

RECORD DRAWINGS

Revisions Drawn By MJ PRICE Date JUNE 1995

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J. DENNIS WERMCRANTZ
OREGON P.E. NO.
11845



DSGN D WERMCRANTZ
DR B LAZARO
R402S101.DGN
CHK DL KING
APVD RM BRACKEN

07-95 RECORD DRAWING
NO. DATE REVISION

BAY RMB
BY APVD

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0 1"
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ROCK CREEK
FACILITY
UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

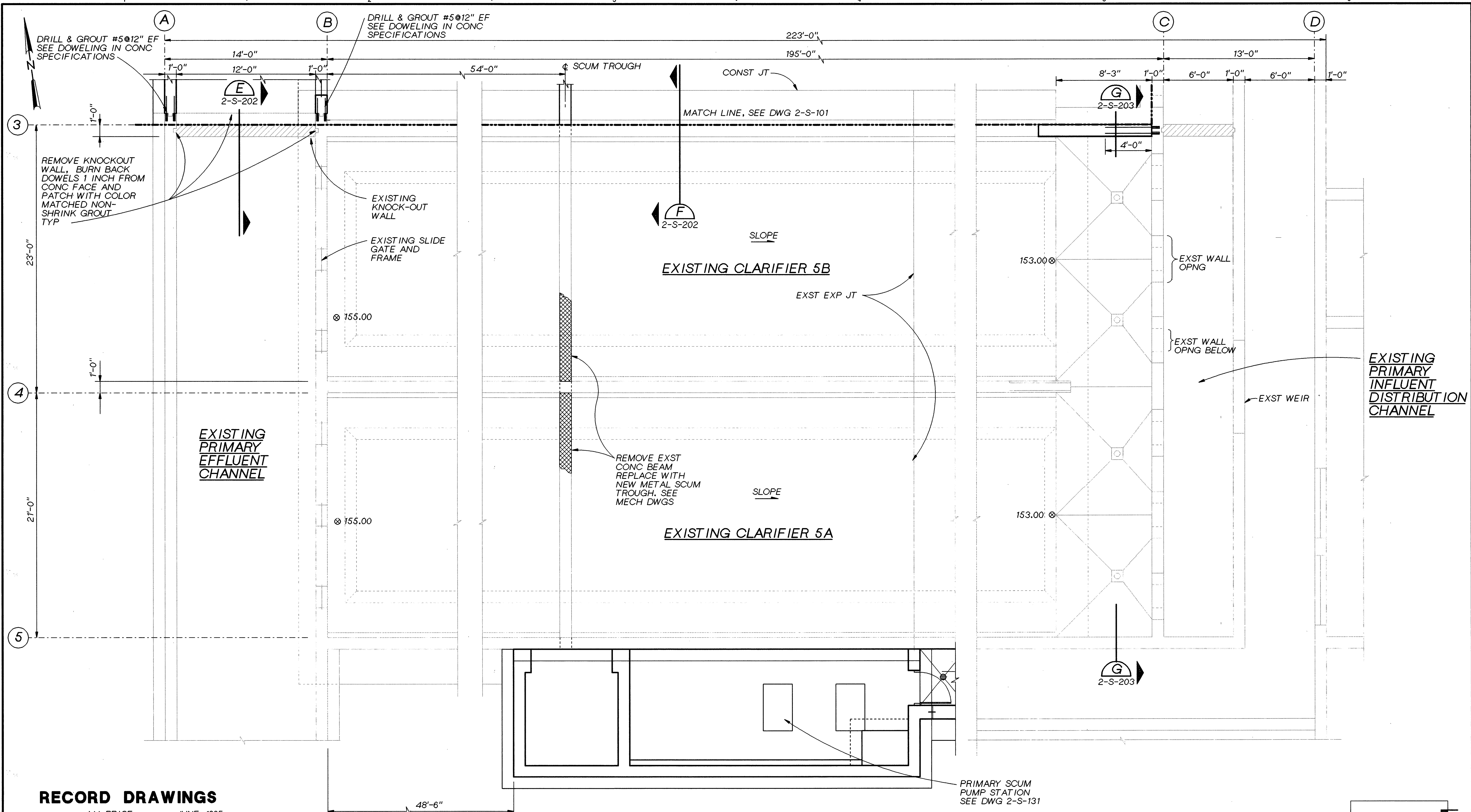
PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY CLARIFIER PLAN
AT EL 164.0 - NORTH

SHEET 68
DWG NO. 2-S-101
DATE DEC 1991
PROJ NO. PDX21262.W1

KEY PLAN

PLAN AT EL 164.0 - NORTH

1/4" = 1'-0"



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J. DENNIS WERMCRANTZ
OREGON P.E. NO.
11845



DSGN	D. WERMCRANTZ
DR	B. LAZARO
CHK	DL KING
APVD	RM BRACKEN

NO.	07-95
DATE	

RECORD DRAWING
REVISION

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BY	APVD

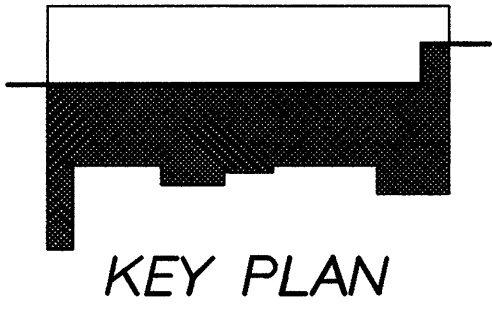
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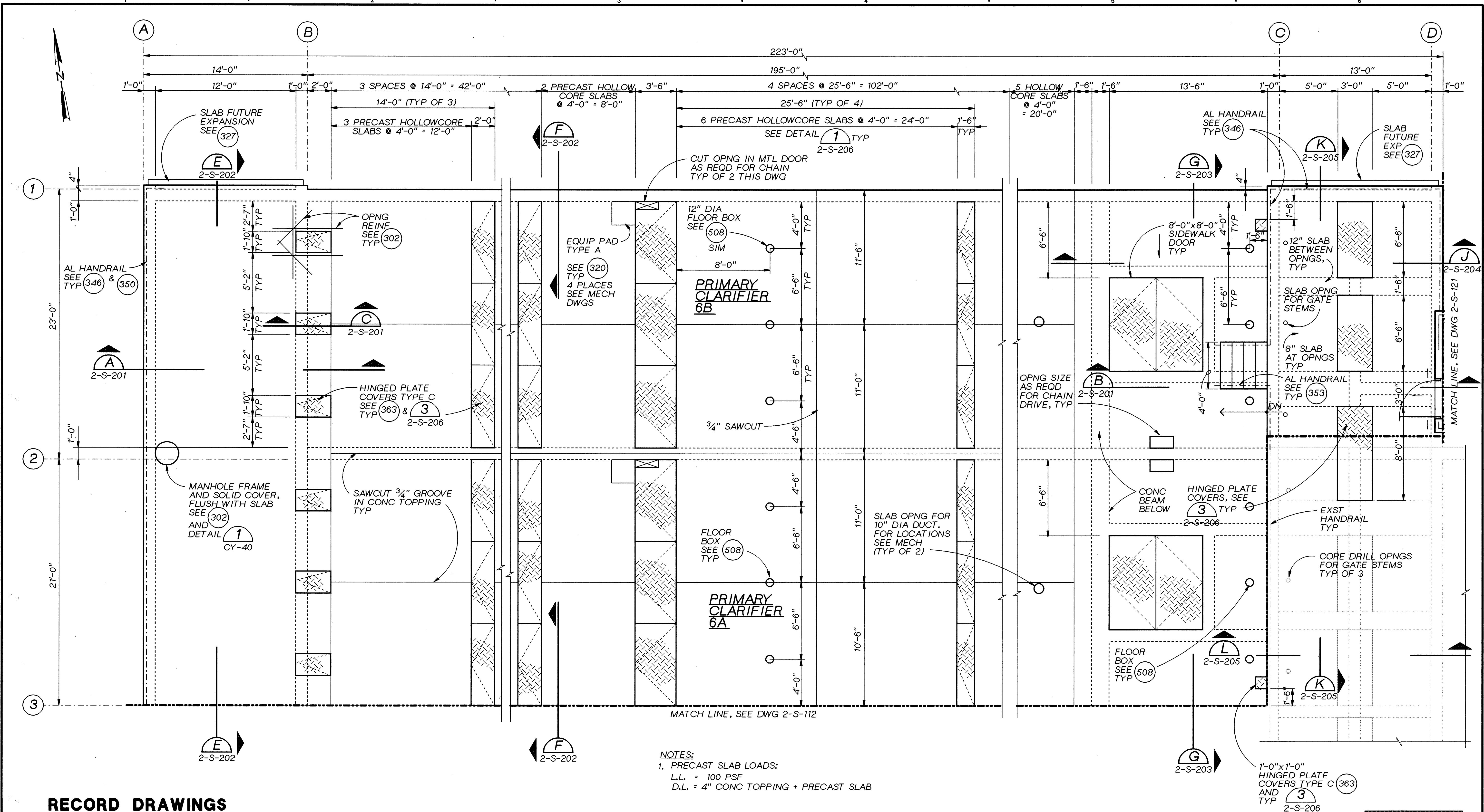
ROCK CREEK FACILITY
UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY CLARIFIER PLAN
AT EL 164.0 - SOUTH

SHEET	69
DWG NO.	2-S-102
DATE	DEC 1991
PROJ NO.	PDX21262.W1



PLAN AT EL 164.0 - SOUTH
1/4" = 1'-0"



NOTES:
1. PRECAST SLAB LOADS:
L.L. = 100 PSF
D.L. = 4" CONC TOPPING + PRECAST SLAB

PLAN AT EL 170.0 - NORTH
1/4" = 1'-0"

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DR	B. LAZARO R402S111.DGN
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APVD	RM BRACKEN

NO.	07-95	RECORD DRAWING
DATE		REVISION

BAY	RMB
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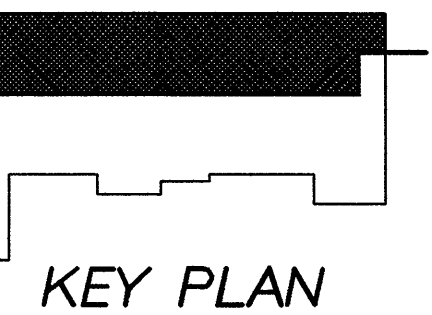
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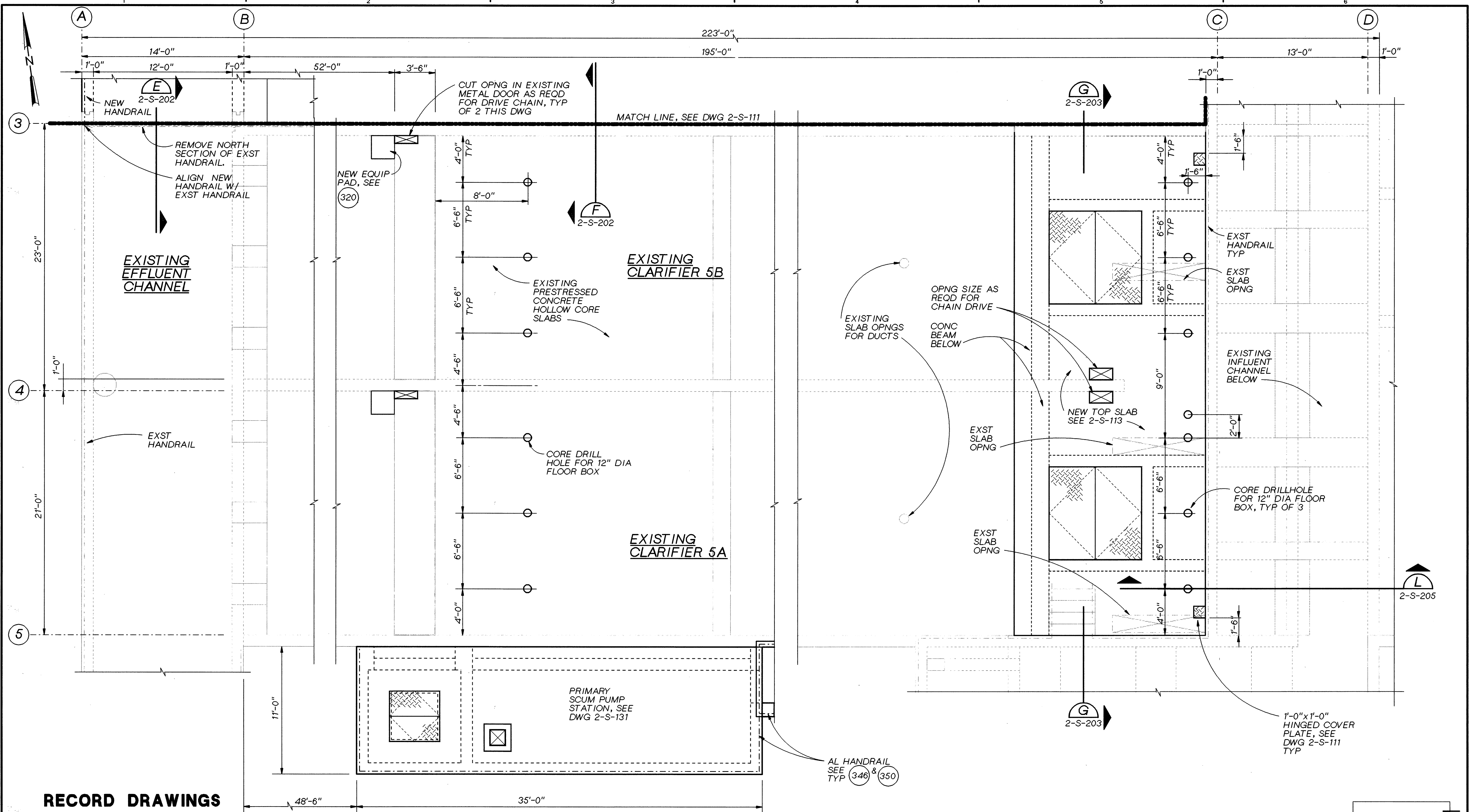
GRAPHIC SCALE
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ROCK CREEK
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WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY CLARIFIER PLAN
AT EL 170.0 - NORTH

SHEET	70
DWG NO.	2-S-111
DATE	DEC 1991
PROJ NO.	PD21262.W1





RECORD DRAWINGS

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DSGN	D. WERMCRANTZ
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APVD	RM BRACKEN

07-95	RECORD DRAWING
NO.	DATE

REVISION	BY	RMB
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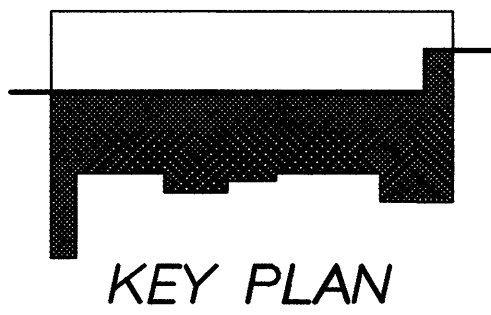
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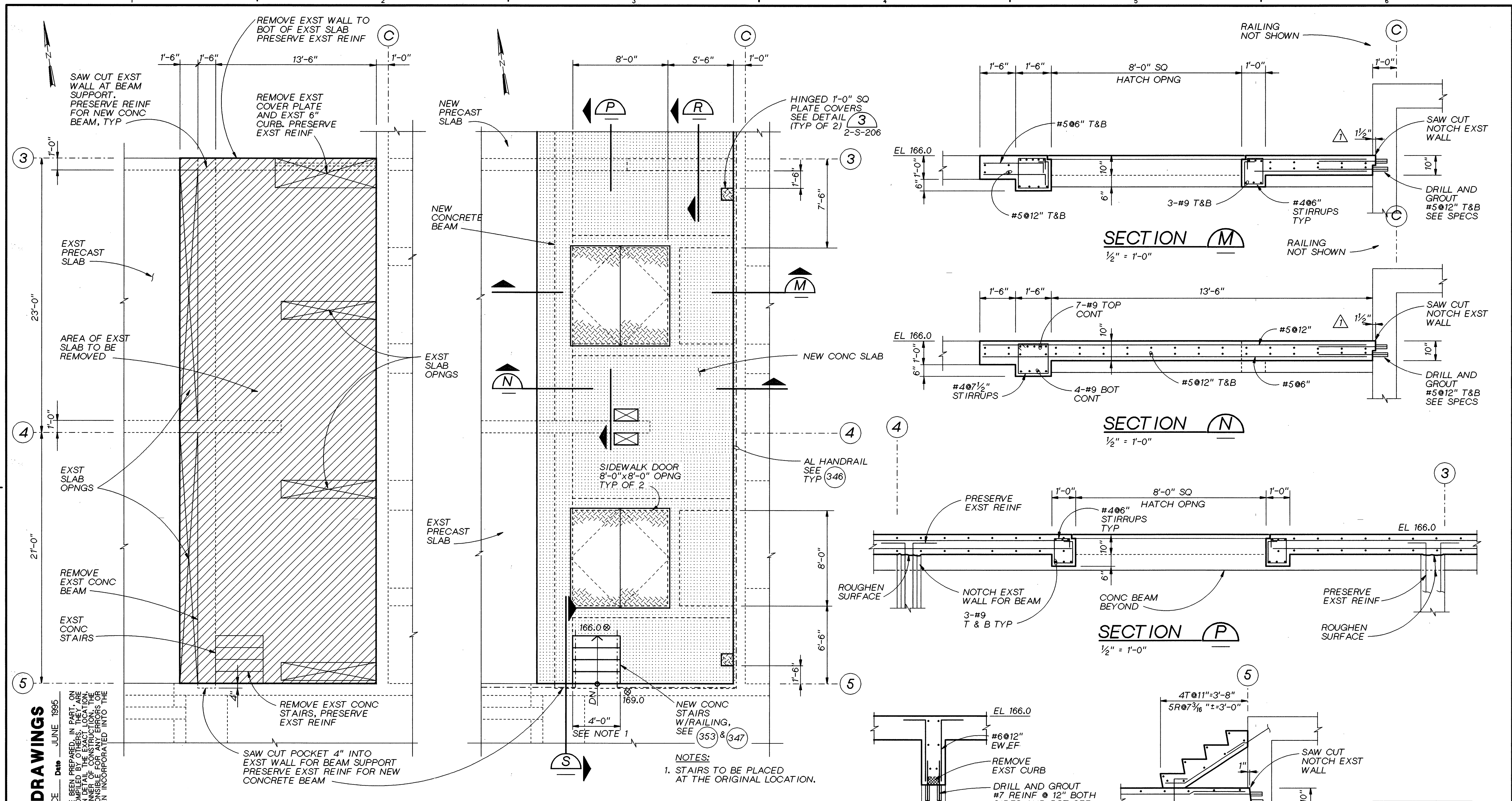
VERIFICATION SCALE
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WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY CLARIFIER PLAN
AT EL 170.0 - SOUTH

SHEET	71
DWG NO.	2-S-112
DATE	DEC 1991
PROJ NO.	PDX21262.W1





**PARTIAL EXISTING PLAN
AT EL 170.00 (DEMOLITION)**
1/4" = 1'-0"

**PARTIAL EXISTING PLAN
AT EL 170.00**
1/4" = 1'-0"

RECORD DRAWINGS

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J. DENNIS WERMCRANTZ
OREGON P.E. NO.
11845



DSGN	D WERMCRANTZ
DR	B LAZARO
CHK	DL KING
APVD	RM BRACKEN

NO.	07-95
DATE	04-93

RECORD DRAWING	CLARIFICATION CL-P-409
REVISION	

BAY	RMB
BY	APVD

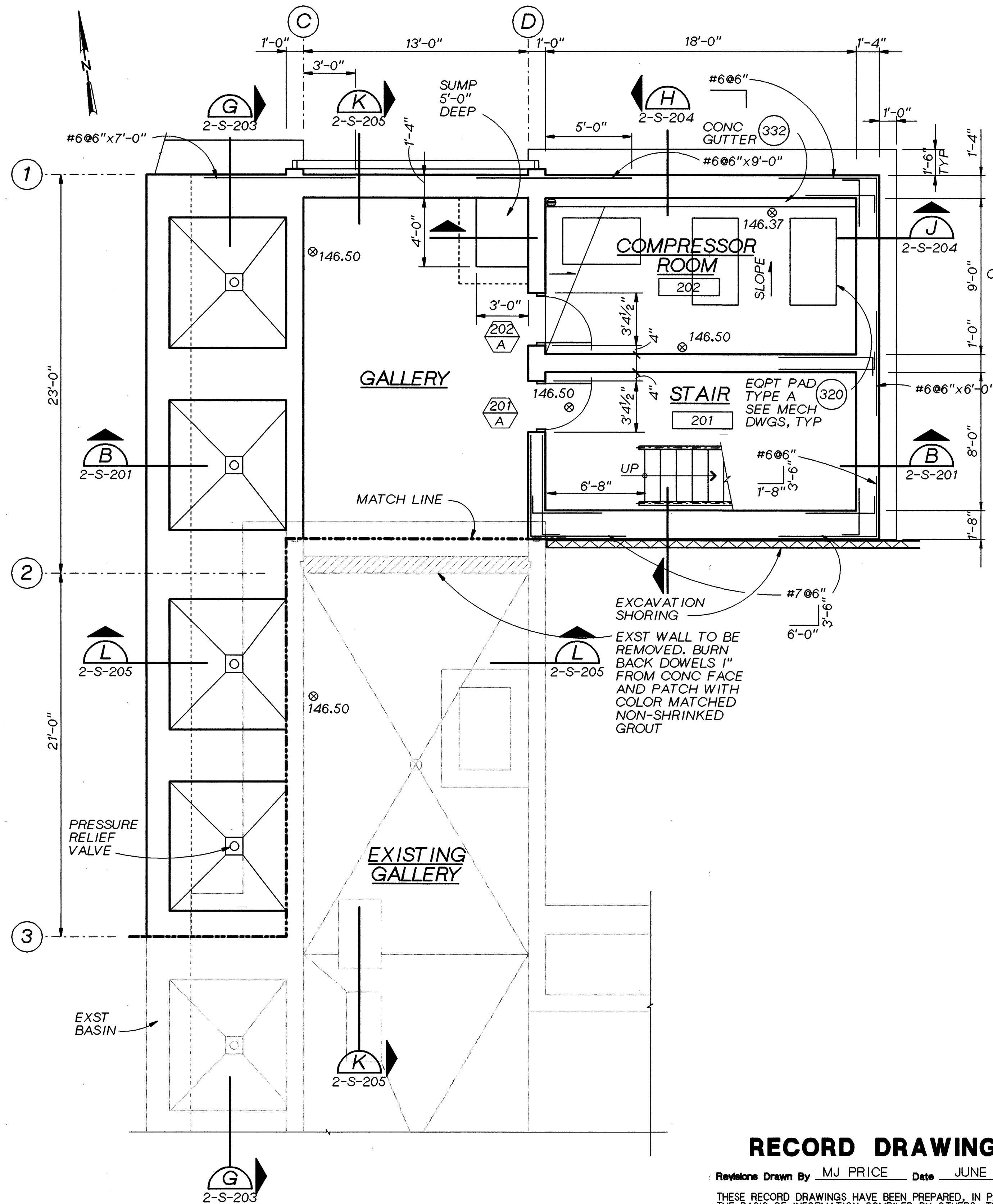
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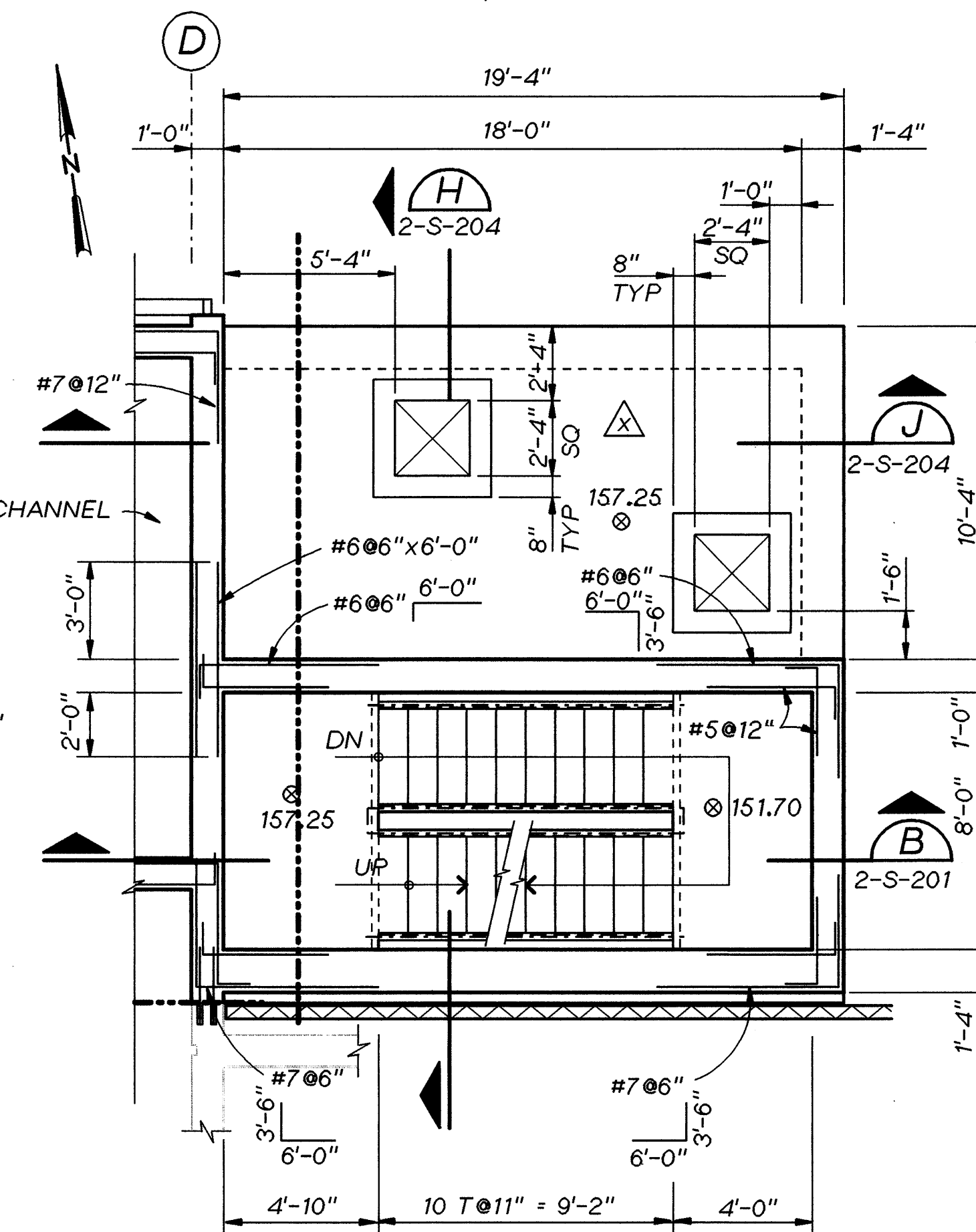
ROCK CREEK FACILITY	
UNIFIED SEWERAGE AGENCY	
WASHINGTON COUNTY, OREGON	

PHASE 4 EXPANSION - SOLIDS PROCESSING PRIMARY CLARIFIER STRUCTURAL PARTIAL PLAN AT EL 170.0 AND SECTIONS	
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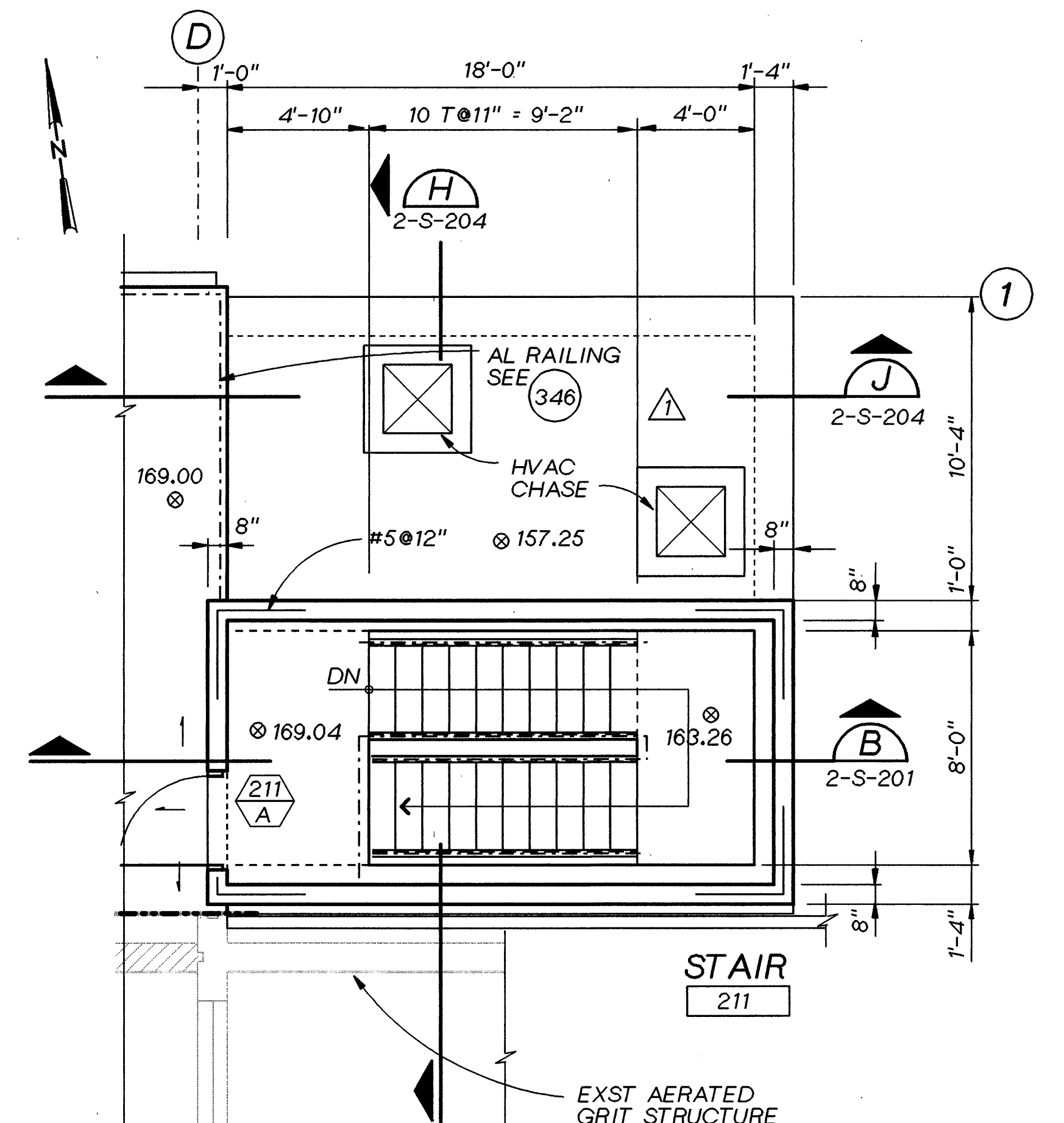
SHEET	72
DWG NO.	2-S-113
DATE	DEC 1991
PROJ	PDX21262.W1



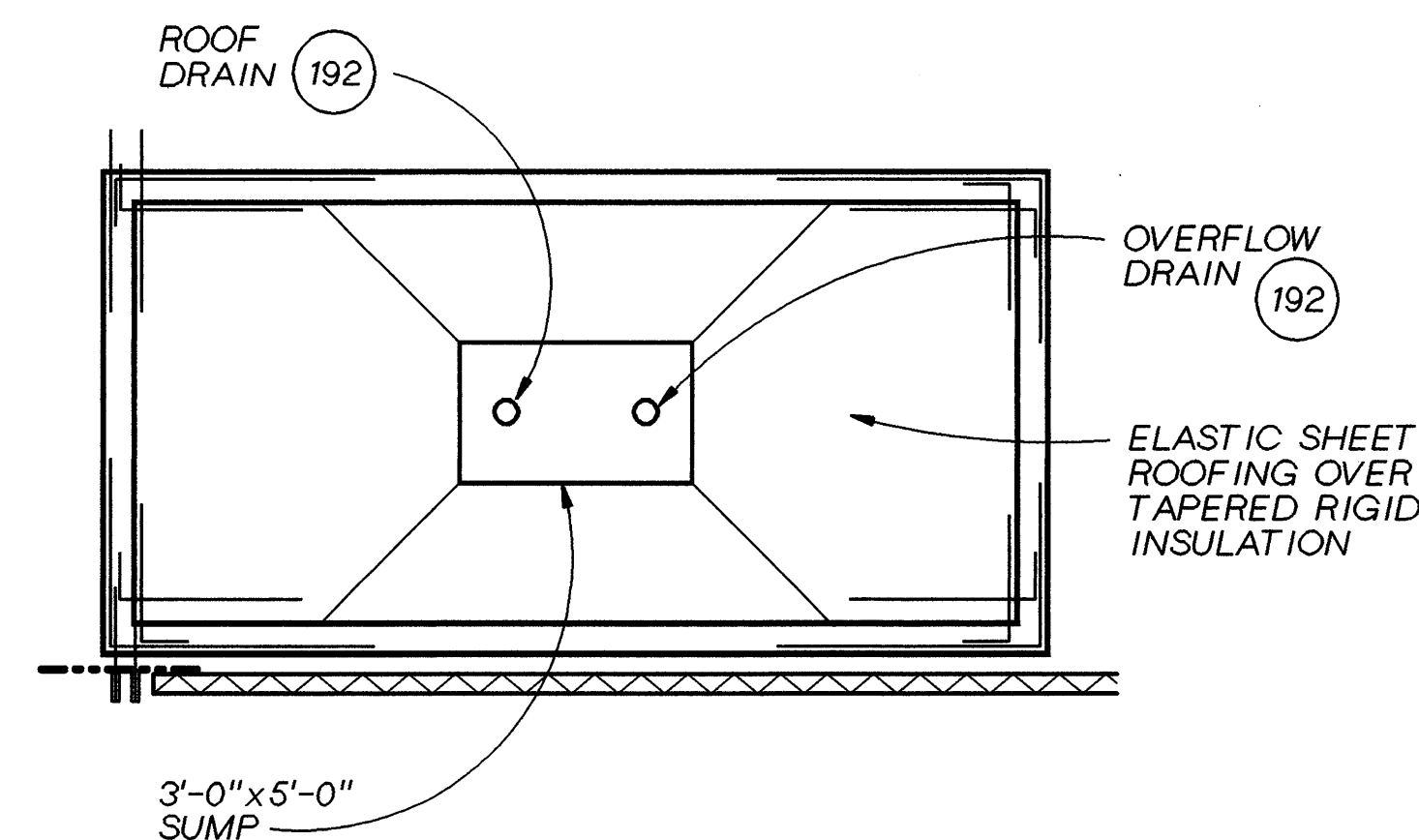
PLAN AT EL 147.00
1/4" = 1'-0"



PLAN AT EL 158.00
1/4" = 1'-0"



PLAN AT EL 170.00
1/4" = 1'-0"



ROOF PLAN
1/4" = 1'-0"

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UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
**STRUCTURAL
PRIMARY GALLERY
PLANS**

SHEET 73
DWG NO. 2-S-121
DATE DEC 1991
PROJ NO. PDX21262.W1

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OREGON P.E. NO. 11845



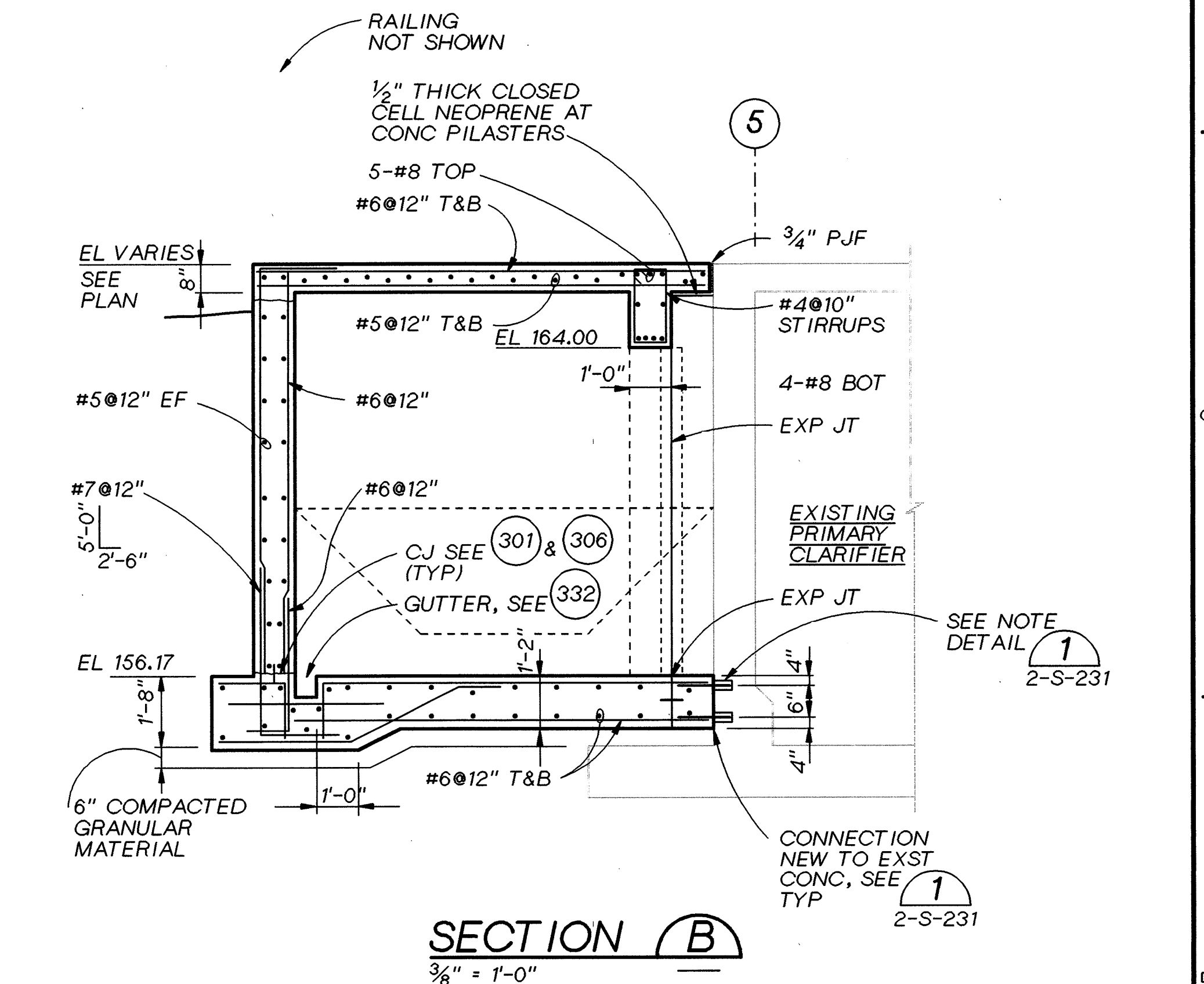
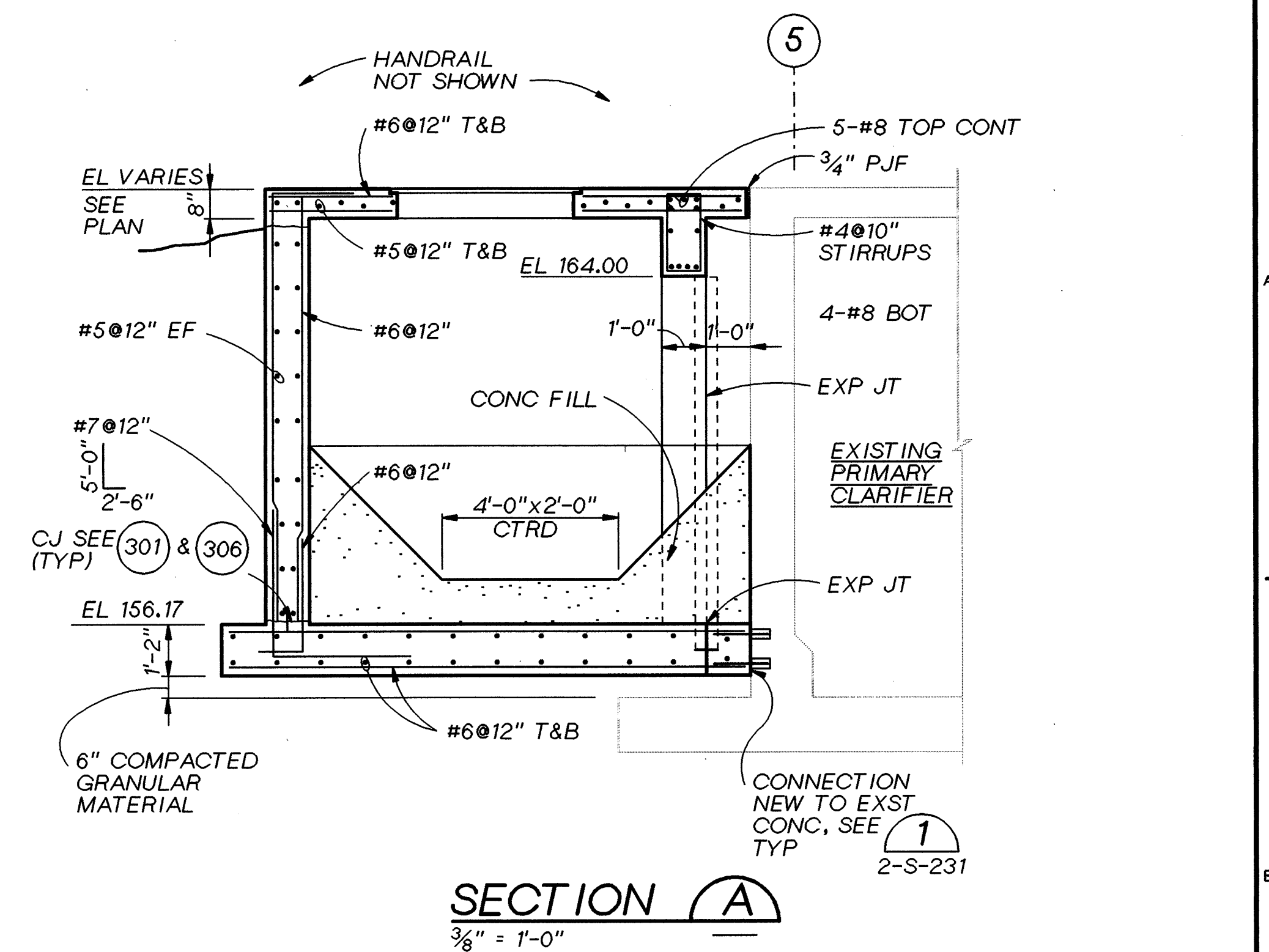
DSGN D WERMCRANTZ
DR B LAZARO
CHK DL KING
APVD RM BRACKEN

