH FULL SIZE DUCT TO SPACE. ROOM VENTS SHALL BE DOHRETY-SILENTAIRE MOD. GFV-12 12"x8"x1/2" HIGH ALUMINUM MUSHROOM WITH ALUMINUM BIRDSCREEN. MOP DIRECTLY TO ROOF. ATTACH PER MANUFACTURER'S RECOMMENDATIONS.
9. SOUNDLINE ALL DUCTWORK BETWEEN OFFICES IN NEW ADDITION SEE H.V.A.C. SPEC. SECTION 3.6(C)



FLOOR PLAN

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



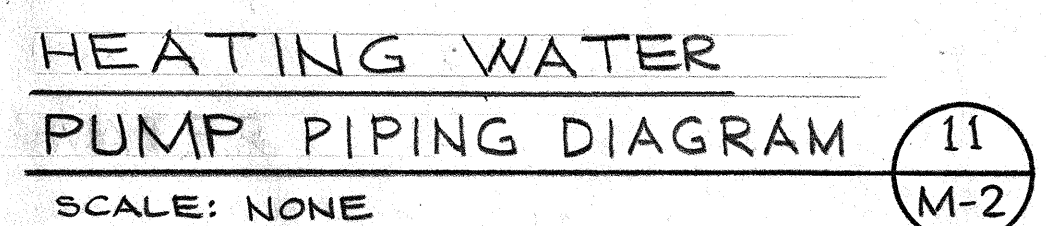
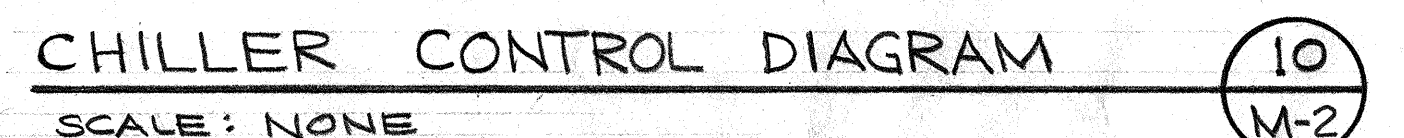
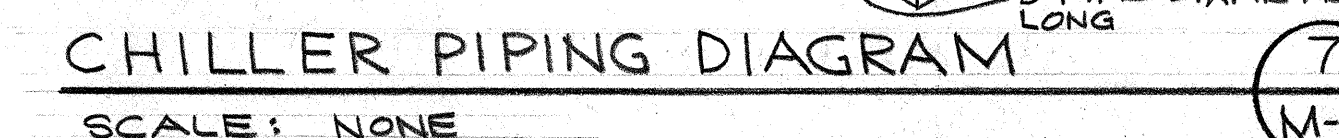
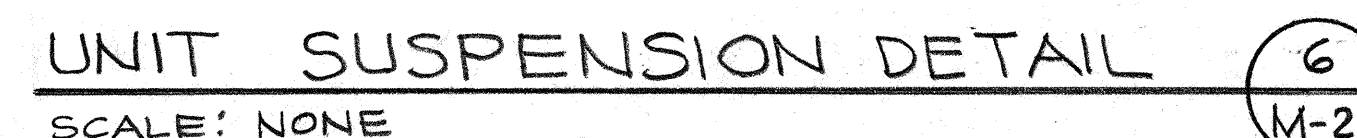
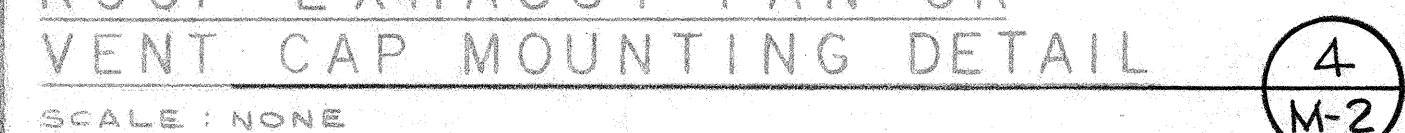
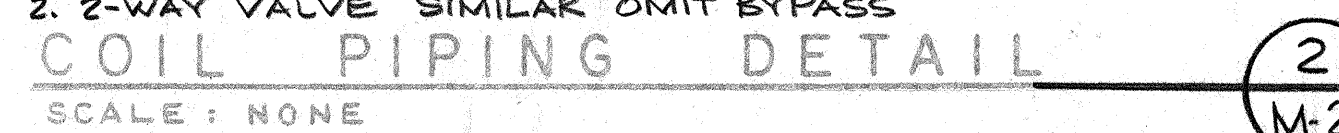
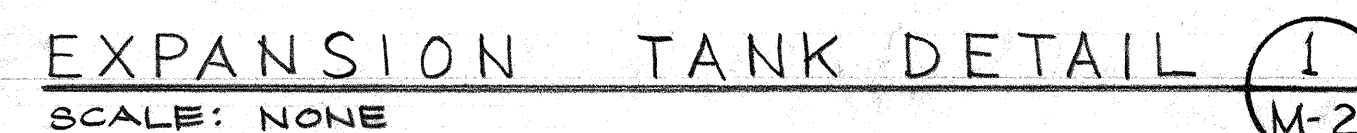
**COMETTA AND CIANCHI**  
 316 CALIFORNIA AVENUE, RICHMOND, CALIF. 94804  
 415-531-1111  
**CONFERR, CROSEN & NANCE**  
 200 CONTRA COSTA BLVD., CONTRA COSTA, CALIF. 94520  
 415-461-1111  
 P. D. CIANCHI, ARCHITECT ASSOCIATED ARCHITECTURAL FIRMS

**MECHANICAL - FLOOR PLANS**  
 NATURAL SCIENCE BUILDING  
 ADDITION & REMODELING  
 CONTRA COSTA COLLEGE  
 SAN PABLO, CALIFORNIA

**M-1**  
 OF  
 DATE 12-12-73  
 JOB No. 769-71

**CHARLES BRAUN**  
 CONSULTING ENGINEERS  
 1015 4TH ST., SAN FRANCISCO, CALIF. 94107  
 (415) 424-7720  
 M-L  
 APPROVED: STATE OF CALIFORNIA  
 DEPT. 12 1973



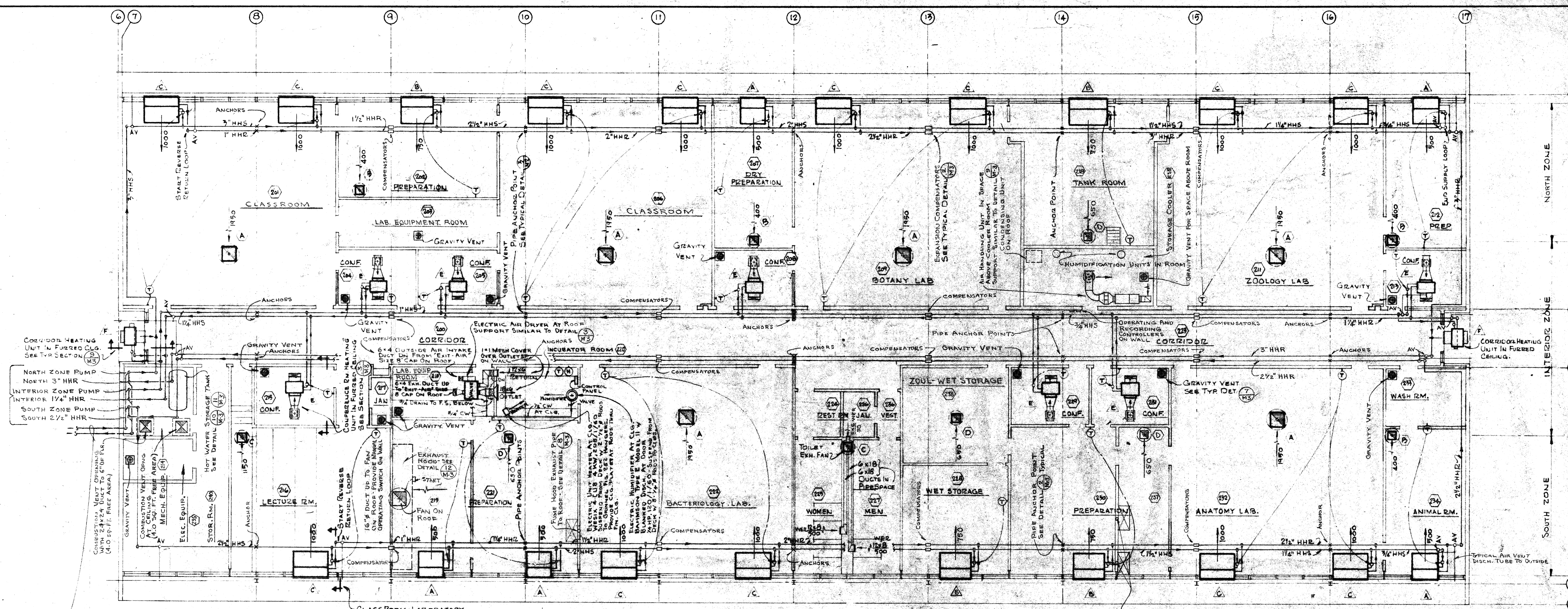


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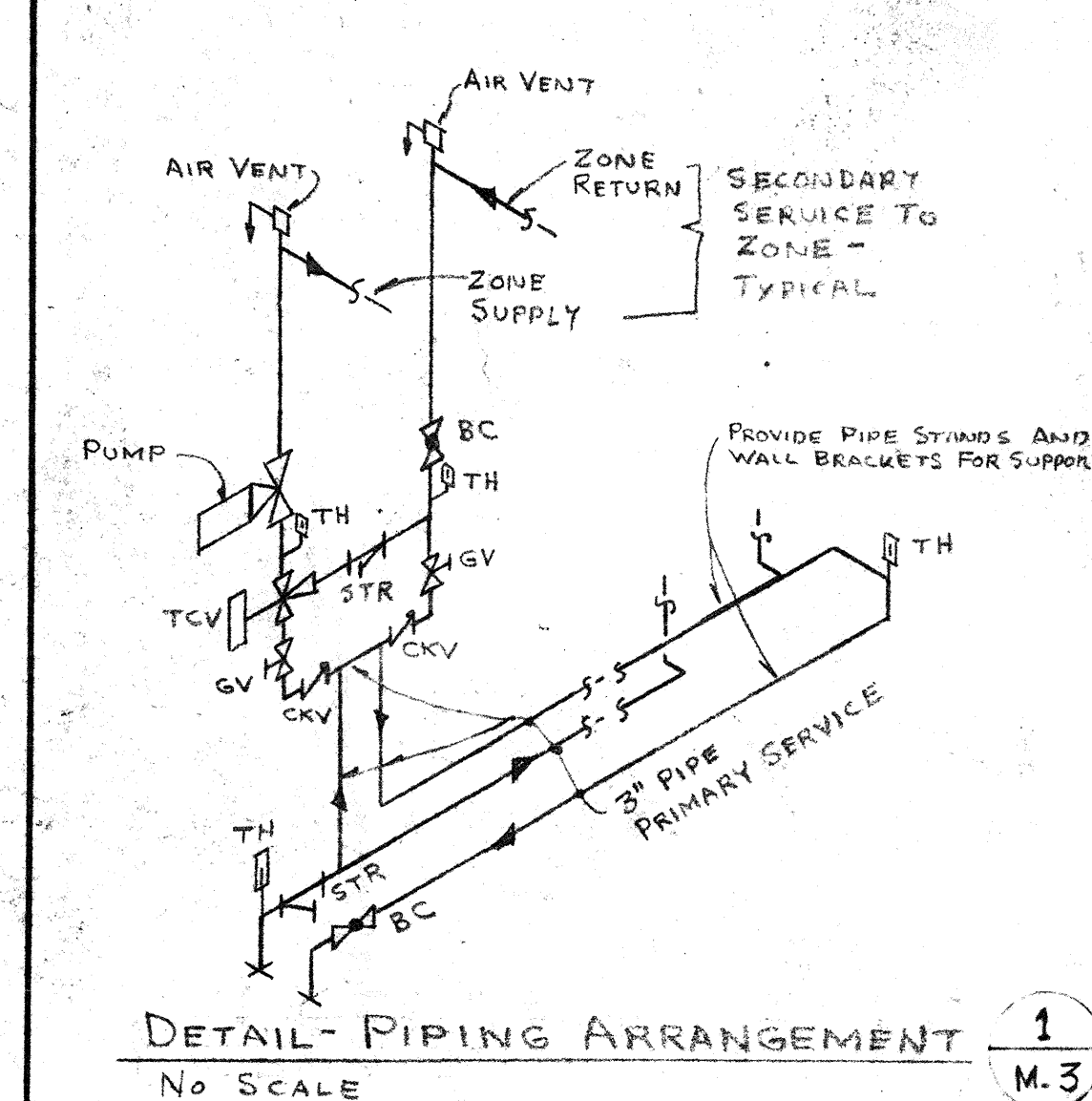
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# WITH TURBULATORS  
 ** AC-6,10,11,13 2-WAY CONTROL VALVE ALL OTHERS 3-WAY  
 *** UNITS SHALL HAVE DOUBLE DEFLECTION DISCHARGE GRILLES

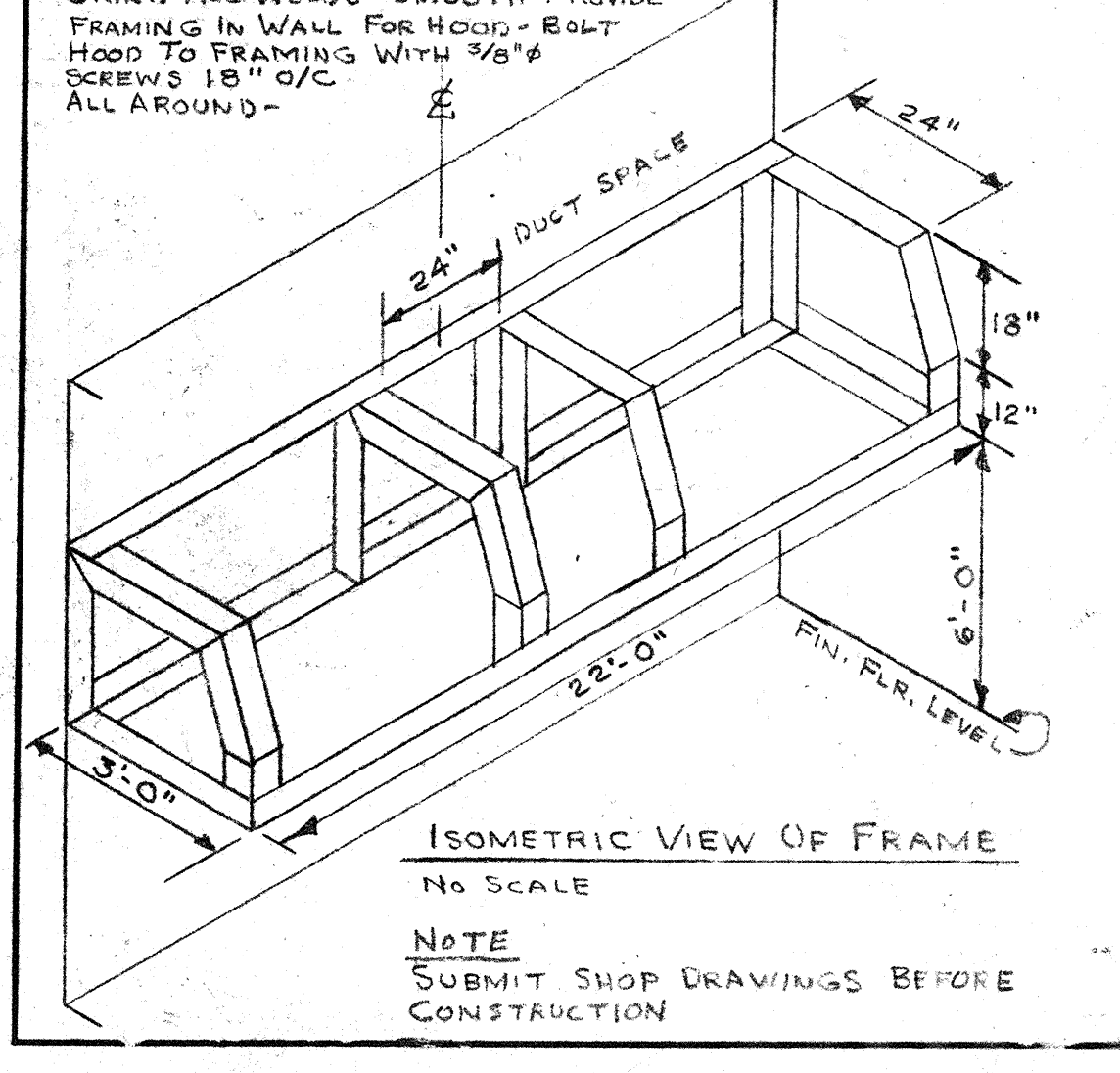




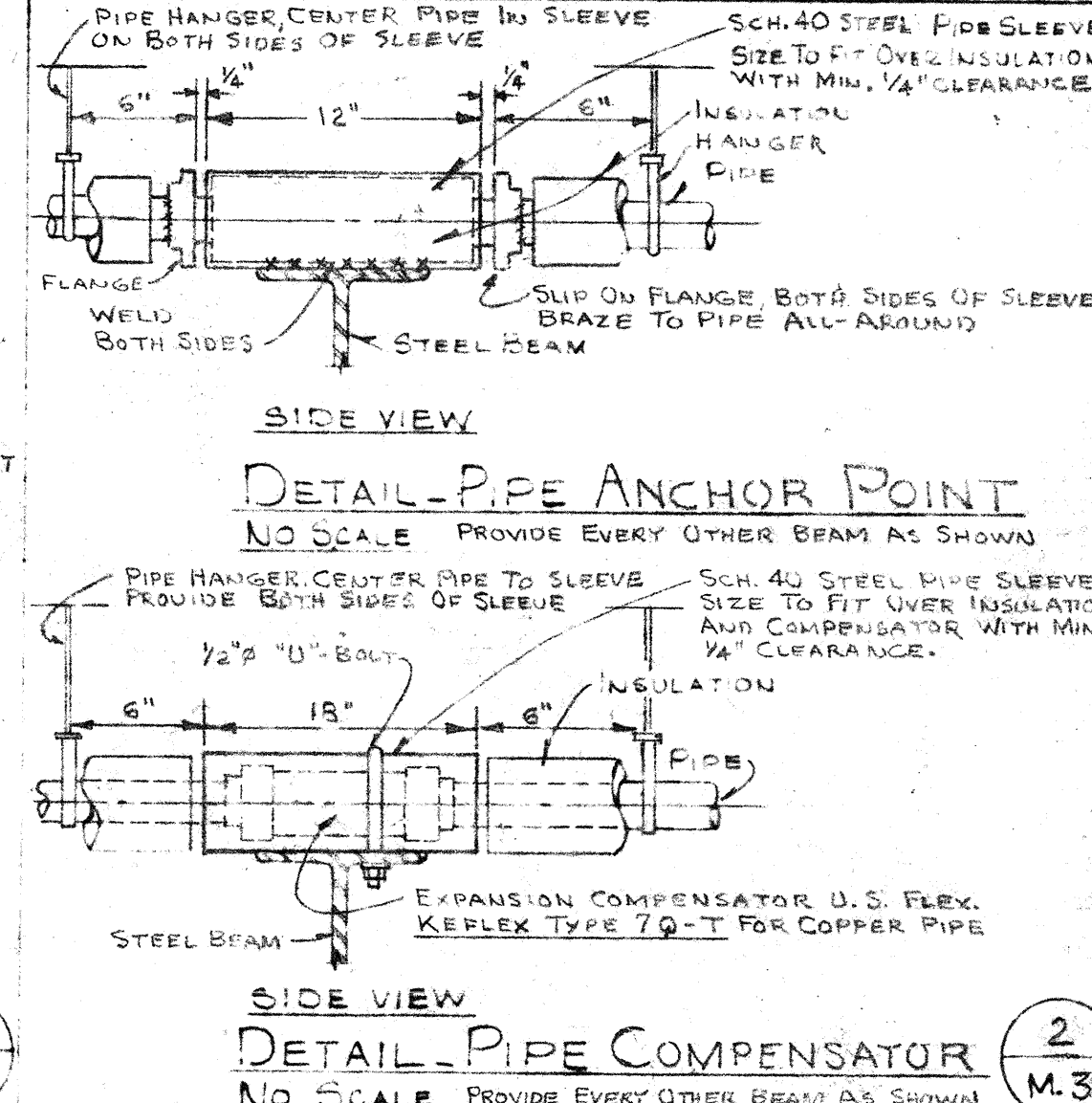
First Floor Plan  
Scale: 1/8" = 1'-0"



