



Roof Replacement - Region 2 Ft. Pierre District Office
GFP Project No. FtPr26Roof
Addendum No. 01
Date: 3/31/2026

GENERAL

This Addendum forms a part of the Contract Documents and modifies the original Project Manual and Drawings dated March 16, 2026. Acknowledge receipt of this Addendum in the Bid Form.

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1. SPECIFICATIONS REVISION

- SECTION 06 16 00 – ROOF SHEATHING
- SECTION 06 16 00 – INSULATED NAILBASE SHEATHING
- SECTION 07 31 13 – ASPHALT SHINGLE ROOFING
- SECTION 07 62 00 – SHEET METAL FLASHING AND TRIM
- SECTION 07 31 13 – RIDGE VENTILATION

2. BID FORM MODIFICATION

- ADD ALTERNATE – UPGRADE TO UL 2218 CLASS 4 IMPACT-RESISTANT SHINGLES

3. EXISTING CONDITIONS

- RECORD DRAWINGS INFORMATION

4. ATTACHEMENTS

- 1991 AS BUILTS – ORIGINAL BUILDING
- 2011 AS-BUILTS – BUILDING ADDITION



1. SPECIFICATION REVISIONS

SECTION 06 16 00 – ROOF SHEATHING

ADD the following:

1. **Sheathing Replacement Allowance**

For bidding purposes, Contractors shall assume that **15% of the existing roof sheathing** will require replacement.

Final quantities will be adjusted based on Unit Prices provided in the Bid Form.

2. **Inspection Clarification**

All exposed roof decking shall be inspected in the presence of the Engineer or Owner's Representative prior to replacement.

SECTION 06 16 00 – INSULATED NAILBASE SHEATHING

ADD the following:

1. **Fastening and Installation Requirements**

Nailbase panels shall be installed in accordance with manufacturer requirements and applicable building codes, whichever is more stringent.

2. **Roofing Attachment to Nailbase**

Asphalt shingles shall be fastened to the **wood facer of the nailbase panels**, not directly to rafters or structural framing.

3. **Fastener Penetration**

Roofing nails shall fully penetrate the wood facer of the nailbase panel.

4. **Fastener Length**

Provide roofing nails of sufficient length to achieve full penetration of the nailbase facer (typically **1-1/4" to 1-1/2"**, verify per manufacturer requirements).

5. **System Compatibility**

Contractor shall verify compatibility between:

- asphalt shingles
- underlayment
- ice barrier
- insulated nailbase system



6. Submittal Requirement

Submit manufacturer documentation confirming that the proposed roofing system is approved for installation over insulated nailbase sheathing.

SECTION 07 31 13 – ASPHALT SHINGLE ROOFING

REVISE / ADD the following:

1. Roofing System Requirement

Roofing shall be installed as a **complete manufacturer-approved system**, including:

- shingles
- underlayment
- starter strip
- ridge cap
- accessories

System shall be eligible for manufacturer warranty.

2. Shingle Performance Requirements

Base Bid shingles shall meet:

- ASTM D3462
- ASTM D3161 Class F (110 mph minimum)
- UL Class A fire rating
- **UL 2218 Class 3 impact resistance minimum**

3. Alternate – Impact Resistant Shingles

Provide an additive alternate for **UL 2218 Class 4 impact-resistant shingles**.

4. Warranty Requirement

Shingles shall carry a **minimum limited lifetime warranty** with a non-prorated period of not less than **10 years**.

5. Underlayment Requirement

Synthetic roofing underlayment is **required**. ASTM D226 felt is **not permitted**.

6. Ice and Water Shield

Ice barrier shall extend a minimum of:

- **36 inches inside the exterior wall line**, or



- as required by code, whichever is more stringent

Provide at:

- eaves
- valleys
- penetrations
- skylights

7. Wind Installation Requirements

Install shingles in accordance with manufacturer requirements for high-wind regions, including enhanced fastening patterns where applicable.

SECTION 07 62 00 – SHEET METAL FLASHING AND TRIM

ADD the following:

1. Kick-Out Flashing

Provide kick-out flashing at all roof-to-wall terminations.

SECTION 07 31 13 – RIDGE VENTILATION

CLARIFICATION:

Ridge vent shall only be installed where:

- adequate intake ventilation exists, or
- intake ventilation is provided as part of the Work

If adequate intake ventilation is not present, notify the Engineer prior to installation.



SOUTH DAKOTA DEPARTMENT OF
GAME, FISH AND PARKS

523 EAST CAPITOL AVENUE | PIERRE, SD 57501

2. BID FORM MODIFICATION

ALTERNATE 02

- 1. Provide an Alternate for upgrade to UL 2218 Class 4 impact-resistant shingles.**





3. EXISTING CONDITIONS / RECORD DRAWINGS

EXISTING BUILDING INFORMATION

1. Record Drawings Provided

The following record drawings are attached to this Addendum for informational purposes:

- 1991 Record Drawings – Applicable to the North Roof
- 2011 Record Drawings – Applicable to the South Roof

2. Purpose of Drawings

These drawings are provided to assist Bidders in understanding the general configuration of the building, which may include:

- roof framing layout
- approximate rafter spacing
- original roof sheathing types
- general construction details

3. Accuracy Disclaimer

The provided record drawings:

- may be incomplete or partially illegible
- may not reflect modifications made since original construction or reroofing
- are not guaranteed to represent actual field conditions

4. Contractor Responsibility

Bidders and the Contractor shall:

- verify all existing conditions in the field for both roof areas
- recognize that the North Roof (1991 construction) and South Roof (2011 construction) may have differing materials, framing, and assembly methods
- not rely solely on record drawings for bidding or construction
- include all labor, materials, and coordination necessary to accommodate actual field conditions



5. Coordination with Specifications

Where discrepancies exist between:

- record drawings
- field conditions
- Contract Documents

The Contractor shall notify the Engineer prior to proceeding.

6. Site Investigation

Bidders are strongly encouraged to visit the site and perform their own observations of existing conditions for both roof areas prior to submitting a bid.

7. No Change to Contract Requirements

The provision of these record drawings does not modify the scope of Work. All requirements of the Contract Documents, including unit pricing for sheathing replacement, remain in effect.



SOUTH DAKOTA DEPARTMENT OF
GAME, FISH AND PARKS

523 EAST CAPITOL AVENUE | PIERRE, SD 57501

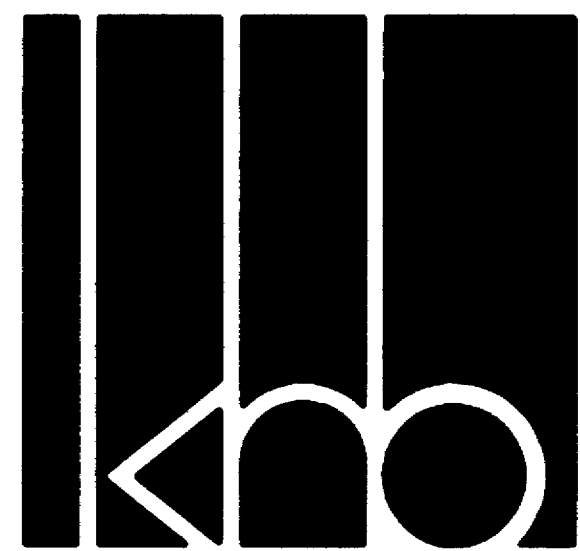
4. ATTACHMENTS



OAHE FISHERIES RESEARCH CENTER

REGION 2 FIELD OFFICE
DEPARTMENT of GAME, FISH and PARKS
FORT PIERRE, SOUTH DAKOTA OSE #GPE931001

OFFICE of the STATE ENGINEER
RAY McDORMAN - ACTING STATE ENGINEER



KOCH HAZARD BALTZER LTD.
ARCHITECTURE PLANNING INTERIORS
BETKER / STANGELAND, INC.
STRUCTURAL ENGINEERS
ROBY, QUINTAL & EVERSON
CONSULTING ENGINEERS - MECH. & ELEC.

UBC REVIEW

Mixed Occupancy - H-4/B-2
Occupancy - B-2 (4925 SF) office and warehouse without highly flammable materials.
Suboccupancy - H-4 (1200 SF) workshop (repair garage) not classified as B-1.
Occupancy Separation 1 Hour - area separation 2 Hour wall obey for occupancy separation (B label - 90 min. door) either 2 hour occupancy or 2 hour area separation is acceptable.
Use occupancy separation. See typical detail wht. AS.2 1503 (1998 I.C. Fire Resistance Directory).
Mixed occupancy ratio does not exceed (1) section 505 (c)

First	6125 SF
Basement	1322 SF
Totals	7447 SF

Construction Type - Vll allowable 8000 SF
Height - W1 1 story
Yards - 100% increase separation all sides
B-2 - 8000 x 2 = 16000 SF allowable each level
H-4 - 5100 x 2 = 10200 SF allowable each level
Shaft Enclosure - 1 hour
E - No general requirements for fire resistance
Basement - 1 hour separation from 1st story. Section 1703

Occupancy	B-2	4925/100 = 49.25
	H-4	1200/100 = 12.00
Total		61.25

Exits - General x 61.25 x .02 = 1.23 ft.
Stairs x 61.25 x .03 = 1.83 ft.
Exits - Sign at exit doors. See Section 3304 (c) exception 1. This door to remain unlocked during business hours.
Horizontal Exits - occupancy B-2 to H-4 Section 3308 Eliminate the question of 30' door and Section 3305 (E) or exiting through the H-4 occupancy.
H-4 occupancy require 2 exits. Section 3318 may swing opposite direction of travel with load less than 50.
Corridors - Section 3305 (a) Partitions 5'-9" high or less shall not be constructed to form corridors or enclosures - Section 3305 (a) 7. allow Partitions 8'-0" or less and area 3/4 of floor to ceiling height. Use B-2.

ABBREVIATIONS

A	ANGLE	CL	CLEAR	FR	FRAME	O	OVERHALL	SO	SOME
B	BENCH MARK	CMU	CONCRETE MASONRY UNIT	FT.	FOOT OR FEET	O.C.	ON CENTER	STD.	STANDARD
C	CENTER	COL	COLUMN	FT.	FOOTING	O.C.	OUTSIDE DIAMETER	STR.	STEEL
D	DOUBLE	CONC.	CONCRETE	FUR.	FURNISHING	O.F.	OUTSIDE FACE	SUP.	STRUCTURAL
E	EXISTING	CONC.	CONCRETE	CONSTR.	CONSTRUCTION	OP.	OPENING	SN.	SNAPFED
F	FLOOR	CONC.	CONCRETE	OPP.	OPPOSITE				
G	GENERAL CONTRACTOR	CONC.	CONCRETE						
H	HOLLOW CORE	CONC.	CONCRETE						
I	INSULATION	CONC.	CONCRETE						
J	JOIST	CONC.	CONCRETE						
K	KEY	CONC.	CONCRETE						
L	LAMINATED	CONC.	CONCRETE						
M	MASONRY CONTRACTOR	CONC.	CONCRETE						
N	NOT IN CONTRACT	CONC.	CONCRETE						
O	ON SCALE	CONC.	CONCRETE						
P	PAPER	CONC.	CONCRETE						
Q	QUARRY TILE	CONC.	CONCRETE						
R	RISER	CONC.	CONCRETE						
S	SOLID CORE	CONC.	CONCRETE						
T	TYPICAL	CONC.	CONCRETE						
U	UNLESS OTHERWISE NOTED	CONC.	CONCRETE						
V	VAPOR BARRIER	CONC.	CONCRETE						
W	WOOD	CONC.	CONCRETE						
X	EXTERIOR	CONC.	CONCRETE						
Y	YIELD	CONC.	CONCRETE						
Z	ZONING	CONC.	CONCRETE						

MATERIAL SYMBOLS

EARTH, ETC.	CONCRETE	WOOD	STONE	BRICK	GYPSON	INSULATION	MISC.	METAL
CONCRETE	WOOD	STONE	BRICK	GYPSON	INSULATION	MISC.	METAL	
WOOD	STONE	BRICK	GYPSON	INSULATION	MISC.	METAL		
STONE	BRICK	GYPSON	INSULATION	MISC.	METAL			
BRICK	GYPSON	INSULATION	MISC.	METAL				
GYPSON	INSULATION	MISC.	METAL					
INSULATION	MISC.	METAL						
MISC.	METAL							
METAL								

BLDG. SECTION NO.	SHEET NO.	SECTION NO.	DETAIL NO.
ELEVATION IDENTIFICATION	SCALE	ROOM NUMBER	DOOR NUMBER
WINDOW TYPE	EQUIP. ITEM NO. AND EQUIP. GROUP NO.	REVISION NUMBER	
NORTH ARROW	KEYNOTE		

SHEET INDEX

BUILDING SECTION PLAN REF.	WALL SECTION PLAN REF.	DETAIL PLAN REFERENCE	INT. ELEV. PLAN REF.	INT. ELEV. IDENTIFICATION	ROOM IDENTIFICATION	DOOR IDENTIFICATION	WINDOW IDENTIFICATION	EQUIPMENT IDENTIFICATION	REVISION PLAN REFERENCES	ELEVATION HEIGHTS	NORTH ARROW	KEYNOTE
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ARCHITECTURAL	MECHANICAL
C1 COVER SHEET	M1.E1 MOTOR SCHEDULES / SITE PLAN / LEGENDS
C2 TOPOGRAPHICAL MAP	M2 FLOOR PLANS - PLUMBING
C3 SITE DETAILS	M3 FLOOR PLANS - VENTILATION
A1.1 FLOOR PLANS	M4 FLOOR PLANS - HEATING
A1.2 DOOR SCHEDULE & DETAILS	M5 SECTIONS
A1.3 SPACE PLAN & TILE PATTERNS	M6 SECTIONS & RISERS
A1.4 CASEWORK ELEVATIONS	M7 SCHEDULES & DETAILS
A3.1 REFLECTED CEILING PLAN & DETAILS	ELECTRICAL
A5.1 EXTERIOR ELEVATIONS & WINDOW SCHEDULE & DETAILS	E2 FLOOR PLANS - LIGHTING & FIRE DETECTION
A5.2 BUILDING SECTION & DETAILS	E3 FLOOR PLANS - POWER
A5.3 BUILDING SECTION	E4 LIGHTING / FIRE PROTECTION & SCHEDULES
A5.4 BUILDING SECTION & DETAILS	

AS BUILTS 2/9/96

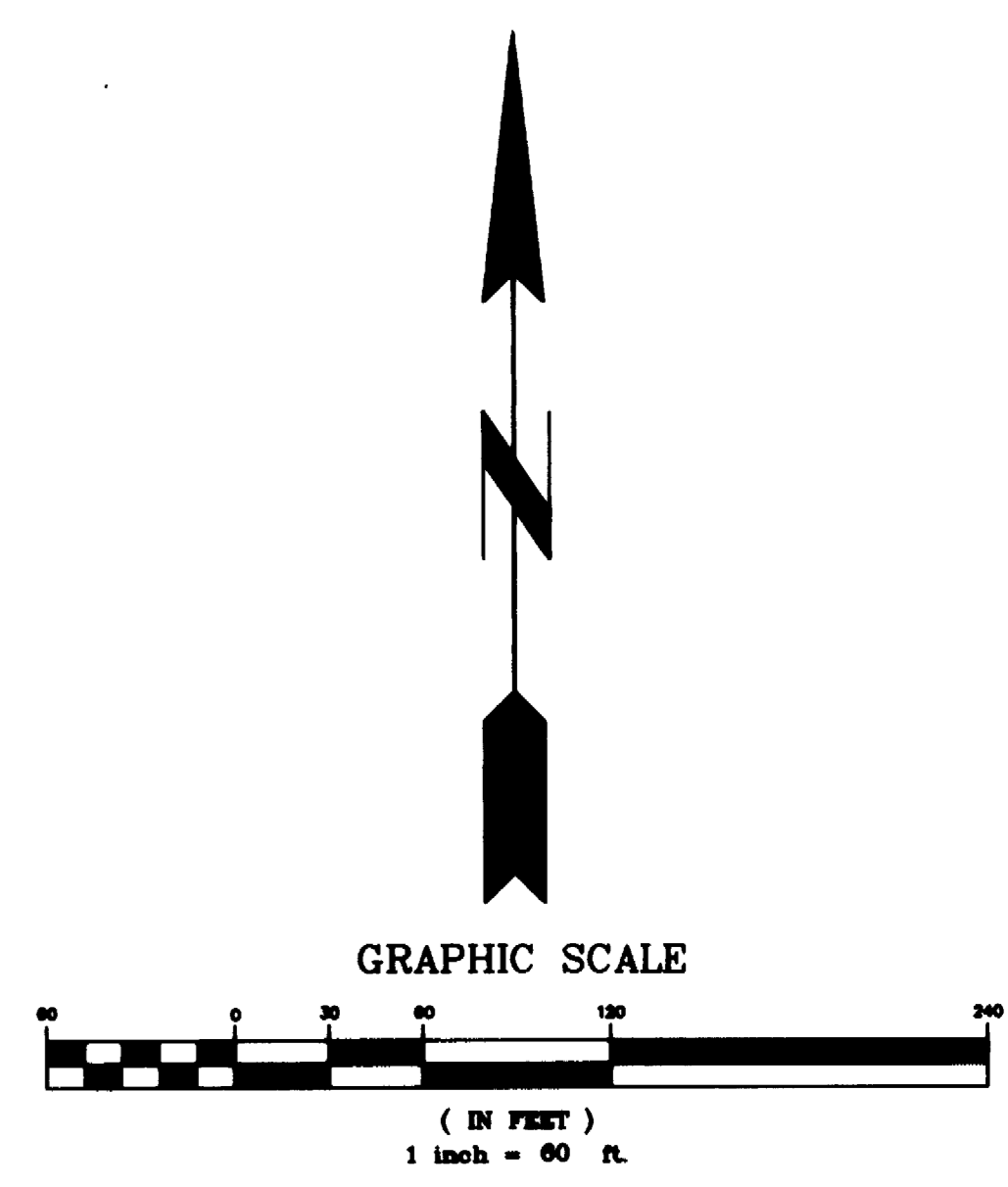
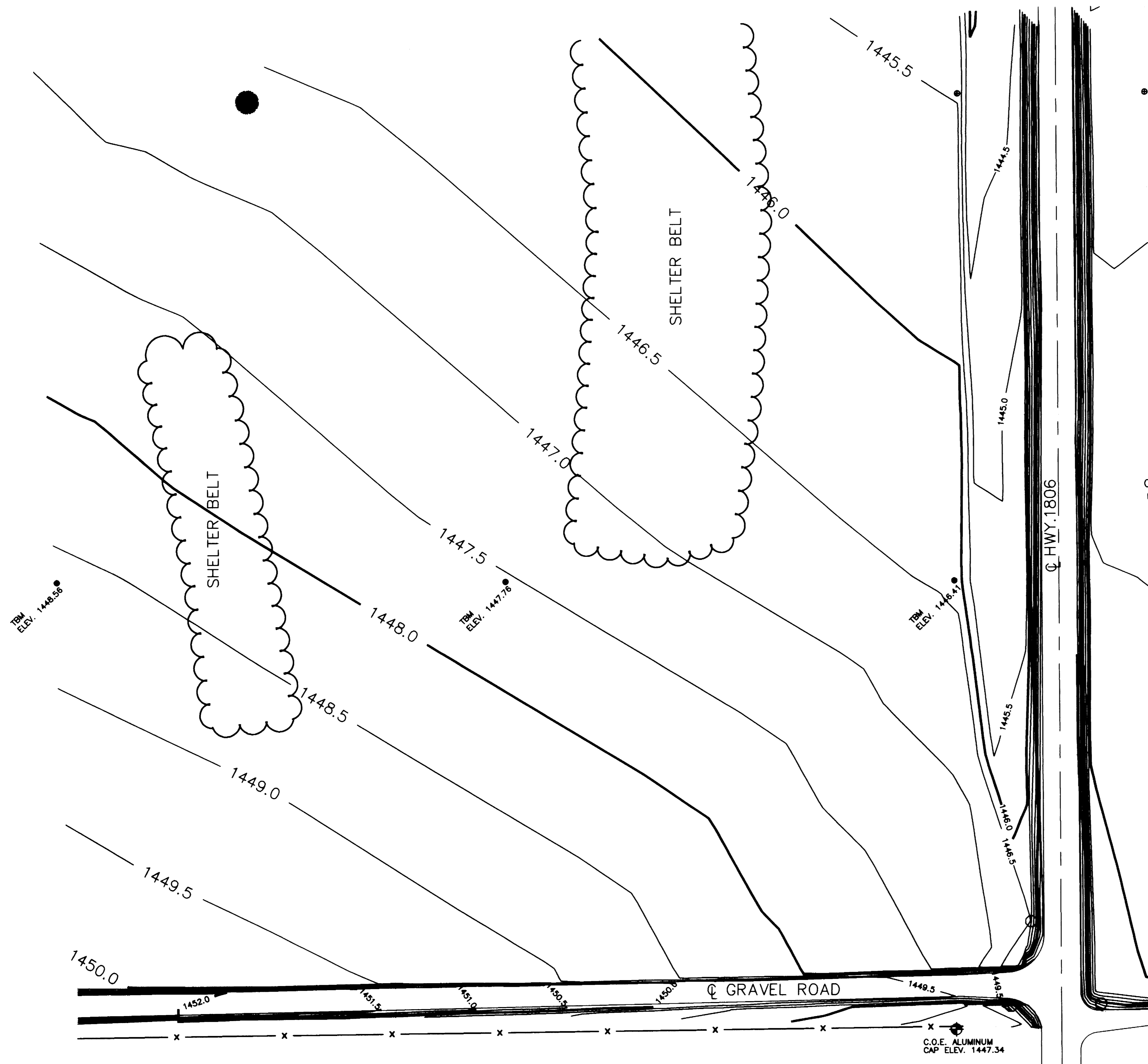
DRAWING KEYNOTE SYSTEM

A KEYNOTE SYSTEM IS USED ON THE DRAWINGS FOR MATERIALS REFERENCES AND NOTES. REFER TO THE KEYNOTE LEGEND ON THE DRAWING FOR THE INFORMATION WHICH RELATES TO EACH KEYNOTE ON THE RESPECTIVE DRAWING.

EACH KEYNOTE CONSISTS OF A 5 DIGIT NUMBER FOLLOWED BY A PREFIX AND A LETTER SUFFIX. THE 5 DIGIT NUMBER RELATES TO THE SPECIFICATION SECTION WHICH GENERALLY COVERS THE ITEM THAT IS REFERENCED, AND THE LETTER SUFFIX IDENTIFIES THE SPECIFIC REFERENCE NOTATION USED ON THE DRAWING. THE LETTER SUFFIX DOES NOT RELATE TO ANY CORRESPONDING REFERENCE LETTER IN THE SPECIFICATIONS.

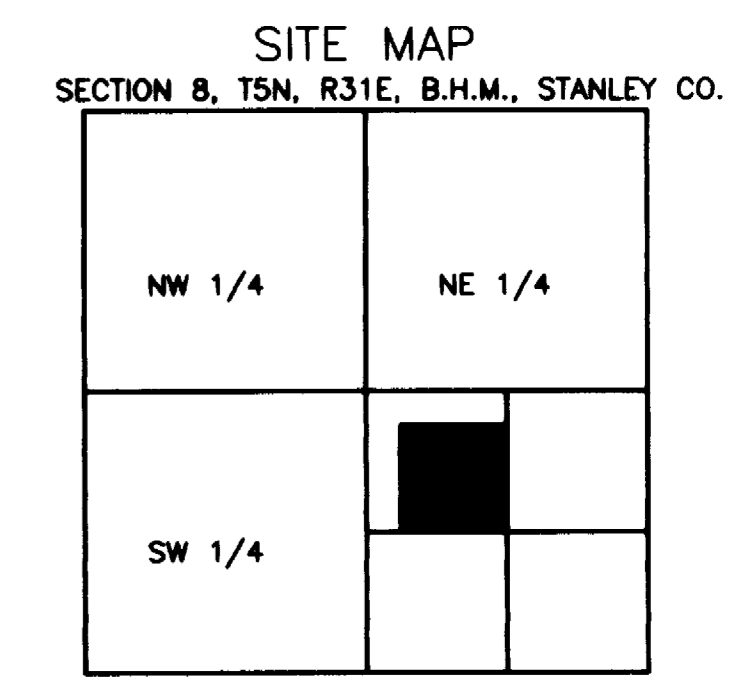
THE ORGANIZATION OF THE KEYNOTING SYSTEM ON THE DRAWINGS, WITH THE KEYNOTE REFERENCE NUMBERS RELATED TO THE SPECIFICATIONS SECTIONS NUMBERING SYSTEM, SHALL NOT CONTROL THE CONTRACTOR IN DIVIDING THE WORK AMONG SUBCONTRACTORS OR IN ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE.

USE OR REUSE BY THE OWNER OR OTHERS WITHOUT WRITTEN VERIFICATION BY THE CONSULTANT OR CARD NOTIFICATION FOR PURPOSES OTHER THAN THOSE INTENDED WILL BE AT THE CLIENT'S RISK AND FULL LEGAL RESPONSIBILITY.



- LEGEND
- DENOTES B.M. NEAR W/ALUMINUM CAP (CONTROL PNTS.)
 - DENOTES R.O.W. MARKER LOCATIONS
 - DENOTES SIGN LOCATIONS
 - ⊕ DENOTES C.O.E. CAP (BENCH MARK)
 - x- DENOTES FENCE LINE

NOTE:
Vertical Datum taken from U.S.C.G. Survey Bench Mark T331 1949 set in top of concrete post projecting 0.6 feet above the ground. 2600 feet North of the South East corner of topo map on the West side of Highway 1806. Elevation 1449.242



Oahe Fisheries Research Center
and Region 2 Field Office
Below Oahe Dam on Highway 1806
Fort Pierre, South Dakota

NO.	REVISION	BY	DATE
PLAN SCALE 1" = 60' CONTOUR ELEV. = 1/2' TOPOGRAPHIC MAP			
DESIGNED	CONTRACT NO. OSE# GPE9310011		
DRAWN	TJ	DATE	08/25/93 SHEET 1 OF
CHECKED			

KOCH HAZARD BALTZER LTD
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431 NORTH PHILLIPS AVENUE, SUITE 200
SIOUX FALLS, SOUTH DAKOTA 57102-0180
PHONE (605) 336-3718 FAX (605) 336-0438

DRAWN BY	APPROVED BY	DATE	PROJECT NO.
3/10/95	2/9/95	9/16/95	9211
REVISED	REVISED	AS BUILTS	CADD REF. NO.
	4/6/95		\R211\C1
SHEET TITLE		COPYRIGHT	DRAWING NO.
TOPOGRAPHIC MAP			C1
PROJECT			
Oahe Fisheries Research Center			
Department of Game, Fish & Parks			
Pierre, SD OSE #GPE9310011			

301 W CAPITOL
PIERRE, SD 57501
(605) 224-1742

 AARON SWAN & ASSOCIATES

 CONSULTING ENGINEERS & SURVEYORS
 as+a

Materials Keying

Prefix (5 digit specification section number) **04400.A** Suffix (specific item)

- DIVISION 2 - SITEWORK**
- 02200.C FINISH GRADE
 - J OFF-SITE GRANULAR FILL
 - 02520.A SIDEWALK (w/6x6, W1.4xW1.4 OR FIBER REINF.)
 - C PAVING w/6x6, W1.4x1.4 W.W.F.
 - I TOOLED EDGE
 - J CONTRACTION JOINT ("V" TOOLED)
 - K EXPANSION JOINT
 - N 12" DIA. PIER BELOW GRADE
 - P CONCRETE
 - 02720.A 6" I. CULVERT w/FLARED ENDS
 - B 6" PVC WASTE PIPING
 - 02730.A CONCRETE SEPTIC TANK
 - 02831.A FENCE (8'-0" HIGH)
 - B GATE (2 @ 6'-0")
 - 02900.B SEED (BY OWNER)
 - E SHRUBS & BUSHES (BY OWNER)
- DIVISION 5 - METALS**
- 05500.I 6" STEEL PIPE FILLED w/CONCRETE
- DIVISION 6 - WOOD and PLASTICS**
- 06100.CC 8x10 RAILROAD TIES
- DIVISION 7 - THERMAL and MOISTURE PROTECTION**
- 07901.A SEALANT
 - B BACKER ROD
- DIVISION 10 - SPECIALTIES**
- 10425.A HANDICAPPED SIGN
 - C 2"x2" STEEL POST (GALV.)

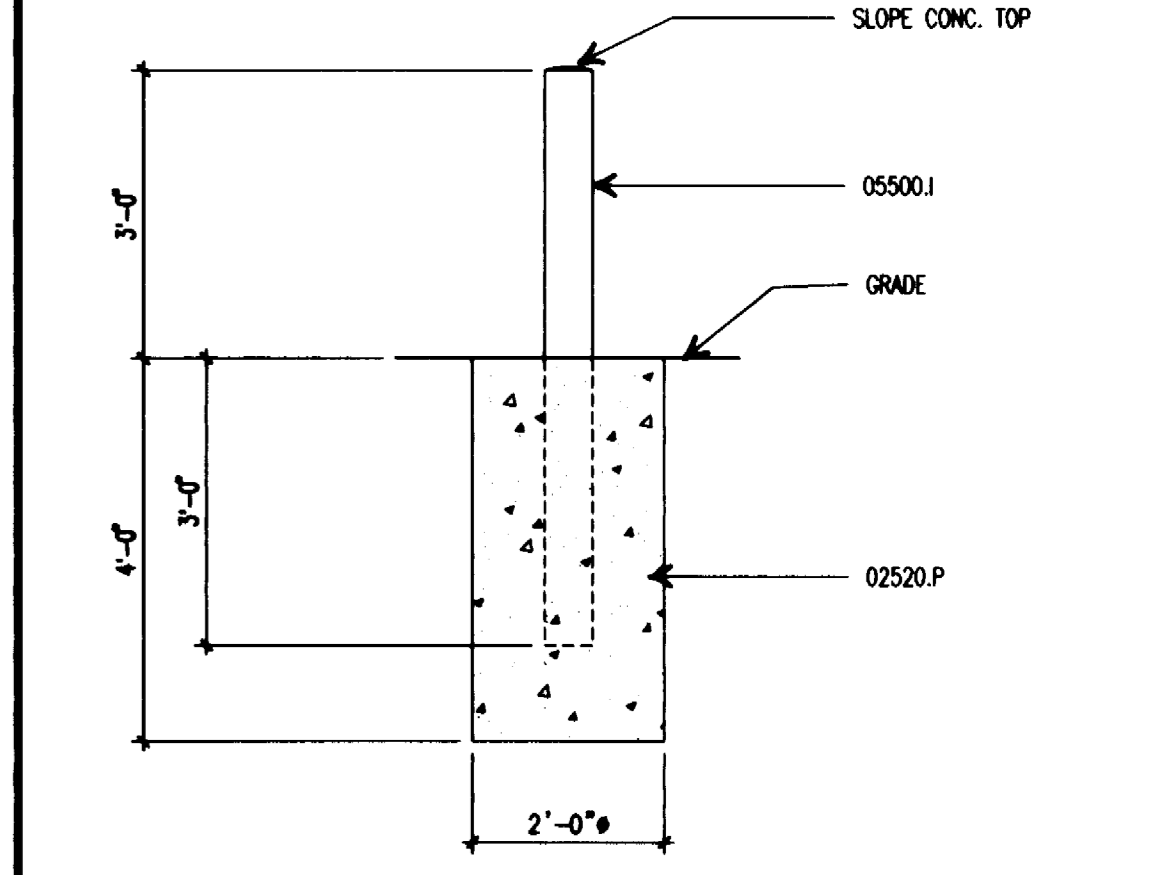
- GENERAL NOTES: 10/6/95**
- WEST SHED ROAD: USE EXCESS EXCAVATED WASTE MATERIAL FOR FILL BENEATH ROAD.
 - DRAINAGE AROUND SHED: USE EXCESS EXCAVATED MATERIAL FOR FILL.
 - NORTH SIDEWALK TO DRIVE: PROVIDE 1 FT. IN 20 FT. MAXIMUM SLOPE FROM NORTH STOOP EDGE TO ROAD AS SHOWN.
 - WASTE MATERIAL: SUITABLE MATERIAL LEFT ON SITE SHALL BE USED FOR FILL AROUND BUILDING INCLUDING LOW AREAS TO SOUTH, WEST AND EAST ON SITE WHICH REQUIRE FILL AS SHOWN.
 - EXCESS TOP SOIL SHALL BE PLACED AROUND BUILDING TO ADD TO THE MATERIAL WASTED ACCORDING TO ITEM 4 ABOVE AS SHOWN.
 - EAST PARKING LOT: GRADES SHALL BE AS INDICATED ON ORIGINAL CONTRACT DOCUMENTS DATED 6/16/94, REVISED 3/10/95 & 4/6/95.

KEY (10/6/95)

EXISTING CONTOURS — 95 —

10/6/95 SPOT ELEVATIONS +95

10/6/95 CONTOUR — 95 —



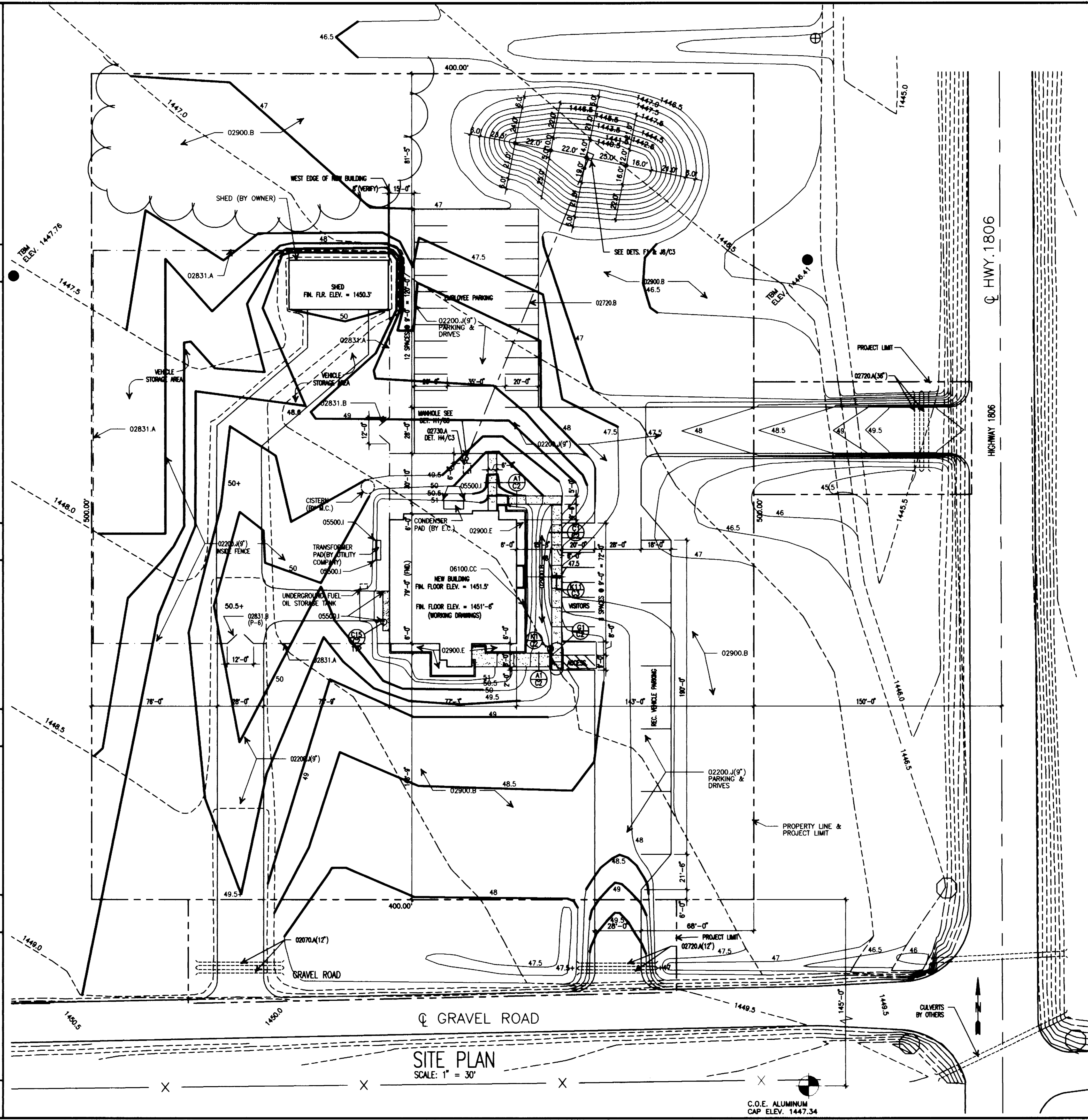
C15 PIPE BOLLARD

1/2" = 1'-0"

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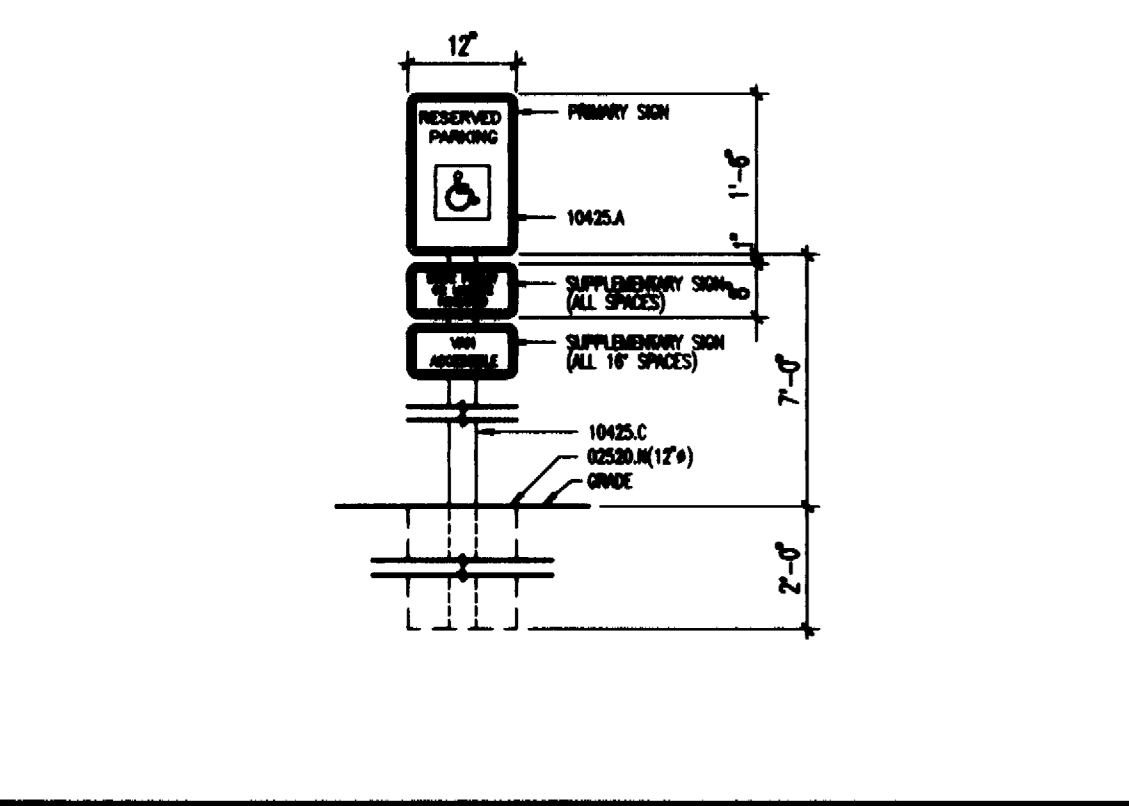
431 NORTH PHILLIPS AVENUE, SUITE 200
 SIOUX FALLS, SOUTH DAKOTA 57102-0180
 PHONE (605) 336-3718 FAX (605) 336-0438

DRAWN BY DW:JH	APPROVED BY	DATE 9/16/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/6/95 10/6/95	DATE 2/9/96	CADD REF. NO. 9211(C2)
SHEET TITLE SITE PLAN, DETAILS		COPYRIGHT	DRAWING NO.
PROJECT GAME FISHERIES RESEARCH CENTER DEPARTMENT of GAME, FISH & PARKS PERRIS, SD (SEE SPEC1001)			C2



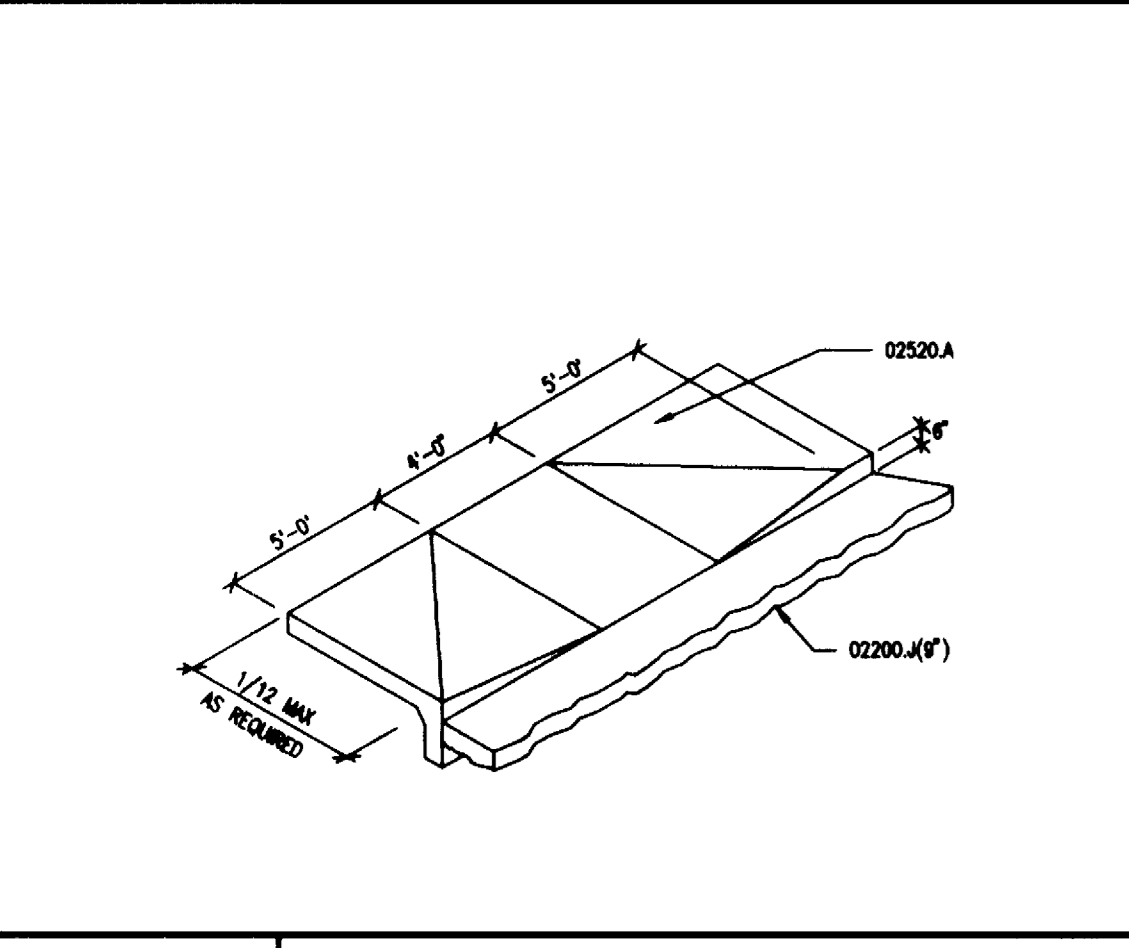
SITE PLAN
SCALE: 1" = 30'

C.O.E. ALUMINUM
CAP. ELEV. 1447.34



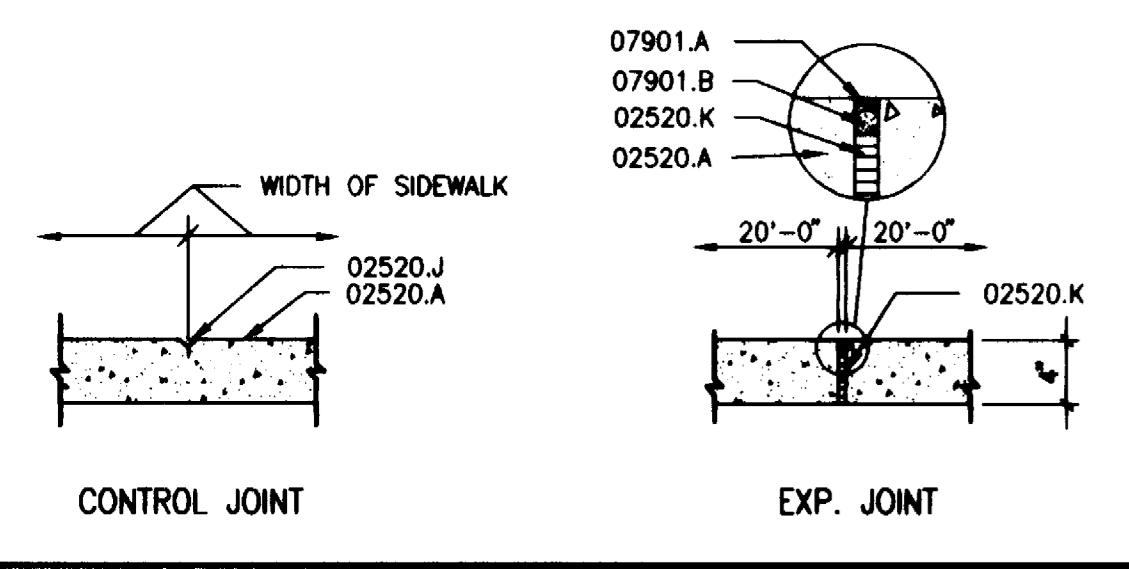
K1 TYP. HDCP. SIGN

3/4" = 1'-0"



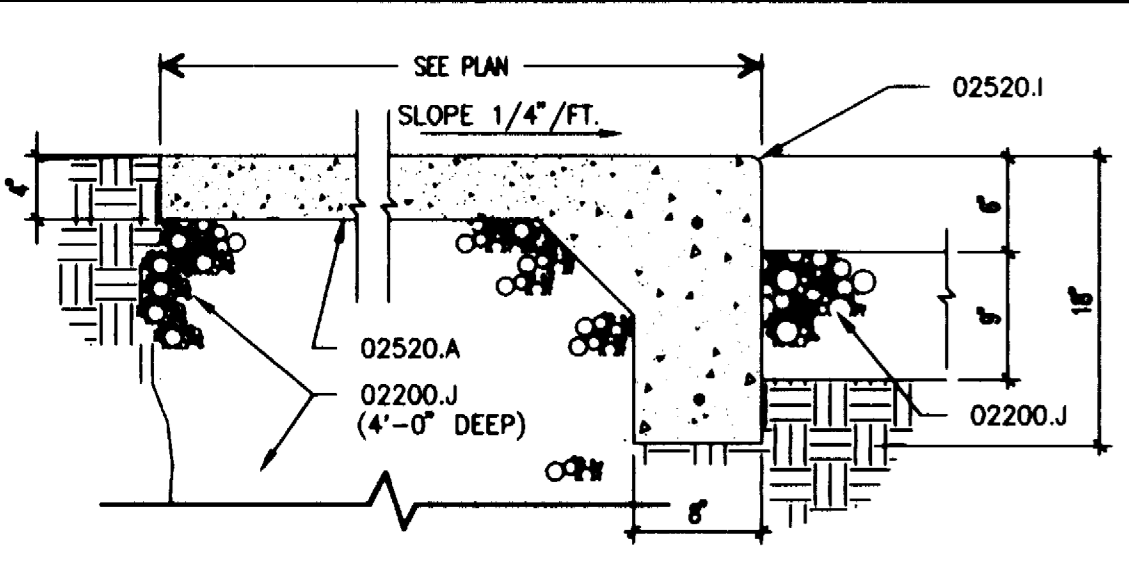
G1 HANDICAP ACCESS

NO SCALE



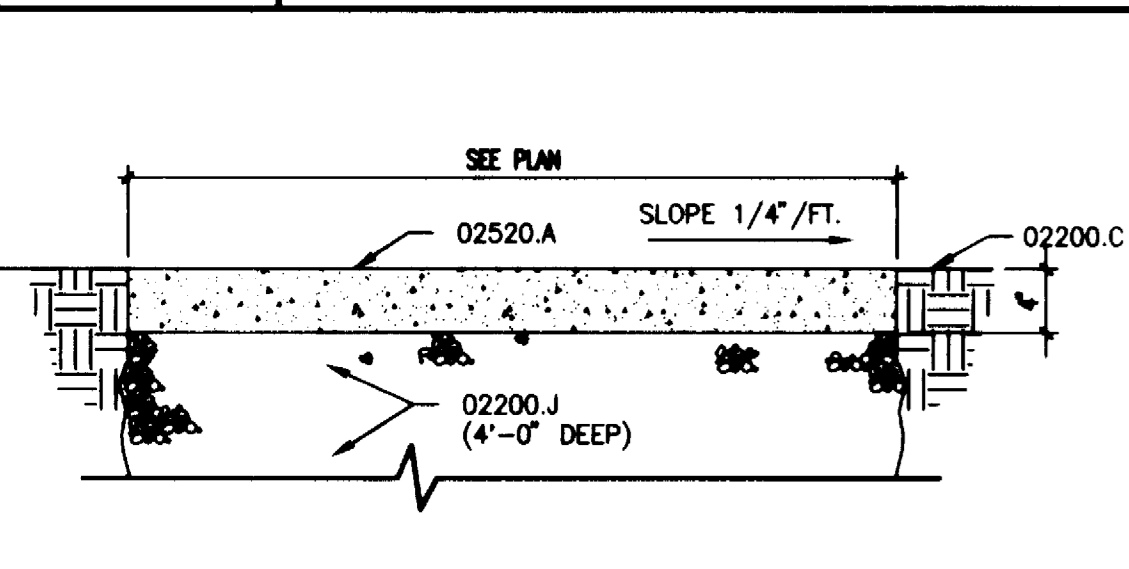
E1 TYP. SIDEWALK JOINTS

1" = 1'-0"



C1 TYP. CURB & SIDEWALK

1" = 1'-0"



A1 TYP. SIDEWALK

1" = 1'-0"

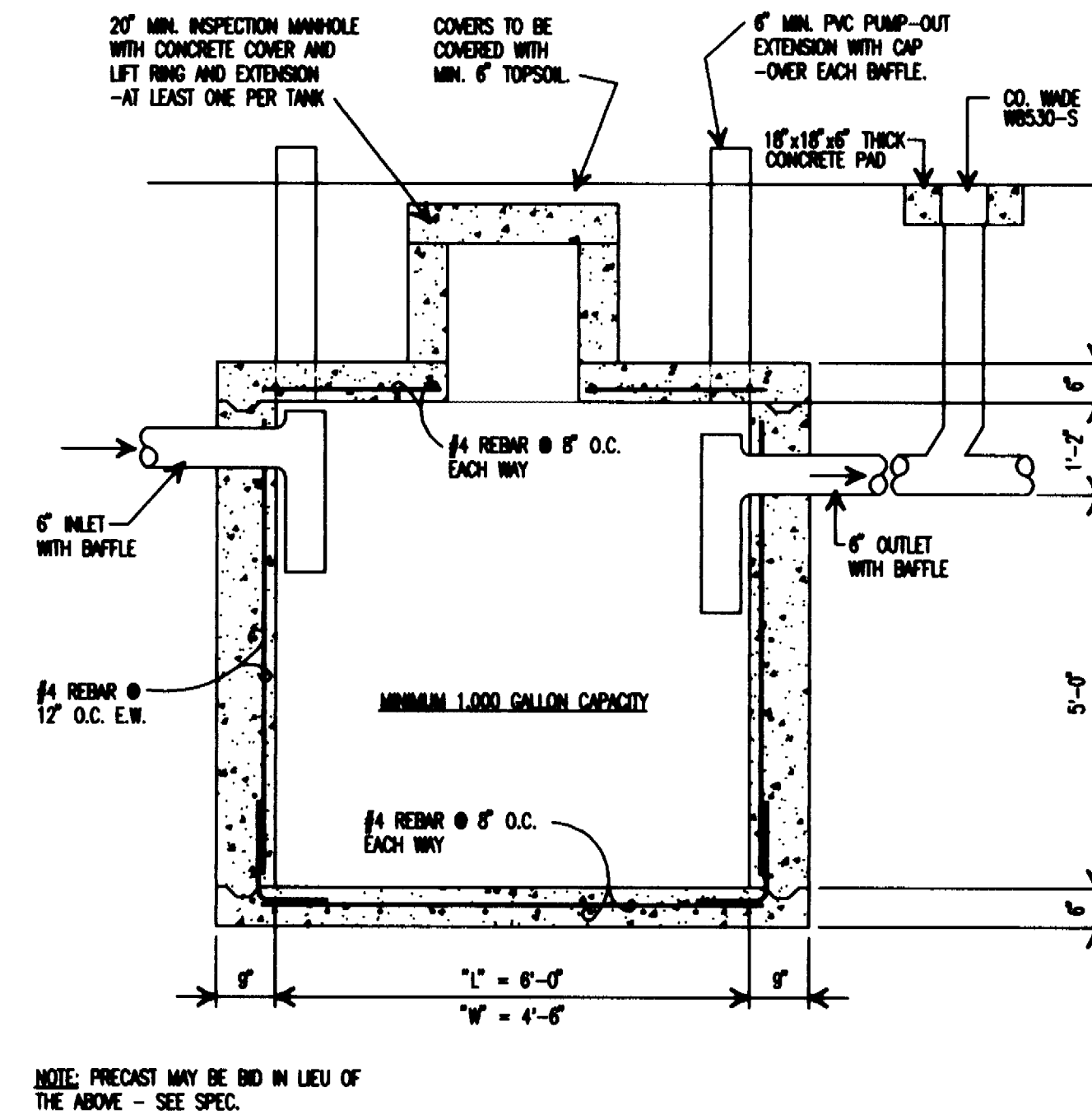
1 2 3 4 5 6 7 8 9 10 11 12 13 14

Materials Keying

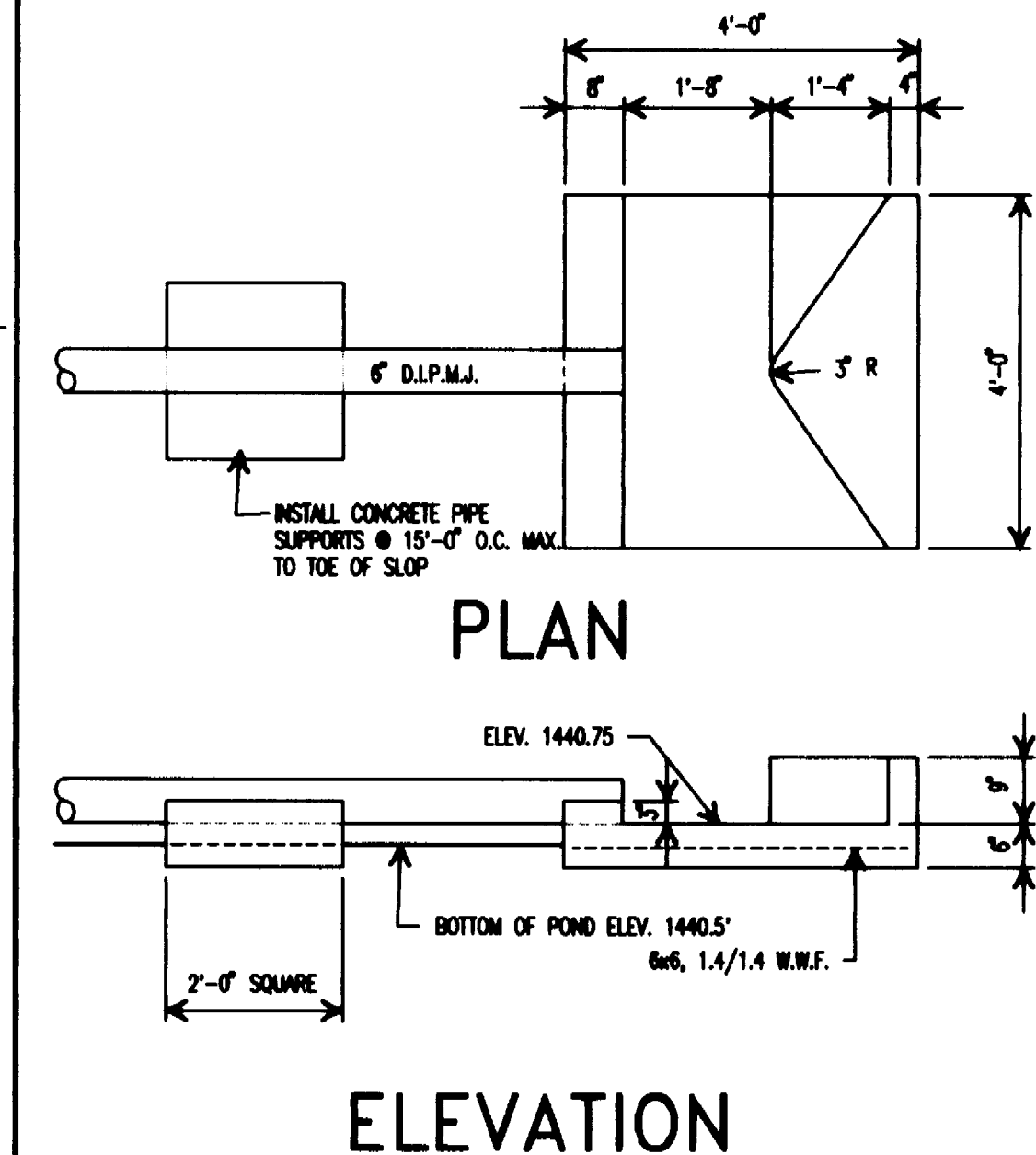
Prefix (5 digit specification section number) 04400.A Suffix (specific item)

DIVISION 2 - SITEWORK
 02200.J OFF-SITE GRANULAR FILL
 02520.A SIDEWALK

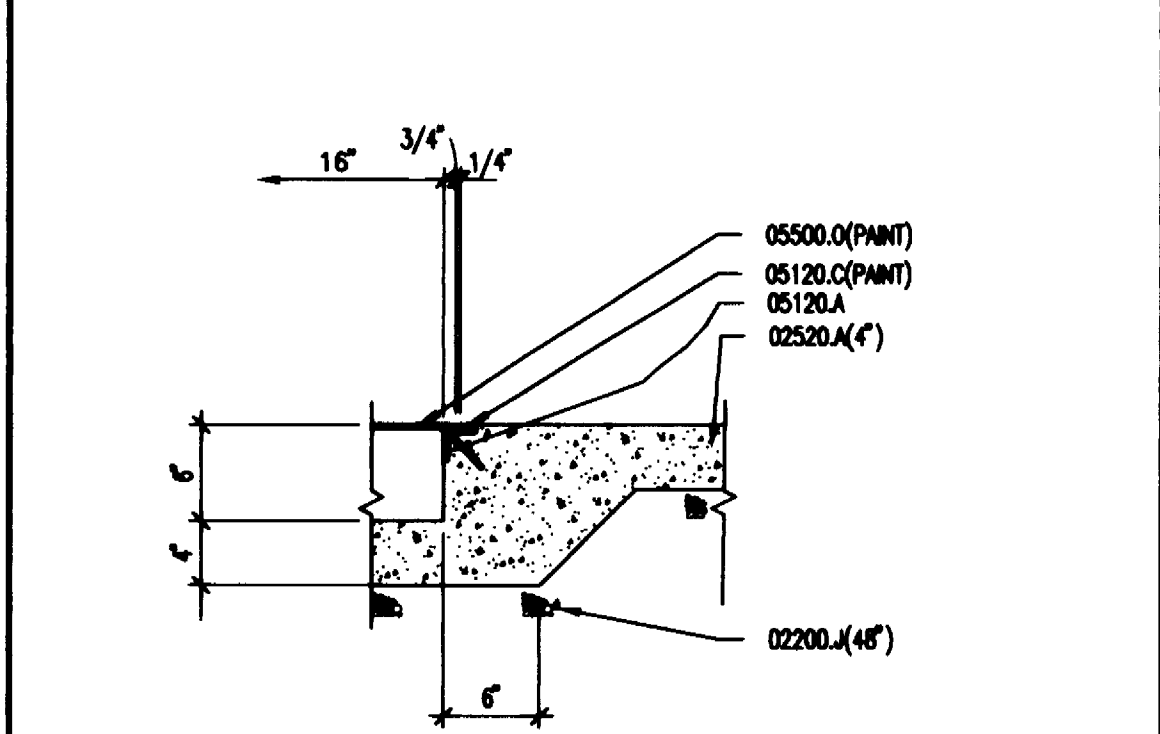
DIVISION 5 - METALS
 05120.A ANGLE
 C PLATE
 05500.O STEEL CHECKERED PLATE



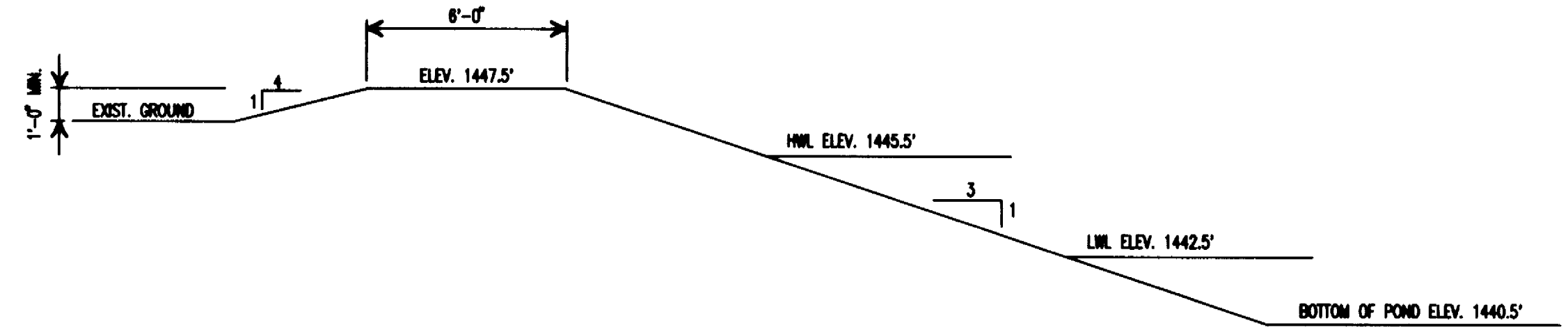
H4
 1 1/2" = 1'-0" SEPTIC TANK



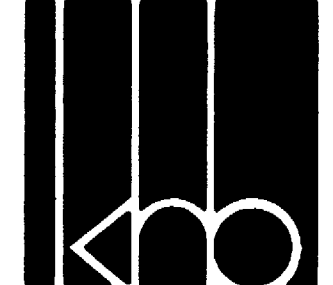
J8
 1/2" = 1'-0" INLET STRUCTURE

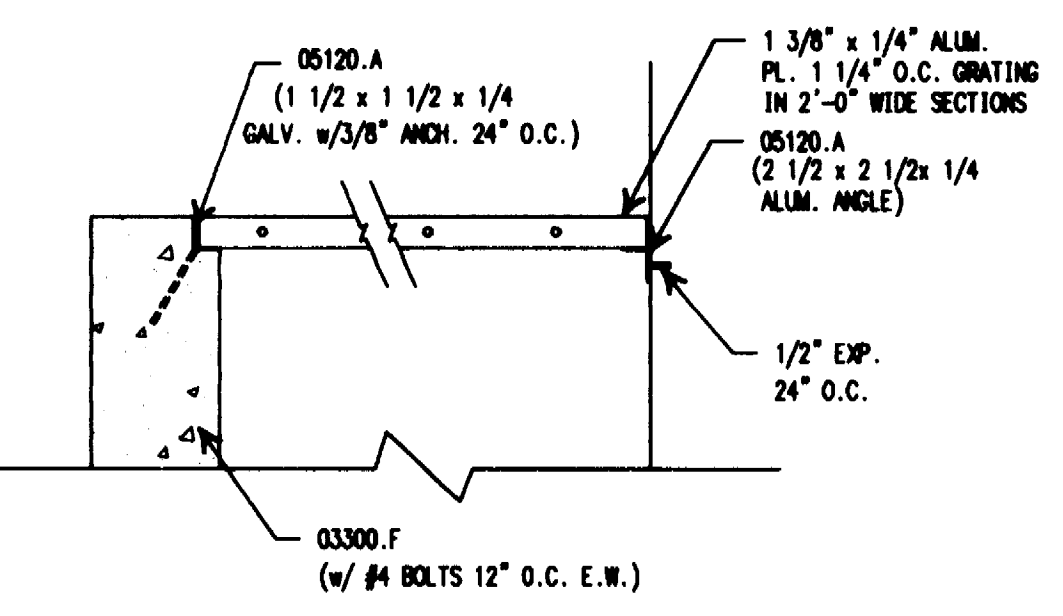


K11
 1" = 1'-0" SIDEWALK TRENCH

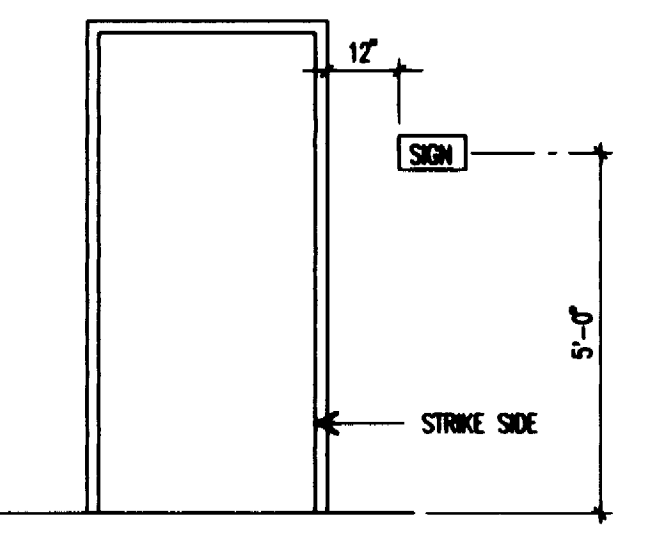


F1
 1/4" = 1'-0" SECTION THRU WASTEWATER POND

 KOCH HAZARD BALTZER LTD Architecture • Planning • Interiors 431 NORTH PHILLIPS AVENUE, SUITE 200 SIOUX FALLS, SOUTH DAKOTA 57102-0180 PHONE (605) 336-3718 FAX (605) 336-0438			
DRAWN BY DW JH	APPROVED BY	DATE 9/16/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/8/95	AS BUILTS 2/9/96	CADD REF. NO. \9211\CS
SHEET TITLE SITE DETAILS		COPYRIGHT	DRAWING NO.
PROJECT GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME FISH & PARKS PIERRE, SD USE #028310011			C3



K1 AREAWELL GRATE
 1 1/2" = 1'-0"



K13 SIGN LOCATION
 3/8" = 1'-0"

Materials Keying

Prefix (5 digit specification section number) 04400.A Suffix (specific item)

- DIVISION 2 - SITEWORK**
 02200.E GRANULAR FILL (COARSE)
- DIVISION 3 - CONCRETE**
 03300.F FOUNDATION WALL
- DIVISION 5 - METALS**
 05120.A ANGLE
 05500.B LADDER - 3/8"x3" STL. SIDE RAILS, 3/4" RUNGS @ 12" O.C.
 1 6" STEEL PIPE FILLED W/CONCRETE
- DIVISION 10 - SPECIALTIES**
 10100.G WOOD CABINET LECTURE UNIT
 10505.A FIRE EXTINGUISHER LOCKER - 16"x22"x22"
 10522.C FIRE EXTINGUISHER W/WALL BRACKETS (MULTI-PURPOSE DRY CHEMICAL)
 E FIRE EXTINGUISHER CABINET (RECESSED)
 10850.A DECORATIVE HOOK PANEL - 60" A.F.F.
- DIVISION 15 - MECHANICAL**
 15000.B ELECTRIC WATER COOLER
 1 LOUVER - BY M.C.

FINISH SCHEDULE

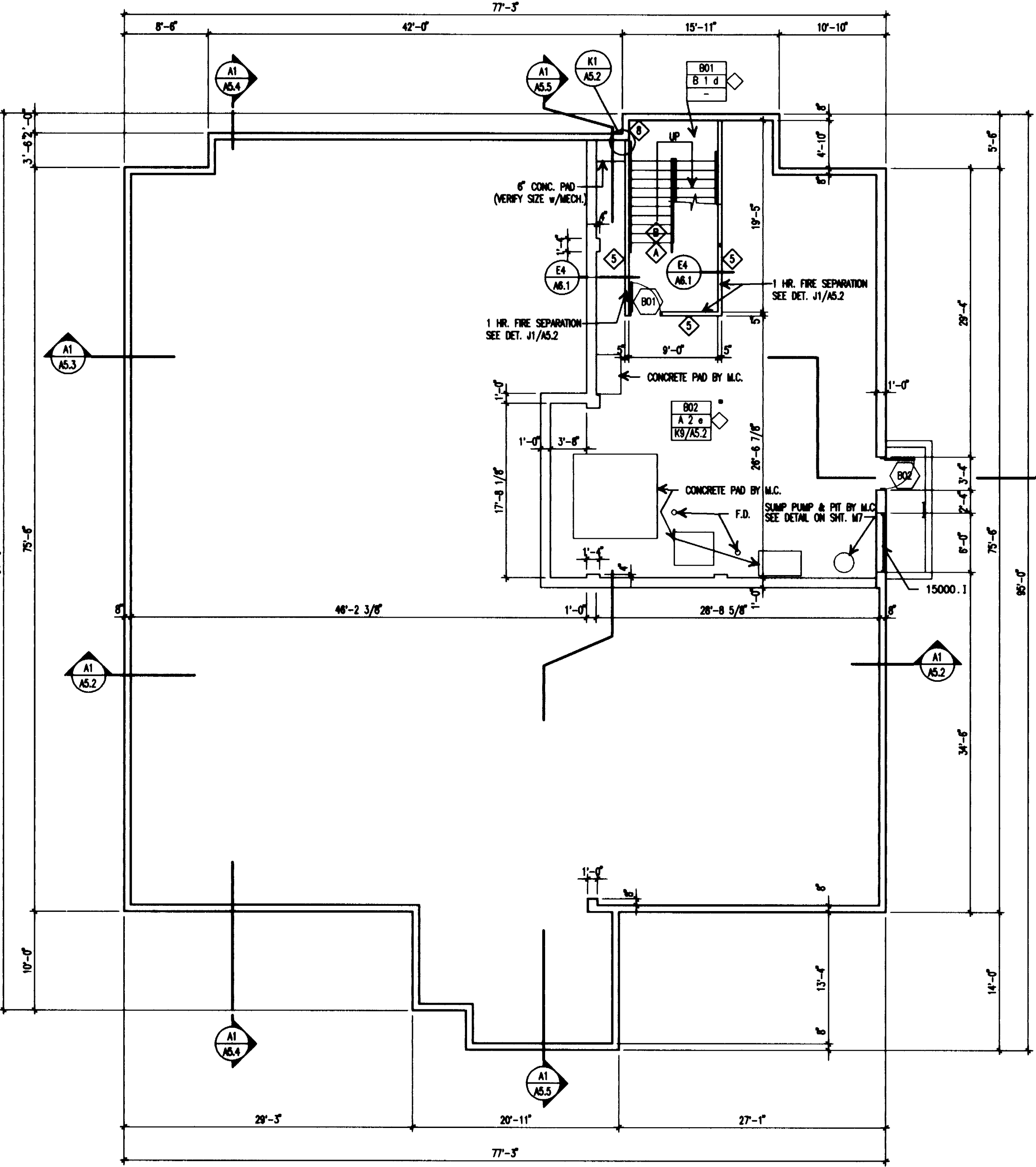
FLOOR/BASE	ROOM KEY
A HARDENED CONCRETE/NONE	ROOM NUMBER
B CARPET/VINYL	FLOOR/BASE
C CERAMIC TILE/CERAMIC TILE	CEILING MATERIAL & FINISH
D VCT/VINYL	CEILING HEIGHT
E QUARRY TILE/QUARRY TILE	
F GWT	
G HARDENED CONCRETE/VINYL	
WALLS/FINISH	CEILING/FINISH
1 GNB/PAIN	a 2x2 ACP (ACP-1)
2 CONCRETE/NONE	b EXPOSED WOOD TRUSSES & PLYWOOD DECK/PAINT
3 EXPOSED WOOD TRUSSES & PLYWOOD DECK/PAINT	c GNB/PAINT
4 GNB ABOVE CLG. TO BOT. OF DECK/PAINT	d EXPOSED STRUCTURE/NONE
5 GNB/TAPED & SANDED	e GNB/TAPE & SAND
6 CEM. BD./CERAMIC TILE	f 2x4 ACP (ACP-2)
7 GNB ABOVE ROOF TRUSS TO BOT. OF DECK/PAINT	
8 GNB LAM. TO INSUL./PAINT	
9 GLAZED WALL PANELS ABOVE COUNTERTOP	
10 GNB LAM. TO CONCRETE	
11 4'-0" HIGH GLAZED WALL PANEL W/INSUL.	

- GENERAL NOTE:**
- CORRIDORS 102, 110 & 120 ALL OUTSIDE CORNERS SHALL HAVE PLASTIC CORNER GUARDS TO 4'-0" HIGH
 - OMITTED
 - SEE SHEET AS.1 FOR WINDOW TYPES
 - PROVIDE SIGNS AT ALL DOORS TO ROOMS THAT ARE SHOWN WITH AN ASTERISK IN ROOM IDENTIFICATION
 - 2 HOUR SEPARATION ABOVE & BETWEEN ROOMS 116 & 128A
 - SEE SHEET AS.1 FOR COLOR & FINISH SCHEDULE
 - SEE SHEET AS.1 FOR 1 & 2 HOUR FIRE WALL SEPARATION

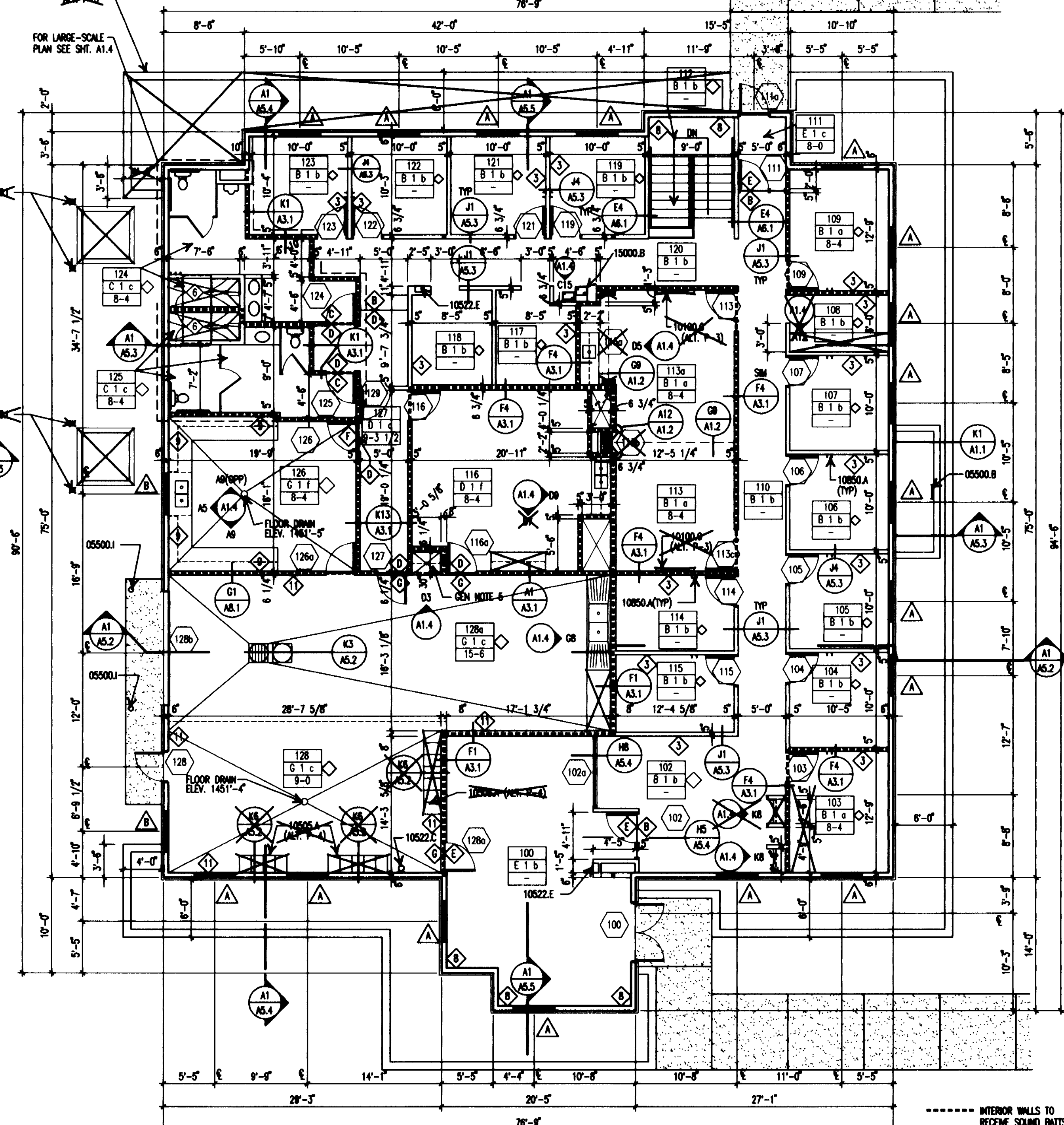
ROOM IDENTIFICATION

NOTE	NOTE	NOTE
100 LOBBY	112 STAIRWAY	*123 BIO. OFFICE
101 OMITTED	*113 CONFERENCE	*124 MEN'S RESTROOM
*102 RECEPTION	*114 CONFERENCE	*125 WOMEN'S RESTROOM
*103 OFFICE SUP.	*115 BIO. OFFICE	*126 DRY LAB
*104 BIO. OFFICE	*116 BIO. OFFICE	*127 CORRIDOR
*105 BIO. OFFICE	*117 WORK/BREAK ROOM	*128a SHOP
*106 BIO. OFFICE	*118 TECH	*128b SHOP
*107 OFFICE ASSISTANT	*119 BIO. OFFICE	*129 STAIRWAY
*108 COMPUTER ROOM	120 CORRIDOR	*130 MECHANICAL ROOM
*109 OFFICE SUP.	*121 BIO. OFFICE	
110 CORRIDOR	*122 BIO. OFFICE	
111 VESTIBULE		

* FIXED SIGN
 NOTE: SEE DET. K13/A1.1 FOR TYP. SIGN LOCATION



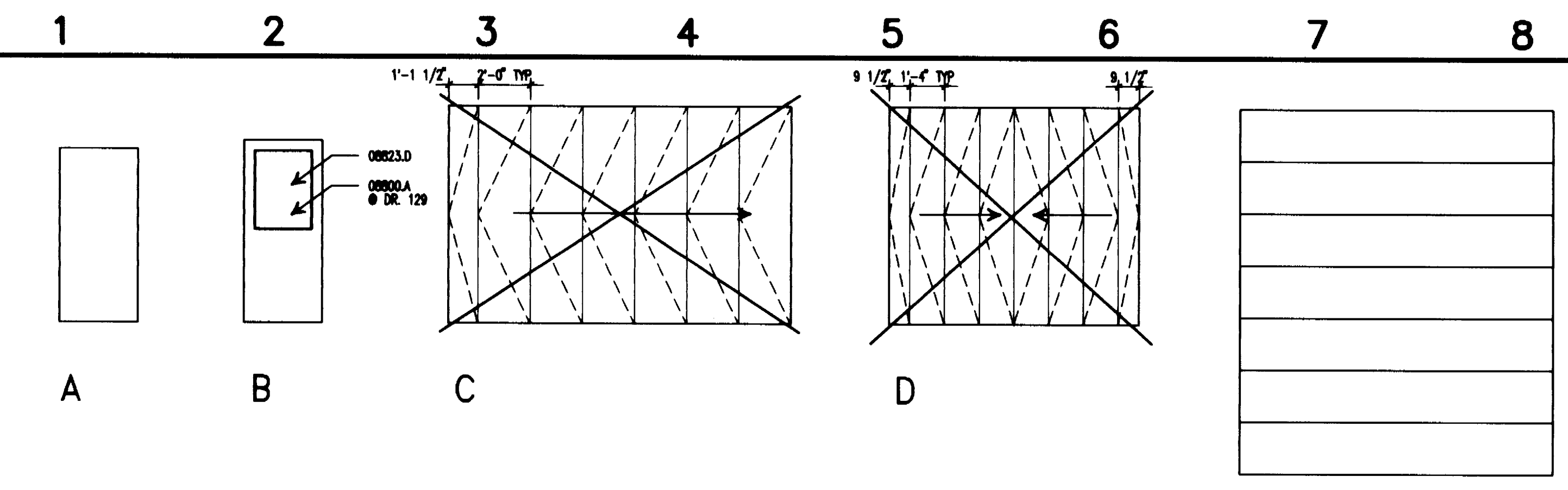
BASEMENT FLOOR PLAN
 SCALE: 1/8" = 1'-0"



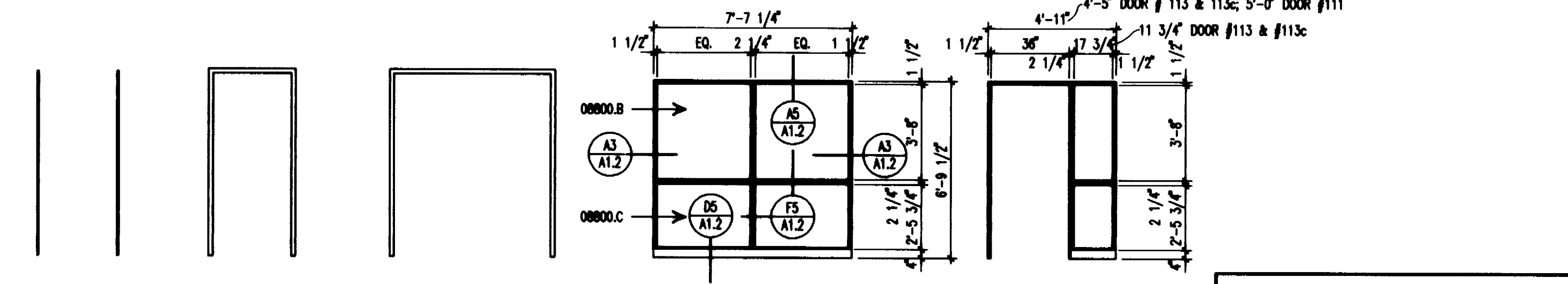
FIRST FLOOR PLAN
 SCALE: 1/8" = 1'-0"

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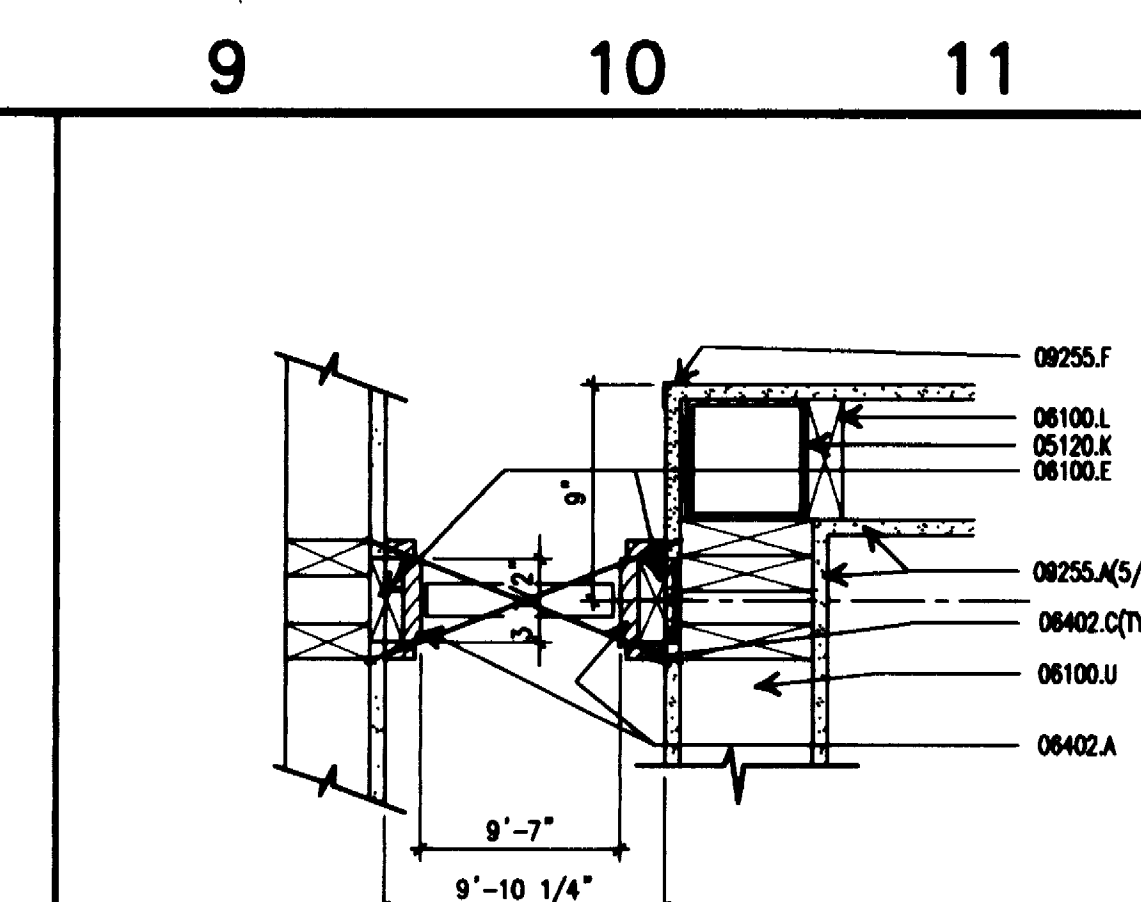
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DW JH		9/16/94	9211
REVISION	REVISION	AS BUILTS	CADD REF. NO.
3/10/95	4/6/95	2/9/96	\R211\A11
SHEET TITLE	COPYRIGHT	DRAWING NO.	
FLOOR PLANS			
PROJECT	GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD OS# AF2310011		A1.1



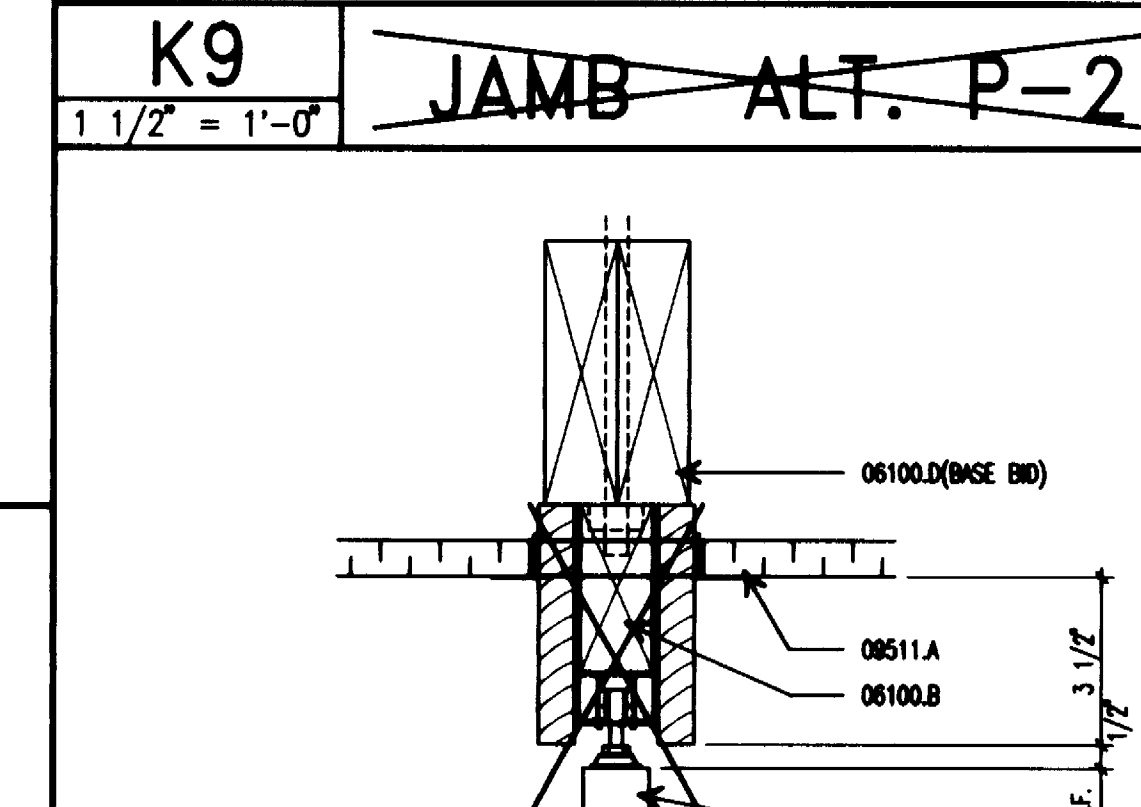
DOOR TYPES
SCALE: 1/4" = 1'-0"



FRAME TYPES
SCALE: 1/4" = 1'-0"



K9 JAMB ALT. P-2
1 1/2" = 1'-0"



G9 HEAD ALT. P-2
3" = 1'-0"

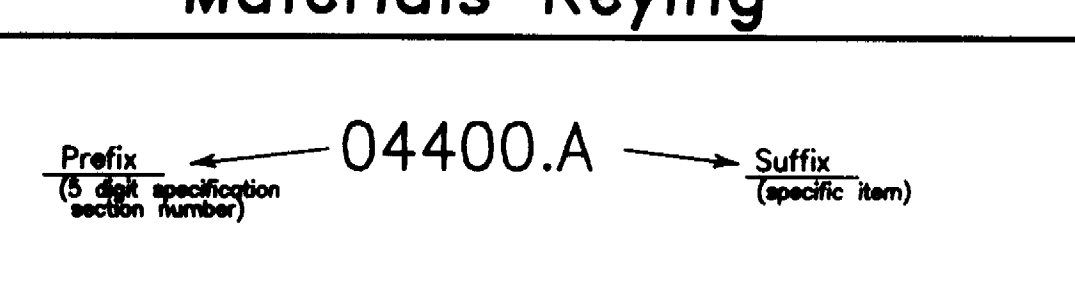
DOOR & FRAME SCHEDULE

NUMBER	DOOR		FRAME				DETAIL	REFERENCE	
	TYPE	OPENING SIZE W H	THICKNESS	MATERIAL	FRAME TYPE	FRAME MATL.			LABEL
100	B	6-0 7-0	1 3/4	HM	3	HM	-	A9,D9	1,2,3,8,15
101	NOT USED								
102	A	3-0 6-8	1 3/4	WD	5	WD	-	A3,A5,D5,F5,G7	
102a								A3,A5,D5,F5	
103	A	3-0 6-8	1 3/4	WD	4	WD	-	A3,A5	
104	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
105	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
106	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
107	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
108	NOT USED								
109	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
110	NOT USED								
111	A	3-0 6-8	1 3/4	WD	5	WD	-	A3,A5,D5,F5,G7	
111a	B	3-0 7-0	1 3/4	HM	2	HM	-	A9,D9	1,2,3,15
112	NOT USED								
113	A	3-0 6-8	1 3/4	WD	5	WD	-	A3,A5,D5(im),F5,G7	6
113a	D	3-0 6-0	1 3/4	WD	-	WD	-	08211	8,18
113b	C	3-0 6-0	1 3/4	WD	-	WD	-	08212	18
113c	A	3-0 6-8	1 3/4	WD	5	WD	-	A3,A5,D5(im),F5,G7	6
114	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
115	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
116	A	3-0 6-8	1 3/4	WD	2	HM	20	A7,D7	14
116a	A	3-0 6-8	1 3/4	WD	2	HM	90	A7,D7	14
117	NOT USED								
118	NOT USED								
119	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
120	NOT USED								
121	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
122	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
123	A	3-0 6-0	1 3/4	WD	1	WD	-	J10,J13/A5.3	
124	A	3-0 6-8	1 3/4	WD	1	WD	-	A3,A5	
125	A	3-0 6-8	1 3/4	WD	1	WD	-	A3,A5	
126	A	3-0 6-8	1 3/4	WD	2	HM	20	A7,D7	14
126a	A	3-0 6-8	1 3/4	WD	2	HM	90	A7,D7	14
127	A	3-0 6-8	1 3/4	WD	2	HM	90	A7,D7	14
128	B	3-0 7-0	1 3/4	HM	2	HM	-	A9,D9	1,2,3,15
128a	A	3-0 6-8	1 3/4	WD	2	HM	90	A7,D7	19
128b	E	12-0 14-0	1 3/4	STL	-	-	-	C1,D3	13,15
129	B	3-0 6-8	1 3/4	WD	2	HM	20	A7,D7	14,17
B01	A	3-0 6-8	1 3/4	HM	2	HM	60	A7,D7(im)	14
B02	A	3-0 6-8	1 3/4	HM	2	HM	-	F1,C15	1,2,3,15

REFERENCE

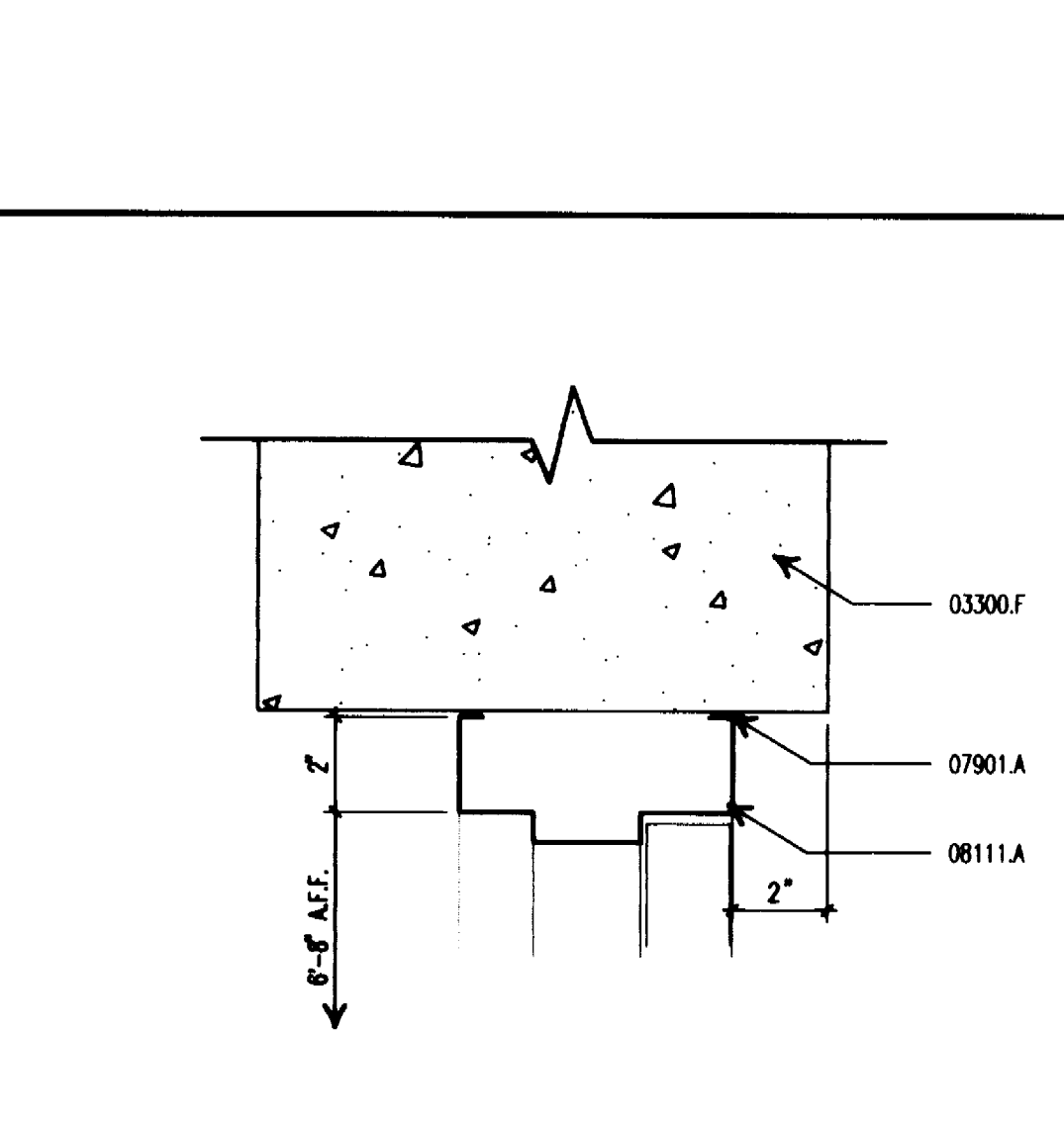
- WEATHERSTRIPPING
- THRESHOLD DET. G3/A1.2
- THRESHOLDER
- TRANSOM
- VISION LITE
- SIDE LITE
- BORROWED LITE
- PAIR
- 1/4" WIRE GLASS
- 1/4" LAMINATED GLASS
- 1" INSULATED GLASS
- BY-PASSING
- OVERHEAD
- SMOKE GASKET
- METAL INSULATED DOOR
- MAGNETIC HOLD OPEN
- UNDERCUT DOOR 1"
- FOLDING PARTITION (DETAIL P-2)

Materials Keying



- DIVISION 3 - CONCRETE**
03300.F FOUNDATION WALL
R PREMOULDED JOINT FILLER
- DIVISION 5 - METALS**
05120.K TUBE COLUMN
- DIVISION 6 - WOOD AND PLASTICS**
06100.B 2x4 WOOD BLOCKING
D 2x NAILER
E 2x BLOCKING
G AIR INFILTRATION BARRIER
L 2x4 STUDS 16" O.C.
U 2x6 STUDS 16" O.C.
Z 1/2" CHIPBOARD SHEATHING
06200.F CEDAR TRIM
06402.A OAK JAMB
B OAK STOPS
C OAK TRIM
D 1x4 NAILER
- DIVISION 7 - THERMAL AND MOISTURE PROTECTION**
07210.B GLASS FIBER (TYPE "B") UNFACED
F 6 MIL VAPOR BARRIER
07460.D 6" CEDAR SIDING
07600.H SEALING G.I.
07901.A FLASHING
- DIVISION 8 - DOORS AND WINDOWS**
08111.A STEEL FRAME
D STEEL DOOR
H DRIP (12 GA.)
~~08211.A~~
08360.A METAL INSULATED DOOR
B TRACK & ROLLERS
C ADDITIONAL WEATHERSTRIPPING
08710.A THRESHOLD
B THRESHOLDER
08800.A 1/4" WIRE GLASS
B 1/4" FLOAT GLASS
C 1/4" LAMINATED GLASS
08823.D 1" INSULATED LAMINATED CLEAR GLASS
- DIVISION 9 - FINISHES**
09255.A GYPSUM WALLBOARD
E CASING BEAD
F CORNER BEAD
09300.C QUARRY TILE
D QUARRY TILE BASE
09660.C VINYL BASE
09680.A CARPET

GENERAL NOTES:
ALL 1 3/4" WOOD DOORS SHALL BE SOLID CORE
ALL 1 3/8" WOOD DOORS SHALL BE HOLLOW CORE



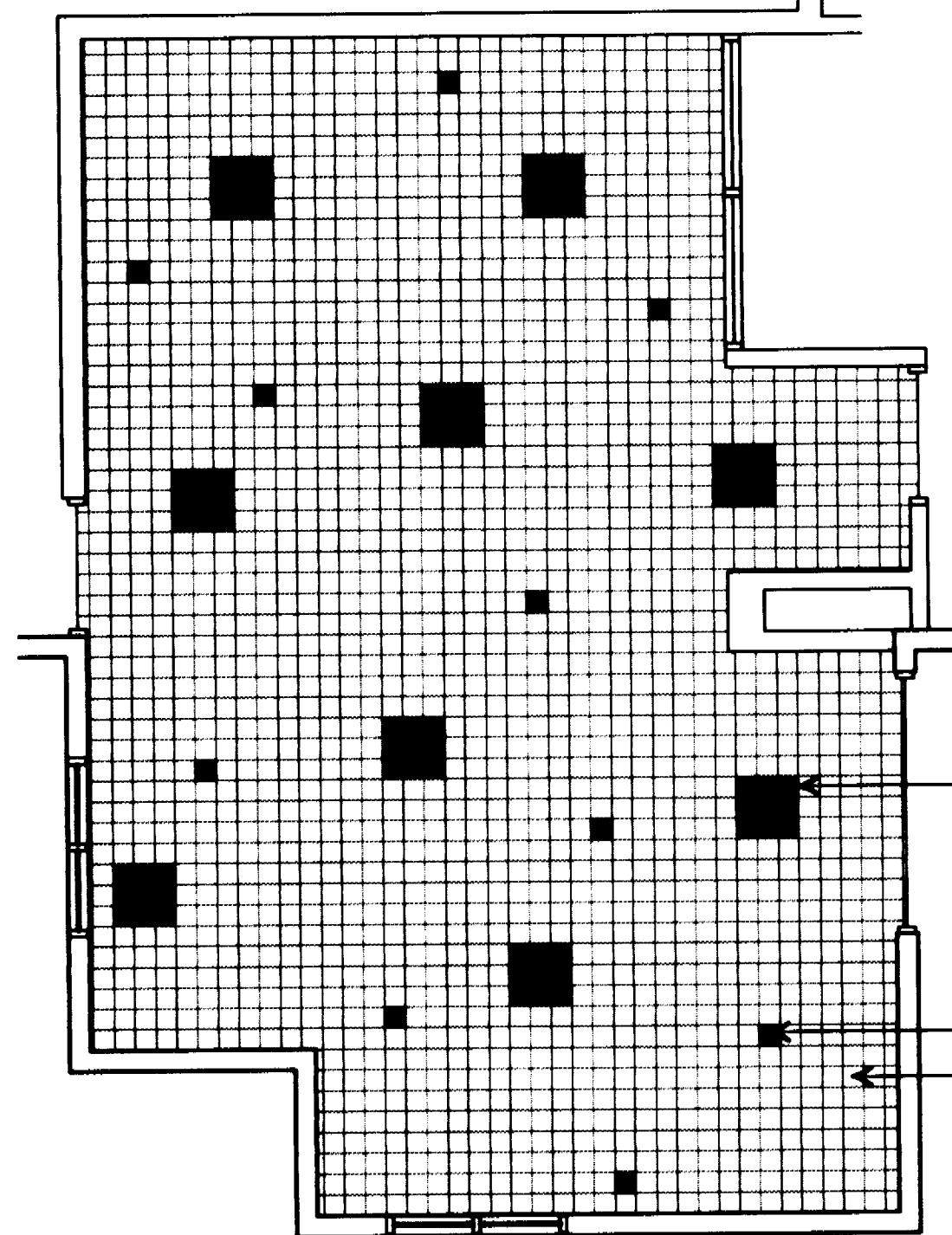
C15 JAMB ALT. P-2
3" = 1'-0"

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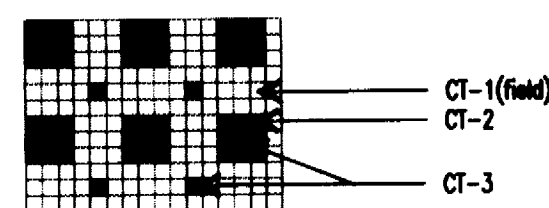
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REVISION 3/10/95	REVISION 4/6/95	AS BUILT 2/9/96	CADD REF. NO. /9211/A1.2
SHEET TITLE DOOR SCHEDULE & DETAILS		COPYRIGHT	DRAWING NO. A1.2
PROJECT ONE FISHERY RESEARCH CENTER DEPARTMENT OF GAME FISH & PARKS PERRIE, SD. OSE (PER31001)			

COLORS AND FINISHES

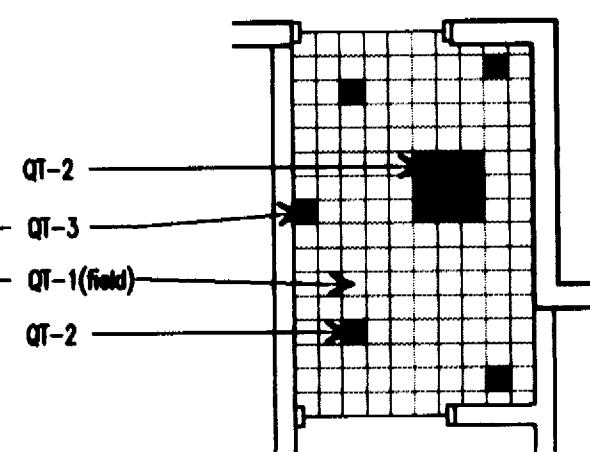
Symbol	Manufacturer	Product/Description	Cat.#	Color/Series
Acoustic Ceiling Tile				
ACP-1	USG Interiors	2'x2' Sandrift	808	White/Shadowline
ACP-2	USG Interiors	2'x4' Orion 230	64131	White/Squareedge
Carpet				
C-1	Stratton	Carousel 60116	16120	Boardwalk Beige
Ceramic Mosaic Tile				
CMT-1	American Olean	1"x1" Field Tile	A-52	Buff Granite
CMT-2	American Olean	1"x1" Accent Tile	A-19	Misterio
CMT-3	American Olean	1"x1" Ceramic Mosaic	A-07	Linen
Fabric for Wall Panels ALT.				
FMP-1	Guilford of Maine	FR701	385	Agate
Glazed Ceramic Wall Tile				
GWT-1	American Olean	4-1/4" x 4-1/4"	VO-1	Gloss Bone
GWT-2	American Olean	4-1/4" x 4-1/4"	110	Burgundy
Paint and Coating Colors				
P-1	Pratt & Lambert	General Wall Paint	2048	Flax
P-2	Pratt & Lambert	Ceiling Color	2127	Snowflake
P-3	Pratt & Lambert	Accent Color	1889	River Rouge
P-4	Pratt & Lambert	Hollow Metal Door	2305	Rialto
Quarry Tile				
QT-1	American Olean	6" x 6" Quarry Tile	002	Ember Flash
QT-2	American Olean	6" x 6" Quarry Tile	006	Fawn Gray
QT-3	American Olean	6" x 6" Quarry Tile	003	Sahara
Semi-Transparent Exterior Stain				
EWS-1	Samuel Cabot		0134	Mission Brown
Vinyl Base				
VB-1	VP1	4" Straight Base	86	Tudor Gray
Vinyl Composition Tile				
VCT-1	Tarkett	12x12x1/8" Express. Ser.	4517	Brush Beige
Wood Stain				
WS-1	Pratt & Lambert	Tonetic Wood Stain		Fruitwood



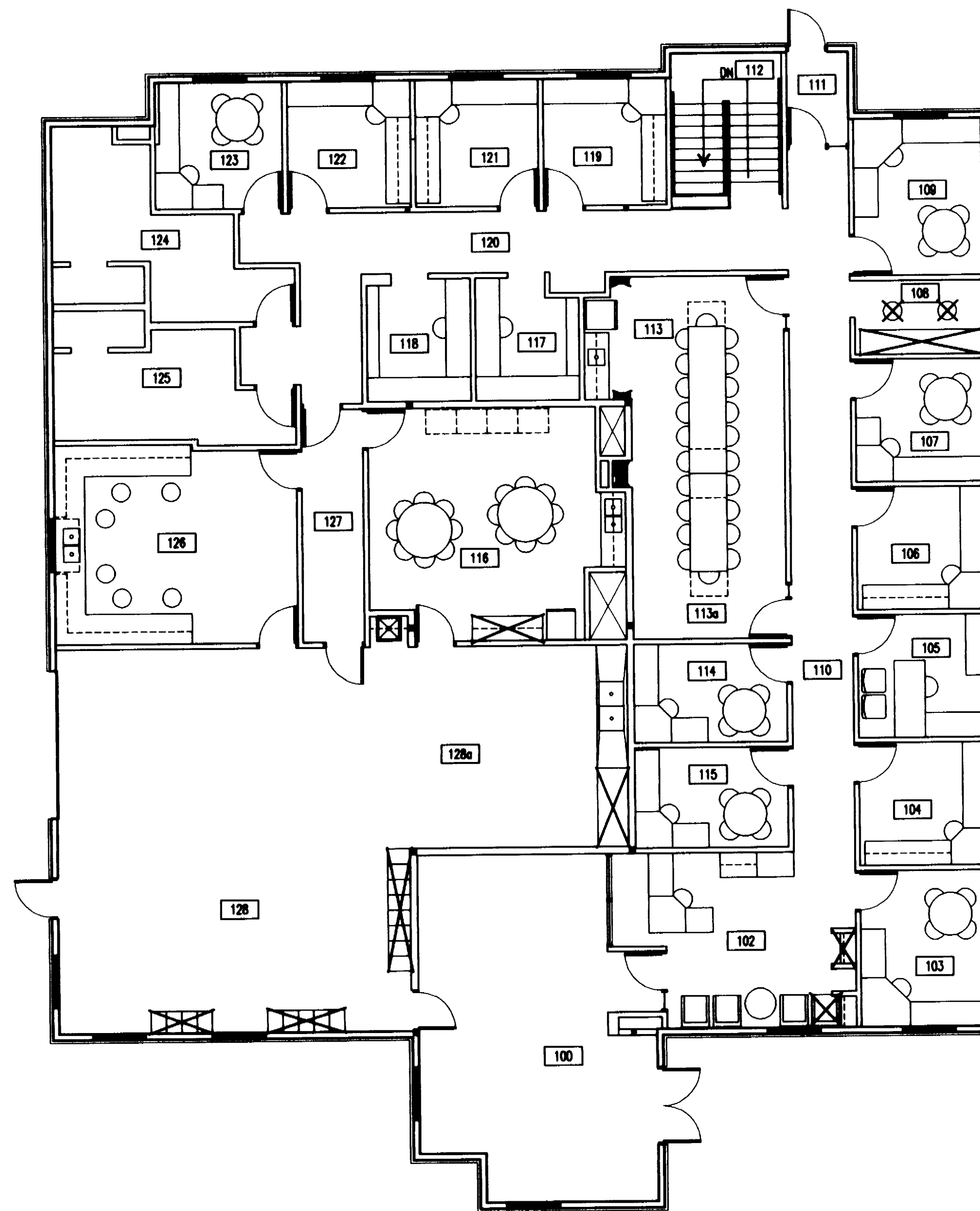
TILE PATTERN RM. #100
SCALE: 1/4" = 1'-0"



TILE PATTERN RM. #124 & #125
SCALE: 1/2" = 1'-0"



TILE PATTERN RM. #111
SCALE: 1/4" = 1'-0"



SPACE PLAN

ROOM IDENTIFICATION

100 LOBBY	112 STAIRWAY	123 BIO. OFFICE
101 QUETTED	115 CONFERENCE	124 MEN'S RESTROOM
102 RECEPTION	113a CONFERENCE	125 WOMEN'S RESTROOM
103 OFFICE SUP.	114 BIO. OFFICE	126 DRY LAB
104 BIO. OFFICE	115 BIO. OFFICE	127 CORRIDOR
105 BIO. OFFICE	116 WORK/BREAK ROOM	128 SHOP
106 BIO. OFFICE	117 TECH	128a SHOP
107 OFFICE ASSISTANT	118 TECH	801 STAIRWAY
108 COMPUTER ROOM	119 BIO. OFFICE	802 MECHANICAL ROOM
109 OFFICE SUP.	120 CORRIDOR	
110 CORRIDOR	121 BIO. OFFICE	
111 VESTIBULE	122 BIO. OFFICE	