07-95
02-92
RECORD DRAWING
ADDENDUM No. 3

NO. DATE REVISION


BAY RMB
BY APVD

CH2M HILL



KEY PLAN

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UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

SHEET	74
DWG NO.	2-S-131
DATE	DEC 1991
PROJ NO.	PDX21262.W1



	07-95
2	07-92
1	03-92
NO.	DATE

RECORD DRAWING CLARIFICATION CL-P-21 ADDENDUM No. 3	
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REVISION

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	MS	RMB
	BY	APVD

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OREGON P.E. NO.
11845



DSGN JL MCWADE
D WERMCRANTZ
DR LA BAXTER
R402S141.DGN
CHK GF DOTSON
APVD RM BRACKEN

07-95
11-92
NO. DATE

RECORD DRAWING
CLARIFICATION CL-P-150
REVISION

BAY RMB
NK
BY APVD

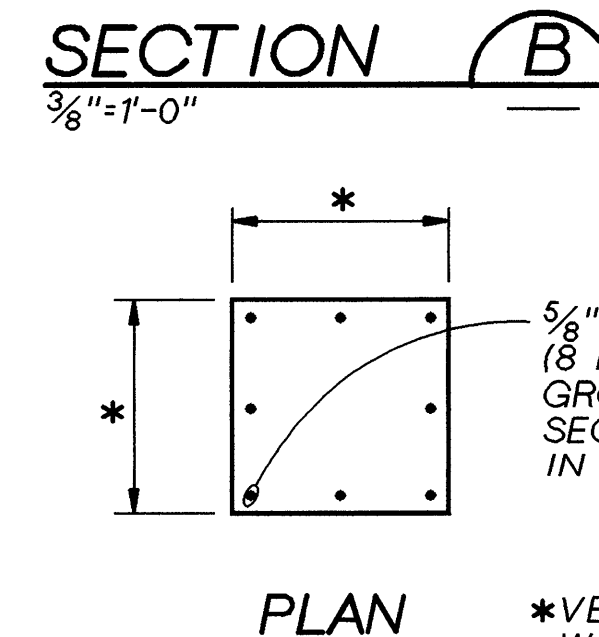
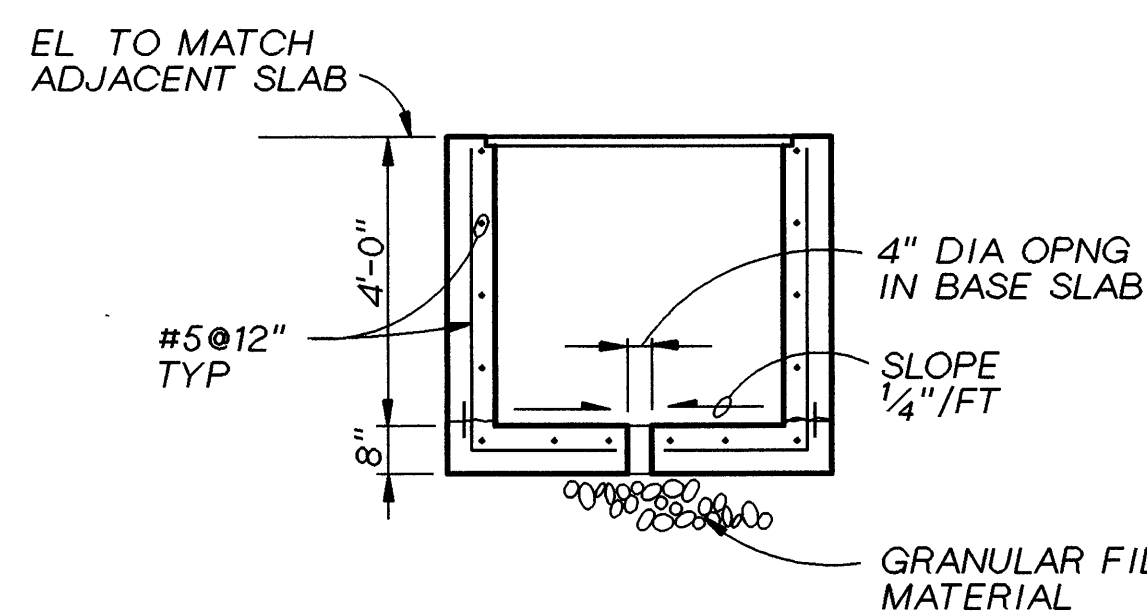
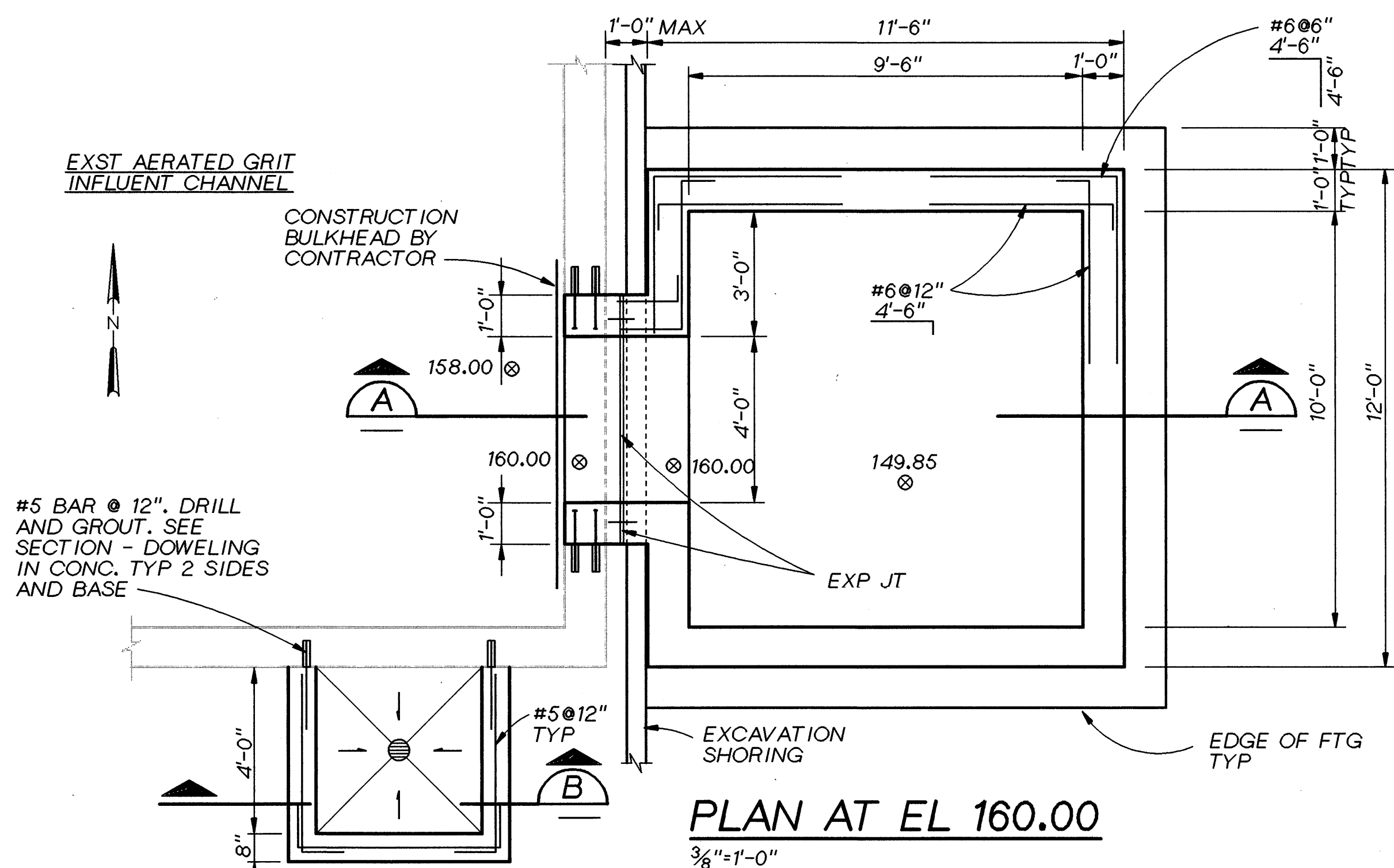
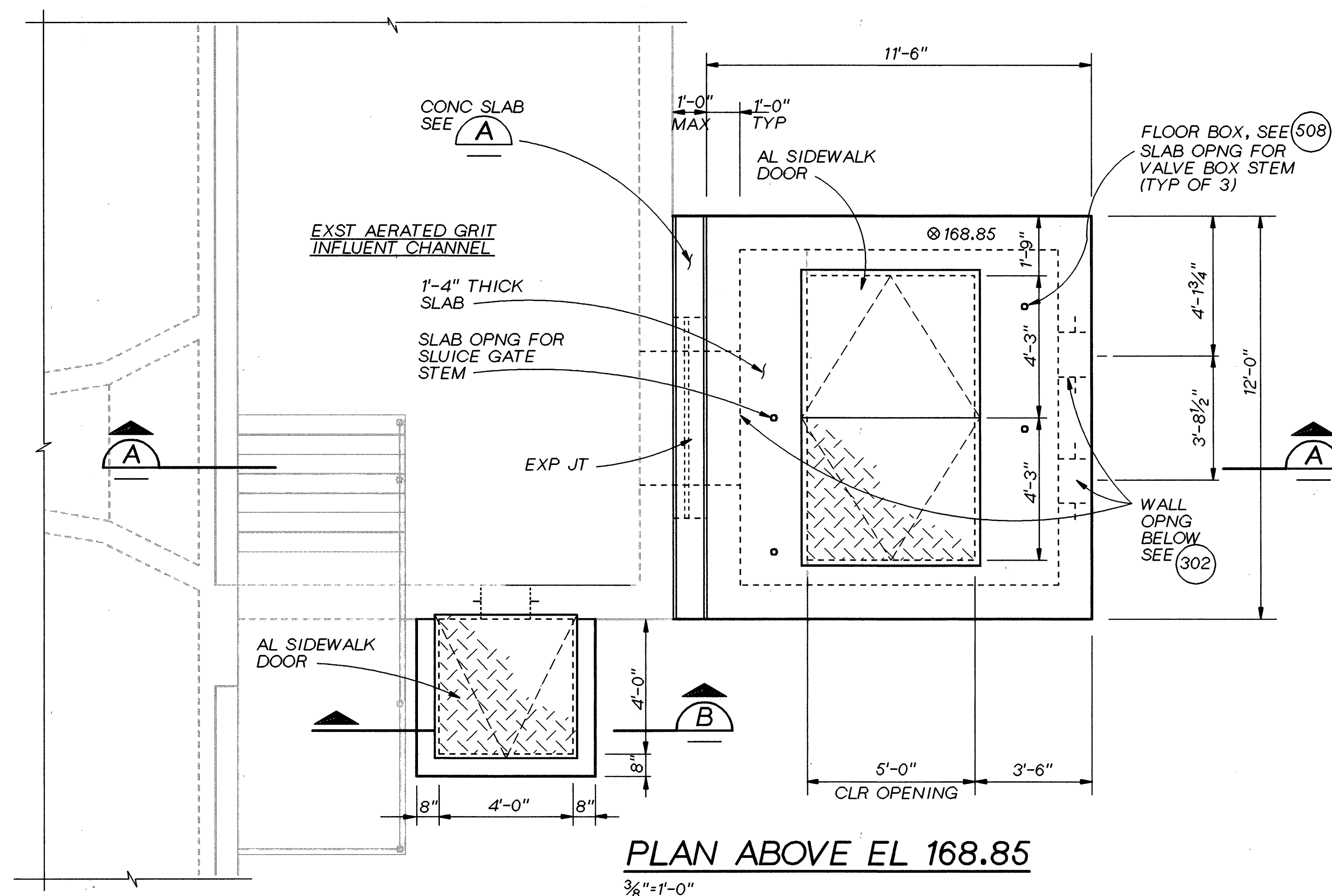
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UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
REUSE INFLUENT PUMP STATION
PLANS, SECTIONS, AND DETAIL

SHEET 75
DWG NO. 2-S-141
DATE DEC 1991
PROJ NO. PDX21262.W1



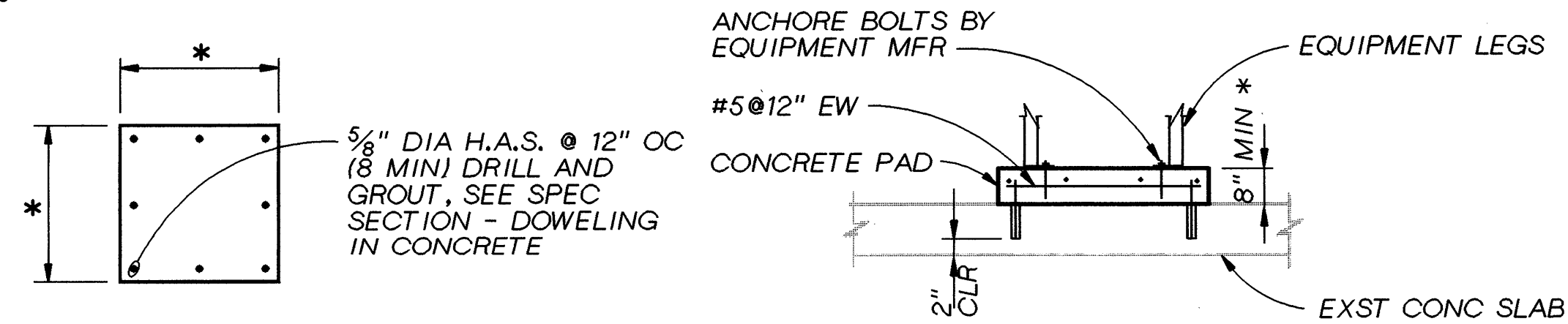
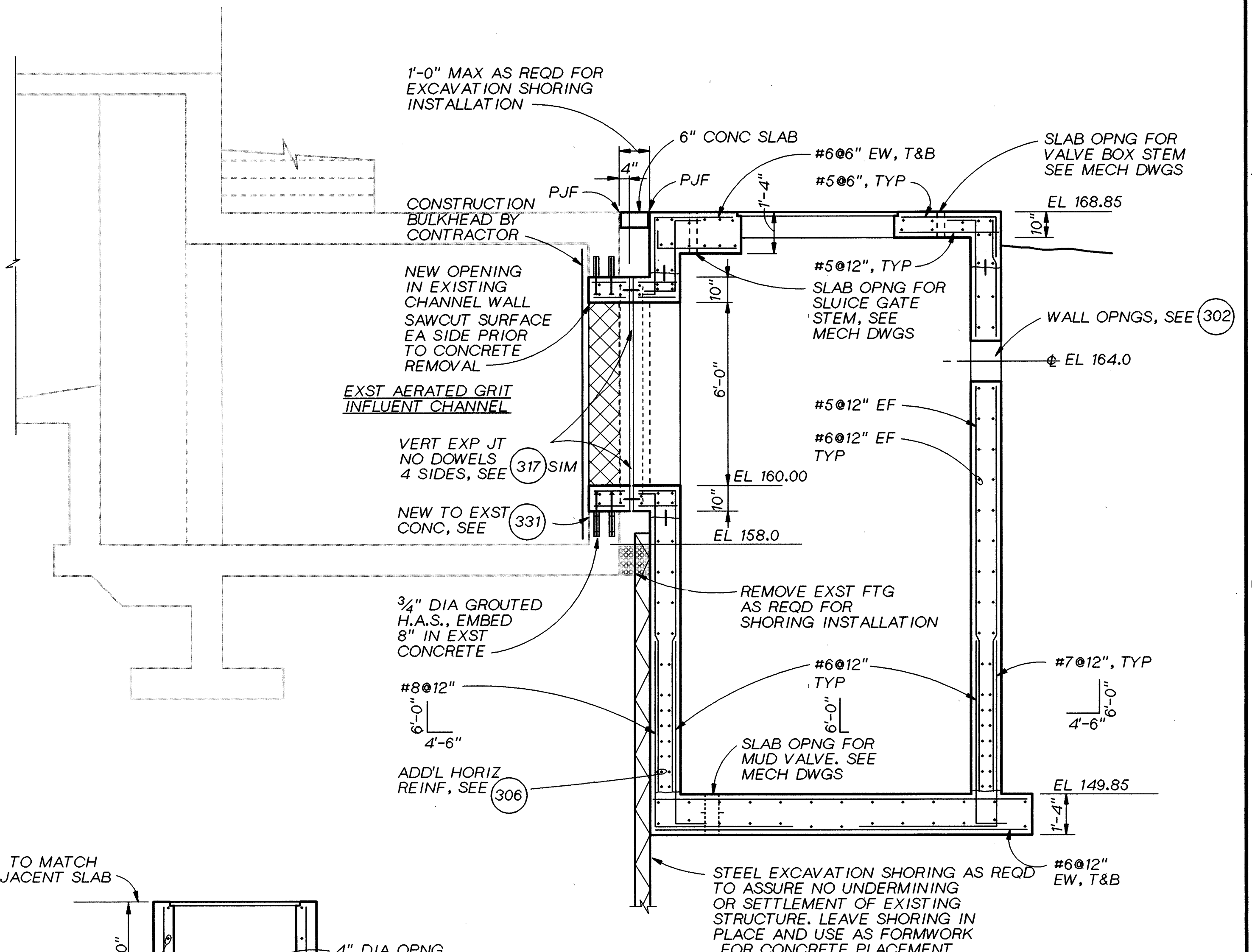
PLAN

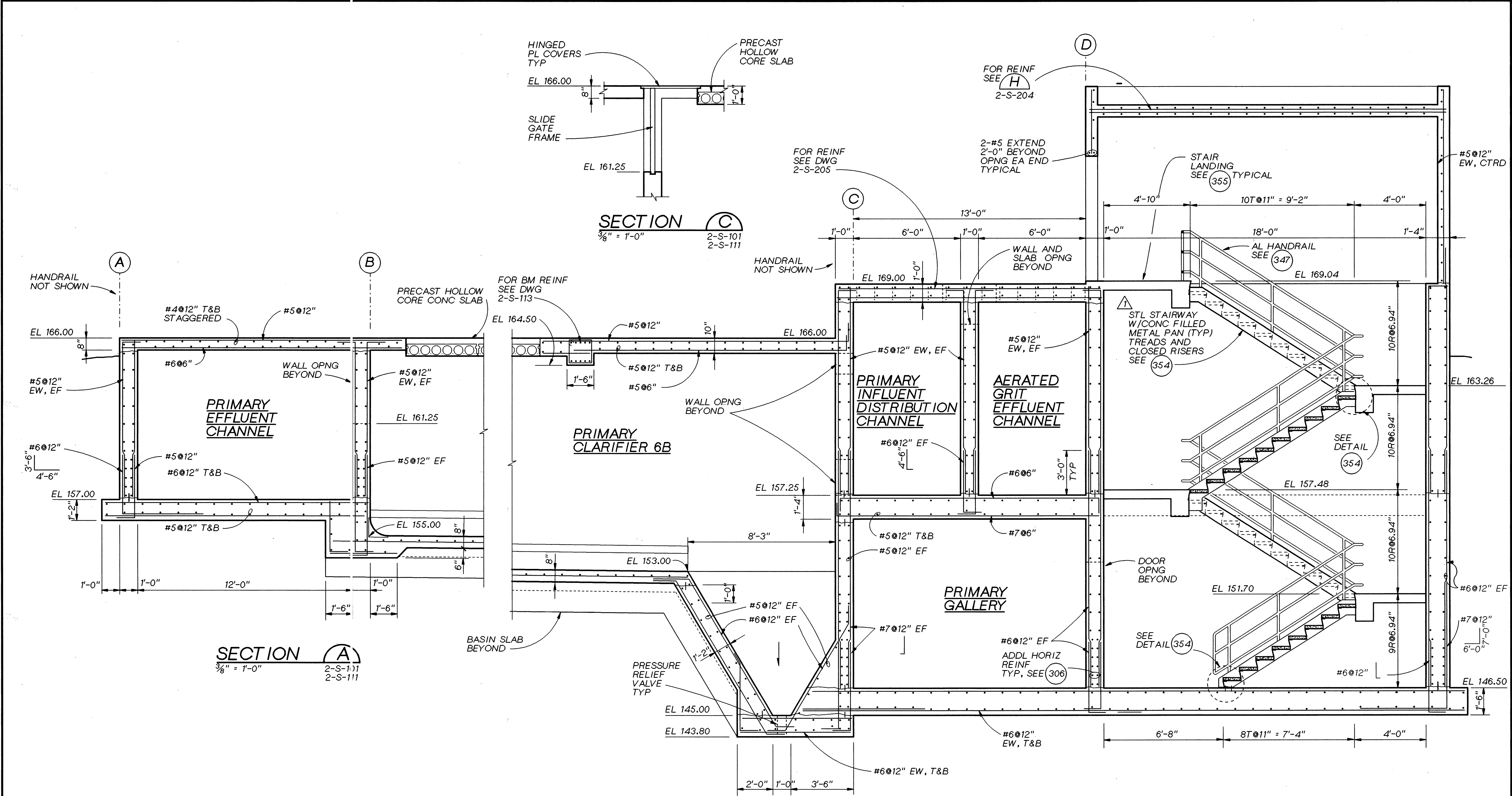
*VERIFY PAD SIZE AND THICKNESS WITH EQUIPMENT MANUFACTURER.

GRIT CYCLONE PAD DETAIL (1)

NTS

2-M-141





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DSGN D WERMCRANTZ
DR B LAZARO
R402S201.DGN
CHK DL KING
APVD RM BRACKEN

NO.

DATE

07-95
10-92
RECORD DRAWING
CLARIFICATION CL-P-102A
REVISION

BAY

RMB
NK
APVD

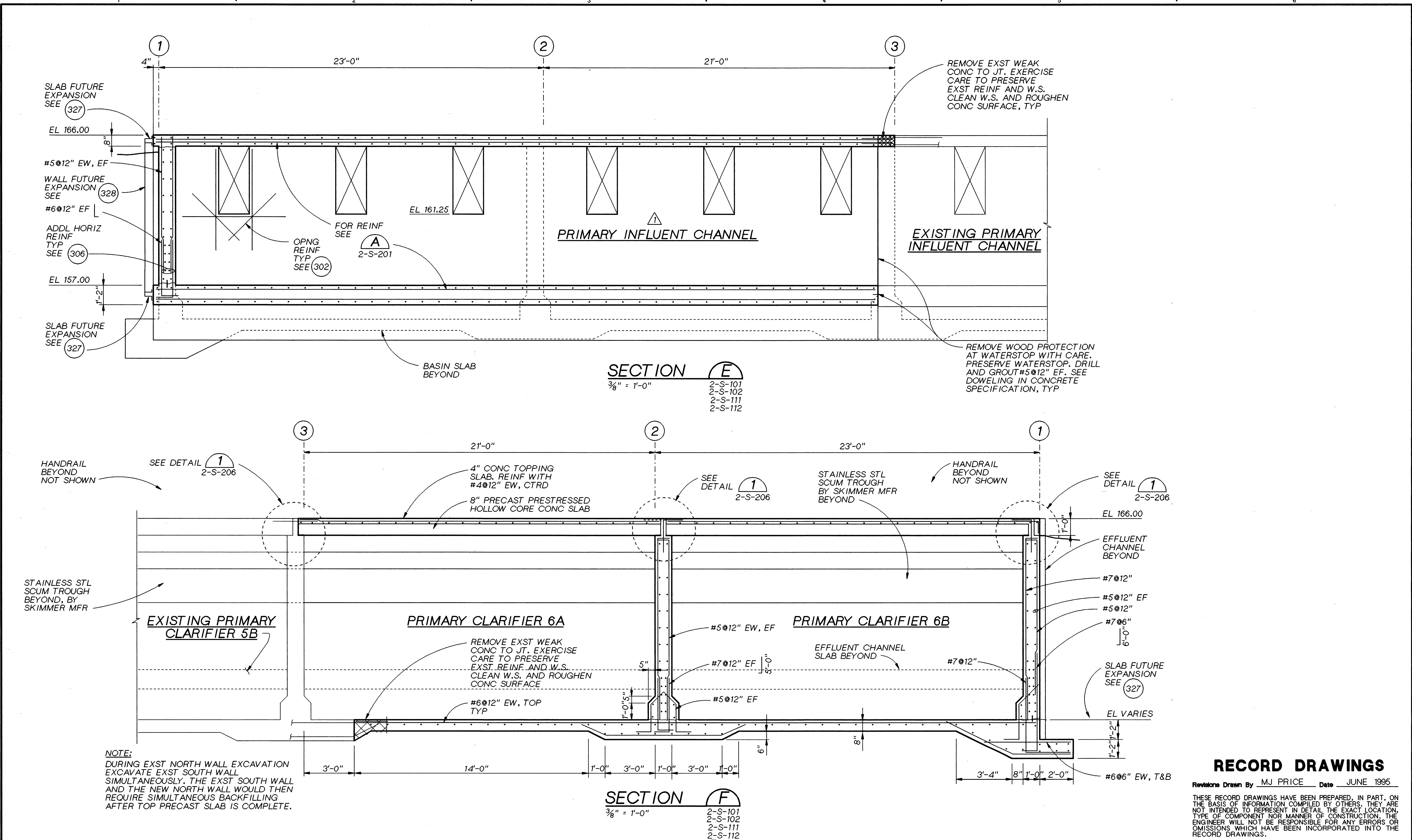
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ROCK CREEK
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UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY CLARIFIERS
SECTIONS

SHEET 76
DWG NO. 2-S-201
DATE DEC 1991
PROJ NO. PDX21262.W1



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DSGN D WERMCRANTZ
DR B LAZARO
R402S202.DGN
CHK DL KING
APVD RM BRACKEN

07-95
02-92
NO. DATE

RECORD DRAWING
ADDENDUM No. 2
REVISION

BAY RMB
BY APVD

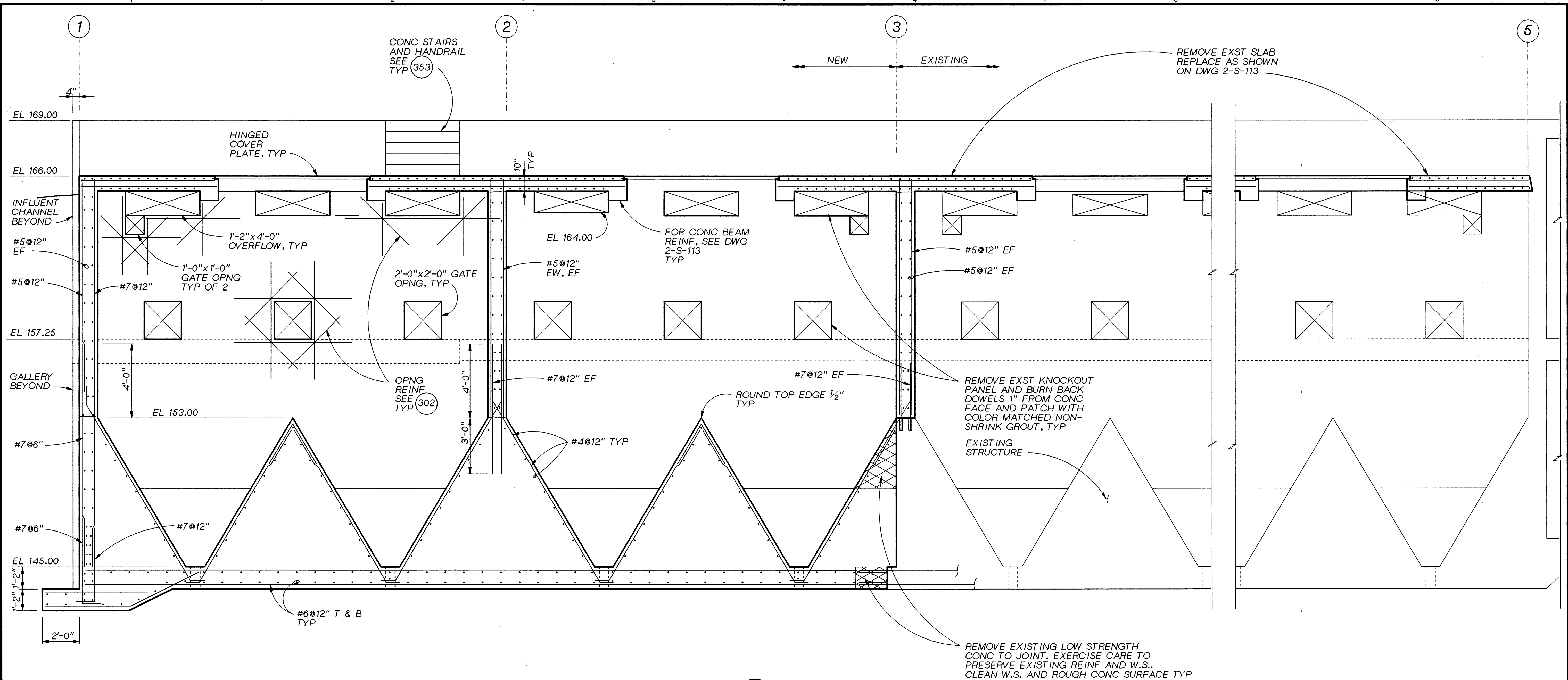
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WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY CLARIFIERS
SECTIONS AND DETAILS

SHEET 77
DWG NO. 2-S-202
DATE DEC 1991
PROJ NO. PDX21262.W1



SECTION G
3/8" = 1'-0"

2-S-101
2-S-102
2-S-111
2-S-112
2-S-121

RECORD DRAWINGS

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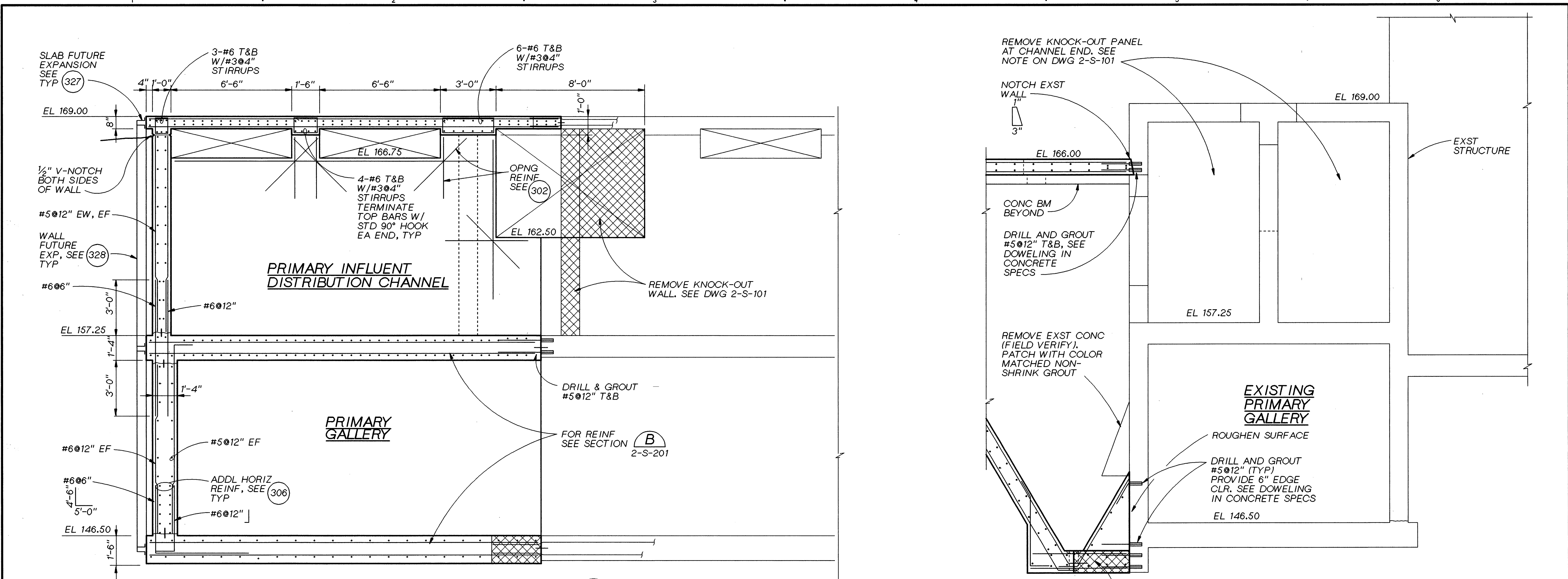
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UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIER
**STRUCTURAL
PRAMARY CLARIFIER
SECTION**

SHEET 78
DWG NO. 2-S-203
DATE DEC 1991
PROJ NO. PDX21262.W1



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DR	B LAZARO R402S206.DGN
CHK	DL KING
APVD	RM BRACKEN

NO.	07-95
DATE	RECORD DRAWING

REVISION	
NO.	DATE

BAY	RMB
BY	APVD

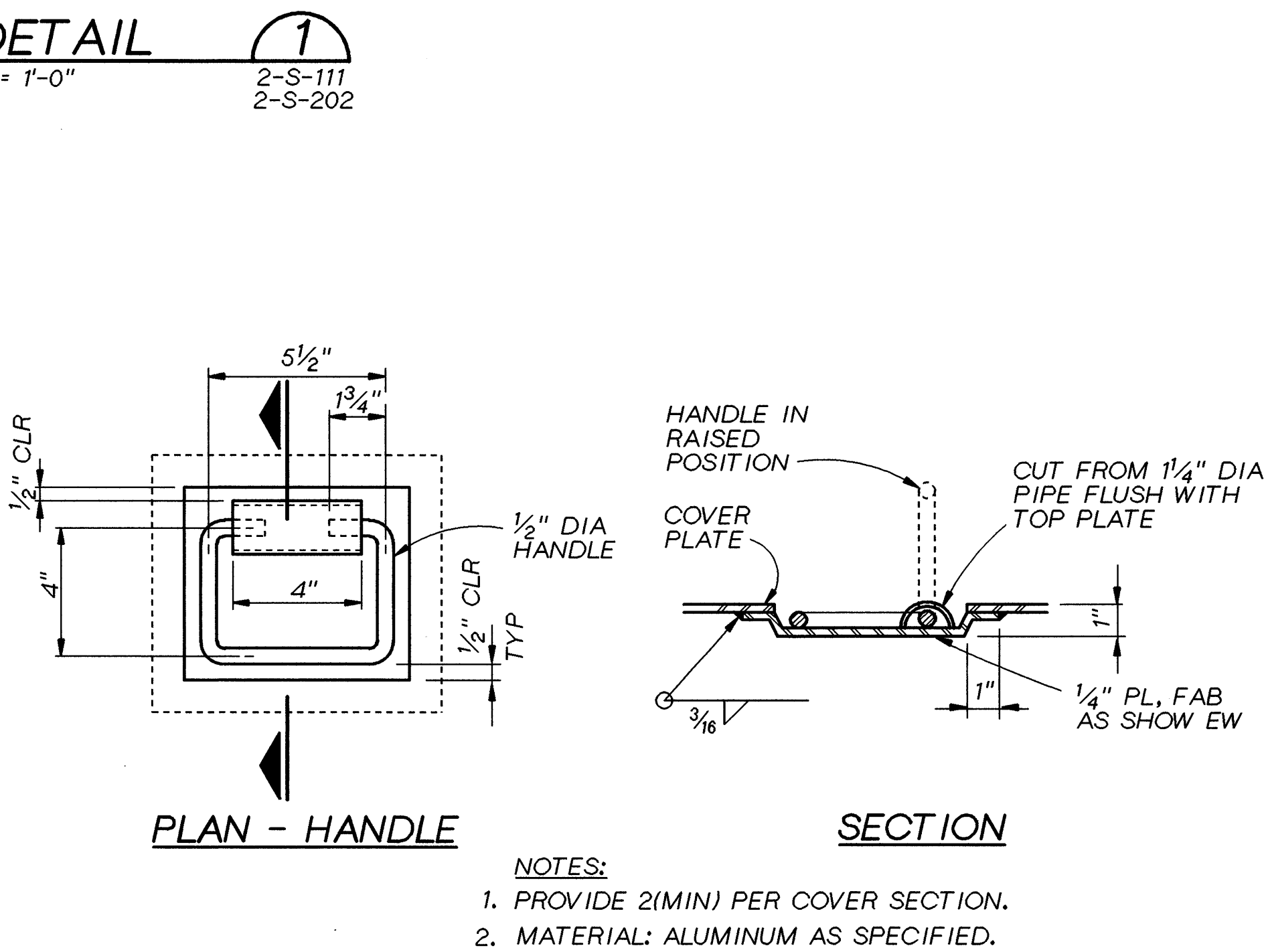
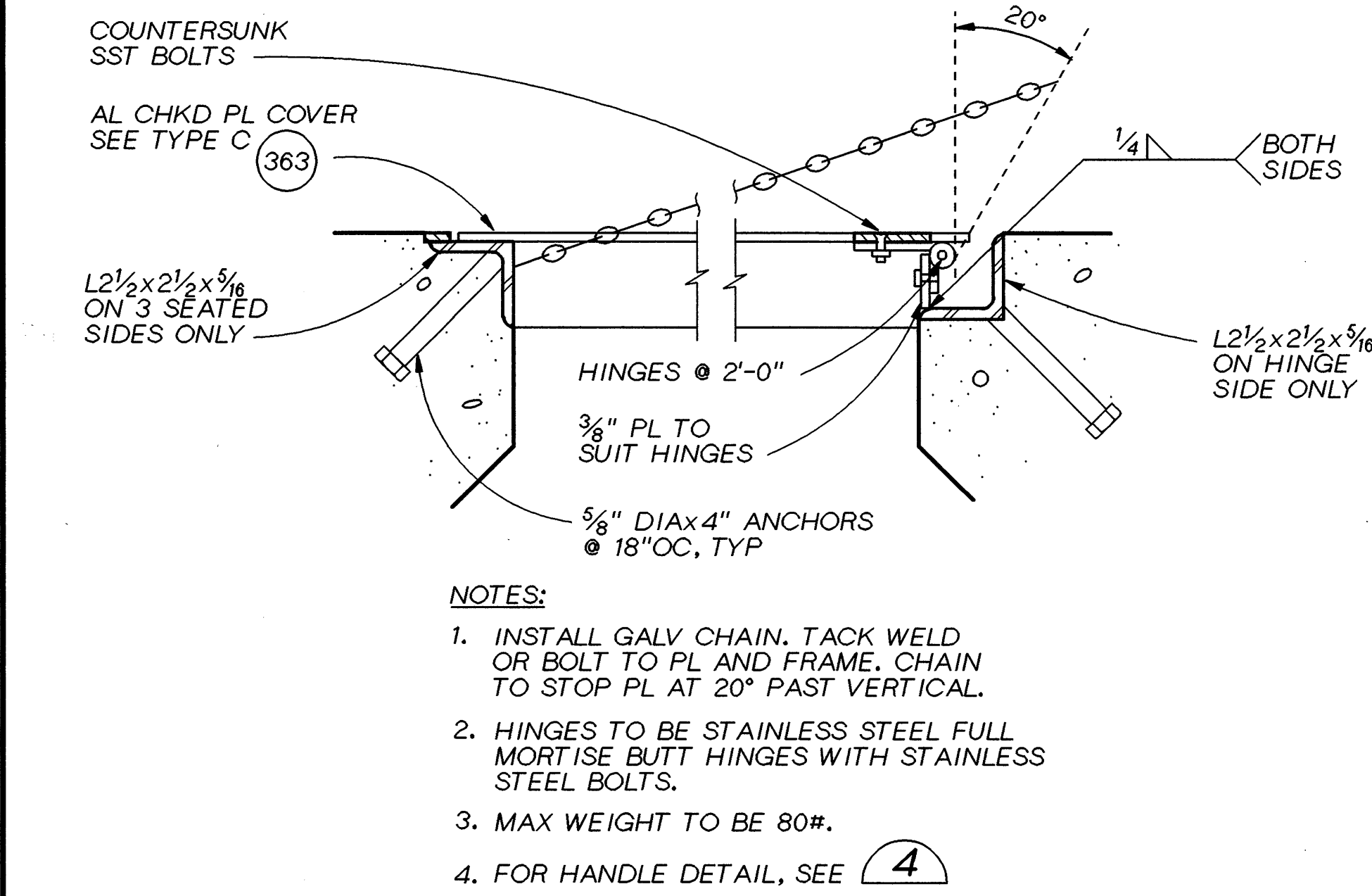
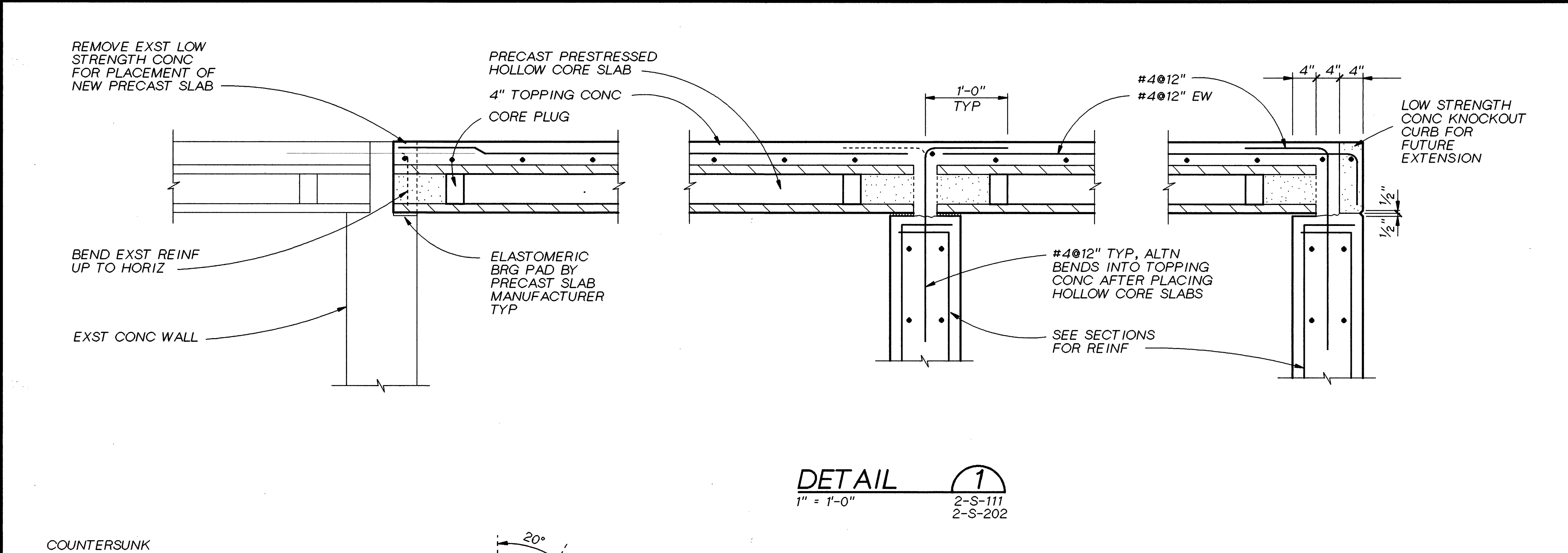
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VERTICAL SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1'
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