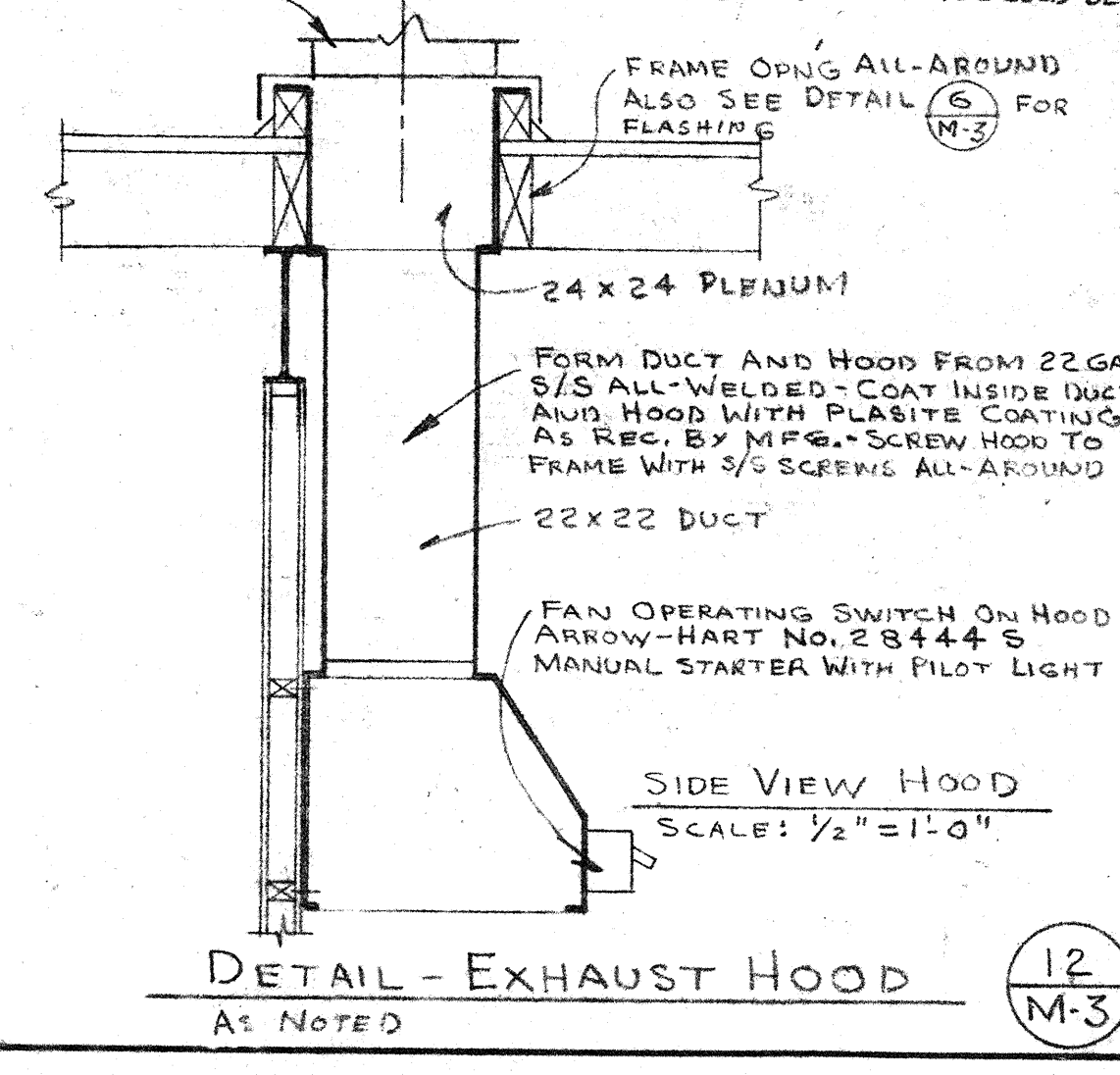
Detail - Piping Arrangement  
Scale: 1/2" = 1'-0"



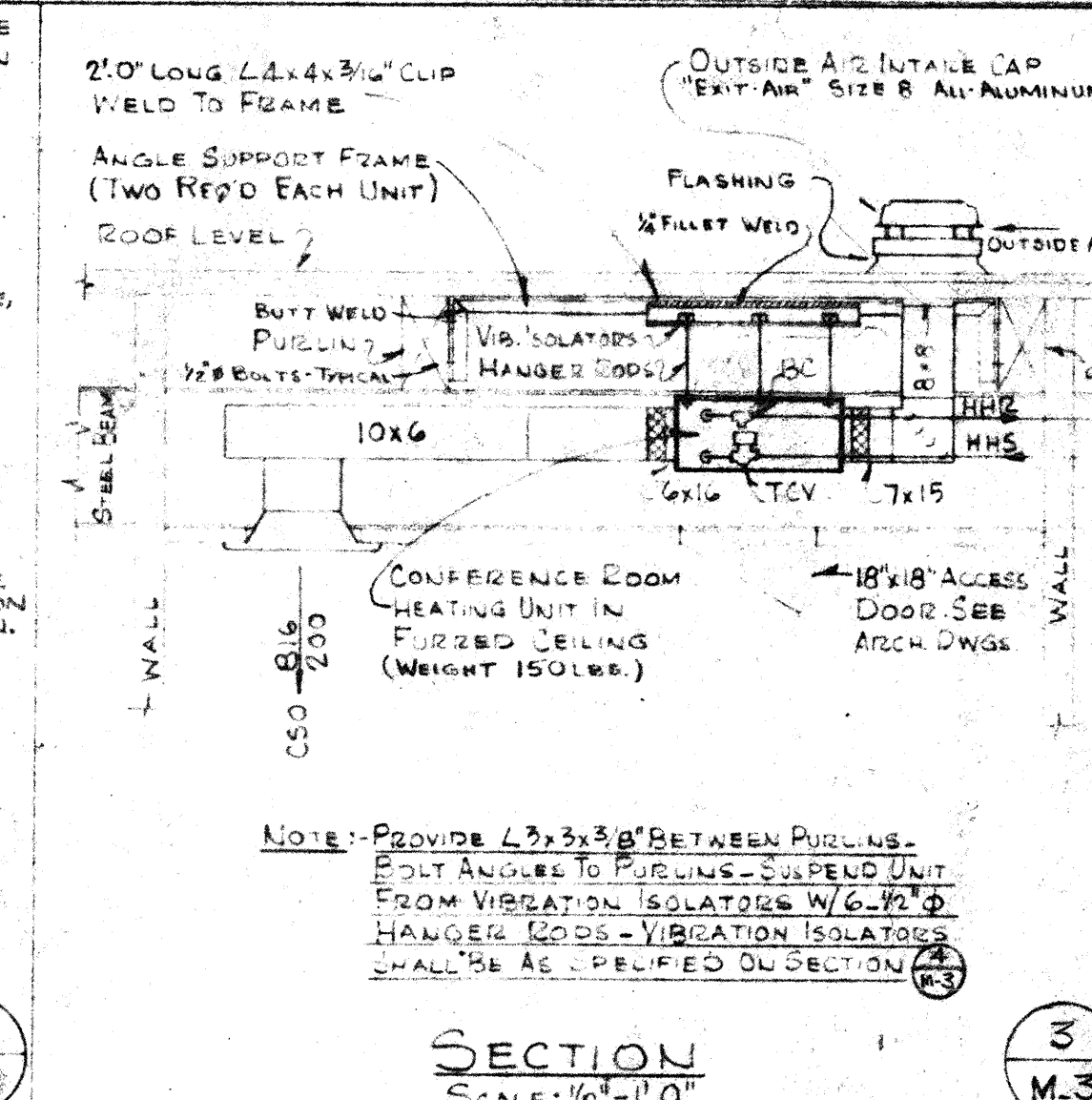
Isometric View of Frame  
Scale: 1/2" = 1'-0"



Detail - Pipe Anchor Point  
Scale: 1/2" = 1'-0"



Detail - Exhaust Hood  
Scale: 1/2" = 1'-0"



Detail - Domestic Hot Water Storage Tank  
Scale: 1/2" = 1'-0"

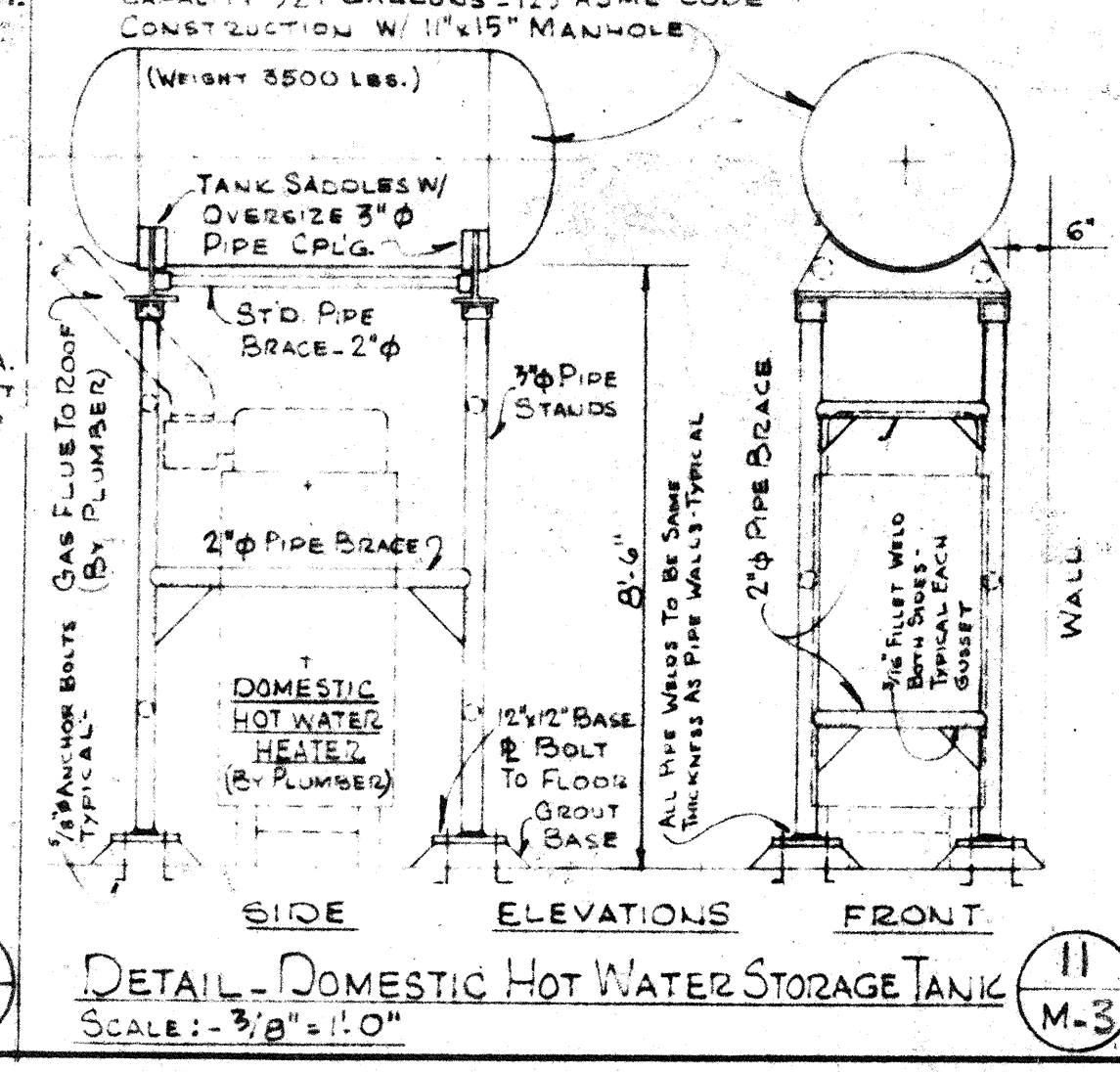
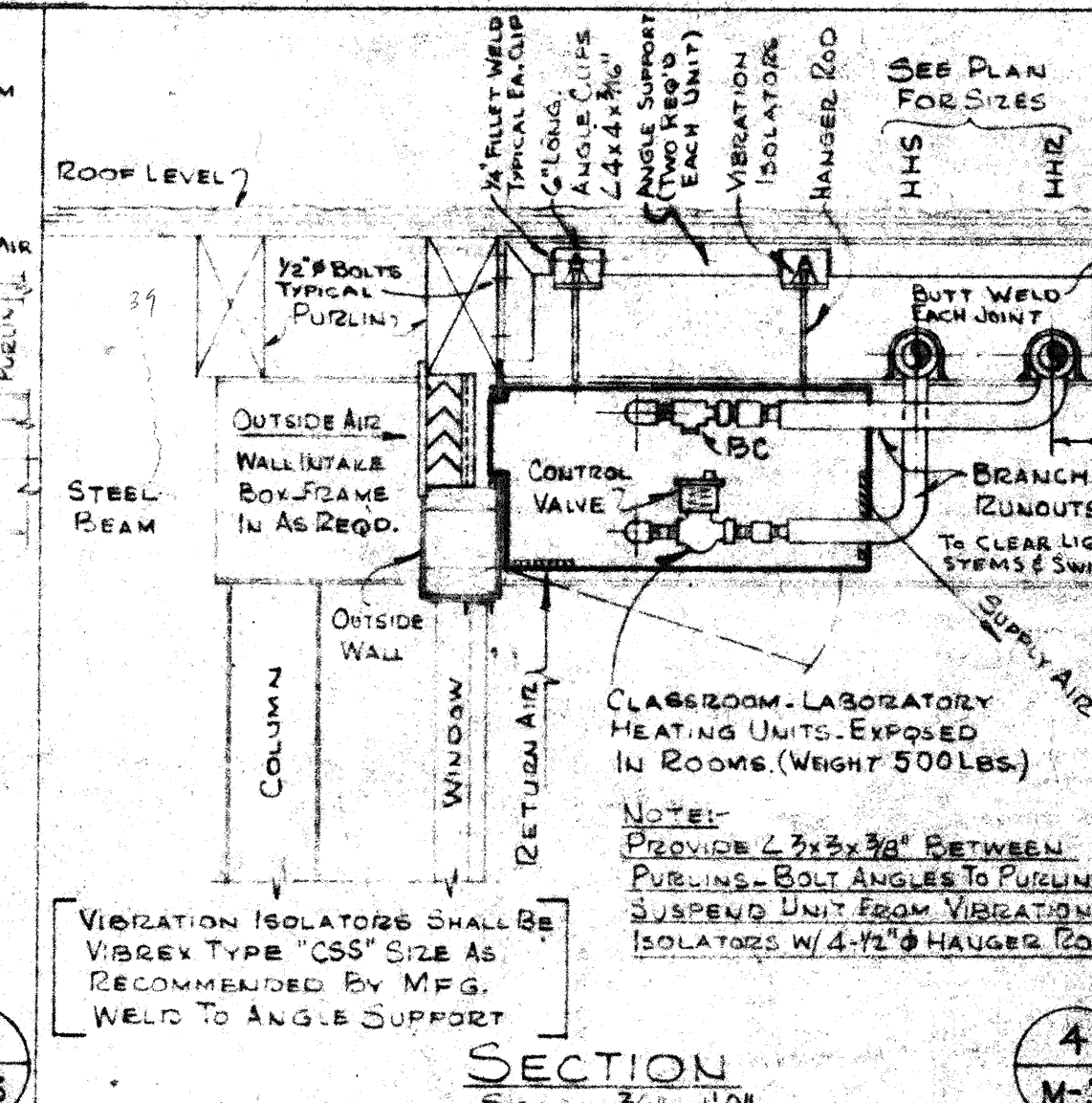
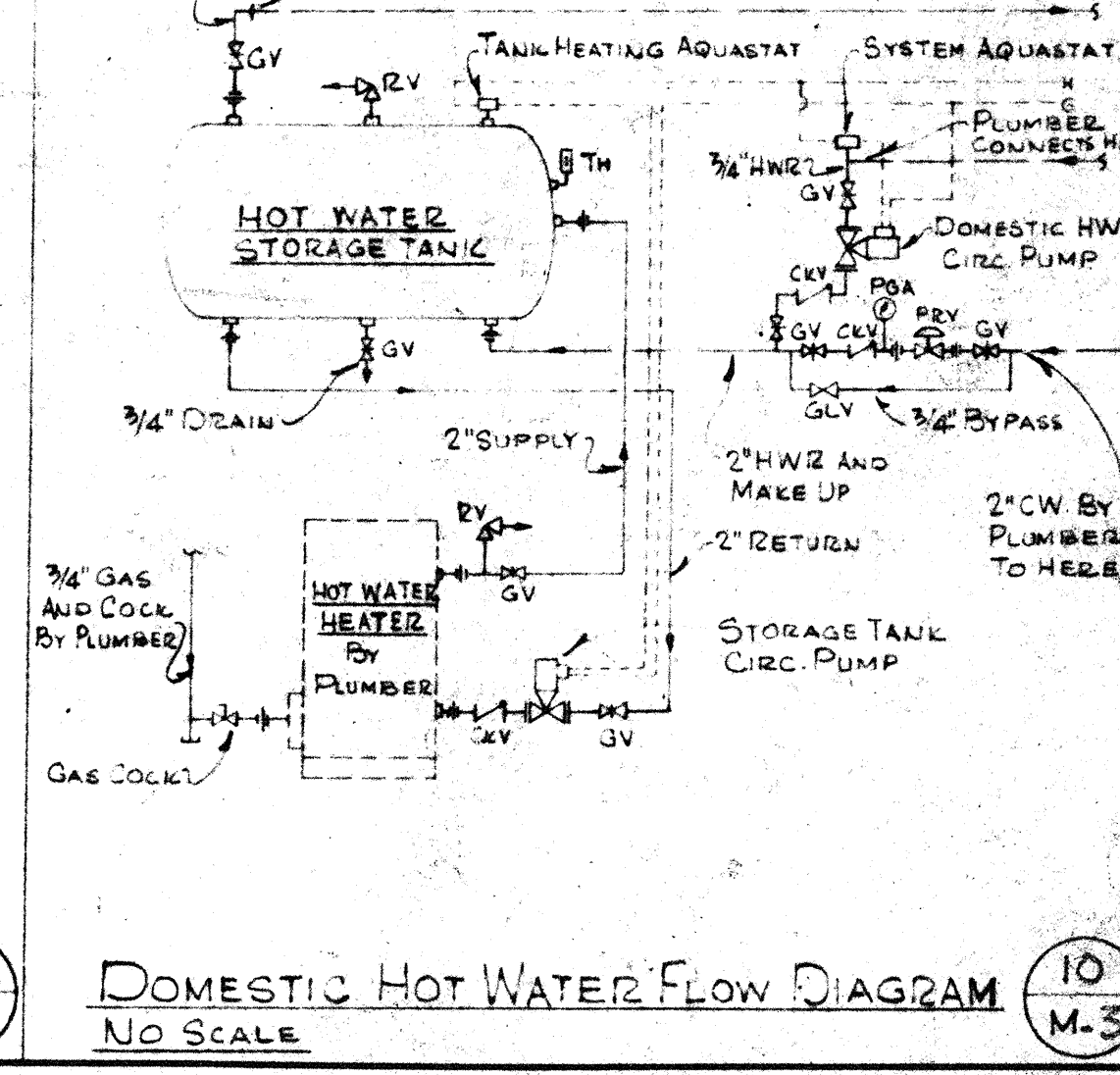


Diagram - Piping Flow  
Scale: 1/2" = 1'-0"



Detail - Fume Hood Exhaust Duct  
Scale: 1/2" = 1'-0"



Detail - Gravity Vent  
Scale: 1/2" = 1'-0"

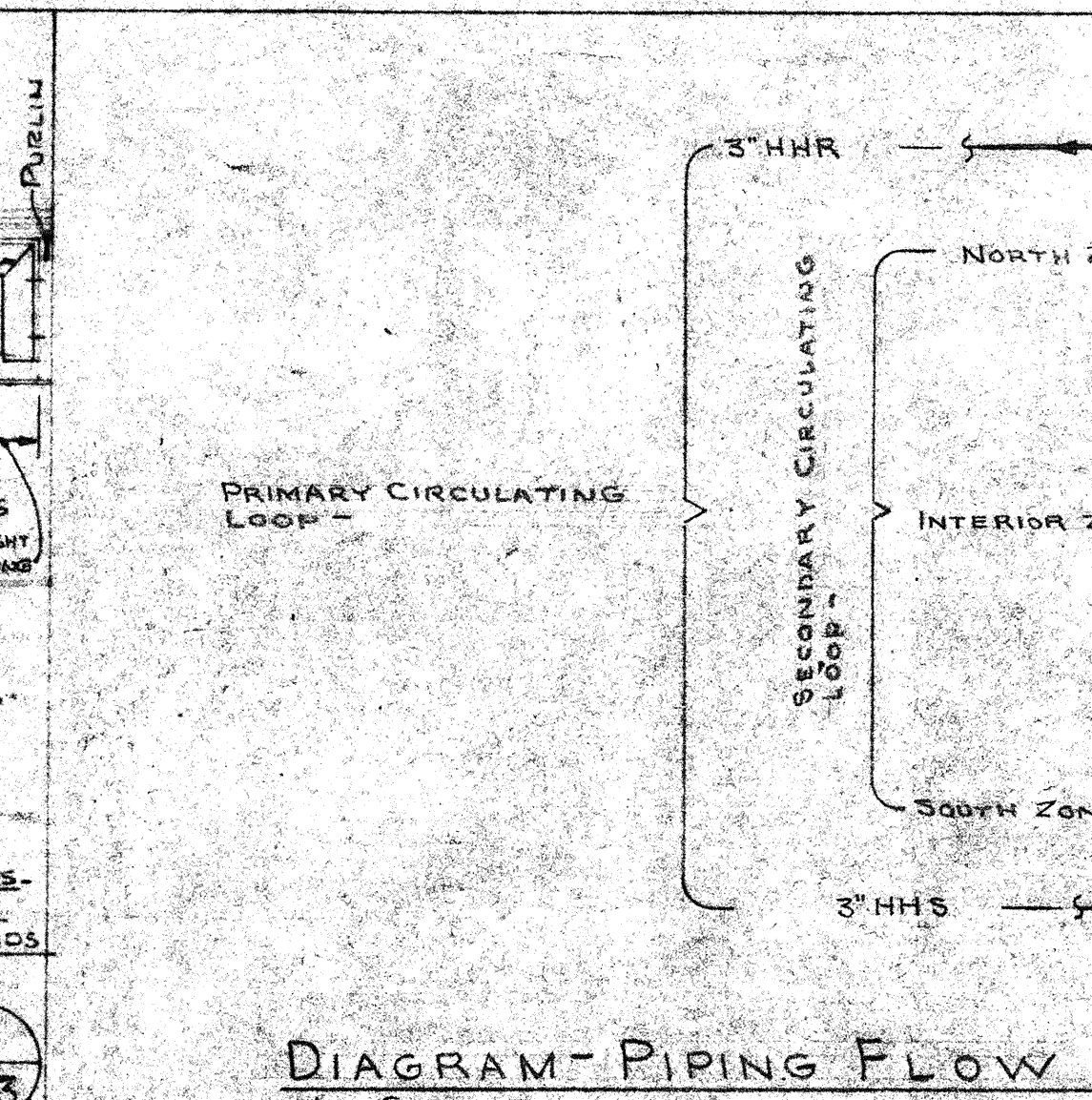


Diagram - Piping Flow  
Scale: 1/2" = 1'-0"