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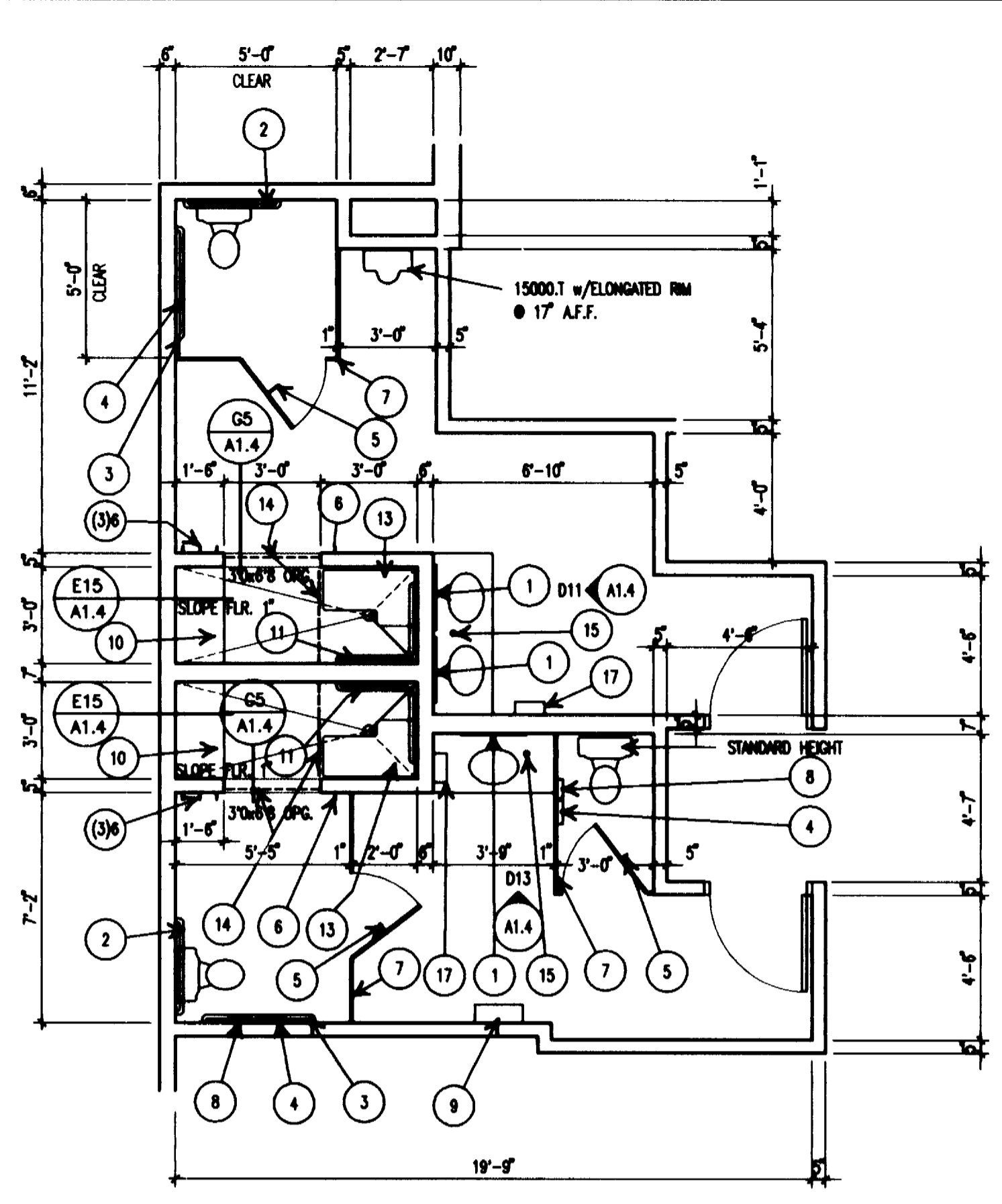
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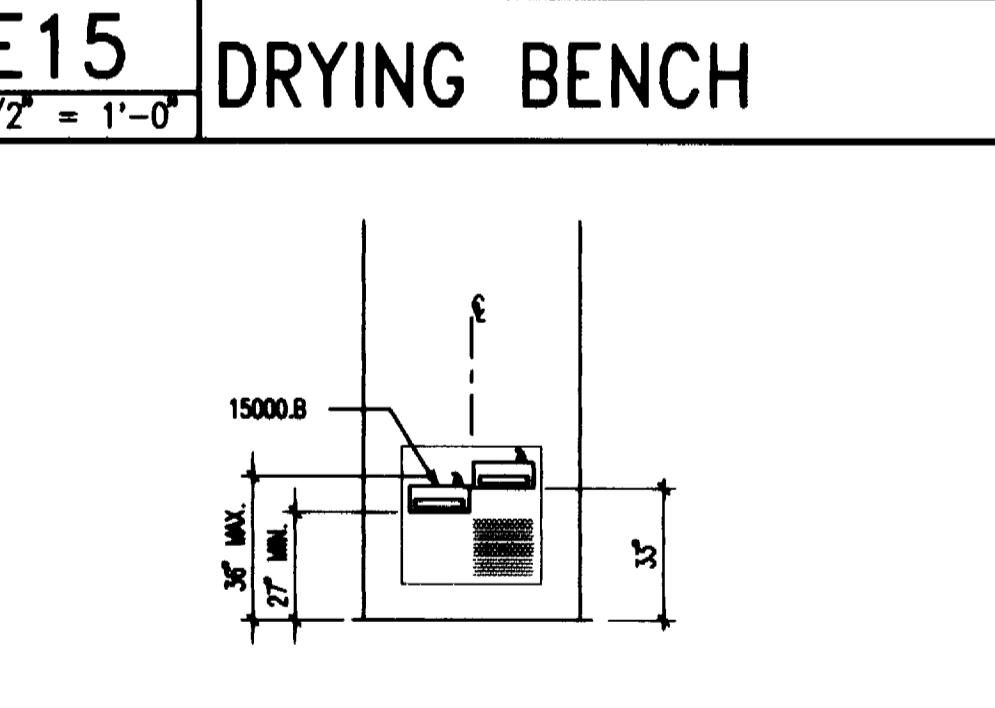
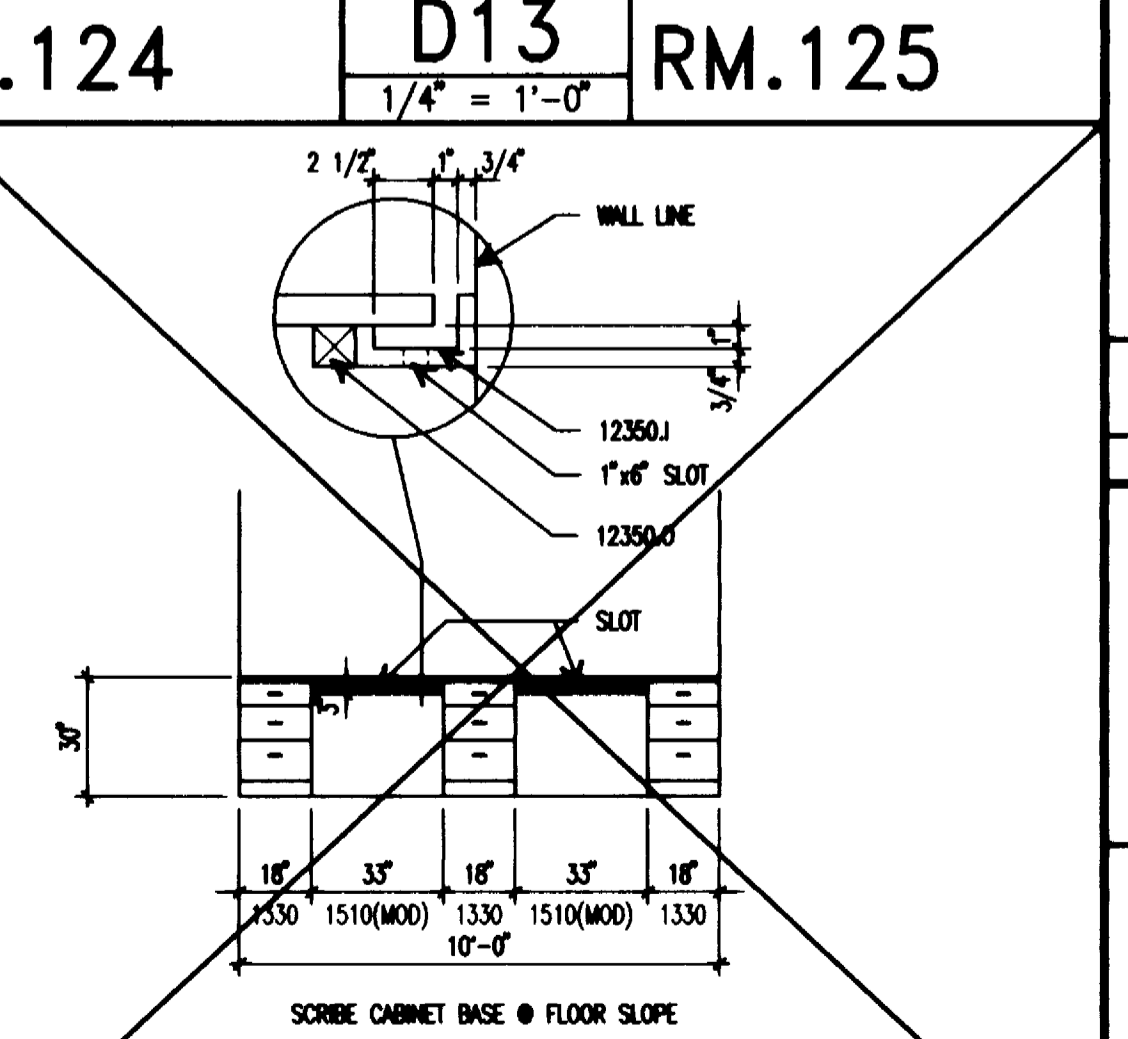
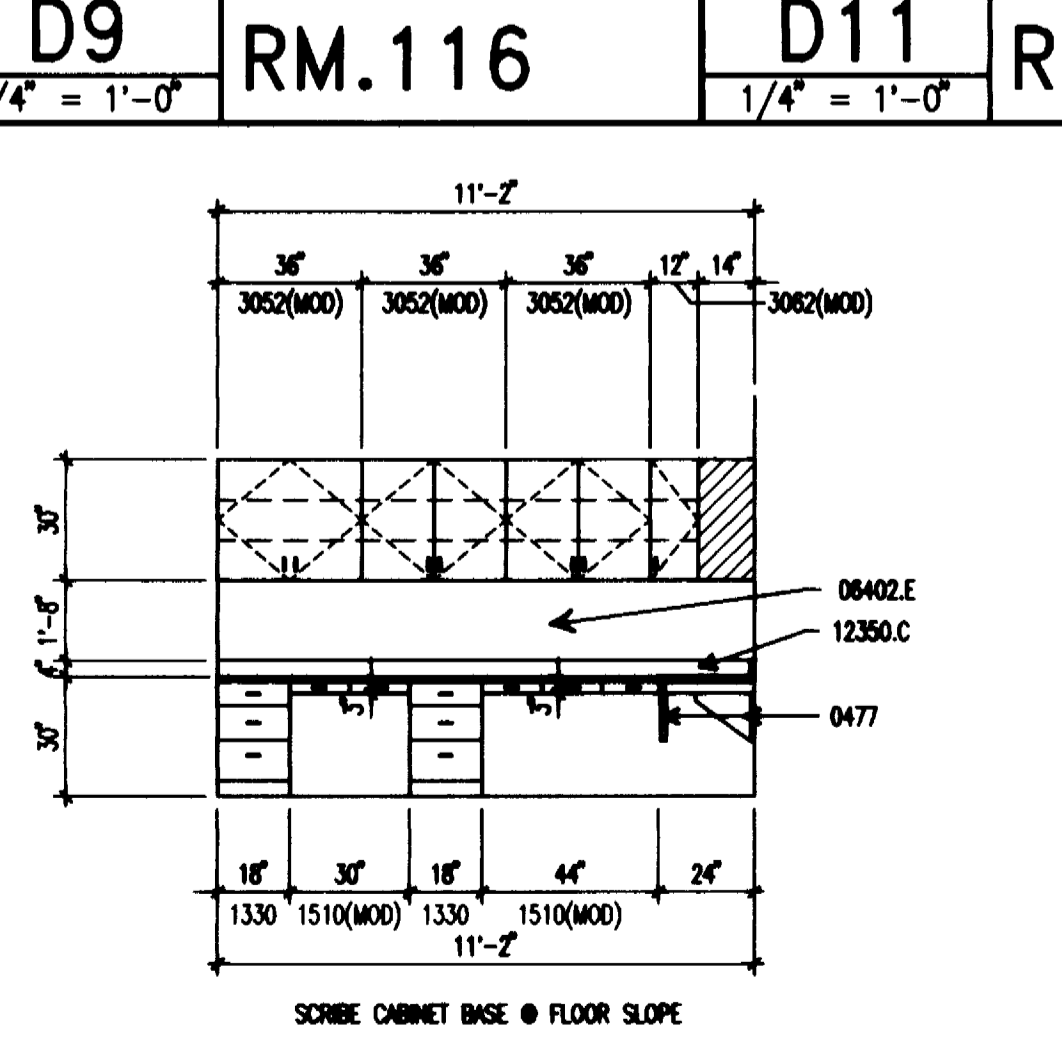
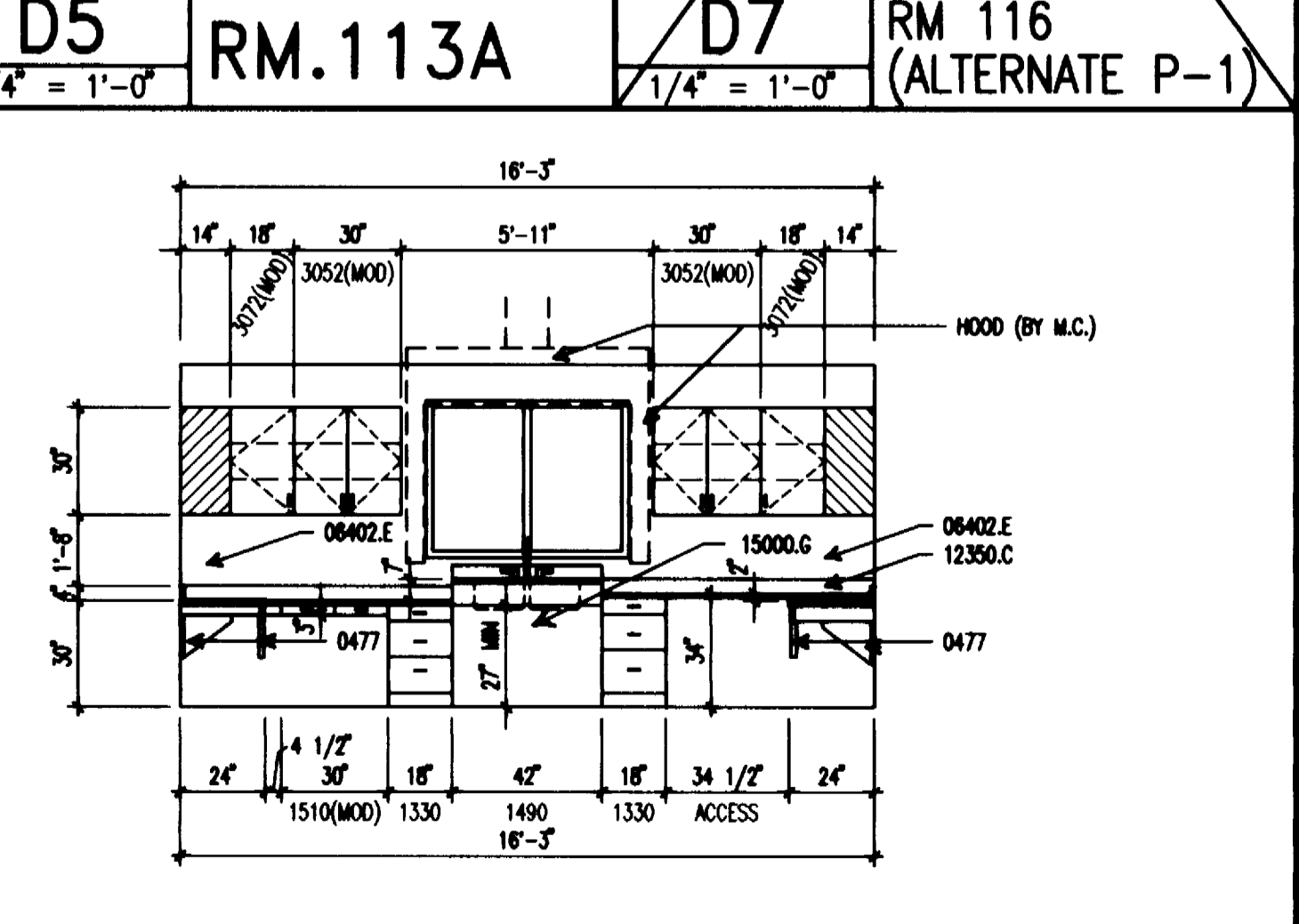
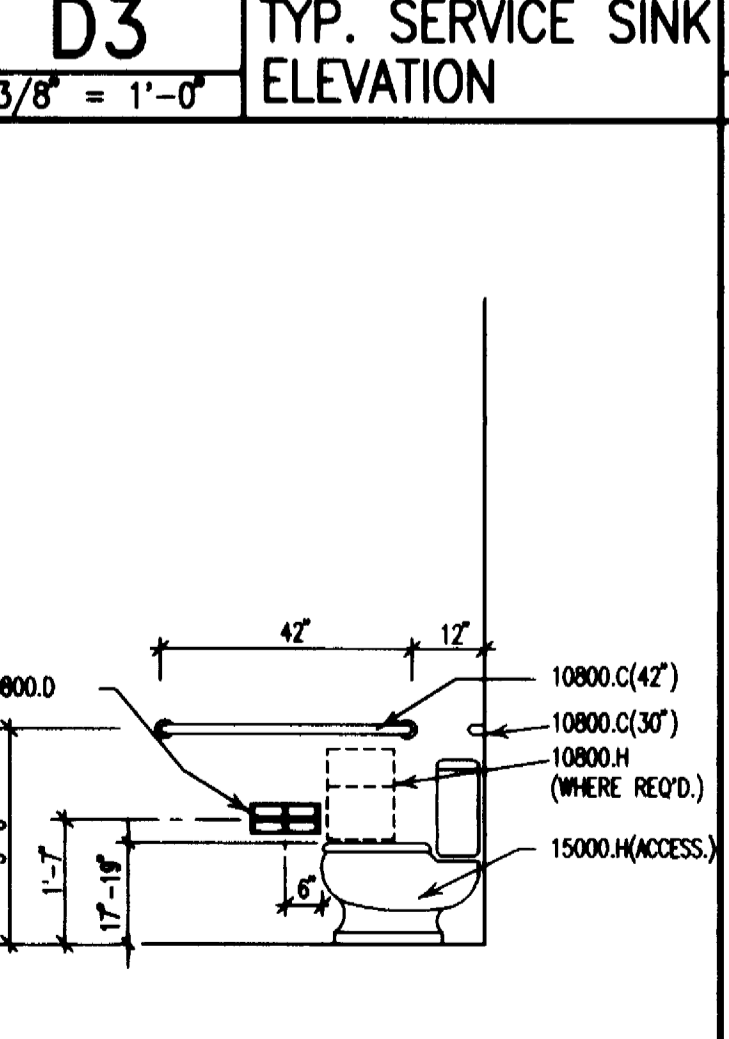
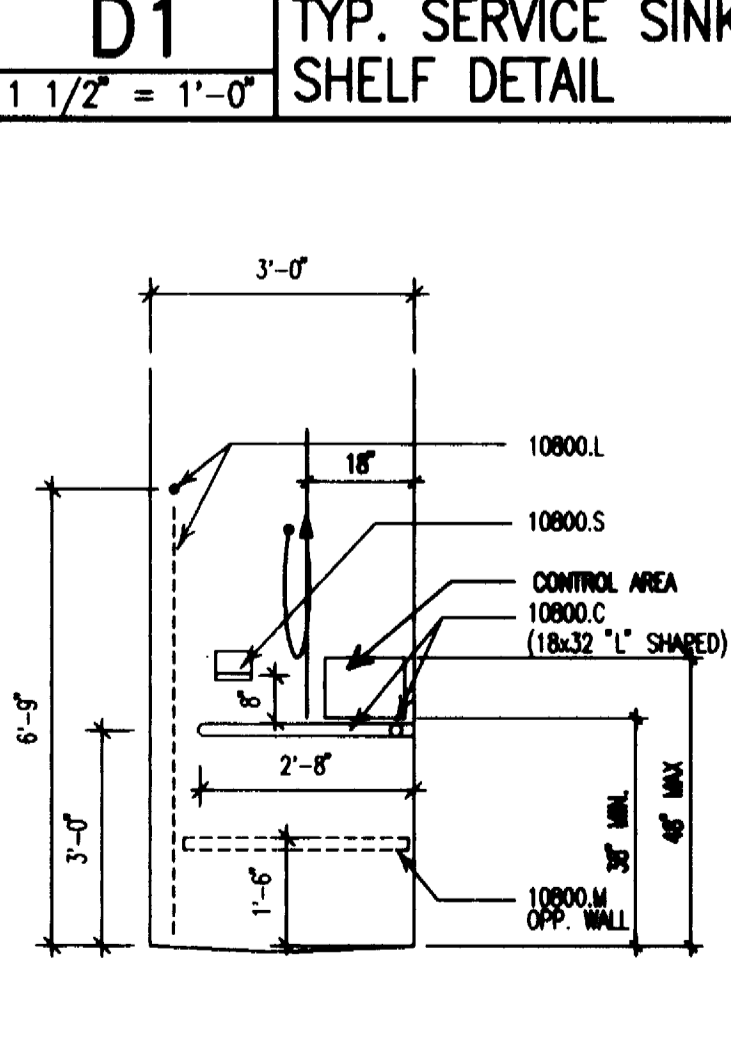
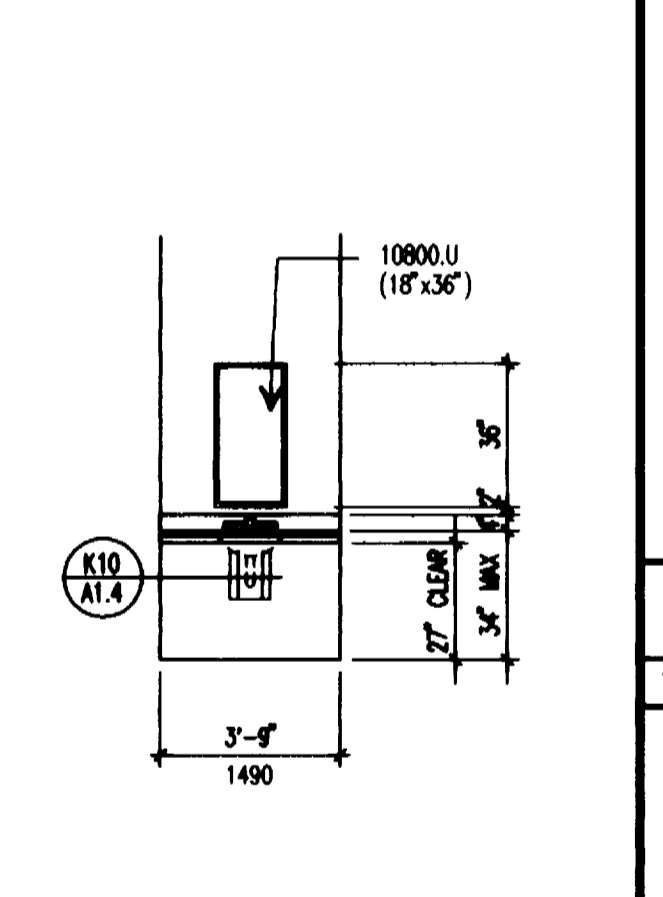
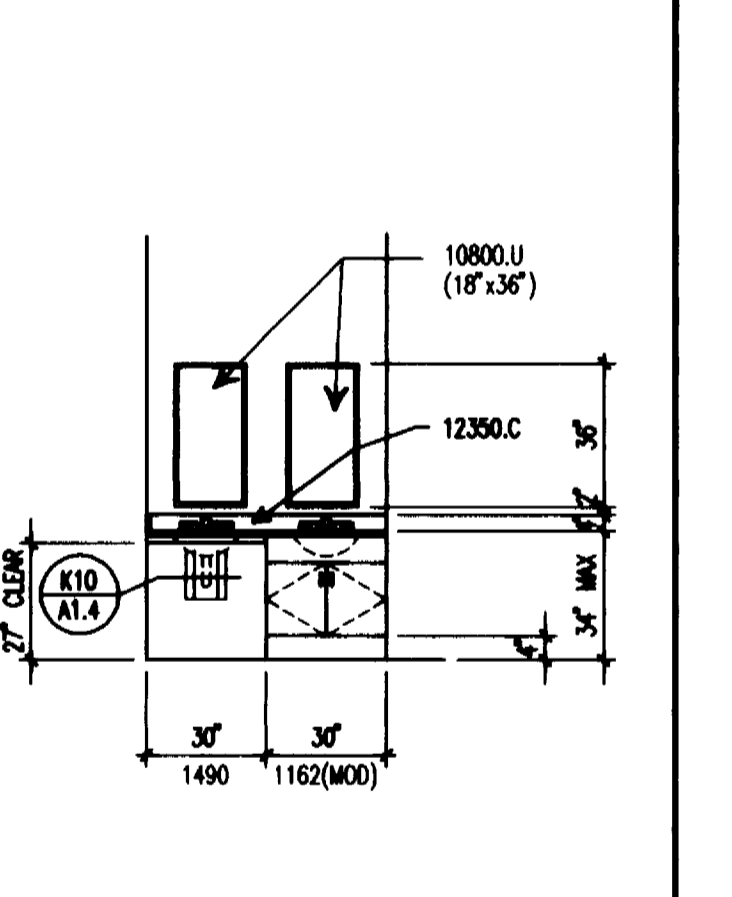
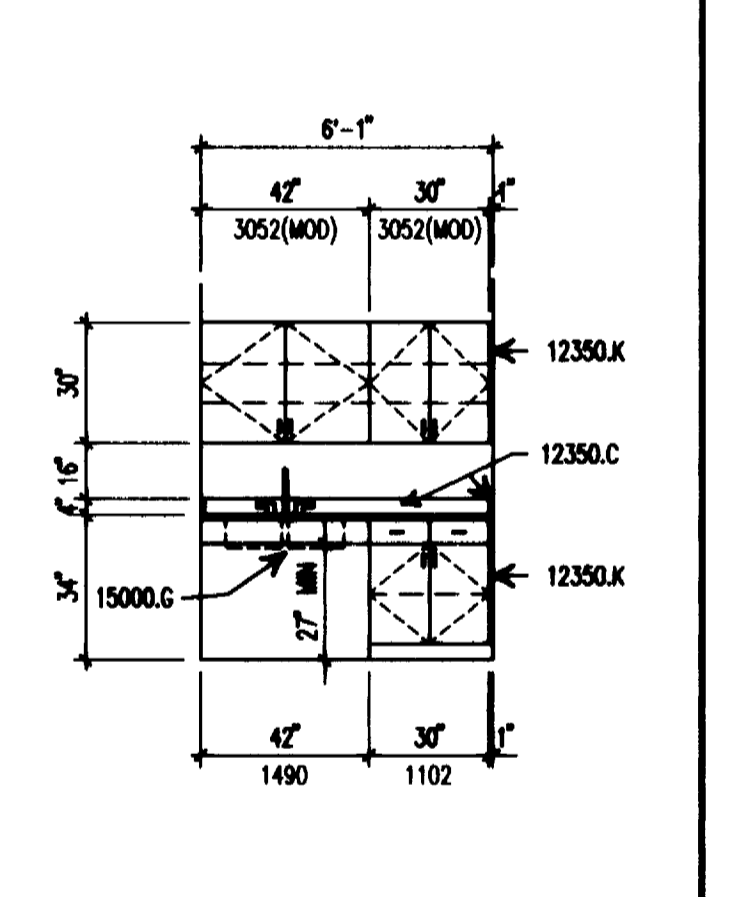
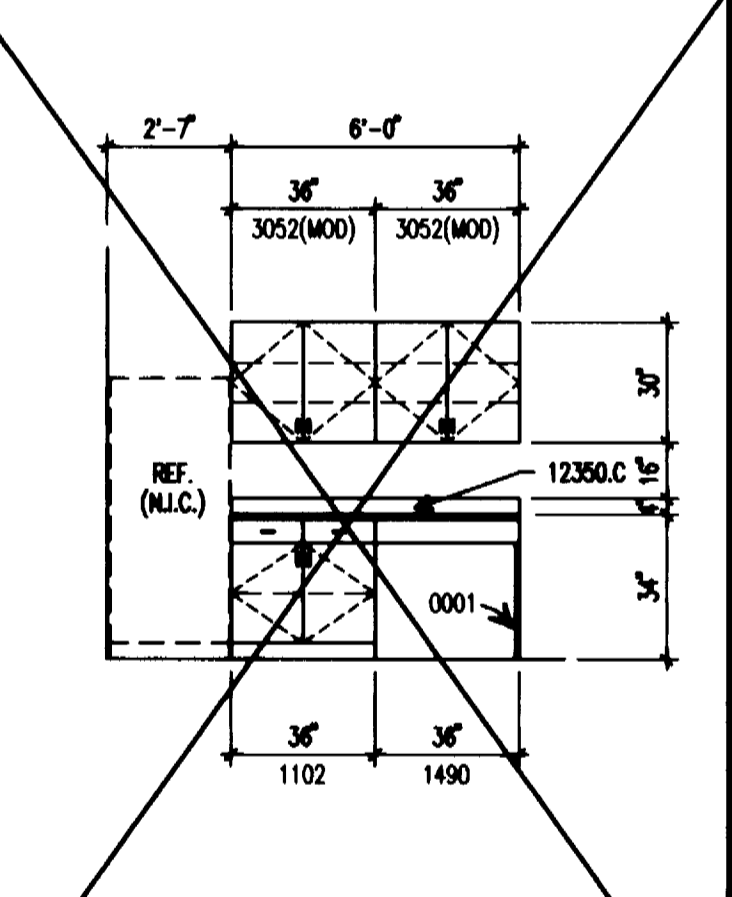
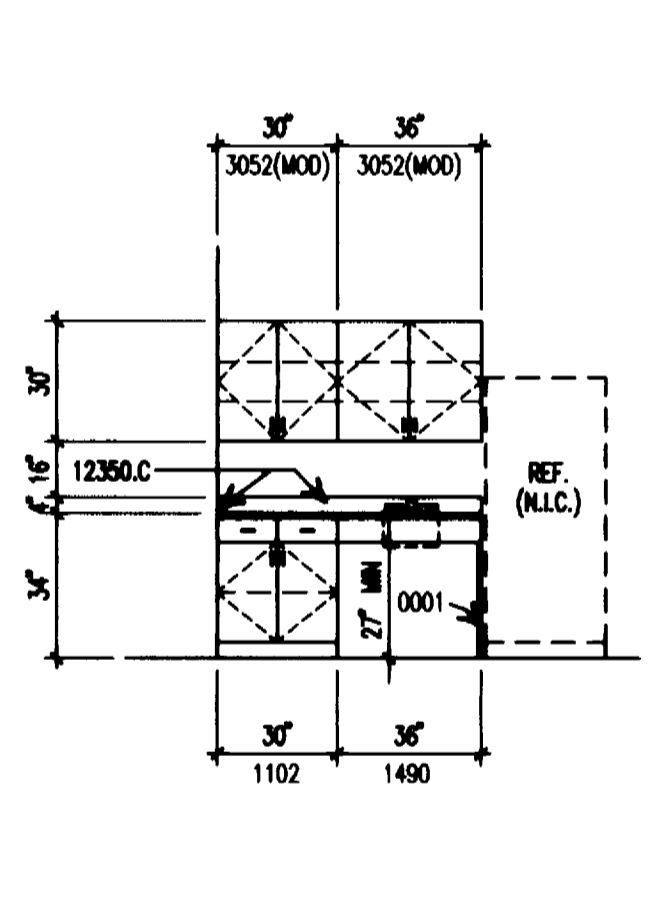
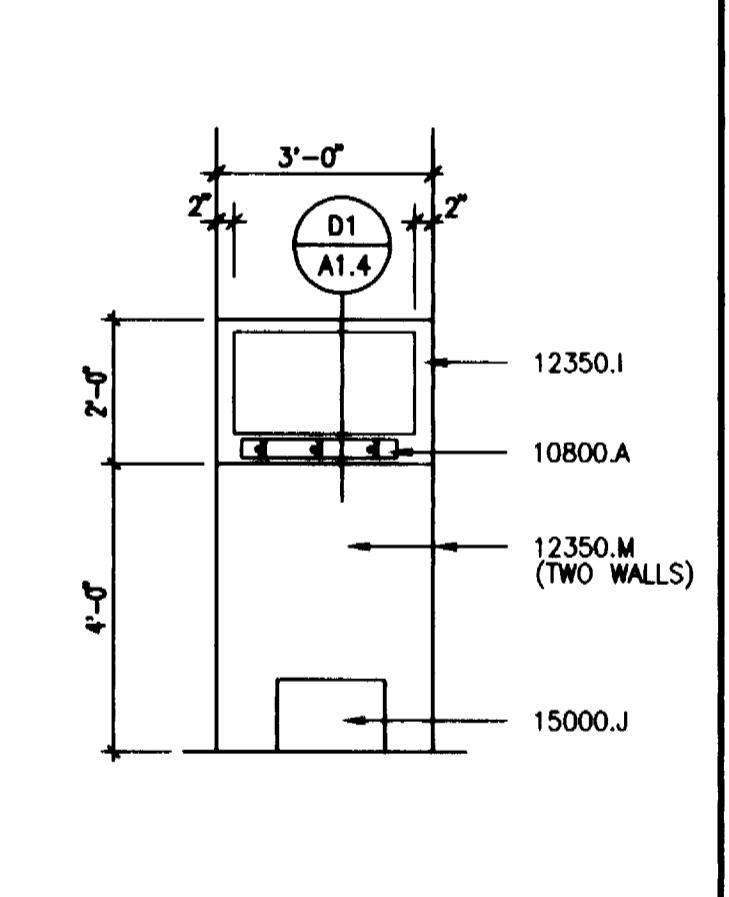
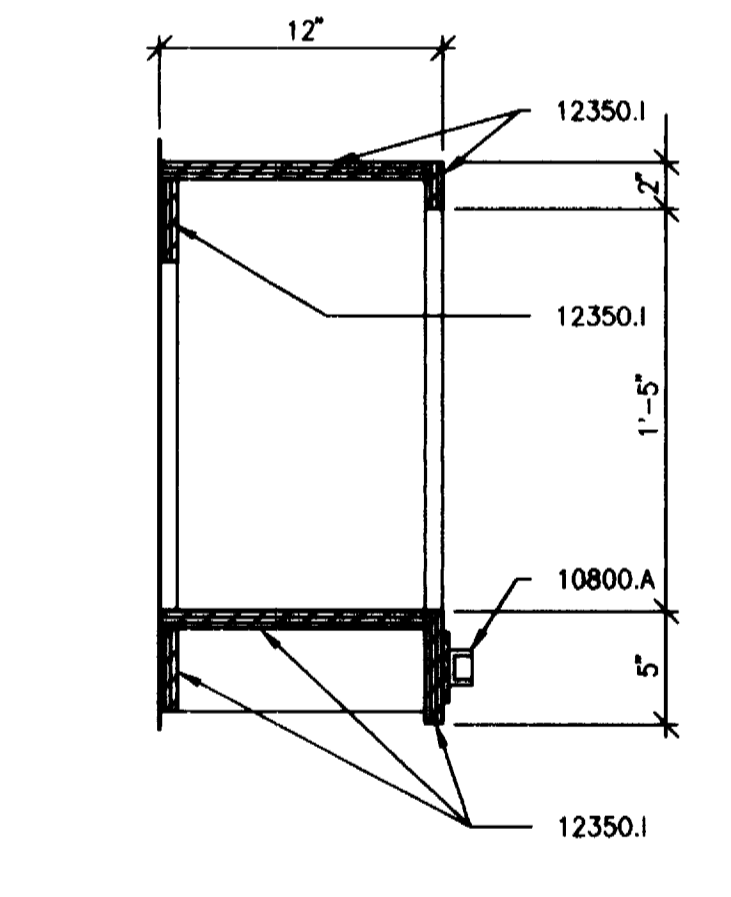
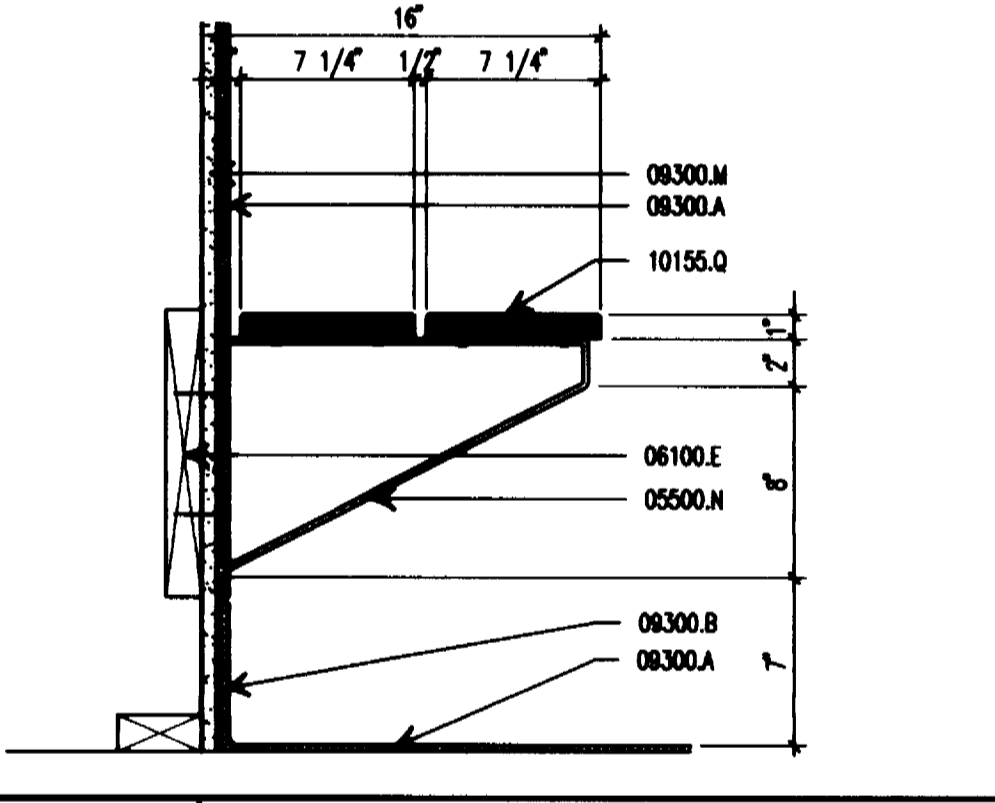
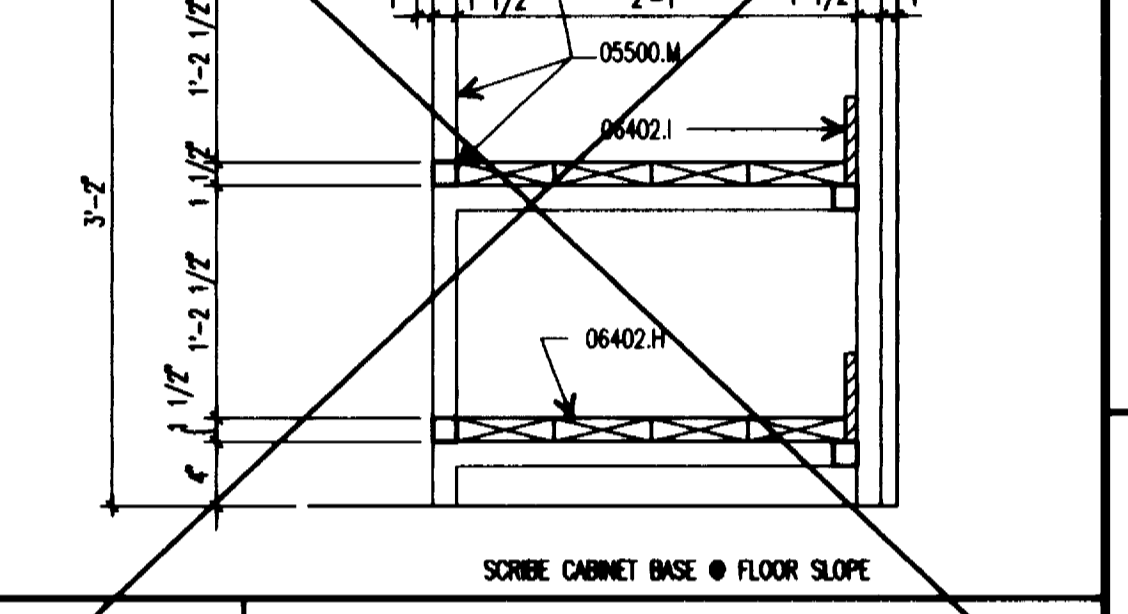
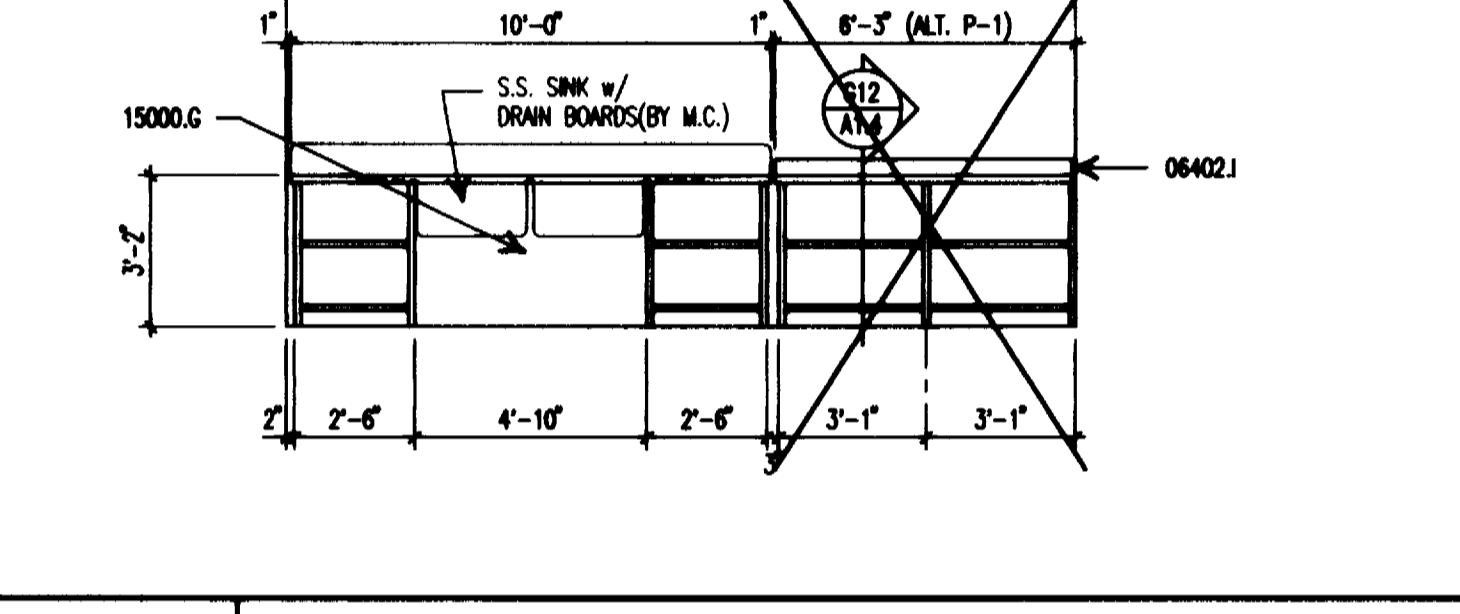
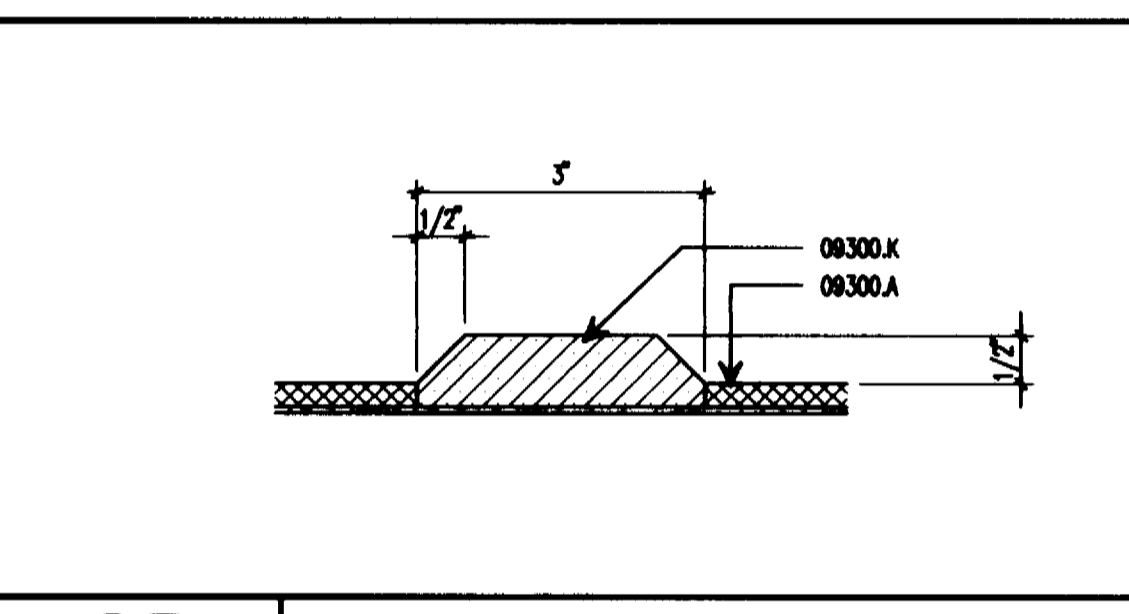
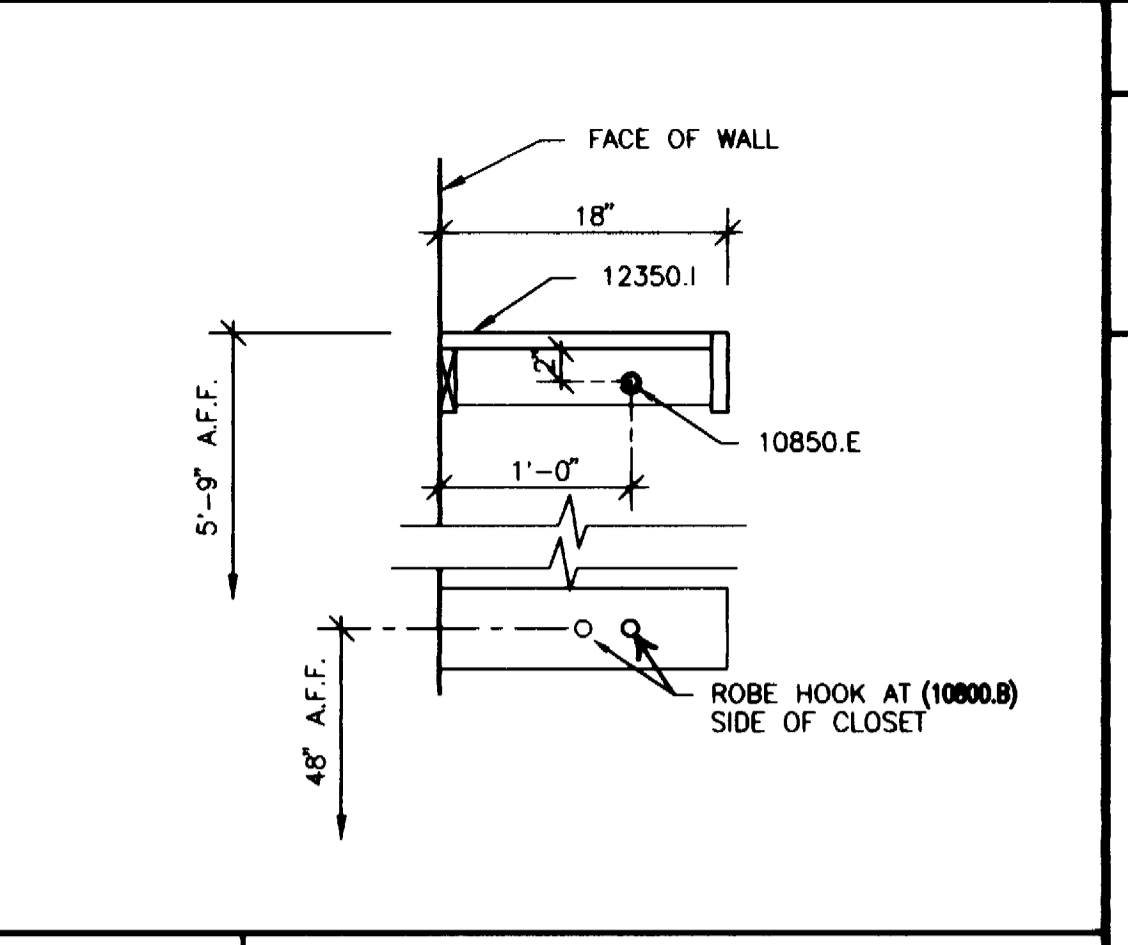
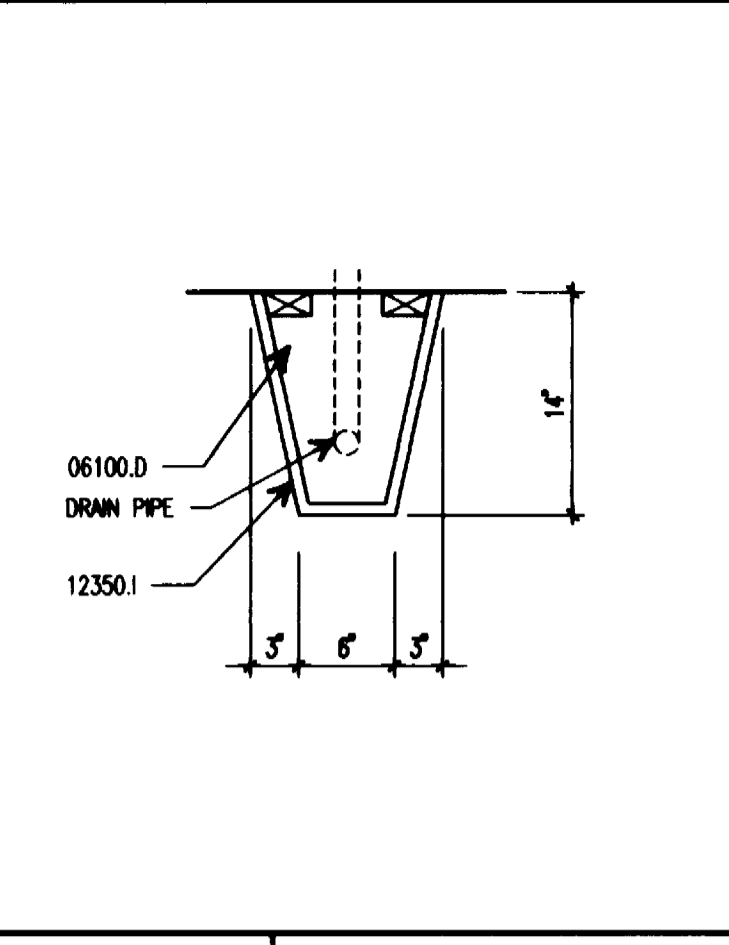
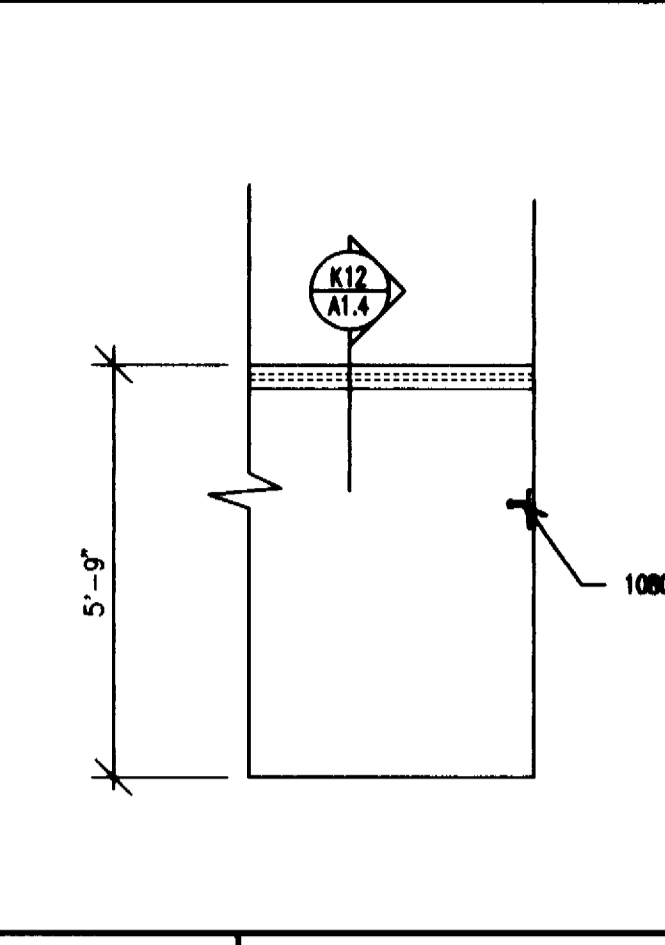
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DW JH		9/18/94	9211
REVISION	REVISION	DATE	CADD REF. NO.
3/10/95	4/6/95	2/9/96	18211/A13
SHEET TITLE			COPYRIGHT
SPACE PLAN & TILE PATTERNS			
PROJECT			DRAWING NO.
GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD USE RFP9310011			A1.3

Materials Keying

- Prefix (5 digit specification section number) **04400.A** Suffix (specific item)
- DIVISION 5 - METALS**
 DISH N 1/4"x2 1/2" BENT PLATE (GALV.)
- DIVISION 6 - WOOD AND PLASTICS**
 06100.D 2x NAILER
 06402.E FIBERGLASS PANEL
 H 2" LAMINATED HARDWOOD
 I 2x PLANK SLICES
 J 1x PLANK BACKSPLOSH
- DIVISION 9 - FINISHES**
 09300.A CERAMIC TILE
 B CERAMIC TILE BASE
 K MARBLE THRESHOLD
 M CEMENTITIOUS BACKER UNIT
- DIVISION 10 - SPECIALTIES**
 10155.B METAL PARTITION FLOOR MOUNTED (O.H. BRACED)
 Q SOLID PLASTIC BENCH
 S ROBE HOOK (48" HIGH IN ACCESS. STALLS)
 10800.A MOP AND BROOM HOLDER
 B ROBE HOOK (48" A.F.F.)
 C GRAB BAR
 D TOILET TISSUE DISPENSER
 E SANITARY NAPKIN VENDOR
 H SANITARY NAPKIN DISPOSAL (SURFACE MOUNTED)
 I PAPER TOWEL DISPENSER
 L SHOWER ROD, CURTAIN, AND HOOKS
 M S.S. FOLDING SHOWER SEAT
 U SOAP DISH (RECESSED)
 S MIRROR (TEMPERED GLASS)
 Y TOWEL PINS
 10850.E 1" CHROME ROD
- DIVISION 12 - FURNISHINGS**
 12350.C PLASTIC LAMINATE TOP, BACK & EDGE
 I PLAST. LAM. ON PART. BOARD - ALL EXPOSED EDGES
 K FILLER STRIP
 M PLAST. LAM. - ADHESIVE APPLIED
 O WOOD NAILER
- DIVISION 15 - MECHANICAL**
 15000.B ELECTRIC WATER COOLER
 G WRAP WASTE & H.W. LINES w/INSULATION
 H WATER CLOSET
 J MOP SERVICE BASIN
 AA SOAP DISPENSER



TOILET ACCESSORY SCHEDULE		
(NO.)	ITEM	KEYNOTE NO.
1	MIRROR (24"x36")	10800.U
2	GRAB BAR (30")	10800.C
3	GRAB BAR (42")	10800.C
4	T.L.T. PAPER HOLDER (DBL. ROLL)	10800.D
5	ROBE HOOK (T.L.T. PART. TYPE)	10155.S
6	TOWEL PIN	10800.Y
7	METAL PARTITION	10155.B
8	SANITARY NAPKIN DISP. (SURFACE MOUNT)	10800.H
9	SANITARY NAPKIN VENDOR	10800.E
10	PLASTIC BENCH	10155.Q
11	HANDICAPPED SHOWER UNIT	
12	18"x32" L SHAPED GRAB BAR	10800.C
13	S.S. FOLD DOWN SEAT	10800.M
14	CURTAIN ROD, CURTAIN & HOOKS	10800.L
15	SOAP DISPENSER	15000.AA
16	SOAP DISH	10800.S
17	PAPER TOWEL DISPENSER	10800.I
18	MOP HOLDER	10800.A



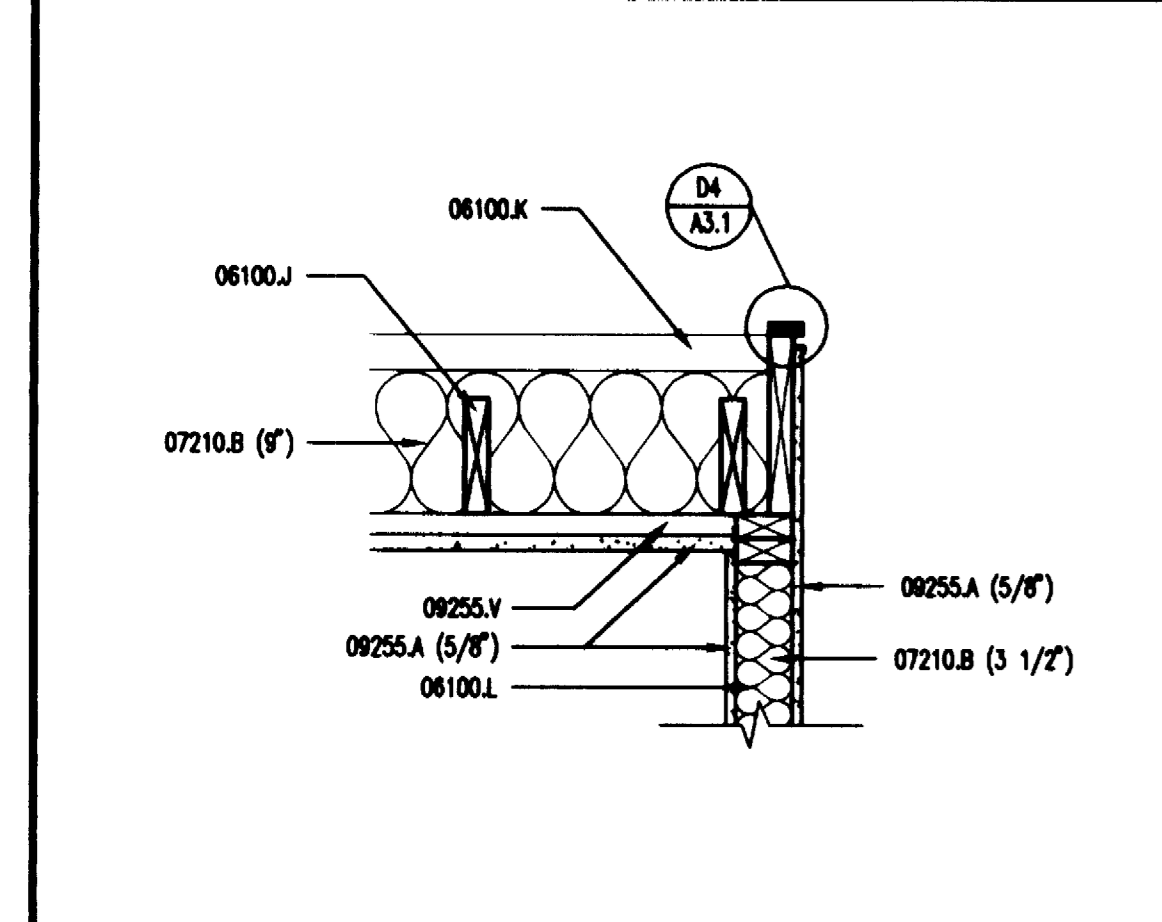
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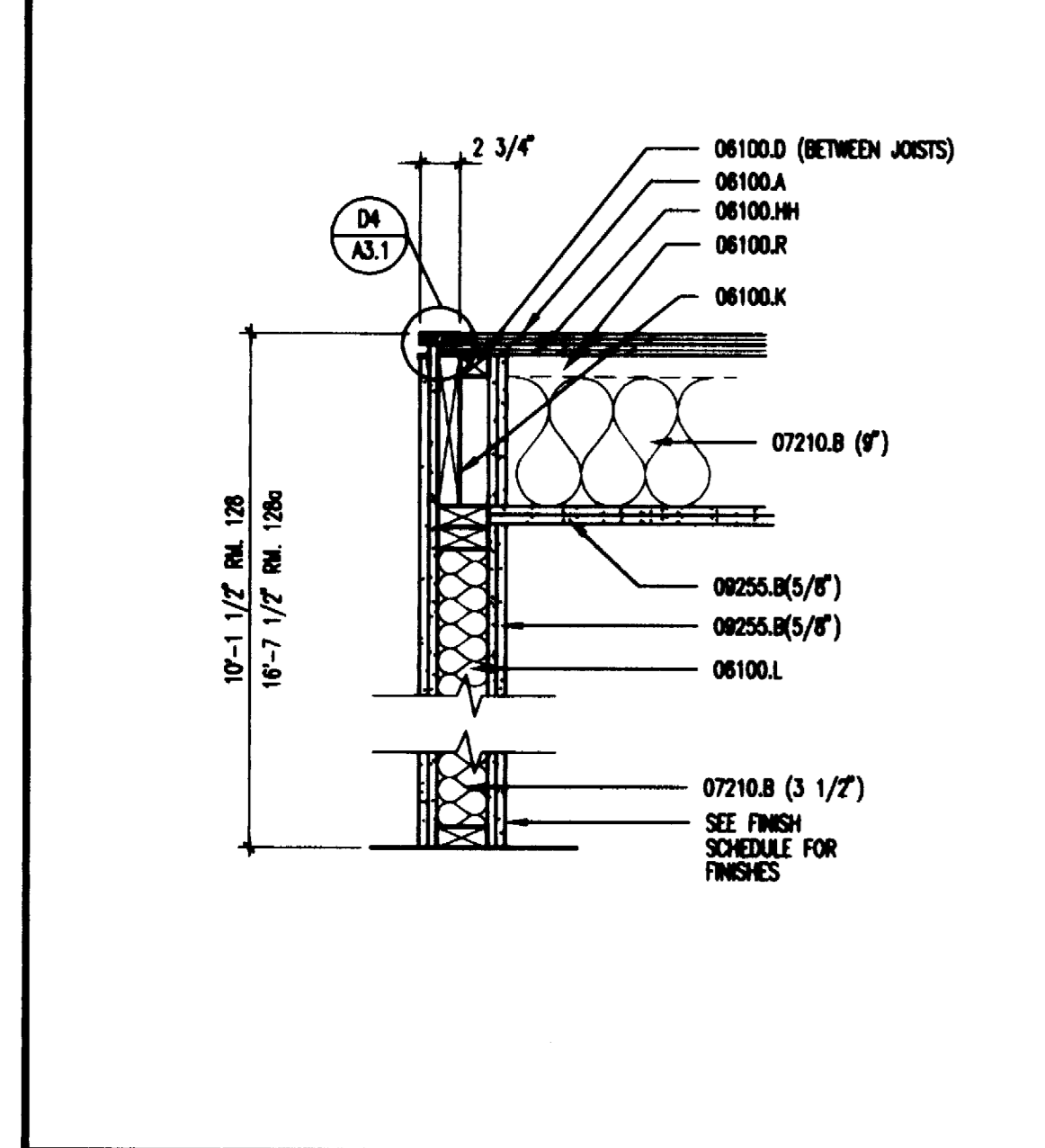
DRAWN BY DW, MJU	APPROVED BY	DATE 9/16/94	PROJECT NO. 9211
REVISION 3/10/95	REVISION 4/8/95	AS BUILTS 2/9/96	CADD REF. NO. \9211\A14
SHEET TITLE CASEWORK ELEVATIONS	COPYRIGHT	DRAWING NO. A1.4	

PROJECT: ONE FISHERIES RESEARCH CENTER
 DEPARTMENT OF GAME, FISH & PARKS
 PRIORITY 50 USE 02/23/01/11

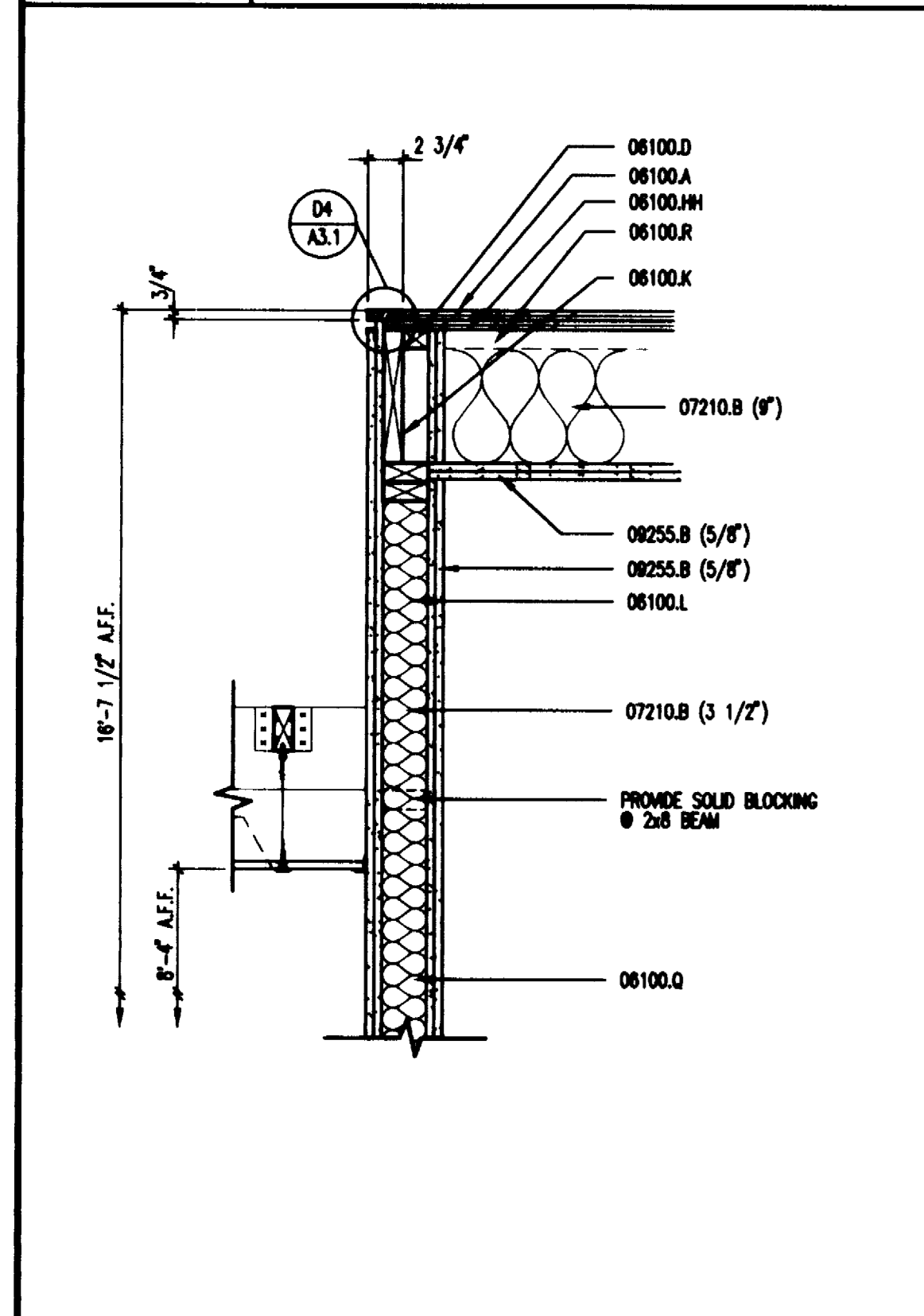
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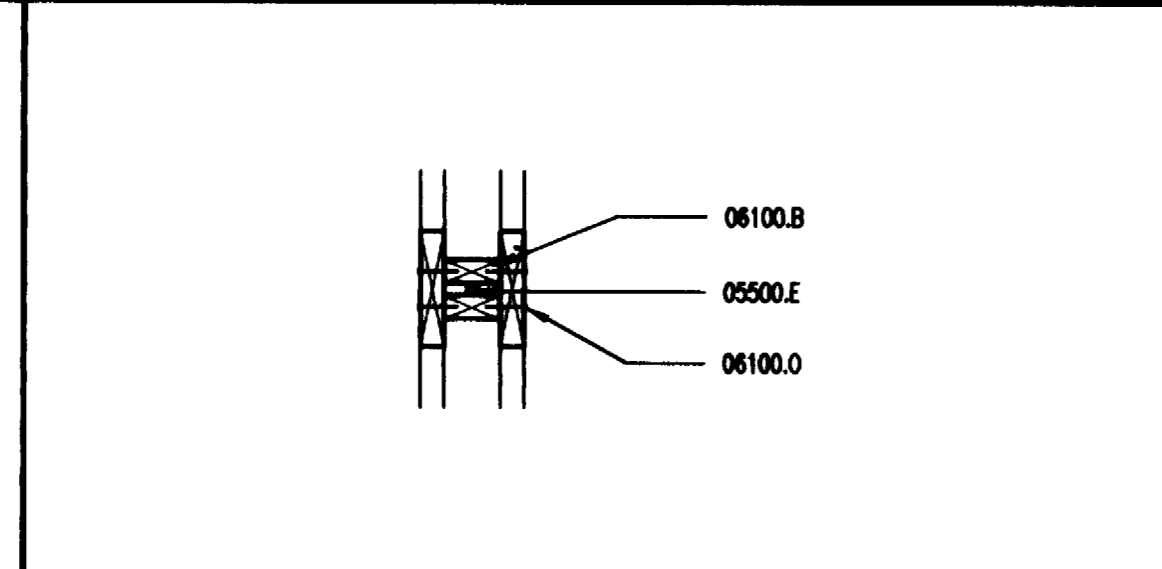
K1
1" = 1'-0"



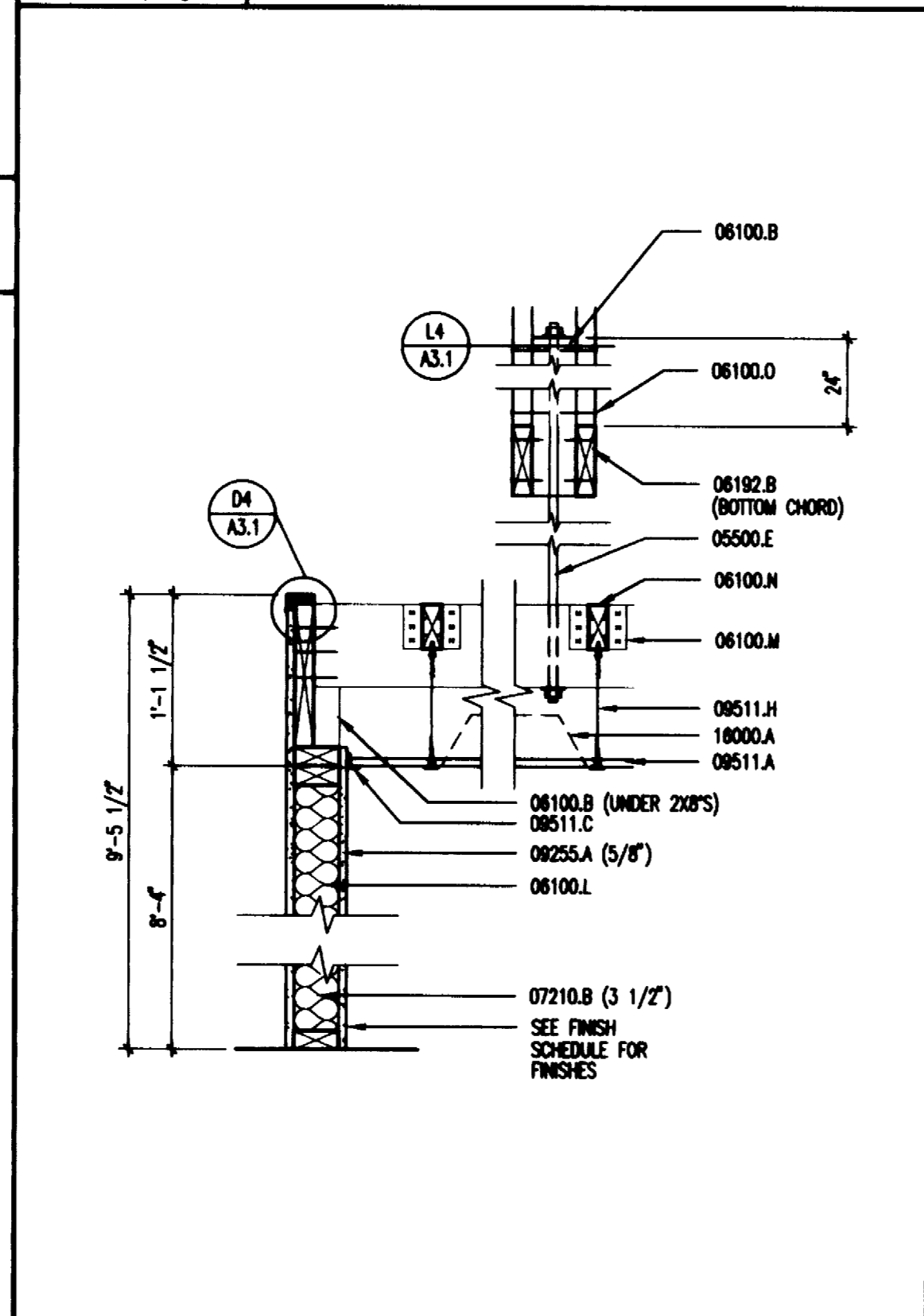
F1
1" = 1'-0"



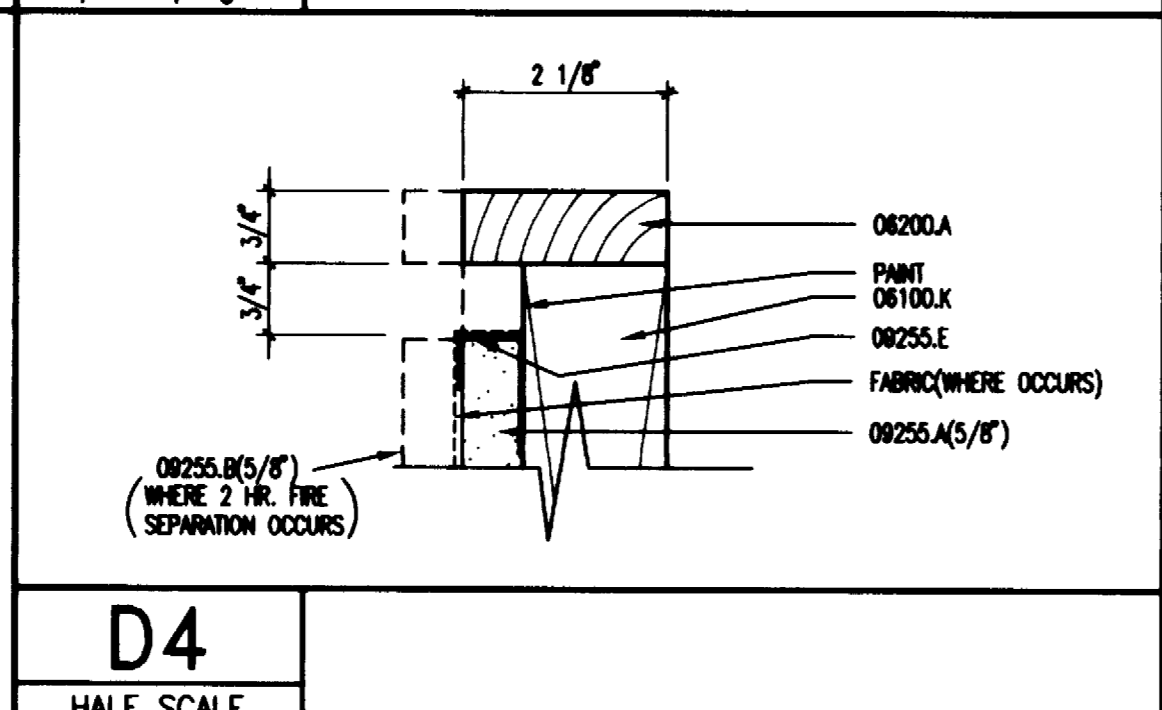
A1
1" = 1'-0"



L4
1" = 1'-0"



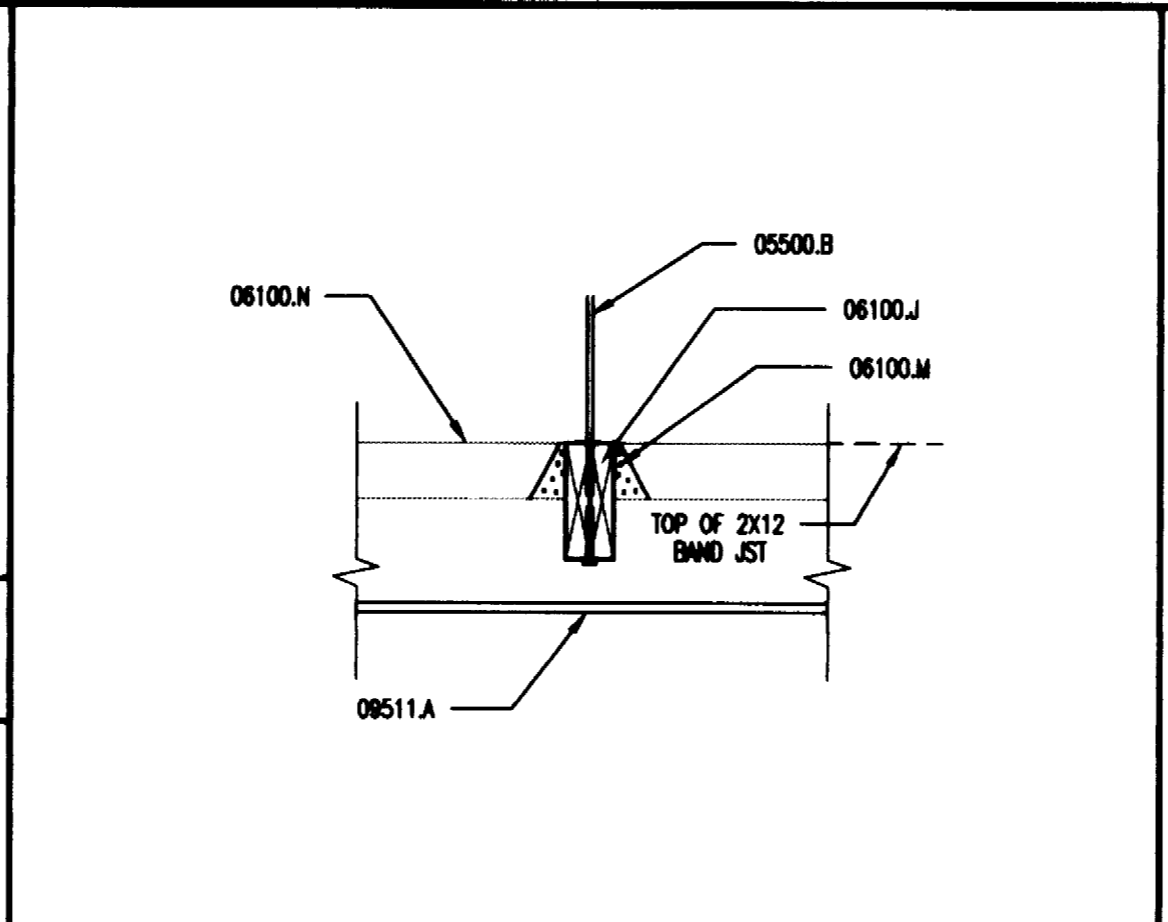
F4
1" = 1'-0"



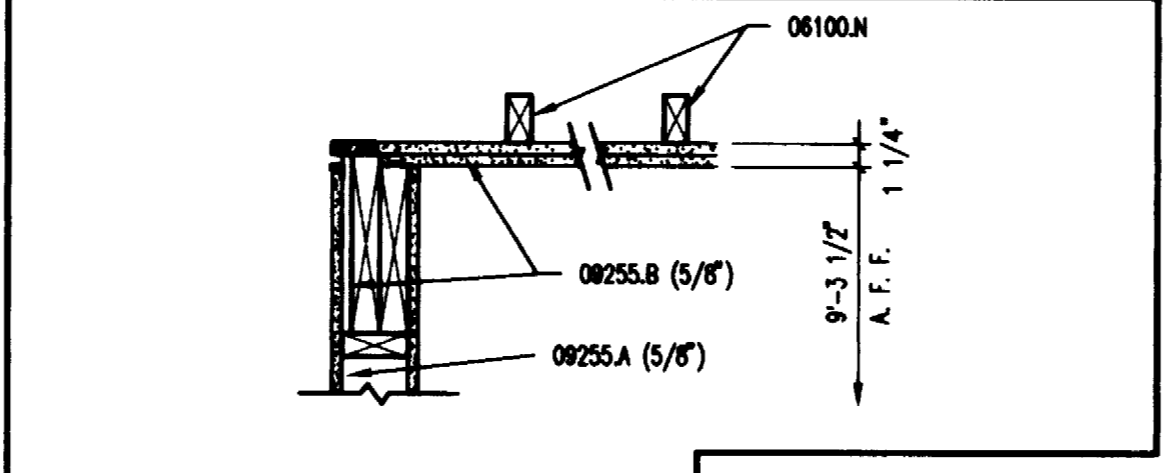
D4
HALF SCALE



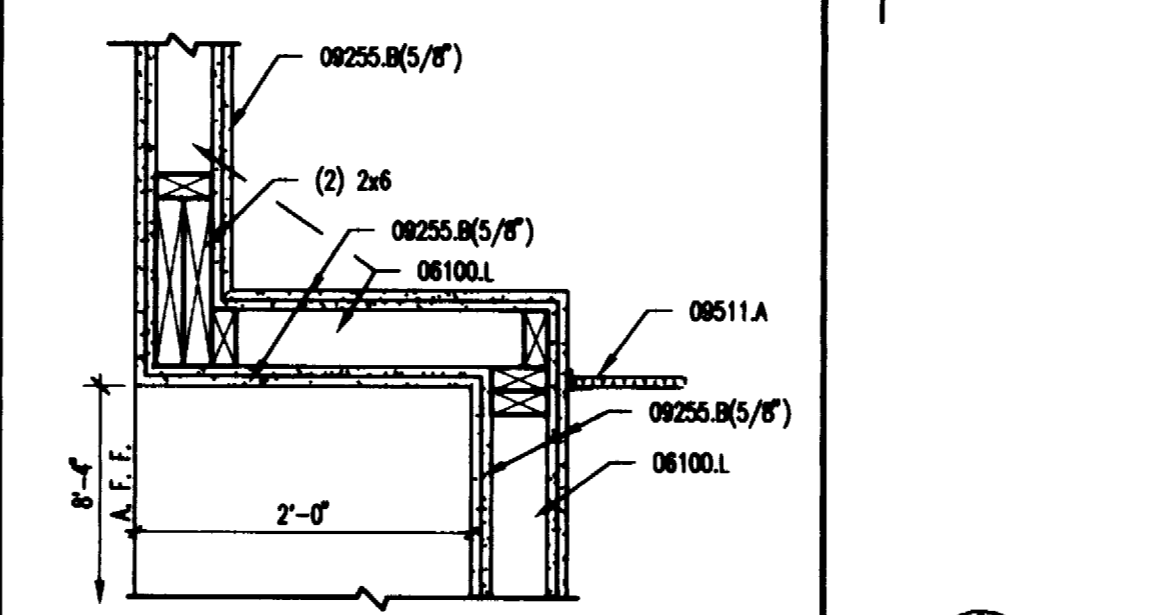
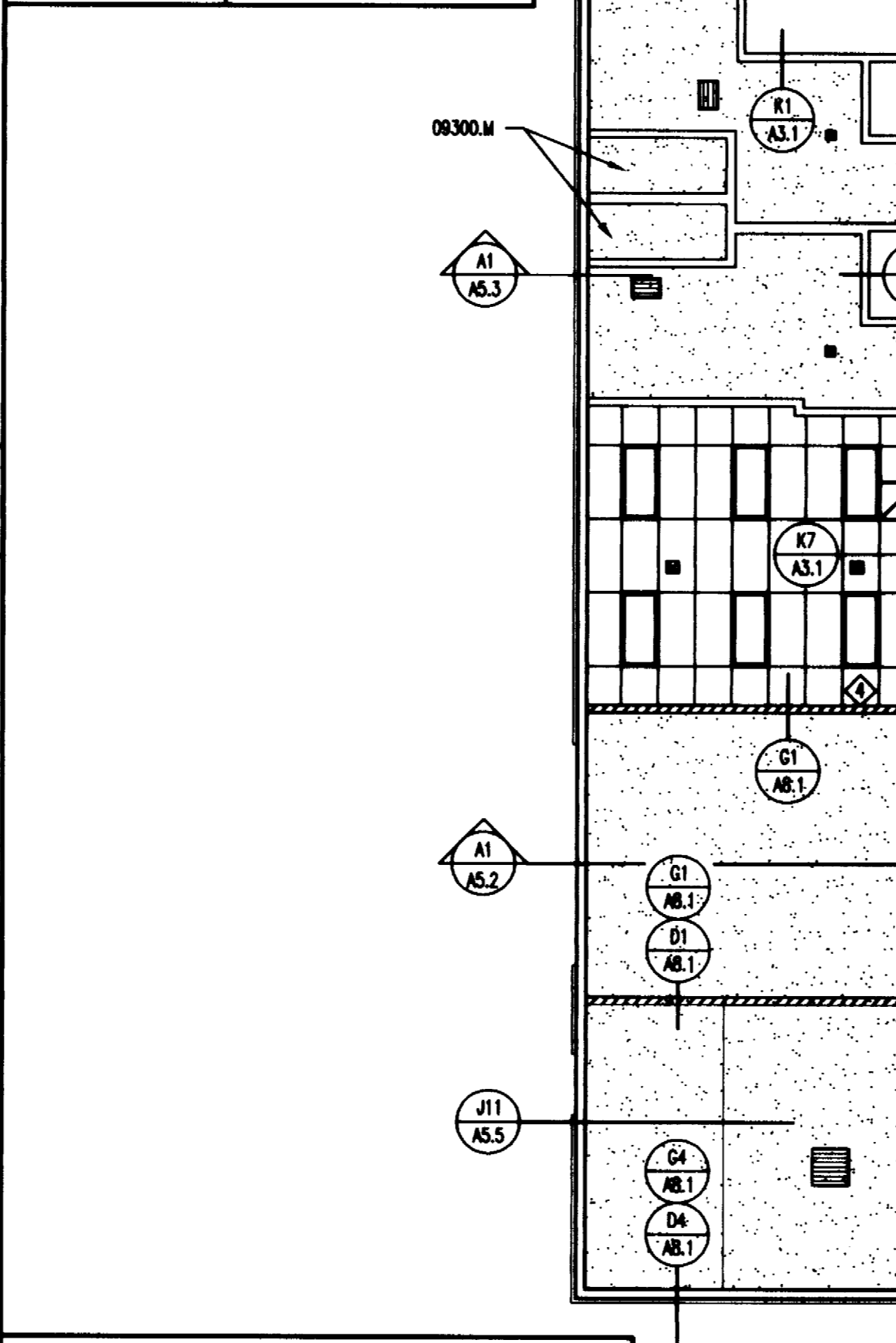
A4
1" = 1'-0"



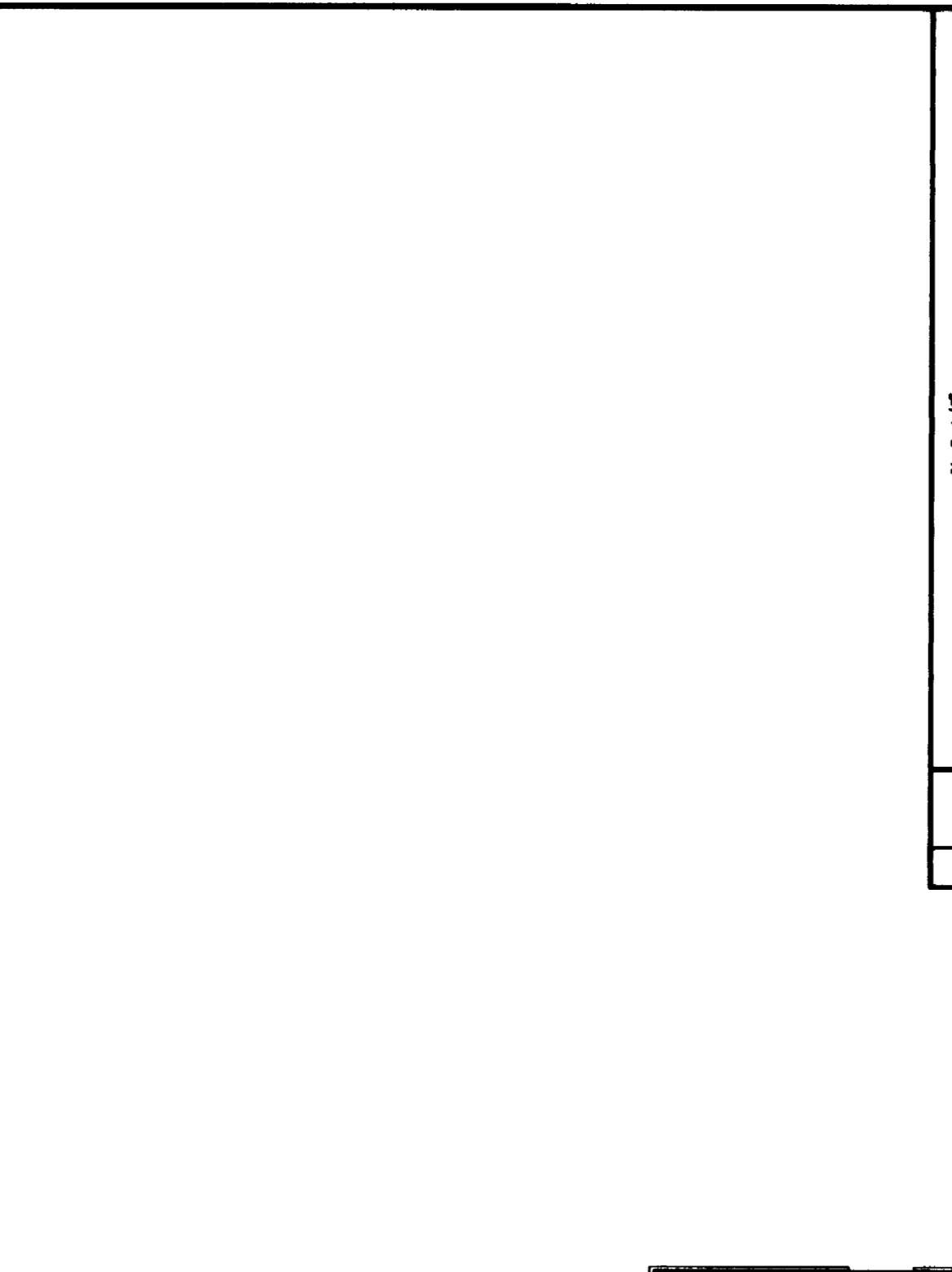
K7
1" = 1'-0"



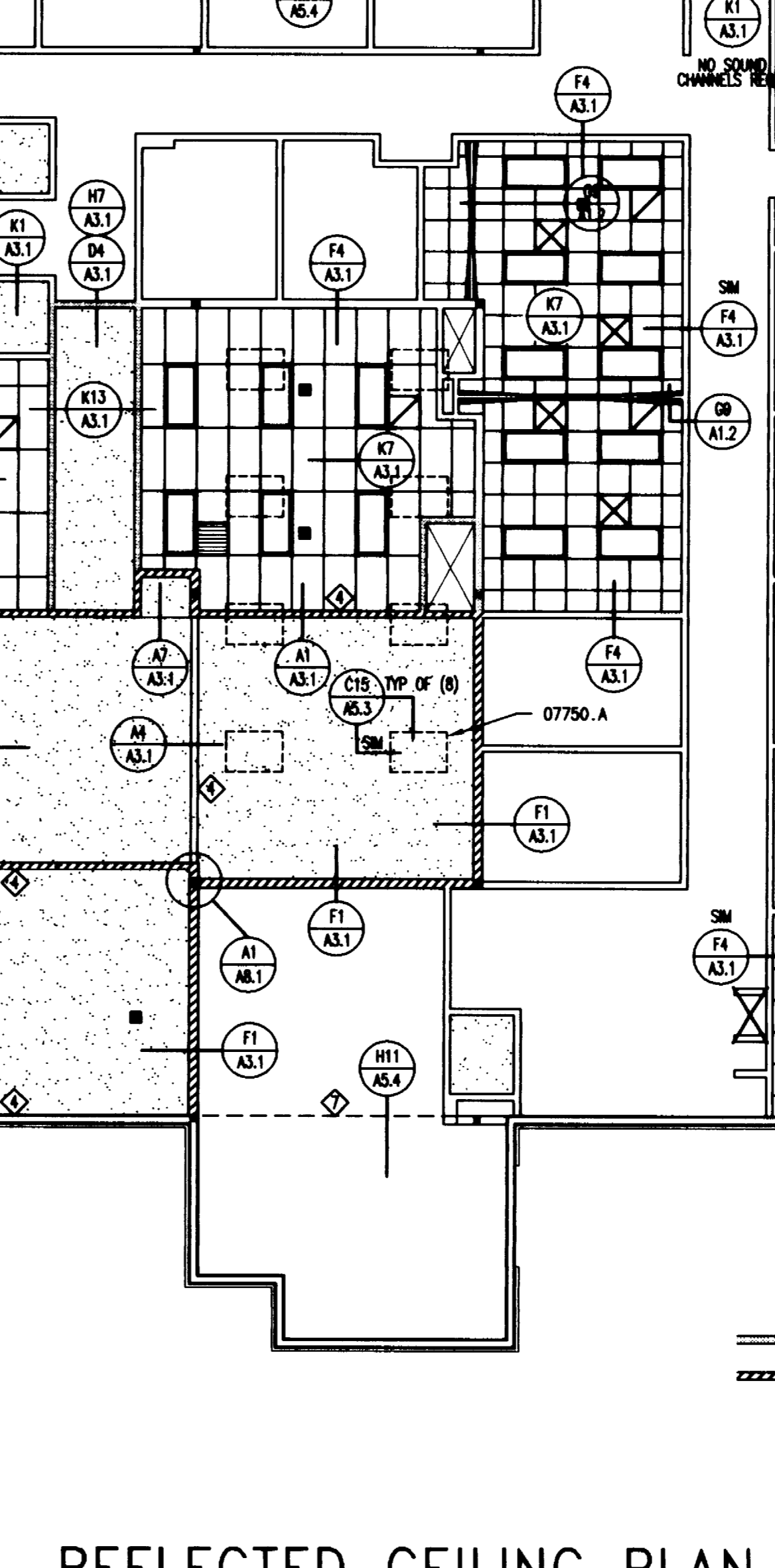
H7
1" = 1'-0"



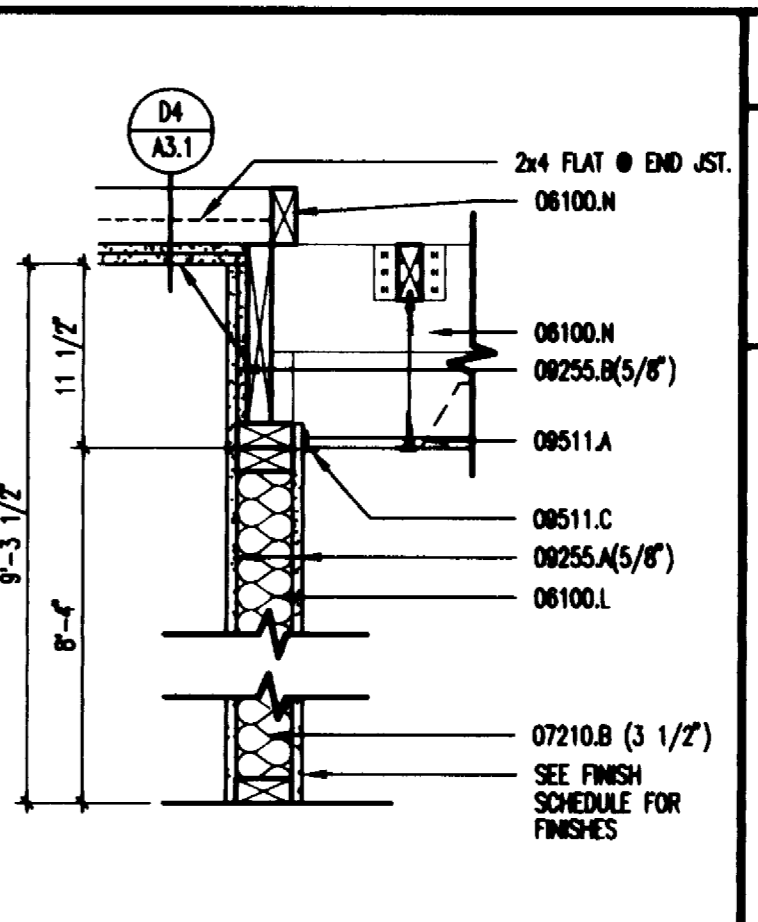
A7
1" = 1'-0"



K13
1" = 1'-0"



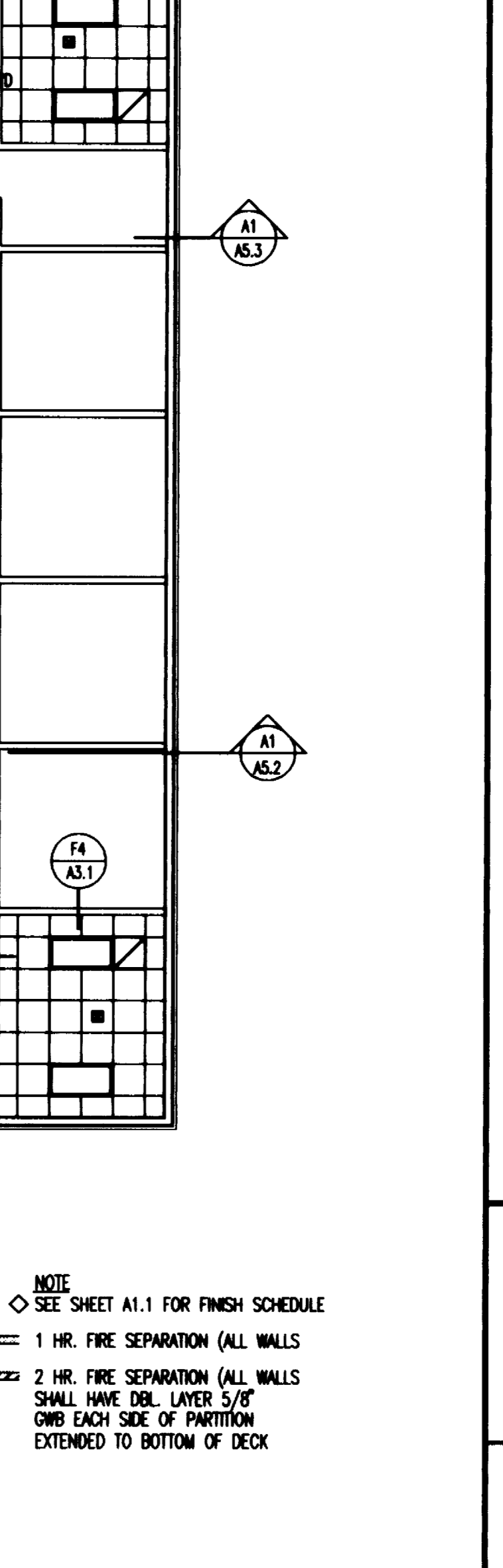
REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



K13
1" = 1'-0"



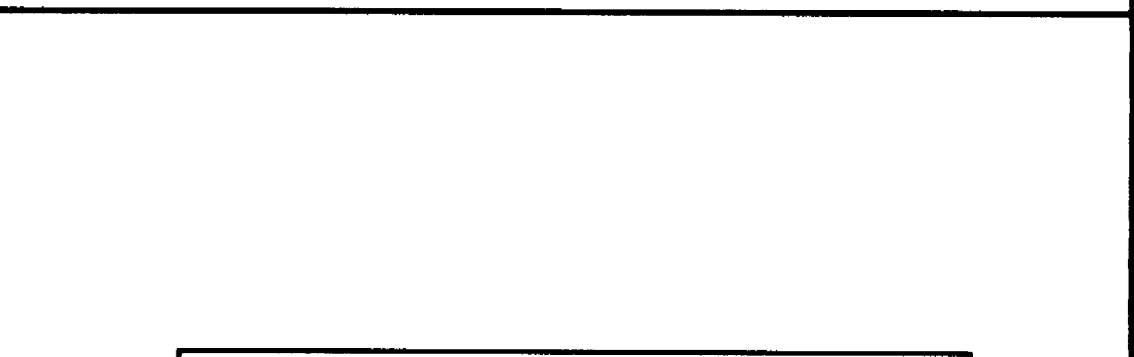
H7
1" = 1'-0"



A7
1" = 1'-0"

Materials Keying		
Prefix (5 digit specification section number)	04400.A	Suffix (specific item)

- DIVISION 5 - METAL**
 - 05120.E BEAM
 - 05500.B LADDER
 - E 1/2" DIA. THREADED RODS 8'-0" O.C. SEE PLAN
- DIVISION 6 - WOOD & PLASTICS**
 - 06100.A 3/4" A/C PLYWOOD (T&G)
 - B 2x4 WOOD BLOCKING
 - D 2x8 MAILER
 - J 2x8 JST 16" O.C.
 - K 2x12 BAND JST
 - L 2x4 STUD 16" O.C.
 - M METAL 2x JST HANGER
 - N 2x6 JST 4'-0" O.C.
 - O 3/8" DIA. LAG BOLTS & WASHERS 9" O.C. STAGGERED
 - Q 2x4 STUD CRIPPLE UNDER 2x8's
 - R 2x12 JST 24" O.C.
 - U 2x6 STUDS 16" O.C.
 - HH 3/4" MIN. GRADE PLYWOOD
 - 06192.B ROOF TRUSS
 - 06200.A 1x OAK TRIM
- DIVISION 7 - THERMAL AND MOISTURE PROTECTION**
 - 07210.B GLASS FIBER (TYPE 'B') UNFACED
 - F 6 MIL VAPOR BARRIER
 - 07750.A SKYLIGHT
- DIVISION 9 - FINISHES**
 - 09255.A GYPSUM WALLBOARD
 - B GYPSUM WALLBOARD - 2 LAYERS
 - E CASING BEAD
 - V 1/2" (0.019") RESILIENT FURRING CHANNELS 16" O.C.
 - 09300.M CEMENTITIOUS BACKER UNIT
 - 09511.A ACOUSTICAL PANEL CEILING
 - C WALL MOLDING
 - H HANGER WIRE 4'-0" O.C. E.W.
- DIVISION 16 - ELECTRICAL**
 - 16000.A LIGHT FIXTURE



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DRAWN BY DW JH	APPROVED BY	DATE 9/18/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/8/95	AS BUILTS 2/9/96	CADD REF. NO. R211A31
SHEET TITLE REFLECTED CEILING PLAN & DETAILS		COPYRIGHT	DRAWING NO.
PROJECT ONE FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PERRIE, SD USE #P3310011			A3.1

NOTE

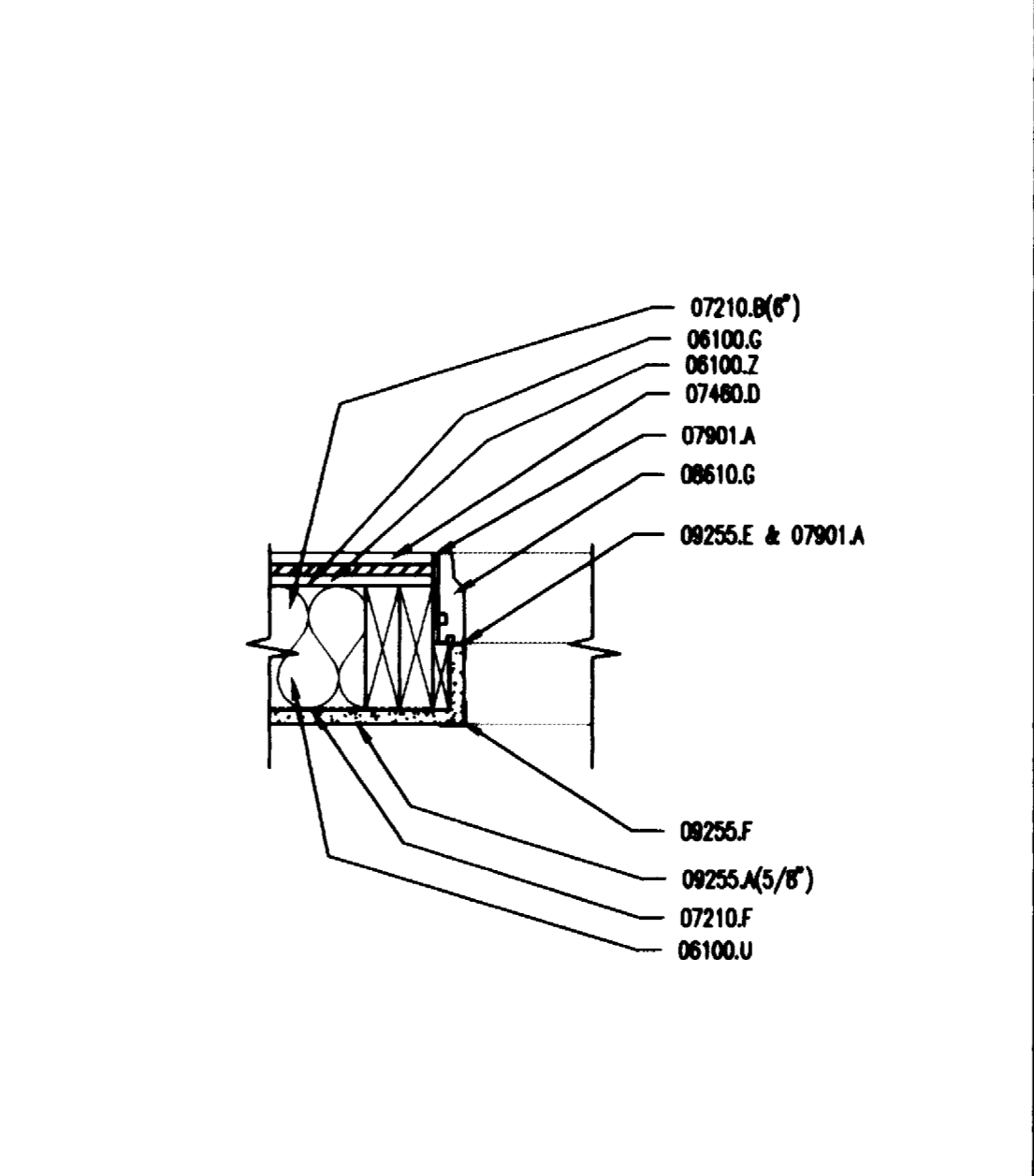
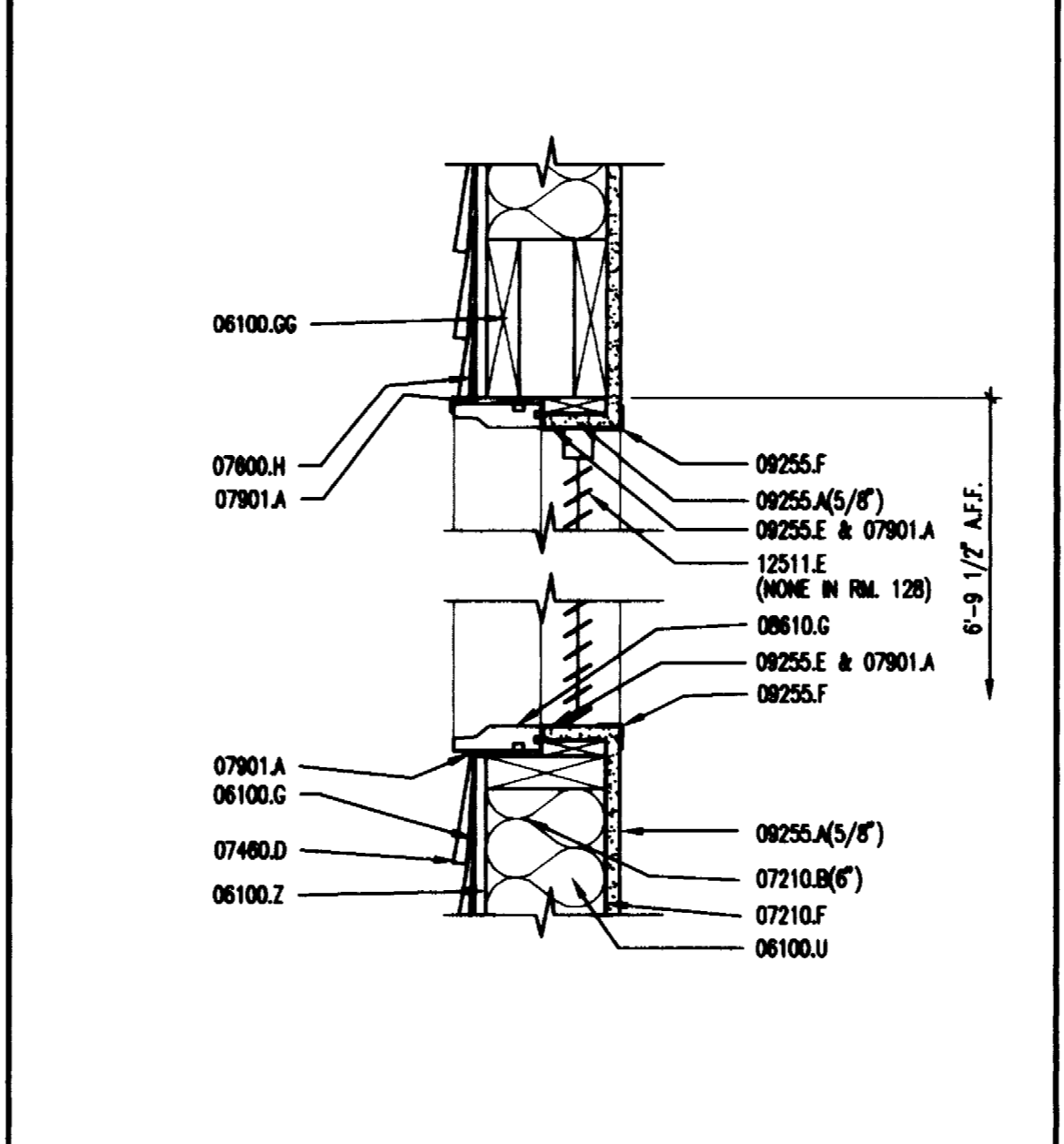
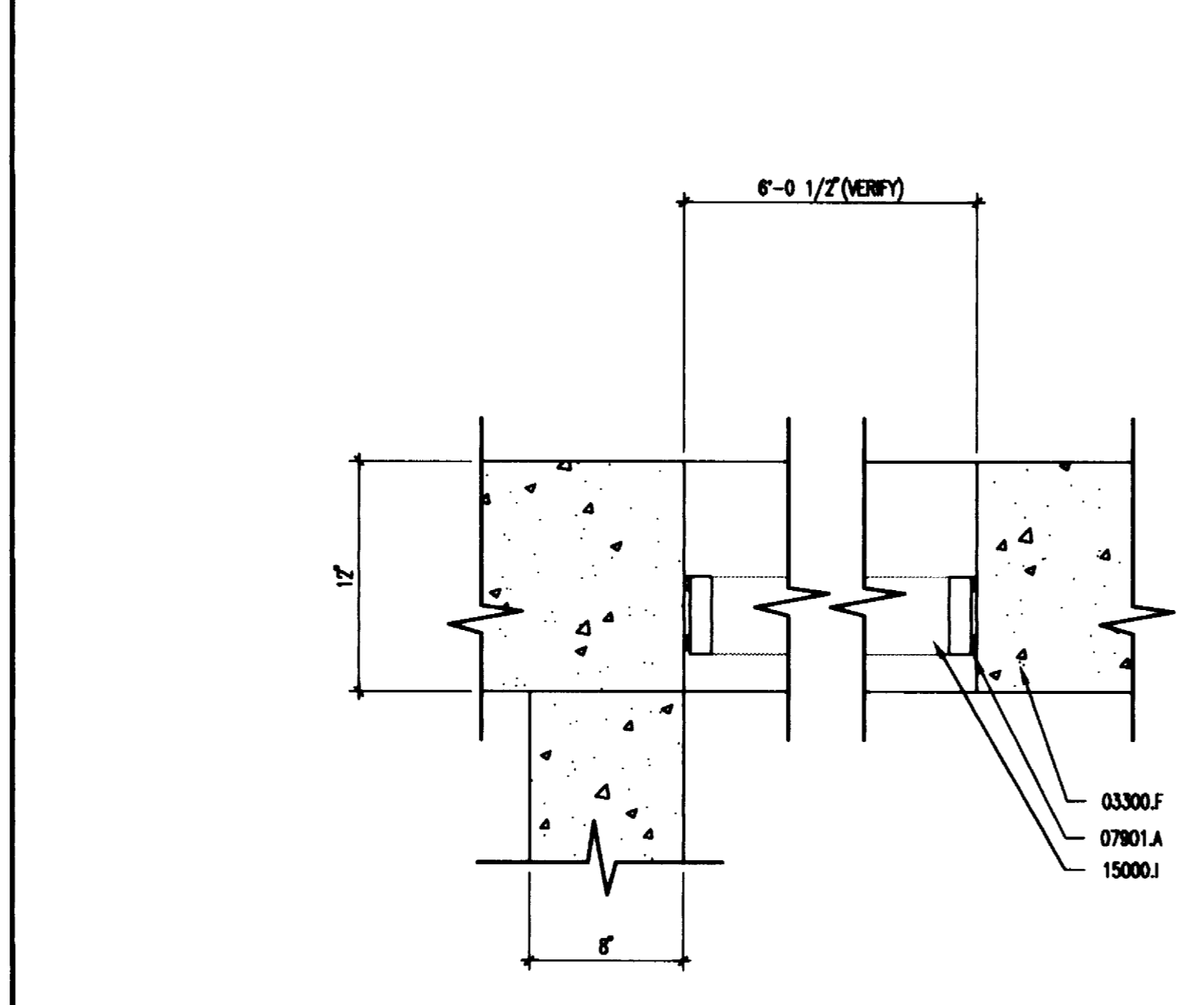
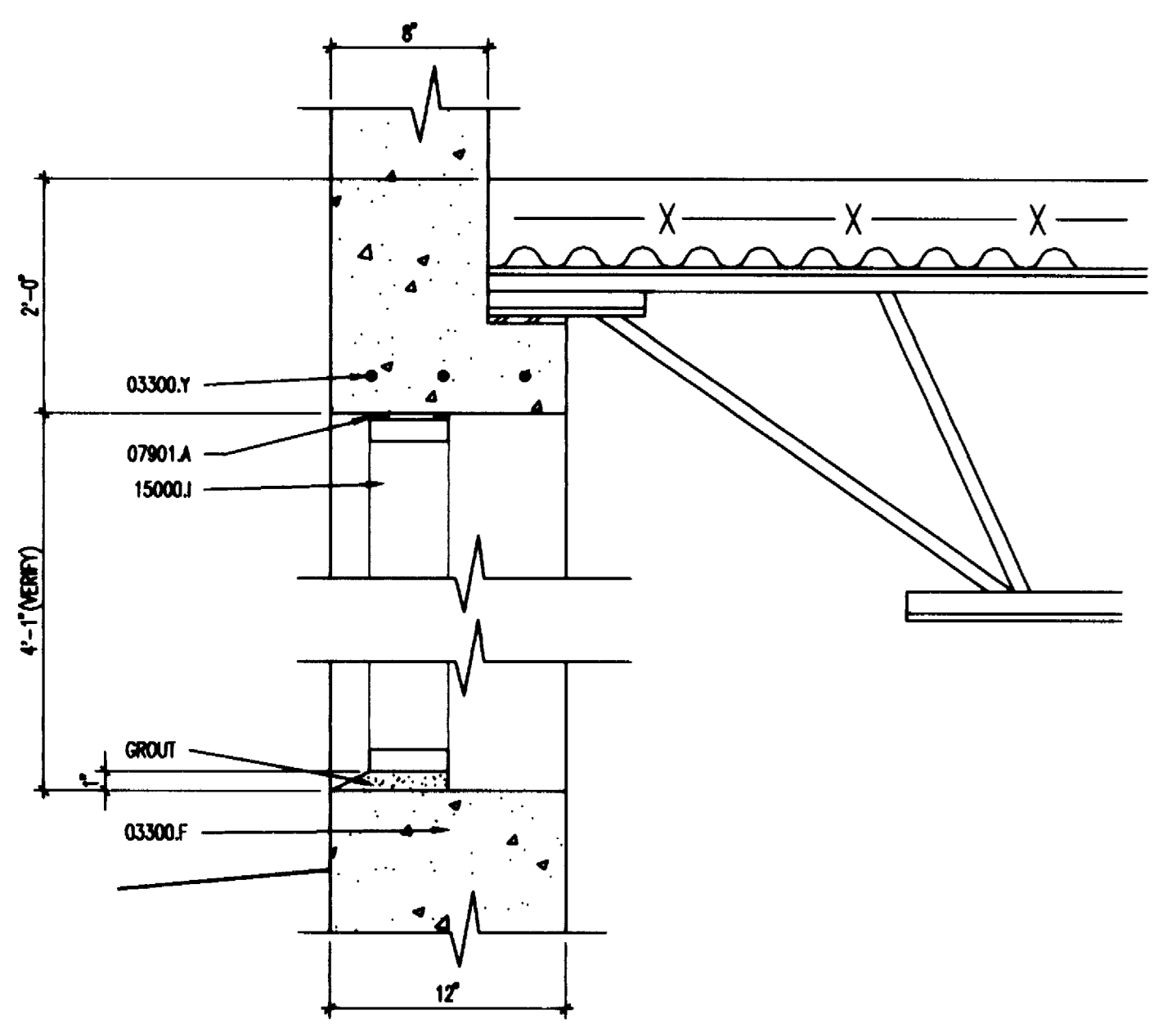
- ◆ SEE SHEET A1.1 FOR FINISH SCHEDULE
- ==== 1 HR. FIRE SEPARATION (ALL WALLS)
- ===== 2 HR. FIRE SEPARATION (ALL WALLS SHALL HAVE DBL. LAYER 5/8" GWB EACH SIDE OF PARTITION EXTENDED TO BOTTOM OF DECK)

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Materials Keying

Prefix (5 digit specification section number) ← 04400.A → Suffix (specific item)

- DIVISION 3 - CONCRETE**
 - 03300.F FOUNDATION WALL
 - Y (4) #5 BARS
- DIVISION 6 - WOOD & PLASTICS**
 - 06100.G AIR INFILTRATION BARRIER
 - U 2x6 STUDS @ 16" O.C.
 - Z 1/2" CHIPBOARD SHEATHING
 - CC 8X10 RAILROAD TIES
 - GG (2) 2x8's (L INTEL w/2x SPACERS 12" O.C.)
 - 06200.E 2X10 CEDAR RAKE OR FASCIA
 - F CEDAR TRIM
 - H 3/4" MDO PLYWOOD
 - I ROOF VENT - 9" Ø
- DIVISION 7 - THERMAL AND MOISTURE PROTECTION**
 - 07210.B GLASS FIBER (TYPE "B") UNFACED
 - F 6 MIL VAPOR BARRIER
 - 07311.A SHINGLES
 - 07460.D 6" CEDAR SIDING
 - 07600.H FLASHING (C.I.)
 - ~~II RAIN DIVERTER (36" C.I.)~~
 - 07750.A SKYLIGHT
 - 07901.A SEALANT
- DIVISION 8 - DOORS AND WINDOWS**
 - 08610.G WOOD CLAD WINDOW
- DIVISION 9 - FINISHES**
 - 09255.A GYPSUM WALLBOARD
 - E CASING BEAD
 - F CORNER BEAD
- DIVISION 10 - SPECIALTIES**
 - 10425.E 15" HIGH BUILDING SIGN LETTERS
- DIVISION 12 - FURNISHINGS**
 - 12511.E HORIZONTAL BLINDS
- DIVISION 15 - MECHANICAL**
 - 15000.I LOUVER BY M.C.