ROCK CREEK
FACILITY
UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
**STRUCTURAL
PRIMARY CLARIFIER
SECTIONS**

SHEET	80
DWG NO.	2-S-205
DATE	DEC 1991
PROJ NO.	PDX21262.W1



HINGED COVER PLATE AND SUPPORTS

DETAIL 3
3\" = 1'-0\"
2-S-111
2-S-113

RECORD DRAWINGS

Revisions Drawn By MJ PRICE Date JUNE 1995

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THE ORIGINAL DRAWING
WAS STAMPED BY
J. DENNIS WERMCRANTZ
OREGON P.E. NO.
11845



DSGN	D WERMCRANTZ
DR	B LAZARO R402S205.DGN
CHK	DL KING
APVD	RM BRACKEN

07-95	RECORD DRAWING
NO.	DATE

REVISION	BY	APVD

BAY	RMB
BY	APVD

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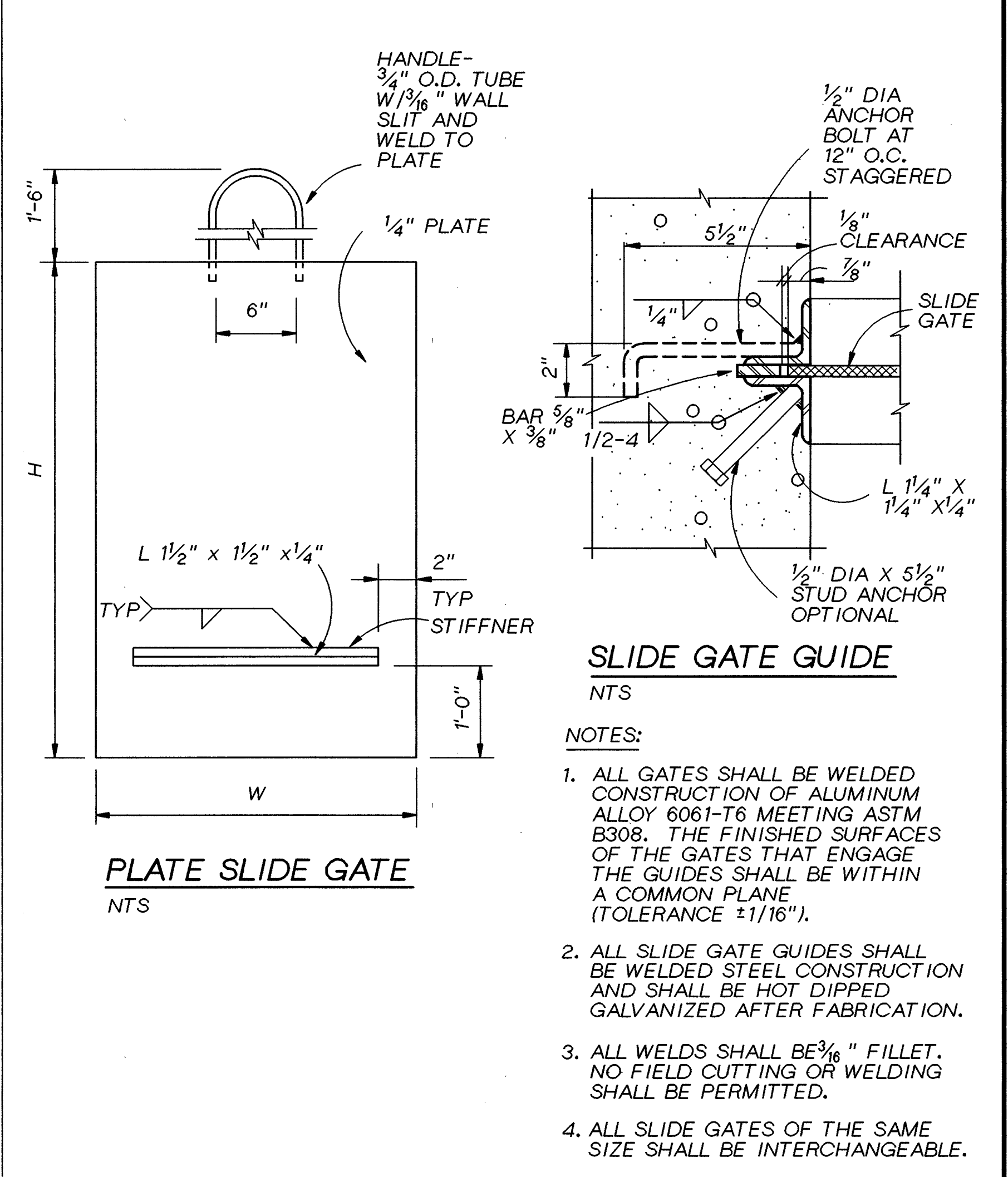
VERIFICATION SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1\"/>

ROCK CREEK FACILITY
UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

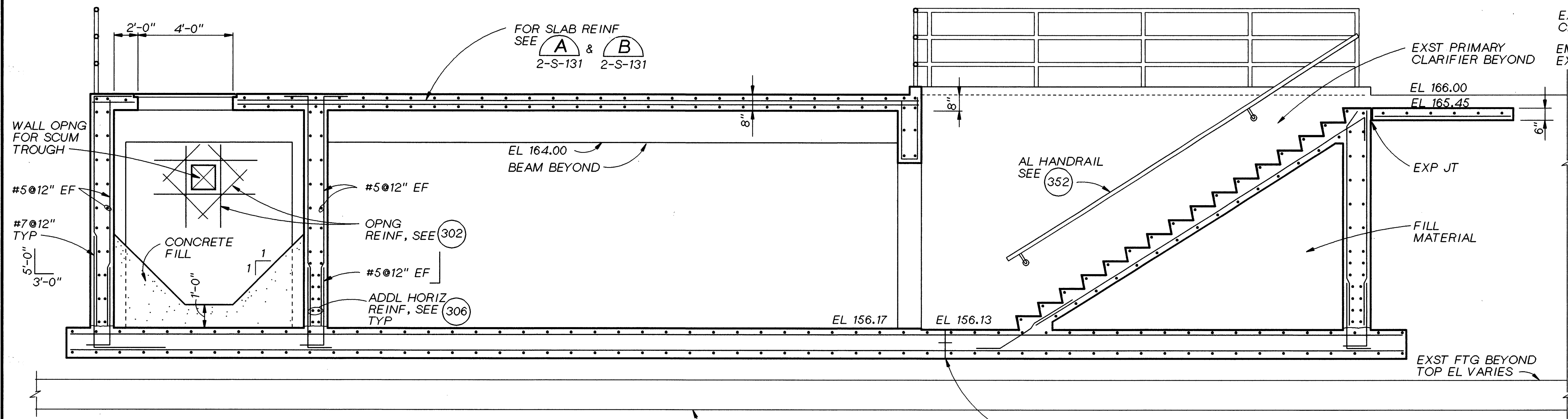
PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY CLARIFIER
DETAILS

SHEET	81
DWG NO.	2-S-206
DATE	DEC 1991
PROJ NO.	PDX21262.W1

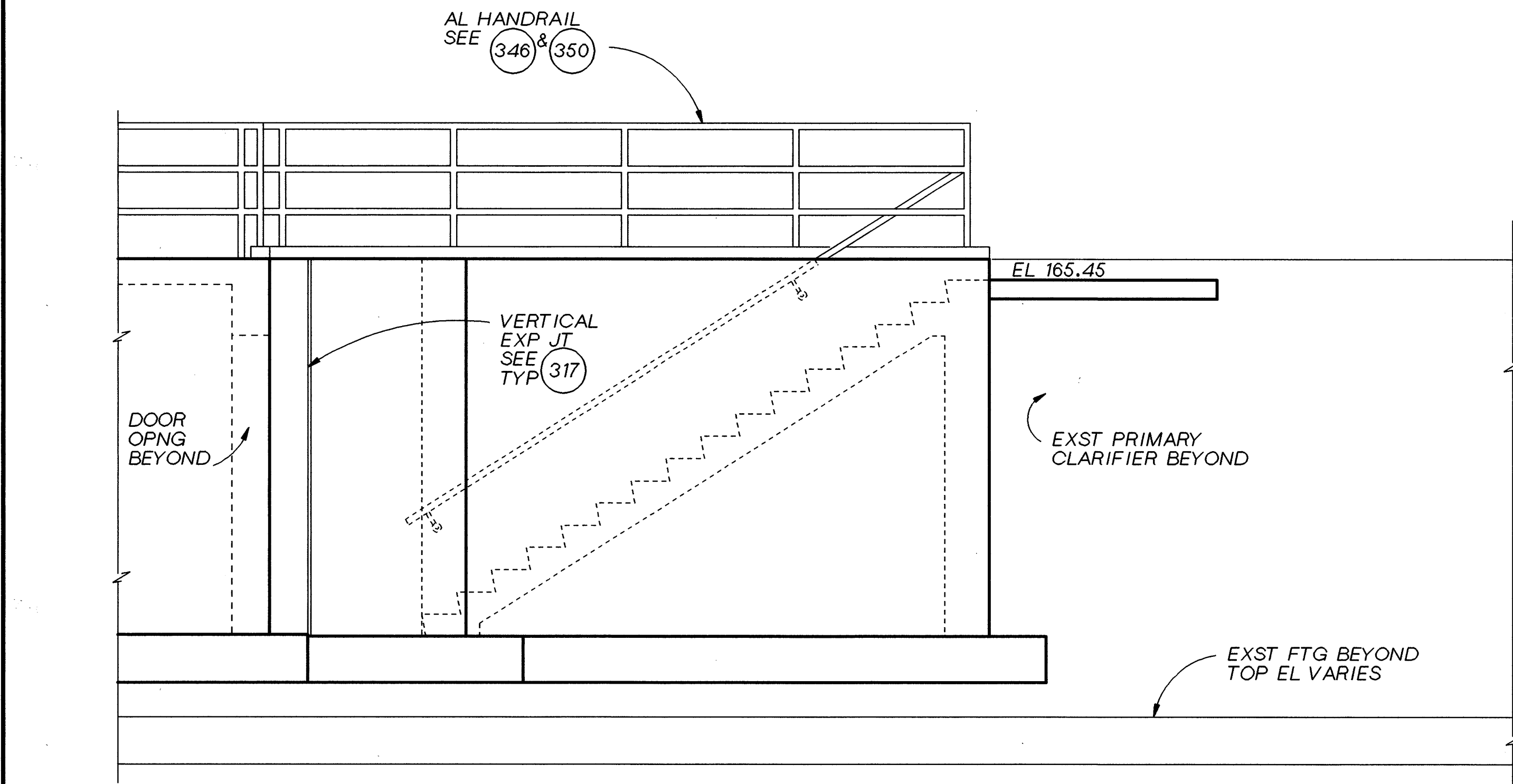
PLATE SLIDE GATE SCHEDULE				
GATE NO.	SIZE, WxH	LOCATION	DWG NO.	COMMENTS
G-C020-09	22" x 33"	PRIMARY EFFLUENT LAUNDRER	2-S-202	18" HANDLE LENGTH
G-C020-10	22" x 33"	PRIMARY EFFLUENT LAUNDRER	2-S-202	18" HANDLE LENGTH
G-C020-11	22" x 33"	PRIMARY EFFLUENT LAUNDRER	2-S-202	18" HANDLE LENGTH
G-C020-12	22" x 33"	PRIMARY EFFLUENT LAUNDRER	2-S-202	18" HANDLE LENGTH
G-C020-13	22" x 33"	PRIMARY EFFLUENT LAUNDRER	2-S-202	18" HANDLE LENGTH
G-C020-14	22" x 33"	PRIMARY EFFLUENT LAUNDRER	2-S-202	18" HANDLE LENGTH
G-C020-01	12" x 12"	PRIMARY INFLUENT CHANNEL	2-S-203	18" HANDLE LENGTH
G-C020-08	12" x 12"	PRIMARY INFLUENT CHANNEL	2-S-203	18" HANDLE LENGTH



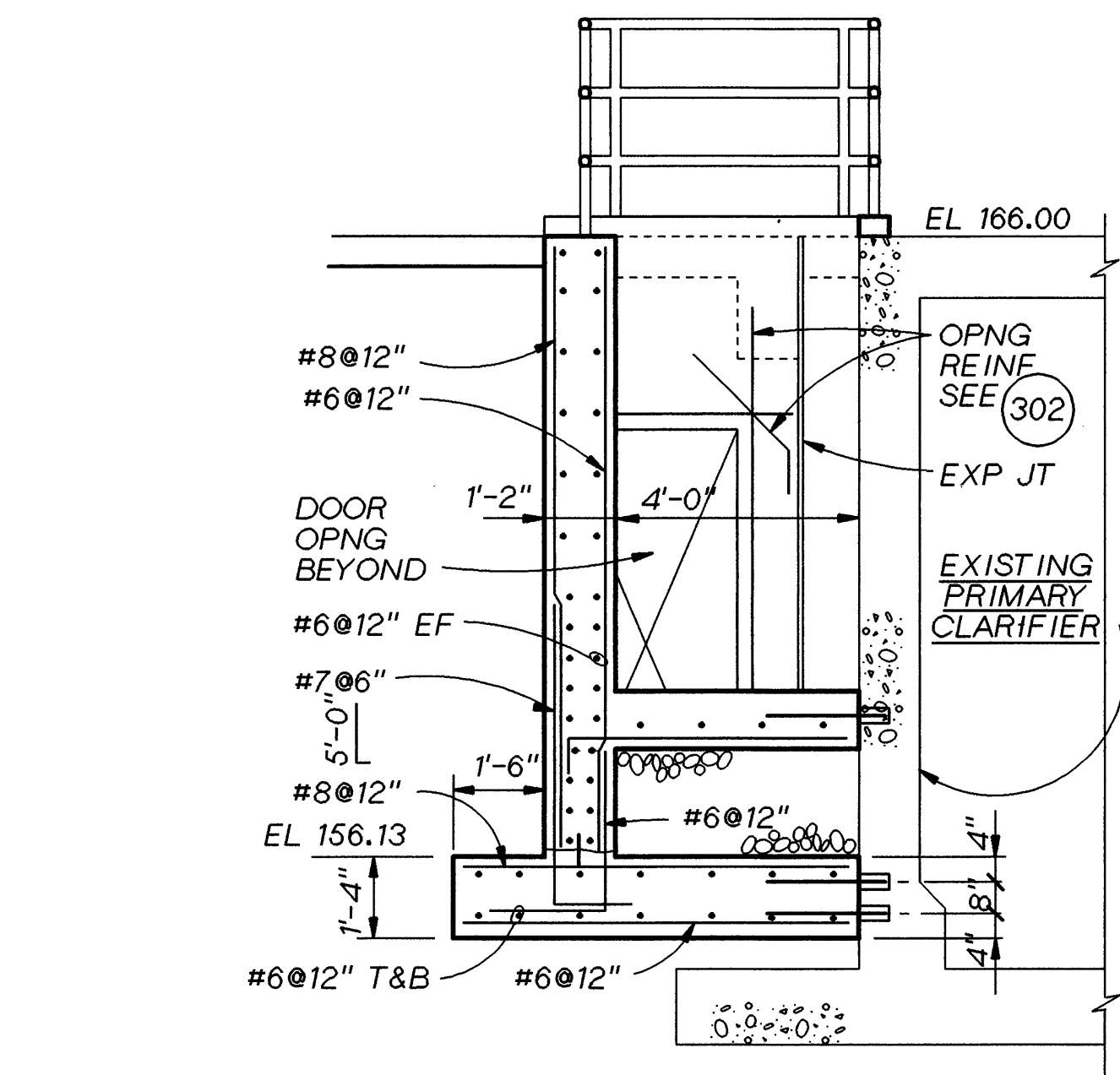
- SLIDE GATE GUIDE
NTS
- NOTES:
- ALL GATES SHALL BE WELDED CONSTRUCTION OF ALUMINUM ALLOY 6061-T6 MEETING ASTM B308. THE FINISHED SURFACES OF THE GATES THAT ENGAGE THE GUIDES SHALL BE WITHIN A COMMON PLANE (TOLERANCE $\pm 1/16"$).
 - ALL SLIDE GATE GUIDES SHALL BE WELDED STEEL CONSTRUCTION AND SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
 - ALL WELDS SHALL BE $3/16"$ FILLET. NO FIELD CUTTING OR WELDING SHALL BE PERMITTED.
 - ALL SLIDE GATES OF THE SAME SIZE SHALL BE INTERCHANGEABLE.



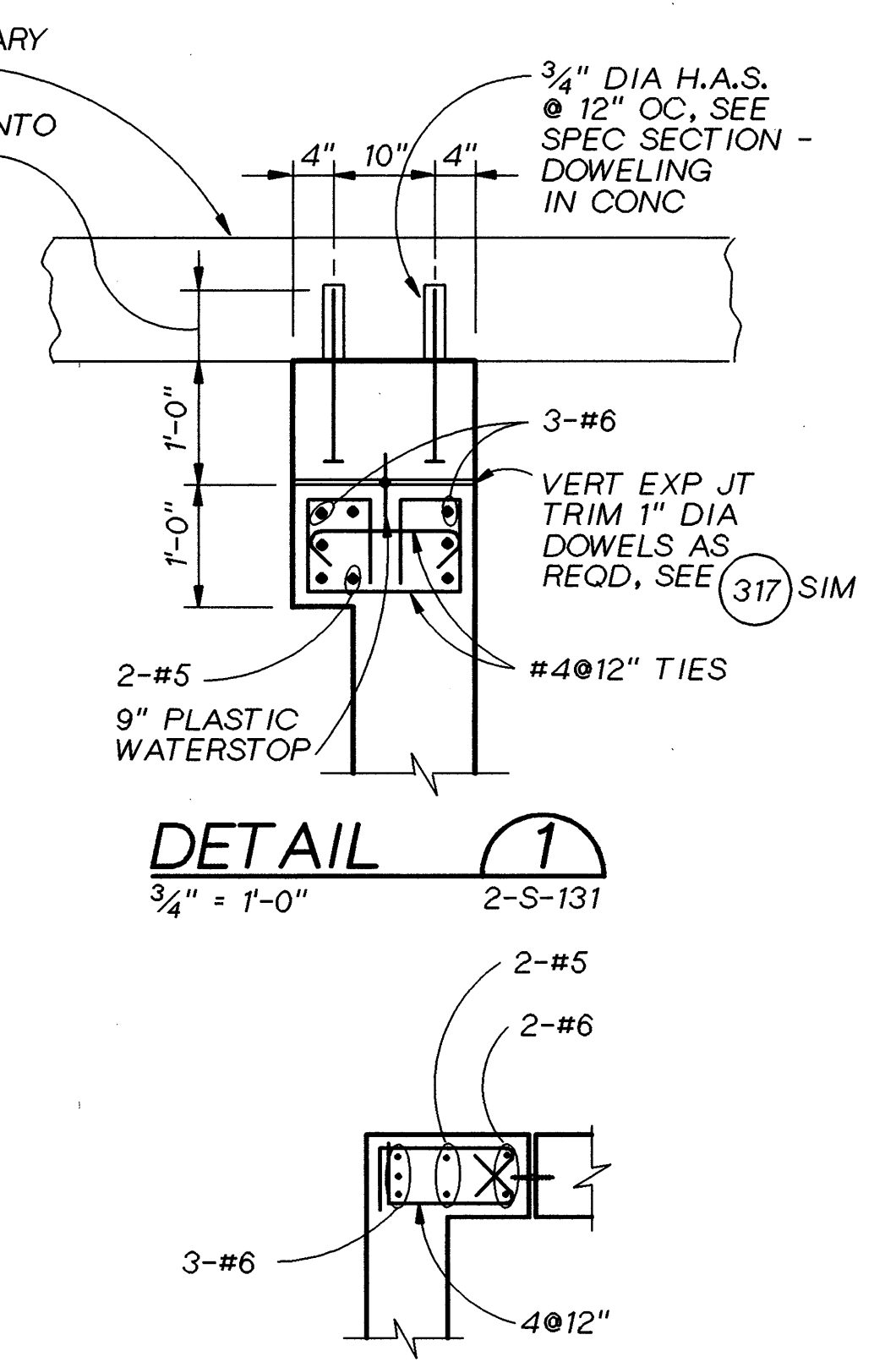
SECTION C
3/8" = 1'-0" 2-S-131



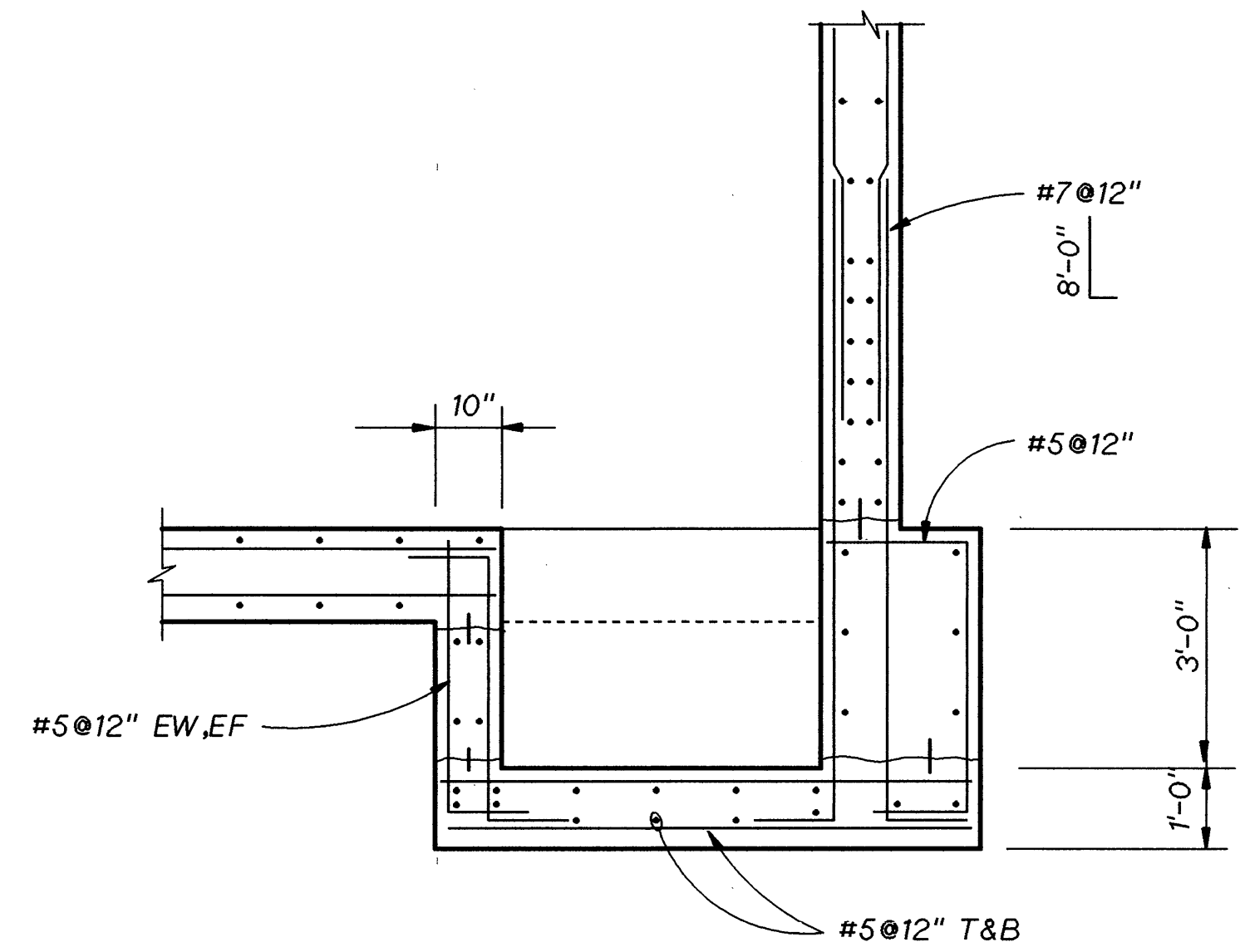
SECTION D
3/8" = 1'-0" 2-S-131



SECTION E
3/8" = 1'-0" 2-S-131



DETAIL 1
3/4" = 1'-0" 2-S-131



SECTION F
1/2" = 1'-0" 2-S-131

RECORD DRAWINGS

Revisions Drawn By MJ PRICE Date JUNE 1995

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THE ORIGINAL DRAWING
WAS STAMPED BY
J. DENNIS WERMCRANTZ
OREGON P.E. NO.
11845



DSGN D WERMCRANTZ
DR B LAZARO
R402S231.DGN
CHK DL KING
APVD RM BRACKEN

NO.	DATE	REVISION	BY	APVD
07-95		RECORD DRAWING	BAY RMB	

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VERIFICATION
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ROCK CREEK FACILITY
UNIFIED SEWERAGE AGENCY
WASHINGTON COUNTY, OREGON

PHASE 4 EXPANSION - SOLIDS PROCESSING
PRIMARY CLARIFIERS
STRUCTURAL
PRIMARY SCUM PUMP STATION
SECTIONS AND DETAILS

SHEET 82
DWG NO. 2-S-231
DATE DEC 1991
PROJ. NO. PDX21262.W1

UNIFIED SEWERAGE AGENCY
OF WASHINGTON COUNTY

ROCK CREEK
NITRIFICATION
UPGRADE

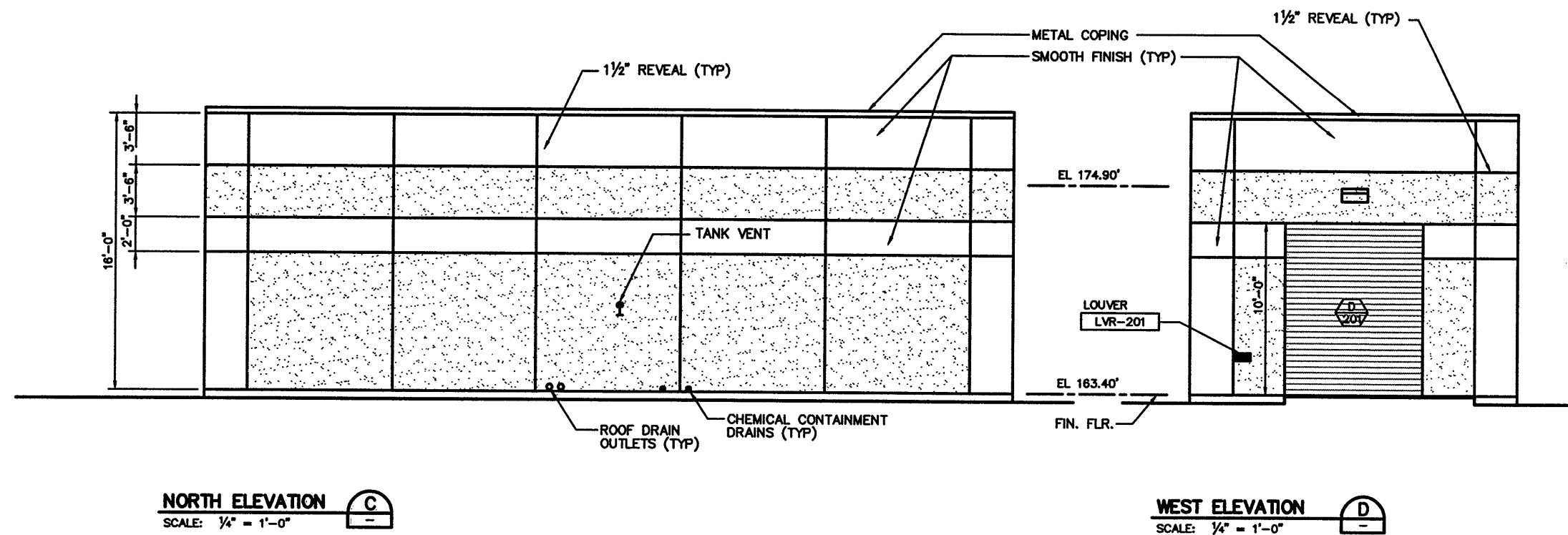
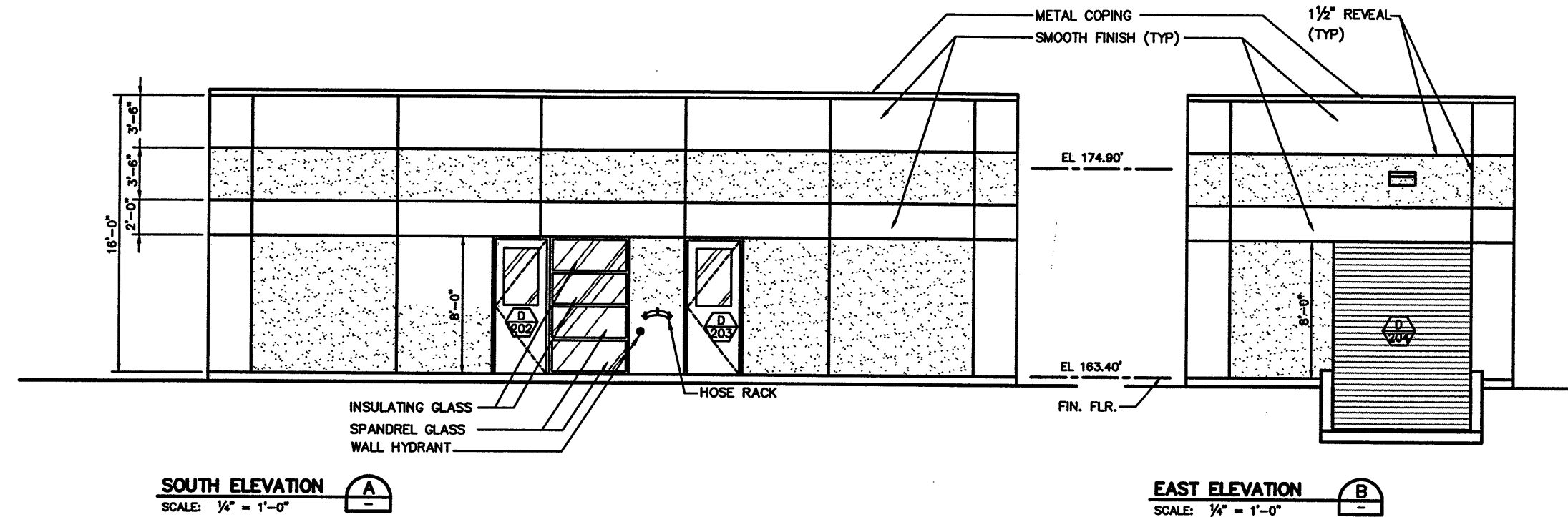
SEPTAGE
RECEIVING STATION-
ELEVATIONS

Project Manager
B. WILLEY
Designed
M.LASECKI/R.McCOLLUM
Drawn
D. BATTRICK
Checked
L. CRONSTER
Project Number
00039-305-102
Date
JUNE 28, 1997

THIS LINE IS ONE INCH WHEN
DRAWING IS FULL SIZE. IF NOT
ONE INCH, SCALE ACCORDINGLY.

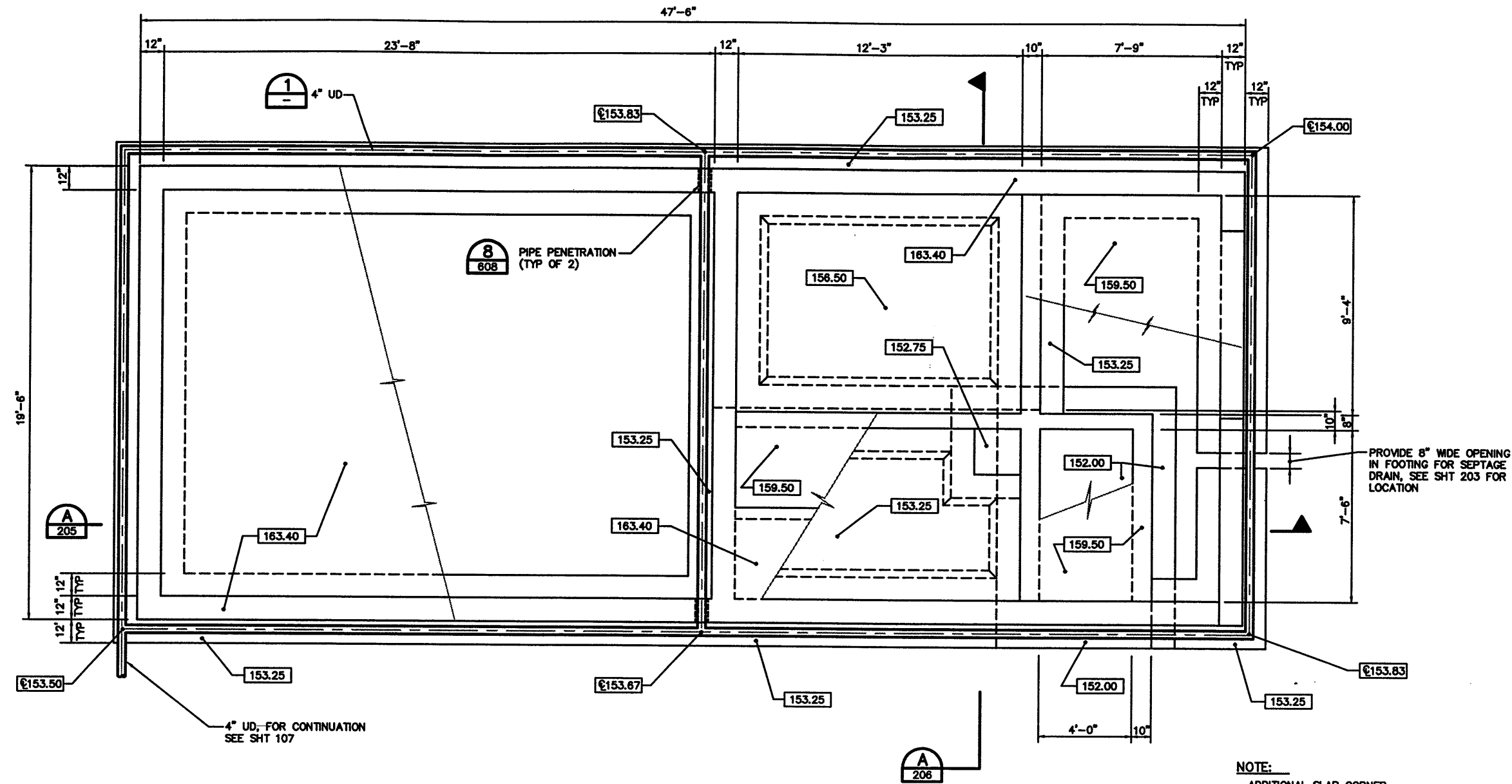
No	By	Description	Date
1	JES	HORIZONTAL LOCATIONS C.D. #15	1-18-96
2	JES	C.D. #7 - CPR 97	7-11-97
3	JES	C.D. #5 - CPR 97	7-14-97

Sheet Number
201



RECORD DRAWINGS

Revisions Drawn by: S. KUHS Date: 08-01-97
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DRAWINGS.



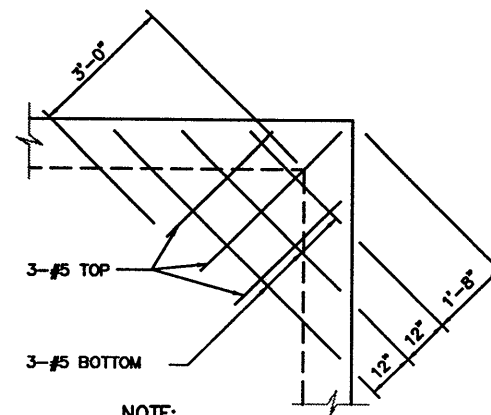
SCALE: $3/8" = 1'-0"$

Diagram illustrating a wall drain assembly:

- 12" SQ FILTER MATERIAL AROUND PIPE**: A square area of filter material surrounding the pipe.
- ENCASE IN FILTER FABRIC**: The pipe is encased in filter fabric.
- DRAIN BOARD (NORTH & EAST WALLS ONLY)**: A vertical board attached to the wall.
- 4" UD**: A 4-inch Unreinforced Drain (UD) pipe.

SCALE: 1" = 1'-0"

NOTE:
PERFORATED UD PIPE AROUND
PERIMETER OF WALLS; NON-PERFORATED
FROM SOUTHWEST CORNER TO MH



NOTE:

TYP ADDITIONAL SLAB CORNER
REINF. FOR SLABS SUPPORTED
BY WALLS.

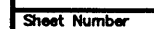
SCALE: 1/2" = 1'-0"

NOTE:
ADDITIONAL SLAB CORNER
REINFORCING TO BE ADDED
AT ALL SLABS SUPPORTED BY
WALLS (15 LOCATIONS). SEE

RECORD DRAWINGS

Revisions Drawn by: S. KUHNS Date: 08-01-97

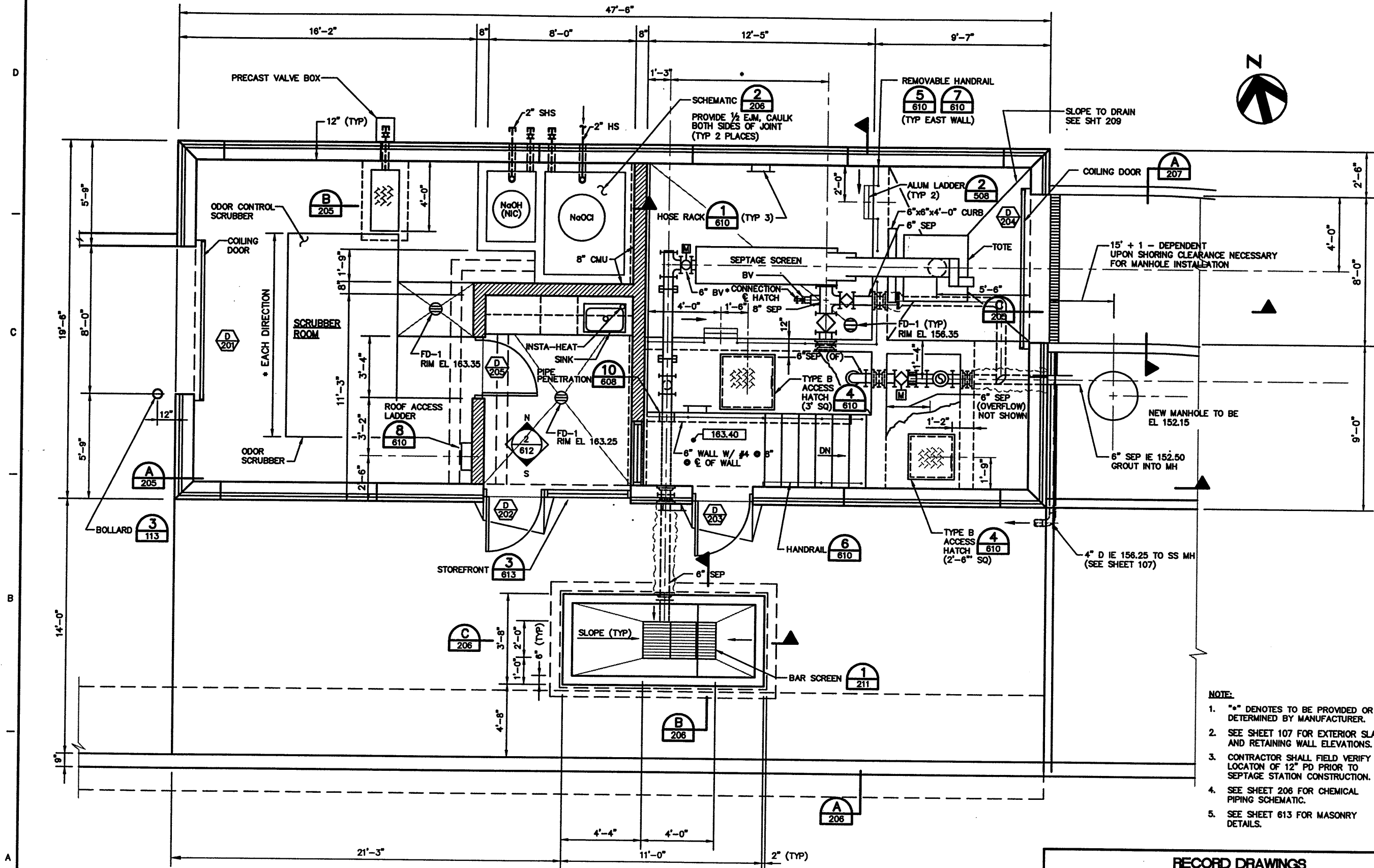
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202

RCN-202R.DWG

06-28-97
RCN-203R.DWG



FLOOR PLAN
SCALE: 3/8" = 1'-0"

- NOTE:**
1. "•" DENOTES TO BE PROVIDED OR DETERMINED BY MANUFACTURER.
 2. SEE SHEET 107 FOR EXTERIOR SLAB AND RETAINING WALL ELEVATIONS.
 3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF 12" PD PRIOR TO SEPTAGE STATION CONSTRUCTION.
 4. SEE SHEET 206 FOR CHEMICAL PIPING SCHEMATIC.
 5. SEE SHEET 613 FOR MASONRY DETAILS.