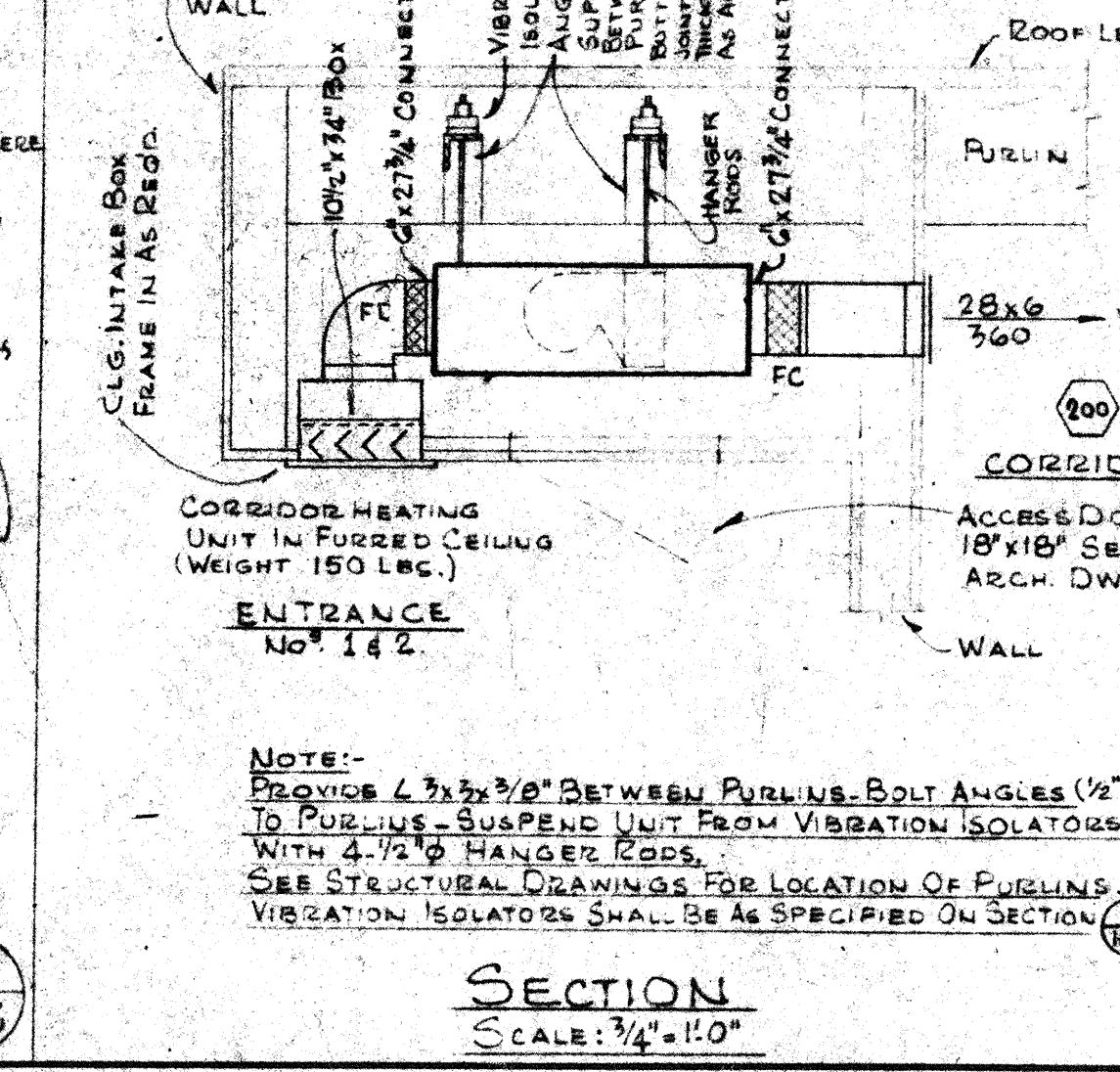
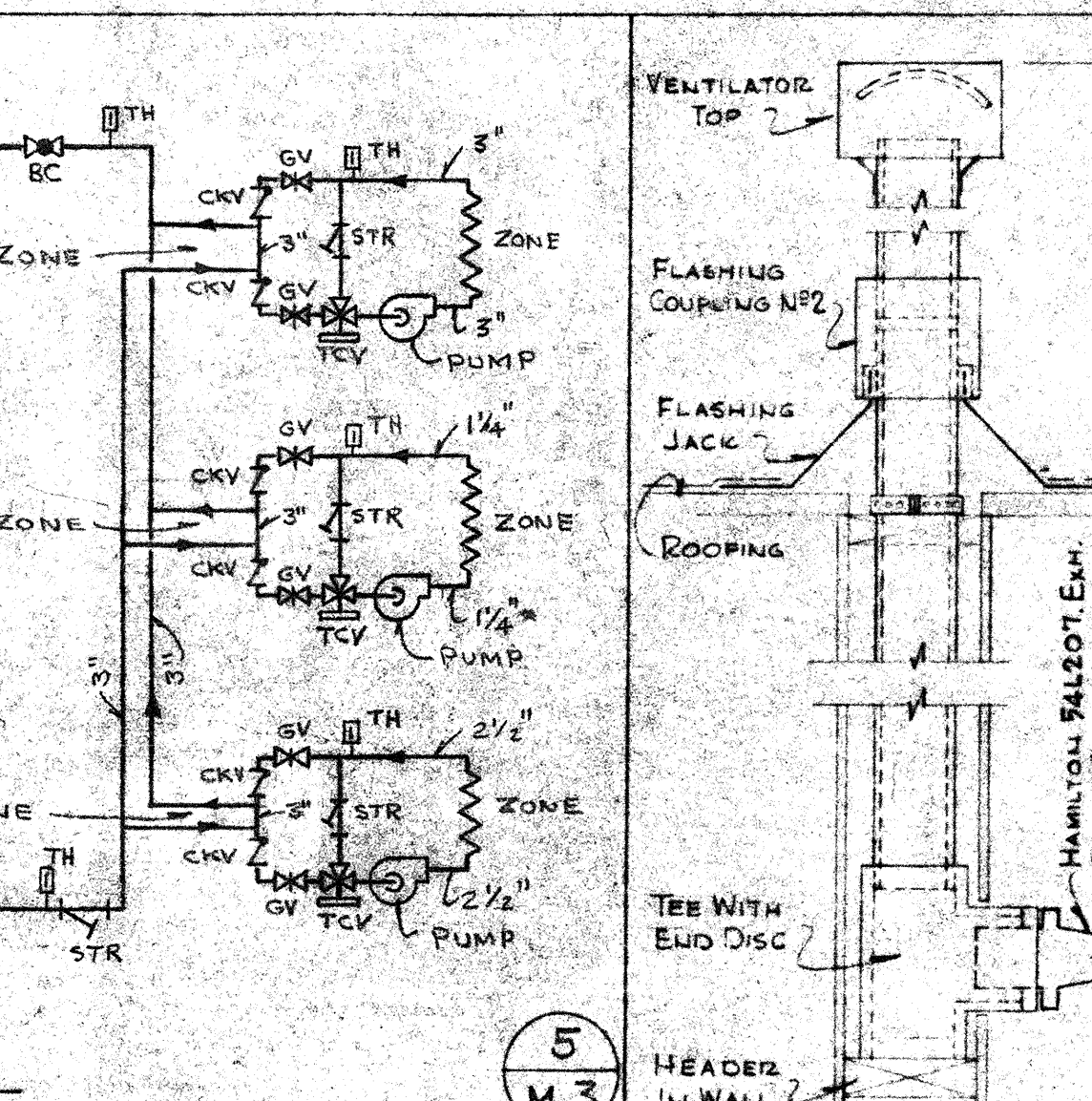
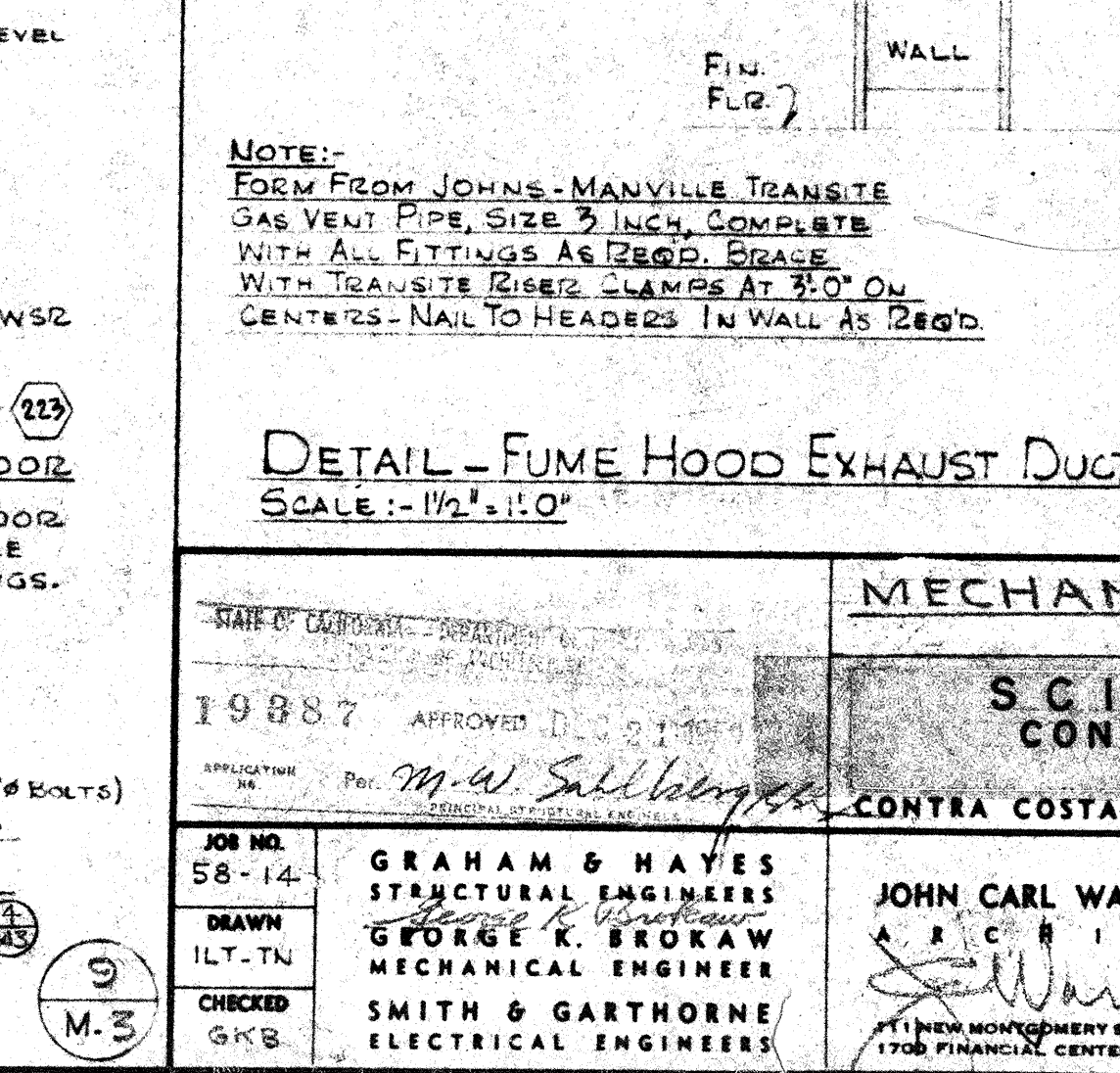


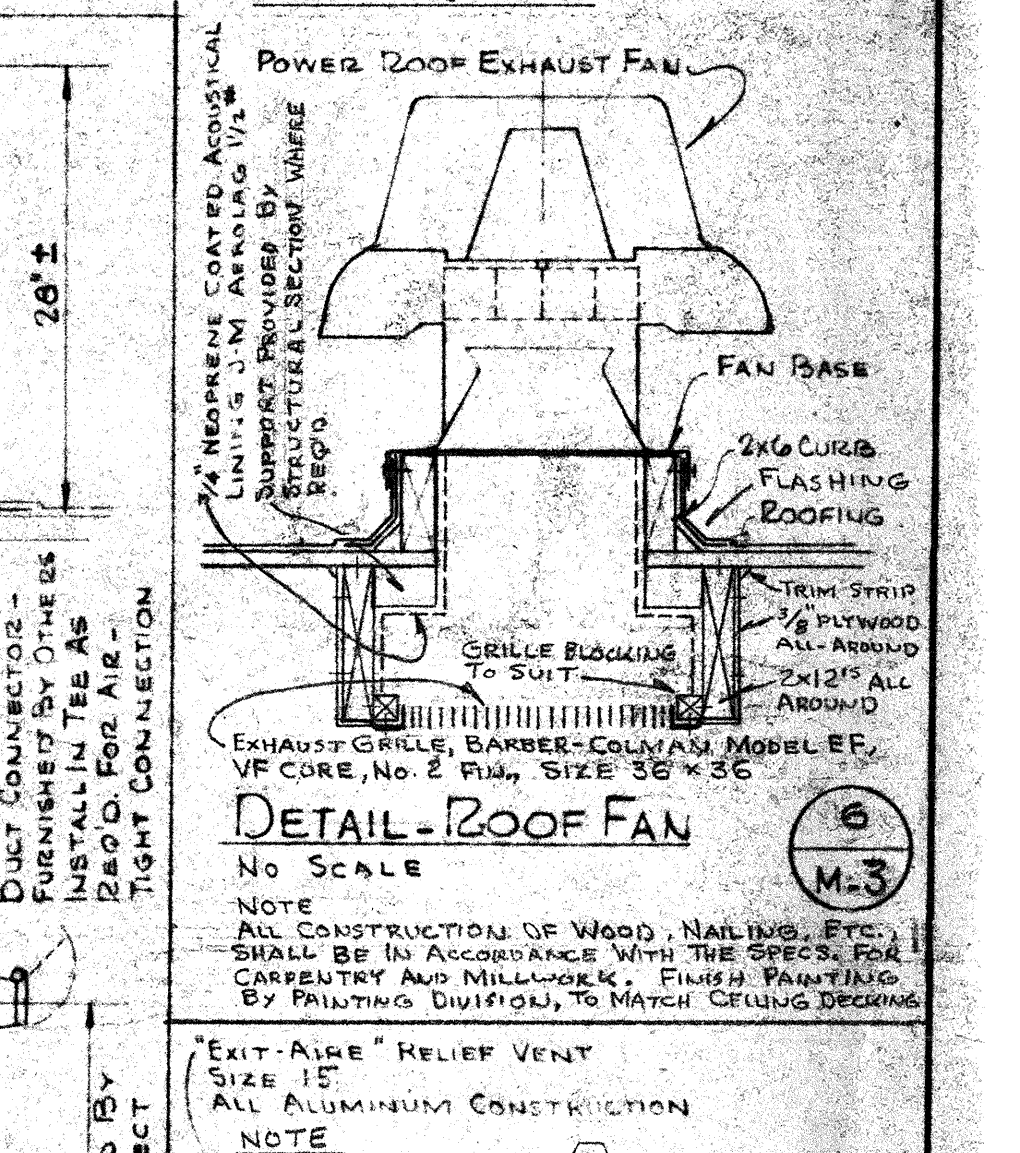
Diagram - Piping Flow  
Scale: 1/2" = 1'-0"



Detail - Fume Hood Exhaust Duct  
Scale: 1/2" = 1'-0"



Detail - Gravity Vent  
Scale: 1/2" = 1'-0"



Isometric View of Frame  
Scale: 1/2" = 1'-0"

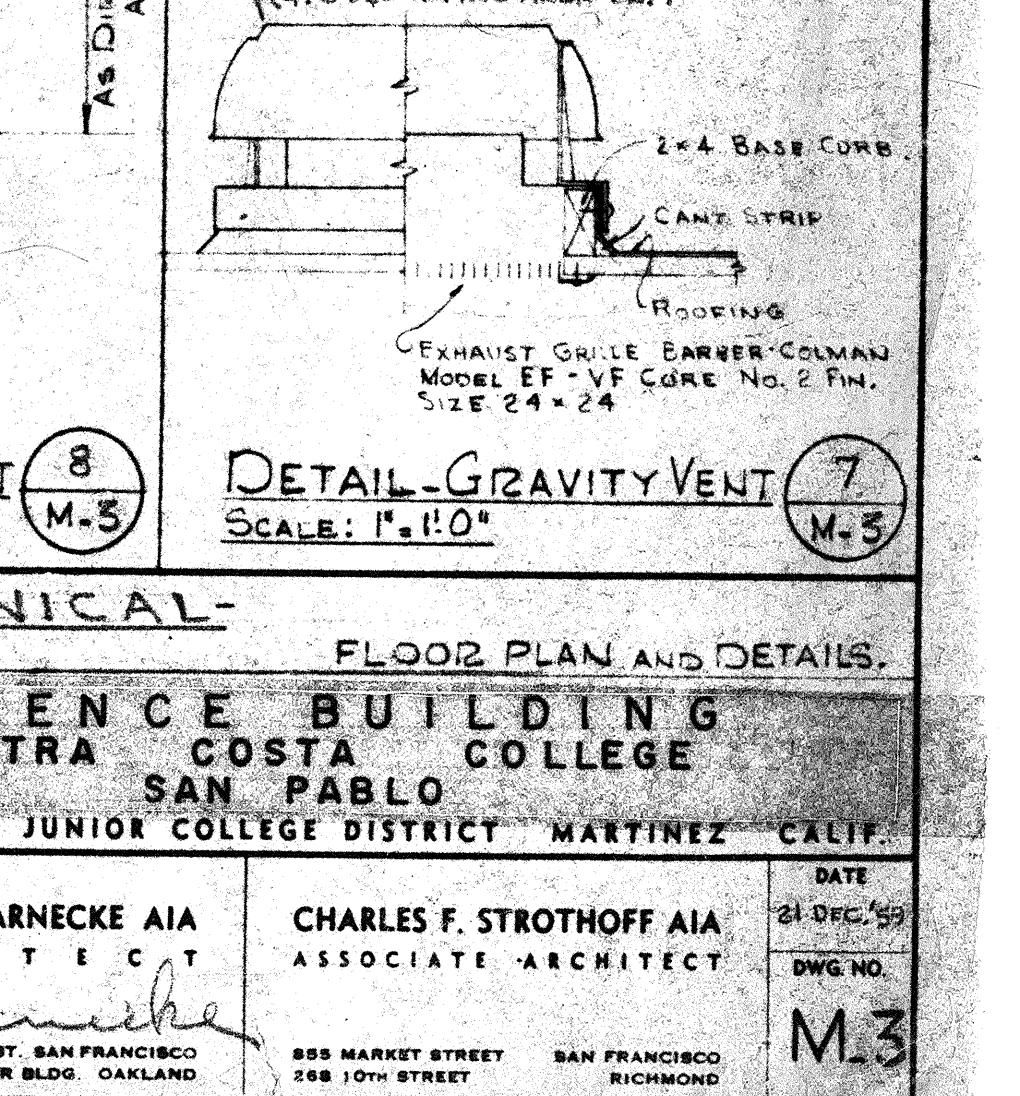


Diagram - Piping Flow  
Scale: 1/2" = 1'-0"

MECHANICAL FLOOR PLAN AND DETAILS.

SCIENCE BUILDING  
CONTRA COSTA COLLEGE  
SAN PABLO

CONTRA COSTA JUNIOR COLLEGE DISTRICT MARTINEZ CALIF.

19887 APPROVED 10-1-88

JOHN CARL WARNECKE AIA  
CHARLES F. STROTHOFF AIA

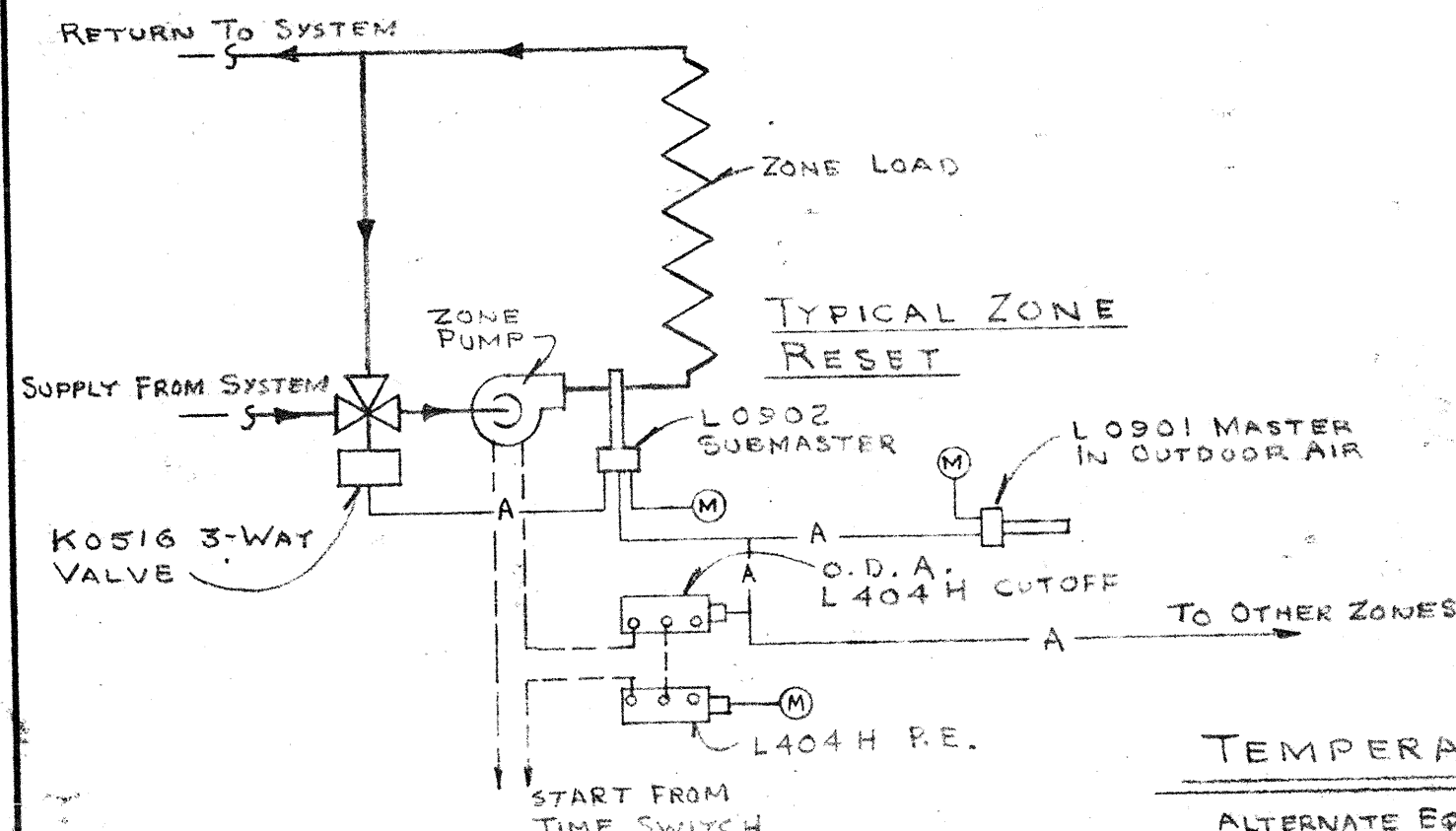
GRAHAM & HAYES  
STRUCTURAL ENGINEERS  
GEORGE K. PROKAW  
MECHANICAL ENGINEER  
SMITH & GARTHOPE  
ELECTRICAL ENGINEERS