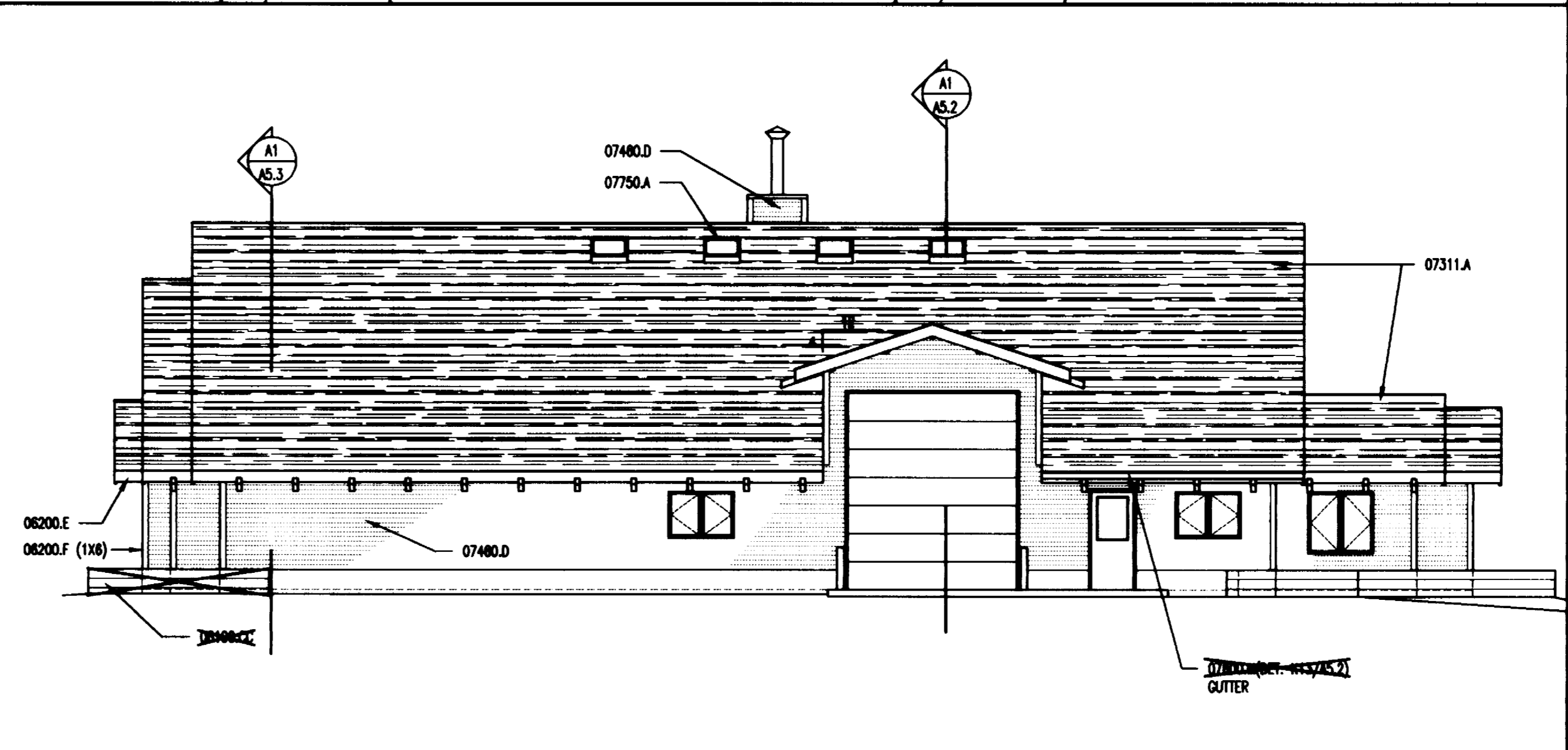
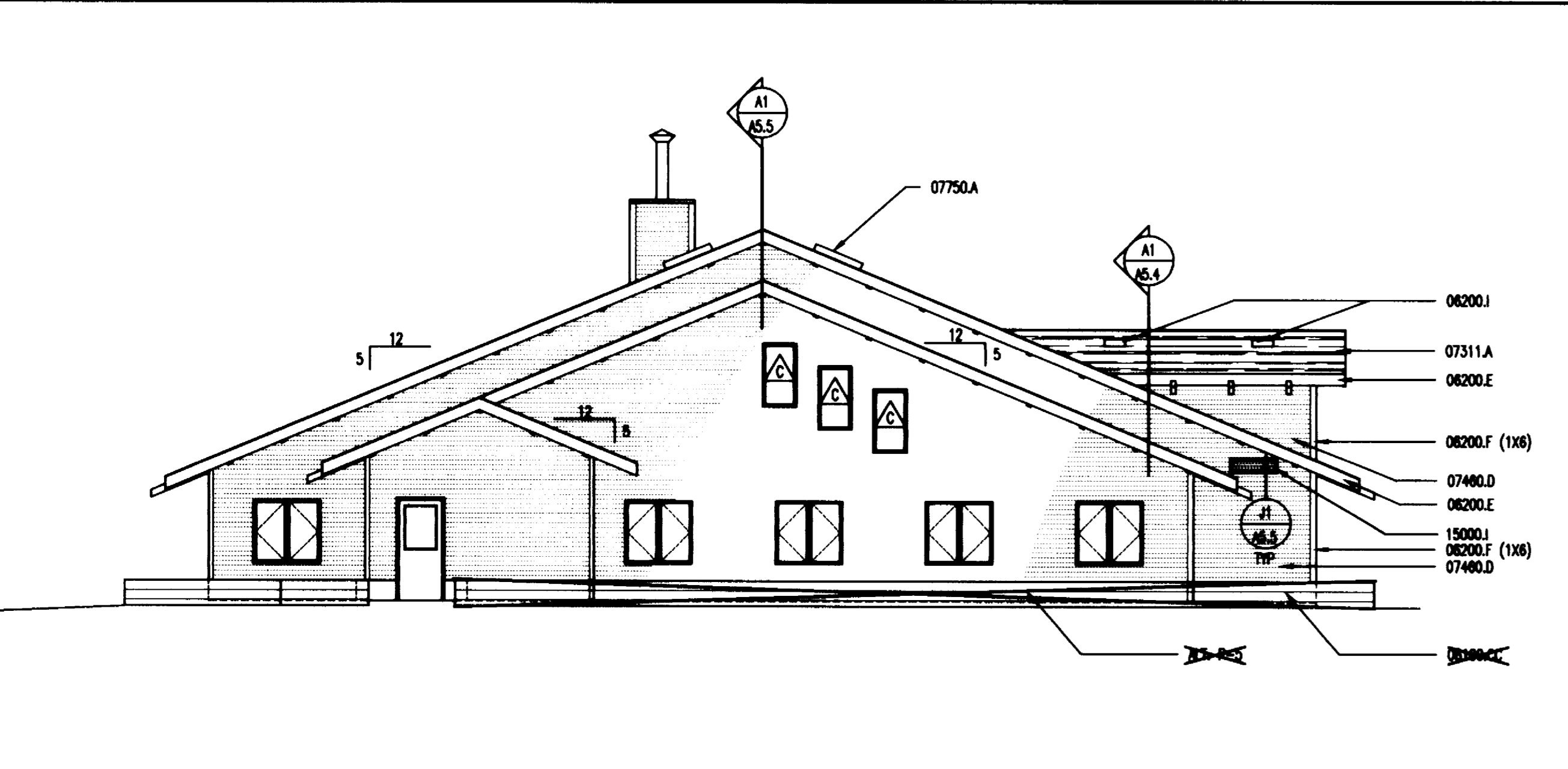


J1 HEAD & SILL - LOUVER
1 1/2" = 1'-0"

J5 JAMB - LOUVER
1 1/2" = 1'-0"

J9 HEAD & SILL
1 1/2" = 1'-0"

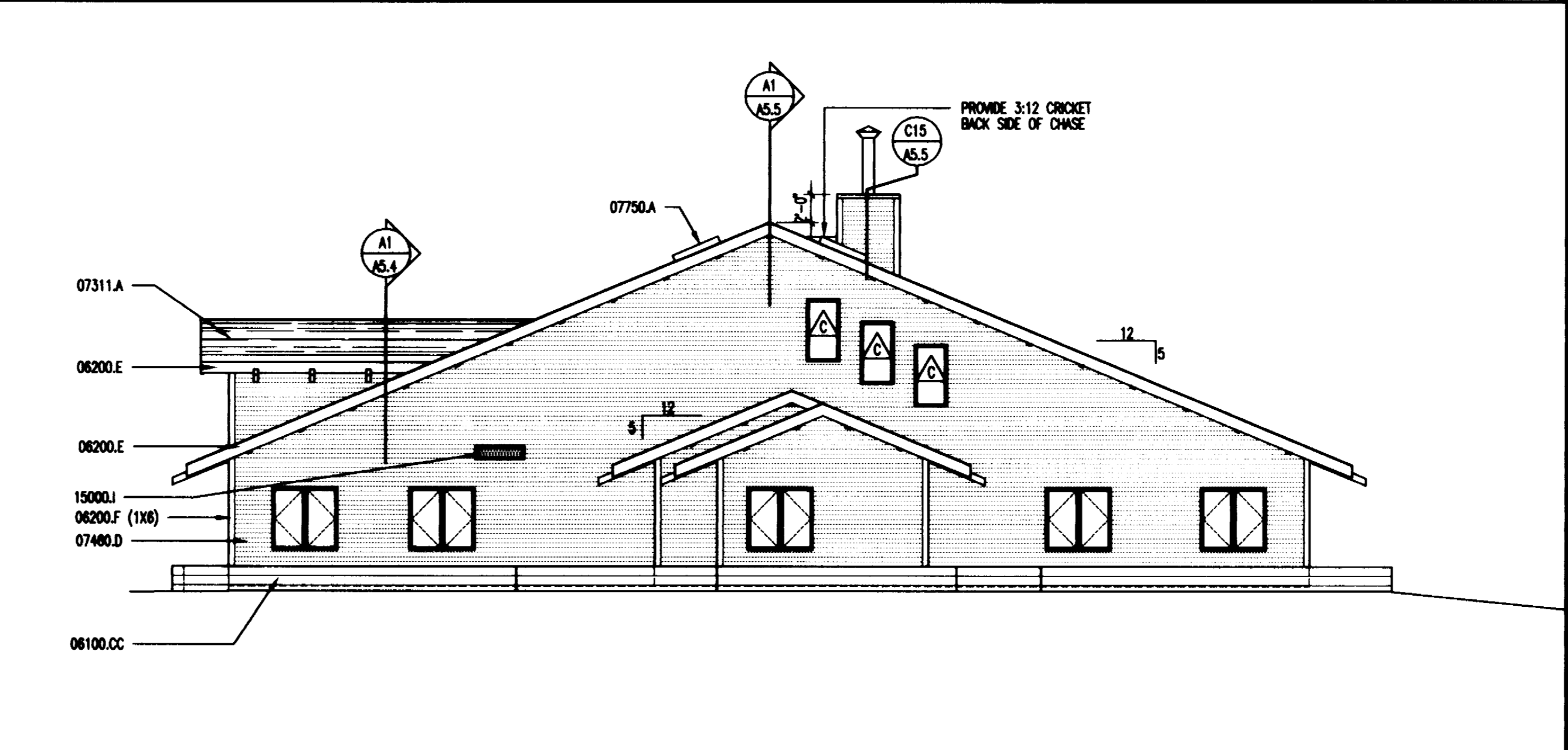
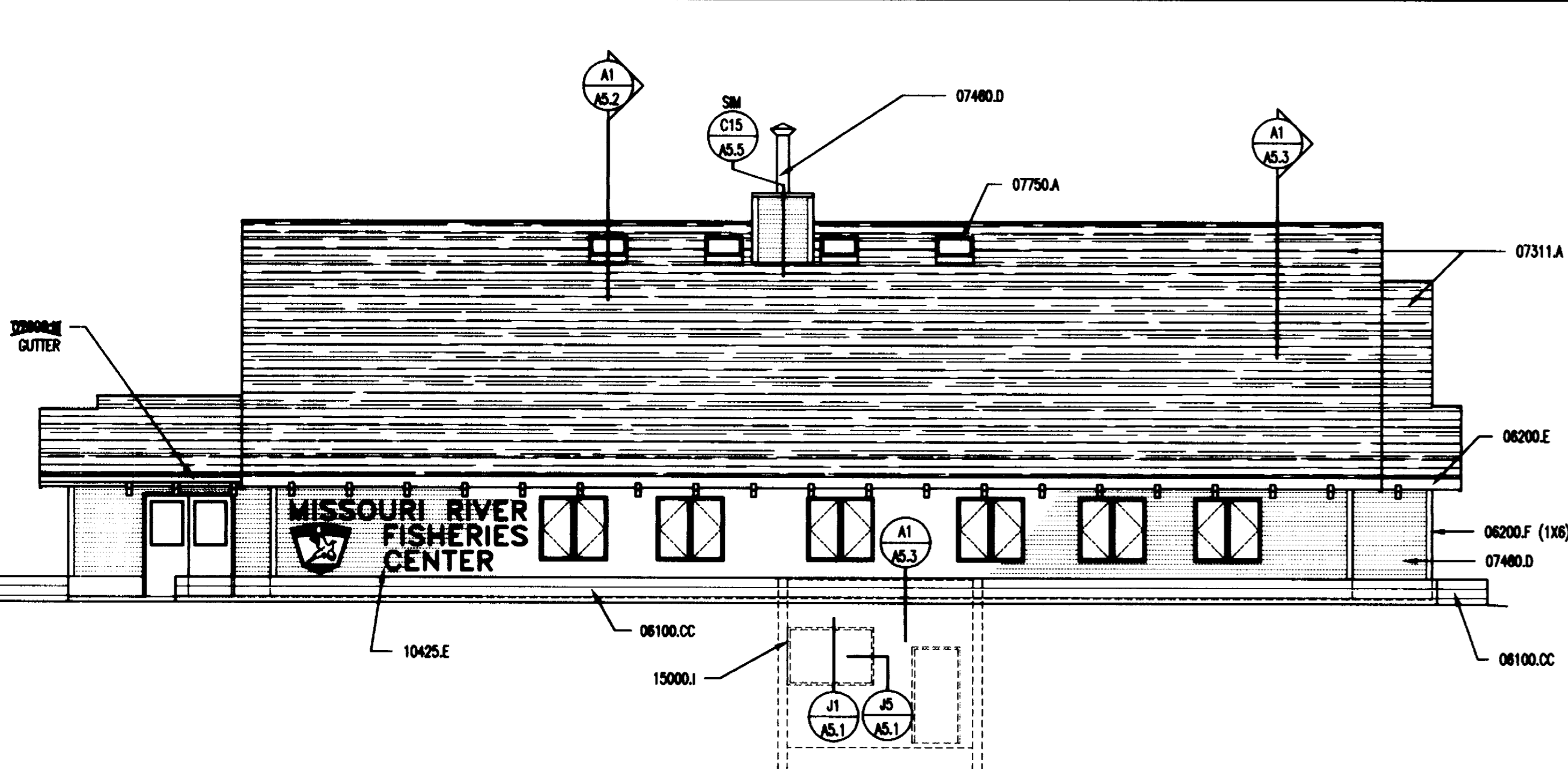
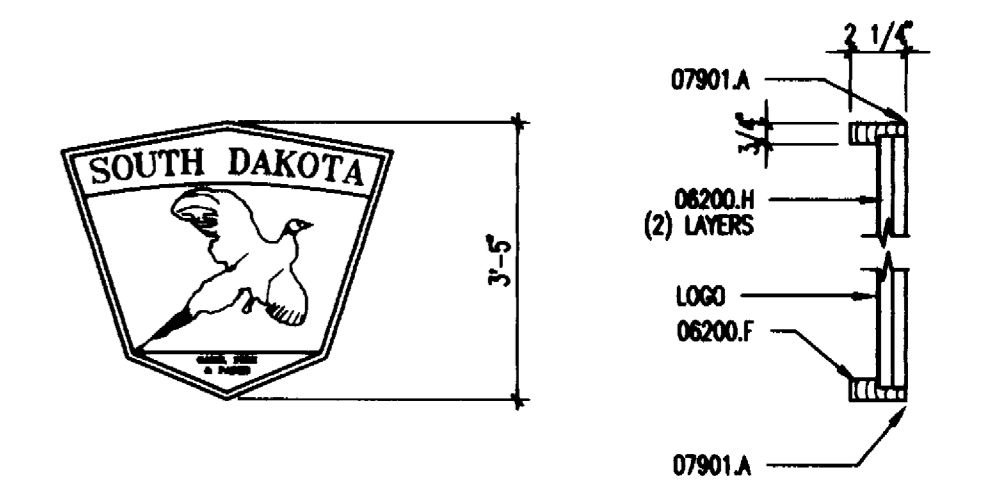
J12 JAMB
1 1/2" = 1'-0"



E1 NORTH ELEVATION
1/8" = 1'-0"

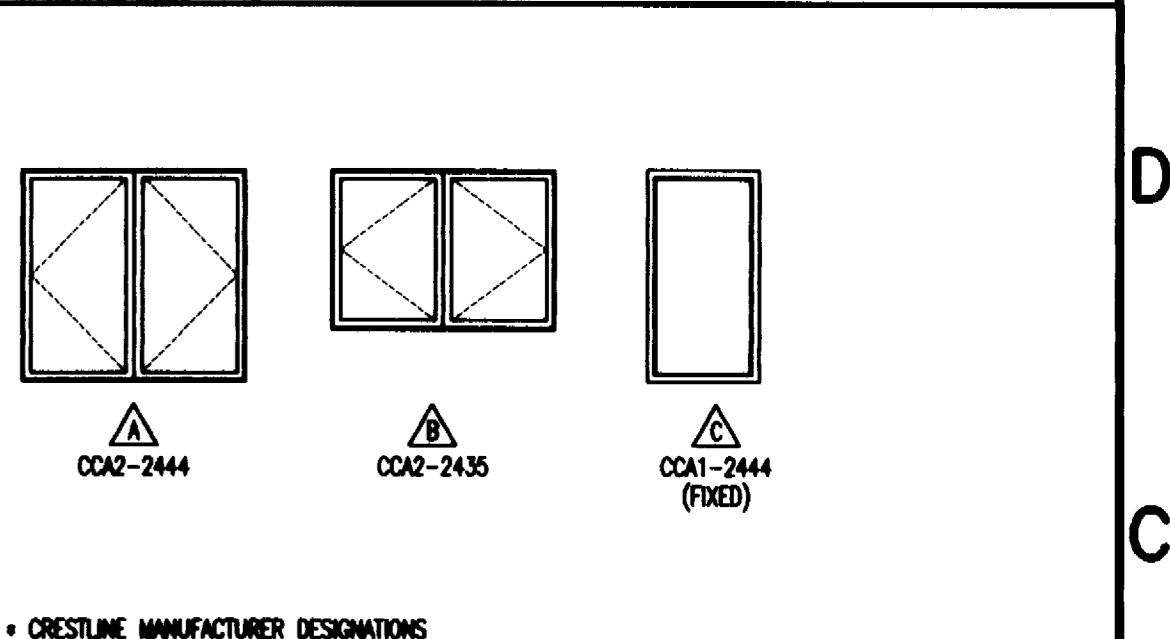
E8 WEST ELEVATION
1/8" = 1'-0"

D15 LOGO
NO SCALE



A1 EAST ELEVATION
1/8" = 1'-0"

A8 SOUTH ELEVATION
1/8" = 1'-0"

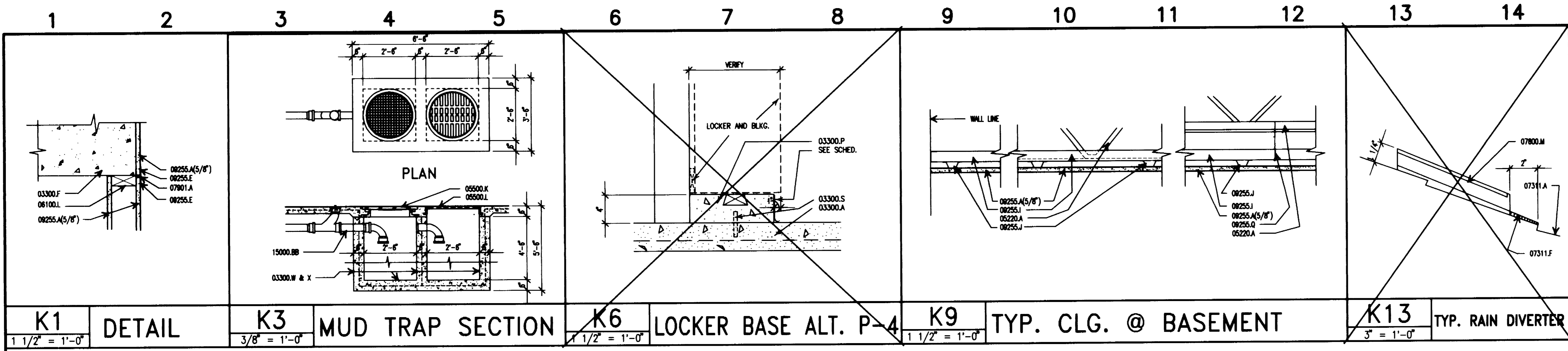


WINDOW SCHEDULE

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DRAWN BY DW JH	APPROVED BY	DATE 9/16/94	PROJECT NO. 8211
REVISIONS 3/10/95	REVISIONS 4/6/95	AS BUILTS 2/9/96	CADD REF. NO. 19211\A51
SHEET TITLE EXTERIOR ELEVATIONS WINDOW SCHEDULE, DETAILS		COPYRIGHT	DRAWING NO.
PROJECT NAME MISSOURI RIVER FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PERRIE, SD CSE # 068310011			A5.1



Materials Keying

Prefix (5 digit specification section number) Suffix (specific item)

04400.A

DIVISION 2 - SITEWORK
02200.A ENGINEERED FILL
G BLACK DIRT
H EXCAVATED CLAY BACKFILL
I TOP SOIL FROM SITE

DIVISION 3 - CONCRETE
03300.A SLAB 2'-6" W/ 4#4 BARS @ 12" O.C.
F FOUNDATION WALL
P 4" HIGH BASE W/ 2#4 INSERT
S 4" BONES @ 4'-0" O.C.
W (2) #4 BARS, 12" O.C. EA. WAY
X CONCRETE

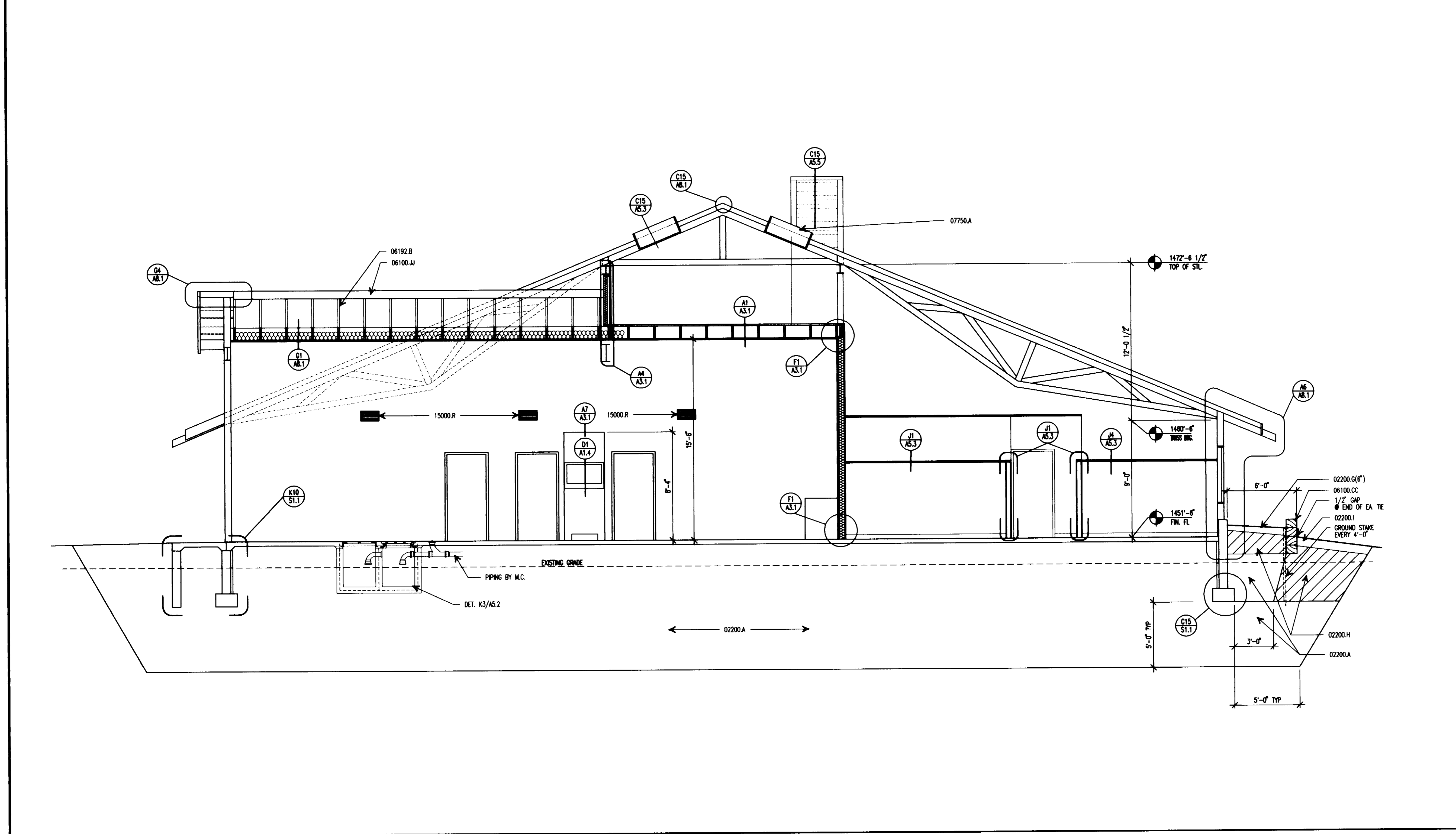
DIVISION 5 - METALS
05220.A STEEL JOIST
05500.K MANHOLE COVER
L MANHOLE GRATE

DIVISION 6 - WOOD AND PLASTICS
06100.CC 8x10 RAILROAD TIES
JJ 2x8 RIDGE BEAM
06192.B ROOF TRUSS

DIVISION 7 - THERMAL AND MOISTURE PROTECTION
07210.A RIGID (TYPE "A") POLYSTYRENE SHINGLES
07311.A ROOFING CEMENT
07600.A RAIN DIVERTER (26 GA. G.I.)
07750.A SKYLIGHT

DIVISION 9 - FINISHES
09255.A GYPSUM WALLBOARD
E CASING BEAD
F CORNER BEAD
I 1 1/2" CARRYING CHANNELS 4'-0" O.C.
J 7/8" (0.0179") HAT-SHAPED FURRING CHANNELS 16" O.C.
Q HANGER WIRE 4'-0" O.C.

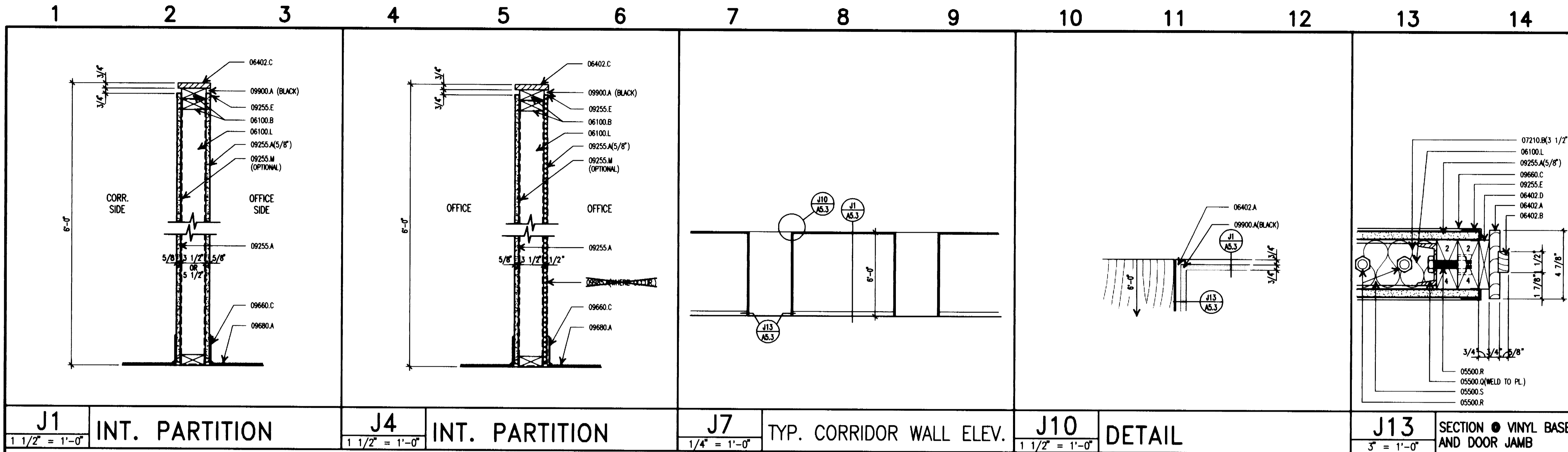
DIVISION 15 - MECHANICAL
15000.R GRILLE - by M.C.
BB DRAIN PIPING



CLG. & ROOF DESIGN @ GARAGE

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REVISED 3/10/95	REVISED 4/8/95	AS BUILT 2/9/96	CADD REF. NO. 9211/AS2
SHEET TITLE BUILDING SECTIONS & DETAILS		COPYRIGHT	DRAWING NO.
PROJECT GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PERRIE, SD. USE APER310011			A5.2



Materials Keying

Prefix (5 digit specification section number) → **04400.A** → Suffix (specific item)

DIVISION 2 - SITEWORK

- 02200.A ENGINEERED FILL
- H EXCAVATED CLAY BACK FILL
- I TOP SOIL FROM SITE
- K GRAVEL
- L 2" COARSE ROCK(NO FINES)

DIVISION 5 - METALS

- 05500.B LADDER - 3/8"x3" STL. SIDE RAILS, 3/4" RUNGS @ 12" O.C.
- Q C3x4.1 - 42" LONG
- R 5/8" BOLTS
- S 3/8" PLATE - 3"x6"

DIVISION 6 - WOOD AND PLASTICS

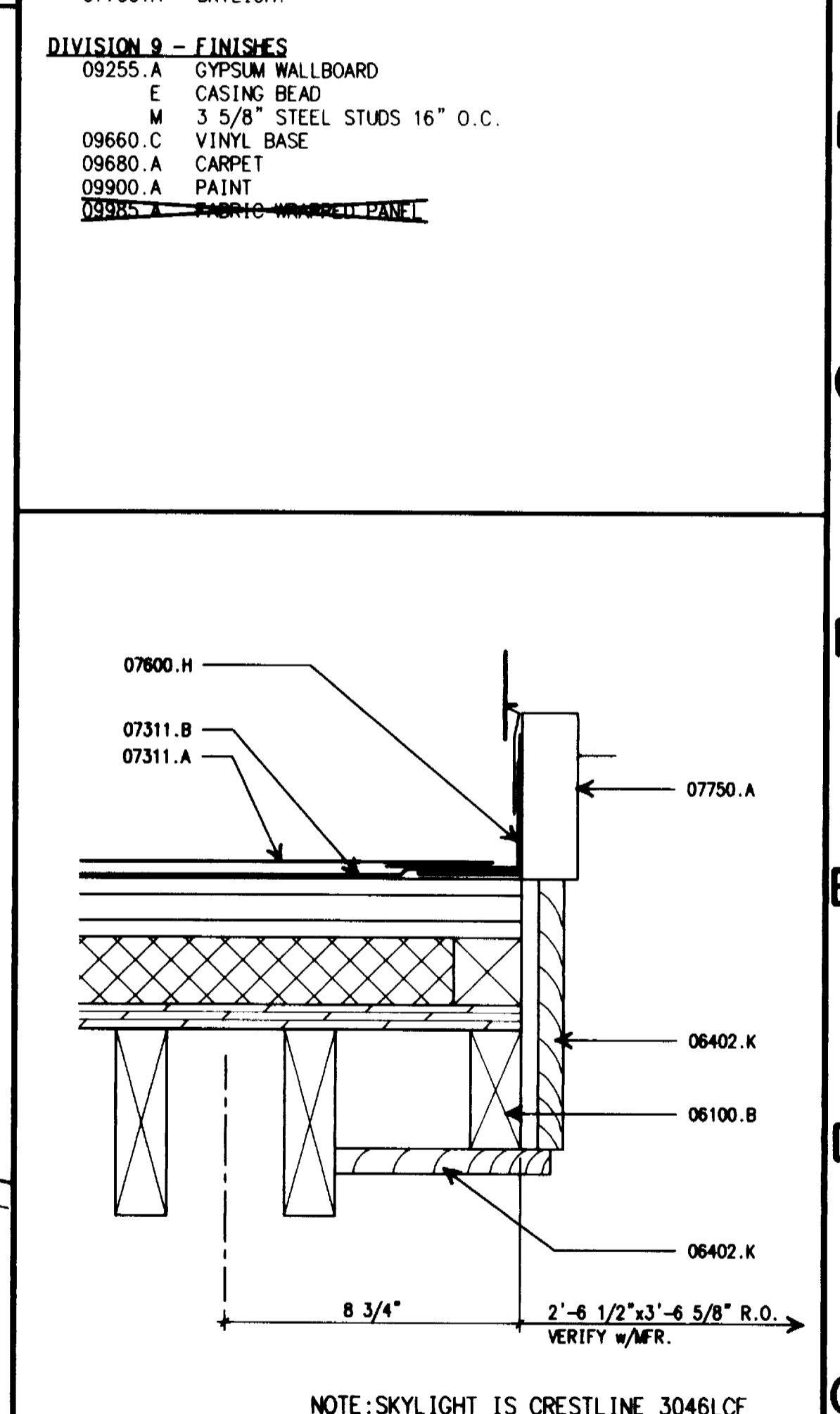
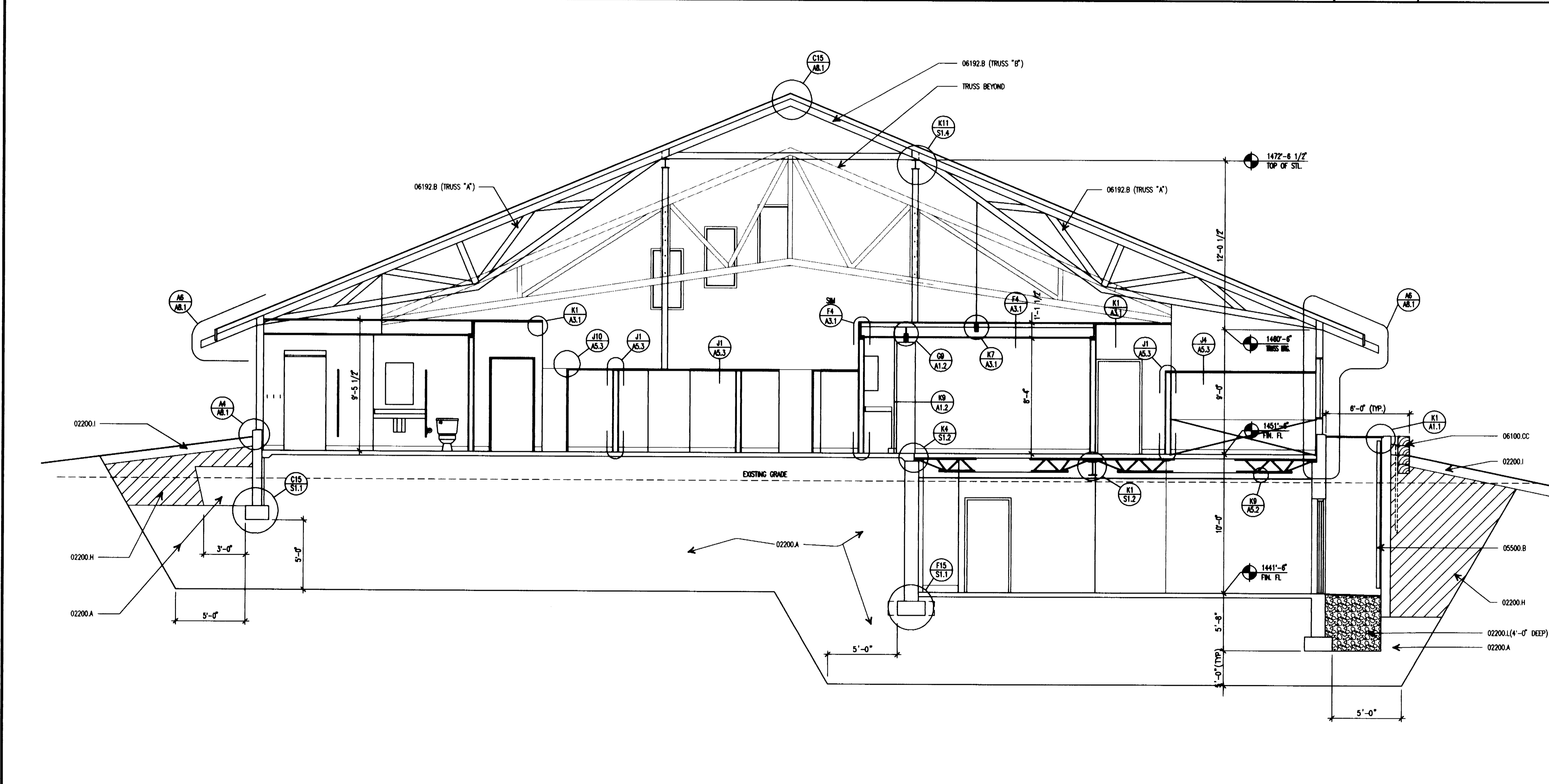
- 06100.B 2x4 WOOD BLOCKING
- L 2x4 STUDS 16" O.C.
- CC 8x10 RAILROAD TIES
- 06192.B ROOF TRUSS
- 06402.A OAK JAMB
- B OAK STOP
- C OAK TRIM
- D 1x4 PINE NAILER
- K 1x PINE TRIM

DIVISION 7 - THERMAL & MOISTURE PROTECTION

- 07210.B GLASS FIBER INSULATION (TYPE "B") UNFACED
- 07311.A SHINGLES
- B 15# FELT
- 07600.H FLASHING G.I.
- 07750.A SKYLIGHT

DIVISION 9 - FINISHES

- 09255.A GYPSUM WALLBOARD
- E CASING BEAD
- M 3 5/8" STEEL STUDS 16" O.C.
- 09660.C VINYL BASE
- 09680.A CARPET
- 09900.A PAINT
- ~~09950.A PARTI-WOOD PANEL~~



A1 BUILDING SECTION
1/4" = 1'-0"

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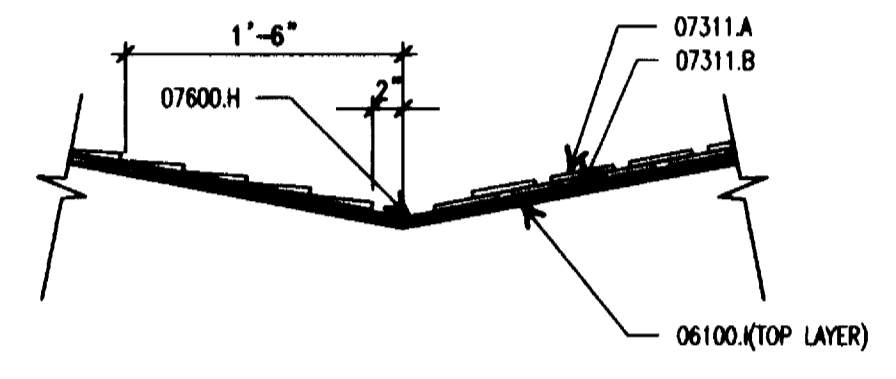
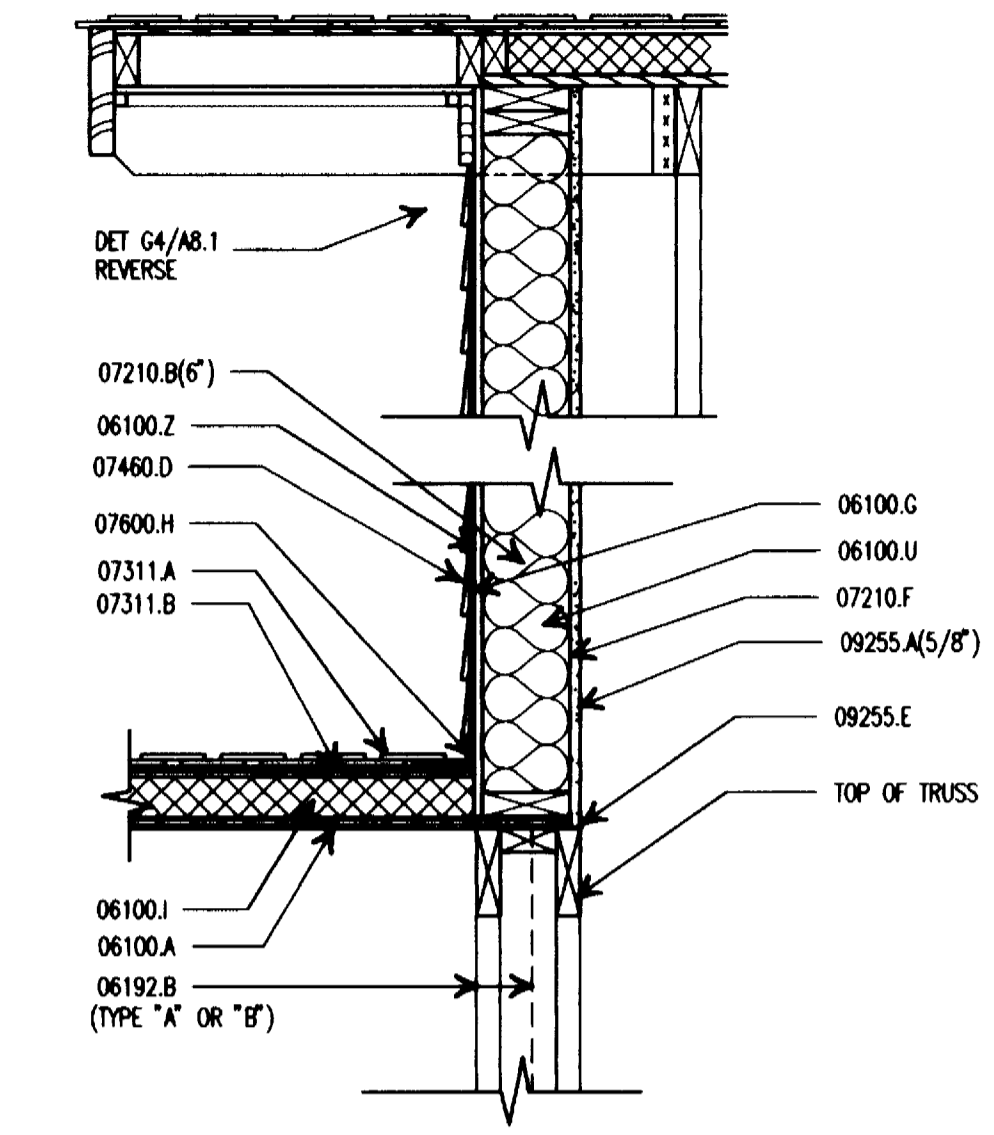
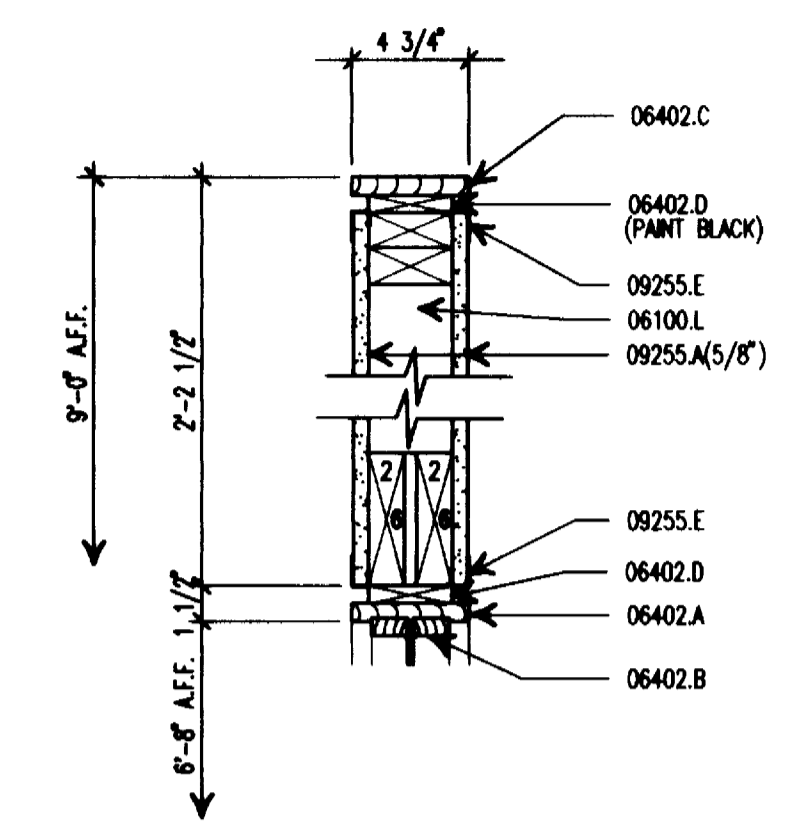
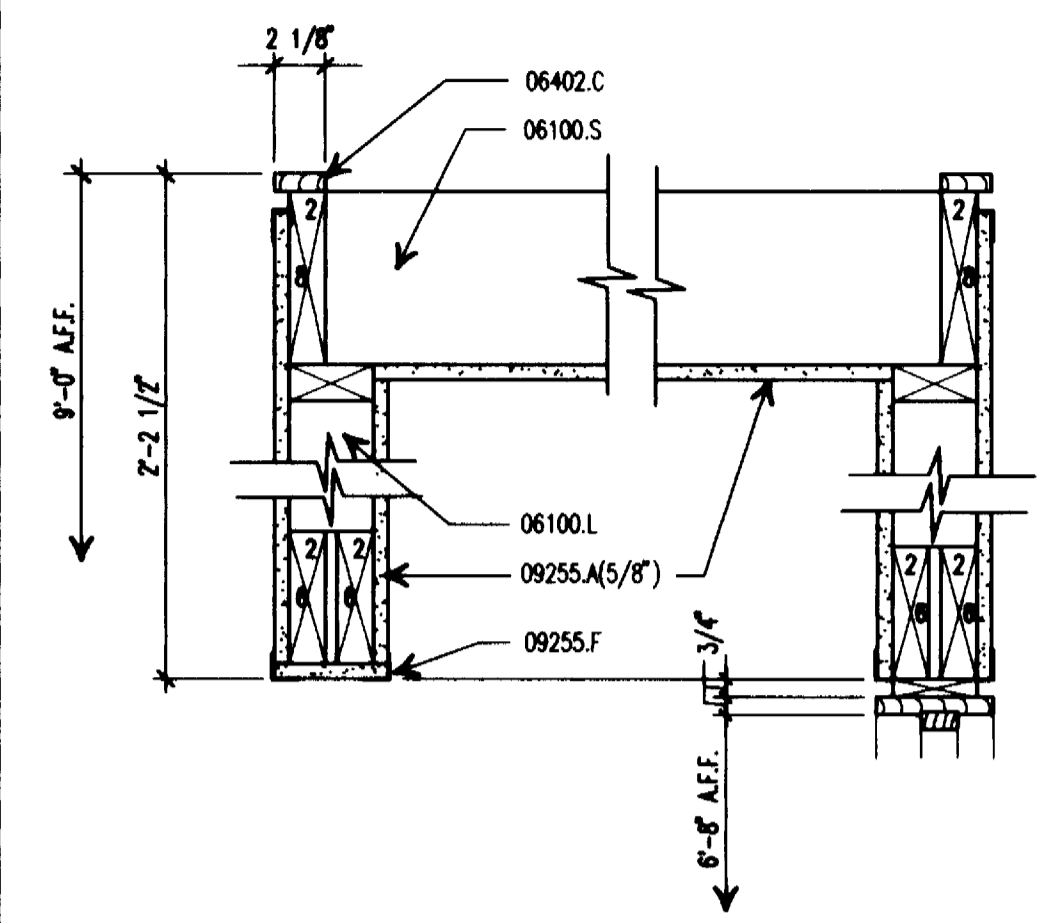
DRAWN BY DW JH	APPROVED BY AS BULTS	DATE 9/16/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/8/95	DATE 2/9/96	CADD REF. NO. 9211/A5.3
SHEET TITLE BUILDING SECTION		COPYRIGHT	DRAWING NO.
PROJECT GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME FISH & PARKS PERM. SD. USE #026310011			A5.3

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Materials Keying

Prefix (5 digit specification section number) ← 04400.A → Suffix (specific item)

- DIVISION 2 - SITEWORK**
 02200.A ENGINEERED FILL
 G BLACK DIRT
 H EXCAVATED CLAY BACKFILL
 I TOPSOIL FROM SITE
- DIVISION 6 - WOOD AND PLASTICS**
 06100.A 3/4" A/C PLYWOOD
 G AIR INFILTRATION BARRIER
 I NAIL BASE INSULATION 3 3/4" THICK
 L 2x4 STUDS 16" O.C.
 S 2x8 JOIST 16" O.C.
 U 2x6 STUDS 16" O.C.
 Z 1/2" CHIPBOARD SHEATHING
 CC 8x10 RAILROAD TIES
 06192.B ROOF TRUSS
 06200.I G.I. ROOF VENT 9"ø
 06402.A OAK JAMB
 C OAK STOP
 B OAK TRIM
 D 1x4 NAILER
- DIVISION 7 - THERMAL AND MOISTURE PROTECTION**
 07210.B GLASS FIBER (TYPE "B") UNFACED
 F 6 MIL VAPOR BARRIER
 07311.A SHINGLES
 B 15# FELT
 07460.D 6" CEDAR SIDING
 07600.H FLASHING G.I.
- DIVISION 9 - FINISHES**
 09255.A GYPSUM WALLBOARD
 E CASING BEAD
 F CORNER BEAD

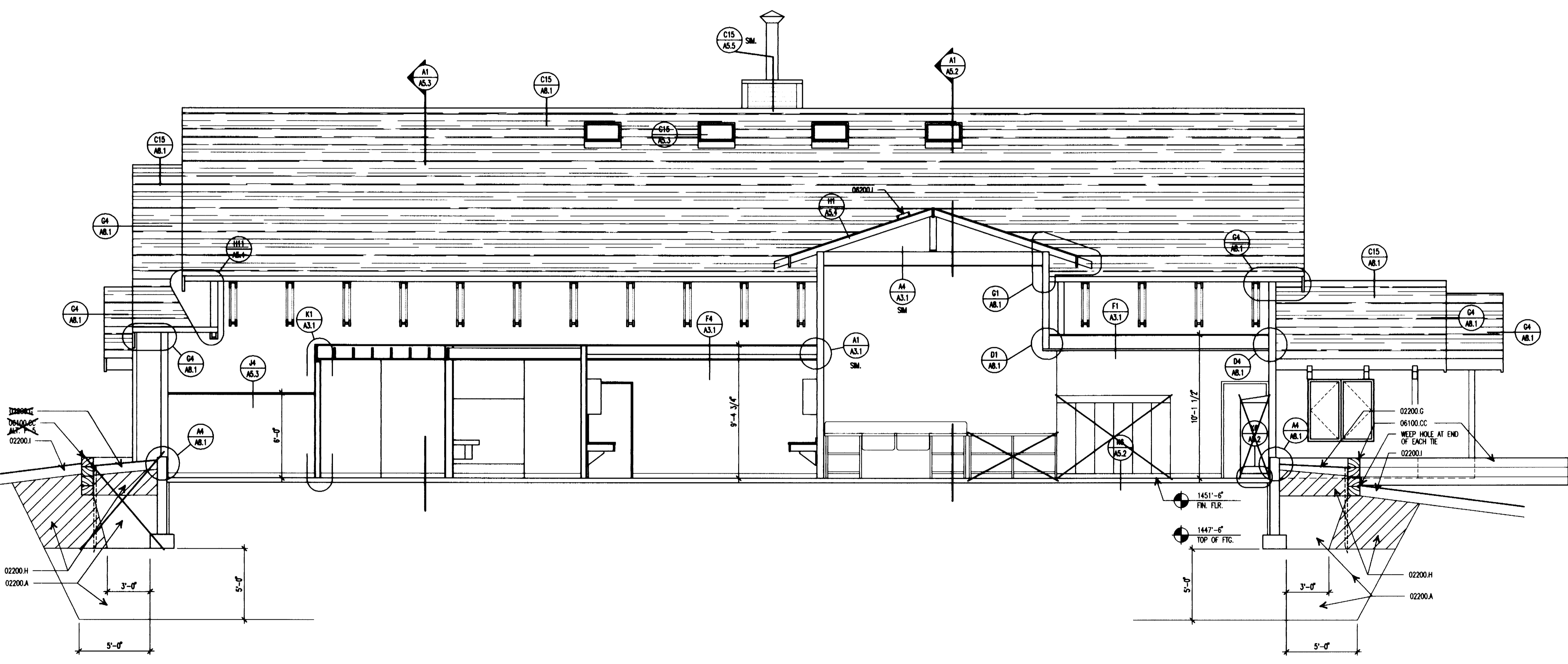


H1
 1" = 1'-0"
TYP. VALLEY GUTTER

H5
 1 1/2" = 1'-0"

H8
 1 1/2" = 1'-0"

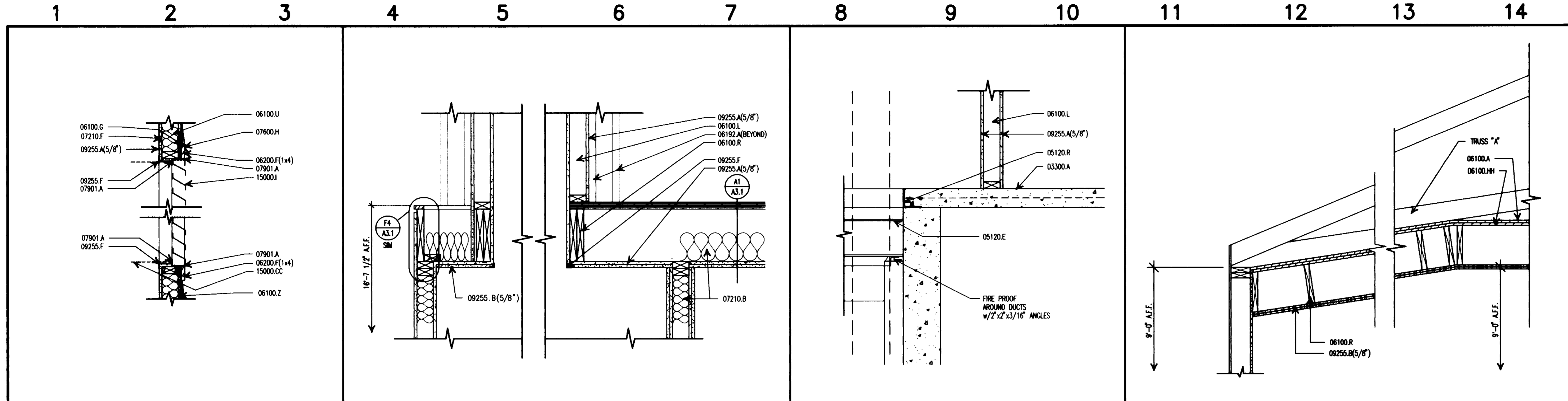
H11
 1" = 1'-0"
WALL ON TOP OF TRUSS



A1
 1/4" = 1'-0"
BUILDING SECTION

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DRAWN BY DW JH	APPROVED BY	DATE 9/16/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/6/95	AS BUILTS 2/9/96	CADD REF. NO. 19211\A54
SHEET TITLE BUILDING SECTIONS & DETAILS		COPYRIGHT	DRAWING NO.
PROJECT GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME FISH & PARKS PERRIE, SD OSE #062310011			A5.4



Materials Keying

Prefix (3 digit specification section number) → 04400.A → Suffix (specific item)

DIVISION 2 - SITEWORK

- 02200.A ENGINEERED FILL
- G BLACK DIRT
- H EXCAVATED CLAY BACKFILL
- I TOPSOIL FROM SITE
- 02831.E STL. FENCE POST STAKE 4'-0" O.C.

DIVISION 3 - CONCRETE

- 03300.A SLAB w/6x6, 1.4x1.4 WWF

DIVISION 5 - METALS

- 05120.E BEAM
- R 4"x4"x1/4" HEADER ANGLE

DIVISION 6 - WOOD AND PLASTICS

- 06100.A 3/4" "A-C" PLYWOOD (T&G)
- G AIR INFILTRATION BARRIER
- L 2x4 STUDS 16" O.C.
- N 2x4 JOIST
- R 2x12 JOIST - 24" O.C.
- U 2x6 STUDS 16" O.C.
- Z 1/2" CHIPBOARD SHEATHING
- CC 8x10 RAILROAD TIES
- HH 3/4" MIN. GRADE PLYWOOD
- 06192.B ROOF TRUSS
- 06200.F CEDAR TRIM

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

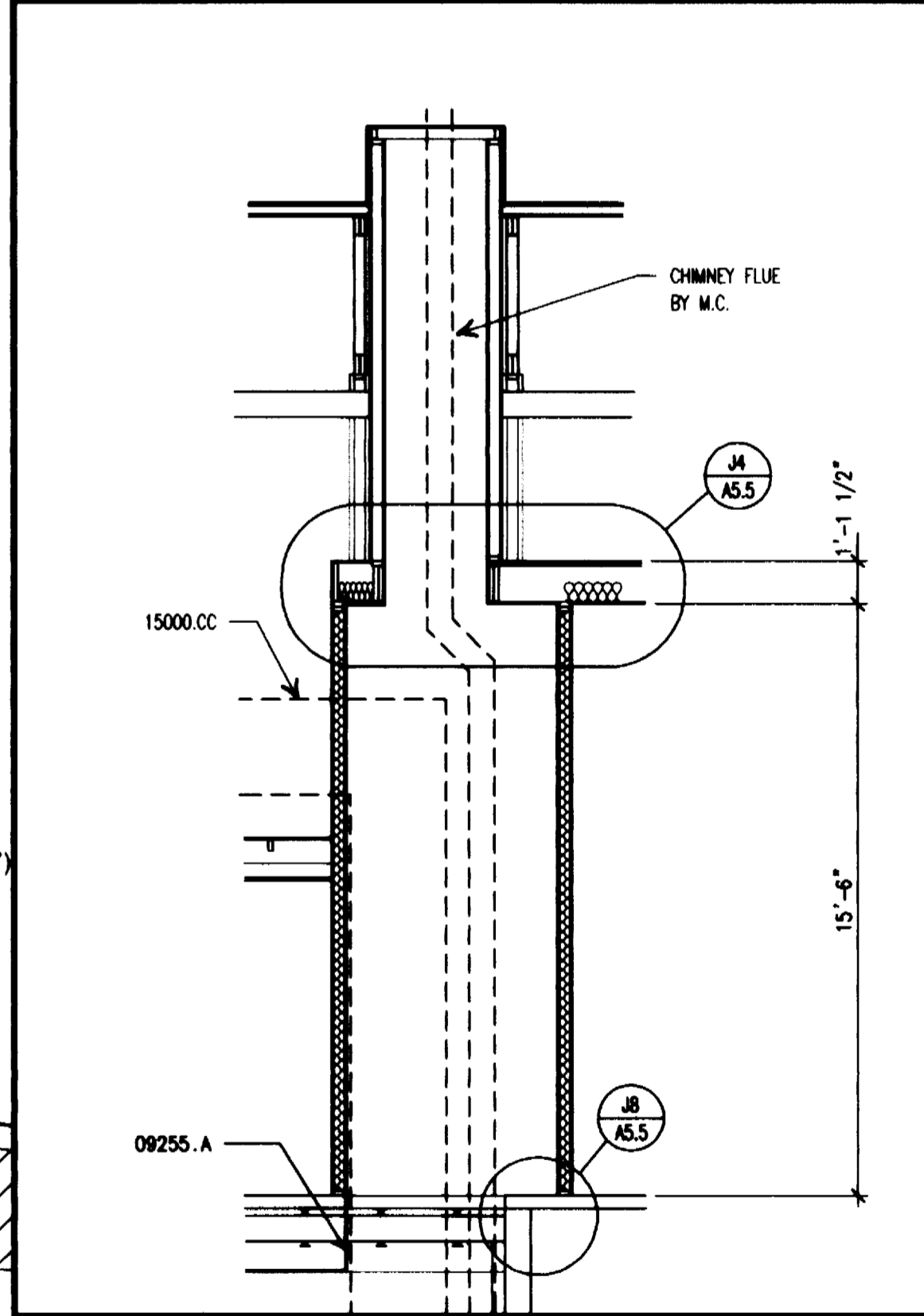
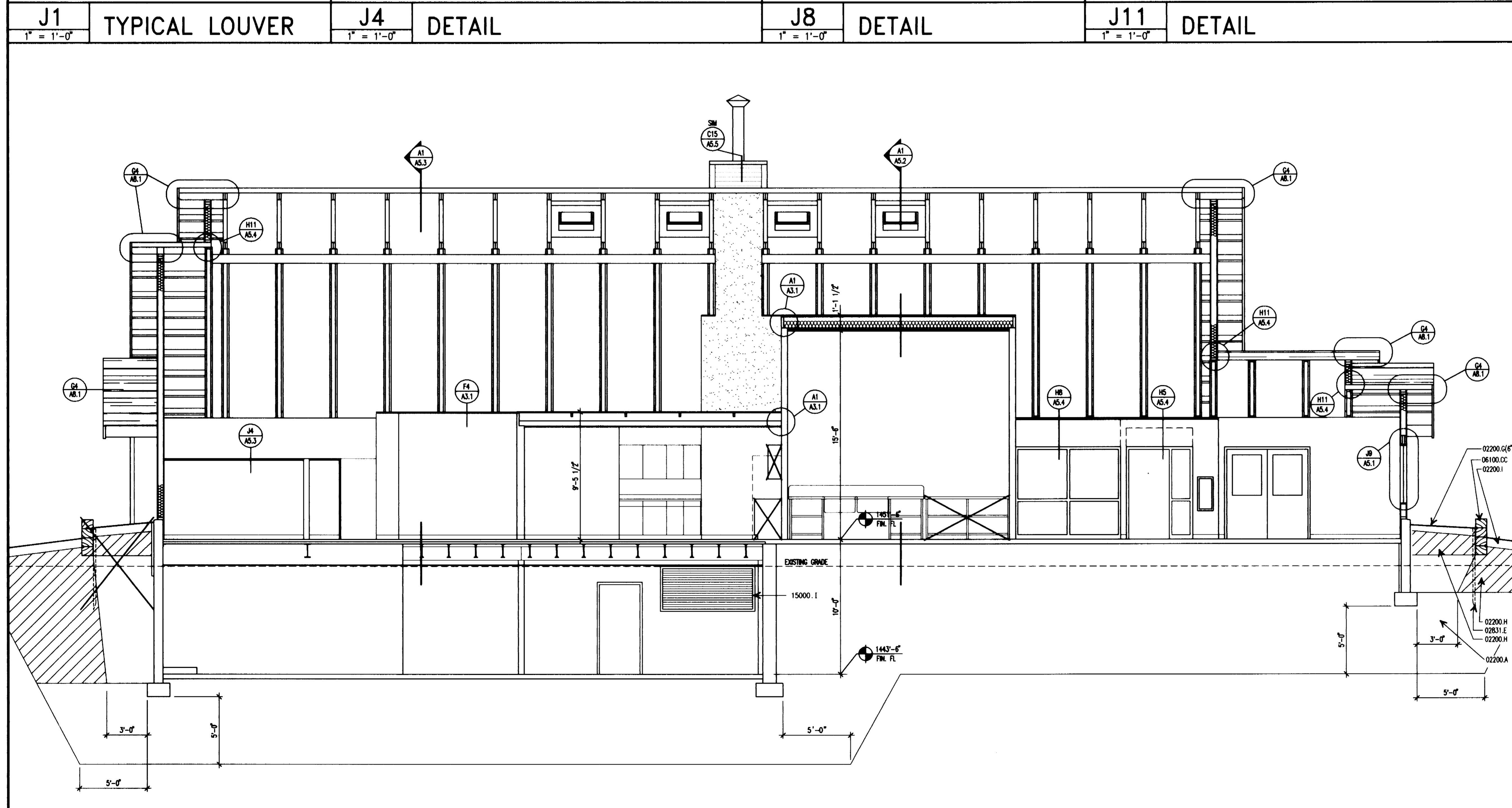
- 07210.B GLASS FIBER (TYPE "B") UNFACED
- F 6 MIL VAPOR BARRIER
- 07600.H FLASHING G.I.
- 07901.A SEALANT

DIVISION 9 - FINISHES

- 09255.A GYPSUM WALLBOARD
- B GYPSUM WALLBOARD - 2 LAYERS
- F CORNER BEAD

DIVISION 15 - MECHANICAL

- 15000.I LOUVER - by M.C.
- CC DUCT



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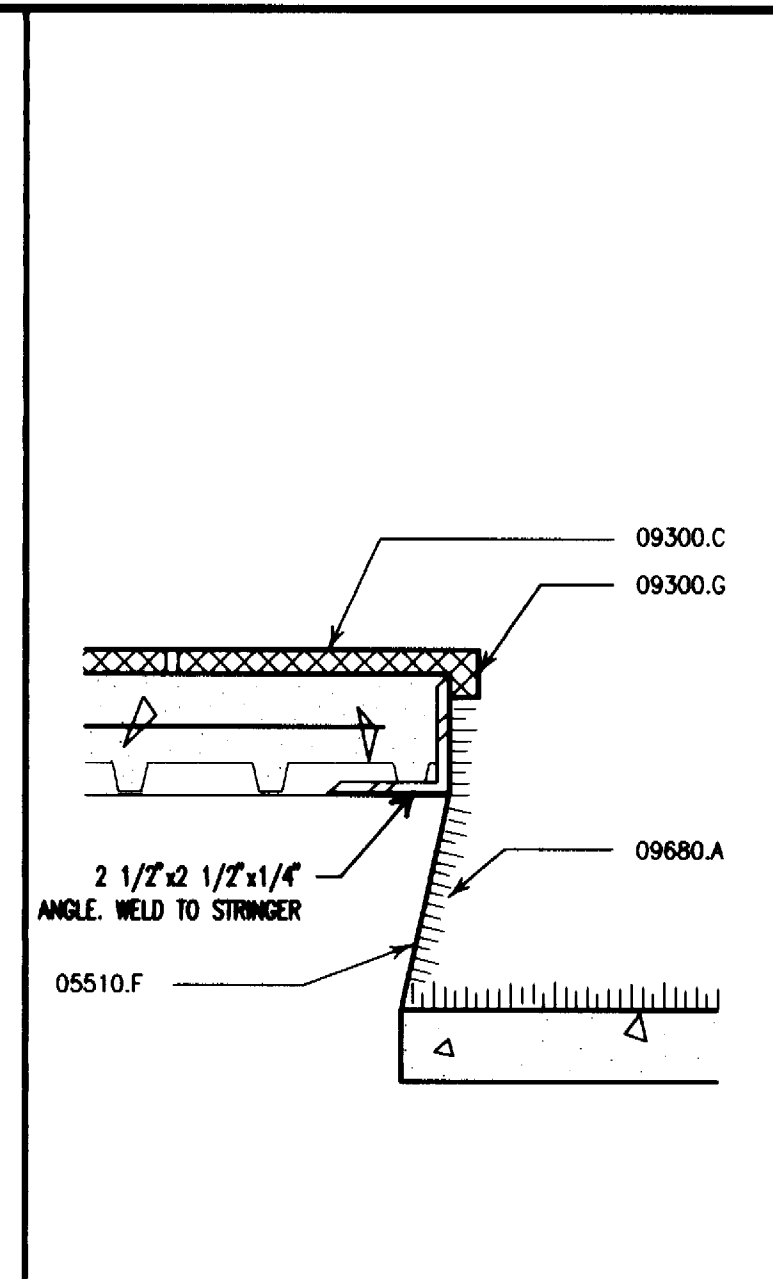
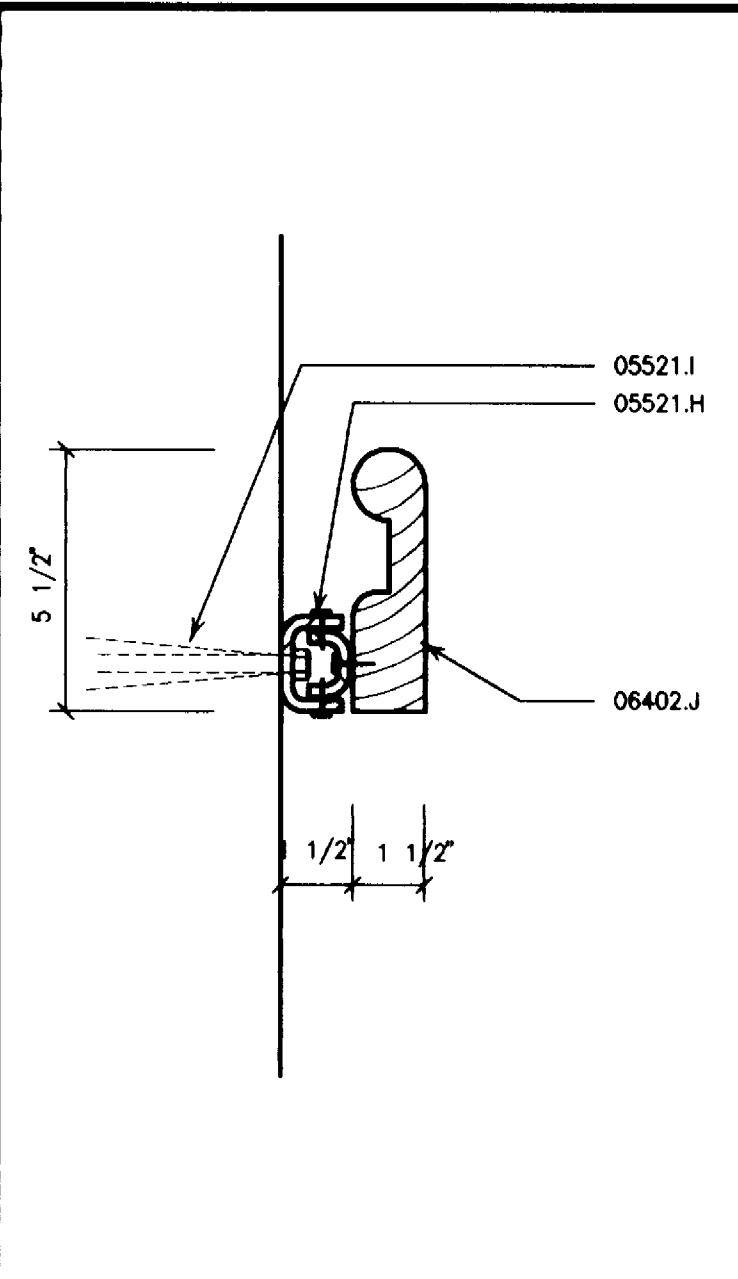
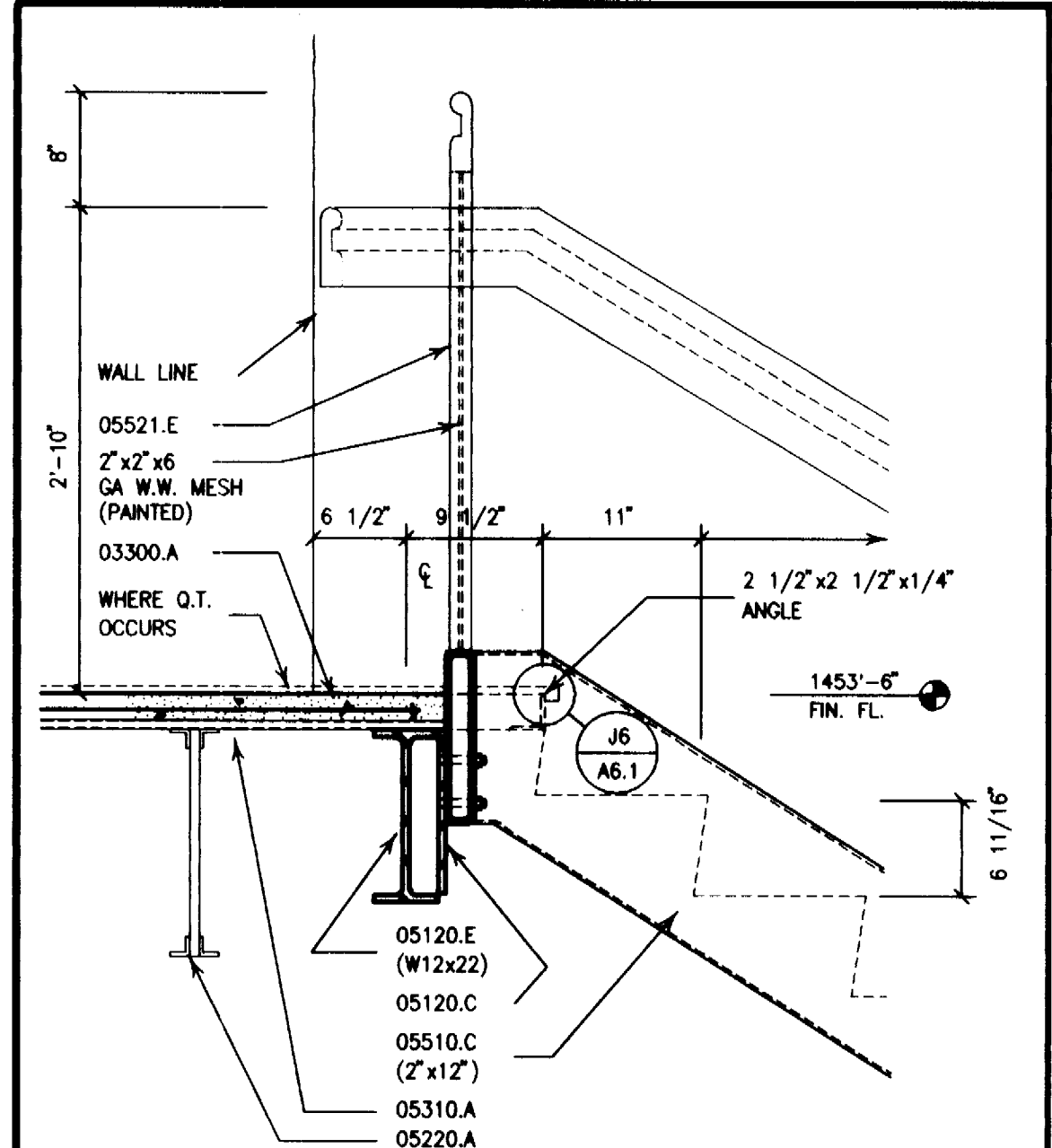
431 NORTH PHILLIPS AVENUE, SUITE 200
SIOUX FALLS, SOUTH DAKOTA 57102-0180
PHONE (605) 336-3718 FAX (605) 336-0438

DRAWN BY DW JH	APPROVED BY	DATE 9/16/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/6/95	AS BUILTS 2/9/95	CADD REF. NO. 19211/A55
SHEET TITLE BUILDING SECTION		DRAWING NO. COPYRIGHT	

Materials Keying

Prefix (to dist. specification number) 04400.A Suffix (specific item)

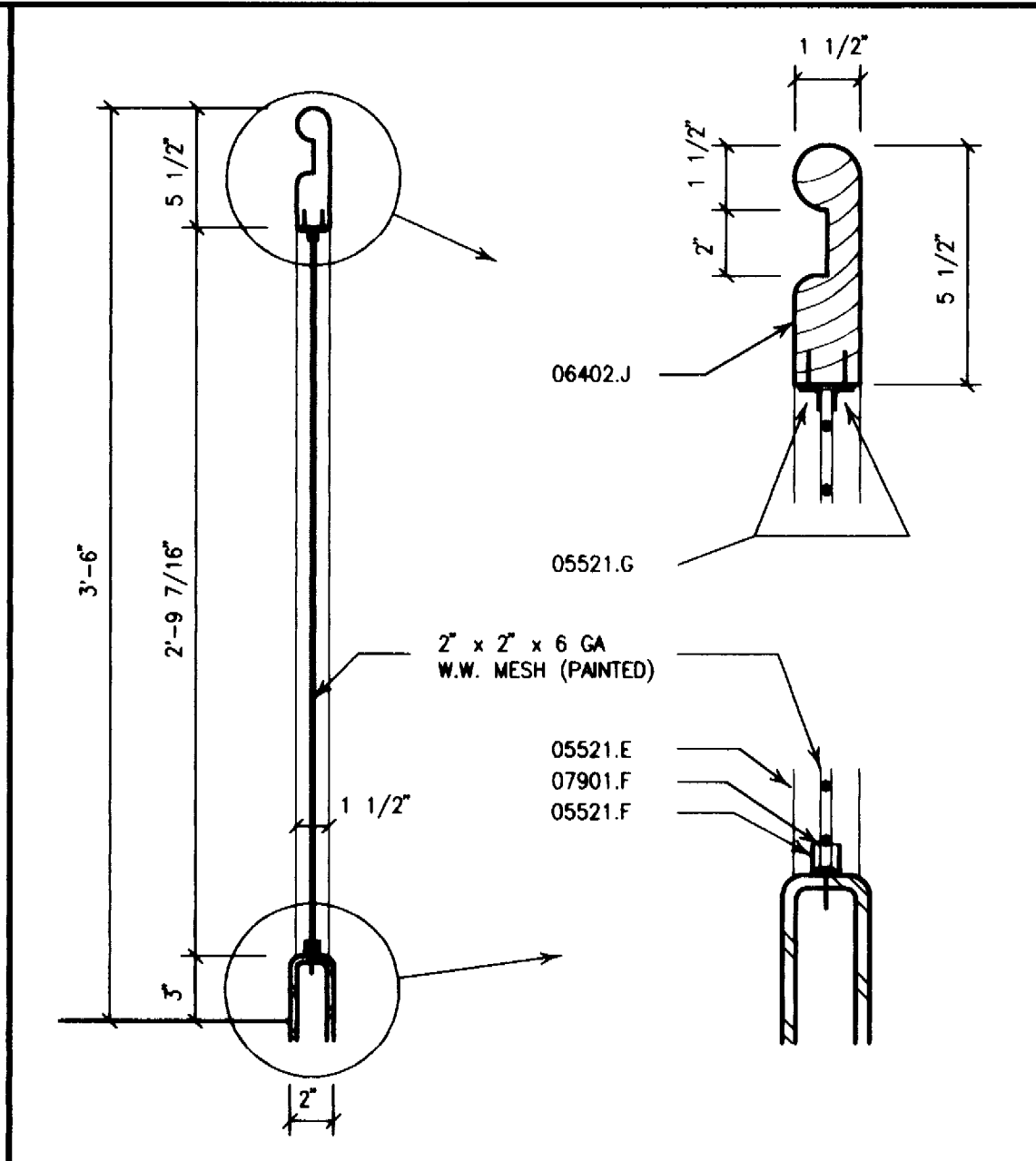
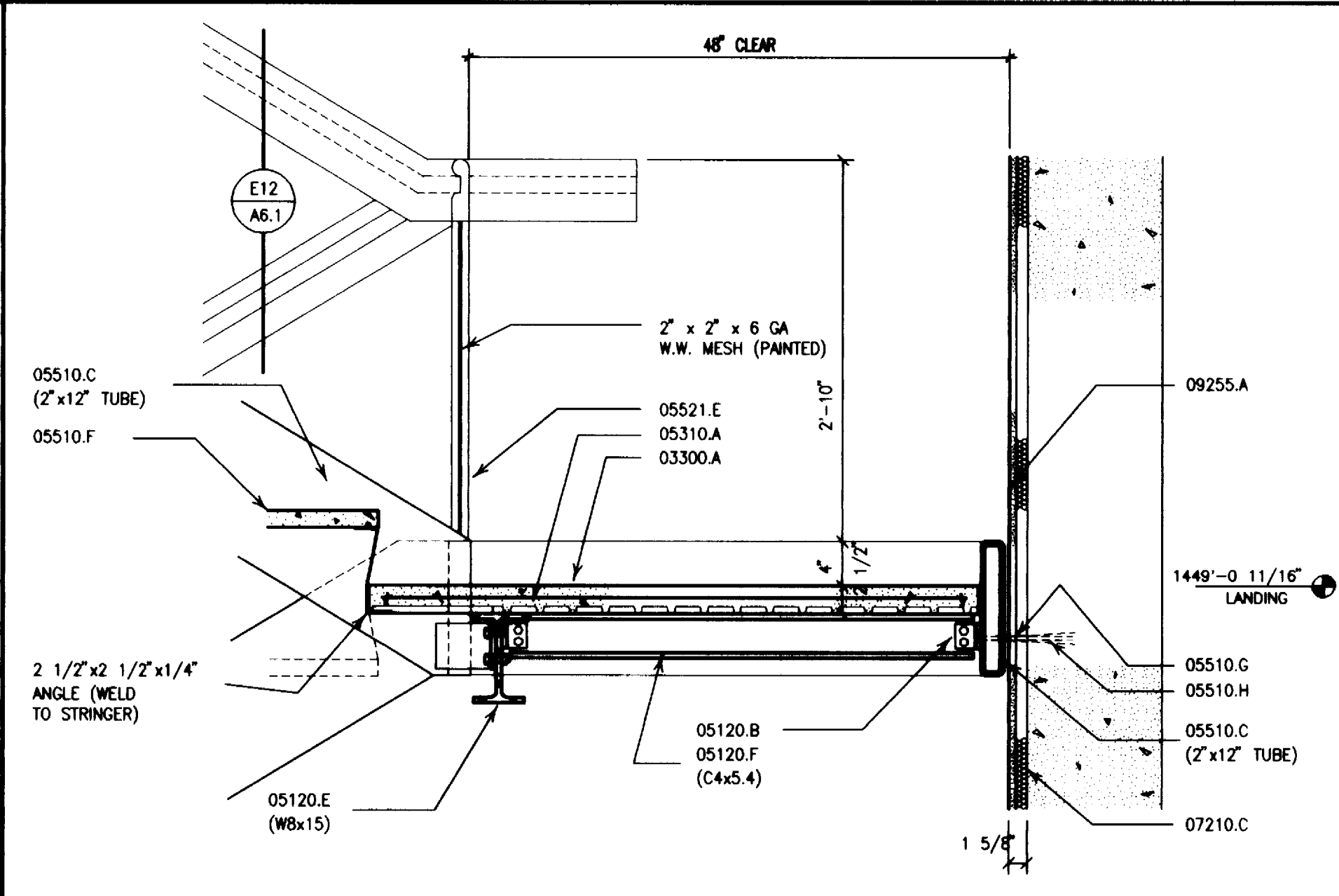
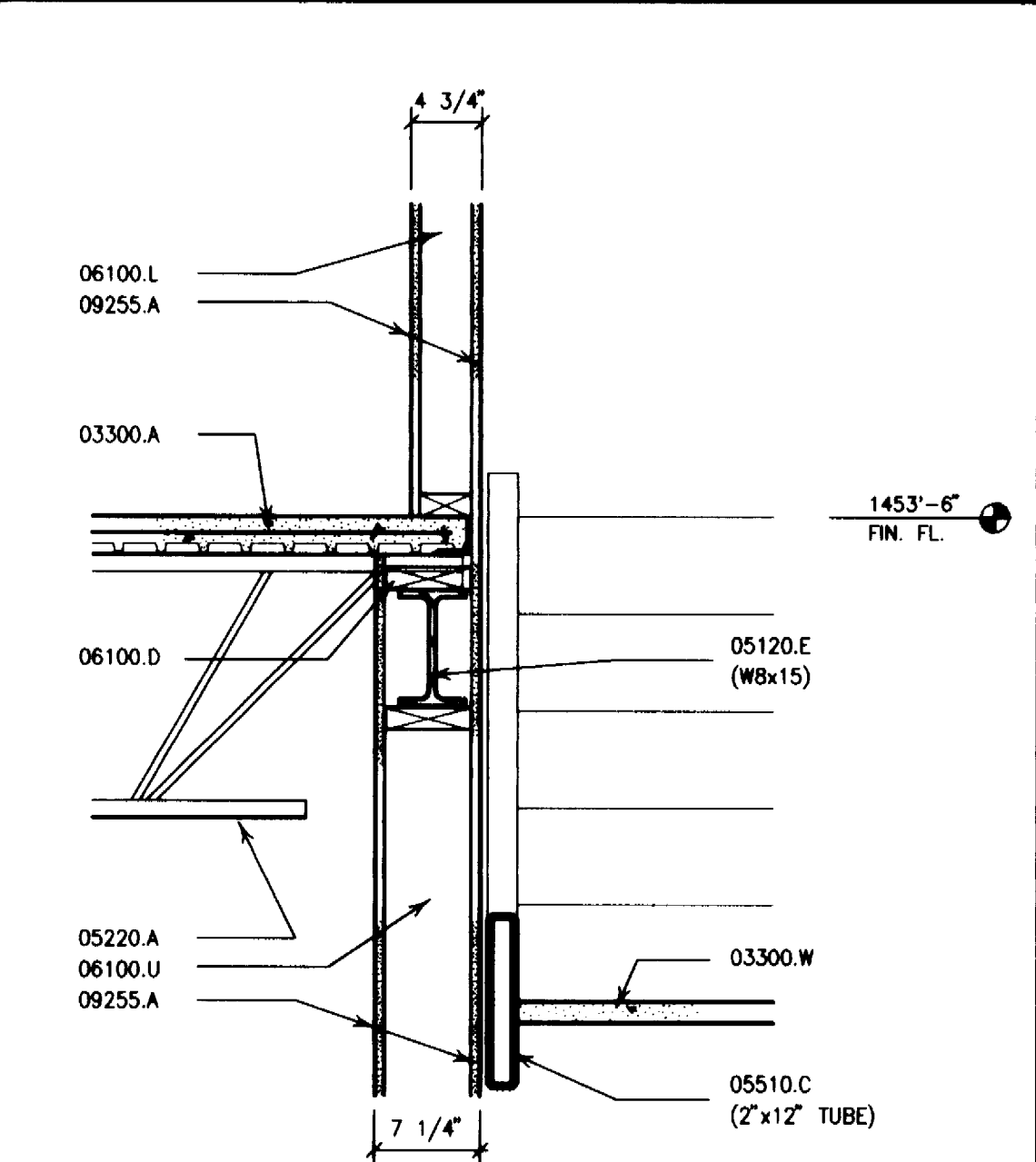
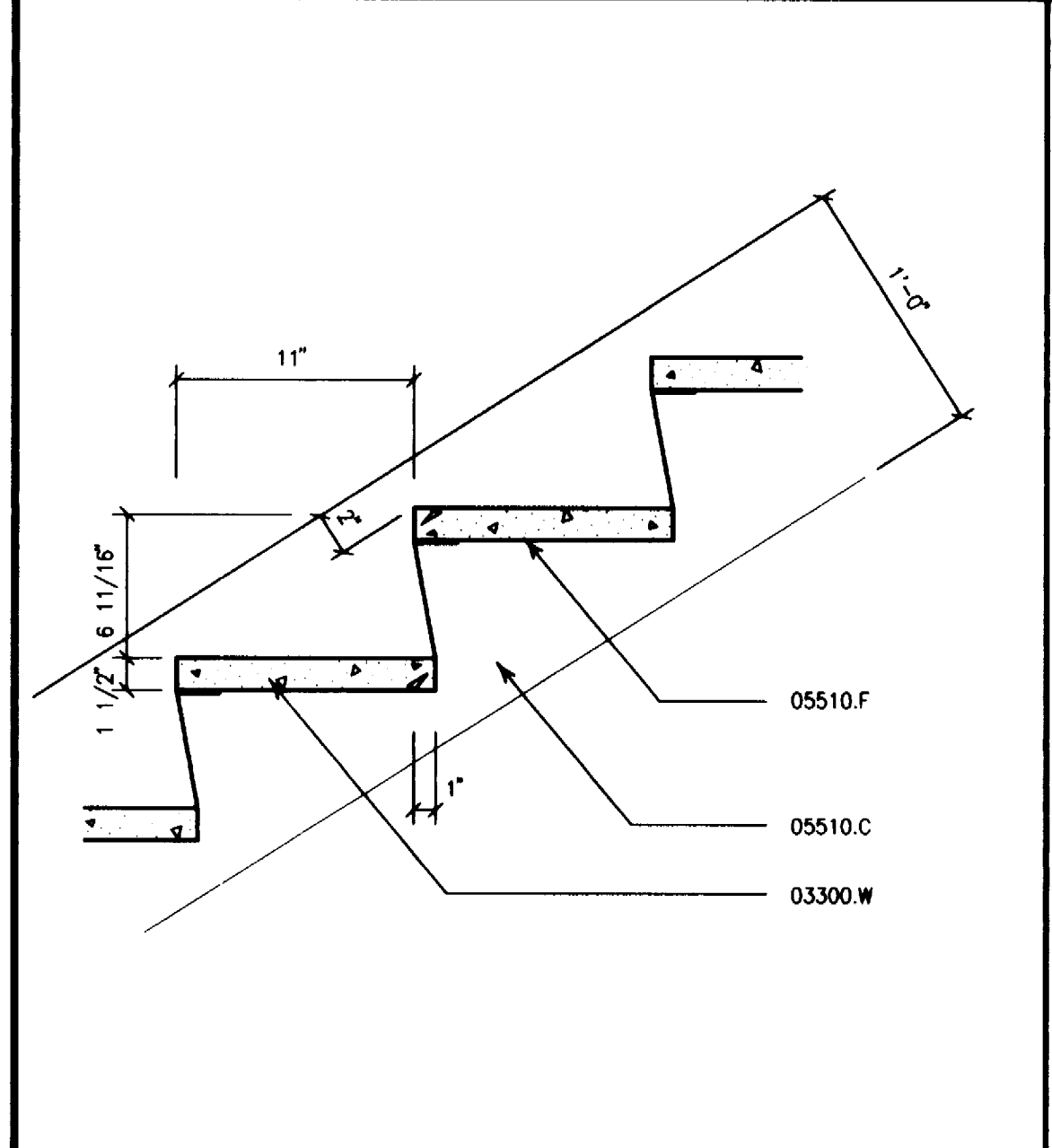
- DIVISION 3 - CONCRETE**
 - 03300.A SLAB w/6x6-W1.4xW1.4 WWF CONCRETE
- DIVISION 5 - METALS**
 - 05120.B CLIP ANGLE
 - C PLATE
 - E BEAM
 - F CHANNEL
 - 05220.A STEEL JOIST
 - 05310.A FLOOR DECK
 - 05510.C 12" JUNIOR CHANNEL
 - F STEEL PAN TREAD AND RISER
 - G 2x2 TUBE SLEEVE, WELD TO 12" TUBE
 - H 3/4" DIA. A. BOLTS 24" O.C.
 - 05521.E 1 1/2"x1 1/2"x1/4" STEEL TUBE
 - F 1/2"x1/2"x1/16" CHANNEL
 - G 1/2"x1/2"x1/16" ANGLE
 - H 2" SQ. TUBE (PAINT BLACK)
 - I 1/2" EXPANSION BOLT
- DIVISION 6 - WOOD AND PLASTIC**
 - 06100.D 2x NATTLER
 - L 2x4 STUDS 16" O.C.
 - U 2x6 STUDS 16" O.C.
 - 06402.J 1 1/2"x5 1/2" OAK HANDRAIL
- DIVISION 7 - THERMAL AND MOISTURE PROTECTION**
 - 07210.C RIGID (TYPE "C") EXTRUDED POLYSTYRENE SEALANT BED
 - 07901.F
- DIVISION 9 - FINISHES**
 - 09255.A GYPSUM WALLBOARD
 - 09300.C QUARRY TILE
 - G BULLNOSE
 - 09680.A CARPET



J1 STAIR • FIRST FLOOR
1" = 1'-0"

J4 STAIR RAILING
3" = 1'-0"

J6 CARPET TO Q.T.
3" = 1'-0"

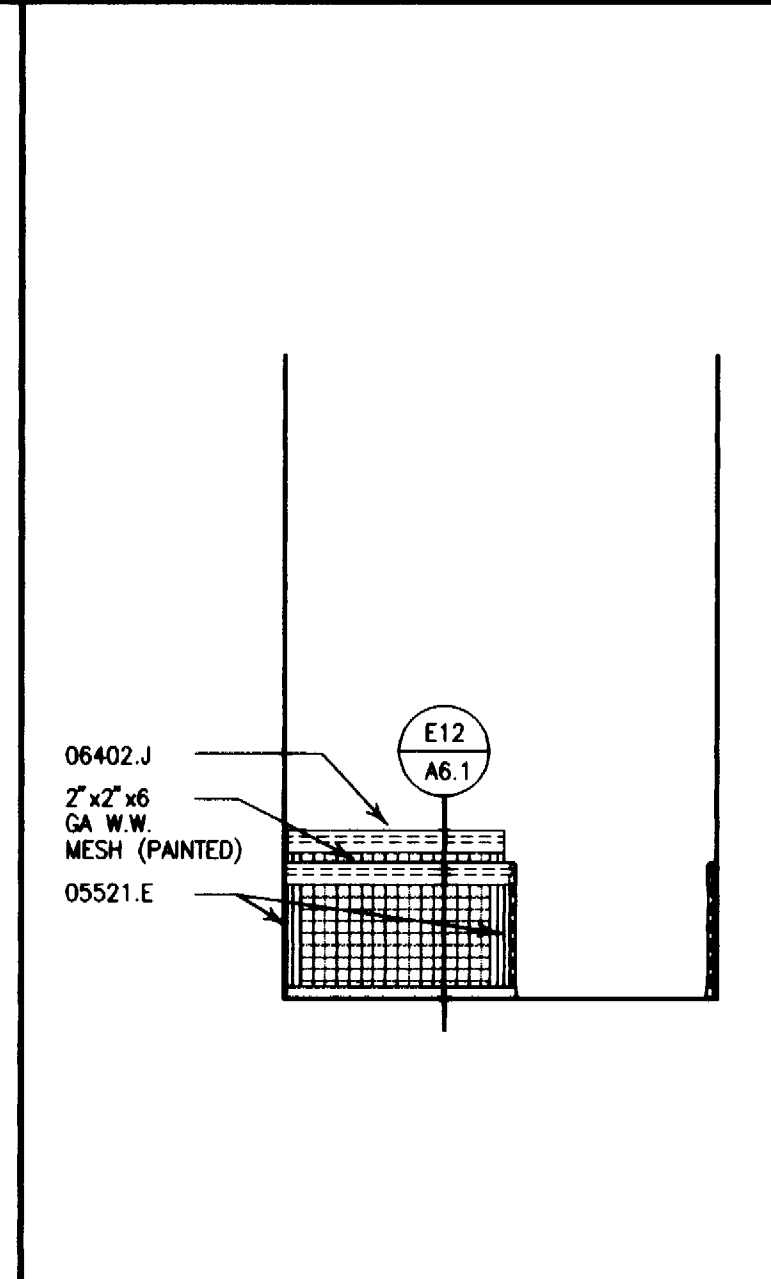
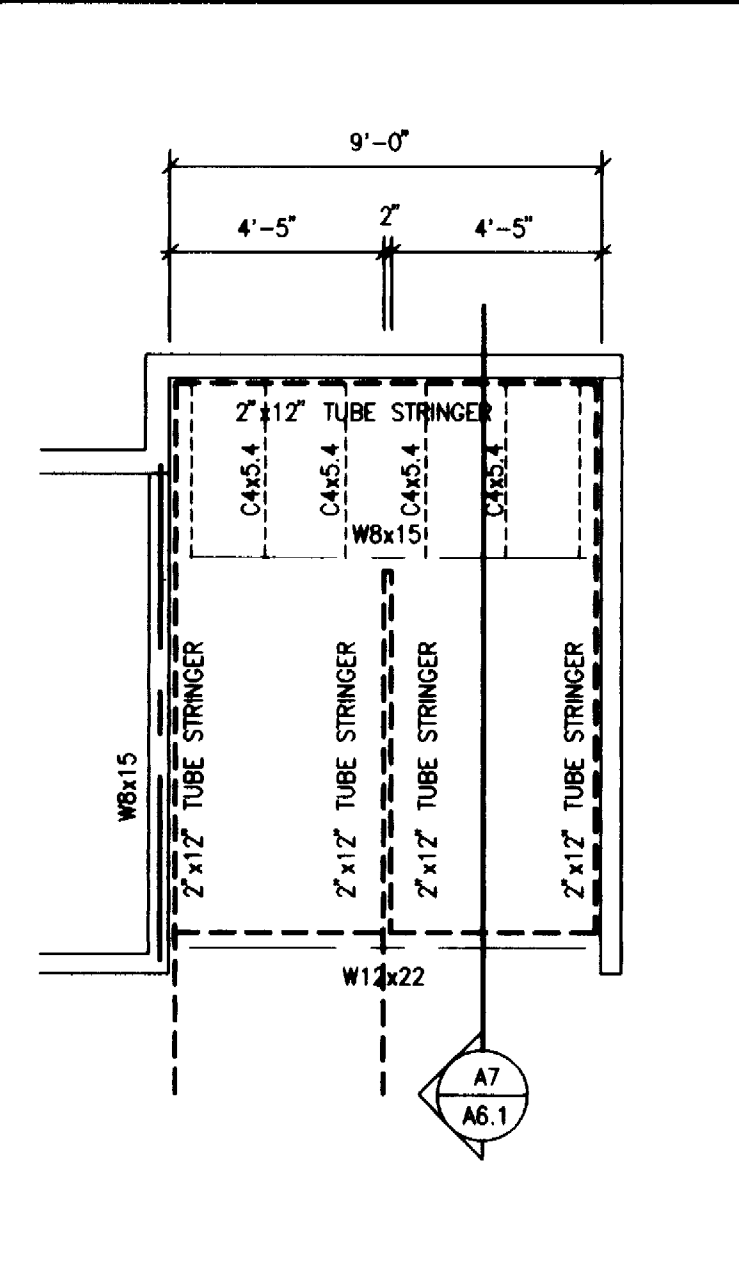
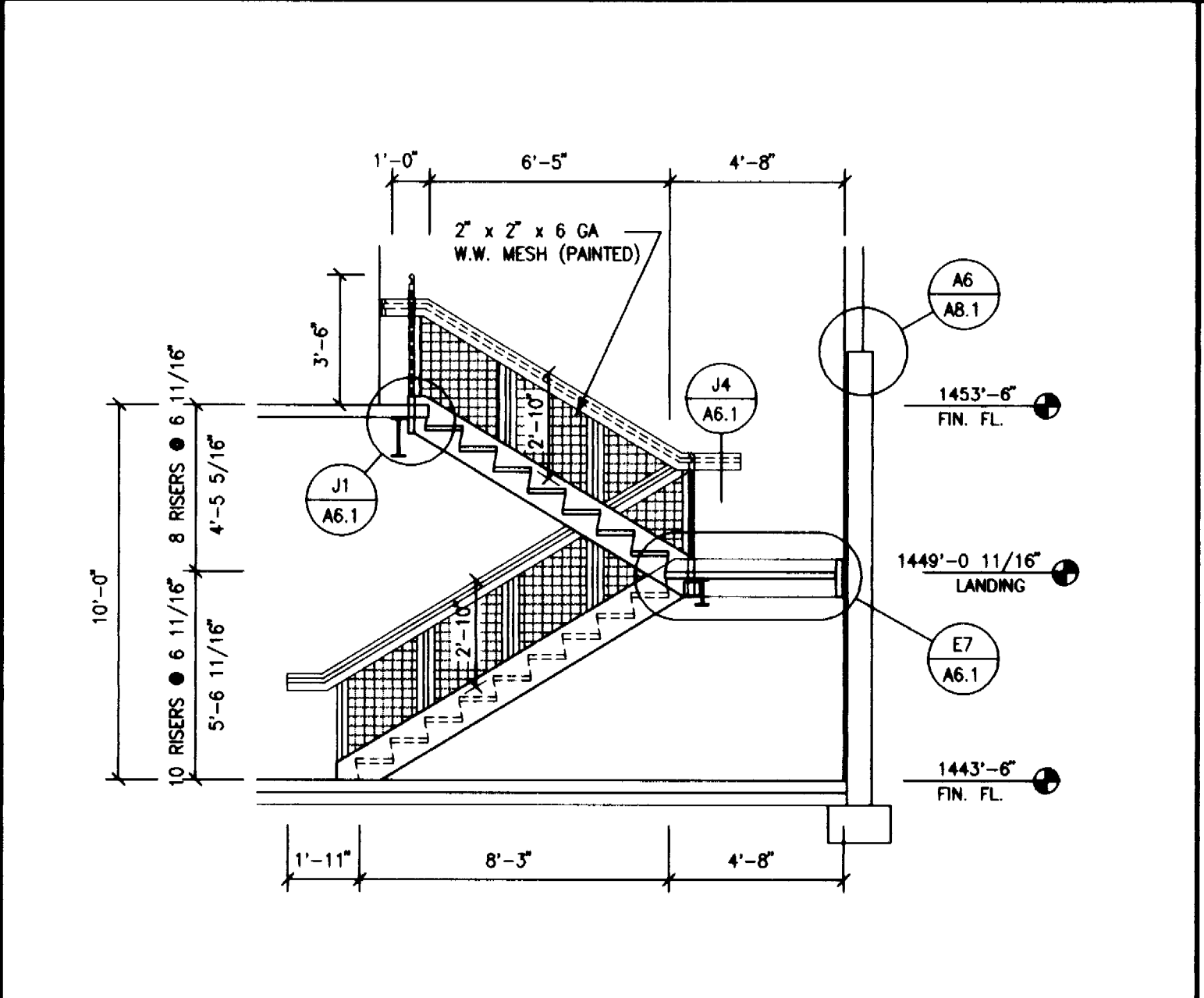
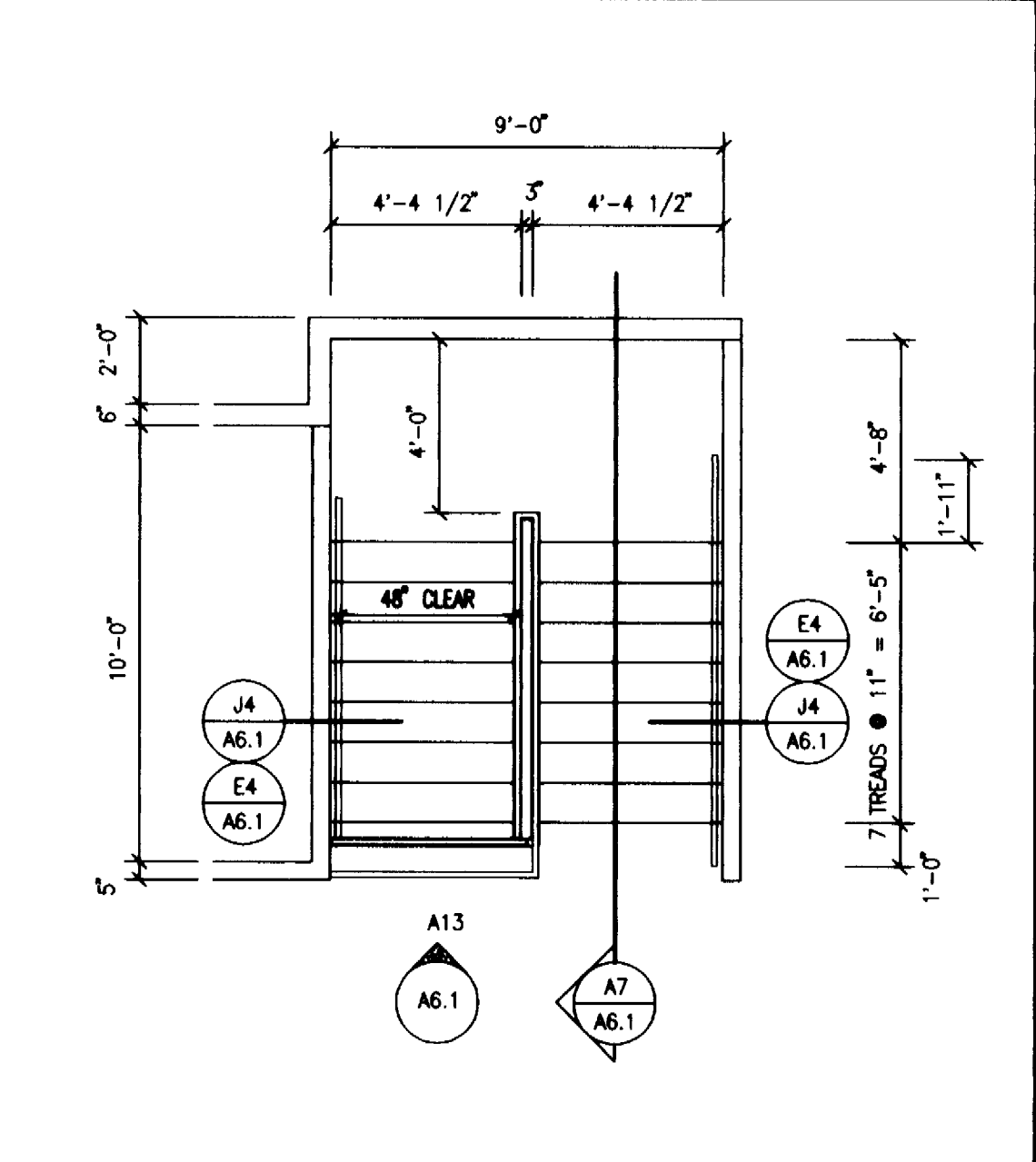
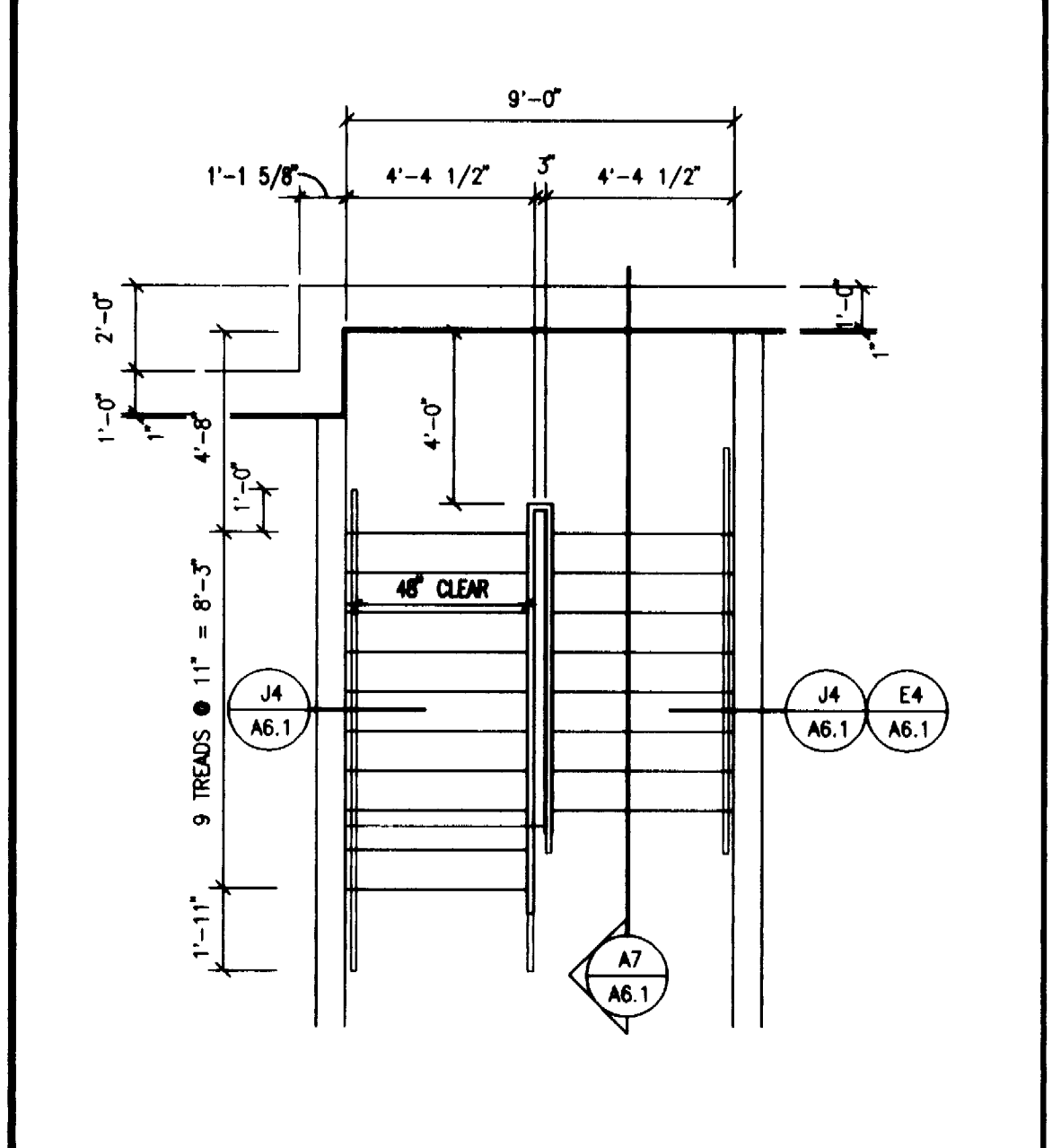


E1 TYP. METAL PAN STAIR DET.
1 1/2" = 1'-0"

E4 STAIR • FIRST FLOOR
1" = 1'-0"

E7 STAIR • LANDING
1" = 1'-0"

E12 STAIR RAILING
1 1/2" = 1'-0"



A1 ENLARGED STAIR PLAN (BASEMENT FLOOR)
1/4" = 1'-0"

A4 ENLARGED STAIR PLAN (FIRST FLOOR)
1/4" = 1'-0"

A7 STAIR SECTION
1/4" = 1'-0"

A11 STAIR FRAMING PLAN
1/4" = 1'-0"

A13 RAILING ELEVATION
1/4" = 1'-0"

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REVISIONS 3/10/95	REVISIONS 4/6/95	AS BUILTS 2/9/96	CADD REF. NO. 9211/A61
SHEET TITLE ENLARGED STAIR PLAN & DETAILS			DRAWING NO. A6.1

PROJECT: GAME FISHERIES RESEARCH CENTER
DEPARTMENT OF GAME, FISH, & PARKS
PIERRE, SD. SEE GPE310011

GENERAL STRUCTURAL NOTES

APPLY UNLESS NOTED OTHERWISE (UND) ON THE DRAWINGS.

DESIGN CODE

UNIFORM BUILDING CODE

DESIGN LOADS

FLOOR LIVE LOAD.....50 PSF
 ADDITIONAL FLOOR DEAD LOAD FOR
 POTENTIAL FUTURE VIBRATION DAMPENING15 PSF
 CORRIDOR AND STAIR LIVE LOAD.....100 PSF
 ROOF LIVE LOAD.....30 PSF
 PLUS APPLICABLE SLIDING & DRIFTING SNOW INCREASES
 WIND LOAD BASED ON 80 MPH BASIC WIND SPEED, EXPOSURE C

MATERIALS GRADES AND STRENGTHS

CAST-IN-PLACE CONCRETE
 FOOTINGS.....F'c = 3000 PSI AT 28 DAYS
 LIGHTWEIGHT CONCRETE
 ON METAL DECK.....F'c = 3500 PSI AT 28 DAYS
 ALL OTHER CONCRETE.....F'c = 4000 PSI AT 28 DAYS
REINFORCING STEEL
 BARS.....ASTM A615 (GRADE 60)
 WELDED WIRE FABRIC.....ASTM A185
STRUCTURAL STEEL
 SHAPES AND PLATES.....ASTM A36 (Fy = 36 KSI)
 RECTANGULAR TUBES.....ASTM A500, GRADE B
 (Fy = 46 KSI)
 BOLTS.....ASTM A325N
 ANCHOR BOLTS.....ASTM A307 OR ASTM A36
 EXPANSION BOLTS.....Kwik-Bolts, Red-Head
 ANCHORS OR THUNDERSTUDS
WOOD FRAMING
 DIMENSION LUMBER.....HEM FIR #2
 STUDS.....HEM FIR STUD GRADE
 POSTS.....HEM FIR #2
 MICROLAM(LVL).....TRUSS JOIST CORP.
 (Fb = 2800 PSI)

FOUNDATIONS

FOOTINGS HAVE BEEN DESIGNED FOR A MAXIMUM SOIL BEARING PRESSURE OF 3000 PSF.
 IF THE SOIL AT THE FOOTING ELEVATIONS SHOWN IS OF QUESTIONABLE BEARING VALUE, THE ARCHITECT/ENGINEER SHALL BE NOTIFIED AT ONCE FOR RESOLUTION.
 ALL FOUNDATIONS SHALL BE CENTERED ON WALLS OR COLUMNS, UND.
 WALLS RETAINING SOIL HAVE BEEN DESIGNED FOR AN EQUIVALENT FLUID PRESSURE OF 45 PCF. ONLY FREE DRAINING GRANULAR FILL SHALL BE USED.
 WHERE FILL MATERIAL IS PLACED ON BOTH SIDES OF WALLS, IT SHALL BE PLACED IN LAYERS ALTERNATELY ON OPPOSITE SIDES TO MAINTAIN LEVELS THAT WILL AVOID DISPLACEMENT OF, OR DAMAGE TO, THE WALLS.
 WHERE FILL MATERIAL IS PLACED ON ONE SIDE OF A WALL, THE WALL SHALL BE ADEQUATELY SHORED AND BRACED OR THE MATERIAL SHALL NOT BE PLACED UNTIL SUPPORTING FLOOR SLABS HAVE BEEN POURED AND SET.
 CONTINUOUS FOOTINGS SHALL BE STEPPED AT A SLOPE OF ONE VERTICAL TO TWO HORIZONTAL. (SEE DETAIL K13/S1.1)
 PROTECT IN-PLACE FOUNDATIONS AND SLABS ON GRADE FROM FROST PENETRATION UNTIL PROJECT COMPLETION.
 SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS SHALL NOT EXCEED ONE VERTICAL TO TWO HORIZONTAL. STEP FOOTINGS DOWN AS NECESSARY TO MAINTAIN THIS SLOPE.
 FURNISH #4 AND #5 CONTINUOUS WALL FOOTING REINFORCING IN STOCK LENGTHS AND BEND AROUND CORNERS IN FIELD. SHOP BEND #5 BARS THRU FOOTING STEPS; #4 BARS MAY BE FIELD BENT THRU FOOTING STEPS. LAP CONTINUOUS FOOTING REINFORCING A MINIMUM OF 15" AT SPLICES AND STAGGER SPLICES.
 PROVIDE 6 X 6 - W1.4 X W1.4 W.V.F. (6 X 6 - 10/10 W.V.F.) IN ALL SLABS ON GRADE AND ENTRANCE PLATFORMS, UNLESS NOTED OTHERWISE.
 BEFORE ENCASING STEEL COLUMNS IN CONCRETE OR MASONRY, PAINT STRUCTURAL STEEL IN CONTACT WITH CONCRETE, INCLUDING BASE PLATE AND ANCHOR BOLTS, WITH ASPHALTIC PAINT.

CAST-IN-PLACE CONCRETE

CODE FOR REINFORCED CONCRETE DESIGN AND CONSTRUCTION IS ACI 318-89. ARRANGEMENT AND BENDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ACI DETAILING MANUAL, LATEST EDITION.
 REINFORCING STEEL SHALL BE NEW DEFORMED BARS.
 CONCRETE COVER TO REINFORCING STEEL, UND, SHALL BE AS FOLLOWS:
 SURFACES CAST AGAINST EARTH.....3"
 FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER:
 #6 BAR OR LARGER.....2"
 #5 BAR OR SMALLER.....1-1/2"
 FORMED SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER:
 WALLS, SLABS, JOISTS.....1"
 BEAMS, COLUMNS.....1-1/2"
 WHERE REINFORCING BARS ARE SHOWN CONTINUOUS, PROVIDE CLASS B TENSION LAP SPLICES (12" MINIMUM) EXCEPT WHERE NOTED OR DETAILED OTHERWISE STAGGER LAPS IN SLABS AND WALLS. LAP W.V.F. WIRE SPACING PLUS 2" (6" MINIMUM).
 DETAIL AND PROVIDE SUITABLE WIRE SPACERS, CHAIRS, TIES, ETC., FOR SUPPORTING REINFORCING STEEL IN THE PROPER POSITION WHILE PLACING CONCRETE.
 ALL CHAIRS SUPPORTED BY GRADE SHALL INCLUDE SAND PLATES.
 BAR SUPPORTS WHICH COME IN CONTACT WITH EXPOSED SURFACES SHALL HAVE PLASTIC OR RUBBER TIPS OR BE STAINLESS STEEL.
 PROVIDE DOVELS OF SAME SIZE AND SPACING AS VERTICAL OR COLUMN REINFORCING AT THE FOUNDATION, UNLESS NOTED OTHERWISE. DOVELS SHALL BE TIED IN PLACE PRIOR TO CONCRETE PLACEMENT.
 PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF WALLS, BEAMS, BOND BEAMS, AND FOOTINGS.
 WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS AND PLACING SEQUENCE SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCING STEEL SHOP DRAWINGS.
 HORIZONTAL CONSTRUCTION JOINTS ARE NOT PERMITTED IN CONCRETE MEMBERS UNLESS SHOWN ON THE DRAWINGS OR APPROVED IN ADVANCE. VERTICAL CONSTRUCTION JOINTS OR BULKHEADS SHALL BE MADE AT MID-SPAN OR POINTS OF MINIMUM SHEAR.

SIZE OF CONCRETE POURS BETWEEN CONSTRUCTION JOINTS SHALL BE LIMITED TO:
 WALLS
 MAXIMUM LENGTH 100 FT. WITH INTERMEDIATE CONTROL JOINTS AT APPROXIMATELY 30 FT. DO NOT LOCATE WITHIN 5 FT OF A CORNER OR COLUMN.
 SLABS ON GRADE
 3600 SQFT WITH MAXIMUM DIMENSION OF 60 FT PLACE IN LANE OR STRIP FASHION WITH INTERMEDIATE CONTROL JOINTS AT APPROX. 30 FT
 OR
 15 FT FOR EXPOSED CONCRETE SURFACES.
 CONCRETE ON METAL DECK
 10,000 SQFT WITH A MAXIMUM DIMENSION OF 100 FT.

VERIFY LOCATION OF OPENINGS SHOWN THROUGH CONCRETE SLABS OR WALLS AND COORDINATE ANY ADDITIONAL REQUIRED OPENINGS WITH OTHER TRADES AND THE ARCHITECT/ENGINEER.
 CONCRETE EXPOSED TO FREEZING AND THAWING SHALL CONTAIN 5-7% ENTRAINED AIR.
 ALUMINUM CONDUIT OR PIPING MAY NOT BE EMBEDDED IN ANY CONCRETE.
 CALCIUM CHLORIDE IS NOT PERMITTED IN ANY CONCRETE ADMIXTURES.

STRUCTURAL STEEL

LATEST AISC MANUAL AND SPECIFICATIONS APPLY.
 WELDING ELECTRODES SHALL BE 70XX.
 ALL WELDING AND TESTING OF WELDS SHALL BE IN ACCORDANCE WITH AMERICAN WELDING SOCIETY CODES AND RECOMMENDATIONS.
 ALL WELDING SHALL BE BY WELDERS HOLDING VALID CERTIFICATES IN THE TYPE OF WELD REQUIRED.
 UNLESS DETAILED OTHERWISE, ALL CONNECTION DETAILS SHALL BE PROVIDED BY THE STEEL FABRICATOR AND SHALL BE IN ACCORDANCE WITH AISC'S MANUAL OF STEEL CONSTRUCTION, 9TH EDITION, AND RELATED AISC PUBLICATIONS. UNLESS DETAILED OTHERWISE, ALL BEAM CONNECTIONS SHALL BE DOUBLE ANGLE CONNECTIONS WITH A325N BOLTS. WELDS AND ANGLES DESIGNED TO DEVELOP THE LISTED CAPACITY MAY BE USED INSTEAD OF BOLTS. THESE CONNECTION DETAILS SHALL BE SHOWN ON THE SHOP DRAWINGS AND WILL BE REVIEWED AND APPROVED BY THE ENGINEER.
 CONTRACTOR SHALL PROVIDE THE NECESSARY BRACING DURING ERECTION AND UNTIL ALL STEEL IS PLUMB AND SECURED.
 FIELD CUTTING OR OTHER FIELD MODIFICATIONS TO STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT SPECIFIC PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
 ALL BEAM COPES MUST BE MADE TO A RADIUS (3/4' MINIMUM).
 STRUCTURAL STEEL FRAMING SHALL BE TRUE AND PLUMB BEFORE CONNECTIONS ARE FINAL BOLTED OR WELDED.
 INSTALL EXPANSION BOLTS IN ACCORDANCE WITH THE ICBD REPORT RECOMMENDATIONS.

OPEN WEB STEEL JOISTS

DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STEEL JOIST INSTITUTE SPECIFICATIONS.
 MANUFACTURER SHALL BE SJI APPROVED FOR THE TYPE OF JOIST BEING USED.
 STEEL JOISTS SHALL BE DESIGNED FOR A DEAD LOAD (EXCLUDING WEIGHT OF JOISTS) OF 48 PSF AND LIVE LOAD AS STATED UNDER DESIGN LOADS. WHERE JOISTS ARE DESIGNATED AS "SP", CHORD SIZE DESIGNATION GIVEN IS FOR ESTIMATING PURPOSES ONLY. FINAL DESIGN SHALL BE PER LOADING DIAGRAM AND IS THE RESPONSIBILITY OF THE JOIST SUPPLIER.
 DESIGN MUST INCLUDE ALL CONCENTRATED LOADS FROM MECHANICAL EQUIPMENT, HEADERS, SUSPENDED FOLDING PARTITIONS, ETC.
 NO DRILLED HOLES OR CUTS ARE PERMITTED IN JOIST MEMBERS.
 ALL CONCENTRATED LOADS SHALL BE APPLIED AT A JOIST PANEL POINT UNLESS THE JOIST CHORDS ARE SPECIFICALLY DESIGNED FOR CONCENTRATED LOADS.
 BRIDGING SHALL BE HORIZONTAL OR DIAGONAL PER SJI SPECIFICATIONS.