RECORD DRAWINGS

Revisions Drawn by: S. KUHS Date: 08-01-97

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UNIFIED SEWERAGE AGENCY
OF WASHINGTON COUNTY

**ROCK CREEK
NITRIFICATION
UPGRADE**

**RECEIVING STATION
FLOOR PLAN**

Project Manager
B. WILLEY

Designed
LASECKI, McCOLLUM

Drawn
T. SMITH

Checked
L. CRONSTER

Project Number
00038-305-102

Date
MAY 28, 1997

THIS LINE IS ONE INCH WHEN
DRAWING IS FULL SIZE. IF NOT
ONE INCH, SCALE ACCORDINGLY.

No	By	Description	Date
1	JES	SEPT. REC. SCREENING F.I.D. 35	6-26-96
2	JES	F.I.D. #38	7-9-96
3	JES	CPR 11 #4, #5, #3	7-1-96
4	JES	C.I.D. #7 - CPR 062	7-10-97
5	JES	C.I.D. #6 - CPR 068	7-14-97

Sheet Number

203



- ## RECORD DRAWINGS



HDR
HDR Engineering, Inc.

UNIFIED SEWERAGE AGENCY
OF WASHINGTON COUNTY

ROCK CREEK NITRIFICATION UPGRADE

**SEPTAGE RECEIVING
STATION - ROOF
PLAN AND PRECAST
PANEL LAYOUT**

Project Manager
B. WILLEY

Designed
HOGAN, NEUMANN

Drawn
J. BACHMEIER

Checked
R. McCOLLUM

Project Number
00039-305-102

Date **JUNE 28, 1997**

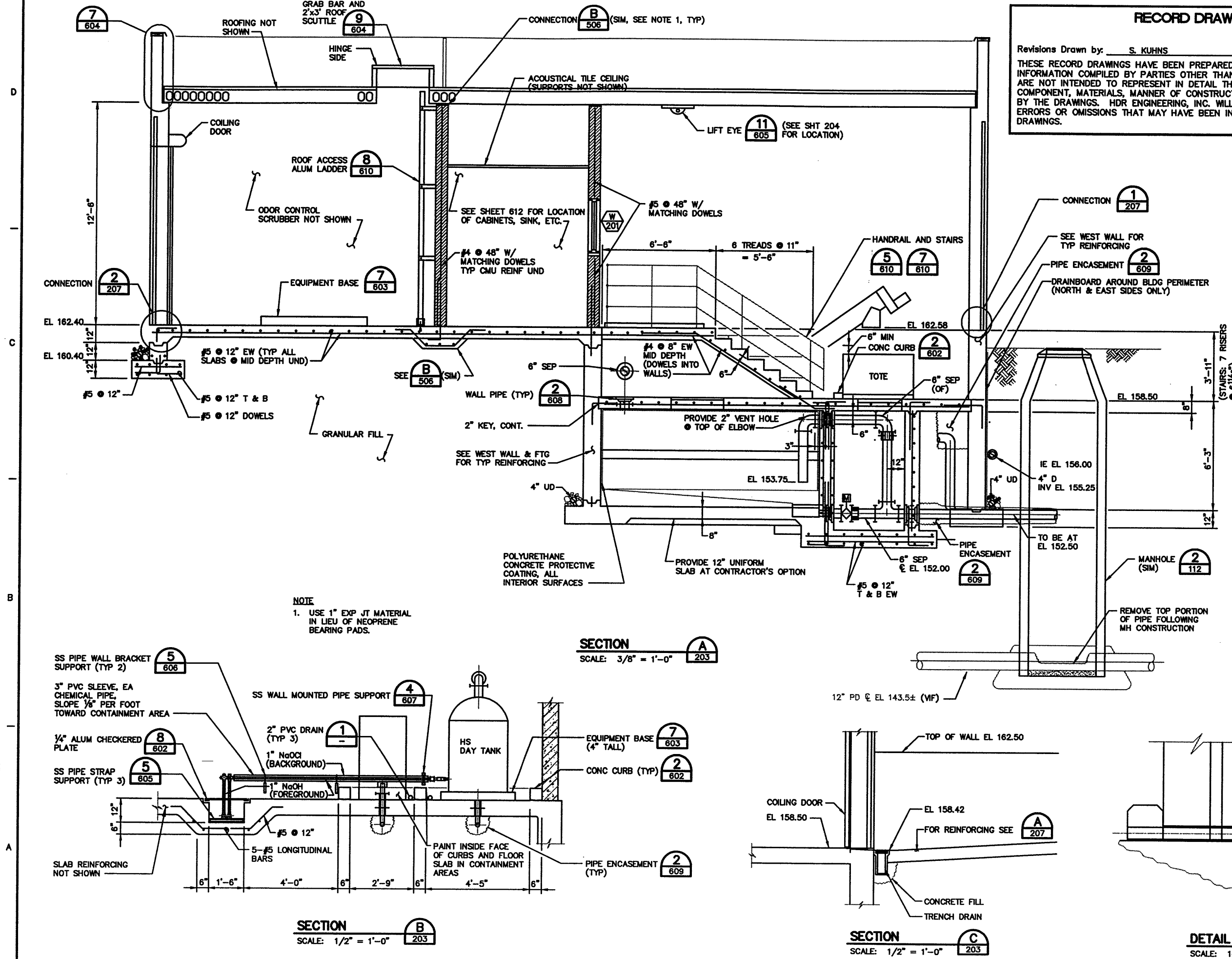
THIS LINE IS ONE INCH WHEN
DRAWING IS FULL SIZE. IF NOT
ONE INCH, SCALE ACCORDINGLY.

[illegible]

Sheet Number

204

06-28-97
RCN-205R.DWG



RECORD DRAWINGS

Revisions Drawn by: S. KUHN Date: 08-01-97

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HDR Engineering, Inc.

UNIFIED SEWERAGE AGENCY
OF WASHINGTON COUNTY

**ROCK CREEK
NITRIFICATION
UPGRADE**

**SEPTAGE
RECEIVING STATION
SECTIONS AND
DETAILS**

Project Manager
B. WILEY

Designed
LASECKI, McCOLLUM

Drawn
J. BACHMEIER

Checked
L. GRONSTER

Project Number
00038-305-102

Date
MAY 28, 1997

THIS LINE IS ONE INCH WHEN
DRAWING IS FULL SIZE. IF NOT
ONE INCH, SCALE ACCORDINGLY.

Date	Description	By	No
8-1-96	CPR 11 #14, #7, #5	JES	

Sheet Number
205

ROCK CREEK NITRIFICATION UPGRADE

SEPTAGE RECEIVING STATION-SECTIONS AND DETAILS

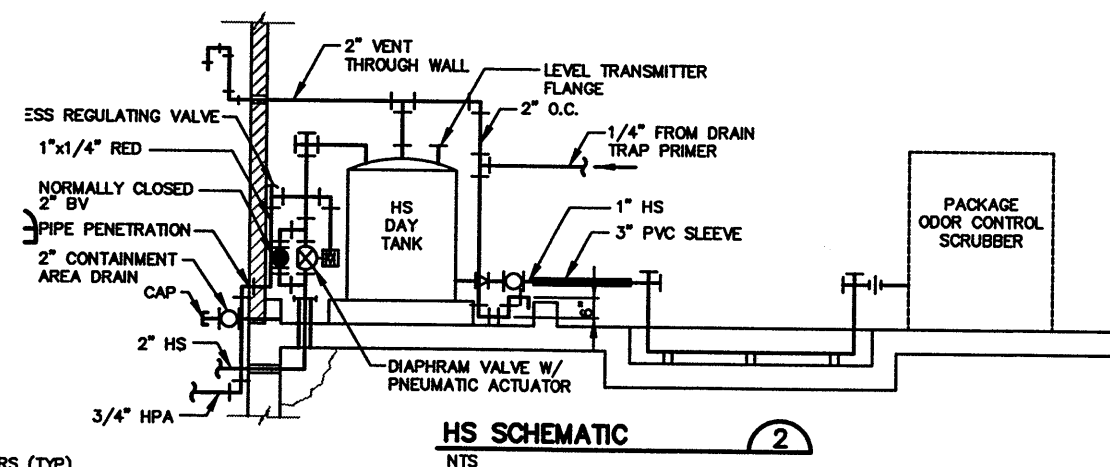
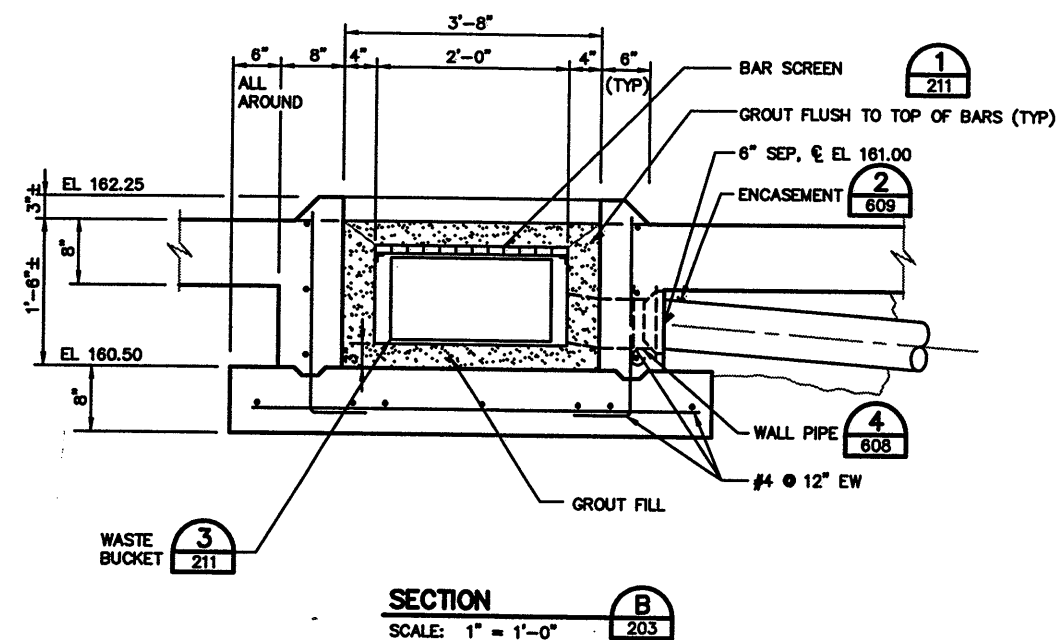
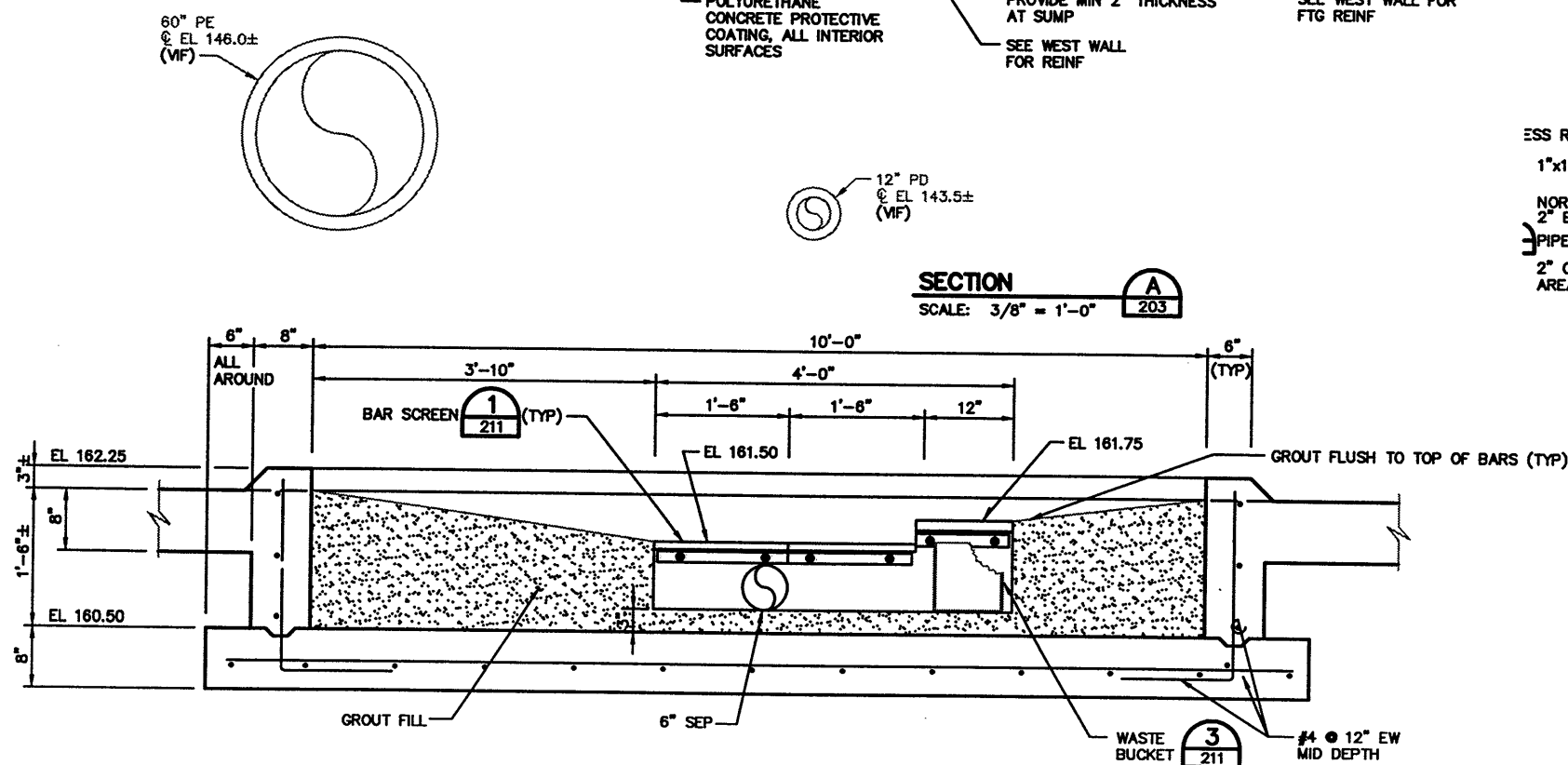
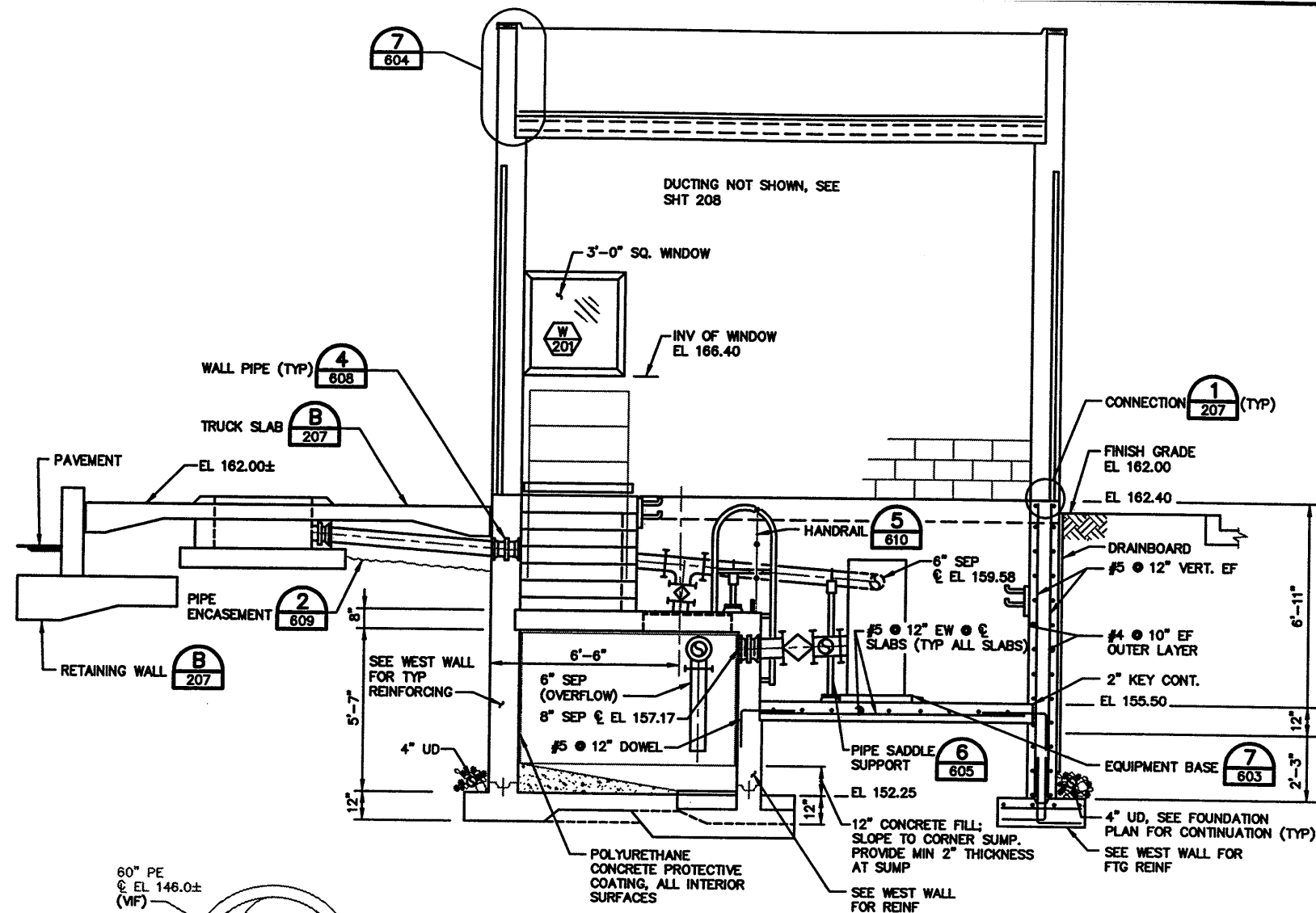
Project Manager	B. WILEY
Designed	LASECKI, McCOLLUM
Drawn	G. SMITH
Checked	L. CRONISTER
Project Number	00030-305-102
Date	JUNE 28, 1997

THIS LINE IS ONE INCH WHEN
DRAWING IS FULL SIZE. IF NOT
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[illegible]

Sheet Number

206



RECORD DRAWINGS

Revisions Drawn by: S. KUHNS Date: 08-01-97

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**ROCK CREEK
NITRIFICATION
UPGRADE**

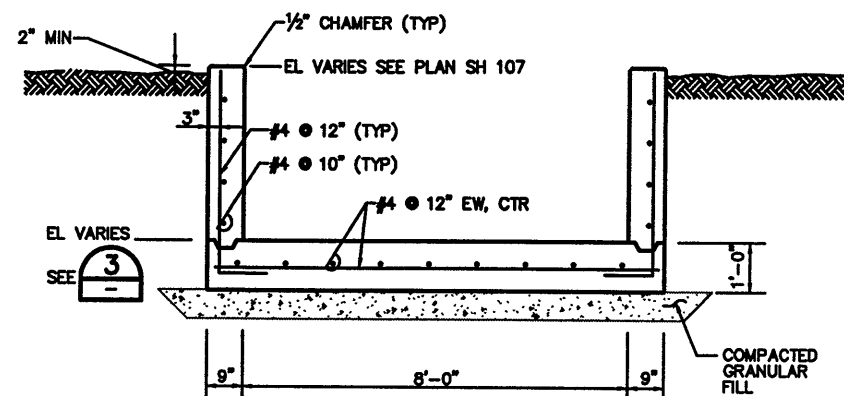
**STRUCTURAL
SECTIONS AND
DETAILS**

Project Manager
B. WILEY
Designed
D. NEUMANN/G. JONES
Drawn
T. SMITH
Checked
L. CRONISTER
Project Number
00039-305-102
Date
JUNE 28, 1997

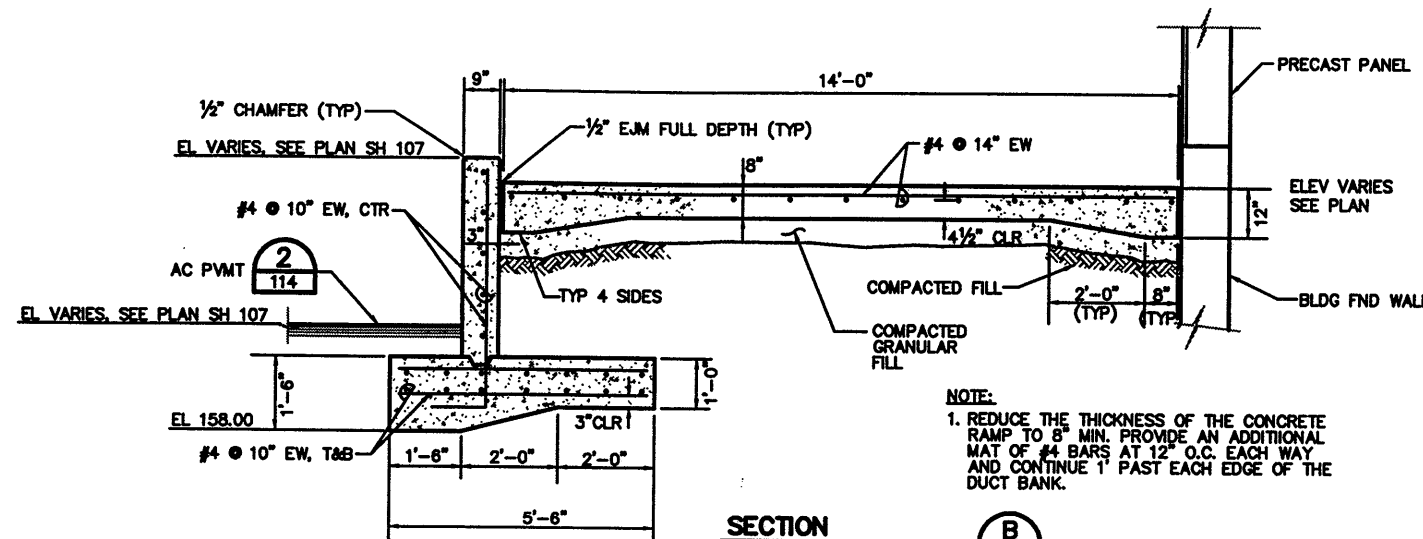
THIS LINE IS ONE INCH WHEN
DRAWING IS FULL SIZE. IF NOT
ONE INCH, SCALE ACCORDINGLY.

Date	7-11-97
Description	C.L. #7 - CPR 97
By	JES
No	

Sheet Number
207

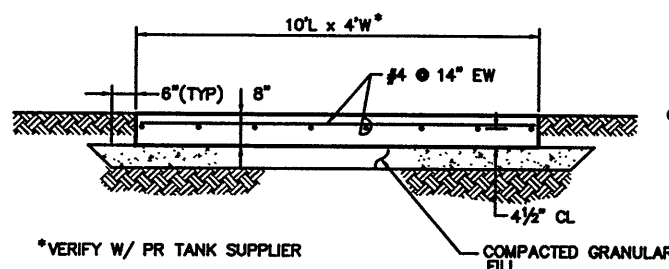


SECTION A
SCALE: 1/2" = 1'-0"

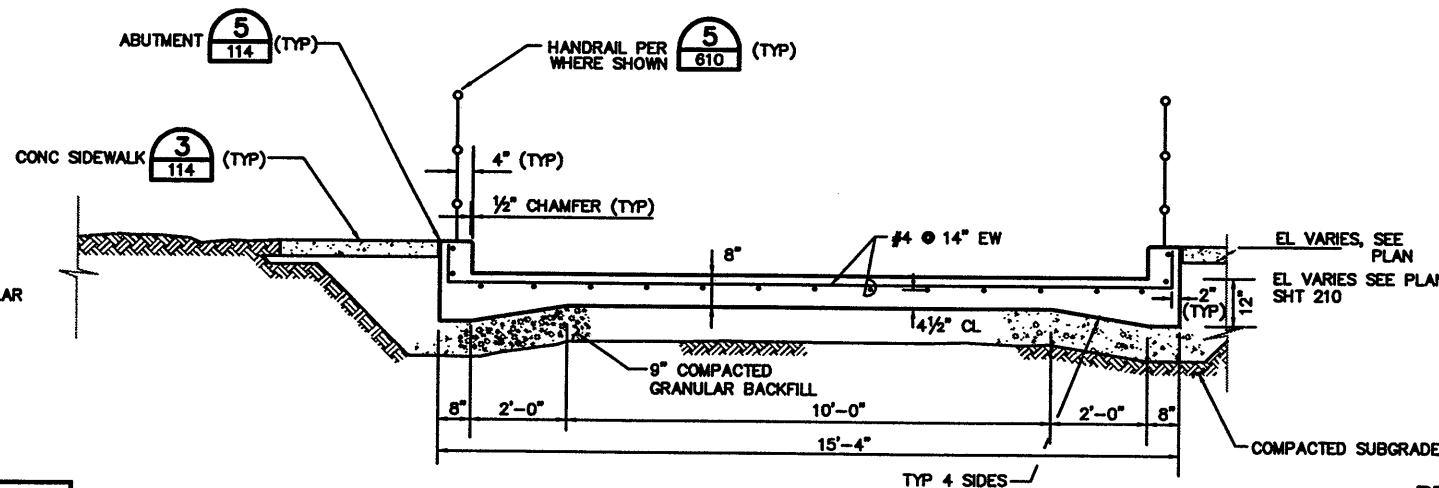


SECTION B
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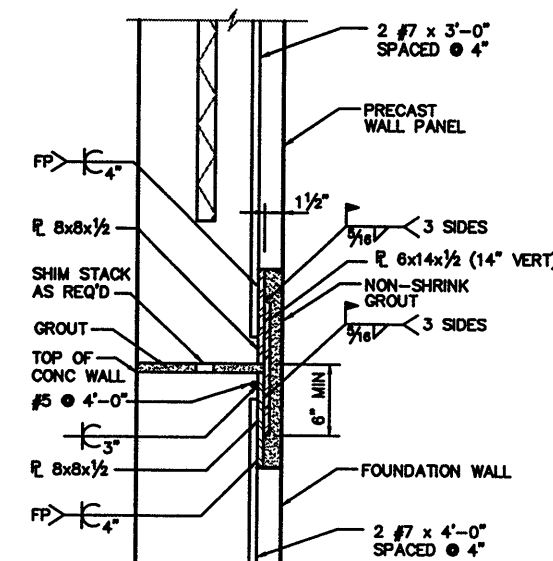
NOTE:
1. REDUCE THE THICKNESS OF THE CONCRETE RAMP TO 8" MIN. PROVIDE AN ADDITIONAL MAT OF #4 BARS AT 12" O.C. EACH WAY AND CONTINUE 1' PAST EACH EDGE OF THE DUCT BANK.



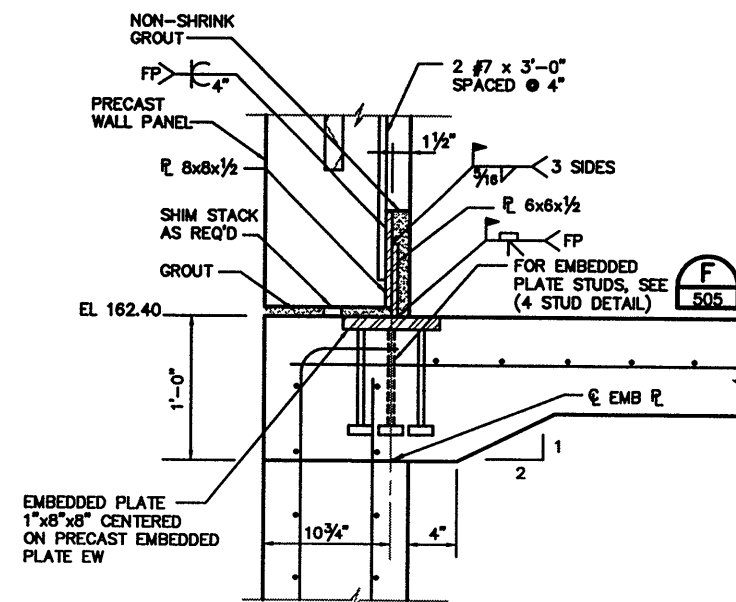
SECTION C
SCALE: 1/2" = 1'-0"



SECTION D
SCALE: 1/2" = 1'-0"



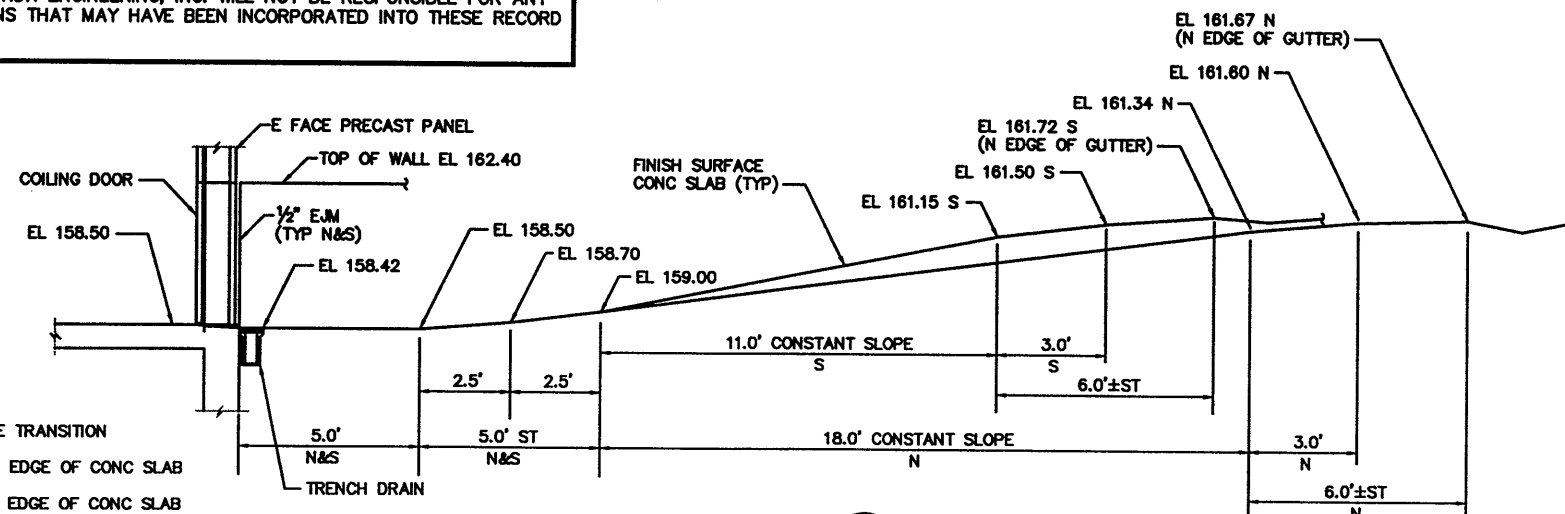
PRECAST PANEL/FOUNDATION CONNECTION 1
SCALE: 1 1/2" = 1'-0"



PRECAST PANEL/FOUNDATION CONNECTION 2
SCALE: 1 1/2" = 1'-0"

RECORD DRAWINGS

Revisions Drawn by: S. KUHN Date: 08-01-97
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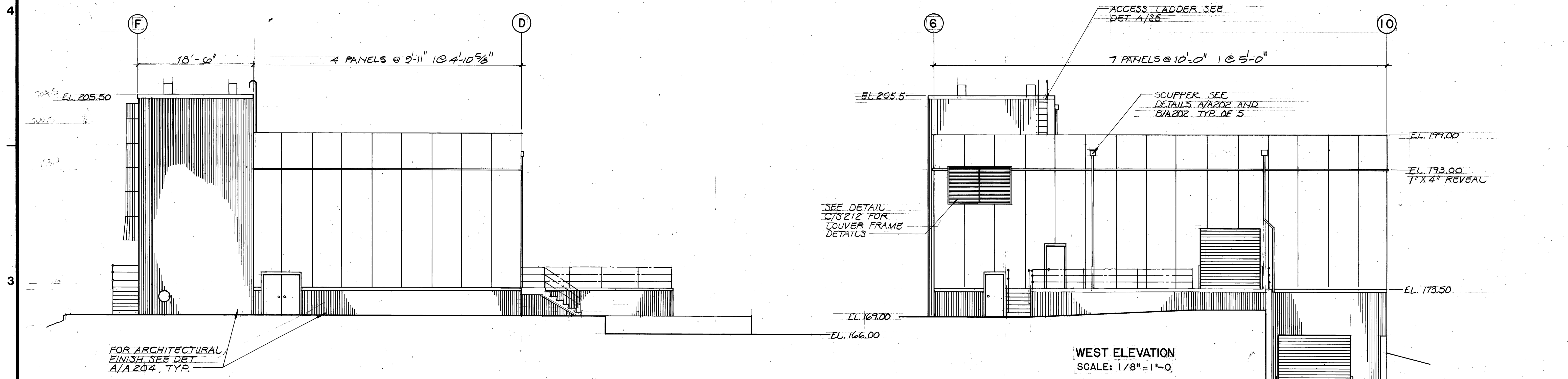


CONC SLAB PROFILE 3
SCALE: 3/8" = 1'-0"

- NOTES:
1. ST - SLOPE TRANSITION
2. N - NORTH EDGE OF CONC SLAB
3. S - SOUTH EDGE OF CONC SLAB
4. PROFILE SHOWN LOOKING NORTH

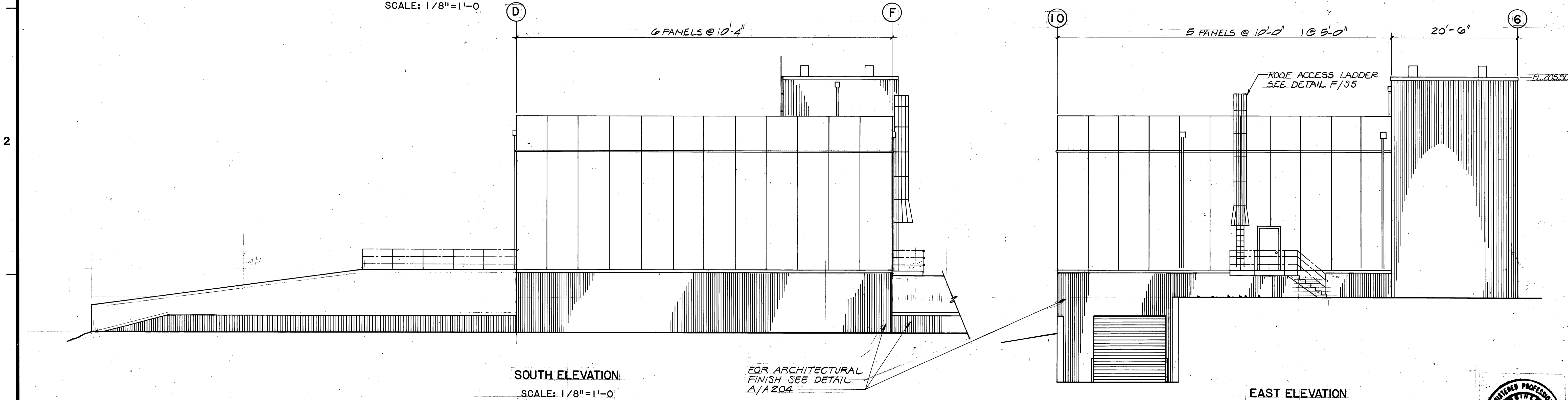
CONTROL NO.

REVISIONS					
ZONE	REV	DESCRIPTION	BY	DATE	APP
	1	AS BUILT	WRJ	4/88	GRM



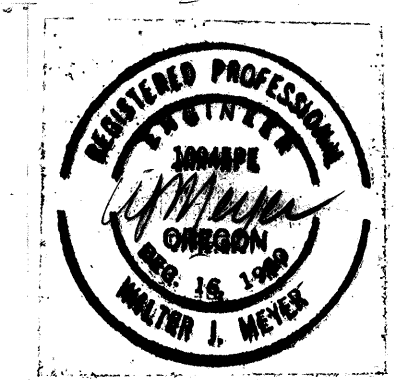
NORTH ELEVATION
SCALE: 1/8"=1'-0"

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

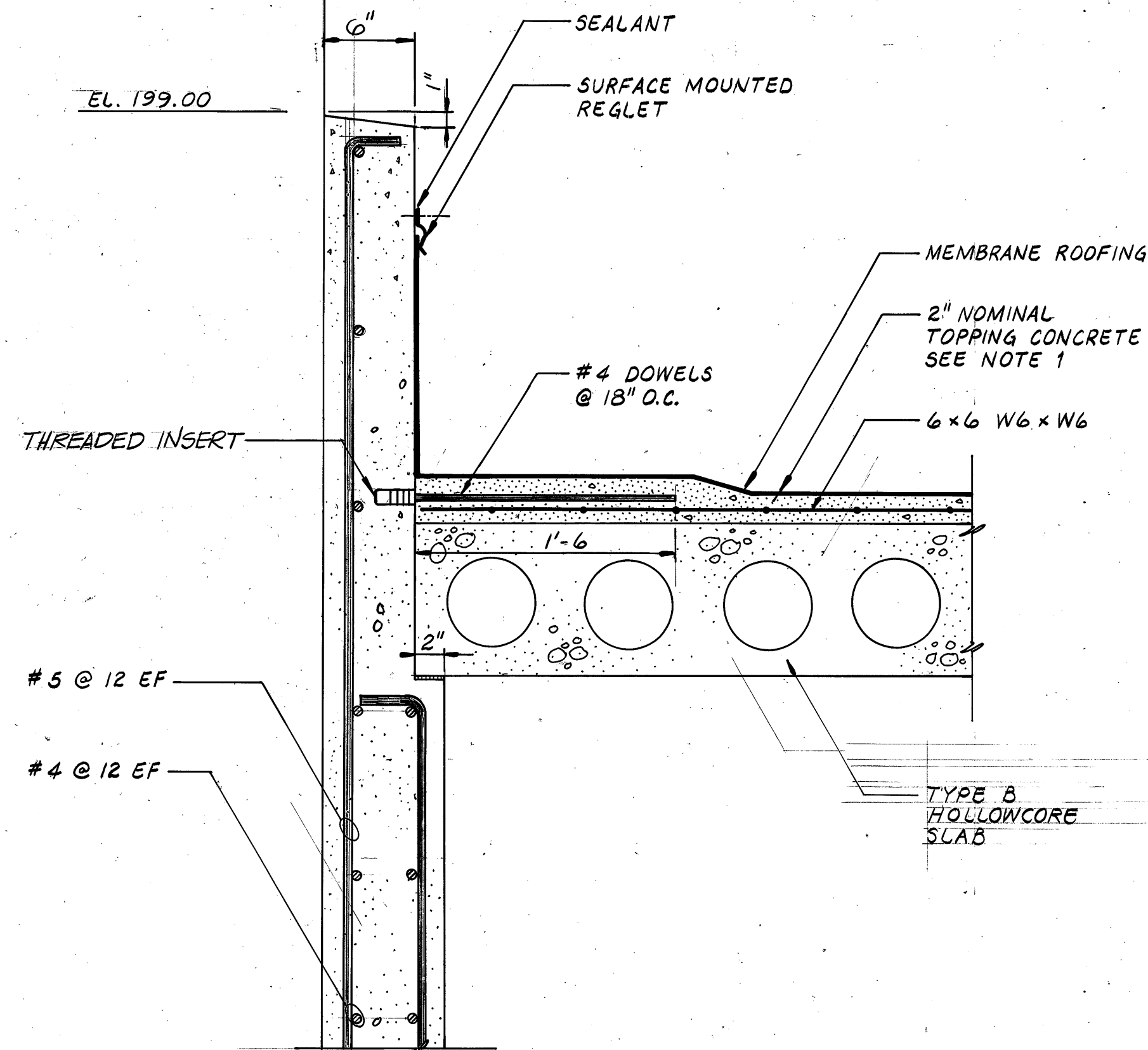


SOUTH ELEVATION
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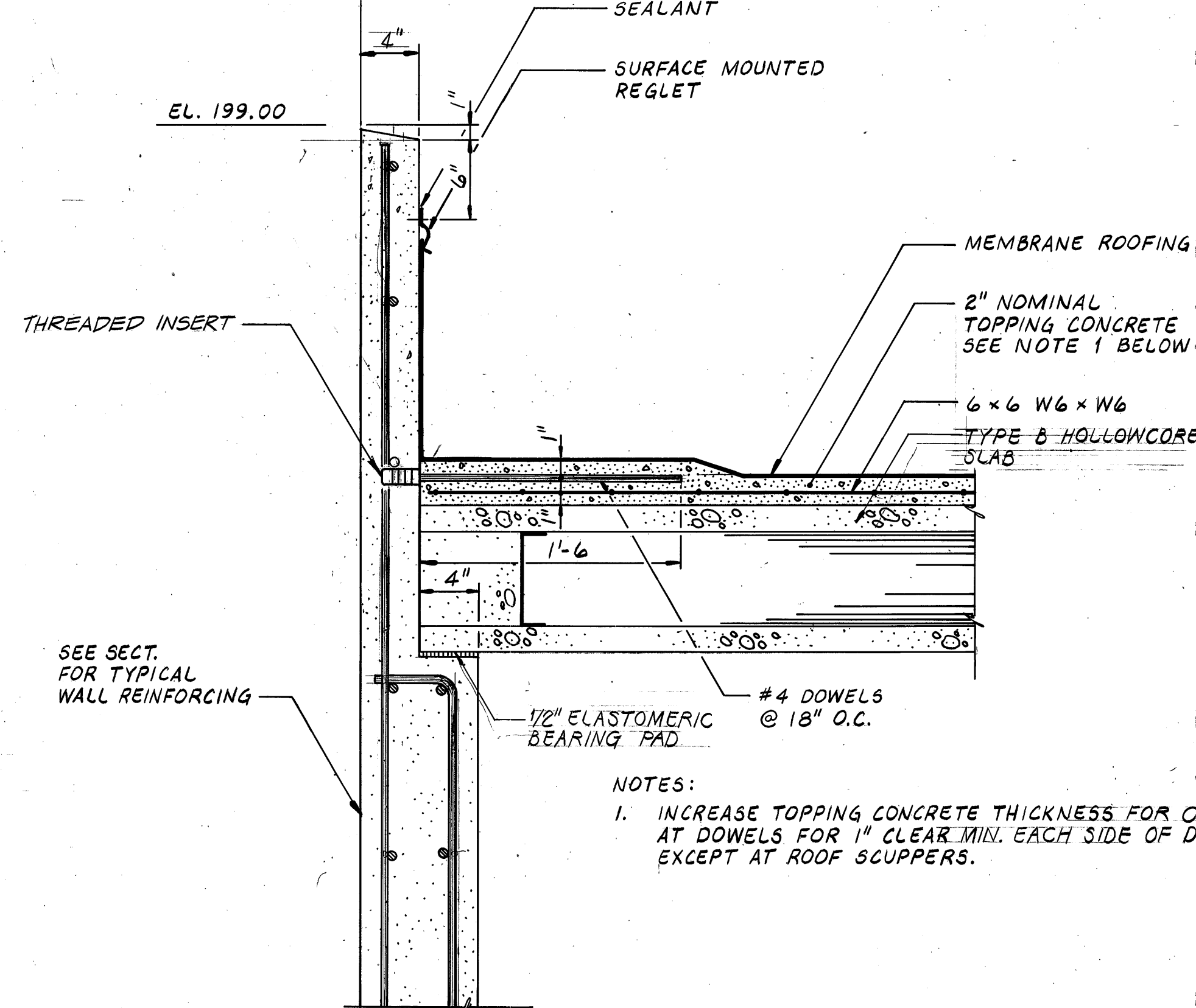
EAST ELEVATION
SCALE: 1/8"=1'-0"