DATE  
28-DEC-88  
DWG NO.  
M.3









SYMBOL		SERVICE	ABB R	ITEM
---	S/W	SOIL OR WASTE	C.B	CONCRETE BOX
--- AW	AW	ACID WASTE	C.I	CAST IRON
----	V	VENT	CONC.	CONCRETE
----	CW	COLD WATER	CONN.	CONNECT OR CONNECTOR
----	HW	HOT WATER	DIST.	DISTRIBUTIVE
----	HWK	HOT WATER RETURN	DN.	DOWN
---	G	NATURAL GAS	EWH	ELECTRIC WATER HEAT
---	A	COMPRESSED AIR	FXT	FXTURE
o	VTR	VENT THRU ROOF	TYP	TYPICAL
++	HB	HOSE BIBB (INSIDE)	W.MIX	WITH MIXING VALVE
++	HF	HOSE FAUCET (OUTSIDE)	&	AND
①	FD	FLOOR DRAIN	FA	EACH
①	COTG	CLEANOUT TO GRADE	SECT.	SECTION
①	FCO	FLOOR CLEANOUT	CONT.	CONTINUATION
■	G.V	GATE VALVE	DET.	DETAIL
N	C.V	CHECK VALVE	SH	SHEET
+ +	G.C	GAS ECK	DS	DOWN SPOUT (RAINWATER)
■ ■	F.S	FLOOR SINK		

# PLUMBING NOTES

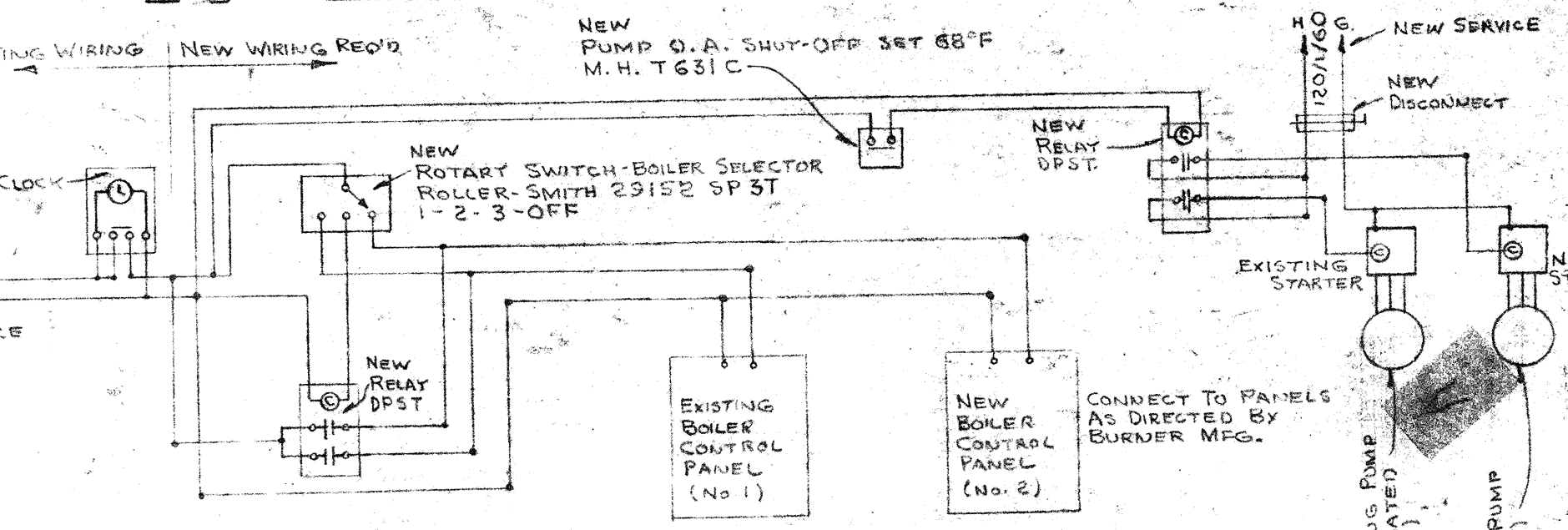
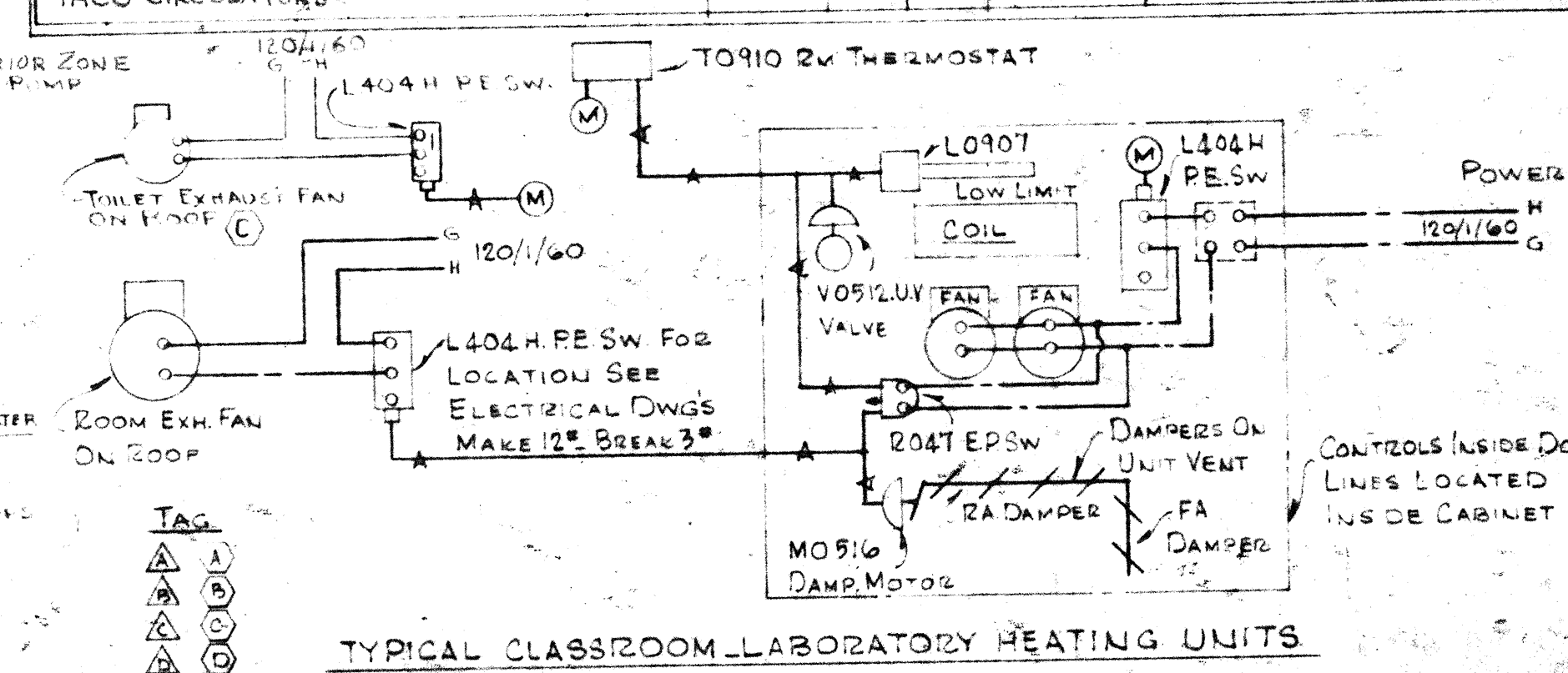
1. ALL PIPING SHALL BE RUN TO AVOID ARCHITECTURAL OPENINGS, STRUCTURAL MEMBERS, FIXTURES AND/OR OTHER OBSTRUCTIONS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES.
3. UNLESS OTHERWISE NOTED, ALL SOLID WASTE AND WASTE COLD WATER, HOT WATER, AIR AND GAS PIPING SHALL BE LOCATED BELOW FLOOR.
4. SET FLOOR DRAINS FLUSH AT LOW POINT. THE PLUMBING CONTRACTOR SHALL BE REQUIRED TO SET FLOOR DRAINS WITH PROPER PITCH AND COORDINATE WITH CONCRETE WORK.
5. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT ROUGH-IN OF ALL WATERS, FUELS, AND GASES.
6. HOSE END AND WEESE FAUCETS SHALL BE INSTALLED 24" ABOVE FINISHED FLOOR OR GRADE, UNLESS OTHERWISE NOTED.
7. ALL PIPE RUNS SHALL BE INSTALLED WITH AMFLE PROVISIONS FOR EXPANSION AND CONTRACTION, WHETHER OR NOT SPECIFIED IN SPECIFICATIONS, OR, SHOWN ON DRAWINGS.
8. IN ALL RISER, INSTANT GATE VALVES AND JACKS IN THE WALL NEAR THE CEILING MUST BE INSTALLED WORKING THROUGH THE WALL. UNLESS OTHERWISE NOTED, ALL JACKS SHALL BE NOTED IN A HORIZONTAL LINE. FLASH PLATES SHALL BE COVERED WITH INSULANT FINISH WHERE PIPING ENTERS WALL, FLOOR, AND/OR CEILING. FINISH BY PLUMBER (10).
9. DO NOT SCALE FLOOR PLAN DRAWINGS FOR EXACT HORIZONTAL LOCATION OF SINGLE OR MULTIPLE PIPE RUNS. INSTALL RUNS IN SINGLE OR MULTIPLE TO BEST FIT FIELD CONDITIONS.
10. GATE VALVES AND GAS JACKS INDICATED ON PLANS ARE DIAGRAMMATICALLY LOCATED ONLY. FOR ACCESS TO VALVES AND GAS TAPS, ACCESS PANELS SHALL BE INSTALLED AT GATE VALVES AND GAS TAPS, SIZED TO SUIT.
11. ALL VALVES AND COCKS SHALL BE THE SAME SIZE AS THE LINE, UNLESS OTHERWISE NOTED.

SCHEDULE - CIRCULATING PUMPS								
NO	MANUFACTURER	TYPE	SIZE	GPM	HEAD, FT	MOTOR	LOCATION	REMARKS
	PELL & GOSSETT	BOOSTER					BOILER-RM (2nd)	
	"	"	PD 37	32	15	3/4	208 3/40	"
	"	"	2 1/2"	10	12	1/2	120 1/160	"
	"	"	PD 35	60	15	1/2	208 3/40	"
	"	"	2"	60	4	1/8	120 1/160	"
	"	"	1" PR	20	10	1/8	"	"
ALTERNATE EQUIPMENT MANUFACTURER								
TACO CIRCULATORS -								

SCHEDULE - HEATING UNITS										REMARKS
Tag	MANUFACTURER	TYPE	MODEL	SIZE	CFM	SP	HP	MOTOR	LOCATION	
A	THE TRANS CO.	UNIT VENTILATOR TYPE TO	MODEL CP A22.G. 1	50	500	-	1/8	120/160	LIFE SCIENCE BUILDING	INLET WALL B FAR 244 FILT
B	"	"	"	75	750	-	"	"	"	"
C	"	"	"	100	1000	-	"	"	"	"
D	"	"	"	125	1000	-	"	"	"	"
E	"	UNITRANE DD	HORIZONTAL CONDENSATE INLET PLENUM WITH DUCT	22D	200	3/4"	1/30	"	"	FAR 445 FILTER
F	"	FORCE-FLO	CEILING MODEL A22.G. 5	100-2	500	3/4"	1/8	"	"	INLET WALL B FAR 244 FILT
ALTERNATE EQUIPMENT MANUFACTURER RITFLING UNIT VENTILATORS										

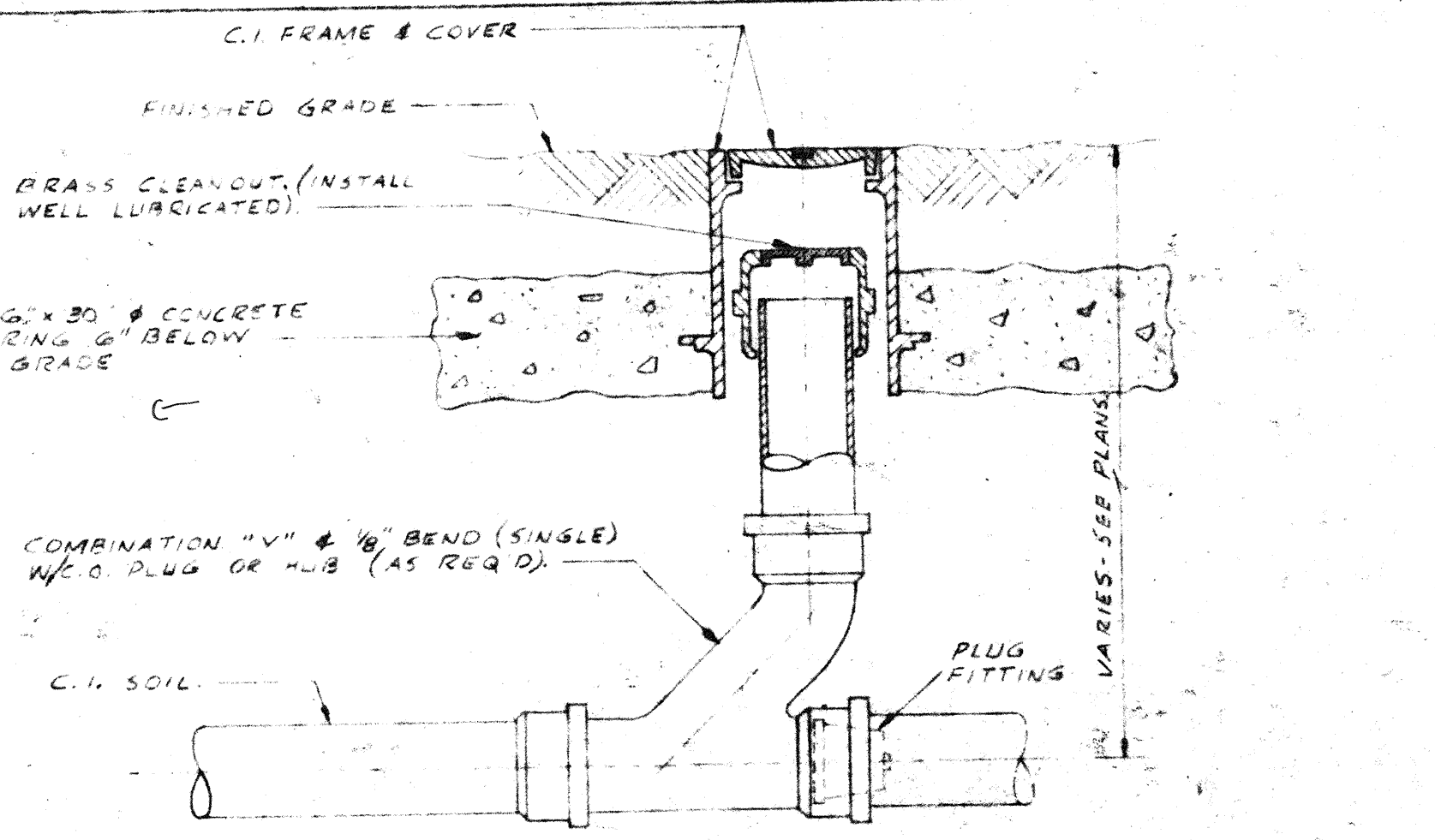
SCHEDULE - EXHAUST AIR UNITS										
TAG	MANUFACTURER	TYPE	SIZE	DRIVE	CFM	SP	HP	MOTOR	LOCATION	REMARKS
A	BEEDER AIR - X-HAUSER	ROOF FAN	BW 306 B	BELT	1970	1 1/8"	1/6	120/100	LIFE SCIENCE BUILDING	3260 FPM TIP SPEED
B	"	"	BW 151	DIRECT	500	"	1/12	"	"	2990 FPM TIP SPEED
C	"	"	BW 304 B	BELT	1170	"	1/6	"	"	2380 FPM TIP SPEED
D	"	"	BW 211	DIRECT	985	"	1/6	"	"	3650 FPM TIP SPEED
EWH. HOOD	"	"	BW 553 B.M. (SEE DETAIL HOOD)	BELT	4600	1/4"	1/2	208/3/50	"	3120 FPM TIP SPEED

1. FANS SHALL BE UL AND AMCA APPROVED AND LISTED.  
 2. FANS SHALL BE NON-SUCKING/STRETCHING WITHOUT DAMPERS.  
 3. FANS SHALL BE ALUMINUM WITH BIRD SCREEN.