STEEL FORM DECK

STEEL DECK INSTITUTE SPECIFICATIONS AND RECOMMENDATIONS APPLY.
 ALL FORM DECK SHALL BE 5/8", 28 GA. PAINTED.
 DECK SHALL BE ERECTED AND WELDED TO SUPPORTING STEEL AND HAVE SIDE LAPS CONNECTED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
 LAP ENDS A MINIMUM OF 2" WITH THE CENTERS OF THE LAPS LOCATED AT THE CENTERS OF THE SUPPORTS.
 LAP SHEETS ONE-HALF FLUTE AT SIDE LAPS.

WOOD FRAMING

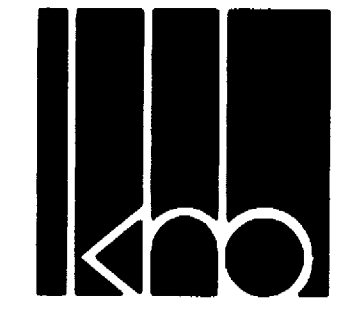
ALL CONSTRUCTION SHALL COMPLY WITH THE CONVENTIONAL CONSTRUCTION PROVISIONS OF THE UNIFORM BUILDING CODE (SECTION 2517) AND THE NATIONAL DESIGN SPECIFICATION, UND.
 ALL SAW LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY.
 ALL METAL CONNECTORS SHALL BE ICBD APPROVED.
 ALL NAILS SHALL BE COMMON NAILS, UND. REFER TO THE NAILING SCHEDULE IN THE UNIFORM BUILDING CODE (TABLE NO. 25-9) FOR CONNECTIONS NOTE DETAILED.
 LAY UP PLYWOOD WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER JOINTS UND.
 ALL BOLTED SILL PLATES, TOP PLATES, LEDGERS, ETC., SHALL HAVE BOLTS WITHIN 6" OF END OF ALL SPLICES AND SHALL HAVE A MINIMUM OF TWO BOLTS PER SECTION OR AS INDICATED ON DRAWINGS.
 DO NOT NOTCH OR DRILL JOISTS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

PREFABRICATED WOOD TRUSSES

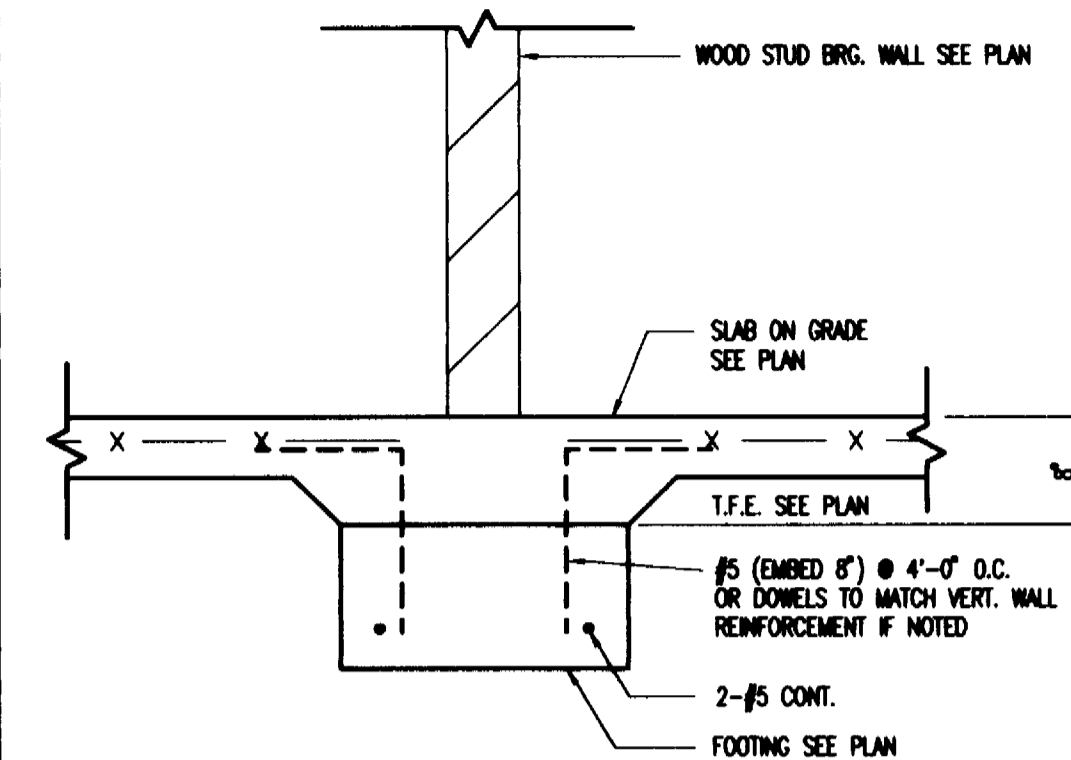
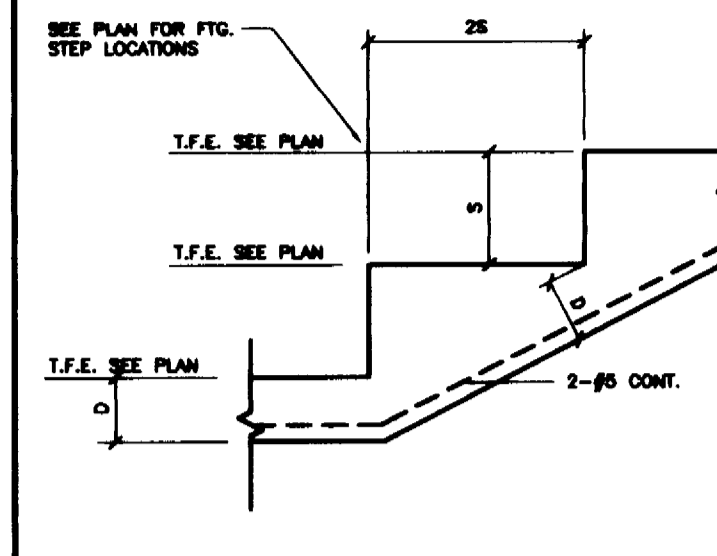
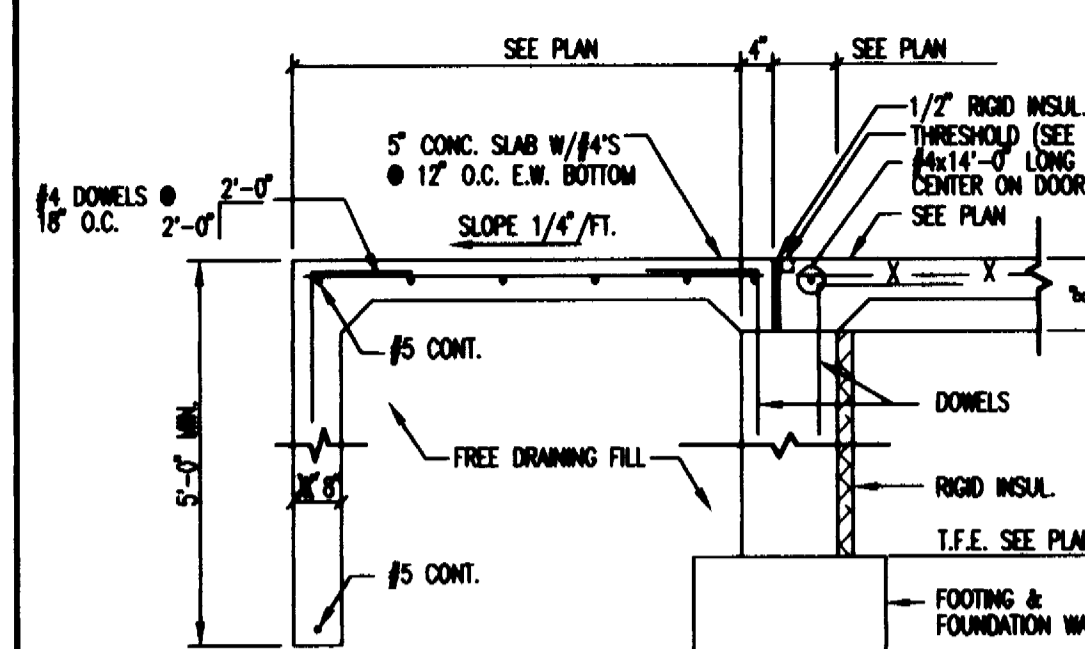
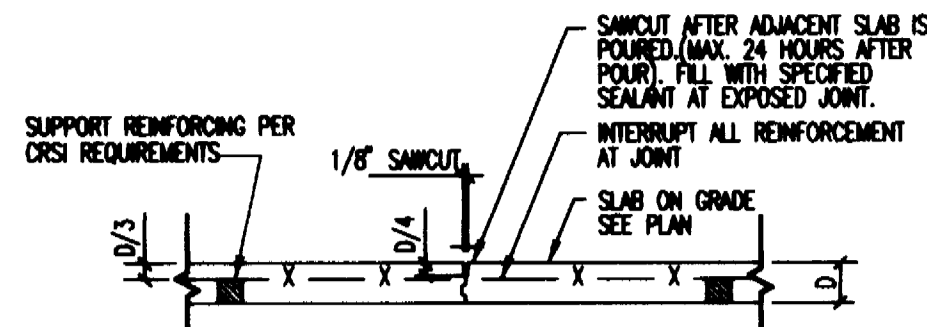
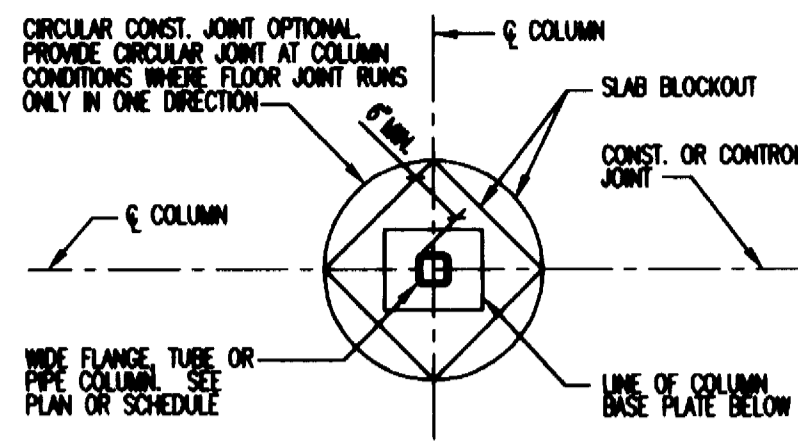
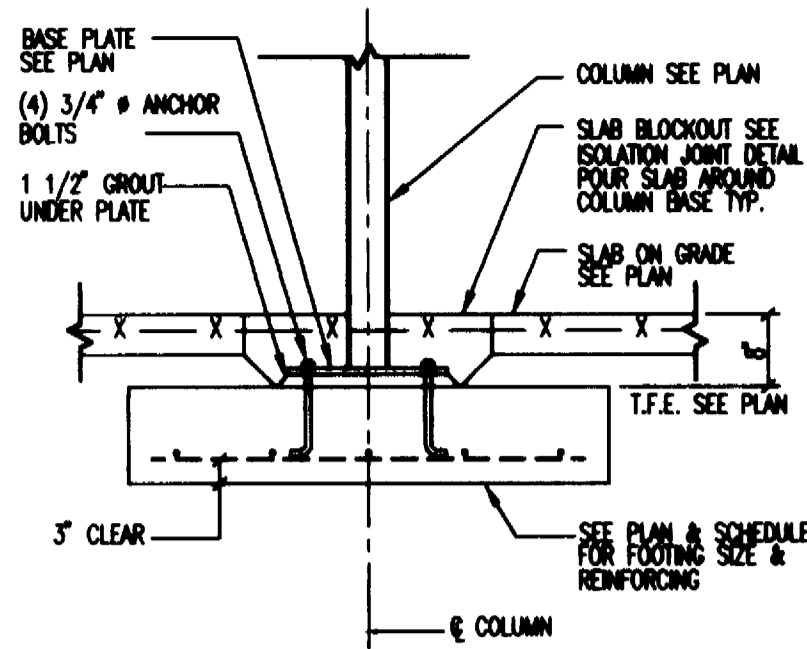
PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE NATIONAL FOREST PRODUCTS ASSOCIATION AND THE TRUSS PLATE INSTITUTE DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES, EXCEPT AS MODIFIED BY UNIFORM BUILDING CODE STANDARD 25-17. DESIGN TRUSSES FOR THE FOLLOWING LOADS:
 A) ROOF TRUSSES- 10 PSF TOP CHORD DL
 30 PSF TOP CHORD LL
 10 PSF BOTTOM CHORD DL
 TRUSS LAYOUTS AND GEOMETRY SHOWN MAY BE ALTERED BY THE TRUSS MANUFACTURER, SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER. SUBMIT ANY PROPOSED CHANGES ON THE SHOP DRAWINGS.
 TRUSS MANUFACTURER SHALL SUBMIT A COMPLETE ERECTION DRAWING AND ENGINEERING CALCULATIONS FOR ALL TRUSSES. CALCULATIONS SHALL BE CERTIFIED BY A REGISTERED ENGINEER IN THE STATE OF SOUTH DAKOTA. ERECTION DRAWINGS SHALL INCLUDE A LAYOUT OF ALL TRUSSES, WITH THE TRUSSES LABELED USING THE SAME DESIGNATIONS AS THE CALCULATIONS. THE TRUSS LAYOUT SHALL DESIGNATE TRUSS SPACINGS, REQUIRED BRIDGING AND ERECTION BRACING AND THE LOCATION OF ANY CONCENTRATED LOADS AND REQUIRED HANGERS.
 ROOF TRUSSES SHALL BE ANCHORED TO TOP PLATES WITH ONE SIMPSON H4 OR H1 HANGER EACH BEARING POINT OF TRUSS.

SPECIAL INSPECTION

THE FOLLOWING WORK ITEMS REQUIRE SPECIAL INSPECTION PER U.B.C. SECTION 306. THE SPECIAL INSPECTION AND THE COST ASSOCIATED THEREWITH WILL BE PAID BY THE OWNER. THE ITEMS THAT REQUIRE SPECIAL INSPECTIONS ARE:
 A. 306 (A) 1. CONCRETE
 B. 306 (A) 6. HIGH-STRENGTH BOLTING

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				DRAWN BY 03/10/95
SHEET TITLE GENERAL STRUCTURAL NOTES	COPYRIGHT	CADD REF. NO. \9211\S10	DRAWING NO.	PROJECT ONE FISHERIES RESEARCH CENTER DEPARTMENT OF GAME FISH & PARKS PIERRE, SD OS #GP6310011
				S1.0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17



K1 TYP. INT. COL. FOOTING
1/2" = 1'-0"

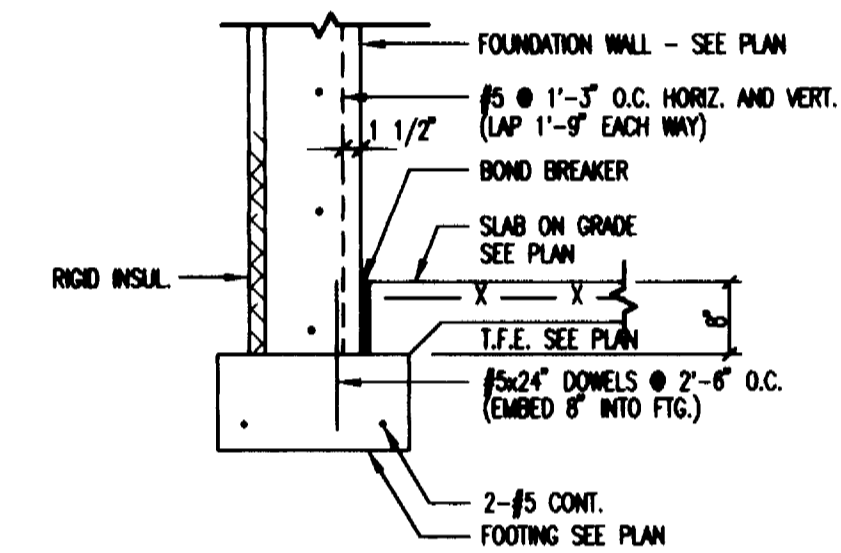
K4 TYP. ISOLATION JOINT @ COL.
1/2" = 1'-0"

K7 TYP. CONST. JOINT
1/2" = 1'-0"

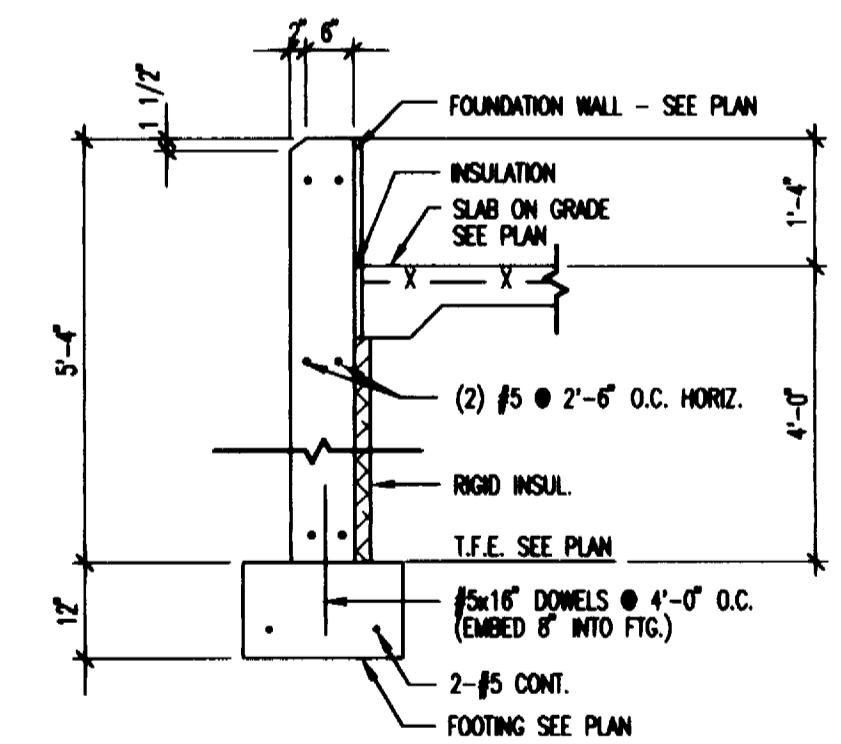
K10 TYPICAL STOOP
1/2" = 1'-0"

K13 STEPPED FTG.
NO SCALE

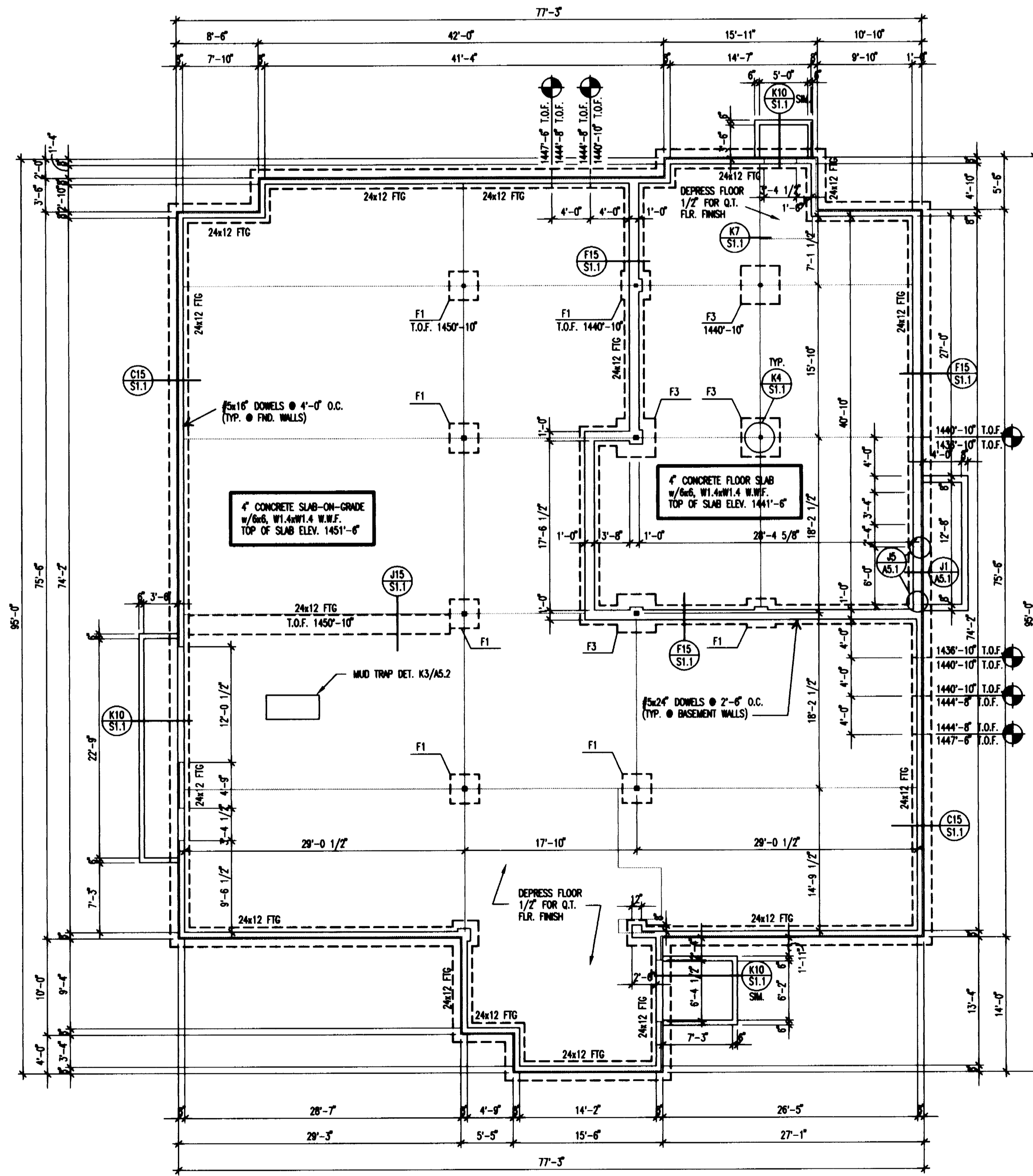
J15 TYP. INT. BEARING WALL
3/4" = 1'-0"



F15 TYP. EXT. BEARING WALL
1/2" = 1'-0"



C15 TYP. FOUNDATION WALL
1/2" = 1'-0"



FOOTING SCHEDULE	
F1	3'-0" x 3'-0" x 1'-4" w/(4)#5's EACH WAY
F2	3'-6" x 3'-6" x 1'-4" w/(4)#5's EACH WAY
F3	4'-0" x 4'-0" x 1'-4" w/(5)#5's EACH WAY
F4	4'-6" x 4'-6" x 1'-4" w/(5)#5's EACH WAY



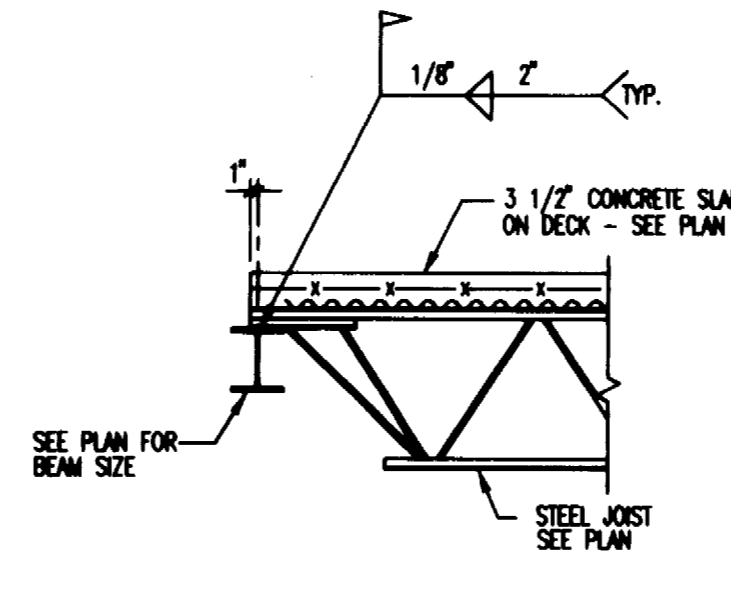
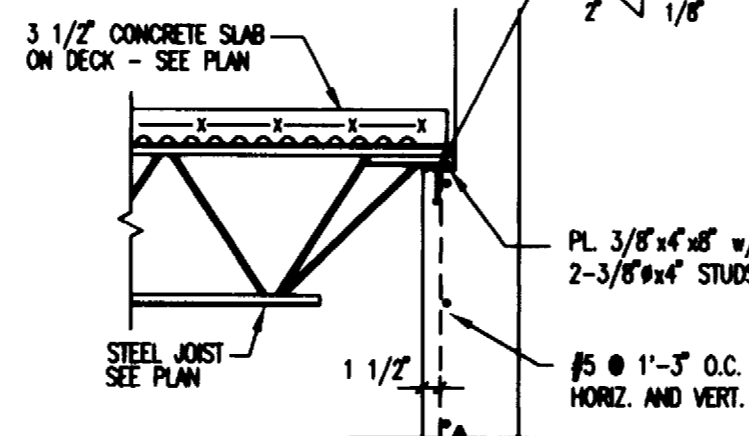
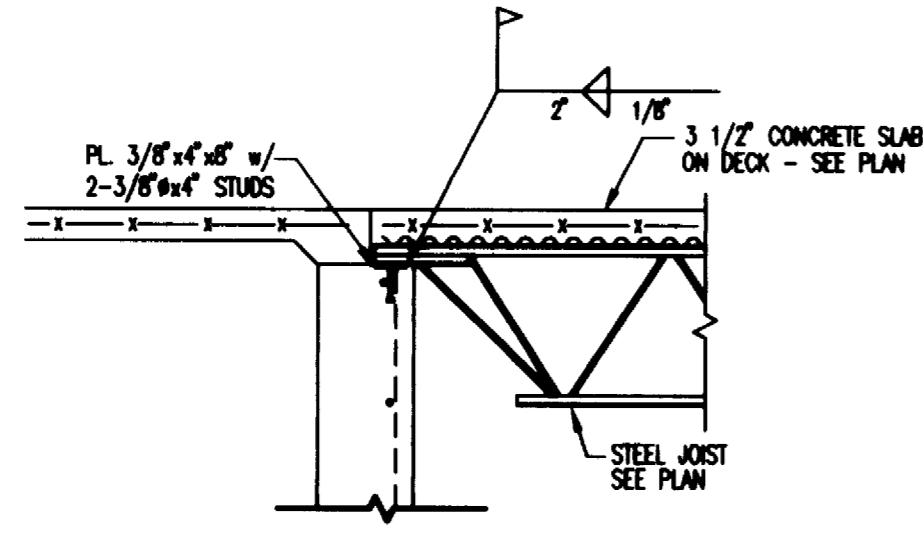
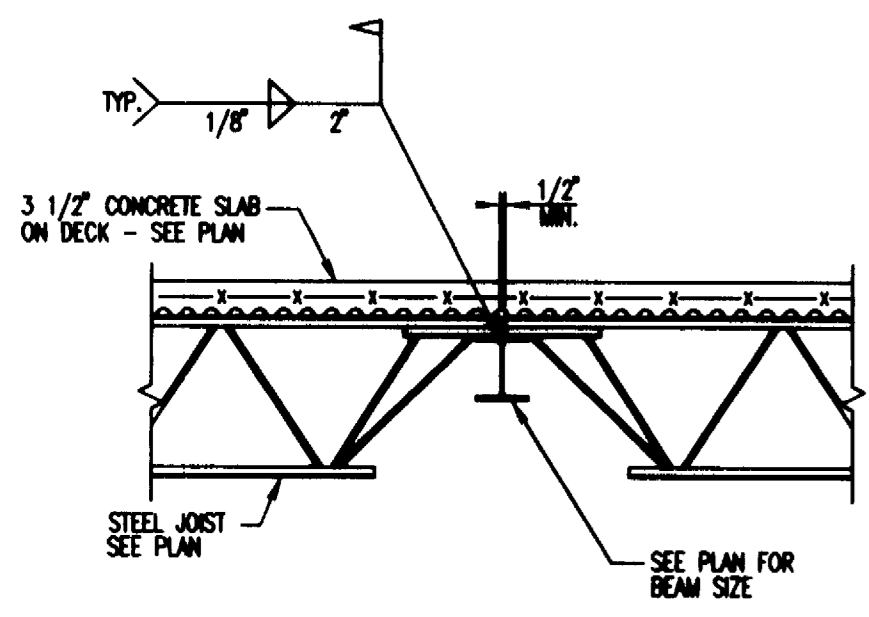
FOOTING/FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

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SIOUX FALLS, SOUTH DAKOTA 57102-0180
PHONE (605) 336-3718 FAX (605) 336-0438

DRAWN BY DW JH	APPROVED BY	DATE 9/16/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/6/95	AS BUILTS 2/9/96	CADD REF. NO. 9211/S11
SHEET TITLE FOOTING & FOUNDATION PLAN		COPYRIGHT	DRAWING NO.
PROJECT GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD 57501-1001			S1.1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17



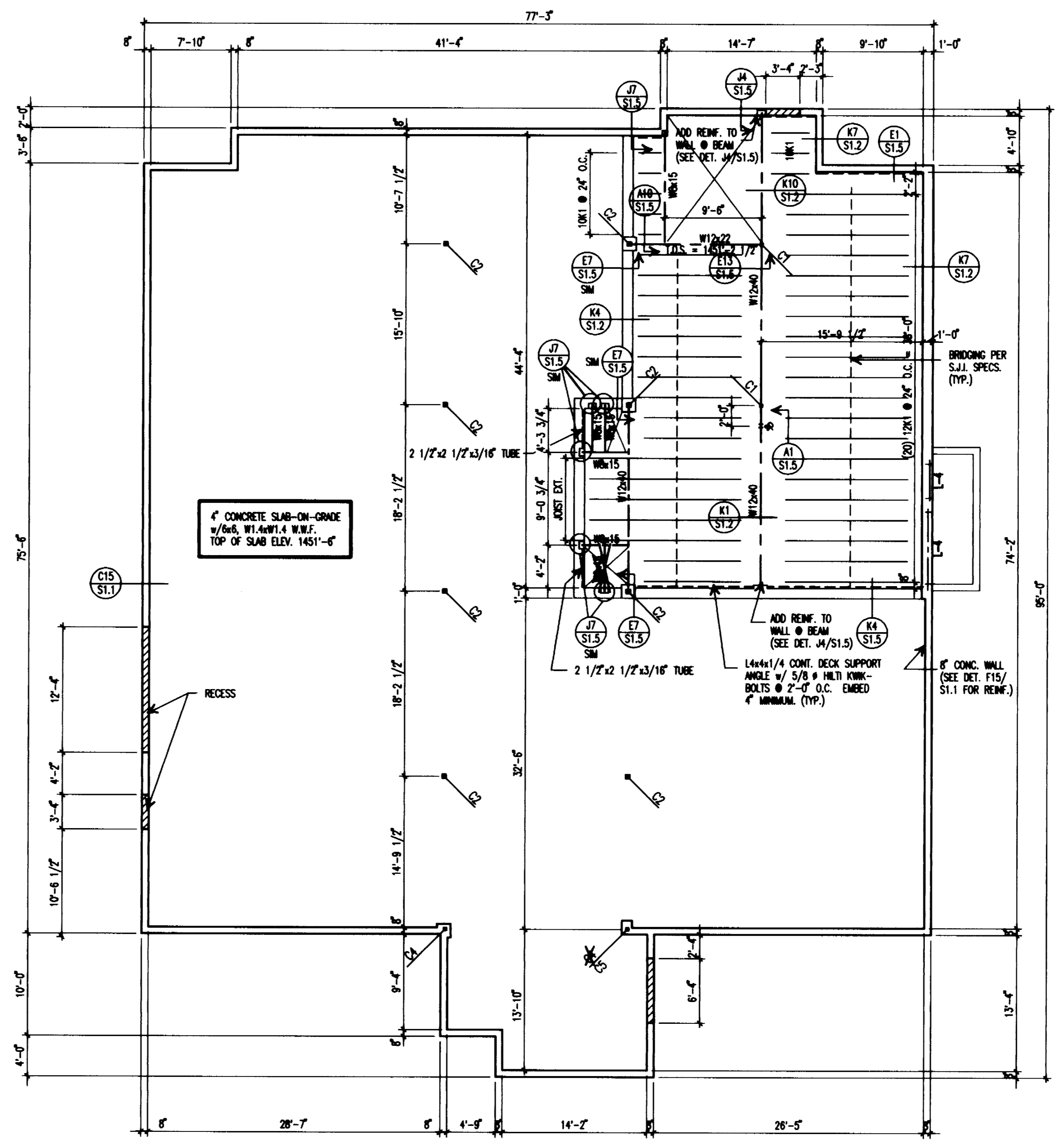
FOR JOIST BEARING AT THE OPENING IN THE WALL SEE J1/AS.1

K1
1/2" = 1'-0"

K4
1/2" = 1'-0"

K7
1/2" = 1'-0"

K10
1/2" = 1'-0"



COLUMN SCHEDULE	
C1	TS4x4x1/4 w/ 1/2" CAP PLATE w/ (4) 3/4" # BOLTS AND 10"x3/4"x0'-10" BASE PLATE w/ (4) 3/4" # ANCHOR BOLTS AND 1 1/2" NON-SHRINK GROUT. FIG. TO FLR. FRAMING.
C2	TS5x5x5/16 w/ 1/2" CAP PLATE w/ (4) 3/4" # BOLTS AND 12"x1"x1'-0" BASE PLATE w/ (4) 3/4" # ANCHOR BOLTS AND 1 1/2" NON-SHRINK GROUT. FIG. TO ROOF FRAMING.
C3	TS3x3x1/4 w/ 3"x1/4"x3" CAP PLATE AND 1/2" BASE PLATE TO GEOMETRICALLY MATCH THE CAP PLATE OF C2 w/ (4) 3/4" # BOLTS AT CLERESTORY.
C4	TS5x5x5/16 w/ 1/2" CAP PLATE w/ (2) 3/4" # THREADED STUDS AND (2) 3/4" # BOLTS. SEE DETAILS FOR BASE PLATES. FLOOR FRAMING TO ROOF FRAMING. 2x6 POST ABOVE STEEL TO ROOF.
C5	2x6x6 LAMINATED

FLOOR SLAB ON JOISTS TO BE 3 1/2" SLAB DEPTH w/ 6x6-W2.1xW2.1 W.W.F ON 5/8" METAL FORM DECK (28 GUAGE)

TOP OF STEEL ELEV. = JOIST BRG. ELEV. = 1451'-0" (UNLESS NOTED OTHERWISE)

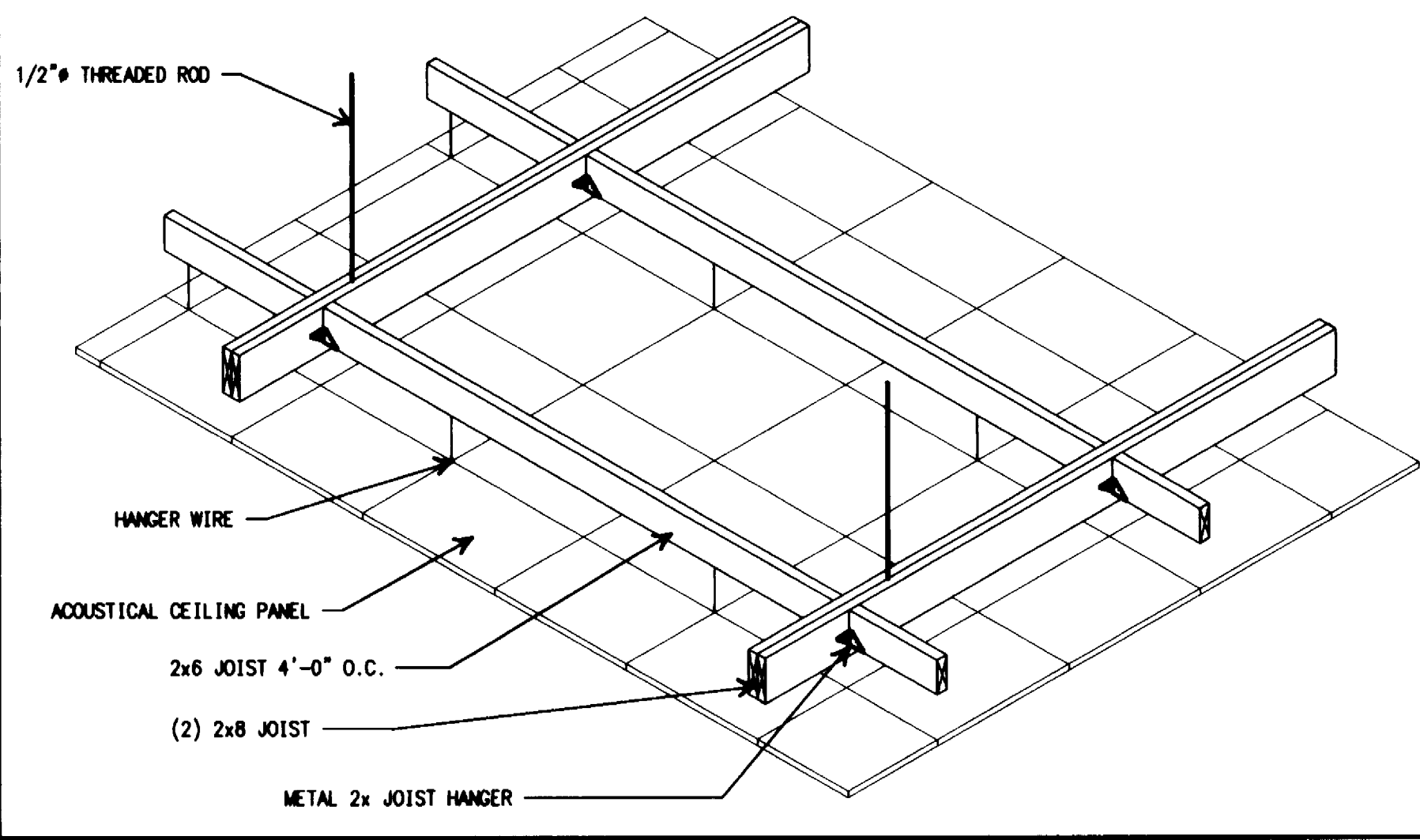
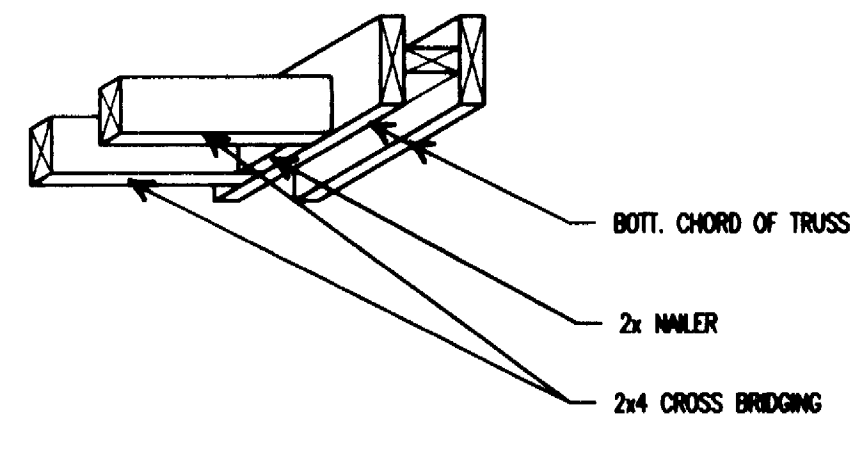
LINTEL SCHEDULE		
MARK	SIZE	BEARING
L-1	2 - 2 x 8	-
L-2	-	-
L-3	-	-
L-4	SEE DETAIL J1/AS.1	-

FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"

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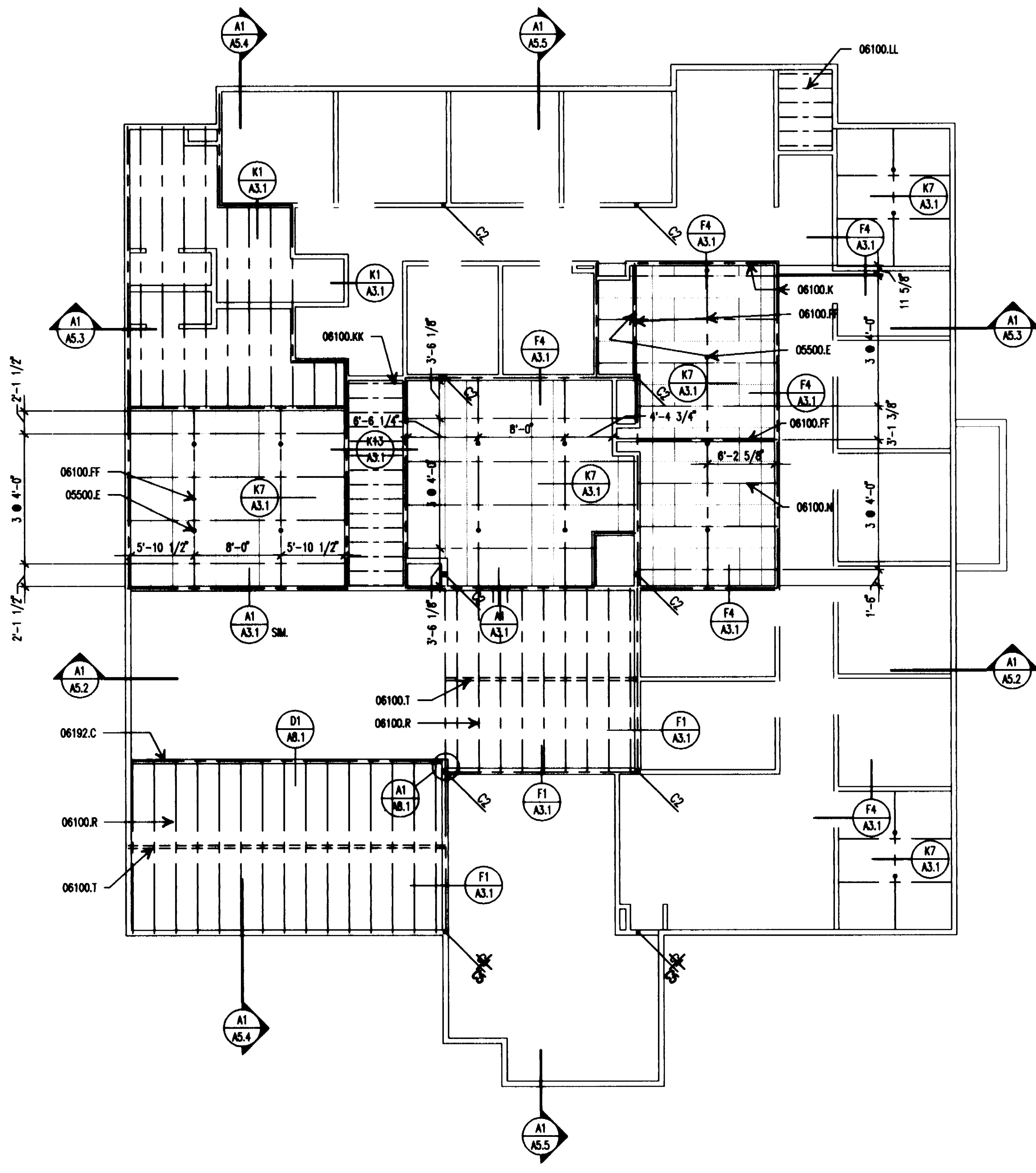
DRAWN BY DW JH	APPROVED BY	DATE 9/16/94	PROJECT NO. 9211
REVISED 3/10/95	REVISED 4/8/95	AS BUILTS 2/9/98	CADD REF. NO. S211/S12
SHEET TITLE FLOOR FRAMING PLAN		COPYRIGHT	DRAWING NO.
PROJECT ONE FISHERIES RESEARCH CENTER DEPARTMENT OF GAME FISH & PARKS PIERRE, SD USE #0628310011			S1.2



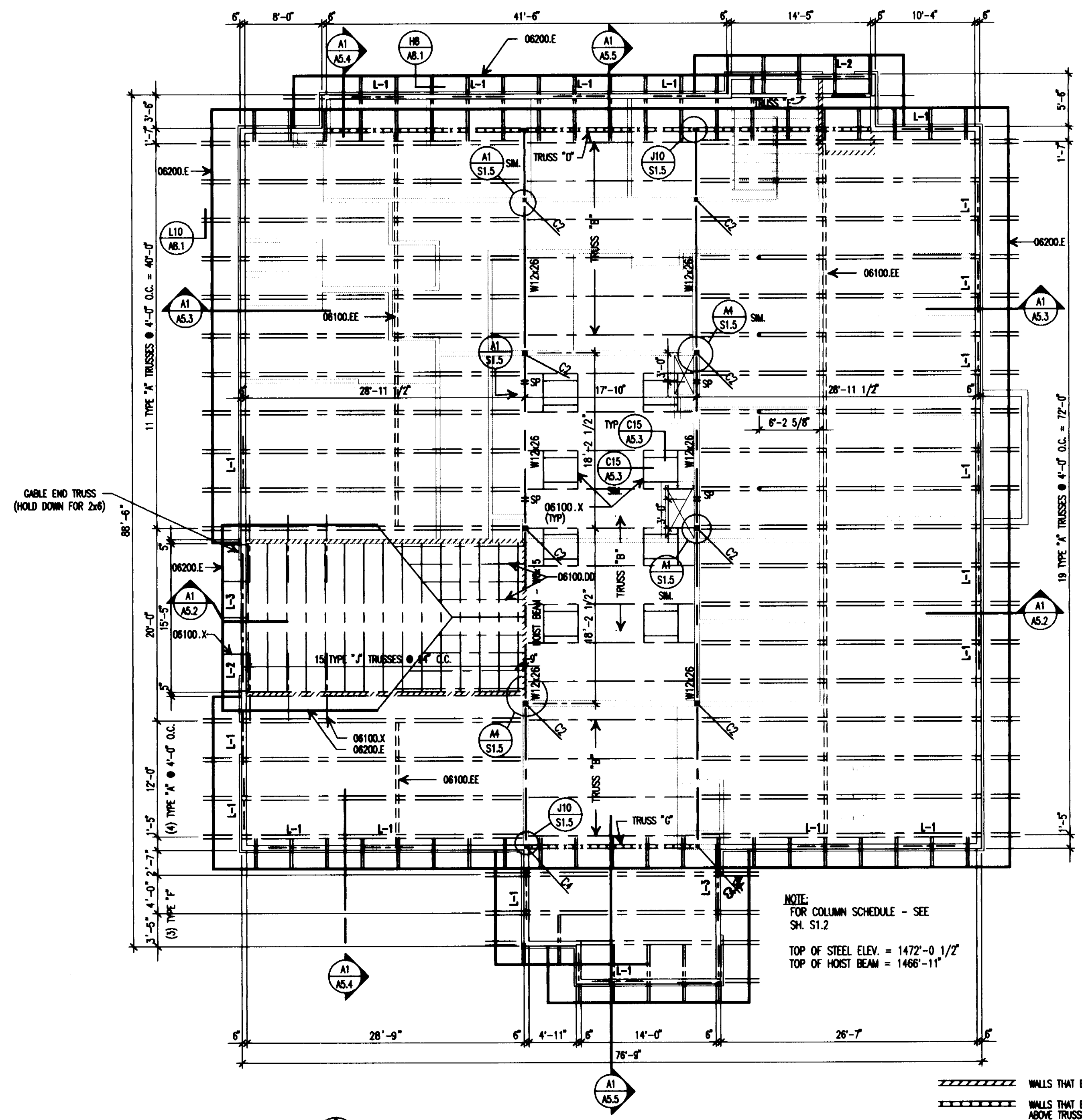
Materials Keying

Prefix (5 digit specification section number) **04400.A** Suffix (specific item)

- DIVISION 5 - METALS**
 05500.E 1/2" Ø THREADED RODS 8'-0" O.C. (SEE PLAN FOR LOCATIONS)
- DIVISION 6 - WOOD AND PLASTICS**
 06100.K 2x12 BAND JOIST
 N 2x6 JOIST 4'-0" O.C.
 R 2x12 JOIST 24" O.C.
 T 1x3 CROSS BRIDGING
 X 2x6
 DD 2x6 RAFTER
 EE 2x4 CROSS BRIDGING
 FF (2) 2x8 JOIST
 KK 2x4 JOIST 16" O.C.
 LL 2x6 JOIST 16" O.C.
 06192.C GIRDER TRUSS
 06200.E 2x10 CEDAR RAKE OR FASCIA



CEILING FRAMING PLAN
 SCALE: 1/8" = 1'-0"



ROOF FRAMING PLAN
 SCALE: 1/8" = 1'-0"

LINTEL SCHEDULE		
MARK	SIZE	BEARING
L-1	3 - 2 x 10	2 - 2 x 6
L-2	2 - 2 x 8	2 - 2 x 6
L-3	3 - 2 x 12	2 - 2 x 6
L-4	FOR ALL INTERIOR STUD OPENINGS PROVIDE 2 - 2x6 WHERE OCCURRING	

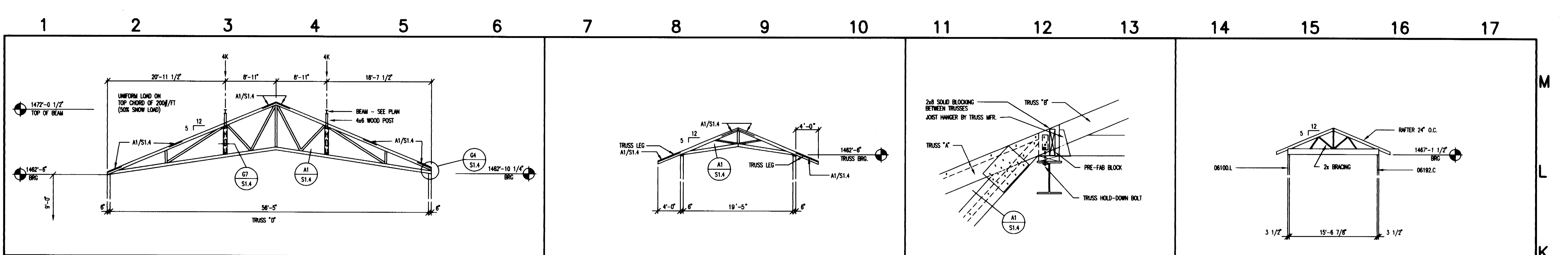
NOTE:
 L-2 OVER "C" WINDOWS
 L-2 OVER MECHANICAL LOUVER

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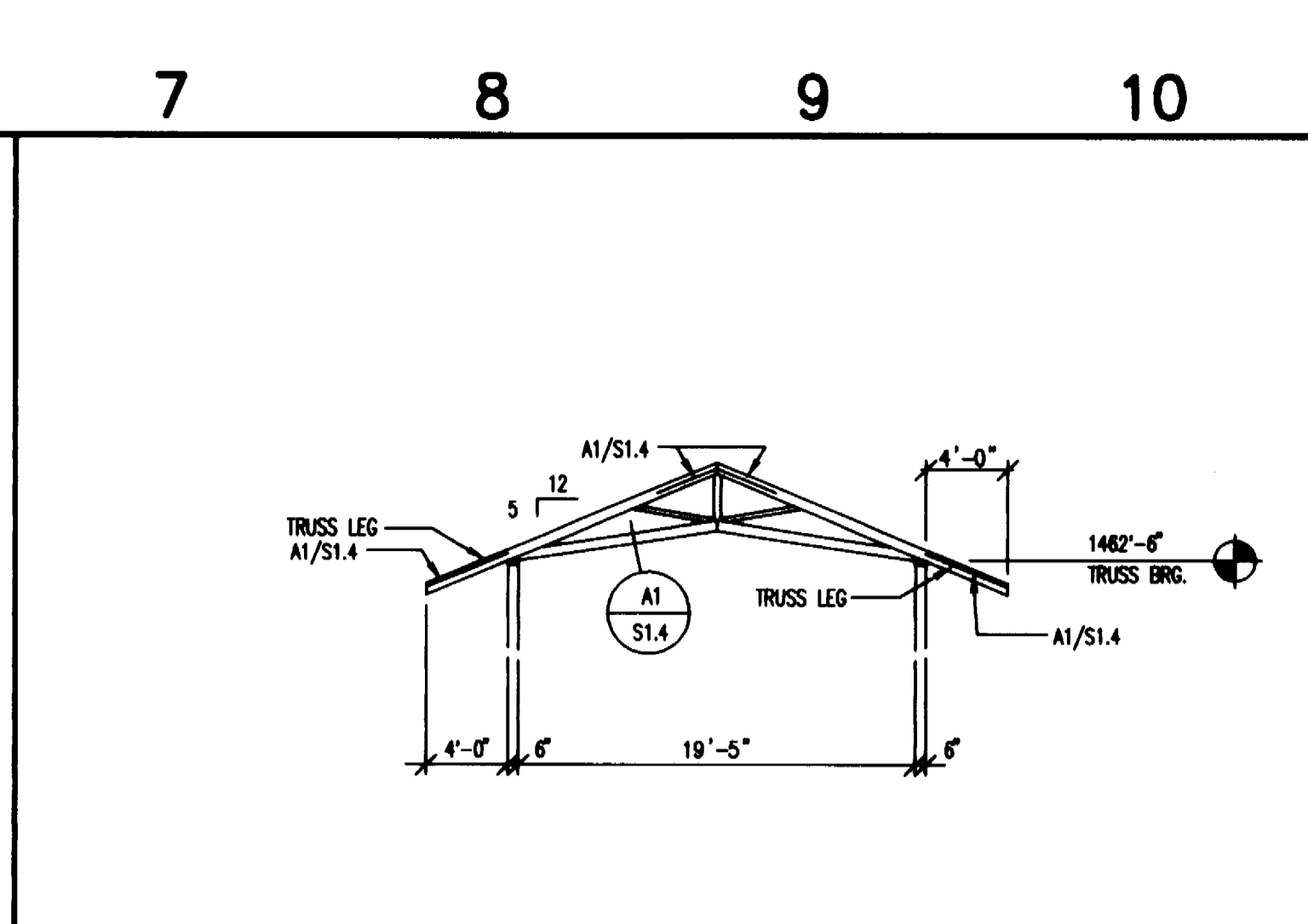
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REVISED 3/10/95	REVISED 4/8/95	AS BUILTS 2/9/96	CADD REF. NO. 19211/S13
SHEET TITLE ROOF FRAMING PLANS & CEILING FRAMING PLAN		COPYRIGHT	DRAWING NO.
PROJECT ONE FISHERS RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD. USE REPER310011			S1.3

WALLS THAT EXTEND TO DECK ABOVE TRUSSES

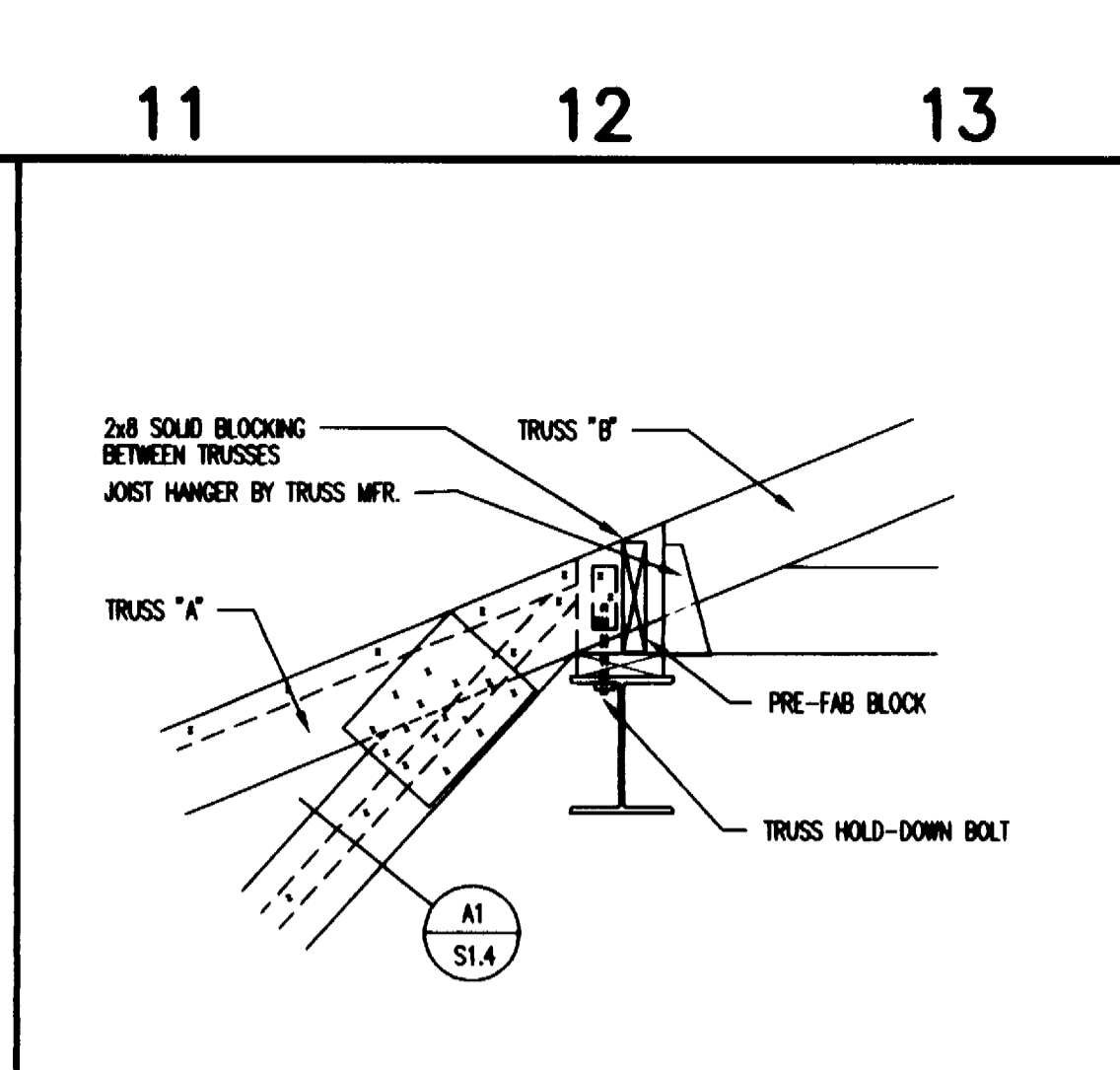




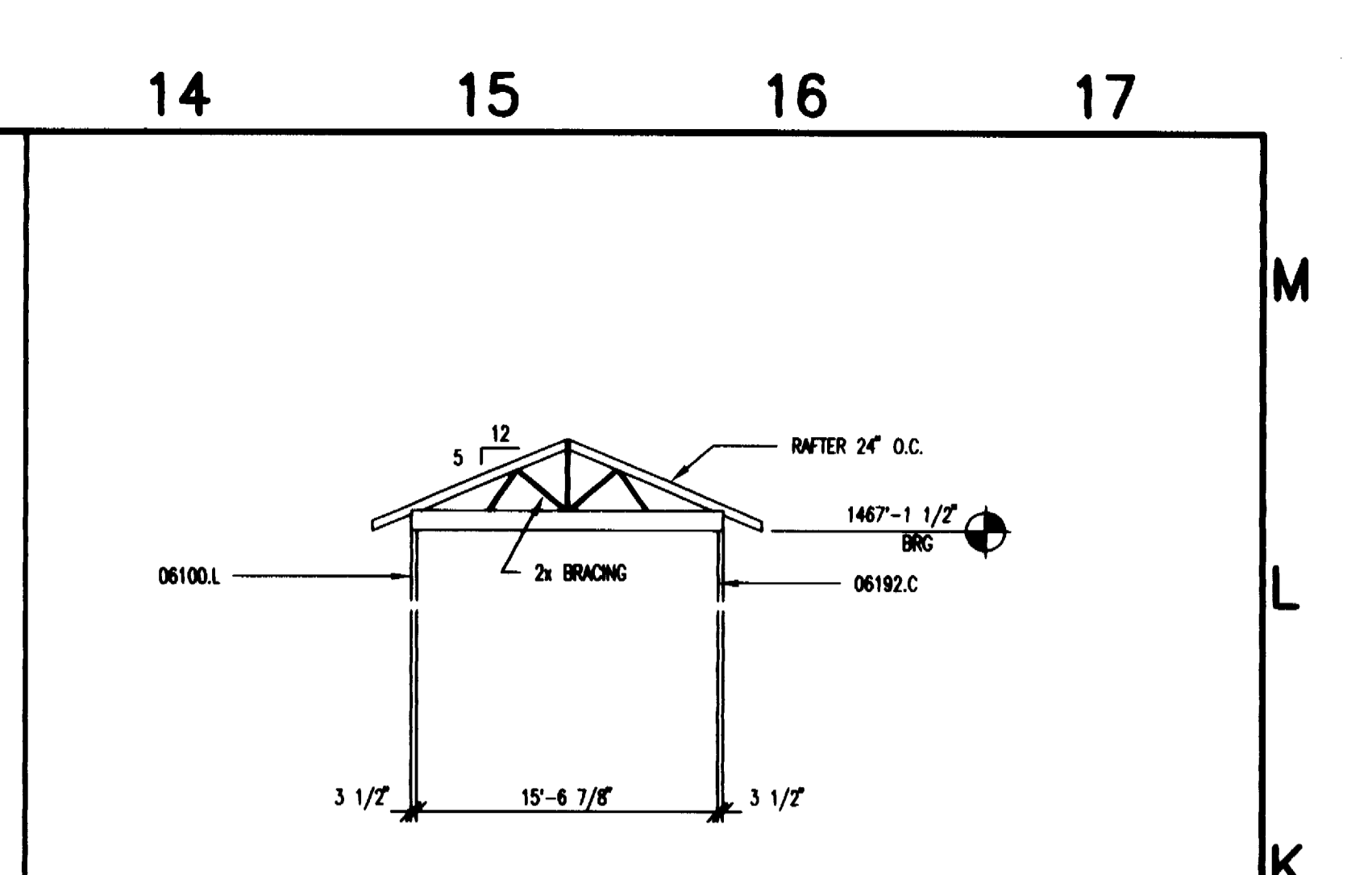
K1 TRUSS "D"
1/8" = 1'-0"



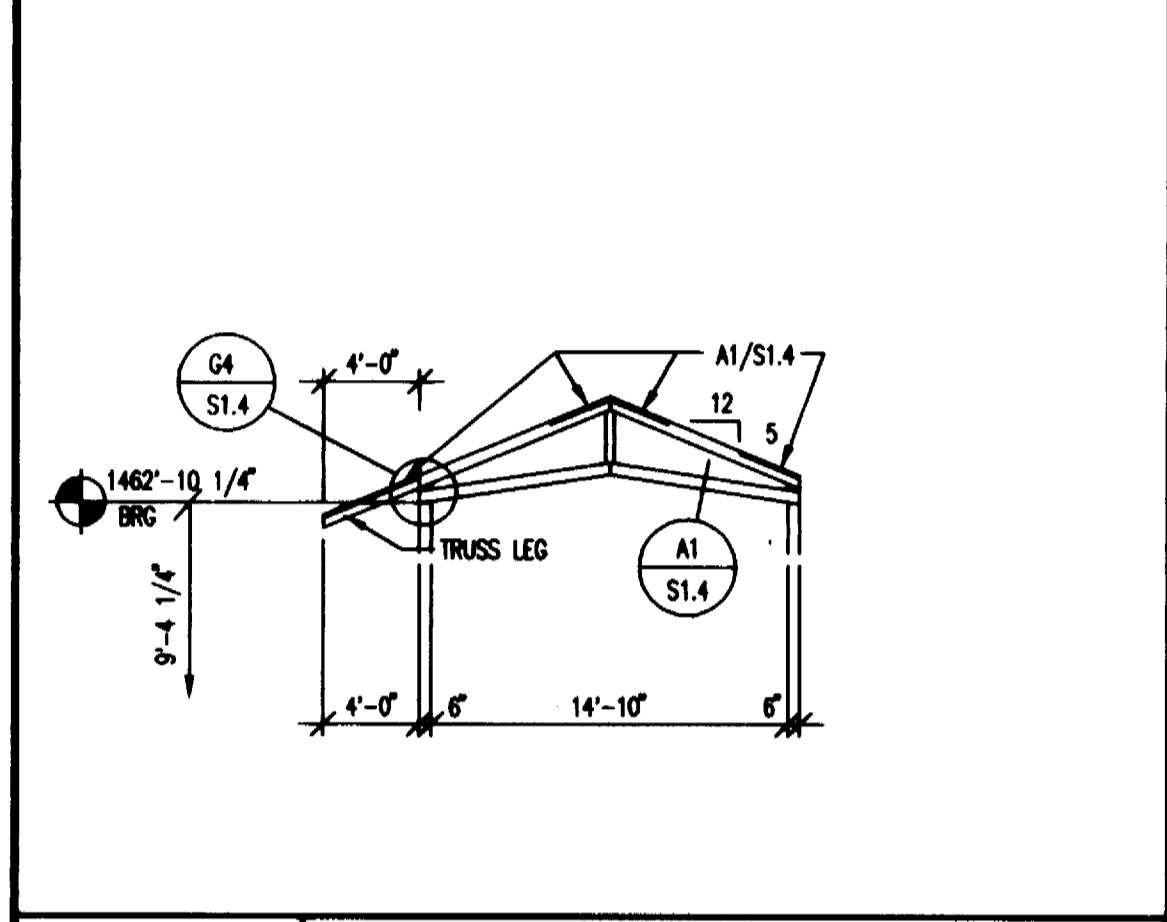
K7 TRUSS "F"
1/8" = 1'-0"



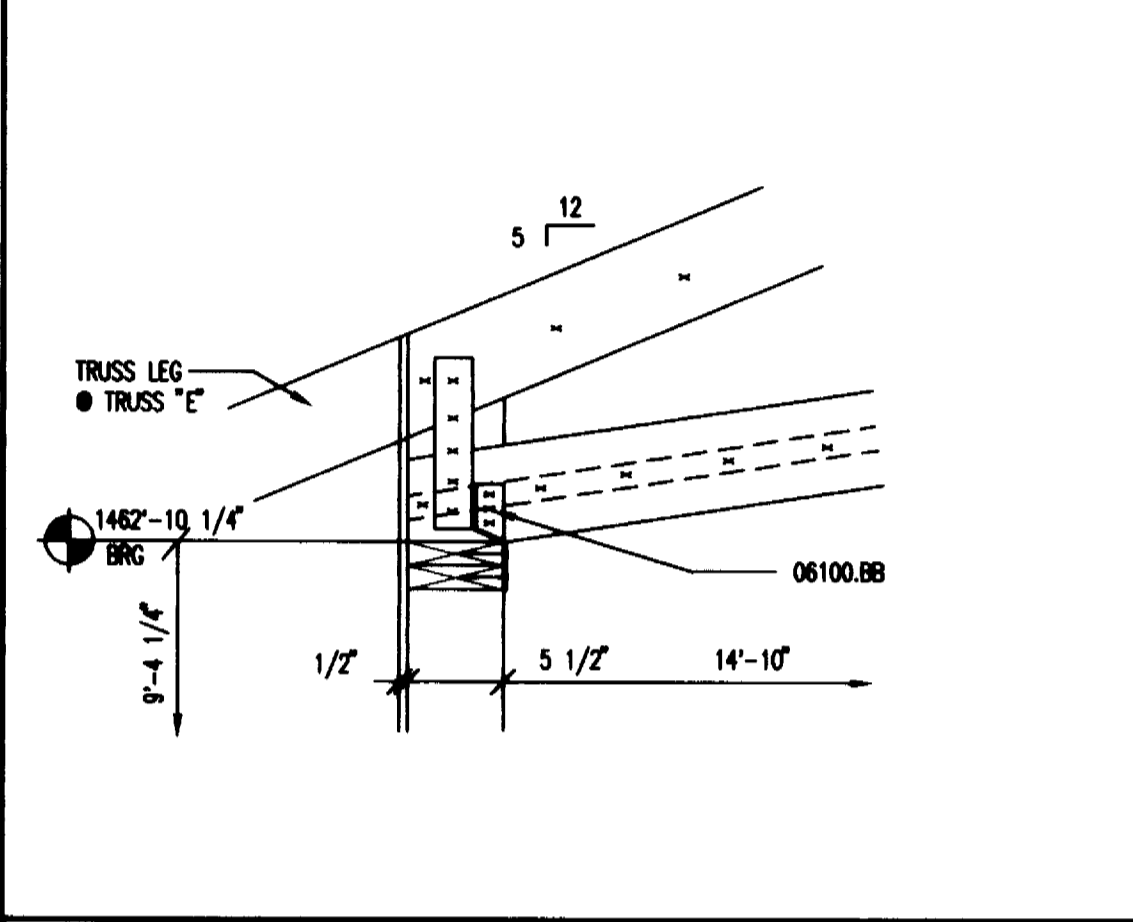
K11 TRUSS "A" & "B" DET.
1" = 1'-0"



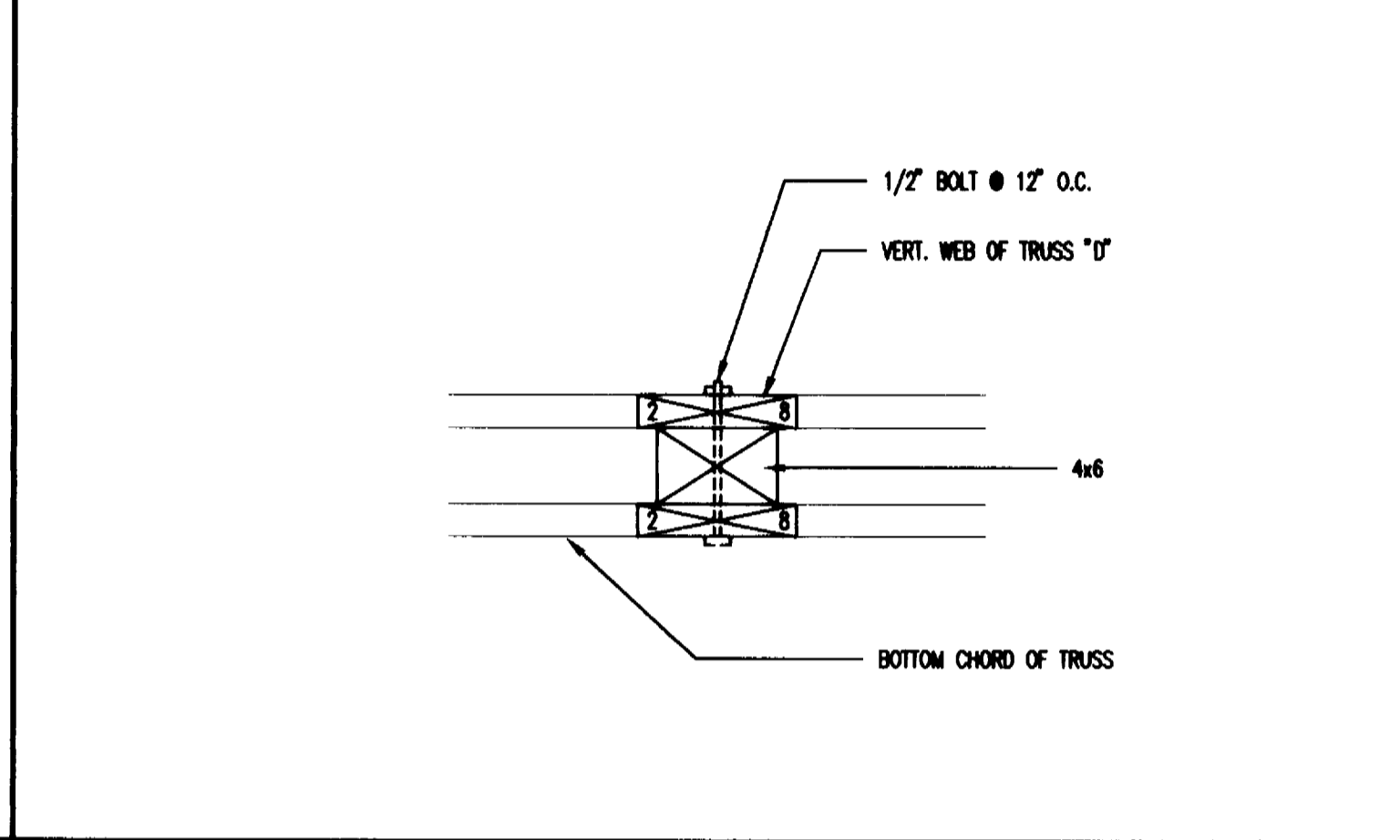
K14 TRUSS "J" (RAFTER)
1/8" = 1'-0"



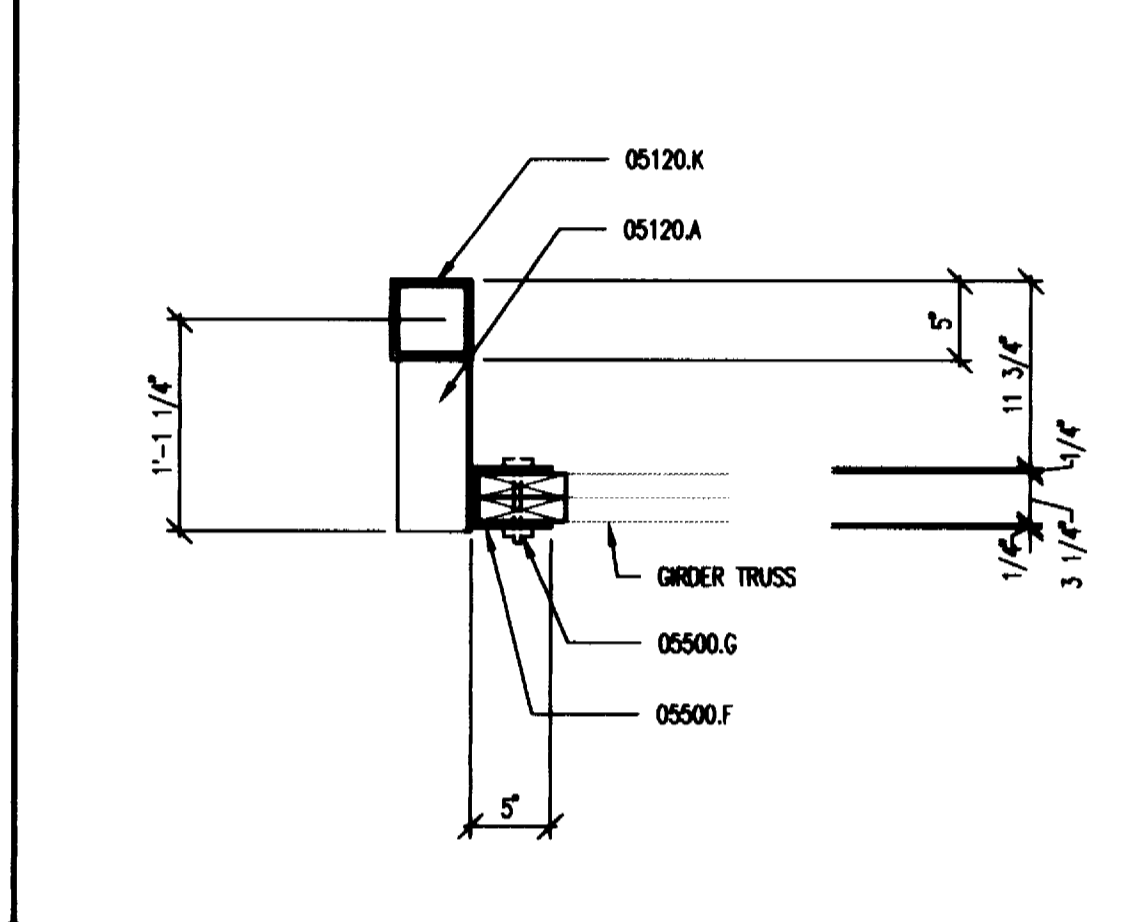
G1 TRUSS "E"
1/8" = 1'-0"



G4 TRUSS "D" & "E" DET.
1" = 1'-0"



G7 TRUSS "D" DETAIL
1 1/2" = 1'-0"



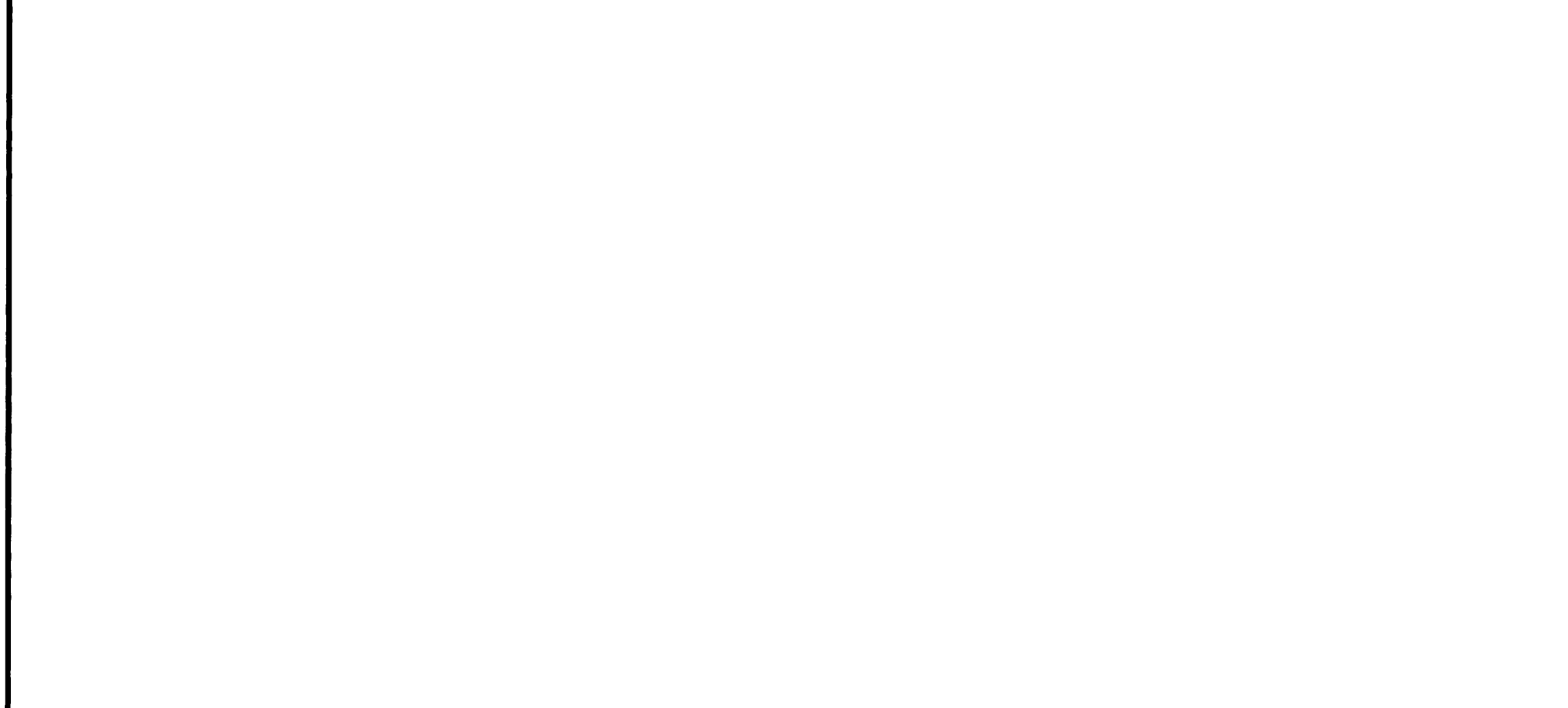
G11 HANGER SECTION
1" = 1'-0"

Materials Keying

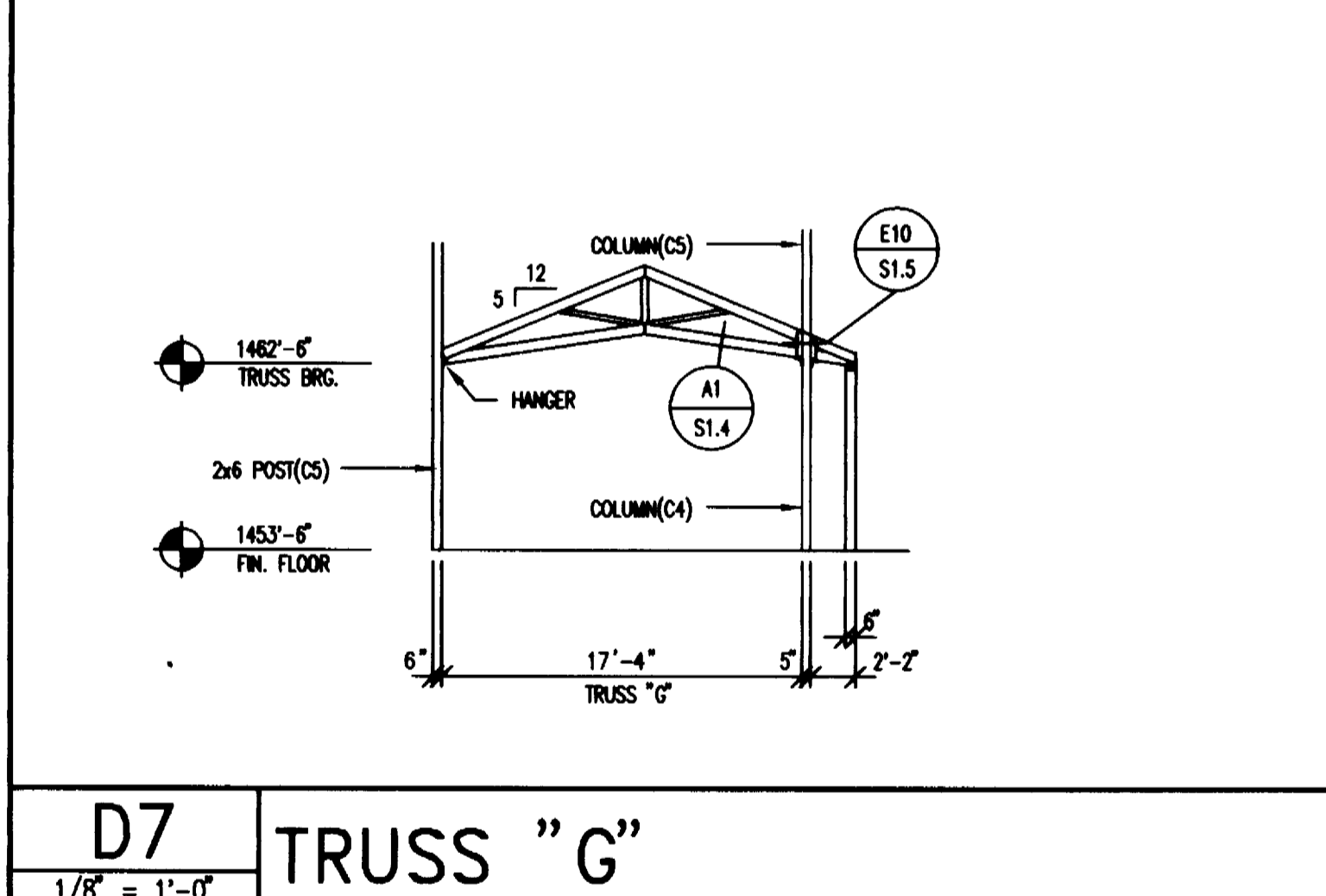
Prefix (5 digit specification section number) ← 04400.A → Suffix (specific item)

DIVISION 5 - METAL
 05120.A ANGLE
 E HOIST BEAM
 K TUBE COLUMN
 05500.F 1/4" STL. PLATE TRUSS HANGER
 G 1/2" STL. BOLT

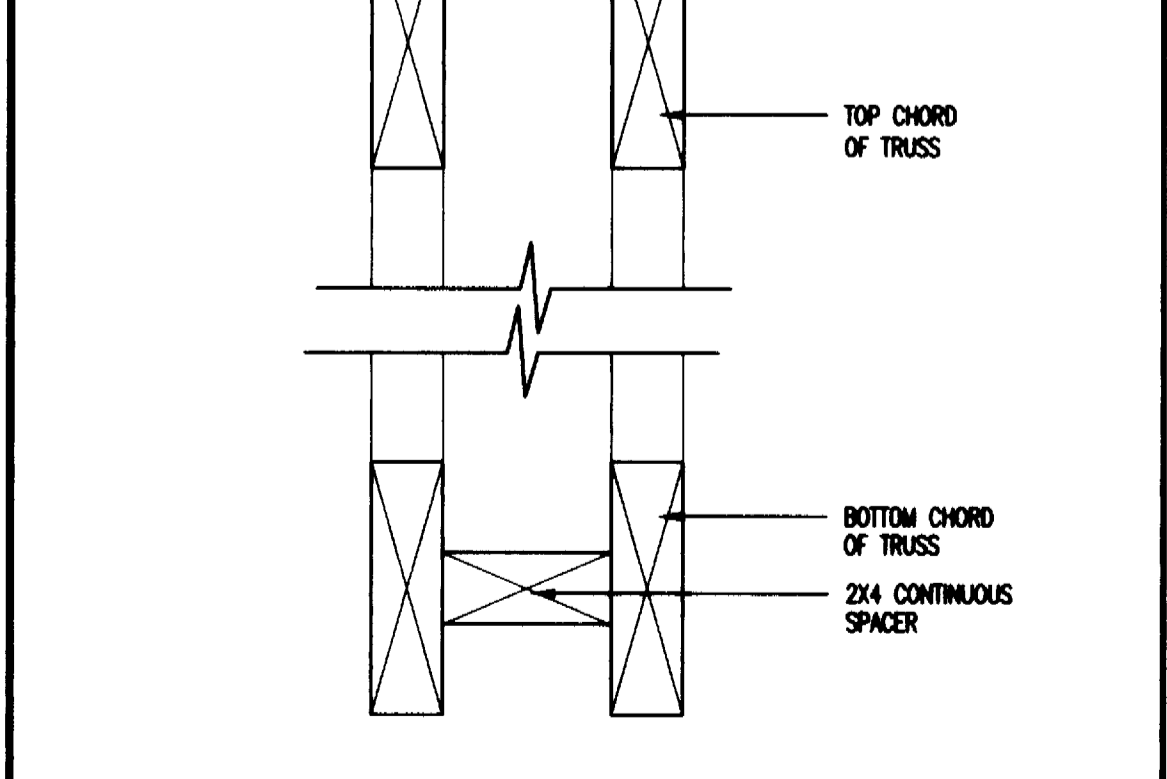
DIVISION 6 - WOOD & PLASTICS
 06100.L 2x4 STUD 16" O.C.
 BB METAL 4x HANGER
 06192.C GIRDER TRUSS



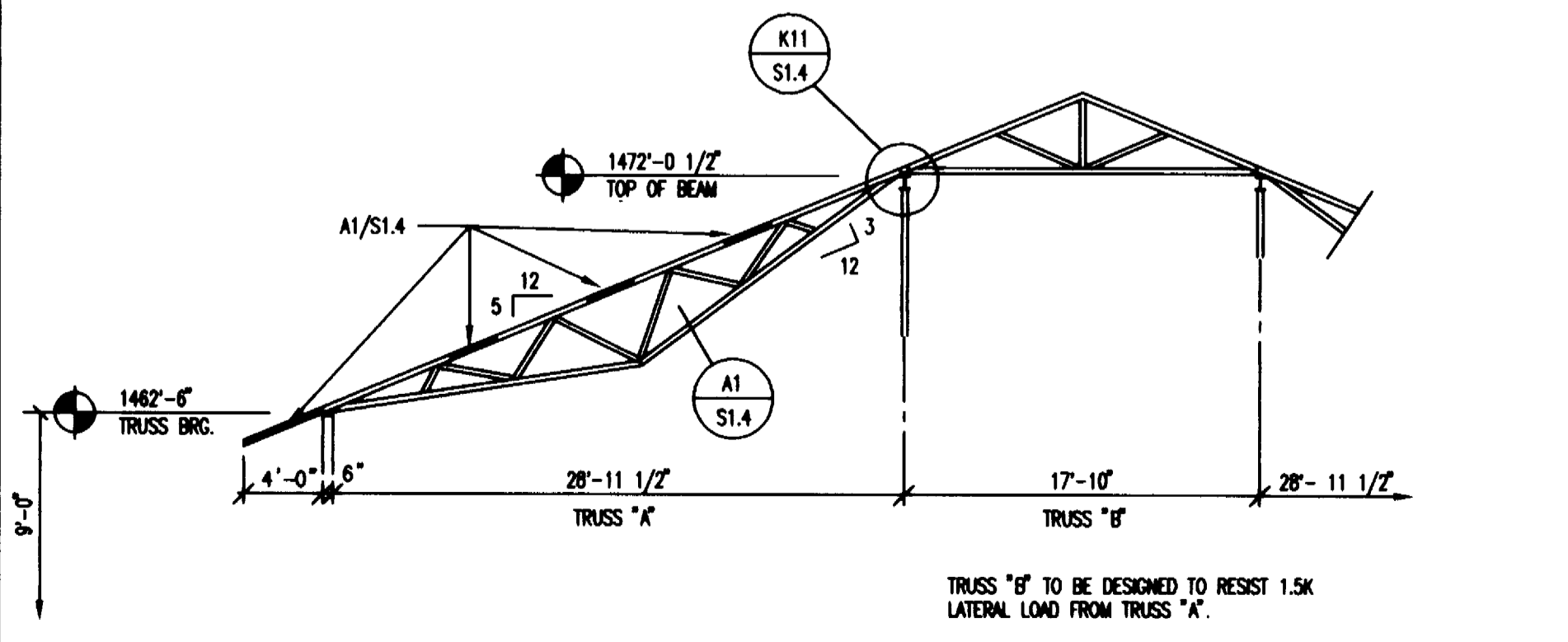
D7 TRUSS "G"
1/8" = 1'-0"



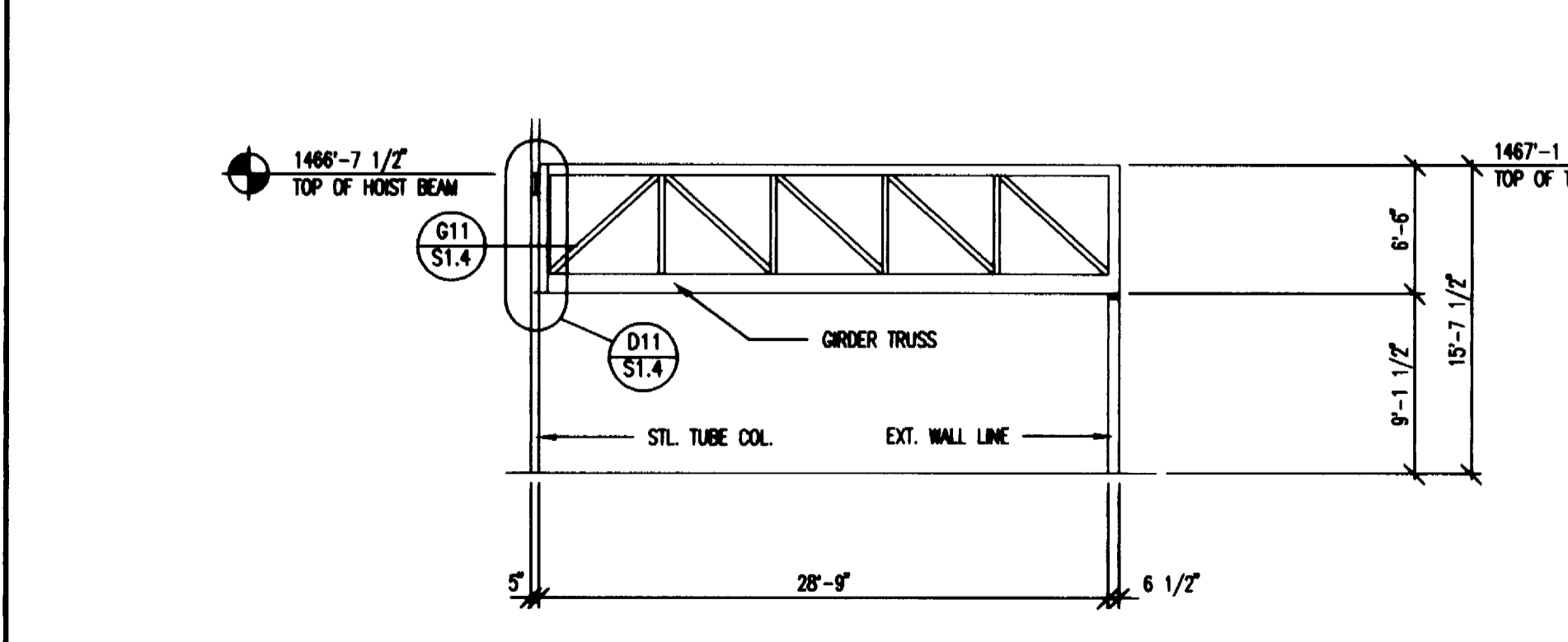
D11 HANGER ELEVATION
1" = 1'-0"



A1 SPACER DETAIL
3" = 1'-0"



A4 TRUSS "A" & "B"
1/8" = 1'-0"

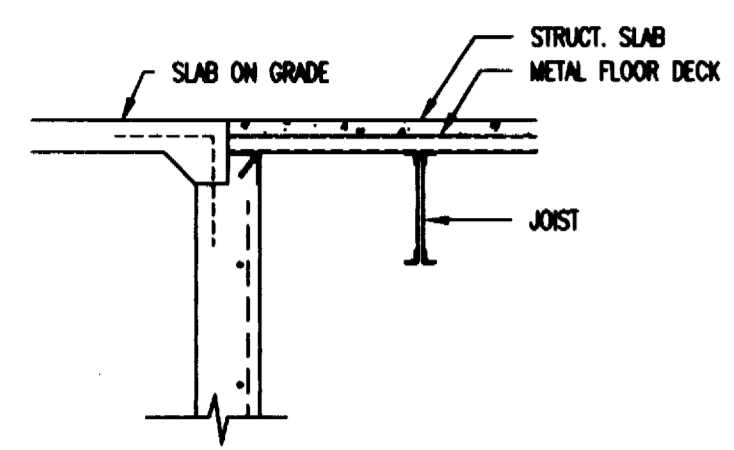


A9 GIRDER TRUSS
1/8" = 1'-0"

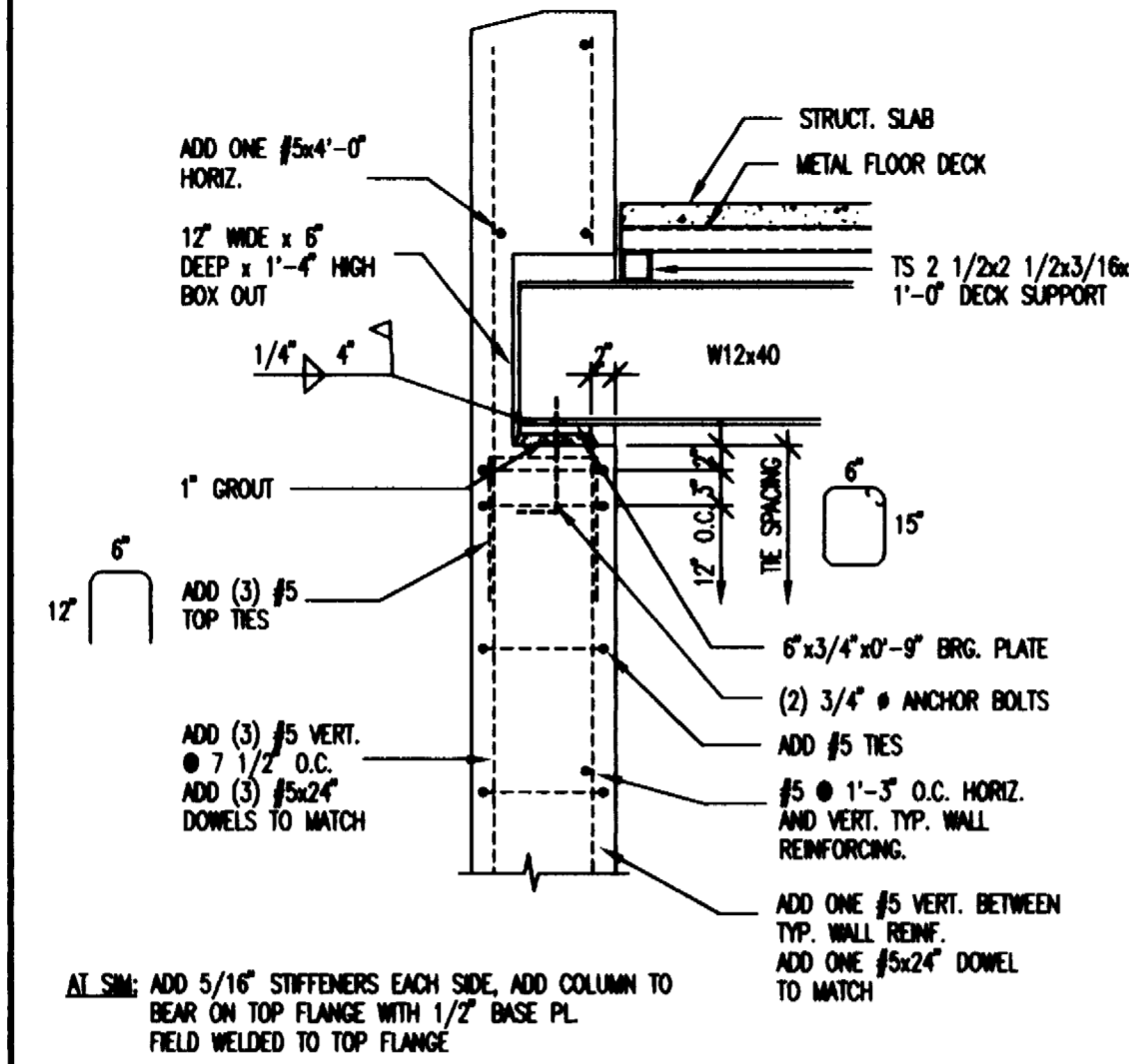
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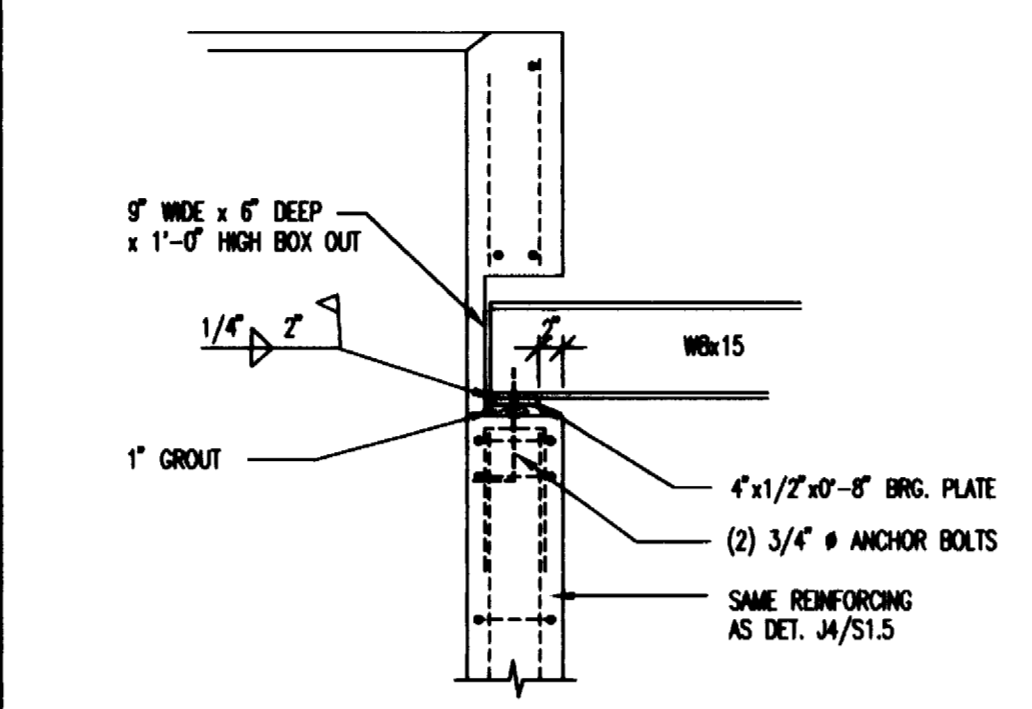
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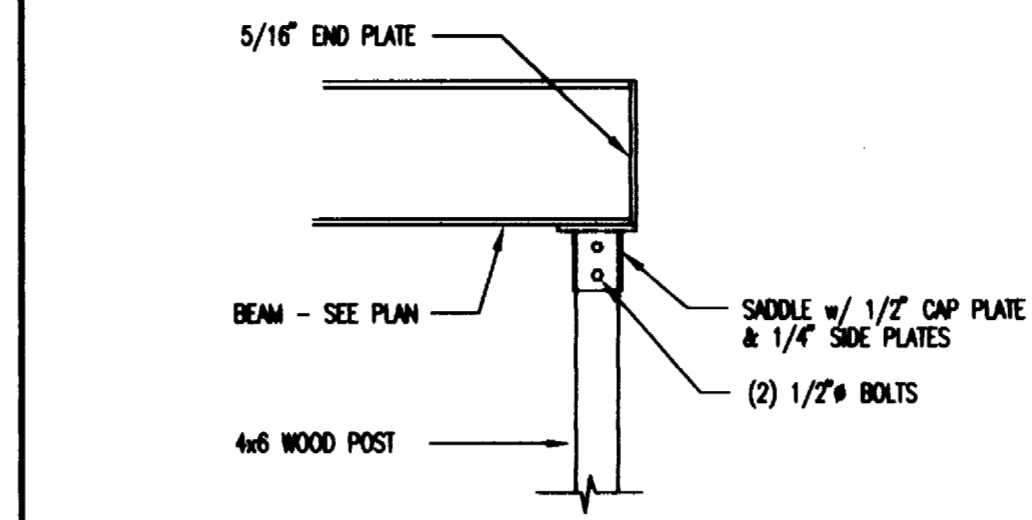
J1 DETAIL
1/2" = 1'-0"



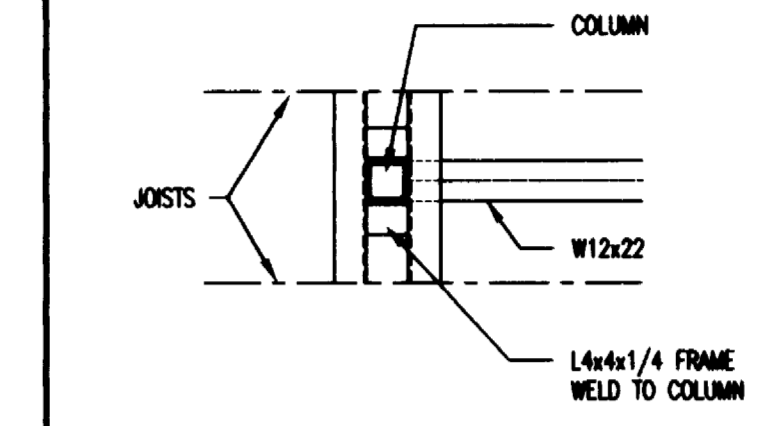
J4 BEAM POCKET
N.T.S.