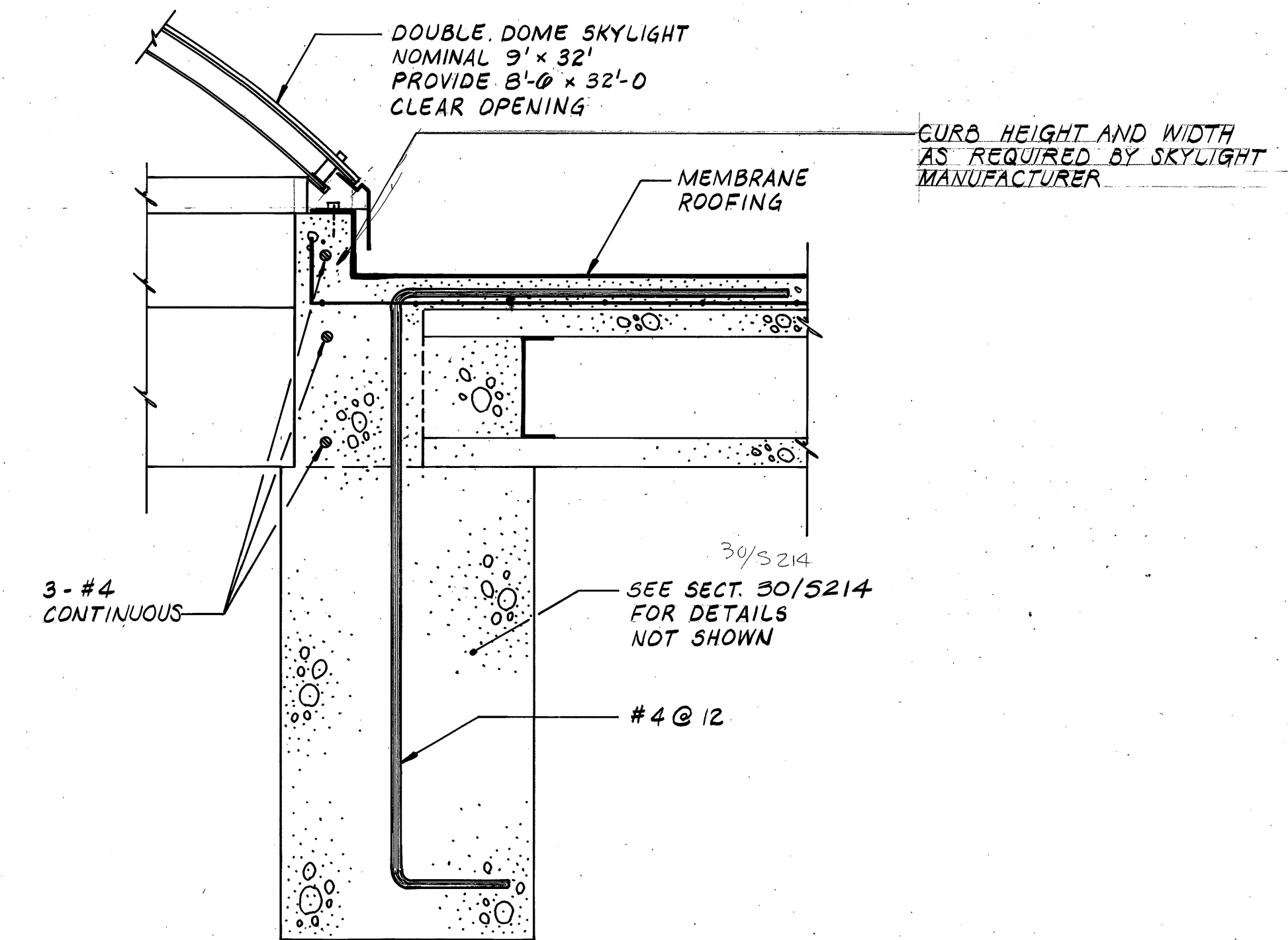
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88

SECTION 2
A201

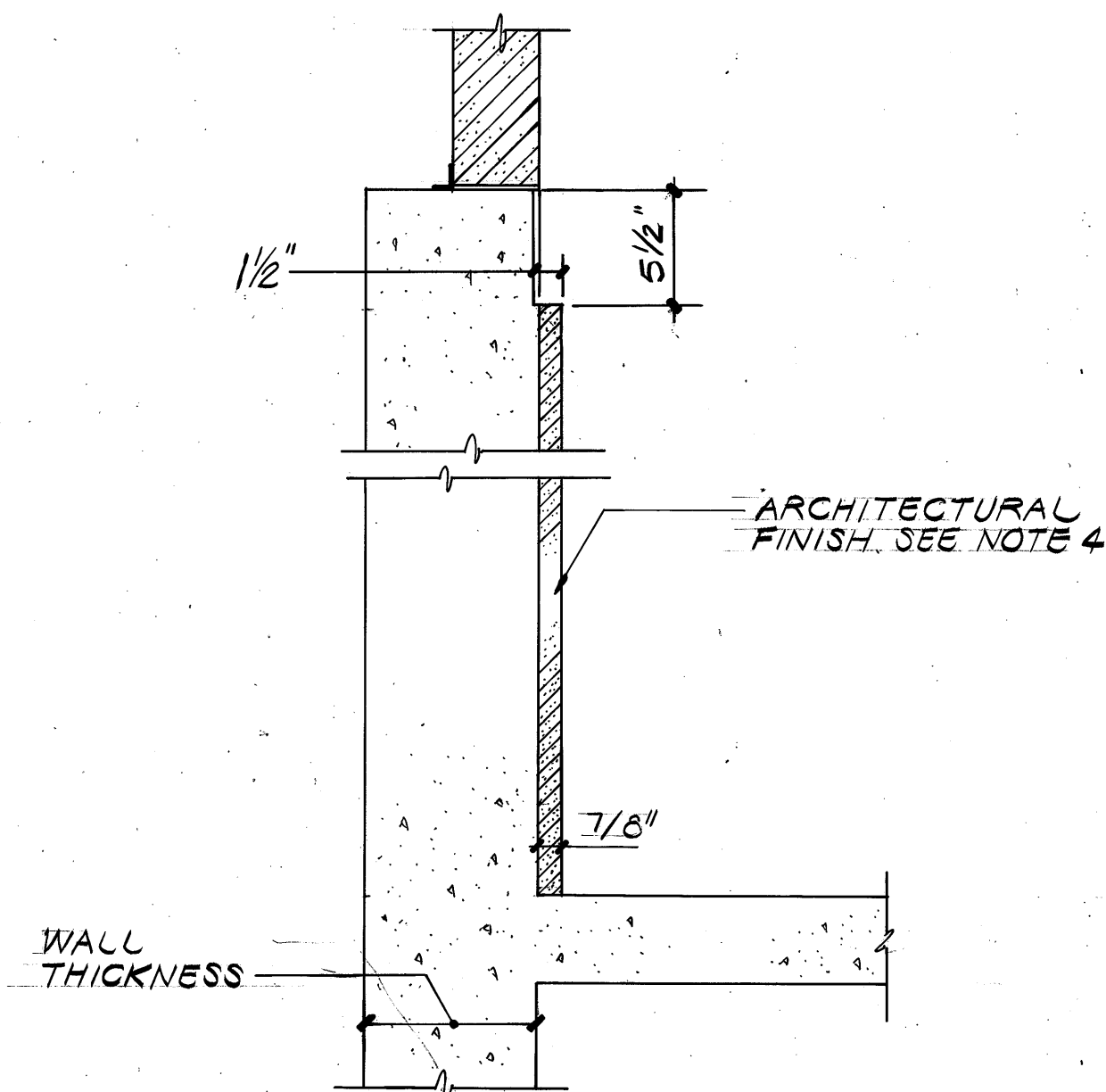
SCALE: 1-1/2"=1'-0"

SECTION 3
A201

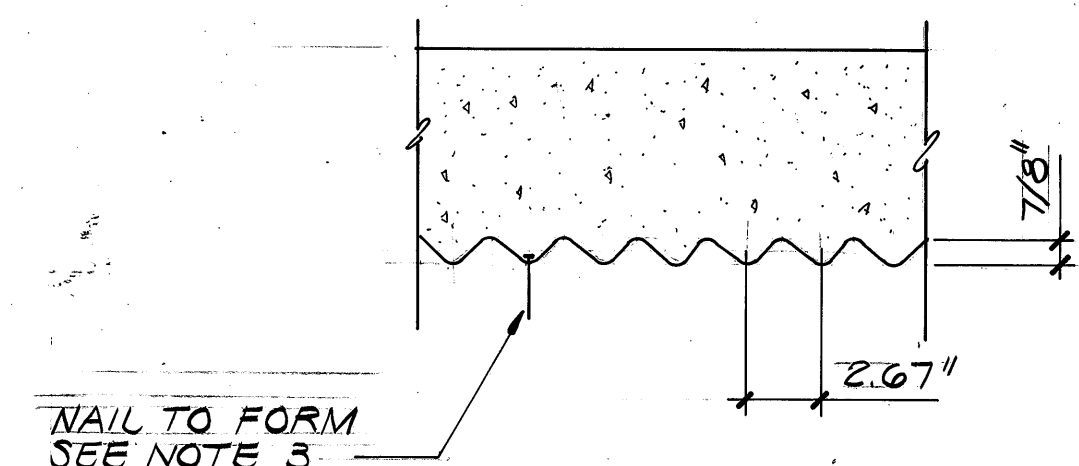
SCALE: 1-1/2"=1'-0"

SECTION 4
A201

SCALE: 1-1/2"=1'-0"



ARCHITECTURAL FINISH

DETAIL A
A204

NOTE:

1. STOP FORM LINER 6" FROM TOP OF CAST IN PLACE WALL.
2. FROM LINER TO BE TAPED AT JOINTS.
3. ALL NAIL HEADS ARE TO BE TAPED OR COVERED TO ELIMINATE MARKS IN CONCRETE FINISH.
4. SEE ELEVATION PLAN FOR LOCATION OF ARCHITECTURAL FINISH.

GENERAL

G1 SCOPE

THE GENERAL NOTES AND TYPICAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY. (ALL DETAILS SHOWN ON DRAWINGS S2 THRU S6) MAY NOT BE REQUIRED TO COMPLETE THE WORK.)

G2 APPLICABLE SPECIFICATIONS AND CODES

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE UNIFORM BUILDING CODE. THE ABOVE SHALL GOVERN EXCEPT WHERE OTHER APPLICABLE CODES OR THE FOLLOWING NOTES ARE MORE RESTRICTIVE.

G3 ALTERNATIVE DESIGNS

THE STRUCTURAL SYSTEMS AND DETAILS ON THESE PLANS ARE THE PRIORITY DESIGN. ALTERNATIVE SYSTEMS AND DETAILS MAY BE USED IF THE CONTRACTOR SUBMITS PLANS WITH SUBSTANTIATING CALCULATIONS AND TEST DATA, AND IF THE ALTERNATIVE PLANS ARE ACCEPTED BY THE CONSTRUCTION MANAGER.

G4 DIMENSIONS

STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

G5 PROVISIONS FOR EQUIPMENT

MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DRAWINGS SHALL BE PROVIDED PRIOR TO CASTING CONCRETE.

G6 CONSTRUCTION LOADS

STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON COMPLETED STRUCTURES; DURING CONSTRUCTION, STRUCTURES SHALL BE PROTECTED BY BRACING AND BALANCING WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR.

G7 DESIGN LIVE LOADS

- A. FLOOR AREAS:
- (1) EQUIPMENT AREA-200 PSF OR EQUIPMENT PLUS 50 PSF.
 - (2) SIDEWALKS - 250 PSF.
 - (3) UNLOADING AREAS - 2-1/2 TON TRUCK OR 100 PSF.
 - (4) TRUCK TRAFFIC AREAS - H-20 LOADING OR 250 PSF.
 - (5) PLATFORMS - 100 PSF.
 - (6) OTHER AREAS - 100 PSF.
- B. GRATING, CHECKERED PLATES, AND HATCHES - SAME LOADINGS AS ADJACENT FLOOR AREAS.
- C. STAIRS - 100 PSF.
- D. ROOF - 25 PSF.
- E. WIND - 29.0 PSF SUBJECT TO HEIGHT AND SHAPE RESTRICTIONS.
- F. SEISMIC LOADING - ZONE 2 UNIFORM BUILDING CODE.

G8 DRAINAGE SURFACES

SLOPE DRAINAGE SURFACES UNIFORMLY TO DRAIN. SLOPE SHALL BE 1/4" PER FOOT EXCEPT WHERE NOTED OTHERWISE ON THE PLANS.

G9 FLOOR DRAINS

SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATION AND SIZES.

ALUMINUM

A1 APPLICABLE CODE

ALUMINUM CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ALUMINUM CONSTRUCTION MANUAL OF THE ALUMINUM ASSOCIATION.

A2 MATERIAL

UNLESS OTHERWISE INDICATED, STRUCTURAL ALUMINUM SHALL BE ALLOY 6061-T6 AS SPECIFIED IN ASTM B-308.

A3 ALUMINUM IN CONTACT WITH CONCRETE

WHERE ALUMINUM IS IN CONTACT WITH CONCRETE OR MASONRY SURFACES, CONTACT SURFACES SHALL BE COATED WITH HEAVY ALKALI-RESISTANT BITUMINOUS PAINT.

CONCRETE

C1 APPLICABLE CODE

CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ACI BUILDING CODE (ACI-318).

C2 REINFORCING STEEL DETAILS

ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI-315), LATEST EDITION.

C3 DESIGN STRESSES

- A. CONCRETE, $f'_c=4000$ PSI ULTIMATE COMPRESSIVE STRESS AT 28 DAYS ($f'_c=1,800$ PSI), AND AS OTHERWISE SPECIFIED.
- B. REINFORCING STEEL
1. TENSION DUE TO FLEXURE, GRADE 60 ($f_s=24,000$ PSI)
 2. COLUMN REINFORCING, GRADE 60 ($f_s=16,000$ PSI)
 3. CIRCULAR TANK HORIZ WALL REINF, GRADE 40 ($f_s=16,000$ PSI)

C4 CONCRETE COVER

CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS WITH MINIMUM COVER OF ONE BAR DIAMETER.

- A. FOOTINGS AND FOUNDATION MATS CAST ON GROUND - 3".
- B. CONCRETE TO BE IN CONTACT WITH LIQUID - 2-1/2".
- C. CONCRETE TO BE IN CONTACT WITH GROUND OR WEATHER.
- (1) BARS GREATER THAN #5 - 2"
 - (2) BARS #5 OR LESS - 1-1/2"
- D. CONCRETE NOT TO BE EXPOSED TO GROUND, WEATHER, OR LIQUID.
- (1) BEAMS AND COLUMNS - 1-1/2"
 - (2) SLABS, WALLS, AND JOISTS - 1"

C5 MINIMUM REINFORCEMENT

CONCRETE CONSTRUCTION SHALL BE REINFORCED CONCRETE EXCEPT WHERE PLAIN CONCRETE IS INDICATED ON THE DRAWINGS. UNLESS OTHERWISE NOTED, MINIMUM REINFORCING STEEL SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING SCHEDULES:

SLAB THICKNESS	SIZE	SPACING EW
4"	#3	13"
5"	#4	18"
6"	#4	16"
8"	#4	12"
9"	#5	17"
10"	#4	18" T & B
12"	#4	16" T & B

WALL THICKNESS	SIZE	SPACING, E.W.	POSITION
6"	#4	12"	ON E
8"	#4	10"	ON E
10"	#4	15"	EF
12"	#4	12"	EF
14"	#5	16"	EF
16"	#5	14"	EF
18"	#5	13"	EF

MASS CONCRETE SHALL BE REINFORCED WITH #5 @ 12" EW MINIMUM IN ALL FACES.

C6 ADDED TOP STEEL IN SLABS

WHERE BEAMS OR WALLS ARE PARALLEL TO MAIN REINFORCING IN SLAB, PROVIDE #4 @ 18" IN TOP OF SLAB NORMAL TO BEAM OR WALL. EXTEND BARS 2'-0" BEYOND FACE OF BEAM OR WALL. WHEN SLAB IS ON ONE SIDE ONLY, TERMINATE BARS WITH STANDARD HOOK ON OTHER SIDE OF BEAM OR WALL.

C7 EXTRA ACCESSORY BARS

IN ADDITION TO NORMAL ACCESSORIES USED TO HOLD REINFORCING STEEL FIRMLY IN POSITION, EXTRA ACCESSORY BARS SHALL BE USED AS FOLLOWS:

- A. IN SLABS #5 RAISER BARS AT 36" O/C MAXIMUM TO SUPPORT TOP REINFORCING STEEL.
- B. IN WALLS WITH TWO CURTAINS #3 U OR Z SHAPE SPACERS AT 6'-0" O/C E.W.

C8 BAR LAP SPLICES

DOWELS SHALL BE THE SAME SIZE AND SPACING AS BARS WITH WHICH THEY ARE LAPPED. THE LAP EMBEDMENT SHALL BE 32 BAR DIAMETERS MINIMUM FOR EACH. VERTICAL REINFORCING BAR SPLICES IN COLUMNS SHALL HAVE AT LEAST 20 BAR DIAMETER LAP. ALL OTHER BAR SPLICES SHALL BE LAPPED AS FOLLOWS UNLESS OTHERWISE NOTED:

BAR SIZE	SPLICE
#3	1'-6"
#4	1'-8"
#5	2'-2"
#6	2'-7"
#7	3'-3"
#8	4'-3"
#9	5'-5"

THE LENGTH OF LAP SPLICES MAY BE MADE BY WELDING IN ACCORDANCE WITH THE DETAILS FOR REINFORCING STEEL SPLICE SHOWN ON DRAWING S3 AND WITH AWS SPEC D12.1.

C9 RESTRICTED BAR ANCHORAGE

IN CASES WHERE REINFORCING BARS CANNOT BE EXTENDED AS FAR AS REQUIRED DUE TO THE LIMITED EXTENT OF THE ADJACENT CONCRETE STRUCTURE, THE BARS SHALL EXTEND AS FAR AS POSSIBLE AND END IN STANDARD HOOKS.

C10 STANDARD HOOKS

BARS ENDING IN RIGHT ANGLE BENDS OR HOOKS SHALL CONFORM TO THE REQUIREMENTS OF PAR. 7.1, ACI-318.

C11 SLOPING SLABS

MONOLITHIC SLABS WITH TOPS THAT ARE SLOPED SHALL HAVE BOTTOMS SLOPED THE SAME AMOUNT, MAINTAINING A UNIFORM SLAB THICKNESS, UNLESS OTHERWISE SHOWN.

C12 GROUND SUPPORTED SLABS

CONCRETE SLABS SUPPORTED BY GROUND, UNLESS OTHERWISE NOTED, SHALL BE 4" THICK REINFORCED WITH WWF 6 X 6 - W1.4 X W1.4 AT MID-DEPTH OF SLAB AND DOWELED ALONG THE EDGE OF SLAB TO ALL ADJACENT WALLS, COLUMNS AND FOUNDATIONS WITH 3# @ 15" THAT LAP 1'-0" WITH WWF AND EXTEND INTO WALLS, COLUMNS AND FOUNDATIONS AT LEAST 9". IF SLAB IS DESIGNATED AS "ISOLATED SLAB" ON DRAWINGS, OMIT DOWELS AND SUBSTITUTE 3/8" THICK PREMOLDED JOINT FILLER TO ISOLATE THE SLAB FROM CONTACT WITH THE STRUCTURE ALONG ITS PERIMETER.

C13 CHAMFERS

EXCEPT AS OTHERWISE REQUIRED, EXPOSED CONCRETE CORNERS AND EDGES SHALL HAVE 3/4" CHAMFERS. RE-ENTRANT CORNERS SHALL NOT HAVE FILLETS.

C14 ANCHOR BOLTS

USE OF ANCHOR BOLTS SHALL BE GOVERNED BY THE FOLLOWING TABLE:

BOLT DIAMETER	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"
MIN. EMBEDMENT IN STRUCTURAL CONCRETE	4"	4"	5"	6"	7"	8"	9"
ALLOWABLE SHEAR	2000*	3000*	3560*	4150*	4150*	4500*	5300*

ALL BOLTS SHALL BE HOT DIPPED GALVANIZED UNLESS OTHERWISE NOTED. EMBEDMENT LENGTH FOR BOLTS IN TENSION SHALL BE DETERMINED BY THE CONSTRUCTION MANAGER.

STEEL

ST1 APPLICABLE CODE

STEEL CONSTRUCTION SHALL CONFORM TO SPECIFICATIONS AND STANDARDS PRESENTED IN THE LATEST EDITION OF AISC STEEL CONSTRUCTION MANUAL.

ST2 MATERIAL

ALL STRUCTURAL SHAPES, BARS, PLATES AND SHEETS INDICATED ON THE DRAWINGS SHALL BE STEEL MEETING ASTM A-36.

ST3 WELDING

WELDING SHALL CONFORM TO AWS CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. WELDER SHALL BE CERTIFIED.

ST4 ENCASED STEEL

STEEL COMPLETELY ENCASED IN CONCRETE SHALL NOT BE GALVANIZED OR PAINTED AND SHALL HAVE A CLEAN SURFACE FOR BONDING TO CONCRETE.

ST5 PAINTING

STRUCTURAL STEEL SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATIONS.

MODIFICATION OF EXISTING CONCRETE

M1 THE FOLLOWING NOTES ON MODIFICATION OF EXISTING CONCRETE ARE GENERAL AND APPLY TO THE ENTIRE PROJECT, UNLESS OTHERWISE SPECIFIED.

M2 WHERE "TIE TO EXISTING STRUCTURE" IS INDICATED, CONTRACTOR SHALL STRAIGHTEN AND SANDBLAST DOWELS AND WELD OR SPLICE WITH NEW REINFORCEMENT AS SPECIFIED ON THE DRAWINGS.

M3 EXISTING CONCRETE SURFACES TO BE JOINED WITH NEW CONCRETE SHALL BE THOROUGHLY CLEANED BY SANDBLASTING AND COATED WITH EPOXY BONDING COMPOUND JUST PRIOR TO PLACEMENT OF NEW CONCRETE.

M4 SURFACES EXPOSED TO VIEW SHALL BE NEATLY SAW CUT TO A DEPTH OF 1/2 INCH PRIOR TO REMOVING THE EXISTING CONCRETE. HIDDEN SURFACES SHALL RECEIVE A TOOLED JOINT BETWEEN NEW AND EXISTING CONCRETE.

M5 DOWELS SHALL BE GROUTED BY FILLING THE DRILLED HOLES WITH EPOXY GROUT AND INSERTING THE DOWELS INTO THE HOLES.

M6 WHERE WATERSTOP BETWEEN NEW AND EXISTING CONCRETE IS REQUIRED, CONTRACTOR SHALL CUT SUITABLE GROOVE IN THE EXISTING CONCRETE AND INSTALL WATERSTOP WITH EPOXY GROUT AND BONDING COMPOUND PRIOR TO CONCRETE WORK.

M7 STRUCTURAL DIMENSIONS RELATED TO OR CONTROLLED BY EXISTING STRUCTURES SHALL BE VERIFIED IN FIELD BY THE CONTRACTOR PRIOR TO CONCRETE WORK.

M8 WHERE PLUG EXISTING OPENING IS INDICATED, CONTRACTOR SHALL REMOVE ANY ATTACHED METALWORK AND CONCRETE CURBS OR PROJECTIONS, ROUGHEN AND KEY EXISTING CONCRETE, COAT WITH EPOXY BONDING COMPOUND, AND POUR NEW CONCRETE FLUSH WITH ADJACENT SURFACES.

M9 NEW OPENINGS IN EXISTING CONCRETE SHALL BE CUT 2 INCHES OVER-SIZE, COATED WITH EPOXY BONDING COMPOUND, AND MORTAR FINISHED TO THE REQUIRED FINISH SIZE.

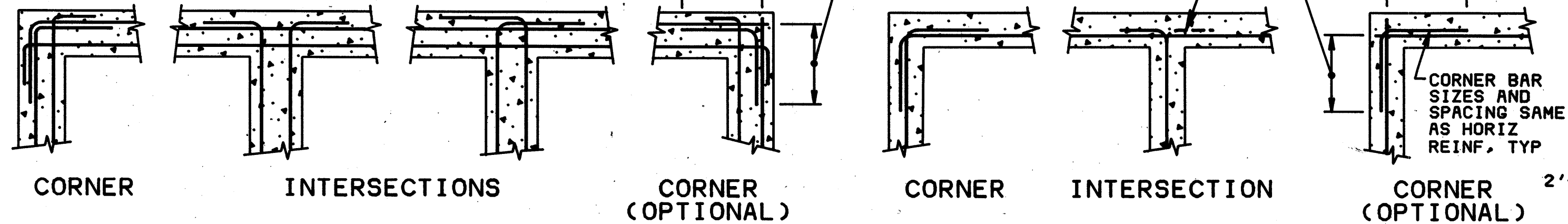
M10 WHERE "REMOVE EXISTING K.O. WALL OR PLUG" IS INDICATED, CONTRACTOR SHALL REMOVE ALL EXISTING MASONRY, CLEAN AND SANDBLAST ALL CONTACT SURFACES AND REPAIR WALLS AND SLABS TO MATCH EXISTING WORK.

M11 WHERE "PLUG OR K.O. WALL FOR FUTURE REMOVAL OR FUTURE EXTENSION" IS INDICATED, WALLS SHALL BE RECESSED WITH KEYED CONSTRUCTION JOINT.

CONTROL NO.

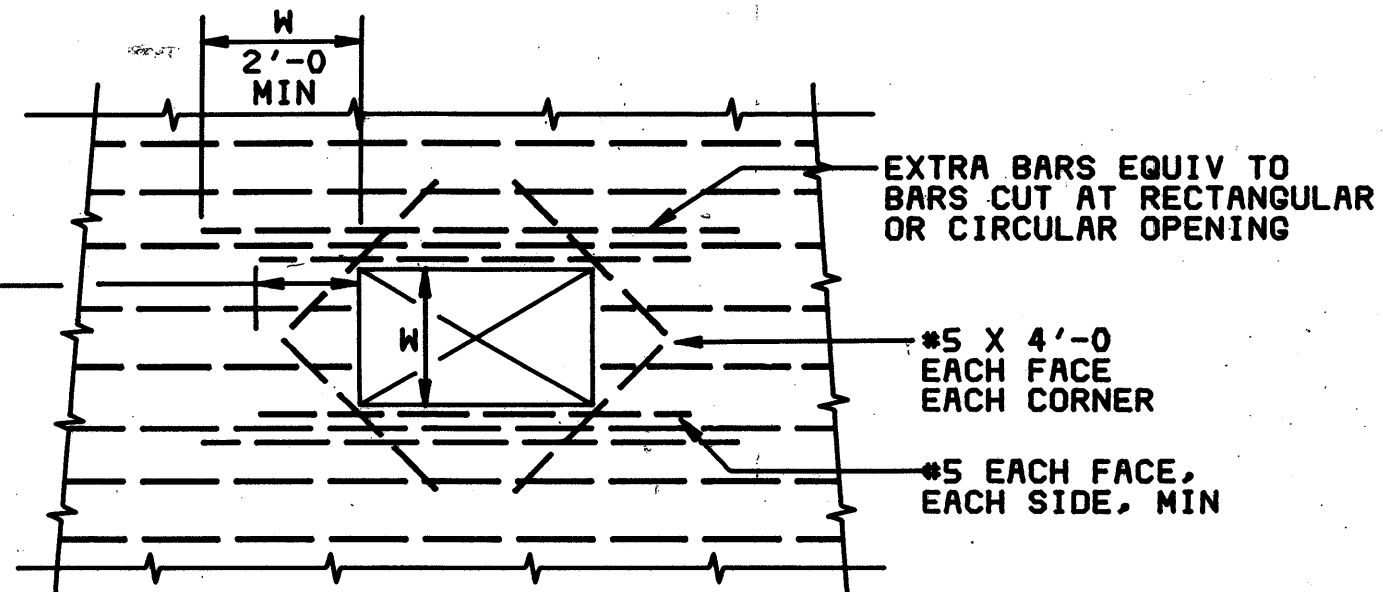
NOTE:
ALL 90° BENDS SHALL BE STANDARD HOOKS
PER ACI 315 UNLESS OTHERWISE SPECIFIED.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88

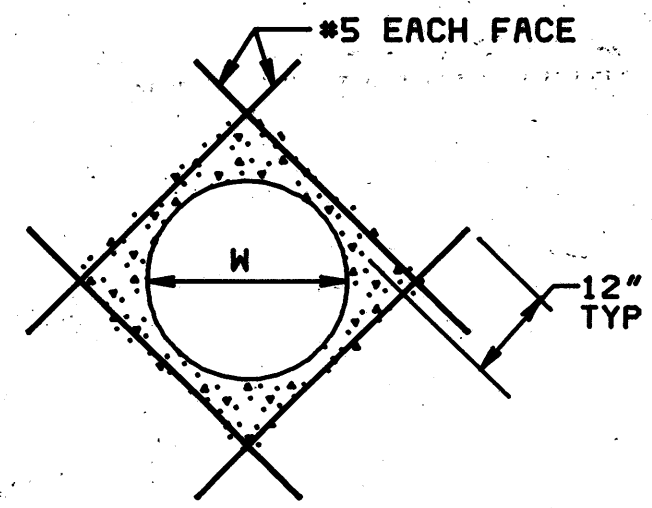


REINFORCING STEEL AT WALL INTERSECTIONS

DETAIL A
NO SCALE
VAR



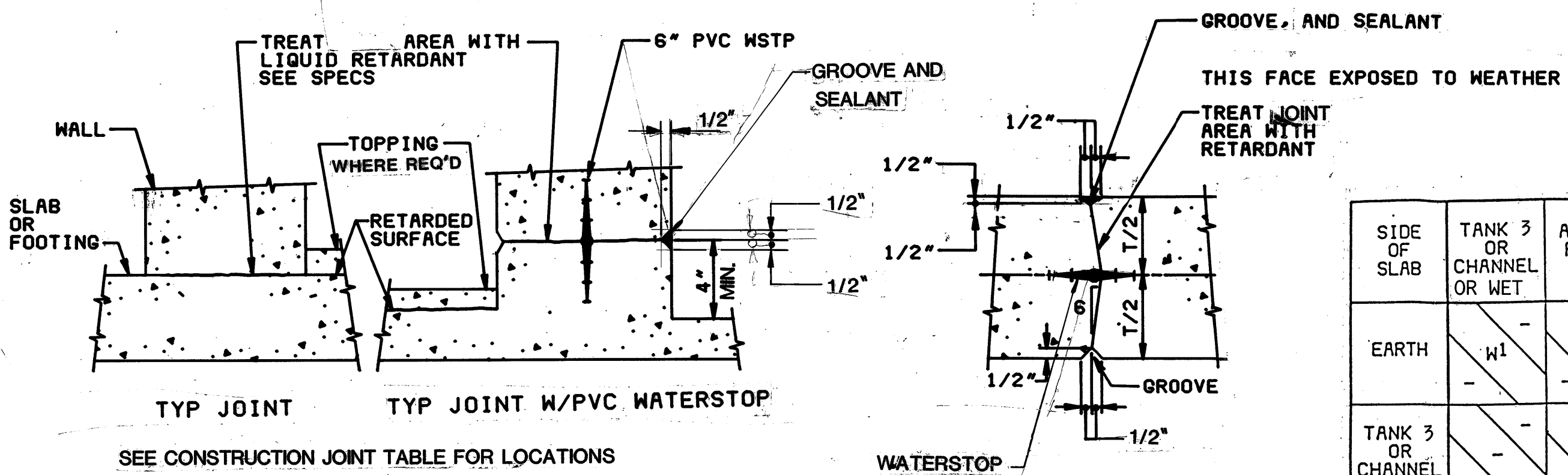
REINFORCEMENT AT SLAB AND WALL OPENINGS



FOR CIRCULAR OPENING

REINFORCEMENT AT SLAB AND WALL OPENINGS

- NOTES:
1. TRANSVERSE REINFORCEMENT NOT SPECIFIED, BUT SHALL BE TREATED IN SAME MANNER AS BARS SHOWN.
 2. W = DIMENSION OF OPENING PERPENDICULAR TO BARS CUT. FOR CIRCULAR OPENINGS W = DIAMETER
 3. SEE MECH AND ARCH DRAWINGS FOR SLAB AND WALL OPENINGS NOT SPECIFIED ON STRUCTURAL DRAWINGS.
 4. SUPPLEMENTARY REINF MAY BE OMITTED ONLY WHERE OPENING IS FRAMED BY BEAMS OR WALLS.

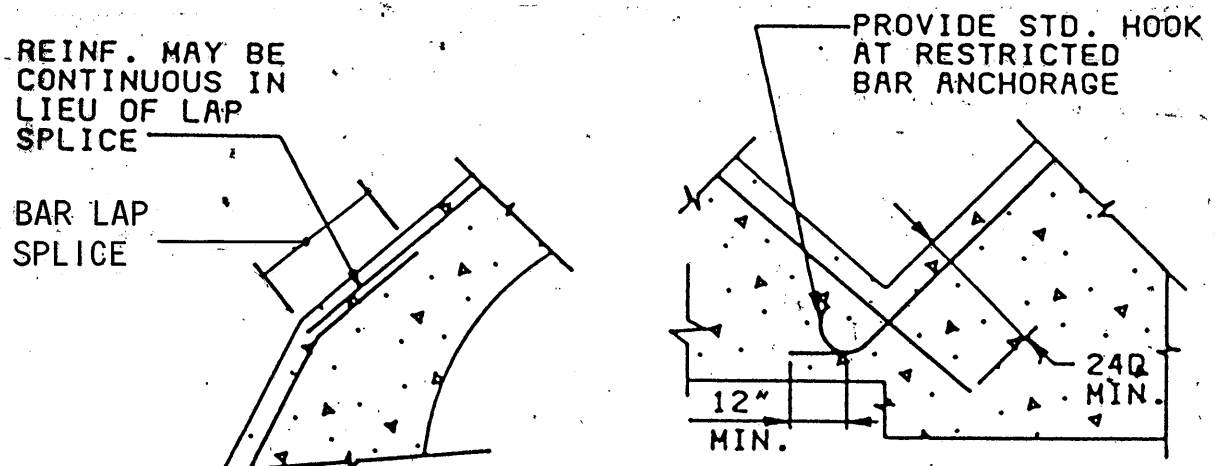


TYPICAL CONSTRUCTION JOINTS

DETAIL C
NO SCALE
VAR

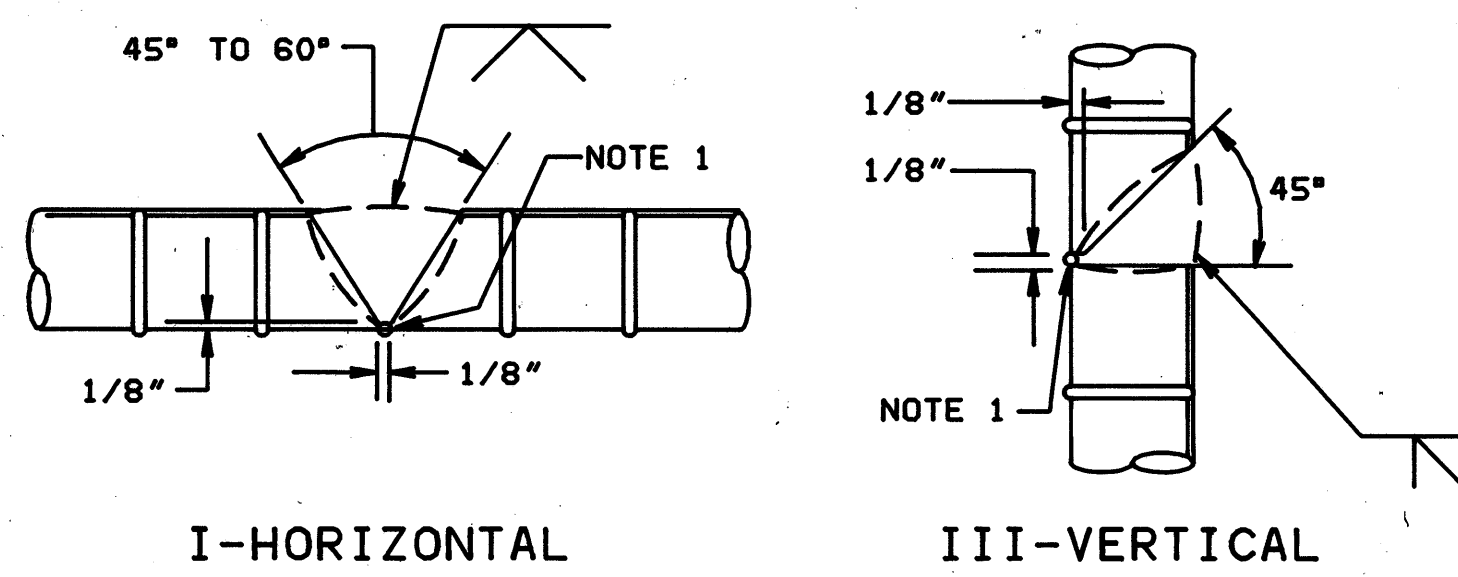
SIDE OF SLAB	TANK 3 OR CHANNEL OR WET	ATMOS-PHERE	DRY INTERIOR
EARTH	W1	W	W
TANK 3 OR CHANNEL OR WET	-	G2	G
ATMOS-PHERE	G2	W1	W
DRY INTERIOR	G	G2	G

- EXAMPLE:
CONSTRUCTION JOINT IN HORIZ OR VERTICAL CONCRETE SLAB WITH EARTH ON ONE SIDE AND A DRY INTERIOR SURFACE. ON THE OTHER SHALL BE CONSTRUCTED AS FOLLOWS: JOINT SHALL HAVE A GROOVE ON THE DRY INTERIOR SIDE AND BE FLUSH ON THE EARTH SIDE. A WATERSTOP SHALL BE BUILT INTO THE JOINT. SEE DETAILS, THIS DWG.
- W = WATERSTOP
G = GROOVE
GS = GROOVE W/ SEALANT
1. EXTEND WATERSTOP FROM 12" ABOVE WATER SURFACE TO 2' BELOW FINISHED GRADE.
 2. EXTEND GROOVE FROM 12" BELOW FINISHED GRADE TO TOP OF WALL.
 3. VERTICAL CONSTRUCTION JOINTS IN WALLS OF CIRCULAR TANKS WITHOUT PRESTRESSING SHALL HAVE A GROOVE W/ SEALANT ON BOTH FACES.
- CONSTRUCTION JOINTS SHALL CONFORM TO THE ABOVE TABLE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.



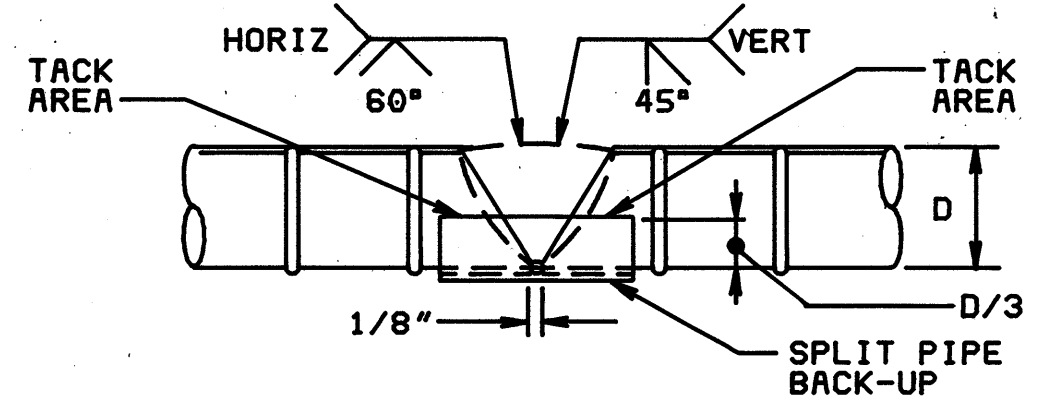
OUTSIDE CORNER
INSIDE CORNER
REINFORCING STEEL AT ANGLED CORNERS

DETAIL E
NO SCALE
VAR

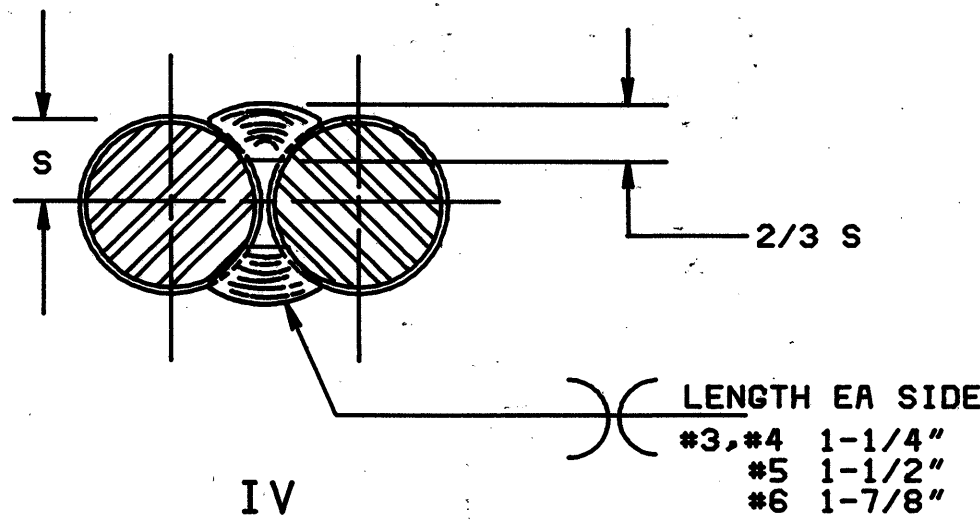


I-HORIZONTAL
III-VERTICAL

- REINFORCING WELDING NOTES:
1. CHIP, GRIND OR GROOVE TO SOUND METAL BEFORE WELDING OTHER SIDE.
 2. DETAIL I AND III FOR NO. 9 AND LARGER, DETAIL II FOR NO. 8 AND SMALLER, DETAIL IV FOR NO. 6 AND SMALLER.
 3. E70 ELECTRODE FOR GRADE 40 E90 ELECTRODE FOR GRADE 60.
 4. SEE AWS D1.4 FOR WELDING PROCESS AND OTHER DETAILS.