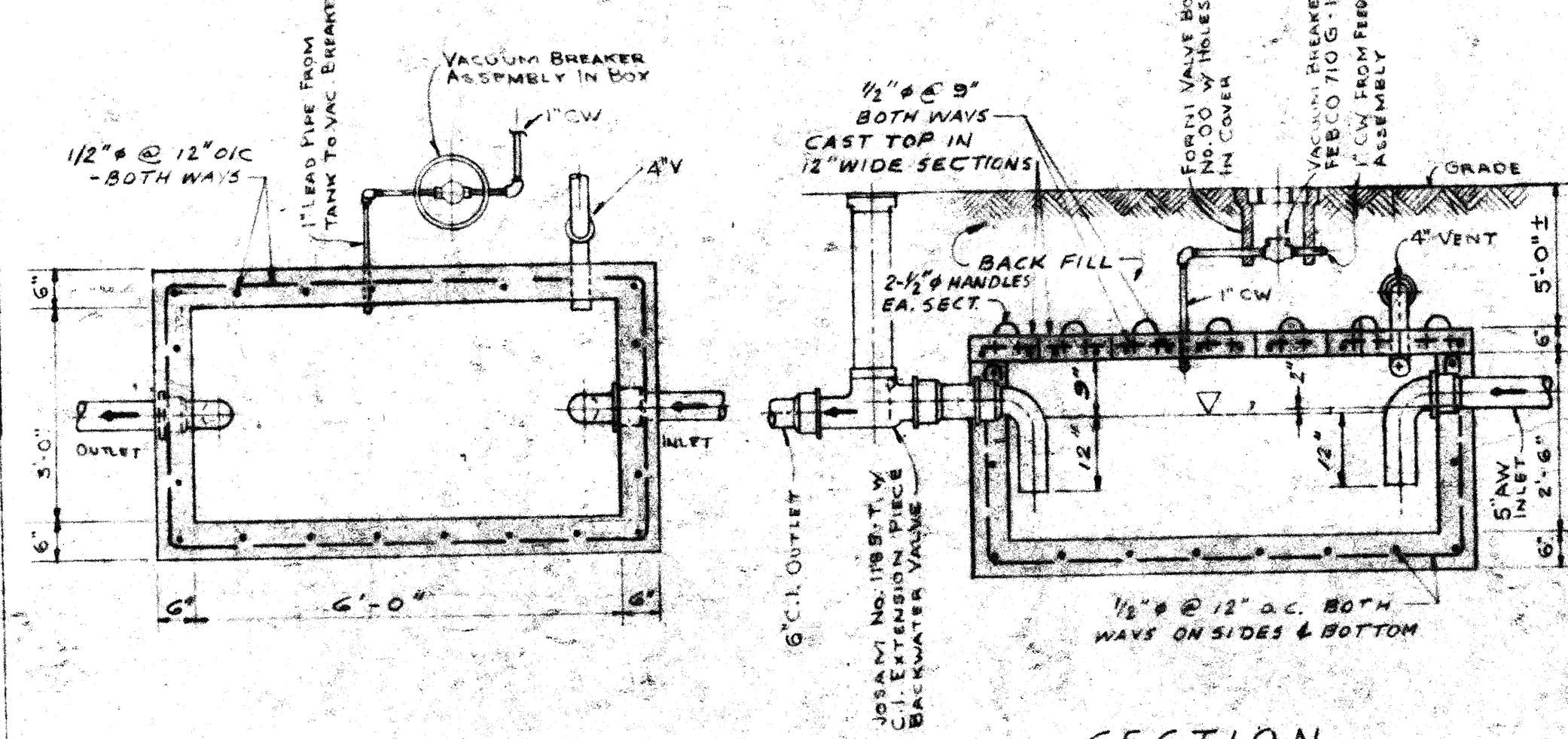
## TEMPERATURE CONTROL DIAGRAMS

ALTERNATE EQUIPMENT MANUFACTURERS  
JOHNSON SERVICE COMPANY -



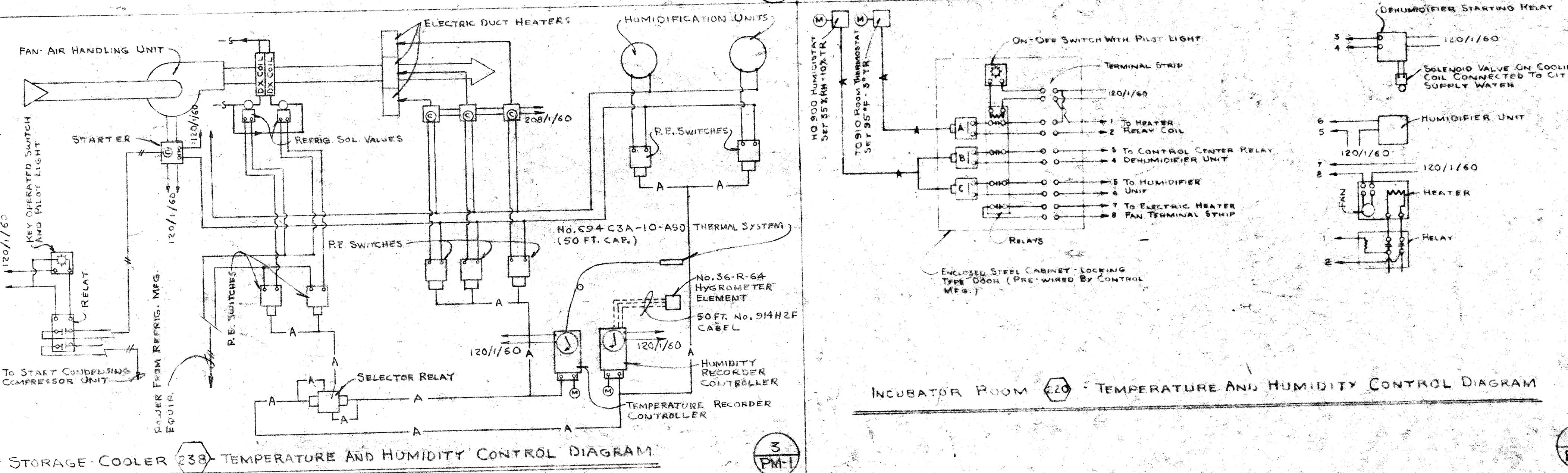
DETAIL — CLEANOUT TO GRADE

SCALE:  $1\frac{1}{2}" = 1'-0"$



PLAN SECTION  
DETAIL — ACID DILUTION TANK

SCALE:  $\frac{1}{2}" = 1'-0$

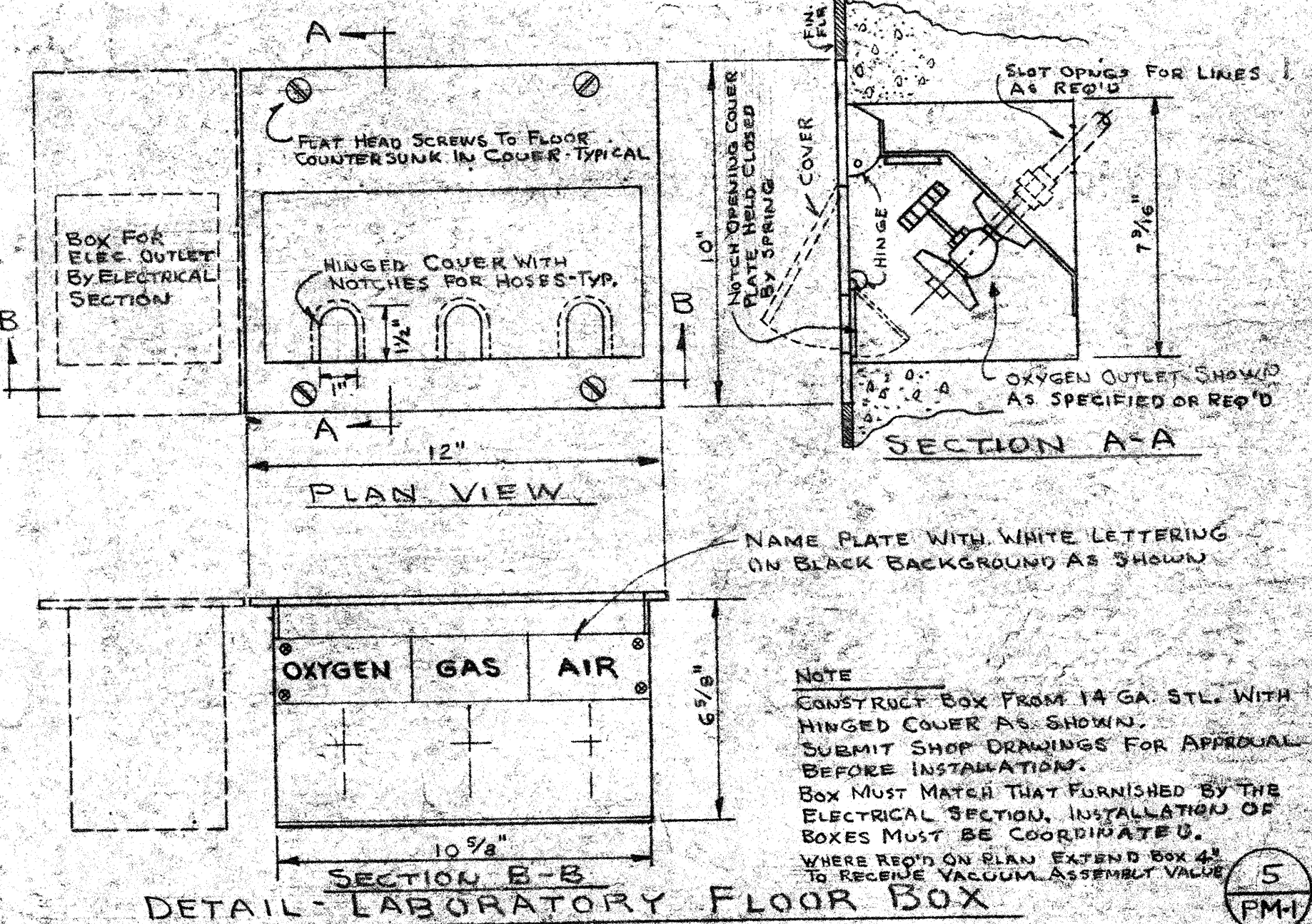


MECHANICAL LEGEND			
SYMBOL		ABBREV	ITEM
	-	SUPPLY AIR	ED EXTRACTOR DAMPER
	-	RETURN OR EXHAUST AIR	SD SPLITTER
	-	SUPPLY DUCT-SECTION	VD VOLUME
	-	RETURN	CG CEILING
	-	EXHAUST	FC FLEXIBLE CONNECTION
	CV	CHECK VALVE	CW COLD WATER (DOMESTIC)
	GV	GATE VALVE	OC ON CENTERS
	BG	BALANCE COCK	OD OUTSIDE DIAMETER
	GLV	GLOBE VALVE	DN DOWN
	AV	AIR VENT	BF BELOW FLOOR
	PRV	PRESSURE REDUCING VALVE	T BRANCH TAKE-OFF SIZE
	TCV	TEMPERATURE CONTROL VALVE	HHS HOT WATER SUPPLY
	RV	RELIEF VALVE	HRZ " " RETURN
	STR	STRAINER	HWS " " SUPPLY (DOMESTIC)
	-	UNION	HWZ " " RETURN
	TH	THERMOMETER	IFC IN FORCED CEILING
	-	HOSE BIBB	IPS " " SPACE
	TW	THERMOMETER WELL	IFW " " WALL
	-	THERMOSTAT	GSD CEILING SUPPLY OUTLET
	PGA	PRESSURE GAUGE	WSR WALL SUPPLY REGISTER
	CP	CIRCULATING PUMP	WER " EXHAUST "
	-	DETAIL OR SECTION NO.	CEL " CEILING "
	-	DRAINING NO.	CRZ " " RETURN
	Φ	DIAMETER	
	W	WITH	

## MECHANICAL NOTES.

1. MOUNT THERMOSTATS UP 90" ABOVE FINISHED FLOOR
2. ALL SQUARE ELBOWS IN DUCT WORK SHALL HAVE TURNING VANES
3. ALL DUCT CONNECTIONS TO FANS OR CABINETS SHALL BE OF THE FLEXIBLE TYPE.
4. ALL DUCTS AND PIPING SHALL BE RUN TO AVOID ARCHITECTURAL OPENINGS, STRUCTURAL MEMBERS, FIXTURES AND OTHER OBSTRUCTIONS.
5. REFER TO MANUFACTURER'S CERTIFIED DRAWINGS FOR EXACT DIMENSIONS OF ALL EQUIPMENT AND CHANGES IN STRUCTURAL, ARCHITECTURAL, ELECTRICAL OR PLUMBING CAUSED BY SUBSTITUTION TO MATERIAL SPECIFIED, SHALL BE THE RESPONSIBILITY OF CONTRACTOR MAKING SUBSTITUTION.
6. FOR TEMPERATURE CONTROL WIRING & MATERIALS SEE DRAWING PM-1
7. ALL PIPING EXPOSED IN THE LIFE SCIENCE BUILDING SHALL BE INSTALLED DEAD LEVEL.

LOCAL CONNECTION		SCHEDULE			
ABB'R	FIXTURE	SOIL OR WATER	VENT	COLD WATER	HOT WATER
P-1	WATER CLOSET	4"	2"	1"	
P-2	WENAL	2"	1 1/2"	3/4"	
P-3	LAVATORY	2"	1 1/2"	1/2"	1/2"
P-4	SERVICE SINK	3"	2"	1/2"	1/2"
P-5	DRINKING FOUNTAIN	1 1/2"	1 1/2"	1/2"	
FD-1	FLOOR DRAIN	3"	2"		
FD-3	FLOOR DRAIN (BOILER ROOM)	3"	2"		
H.B.	HOSE BIBS (INSIDE BUILDING)			3/4"	
H.F.	HOSE FAUCET (OUTSIDE BUILDING)			3/4"	
D.T.	DILUTION TANK	5"	3"	1"	
F.E.	FLOOR SINK	3"	2"		



SECTION B-B  
DETAIL - LABORATORY FLOOR BOX

NO SCALE

PLUMBING - MECHANICAL

SCHEDULES, DETAILS AND NOTES

SCIENCE BUILDING  
CONTRA COSTA COLLEGE

SAN PABLO  
CONTRA COSTA JUNIOR COLLEGE DISTRICT MARTIN

JOHN CARL WARNECKE AIA	CHARLES F. STROTHOFF A
------------------------	------------------------

ARCHITECT ASSOCIATE ARCHITECT

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1700 FINANCIAL CENTER BLDG. OAKLAND

655 MARKET STREET  
268 10TH STREET

SAN FRANCISCO  
RICHMOND

STATE OF CALIFORNIA - DEPARTMENT OF PUBLIC SAFETY	
DIVISION OF INVESTIGATION	
1938	APPROVED: DEC 21 1938
ATTEST: J. L. ...	Per: <i>M. W. ...</i>
(ORIGINAL FILED IN ...)	
JOB NO. 58-14	GRAHAM & HAYES STRUCTURAL ENGINEER
DRAWN BY (L.T. TM)	GEORGE T. BROKA MECHANICAL ENGINEER
CHECKED	SMITH & GARTHOFF ELECTRICAL ENGINEER
GWB	

SCHEDULES; DETAILS AND NOTES	
SCIENCE BUILDING	
CONTRA COSTA	COSTA COLLEGE
SAN PABLO	
CONTRA COSTA JUNIOR COLLEGE DISTRICT	MARTIN
JOHN CARL WARNECKE AIA ARCHITECT <i>John Warnecke</i> 151 HUNTERCROFT STREET, S.F. OAKLAND 1700 FINANCIAL CENTER BLDG. SAN FRANCISCO	CHARLES F. STROTHOFF ASSOCIATE ARCHITECT 885 HARVEY STREET 258 10TH STREET SAN FRANCISCO

PM







# GENERAL NOTES

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS, AND TITLE 21, CALIFORNIA ADMINISTRATIVE CODE, 1967 EDITION AS AMENDED. THESE NOTES SHALL APPLY TO ALL STRUCTURAL DRAWINGS UNLESS OTHERWISE NOTED OR SHOWN.

FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL, AND SHALL APPLY GENERALLY THROUGHOUT SIMILAR CONDITIONS.

REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR FLOOR FINISH AND THEIR LOCATIONS; DEPRESSIONS AND CURBS ON FLOORS; OPENINGS IN WALLS, SLABS, AND FLOORS AS REQUIRED FOR WINDOWS, DOORS, DUCTS, VENTS, PLUMBING, ETC.; ALL TYPES OF FLASHING, INSERTS, ANCHORAGE, HANGERS, ETC., EMBEDDED IN OR ATTACHED TO THE STRUCTURE; ROADWAY, PAVING, WALKS, STAIRS, RAMP, TERRACES, ETC.; EXTERIOR GRADES; ELEVATION OF ROOF SURFACES; LOCATION OF DRAINS; PARTITION WALLS AND BRICK VENEER.

THE CONTRACTOR SHALL COMPAIRE THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AS TO ALL LAYOUTS, DIMENSIONS AND ELEVATIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT FOR PROPER ADJUSTMENTS BEFORE PROCEEDING WITH THE WORK. IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWING OR CALLED FOR IN THE GENERAL NOTES OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN FOR SIMILAR CONDITIONS.

## SYMBOLS AND ABBREVIATIONS

FW	INDICATES	REDWOOD LUMBER	JH	INDICATES	GALVANIZED JOIST HANGER
	"	A CONTINUOUS MEMBER IN SECTION	OTJH	"	OVER THE TOP GALVANIZED JOIST HANGER
	"	A NON-CONTINUOUS MEMBER SUCH AS SOLID BLK OR END FACE OF CONTINUOUS MEMBER	FW	"	STRUCTURAL PLYWOOD
FA	"	FRAMING ANGLE - SEE DETAIL & SIZE SCHEDULE	SAD	"	SEE ARCHITECTURAL DRAWINGS, OR SEE ARCHITECTURAL DETAILS
NFS	"	NOT TO SCALE	POS	"	FACE OF STUDS
A-S2	"	SECTION A ON DRAWING 32, ETC.	POC	"	FACE OF CONCRETE
JOISTS	"	JOISTS OR RAFTERS	TOS	"	TOP OF STEEL
DI	"	DOUBLE JOIST OR DOUBLE RAFTER	TOP	"	TOP OF FOOTING
	"		BOP	"	BOTTOM OF FOOTING

## FOUNDATION NOTES

THE SOIL REPORT APPLICABLE TO THE PROJECT SITE IS NOTED ON FOUNDATION PLAN DRAWING. THE REPORT IS AVAILABLE FOR PERUSAL AT THE OFFICE OF THE ARCHITECT. SEE SPECIFICATIONS.

DESIGN SOIL PRESSURE UNDER FOOTINGS IS NOTED ON FOUNDATION PLAN DRAWING. SEE FOUNDATION PLAN FOR ADDITIONAL NOTES.

## CONCRETE NOTES

CONCRETE SHALL TEST NOT LESS THAN 3000 P.S.I. AT 28 DAYS FOR STRUCTURAL AND FOUNDATION ELEMENTS. FLOOR SLABS ON GRADE SHALL TEST NOT LESS THAN 2000 P.S.I. AT 28 DAYS, UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.

ALL CONCRETE SHALL BE REINFORCED UNLESS NOTED: "NOT REINFORCED".

REINFORCEMENT SHALL BE ASTM A615-40, UNLESS SPECIFICALLY NOTED OTHERWISE ON STRUCTURAL DETAILS OR SCHEDULES.

LAP ALL BARS 40 DIAMETERS AT SPLICES; STAGGER SPLICES WHEREVER POSSIBLE. VERTICAL WALL BARS SHALL EXTEND INTO FOOTINGS, BUT MAY BE DOWELLED WITH 40 DIAMETER LAPS OF SAME SIZE BARS.

REINFORCEMENT, ANCHOR BOLTS, PIPE SLEEVES AND OTHER INSERTS SHALL BE POSITIVELY SECURED IN PLACE BEFORE CONCRETE IS POURED.

BAR COVERAGE TO FACE OF BAR, EXCEPT AS OTHERWISE SHOWN, SHALL BE:

- 3" WHERE CONCRETE IS POURED AGAINST BARTH, OR AGAINST GROUND CONTACT.
- 2" FOR BARS LARGER THAN #5, WHERE CONCRETE SURFACES ARE EXPOSED TO BARTH OR TO WEATHER AFTER REMOVAL OF FORMS.
- 1 1/2" FOR #5 BARS OR SMALLER, WHERE CONCRETE SURFACES ARE EXPOSED TO BARTH OR TO WEATHER AFTER REMOVAL OF FORMS.
- 1 1/4" FOR COLUMN SPIRALS OR TIES.
- 1 1/2" FOR STIRRUPS OF BEAM.
- 1" FOR WALL BARS (DOUBLE MAT).
- 3/4" FOR STRUCTURAL SLAB BARS, TOP AND BOTTOM.

SEAMS ON GROUND SHALL BE REINFORCED AS SHOWN ON STRUCTURAL PLANS. LOCATION OF CONSTRUCTION JOINTS MUST BE APPROVED BY THE ARCHITECT.

ALL EXPOSED CORNERS SHALL BE CHAMFERED AS NOTED ON THE ARCHITECTURAL DRAWINGS.

ALL CONCRETE CURBS ARE 6" HIGH UNLESS OTHERWISE NOTED. ALL TOILET ROOM STUD WALLS SHALL HAVE CONCRETE CURBS.

## STRUCTURAL STEEL

ALL STRUCTURAL STEEL AND STRUCTURAL TUBING SHALL BE ASTM A-36. ALL STEEL PIPE COLUMNS SHALL BE GRADE B PIPE - ASTM-A53

ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ALSO SPECIFICATIONS, LATEST REVISION.

ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" HIGH-STRENGTH (A-325) BOLTS (UNLESS NOTED OTHERWISE) AND COMPLY WITH REQUIREMENTS OF SECTION 820 (c), TITLE 21.

ALL CONNECTIONS SHALL BE AS SHOWN BY STRUCTURAL DETAILS.

ALL WELDS SHALL BE INSPECTED IN ACCORDANCE WITH SECTION 623(a), TITLE 21.

ALL COLUMNS SHALL BE MILLED AT BASE FOR FULL BEARING.

WOOD NAILERS ON STRUCTURAL STEEL, IF CALLED FOR ON THIS PROJECT, SHALL BE BOLTED WITH 5/8" 6 CARRIAGE BOLTS @ 24" O.C. STAGGERED.

(1/16" OVERSIZE HOLES IN STEEL MAY BE USED), OR 5/8" 6 WELDED STUD BOLTS @ 24" O.C. UNLESS SIZE, TYPE AND SPACING IS NOTED OTHERWISE.

ALL WELOS FOR LIGHT-GAGE STEEL SHALL BE IN ACCORDANCE WITH SECTION 972, TITLE 21.

## STEEL DECKING (IF CALLED FOR ON THIS PROJECT)

SEE STRUCTURAL DETAILS FOR TYPE OF STEEL DECKING REQUIRED FOR THIS PROJECT.

STEEL DECKING PANEL UNITS SHALL BE FORMED FROM ZINC COATED STEEL SHEETS WITH A MINIMUM YIELD STRENGTH OF 33,000 P.S.I. MINIMUM ZINC COATING SHALL BE 0.5 OZ. PER SQUARE FOOT OF STEEL SHEET.

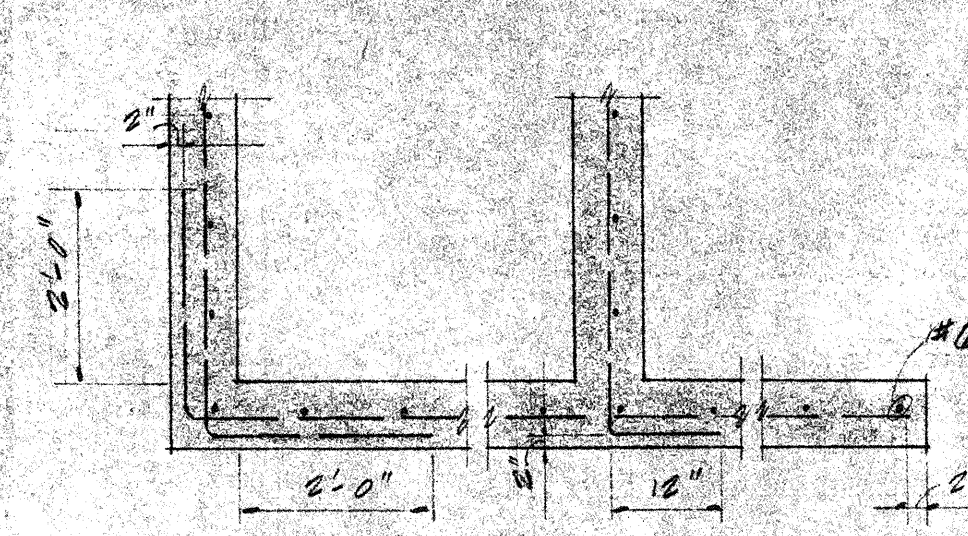
SECTION PROPERTIES SHALL CONFORM TO THE AISI SPECIFICATIONS FOR THE DESIGN OF LIGHT GAGE COLD-FORMED STEEL STRUCTURAL MEMBERS.

PANELS SHALL SPAN OVER THREE OR MORE SUPPORTS WHERE STRUCTURAL STEEL FRAMING PERMITS, AND AS SHOWN ON STRUCTURAL PLANS AND DETAILS, AND SHALL INCLUDE ALL ACCESSORIES FOR THIS TYPE OF DECKING SUCH AS CLOSURES, FLASHING, COVER CAPS, ETC. PANELS SHALL BE ALIGNED AND PLACED IN ACCORDANCE WITH THE MANUFACTURER'S APPROVED STANDARD DETAILS AND SHOP DRAWINGS.

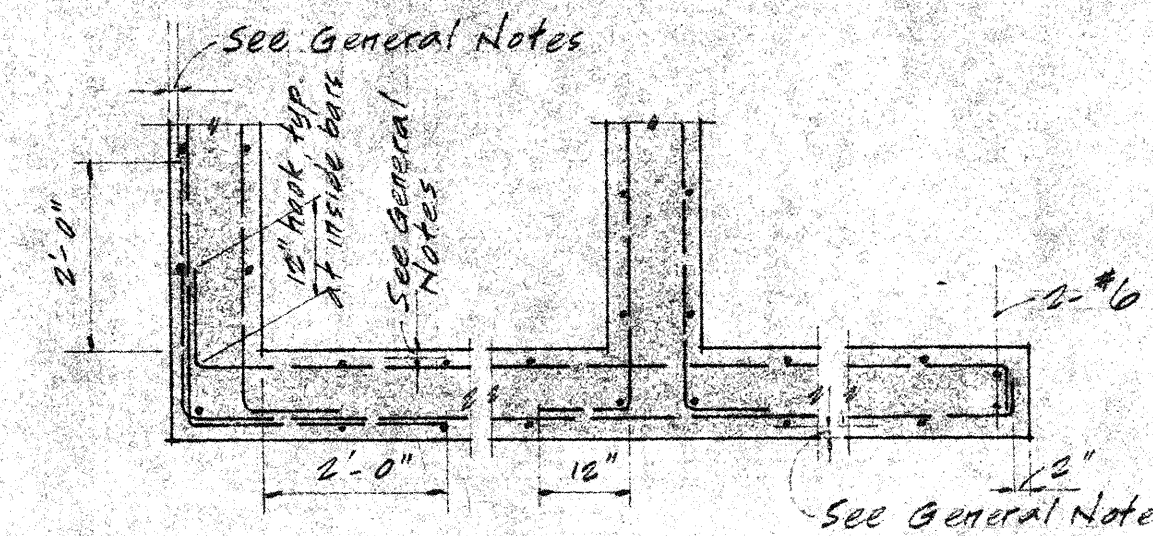
WELDING OF STEEL DECK PANELS TO SUPPORTING STRUCTURAL FRAMING AS NOTED ON STRUCTURAL DETAILS, AND/OR AS CALLED FOR ON APPROVED SHOP DRAWINGS SHALL BE DONE BY CERTIFIED WELDERS.