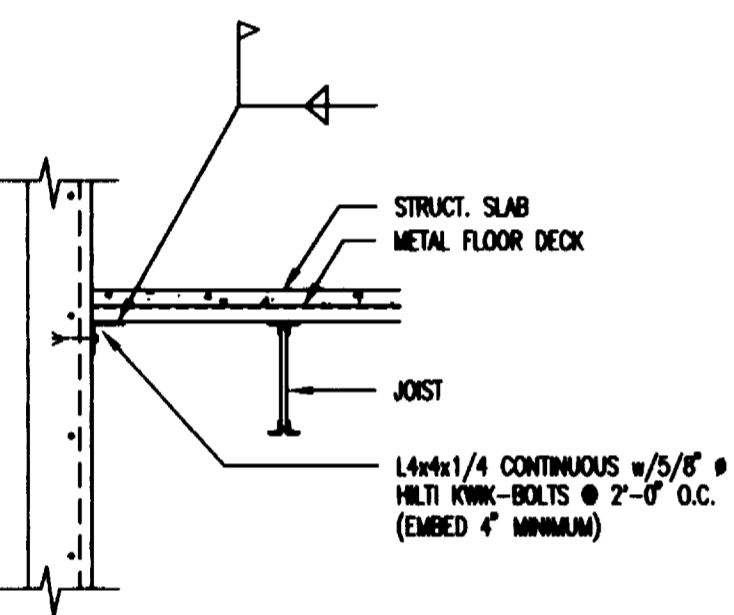
J7 BEAM POCKET
3/4" = 1'-0"



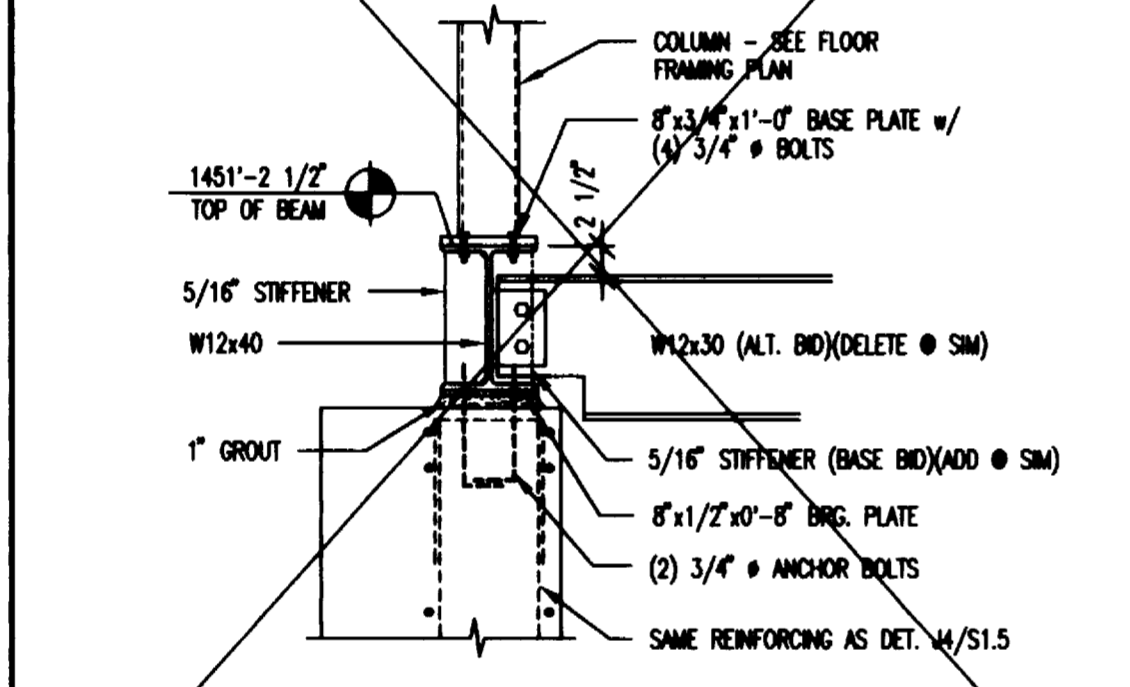
J10 DETAIL
3/4" = 1'-0"



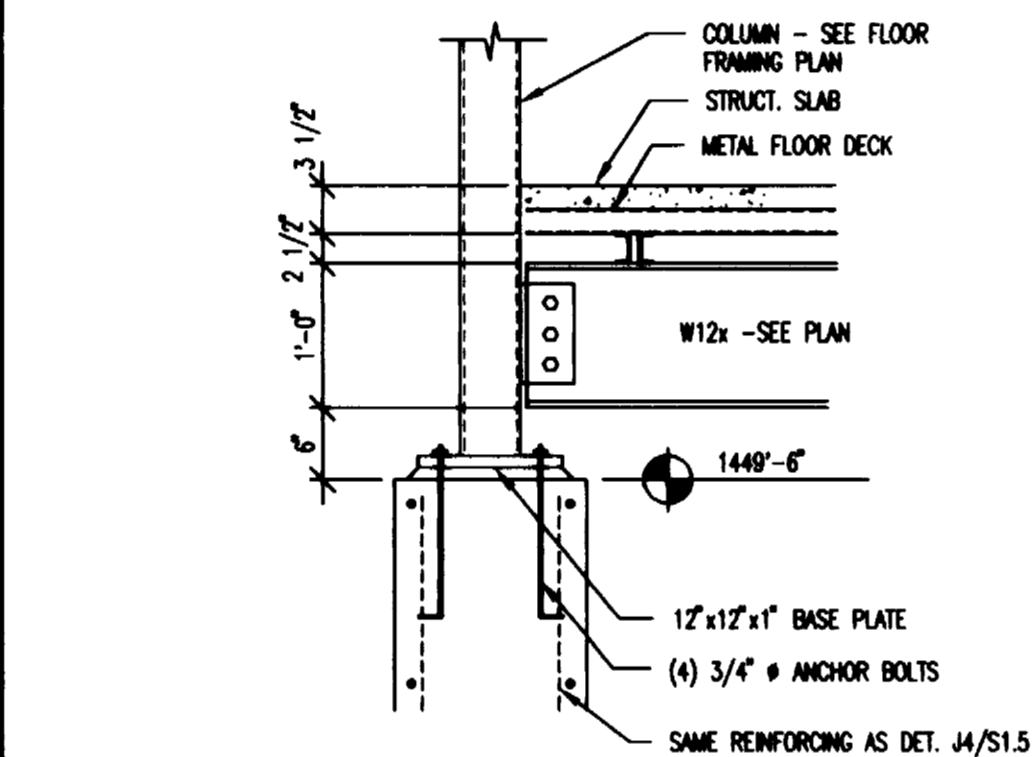
J13 DETAIL
3/4" = 1'-0"



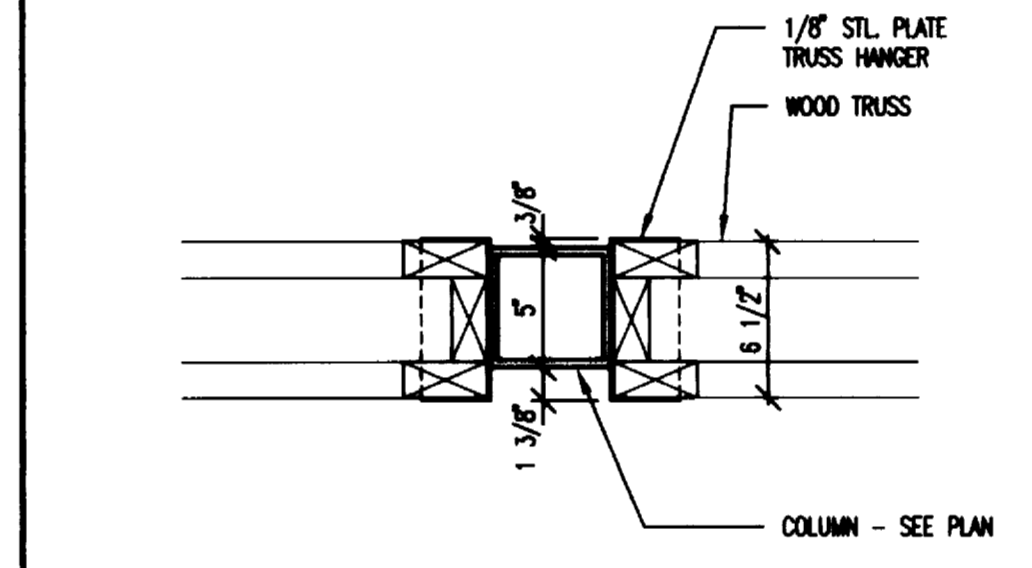
E1 DETAIL
1/2" = 1'-0"



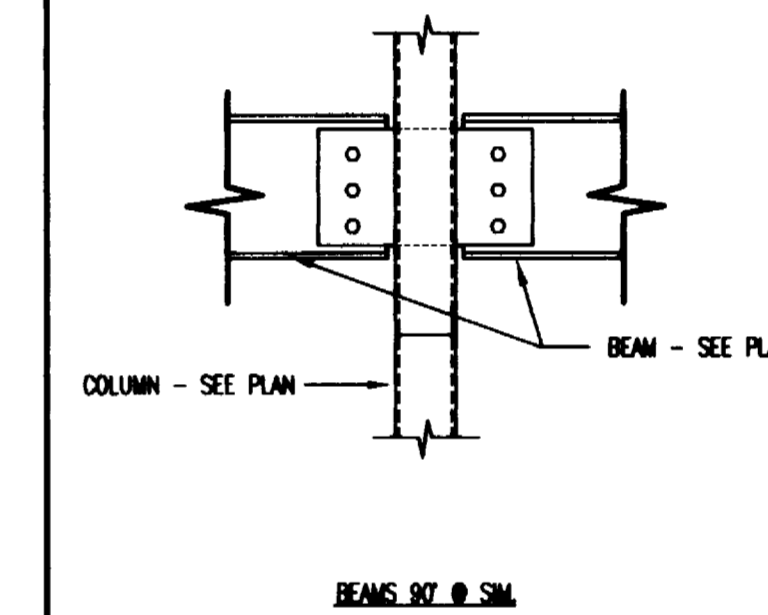
E4 DETAIL
3/4" = 1'-0"



E7 DETAIL
3/4" = 1'-0"

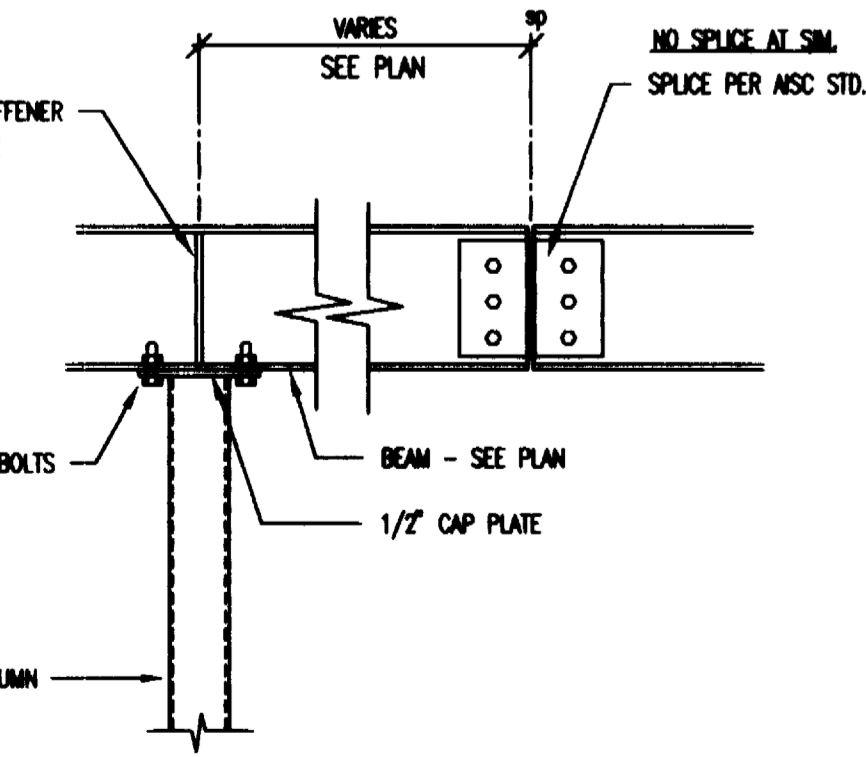


E10 HANGER DETAIL
1 1/2" = 1'-0"

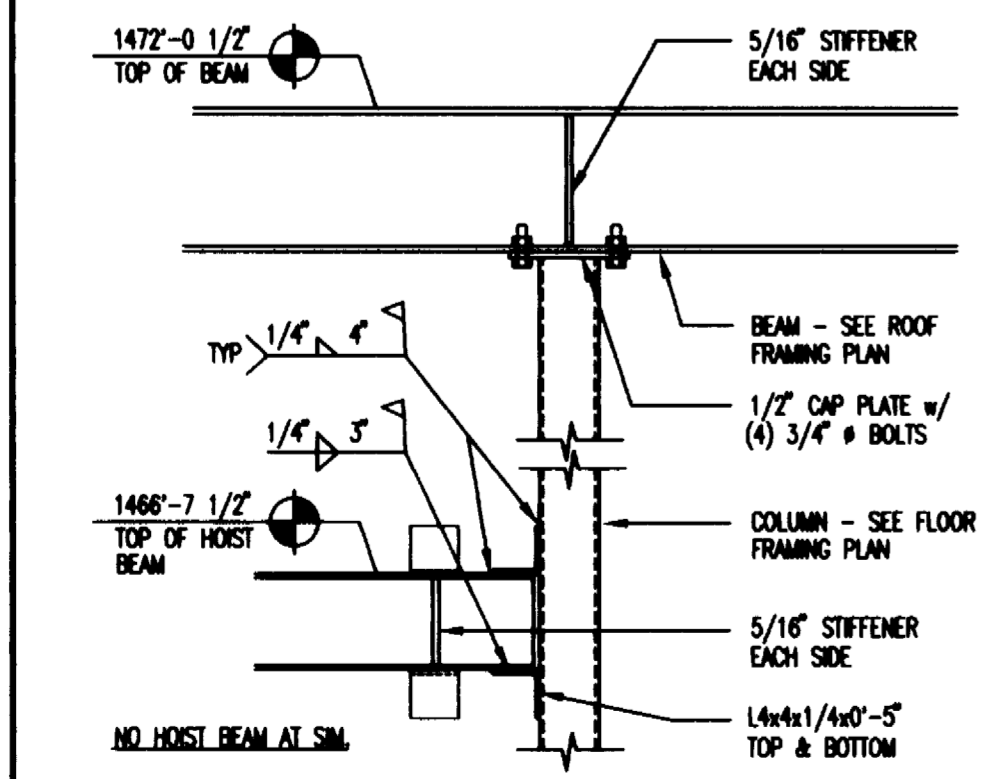


E13 CONN DETAIL
3/4" = 1'-0"

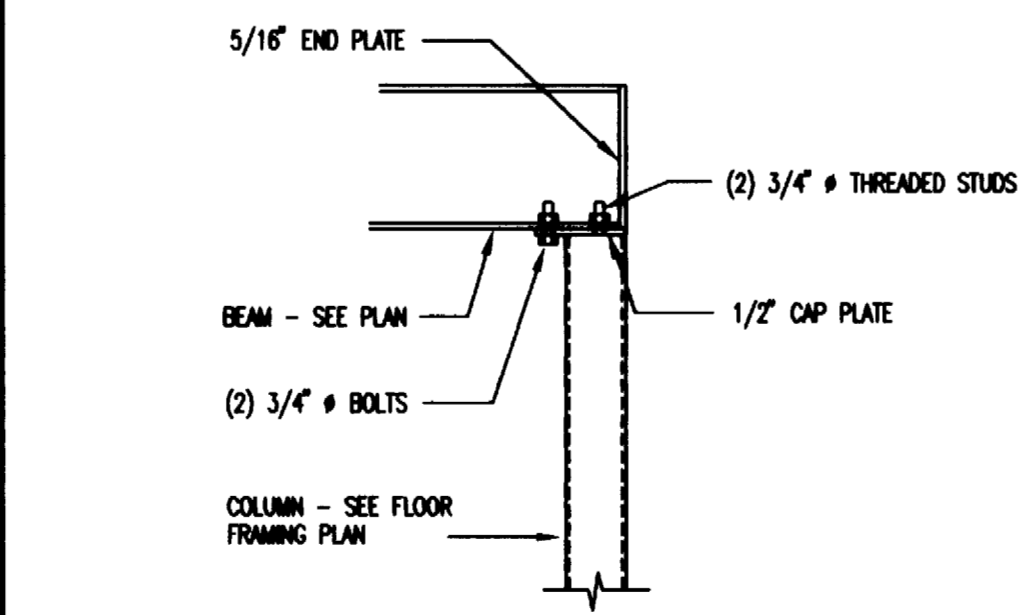
OMIT



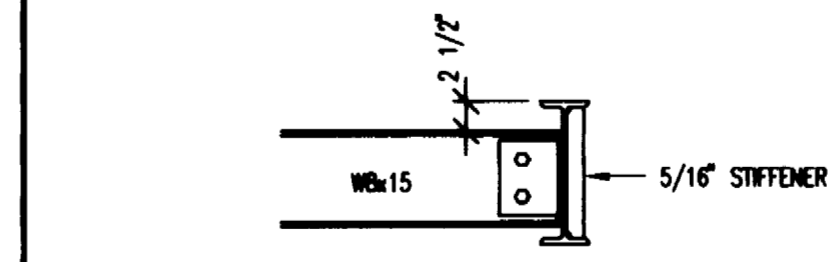
A1 BEAM SPLICE DETAIL
3/4" = 1'-0"



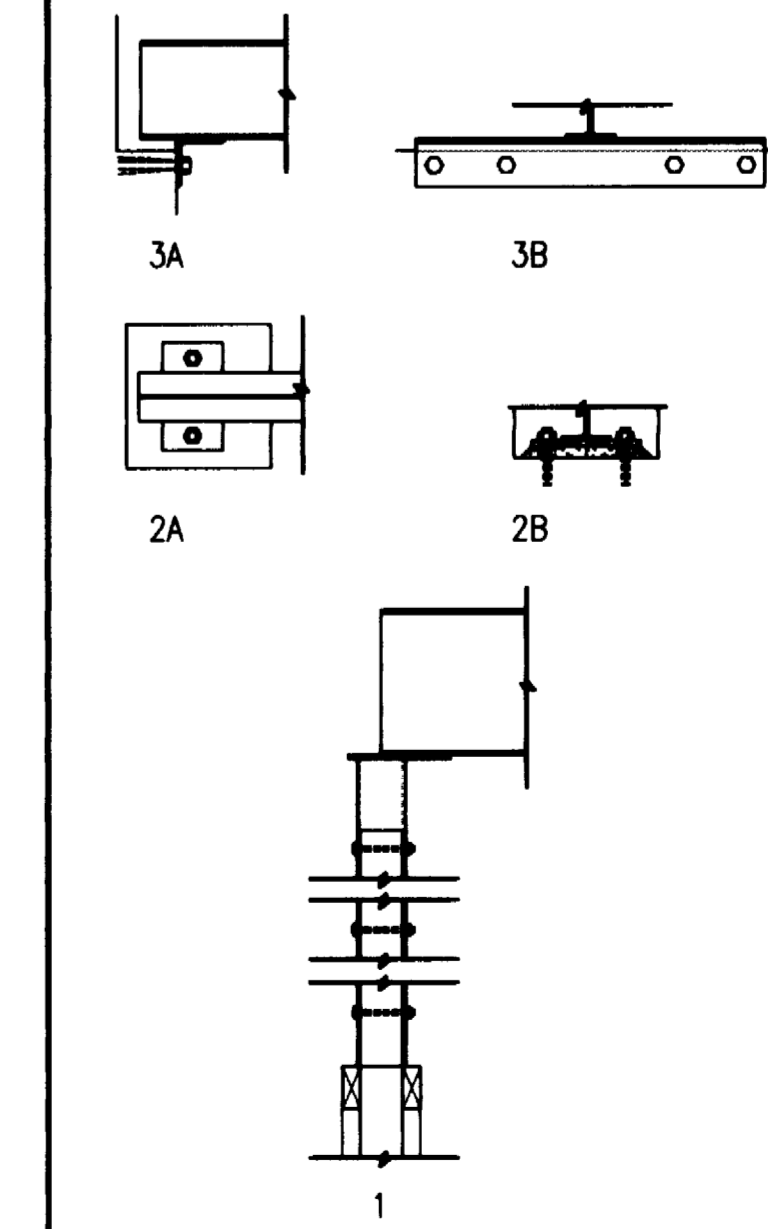
A4 DETAIL
3/4" = 1'-0"



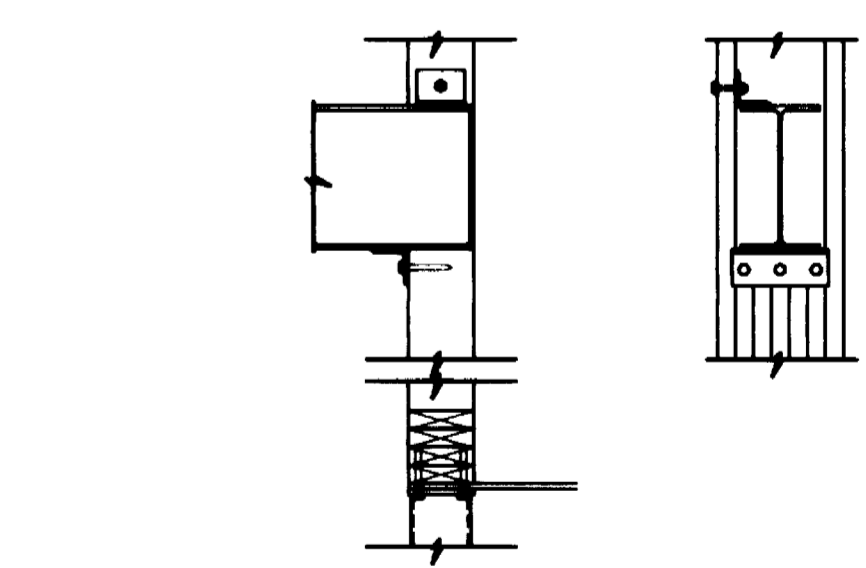
A7 DETAIL
3/4" = 1'-0"



A10 DETAIL
3/4" = 1'-0"



A13 DETAIL
3/4" = 1'-0"



C15 CONN DETAIL
3/4" = 1'-0"

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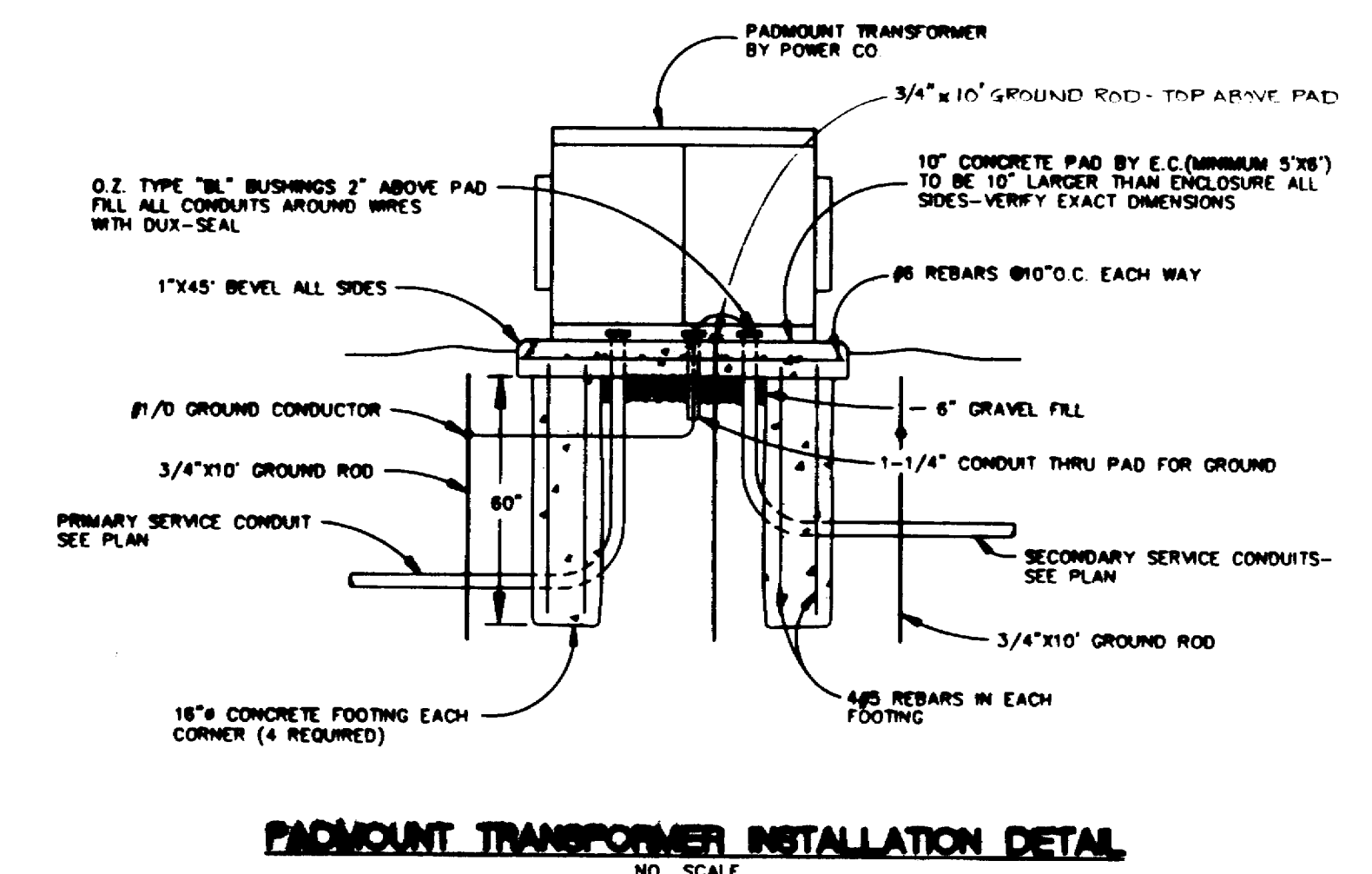
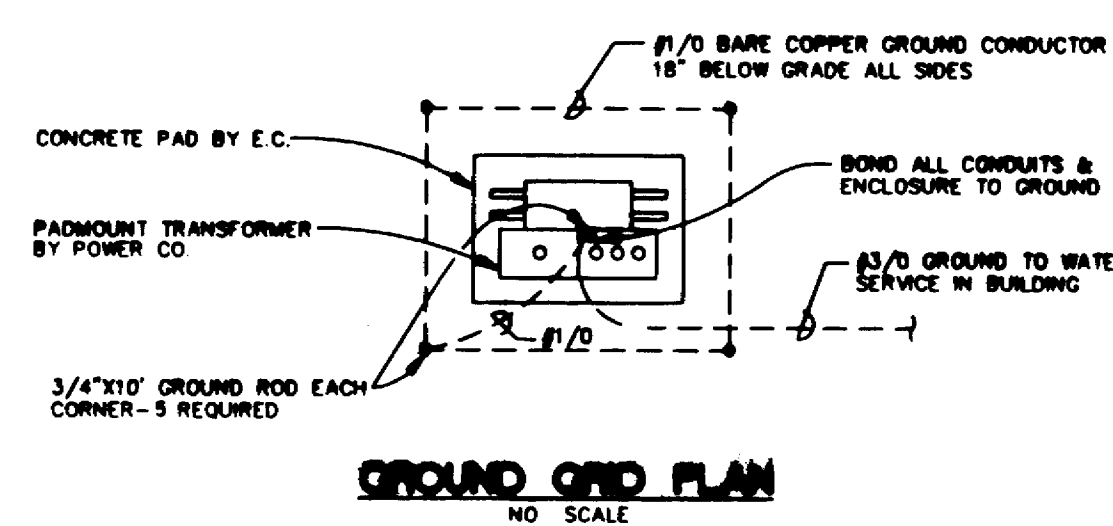
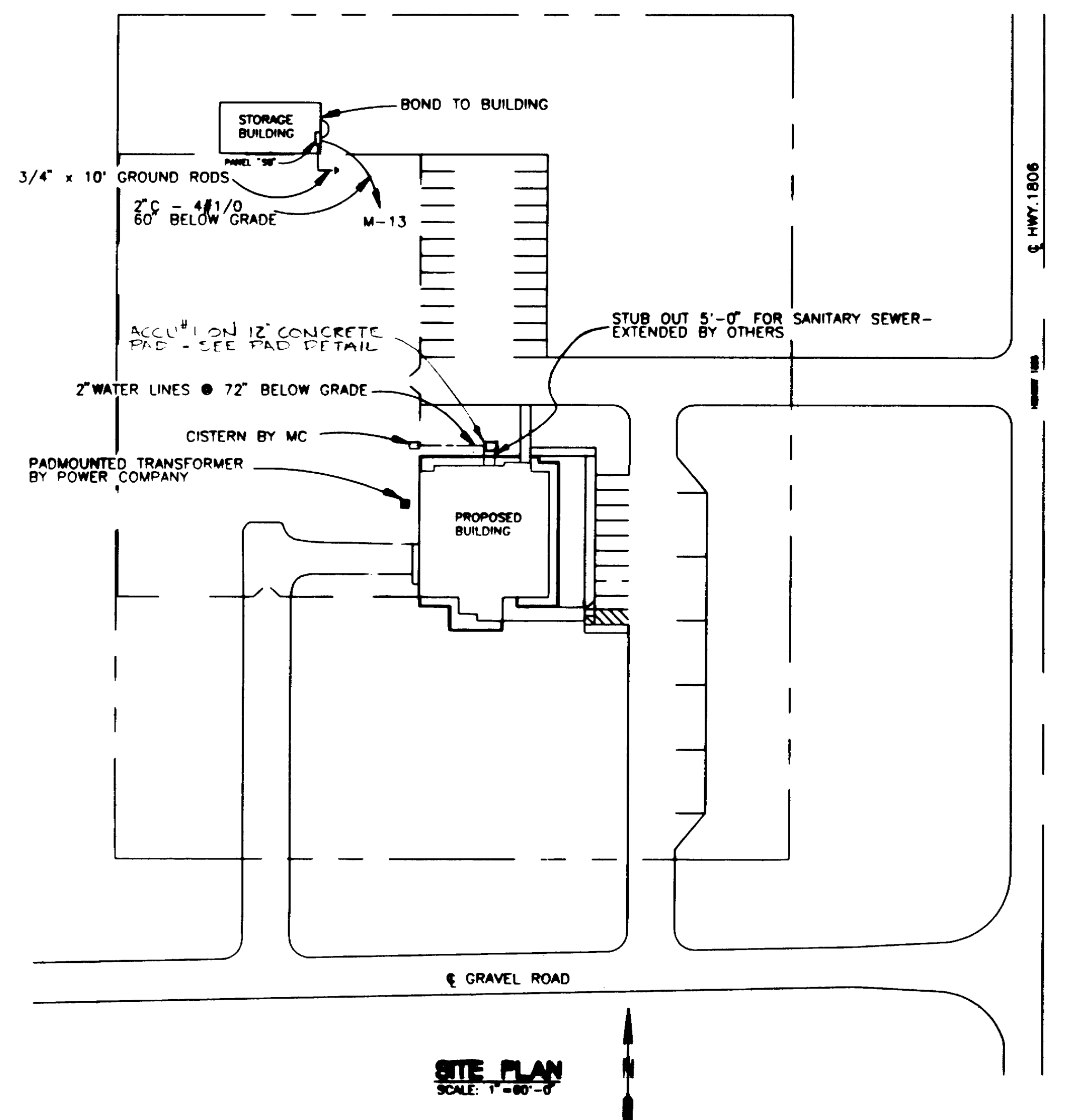
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REVISED 3/10/95	REVISED 4/6/95	AS BUILT 2/9/96	CADD REF. NO. 9211\515
SHEET TITLE STRUCTURAL DETAILS			DRAWING NO.
PROJECT ONE FISHERS RESEARCH CENTER DEPARTMENT OF GAME FISH & PARKS PIERRE, SD USE JCFE310011			S1.5

M
L
K
J
H
G
F
E
D
C
B
A

MECHANICAL LEGEND	
---	WASTE ABOVE GRADE
---	WASTE & VENT BELOW GRADE
---	VENT ABOVE GRADE
---	COLD WATER
---	HOT WATER
---	CIRCULATING HOT WATER
---	PUMP DISCHARGE LINE
---	CONDENSATE PIPING
---	REFRIGERANT LIQUID
---	REFRIGERANT SUCTION
---	GATE VALVE
---	CHECK VALVE
---	RELIEF VALVE
---	HEATING PIPING SUPPLY OR RETURN
---	TEE UP
---	TEE DOWN
---	ELBOW UP
---	ELBOW DOWN
---	VENT THROUGH ROOF
---	COLD WATER
---	HOT WATER
---	CIRCULATING HOT WATER
---	HOP BASIN SINK
---	CLEAN OUT
---	FLOOR DRAIN
---	HOSE BIB
---	URINAL
---	WATER CLOSET
---	LAVATORY
---	ELECTRIC WATER COOLER
---	SHOWER
---	SINK
---	FIRE DAMPER
---	CABINET UNIT HEATER
---	HORIZONTAL UNIT HEATER
---	TEMPERATURE CONTROL COMPRESSOR
---	AIR HANDLING UNIT
---	GALLONS PER MINUTE
---	1000 BTU PER HOUR
---	CUBIC FEET PER MINUTE
---	REGISTER
---	EXHAUST
---	OUTSIDE AIR
---	RETURN AIR
---	EXHAUST FAN
---	AIR COOLED CONDENSING UNIT
---	GENERAL CONTRACTOR
---	MECHANICAL CONTRACTOR
---	ELECTRICAL CONTRACTOR
---	DAY/NIGHT THERMOSTAT
---	HEATING/COOLING THERMOSTAT
---	COMBINATION FIRE / SMOKE DAMPER

ELECTRICAL LEGEND	
---	FLOUORESCENT FIXTURE
---	CEILING MOUNTED FIXTURE
---	WALL MOUNTED FIXTURE
---	EXIT FIXTURE
---	Capital letters represent schedule
---	reference; small letters are switching
---	SINGLE POLE SWITCH
---	DOUBLE POLE SWITCH
---	THREE-WAY SWITCH
---	HANDLAL MOTOR STARTER WITH PILOT
---	HANDLAL MOTOR STARTER V/ON-OFF-AUTO
---	DIMMER SWITCH
---	TIME SWITCH
---	PHOTOELECTRIC CONTROL
---	EXTERIOR LIGHTING CONTACTOR
---	DUPLX CONVENIENCE RECEPTACLE
---	WEATHERPROOF DUPLX RECEPTACLE
---	DOUBLE DUPLX RECEPTACLE (1/20 DUPLX-COMMON PLATE)
---	CLOCK RECEPTACLE
---	WELDER
---	GFI - GROUND FAULT INTERRUPTING RECEPTACLE
---	SPECIAL OUTLET
---	COMMUNICATION DATA OUTLET @ 20"
---	COMMUNICATION DATA OUTLET WALL @ 54"
---	DATA CON. CONDUIT TERMINATION BUXT
---	ELECTRIC BASEBOARD HEATING UNIT
---	JUNCTION BOX
---	THERMOSTAT
---	RELAY
---	SWITCHBOARD
---	PANEL
---	DISCONNECT SWITCH
---	MAGNETIC MOTOR STARTER
---	COMBINATION DISCONNECT SWITCH & MAGNETIC STARTER
---	CONTACTOR
---	MOTOR CONNECTION
---	BRANCH CIRCUIT - Number of slashes
---	indicates number of wires
---	PANEL RUN - Letter and number
---	represent panel and circuit
---	FIRE TEMPERATURE THERMAL FIRE ALARM DETECTOR
---	IONIZATION FIRE ALARM DETECTOR
---	IONIZATION BUXT DETECTOR
---	HANDLAL BREAKGLASS STATION
---	FIRE ALARM HORN - AUDIBLE/VISUAL
---	FIRE ALARM PANEL
---	GENERAL PLAN NOTE
---	WEATHERPROOF
---	INDICATES MOUNTING HEIGHT
---	INDICATES ROOM NUMBER
---	BEHIND WATER COOLER

SYMBOL	USE	LOCATION		CONTROLLER TYPE		SWITCH INFORMATION		REMARKS	POWER				
		MOTOR	CONTROLLER	STARTER	AUX CONTACT	NO/RY	INTERLOCK		BO. CYC				
EF#1	EXHAUST ROOM#124	124	124	EC	EC	EC	EC		120	1	C-17	2#12	
EF#2	EXHAUST ROOM#125	125	125	EC	EC	EC	EC		120	1	C-17	2#12	
EF#3	EXHAUST ROOM#126	126	126	EC	EC	EC	EC		120	1	C-19	2#12	
EF#4	EXHAUST ROOM#118	128	118	EC	EC	EC	EC		120	1	C-18	2#12	
EF#5	EXHAUST ROOM#128/128A	128	128	EC	EC	EC	EC		120	1	C-20	2#12	
AHU#1	HEAT/VENT/COOL BUILDING	B#MT	B#MT	B#MT	EC	4	EC	EC	EC	MC	1	INTERLOCK HEAT COOL & ACCU w/ AHU	YES 5 208 3 M-2 3#10
ACCU#1	REFRIGERANT TO AHU#1	OUT SIDE	OUT SIDE	B#MT	MC		MC	EC	EC	MC	MC	INTERLOCK w/ AHU#1	323 208 3 M-18 3 #3/8
P#1	RECIRCULATING HOT WATER PUMP	B#MT	B#MT	EC	EC	EC	EC	EC	MC	MC	2	EC TO INSTALL CLOCK	120 1 C-21 2#12
P#2	DOMESTIC WATER BOOSTER PUMP	B#MT	B#MT	B#MT	EC	EC	EC	EC	EC	MC	1		120 3 M-1 3#10
P#3	HEATING SYSTEM PUMP	B#MT	B#MT	EC	EC	EC	EC	EC	MC	MC	1		120 3 M-4 3#10
SP#1	SUMP PUMP	B#MT	B#MT	B#MT	MC	EC	EC	MC				PROVIDE RECEPTACLE	120 1 C-22 2#12
VAV#1	CIRCULATE AIR RM#113	113	113	113	EC	EC	EC	MC				INTERLOCK CONTROL DAMPER	120 1 C-23 2#12
HUM#1	HEAT RM#28	128	128	128	EC	EC	EC	EC	MC	MC	1		120 1 C-29 2#12
HUM#2	HEAT RM#28	128	128	128	EC	EC	EC	EC	MC	MC	1		120 1 C-29 2#12
CUH#1	HEAT RM#100	100	100		MC	EC	EC	MC	MC	MC	1		120 1 C-27 2#12
TCC#1	TEMPERATURE CONTROL COMPRESSOR	B#MT	B#MT	B#MT	MC		MC	EC	EC	EC	MC	W/ REFRIGERATED AIR DRYER	1 208 3 M-3 3#10



ROBY, QUANTAL, EVENSON
GENERAL ENGINEERS

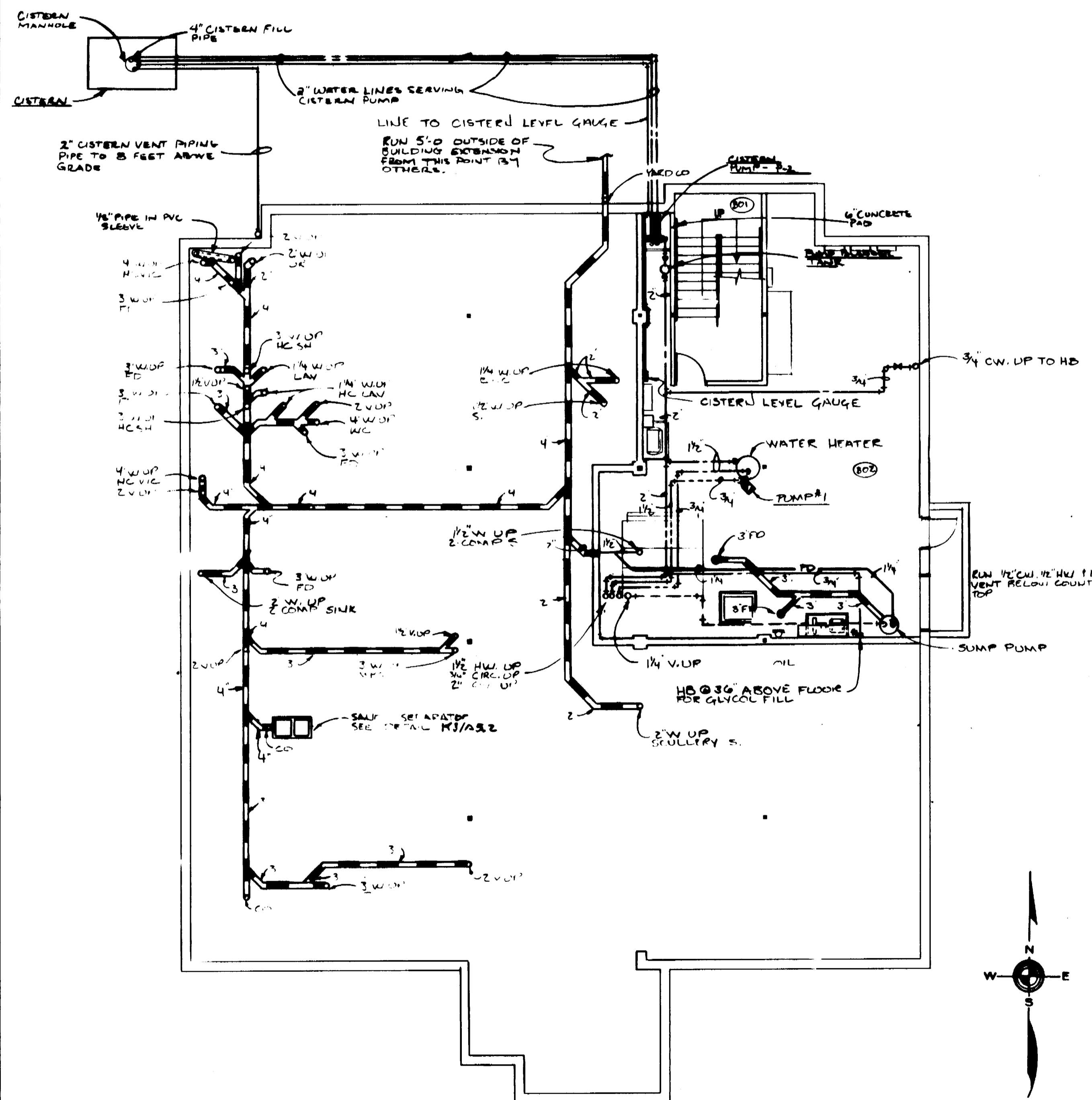
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SIOUX FALLS, SOUTH DAKOTA 57102-0100
PHONE (605) 336-3718 FAX (605) 336-0438

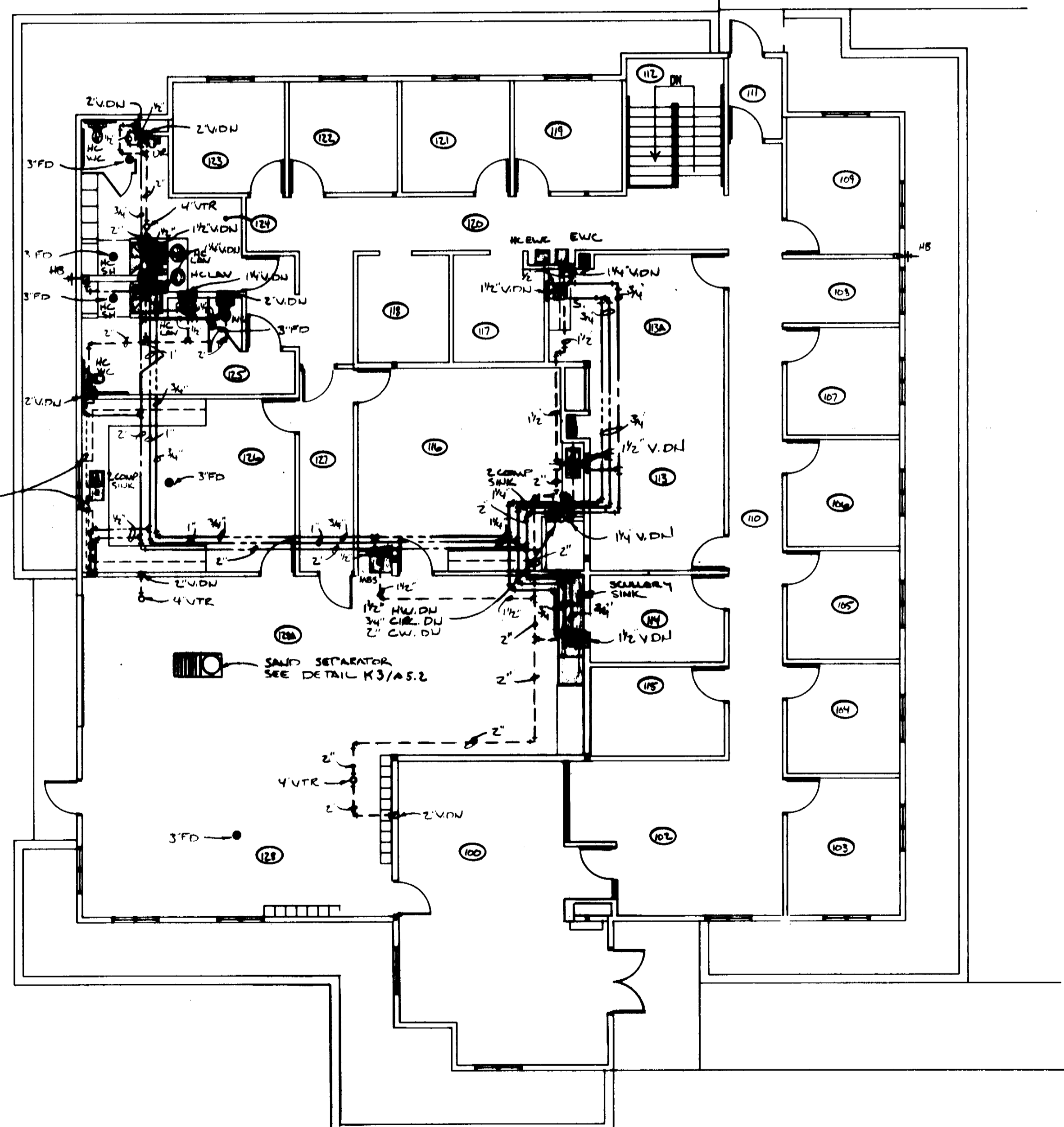
DRAWN BY	APPROVED BY	DATE	PROJECT NO.
SH	RLR/PWD/RE	APRIL 12, 1994	92211
REVISION	REVISION	COPYRIGHT	DATE REV. NO.
09/10/94	4/6/95		
SHEET TITLE	NO. SHEETS	DATE	SCALE
MOTOR SCHEDULE/SITE PLAN/LEGENDS	2/20		M-1
PROJECT	DATE PLOTTED	SCALE	E-1
			O-4

ROOM SCHEDULE

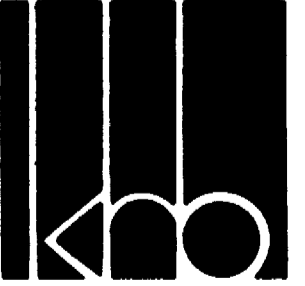
801	STAIR
802	MECHANICAL ROOM
100	LOBBY
101	
102	RECEPTION
103	OFFICE SUP.
104	BIO. OFFICE
105	BIO. OFFICE
106	BIO. OFFICE
107	OFFICE ASSISTANT
108	COMPUTER ROOM
109	OFFICE SUP.
110	CORRIDOR
111	VESTIBULE
112	STAIRWAY
113	CONFERENCE
113A	CONFERENCE
114	BIO. OFFICE
115	BIO. OFFICE
116	WORK/BREAK ROOM
117	TECH
118	TECH
119	BIO. OFFICE
120	CORRIDOR
121	BIO. OFFICE
122	BIO. OFFICE
123	BIO. OFFICE
124	MEN'S RESTROOM
125	WOMEN'S RESTROOM
126	DRY LAB
127	CORRIDOR
128	SHOP
128A	SHOP

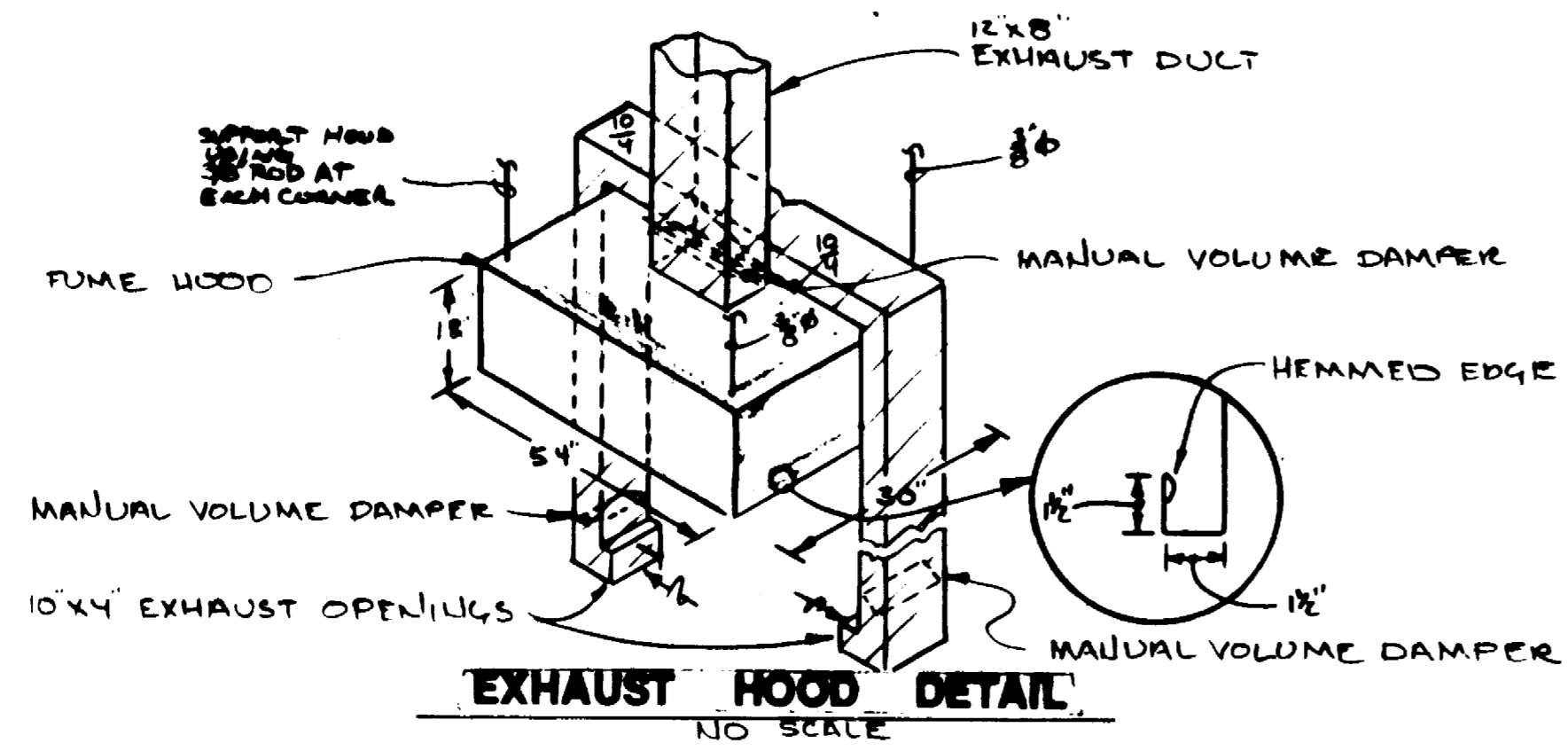


BASEMENT FLOOR PLAN - PLUMBING
SCALE 1/8"=1'-0"



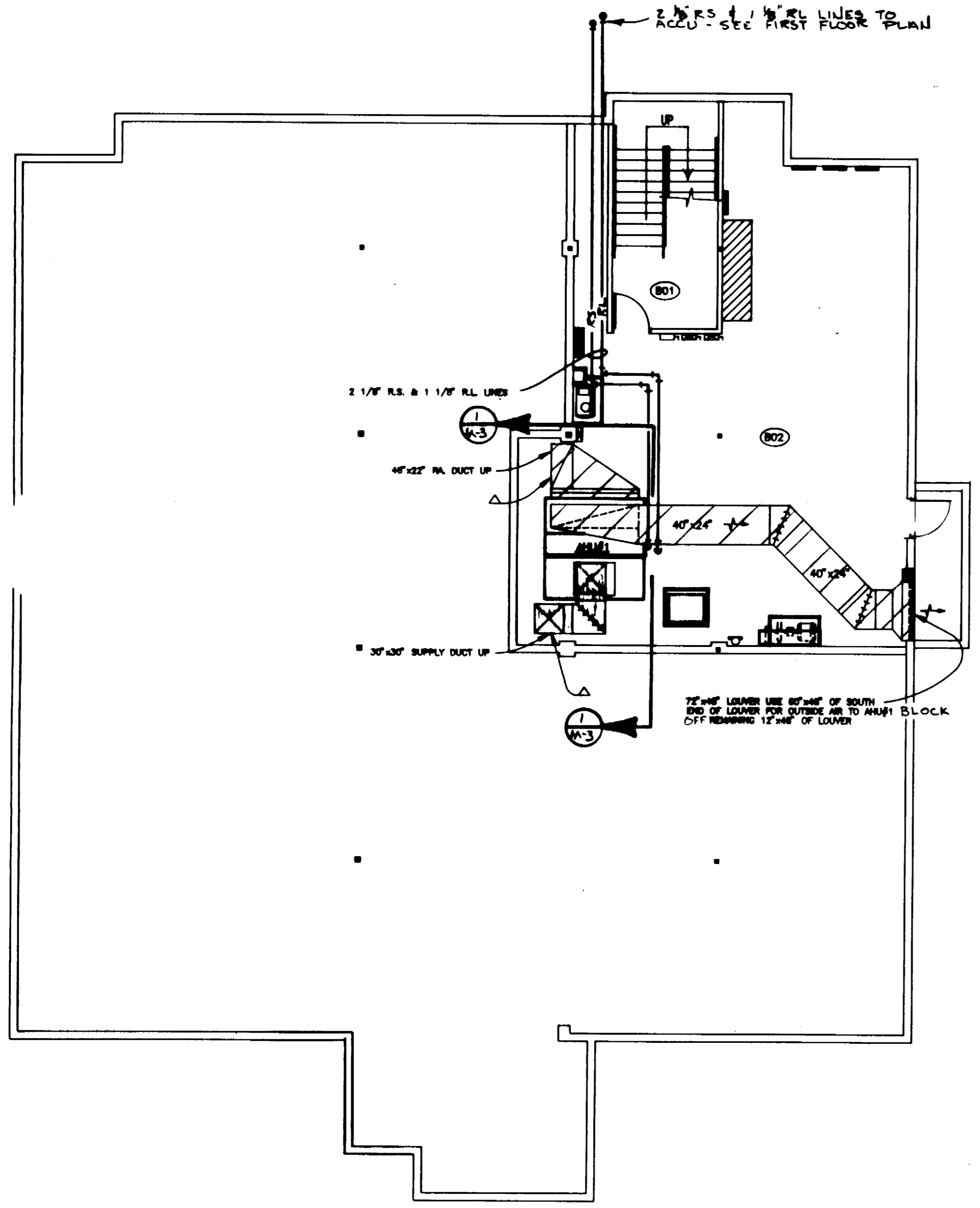
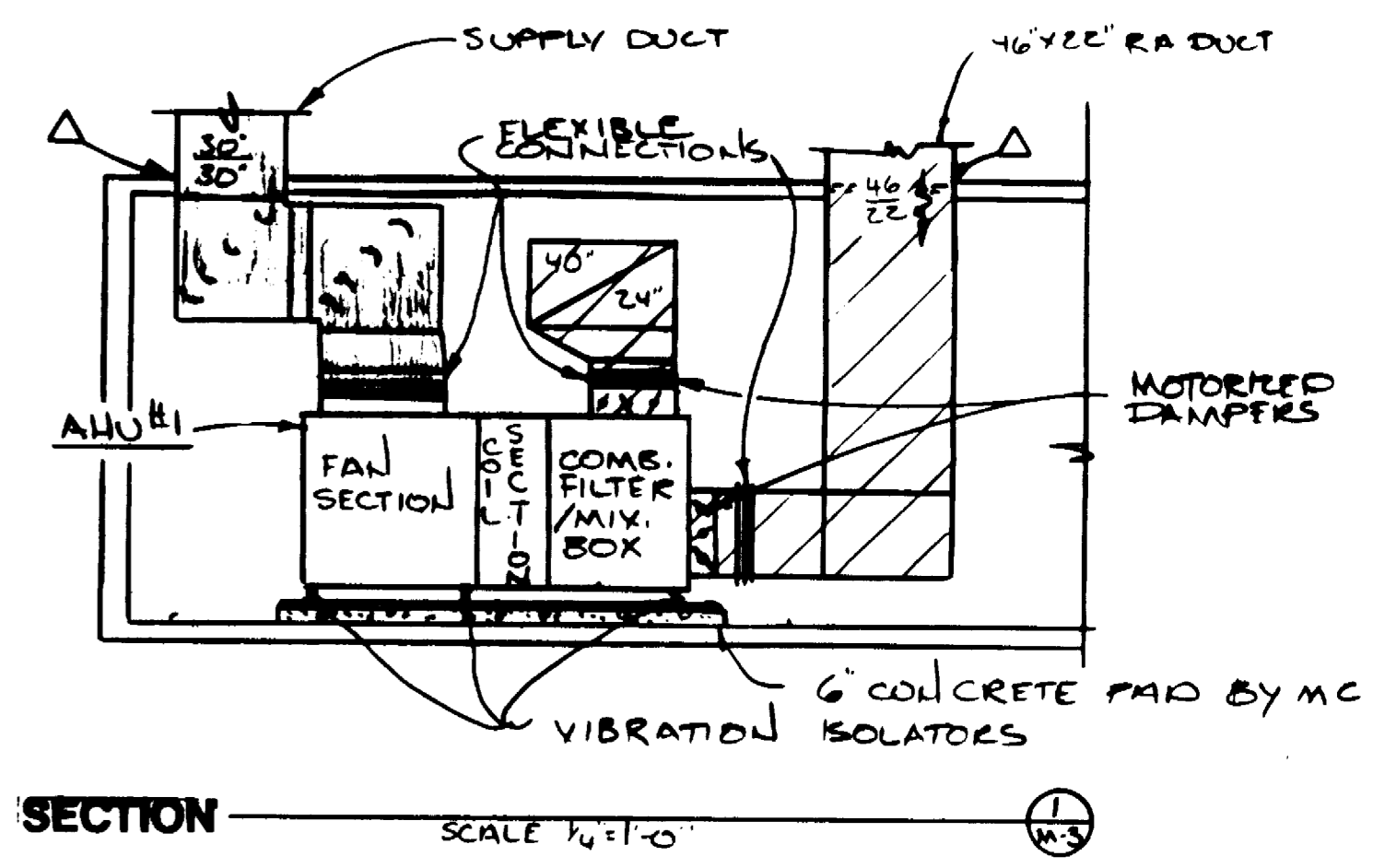
FIRST FLOOR PLAN - PLUMBING
SCALE 1/8"=1'-0"

ROBY, QUINTAL & EVERSON CONSULTING ENGINEERS MITCHELL, SOUTH DAKOTA			
 KOCH HAZARD BALTZER LTD Architecture Planning Interior Design 630 SOUTH MINNESOTA AVENUE SIOUX FALLS, SOUTH DAKOTA 57104-4896 PHONE (605) 336-3718 FAX (605) 336-0438			
DRAWN BY TL	APPROVED BY RLR, RAO, RBE	DATE APRIL 12, 1994	PROJECT NO. 9211
REVISED 09/18/94	REVISED 4/6/95	COPYRIGHT	CADD REF. NO.
SHEET TITLE FLOOR PLANS - PLUMBING		AS BUILT 2/9/98	DRAWING NO. M-2
PROJECT GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD O/S #09231001			
			OF 7

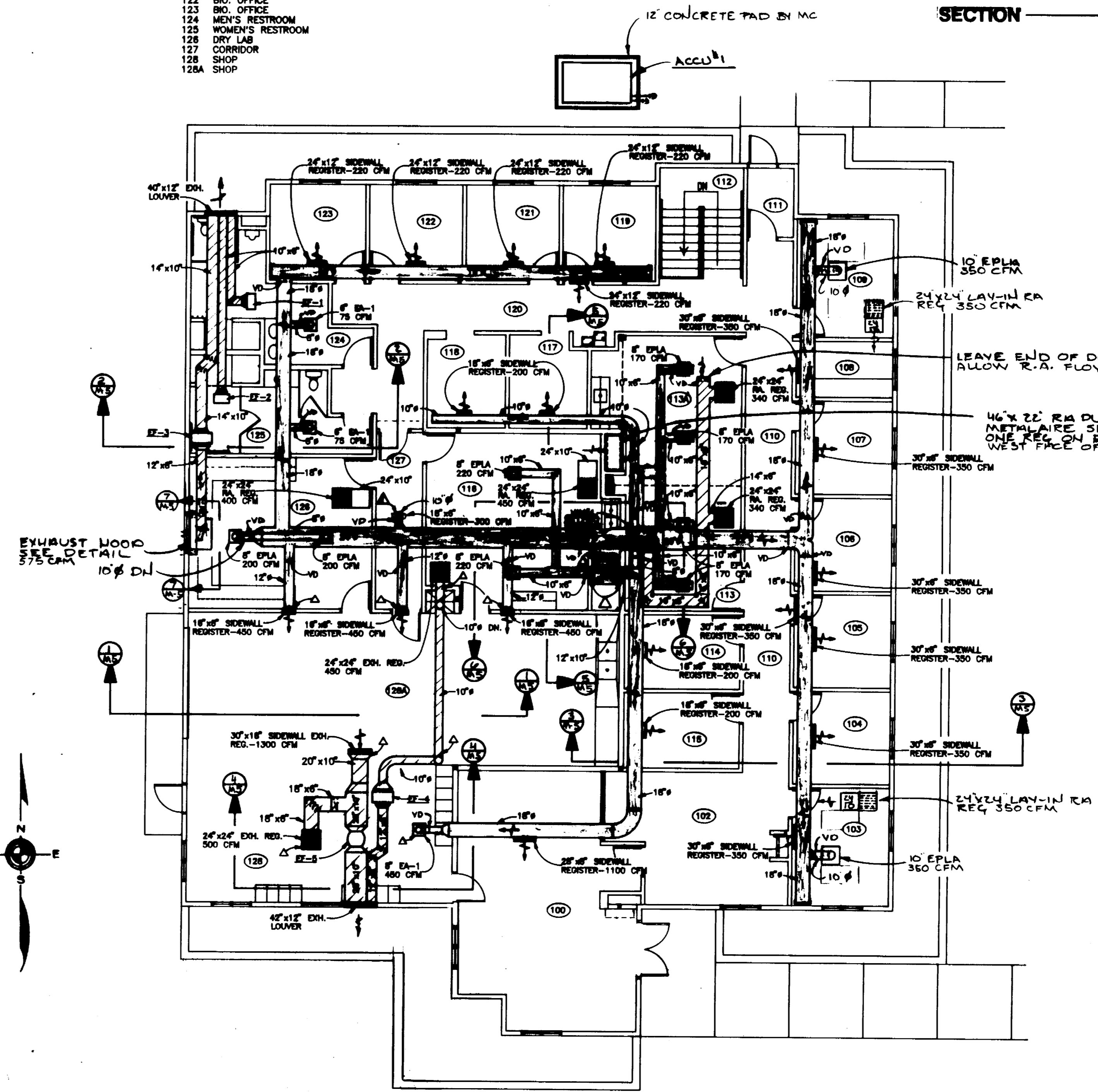


ROOM SCHEDULE

- 801 STAIR
- 802 MECHANICAL ROOM
- 100 LOBBY
- 101
- 102 RECEPTION
- 103 OFFICE SUP.
- 104 BIO. OFFICE
- 105 BIO. OFFICE
- 106 BIO. OFFICE
- 107 OFFICE ASSISTANT
- 108 COMPUTER ROOM
- 109 OFFICE SUP.
- 110 CORRIDOR
- 111 VESTIBULE
- 112 STAIRWAY
- 113 CONFERENCE
- 113A CONFERENCE
- 114 BIO. OFFICE
- 115 BIO. OFFICE
- 116 WORK/BREAK ROOM
- 117 TECH
- 118 TECH
- 119 BIO. OFFICE
- 120 CORRIDOR
- 121 BIO. OFFICE
- 122 BIO. OFFICE
- 123 BIO. OFFICE
- 124 MEN'S RESTROOM
- 125 WOMEN'S RESTROOM
- 126 DRY LAB
- 127 CORRIDOR
- 128 SHOP
- 128A SHOP

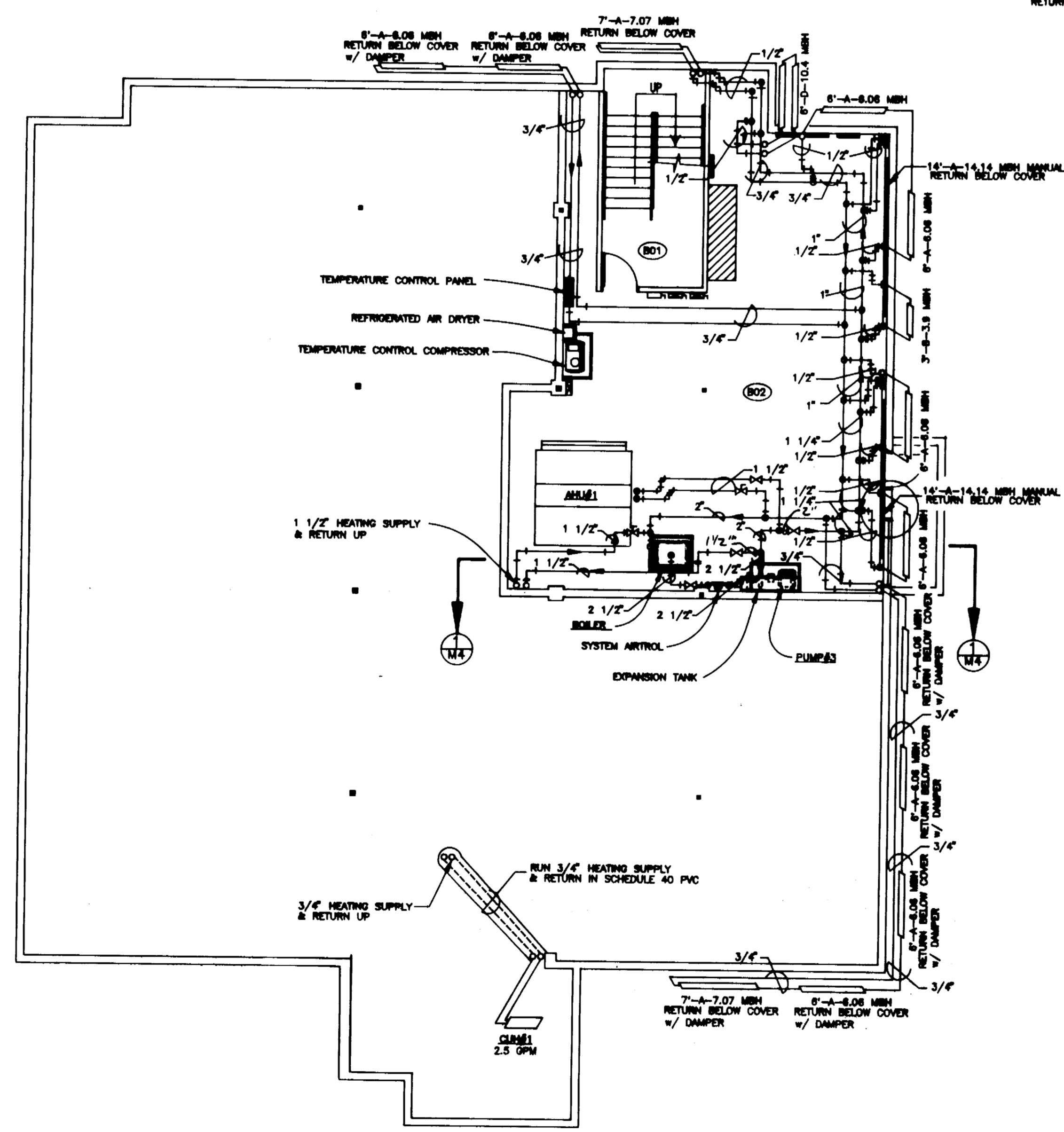
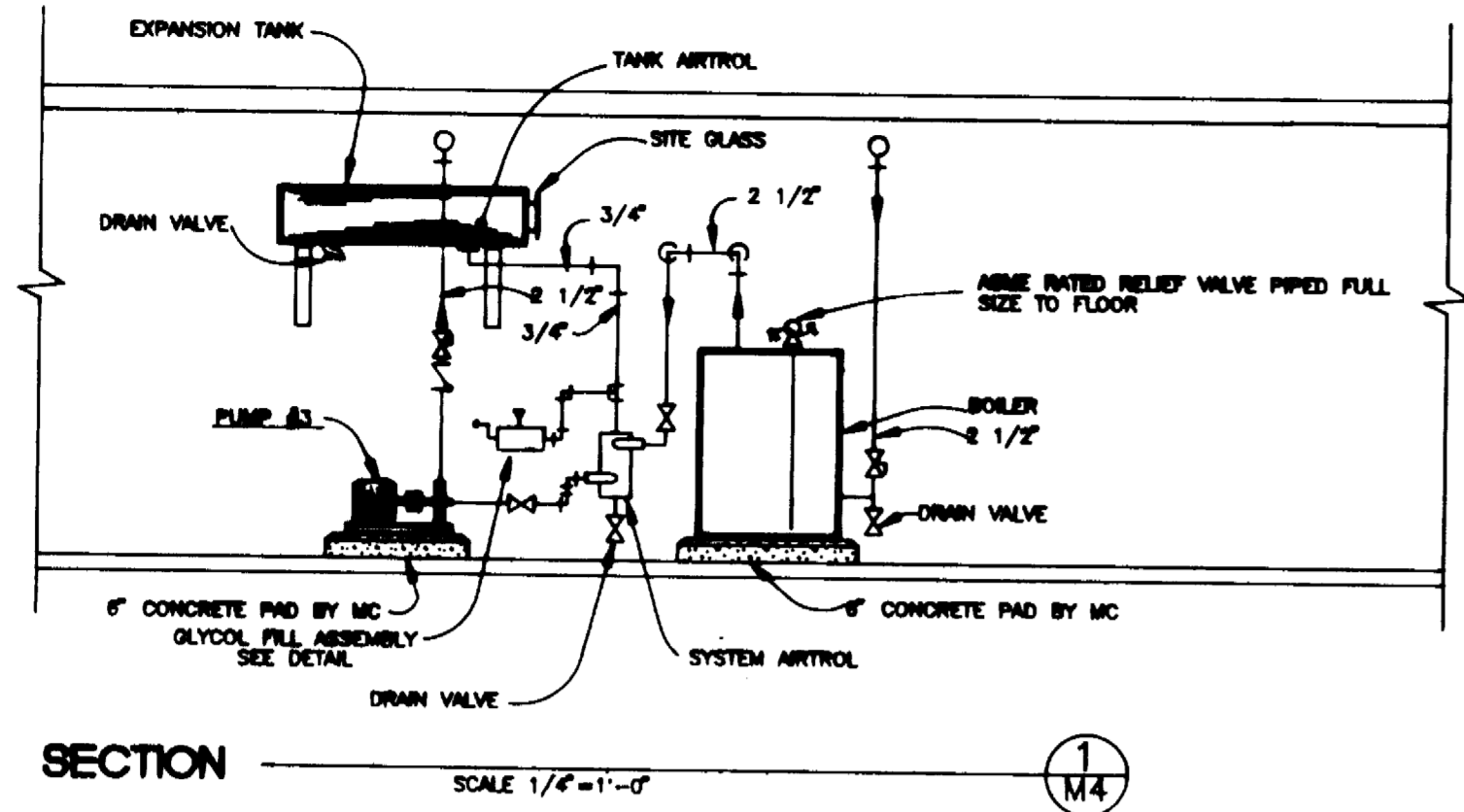


BASEMENT FLOOR PLAN - DUCTWORK
SCALE: 1/8"=1'

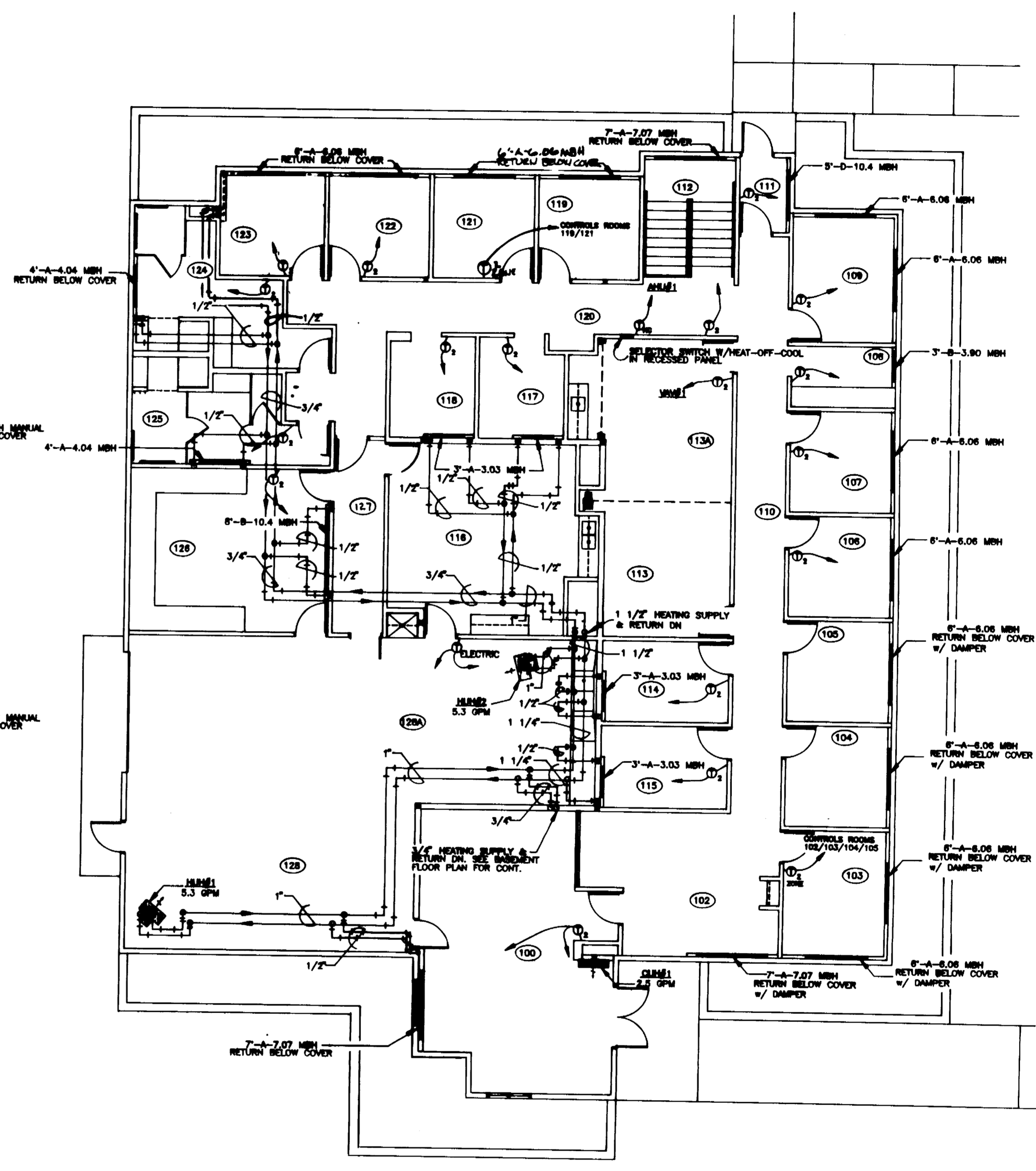


FIRST FLOOR PLAN - DUCTWORK
SCALE: 1/8"=1'

ROBY, CRIBAL & EVERSON			
BRUNNEN BUILDING			
KOCH HAZARD BALTZER LTD			
Architecture • Planning • Interiors			
431 NORTH PHILLIPS AVENUE, SUITE 200 SIOUX FALLS, SOUTH DAKOTA 57102-0180 PHONE (605) 336-3718 FAX (605) 336-0438			
DRAWN BY SH,FK	APPROVED BY RLR,RAQ,MBE	DATE APRIL 12, 1994	PROJECT NO. 9211
REVISION 08/18/94	REVISION 4/16/95	COPYRIGHT	CADD REF. NO.
SHEET TITLE FLOOR PLANS - VENTILATION		AS BUILT 2/9/96	DRAWING NO. M-3
PROJECT: GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD. D/S: 609310011			
			OF: 7



BASEMENT FLOOR PLAN - HEATING
SCALE 1/8"=1'-0"

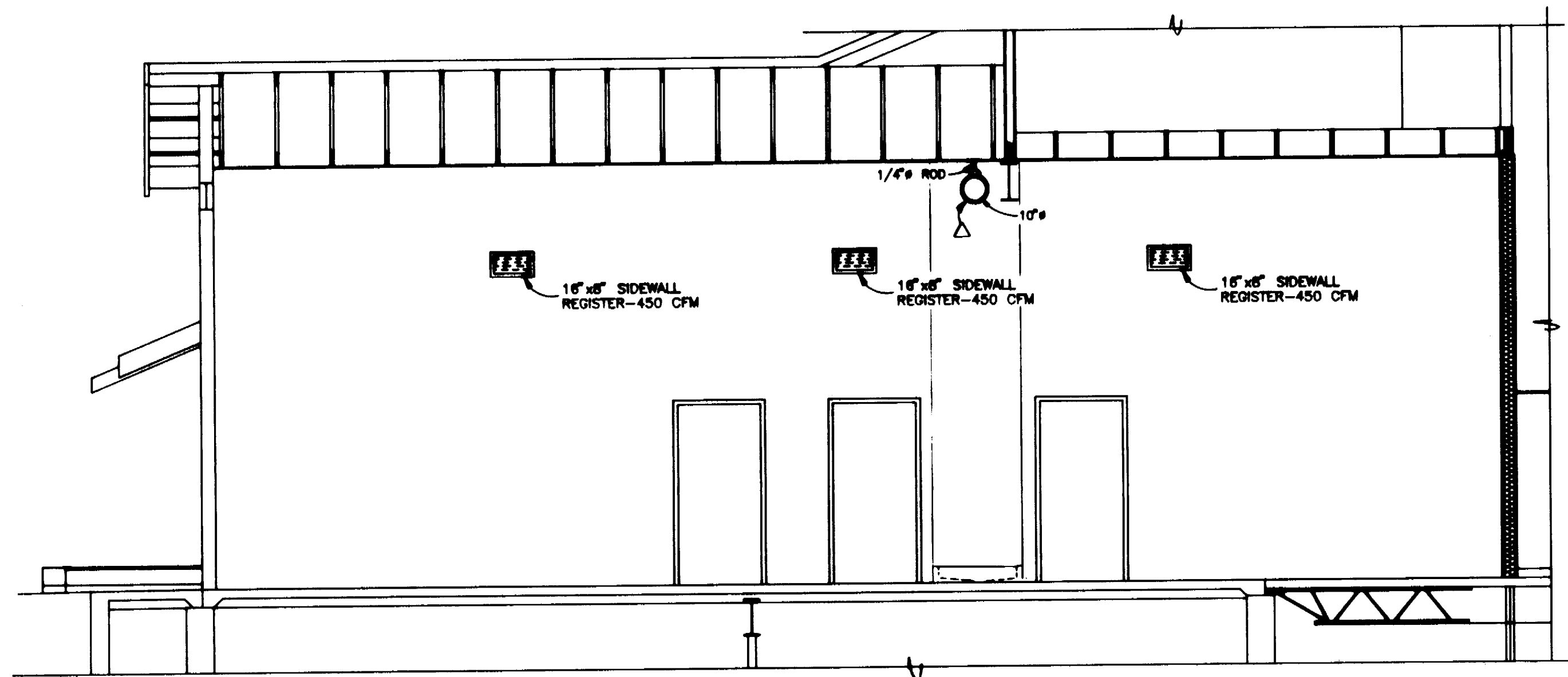


FIRST FLOOR PLAN - HEATING
SCALE 1/8"=1'-0"

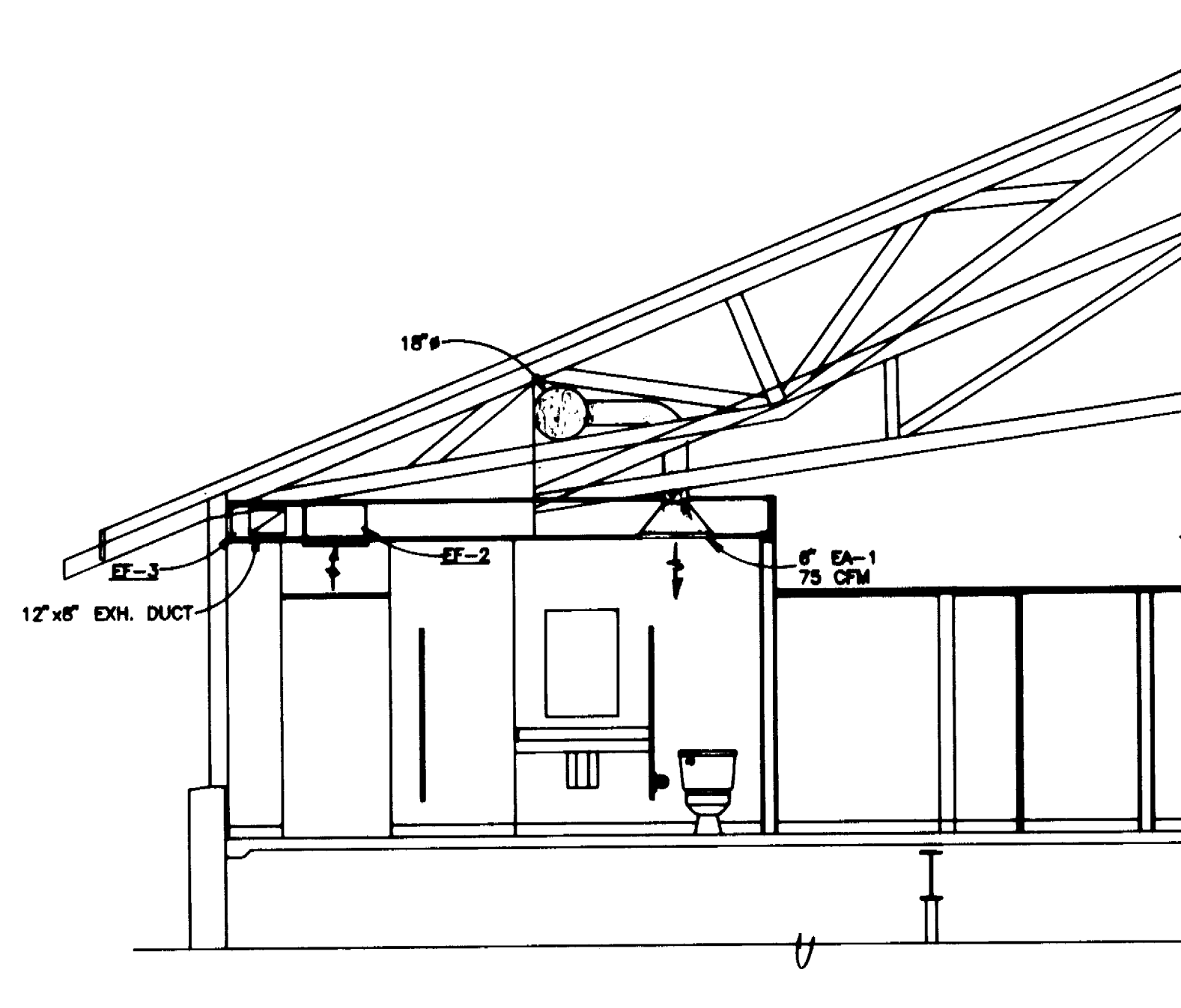
ROOM SCHEDULE

801	STAIR
802	MECHANICAL ROOM
100	LOBBY
101	
102	RECEPTION
103	OFFICE SUP.
104	BIO. OFFICE
105	BIO. OFFICE
106	BIO. OFFICE
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108	COMPUTER ROOM
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126	DRY LAB
127	CORRIDOR
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128A	SHOP

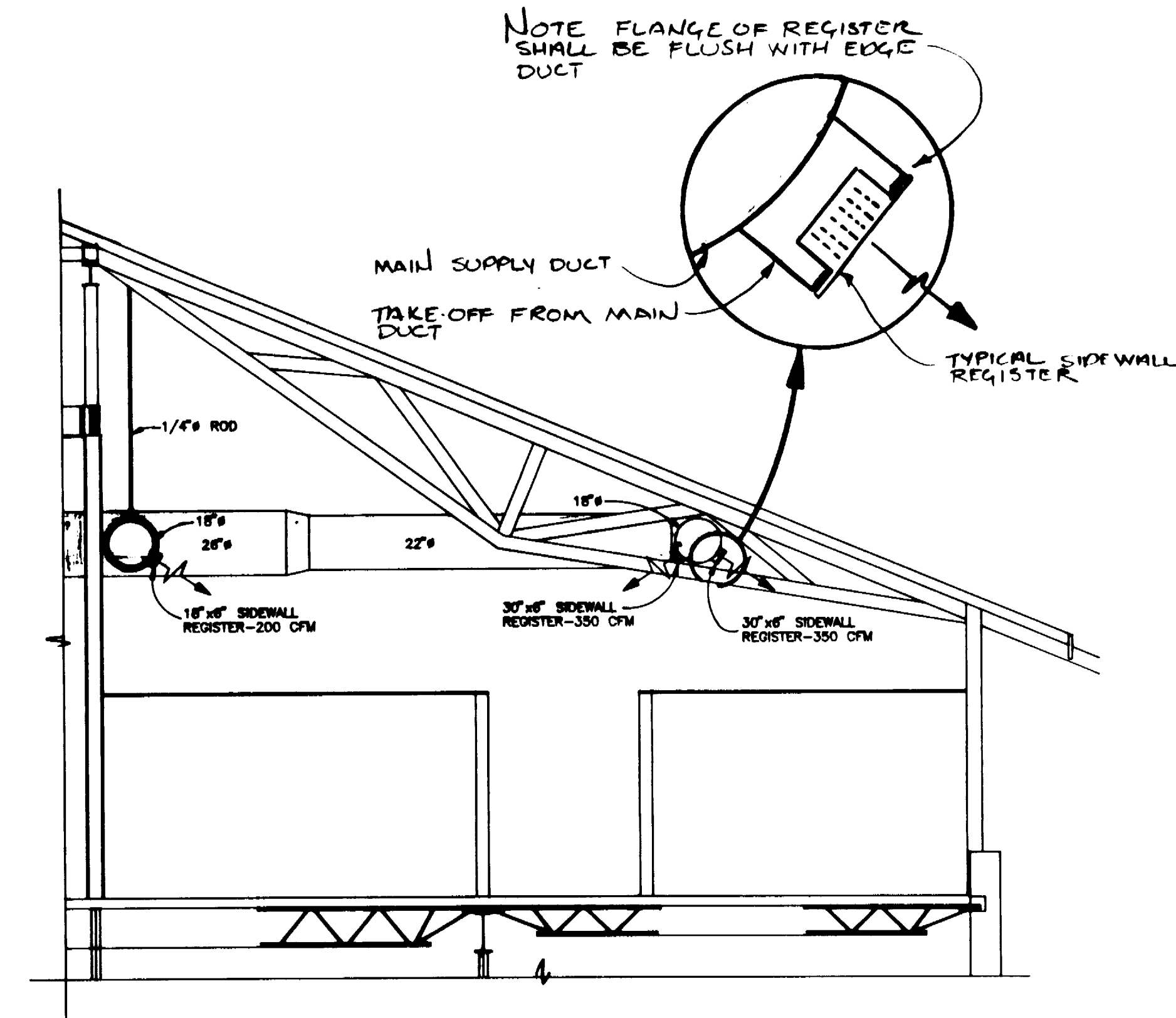
ROBY, CUNTAL, & EVERSON CONSULTING ENGINEERS MIRCELL, SOUTH DAKOTA			
KOCH HAZARD BALTZER LTD Architecture • Planning • Interiors 431 NORTH PHILLIPS AVENUE, SUITE 200 SIOUX FALLS, SOUTH DAKOTA 57102-0180 PHONE (605) 336-3718 FAX (605) 336-0438			
DESIGNED BY TL	APPROVED BY 4/16/95	DATE APRIL 12, 1994	PROJECT NO.
REVISIONS	COPYRIGHT	DATE	DRAWING NO.
SHEET TITLE FLOOR PLANS - HEATING		AS BUILT'S 2/8/96	M-4
PROJECT SEE FLOORING CONTRACT EQUIPMENT BY OTC, HEN & PHOENIX FLOOR, S.D. OFI (RFP231001)			OF: 7



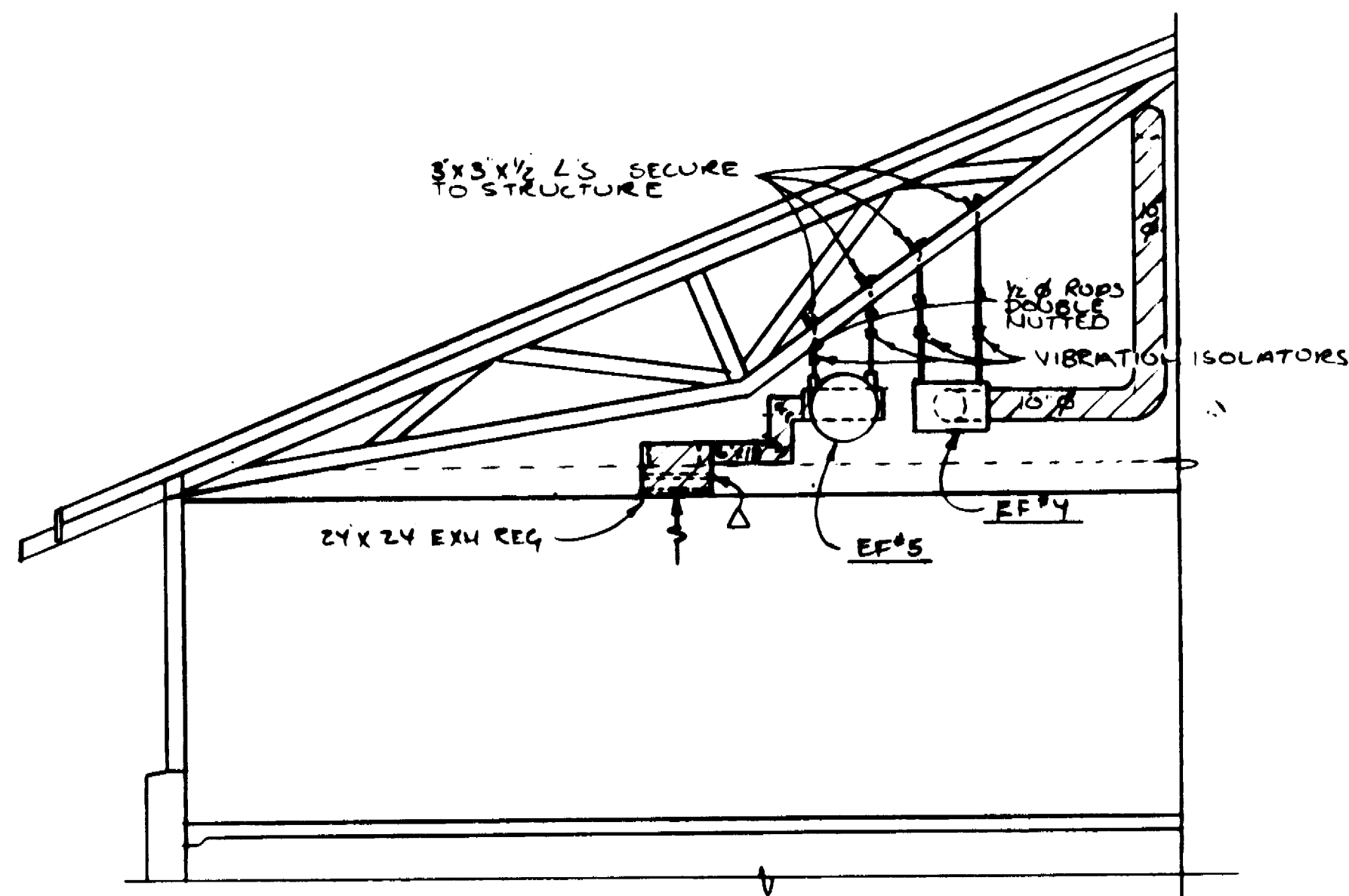
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SCALE 1/4"=1'-0"



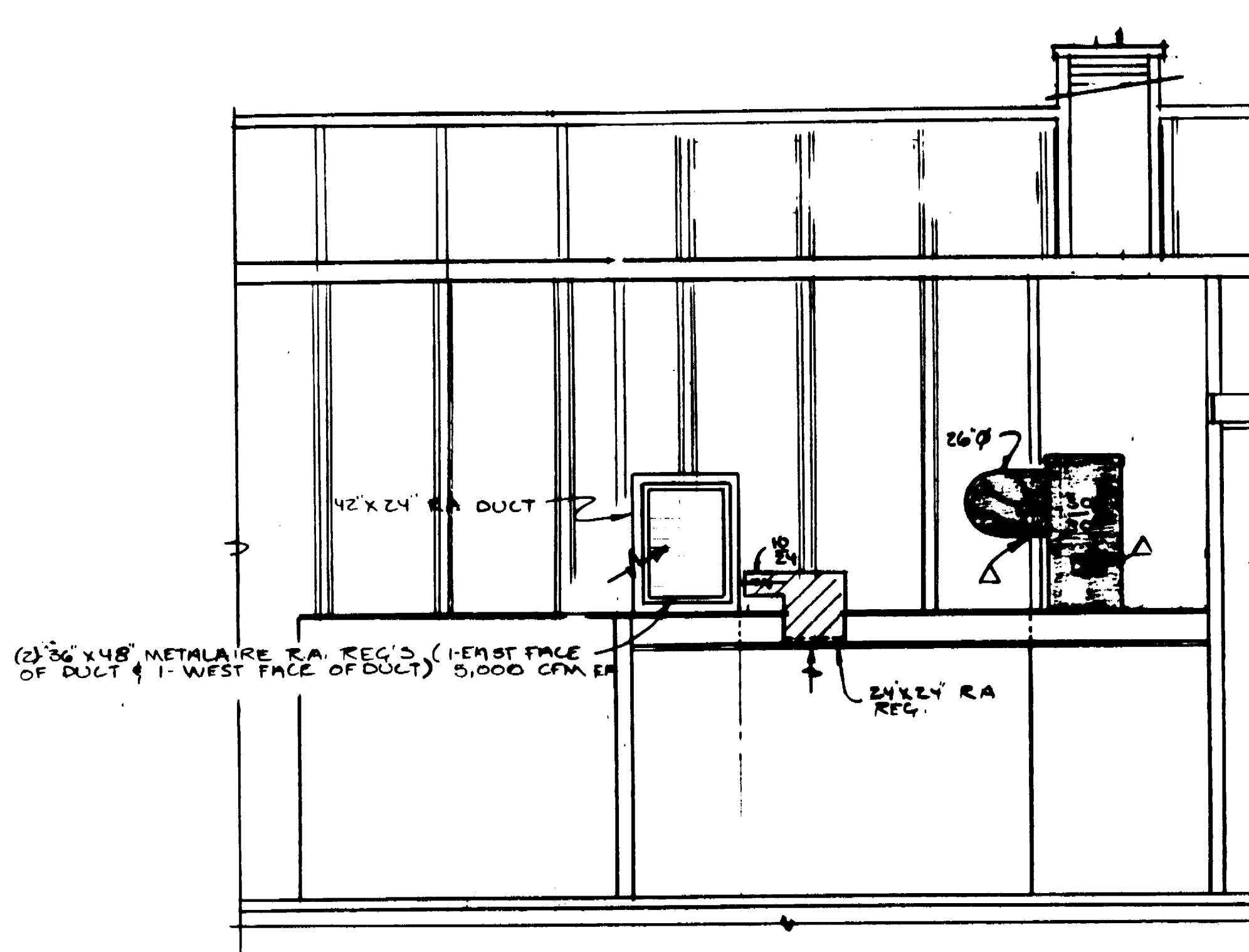
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SCALE 1/4"=1'-0"



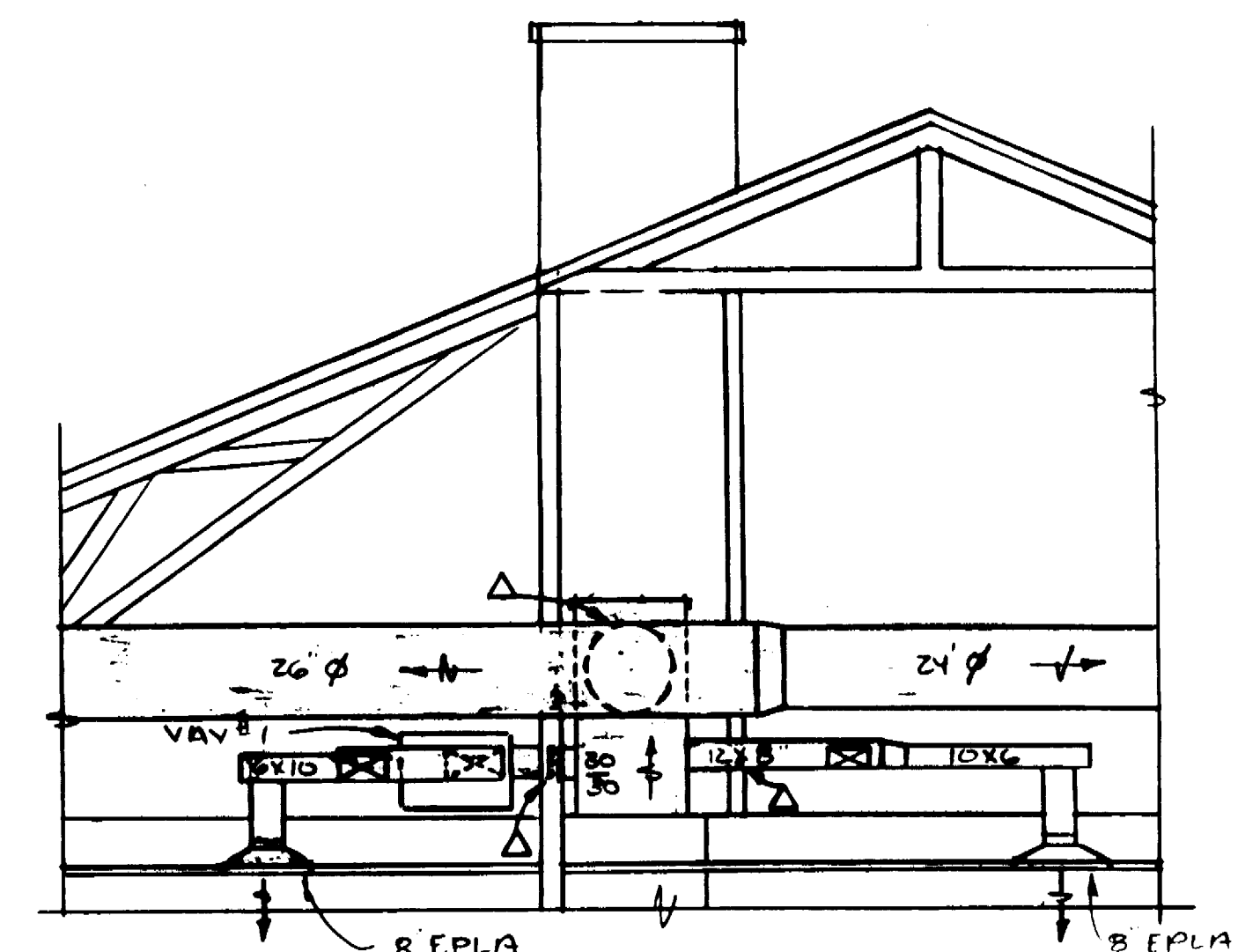
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SCALE 1/4"=1'-0"



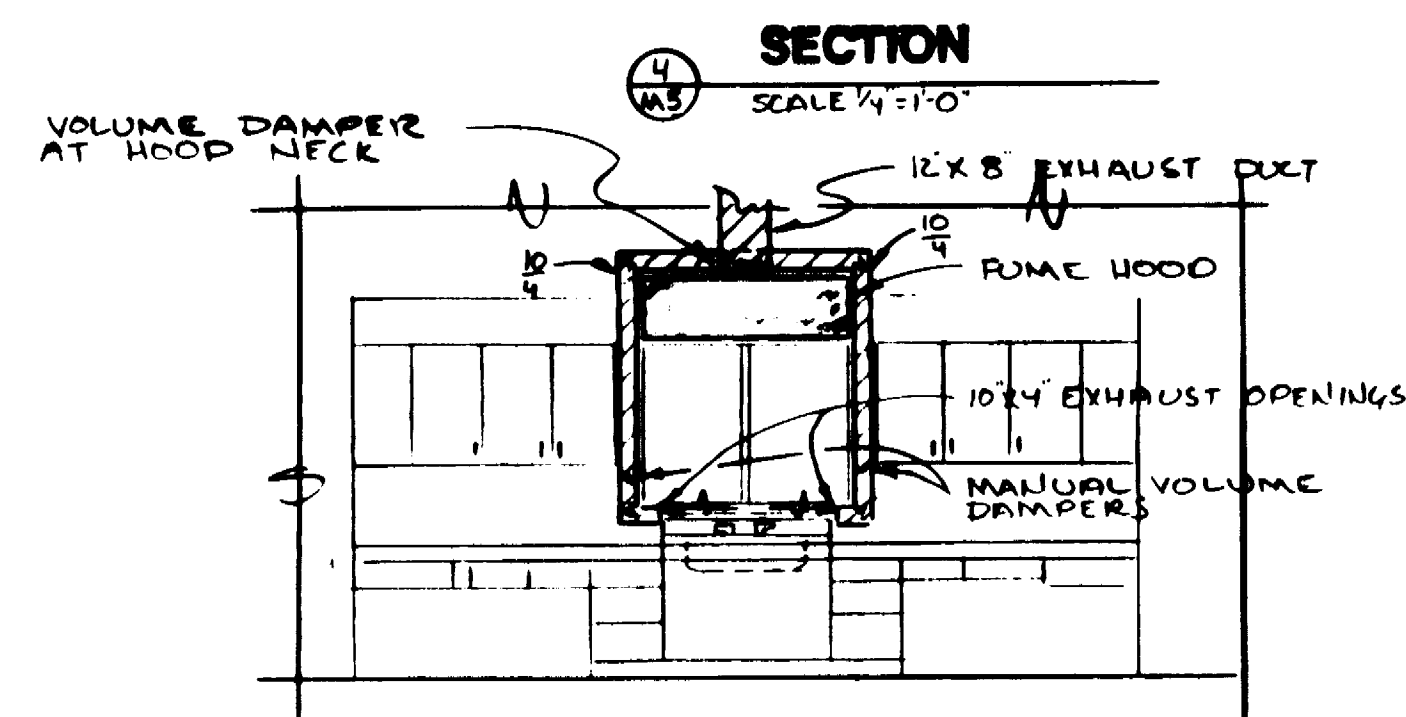
SECTION 4
SCALE 1/4"=1'-0"



SECTION 5
SCALE 1/4"=1'-0"



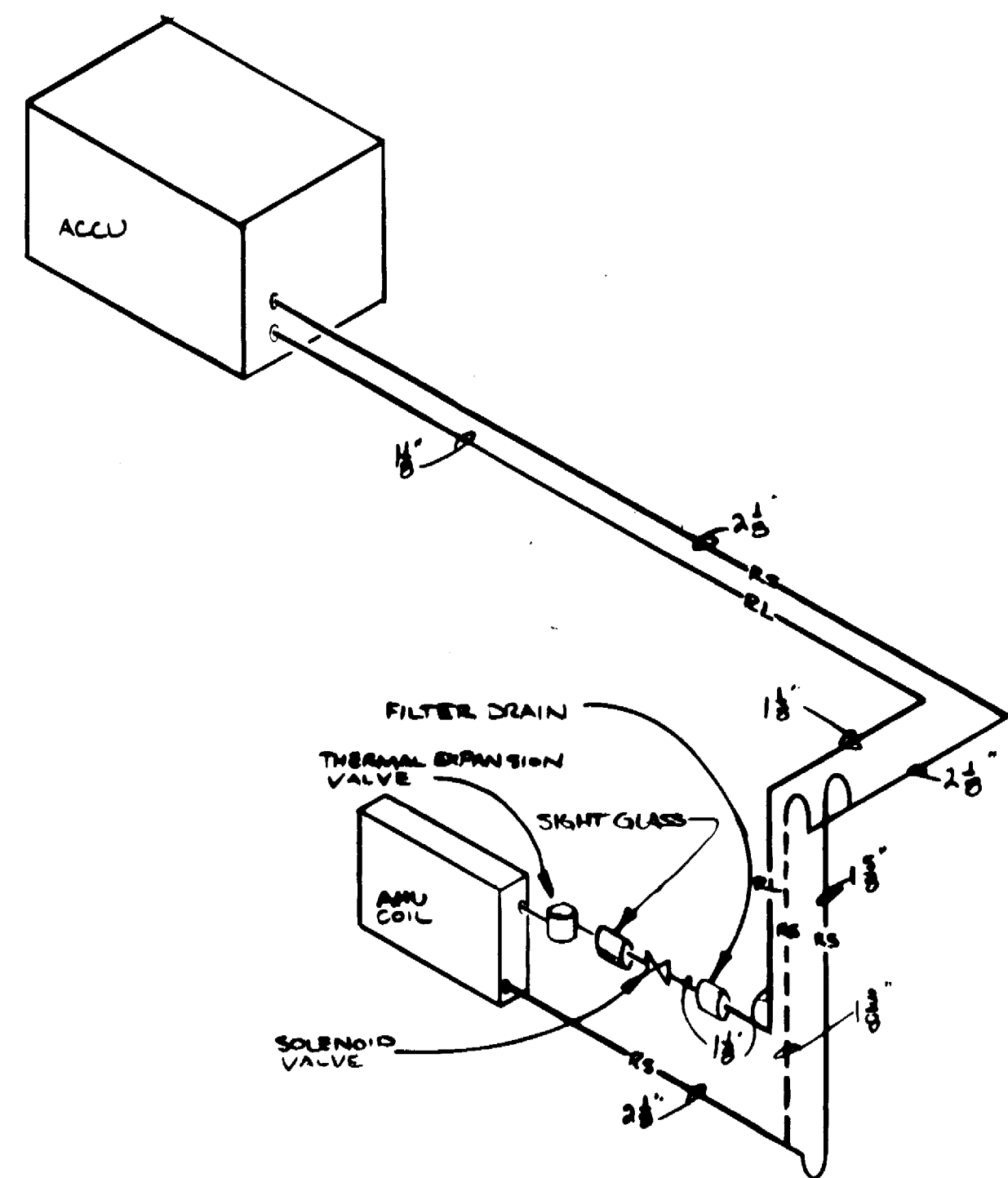
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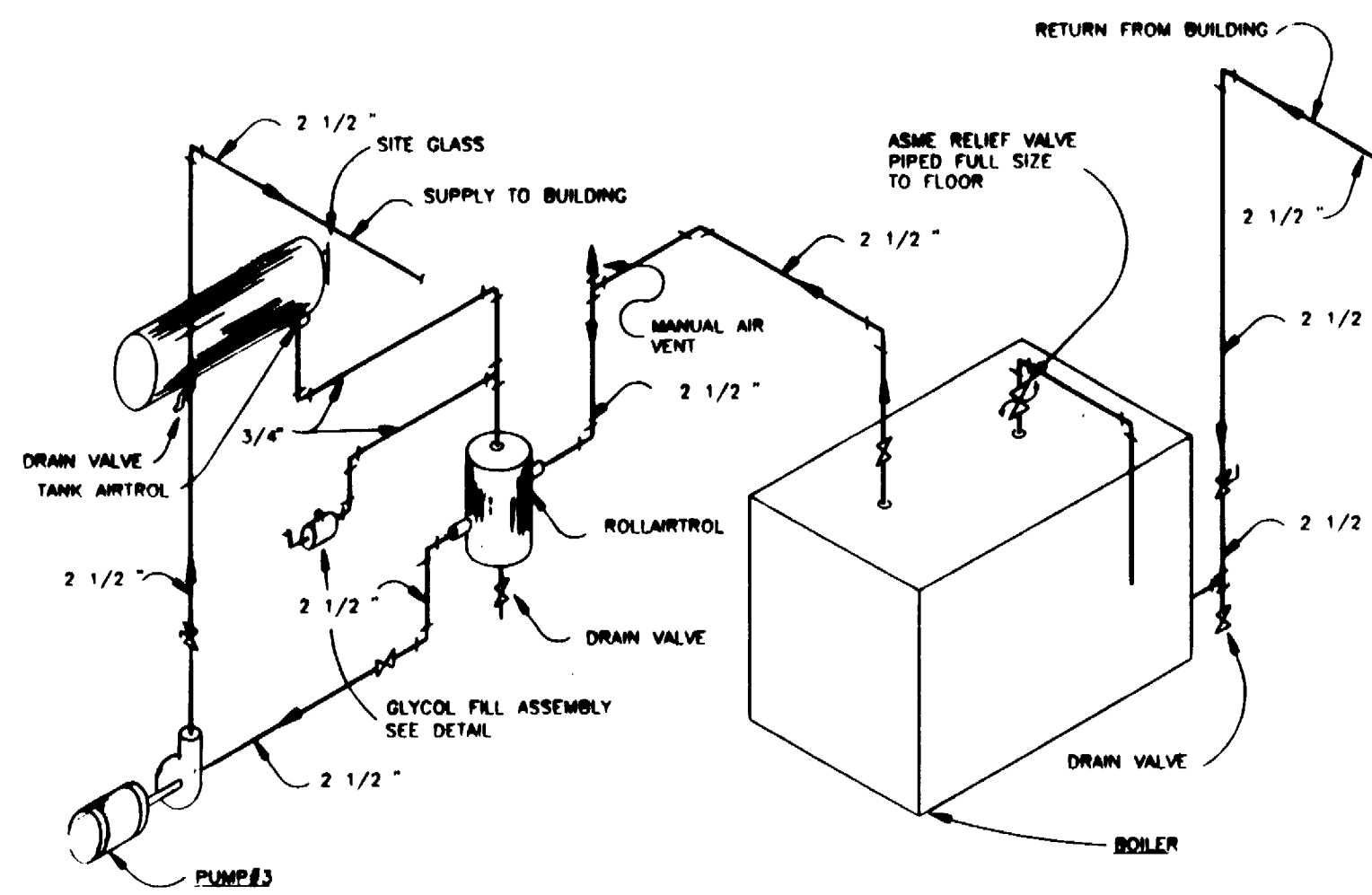
SECTION 7
SCALE 1/4"=1'-0"

NOTE FLANGE OF REGISTER SHALL BE FLUSH WITH EDGE OF DUCT

ROBY, CURTAL & EVENSON <small>ARCHITECTS</small>			
KOCH HAZARD BALTZER LTD <small>Architecture • Planning • Interiors</small>			
431 NORTH PHILLIPS AVENUE, SUITE 200 SIOUX FALLS, SOUTH DAKOTA 57102-0180 PHONE (605) 336-3718 FAX (605) 336-0438			
DRAWN BY SH/TK	APPROVED BY RLR, RAQ, ABE	DATE APRIL 12, 1994	PROJECT NO. 9211
REVISION 08/18/94	REVISION 4/6/95	COPYRIGHT	CADD REF. NO.
SHEET TITLE SECTIONS		AS BUILT 2/9/98	DRAWING NO. M-5
PROJECT: GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD OFS #0PE310011			
			OF: 7



ACCU PIPING SCHEMATIC
NO SCALE

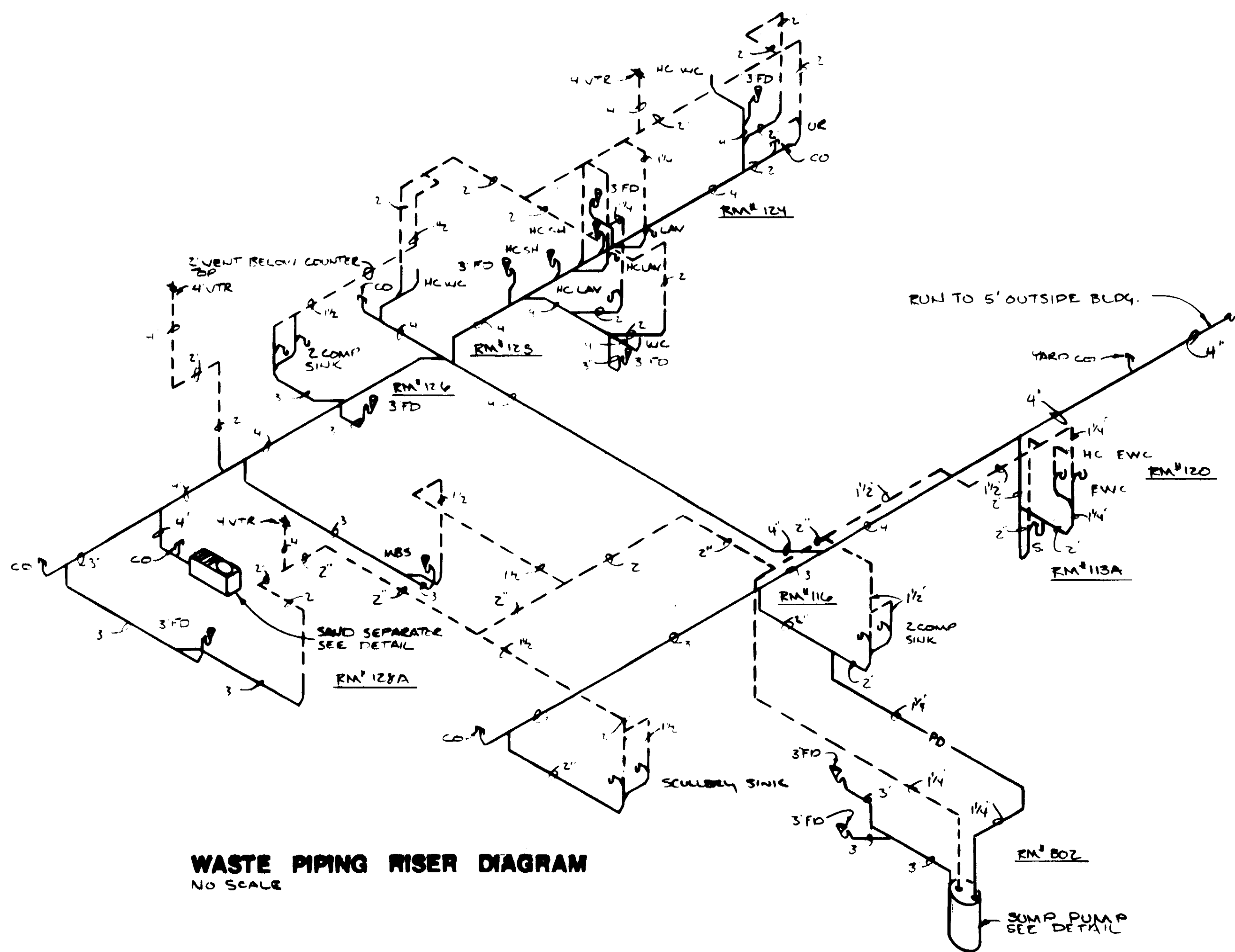


BOILER PIPING SCHEMATIC
NO SCALE

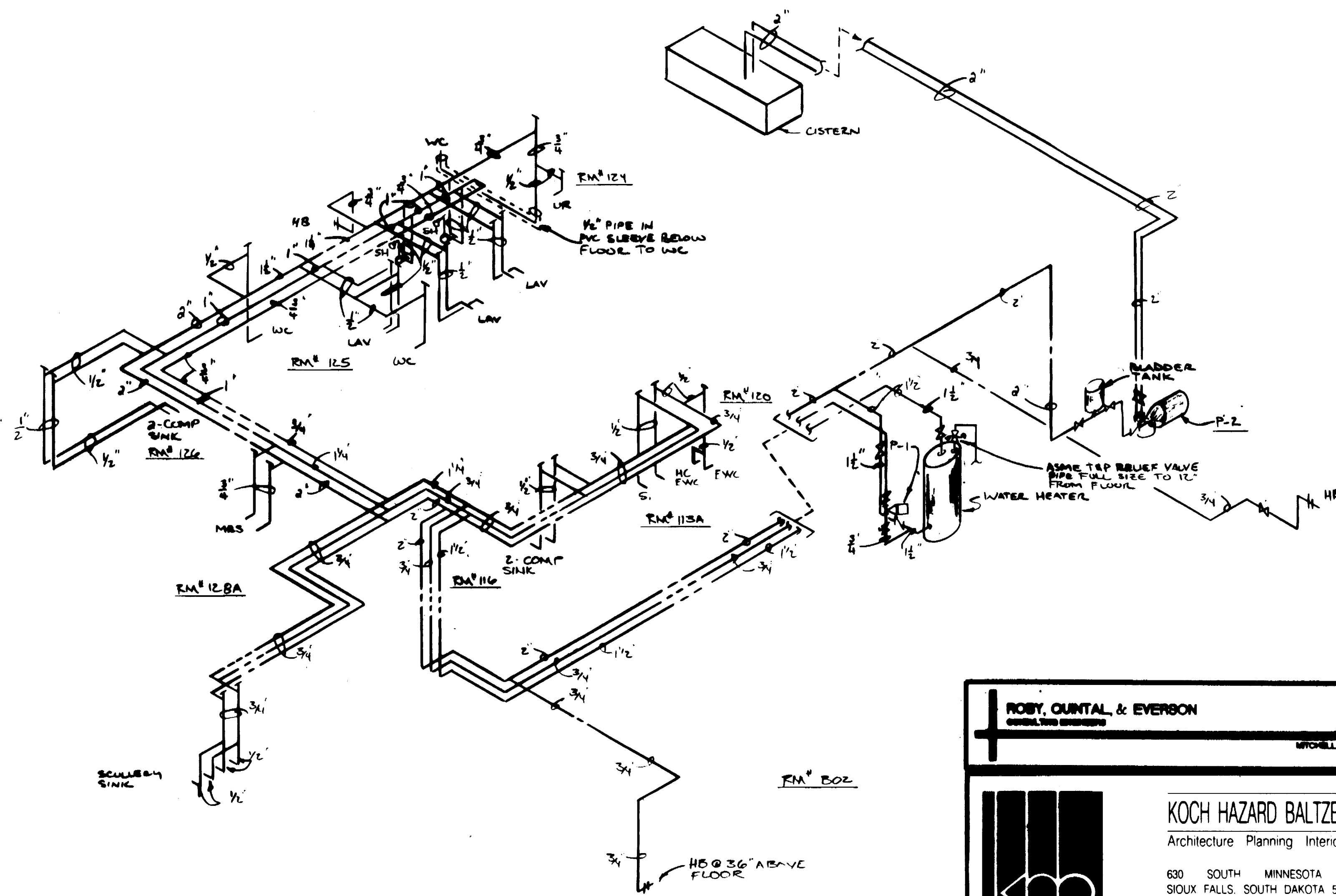
RADIATION SCHEDULE										
TYPE	MANUFACTURER AND MODEL NO.	MBH/FT.	AVG. WATER TEMP.	FIN SIZE	TUBE SIZE	COVER DIMENSIONS		FIN/FT.	ROWS	REMARKS
						HEIGHT	WIDTH			
A	VULCAN DS SLOPE TOP	1.01	180	3 1/4"x3 1/4"	1 1/4"	12"	4 1/4"	48	1	
B	VULCAN DS SLOPE TOP	1.3	180	4 1/4"x4 1/4"	1 1/4"	12"	5 5/16"	48	1	
D	VULCAN DS SLOPE TOP	2.08	180	4 1/4"x4 1/4"	1 1/4"	24"	5 5/16"	48	2	

HORIZONTAL UNIT HEATER SCHEDULE												
UNIT NO.	MANUFACTURER AND MODEL NO.	SERVES	MBH	RPM	CFM	FINAL TEMP.	GPM	ΔT.	P.D.	HP.	POWER	REMARKS
D	L	H										
HUM#1	VULCAN HV - 72	RM#128	52.3	1050	1100	104	5.3	20	.23	1/30	120/1	
HUM#2	VULCAN HV - 72	RM#128	52.3	1050	1100	104	5.3	20	.23	1/30	120/1	

CABINET UNIT HEATER SCHEDULE													
UNIT NO.	MANUFACTURER AND MODEL NO.	SERVES	MBH	RPM	CFM	FIN. TEMP.	GPM	ΔT.	P.D.	RECESS SIZE			REMARKS
										D	L	H	
CUH#1	VULCAN W - 1110 - 03	RM#100	23.5	1050	335	125	2.5	20	.39	-	-	-	120/1 1/15



WASTE PIPING RISER DIAGRAM
NO SCALE



WATER PIPING RISER DIAGRAM
NO SCALE

ROBY, QUINTAL, & EVERSON
ARCHITECTS

KOCH HAZARD BALTZER LTD
Architecture Planning Interior Design

630 SOUTH MINNESOTA AVENUE
SIOUX FALLS, SOUTH DAKOTA 57104-4896
PHONE (605) 336-3718 FAX (605) 336-0438

DRAWN BY RBE.TL	APPROVED BY RLR,RAQ,RBE	DATE APRIL 12, 1994	PROJECT NO. 0211
REVISED 09/16/94	REVISED 4/6/94	COPYRIGHT	CADD REF. NO.
SHEET TITLE SECTIONS & RISER		AS BUILT 2/9/94	DRAWING NO. M-6
PROJECT DAVE FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD OFS #0PE310011			

OF 7

AIR - HANDLING UNIT SCHEDULE

UNIT NO.	MANUFACTURER AND MODEL NO.	SERVES	CFM	STATIC PRESSURE		HOT WATER HEAT EXCHANGER DATA										DX COOLING COIL DATA						MOTOR HP.	POWER	FAN RPM	REMARKS							
				EXT.	TOTAL	TYPE	GPM	P.D.	P.D.	P.D.	FINS/INCH	FACE AREA	FACE VELOCITY	EWT	LWT	EAT	LAT	TOTAL CAPACITY	TYPE	ROWS	FINS/INCH					FACE AREA	FACE VELOCITY	EADB	EAWB	LADB	LAWB	FACE VELOCITY
AHU#1	McQUAY MSL-122	BLDG	10000	0.51	1.53	5WB	16.8	2.2	1	6	21.1	473	190	170	EG	75	187851	SEN	4	12	21.1	473	80	85.5	56	54	45	348,939	5	208/3	1451	21 9/16" AF FAN

PUMP SCHEDULE

UNIT NO.	MANUFACTURER AND MODEL NO.	GPM	HEAD FT.	HP.	RPM	POWER	REMARKS
P#1	B & G SERIES 100	10	7	1/12	1750	120/1	HOT WATER RECIRCULATING PUMP - ALL BRONZE
P#2	JACUZZI SERIES JH	20	90 PSI	1 1/2	—	208/3	DOMESTIC WATER BOOSTER
P#3	B & G MODEL 1510 ZAC	42	30	1 1/2	1750	208/3	HOT WATER HEATING PUMP

SUMP PUMP SCHEDULE

UNIT NO.	MANUFACTURER AND MODEL NO.	GPM	HEAD FT.	HP.	RPM	POWER	REMARKS
SP#1	WEIL SERIES 1 1/4-1400	20	24	1/3	1750	120/1	

VAV TERMINAL BOX SCHEDULE

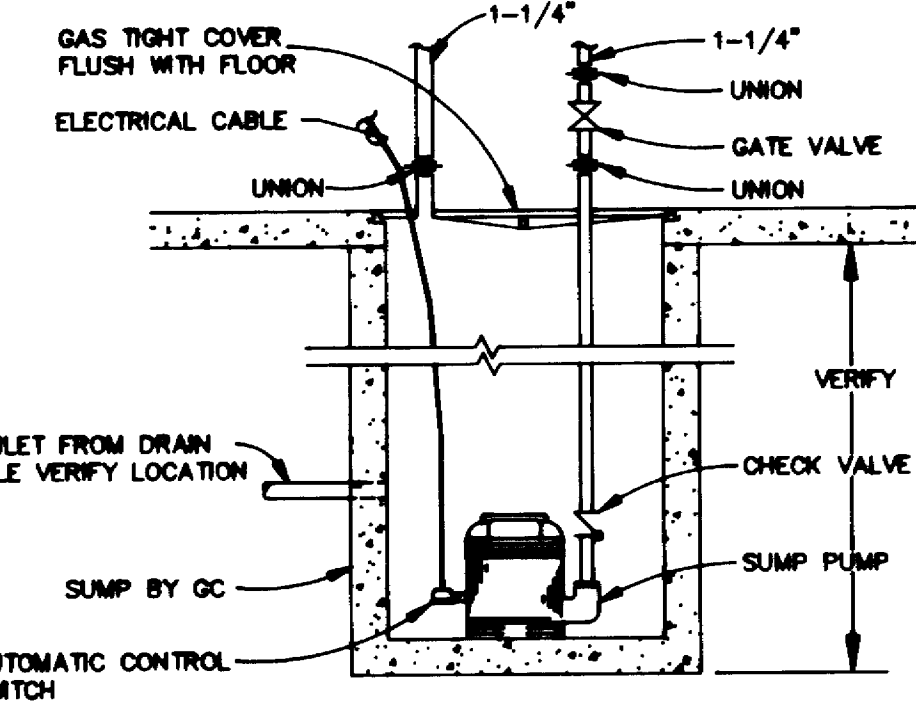
UNIT NO.	MANUFACTURER AND MODEL NO.	ROOM NO.	CFM	DUCT INLET SIZE	DUCT OUTLET SIZE	FAN MOTOR HP	INLET SP.	POWER	REMARKS
VAV#1	METAL AIR	113/139	880	8"	14"x12"	1/3	0.07	120/1	

AIR COOLED CONDENSING UNIT SCHEDULE

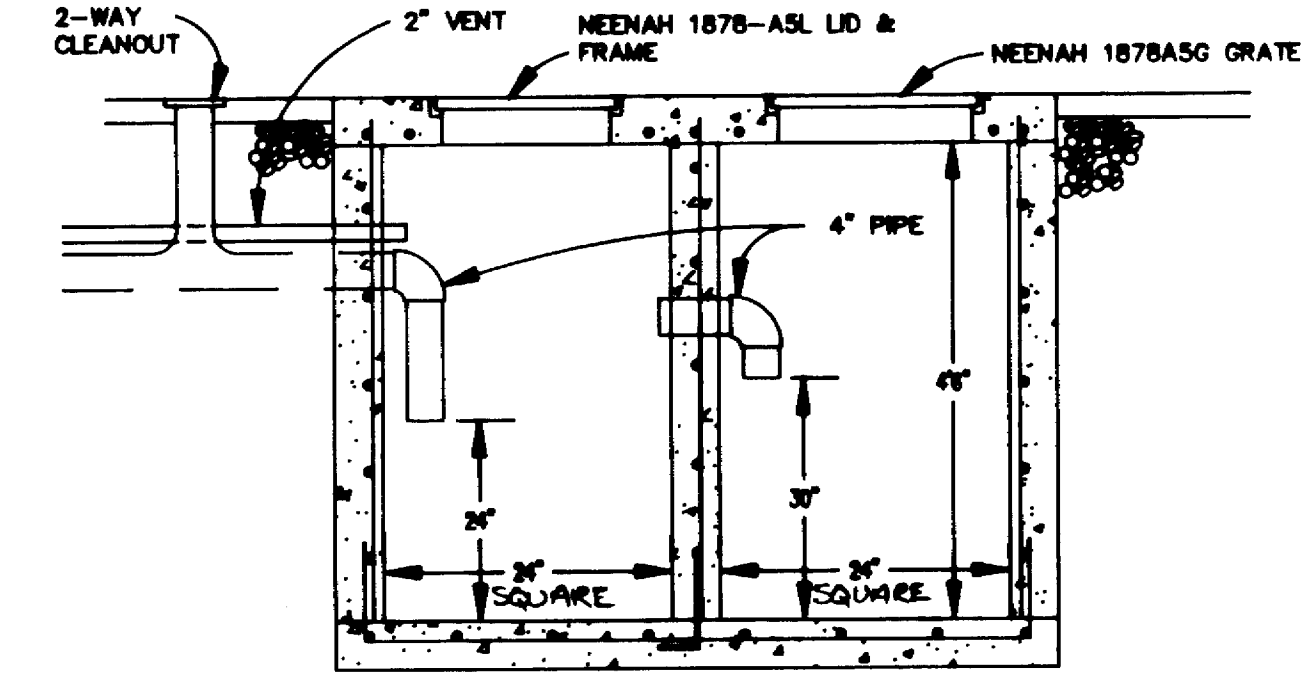
UNIT NO.	MANUFACTURER AND NO.	SERVES	MATCHED COOLING CAPACITY	KW INPUT	POWER	SUCTION LINE OD	LIQUID LINE OD	REMARKS
ACCU#1	McQUAY ALP-032	AHU#1	348,939	32.1	208/3	2 1/8"	1 1/8"	DOUBLE SECTION RISER PIPE

EXHAUST FAN SCHEDULE

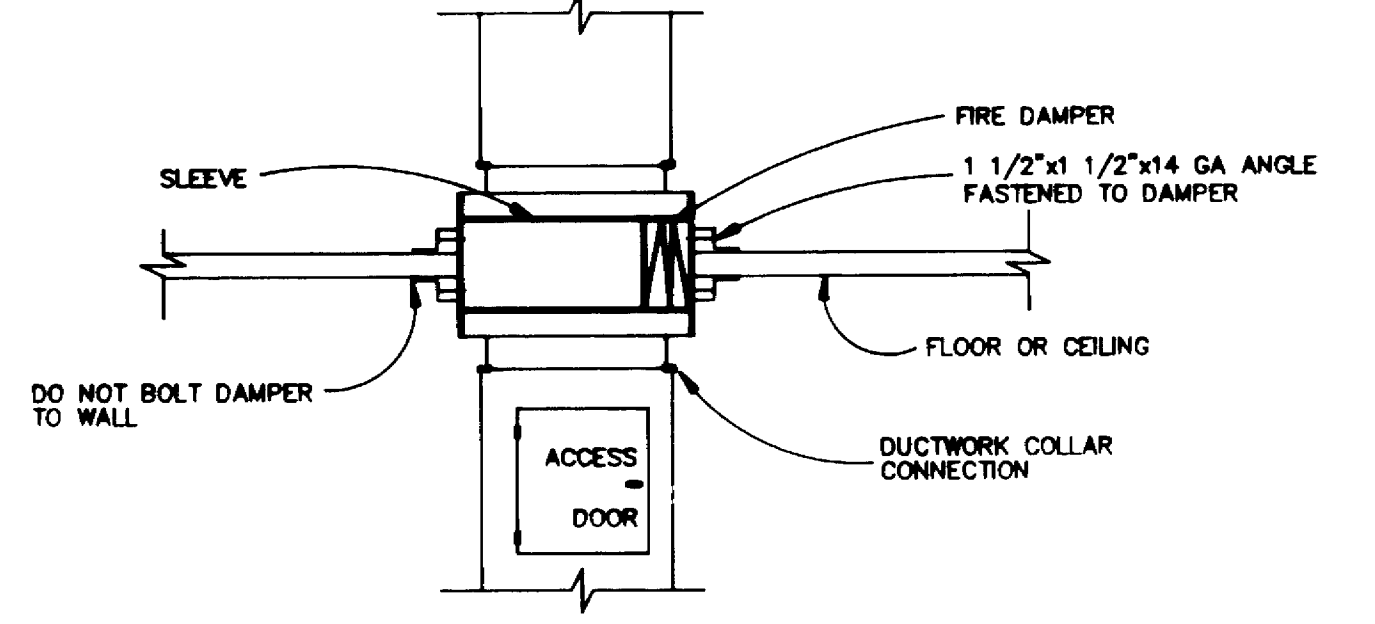
UNIT NO.	MANUFACTURER AND MODEL NO.	SERVES	CFM	EXT. SP.	RPM	HP.	POWER	REMARKS
EF#1	LOREN COOK GEMINI 5-15	124	275	.200	1550	155 WTS	120/1	CEILING CONFIGURATION
EF#2	LOREN COOK GEMINI 5-15	125	275	.200	1550	155 WTS	120/1	CEILING CONFIGURATION
EF#3	LOREN COOK GEMINI 7-10	128	575	.250	1075	1/8	120/1	IN-LINE CONFIGURATION
EF#4	LOREN COOK GEMINI 7-10	116	450	.375	1075	1/8	120/1	IN-LINE CONFIGURATION
EF#5	LOREN COOK CENTRI-VANE 14 CVB	128/128A	1800	.250	1394	1/2	120/1	