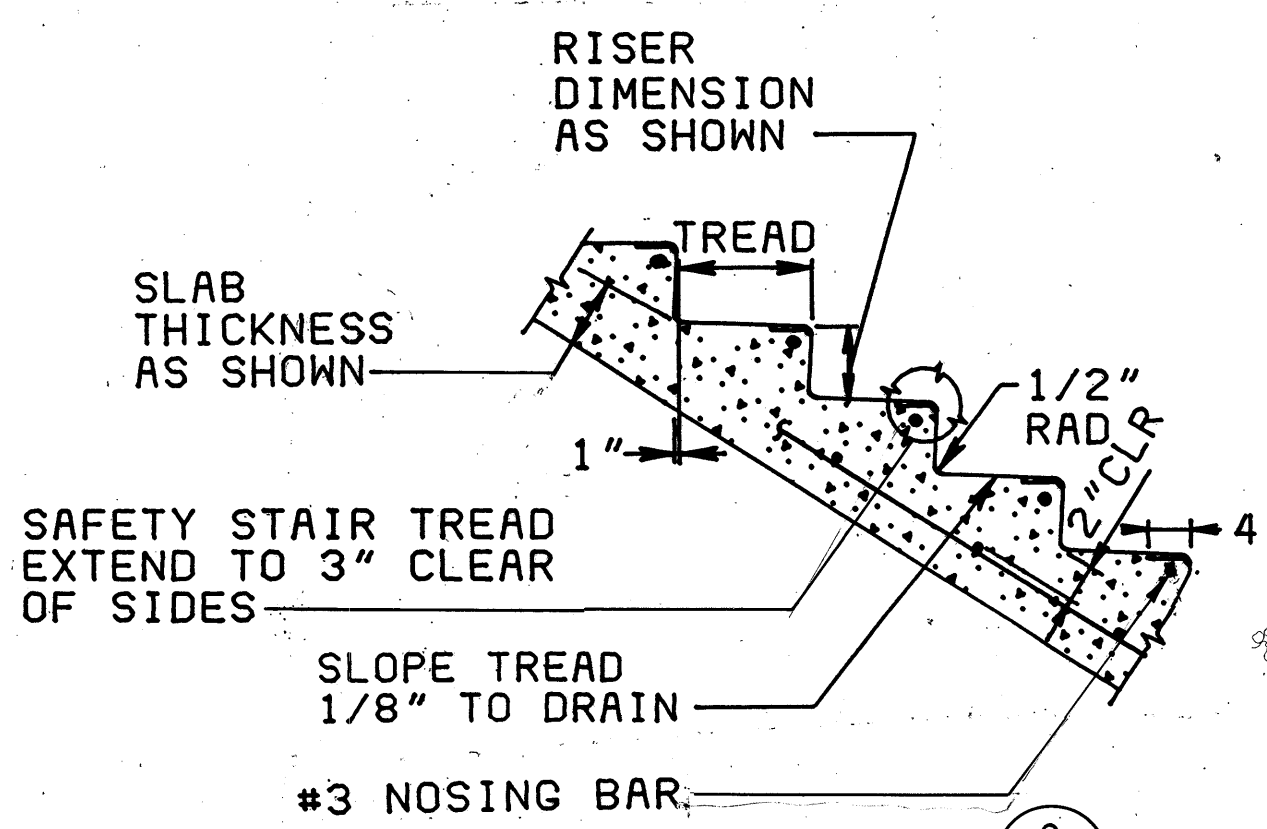
II-HORIZONTAL AND VERTICAL



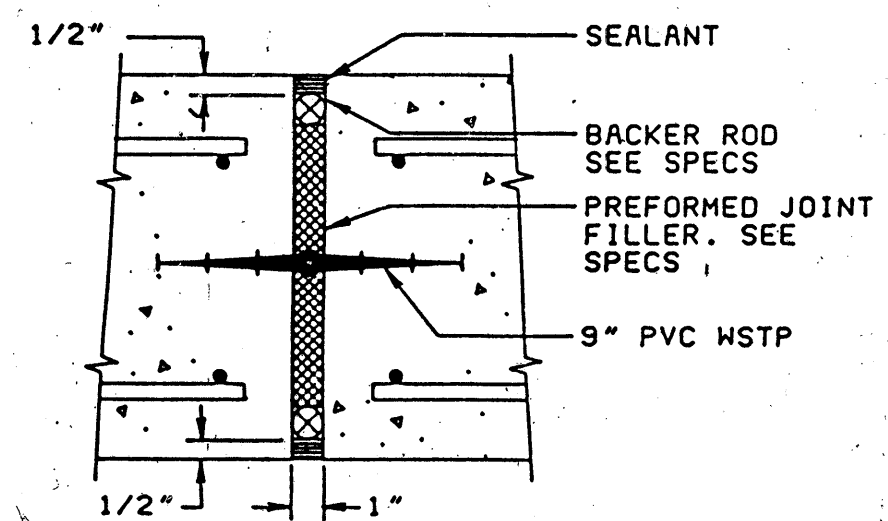
IV

WELDED REINFORCING SPLICE DETAIL

DETAIL F
NO SCALE
VAR



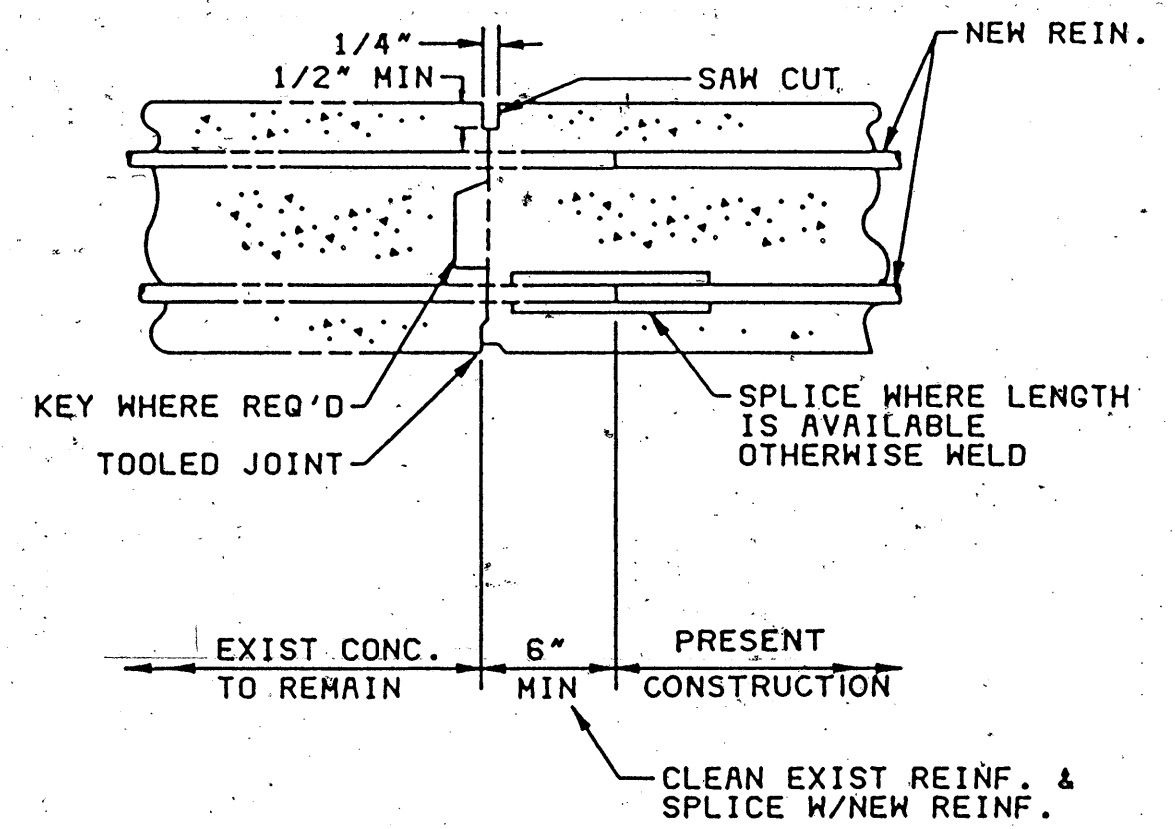
DETAIL G
NO SCALE
VAR



NOTE:
BACKER ROD AND SEALANT SHALL NOT BE PROVIDED WHEN JOINT IS CAST AGAINST GROUND

TYPICAL WALL EXPANSION JOINT
FOR SLAB EXPANSION JOINT SEE DETAIL J/S3

DETAIL D
NO SCALE
VAR



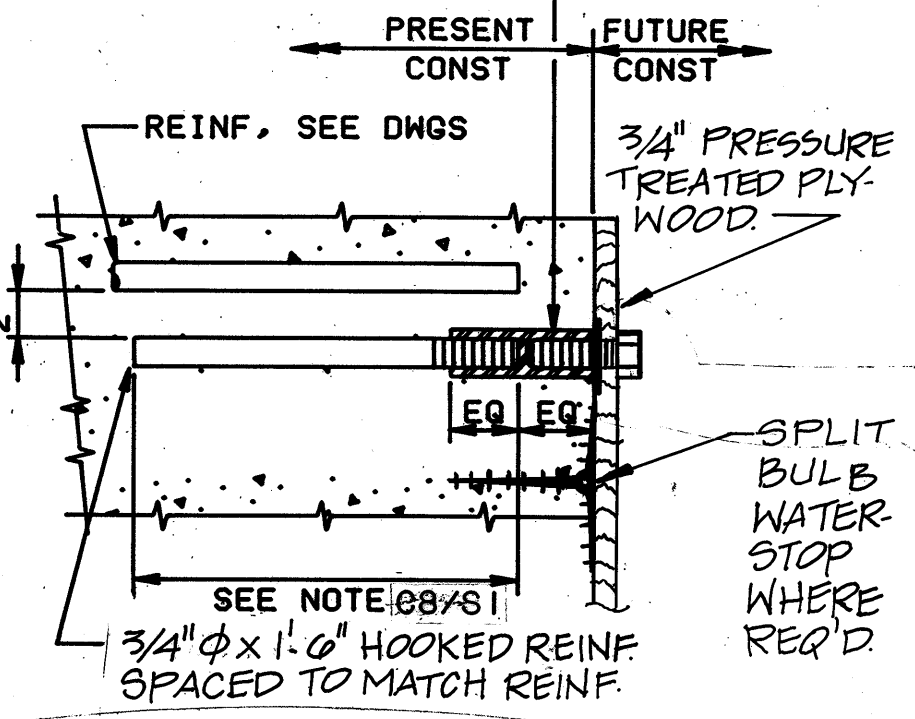
MODIFICATION OF EXISTING CONCRETE DETAIL

DETAIL H
NO SCALE
VAR

CONTROL NO.

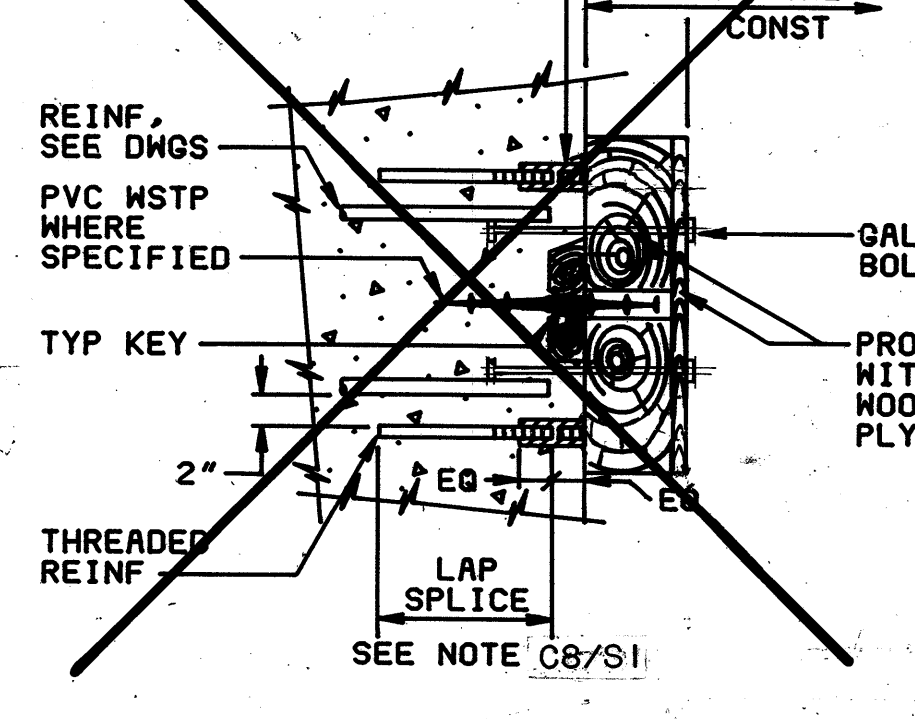
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HEX COUPLING
DEVELOPING FULL STRENGTH
OF THREADED DOWELS



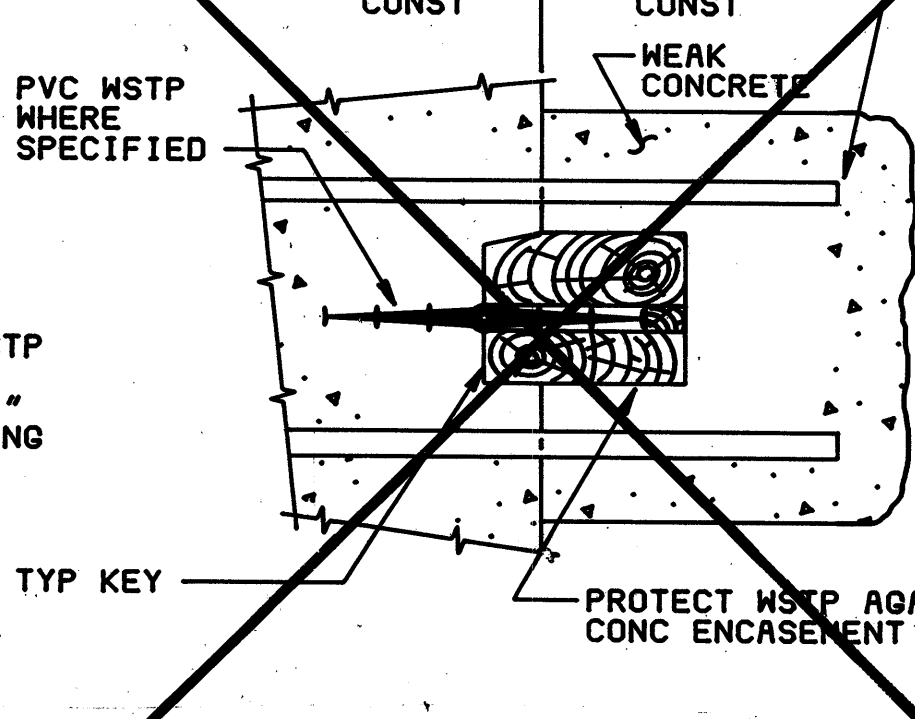
METHOD 1
(REQUIRED ABOVE GRADE)

HEX COUPLING
DEVELOPING FULL STRENGTH
OF THREADED DOWELS



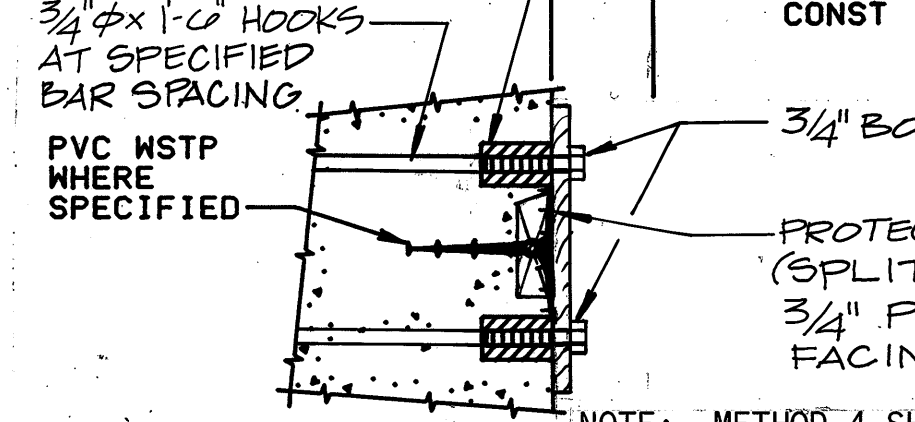
METHOD 2

EXTEND REINF FOR FUT LAP
SPICE, SEE NOTE C8/S1
COAT WITH BITUMINOUS
PAINT AND COVER WITH 2\"/>



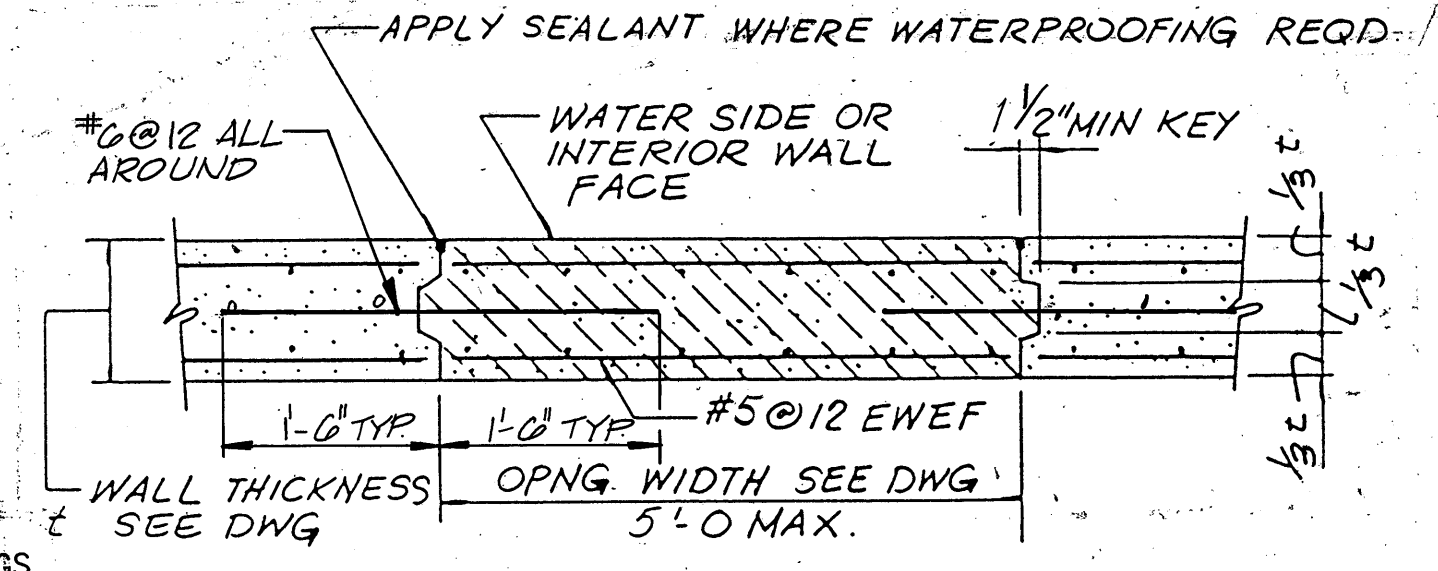
METHOD 3

PRESENT
CONST
FUTURE
CONST



METHOD 4

NOTE: METHOD 4 SHALL BE USED ONLY WHERE
FUTURE EXPANSION JOINT IS SHOWN ON DRAWINGS.

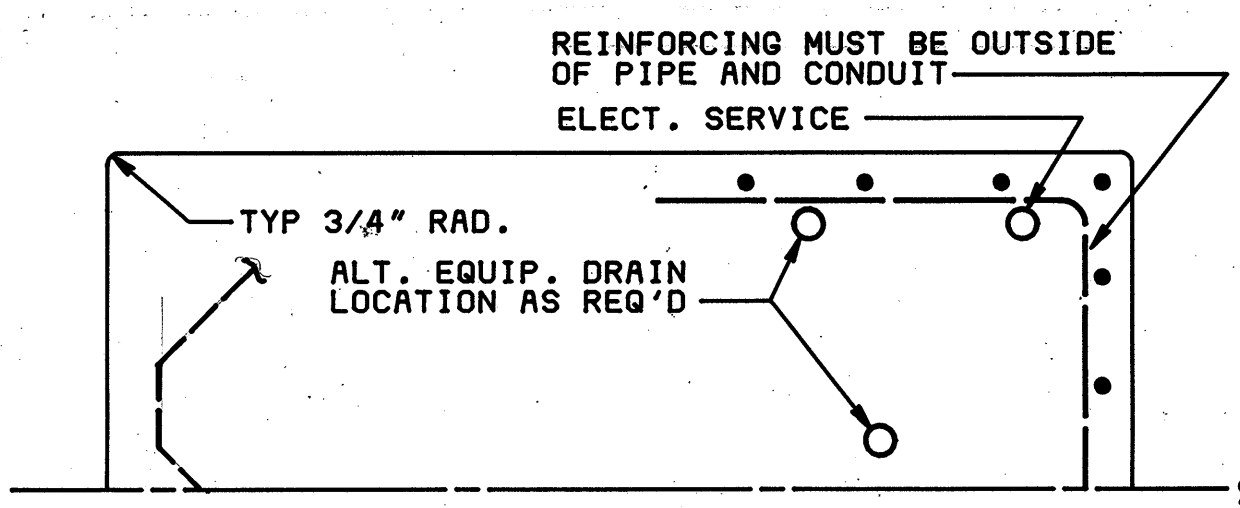


KNOCK OUT WALL

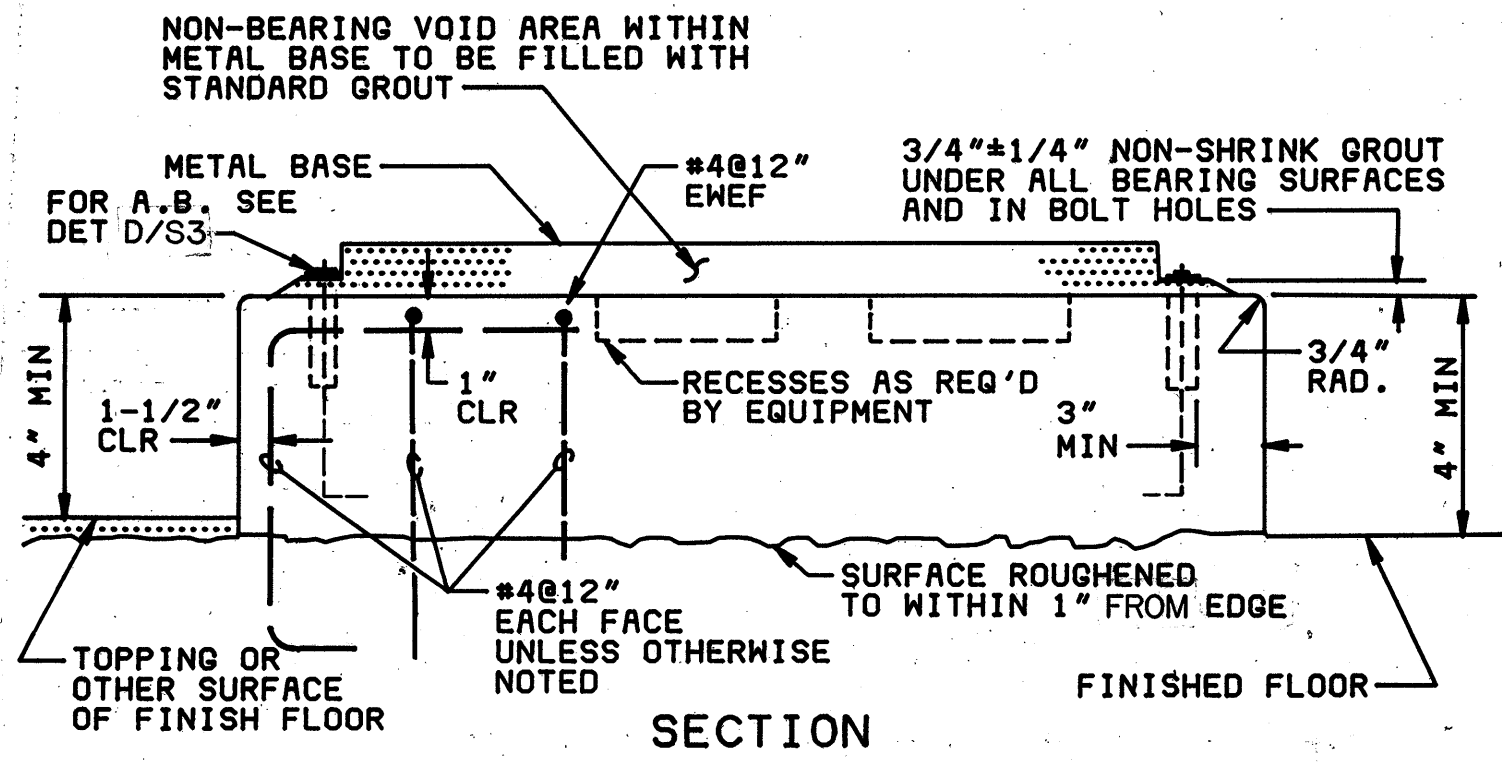
DETAIL B
VAR

PROVISION FOR FUTURE CONSTRUCTION JOINT

DETAIL A
NO SCALE
VAR

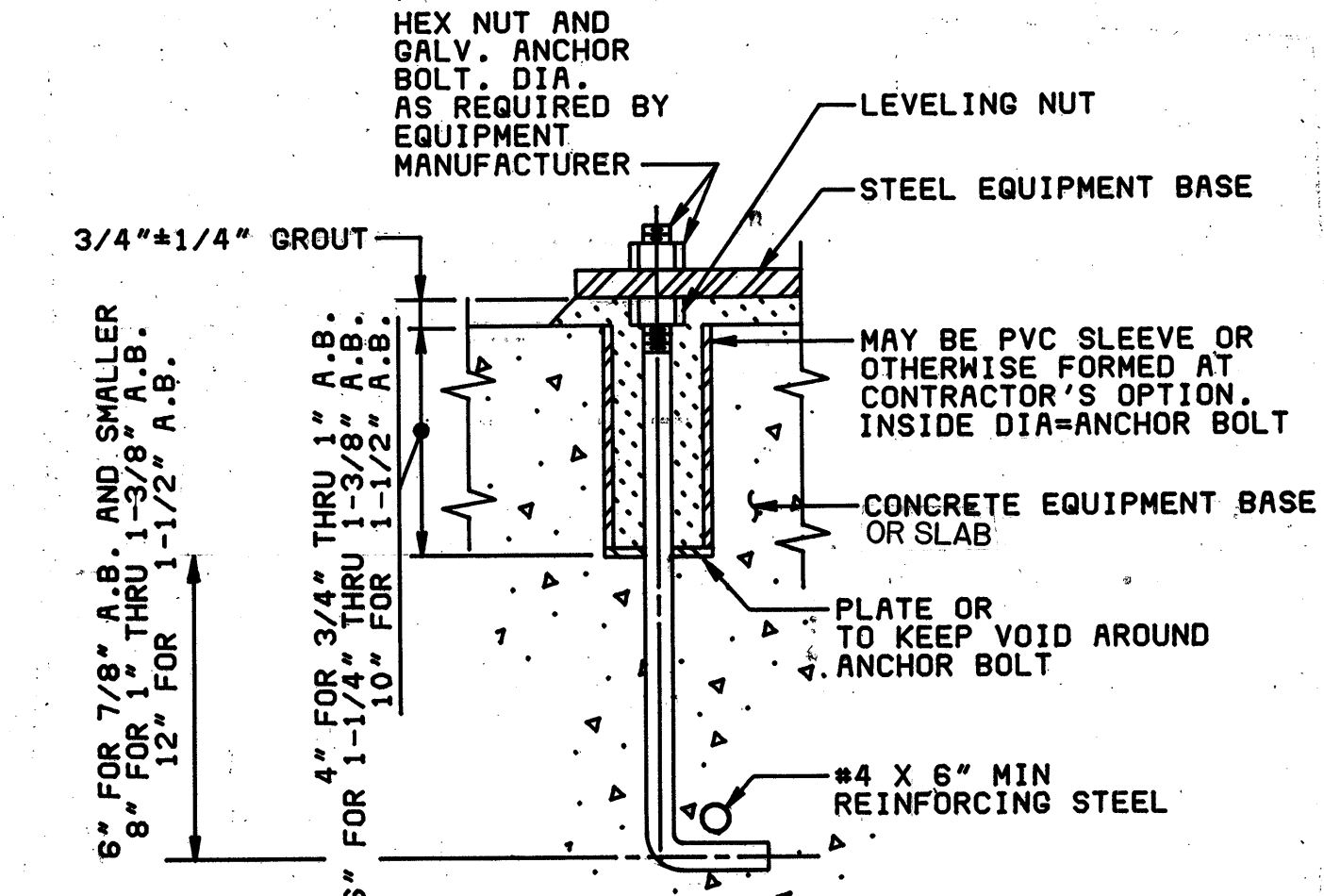


PLAN



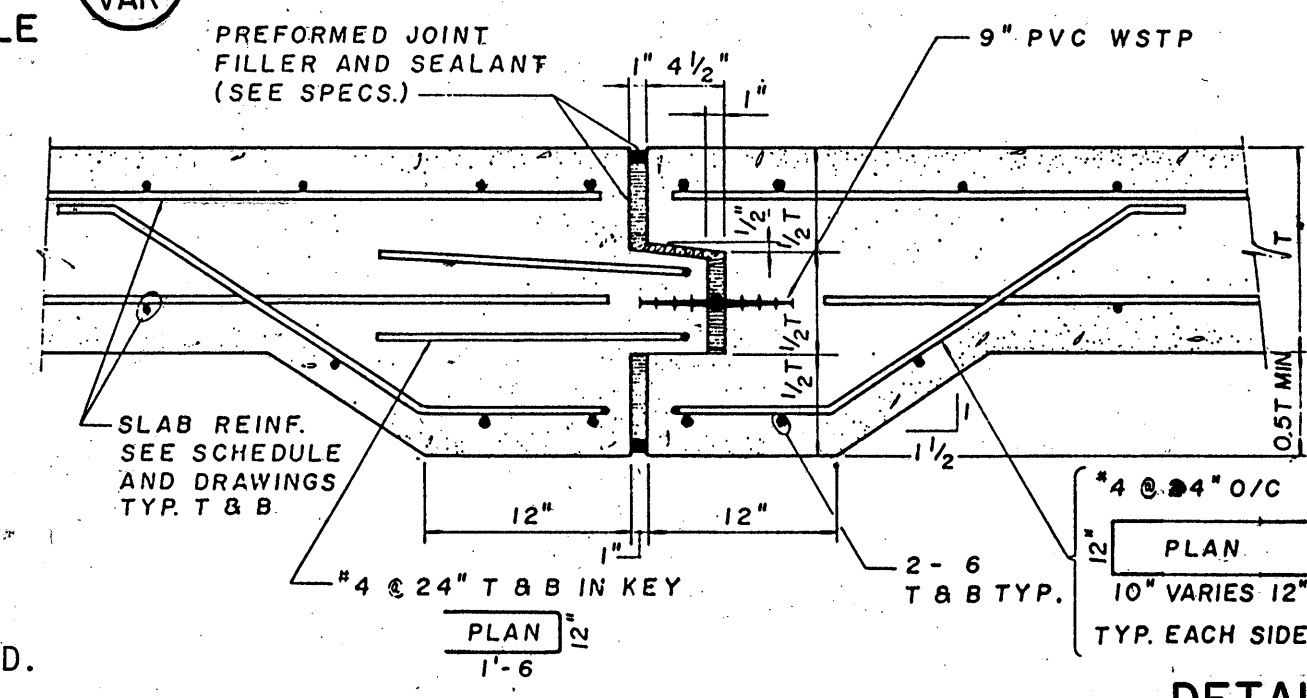
EQUIPMENT BASE

DETAIL C
NO SCALE
VAR



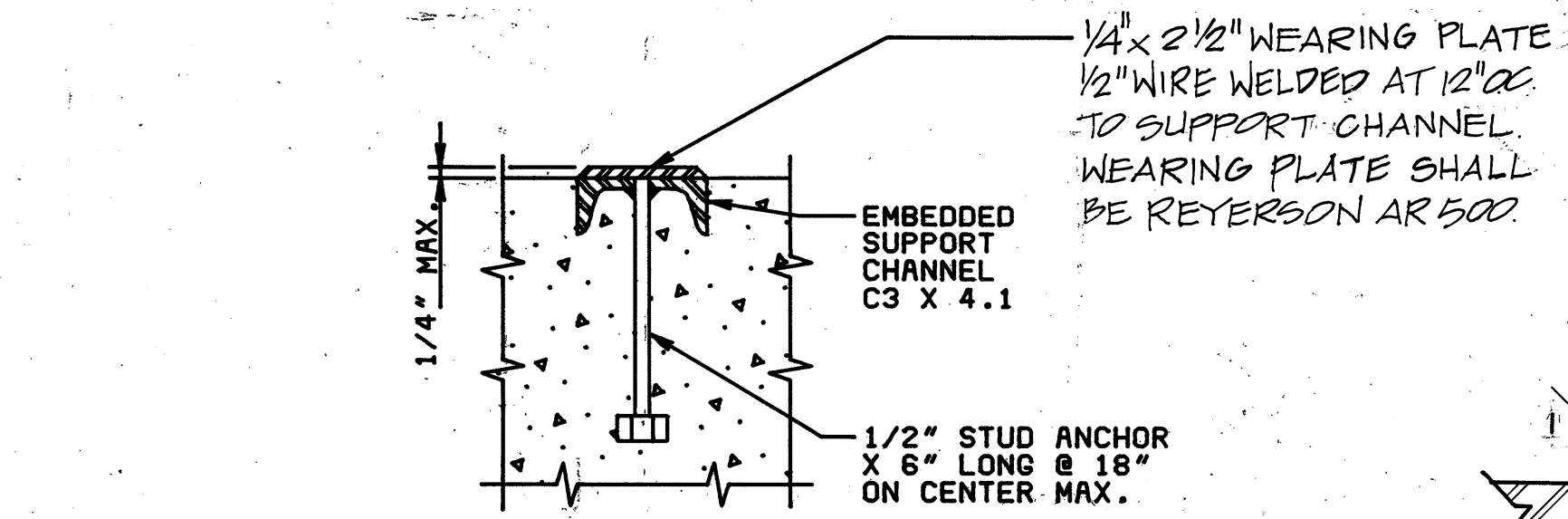
ANCHOR BOLT FOR EQUIPMENT

DETAIL D
NO SCALE
VAR

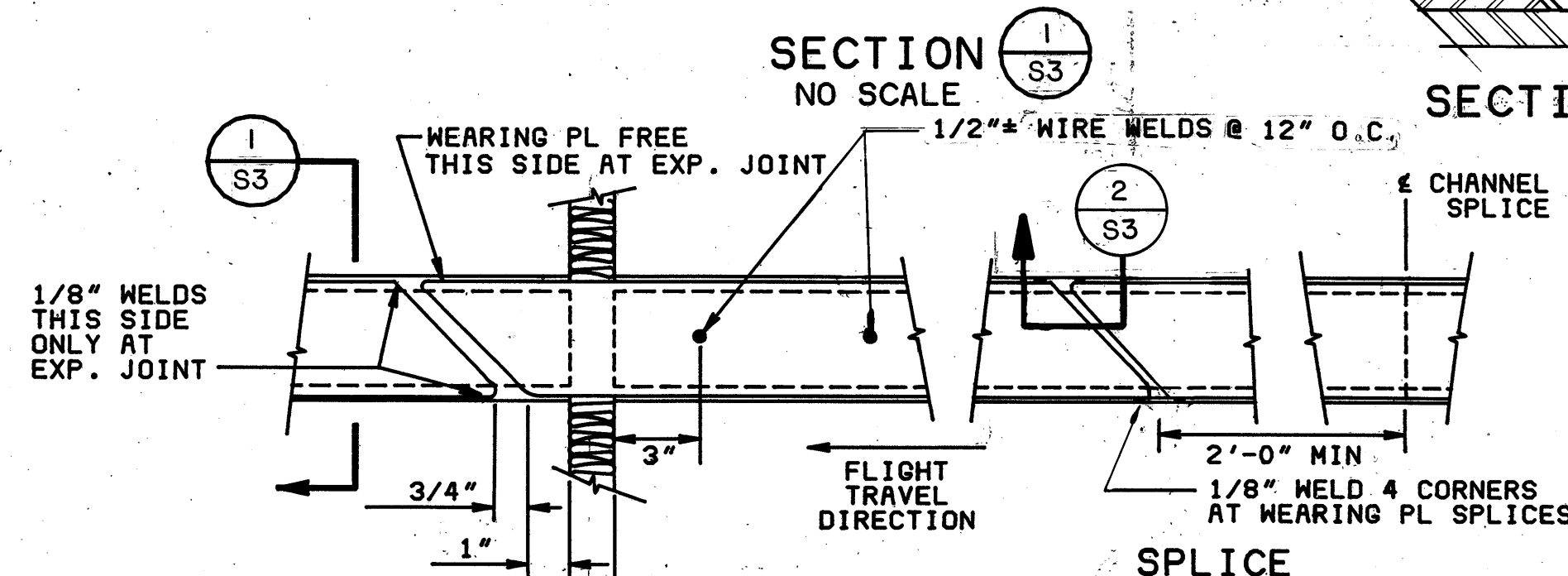


TYPICAL FLOOR SLAB EXPANSION JOINT

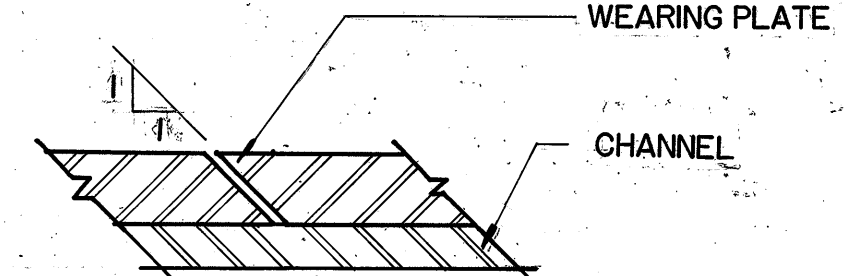
DETAIL H
NO SCALE
VAR



EXPANSION JOINT WEARING PLATE AND SUPPORT CHANNEL PLAN



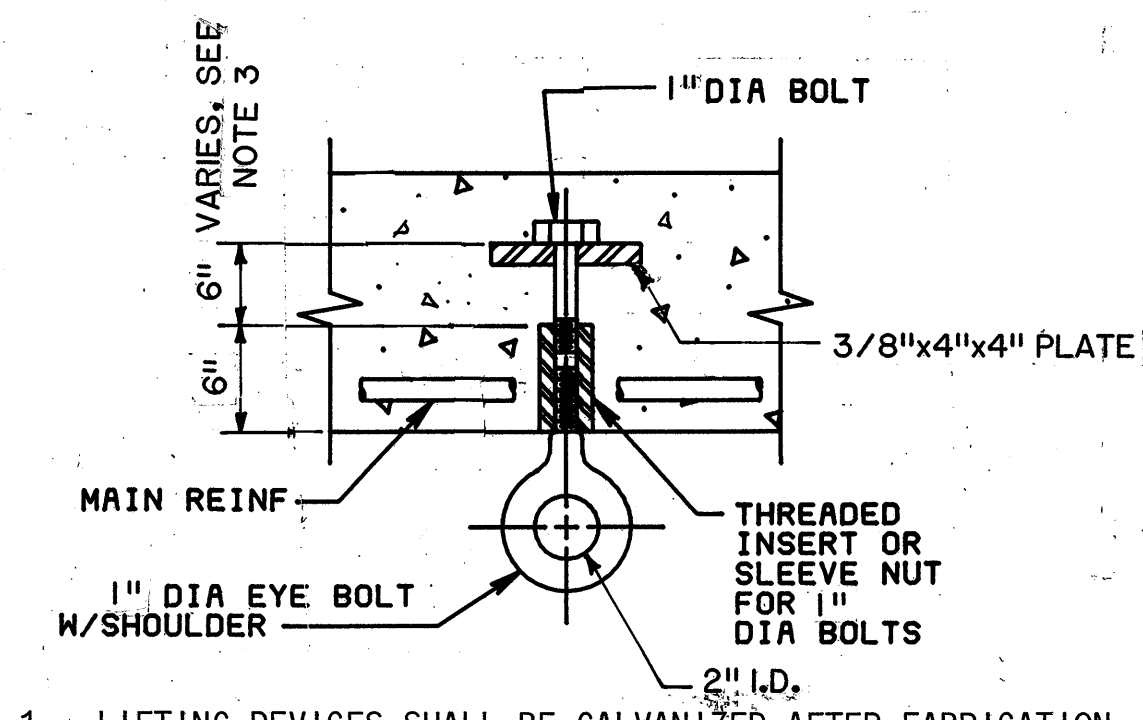
SECTION 1
NO SCALE
S3



SECTION 2
NO SCALE
S3

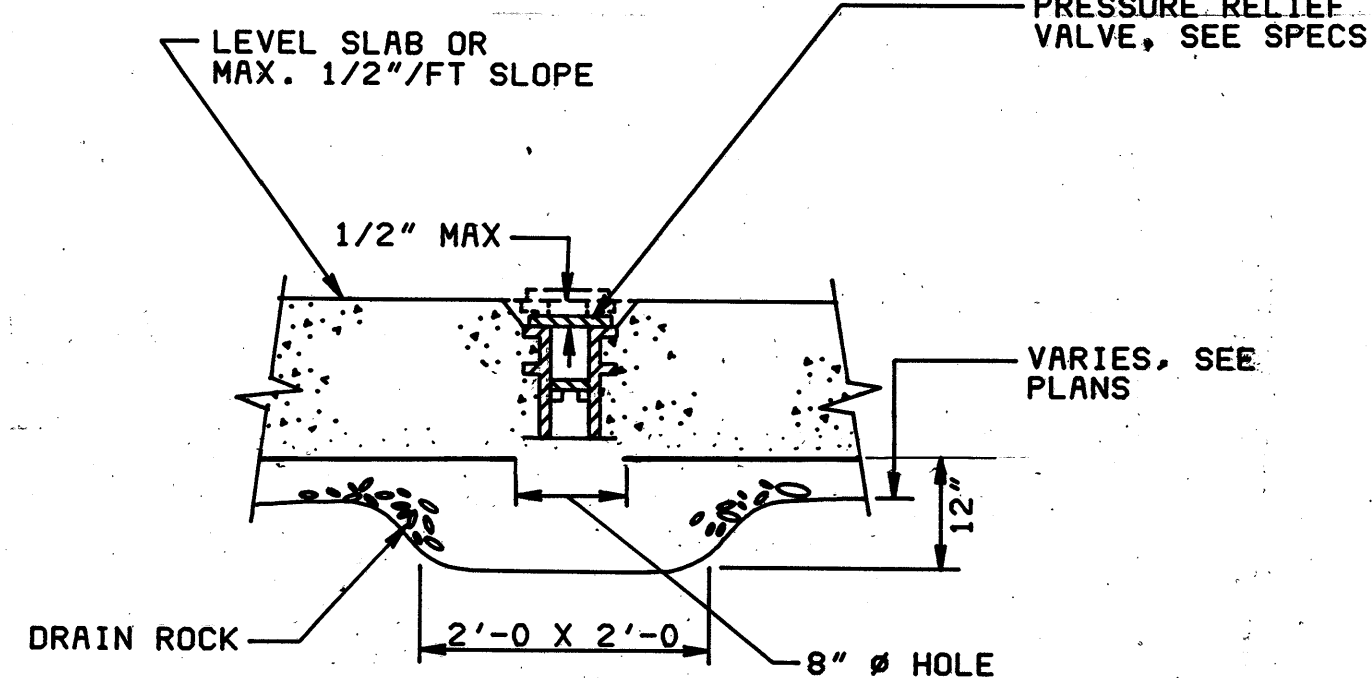
DETAIL E
NO SCALE
VAR

- NOTES:
1. IF PLACING EQUIPMENT BASE ON EXISTING SLAB, ROUGHEN INTERFACE SURFACE AND SET #4 @ 12"OC DOWELS IN 6" DEEP HOLES WITH EPOXY GROUT.
 2. ALL EQUIPMENT, INCLUDING TANKS, SHALL HAVE A CONCRETE EQUIPMENT BASE TO SUIT.
 3. ANCHOR BOLTS SHALL BE SIZED FOR THE EQUIPMENT LOAD PLUS SEISMIC LOADS (ZONE 2).
 4. ANCHOR BOLTS SHALL BE SET IN POCKETS, EITHER PIPE OR BLOCKOUTS. SEE DETAIL D/S3. ANCHOR BOLT SHALL PENETRATE STRUCTURAL SLAB AS REQUIRED TO MEET MINIMUM EMBEDMENT SPECIFIED.
 5. DRILLED HOLES WITH A.B. SET IN NON-SHRINK GROUT MAY BE USED IN LIEU OF HOOKED BOLTS. EXPANSION SHELL TYPE BOLTS SHALL NOT BE USED.
 6. ALL PENETRATIONS FOR CONDUIT AND PIPING SHALL BE WITHIN CONCRETE EQUIPMENT PAD. PAD TO BE CONFIGURED ACCORDINGLY.