PRIOR TO APPLICATION OF INSULATION OR POURED FILL, THE STEEL DECKING SHALL BE CLEANED OF ALL DIRT, DEBRIS, OIL, WATER, AND ANY FOREIGN MATERIAL. CONCRETE FILL WHERE REQUIRED ON STEEL DECKING SHALL TEST NOT LESS THAN 3000 P.S.I. AT 28 DAYS, AND SHALL BE REINFORCED WITH 6x6-10/10 WWP. PLACED AT CENTER OF CONCRETE FILL.

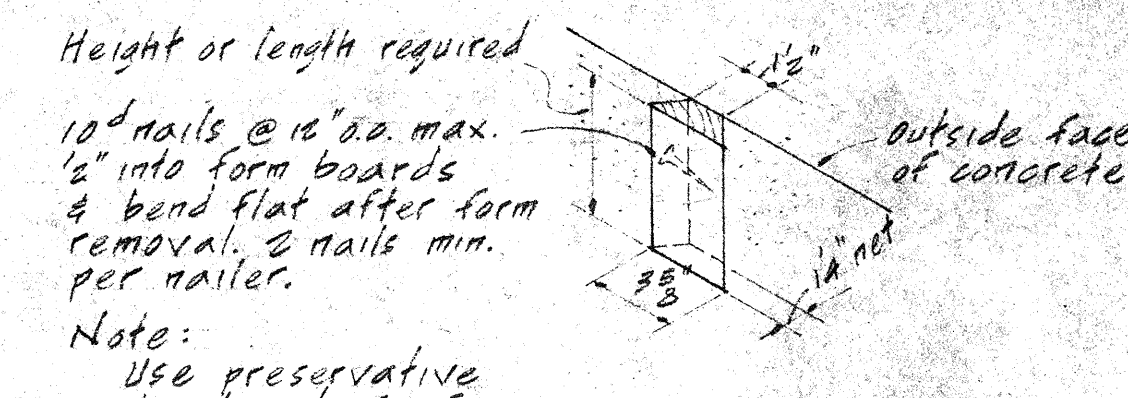
LIGHT-WEIGHT VERMICULITE FILL WHERE REQUIRED SHALL BE APPLIED IN STRICT ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE VERMICULITE INSTITUTE.