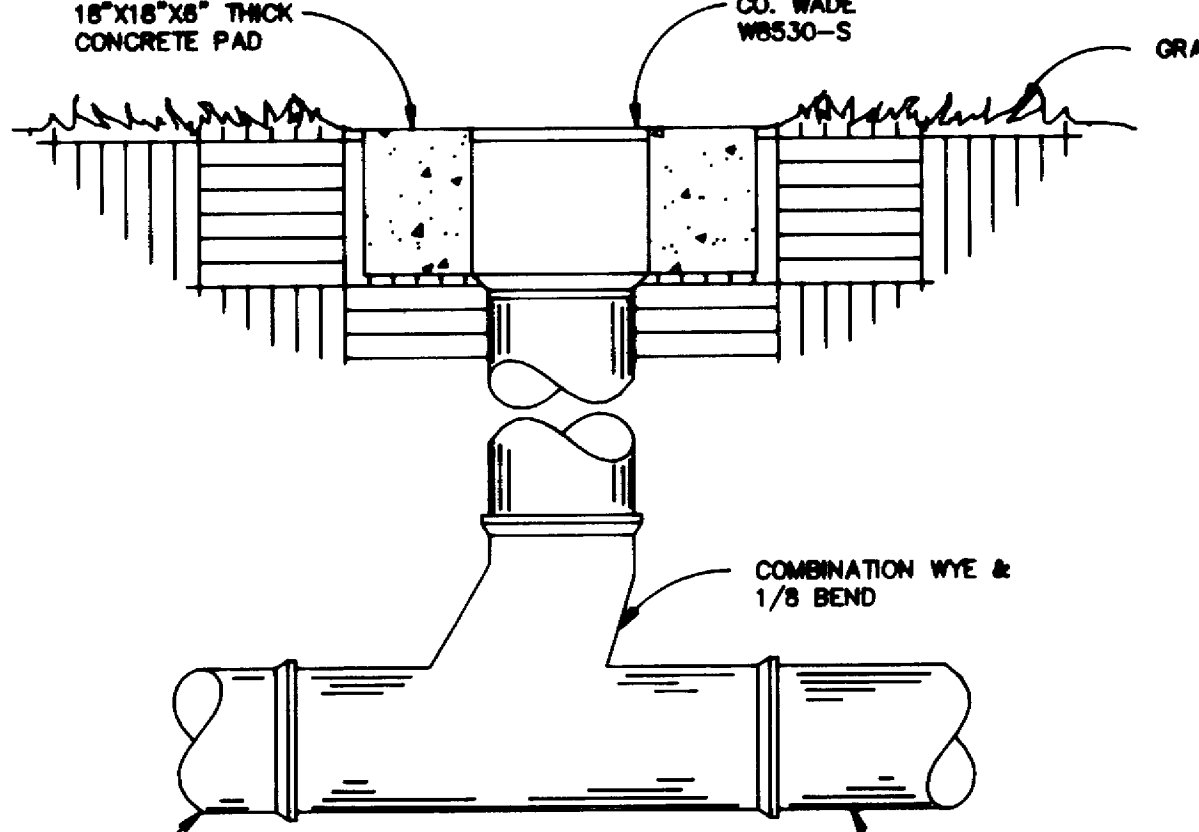
SUMP PUMP DETAIL
NO SCALE



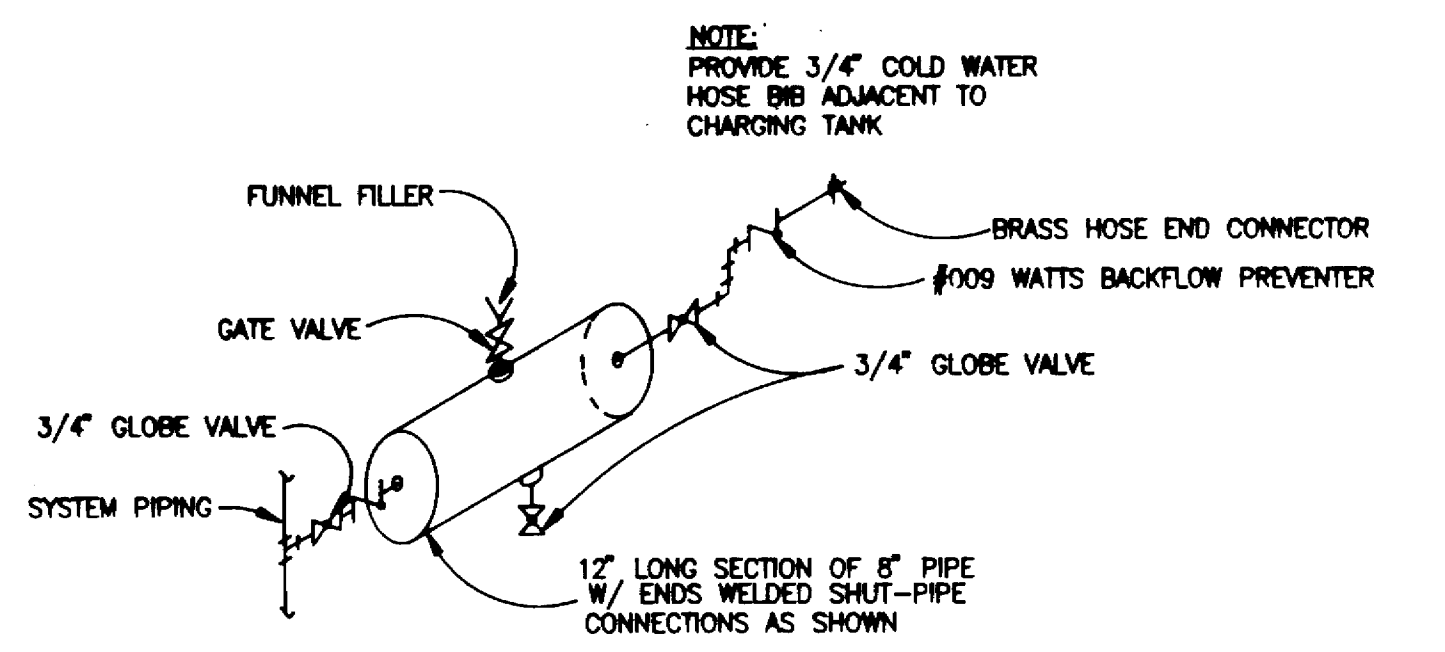
SAND SEPARATOR DETAIL
NO SCALE



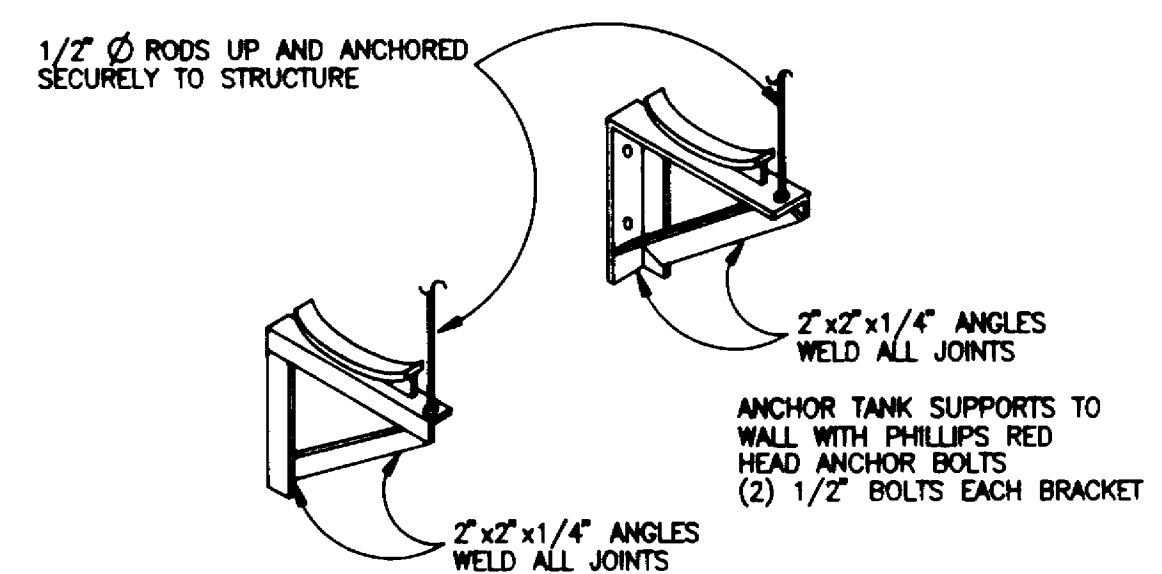
FIRE DAMPER DETAIL
NO SCALE



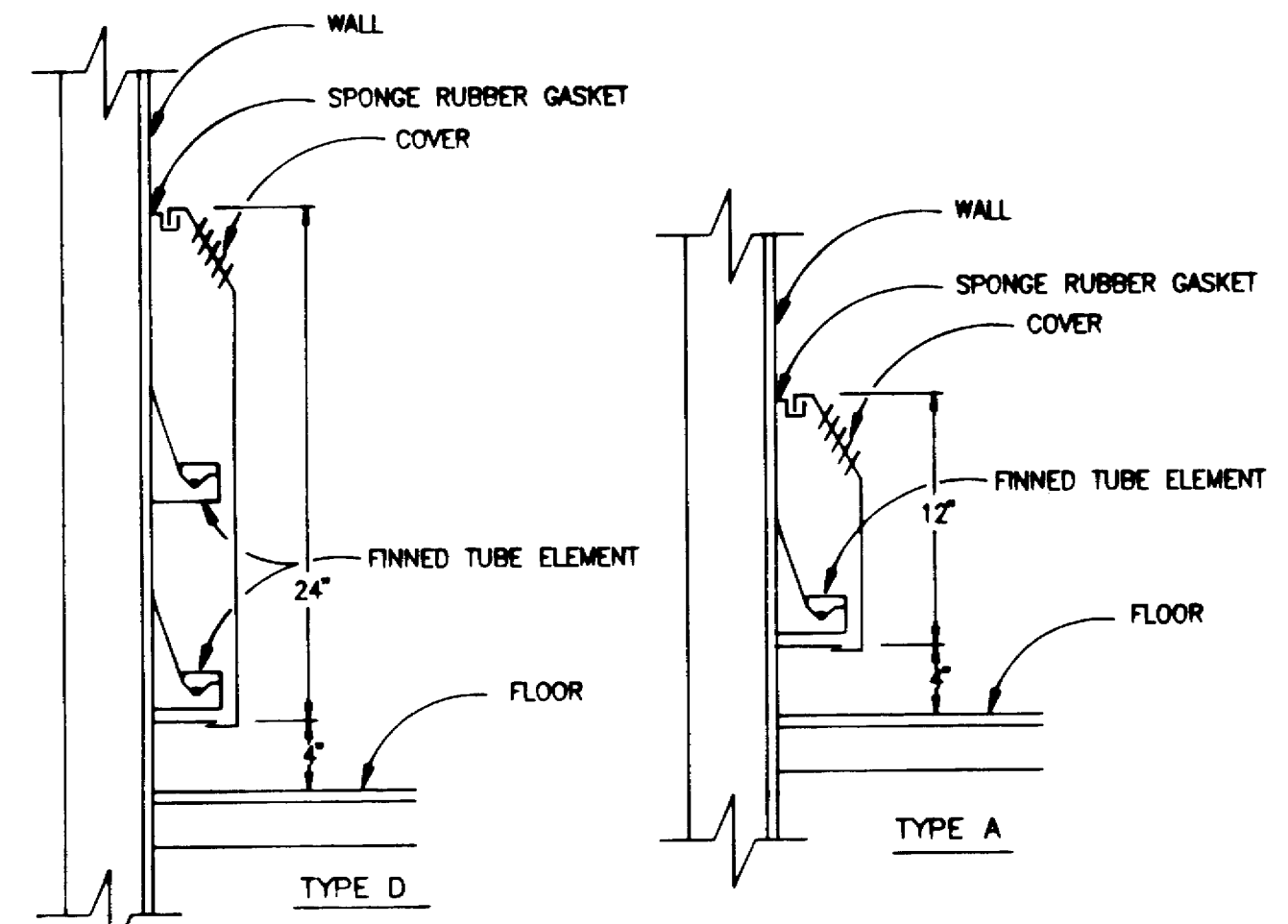
CONCRETE PAD DETAIL
NO SCALE



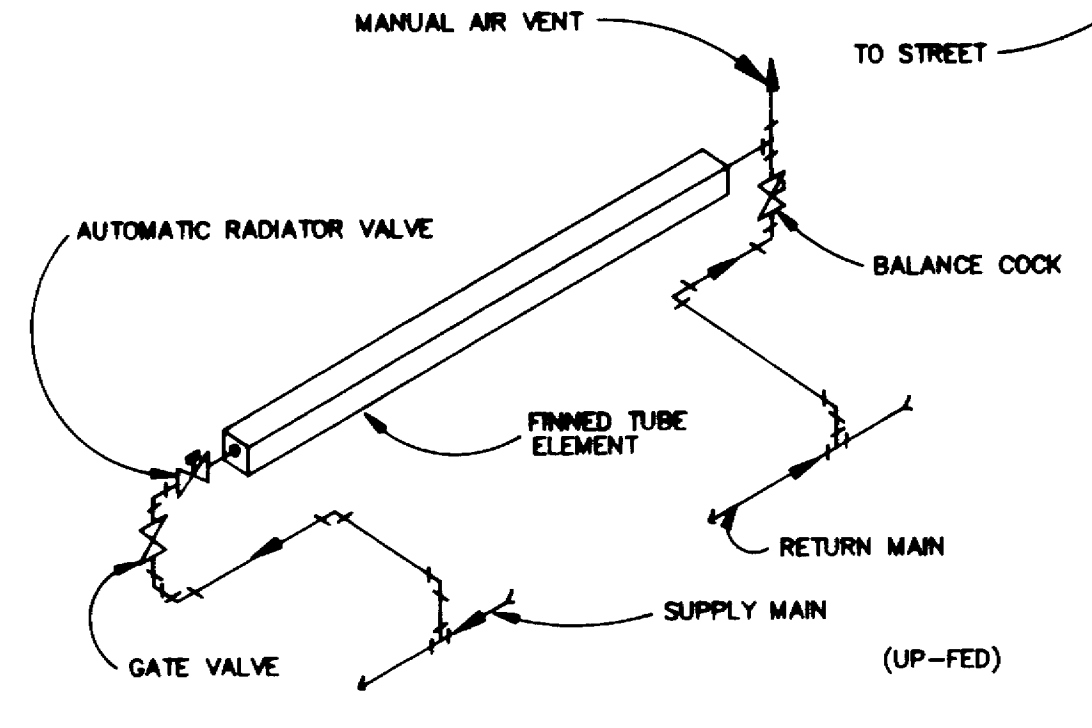
GLYCOL CHARGING TANK DETAIL
NO SCALE



EXPANSION TANK SUPPORT DETAIL
NO SCALE



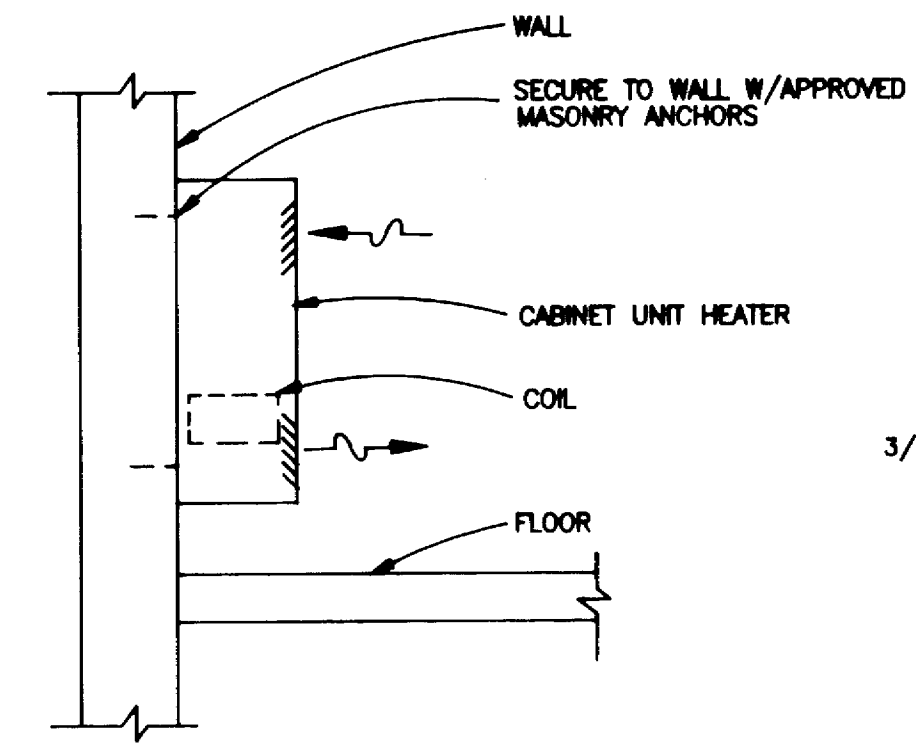
RADIATION MOUNTING DETAIL
NO SCALE



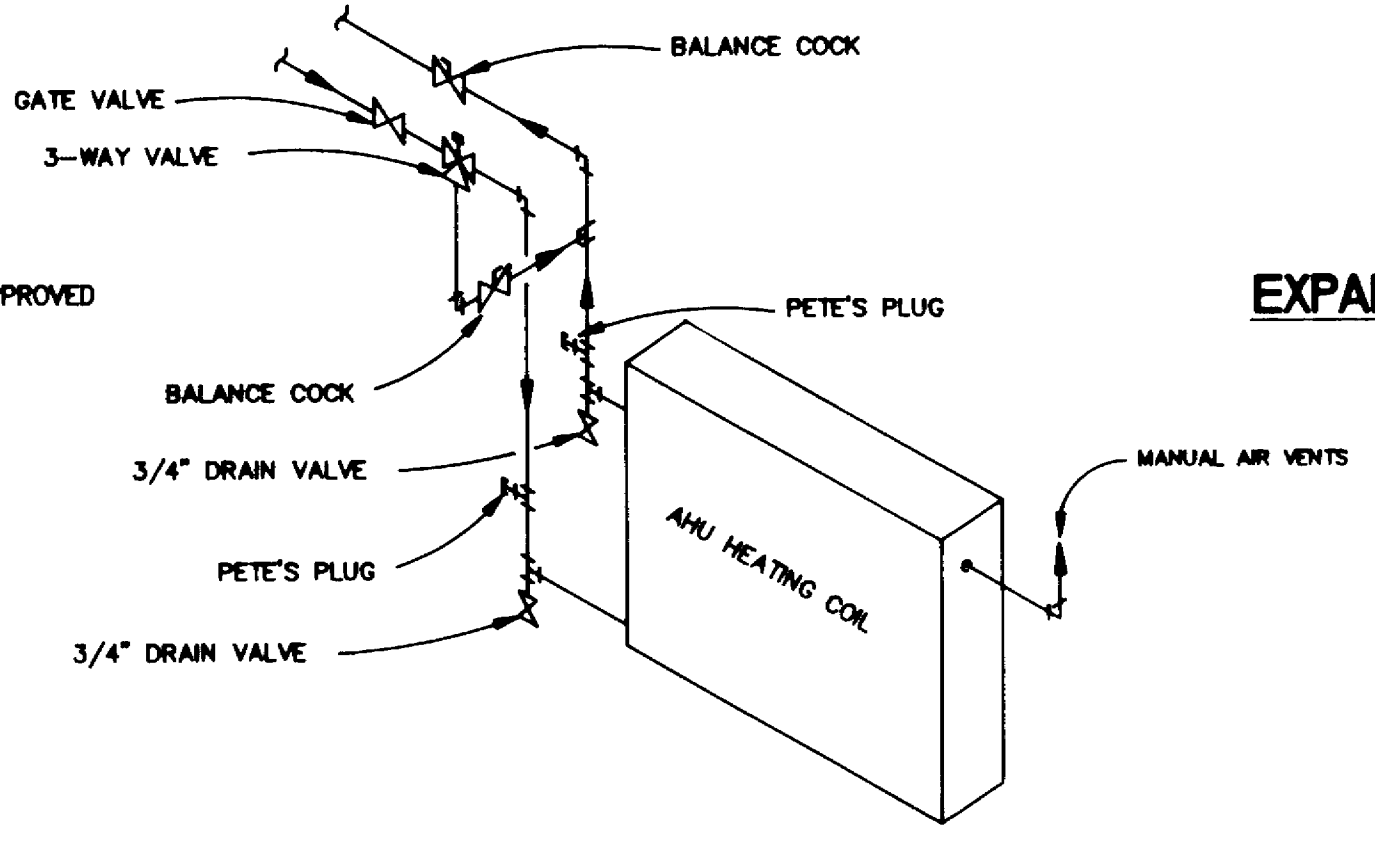
RADIATION PIPING SCHEMATIC
NO SCALE



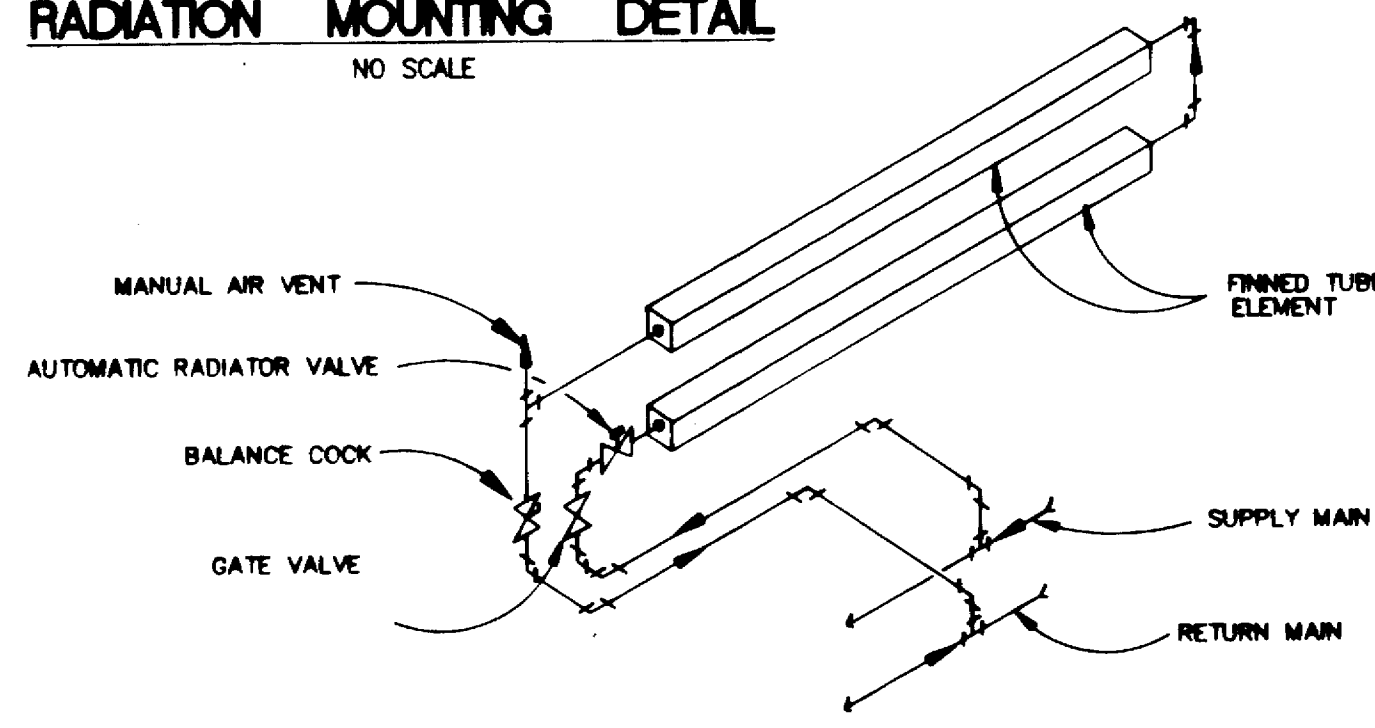
YARD CLEANOUT DETAIL
NO SCALE



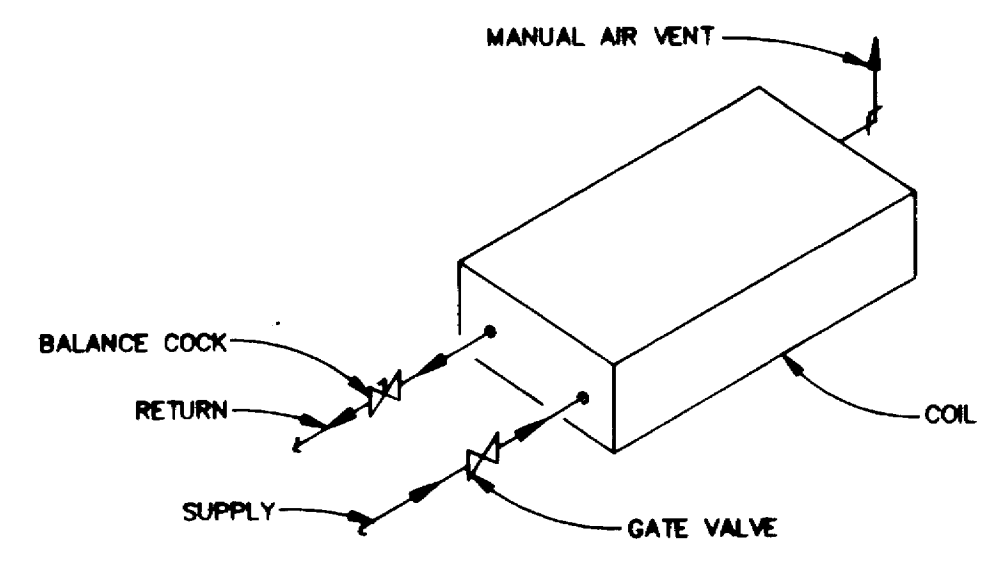
C.U.H. MOUNTING DETAIL
NO SCALE



A.H.U. HEATING COIL DETAIL
NO SCALE

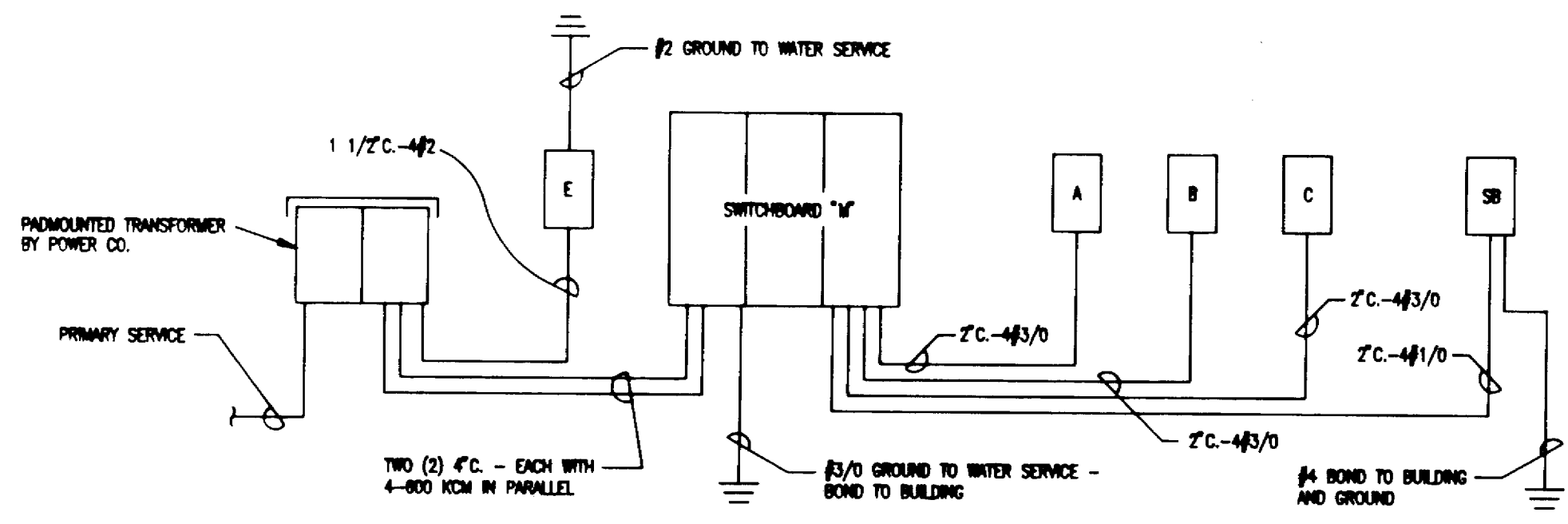


2 ROW RADIATION PIPING SCHEMATIC
NO SCALE

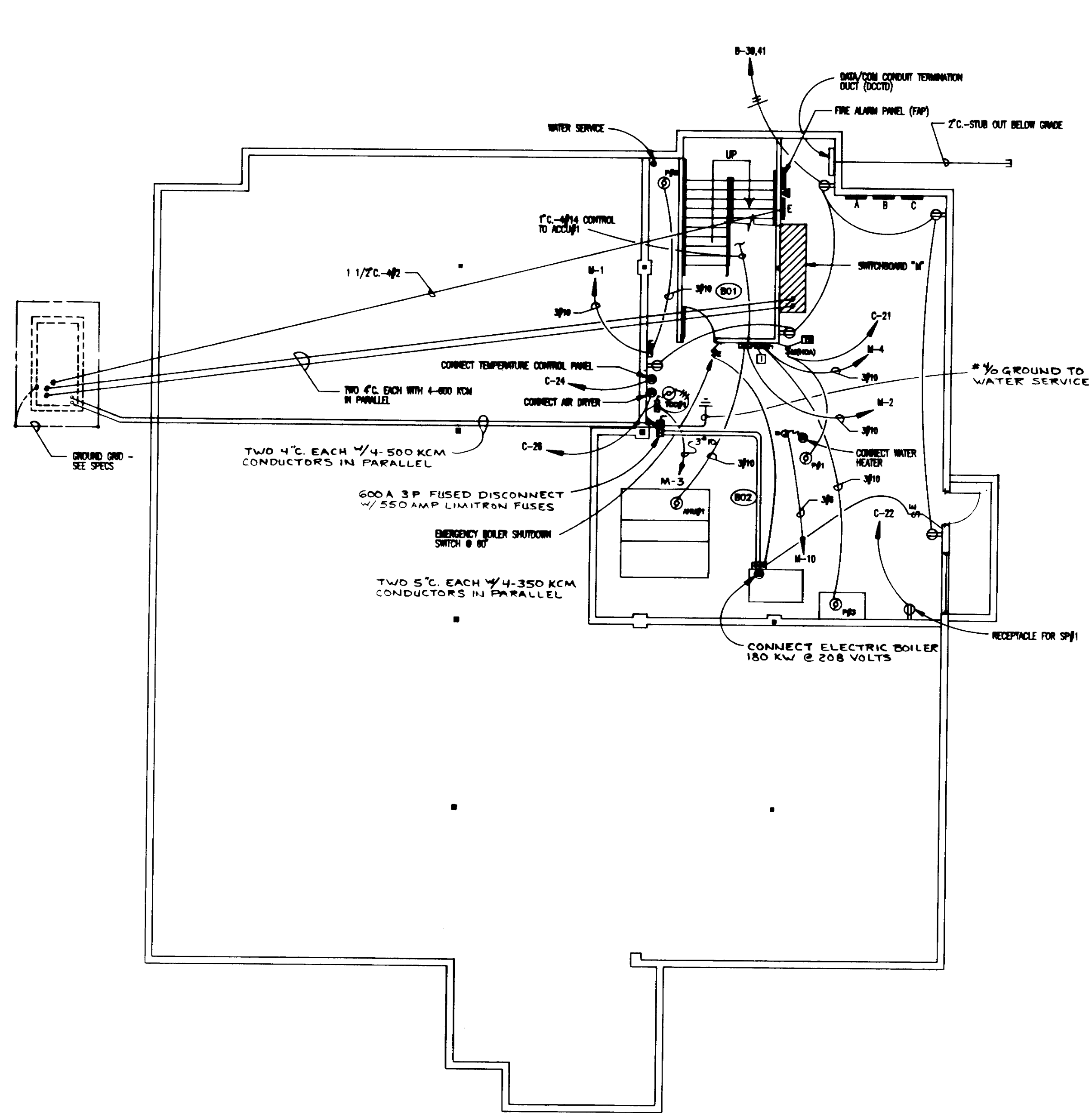


C.U.H. PIPING SCHEMATIC
NO SCALE

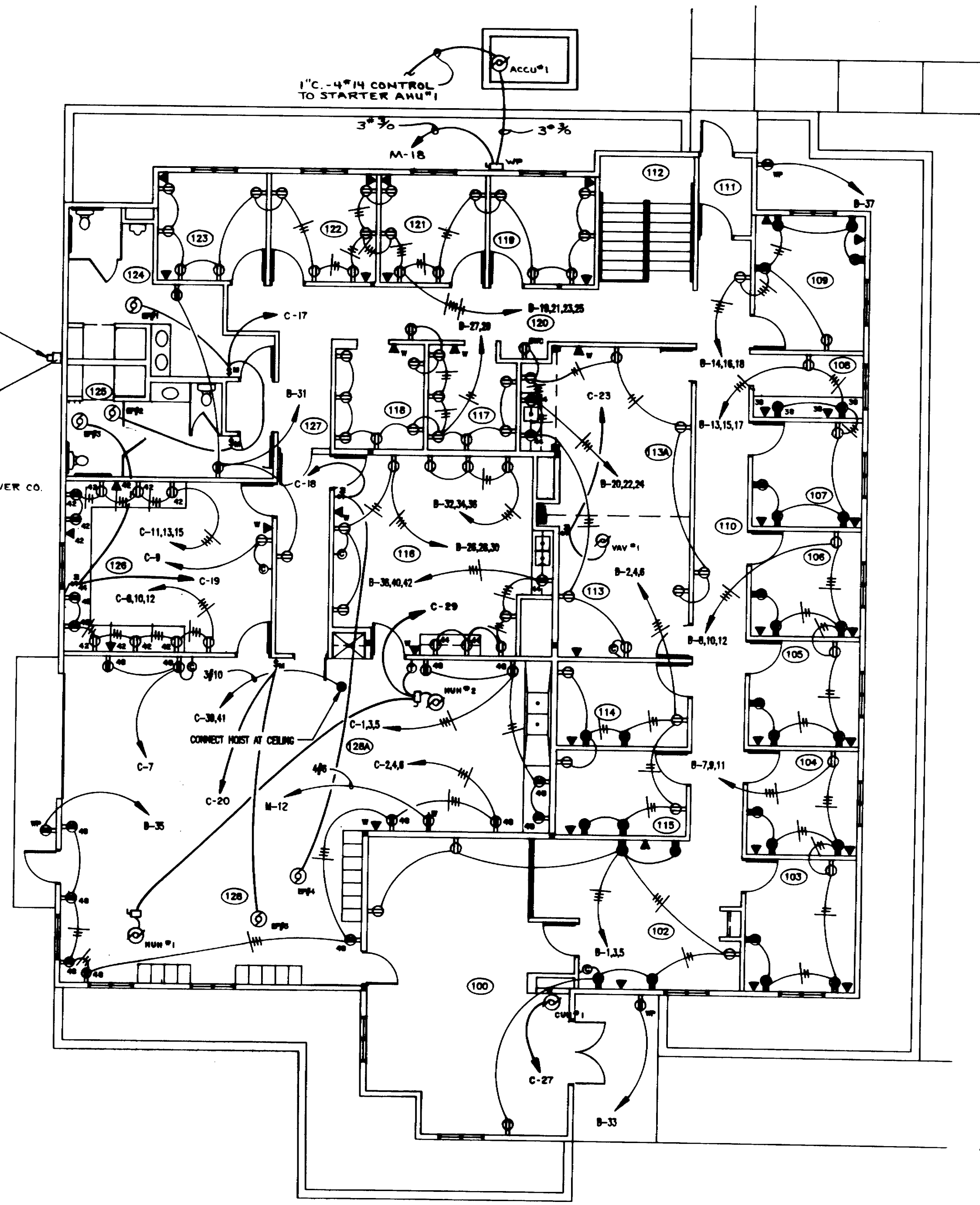
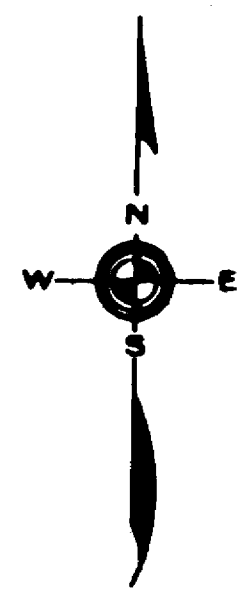
<p align="center">ROY, GIBBELL & EVERSON Architects</p>			
<p align="center">KOCH HAZARD BALTZER LTD Architecture • Planning • Interiors</p>			
<p align="center">431 NORTH PHILLIPS AVENUE, SUITE 200 SIOUX FALLS, SOUTH DAKOTA 57102-0180 PHONE (605) 336-3718 FAX (605) 336-0438</p>			
DRAWN BY: TL	APPROVED BY: RLR,RAO,RCB	DATE: APRIL 12, 1994	PROJECT NO: 0211
REVISION: 08/18/94	BY: 4/16/95	COPYRIGHT: 	CADD REF. NO.:
SHEET TITLE: SCHEDULES & DETAILS		AS SHOWN 	DRAWING NO: M-7
PROJECT: GAME FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD OFS #0PE310011			
			OF: 7



POWER RISER DIAGRAM
NO SCALE



BASEMENT FLOOR PLAN - POWER
SCALE: 1/8" = 1'-0"

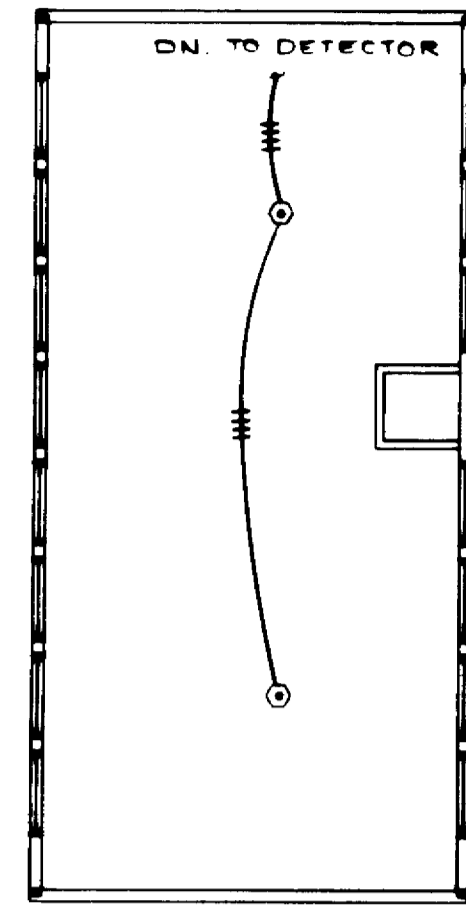


FIRST FLOOR PLAN - POWER
SCALE: 1/8" = 1'-0"

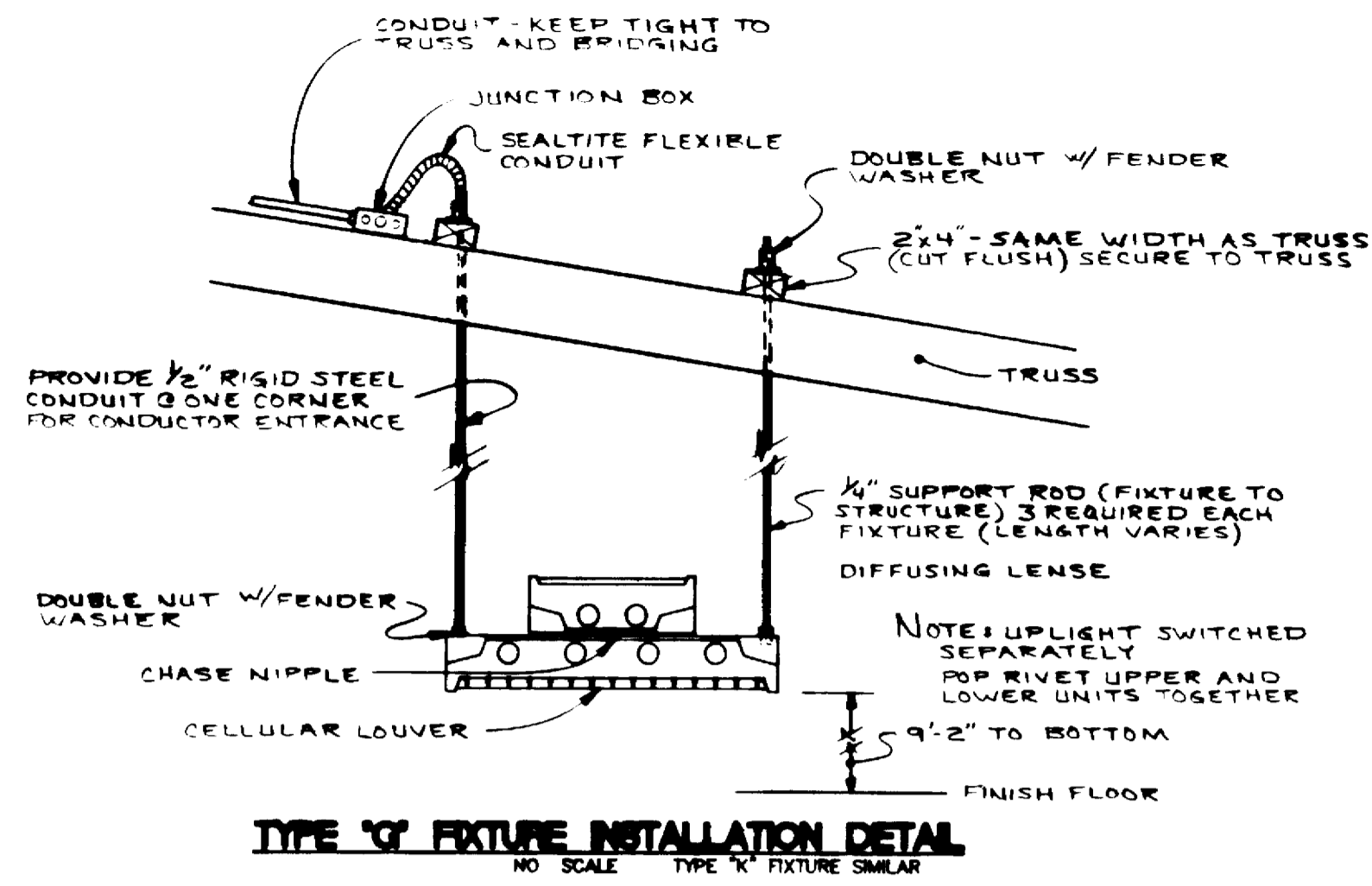
ROOM SCHEDULE

- 801 STAIR
- 802 MECHANICAL ROOM
- 100 LOBBY
- 101 DELETED
- 102 RECEPTION
- 103 OFFICE SUP.
- 104 BIO. OFFICE
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- 121 BIO. OFFICE
- 122 BIO. OFFICE
- 123 BIO. OFFICE
- 124 MEN'S RESTROOM
- 125 WOMEN'S RESTROOM
- 126 DRY LAB
- 127 CORRIDOR
- 128 SHOP
- 128A SHOP

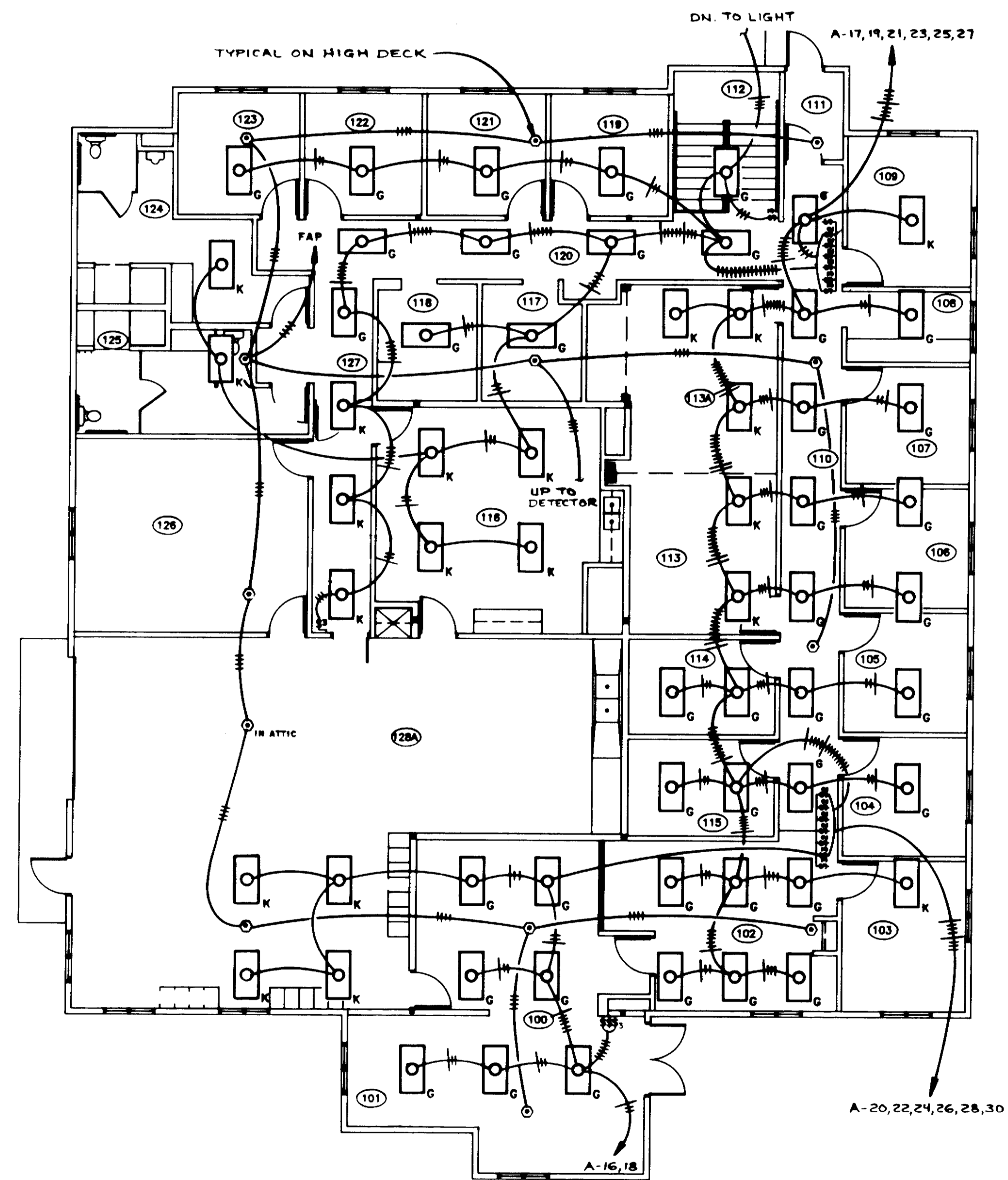
ROBY, CURTAL & EVERSON		SIOUX FALLS, SOUTH DAKOTA	
KOCH HAZARD BALTZER LTD			
Architecture • Planning • Interiors			
431 NORTH PHILLIPS AVENUE, SUITE 200 SIOUX FALLS, SOUTH DAKOTA 57102-0180 PHONE (605) 336-3718 FAX (605) 336-0438			
DRAWN BY: J.D.F.	APPROVED BY: B.C.	DATE: APRIL 12, 1994	PROJECT NO: 8211
REVISED: 08/18/94	REVISED: 4/6/95	COPYRIGHT	CADD REF. NO.
SHEET TITLE: FLOOR PLANS - POWER		AS BUILT 8/8/98	DRAWING NO: E-3
PROJECT: DAVE FISHER'S RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD. O/S #263310011			OF: 4



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



TYPE 'X' FIXTURE INSTALLATION DETAIL
NO SCALE TYPE 'X' FIXTURE SIMILAR



UPPER AREA - LIGHTING
SCALE: 1/8"=1'-0"

PANEL A									
120/208V/3 PH/4 WIRE (SURFACE MOUNT) 225 AMP MAIN LUGS									
LOAD	P	CR BKR	CR NO.	PH	CR NO.	CR BKR	P	LOAD	
2P	1	20	1	A	2	20	1	3B	
3P	1	20	3	B	4	20	1	3B	
SPARE	1	20	5	C	6	20	1	3B	
6E-2F	1	20	7	A	8	20	1	3B	
8A	1	20	9	B	10	20	1	4B	
8A	1	20	11	C	12	20	1	8A	
3H	1	20	13	A	14	20	1	4A-1J	
TRACK LIGHTS	1	20	15	B	16	20	1	30-1P	
80(DH)	1	20	17	C	18	20	1	4G-2K	
70(DH)	1	20	19	A	20	20	1	90(DH)	
150(UP)	1	20	21	B	22	20	1	90(DH)	
4K	1	20	23	C	24	20	1	100(DH)	
4K	1	20	25	A	26	20	1	180(UP)	
2A	1	20	27	B	28	20	1	100(UP)	
2A	1	20	29	C	30	20	1	3K	
SPARE	1	20	31	A	32	20	1	SPARE	
SPARE	1	20	33	B	34	20	1	SPARE	
SPARE	1	20	35	C	36	20	1	SPARE	
SPARE	1	20	37	A	38	20	1	SPARE	
SPARE	1	20	39	B	40	20	1	3M	
SPARE	1	20	41	C	42	20	1	2D-1C	

PANEL B									
120/208V/3 PH/4 WIRE (SURFACE MOUNT) 225 AMP MAIN LUGS									
LOAD	P	CR BKR	CR NO.	PH	CR NO.	CR BKR	P	LOAD	
3 RECEPTACLES	1	20	1	A	2	20	1	4 RECEPTACLES	
3 RECEPTACLES	1	20	3	B	4	20	1	4 RECEPTACLES	
3 RECEPTACLES	1	20	5	C	6	20	1	4 RECEPTACLES	
5 RECEPTACLES	1	20	7	A	8	20	1	5 RECEPTACLES	
5 RECEPTACLES	1	20	9	B	10	20	1	5 RECEPTACLES	
5 RECEPTACLES	1	20	11	C	12	20	1	6 RECEPTACLES	
3 RECEPTACLES	1	20	13	A	14	20	1	4 RECEPTACLES	
4 RECEPTACLES	1	20	15	B	16	20	1	4 RECEPTACLES	
4 RECEPTACLES	1	20	17	C	18	20	1	3 RECEPTACLES	
5 RECEPTACLES	1	20	19	A	20	20	1	3 RECEPTACLES	
5 RECEPTACLES	1	20	21	B	22	20	1	3 RECEPTACLES	
5 RECEPTACLES	1	20	23	C	24	20	1	4 RECEPTACLES	
5 RECEPTACLES	1	20	25	A	26	20	1	1 RECEPTACLE	
6 RECEPTACLES	1	20	27	B	28	20	1	1 RECEPTACLE	
7 RECEPTACLES	1	20	29	C	30	20	1	1 RECEPTACLE	
4 RECEPTACLES	1	20	31	A	32	20	1	1 RECEPTACLE	
1 RECEPTACLE	1	20	33	B	34	20	1	1 RECEPTACLE	
1 RECEPTACLE	1	20	35	C	36	20	1	1 RECEPTACLE	
1 RECEPTACLE	1	20	37	A	38	20	1	2 RECEPTACLES	
3 RECEPTACLES	1	20*	39	B	40	20	1	2 RECEPTACLES	
3 RECEPTACLES	1	20*	41	C	42	20	1	1 RECEPTACLE	

* - (GF) GROUND FAULT INTERRUPTER

PANEL C									
120/208V/3 PH/4 WIRE (SURFACE MOUNT) 225 AMP MAIN LUGS									
LOAD	P	CR BKR	CR NO.	PH	CR NO.	CR BKR	P	LOAD	
2 RECEPTACLES	1	20	1	A	2	20	1	2 RECEPTACLES	
2 RECEPTACLES	1	20	3	B	4	20	1	3 RECEPTACLES	
2 RECEPTACLES	1	20	5	C	6	20	1	3 RECEPTACLES	
2 RECEPTACLES	1	20	7	A	8	20	1	2 RECEPTACLES	
1 RECEPTACLE	1	20	9	B	10	20	1	2 RECEPTACLES	
2 RECEPTACLES	1	20	11	C	12	20	1	2 RECEPTACLES	
2 RECEPTACLES	1	20	13	A	14	20	1	SPARE	
2 RECEPTACLES	1	20	15	B	16	20	1	SPARE	
EF#1,EF#2	1	20	17	C	18	20	1	EF#4	
EF#3	1	20	19	A	20	20	1	EF#5	
EF#1	1	20	21	B	22	20	1	SP#1	
VAV#1	1	20	23	C	24	20	1	TEMP. CONTROL PANEL	
SPARE	1	20	25	A	26	20	1	AIR DRYER	
CUM#1	1	20	27	B	28	20	1	SPARE	
HUM#1, HUM#2	1	20	29	C	30	20	1	SPARE	
SPARE	1	20	31	A	32	20	1	SPARE	
SPARE	1	20	33	B	34	20	1	SPARE	
SPARE	1	20	35	C	36	20	1	SPARE	
SPARE	1	20	37	A	38	20	1	SPARE	
SPARE	1	20	39	B	40	20	1	SPARE	
HOST	2	20	41	C	42	20	1	SPACE	

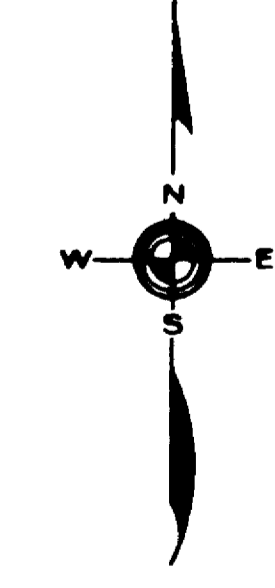
PANEL SB									
120/208V/3 PH/4 WIRE (SURFACE MOUNT-STORAGE BUILDING) 100 AMP MAIN BREAKER									
LOAD	P	CR BKR	CR NO.	PH	CR NO.	CR BKR	P	LOAD	
SPARE	1	20	1	A	2	20	1	SPARE	
SPARE	1	20	3	B	4	20	1	SPARE	
SPARE	1	20	5	C	6	20	1	SPARE	
SPARE	1	20	7	A	8	20	1	SPARE	
SPARE	1	20	9	B	10	20	1	SPARE	
SPARE	1	20	11	C	12	20	1	SPARE	
SPARE	1	20*	13	A	14	20*	1	SPARE	
SPARE	1	20*	15	B	16	20*	1	SPARE	
SPARE	1	20*	17	C	18	20*	1	SPARE	
SPACE			19	A	20			SPACE	
SPACE			21	B	22			SPACE	
SPACE			23	C	24			SPACE	
SPACE			25	A	26			SPACE	
SPACE			27	B	28			SPACE	
SPACE			29	C	30			SPACE	

* - (GF) GROUND FAULT INTERRUPTER

PANEL E									
120/208V/3 PH/4 WIRE (SURFACE MOUNT) 60 AMP MAIN BREAKER									
LOAD	P	CR BKR	CR NO.	PH	CR NO.	CR BKR	P	LOAD	
FIRE ALARM	1	20	1	A	2	20	1	EXIT LIGHTS	
FIRE ALARM	1	20	3	B	4	20	1	EXIT LIGHTS	
SPARE	1	20	5	C	6	20	1	EXIT LIGHTS	
SPARE	1	20	7	A	8	20	1	EXIT LIGHTS	
SPACE			9	B	10			SPACE	
SPACE			11	C	12			SPACE	

FIXTURE SCHEDULE				
TYPE	MANUFACTURER	CATALOG NO.	LAMPS	REMARKS
A	BENJAMIN	SG244-SR100R	4-F32T8	RECESSED - LAY-IN
B	BENJAMIN	FLB2125-BU	2-FW6T12-800	SURFACE - ON CS900-B
C	BENJAMIN	WL194S-PE	1-LU150	WALL MOUNT @ 18'-0"
D	BENJAMIN	WL570S-PE	1-LU70	WALL MOUNT AS SHOWN
E	BENJAMIN	SD142-P14	2-F32T8	
F	BENJAMIN	WB230-WO	2-F32T8	WALL MOUNT BOTTOM 2" ABOVE MIRROR
F1	BENJAMIN	WB240-WO	2-F32T8	WALL MOUNT BOTTOM 2" ABOVE MIRROR
G	BENJAMIN	CMB-SB244-APF3770	6-F32T8	SUSPEND FROM STRUCTURE - SEE DETAIL (TOP LAMPS SWITCHED SEPARATELY)
H	HEORAY	15/2x2-572-12	12-F32T8	WALL MOUNT @ 7'4" UNLESS NOTED
J	ALICO	3247	2-F32T8	MOUNT UNDER TOP CABINET
K	BENJAMIN	CMB-SB244-SFS150	4-F32T8	INVERTED ABOVE CEILING-UP LIGHT
L	BENJAMIN	WR3-4W	3-F32T8	MOUNT IN HOOD
M	EMCO	AFS150MHR	1-W150	ON 12"x12"x48" CONCRETE BASE-SEE DETAIL
P	BRYANT	S228	1-150	PORCELAIN SOCKET
P1	BRYANT	S288	1-150	PORCELAIN SOCKET - PULL
X	DAYRITE	ERSOC-6R	2-FWIT	EXIT-CEILING
X1	DAYRITE	ERSOW-6R	2-FWIT	WALL MOUNT @ 7'-6"
X2	DAYRITE	ERSOW-AL	2-FWIT	WALL MOUNT-ARROW LEFT
X3	DAYRITE	ERSOE-6F	2-FWIT	WALL MOUNT-END
X4	DAYRITE	ERSOW-AR	2-FWIT	WALL MOUNT-ARROW RIGHT

SWITCHBOARD M									
120/208V/3 PH/4 WIRE 800 AMP MAIN SWITCH									
LOAD	P	CR BKR	CR NO.	PH	CR NO.	CR BKR	P	LOAD	
DOMESTIC WATER (P#2)	3	30	1	A	2	30	3	AW#1	
TOC#1	3	30	3	B	4	30	3	P#3	
SPARE	3	30	5	C	6	30	3	SPARE	
SPARE	3	60	7	A	8	60	3	SPARE	
SPARE	3	60	9	B	10	60	3	WATER HEATER	
SPARE	3	60	11	C	12	60	3	WELDER OUTLET	
STORAGE SHED	3	100	13	A	14	100	3	SPARE	
PANEL A	3	200	15	B	16	200	3	PANEL B	
PANEL C	3	200	17	C	18	200	3	ACCU#1	



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DRAWN BY JO.FX	APPROVED BY BE	DATE APRIL 12, 1994	PROJECT NO 9211
REVISED 09/18/94	REVISED 4/6/95	COPYRIGHT	CADD REF. NO.
SHEET TITLE FLOOR PLANS - LIGHTING/FIRE DETECTION AND SCHEDULES AS BUILT 2/9/95			DRAWING NO E-4
PROJECT ONE FISHERIES RESEARCH CENTER DEPARTMENT OF GAME, FISH & PARKS PIERRE, SD 57501-0011			OF 4

Description Of Work

The work on this project consists of installation of sub-drains, storm drains, roof drains, gravel surfacing, concrete paving as well as furnishing of apparatuses, equipment, labor, and fuel to complete the project. All work involved with this project is covered by the South Dakota Department of Transportation Standard Specifications for Roads and Bridges, 2004 Edition, and any supplemental specifications and errata thereto adopted. The specifications will be modified as stated below:

- Precautions will be exercised at all times for the protection of all persons and property.
- All Federal Safety Standards will be abided by as an effect and enforced by OSHA.
- All requested samples will be furnished to the Owner and/or Engineer.
- Contractor will be responsible for compliance with South Dakota Department of Environment and Natural Resources storm water permit requirements.

Rough excavation

Generally, rough excavation will be done by backhoes, trenching machines, draglines or any other excavating equipment, which the Contractor decides can do the job efficiently and do the least amount of damage to existing property. Rough excavation will be deep enough to provide room for the installation of three inches of pipe embedment material as specified.

Trenches will be of sufficient width to provide ample hauling space for men engaged in handling pipe and making joints. The banks of the pipe trench will be as near vertical as allowed for safety in conformance to governing laws. Care should be taken not to over-excavate.

Geotextile Fabric

There may be unstable subgrade areas. The need for geotextile fabric and/or geogrid will be decided by the Architect. The quantity included is an estimated amount and may be varied due to field conditions. The geotextile fabric will conform to the minimum property requirements listed below and approved by the engineer:

Geotextile Fabric shall be according to Geotextile Separator, Woven or Non Woven according to Section 831.1 of the SD Standard Specifications.

Property/Unit/Est Method/Type 1114	Puncture Resistance lbs ASTM D-4833 50
Fabric Weight oz/yd ASTM D-3776 4.0	Mullen Burst Strength psi ASTM D-3786 190
Thickness mils ASTM D-1777 35	Water Flow Rate gpm/ft ASTM D-4491 150
Grab Strength lbs ASTM D-4632 100	Permeability cm/sec ASTM D-4491 2.01
Grab Elongation % ASTM D-4632 40	Porosity cm/sec ASTM D-4491 0.28
Trapezoid Tear Strength lbs ASTM D-4533 40	AOS sieve size ASTM D-4751 30 (30 mm)

Subbase Gravel - Digouts

The contractor furnished and installed Subbase Gravel Material will be used for Digouts, or on the project as directed by the engineer/owner. Subbase Material for the backfill of digouts shall be placed at the rate of 1.9 tons per cubic yard. Subbase Material will be placed and compacted to a minimum depth of 12" under the geogrid fabric.

Subbase material shall conform to Section 312000 of the specifications.

Geogrid - Digouts

The Geogrid for subgrade stabilization shall be a bi-axial polyester fabric for base course reinforcement with a minimum ultimate tensile strength of 2,000 #/ft (ASTM D6637). Geogrid shall be BasGrid 11 by Mirafi, or an approved equal. The fabric shall be overlapped a minimum of 1' where it is not able to cover an area with one piece of fabric. Payment will be made for the area covered, no additional payment will be made for the overlap of fabric along the edges.

Subgrade Preparation

After the Stockpiled Processed in Place Asphalt and Gravel is removed and stockpiled, the parking lots shall be shaped to subgrade elevation. The subgrade shall be compacted to 95% Standard Proctor prior to placement of the Salvaged Processed in Place Asphalt and Gravel material.

Asphalt Surfacing

Asphalt Concrete, Class E, 2 Lifts - 3.5" minimum total thickness PG 58-28 Binder, or approved equivalent shall be used in any areas necessary to the existing asphalt to new sidewalks, asphalt paving, or approaches.

Base Course Gravel

8" nominal thickness

The contractor shall furnish and install Base Course to be used on the project as directed by the engineer/owner. Base Course shall be placed under any areas to be patched with Asphalt. Base Course shall be furnished by the Contractor shall conform to Section 312000 of the Specifications.

Asphalt For Tack & Flush

Emulsified asphalt SS-1H or CSS-1H Tack shall be applied prior to all asphalt concrete paving being placed on all surfaces to be paved. Tack is needed along the cut edges of all digouts. The tack shall be a 50-50 measure of emulsified asphalt and water. No payment shall be made for the water.

Emulsified asphalt SS-1H or CSS-1H Flush shall be applied as a final surface on all asphalt concrete surfaces. The tack and flush seal rate = 0.10 gallons per square yard. The flush shall be a 50-50 measure of emulsified asphalt and water. No payment shall be made for the water.

Sand for flush seal shall be applied at a rate = 8 pounds per square yard. The sand shall be left in place for a minimum of 24 hours, then shall be broomed from the center of the parking areas to the edges with excess picked up and removed by the Contractor.

All asphalt certificates & samples, and aggregate samples must be submitted to the project engineer prior to application.

Sand for flush seal shall be furnished by the Contractor. The sand application shall be placed immediately behind the distributor.

The loose sand material left on the surface shall be lightly broomed and picked up after waiting a minimum period of twenty-four hours from the time of application but loose material swept and removed prior to pavement marking application or as otherwise ordered by the Engineer.

Water For Compaction Of Materials

Cost of water for compaction of all granular materials shall be considered incidental to the placement of the Granular Materials. Three percent, plus or minus of optimum, moisture shall be required at the time of compaction unless otherwise directed by the Engineer.

The grading consists of site and parking lot grading. There is an estimated 8,300 CuYd of unclassified excavation for the construction of the parking lots and retaining walls.

Water for Embankment is estimated at the rate of 15 gallons of water per cubic yard of Embankment. Water will be considered incidental to the grading bid items.

Compaction will be according to the Specified Density Method.

Concrete Surfacing

Concrete Surfacing shall be 6" thick, and shall conform to Section 321313 of the specifications.
4" Gravel Cushion Nominal Thickness
Grade 60 Deformed Steel Reinforcement, #4, 24" C-C

Gravel Cushion

The contractor shall furnish and install Gravel Cushion to be used on the project as directed by the engineer/owner. Gravel Cushion will also be placed and compacted to the minimum thickness under the concrete Surfacing. Gravel Cushion shall be furnished by the Contractor shall conform to Section 312000 of the Specifications.

Concrete

The following requirements will apply to all M6 concrete as per South Dakota Standard Specifications for Roads & Bridges

- Minimum 50% Coarse Aggregate by weight
- Minimum 600 pounds of cement per cubic yard
- 4000 psi compressive strength at 28 days
- Slump at time of placement between 1 and 4.5 inches
- Entrained air shall be from 5.0 to 7.5 percent
- Water / Cement ratio not to exceed 0.45
- Type II Cement will be used
- Rebar will conform to ASTM A615 Grade 60

A mix design will be supplied to the Engineer prior to any concrete placement

All PCC pavements will have a final finish and will be cured with pure linseed oil, or base emulsion compound in accordance with the standard specifications. All locations where new PCC pavement is to be placed against existing pavement will be sawcut.

Dowels or tie bars will be minimum #5 rebar spaced 48" center to center, or #4 rebar spaced 30" center to center. Minimum length of dowel or rebar will be 24 inches with a minimum of 12" embedded on either side of the joint for #5 and 30 inches with a minimum of 18" embedded on either side of the joint for #4.

Construction joints may be dowelled or tied. Minimum #6 rebar spaced 18" center to center will be used. Minimum length of dowel or rebar will be 18 inches with a minimum of 9" embedded on either side of the joint.

Construction joints shall be tied with minimum #6 rebar spaced 18" center to center. Minimum length of dowel or rebar will be 18 inches with a minimum of 9" embedded on either side of the joint.

Sawcuts will be a minimum of 1/4th of the slab thickness deep. All joints will be filled with hot poured elastomeric joint sealer or silicone based sealer to within 1/2" of the finished surface.

The cost for all saw-cutting, joint sealing, curing, backfilling, and incidental items to complete the concrete will be included in the unit prices.

Concrete Flatwork

Concrete for Flatwork will conform to Section 321313 of the Specifications.

A construction joint will be installed in the new concrete sidewalk every 5' and in the curb & gutter every 10'. All concrete will be cured with pure linseed oil, base emulsion compound in accordance with the standard specifications. The cost for all saw-cutting, joint sealing, curing, backfilling and incidental items to complete the concrete will be included in the unit prices for each concrete bid item.

Expansion joint board will be used every 100 linear feet of sidewalk, as directed by the Engineer.

Excavation for the concrete shall be incidental. Install and compact a minimum of 4" of gravel cushion or base course prior to the placement of any concrete. The cost of the gravel is absorbed in the cost of the concrete sidewalk.

The foundation under the flatwork shall be excavated, shaped, and compacted to a firm, uniform bearing surface. Unsuitable foundation material shall be removed and replaced as directed. The foundation shall be thoroughly moistened immediately prior to placing concrete. Cushion material shall be placed to the depth specified and satisfactorily compacted. Forms shall be made of wood not less than two inches nominal thickness or of steel of equal rigidity. Flexible strips may be used on curves. The forms shall be securely held to line and grade and shall not deviate more than 1/8 inch from an accurate template 10 feet in length. The forms shall remain in place for not less than 12 hours after concrete placement.

Joint and edging tools shall have an approved 1/4 inch (6 mm) radius. Immediately after the water sheen has disappeared the concrete shall be brushed or broomed to slightly roughen the surface and remove tool marks.

Construction joints shall be placed at intervals that will provide square sections. The construction joints shall be formed by a grooving tool or sawed to a depth of at least one-third the thickness of the sidewalk. When the sidewalk is 8 feet or greater in width, a longitudinal joint shall be provided at the center. Expansion joints shall be constructed of 1/2 inch Preformed Expansion Joint Filler at a maximum spacing of 100' or at the locations and of the dimensions specified on the plans. When adjacent to buildings, provide a double thickness of Preformed Expansion Joint Filler at the back of the sidewalk. All other obstructions will require 1/2 inch, Preformed Expansion Joint Filler, as directed by the Engineer. The expansion joint filler shall be placed the full depth of the sidewalk. Concrete sidewalks shall be protected and cured. The minimum curing time shall be 72 hours. After the curing period, the area adjacent to new sidewalk shall be filled to the required elevation with suitable material. The material shall be compacted to the same degree as the adjacent embankment or ground surface.

Traffic Control

The Contractor will provide barricades to close the sites to traffic. The contractor is to place the barricades at the road entrance, and maintain these barricades and ensure that they are in place until the project is complete. Traffic control shall conform to MUTCD, 2003 Edition. Traffic Control shall be maintained through out the project in accordance with Section 4.4 of the Standard Specifications for Roads and Bridges, 2004 Edition, and Plan Notes pertaining thereto. Barricades and signing will be provided and maintained by the contractor. The area adjacent to the retaining wall construction shall be protected from access to the public by orange safety fence. This shall be provided, maintained and removed by the Contractor.

The Contractor shall designate an employee whose primary responsibility is the maintenance of traffic. The person so designated must have training and experience in the field of construction traffic control and be knowledgeable about the Manual of Uniform Traffic Control Devices (MUTCD). The employee selected must be approved by the Engineer, provide this employee's name and a phone number to contact him/her 24 hours per day and 7 days per week, prior to any construction activities. Erect only those signs that are applicable to the work in progress. When the Contractor is working at specific work areas within the project, only those traffic control devices applicable to that operation should be displayed. Warning signs for pedestrians shall also be provided and maintained.

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the Owner. The Contractor shall contact the Engineer before closing any road or causing any obstruction to traffic, and furnish and erect suitable barricades and warning signs, as shown on the plans and directed by the Engineer. Traffic control signing may be modified by the Engineer to assure protection for the traveling public & pedestrians.

Storm Water Construction Permit

The Contractor is advised that the Contractor is responsible for submitting a Notice of Intent (NOI) to DENR for this project under the Phase II Storm Water Regulations.

The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, and are the responsibility of the Contractor.

A major component of the storm water construction permit is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). This plan is a joint effort and responsibility of the Owner and the Contractor. The SWPPP is a dynamic document and is to be available on-site at all times.

Information on storm water requirements and SWPPPs are available on the following websites:
DOT - http://www.addot.com/pe/projdev/environment_stormwater.asp
DENR - <http://www.state.sd.us/dem/DES/Surfacewaters/stormwater.htm>

The DENR Storm Water contact is Al Spangler, 1-800-SD STORM (1-800-737-8676)

Erosion Control

The following erosion control practices will be implemented on this site

1. Approximately 1000 LF Silt Fence will be placed around the perimeter of the site as shown on the Erosion Control Plan, and where necessary to prevent sediment from exiting the site.

Low Flow Silt Fence

The low flow silt fence fabric provided shall be from the list shown below

Low Flow Silt Fence Fabric
(Water Flow Range: 75-145 gal/min/sq ft)

Product Manufacturer
FF100Mirafi Construction Products
FF101Fendergrass, GA
FW402Phone: 1-706-693-2226
www.tcmirafi.com

2132 Amoco Fabrics and Fibers Co
Austell, GA
Phone: 1-800-445-7732
www.geotextile.com

111F Synthetic Industries
914 SC Chickamauga, GA
Phone: 1-800-635-2308
<http://sind.com>

Low flow silt fence shall be placed at the locations noted in the table and at locations that will minimize siltation of adjacent streams, lakes, dunes, or drainage areas as determined by the Engineer during construction.



Record Drawings
03/08/11

PROJECT NO.	DRAWN BY
SHEET NO.	SHEET NO.
DATE	CONVISED
03/08	
PROJECT	
MISSOURI WATER RESOURCES BLDG	
DEPT OF GAME FIS AND PARKS	
FORT PIERRE SOUTH-DAKOTA	
SHEET TITLE	
SITE	

C-1

Mucking Silt Fence

Mucking silt fence will consist of removing muck trapped by the silt fence and spreading the material evenly over the adjacent area to conform to the existing grade. The Contractor will remove muck when the surface of the muck is at approximately one-half the height of the silt fence.

Repair Silt Fence

The Contractor will inspect silt fence for damage once every two weeks and after each rainfall until vegetation is established.

Contractor Responsibility

Work activities shall be conducted during daylight hours only. During nights, weekends and other nonworking hours, all materials and equipment shall be removed from any traveled ways and shall be stored a minimum of 30 feet from the driving lanes.

All sites shall be maintained, including: trash picked up at the end of each day, no blocking of driveways, and no working in non-daylight hours without written permission from the Owner.

The Contractor shall ensure that the foreman on the project site and each subcontractor shall have a set of plans on site during any construction activities. The Architect/Owner will have the authority to stop construction activities if the Contractor or subcontractor does not have plans and reasonable supervision on site during any construction activities.

Contractor shall barricade work areas as needed to prevent damage to prepared grades and new asphalt and concrete.

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

The Contractor will submit shop drawings, product data and samples for all equipment and materials used to successfully complete the Project. All material and equipment shall be approved for use by the Engineer before installation or application.

Shop Drawings will be submitted in sufficient detail to show the type, size, arrangement and function of all components. Details will refer to plan sheet number, specification section, schedule, or other reference to the Contract Documents. Product data will clearly show the pertinent product, model number, size, performance characteristics, connections, anchorages and other data necessary to evaluate compliance with project requirements. Delete extraneous information not applicable to work.

Supplement with additional information where standard literature or drawings do not provide information specifically applicable to the work. Submit samples in sufficient size or quantity to fully illustrate characteristics, color, texture, pattern and details of the product.

The Contractor will review all shop drawings and samples prior to submission in order to verify complete conformance of the submittal with project requirements. All field measurements will be verified by the Contractor before submittals and any variation from the project requirements will be identified and brought to the attention of the Engineer. The Contractor shall inform the Engineer of any variation from the project requirements, in writing. Submit shop drawings, product data and samples in strict accordance with the project schedule. Submit three (3) copies for review and approval by the Engineer. The Engineer shall return one (1) copy so that the Contractor may use and distribute needed copies to subcontractors, suppliers, etc. Coordinate with the Engineer for quantities or volumes of samples required.

Each submittal will contain the following minimum information:

- Date of submission.
- Project title
- Contractor's name.
- Supplier or manufacturer's names and addresses.
- Identification of product with reference to specification number and/or plan sheet.
- Field measurements and dimensions.
- Reference to applicable standards such as AWWA, ASTM, etc.
- Clear identification of deviations from Contract Documents.
- Contractor's stamp certifying their review and verification of all criteria and field measurements. Stamp must be signed and dated.

The Engineer will review submittals and mark as "No Exceptions Noted", "Exceptions Noted - Resubmittal Not Required", "Rejected - Resubmit", or "For Record Only". One (1) copy will be retained for the Engineer's use, with all other copies returned to the Contractor. If resubmission is required, the Contractor will make the necessary corrections and make an entirely new submittal with the same number of copies as required for an initial submittal. Resubmitted data must clearly show changes other than those requested by the Engineer. The Engineer will review submittals with reasonable promptness and in accordance with the submittal schedule. The Engineer will return without review any material not submitted directly from the Contractor, such as submittals from subcontractors or suppliers.

The Engineer will assume no responsibility for the correctness, dimensional accuracy or completeness of submittals. The Engineer's review will in no way relieve the Contractor of his responsibility to furnish materials and products in compliance with the Contract Documents. Unless deviations from Contract Documents are clearly identified in the submittal, the Engineer's review does not constitute an acceptance by the Engineer.

EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITY SYSTEM(S)

The work to be accomplished under this section will include the furnishing of all labor, tools, material and equipment necessary to complete and install pipelines and fittings in accordance with the plans. This will include all trenching, pipe, granular bedding and encasement, concrete encasement, backfill, fittings, jointing, testing, flushing, and other incidentals to complete the installation. **All excavations shall be in accordance with 29 CFR 1926, Subpart P and all other associated OSHA regulations.**

Locate Utilities

The utility Owners will adjust utilities within the limits of the proposed construction unless otherwise indicated on these plans. The Contractor shall adhere to section 5.6 of the SD DOT Standard Specifications and will refer to the note and list of utility Owners in the proposal.

Phone numbers of local utilities are:

South Dakota One Call	1-800-781-7474
Water, Sewer, and Electric	773-7407
City of Pierre	224-0947
Montana Dakota Utilities Co	1-800-573-1311
U.S. West	(Repair Service)
Midco Cable TV	1-800-456-0546

Trench excavation

The Contractor will not open more trench in advance of pipe placement than is necessary to expedite the work. In the event that pipe placement is stopped for any cause, 300 feet will be the maximum length of open trench allowed on any line under construction.

Under ordinary conditions, excavation will be open cut from the surface. Material suitable for backfilling will be piled in an orderly manner, a sufficient distance from the banks of the trench to avoid overloading and to prevent slides or cave-ins. All excavated material that is not required or suitable for backfill will be removed and wasted, as directed by the Engineer. Any material loaded and hauled from the project will be done by, and at the expense of the Contractor. The cost of this material removal will be considered incidental to other items.

All material will be deposited along the trench, in a manner that will cause the least inconvenience to the public and to be consistent with the rapid and economical handling of the work.

Dewatering of trenches

Pipe trenches will be kept free from water during excavation, fine grading, pipe placement and jointing, and pipe embedment operations in an adequate and acceptable manner. Where the trench bottom is muddy or otherwise unstable because of the presence of ground water, and in all cases where the static ground water elevation is above the bottom of any trench or bell hole excavation, such ground water will be lowered by means of well points and pumps or by other means acceptable to the Engineer, to the extent necessary to keep the trench free from water and the trench bottom stable at all times when work within the trench is in progress. The disposal of wastewater from trench dewatering operations will be subject to the approval of the Engineer at all times, such wastewater will be piped to existing drainage ditches, channels or drains. Surface water will be diverted to prevent it from entering trenches to the greatest extent practical without damage to adjacent property from dikes, ditches, or impounded water. The Contractor will be responsible for any damage occurring from disposal of water. Trenches for utilities will be de-watered to an elevation of at least one (1) foot below the pipe invert elevation.

A general dewatering permit is required when a discharge from dewatering, flushing, or pressure testing could reach waters of the State (stream, river, or other waterway). To obtain information on the general dewatering permit, contact Al Spangler, SDDENR, (605) 773-3351.

All costs incurred for trench dewatering including pumping, well points, equipment, labor, and permit fees will be included in the contract unit price of pipe being installed.

Unstable Trench Material

If unstable material is discovered at the bottom of a trench, the trench will be undercut to a depth of fifteen (15) inches below the pipe invert elevation and backfilled with "Undercut Granular Material" to a depth of three (3) inches below the invert. From this elevation, normal pipe placement methods will be used.

Acceptable undercut granular material can be obtained from local sources and must be approved by the Engineer. Granular material for undercut will also meet the following specification:

- Screened material (not crushed)
- A 5% tolerance will be allowed on a 2" sieve.
- All material must pass a 2 1/2" sieve

Cost for excavation of unstable material and undercut granular material will be at the contract unit price, if included in the bid schedule, otherwise this cost will be negotiated, if needed, as determined by the Engineer.

Rough excavation

Generally, rough excavation will be done by backhoes, trenching machines, draglines or any other excavating equipment, which the Contractor decides can do the job efficiently with the least amount of damage to existing property. Rough excavation will be deep enough to provide room for the installation of three inches of pipe embedment material as specified.

Trenches will be of sufficient width to provide ample hauling space for men engaged in handling pipe and making joints. The banks of the pipe trench will be as near vertical as allowed for safety in conformance to governing laws. Care should be taken not to over-excavate.

Trenches will be excavated to a width that will provide adequate working space and pipe clearances for proper pipe installation, jointing, and embedment operations. To protect the pipe from external loads in excess of those used in the design of the pipe, it is necessary to limit the width of the lower portion of the trench. The bottom width of the trench will not exceed the outside diameter of the pipe bell plus twenty-four (24) inches. This width will be used from the bottom of the trench to an elevation of six (6) inches above the top of the pipe.

The trench bottom will conform to the grade or depth that the pipe is to be placed. Granular material will be properly graded and shaped prior to pipe placement. The granular material will provide uniform bearing and support at every point along the entire length of each pipe segment.

Except where trench banks are cut back on a stable slope to prevent caving or sliding, trenches will be properly and substantially braced and sheeted where necessary to provide adequate protection to workmen and to the pipeline during and after construction. Sheet piling will not be pulled unless the pipe strength is sufficient to carry trench loads based on the trench width to the back of the sheeting.

No timber or lumber used in trench bracing or sheeting will extend below the elevation of the top of the pipe, unless such timber or lumber is to be left in the trench permanently.

Generally, most of the trench's excavation will be backfilled with the in-situ material, except for the granular material as specified, and as shown in the plans. No rock will be placed in the trench within twelve (12) inches of the top and within six (6) inches of any other portion of the pipe.

Trenches will be backfilled to the ground surface from select material that is suitable for the specified compaction. Trenches improperly backfilled will be reopened to the depth required for proper compaction, then refilled and

compacted as specified, or the conditions will be otherwise corrected as approved by the Engineer. The final lift of backfill material will be salvaged topsoil. The surface will be restored as near as practical to its original condition.

The in-situ backfill material will be free from sticks, large roots, or other organic matter coarser than grass roots, stones, hard lumps, and clods, and will have moisture content such that optimum compaction is obtained when properly compacted.

In order to prevent future settlement of paving, sidewalks, driveways and utilities, it is imperative that the Contractor compacts uniformly, ensuring no compaction is carelessly omitted. The Contractor will be responsible for damage caused by future settlement due to improper compaction for one year of final completion of the project.

Whenever trenching or other excavations made by the Contractor on this project have not been properly backfilled, or where settlement has occurred at any time before the end of the project to the extent that the top of the backfill is below the original ground surface, trenches will be re-filled, smoothed and compacted to conform to the elevation of the adjoining ground surface.

Upon completion of the installation of the pipe, all debris and surplus materials resulting from the work will be removed. All ground surfaces at the site of the work will be machine and hand dressed as required, so as to leave the site of the work equal to or better than conditions were before any work was started.

Granular material

Acceptable granular material can be obtained from local sources and must be approved by the Engineer. Granular material for bedding and encasement will meet the following specification:

Screened material (not crushed)
As much variation in grain size as is practical
Free of lumps, rubbish, roots, cinders, and other objectionable material
The plasticity index (PI) will not exceed 12
No more than five (5) percent will be retained on a No. 4 sieve
No more than twenty (20) percent will pass a No. 100 sieve

Granular material placement

All piping will be bedded and encased in the following manner with granular material as specified above.

Prior to pipe placement, the granular material will be shaped as bedding. There will be a minimum of three (3) inches of granular material below the bottom of the pipe. In the event that after placing a pipe in the trench, it is found that the prepared trench bottom is not at the proper elevation, the pipe will be removed and the grade corrected. In no case will the pipe be raised from and dropped in the trench bottom for the purpose of lowering a subgrade that is too high.

Bell holes in the granular material will be dug after the trench has been graded. Each bell hole will be dug immediately prior to placing the pipe in the trench. Regardless of the type of joint, all bell holes will be of sufficient size and depth that the joints can be assembled properly with no part of the bell in contact with the trench bottom.

The granular material will be shaped after the pipe is laid so that the material will extend up the sides of the pipe a distance of 5/8 the pipe diameter. At this time the granular material will be compacted to provide uniform bearing along the entire length of the pipe.

After each pipe has been graded, aligned and placed in its final position, sufficient granular material will be deposited and compacted to maintain the pipe in proper position and alignment during subsequent pipe placement.

Granular material will be deposited in the trench in such a manner that it is scattered along the sides of the pipe and not dropped in compact masses. In addition, such material will be deposited and compacted uniformly and simultaneously on each side of the pipe in order to prevent lateral displacement of the pipe.

All pipe and pipe bells will be covered with a minimum of three (3) inches of granular material. The granular material will not be humped over the pipe, but will be level from one side of the trench to the other.

In backfilling trenches for sewer lines, the previously installed pipe section will be as nearly covered and compacted as practical before the subsequent section of pipe is in final position.

Payment for the granular material will be incidental to the cost of pipe installation.

Density and compaction requirements

The Contractor may use any mechanical compaction method that obtains the required density. The required density will be ninety-five (95) percent of the Standard Proctor (ASTM D 698, AASHTO T 99). Density tests will be run to determine whether adequate compaction in the backfill is being obtained. Tests may be taken at any time, at the discretion of the Architect. If the backfill material is deemed unsuitable to be placed back into the trench or if the Contractor is unable to reach the required density, granular material or select backfill shall be used in its place, as directed by the Engineer.

Any trench that does not meet full OSHA requirements for safety will not be tested for compaction. Areas that cannot be tested due to compromised or questionable safety standards will be considered to have a failing result.

Backfill will be compacted in successive layers not to exceed twelve (12) inches thick, or the thickness recommended by the manufacturer of the particular piece of compaction equipment being used, whichever is less.

When a single load pneumatic tamper is used, the backfill will be placed by hand on a horizontal plane in layers no deeper than six (6) inches and then thoroughly compacted. In this type of tamping, two workmen will be present with the tamper being continuously operated. This type of tamping will only be allowed in those areas not accessible to more heavy-duty type equipment, and will not be allowed on trench lengths over 40'.

Pipe Installation Care And Practices

The Pipe will be installed in accordance with AWWA C605-94. All pipe and allied items will be carefully transported to the site of the trenches and distributed in such a manner as to be convenient for laying, the pipe will be placed in such a manner as to afford as little inconvenience to the public as possible.



Record Drawings
03/08/11

PROJECT NO.	OWNER BY
REV. NO.	DATE
DATE	COPYING BY
NO. 309	PROJECT
MISSOURI RIVER FIBER-GLASS BLDG	
DEPT. OF GAME FIB. AND PARKS	
FORT PIERRE, SOUTH DAKOTA	
ISSUED TITLE	NO.

C-2

All pipe and fittings will be clean of all dirt and trash and will be thoroughly inspected before it is placed in the trench. All pipe and other materials that are to be used in the trench will be placed therein by a suitable and appropriate method. No materials used in the trench will be dumped into the trenches and subjected to damage during handling.

If the location is not clearly defined by dimensions on the drawings, a sewer line can not be closer than ten (10) feet horizontally to a water supply main or service line. If the bottom of the water pipe will be at least 18 inches above the top of the sewer pipe, the Engineer may reduce the horizontal spacing to a minimum of six (6) feet.

When gravity sewer crosses above water lines, the sewer pipe will be fully encased in a minimum of six (6) inches of concrete at all points, for a distance of ten (10) feet on each side of the crossing. Alternatively, the sewer pipe may be encased in pressure pipe, as approved by the Engineer, with no joint closer horizontally than six (6) feet to the crossing.

Water mains crossing sewer service connections, storm sewers or sanitary sewer mains will be laid to provide a separation of at least eighteen (18) inches between the bottom of the water main and the top of the sewer. Water main pipe shall be laid so both joints will be as far away from the sewer pipe as possible.

Prior to and during pipe placement, pipe will be protected against impact shocks and free fall. Pipe placement will proceed **upgrade** with the spigot ends of "bell and spigot pipe" and tongue ends of "tongue-and-groove pipe" turned upstream. Each pipe will be laid accurately to the line and grade shown in the plans. Pipe will be laid and centered so that the sewer has a uniform invert. As the work progresses, the interior of the sewer will be cleared of all superfluous materials. The trenches will be kept free of water and as dry as possible during placement and jointing, for as long a period as required.

Before making pipe joints, all surfaces of the portions of the pipe to be joined will be clean and dry. Lubricants, primers, and adhesives will be used as recommended by the pipe manufacturer. Joints will then be placed, fitted, jointed, and adjusted so as to obtain the required degree of water tightness.

As soon as possible after the joint is made, sufficient backfill material will be placed along both sides of the pipe to prevent pipe movement off line or grade.

When work is not in progress, open ends of pipe and fittings will be satisfactorily closed so that trench water or other unwanted material will not enter the pipe or fittings.

Pipe backfill shall not contain debris, frozen material, large clods or stones, organic matter, or other unstable material. Stones larger than 3 inches in diameter shall not be placed within 2 feet of the top of any pipe.

Waste Disposal Site

The Contractor will be required to furnish a site(s) for the disposal of construction/demolition debris generated by this project. Construction/demolition debris may not be disposed of within the City or State ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the General Permit for Highways, Road, and Railway Construction/Demolition Debris Disposal, as issued by the Waste Management Program, South Dakota Department of Environment and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as determined by the Engineer.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

Incidental Work, Grading

The Contractor will be required to furnish, install and later remove a temporary Safety Fence. The Safety Fence will be Orange Plastic Safety Fence with steel fence posts at 16' centers. The fence will have a minimum height of 42". The Contractor will maintain the fence in good condition and repair the fence as needed or as directed by the Engineer. All excavations shall be properly guarded and barricaded in the daytime. In the nighttime, excavations shall be further guarded by covering all open trench area with a rigid steel plate, or approved cover, suitable for covering the trench area as well as placing lights at the excavations, which shall be kept lit from sundown to sunrise.

The fence will remain the property of the Contractor after it's removed.

Water Service Pipe

All water service line shall be IPS, SDR-7, Pressure Rating 200 psi.

All polyethylene service pipe shall be manufactured from virgin PE 3408 resins. The pipe shall be manufactured in strict accordance with ASTM D2239 and approved by NSF for potable water applications. Service piping shall meet all requirements of AWWA C-901. Pipe shall be Sil-O-Flex by Silver Line Plastic, Inc., or approved equal.

Valves, Corporations, and Curb Stops

Corporation Valves and Curb Stops

Ball Curb Stops with compression ends shall be used. These curb stops shall be single piece bronze tee head and stem, Mueller Corporation Model H-15159 with Minneapolis top thread, or equal. Checks or stops cast in body shall allow ninety (90) degree motion and shall be enclosed and protected. Curb boxes shall be by Mueller Corp., or equal, and shall be extension type curb boxes for Minneapolis pattern curb stops. Lids shall have brass pentagon head plug.

Water services shall be reconnected behind the curb in the boulevard. The Contractor shall install a 3-part brass compression coupling with union ends.

Meter and Meter Pit

Service tap, meters and meter pit to be installed by others.

Ancillary Items

Bury Depth and Insulation

All services shall have a minimum of six feet of cover based on the final pavement or soil grade. Payment for all excavation for water main and services will be included in the contract unit price per bid item. The cost of any additional depth required for the connections to existing water mains or for installation below another utility, either existing or proposed, will be incidental to the bid item price.

Extruded polystyrene insulation will be used where earthen cover over the top of the pipe is less than 5.5 feet, including under new storm sewer pipe. Insulation will be a minimum of 2" thick and no less than 4" wide. The furnishing and installing of insulation will be incidental to the contract unit price per foot for the various water pipe sizes.

Pipe Fittings and Poly Wrap

The underground fittings shall be mechanical joint. The piping above the ground shall be flanged. The joints shall be installed according to the manufacturer's instructions. All fittings will be Class 52 Ductile iron meeting ANSI/AWWA 150/A21.50-81 with rubber gasket joints conforming to ANSI/AWWA C110/A21.10-82.

All fittings shall be cast iron mechanical joint meeting AWWA C153 specification. All fittings used shall be compatible to design size, they shall meet all AWWA, AST, and CS standards applicable to water works usage. Foster adaptors shall be used to connect fittings to water main valves.

T-Bolts and Nuts shall have a ceramic-filled, baked on, fluorocarbon resin developed to handle the needs of highly corrosive conditions. All T-Bolts and Nuts shall also be in compliance with ANSI/AWWA C111/A21.11. All bolts and nuts shall be Cor-Blue or equivalent.

All iron fittings, main and corp valves, and curb stops shall be wrapped with 8 mil polyethylene tube protection installed in accordance with AWWA C105. The polyethylene wrapping shall be extended to cover the adjacent pipe for a distance of at least 2 feet and the ends secured with a minimum of 4 circumferential turns of tape.

SANITARY SEWER

The work associated consists of installing sewer service lines, and all associated appurtenances. The Contractor shall have an individual available 24 hours per day, 7 days a week, who is capable of responding to any problems or emergencies within the system resulting from the work being performed. The Contractor shall communicate work schedules with the City Wastewater Department. Contractor shall also provide temporary sewer service to all users during construction. Cost of temporary services shall be incidental to the cost of the sewer main.

Service locations are shown on the Contract Documents, in accordance with best available records. It is believed that these records may not be totally complete or accurate. It shall be the Contractor's responsibility to locate and identify all existing services that are connected to the trunk line and to ensure that they are reconnected to the newly installed sanitary sewer main line.

Sewer Main and Sewer Service Piping

All pipe shall be manufactured in the USA, using domestic materials, by an ISO 9001 certified manufacturer. Standard lengths of pipe sizes 6" and larger shall be beveled each end by the pipe manufacturer. All pipe shall be stored indoors after production at the manufacturing site until shipped from factory. Pipe shall carry the National Sanitation Foundation (NSF) seal of approval for potable water applications. Main and service line piping shall be manufactured by Harvel Plastics, Crestline, or approved equal.

Sewer Service

Sanitary sewer service lines shall be PVC Schedule 40 pipe, manufactured from a Type I, Grade I Polyvinyl Chloride (PVC) compound with a Cell Classification of 12454 per ASTM D1784. The pipe shall be manufactured in strict compliance to ASTM D1785 and D2665 (where applicable), consistently meeting and/or exceeding the Quality Assurance test requirements of these standards with regard to material, workmanship, burst pressure, flattening, and extrusion quality. **Wyes and service line bends installed at a depth greater than 14 feet shall be SDR 26. All other shall be SDR 35.**

Abandoned service lines will be removed as much as possible and then plugged with a solvent welded plug / cap or other methods approved by the Engineer. Reconnection of existing service lines will be as shown on the Contract Drawings and shall terminate into a properly sized wye fitting installed into the main sewer line.

Manholes and Manhole Covers

Exact manhole locations may be adjusted at the time of construction to the satisfaction of the Engineer and/or Owner.

Manhole steps will NOT be installed in the manholes.

Manholes

Manholes will be constructed of precast concrete conforming to ASTM designation C478 (Precast Reinforced Concrete Manhole Sections) with cast iron frames and covers, as shown in the Contract Drawings.

Manhole bases will be cast to a minimum thickness of (6") six inches and will be integral (monolithic) with the bottom manhole barrel section. Where it is not feasible to utilize monolithic bases, bases may be precast or cast in place per the Utility Construction Code. Manhole bases other than monolithic will not be installed without the Engineer's approval.

The invert channels will be smooth and semi-circular in shape conforming to the inside of the adjacent sewer section. Changes in direction of flow will be made with a smooth curve of as large a radius as the size of the manhole will permit. Changes in size and grade of the channels will be made gradually and evenly. The invert channels will be formed directly in the concrete of the manhole base. The floor of the manhole outside the channels will be smooth and will slope toward the channels not less than 1 inch per foot nor more than (2") two inches per foot.

Where it is not practical to use a split pipe through the manhole, a channel will be formed of concrete. The channel will have a depth no less than one-half the diameter of the outlet pipe and will conform exactly to the lower half of the pipe. A shelf will be formed from the top of the channel to the wall of the manhole and will slope up from the channel at the rate of 1/4" inch per foot.

Free drop inside the manholes will not exceed (18") eighteen inches, measured from the invert of the inlet pipe to the top of the floor of the manhole outside the channels, and drop manholes will be constructed whenever the free drop would otherwise be greater than (18") eighteen inches.

All drop connections shall be exterior drop connections. No interior drop connections shall be allowed. Exterior drop connections shall be constructed in accordance with the Contract Documents.

PVC sewer main will be connected to manholes with a rubber boot insert or a rubber gasket seal to insure a watertight seal. Boots and gaskets will be manufactured of materials meeting or exceeding ASTM C-923. All boots will be provided with double stainless steel clamps.

Following connection of sewer pipe to manhole and shaping of the manhole flow channel and shelf, the annular space between the boot and the manhole wall will be grouted flush with the inside of the manhole such that a continuous, smooth channel is formed through the manhole with no depressions or pockets which could collect solid materials. The annular space above the manhole flow channel on top of the pipe will not be grouted.

All manhole joints will be sealed with a pre-mold plastic gasket. The plastic gasket will conform to Federal Specification SS-5-210A and AASHTO M-198B and be ConSeal CS-102 or CS-202 as manufactured by Concrete Sealants, Inc. or approved equal. Manhole joints greater than (6") six feet below finished grade will be sealed with a double gasket. Excess gasket material forced out of the joint on the interior of the manhole will be removed and trimmed flush with the manhole wall.

Mortar joints will be completely filled and will be smooth and free from surplus mortar on the inside of the manhole. Cement mortar shall conform to all requirements of ASTM C270, Type M. Mortar and mastic joints between precast rings will be fully embedded in jointing compound and will be smoothed to a uniform surface on both the interior and exterior of the manholes. Installation of rubber gasket joints between precast rings will be in accordance with the recommendations of the manufacturer.

Manhole external frame seals will be used on all new manholes. The furnishing and installation of the manhole frame seal will be incidental to the manhole installation. Adjusting rings will be sealed to the manhole cone and frame and to other rings with a butyl joint sealant.

Manhole Frames & Lids

All manholes frames and lids in paving will be Type A7 Manhole Frame & Lid. The manhole depths are shown accordingly. The concrete manhole sections will be ordered allowing (7") seven inches for the frame & lid and a maximum of (12") twelve inches for adjusting rings. The words "Sanitary Sewer" shall be integrally cast into the top of the manhole lids.

(8") Eight inches of adjusting rings will be furnished for each manhole and installed if needed. Maximum vertical adjustment will be (12") twelve inches. Vertical adjustments greater than (12") twelve inches will be accomplished by installing an appropriately sized manhole barrel section.

Manhole Testing

General

Manhole tests shall be performed on all newly installed manholes and on existing manholes where new sewer main connections have been made. All manholes shall be tested via the Visual Test and Manhole Vacuum Test.

Visual Test

The project Engineer/inspector will visually inspect each manhole exterior and interior for flaws, cracks, holes, or other deficiencies, which may affect the operation or watertight integrity of the manhole. Should any deficiencies be discovered, the Contractor shall correct them to the satisfaction of the Engineer and at no cost to the Owner. Manhole barrels and cones that have cracks or holes that extend from the interior of the barrel or cone to the exterior shall be replaced. Manhole barrels or cones that have spalls or cracks that extend to or through the O-ring gasketed joint shall be replaced. For other deficiencies or flaws the Contractor may submit to the Engineer a written repair procedure for consideration. The Engineer may or may not permit the proposed repair method and by allowing a repair method does not, in anyway, remove or alleviate any testing requirements.

DWPP Pipe

ADS N-12 ST TB pipe (per AASHTO) shall have a smooth interior and annular exterior corrugations conforming to AASHTO M294, Type S or ASTM F2306.

Pipe shall be joined using a bell & spigot joint meeting AASHTO M252, AASHTO M294 or ASTM F2306. The joint shall be soil-tight and gaskets, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.

Virgin material for pipe and fitting production shall be high density polyethylene conforming with the minimum requirements of cell classification 435400C as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%.

Underdrain

All underdrain shall be corrugated, slotted, polyethylene meeting the requirements of AASHTO M 252. All underdrain pipe shall have continuous filter fabric sock on its exterior.

Fittings for underdrain connection either to itself, or the Schedule 40 collector shall be approved by the architect. Fittings not intended for the type, and brand of underdrain provided will not be permitted. All splices will require the appropriate fitting.



Record Drawings
03/08/11

PROJECT NO.	DRAWN BY
SHEET NO.	SCALE
DATE	CORRECTED
NO. 389	PROJECT
HERSHEL WEAVER FISHERS BLDG	
DEPT OF BLAKE FISH AND PARKS	
FORT PIERRE, SOUTH DAKOTA	
SHEET TITLE	
Name	

C-3

Removals:
 41,000 SF Asphalt Surfacing
 1506 SF 6" Concrete
 120 LF Landscape Timber Retaining Wall

Remove & Salvage:
 595 LF Chain Link Fence
 2 Chain Link Gates

Surfacing:
 98347 SF Gravel Surfacing
 21387 SF Concrete Paving
 1392 SF Concrete Sidewalk

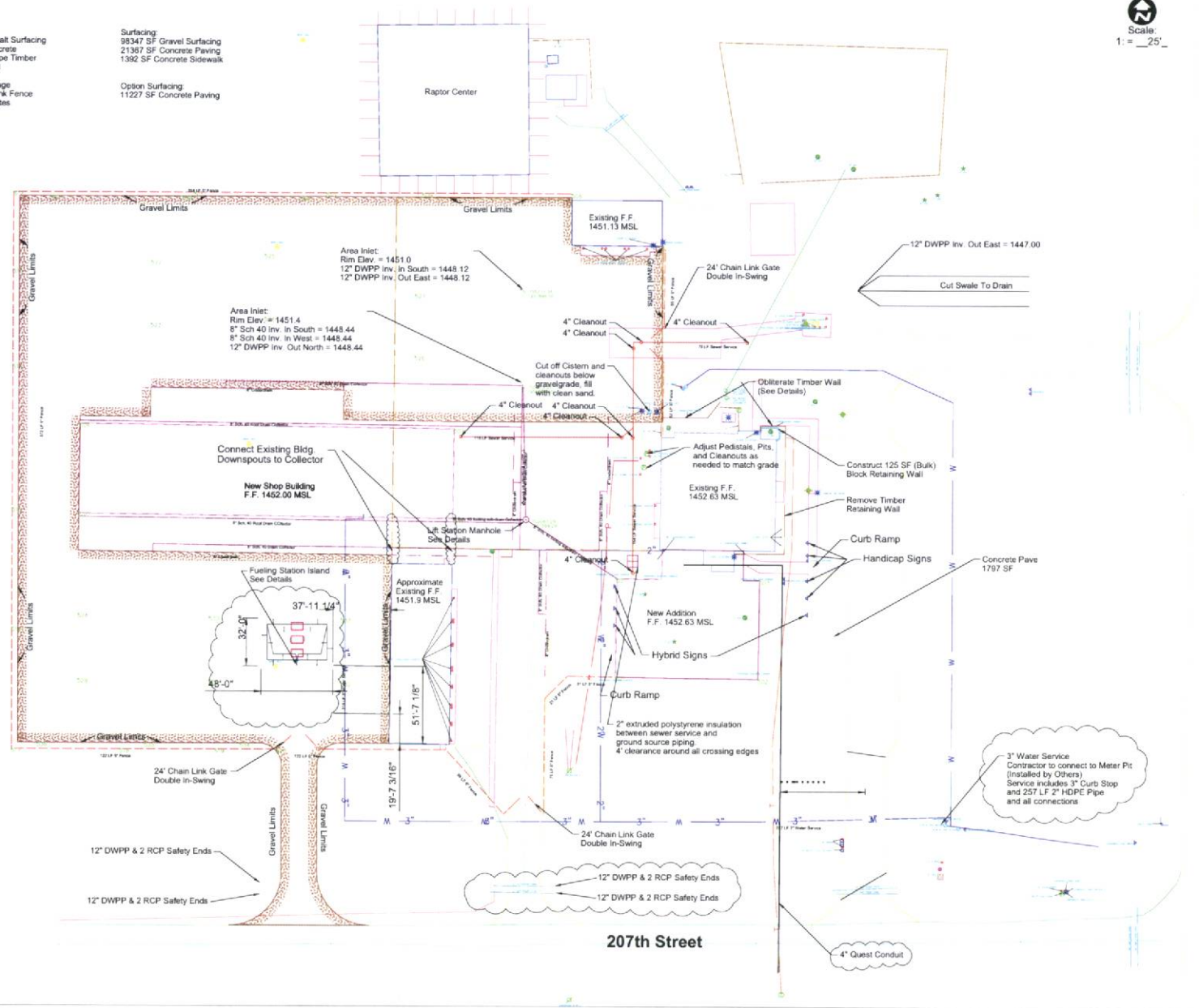
Option Surfacing:
 11227 SF Concrete Paving

Scale
 1" = 25'

KOCH HAZARD
 CONSULTANTS
 431 South Park Drive
 Suite 100, St. Louis, MO
 T: 636.336.3718
 F: 636.336.0488
 www.kochhazard.com

Engineering
 Professional Seal

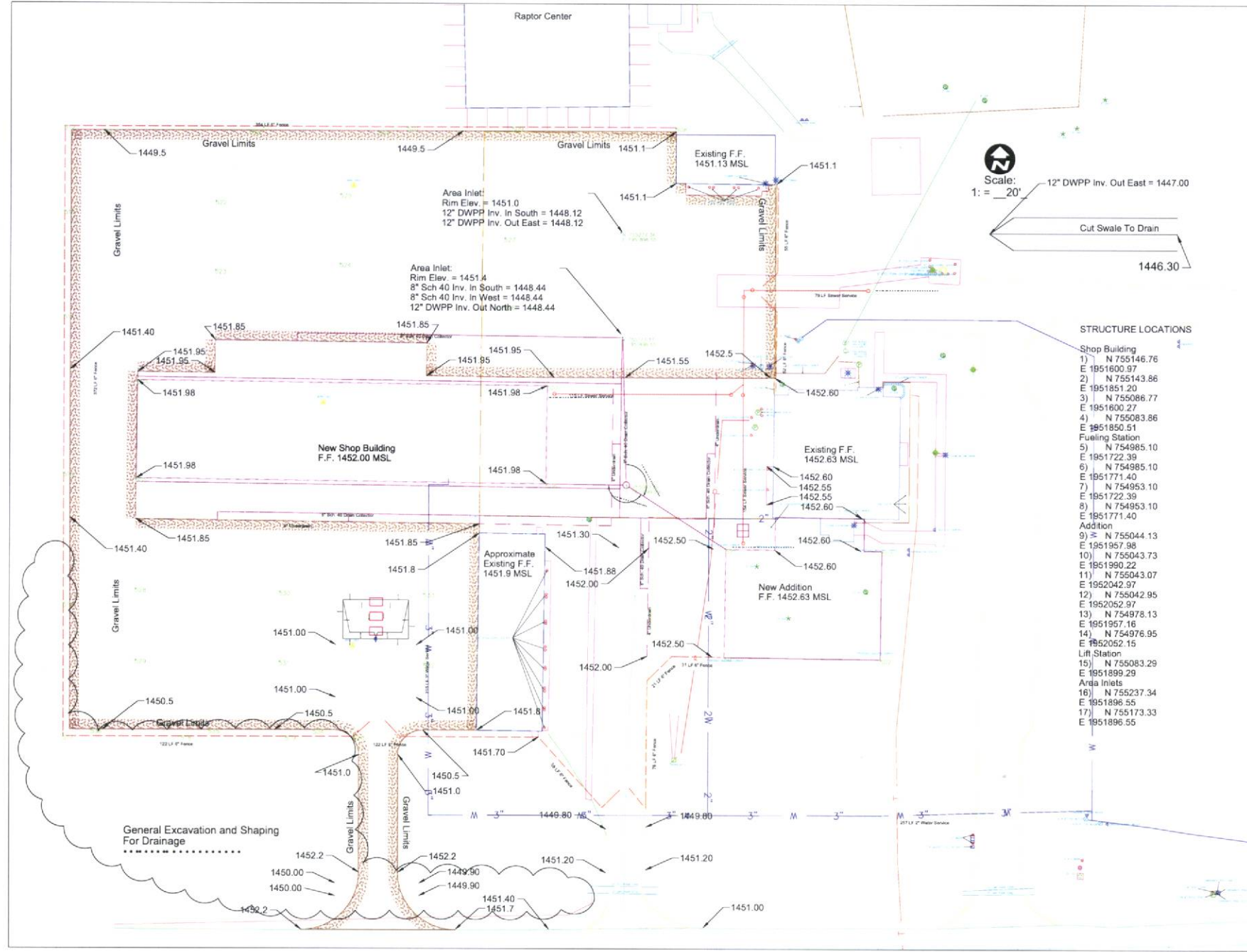
Record Drawings
 03/08/11



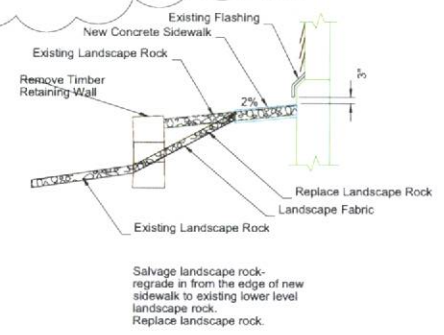
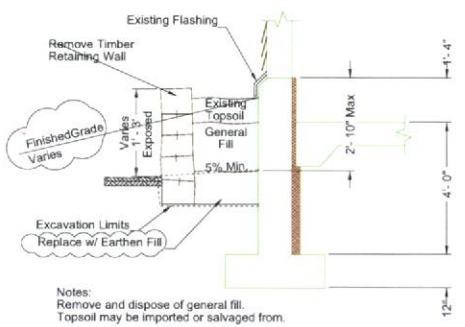
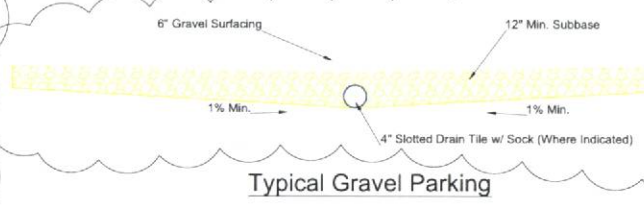
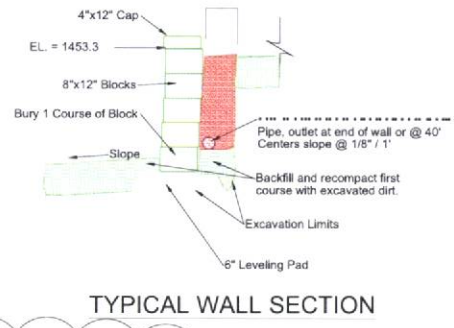
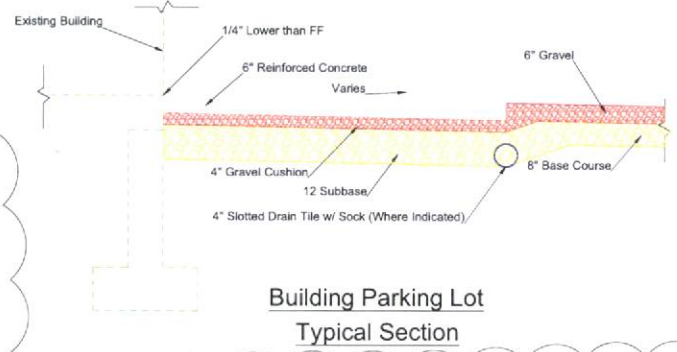
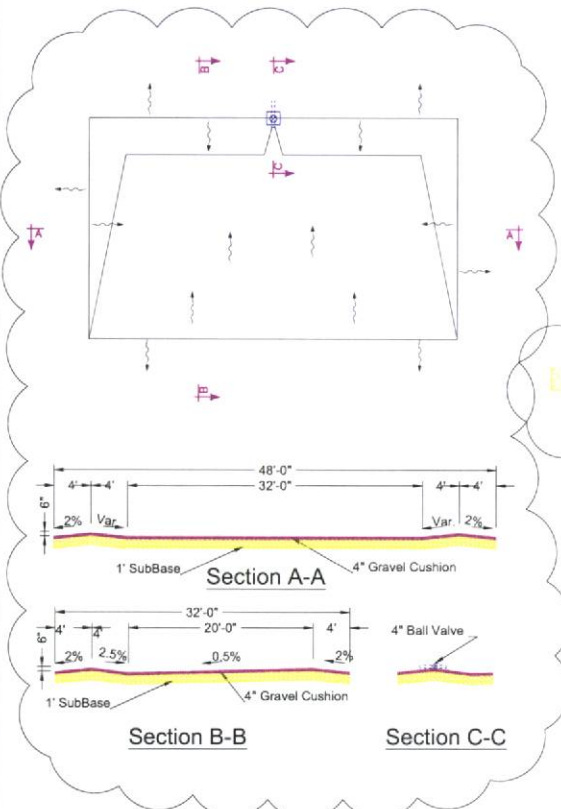
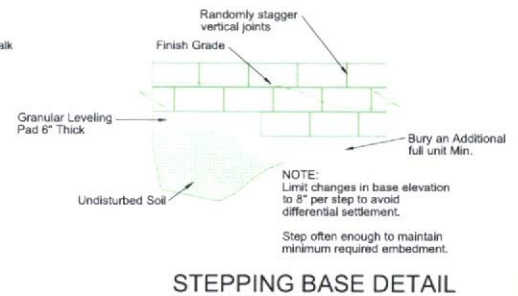
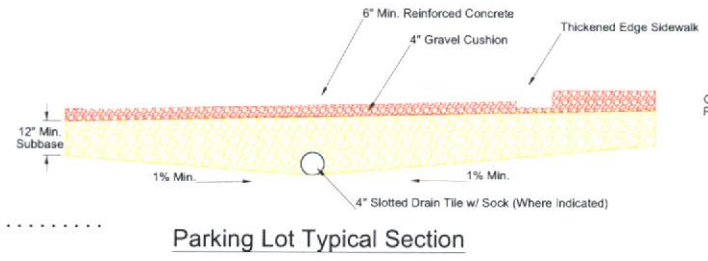
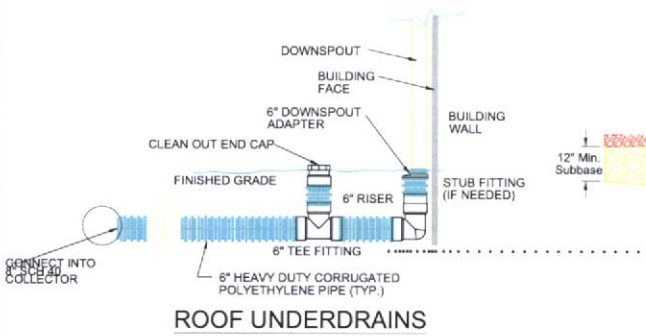
HWY 1806

PROJECT NO.	DRAWN BY
001-024	SJS
DATE	03/08/11
DATE	03/08/11
PROJECT	
MISSOURI RIVER FISHERIES BLDG	
DEPT OF GAME FIS. AND PARKS	
FORT PIERCE, SOUTH DAKOTA	
SHEET TITLE	
Site Plan	

C-4

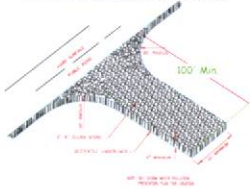


PROJECT NO.	DATE	DATE	DATE
03/08/11	03/08/11	03/08/11	03/08/11
DATE	DATE	DATE	DATE
03/08/11	03/08/11	03/08/11	03/08/11
PROJECT	MUNICIPALITY OF SIOUX FALLS - RAPTOR CENTER		
DESIGNED BY	J. H. HARRIS		
CHECKED BY	M. J. HARRIS		
DATE	03/08/11		
PROJECT	MUNICIPALITY OF SIOUX FALLS - RAPTOR CENTER		
DESIGNED BY	J. H. HARRIS		
CHECKED BY	M. J. HARRIS		
DATE	03/08/11		
PROJECT	MUNICIPALITY OF SIOUX FALLS - RAPTOR CENTER		
DESIGNED BY	J. H. HARRIS		
CHECKED BY	M. J. HARRIS		
DATE	03/08/11		
PROJECT	MUNICIPALITY OF SIOUX FALLS - RAPTOR CENTER		
DESIGNED BY	J. H. HARRIS		
CHECKED BY	M. J. HARRIS		
DATE	03/08/11		



PROJECT NO.	DRAWN BY:
SUB-PHASE	SUB-DRAWN:
DATE	COPY/REVISED:
SCALE	
PROJECT	
MISSOURI RIVER FISHERIES BLDG	
COPY OF GAME FILE AND PLANS	
FORT WORTH, SOUTH-CENTRAL	
B-SHEET TITLE	
Details / Typical Sections	

CONSTRUCTION ENTRANCE DETAIL

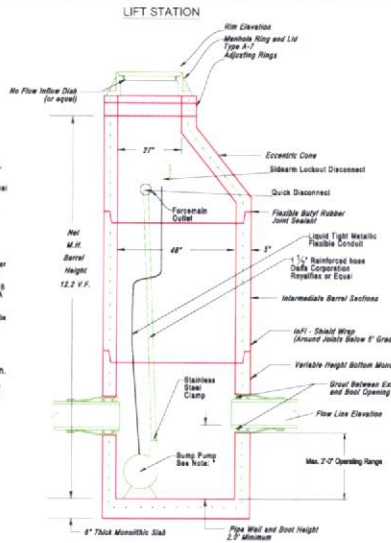


Specifications

1. Construction Entrance
Material for construction entrance will conform to the following:
Free from deleterious materials
A minimum of 90% of the material will have been in some proportion from products for which the particular fabric will conform to the minimum property requirements listed below and approved by the engineer.
- | Property | Unit | Test Method | Type III/IV |
|--------------------------|--------------------|-------------|-------------|
| Fabric Weight | oz/yd ² | ASTM D-3776 | 40 |
| Thickness | in. | ASTM D-3777 | 35 |
| Break Strength | lb | ASTM D-4833 | 300 |
| Stitching | in. | ASTM D-4833 | 40 |
| Seam Strength | lb | ASTM D-4833 | 40 |
| Water Permeability | in. | ASTM D-3786 | 300 |
| Water Vapor Permeability | perms | ASTM D-3485 | 20 |
| Flame Retardance | in. | ASTM D-4495 | 1.0 |
| Hardness | ASTM D-4495 | 1.0 | |
| Modulus | ASTM D-4495 | 1.0 | |
| ACI | ASTM D-4495 | 50 (1.0 mm) | |
- Entrance will be graded and compacted prior to placement for placement.