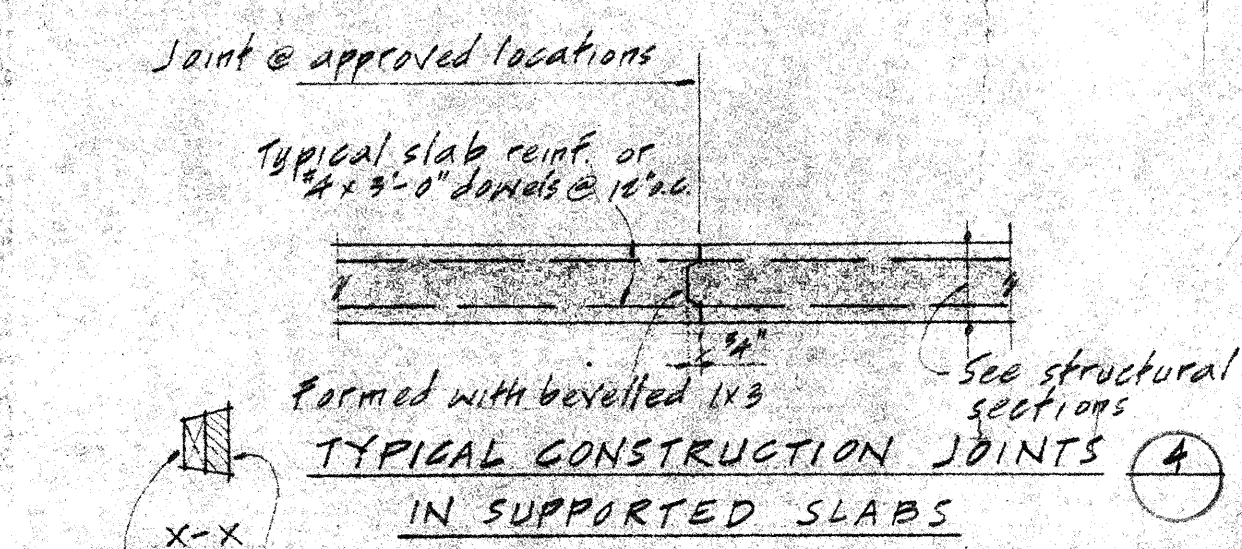
1 TYPICAL REINFORCEMENT AT WALL AND FOOTING CORNERS



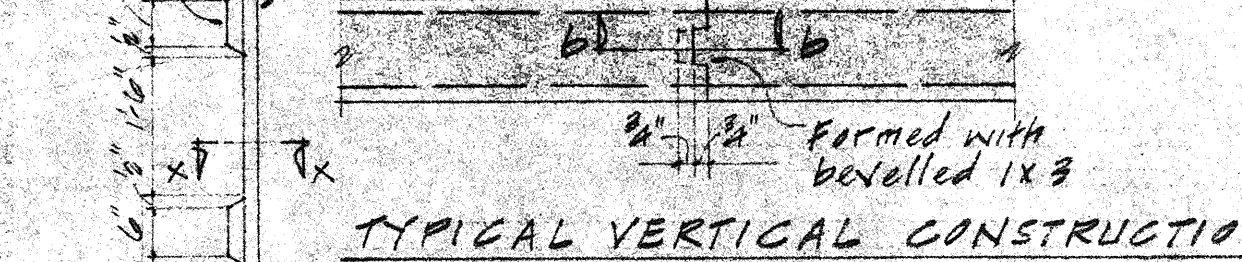
2 TYPICAL REINFORCEMENT AT WALL & FOOTING CORNERS



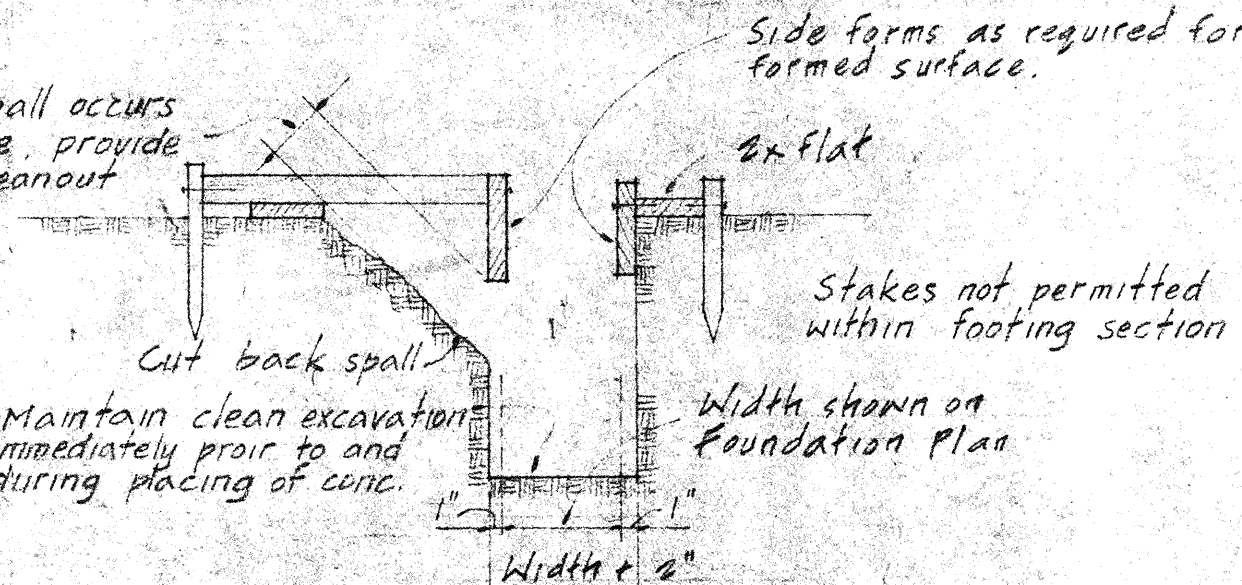
3 BUILT-IN NAILER IN CONCRETE



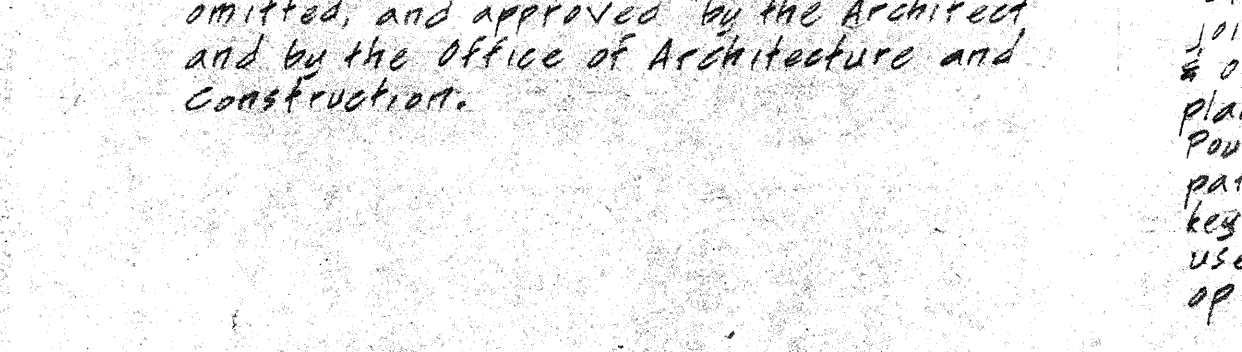
4 TYPICAL CONSTRUCTION JOINTS IN SUPPORTED SLABS



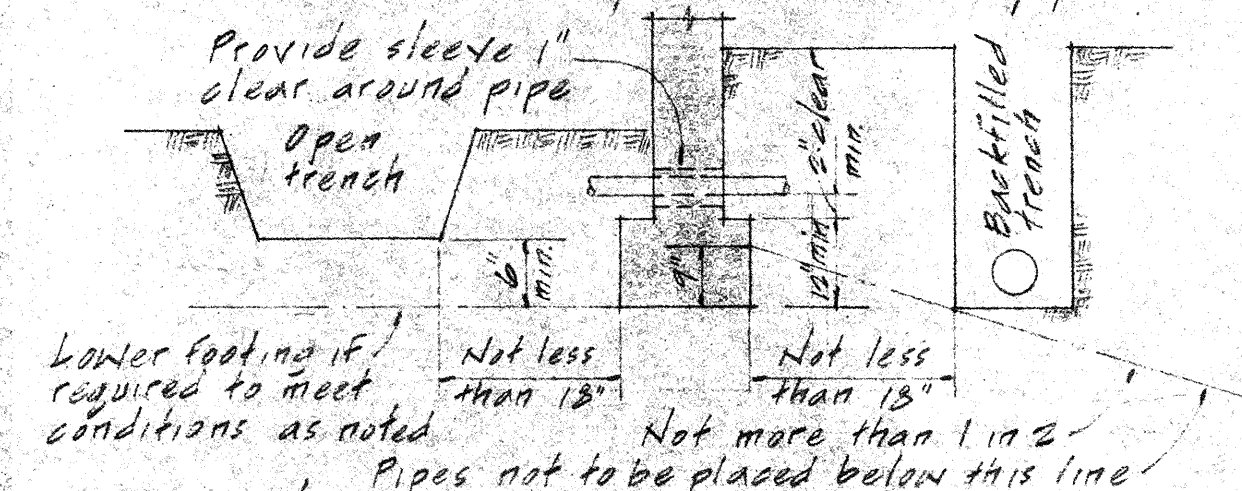
5 TYPICAL VERTICAL CONSTRUCTION JOINTS IN WALLS



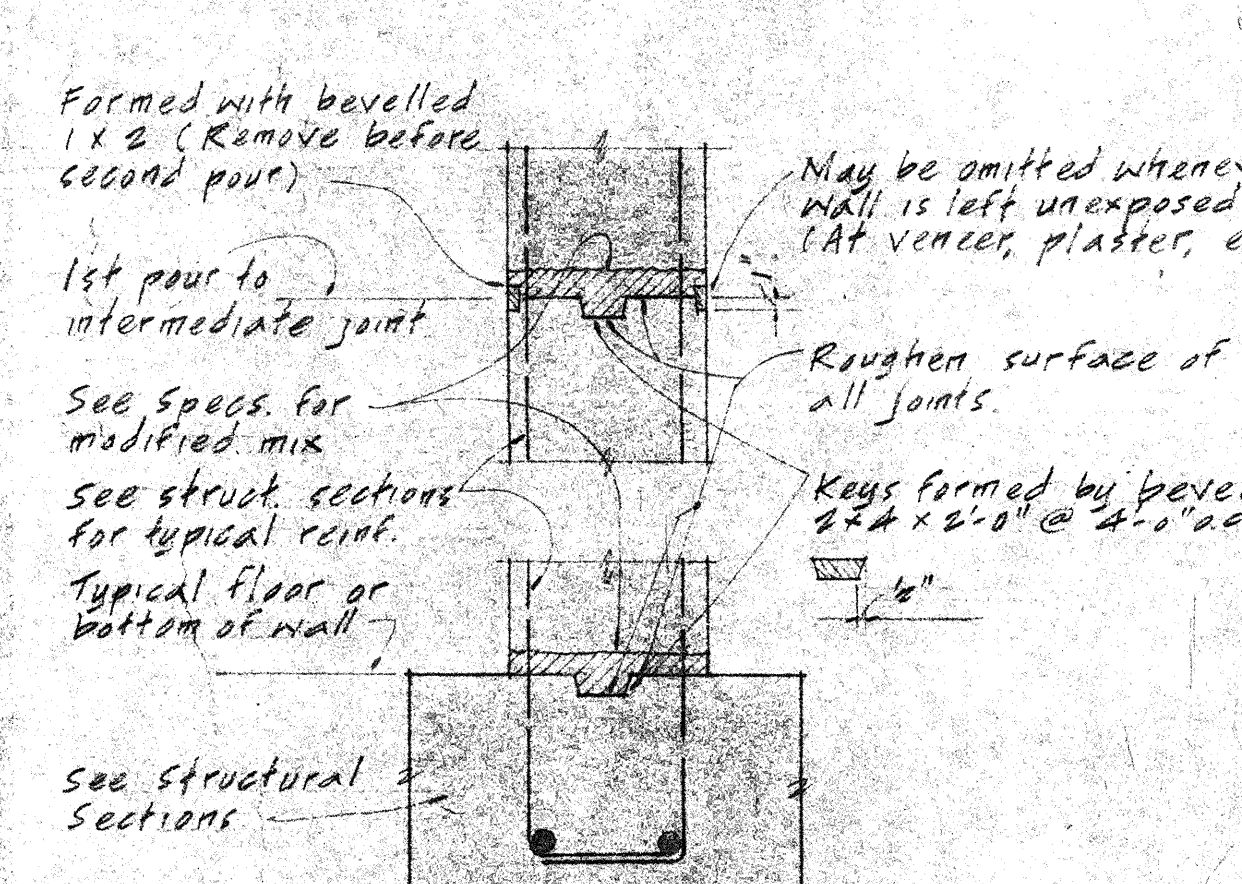
6 TRENCHED FOOTING DETAIL



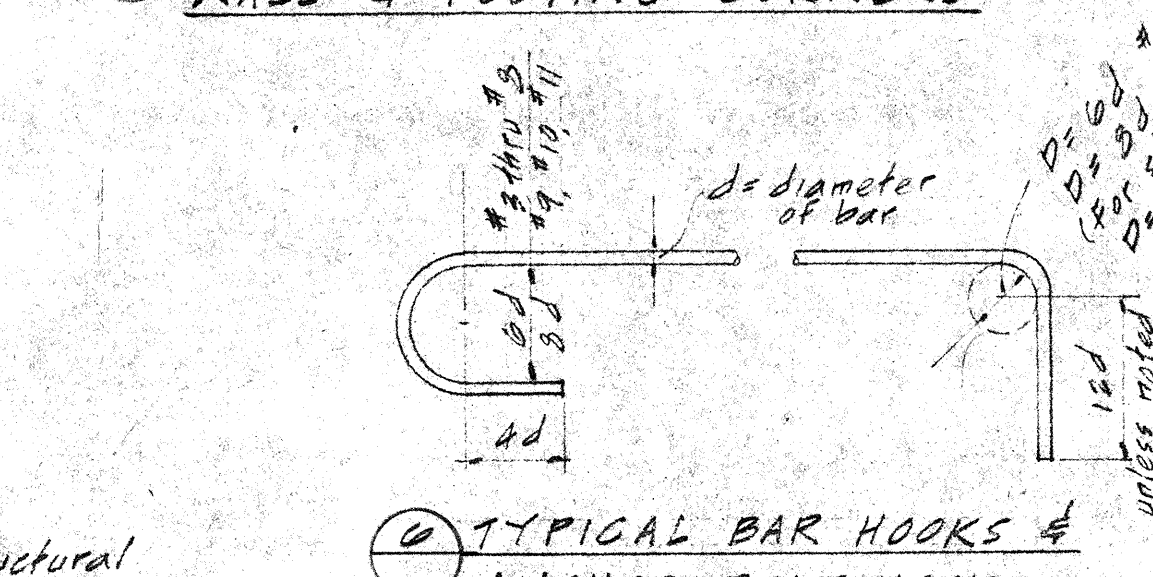
7 CONTROL JOINT #2 (CJ#2) SLAB ON GRADE



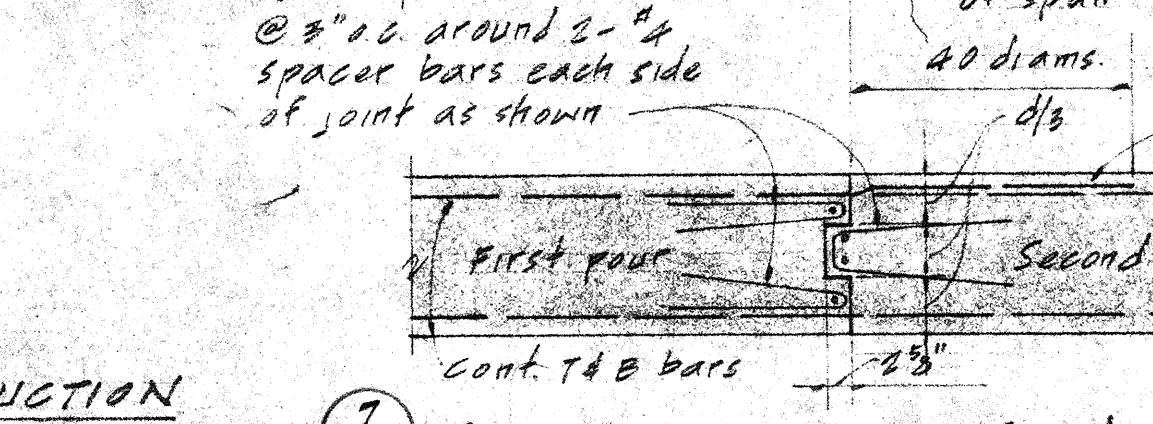
8 RELATION OF PIPES & TRENCHES TO FOOTINGS



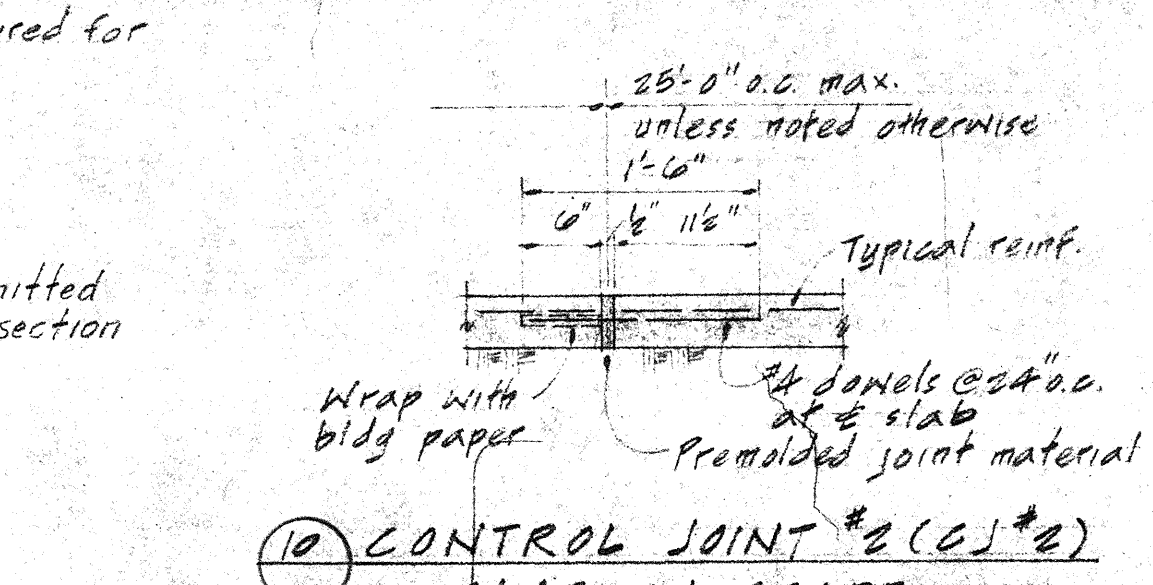
9 TYPICAL STEPPED FOOTINGS



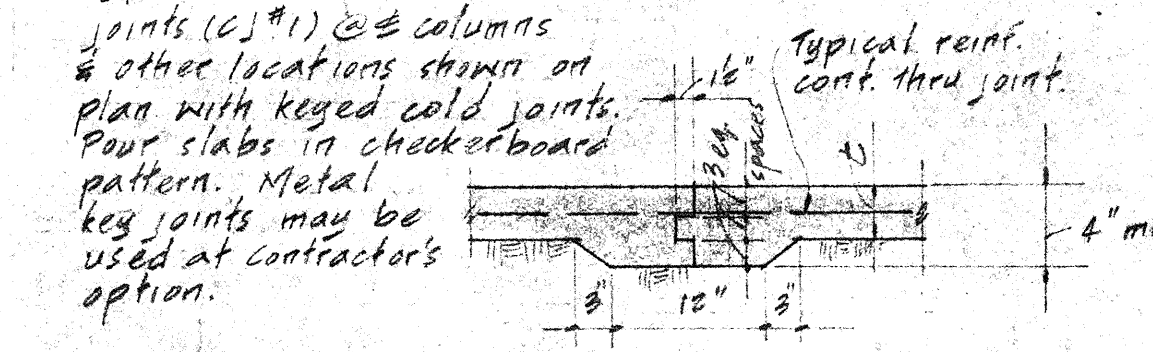
10 TYPICAL BAR HOOKS & ANCHOR BOLT HOOKS



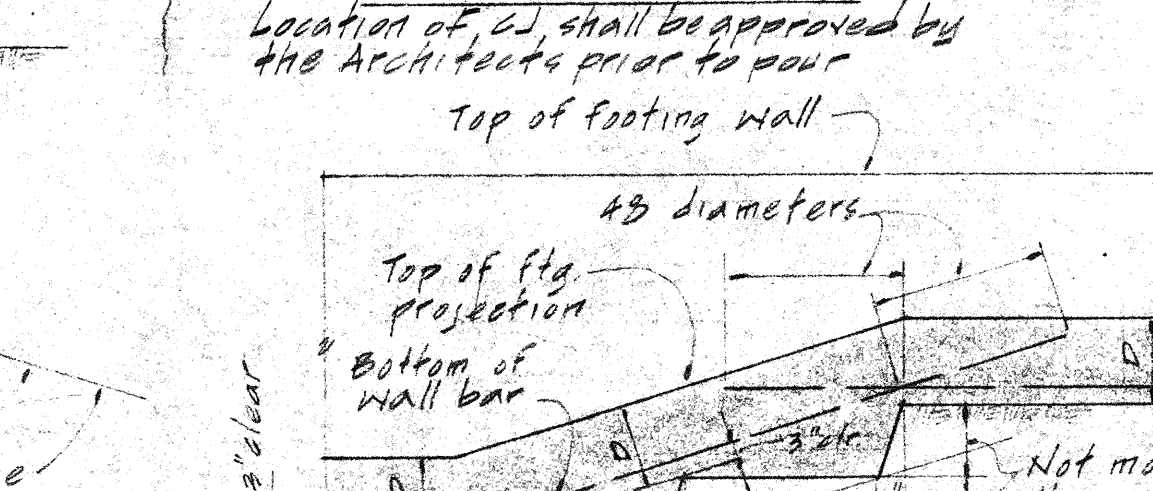
11 TYPICAL CONSTRUCTION JOINT FOR BEAMS AT APPROVED LOCATIONS



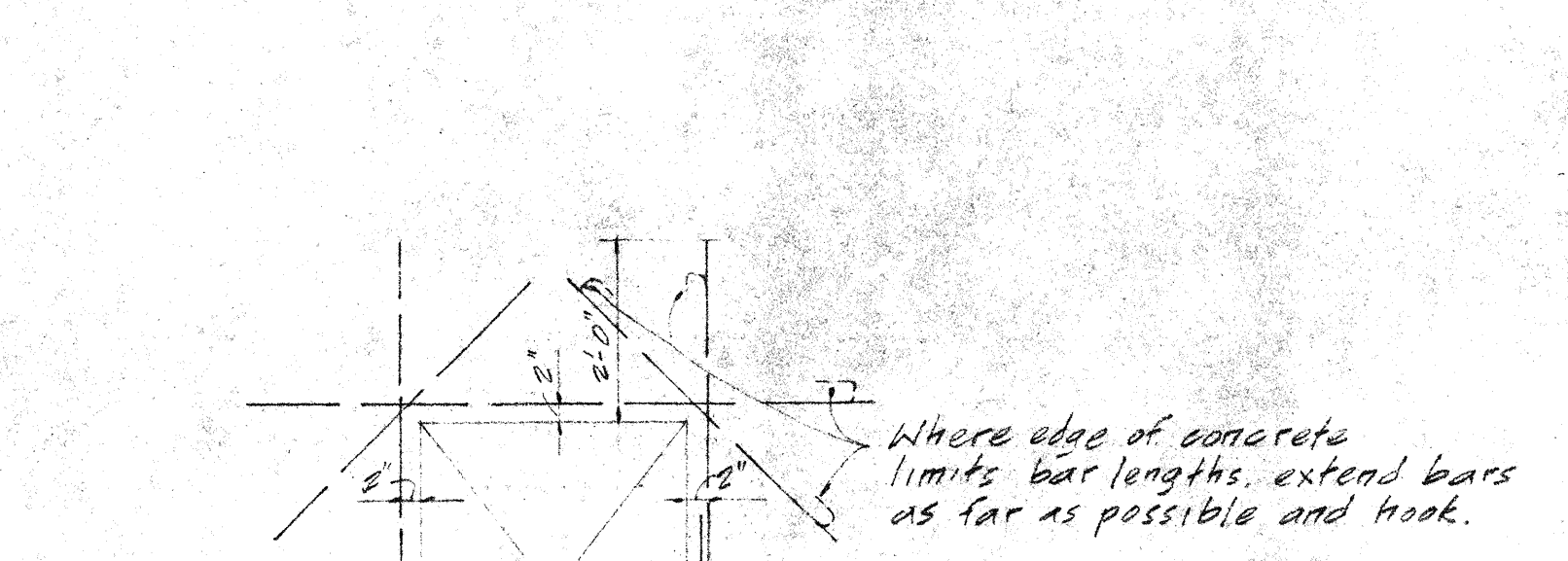
12 CONTROL JOINT #1 (CJ#1) SLAB ON GRADE



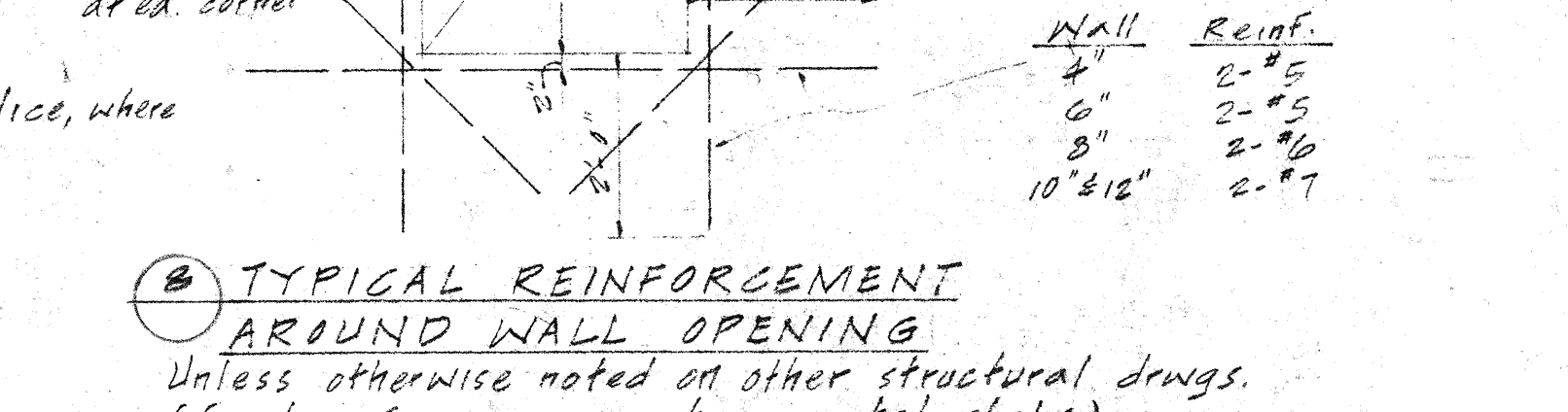
13 TYPICAL DOOR OPENING



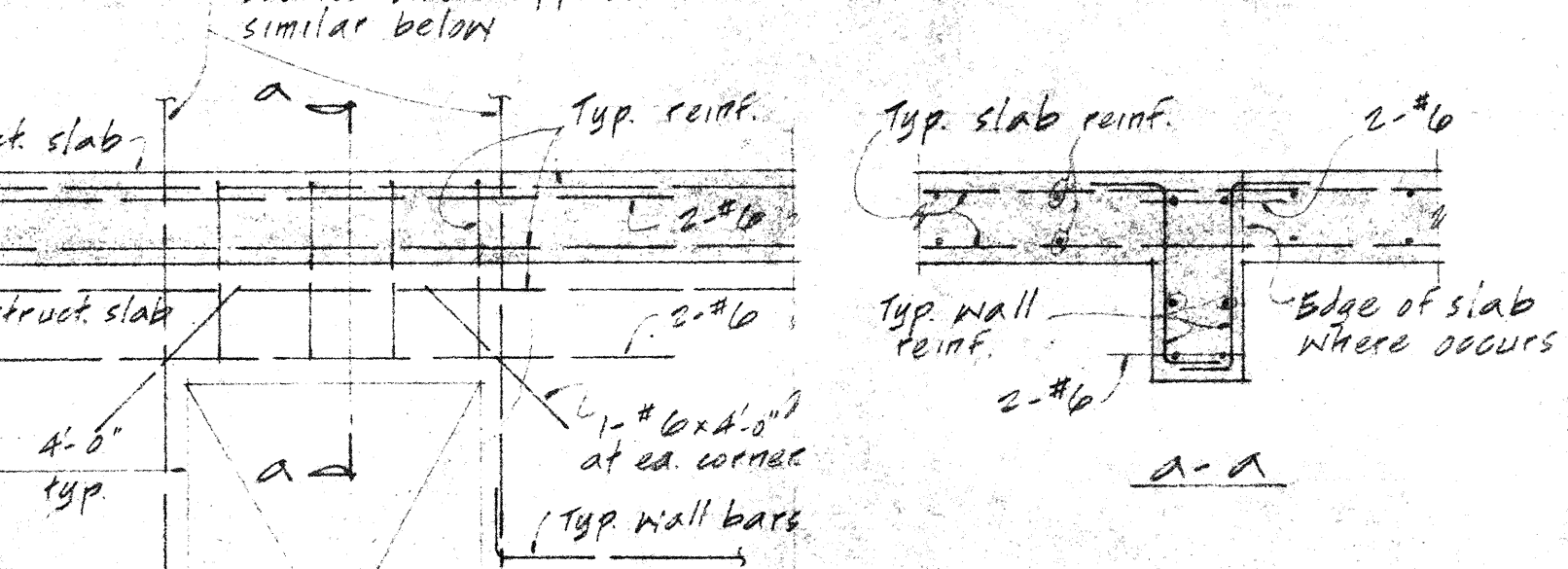
14 FURRING AT HOOD ENCLOSURE



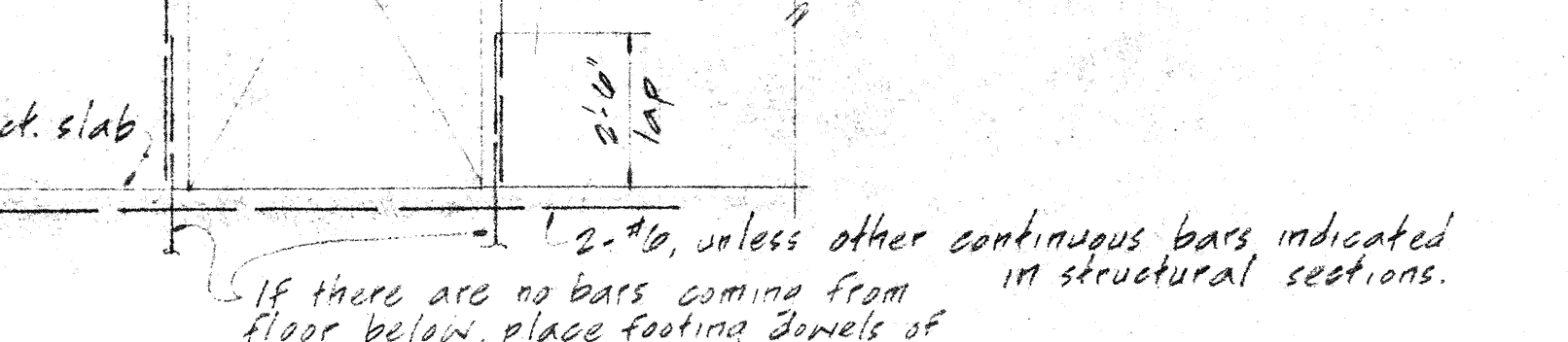
15 TYPICAL REINFORCEMENT AROUND WALL OPENING



16 CONTROL JOINT #1 (CJ#1) SLAB ON GRADE



17 TYPICAL DOOR OPENING



18 FURRING AT HOOD ENCLOSURE

ARCHITECT

STRUCTURAL ENGINEER

CONSULTING ENGINEER

LEONARDO & ASSOCIATES, INC.

1350 SHATTUCK BLVD.

BERKELEY, CALIF. 94704

APPROVED DEC 12 1973

36531

GENERAL NOTES AND TYPICAL DETAILS

NATURAL SCIENCE BUILDING ADDITION

CONTRA COSTA COLLEGE

SAN PABLO, CALIFORNIA

SHEET

OF

DATE

12-12-73



# CARPENTRY NOTES

SILLS ON CONCRETE SHALL BE FOUNDATION GRADE REDWOOD 3" THICK AT STRUCTURAL PLYWOOD SHEAR WALLS AND 2" MINIMUM THICK ELSEWHERE. THEY SHALL BE ANCHORED WITH 5/8" x 14" BOLTS UNLESS OTHERWISE NOTED (HOLES MAY BE 1/16" OVERSIZE) WITH A BOLT WITHIN 9" OF EACH END OF EACH SILL AND SPACED NOT OVER 48" O.C. BETWEEN. SEE STRUCTURAL DETAILS FOR SPECIFIC SPACING OF ANCHOR BOLTS WHICH MAY BE NOTED AS LESS THAN 48" O.C. THERE SHALL BE AT LEAST 2 BOLTS IN EACH SILL. WHERE NOTCHES FOR PIPES, ETC. EXCEED 1/3 THE WIDTH OF THE SILL, PLACE A BOLT WITHIN 9" OF EACH SIDE OF NOTCH. TISDOWN BOLTS SHALL NOT BE CONSIDERED AS SILL BOLTS. SILL SHALL BE BORED IN 1:2 ROSTER 3/4" THICK.

ALL OTHER MEMBERS NOT OTHERWISE NOTED SHALL BE DOUGLAS FIR MANUFACTURED AND GRADED IN ACCORDANCE WITH THE WEST COAST LUMBER INSPECTION BUREAU, "STANDARD GRADING AND DRESSING RULES, NO. 10, SEPT. 1, 1970 ~~REVISED JAN. 1968~~, OR EQUIVALENT STRESS GRADES OF WESTERN WOOD PRODUCTS ASSOCIATION FOR STRUCTURAL DOUGLAS FIR.

BLOCKING AND BRIDGING - PROVIDE AS FOLLOWS:

- 2" SOLID BLOCKING BETWEEN JOISTS AND RAFTERS OVER SUPPORT.
- 2" x 3" (MIN) CROSS BRIDGING BETWEEN JOISTS AND RAFTERS NOT OVER 8'-0" O.C. NOR MORE THAN 8'-0" FROM SUPPORT.
- OWIE CROSS BRIDGING BETWEEN CEILING JOISTS AND RAFTERS 2" x 8" AND SMALLER.
- CONTINUOUS 2" HERRINGBONE BRIDGING, SLOPE 3 IN 12, AT MID-HEIGHT OF STUDS OR SO SPACED THAT UNBRAIDED LENGTH OF STUDS SHALL NOT EXCEED 8'-0" EXCEPT WHERE WALL FINISH OR PLYWOOD SHEATHING AT SHEAR WALLS CALLS FOR SOLID HORIZONTAL BLOCKING.

WHERE JOISTS SEAN BETWEEN CONCRETE OR MASONRY WALLS, STEEL PLATE ANCHOR CONNECTORS SHALL BE PROVIDED AT EACH END OF THE SAME JOIST, SUCH CONNECTED JOISTS SPACED NOT OVER 48" ON CENTER.

WHERE A JOIST OR STUD IS PLACED AGAINST CONCRETE OR MASONRY WALL, BOLT TO WALL WITH 3/4" x 8" A.B. AT NOT OVER 48" O.C. DOUBLE TOP PLATES OF EXTERIOR WALLS SHALL NOT BE CUT TO LAP THE TOP PLATES OF INTERSECTING WALLS, EXCEPT AT EXTERIOR WALL CORNERS OR AS OTHERWISE NOTED ON DRAWING.

PIPES EXCEEDING ONE-THIRD OF THE PLATE WIDTH SHALL NOT BE PLACED IN PARTITIONS USED AS BEARING OR SHEAR WALLS, UNLESS COMPLETELY PURRED CLEAR OF THE STUDS. PIPE SHALL PASS THRU THE CENTER OF THE PLATES USING A NEATLY BORED HOLE. NO NOTCHING WILL BE ALLOWED. LAGSCREWS SHALL BE SCREWED (NOT DRIVEN) INTO PLATE. DRILL HOLE SAME DIAMETER AND DEPTH AS SHANK. THEN DRILL HOLE SAME DIAMETER AS AT BASE OF THREAD FOR THE TENSILE PORTION. USE PLATE WASHER AS REQUIRED FOR SAME BOLT SIZE.

BOLTS IN WOOD SHALL BE MACHINE BOLTS, UNLESS OTHERWISE NOTED. BOLT HOLES IN WOOD AND STEEL SHALL BE THE DIAMETER OF THE BOLT PLUS 1/16". PROVIDE SQUARE PLATE WASHER UNDER HEAD AND NUT WHERE BEARING IS AGAINST WOOD.

LENGTH OF THREAD SHALL BE SUCH THAT THREADS DO NOT WEAR AGAINST WOOD OR STEEL. ALL NUTS SHALL BE TIGHTENED WHEN PLACED AND RETIGHTENED AT COMPLETION OF THE JOB OR IMMEDIATELY BEFORE CLOSING WITH FINISH CONSTRUCTION.

BOIT DIAMETER SQUARE STEEL PLATE WASHERS BOIT DIAMETER SQUARE STEEL PLATE WASHERS

1/2" 2 x 2 x 1/4" 7/8" 3 1/2 x 3 1/2 x 3/8"

5/8" 2 1/2 x 2 1/2 x 1/4" 1" 3 1/2 x 3 1/2 x 3/8"

3/4" 3 x 3 x 5/16" 1-1/8" 4 x 4 x 7/16"

1-1/4" 4 1/2 x 4 1/2 x 1/2"

MALEABLE IRON WASHERS MAY BE USED IN LIEU OF SQUARE STEEL PLATE WASHERS.

3" STRAIGHT SHEATHING ON ROOF (IF CALLED FOR ON THIS PROJECT)

STRAIGHT SHEATHING SHALL BE T & G KILN DRIED OR AIR DRIED TO MOISTURE CONTENT NOT TO EXCEED 16%.

THERE SHALL BE AT LEAST ONE JOINT BOARD BETWEEN JOINTS ON THE SAME BEARING.

PLYWOOD SHEATHING

WHERE NOTED ON STRUCTURAL PLANS, ROOFS, EXTERIOR SHEAR WALLS, INTERIOR SHEAR WALL PARTITIONS, AND SUB-FLOORS SHALL BE SHEATHED WITH DOUGLAS FIR PLYWOOD, STRUCTURAL II, EXTERIOR TYPE.

ALL PLYWOOD SHEATHING USED STRUCTURALLY SHALL EXTEND CONTINUOUSLY BEHIND ALL FINISH. WHERE IT IS TO BE PLASTERED, IT SHALL BE PROTECTED BY AN UNBROKEN LAYER OF MOISTURE-TIGHT PAPER UNDER LATHING.

AT BRICK VENEER WALLS, PLYWOOD SHEATHING SHALL BE FACED WITH BUILDING PAPER IN ACCORDANCE WITH SECTION 1001 (4), TITLE 21.

IN GENERAL, PLYWOOD SHEETS SHALL BE 4'-0" x 8'-0" AT WALLS, AND AT ROOFS. THEY MAY BE LAID EITHER HORIZONTALLY OR VERTICALLY.

AT WALLS, ROOF SHEETS SHALL BE LAID WITH FACE PLIES ACROSS JOISTS OR ROOF FRAMING MEMBERS AND WITH END JOINTS STAGGERED 4'-0". ALL PLYWOOD JOINTS SHALL BE ACCURATELY CENTERED ON SUPPORTING ELEMENTS, INCLUDING BLOCKING. BLOCKING BETWEEN STUDS SHALL BE 3 x 3 STUD DEPTH. BLOCKING BETWEEN JOISTS FOR PLYWOOD EDGE NAILING SHALL BE 2 x 3 MINIMUM PLAT BLOCKING, EXCEPT WHERE DETAILLED OTHERWISE.

ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE NAILS TEND TO SPLIT THE WOOD, NAIL HOLES SHALL BE PRE-DRILLED.

SCHEDULE OF MINIMUM PERMISSIBLE CONNECTION

DETAILS STUDS TO BEARING 2x6 AND SMALLER 2-104 TONNAILS EA SIDE (3-108 TONNAILS EA SIDE WHEN HEIGHT OF 2x6 x 16 EXCEEDS 13'-4")

2x8 AND LARGER 3-104 TONNAILS EA SIDE (3-164 TN EA SIDE TO END SILL WHEN 2x8 x 16 EXCEEDS 20'-0")

3x4 AND LARGER 2-104 TONNAILS EA FACE

SOLE PLATES (ON SHEATHING) PERPENDICULAR TO JOISTS 2-304 EACH JOIST

PARALLEL TO JOISTS 304 @ 8" O.C. STAGGERED

DOUBLE 2" TOP PLATES (USE 304 FOR 3" PLATES) LOWER PLATE TO STUD 2-204 FOR 2x6 STUDS OR SMALLER; 3-204 FOR 2x8 STUDS; 2-204 FOR 3x4 STUDS

UPPER TO LOWER STAGGERED 164 @ 12" O.C. (MIN. LAP 4'-0" WITH 16-164 EA LAP) SEE PLANS FOR SPECIAL CONDITIONS.