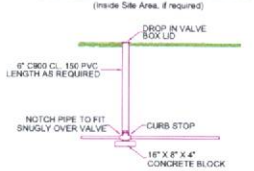
Notes:

1. Pump shall be an efficient type operating under pump, available for standard purposes.
2. Pump shall be single phase, 60 Hz, 3000 rpm (max), and 0.5 hp (max).
3. Pump shall be cast iron with enamel finish and stainless steel shaft.
4. Impeller shall be various type with pump out means on back side.
5. Pump shall be equipped with one single automatic mechanical seal.
6. Pump shall have an upper and lower oil lubricated single row ball bearing.
7. Motor shall be oil filled with Class B insulation. Pump shall be UL and CSA Approved.
8. Level control shall be (1) wide angle normally open (NO) float with rigger ball float.
9. Minimum discharge is 1-1/2" NPT.
10. Rated design point is 40 gpm @ 20 TDH. Minimum shaft speed is 60 ft.
11. Acceptable manufacturer include Pico, Bama, Grundfos, or approved eqpt.

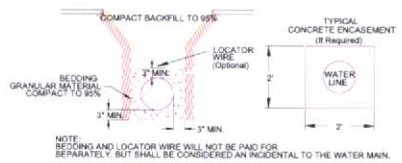


1. All components are manufactured per ASTM C478.
2. Slope are not allowed.

TYPICAL CURB STOP INSTALLATION

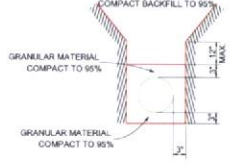


WATER SERVICE BACKFILL DETAIL

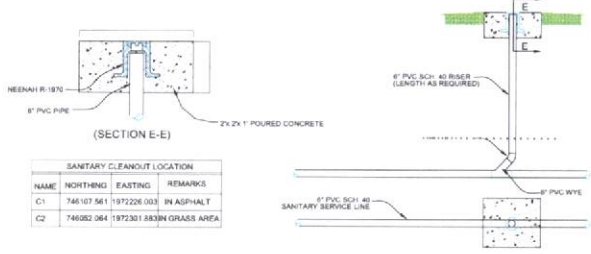


NOTE: BEYOND AND LOCATOR WIRE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AN INCIDENTAL TO THE WATER MAIN.

SANITARY SEWER BEDDING DETAIL



TYPICAL SANITARY CLEANOUT INSTALLATION



SANITARY CLEANOUT LOCATION			
NAME	NORTHING	EASTING	REMARKS
C1	746107.561	197226.003	IN ASPHALT
C2	746052.064	1972301.833	GRASS AREA

MINIMUM AREA AGAINST UNDISTURBED SOIL					
PIPE SIZE	DEAD END OR TEE	ELBOW	ELBOW	ELBOW	ELBOW
2"	1	2	1	1	1
3"	2	2	1	1	1
3"	2	3	2	1	1
4"	3	4	2	1	1
4"	4	5	3	2	2
6"	5	7	4	2	2
6"	7	10	6	3	3
8"	12	17	10	5	5
8"	18	27	14	8	8
12"	27	38	21	11	11

IN SQUARE FEET

- NOTE
1. THRUST BLOCKING TO BE CAST-IN-PLACE OR PRECAST CONCRETE OF MINIMUM STRENGTH 2000 PSI.
 2. LOCATE AS SHOWN IN DRAWING AT LEFT WITH A MINIMUM BEARING AREA AGAINST UNDISTURBED SOIL AS SHOWN IN TABLE BELOW.
 3. EACH FITTING, HYDRANT AND COUPLING SHALL BE WRAPPED WITH 1 MIL POLYETHYLENE TUBE PROTECTION.
 4. EACH FITTING WILL HAVE A MEGALUG RESTRAINT GLAND AT EACH JOINT INSTALLED.



LIST OF MATERIALS	
KEY	ITEM
6W	PVMT MKG 4" WHITE
4Y	PVMT MKG 4" YELLOW
6A	PVMT MKG ARROW, WHITE
6B	PVMT MKG MESSAGE, WHITE

The Contractor Shall Follow Part 3 "Markings" Of The Manual On Uniform Traffic Control Devices, Minimum Edition, 2000, According To The Manufacturer's Instructions. Pavement Marking Material Shall Be Type E As Defined In The Standard Specifications For Paint And Beads.

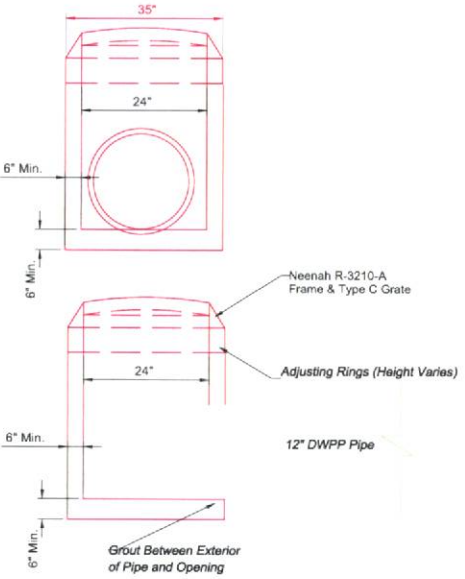


ACCESSIBILITY PARKING SPACE MARKING
Stroke width for symbol to be 4"
Symbol color to be yellow
Background color to be blue.

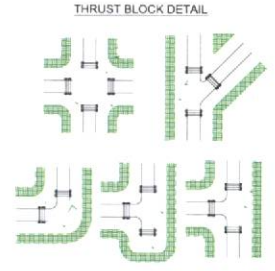


HEIGHT & LATERAL LOCATION OF SIGNS
The sign shall be mounted on a recovery type post such as that manufactured by IMPACT RECOVERY SYSTEMS or an approved equal. The base shall be fixed. The recovery post system shall be mounted according to manufacturer's recommendations. The posts shall be mounted 24" behind the curb.

General Signage Notes
All Signs Shall Conform With The Latest Editions Of The MUTCD, And The Standard Highway Signs Manual. The Signs Shall Be Furnished And Installed By The Contractor. Exact Location And Spacing Of The Signs Show, Are To Be Determined In The Field By The Engineer.



STORM JUNCTION BOX / INLET



THRUST BLOCK DETAIL



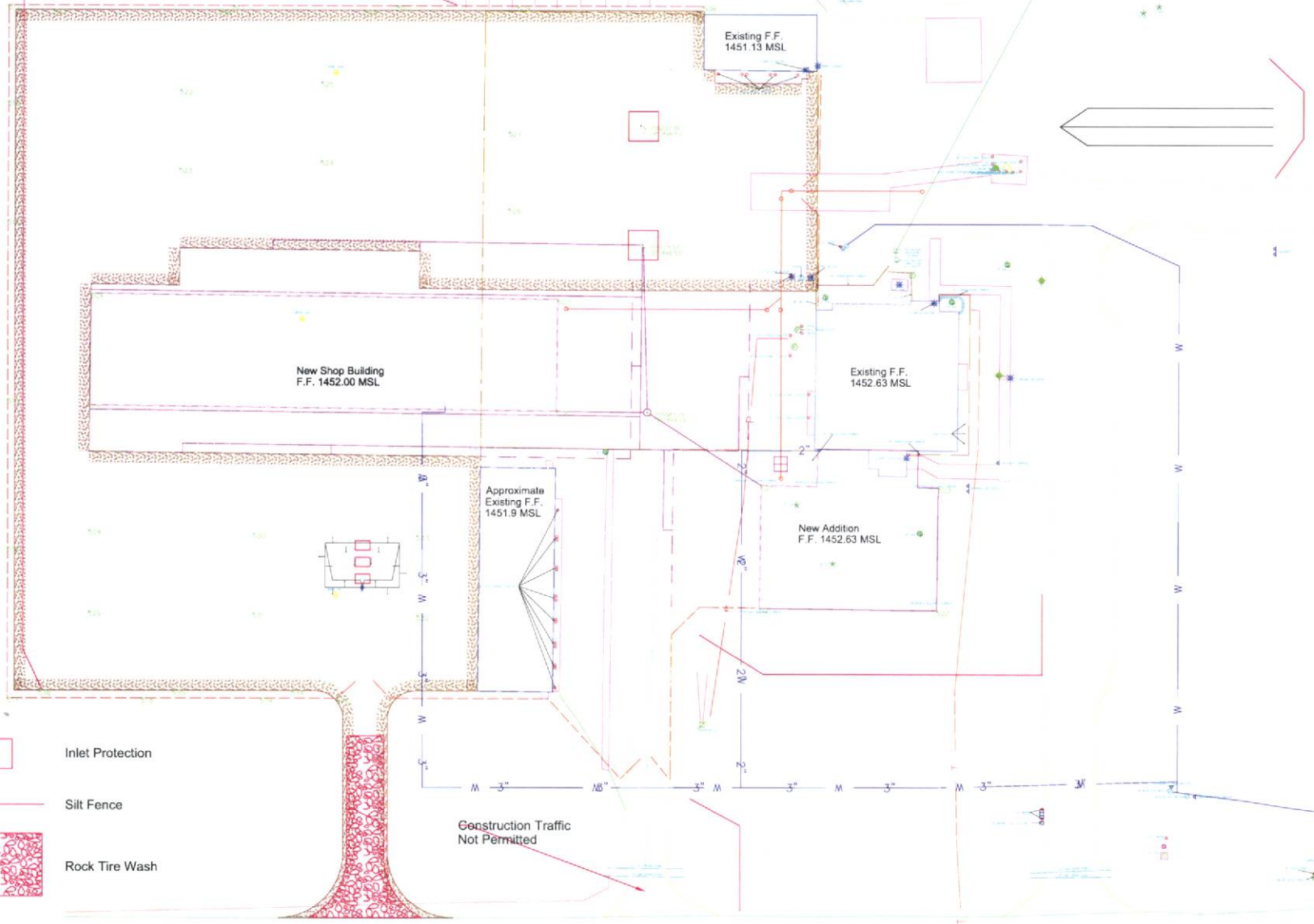
Record Drawings
03/08/11

PROJECT NO.	DRAWING
DATE	COPYING-T
PROJECT	MISSOURI RIVER FISHERIES BLDG
DEPT OF GAME FISH AND PARKS	FISH FISHERY SOUTH DIVISION
SHEET TITLE	
DRAWN	

Raptor Center

Scale:
1" = 20'

KOCH HAZARD
CONSULTANTS
431 South Miller Road
Sioux Falls, SD 57104
T: 605.336.3718
F: 605.336.0408
www.kochhazard.com



-  Inlet Protection
-  Silt Fence
-  Rock Tire Wash

Construction Traffic
Not Permitted

PROJECT NO.	DRAWN BY:
BS-754	BS
DATE:	COPYRIGHT:
02/2015	
PROJECT:	
MISSOURI RIVER FISHERIES BLDG	
COUNTY OF DAKOTA AND PARKS	
FORT PIERRE, SOUTH DAKOTA	
SHEET TITLE:	
ENTRY Plan Sheet	

C-8

STORM WATER POLLUTION PREVENTION PLAN CHECKLIST

(The numbers right of the title headings are reference numbers to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES)

- ♦ **SITE DESCRIPTION (4.2.1)**
 - Project Limits: See Title Sheet (4.2.1.b)
 - Project Description: See Title Sheet (4.2.1.a)
 - Site Map(s): See Title Sheet and Plans (4.2.1.c, (1)-(4))
 - Major Soil Disturbing Activities (check all that apply)
 - Clearing and grubbing
 - Excavation/borrow
 - Grading and shaping
 - Filling
 - Cutting and filling
 - Total Project Area: 9.9 Ac. (4.2.1.b)
 - Total Area To Be Disturbed: 3.3 Ac. (4.2.1.b)
 - Existing Vegetative Cover (%): 75%
 - Soil Properties: AASHTO Classification: A-7 (4.2.1.d)
 - Name of Receiving Water Body/Bodies: Tributaries to the Missouri River (4.2.1.e)
- ♦ **ORDER OF CONSTRUCTION ACTIVITIES (4.2.1.c)**

(Stabilization measures shall be initiated as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Initiation of final or temporary stabilization may exceed the 14-day limit if earth disturbing activities will be resumed within 21 days.)

 - Install stabilized construction entrance(s).
 - Install perimeter protection where runoff sheets from the site.
 - Install channel and ditch bottom protection.
 - Clearing and grubbing.
 - Remove and store topsoil.
 - Install utilities, storm sewers.
 - Install inlet and culvert protection after completing storm drainage and other utility installations.
 - Complete final grading.
 - Complete final paving and sealing of concrete.
- ♦ **EROSION AND SEDIMENT CONTROLS (4.2.2-a, (1)-(6); (f))**

(Check all that apply)

 - Stabilization Practices (See Detail Plan Sheets)
 - Temporary or Permanent Seeding (by Others)
 - Sodding
 - Planting
 - Structural Temporary Erosion and Sediment Controls
 - Silt Fence
 - Temporary Berm
 - Sediment Trap/Basins
 - Outlet Protection
 - Surface Inlet Protection
 - Stabilized Construction Entrances
 - Wetland Avoidance

Construction will NOT impinge on regulated wetlands.
 - Storm Water Management (4.2.1.b, (1) and (2))

Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period. Permanent controls will be shown on the plans and noted as permanent.
 - Other Storm Water Controls (4.2.2.c, (1) and (2))
 - **Waste Disposal**

All liquid waste materials will be collected and stored in sealed metal containers approved by the project engineer. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal, and notices stating proper practices will be posted in the field office. The general contractor's representative responsible for the conduct of work on the site will be responsible for seeing waste disposal procedures are followed.
 - **Hazardous Waste**

All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the individual designated as the contractor's on-site representative will be responsible for seeing that these practices are followed.
 - **Sanitary Waste**

Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units in a timely manner by a licensed waste management contractor or as required by any local regulations.
- ♦ **Maintenance and Inspection (4.2.3, and 4.2.4)**
 - **Maintenance and Inspection Practices**
 - Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater
 - All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
 - Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches 1/3 of the height of the silt fence.
 - Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
 - Check dams will be inspected for stability. Sediment will be removed when depth reaches 1/3 of the height of the dam.
 - All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
 - Inspection and maintenance reports will be prepared an approved form for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
 - The Contractor's site superintendent is responsible for inspections. Maintenance, repair activities are the responsibility of the contractor.
 - **Non-Storm Water Discharges (4.0)**

The following non-storm water discharges are anticipated during the course of this project (check all that apply)

 - Discharges from water line flushing.
 - Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
 - Uncontaminated ground water associated with dewatering activities.
- ♦ **Materials Inventory (4.2.2.c, (2))**

The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the heading "EROSION AND SEDIMENT CONTROLS" and "SPILL PREVENTION" (check all that apply)

 - Concrete and Portland Cement
 - Paints
 - Merals
 - Bituminous Materials
 - Petroleum Based Products
 - Cleaning Solvents
 - Wood
 - Cure
 - Chemical Fertilizers

- ♦ **Spill Prevention (4.2.2.c, (2))**
 - **Material Management**
 - **Hazardous Waste**
 - Only needed products will be stored on-site by the contractor.
 - Except for bulk materials the contractor will store all materials under cover and in appropriate containers.
 - Products must be stored in original containers and labeled.
 - Material mixing will be conducted in accordance with the manufacturer's recommendations.
 - When possible, all equipment will be completely used before properly disposing of the container off site.
 - The manufacturer's directions for disposal of materials and containers will be followed.
 - The contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
 - Dumps generated will be controlled in an environmentally safe manner.
 - Vegetation areas not essential to the construction project will be preserved and maintained as noted on the plans.
 - **Hazardous Materials**
 - Products will be kept in original containers unless the container is not resealable.
 - Original labels and material safety data sheets will be retained in a safe place to relay important product information.
 - If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
 - Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
 - Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any storm water system or storm water treatment system.
 - Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, and mixer washout waters will be collected on site and managed to prevent contamination of storm water runoff.
 - **Product Specific Practices (6.8)**
 - **Petroleum Products**

All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.
 - **Paints**

All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.
 - **Concrete Trucks**

Contractors will provide designated truck washout areas on the site. These areas must be self contained and not connected to any storm water outlet of the site. Upon completion of construction washout areas will be properly stabilized.
 - **Spill Control Practices (4.2.2.c, (2))**

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

 - For all hazardous materials stored on site, the manufacturer's recommended methods for spill clean up will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
 - Appropriate cleanup materials and equipment will be maintained by the contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for clean up purposes.
 - All spills will be cleaned immediately after discovery and the materials disposed of properly.
 - The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
 - After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from recurring, as well as clean up instructions in the event of occurrence.
 - The contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator. The contractor is responsible for ensuring that the site superintendent has had appropriate training for hazardous materials handling, spill management, and cleanup.
 - **Spill Response (4.2.2.c, (3))**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into storm water runoff and conveyance systems. If the release has impacted on-site storm water, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens storm water or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

 - The contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed.
 - The superintendent will assess the situation and determine the appropriate response.
 - If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
 - Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the contractor at the site.
 - If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The contractor will use approved materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
 - If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SD DENR.
 - Personnel with primary responsibility for spill response and clean up will receive training by the contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.
 - Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.
 - **Spill Notification**

In the event of a spill, the contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

 - A reportable spill is a quantity of 25 gallons or more of any spill of oil which 1) violates water quality standards, 2) produces a "sheen" on a surface water, or 3) causes a sludge or emulsion must be reported immediately to the National Response Center.
 - Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the SD DENR.
 - **Construction Changes (4.4)**

When changes are made to the construction project that will require alterations in the temporary erosion controls of the site, the Storm Water Pollution Prevention Plan (SWPPP) will be amended to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The Contractor will modify the SWPPP plan and drawings to reflect the needed changes. Copies of forms and the SWPPP will be retained in a designated place for review over the course of the project.
 - **CERTIFICATIONS**
 - Certification of Compliance with Federal, State, and Local Regulations

The Storm Water Pollution Prevention Plan (SWPPP) for this project reflects the requirements of all local municipal jurisdictions for storm water management and sediment and erosion control as established by ordinance, as well as other state and federal requirements for sediment and erosion control plans, permits, notices or documentation as appropriate.

➢ **Engineer**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Signature

➢ **Prime Contractor**
This section is to be executed by the General Contractor after the award of the contract. This section may be executed any time there is a change in the Prime Contractor of the project.

I certify under penalty of law that this document and all attachments will be revised or maintained under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Signature

♦ **CONTACT INFORMATION**

➢ **Contractor Information**

- Prime Contractor Name:
- Contractor Contact Name:
- Address:
- Address:
- City: State: Zip:
- Office Phone: Field Cell Fax:

➢ **Erosion Control Supervisor**

- Name:
- Address:
- Address:
- City: State: Zip:
- Office Phone: Field Cell Fax:

➢ **Project Engineer**

- Name: Scott Schweitzer
- Business Address: 4030 Airport Rd., Ste. A
- Job Office Location: 3030 Airport Rd., Ste. A
- City: Pierre, State: SD Zip: 57501
- Office Phone: 605-224-1123 Cell: 605-295-0171 Fax: 605-224-6659

➢ **SD DENR Contact Spill Reporting**

- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➢ **SD DENR Contact for Hazardous Materials**

- (605) 773-1153

➢ **National Response Center Hotline**

- (800) 424-8802



Authorized Signature

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- Prime Contractor Name:
- Contractor Contact Name:
- Address:
- Address:
- City: State: Zip:
- Office Phone: Field Cell Fax:

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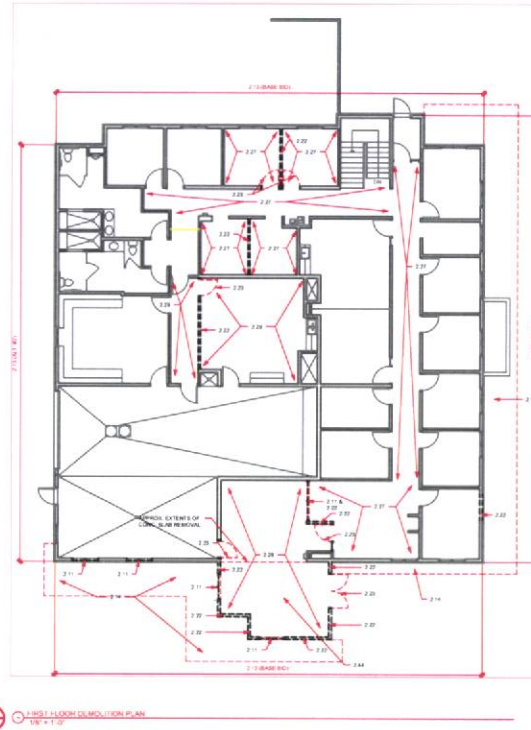
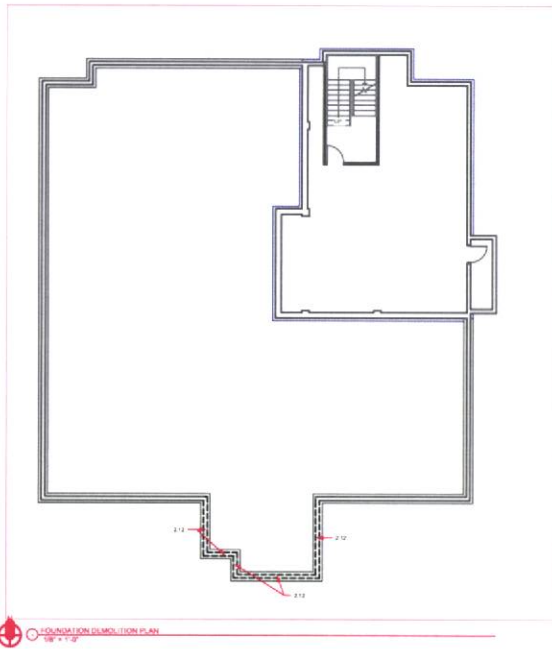
➢ **SD DENR Contact for Hazardous Materials**

- (605) 773-1153

➢ **National Response Center Hotline**

- (800) 424-8802

PROJECT NO.	DRAWN BY
SHEET NO.	DATE
DATE	CONVISED BY
DATE	DATE
PROJECT	
METHOD WHEN FE-ENRIS BLDG	
DRY OF SAND FILL AND FANES	
PORT. PERMIT, EROSION CONTROL	
SHEET TITLE	
SWPPP	



KEYNOTES	
SECTION 2 - EXISTING CONSTRUCTION	
2.1	REMOVE EXISTING
2.11	REMOVE TOP 2" TO 3" OF CONCRETE FOUNDATION WALL
2.12	REMOVE EXISTING PAINT, FINISH AND GROUT OFF THESE WALLS AND
2.13	REMOVE EXISTING
2.14	REMOVE LINDSAY
2.2	REMOVE EXISTING FINISH
2.21	REMOVE DOOR & FRAME
2.22	REMOVE CASING
2.23	REMOVE EXISTING
2.24	REMOVE CONCRETE SLAB

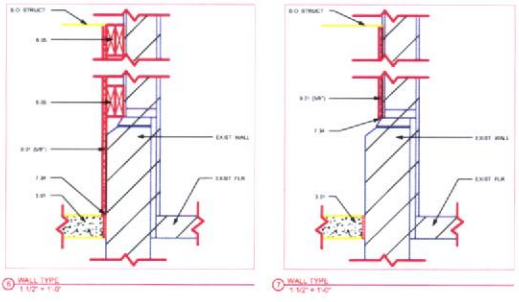
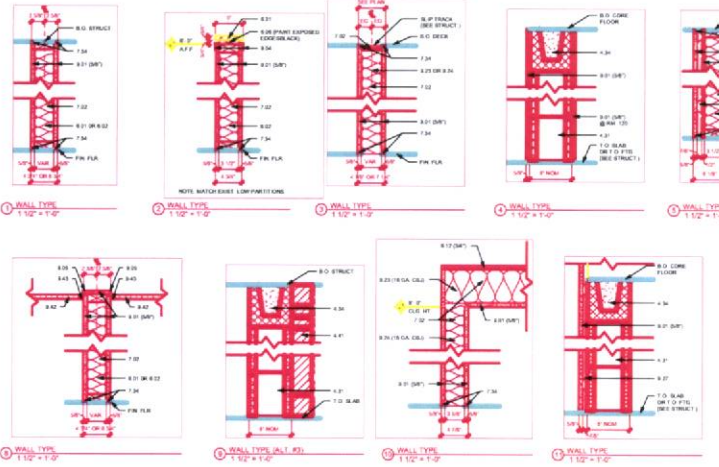
- | GENERAL NOTES | |
|---------------|---------------------------------|
| 1. | VERIFY ALL EXISTING CONDITIONS. |
| 2. | VERIFY ALL EXISTING CONDITIONS. |
| 3. | VERIFY ALL EXISTING CONDITIONS. |
| 4. | VERIFY ALL EXISTING CONDITIONS. |
| 5. | VERIFY ALL EXISTING CONDITIONS. |
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| 22. | VERIFY ALL EXISTING CONDITIONS. |
| 23. | VERIFY ALL EXISTING CONDITIONS. |
| 24. | VERIFY ALL EXISTING CONDITIONS. |



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DATE: 10/15/2024
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 APPROVED BY: [Name]

PROJECT: [Name]
 CLIENT: [Name]
 ADDRESS: [Name]
 CITY: [Name]
 STATE: [Name]

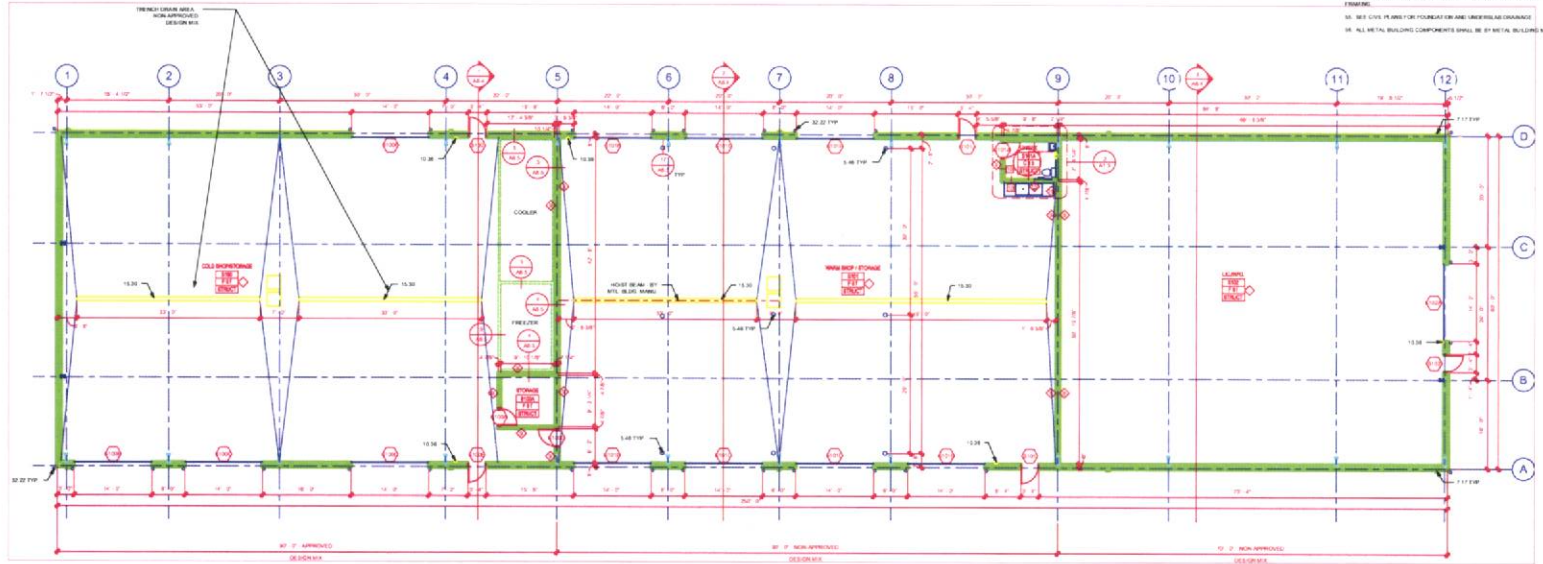


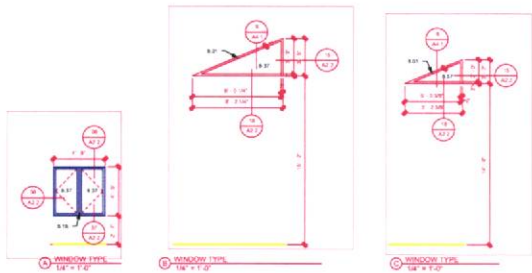
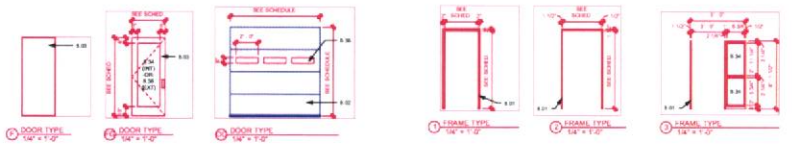
- ### KEYNOTES
- SECTION 1. CONCRETE**
 - 1.01 CONCRETE
 - SECTION 2. MASONRY**
 - 2.01 BLOCK MASONRY WITH 4\"/>
 - SECTION 3. METALS**
 - 3.01 STEEL LEVELS
 - SECTION 4. BLOCK, PLASTER AND CONCRETE**
 - 4.01 8\"/>
 - SECTION 5. FINISHES AND PARTITIONS**
 - 5.01 FINISHES
 - SECTION 6. PARTITIONS**
 - 6.01 PARTITIONS
 - SECTION 7. PARTITIONS**
 - 7.01 PARTITIONS
 - SECTION 8. PARTITIONS**
 - 8.01 PARTITIONS
 - SECTION 9. PARTITIONS**
 - 9.01 PARTITIONS
 - SECTION 10. PARTITIONS**
 - 10.01 PARTITIONS

ROOM FINISH SCHEDULE

FLOOR NAME	ROOM NAME	ROOM #
1ST FLOOR	RECEPTION	101
1ST FLOOR	OFFICE	201-210
1ST FLOOR	CONFERENCE	301
1ST FLOOR	RESTROOM	401-402
1ST FLOOR	STORAGE	501
1ST FLOOR	MECHANICAL	601-602
1ST FLOOR	UTILITY	701
1ST FLOOR	LOBBY	801
1ST FLOOR	ENTRANCE	901
1ST FLOOR	MECHANICAL	1001-1002
1ST FLOOR	MECHANICAL	1101-1102
1ST FLOOR	MECHANICAL	1201-1202
1ST FLOOR	MECHANICAL	1301-1302
1ST FLOOR	MECHANICAL	1401-1402
1ST FLOOR	MECHANICAL	1501-1502
1ST FLOOR	MECHANICAL	1601-1602
1ST FLOOR	MECHANICAL	1701-1702
1ST FLOOR	MECHANICAL	1801-1802
1ST FLOOR	MECHANICAL	1901-1902
1ST FLOOR	MECHANICAL	2001-2002
1ST FLOOR	MECHANICAL	2101-2102
1ST FLOOR	MECHANICAL	2201-2202
1ST FLOOR	MECHANICAL	2301-2302
1ST FLOOR	MECHANICAL	2401-2402
1ST FLOOR	MECHANICAL	2501-2502
1ST FLOOR	MECHANICAL	2601-2602
1ST FLOOR	MECHANICAL	2701-2702
1ST FLOOR	MECHANICAL	2801-2802
1ST FLOOR	MECHANICAL	2901-2902
1ST FLOOR	MECHANICAL	3001-3002
1ST FLOOR	MECHANICAL	3101-3102
1ST FLOOR	MECHANICAL	3201-3202
1ST FLOOR	MECHANICAL	3301-3302
1ST FLOOR	MECHANICAL	3401-3402
1ST FLOOR	MECHANICAL	3501-3502
1ST FLOOR	MECHANICAL	3601-3602
1ST FLOOR	MECHANICAL	3701-3702
1ST FLOOR	MECHANICAL	3801-3802
1ST FLOOR	MECHANICAL	3901-3902
1ST FLOOR	MECHANICAL	4001-4002
1ST FLOOR	MECHANICAL	4101-4102
1ST FLOOR	MECHANICAL	4201-4202
1ST FLOOR	MECHANICAL	4301-4302
1ST FLOOR	MECHANICAL	4401-4402
1ST FLOOR	MECHANICAL	4501-4502
1ST FLOOR	MECHANICAL	4601-4602
1ST FLOOR	MECHANICAL	4701-4702
1ST FLOOR	MECHANICAL	4801-4802
1ST FLOOR	MECHANICAL	4901-4902
1ST FLOOR	MECHANICAL	5001-5002
1ST FLOOR	MECHANICAL	5101-5102
1ST FLOOR	MECHANICAL	5201-5202
1ST FLOOR	MECHANICAL	5301-5302
1ST FLOOR	MECHANICAL	5401-5402
1ST FLOOR	MECHANICAL	5501-5502
1ST FLOOR	MECHANICAL	5601-5602
1ST FLOOR	MECHANICAL	5701-5702
1ST FLOOR	MECHANICAL	5801-5802
1ST FLOOR	MECHANICAL	5901-5902
1ST FLOOR	MECHANICAL	6001-6002
1ST FLOOR	MECHANICAL	6101-6102
1ST FLOOR	MECHANICAL	6201-6202
1ST FLOOR	MECHANICAL	6301-6302
1ST FLOOR	MECHANICAL	6401-6402
1ST FLOOR	MECHANICAL	6501-6502
1ST FLOOR	MECHANICAL	6601-6602
1ST FLOOR	MECHANICAL	6701-6702
1ST FLOOR	MECHANICAL	6801-6802
1ST FLOOR	MECHANICAL	6901-6902
1ST FLOOR	MECHANICAL	7001-7002
1ST FLOOR	MECHANICAL	7101-7102
1ST FLOOR	MECHANICAL	7201-7202
1ST FLOOR	MECHANICAL	7301-7302
1ST FLOOR	MECHANICAL	7401-7402
1ST FLOOR	MECHANICAL	7501-7502
1ST FLOOR	MECHANICAL	7601-7602
1ST FLOOR	MECHANICAL	7701-7702
1ST FLOOR	MECHANICAL	7801-7802
1ST FLOOR	MECHANICAL	7901-7902
1ST FLOOR	MECHANICAL	8001-8002
1ST FLOOR	MECHANICAL	8101-8102
1ST FLOOR	MECHANICAL	8201-8202
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1ST FLOOR	MECHANICAL	9401-9402
1ST FLOOR	MECHANICAL	9501-9502
1ST FLOOR	MECHANICAL	9601-9602
1ST FLOOR	MECHANICAL	9701-9702
1ST FLOOR	MECHANICAL	9801-9802
1ST FLOOR	MECHANICAL	9901-9902
1ST FLOOR	MECHANICAL	1001-1002

- ### GENERAL NOTES
1. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS.
 2. ALL WALLS TO BE FINISHED TO THE FINISH LINE SHOWN BETWEEN WALL TYPES.
 3. ALL PARTITIONS SHALL BE TO THE FINISH LINE SHOWN.
 4. REVISIONS TO THIS SCHEDULE SHALL BE MADE BY THE ARCHITECT.
 5. SEE MECHANICAL FOR ALL FLOOR PLAN SIZES AND LOCATIONS OF D.M. SET FLOOR.
 6. SEE MECHANICAL FOR ALL FLOOR PLAN SIZES AND LOCATIONS OF D.M. SET FLOOR.
 7. ALL INTERIOR PARTITIONS IN THIS BUILDING ARE TO BE TYPE 40 U.G.
 8. VERIFY DIMENSIONS AND LOCATIONS OF ALL PARTITIONS AND LOCATIONS OF D.M. SET FLOOR.
 9. SEE STRUCTURAL DIMENSIONS FOR BEAM SIZES AND COLUMN SIZES AND LOCATIONS.
 10. REVISIONS TO THIS SCHEDULE SHALL BE MADE BY THE ARCHITECT.
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DOOR NUMBER	DOOR TYPE	WIDTH	HEIGHT	DOOR THICKNESS	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	DETAILS	FINISHING GROUP
100	HD	8'-0"	7'-0"	0'-1.34"	AL	0	AL	10, 13, 17, A2, 2	41
101	HD	8'-0"	7'-0"	0'-1.34"	AL	7	AL	10, 14, A2, 2	42
102	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	1, A2, 2	1
103	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 4, A2, 2	2
104	F	3'-0"	8'-0"	0'-1.34"	WD	3	WD	3, 3, 24, A2, 2	3
105	F	3'-0"	8'-0"	0'-1.34"	WD	3	WD	3, 3, 24, A2, 2	3
106	F	3'-0"	8'-0"	0'-1.34"	WD	3	WD	3, 3, 24, A2, 2	3
107	F	3'-0"	8'-0"	0'-1.34"	WD	3	WD	3, 3, 24, A2, 2	3
108	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 4, A2, 2	3
109	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 4, A2, 2	2
110	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 3, A2, 2	2
111	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 3, A2, 2	2
112	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 4, A2, 2	2
113	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 3, A2, 2	2
114	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 3, A2, 2	2
115	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	1, 4, A2, 2	2
117	F	3'-0"	8'-0"	0'-1.34"	WD	3	WD	3, 3, 24, A2, 2	3
118	F	3'-0"	8'-0"	0'-1.34"	WD	3	WD	3, 3, 24, A2, 2	3
120	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	23, 25, 26, A2, 2	4
121	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	6, 27, 28, 30, A2, 2	5
124	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	10, A2, 2	2
121B	DD	8'-0"	8'-0"	0'-2"	-	-	-	20, 21, 22, A2, 3	-
123	F	3'-0"	7'-0"	0'-1.34"	WD	1	WD	1, 8, 30, A2, 2	2
124	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	1, 4, A2, 2	6
125	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	1, 5, 7, A2, 4	2
126	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	6, 27, 28, 31, A2, 2	6
128	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	1, A2, 2	2
180	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 5, 7, A2, 1	7
180A	F	3'-0"	7'-0"	0'-1.34"	HM	5	HM	9, 10, 11, A2, 2	8
180B	F	3'-0"	7'-0"	0'-1.34"	WD	4	WD	1, 5, 7, A2, 1	7
180C	F	3'-0"	7'-0"	0'-1.34"	HM	5	HM	9, 10, 11, A2, 2	8
200	F	3'-0"	7'-0"	0'-1.34"	WD	1	HM	7, 8, A2, 2	2
S100	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	10, 34, A2, 1	8
S100A	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	11, 18, A2, 1	9
S100B	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S100C	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S100D	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S100E	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	10, 34, A2, 1	8
S100F	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	11, 18, A2, 1	9
S101	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	10, 34, A2, 1	8
S101A	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	11, 18, A2, 1	9
S101B	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S101C	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S101D	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S101E	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S101F	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S101G	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S101H	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-
S101I	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	10, 34, A2, 1	8
S102	F	3'-0"	7'-0"	0'-1.34"	HM	1	HM	10, 34, A2, 1	8
S102A	DD	14'-0"	14'-0"	0'-2"	-	-	-	22, 38, 39, A2, 2	-

* FRAME, STILES & TUBES EXCEPT 11" (10" FRAME EXCEPT 10" TUBES) ARE ALUMINUM (FINISHES VARY) AND 1/2" (10" FRAME EXCEPT 10" TUBES) ARE STEEL (FINISHES VARY)
* SHIP INTERIOR SECTION DOORS EQUIPPED WITH REGULATORY DOOR OPERATORS AND LOW GRADE BLINDS & FS

DOOR SCHEDULE (ALTERNATE #3)									
DOOR NUMBER	DOOR TYPE	WIDTH	HEIGHT	DOOR THICKNESS	DOOR MATERIAL	FRAME TYPE	FRAME MATERIAL	DETAILS	FINISHING GROUP
128	F	3'-0"	7'-0"	0'-1.34"	WD	2	WD	6, 30, 33, A2, 2	2

* 4" x 7'-0" WOOD DOORS & FRAMES LOCATED IN EXL WALLS SHALL HAVE A 2" x 7'-0" OPENING

* 7'-0" x 7'-0" WOOD DOORS & FRAMES LOCATED IN EXL WALLS SHALL HAVE A 2" x 7'-0" OPENING

KEYNOTES

- DOOR & WINDOW**
- 101 INSULATED DOOR
 - 102 DOOR
 - 103 ALUMINUM CLAD WOOD WINDOW
 - 104 GLASS CLAD WOOD WINDOW
 - 105 TYPED GLASS
 - 106 INSULATED GLASS
 - 107 INSULATED GLASS
 - 108 INSULATED GLASS
 - 109 INSULATED GLASS
 - 110 INSULATED GLASS

GENERAL NOTES

- 1. ALL 10" FRAME & 10" TUBES PARTITION WALLS BE SHIPPED AROUND BOTH SIDES OF PARTITION (1/2") SEE PLAN FOR WALL THICKNESS



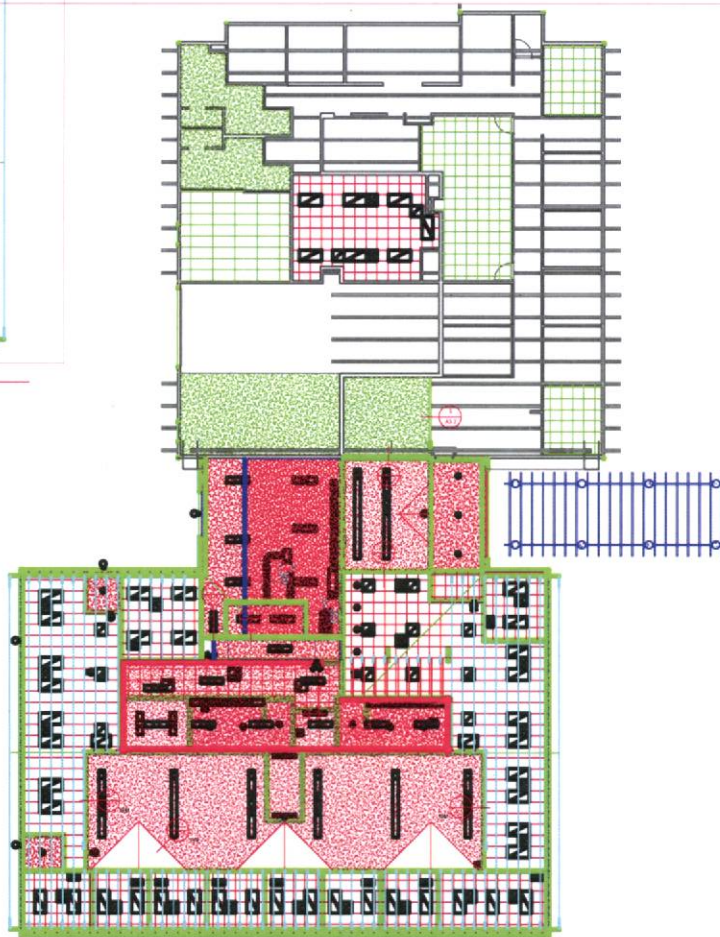
PROJECT:
KASHI HAZARD ASSOCIATES, INC.
4811 South Perry Blvd, Suite 100
Denver, CO 80231
Tel: 303.440.1778
Fax: 303.440.1779
www.kashi.com

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OFFICE BUILDING ADDITION
MECHANICAL FLOOR REFLECTED
CEILING
12" x 12"



OFFICE BUILDING ADDITION FIRST
FLOOR REFLECTED CEILING PLAN
12" x 12"

KEYNOTES

GENERAL NOTES

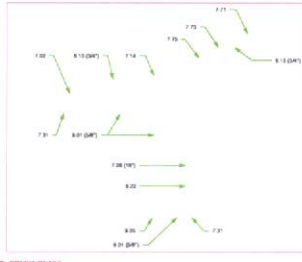
- 10. SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS.
- 11. VERIFY ALL EXISTING CONDITIONS.
- 12. ALL ITEMS INSTALLED IN CEILING, INCLUDING SPRINKLER HEADS, ARE TO BE CENTERED ON THEIR MECHANICAL SUPPORTS OR ON THE CENTERLINE OF JOISTS AND CENTERED IN CEILING PANELS.
- 13. WALL MOUNTED LIGHT FIXTURES ARE TO BE CENTERED OVER DOOR OR DOOR OPENING UNLESS OTHERWISE SPECIFIED.
- 14. REFER TO SPECIFICATIONS FOR LIGHTING AND FIXTURE SUSPENSION REQUIREMENTS.

CEILING LEGEND

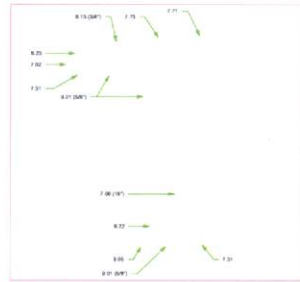
ARCHITECTURAL CEILING TILE AND GRID ONE CEILING		ONE CEILING	
LIGHTING		HVAC	
SERVICE MOUNTED LIGHT FIXTURE 1.8" x 1.8" LIGHT FIXTURE RECESSED LIGHT FIXTURE WALL MOUNTED LIGHT FIXTURE SERVICE MOUNTED LIGHT FIXTURE	RETURN AIR RECESSED SUPPLY AIR RECESSED PENDING CEILING PANEL		
<small>NOTE: SEE ELECTRICAL PLANS FOR SIZE AND TYPE OF SYMBOL OR PANEL DESIGN.</small>		<small>NOTE: SEE MECHANICAL PLANS FOR SIZE AND TYPE OF SYMBOL OR PANEL DESIGN.</small>	



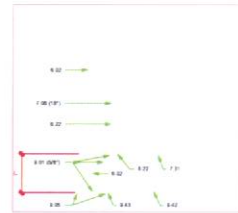
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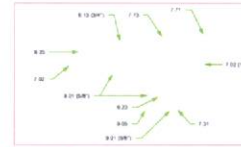
1 SOFFIT DETAIL
1/2" - 1/2"



2 SOFFIT DETAIL @ MECH. STAIR
1/2" - 1/2"



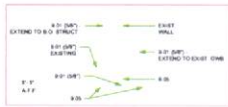
3 BULKHEAD DETAIL
1/2" - 1/2"



4 SOFFIT DETAIL @ MECH. RM
1/2" - 1/2"



5 BULKHEAD DETAIL
1/2" - 1/2"



6 BULKHEAD DETAIL @ 2ND FL. HALL
1/2" - 1/2"

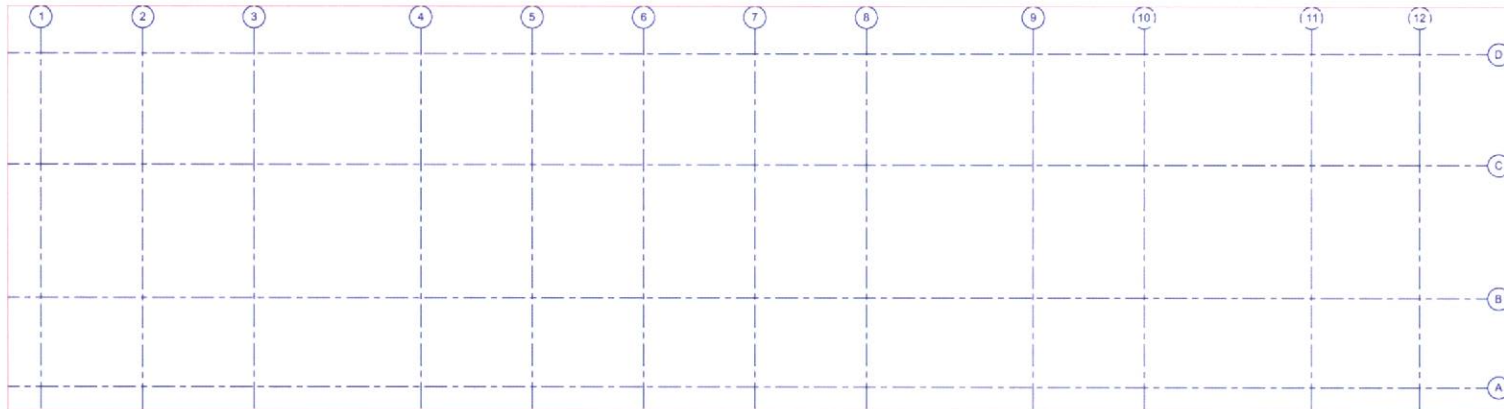
KEYNOTES

- SECTION 1 - WOOD, PLASTER AND COMPOSITES**
- E10 - 2X4 JOIST @ 16" O.C.
 - E11 - ON BE JOISTING
 - E12 - EXTERIOR WOOD SHEATHING
 - E22 - ROOF TRUSS
 - E23 - LVL BEAM (SEE STRUCT.)
- SECTION 2 - TYPING AND SCHEDULES**
- T10 - TO BE DETERMINED
 - T11 - TO BE DETERMINED
 - T12 - TO BE DETERMINED
 - T13 - TO BE DETERMINED
 - T14 - TO BE DETERMINED
 - T15 - TO BE DETERMINED
 - T16 - TO BE DETERMINED
 - T17 - TO BE DETERMINED
 - T18 - TO BE DETERMINED
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- SECTION 3 - FINISHES**
- F10 - TO BE DETERMINED
 - F11 - TO BE DETERMINED
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 - F98 - TO BE DETERMINED
 - F99 - TO BE DETERMINED
 - F100 - TO BE DETERMINED

GENERAL NOTES

- 1. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS.
- 2. ALL ITEMS INSTALLED IN CEILING INCLUDING SPRINKLER HEADS ARE TO BE CENTERED OR SYMMETRICALLY POSITIONED ON OR ABOUT CENTERLINE OF ROOMS AND CENTERED IN CEILING TILES.
- 3. ALL WALL MOUNTED FIXTURES AND FITTINGS ARE TO BE CENTERED OVER DOOR OR DOOR OPENING WHERE APPLICABLE.
- 4. REFER TO SPECIFICATIONS FOR CEILING AND FIXTURE SUSPENSION REQUIREMENTS.

CEILING LEGEND	
LIGHTING	HVAC
<ul style="list-style-type: none"> RECESSED LIGHT FIXTURE WALL MOUNT LIGHT FIXTURE SURFACE MOUNTED LIGHT FIXTURE 	<ul style="list-style-type: none"> RETURN AIR REGISTER SUPPLY AIR REGISTER RADIANT CEILING PANEL
NOTE: SEE ELECTRICAL PLANS FOR SIZE AND TYPE OF FIXTURE	NOTE: SEE MECHANICAL PLANS FOR SIZE AND TYPE OF REGISTER OR VENTILATION



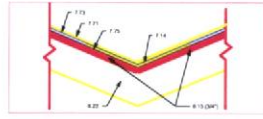
401 SOUTH STONEY ROAD
SUITE 100, STONEY ROAD
TOWNSHIP OF BRANT
BRANTFORD, ONTARIO
N3R 1C1
TEL: 519-753-1111
WWW.KOEKARCHITECT.COM

REVISIONS

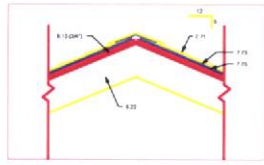
NO.	DATE	DESCRIPTION
1	10/20/2023	ISSUED FOR PERMIT

DESIGNED BY: [Name]
DRAWN BY: [Name]
CHECKED BY: [Name]
DATE: 10/20/2023

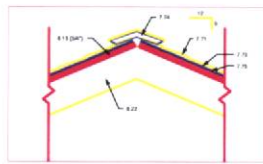
PROJECT: SHOPPING AND STORAGE BUILDING
PROJECT NO.: [Number]



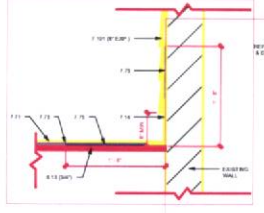
1 VALLEY DETAIL
1/2" = 1'-0"



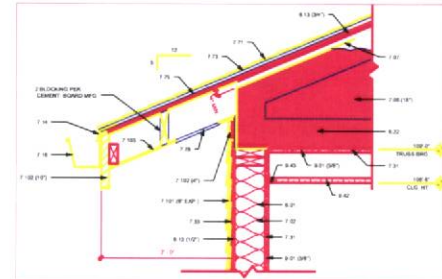
2 TYP. RIDGE DETAIL
1/2" = 1'-0"



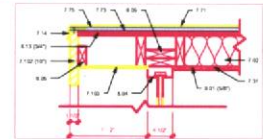
3 RIDGE DETAIL
1/2" = 1'-0"



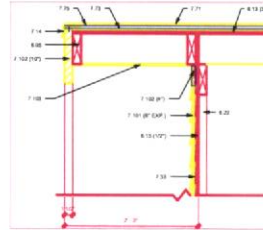
4 NEW ROOF TO EXISTING WALL DETAIL
1/2" = 1'-0"



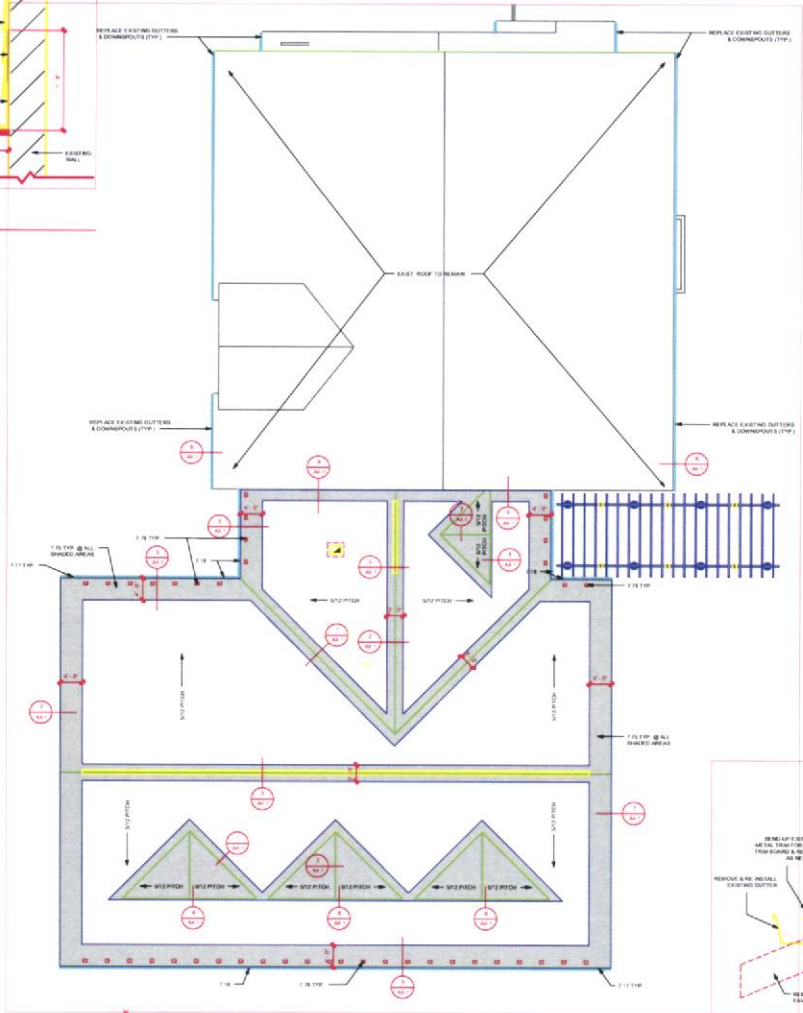
5 WALL DETAIL
1/2" = 1'-0"



6 RIDGE DETAIL @ OPENING
1/2" = 1'-0"



7 TYP. EAVE DETAIL
1/2" = 1'-0"



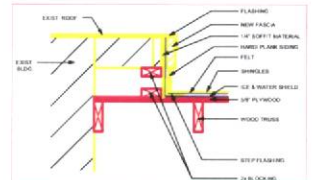
8 DETAIL BUILDING ADDITION ROOF PLAN
1/2" = 1'-0"

KEYNOTES

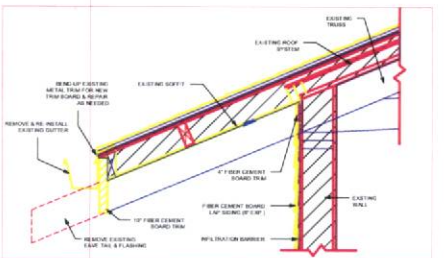
- GENERAL & ROOF FINISHES AND COMPONENTS**
- R01 2X6 CEILING
 - R11 EXTERIOR FINISHED SHEATHING
 - R22 ROOF TRUSS
 - R31 2X6 CEILING BLOCKING
 - R41 2X6 CEILING BLOCKING
 - R51 2X6 CEILING BLOCKING
- GENERAL CONSTRUCTION AND FINISHES**
- F01 1/2" GYP BOARD
 - F02 1/2" GYP BOARD
 - F03 1/2" GYP BOARD
 - F04 1/2" GYP BOARD
 - F05 1/2" GYP BOARD
 - F06 1/2" GYP BOARD
 - F07 1/2" GYP BOARD
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- GENERAL CONSTRUCTION**
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 - C97 1/2" GYP BOARD
 - C98 1/2" GYP BOARD
 - C99 1/2" GYP BOARD
 - C100 1/2" GYP BOARD

GENERAL NOTES

1. MATCH REMAINING EXISTING CONSTRUCTION, UNLESS NOTED OTHERWISE.
2. SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION FOR THE CONSTRUCTION SHALL VERIFY ALL UNDERGROUND UTILITIES AND CONDITIONS.
3. COORDINATE AND VERIFY ALL CONDITIONS, ALL FIELD CONDITIONS, ROOF HEIGHTS, ELEVATIONS, DIMENSIONS AND ALL SHALL MATCH THAT OF THE EXISTING BUILDING.
4. COORDINATE DIMENSIONS TO MATCH EXISTING CONDITIONS.
5. REMOVE AND REINSTALL EXISTING GUTTERS & DOWNSPOUTS FOR REMOVAL OF SEAMS & PATCHWORK.



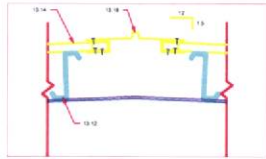
9 ROOF EAVE DETAIL
1/2" = 1'-0"



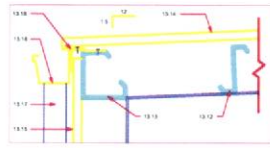
10 WALL DETAIL @ EXISTING
1/2" = 1'-0"



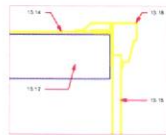
PROJECT: OFFICE BUILDING ADDITION
 LOCATION: 401 1/2th Street SE
 CITY: ALBUQUERQUE, NM
 CLIENT: [REDACTED]
 DATE: [REDACTED]



ROOF DETAIL
1:12 = 1:12



LEVEL DETAIL
1:12 = 1:12



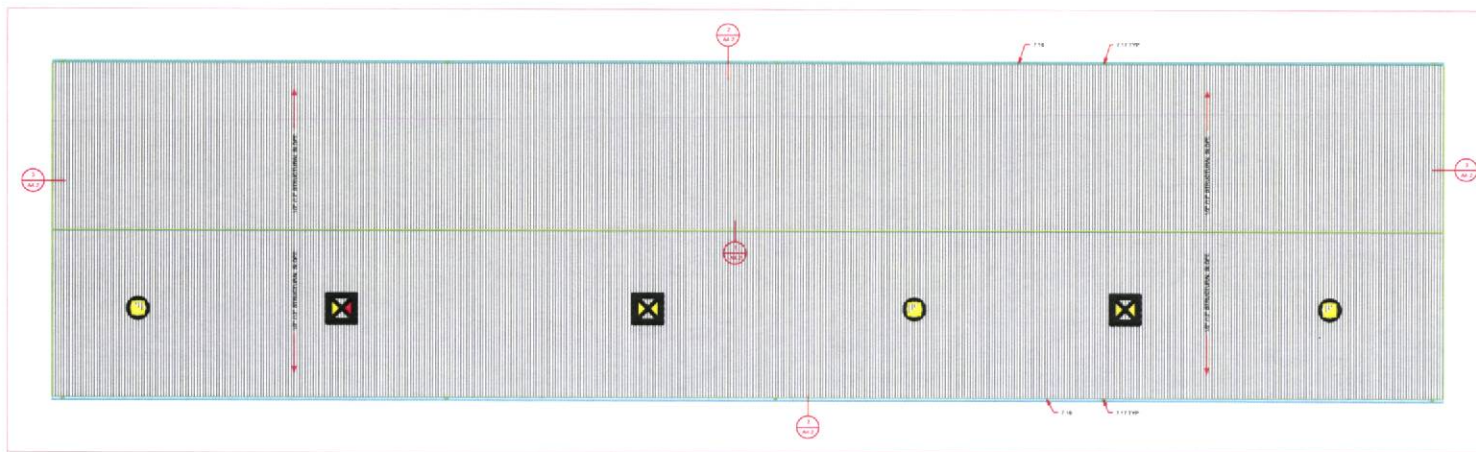
EDGE DETAIL
1:12 = 1:12

KEYNOTES

- WORK IN THIS SECTION**
- 13.11 FLOOR
 - 13.12 GIRT
 - 13.13 PREFABRICATED METAL STANDING SEAM ROOF
 - 13.14 PREFABRICATED METAL WALL PANEL
 - 13.15 GUTTER (PREFABRICATED)
 - 13.16 CONCRETE (PREFABRICATED)
 - 13.17 FLASHING (PREFABRICATED)

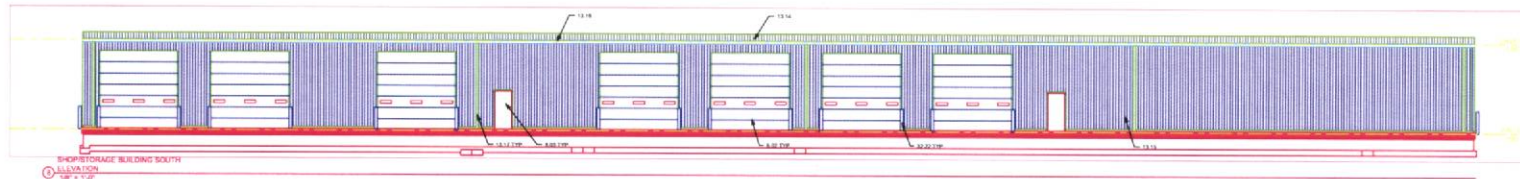
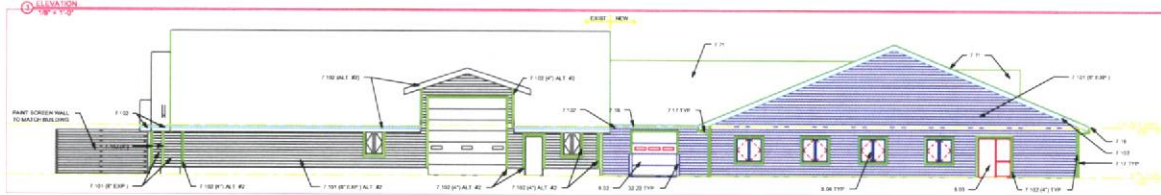
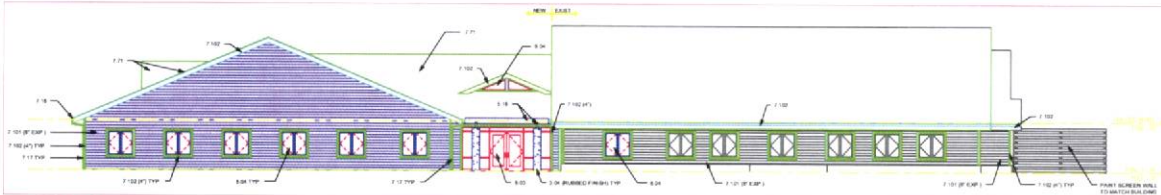
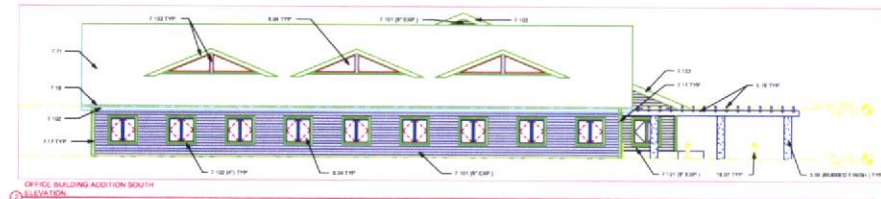
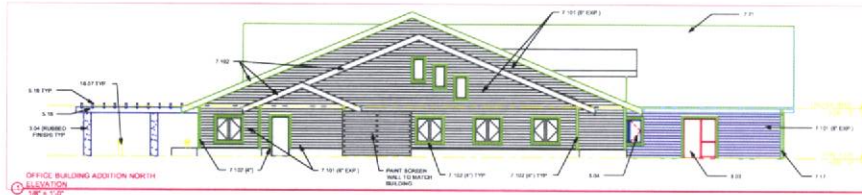
GENERAL NOTES

- 1. SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ROOF OPENING DETAIL AND COORDINATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS.
- 2. COORDINATE DIVISION 15 RETROFIT IRMS WITH MECHANICAL.
- 3. ALL METAL BUILDING COMPONENTS SHALL BE BY METAL BUILDING MANUFACTURER.



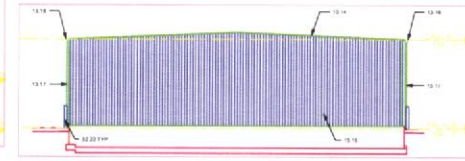
Ecos Habitat
Architecture

PROJECT: STORAGE BUILDING ROOF PLAN
DATE: 2023-10-10
SCALE: 1/8" = 1'-0"
SHEET: A4.2

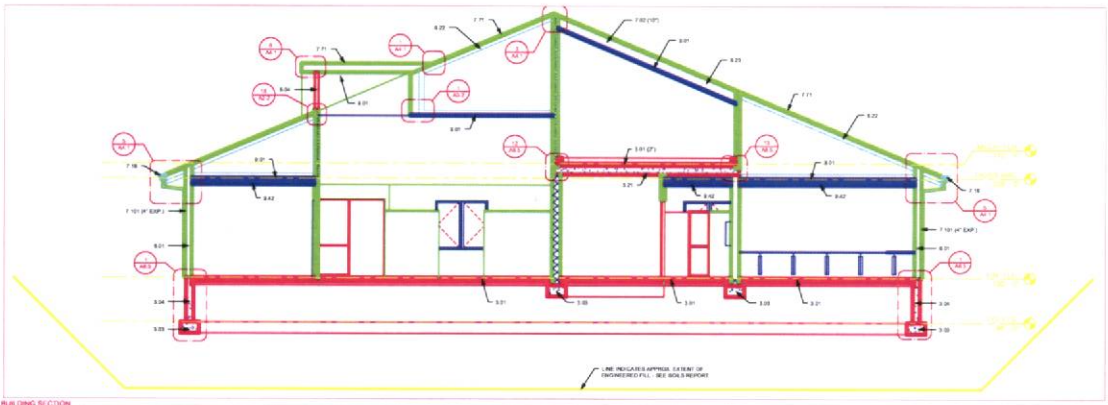


KEYNOTES	
SECTION 01 05 00	PAINTS
SECTION 01 06 00	WOODWORK
SECTION 02 01 00	ROOFING
SECTION 02 02 00	EXTERIOR WALLS
SECTION 02 03 00	WINDOWS AND GLASS
SECTION 02 04 00	DOORS
SECTION 02 05 00	EXTERIOR FINISHES
SECTION 02 06 00	MAINTENANCE
SECTION 02 07 00	MECHANICAL
SECTION 02 08 00	ELECTRICAL
SECTION 02 09 00	TELECOMMUNICATIONS
SECTION 02 10 00	FIRE PROTECTION
SECTION 02 11 00	SEWER, VENT, AND RAIN
SECTION 02 12 00	CONCRETE
SECTION 02 13 00	FINISHES
SECTION 02 14 00	MECHANICAL
SECTION 02 15 00	ELECTRICAL
SECTION 02 16 00	TELECOMMUNICATIONS
SECTION 02 17 00	FIRE PROTECTION
SECTION 02 18 00	SEWER, VENT, AND RAIN
SECTION 02 19 00	CONCRETE
SECTION 02 20 00	FINISHES

GENERAL NOTES	
1.	SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION OF THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS.
2.	COMPLY AND MATCH EXISTING CONDITIONS ALL FINISHES SHALL BE IN ACCORDANCE WITH THE EXISTING BUILDING.
3.	ALL MATERIALS AND MANUFACTURERS SHALL BE APPROVED BY THE ARCHITECT.
4.	REMOVE AND REINSTALL EXISTING BUTTONS AND COMPONENTS FOR REMOVAL OF SIGNS & FACES.



PROJECT NO.: 2024-001
 DATE: 08/2024
 SHEET NO.: 107-001
 PROJECT: SHOP/STORAGE BUILDING
 DEPT. OF SALES AND MARKETING
 17 PARKWAY, GREENVILLE, SC 29615
 EXTERIOR ELEVATIONS



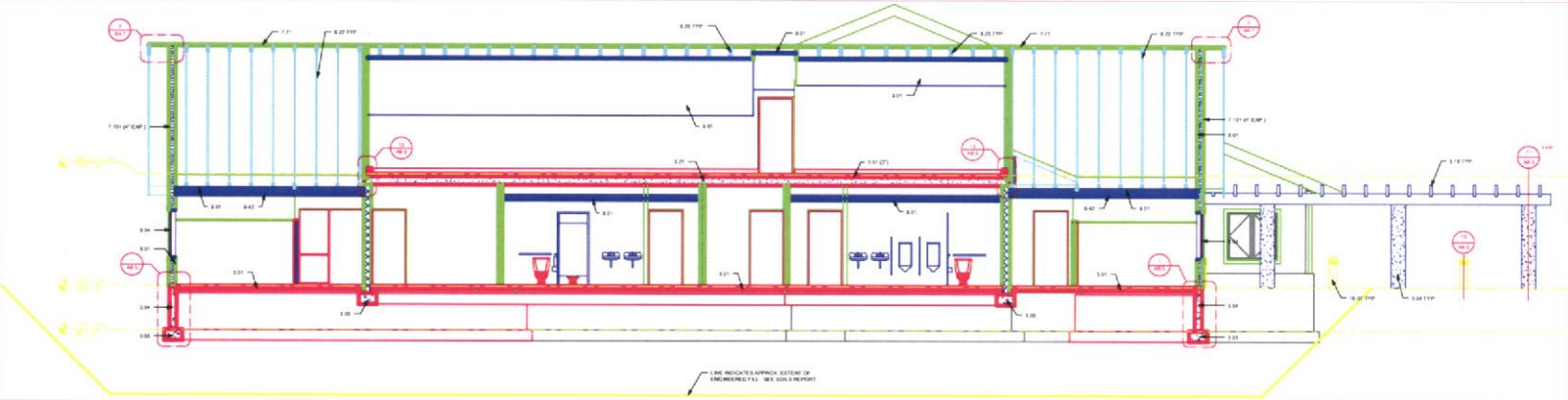
1 BUILDING SECTION
14' x 14'

KEYNOTES

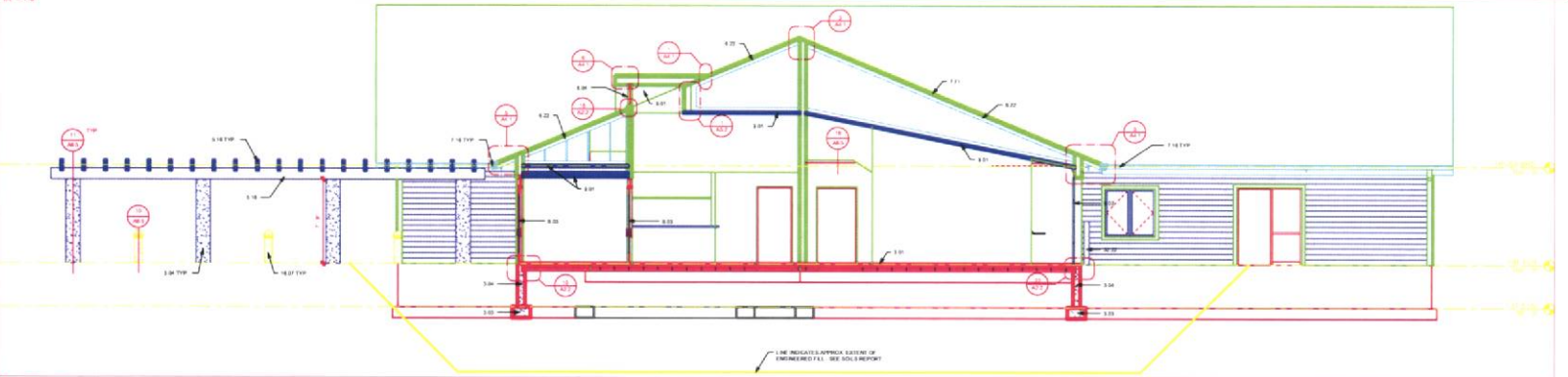
- SECTION 1 - CONCRETE**
 - 3.01 FORMED IN PLACE
 - 3.02 FORMWORK
 - 3.03 FOUNDATION
 - 3.04 PRECAST CONCRETE
 - 3.05 PRECAST CONCRETE II
- SECTION 2 - STEEL**
 - 2.01 STEEL STRUCTURE
- SECTION 3 - WOOD, PLASTER AND COMPOSITES**
 - 3.01 WOOD
 - 3.02 ROOF TRUSS
 - 3.03 LIN. BOARD SHEATHING
- SECTION 4 - THERMAL AND MOISTURE PROTECTION**
 - 4.01 POLYETHYLENE FOIL INSULATION
 - 4.02 INSULATION
 - 4.03 GUTTER PROTECTION
 - 4.04 SHIMULETS
 - 4.05 FIBER CEMENT BOARD LAP JOINT
- SECTION 5 - FINISHES**
 - 5.01 FINISHED FLOOR
 - 5.02 DOOR
 - 5.03 WINDOW UNIT
- SECTION 6 - LIGHTING**
 - 6.01 RECESSED DOWNLIGHT
 - 6.02 RECESSED DOWNLIGHT
 - 6.03 RECESSED DOWNLIGHT
- SECTION 7 - PARTITIONING**
 - 7.01 PARTITION WALL
 - 7.02 PARTITION WALL
- SECTION 8 - EXTERIOR FINISHES**
 - 8.01 EXTERIOR FINISH

GENERAL NOTES

1. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ALL MATERIALS AND CONDITIONS.
2. ALL WALLS TO EXTEND TO BOTTOM OF FOUNDATION UNLESS OTHERWISE NOTED ON WALL TYPES.
3. ALL STRUCTURAL OVER WALLS ARE TO BE FULLY INSULATED.
4. COMPARE AND MATCH EXISTING CONDITIONS. ALL FLOOR ELEVATIONS, ROOF ELEVATIONS, ELEVATIONS, DIMENSIONS AND WALL WORK TO MATCH THAT OF THE EXISTING BUILDING.



2 BUILDING SECTION
14' x 14'

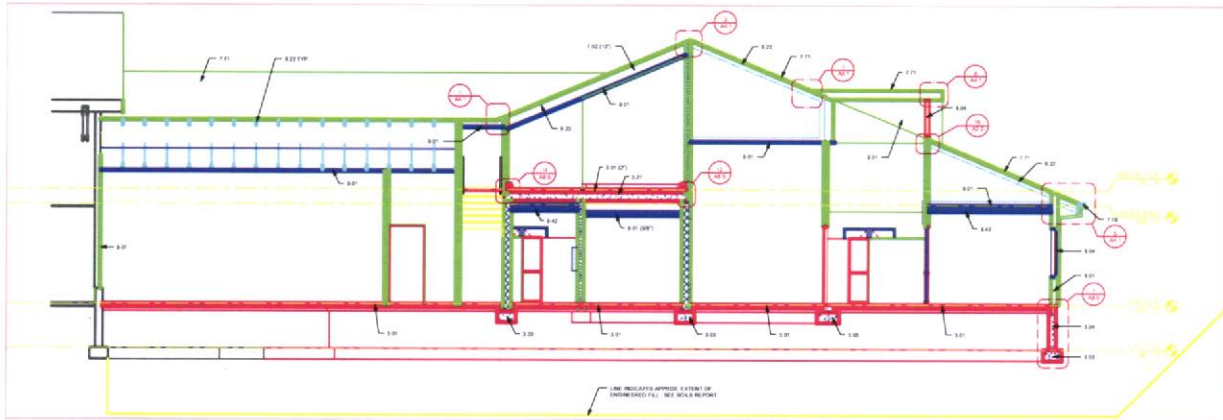


3 BUILDING SECTION
14' x 14'

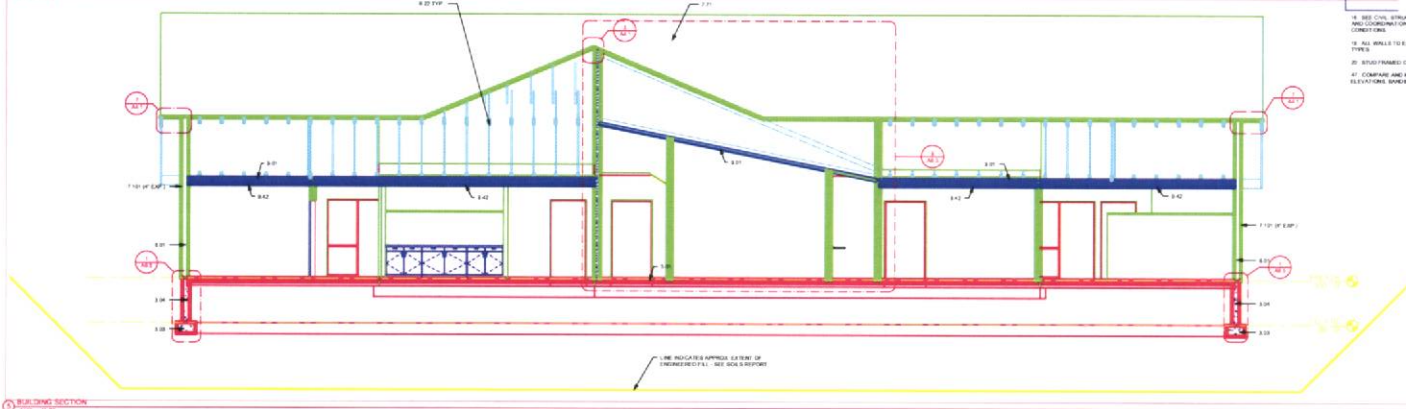


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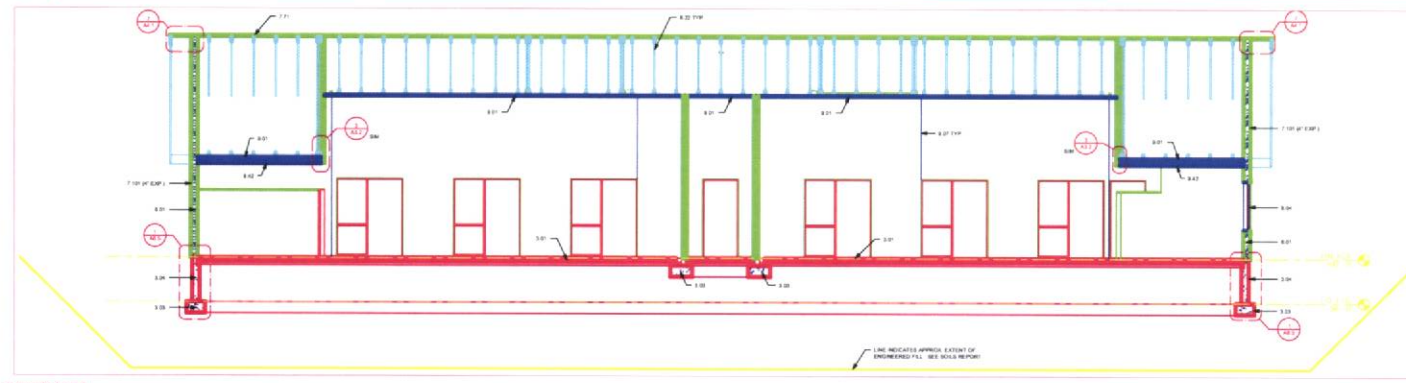
PROJECT: BRIDGEWAY BUILDING
CLIENT: BRIDGEWAY BUILDING
ARCHITECT: KOOH HATTAH ARCHITECTS
DATE: 07/2023
SCALE: AS SHOWN
PROJECT NO.: 2023-001
PROJECT LOCATION: BRIDGEWAY BUILDING
PROJECT ADDRESS: 11 PALM BEACH BLVD, PALM BEACH, FL 33480
PROJECT TYPE: BUILDING SECTION



1. BUILDING SECTION
1/4" = 1'-0"



2. BUILDING SECTION
1/4" = 1'-0"



3. BUILDING SECTION
1/4" = 1'-0"

KEYNOTES

- SECTION 1. CONCRETE
 - 101 CONCRETE SLAB
 - 102 FOOTING
 - 103 FLOOR SLAB
 - 104 INTERIOR ALUM
 - 105 PRECAST CONCRETE PANEL
- SECTION 2. ROOFING
 - 201 TRUSS
- SECTION 3. WOOD FRAMING AND COMPONENTS
 - 301 2X STUDS @ 16" O.C.
 - 302 ROOF TRUSS
 - 303 (SEE BEAM SHEET STRUCT)
- SECTION 4. METAL PANELS AND INSULATION
 - 401 METAL PANELS
 - 402 INSULATION
 - 403 2X STUDS @ 16" O.C.
 - 404 ROOF TRUSS
 - 405 (SEE BEAM SHEET STRUCT)
- SECTION 5. INTERIOR PARTITION WALLS AND CEILING
 - 501 1/2" GYPSUM BOARD
 - 502 1/2" GYPSUM BOARD
 - 503 1/2" GYPSUM BOARD LAP JOINT
- SECTION 6. INTERIORS
 - 601 INTERIOR WALL JOINTS
 - 602 CONTROL JOINT @ JOINT TYPE
 - 603 ACoustICAL PANEL, 1/2" x 6"

GENERAL NOTES

1. SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR VERTICAL CLEARANCES AND COORDINATION FOR THE LOCATION OF WALL, DOOR, WINDOW, ELEVATIONS, AND CONDITIONS.
2. ALL WALLS TO EXTERIOR TO BOTTOM OF TRUSS LINE SEE OTHERWISE NOTED ON WALL TYPE.
3. STUD FRAMES OVER WALLS ARE TO BE SOUND INSULATED.
4. COMPARE AND MATCH EXISTING CONDITIONS ALL FLOOR ELEVATIONS, ROOF SLOPES, ELEVATIONS, DIMENSIONS AND RELATIONS TO ARCHITECTURE OF THE EXISTING BUILDING.



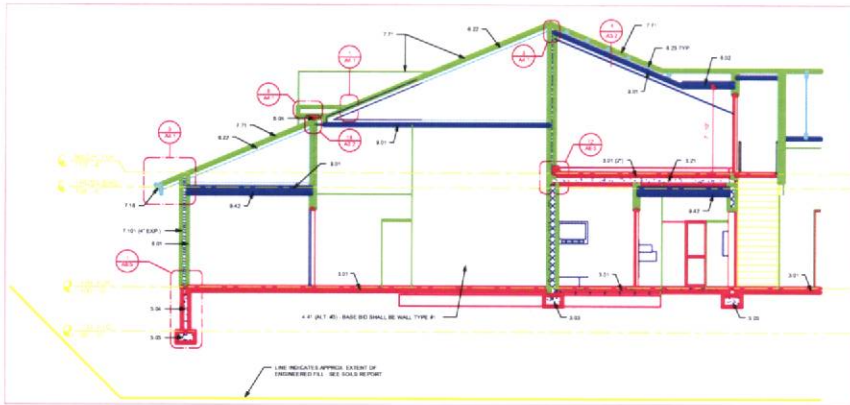
KOC BARR & ASSOCIATES
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 Suite 100, 48710
 Phoenix, AZ 85024
 P: 602.944.2710
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 www.kocbarra.com

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PROJECT NO. 2024-01
 SHEET NO. 400
 DATE 10/20/24
 DRAWN BY JMM

REVISIONS:
 1. REVISION TO SHEET NO. 400 BUILDING SECTION 1 & 2
 2. REVISION TO SHEET NO. 400 BUILDING SECTION 3

BUILDING SECTIONS



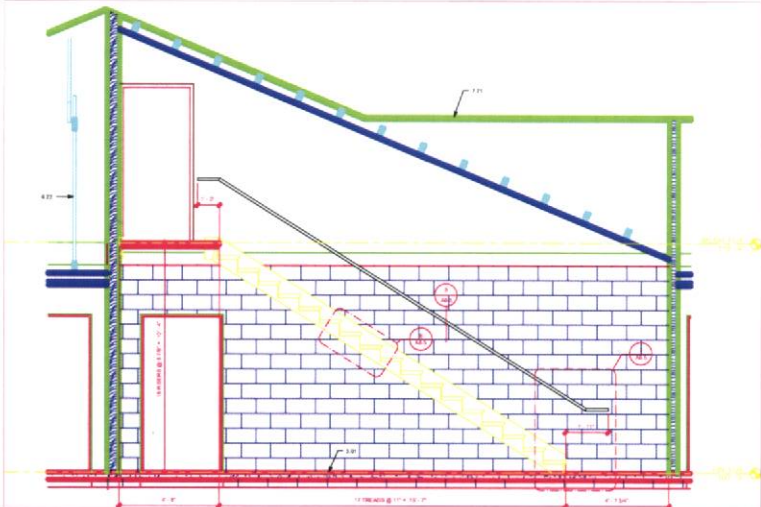
1 BUILDING SECTION
1/2" = 1'-0"

KEYNOTES

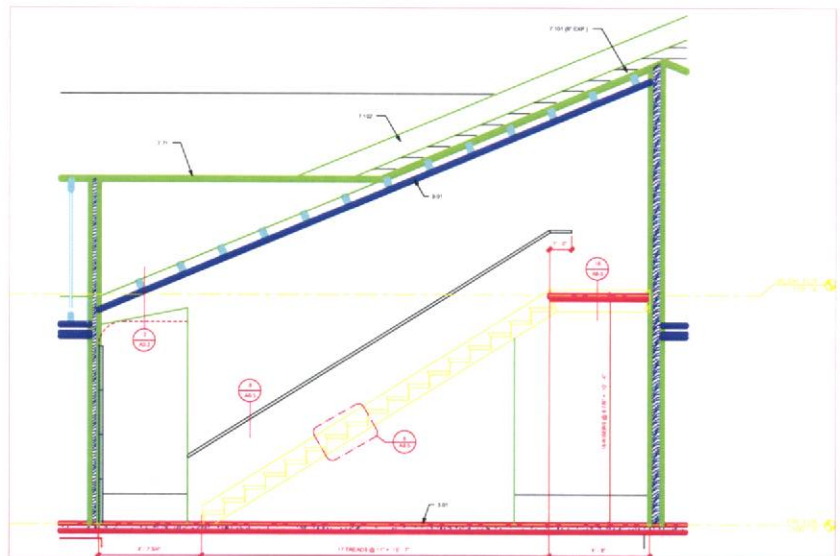
- SECTION 1 - CONCRETE**
 - 1.01 FLOOR SLAB
 - 1.02 FLOOR JOIST
 - 1.03 FLOOR BEAM
 - 1.04 PRECAST CONCRETE PANEL
- SECTION 2 - STEEL**
 - 2.01 STEEL DECK STRUCTURE
- SECTION 3 - WALL, PARTITION AND COMPARTMENT**
 - 3.01 FLOOR FINISH
 - 3.02 WALL FINISH
 - 3.03 (SEE RELATED SEE STRUCTURE)
- SECTION 4 - STAIRS AND MECHANICAL STRUCTURE**
 - 4.01 FLOOR FINISH
 - 4.02 FLOOR JOIST
 - 4.03 FLOOR BEAM
 - 4.04 STAIR CASE
 - 4.05 MECHANICAL STRUCTURE
- SECTION 5 - FINISHES**
 - 5.01 FLOOR FINISH
 - 5.02 WALL FINISH
 - 5.03 MECHANICAL PANEL (SEE MECH)
- SECTION 6 - ELECTRICAL**
 - 6.01 ELECTRICAL SYMBOLS SEE ELEC

GENERAL NOTES

1. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS.
2. ALL WALLS TO EXTEND TO BOTTOM OF FOUNDATION UNLESS OTHERWISE NOTED ON WALL TYPES.
3. STAIR FLOORING SHALL BE TO BE SLOPED AWAY FROM THE STAIRS.
4. COMPARTMENT WALLS SHALL BE CONSTRUCTION AS NOTED FOR ALL STAIRS. SEE ALL STAIRS FOR VERTICAL DIMENSIONS AND SHALL MATCH THAT OF THE EXISTING BUILDING.



2 STAIR SECTION
1/2" = 1'-0"

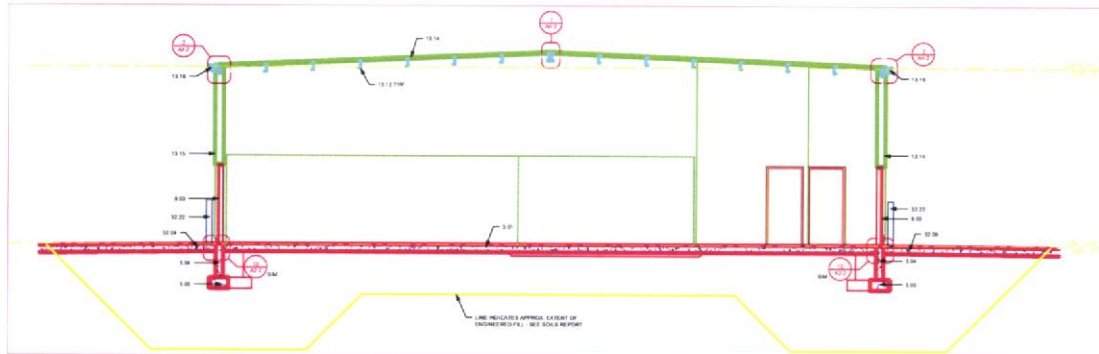


3 STAIR SECTION
1/2" = 1'-0"

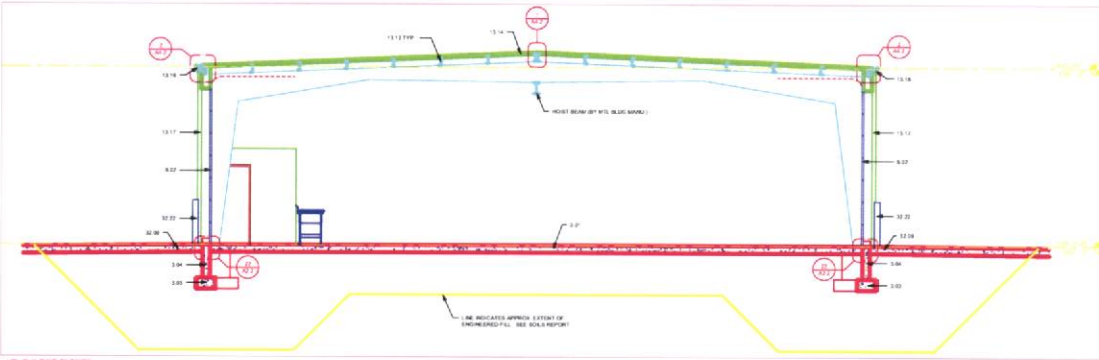


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 TX 75086-3718
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 F 972.266.0000
 www.kh-engineers.com

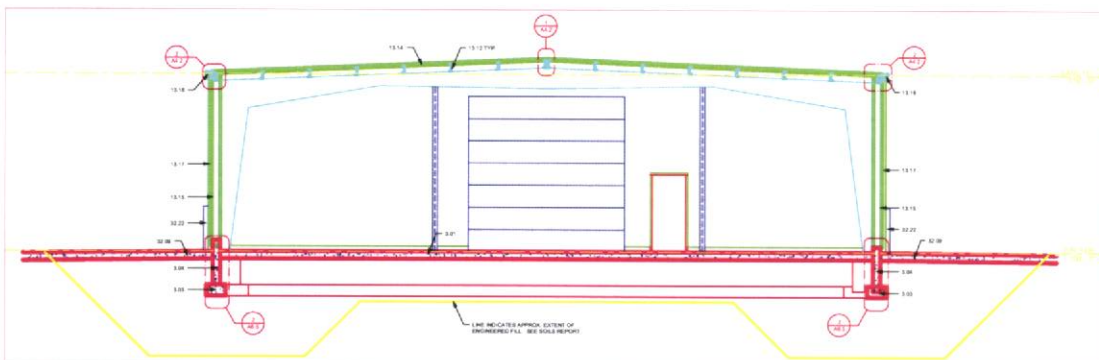
PROJECT: REPAIR OF EXISTING BUILDING
DATE: 08/11/2020
SCALE: AS SHOWN
DESIGNER: [Name]
CHECKER: [Name]
DATE: 08/11/2020



1. BUILDING SECTION
1/4" = 1'-0"



2. BUILDING SECTION
1/4" = 1'-0"



3. BUILDING SECTION
1/4" = 1'-0"

KEYNOTES

- SECTION 1 - CONCRETE**
 - 1-1 FLOOR
 - 1-2 FOUNDATION
- SECTION 2 - METALS**
 - 2-1 METAL DOOR
 - 2-2 WINDOW
- SECTION 3 - METALS CONSTRUCTION**
 - 3-1 PREPARED METAL STEEL AND STEEL ROOF
 - 3-2 PREPARED METAL WALL PANELS
 - 3-3 METAL PANELS
 - 3-4 METAL PANELS
- SECTION 4 - STRUCTURAL REQUIREMENTS**
 - 4-1 CONCRETE
 - 4-2 REINFORCEMENT

GENERAL NOTES

1. SEE CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL FOR ADDITIONAL INFORMATION AND COORDINATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONAL ELEVATIONS AND CONDITIONS.
2. ALL WALLS TO EXTEND TO BOTTOM OF TRUSS UNLESS OTHERWISE NOTED ON WALL TYPES.
3. STUD FRAMED OVER WALLS ARE TO BE BUILT AS SHOWN.
4. CONCRETE AND METALS TO BE USED IN ACCORDANCE WITH ALL CODES AND STANDARDS. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO THE AIA'S BUILDING CODE.



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PROJECT: KODI HAZARD SOLUTIONS
CLIENT: KODI HAZARD SOLUTIONS
DATE: 10/15/2024
SCALE: AS SHOWN
DESIGNER: KODI HAZARD SOLUTIONS
CHECKER: KODI HAZARD SOLUTIONS
DATE: 10/15/2024

SHEAR WALL SCHEDULE

MARK	SHEATHING	PANEL EDGE FASTENING	INTERIOR SUPPORT FASTENING	BOTTOM PLATE ANCHORS	END POSTS	HOLDDOWN	REMARKS
SWH	EXTERIOR WALL 1/2" PLYWOOD SHEATHING, BLOCKED ALL EDGES EXTERIOR FACE 2" OVER LAPTING BLOCKED ALL EDGES INTERIOR FACE INTERIOR WALL 2" OVER SHEATHING ON EACH FACE, BLOCKED ALL EDGES	3/4" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" -	3/4" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" -	3/4" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" -	3/4" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" -	3/4" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" - W/ 1/2" x 6" @ 12" -	HOLD-DOWN LOCATIONS DENOTED BY 1" OR 2" LONG WOOD SCREW AND 1/2" - 1/4" AT EACH END OF SHEAR WALL ANCHORS. SEE GENERAL NOTES FOR SHEAR WALL HOLD-DOWN AND EMBEDMENT. SEE GENERAL NOTES FOR SHEAR WALL HOLD-DOWN AND EMBEDMENT. SEE GENERAL NOTES FOR SHEAR WALL HOLD-DOWN AND EMBEDMENT.

- SHEAR WALL NOTES**
1. BLOCK WALL SHALL CONSIST OF AN UNFINISHED 16" OR 12" BLOCK. PANELS MAY BE SUBSTITUTED HORIZONTAL OR VERTICAL. ALL EDGES TO BE BLOCKED.
 2. AT EACH STRUCTURAL PANEL CORNER TO FRAMING, BLOCK PANELS OCCUR BOTH SIDES OF WALL. JOINTS SHALL BE STAGGERED OR OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS.
 3. PROVIDE BLOCKING & WALL BRACING AS REQUIRED BY CODE. USE LINE BLOCKS AT PANEL EDGES WHERE NAILING OCCURS @ 12" - 16".
 4. SUBMIT TO STRUCTURAL ENGINEER AS REQUIRED BY CODE. USE LINE BLOCKS AT PANEL EDGES WHERE NAILING OCCURS @ 12" - 16".
 5. FASTEN SHEAR WALL BRACING TO WALL WITHOUT BRACE AT PARTITION WALLS.

LINTEL SCHEDULE

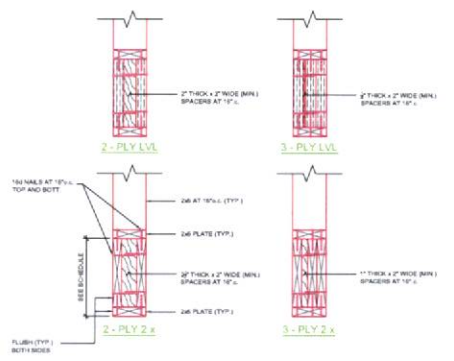
MARK	DESCRIPTION	BEARING
LI1	2" x 4" @ 12" x 14"	4"
LI2	2" x 4"	4"

SEE GENERAL STRUCTURAL NOTES FOR TYPICAL LINTELS FOR MECHANICAL, ELECTRICAL, AND OTHER OPENING NOT SHOWN ON PLAN.

HEADER / BEAM SCHEDULE

MARK	MATERIAL	BEARING	BY/PASS STUDS
H1	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H2	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H3	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H4	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H5	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H6	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H7	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H8	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H9	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H10	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H11	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H12	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H13	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H14	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H15	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H16	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H17	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H18	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H19	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H20	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H21	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H22	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H23	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H24	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H25	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H26	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H27	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H28	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H29	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H30	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H31	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H32	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H33	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H34	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H35	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H36	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H37	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H38	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H39	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H40	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H41	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H42	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H43	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H44	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H45	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H46	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H47	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H48	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H49	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H50	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H51	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H52	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H53	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H54	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H55	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H56	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H57	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H58	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H59	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H60	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H61	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H62	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H63	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H64	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H65	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H66	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H67	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H68	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H69	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H70	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H71	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H72	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H73	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H74	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H75	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H76	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H77	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H78	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H79	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H80	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H81	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H82	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H83	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H84	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H85	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H86	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H87	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H88	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H89	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H90	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H91	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H92	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H93	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H94	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H95	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H96	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H97	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H98	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H99	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2
H100	(2) 2" x 12" HEM-FIR #2	1" x 6" @ 12"	2

SEE DETAILS AND 200 FOR TYPICAL HEADER CONSTRUCTION. SEE DETAILS TO RIGHT FOR TYPICAL HEADER CONSTRUCTION ON 2" WALLS (SIMILAR AT 4" WALLS). INDICATES A "2" OR "4" HEAD HEM-FIR #2 COMPLETION.

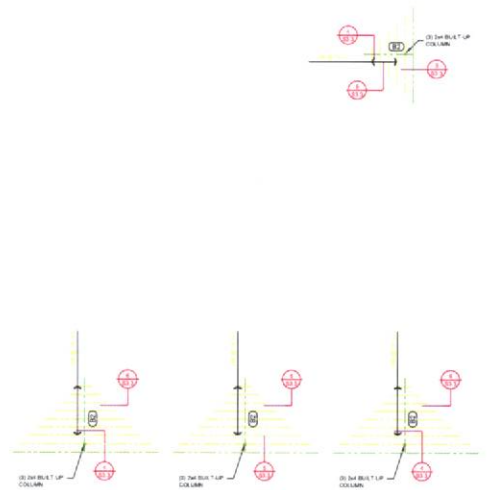
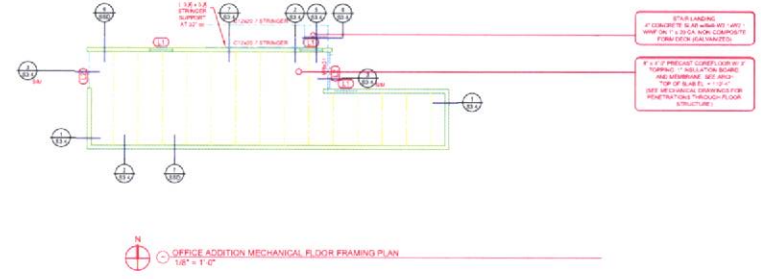
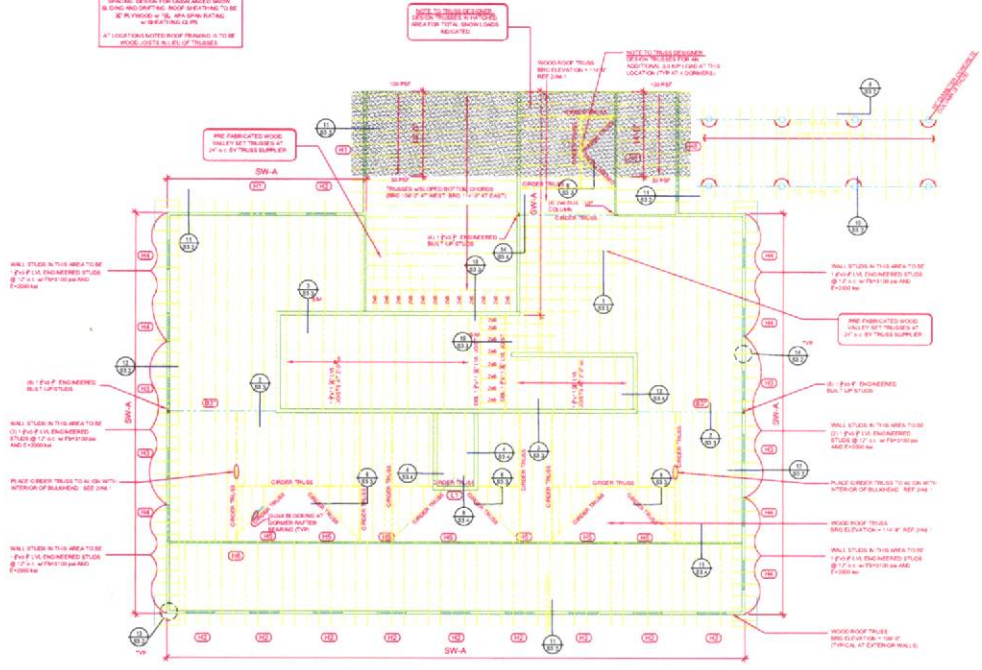


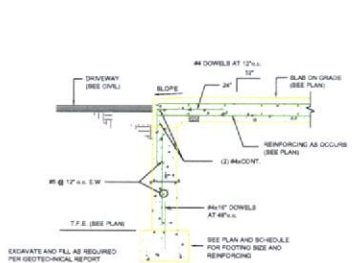
- NOTES TO CONTRACTOR**
1. "S" INDICATES SHEAR WALL LOCATIONS. REFER TO SHEAR WALL SCHEDULE.
 2. ALL EXTERIOR BRACING WALL STUDS TO BE 2" x 12" HEM-FIR #2. BRACE @ 16" ON CENTER. BRACING EXCEPT WHERE NOTED OTHERWISE.
 3. METAL IN FULL DEPTH HORIZONTAL BLOCKS IN STUD WALL FRAMING. AT 16" ON CENTER. WALL STUDS @ 16" ON CENTER.

WOOD ROOF TRUSS TO BE 12" x 12" LVL. BRACING FOR LOADS AND TO BE BLOCKED AND BRACED. BRACING TO BE 2" x 4" @ 16" ON CENTER. BRACING TO BE 2" x 4" @ 16" ON CENTER.

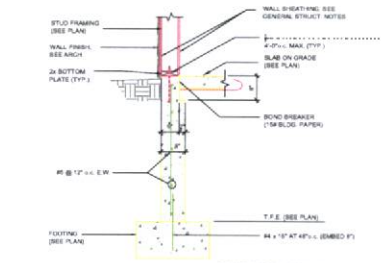
WALL STUDS TO BE 2" x 12" HEM-FIR #2. BRACING FOR LOADS AND TO BE BLOCKED AND BRACED. BRACING TO BE 2" x 4" @ 16" ON CENTER. BRACING TO BE 2" x 4" @ 16" ON CENTER.

WOOD ROOF TRUSS TO BE 12" x 12" LVL. BRACING FOR LOADS AND TO BE BLOCKED AND BRACED. BRACING TO BE 2" x 4" @ 16" ON CENTER. BRACING TO BE 2" x 4" @ 16" ON CENTER.

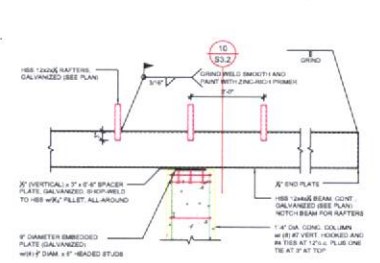




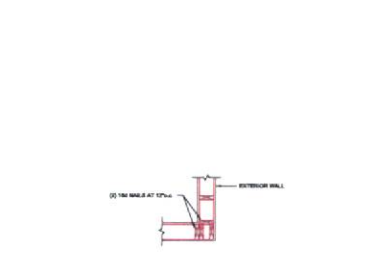
DETAIL AT OVERHEAD DOOR AT METAL BLDG
SCALE 3/4"=1'-0"
S3.2



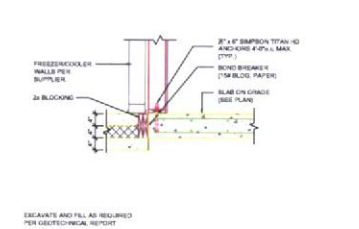
TYPICAL EXTERIOR FOUNDATION WALL
SCALE 3/4"=1'-0"
S3.2



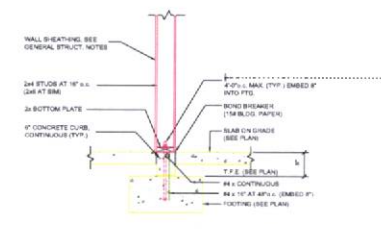
FRAMING DETAIL
SCALE 3/4"=1'-0"
S3.2



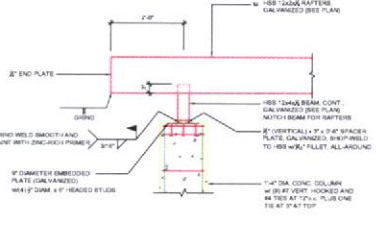
TYPICAL EXTERIOR CORNER DETAIL
SCALE 3/4"=1'-0"
S3.2



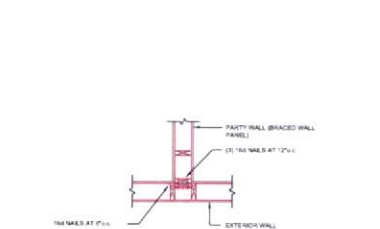
SLAB UNDER FREEZER DETAIL
SCALE 3/4"=1'-0"
S3.2



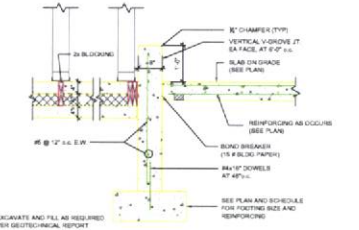
TYPICAL INTERIOR BEARING WALL (REV 10-05-09) SSD-4
SCALE 3/4"=1'-0"
S3.2



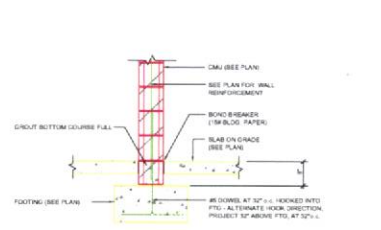
FRAMING DETAIL
SCALE 3/4"=1'-0"
S3.2



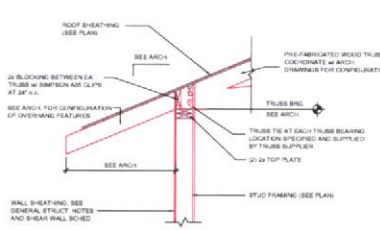
TYPICAL EXTERIOR WALL DETAIL
SCALE 3/4"=1'-0"
S3.2



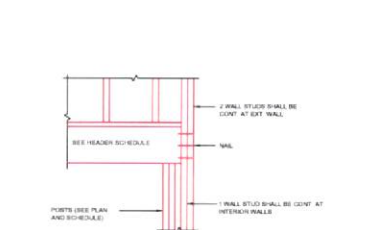
FOUNDATION WALL AT FREEZER DETAIL
SCALE 3/4"=1'-0"
S3.2



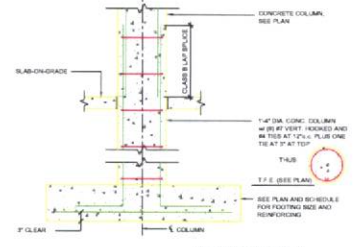
TYPICAL INTERIOR BEARING WALL
SCALE 3/4"=1'-0"
S3.2



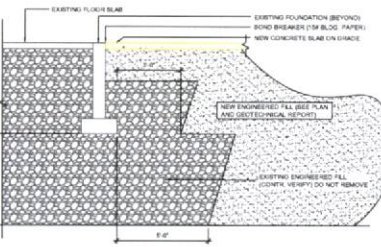
ROOF TRUSS BEARING DETAIL
SCALE 3/4"=1'-0"
S3.2



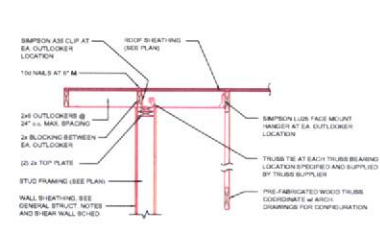
TYP. HEADER/POST DETAIL
SCALE 3/4"=1'-0"
S3.2



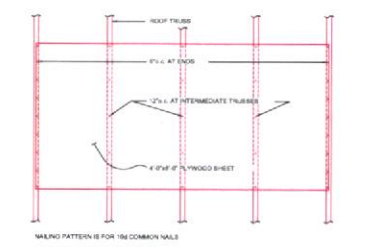
TYPICAL CONCRETE COLUMN AND FOOTING
SCALE 3/4"=1'-0"
S3.2



EXCAVATION AND BACKFILL ADJACENT TO EXISTING BUILDING
SCALE 3/4"=1'-0"
S3.2



ROOF BEARING DETAIL
SCALE 3/4"=1'-0"
S3.2

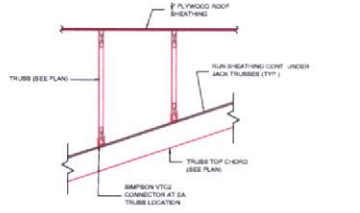


TYPICAL UNBLOCKED ROOF
SCALE 3/4"=1'-0"
S3.2

SEE ALL NOTES ON SHEETS S3.1 THROUGH S3.10 FOR GENERAL NOTES AND SPECIFICATIONS. THIS SET OF DRAWINGS IS THE PROPERTY OF K&H ENGINEERING, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF K&H ENGINEERING, INC. ANY UNAUTHORIZED USE OF THESE DRAWINGS IS STRICTLY PROHIBITED. K&H ENGINEERING, INC. 10000 W. 10TH AVENUE, DENVER, CO 80201. TEL: 303.751.1000. FAX: 303.751.1001. WWW.K&HENGINEERING.COM

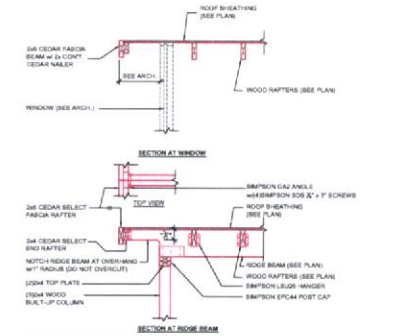
STRUCTURAL DETAILS

GIRDER TRUSS CONNECTION DETAIL



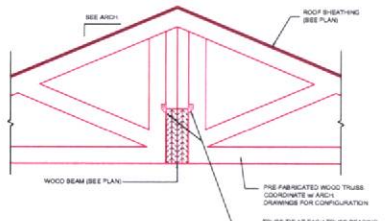
SCALE 3/4"=1'-0" **S3.3** 1

OUTLOOKER BEARING DETAIL



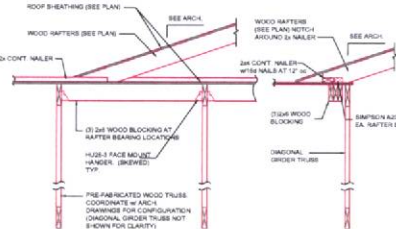
SCALE 3/4"=1'-0" **S3.3** 5

TRUSS BEARING DETAIL



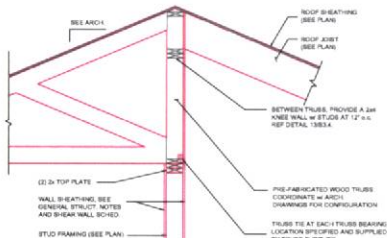
SCALE 3/4"=1'-0" **S3.3** 2

RAFTER CONNECTION DETAIL



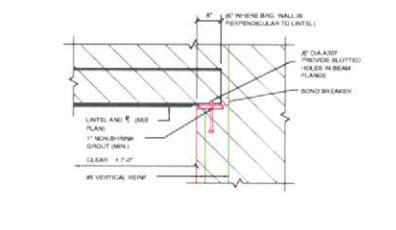
SCALE 3/4"=1'-0" **S3.3** 6

TRUSS BEARING DETAIL



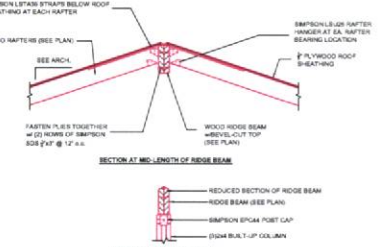
SCALE 3/4"=1'-0" **S3.3** 3

TYPICAL "W" LINTEL AND BEAM BEARING DETAIL (<7'-0")



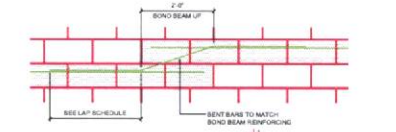
SCALE 3/4"=1'-0" **S3.3** 7

RAFTER BEARING DETAIL



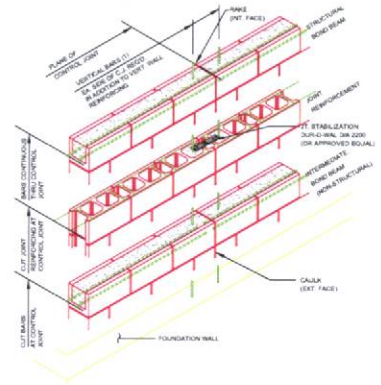
SCALE 3/4"=1'-0" **S3.3** 4

TYPICAL BOND BEAM STEP DETAIL



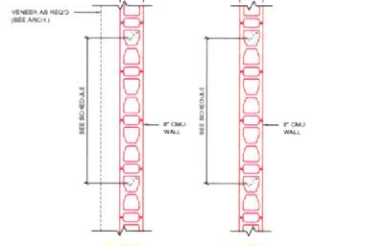
SCALE 3/4"=1'-0" **S3.3** 8

TYPICAL CONTROL JOINT DETAIL



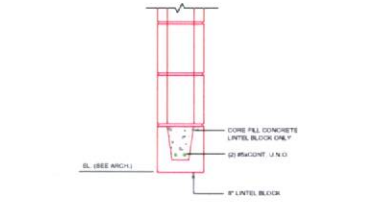
SCALE 3/4"=1'-0" **S3.3** 9

8" CMU WALL REINFORCING



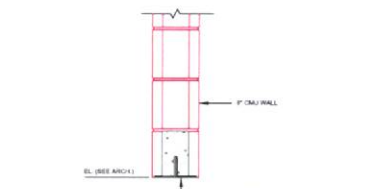
SCALE 3/4"=1'-0" **S3.3** 10

TYPICAL 8\"/>



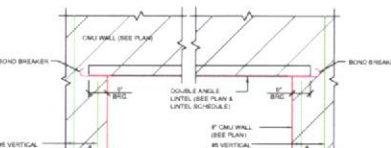
SCALE 3/4"=1'-0" **S3.3** 12

TYPICAL LINTEL DETAIL



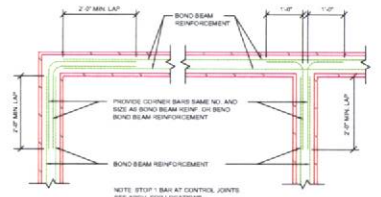
SCALE 3/4"=1'-0" **S3.3** 13

TYPICAL DOUBLE ANGLE LINTEL BEARING DETAIL



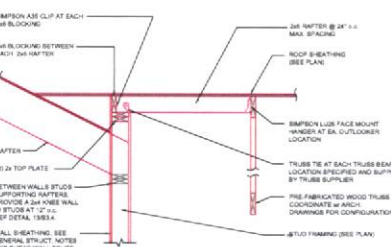
SCALE 3/4"=1'-0" **S3.3** 14

TYPICAL BOND BEAM REINFORCEMENT LAYOUT

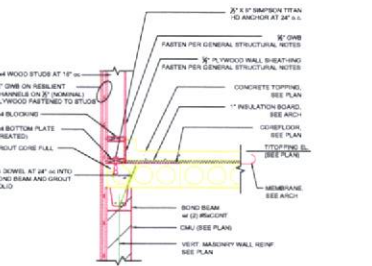


SCALE 3/4"=1'-0" **S3.3** 11

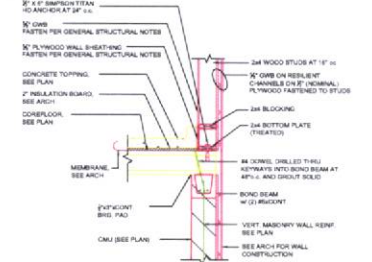
FRAMING DETAIL



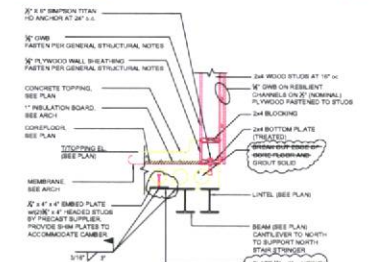
SCALE 3/4"=1'-0" **S3.3** 15



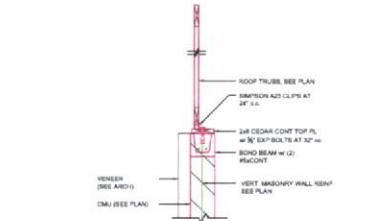
TYPICAL CONCRETE COREFLOOR DETAIL
SCALE 3/4"=1'-0"
S3.4



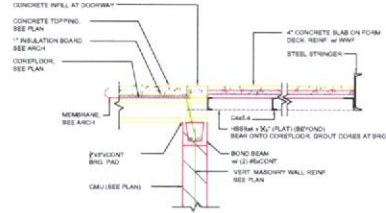
TYPICAL PRECAST COREFLOOR AT BEARING DETAIL
SCALE 3/4"=1'-0"
S3.4



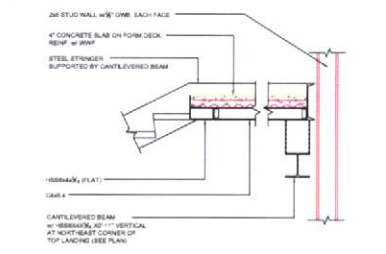
COREFLOOR BEARING DETAIL (REV SSD-5)
SCALE 3/4"=1'-0"
S3.4



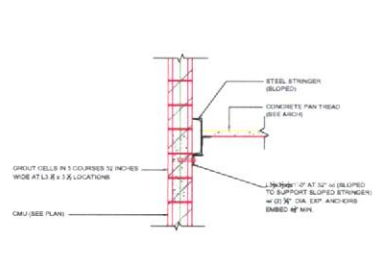
CMU WALL BRACING DETAIL
SCALE 3/4"=1'-0"
S3.4



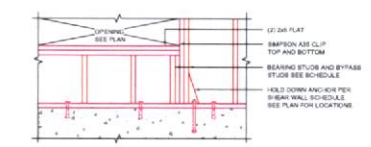
STAIR LANDING DETAIL
SCALE 3/4"=1'-0"
S3.4



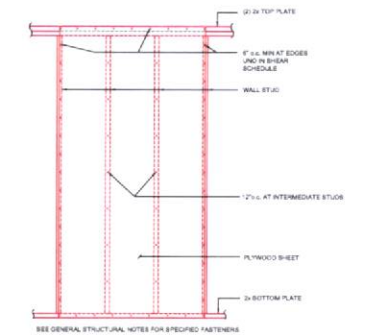
STAIR LANDING DETAIL
SCALE 3/4"=1'-0"
S3.4



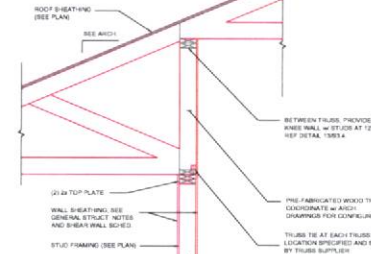
STAIR STRINGER SUPPORT DETAIL
SCALE 3/4"=1'-0"
S3.4



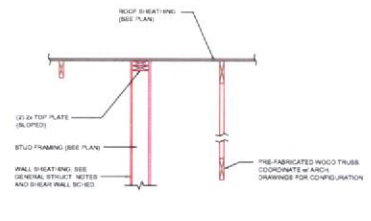
FRAMING DETAIL AT HOLD DOWN
SCALE 3/4"=1'-0"
S3.4



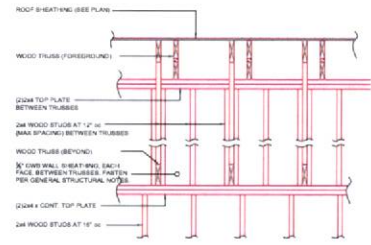
TYP. BLOCKED WALL PLYWOOD FASTENING PATTERN
SCALE 3/4"=1'-0"
S3.4



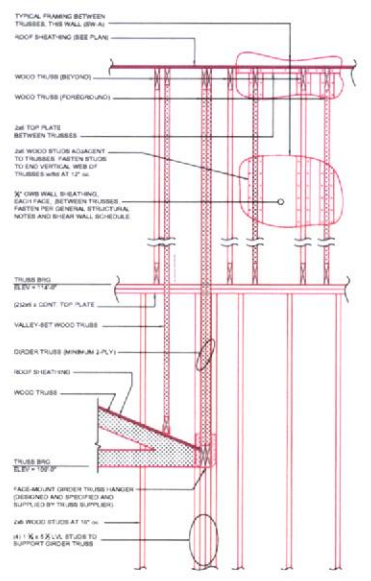
TRUSS BEARING DETAIL
SCALE 3/4"=1'-0"
S3.4



ROOF BEARING DETAIL
SCALE 3/4"=1'-0"
S3.4



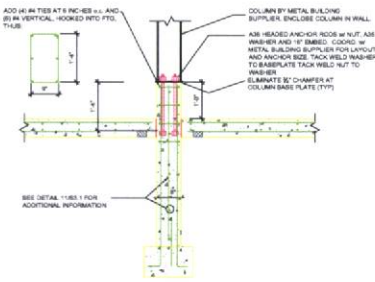
TRUSS BEARING AND KNEE-WALL DETAIL
SCALE 3/4"=1'-0"
S3.4



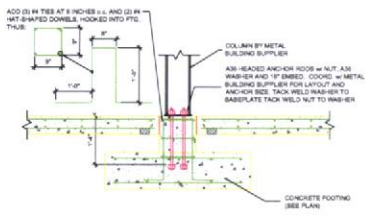
TRUSS BEARING DETAIL
SCALE 3/4"=1'-0"
S3.4

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES AND DECIMALS THEREOF.
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES AND DECIMALS THEREOF.
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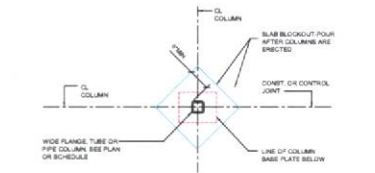
STRUCTURAL DETAILS



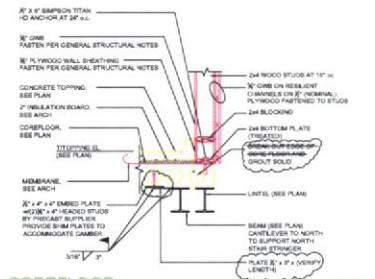
FOUNDATION WALL AT COLUMN AT METAL BLDG GRID 5 SCALE 3/8"=1'-0" 1 SSD



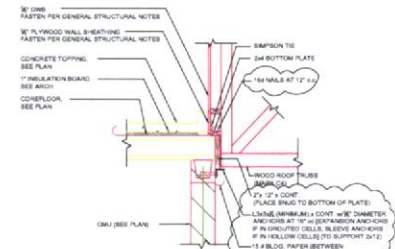
PEDESTAL DETAIL AT METAL BLDG SCALE 3/8"=1'-0" 2 SSD



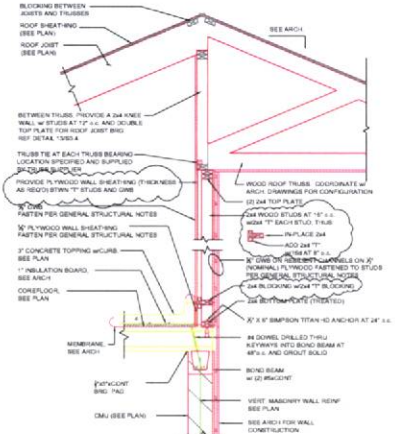
TYPICAL ISOLATION JOINT AT COLUMN SCALE 3/8"=1'-0" 3 SSD



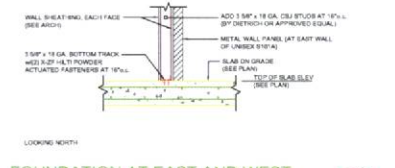
CORE FLOOR SCALE 3/8"=1'-0" 5 SSD



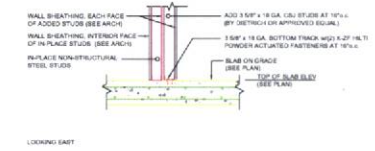
TRUSS BEARING AT SOUTH WALL OF PHONE BANK 120 (REV 03-03-10) SCALE 3/8"=1'-0" 6 SSD



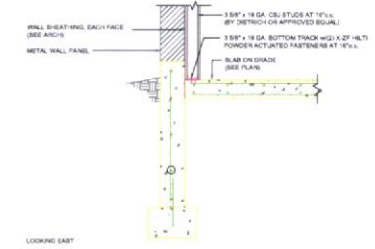
SOUTH WALL OF MECH 200 SCALE 3/8"=1'-0" 7 SSD



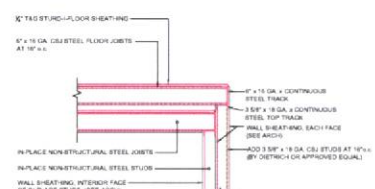
FOUNDATION AT EAST AND WEST WALLS OF UNISEX S101A SCALE 3/8"=1'-0" 8 SSD



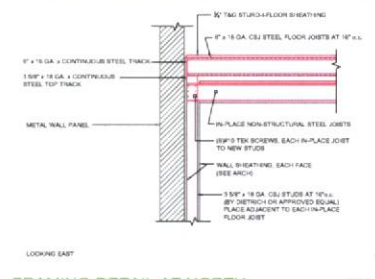
FOUNDATION AT SOUTH WALL OF UNISEX S101A SCALE 3/8"=1'-0" 9 SSD



FOUNDATION AT NORTH WALL OF UNISEX S101A SCALE 3/8"=1'-0" 10 SSD



FRAMING DETAIL AT SOUTH WALL OF UNISEX S101A SCALE 3/8"=1'-0" 11 SSD



FRAMING DETAIL AT NORTH WALL OF UNISEX S101A SCALE 3/8"=1'-0" 12 SSD

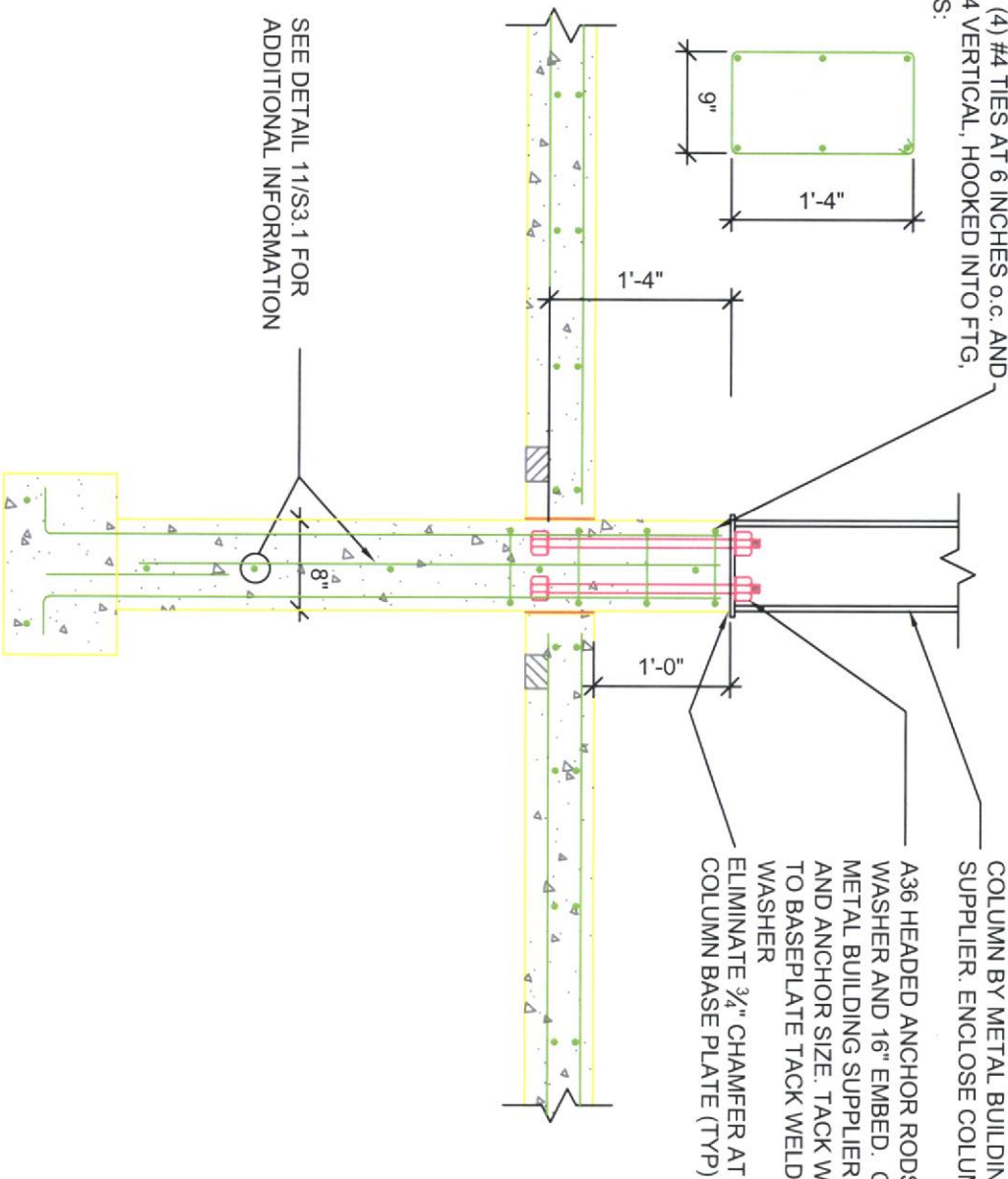
- COLD-FORMED STEEL (LT. GAUGE) STRUCTURAL FRAMING
- AXIAL LOAD BEARING MEMBERS, INCLUDING ANCH STUDS AND ALL MEMBERS IN BUILT-UP SECTIONS, SHALL BE APPROXIMATELY CENTERED TO MATCH THE AREA CENTROID OF THE TOP AND BOTTOM TRACKS.
 - BEARING SURFACES FOR JOISTS, AND THE BOTTOM TRACK OF ANCH LOAD BEARING WALLS SHALL BE UNIFORM AND LEVEL TO AVOID FULL CONTACT OF THE BEARING FLANGE OF TRACKS ON THE SUPPORT OVER THE REQUIRED BEARING AND CONTACT AREA.
 - ATTACH BOTH FLANGES OF STUDS TO THE TOP AND BOTTOM TRACK WITH SCREWS.
 - DO NOT SPLICE FRAMING MEMBERS.
 - PENETRATION OF SCREWS THROUGH JOIST CHANNELS SHALL BE NOT LESS THAN 3 UNFINISHED THREADS.
 - CUT FIBER FRAMING MEMBERS WITH SAW OR SHEAR. DO NOT TORQUETO END OF MEMBERS.
 - MATERIAL DESIGN AND MANUFACTURE SHALL BE ACCORDANCE WITH THE TOTAL FINISHED DESIGN WEIGHT OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION CURRENT EDITION PRIOR EDITIONS OF THE AISC, AIA, AND MANUFACTURER'S REQUIREMENTS OF THE DESIGNER.
 - INSTALL HORIZONTAL BRACING SYSTEM, BRACES SPACED, BUT NOT EXCEEDS AT EACH JOIST TRACK AT 3 C. BAYS AT EACH INTERSECTION.
 - FRAMING OF WALL BOARDS AT EACH FACE OF WALLS WITH 1/2" DIA. PLS. BRG. SCREWS AT 4 INCH O.C. AT ALL SUPPORTS AND STUDS. BRG. PLATE BLOCKING AT ALL UNFINISHED JOIST SPAN WALLS. BOARD IS TO BE INSTALLED PER GENERAL STRUCTURAL NOTES PERPENDICULAR TO FRAMING OF WALLS.
 - ALL FRAMING COMPONENTS SHALL BE CUT SQUARE FOR ATTACHMENT TO FRAMING COLUMN MEMBERS.
 - CONTINUOUS TOP AND BOTTOM TRACK TO BE THE SAME SIZE AND GRADE AS THE STUDS.
 - TRACK CLOSURE IS TO BE THE SAME SIZE AND GRADE AS THE STUDS.

- WOOD
- FLOOR SHEATHING PANELS SHALL BE ORIENTED WITH GRAIN PERPENDICULAR TO JOIST SUPPORTS AND PANEL JOISTS SHALL BE STAGGERED.
 - METAL FRAMING WITHIN JOIST CHANNELS SHALL BE MADE BRG. CASE 1. FASTENERS WITHIN FRAMING SHALL BE MADE TO MATCH FRAMING SIZES AT ALL SUPPORTS. SEE DETAIL 4.6.5.

COLD-FORMED STEEL (LT. GAUGE) STRUCTURAL FRAMING NOTES SCALE 3/8"=1'-0" 13 SSD

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ADD (4) #4 TIES AT 6 INCHES O.C. AND
 (6) #4 VERTICAL, HOOKED INTO FTG.
 THUS:



COLUMN BY METAL BUILDING
 SUPPLIER. ENCLOSE COLUMN IN WALL.

A36 HEADED ANCHOR RODS W/ NUT, A36
 WASHER AND 16" EMBED. COORD. W/
 METAL BUILDING SUPPLIER FOR LAYOUT
 AND ANCHOR SIZE. TACK WELD WASHER
 TO BASEPLATE TACK WELD NUT TO
 WASHER

ELIMINATE 3/8" CHAMFER AT
 COLUMN BASE PLATE (TYP)

SEE DETAIL 11/S3.1 FOR
 ADDITIONAL INFORMATION

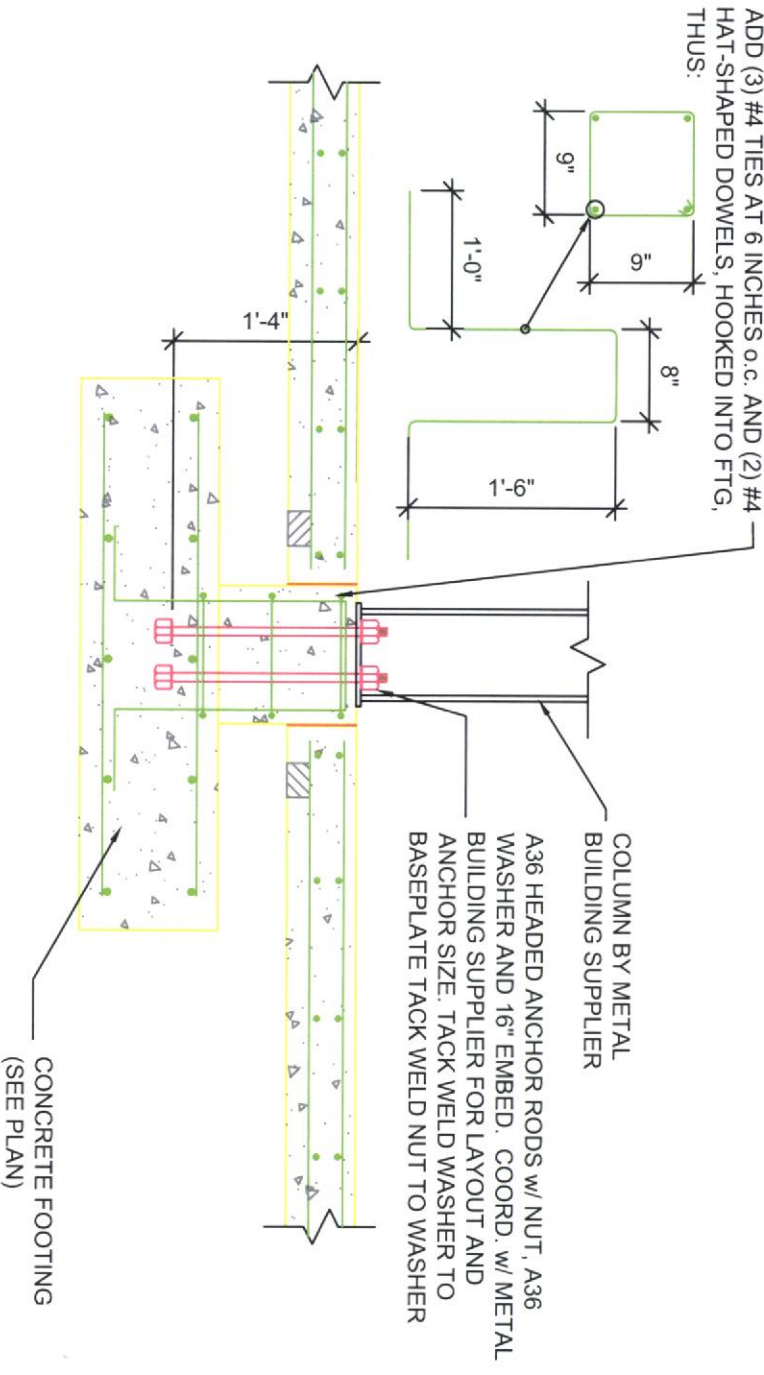
FOUNDATION WALL AT COLUMN AT METAL BLDG GRID 5

SCALE 3/4"=1'-0"

SSD
 1

SEEA Inc.	Structural Engineering Associates		Project MISSOURI RIVER FISHERIES BUILDING FORT PIERRE, SOUTH DAKOTA	SSD1
	401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com		

ADD (3) #4 TIES AT 6 INCHES o.c. AND (2) #4 HAT-SHAPED DOWELS, HOOKED INTO FTG, THUS:

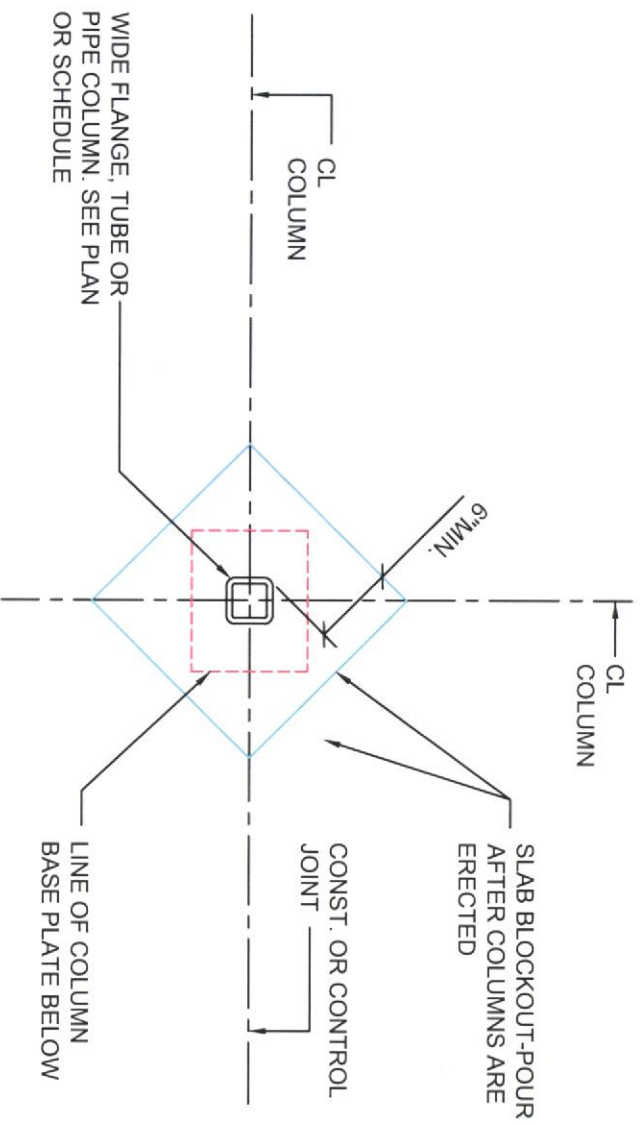


PEDESTAL DETAIL

AT METAL BLDG

SCALE 3/4"=1'-0"

SEA Inc.		Structural Engineering Associates	
401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com	Project MISSOURI RIVER FISHERIES BUILDING FORT PIERRE, SOUTH DAKOTA	SSD2
Job No. KH081900	Date 008-24-2009	By GEH	



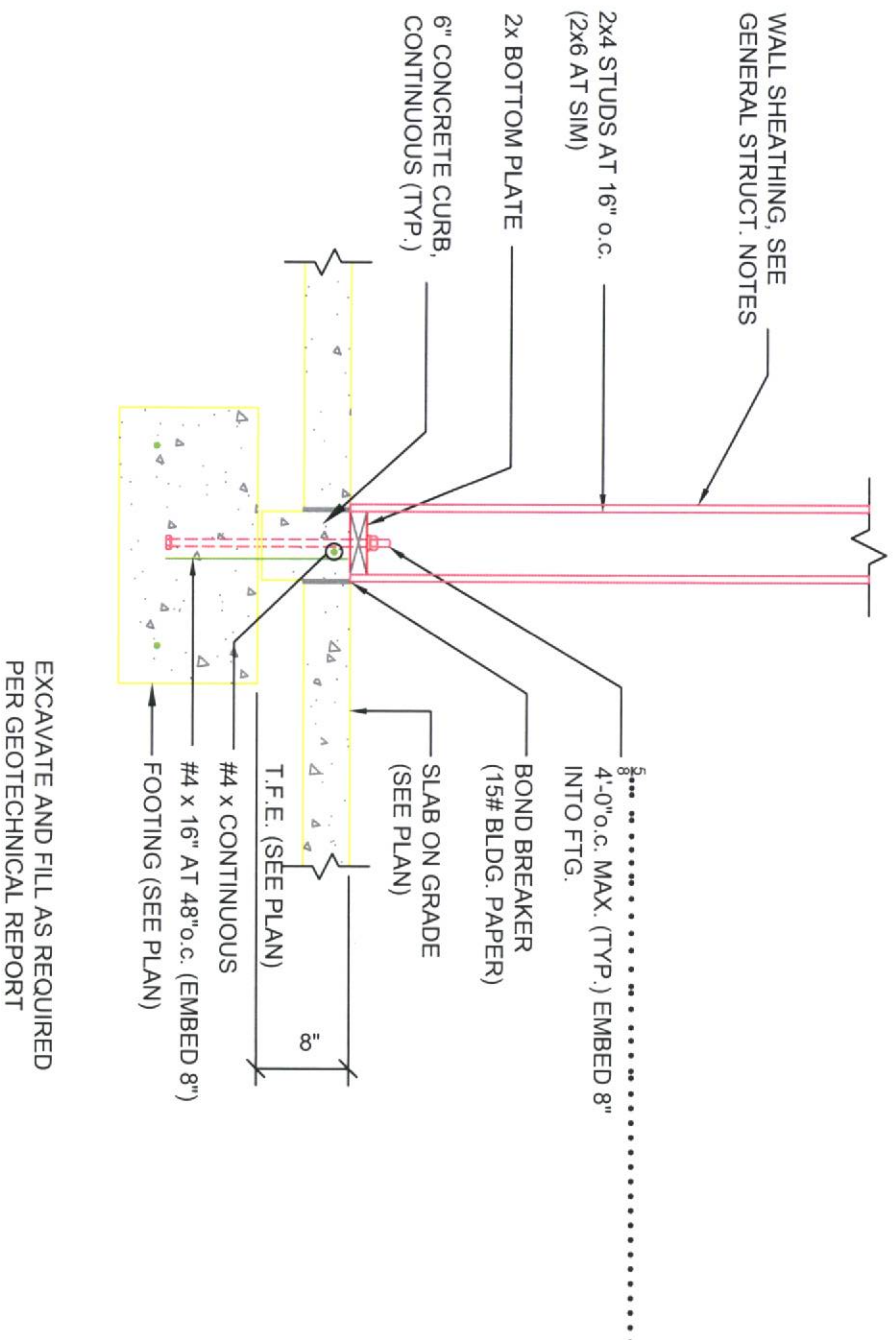
TYPICAL ISOLATION

JOINT AT COLUMN

SCALE 3/4"=1'-0"

3
SSD

SEA Inc Structural Engineering Associates		Project MISSOURI RIVER FISHERIES BUILDING		SSD3
		FORT PIERRE, SOUTH DAKOTA		
401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com	Job No. KH081900	Date 08-24-2009	By GEH



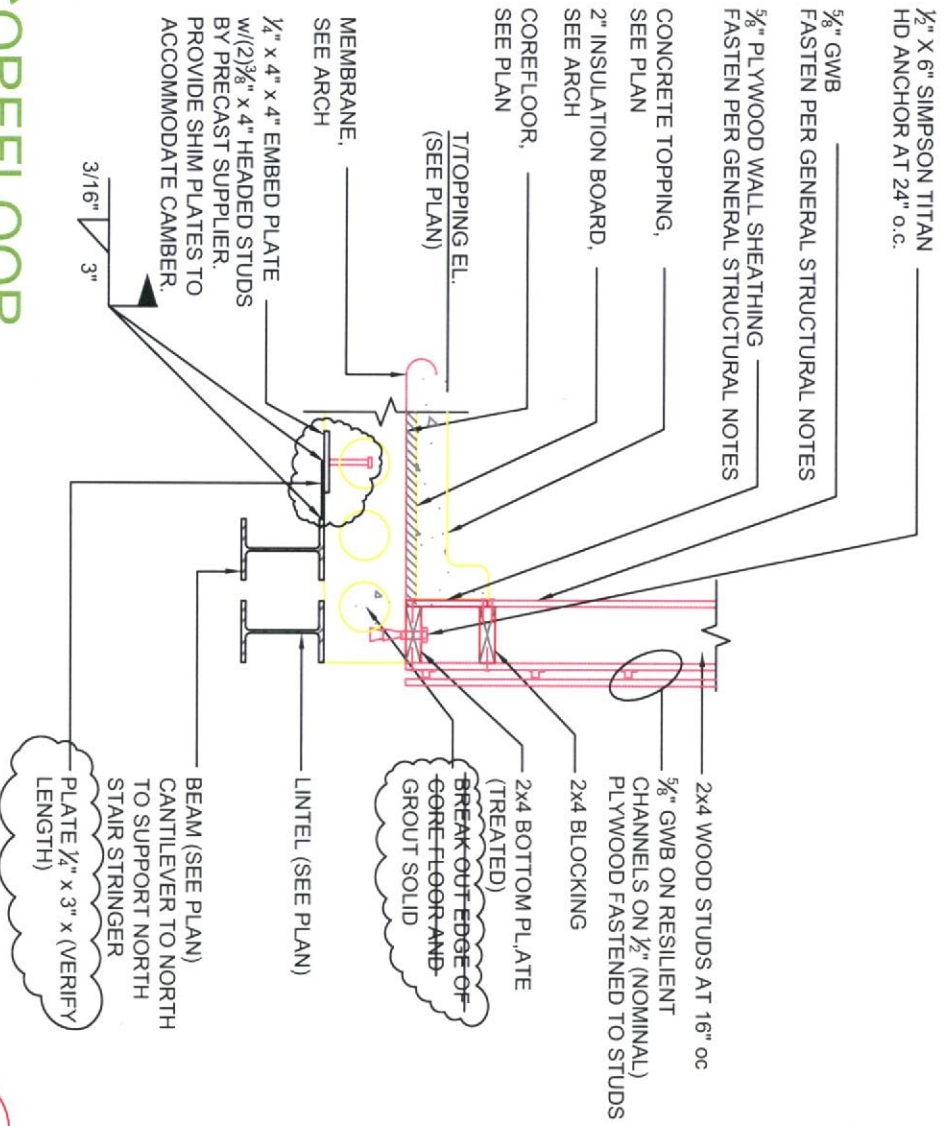
TYPICAL INTERIOR

BEARING WALL (REV 10-05-09) SSD-4

SCALE 3/4"=1'-0"

6
S3.2

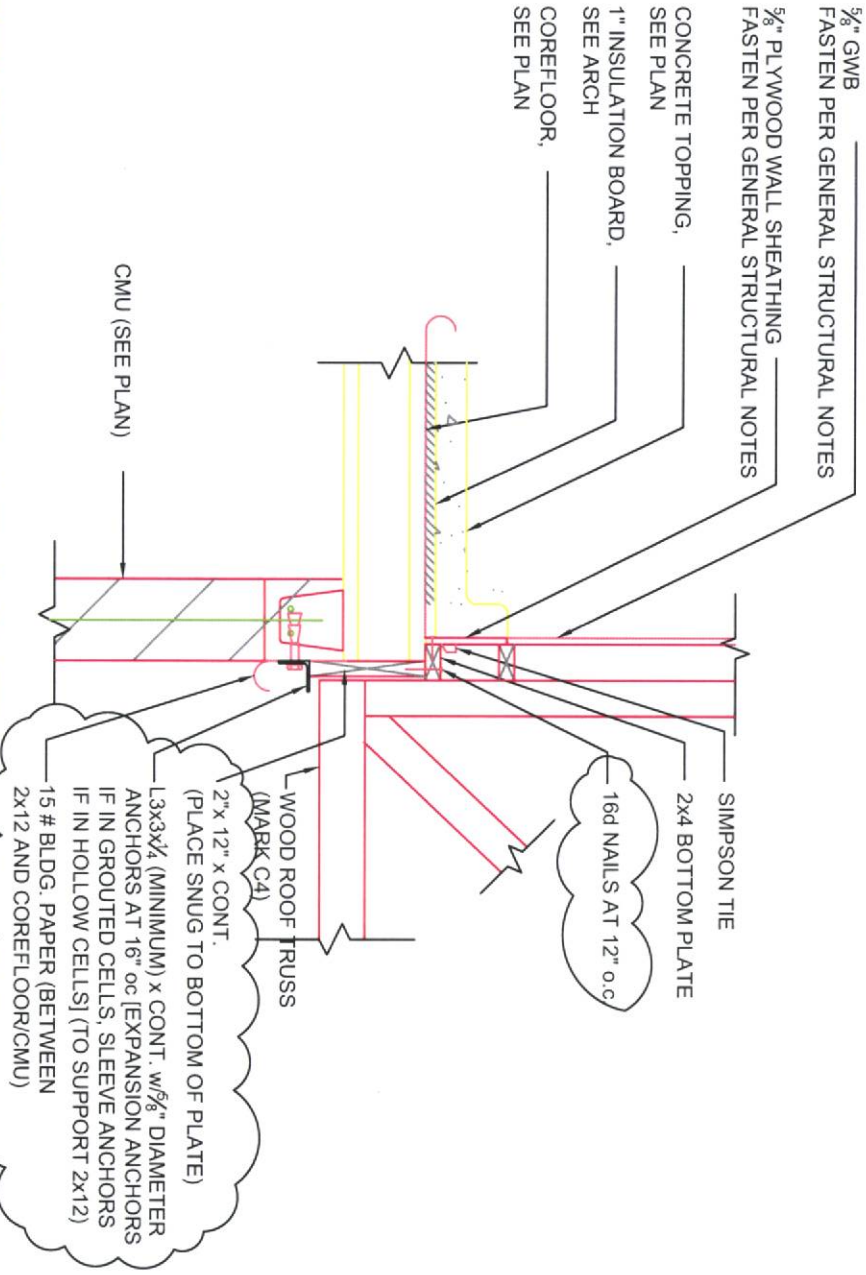
SEA Inc Structural Engineering Associates		401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com
		Project MISSOURI RIVER FISHERIES BUILDING FORT PIERRE, SOUTH DAKOTA	Job No. KH081900
		Date 10-05-2009	By GEH
			SSD4



COREFLOOR BEARING DETAIL (REV 3/S3.4)

SCALE 3/4"=1'-0"

SEEA Inc.	Structural Engineering Associates		Project MISSOURI RIVER FISHERIES BUILDING	SSD5
	401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com	Job No. KH081900	
			Date 01-14-2010 By GEH	

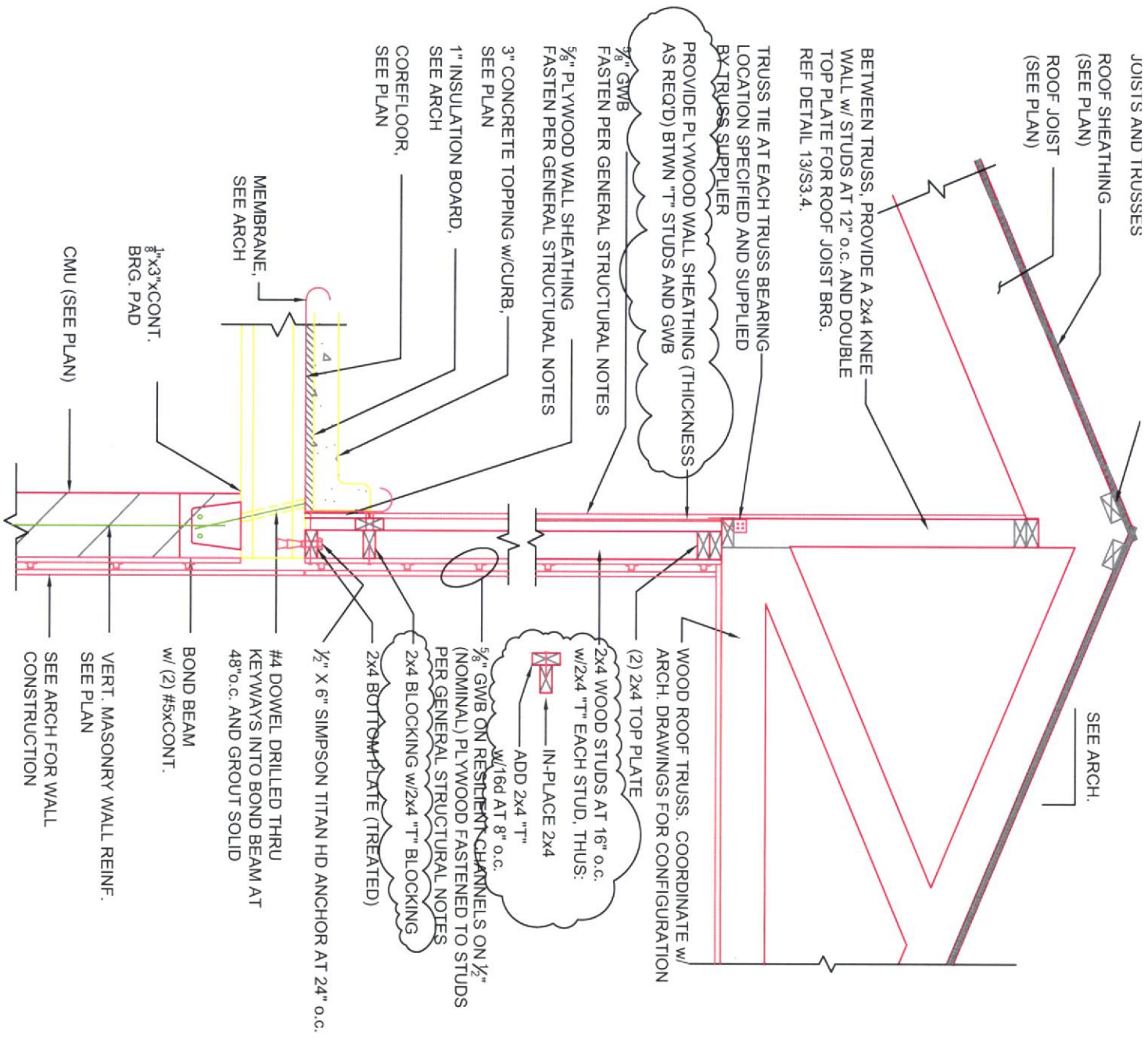


TRUSS BEARING AT SOUTH WALL OF

PHONE BANK 120 (REV 03-03-10) SCALE 3/4"=1'-0"

6
SSD

SEA Inc Structural Engineering Associates		401 E. 8th Street Suite 201 Sioux Falls, SD 57103		Phone: 605-334-0188 Fax: 605-334-1689 Web Page: seasd.com	
		Project MISSOURI RIVER FISHERIES BUILDING FORT PIERRE, SOUTH DAKOTA	Job No. KH081900	Date 03-03-2010	By GEH

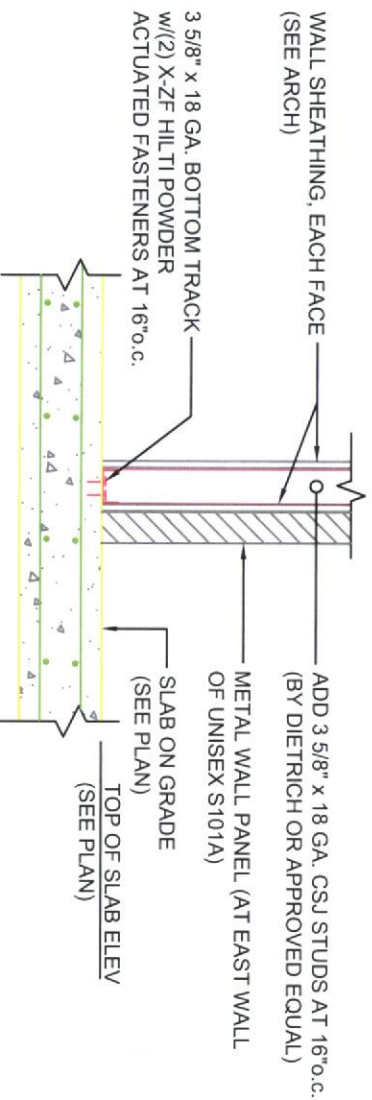


SOUTH WALL OF MECH 200

SCALE 3/4"=1'-0"

7
SSD

SEA Inc.	Structural Engineering Associates		Project MISSOURI RIVER FISHERIES BUILDING	SSD7
	401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com	Job No. KH081900	



LOOKING NORTH

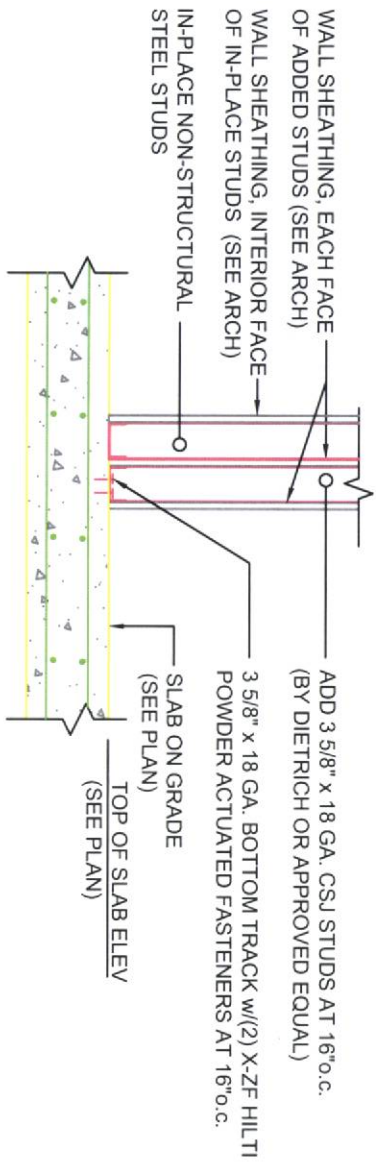
FOUNDATION AT EAST AND WEST

WALLS OF UNISEX S101A

SCALE 3/4"=1'-0"

8
SSD

SEA Inc Structural Engineering Associates		Project MISSOURI RIVER FISHERIES BUILDING		SSD8
		FORT PIERRE, SOUTH DAKOTA		
401 E. 8th Street Suite 201 Sioux Falls, SD 57103		Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com		Job No. KH081900
		Date 03-03-2010 By GEH		



LOOKING EAST

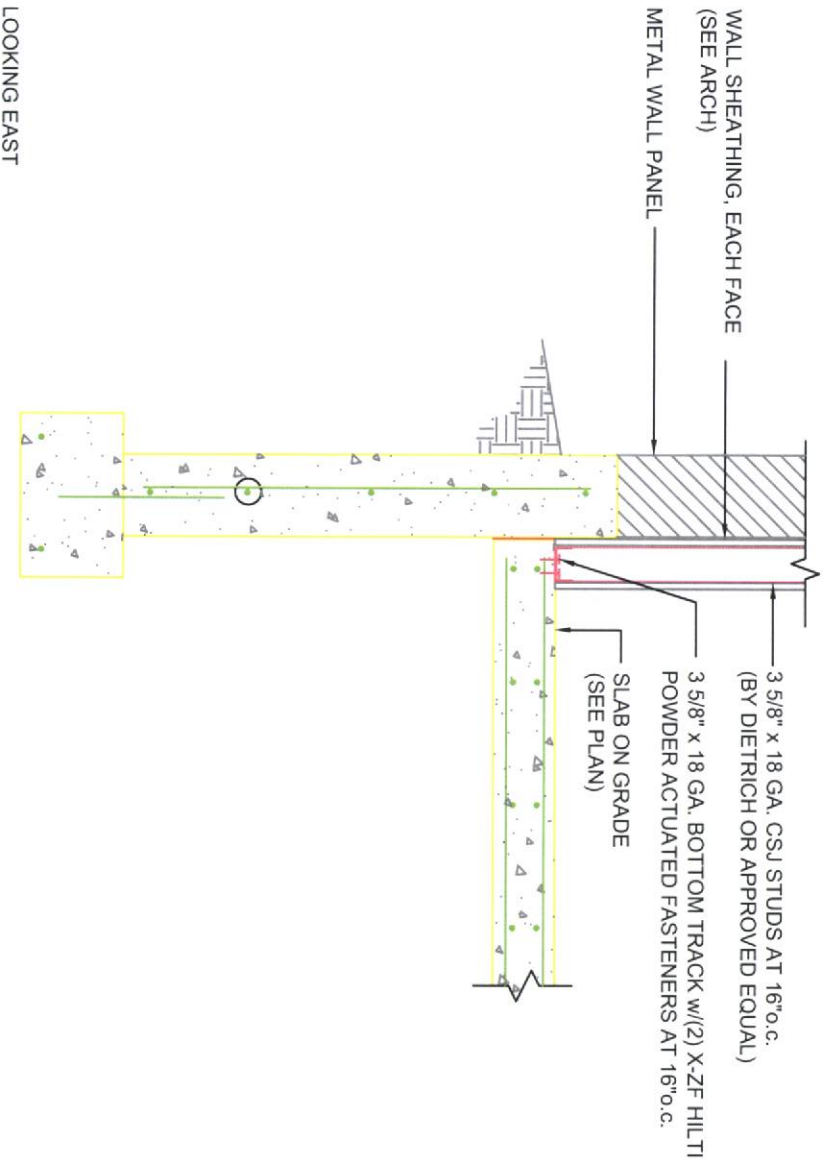
FOUNDATION AT SOUTH

WALL OF UNISEX S101A

SCALE 3/4"=1'-0"

9
SSD

SEA Inc.		Structural Engineering Associates		Project MISSOURI RIVER FISHERIES BUILDING	
		401 E. 8th Street Suite 201 Sioux Falls, SD 57103		FORT PIERRE, SOUTH DAKOTA	
Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com		Job No. KH081900		SSD9	
Date 03-03-2010 By GEH		Date 03-03-2010 By GEH			



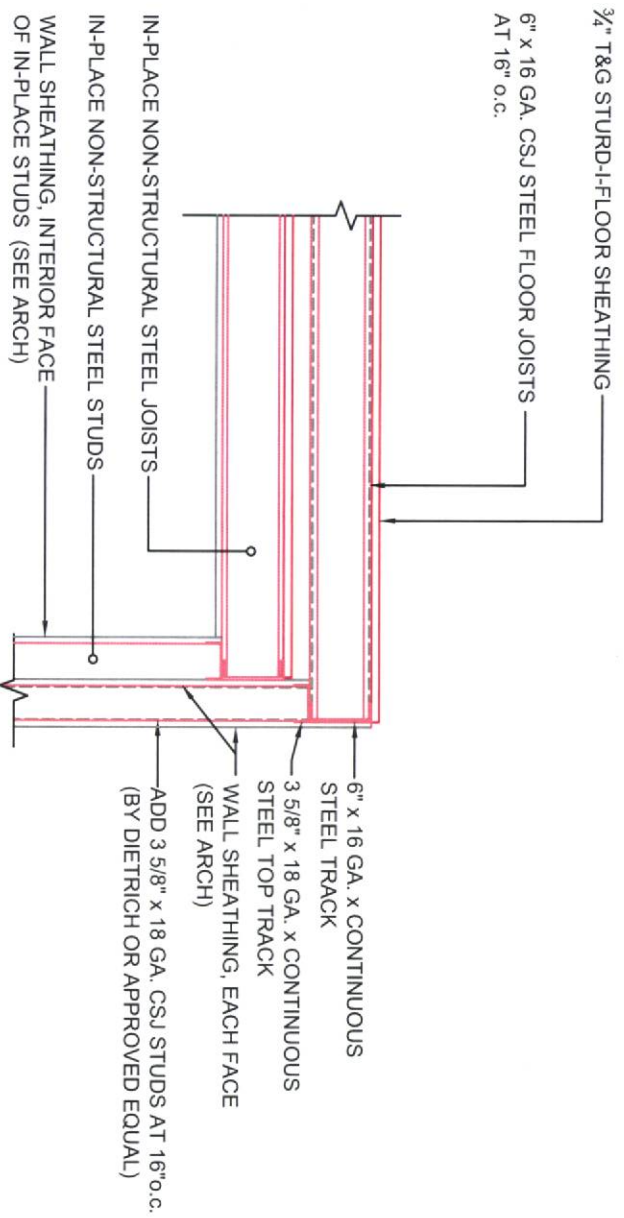
FOUNDATION AT NORTH

WALL OF UNISEX S101A

SCALE 3/4"=1'-0"

10
SSD

SEA Inc.		Structural Engineering Associates	
401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com	Project MISSOURI RIVER FISHERIES BUILDING FORT PIERRE, SOUTH DAKOTA	SSD10
Job No. KH081900	Date 03-03-2010 By GEH	Date 03-03-2010 By GEH	



LOOKING EAST

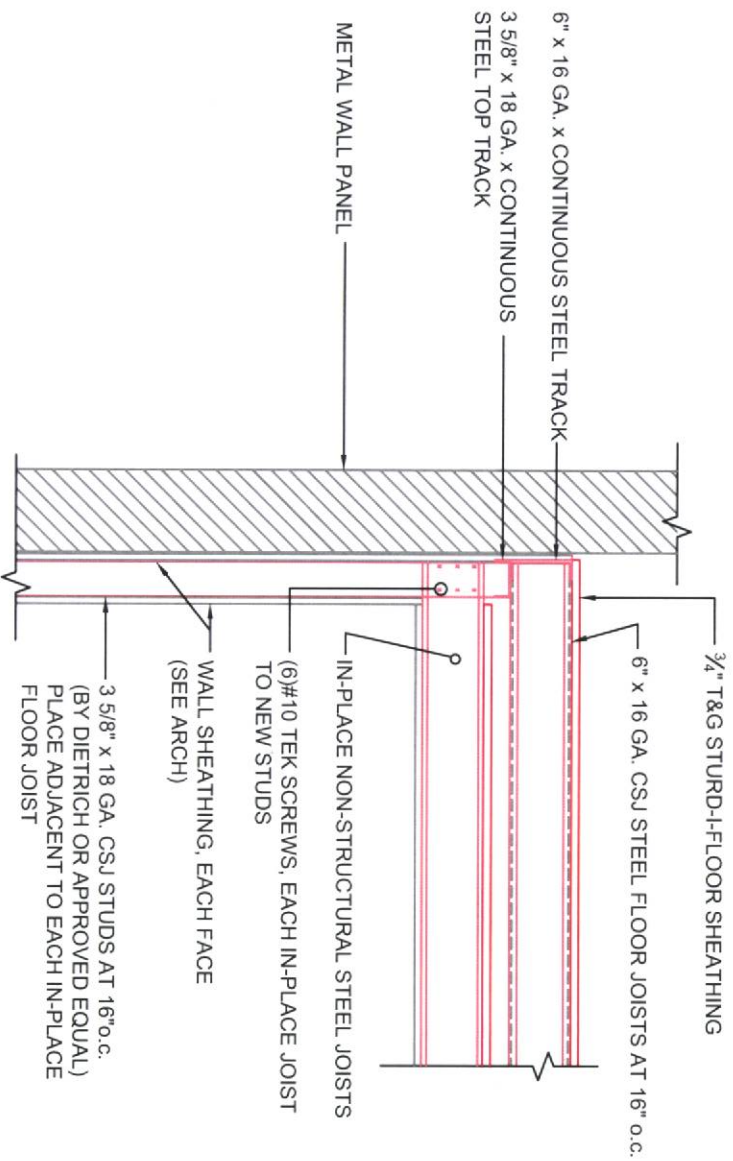
FRAMING DETAIL AT SOUTH

WALL OF UNISEX S101A

SCALE 3/4"=1'-0"

11
SSD

		Structural Engineering Associates	
		401 E. 8th Street Suite 201 Sioux Falls, SD 57103	Phone: 605-334-0188 Fax: 605-334-1669 Web Page: seasd.com
Project	MISSOURI RIVER FISHERIES BUILDING		
	FORT PIERRE, SOUTH DAKOTA		
Job No.	KH081900		
Date	03-03-2010	By	GEH



LOOKING EAST

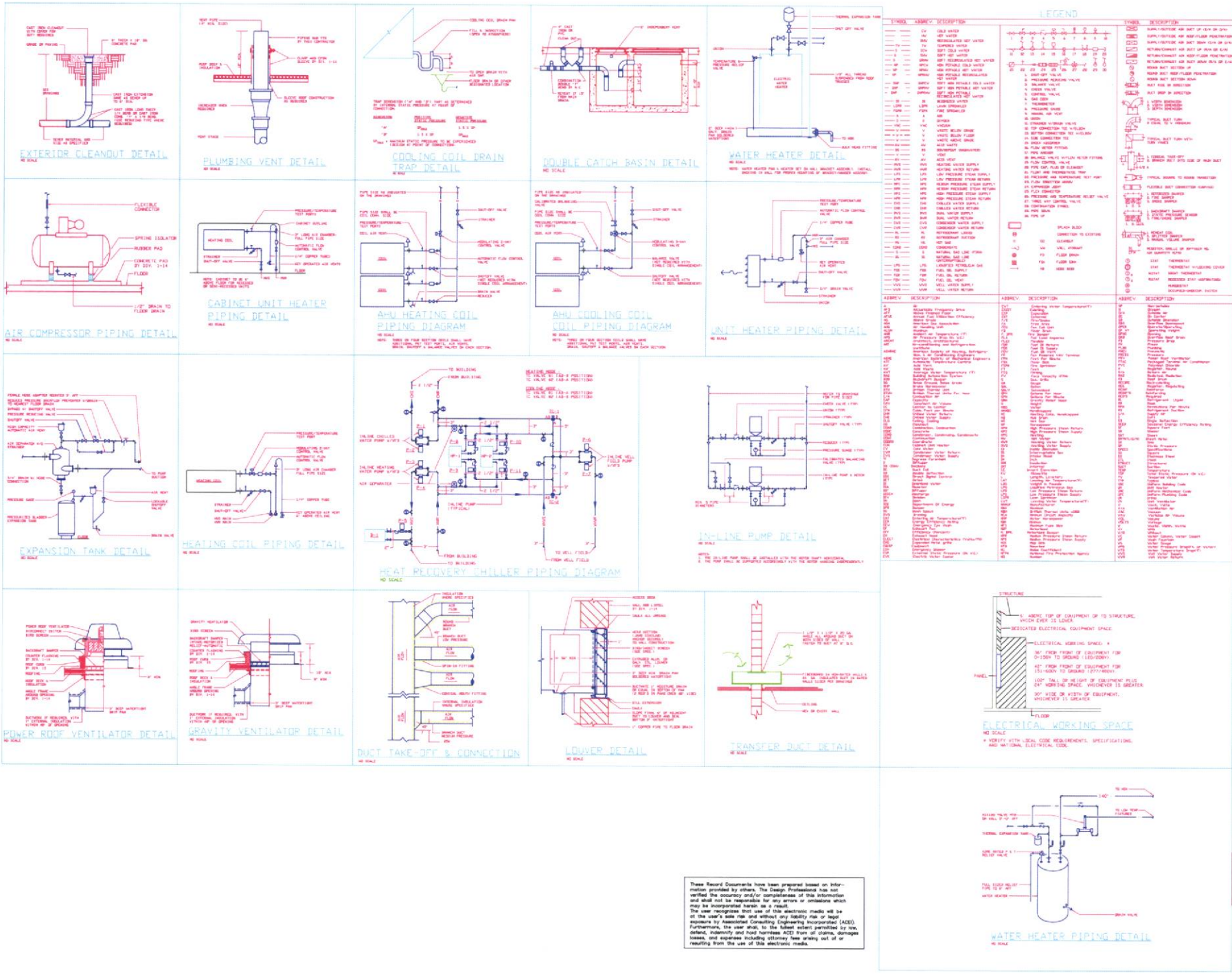
FRAMING DETAIL AT NORTH

WALL OF UNISEX S101A

SCALE 3/4"=1'-0"

12
SSD

SEA Inc. Structural Engineering Associates		Project MISSOURI RIVER FISHERIES BUILDING		SSD12
		FORT PIERRE, SOUTH DAKOTA		
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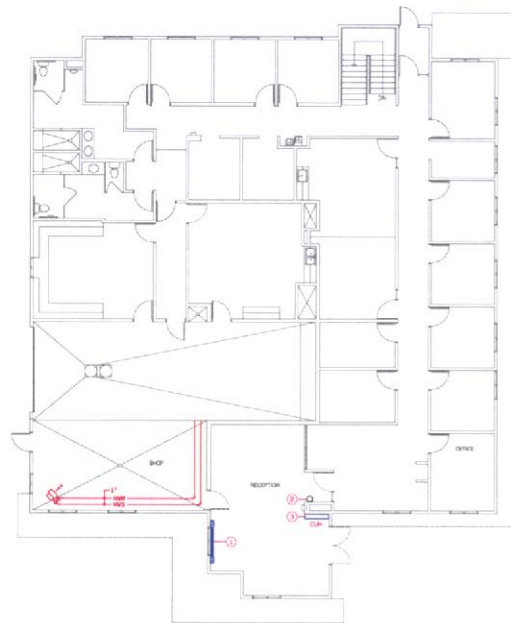
1/8" = 1'-0" 1/4" = 1'-0"

MINOR AND FINISHES BUILDING DEPT. OF LABOR FOR AND FINISHES FIN. FINISHES SOUTH-CAROLINA

LEGEND & DETAILS PLUMBING & HEATING

M1.1

- GENERAL NOTES:**
1. PIPING SHOWN IN BOLD IS EXISTING TO BE REMOVED.
 2. PIPING SHOWN LIGHT IS EXISTING TO REMAIN.
- MECHANICAL DEMOLITION NOTES:**
1. REMOVE EXISTING BASEBOARD RADIATION AND CAP PIPING AT HEAD.
 2. REMOVE EXISTING THERMOSTAT & ASSOCIATED WIRING.
 3. REMOVE EXISTING CABINET UNIT HEATER AND CAP PIPING AT HEAD.



FLOOR PLAN - DEMOLITION - MECHANICAL
 SCALE: 1/8" = 1'-0"

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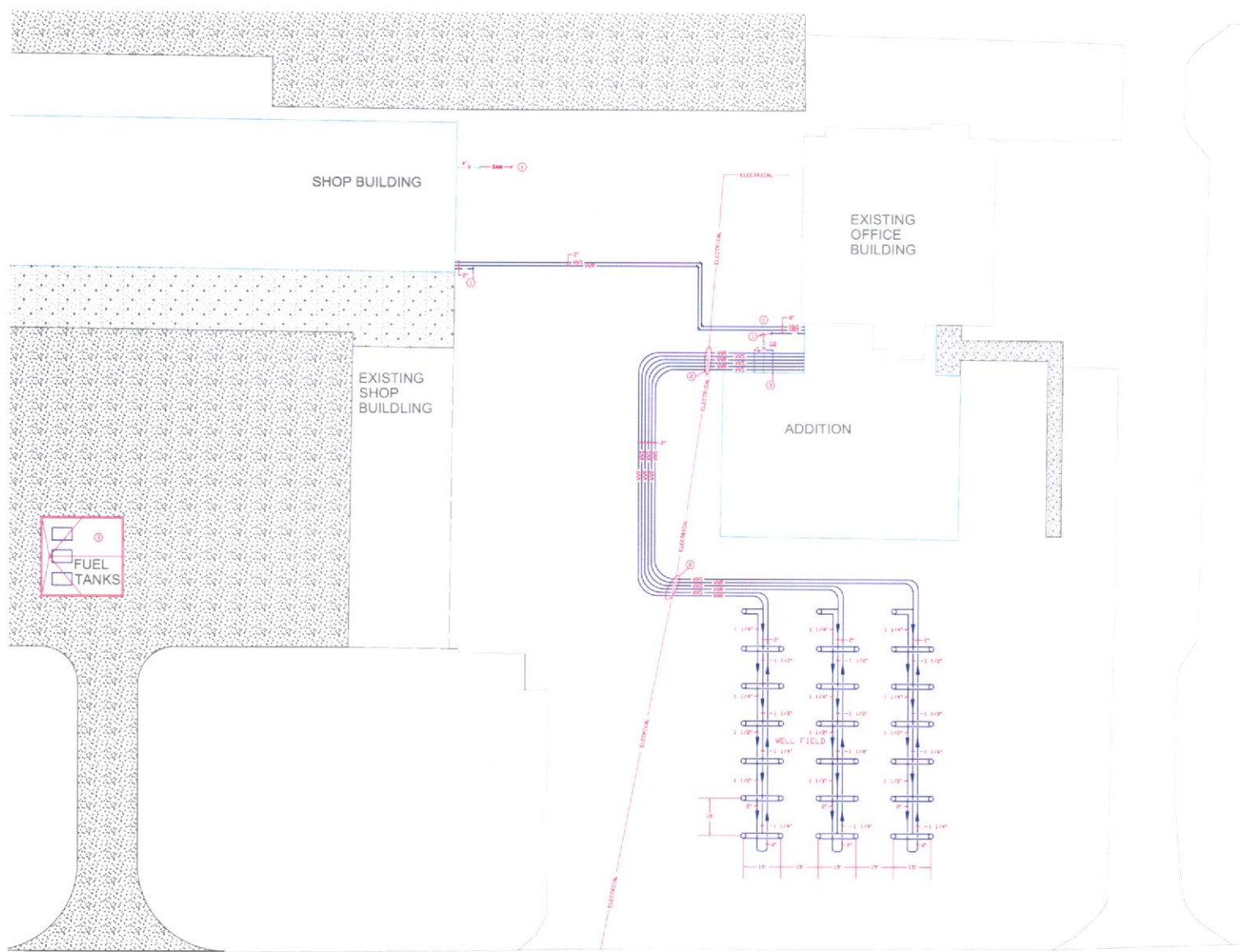
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 T: 913.356.3718
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 E-mail: acei@acei.com

18004 TAXI
 21509 2008
 ANDRUS ALLEN FARRER BULLOCK
 DEPT OF CASE FILE AND PAPER
 FT HENRI, SOUTH DAKOTA
 FLOOR PLAN - DEMOLITION
 MECHANICAL

PLUMBING & HEATING NOTES

- 1. SEE SITE UTILITY PLAN FOR CONTINUATION
- 2. EXISTING POWER PRIMARY, PROTECT AS REQUIRED
- 3. ALL NEW PIPING SHALL BE AMONG THE GREATEST PIPE PRACTICE IN FIELD & BY OTHER CONTRACTS POLYETHYLENE CROSS LINK 1/2" OR 3/4" SHALL BE USED BETWEEN THE GREATEST PIPE AND THE FACTOR PIPING, OVERLAP INSULATION JOINTS WITH 1/2" MINIMUM OF OVERLAP
- 4. THREE 1000 GALLON FUEL TANKS, TWO TANKS WILL BE PROVIDED TO THE SITE BY OWNER, UNDER THE AND INSTALLATION OF THE SAME FURNISHED TANKS TO BE BY THIS CONTRACTOR. THIS CONTRACTOR SHALL FURNISH AND INSTALL ONE 1000 GALLON DIESEL WALL FUEL TANK, THREE POWER FURNISHED, FURNISHES FUEL PUMPS SHALL BE INSTALLED BY THIS CONTRACTOR



SITE PLAN - PLUMBING & HEATING
 SCALE: 1" = 10' - 0"

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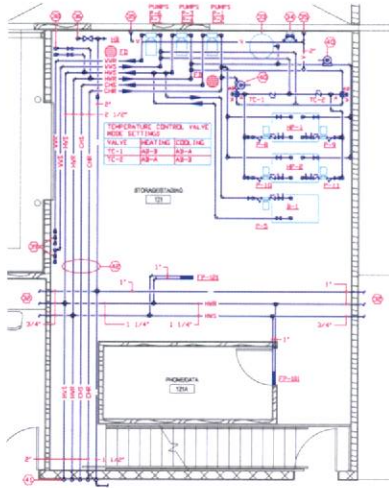
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 E-mail: acei@acei.com

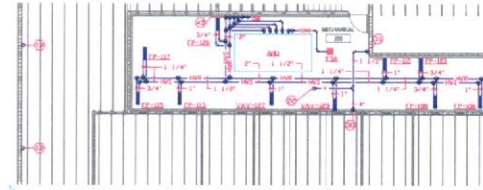
18054 TANKS
 2/3/08
 MISSOURI AVENUE FINANCIAL BUILDING
 DEPT. OF CASE FILES-ARCH/PAPER
 11 PERMITS SOUTH-GA/074

SITE PLAN
 PLUMBING & HEATING

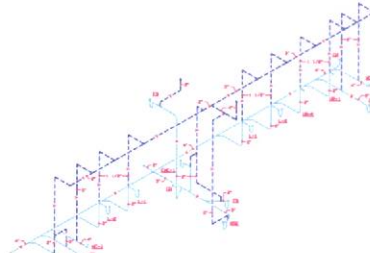
M2.2



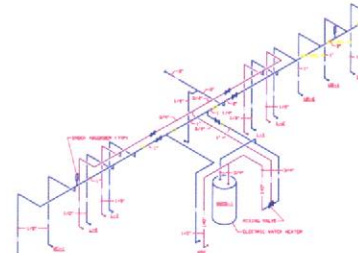
ENLARGED MECHANICAL ROOM - PLUMBING & HEATING



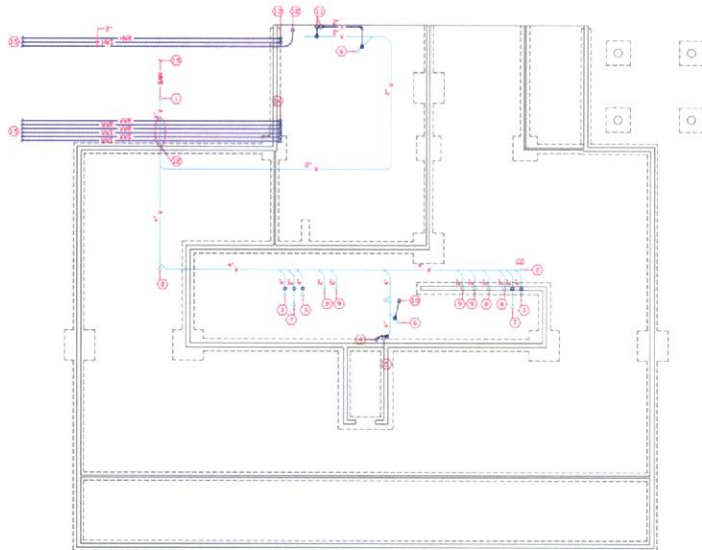
PENTHOUSE FLOOR PLAN - PLUMBING & HEATING



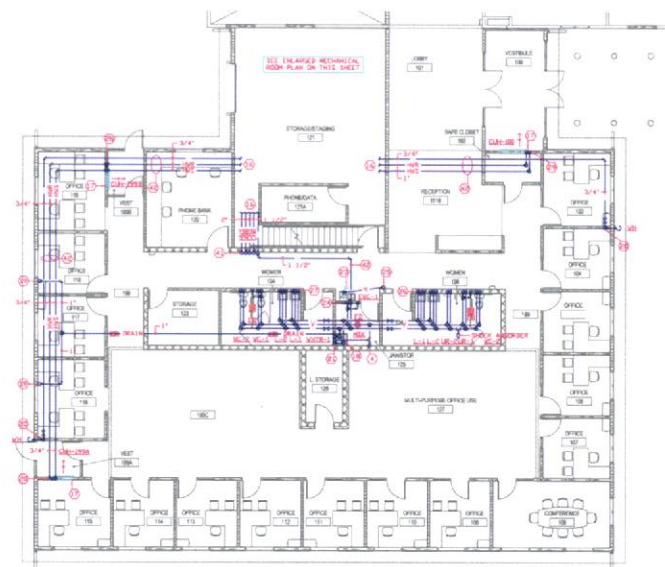
WASTE & VENT RISER



WATER RISER



FOOTING & FOUNDATION PLAN - PLUMBING & HEATING



FLOOR PLAN - PLUMBING & HEATING

GENERAL NOTES:

1. IN ROOM UP - METAL PIPING & EQUIPMENT AS CLOSE TO THE WALL AS POSSIBLE. ROUTE PIPING ABOVE EQUIPMENT TO ALLOW MAINTENANCE SPACE FOR INSTRUMENTATION AREA.
- PLUMBING & HEATING NOTES:
1. 1/2" UP TO GRADE CE
 2. 1/2" UP TO TD
 3. 1/2" UP TO WC, 1/2" UP
 4. 1/2" UP
 5. 1/2" UP TO HD
 6. 1/2" UP TO FLS, 1/2" UP
 7. 1/2" UP TO LW
 8. 1/2" UP TO LAV
 9. 1/2" UP, 1/2" UP TO EXH, 1/2" UP
 10. 1/2" UP
 11. 1/2" UP SERVICE UP
 12. ROUTE PIPING AND INSULATE TO PREVENT FREEZING
 13. 1/2" UP UP, 1/2" UP
 14. 1/2" UP UP, 1/2" UP
 15. 1/2" UP UP, 1/2" UP FOR CONTINUATION
 16. SEE ENLARGED MECHANICAL ROOM PLAN ON THIS SHEET
 17. HYDRONIC CARRIER UNIT HEATER
 18. 1/2" W/ALUM. ELECTRIC WATER HEATER, WATER HEATER SET IN PAN AND HEATED W/HEAT WIRE
 19. 1/2" DRAIN ON TO LEADER
 20. 1/2" ON DN TO WH HEATED BY ABOVE FINISHED GRADE
 21. 1/2" DRAIN ON TO HDG, 1/2" ON DN, 1/2" ON DN, 1/2" ON DN
 22. 1/2" UP THIS ROOM
 23. 1/2" UP TO FD
 24. 1/2" ON DN, 1/2" UP, 1/2" ON DN, 1/2" ON DN, 1/2" ON DN
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1984 2004
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 MISSOURI RIVER FINANCIAL BUILDING
 DEPT. OF GAME FISHERIES AND PARKS
 177 FERRIS SOUTH DRIVE
 FLOOR PLAN - UNDERFLOOR
 PLUMBING & HEATING

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M2.3



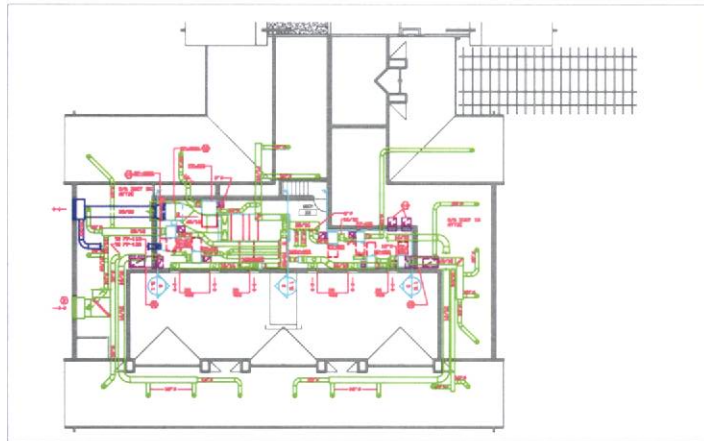
SECTION 'A'



SECTION 'B'

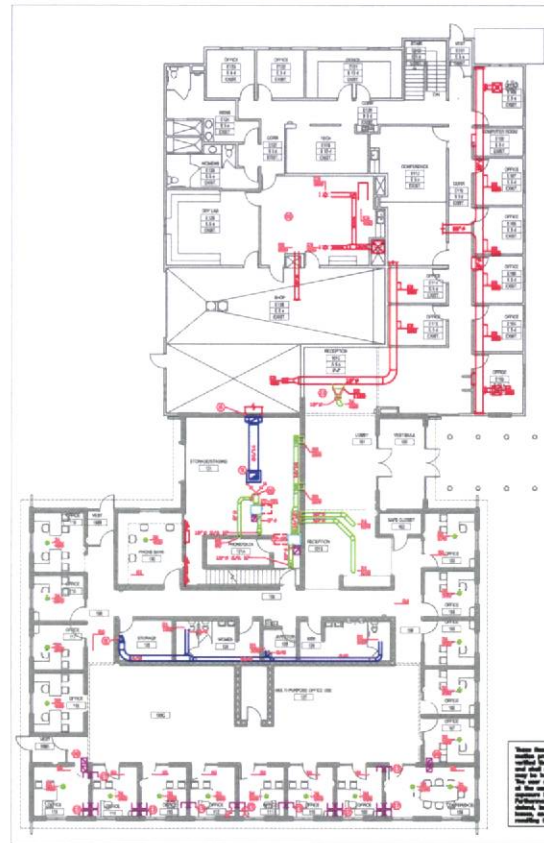


SECTION 'C'



ATTIC PLAN - UPPER VENTILATION & AIR CONDITIONING

- MECHANICAL NOTES**
1. TYPICAL FAN MODELS FOR TYPICAL ROOM BUILDING
 2. TYPICAL HANGERS FOR THE TYPICAL ROOM BUILDING
 3. HANGERS ON LAGERS
 4. HANGERS ON LAGERS
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 19. HANGERS ON LAGERS
 20. HANGERS ON LAGERS



FLOOR PLAN - VENTILATION & AIR CONDITIONING



NO.	DATE	BY
01	01/01/2011	ME
02	01/01/2011	ME
03	01/01/2011	ME
04	01/01/2011	ME
05	01/01/2011	ME
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07	01/01/2011	ME
08	01/01/2011	ME
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16	01/01/2011	ME
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18	01/01/2011	ME
19	01/01/2011	ME
20	01/01/2011	ME

M3.1

VENTILATION & AIR COND. NOTES:

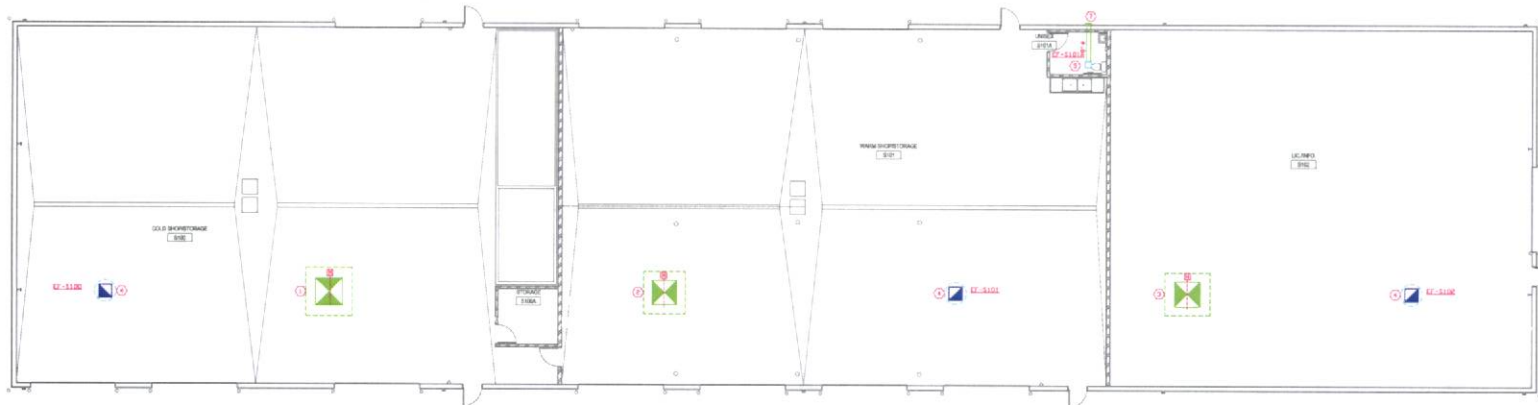
- ① 3474 D/A UP TO INTAKE NEED. 7000 CFM @ DEP. 5' P. 01.2 OF FINE AREA. FLOOR-UP SPRING. 3" ON ALL SIDES WITH 3" DEEP WATER-TIGHT BRIF PAN.
- ② 4674 D/A UP TO INTAKE NEED. 3640 CFM @ DEP. 5' P. 01.2 OF FINE AREA. FLOOR-UP SPRING. 3" ON ALL SIDES WITH 3" DEEP WATER-TIGHT BRIF PAN.
- ③ 5070 D/A UP TO INTAKE NEED. 6100 CFM @ DEP. 5' P. 01.2 OF FINE AREA. FLOOR-UP SPRING. 3" ON ALL SIDES WITH 3" DEEP WATER-TIGHT BRIF PAN.
- ④ 5742 D/A UP TO INTAKE NEED. 8100 CFM @ DEP. 5' P. 01.2 OF FINE AREA. FLOOR-UP SPRING. 3" ON ALL SIDES WITH 3" DEEP WATER-TIGHT BRIF PAN - TYPICAL.
- ⑤ CEILING EXHAUST FAN
- ⑥ PACKAGE TERMINAL AIR CONDITIONER (PTAC)
- ⑦ WALL D/W



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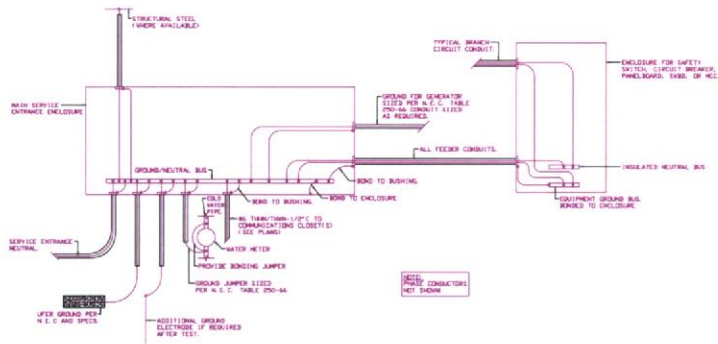
STORAGE BUILDING FLOOR PLAN - VENTILATION

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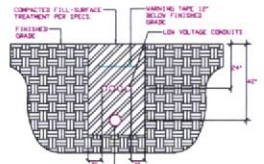
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 2/1/09 2009
 MISSISSAUGA POLICE SERVICES BUILDING
 DEPT. OF CAME FIB-ARC-PHASE
 17 FERRIS AVENUE, MISSISSAUGA, ONTARIO

PARTIAL VENTILATION FLOOR PLAN
 STORAGE BUILDING

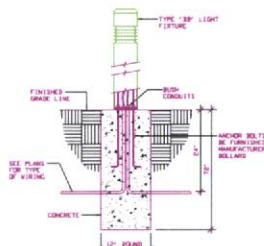
M3.2



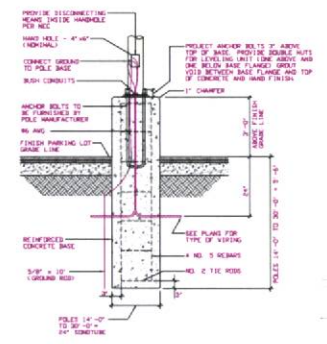
BUILDING SERVICE ENTRANCE GROUNDING DETAIL
NO SCALE



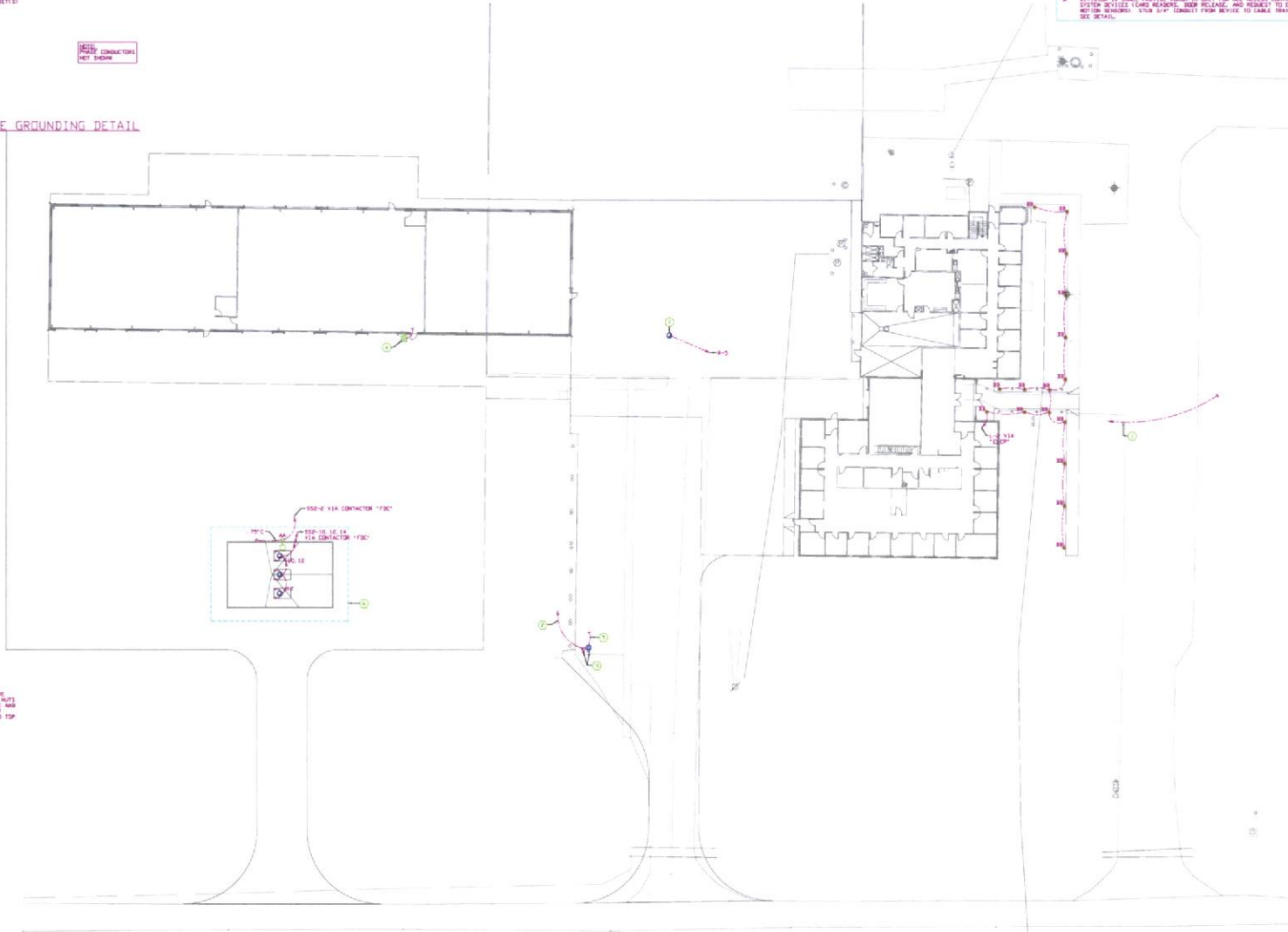
TYPICAL TRENCH DETAIL
NO SCALE



TYPE 'BB' BOLLARD MOUNTING DETAIL
NO SCALE



TYPE 'AA' FIXTURE POLE BASE DETAIL
NO SCALE



SITE PLAN - ELECTRICAL
SCALE: 1/8" = 1'-0"

- ELECTRICAL NOTES**
1. 1/2" CONDUIT TO EXTERIOR LIGHTING CONTROL PANEL "ELECT"
 2. 1/2" CONDUIT TO TIE IN MAIN SILENCE OF SHOP/STORAGE BUILDING
 3. LEADERS SERVICES FOR WIRELESS FUEL DISPENSING SYSTEM COMPUTER IN NEIGHBORING SHOP/STORAGE BUILDING AND INSTALL ANTENNA (IDENTIFIED BY OWNER ON SITE)
 4. HIGH/LOW HEAD FUEL DISPENSING SYSTEM EMERGENCY OFF PUSHBUTTON INTERLOCK WITH CONTACTOR "FUEL"
 5. CONNECT TO AN EXISTING LOW VOLTAGE CIRCUIT WITH SAME CAPACITY
 6. ALL EXTERIOR WORK AT FUEL DISPENSING FACILITY AND WHERE ASSOCIATED CIRCUITRY ENTER THE SHOP/STORAGE BUILDING SHALL COMPLY WITH THE DETAILS SHOWN
 7. COORDINATE COLLECTION MANHOLE PUMP CONNECTION REQUIREMENTS SUPPLIER
- GENERAL ELECTRICAL NOTES**
- A. DIVISION 16 SHALL PROVIDE WORK-IN ONLY FOR ALL COMMUNICATIONS RACKS. PROVIDE SINGLE SAWS OUTLET WITH 3/4" CONDUIT TO ACCESSIBLE SPACE.
 - B. DIVISION 16 SHALL PROVIDE WORK-IN ONLY FOR ALL ACCESS CONTROL SYSTEM SERVICES (CARD READERS, BODY RELEASE, AND REQUEST TO ENTER NOT BE INCLUDED). USE 3/4" CONDUIT FROM SERVICE TO CABLE TRAY. SEE DETAIL.

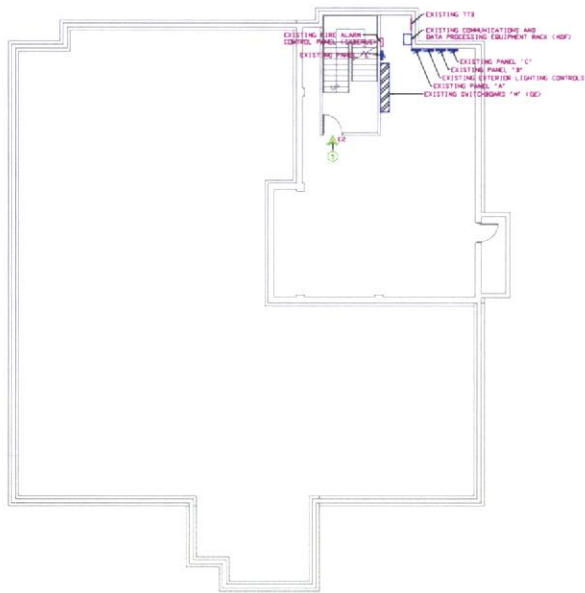
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10004 ACP/BLD
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MISSOURI RIVER FIBER & BOLLING
DEPT. OF WATER AND WASTE
17 FERRIS, SOUTH DAKOTA
SITE PLAN
ELECTRICAL

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RE1.1



BASEMENT FLOOR PLAN - ELECTRICAL
SCALE: 1/8" = 1'-0"



DEMOLITION FLOOR PLAN - ELECTRICAL
SCALE: 1/8" = 1'-0"

ELECTRICAL NOTES

1. RELOCATE EXISTING SERVICE, EXTEND/RELOCATE RACEWAYS AND CONDUCTORS AS REQUIRED.
2. REMOVE EXISTING CEILING MOUNTED LIGHT FIXTURES IN THIS AREA.
3. RELOCATE EXISTING TWO-WAY ANGLE AUTOMATIC OPERATING LOCATION WITH UNDER EXTEND/RELOCATE RACEWAYS AND CONDUCTORS AS REQUIRED.
4. RELOCATE EXISTING CHAUFFEUR FAN CONTROL SWITCH, EXTEND/RELOCATE RACEWAYS AND CONDUCTORS AS REQUIRED.
5. EXISTING EXIST LIGHT FIXTURE SHALL BE REPLACED WITH NEW FIELD VERIFY MEASUREMENTS.

GENERAL DEMOLITION NOTES

PERFORM ALL DEMOLITION WORK AS REQUIRED AND REMOVING WORK AS SHOWN ON THE DRAWINGS INCLUDING WHATEVER TYPED OR MATERIAL OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT.

BEFORE COMMENCING WORK, CONTRACTOR SHALL EXAMINE ALL GENERAL CONTRACTING DRAWINGS AND SHALL HAVE VISITED THE CONSTRUCTION SITE. THE CONTRACTOR SHALL BE AWARE THAT THE EXISTING CONDITIONS UNDER WHICH HE/SHOULD OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT IS SOLELY OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS/HER PART.

CERTAIN REMOVING OF ELECTRICAL FACILITIES WILL BE REQUIRED IN THE EXISTING BUILDING. EXISTING CONDUITS SHALL BE GENERALLY NOT SHOWN. CONTRACTOR SHALL USE SURFACE MOUNTED, MULTI-OUTLET RACEWAYS PARALLEL TO SERIES' EXISTING RING SHALL BE VERIFIED.

EXISTING ELECTRICAL WIRING SYSTEMS WILL NOT BE MADE COMPLETE AND WHICH WILL BE DISTURBED DUE TO CONSTRUCTION CHANGES REQUIRED BY THIS DRAWING. CONTRACTOR SHALL BE RESPONSIBLE TO OPERATING CONDITION AS REQUIRED AND/OR DIRECTED. WHERE REQUIRED, SHOW AND/OR DIRECTED, OUTLETS AND CONDUIT RINGS SHALL BE RELOCATED. IN SOME CASES, IT MAY BE NECESSARY TO REMOVE EXISTING CONDUITS AND SHALL IN NEW WIRING OF INSTALL JUNCTION BOXES AND SPLICE IN NEW WIRING OR REMOVE OLD WIRING WITH ME.

OUTLETS FROM WHICH FIXTURES, SWITCHES, RECEPTACLES AND/OR OTHER ELECTRICAL DEVICES ARE MOVED AND WHICH ARE NOT REPLACED OR RELOCATED SHALL BE PROVIDED WITH A BLANK PLATE ON THE OUTLET BOX. WHERE OUTLETS, REELS, ETC. ARE COMPLETELY REMOVED, THE CONTRACTOR SHALL CUT OFF CONDUITS AND REMOVE WIRING.

WHERE EXISTING LIGHT FIXTURES ARE TO BE REMOVED, THE CONTRACTOR SHALL CLEAN THE FIXTURE, REPLACE LAMPS, AND REMOVE OR REPLACE DEFECTIVE PARTS, INCLUDING LENSES, BALLASTS, ETC. AS REQUIRED.

WHERE CONDUITS EXTENDING THROUGH FLOORS ARE TO BE ABANDONED, THE CONTRACTOR SHALL CUT AND CAP OR PLUG CONDUIT, SO THAT IT WILL NOT PROTRUDE ABOVE THE FLOOR.

WHERE EXISTING CONDUIT IS TO BE ABANDONED, THE CONDUIT SHALL BE REMOVED IF IT IS EXPOSED, INTO A CEILING SPACE OR CONCEALED CEILING WHERE IT IS IMPRACTICABLE TO REMOVE THE CONDUIT, IT SHALL BE CUT OFF AND CAPPED OR PLUGGED.

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES INCLUDING PATCHING, PLASTERING, PAINTING AND/OR OTHER REPAIRS DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THIS CONTRACT. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC. AS REQUIRED.

THE CONTRACTOR SHALL EMPLOY QUALIFIED AND EXPERIENCED WORKMEN FOR THIS WORK. ALL RESTORATION WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND/OR THE OWNER.

ALL TEMPORARY AND REMOVING WORK SHALL BE CONSIDERED A PART OF THIS CONTRACT AND AN EXTRA CHARGE WILL BE INCURRED. THIS SHALL INCLUDE WHATEVER TYPED OR MATERIAL OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT.

EXAMINE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE SEQUENCE OF CONSTRUCTION THROUGHOUT THE PROJECT, INCLUDING EXISTING, TEMPORARY, REMOVING AND NEW AREAS. THE OWNER RESERVES THE RIGHT TO RETAIN ANY SELECTED SALVAGE ITEMS. ALL STEEL ITEMS SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR LEGAL DISPOSAL.



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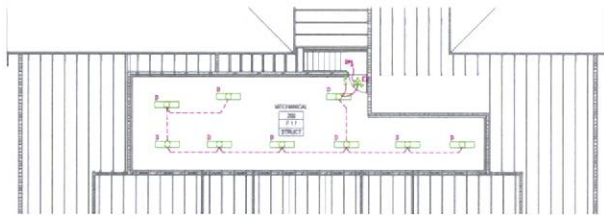
1999A 4/26/00
2-13-09 2009

MODULAR EVENT CENTER BUILDING
DEPT. OF GAME FISHERY AND PARKS
FT. PIERCE, SOUTH DAKOTA

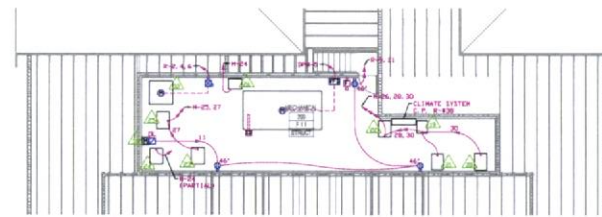
EXISTING FLOOR PLAN
ELECTRICAL

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RE2.1



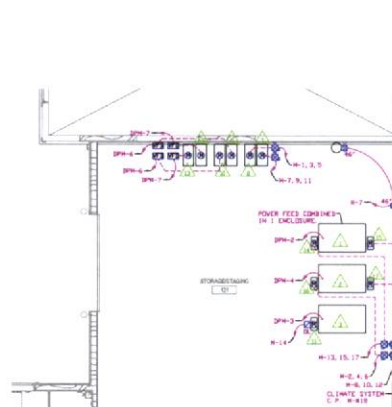
MECHANICAL PLAN - LIGHTING



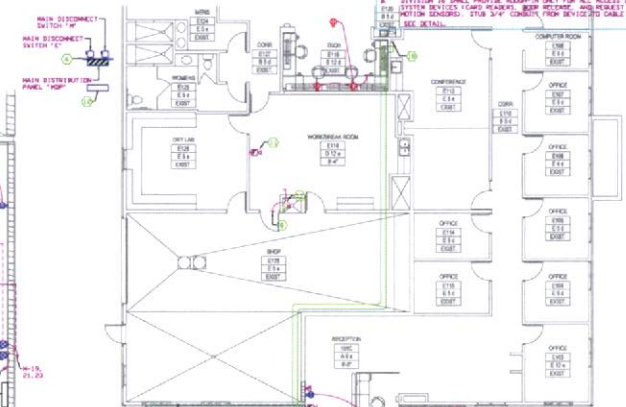
MECHANICAL PLAN - POWER & SIGNAL



FLOOR PLAN - LIGHTING



ENLARGED PLAN - POWER



FLOOR PLAN - POWER & SIGNAL

- ### ELECTRICAL NOTES
- RACEWAYS AND CONDUITS FOR DEVICES AT PARTITION WALLS TO BE LOCATED AS SHOWN. SHALL BE INSTALLED CONCEALED, TO NOT STUP UP TO CEILING DIRECTLY FROM PARTITION WALLS. TYPICAL.
 - COMMUNICATIONS AND DATA-PROCESSING EQUIPMENT (BY OWNER) SHALL BE LOCATED AS SHOWN. COORDINATE WITH OWNER. SEE SPECIFICATIONS. COORDINATE LOCATION OF DEVICES WITH OWNER.
 - CONNECT TO AN EXISTING LOW VOLTAGE CIRCUIT.
 - CONNECT TO AN EXISTING LOW VOLTAGE CIRCUIT WITH SPARE CAPACITY.
 - CABLE TRAYS: SEE SPECIFICATIONS. COORDINATE INSTALLATION WITH ALL TRADES.
 - PROVIDE STEEL FLOOR-MOUNTED ASSEMBLY FOR MOUNTING OF SERVICE EQUIPMENT. FIELD VERIFY LOCATION AND REQUIREMENTS.
 - TO EXISTING LIGHTING CONTROL PANEL "ELCP".
 - TO EXISTING EXHAUST FAN.
 - HAND SWITCH: TYPICAL. SEE SPECIFICATIONS.
 - *BOLLER EMERGENCY STOP: HANGOVER HEAD PUSH-BUTTON SWITCH. INTERLOCK WITH BOLLER CONTROLS.
 - EXISTING INDICATED DEVICE.
 - NEW ROOM TEMPERATURE SENSORS: FIELD VERIFY LOCATION AND COORDINATE REQUIREMENTS WITH UTILITY.
 - PANEL "P".
 - DISTRIBUTION PANEL "DPM".
 - EXTERIOR LIGHTING CONTROL PANEL "ELCP".
 - PANEL "L".
 - PANEL "R".
 - 3 EACH "P" CONDUITS FROM ACCESSIBLE CEILING SPACE IN ROOM RETURNED DOWN TO MOUNTING BELOW. VERIFY EXACT LOCATION ON SITE WITH OWNER.
 - EXISTING EXIT LIGHT SYSTEM SHALL BE REPLACED WITH NEW. FIELD VERIFY MOUNTING REQUIREMENTS.
 - CONNECT TO EXISTING UNLIT CORRIDOR LIGHTING BRANCH CIRCUIT.

- ### GENERAL ELECTRICAL NOTES
- EXISTITION IS TO PROVIDE MOUNTING IN ONLY FOR ALL COMMUNICATIONS AND DATA-PROCESSING EQUIPMENT. FIELD VERIFY LOCATION AND COORDINATE REQUIREMENTS WITH UTILITY.
 - EXISTITION IS TO PROVIDE MOUNTING IN ONLY FOR ALL ACCESS CONTROL SYSTEM DEVICES (CARD READERS, BEEM READER, AND REQUEST TO EXIT) WITH MOUNTING. FIELD VERIFY LOCATION AND COORDINATE REQUIREMENTS WITH UTILITY. SEE DETAIL.

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10004 ADP18
2-13-09 JWB

MISSOURI RIVER FISHERIES BUILDING
DEPT. OF GAME, FISH AND PARKS
FT. PEARRE, SOUTH DAKOTA

FLOOR PLAN
ELECTRICAL

RE2.2

- ### ELECTRICAL NOTES
- UNLESS NOTED OTHERWISE DIMMER HANG TYPE "30" AND "30" LIGHT FIXTURE AT 14' AFF. TYPICAL.
 - CONNECT TO APPROPRIATE SWITCHES AT ENTRANCE TO ROOM.
 - CONNECT TO EXTERIOR LIGHTING CONTROL PANEL "50-ELCP".
 - EXTERIOR LIGHTING CONTROL PANEL "50-ELCP".
 - IF CONSULT TO SUPPLEMENT CORNER OF ROOM AREA OF THE OFFICE ADDITION PROVIDE FULL STRING.
 - MONIT - JUST ABOVE OPEN DOOR.
 - VERIFY AND COORDINATE ALL CONNECTIONS TO THE COOLER AND FREEZER WITH EQUIPMENT SUPPLIER.
 - COOLER AND FREEZER LIGHTS AND FREEZER DOOR HEAT.
 - FULL SUPPLEMENT EXTERIOR CONTROL FROM 4 PAGES. SHOWING CIRCUITS SHALL COMPLY WITH NEC ARTICLE 514.
 - ELECTRICAL WORK WITHIN THIS ROOM SHALL COMPLY WITH NEC ARTICLE 511.
 - COORDINATE ACCEPTABLE LOCATION WITH EQUIPMENT SUPPLIER AND PROVIDE HEAT TRACE FOR CONDENSATE DRAIN PIPE.
- ### GENERAL ELECTRICAL NOTES
- DIVISION 16 SHALL PROVIDE ROUGH-IN ONLY FOR ALL COMMUNICATIONS ACCESS TO PROVIDE SINGLE GANG OUTLET WITH 3/4" CONDUIT TO ACCESS THE CELLING SPACE.
 - DIVISION 16 SHALL PROVIDE ROUGH-IN ONLY FOR ALL ACCESS CONTROL SYSTEM DEVICES (CARD READERS, DOOR RELEASE, AND PROXIMITY TO EXIT METER SENSORS). STOP 3/4" CONDUIT FROM DEVICE TO CABLE TRAY. SEE DETAIL.

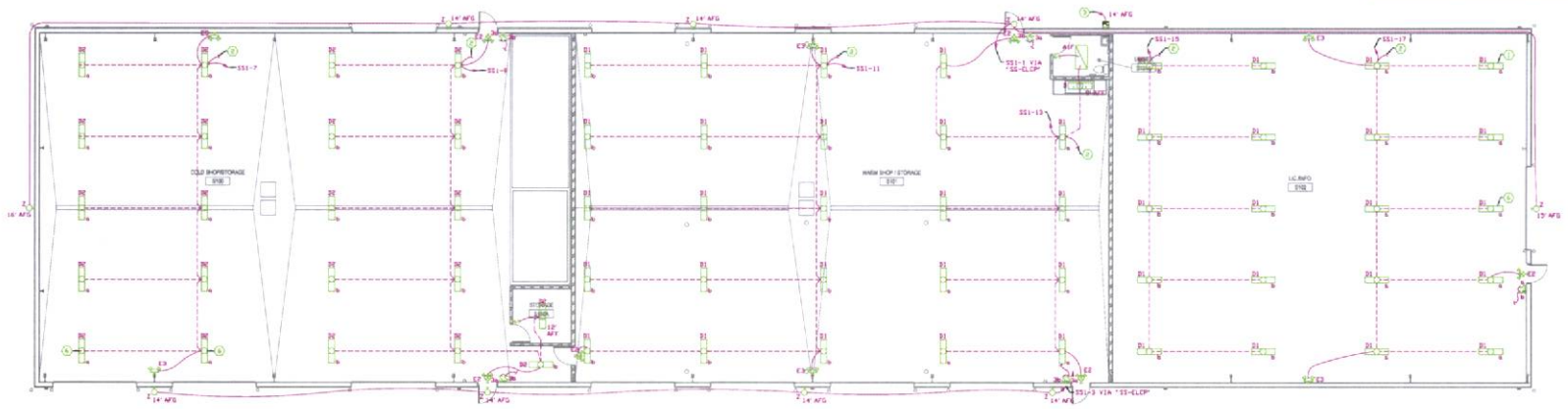
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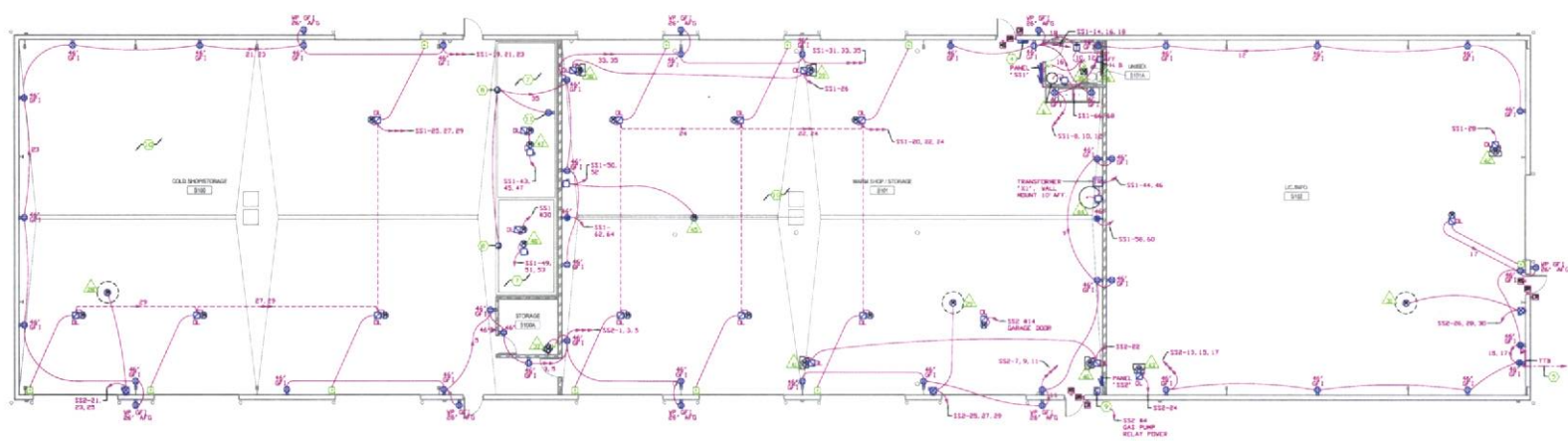
Associated Consulting Engineering, Incorporated

540 N. Phillips Ave.
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SHOP/STORAGE BUILDING - LIGHTING



SHOP/STORAGE BUILDING - POWER & SIGNAL

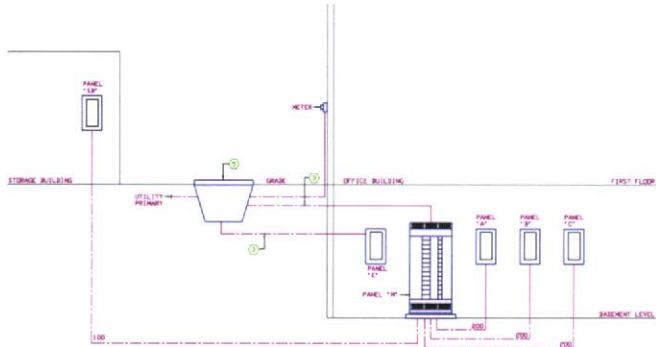
These Plans/Specifications have been prepared based on information furnished by others. The Design Professional has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

10004 ACPLUS
01-136 2000

MISSOURI RIVER FISHERIES BUILDING
DEPT. OF GAME, FISH AND PARKS
FT. RABBIT, SOUTH DAKOTA

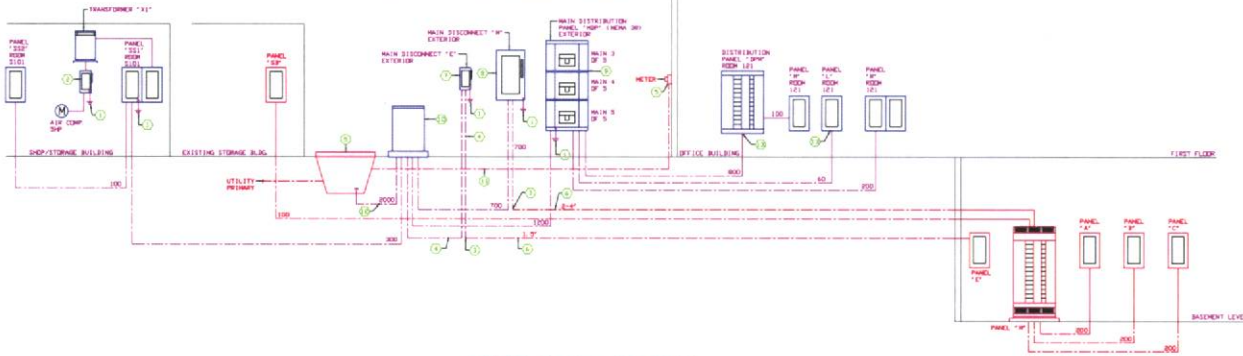
FLOOR PLAN
ELECTRICAL

RE2.3



EXISTING POWER RISER DIAGRAM
NO SCALE

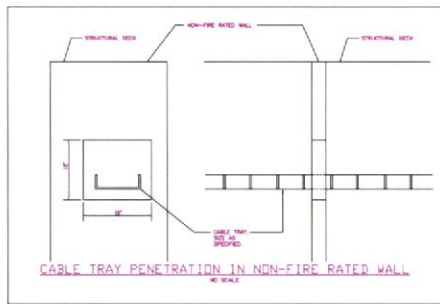
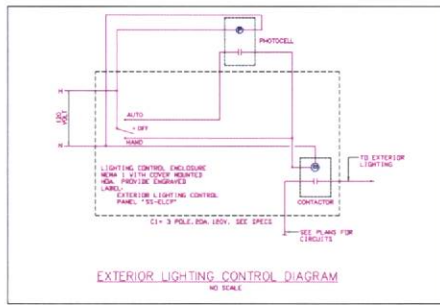
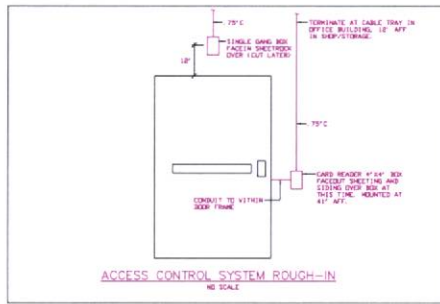
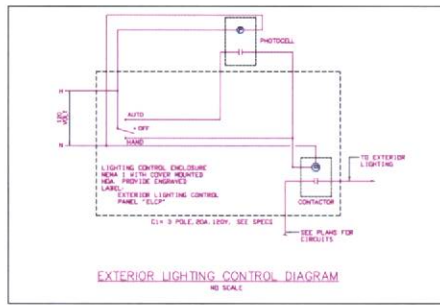
1. GROUND PER NEC, LOCAL CODE REQUIREMENTS, AND SPECIFICATIONS.
2. MAIN FUSED DISCONNECT SWITCH, FUSE AT 45A.
3. INTERLOCK/INTERTRIP EXISTING RACEWAYS AS REQUIRED FOR INSTALLATION OF NEW UTILITY TRANSFORMER, MAIN DISCONNECT SWITCHES AND CONDUITS. 4-42 IN 1" CONDUIT.
4. EXISTING TRANSFORMER VAULT AND METERING EQUIPMENT TO REMAIN. TRANSFORMER TANK TO BE REPLACED BY UTILITY.
5. UTILIZE EXISTING RACEWAY FOR INSTALLATION OF NEW CONDUCTORS TO EXISTING SWITCHGEAR.
6. SERVICE ENTRANCE RATES NEAR 300 AMP/3P FUSED DISCONNECT SWITCH, FUSE AT 300A, MAIN 7 OF 5.
7. SERVICE ENTRANCE RATES NEAR 300 AMP/3P FUSED DISCONNECT SWITCH AND RIGIDLY FEED SWITCH AT 300 AMP/3P FUSE AT 300A, MAIN 7 OF 5.
8. ALL THREE CIRCUIT BREAKERS AND MAIN SERVICE DISCONNECTS, LABEL ACCORDING TO DIVISION 16, COORDINATE REQUIREMENTS WITH UTILITY.
9. REINFORCE/EXTEND METER RACEWAY AS REQUIRED FOR SERVICE MAIN.
10. COORDINATE TERMINATION CABINET AND PAD BY DIVISION 16, COORDINATE REQUIREMENTS WITH UTILITY.
11. COORDINATE TERMINATION REQUIREMENTS WITH UTILITY.
12. PANEL FEEDER PANELS BY DIVISION 15, 15.1 TO BE FURNISHED BY DIVISION 15, INSTALLED BY DIVISION 16, COORDINATE REQUIREMENTS WITH DIVISION 15.



POWER RISER DIAGRAM
NO SCALE

THREE PHASE FEEDER SCHEDULE													
MARK	1-VIASE FEEDER			2-VIASE FEEDER			3-VIASE FEEDER			MARK	AMPS		
	SECT	PH	SIZE	SECT	PH	SIZE	SECT	PH	SIZE				
15	1	1	14	0.75	1	1	14	0.75	1	1	14	0.75	25
25	1	1	12	0.75	1	1	12	0.75	1	1	12	0.75	25
27	1	1	12	0.75	1	1	12	0.75	1	1	12	0.75	25
30	1	1	10	0.75	1	1	10	0.75	1	1	10	0.75	30
35	1	1	10	0.75	1	1	10	0.75	1	1	10	0.75	30
40	1	1	8	1.0	1	1	8	1.0	1	1	8	1.0	40
50	1	1	8	1.0	1	1	8	1.0	1	1	8	1.0	40
60	1	1	10	1.00	1	1	10	1.00	1	1	10	1.00	60
70	1	1	8	1.00	1	1	8	1.00	1	1	8	1.00	70
80	1	1	8	1.00	1	1	8	1.00	1	1	8	1.00	80
90	1	1	8	1.00	1	1	8	1.00	1	1	8	1.00	90
100	1	1	8	1.00	1	1	8	1.00	1	1	8	1.00	100
110	1	1	8	1.00	1	1	8	1.00	1	1	8	1.00	110
125	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	125
135	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	135
145	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	145
155	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	155
165	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	165
175	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	175
185	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	185
195	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	195
205	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	205
215	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	215
225	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	225
235	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	235
245	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	245
255	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	255
265	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	265
275	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	275
285	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	285
295	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	295
305	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	305
315	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	315
325	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	325
335	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	335
345	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	345
355	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	355
365	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	365
375	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	375
385	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	385
395	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	395
405	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	405
415	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	415
425	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	425
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445	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	445
455	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	455
465	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	465
475	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	475
485	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	485
495	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	495
505	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	505
515	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	515
525	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	525
535	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	535
545	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	545
555	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	555
565	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	565
575	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	575
585	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	585
595	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	595
605	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	605
615	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	615
625	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	625
635	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	635
645	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	645
655	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	655
665	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	665
675	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	675
685	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	685
695	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	695
705	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	705
715	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	715
725	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	725
735	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	735
745	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	745
755	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	755
765	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	765
775	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	775
785	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	785
795	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	795
805	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	805
815	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	815
825	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	825
835	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	835
845	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	845
855	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	855
865	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	865
875	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	875
885	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	885
895	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	895
905	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	905
915	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	915
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935	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	935
945	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	945
955	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	955
965	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	965
975	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	975
985	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	985
995	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	995
1005	1	1	8	1.50	1	1	8	1.50	1	1	8	1.50	1005

THREE PHASE MOTOR & APPLIANCE FEEDER SCHEDULE (100 Amps & Less)												
MARK	MOTOR LOAD (HP)			4-VIASE FEEDER			3-VIASE FEEDER			MARK	AMPS	
	SECT	PH	SIZE	SECT	PH	SIZE	SECT	PH	SIZE			
10	1	1	3.0	1	1	14	0.75	1	1	14	0.75	25
20	1	1	3.0	1	1	14	0.75	1	1	14	0.75	25
30	1	1	3.0	1	1	14	0.75	1	1	14	0.75	25
40	1	1	3.0	1	1	14	0.75	1	1	14	0.75	25
50	1	1	3.0	1	1	14	0.75	1	1	14	0.75	25
60	1	1	3.0	1	1	14	0.75	1	1	14	0.75	25
70	1	1	3.0	1	1							



NO.	DESCRIPTION	EQ	HP	KVA	VOLTS	PH	NOTES
1	WELL PUMP #1	-	1	0.00	208	3	1
2	WELL PUMP #2	-	1	0.00	208	3	1
3	WELL PUMP #3	-	1	0.00	208	3	1
4	WELL PUMP #4	-	1	0.00	208	3	1
5	WELL PUMP #5	-	1	0.00	208	3	1
6	WELL PUMP #6	-	1	0.00	208	3	1
7	WELL PUMP #7	-	1	0.00	208	3	1
8	WELL PUMP #8	-	1	0.00	208	3	1
9	WELL PUMP #9	-	1	0.00	208	3	1
10	WELL PUMP #10	-	1	0.00	208	3	1
11	WELL PUMP #11	-	1	0.00	208	3	1
12	WELL PUMP #12	-	1	0.00	208	3	1
13	WELL PUMP #13	-	1	0.00	208	3	1
14	WELL PUMP #14	-	1	0.00	208	3	1
15	WELL PUMP #15	-	1	0.00	208	3	1
16	WELL PUMP #16	-	1	0.00	208	3	1
17	WELL PUMP #17	-	1	0.00	208	3	1
18	WELL PUMP #18	-	1	0.00	208	3	1
19	WELL PUMP #19	-	1	0.00	208	3	1
20	WELL PUMP #20	-	1	0.00	208	3	1
21	WELL PUMP #21	-	1	0.00	208	3	1
22	WELL PUMP #22	-	1	0.00	208	3	1
23	WELL PUMP #23	-	1	0.00	208	3	1
24	WELL PUMP #24	-	1	0.00	208	3	1
25	WELL PUMP #25	-	1	0.00	208	3	1
26	WELL PUMP #26	-	1	0.00	208	3	1
27	WELL PUMP #27	-	1	0.00	208	3	1
28	WELL PUMP #28	-	1	0.00	208	3	1
29	WELL PUMP #29	-	1	0.00	208	3	1
30	WELL PUMP #30	-	1	0.00	208	3	1
31	WELL PUMP #31	-	1	0.00	208	3	1
32	WELL PUMP #32	-	1	0.00	208	3	1
33	WELL PUMP #33	-	1	0.00	208	3	1
34	WELL PUMP #34	-	1	0.00	208	3	1
35	WELL PUMP #35	-	1	0.00	208	3	1
36	WELL PUMP #36	-	1	0.00	208	3	1
37	WELL PUMP #37	-	1	0.00	208	3	1
38	WELL PUMP #38	-	1	0.00	208	3	1
39	WELL PUMP #39	-	1	0.00	208	3	1
40	WELL PUMP #40	-	1	0.00	208	3	1

PROJECT NAME	PROJECT NO.	PROJECT DATE	PROJECT LOCATION	PROJECT TYPE	PROJECT STATUS	PROJECT OWNER	PROJECT CONTACT	PROJECT PHONE	PROJECT FAX	PROJECT EMAIL
WISCONSIN RIVER FISHERIES BUILDING ADDN	1000000000	10/01/00	WISCONSIN RIVER FISHERIES BUILDING	ADDN	COMPLETED	STATE OF WISCONSIN	DAVID L. HARRIS	608-261-1000	608-261-1000	dharris@dnr.wisconsin.gov

TYPE	DESCRIPTION	QTY	UNIT	REMARKS
A	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
B	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
C	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
D	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
E	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
F	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
G	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
H	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
I	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
J	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
K	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
L	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
M	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
N	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
O	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
P	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
Q	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
R	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
S	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
T	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
U	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
V	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
W	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
X	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
Y	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100
Z	RECYCLED ALUMINUM WALL MOUNTED LIGHT FIXTURE	100	EA	100

NOTES:
 1. EXTERIOR WALL IS TO BE LABELED FOR A SINGLE ROW LAMP.
 2. EXTERIOR LIGHT FIXTURES TO BE INSTALLED AT 10' AFF.
 3. PROVIDE WEATHER GASKETS AS NECESSARY TO SEAL LIGHT FIXTURES.
 4. PROVIDE WEATHER GASKETS AS NECESSARY TO SEAL LIGHT FIXTURES.

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1000000000
 2/13/00
 WISCONSIN RIVER FISHERIES BUILDING
 DEPT. OF GAME, FISH AND PARKS
 177 PERM. SOUTH QUARTS

RE3.2



SOUTH DAKOTA DEPARTMENT OF
GAME, FISH AND PARKS

523 EAST CAPITOL AVENUE | PIERRE, SD 57501

END OF ADDENDUM NO. 1