LAP AT INTERSECTIONS 3-164

JOISTS OR RAFTERS TO BEARING 2-104 TONNAILS EA SIDE

TO SIDE OR EDGE OF STUD 4-164 FIR 8" DEPTH JOIST OR LESS (AND 1-164 FOR EA ADDITIONAL 4" IN DEPTH OF JOIST)

TO PARALLEL MEMBERS 164 @ 12" O.C. (PLATES, ETC.)

AT LAPS (12" MINIMUM) 4-164

BLOCKING TO JOISTS OR RAFTERS 2-104 TONNAILS EA SIDE EA END

TO BEARINGS 2-104 TONNAILS EA SIDE

HERRINGBONE BRIDGING TO STUDS 2-104

CROSSBRIDGING TO JOISTS OR RAFTERS 2-84

MULTIPLE STUDS EACH LAYER 164 @ 8" O.C.

BUILT-UP BEAMS (MULTIPLE JOIST) EACH LAYER 164 @ 8" O.C. FOR BEAMS LESS THAN 10" IN DEPTH ONLY;

1" @ 8" O.C. 24" O.C. STAGGERED FOR BEAMS 10" OR GREATER IN DEPTH.

DOUBLE JOIST UNDER PARTITION WHERE NOT BLOCKED APART 164 @ 8" O.C.

WHERE BLOCKED APART 3-164 EA BLOCK EACH SIDE (BLOCKS 2 x 24" O.C.)

PLYWOOD SHEATHING PW NAILING LOCATION

AT ALL EDGES OF SHEET 84 @ 4" O.C.

AT ALL OTHER CONTACTS, UNLESS OTHERWISE NOTED 84 @ 12" O.C.

AT DOUGLAS FIR SILLS 84 @ 12" O.C. EA END

CEILING STRIPPING 1 x NOMINAL 2-84 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT

1 x NET 2-84 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT

1 1/2 x NET 2-104 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT

2 x NOMINAL 2-164 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT

CEILING STRIPPING AT PLASTERED CEILINGS OR CEILINGS WITH GYPSUM BOARD SHALL HAVE IN ADDITION TO NAILING, 16 GA. GALVANIZED ANNEALED WIRE TIGHTLY SADDLE-LOOPED AROUND EACH STRIP AT 48" O.C. STAGGERED AND SECURELY FASTENED TO THE SIDE OF THE CEILING JOIST WITH 1-164 THRU NAIL OR 1-1 3/4" BARBED ROOFING NAIL AT EACH SIDE AND AT LEAST 2" ABOVE BOTTOM OF JOIST. WIRES MAY BE LOOPED AROUND THE FULL JOIST INSTEAD OF USING NAILS. AT THE CONTRACTOR'S OPTION THE WIRES MAY BE OMITTED IF THE STRIPPING IS NAILED WITH "STRONGHOLD" COMMON NAILS (SAME SIZE AND NUMBER AS COMMON WIRE NAILS LISTED ABOVE.)

3" MATERIAL (AND 2" MATERIAL ON FACE OF SHEATHING) SHALL BE NAILED WITH 304 NAILS INSTEAD OF THE 164 NOTED IN THE SCHEDULE.

NAILING NOT NOTED ABOVE OR ON DETAILS SHALL BE AT LEAST 2 NAILS AT ALL CONTACT POINTS, USING 84 THROUGH 1" MATERIAL AND 164 THROUGH 2" MATERIAL. WHERE CONTACTING MEMBERS ARE PARALLEL, USE 84 @ 12" O.C. THROUGH 1" MATERIAL AND 164 @ 12" O.C. THROUGH 2" MATERIAL.

ALL WOOD WINDOW AND DOOR FRAMES SHALL BE SECURED IN PLAC. BLOCK OUT SOLIDLY BETWEEN JAMES AND CRIPPLES OR MULLIONS, ONE NEAR TOP AND BOTTOM AND NOT OVER 24" O.C. BETWEEN. NAIL TO EACH BLOCK WITH 2-164 CASTING NAILS SET 90°.

Typical T & G joint

8" long square spike 220°

3" T & G

8" long square spike 220°

3" T & G

8" long square spike 220°

3" T & G

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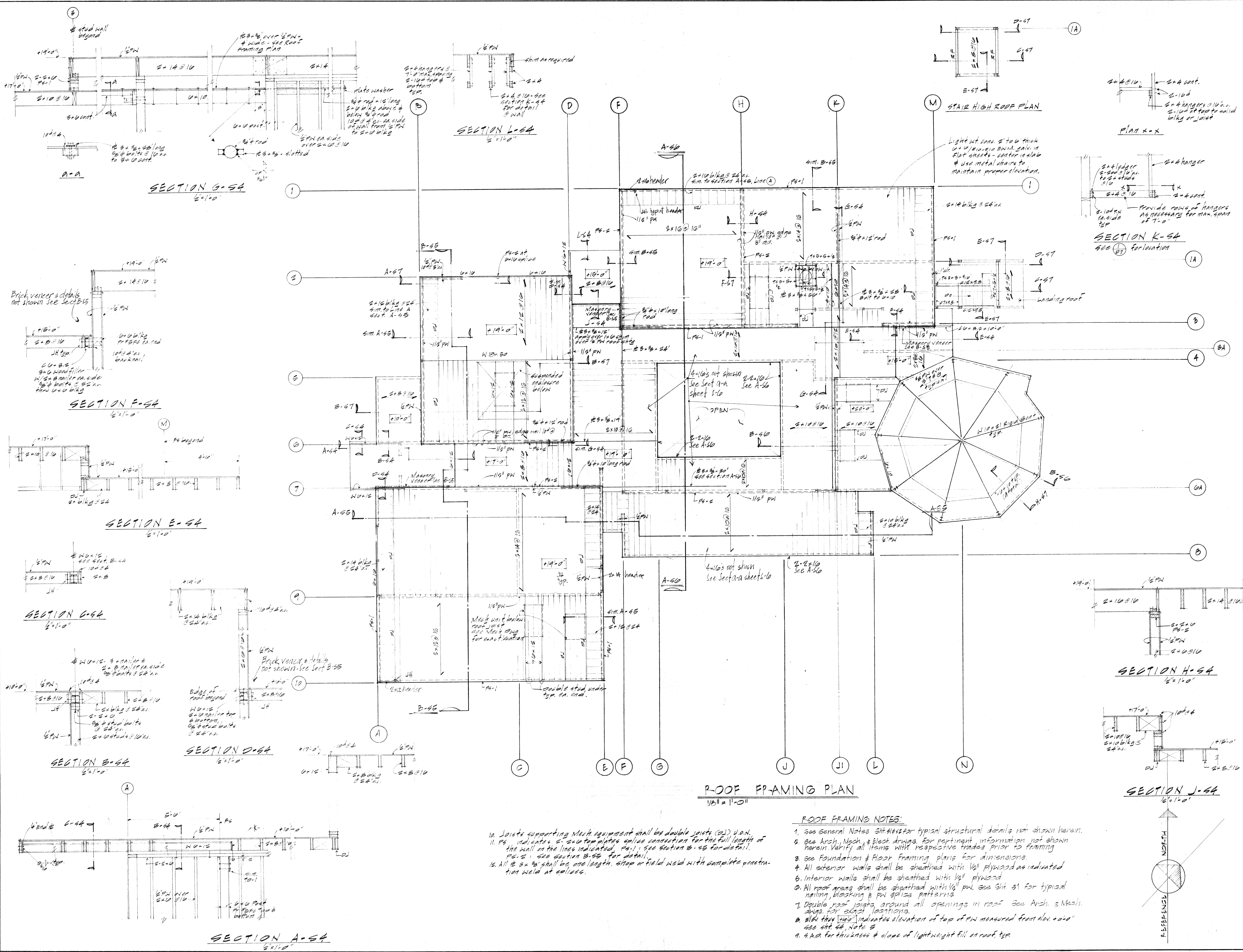
3" T & G

8" long square









- ROOF FRAMING NOTES:**
1. See General Notes for typical structural details not shown herein.
  2. See Arch. & Mech. & Elec. drawings for pertinent information not shown herein. Verify all items with respective trades prior to framing.
  3. See Foundation & Floor Framing plans for dimensions.
  4. All exterior walls shall be sheathed with 1/2" plywood as indicated.
  5. Interior walls shall be sheathed with 1/2" plywood.
  6. All roof areas shall be sheathed with 1/2" plywood. See Sht. 51 for typical nailing, blocking & purlin splice patterns.
  7. Double roof joists around all openings in roof. See Arch. & Mech. drawings for exact locations.
  8. All joists shall be double joists (2x) U.O.N.
  9. All joists shall be double joists (2x) U.O.N.
  10. All joists shall be double joists (2x) U.O.N.
  11. All joists shall be double joists (2x) U.O.N.
  12. All joists shall be double joists (2x) U.O.N.

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ROOF FRAMING PLAN

NATURAL SCIENCES BUILDING ADDITION

CONTRA COSTA COLLEGE

SAN PABLO, CALIFORNIA

SHEET

**S-4**

DATE

12-12-73

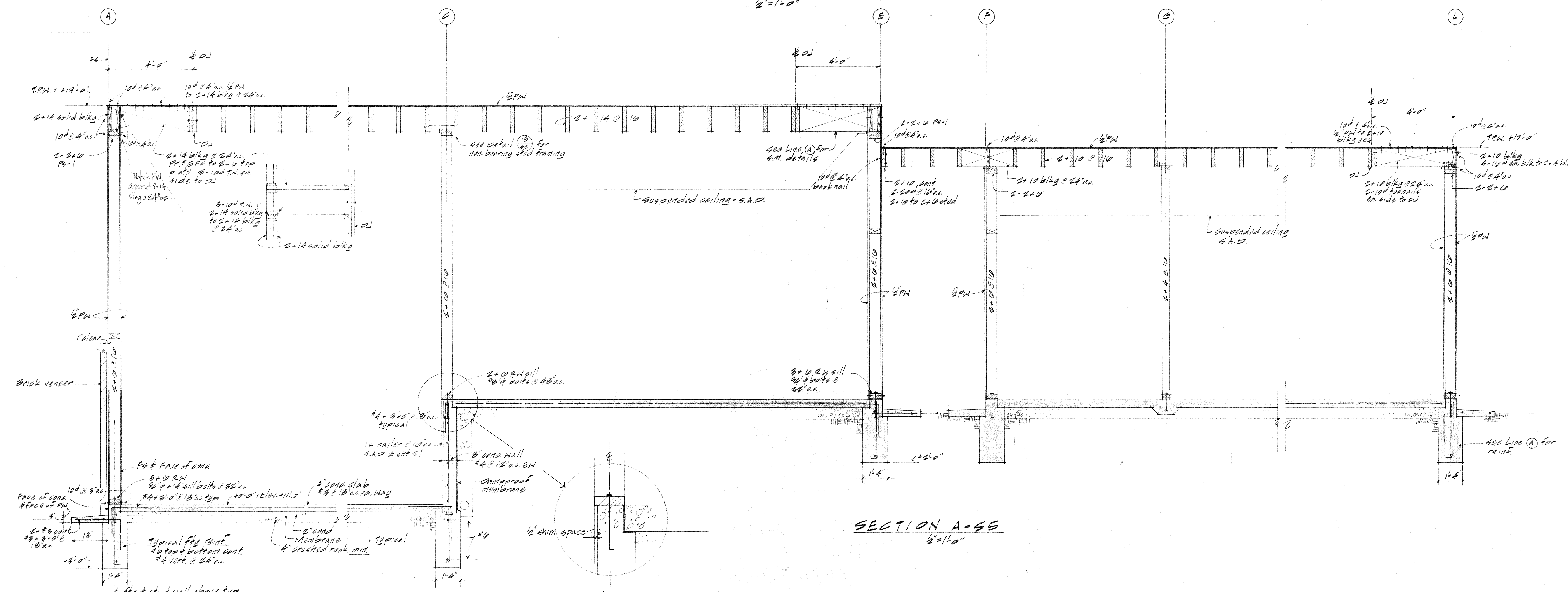
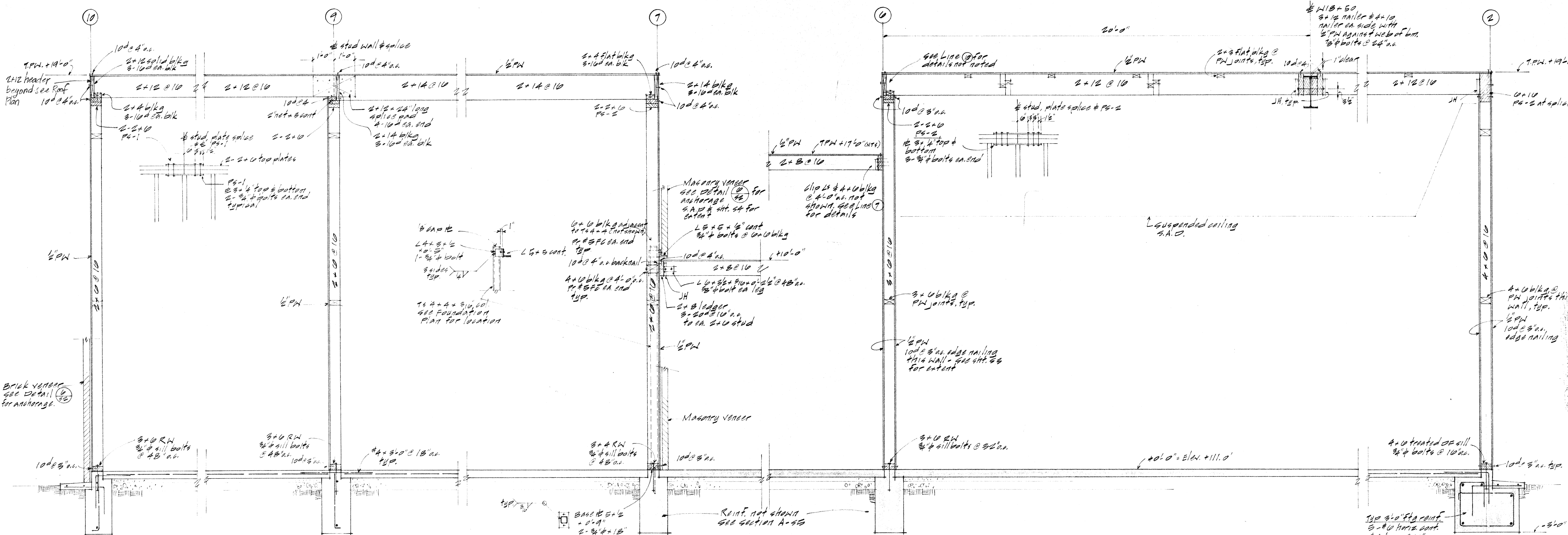
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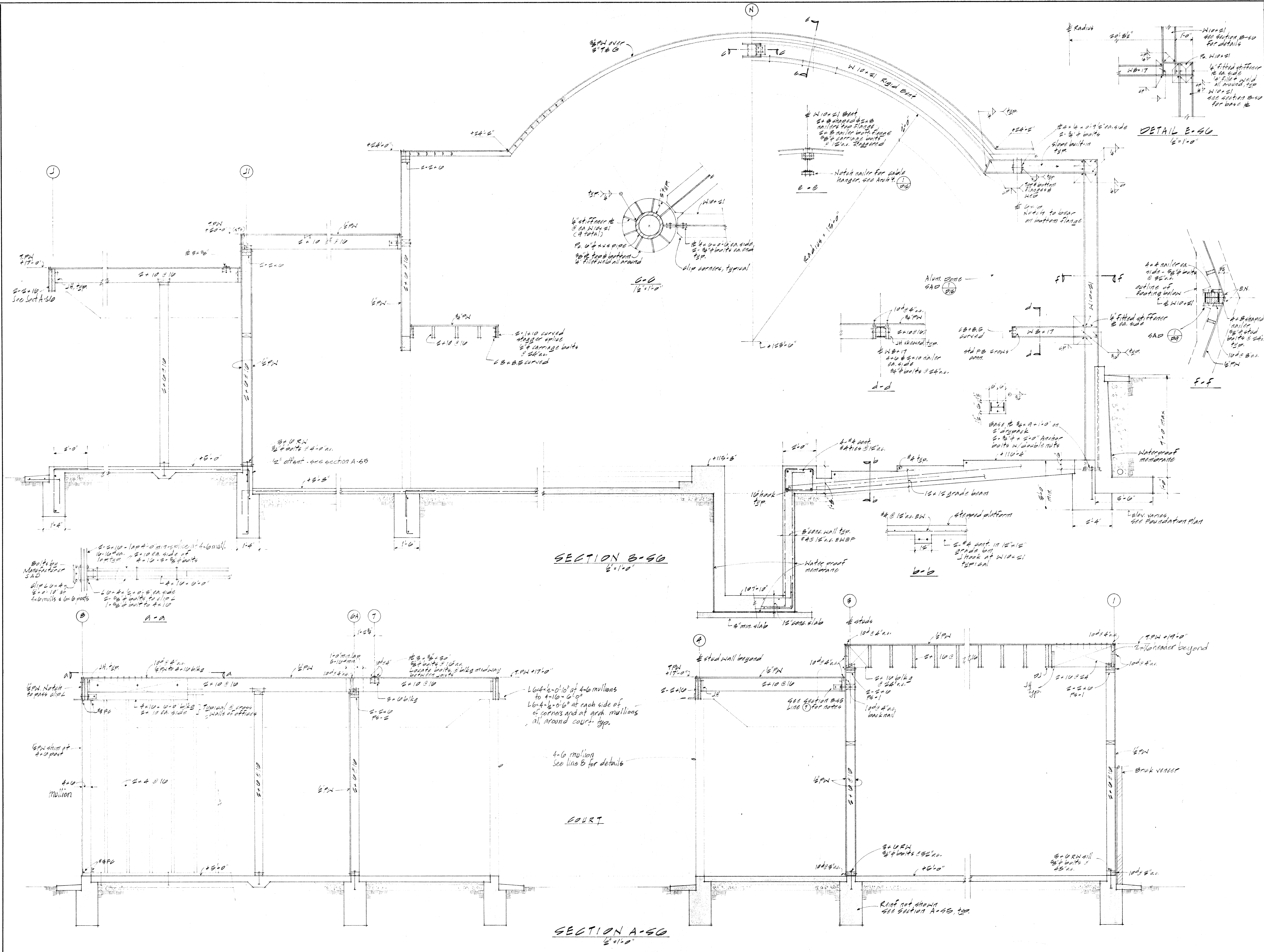
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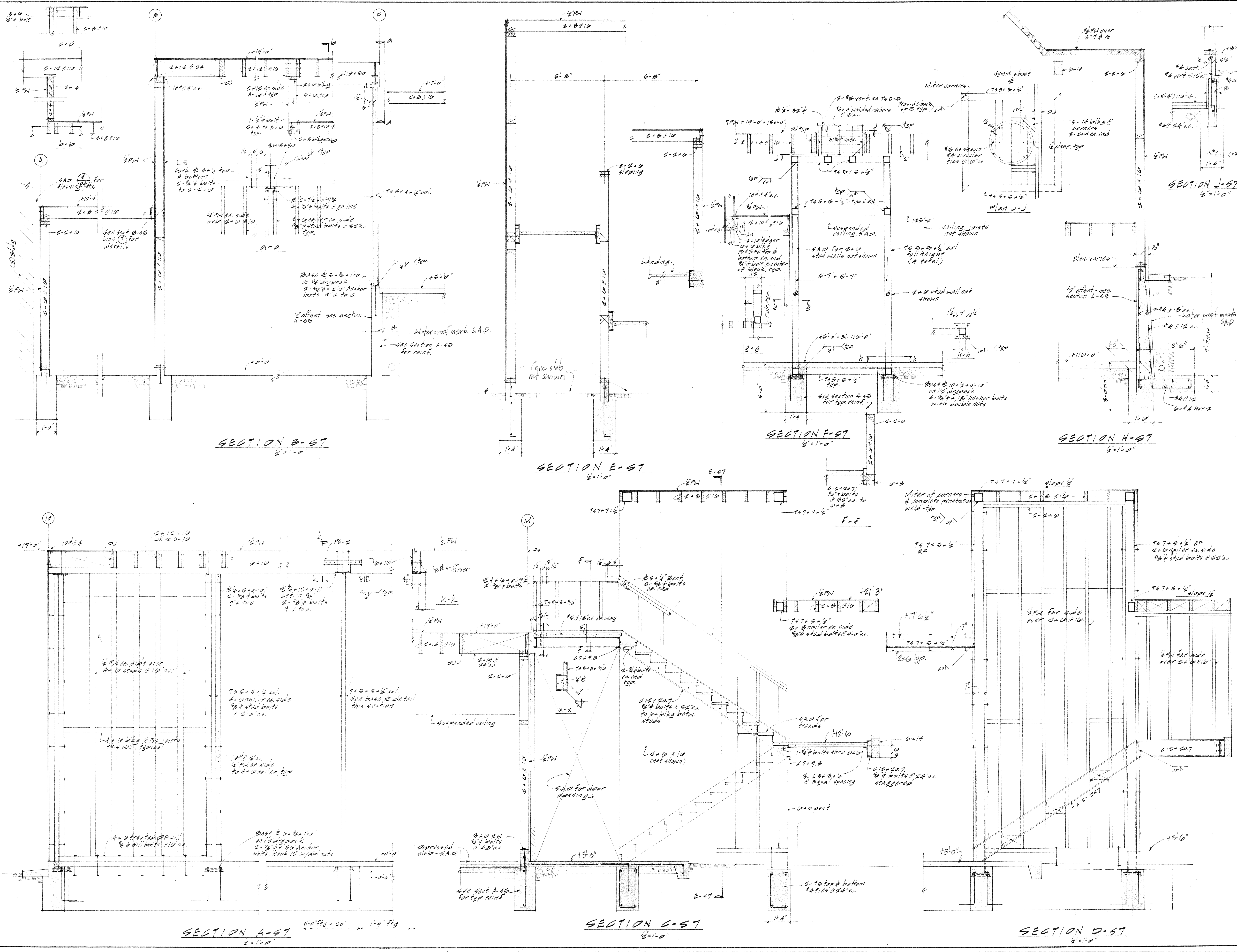
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