1. LIFTING DEVICES SHALL BE GALVANIZED AFTER FABRICATION.
2. MAXIMUM LOAD CAPACITY 10,000 POUNDS
3. REDUCE EMBEDMENT WHERE CONCRETE THICKNESS REQUIRES.

DETAIL F
NO SCALE
VAR



PRESSURE RELIEF VALVE IN CONCRETE SLABS

DETAIL G
NO SCALE
VAR

BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE, OREGON

FILE 2048
DATE JUNE 85
DRAWN RFS

DESIGNED GRM
CHECKED WTJ

SUBMITTED J. Meyer
APPROVED J. Meyer

DATE 6/3/85
DATE 6/3/85

USA
Unified Sewerage Agency
of Washington County

ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

CONCRETE DETAILS

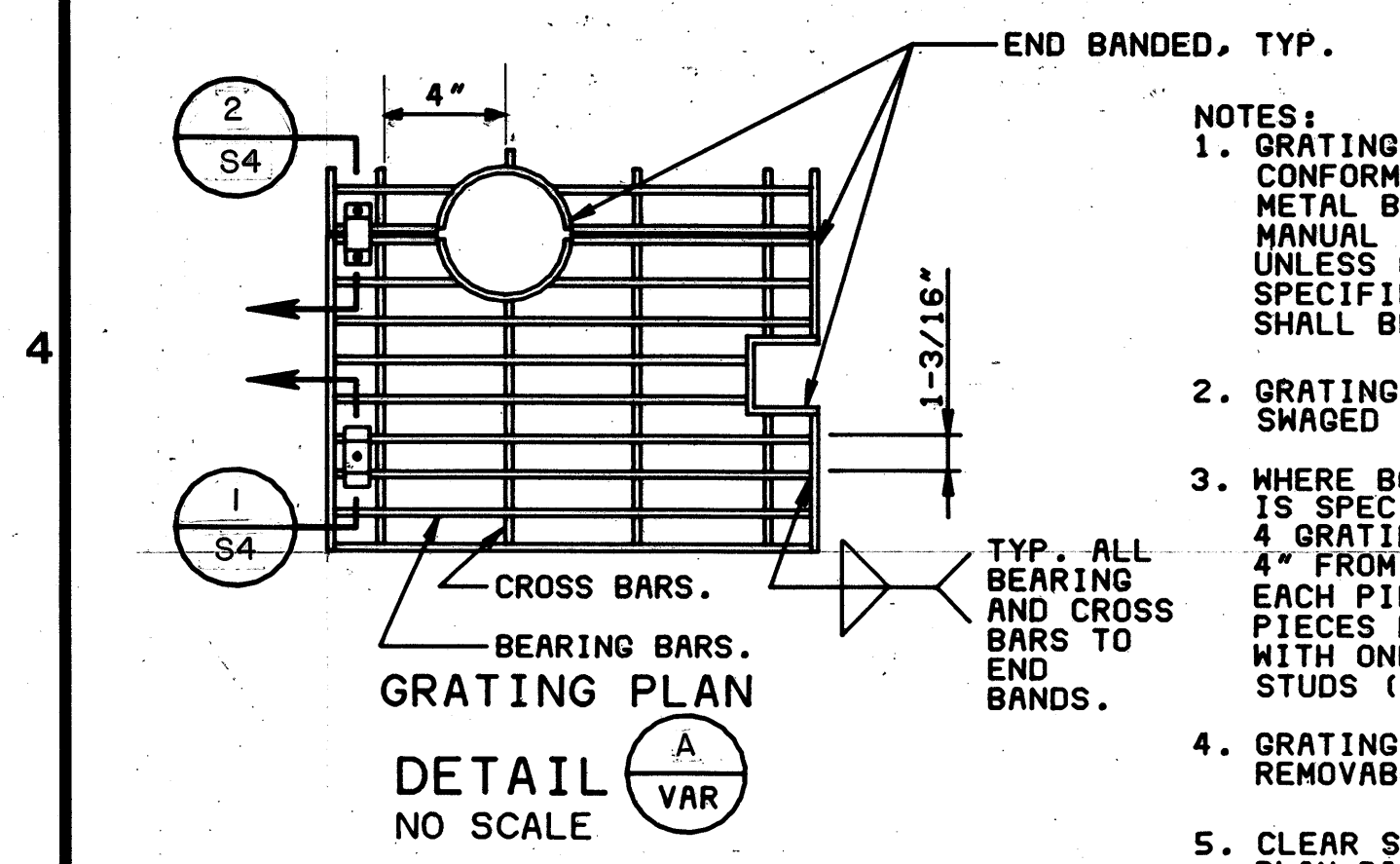
THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S3
SHEET 31 OF 137

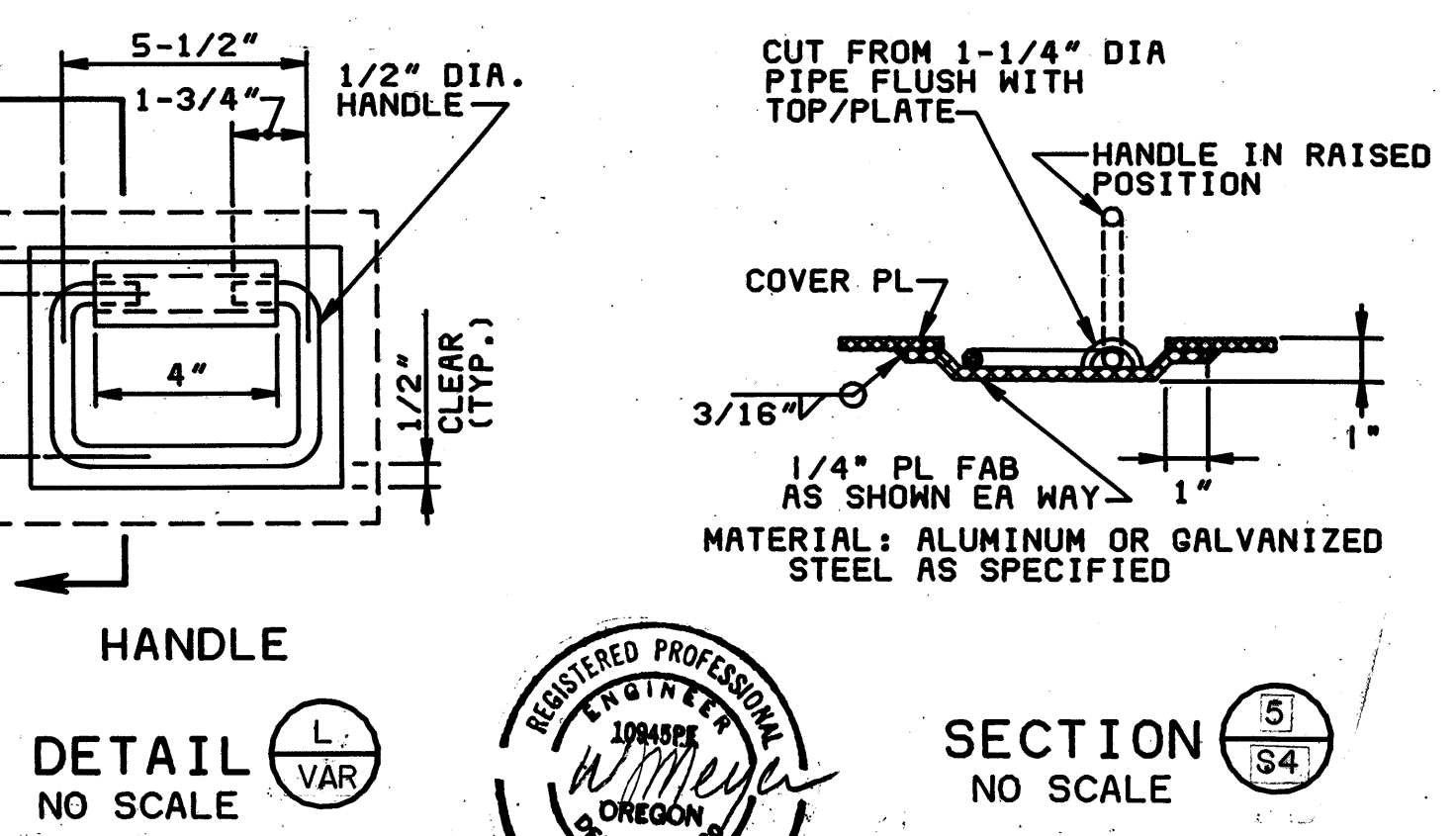
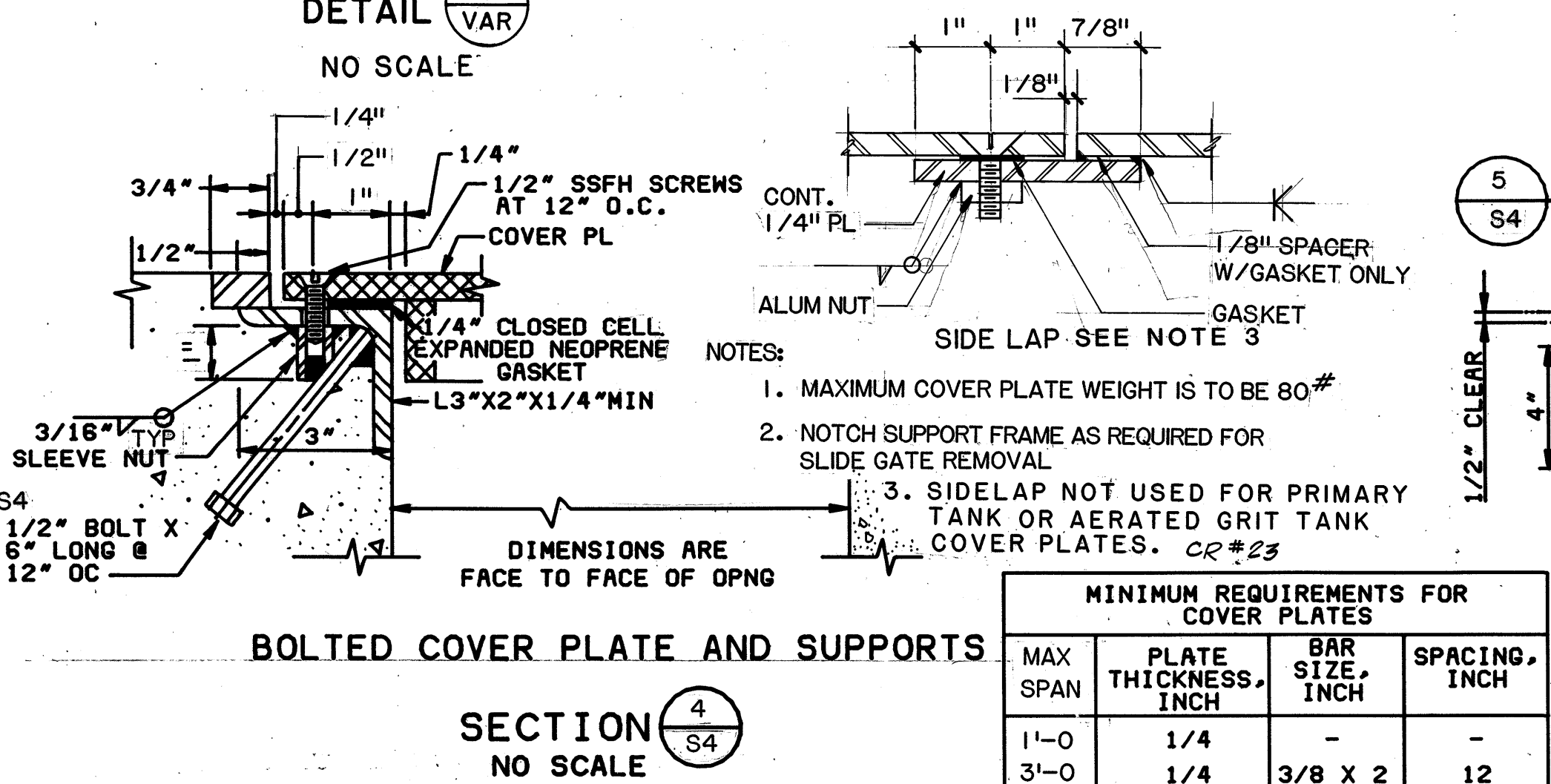
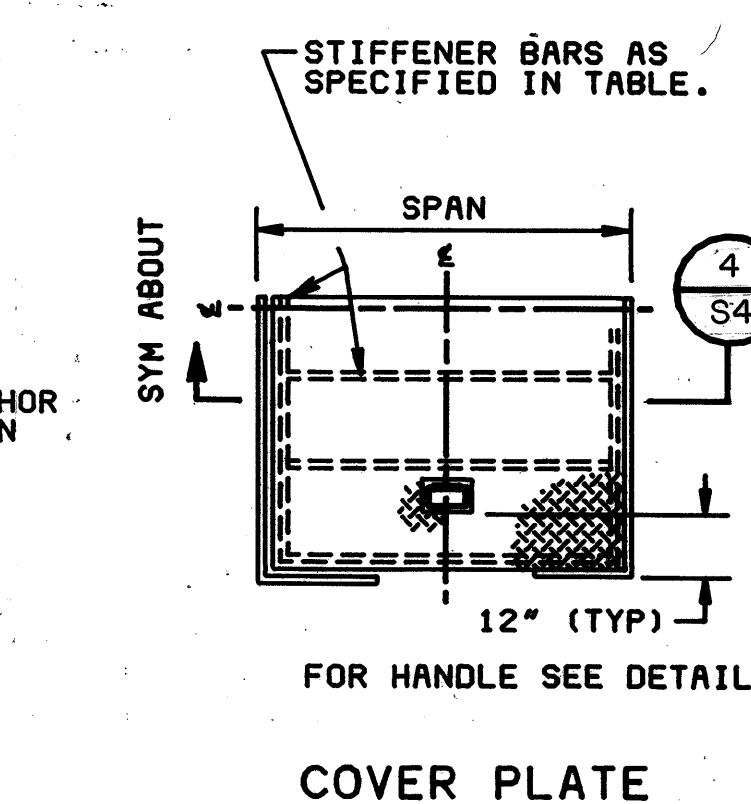
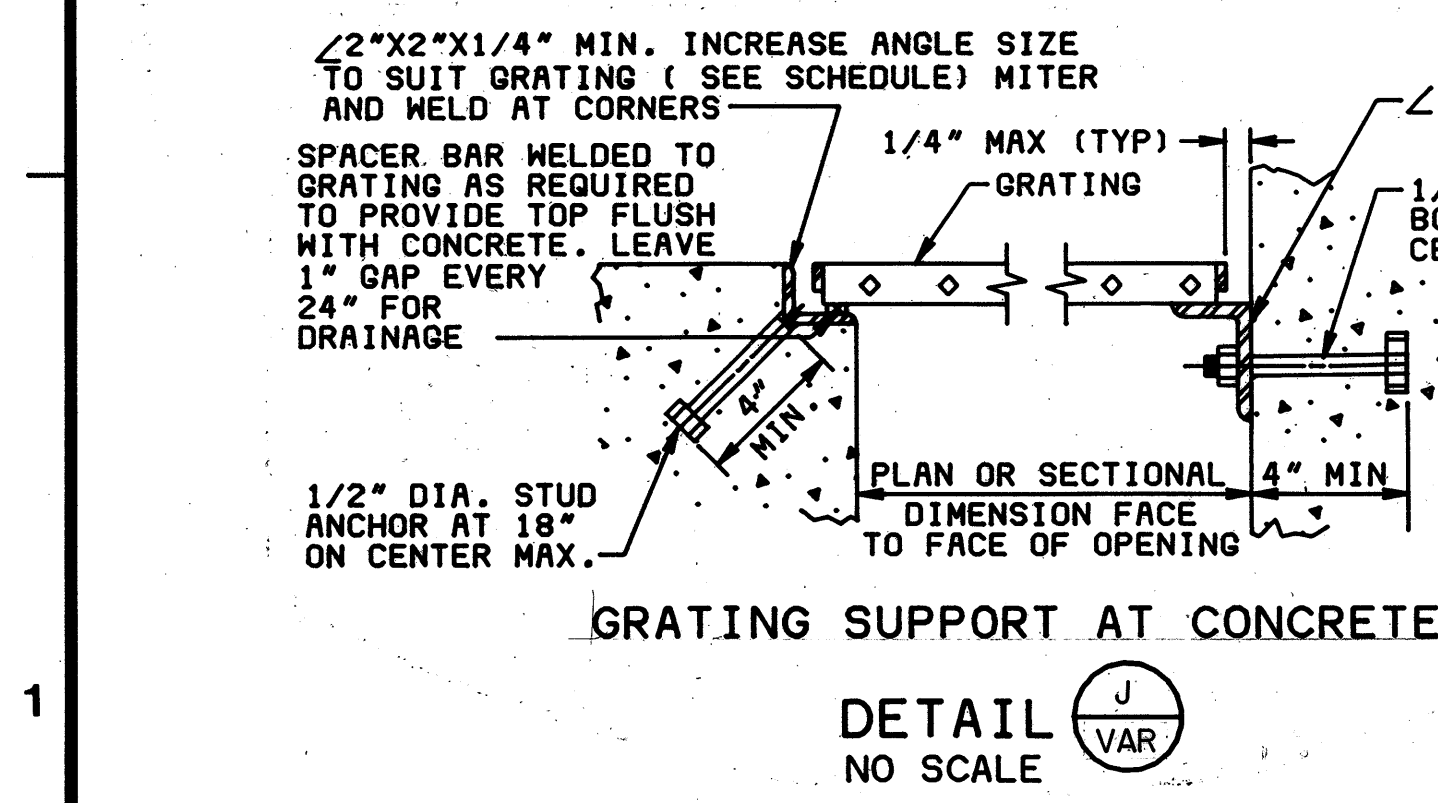
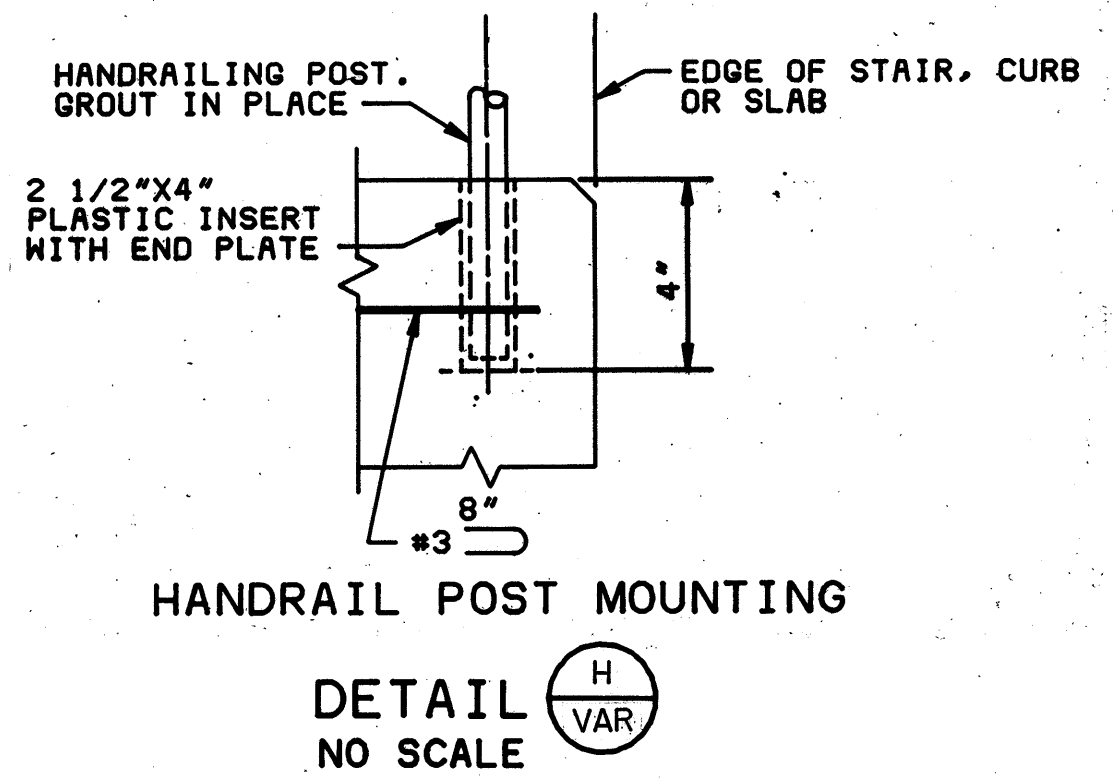
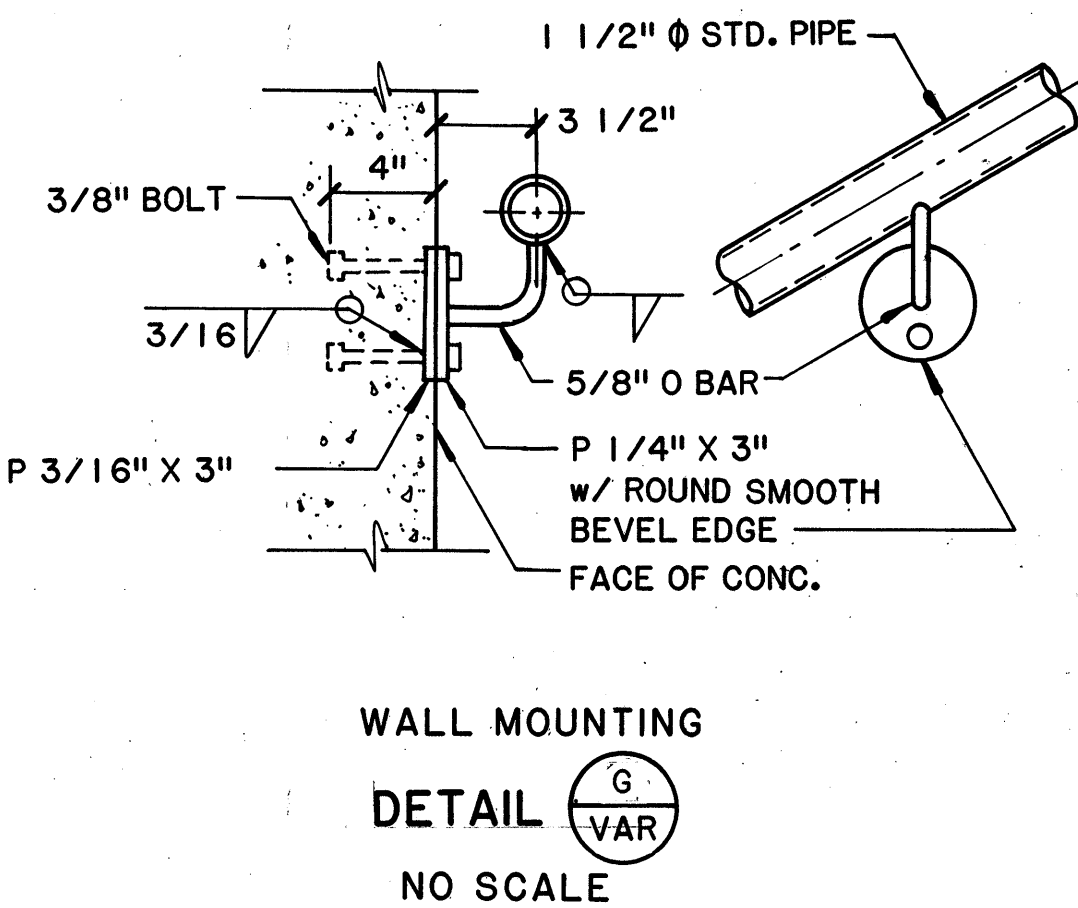
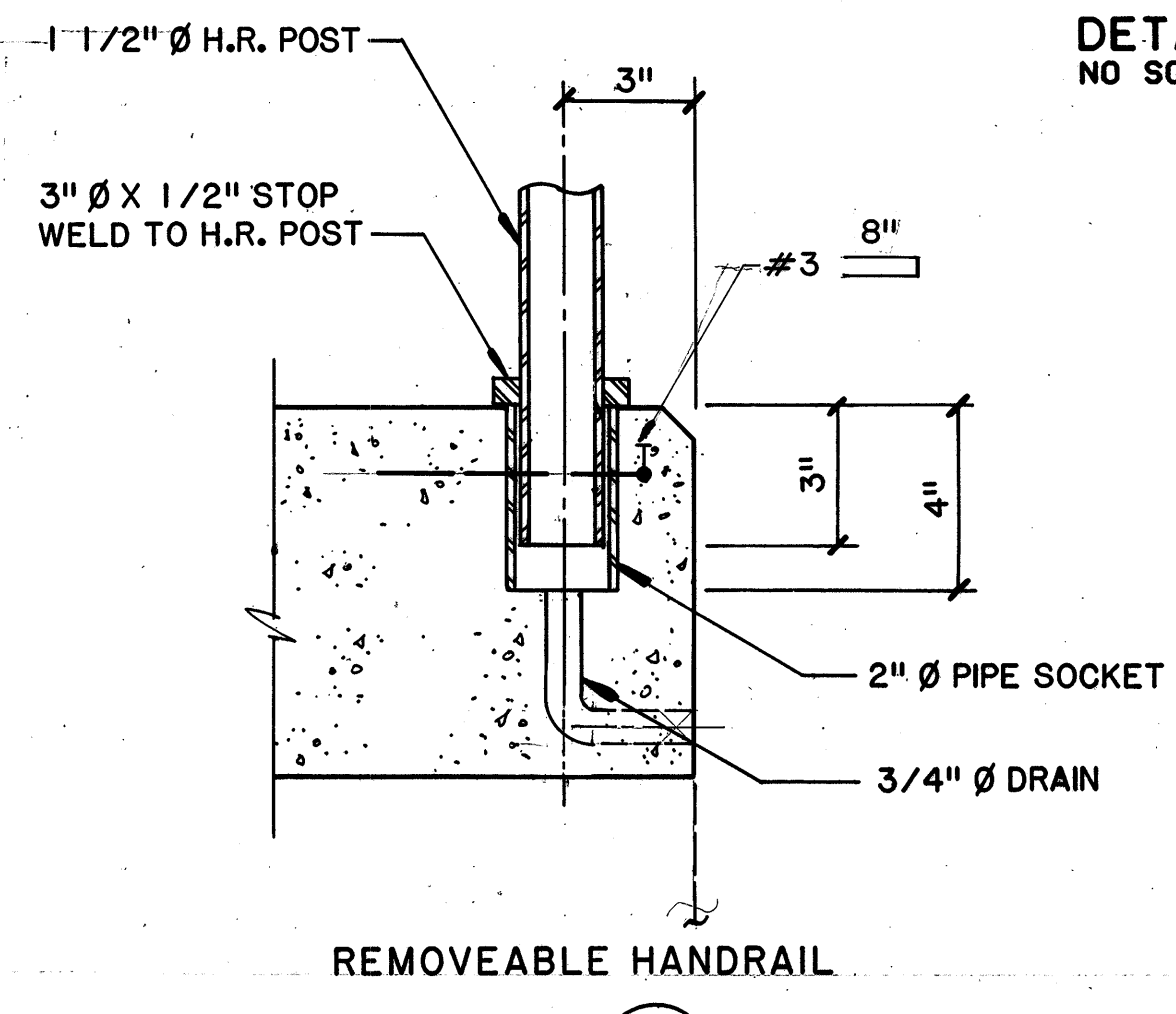
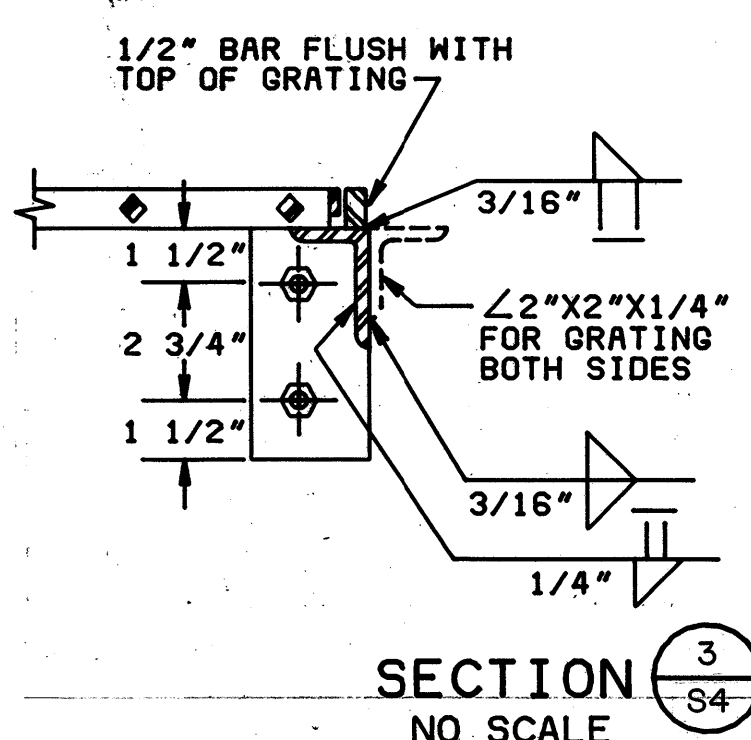
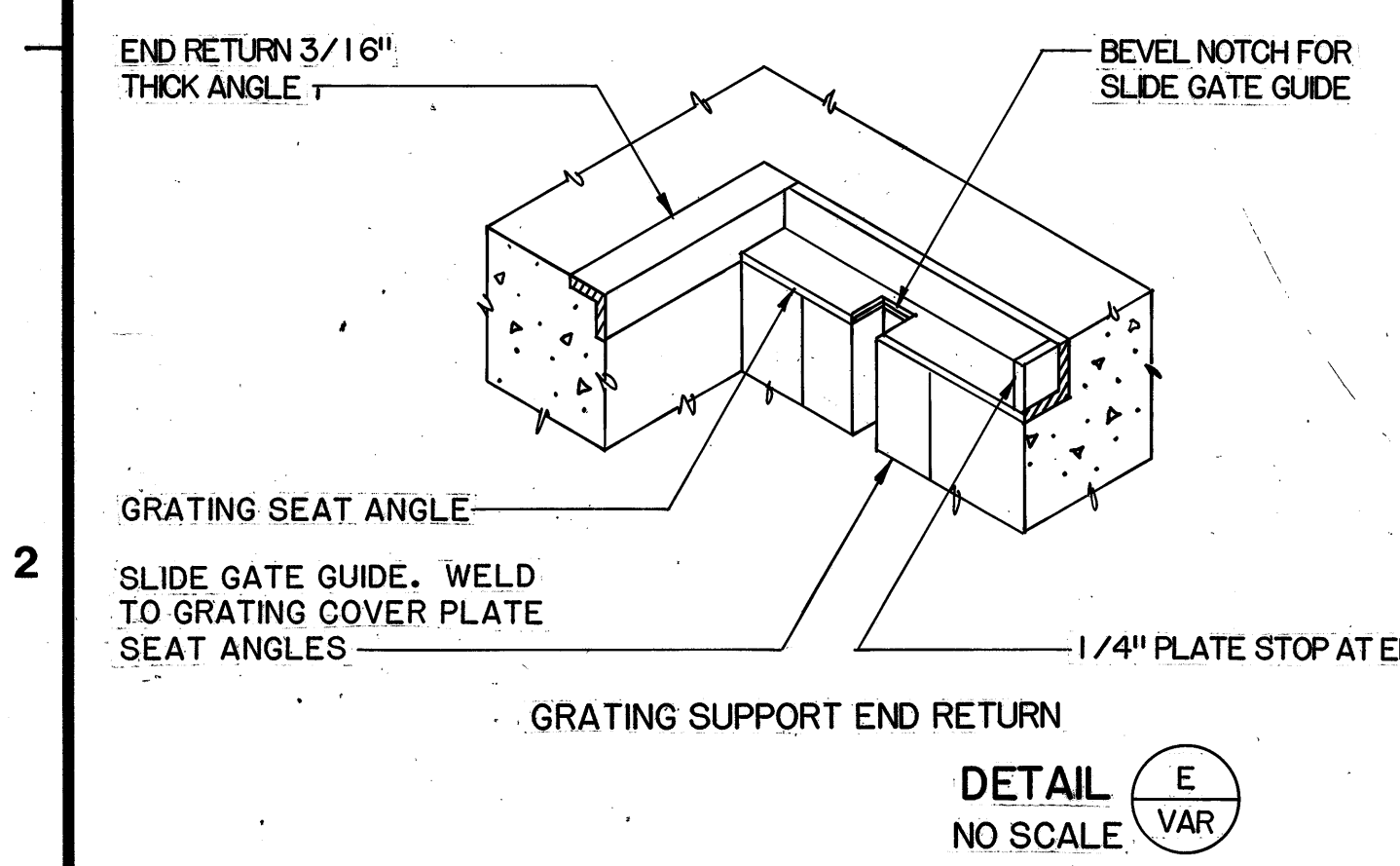
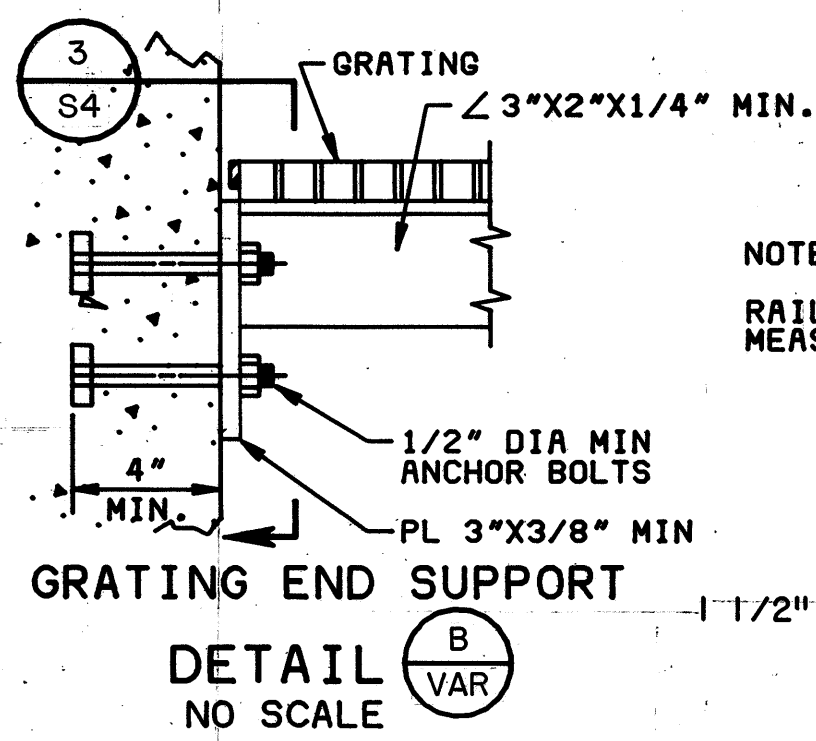
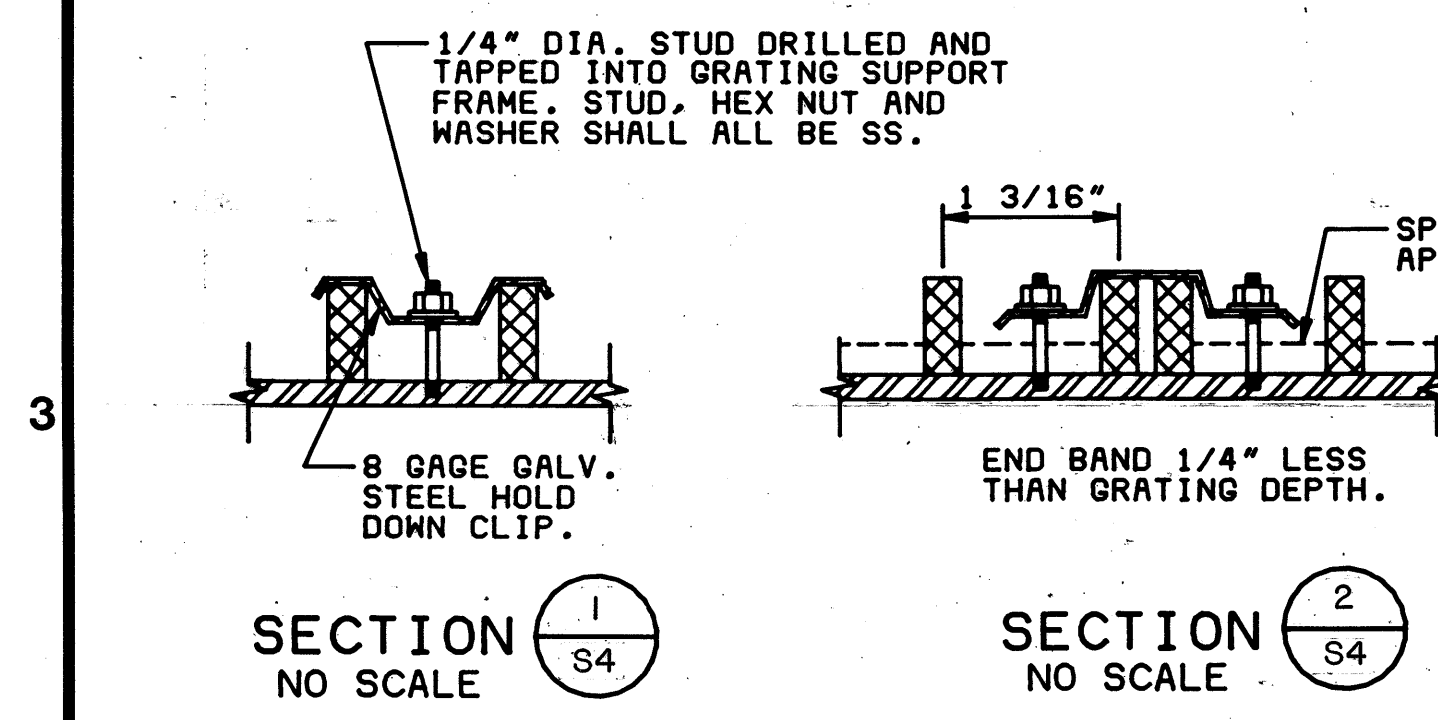
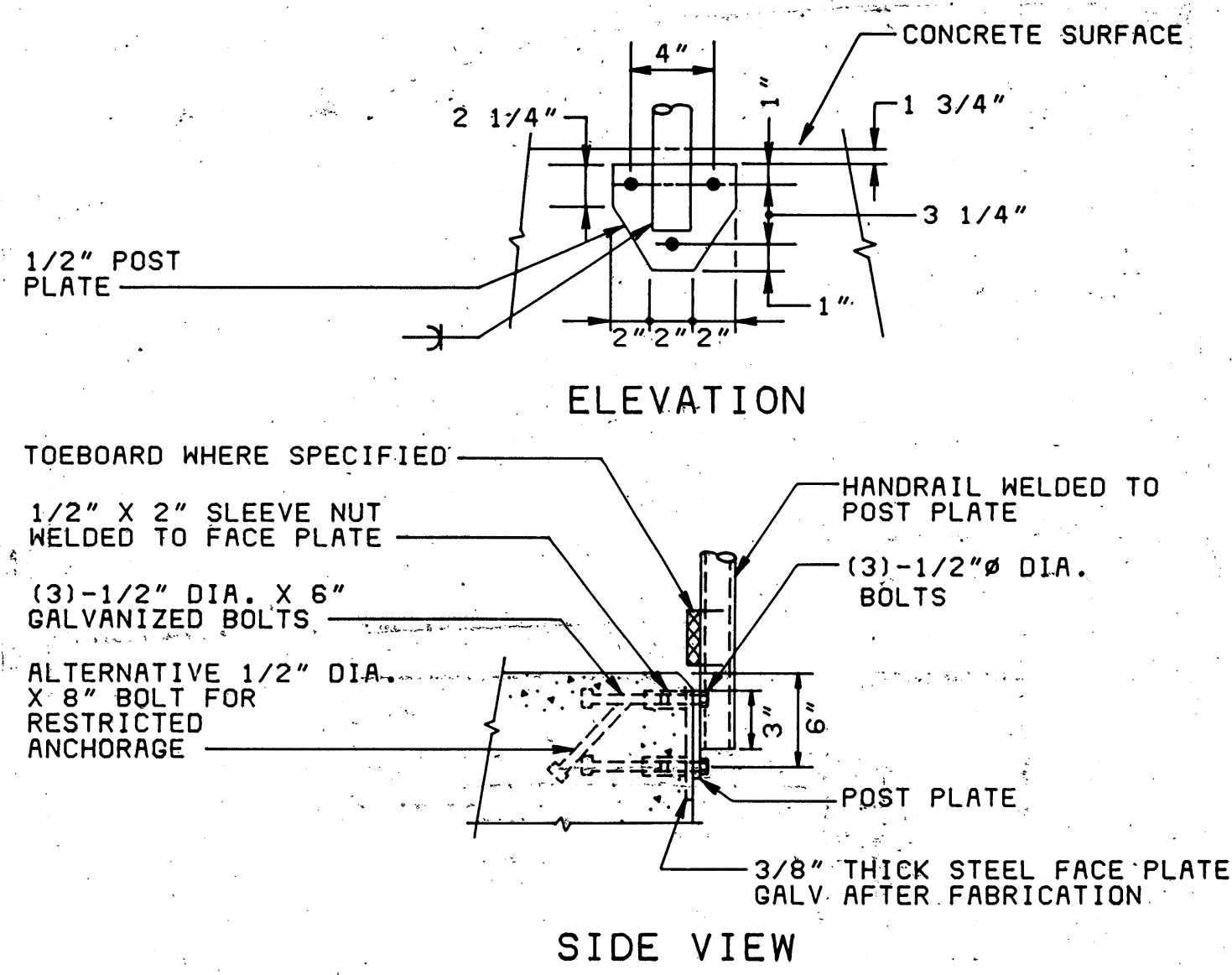
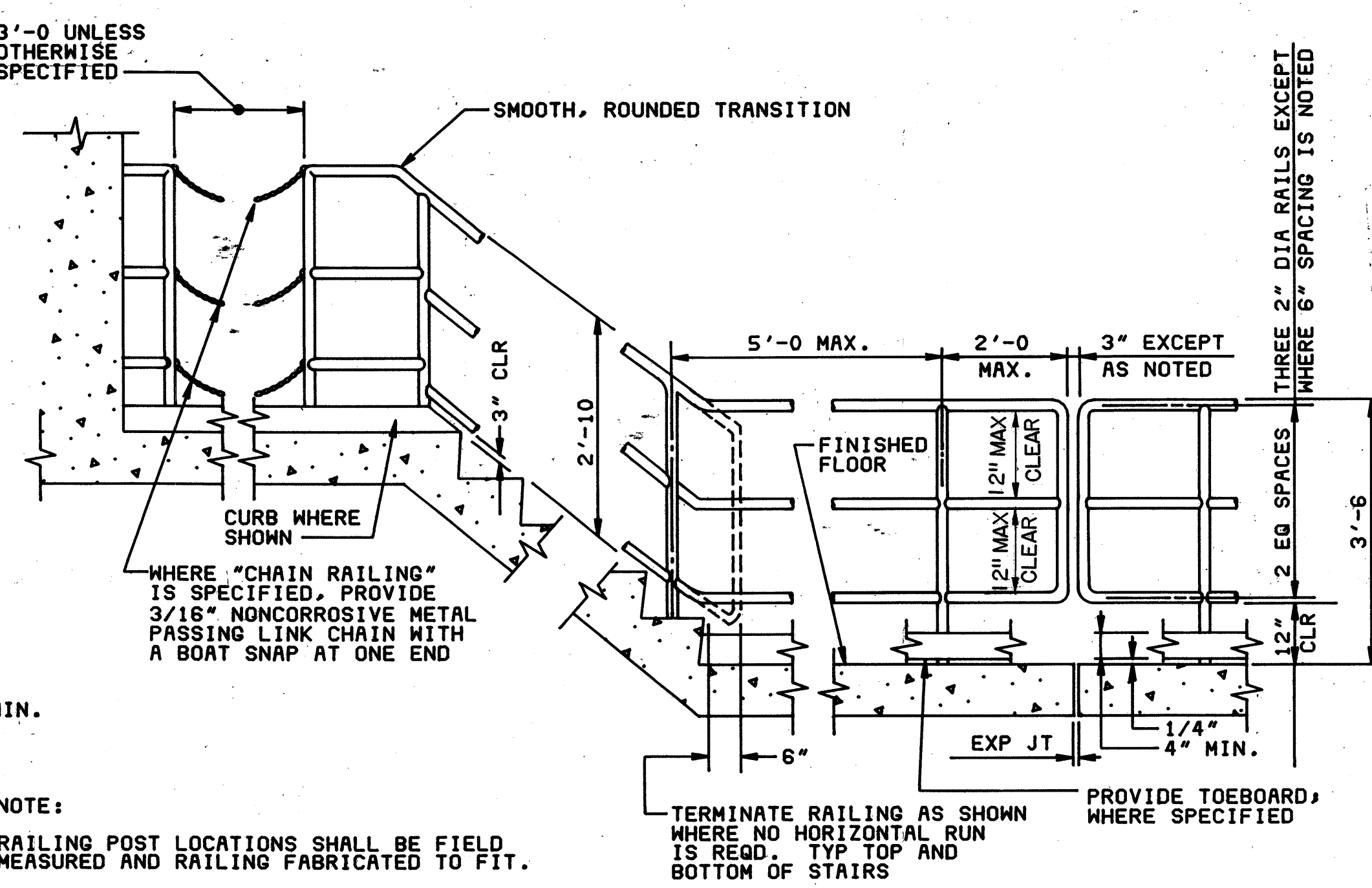
REGISTERED PROFESSIONAL
ENGINEER
J. Meyer
OREGON
EX. 16, 1988
WALTER J. MEYER

CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88

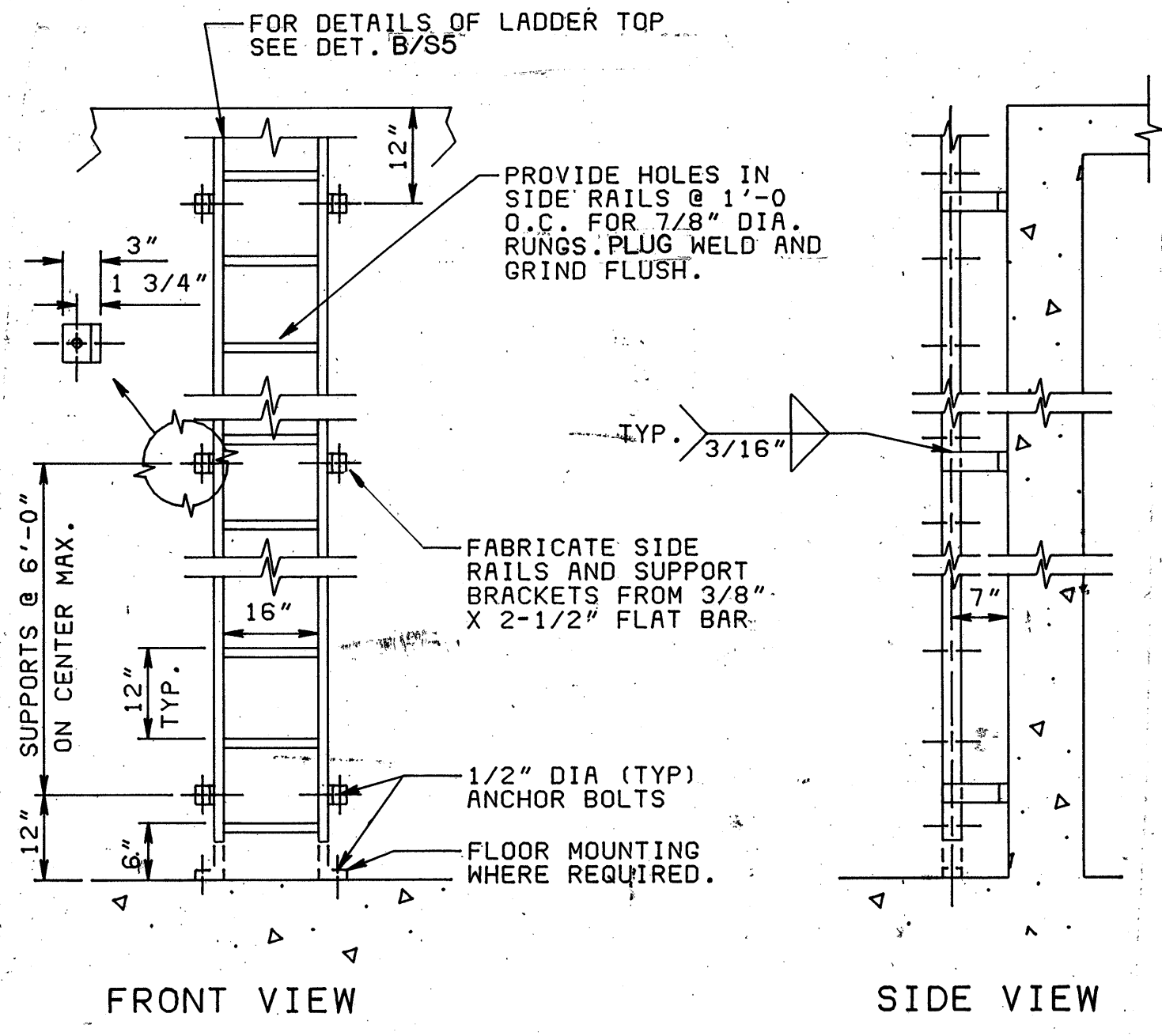


GRATING SCHEDULE	
BEARING BAR SIZE	CLEAR SPAN
1 X 1/8	UP TO 3'-0
1 X 3/16	3'-6
1 1/4 X 3/16	4'-0
1 1/2 X 3/16	5'-0
1 3/4 X 3/16	5'-6
2 X 3/16	6'-0
2 1/4 X 3/16	6'-6
2 1/2 X 3/16	7'-0

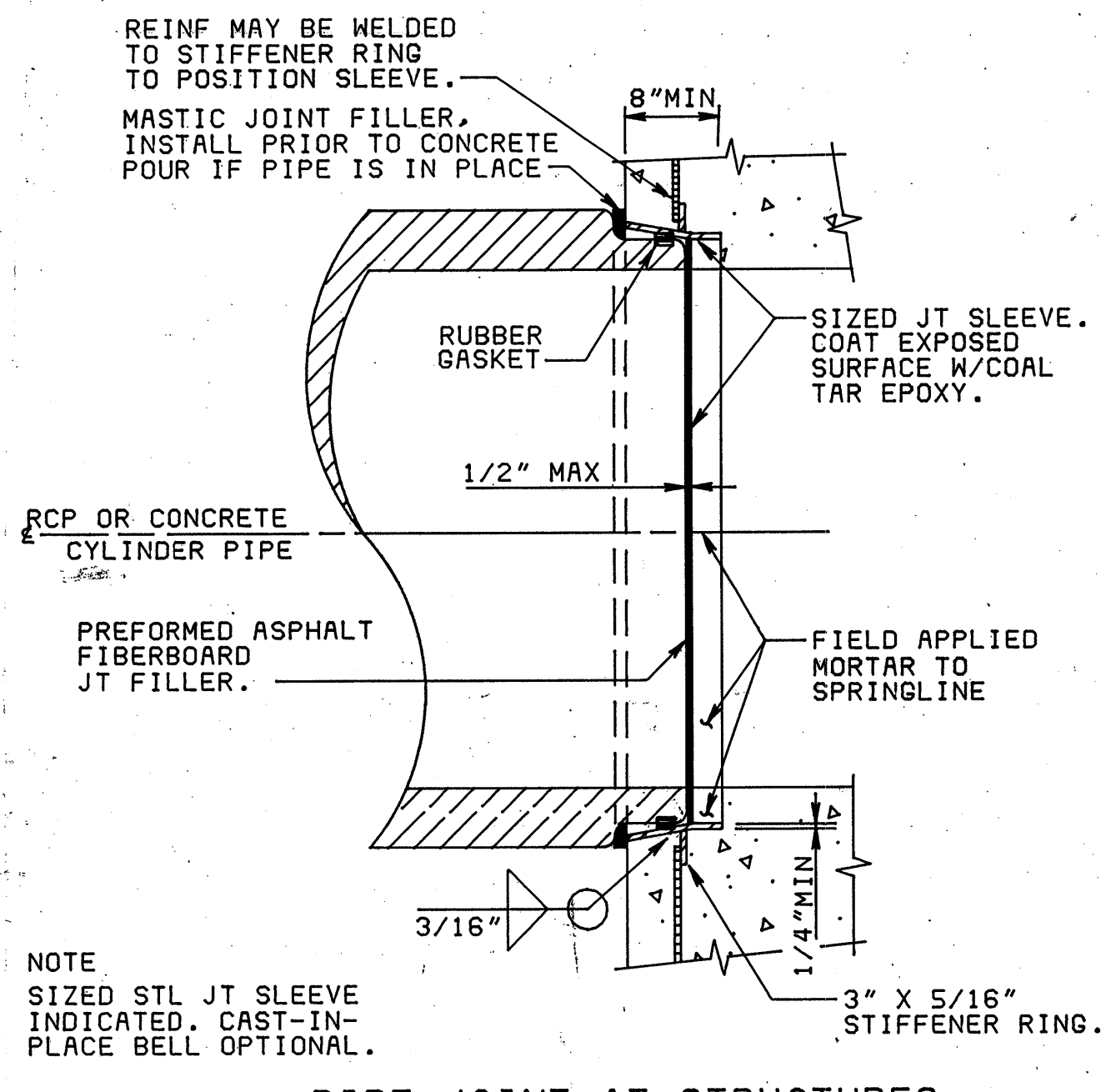


CONTROL NO.

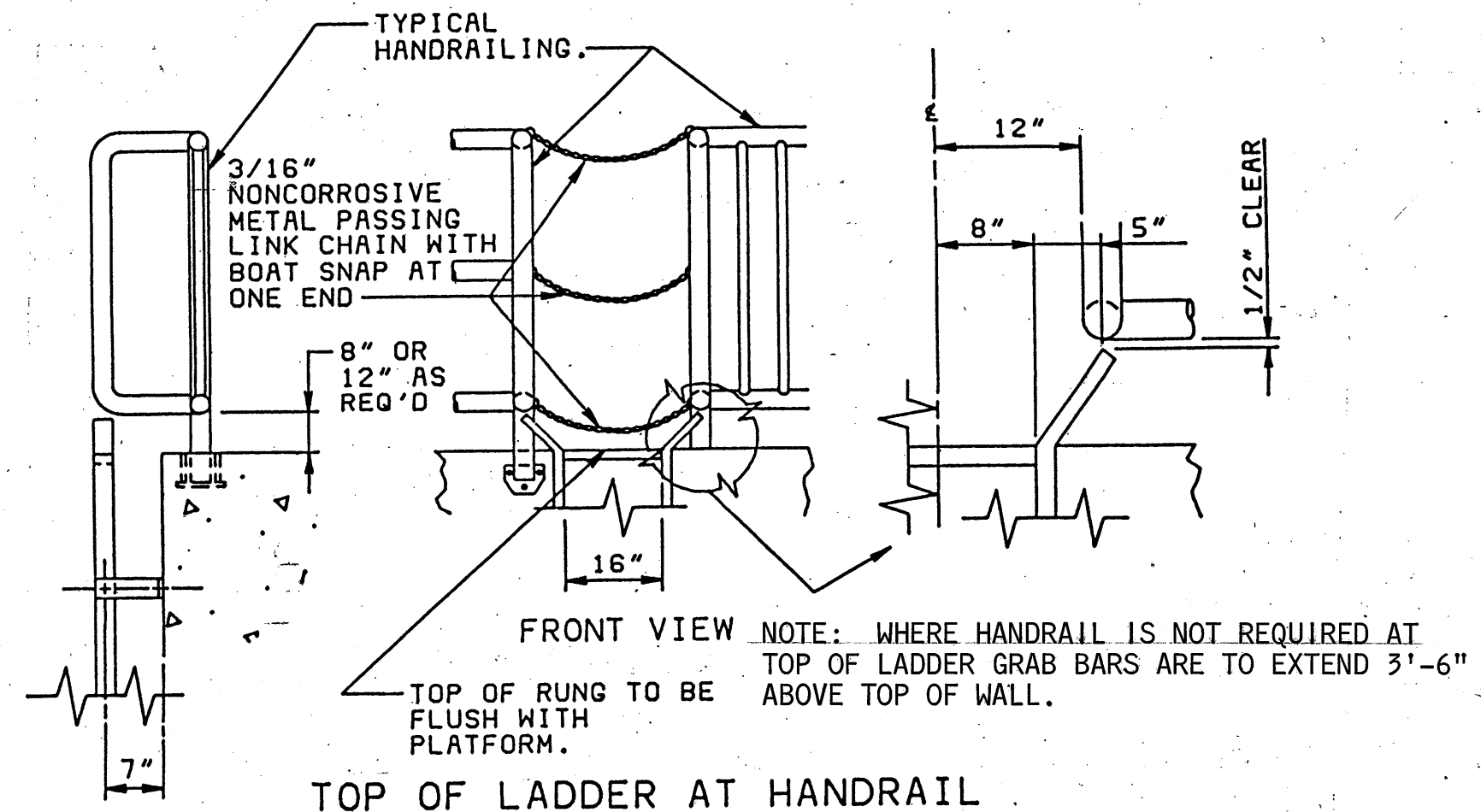
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	AS BUILT		WRJ	4/88



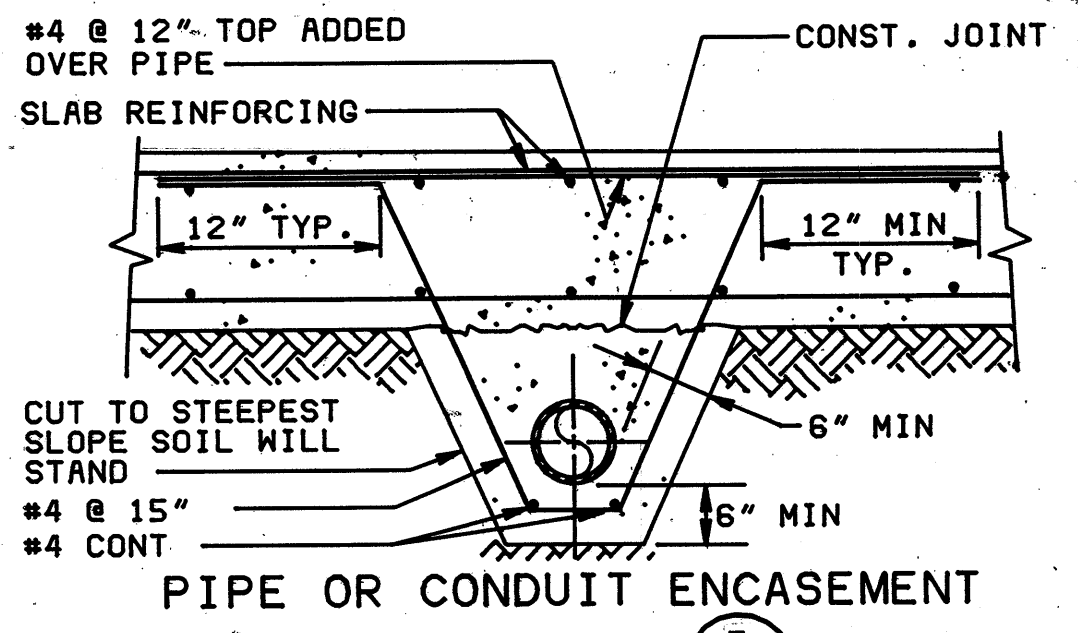
STEEL LADDER
DETAIL A
NO SCALE



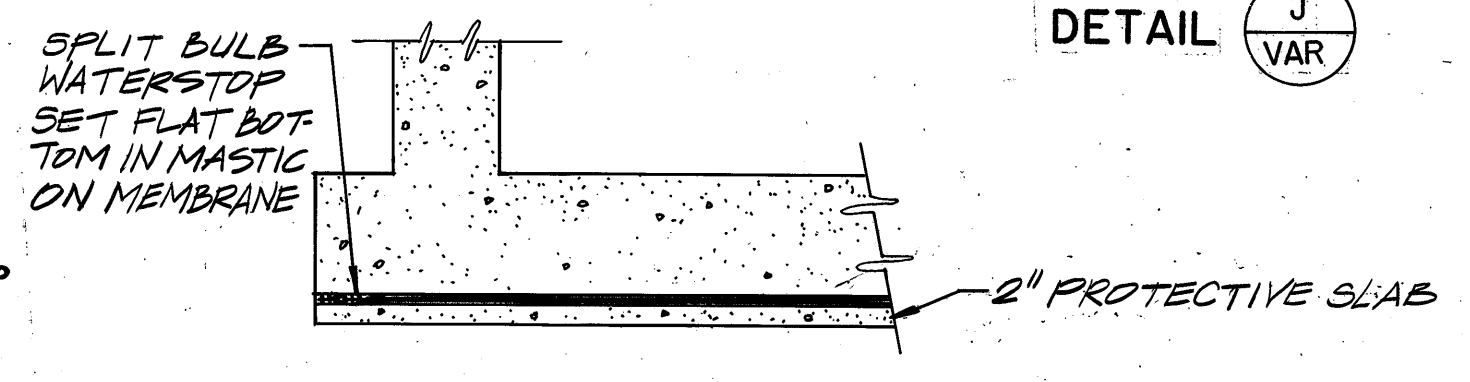
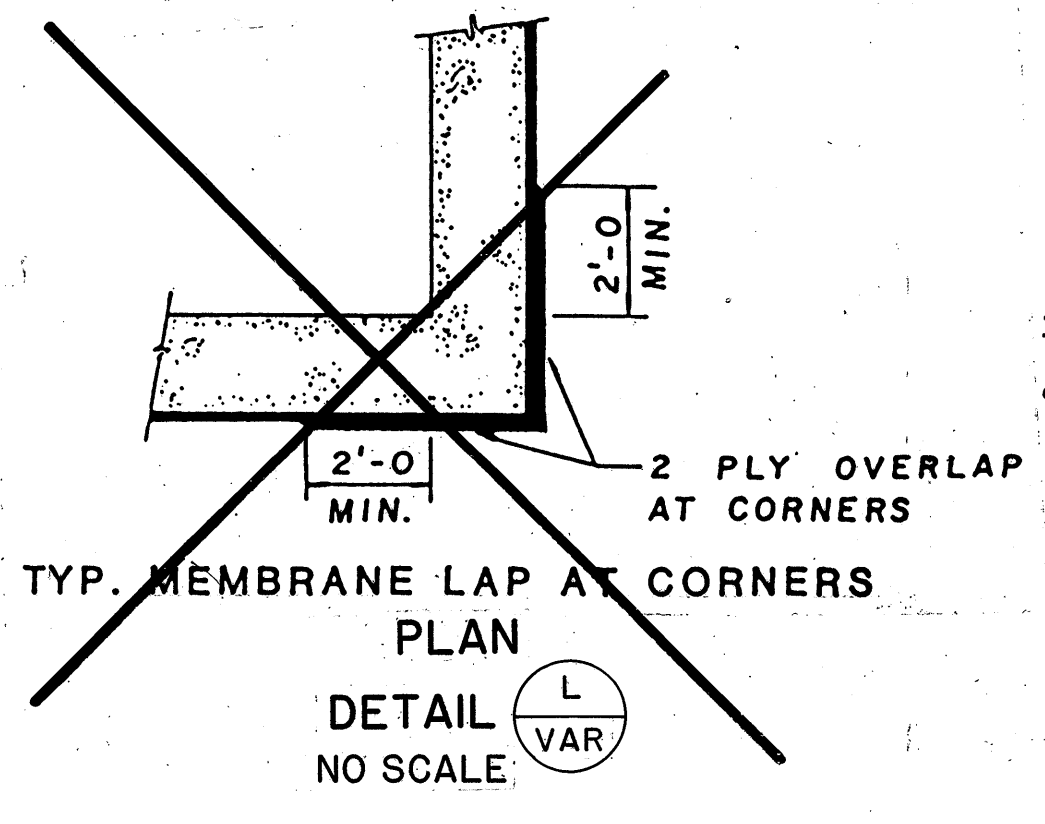
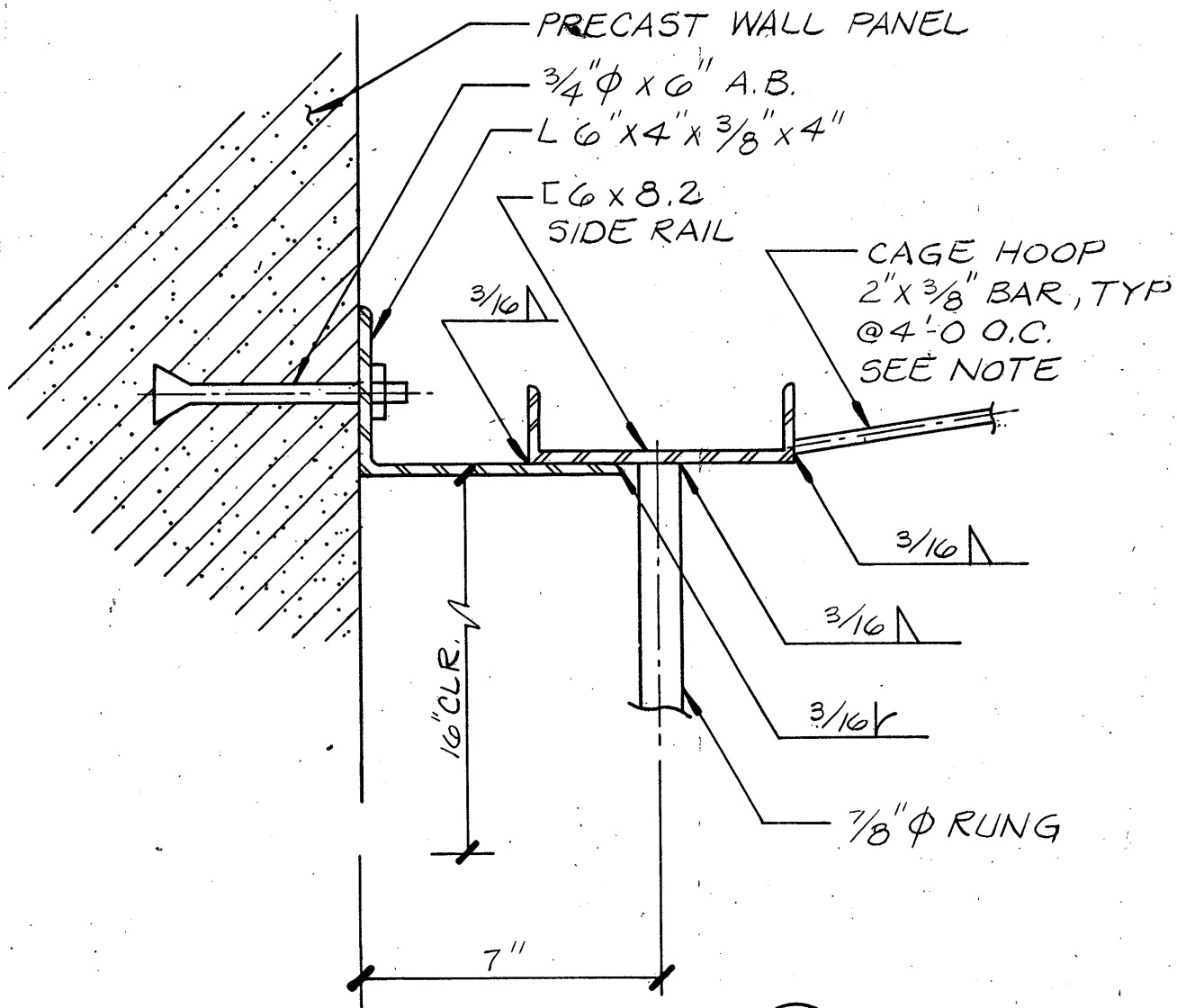
PIPE JOINT AT STRUCTURES
DETAIL D
NO SCALE



DETAIL C
NO SCALE

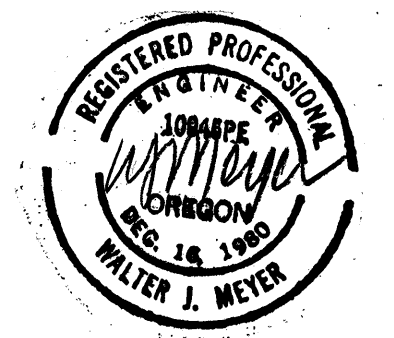
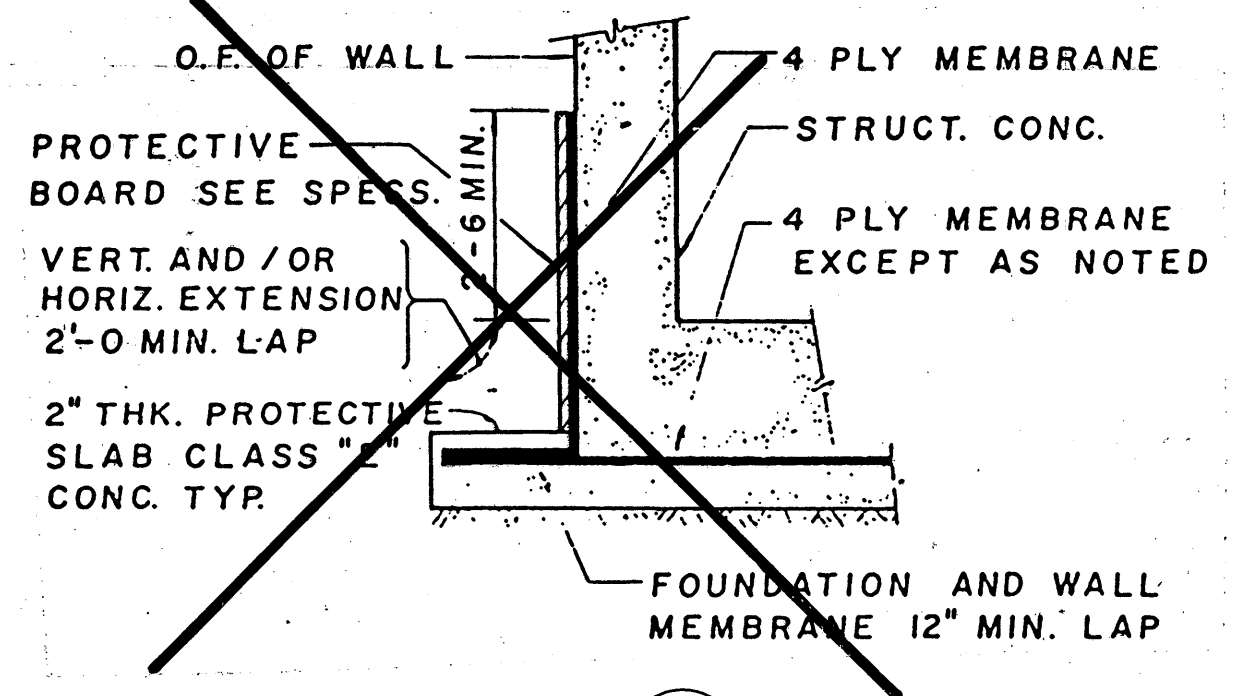
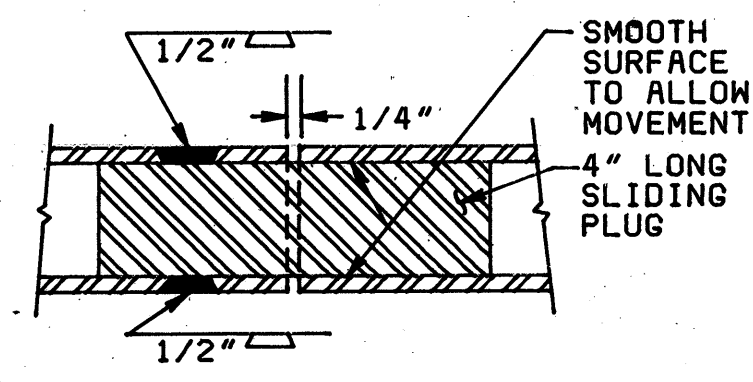
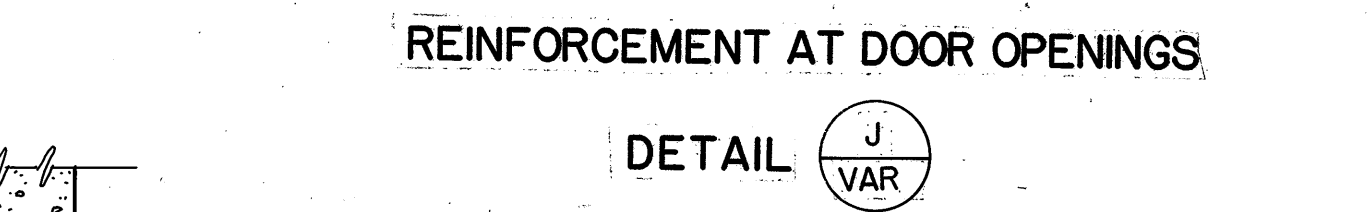


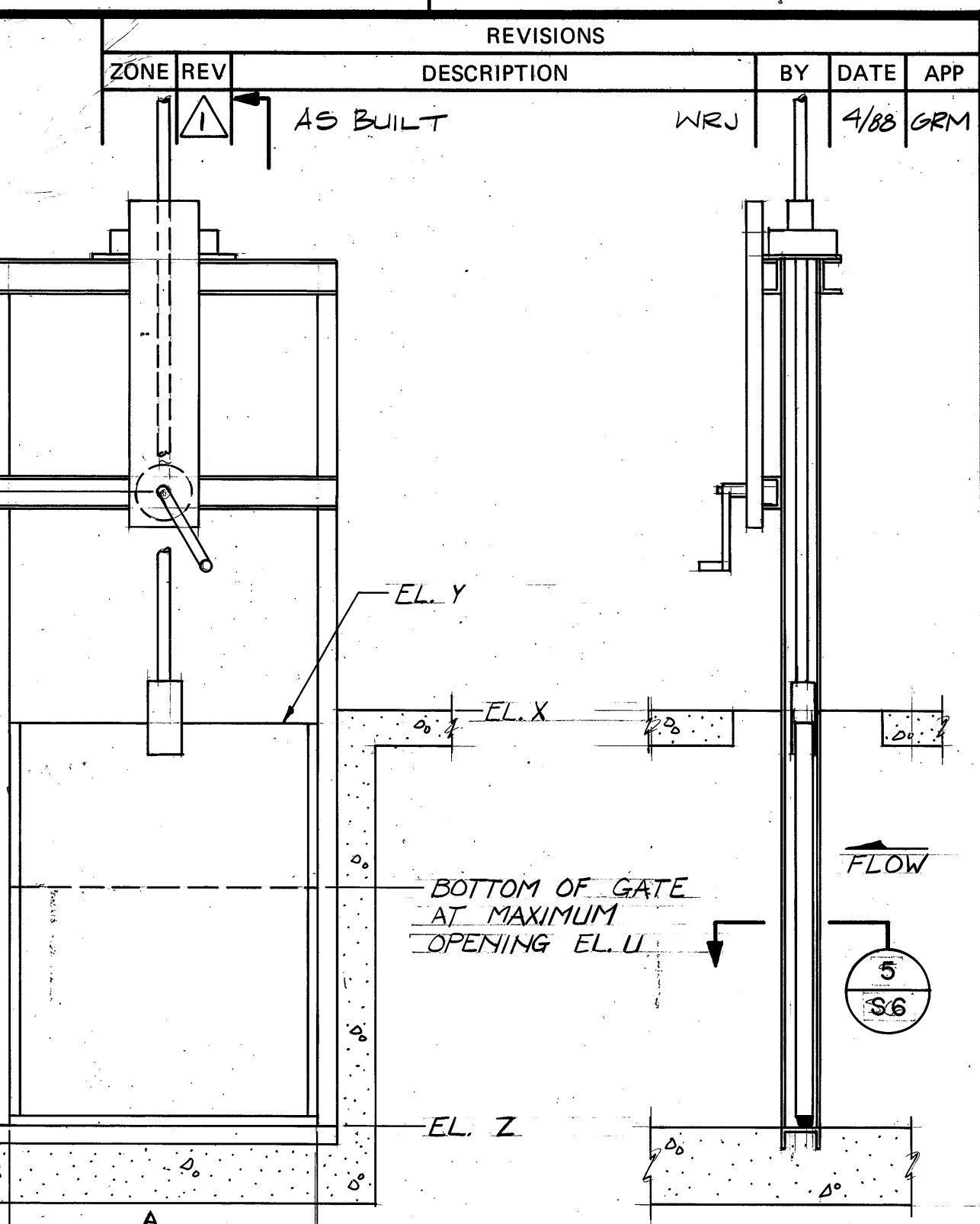
DETAIL E
NO SCALE




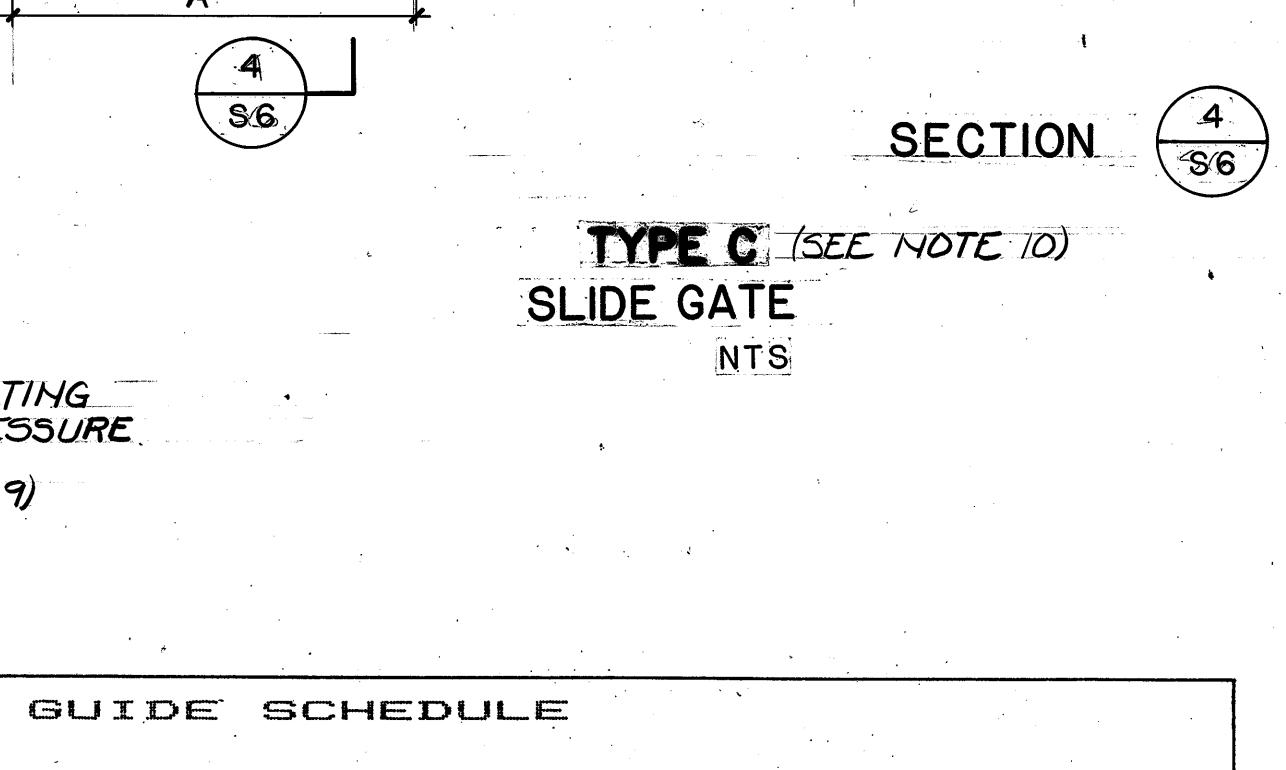
NOTE: THIS DETAIL IS USED IN THE GRIT AND PRIMARY GALLERIES WHERE IT WAS NOT POSSIBLE TO WRAP MEMBRANE UP WALL.

DETAIL K1 VAR





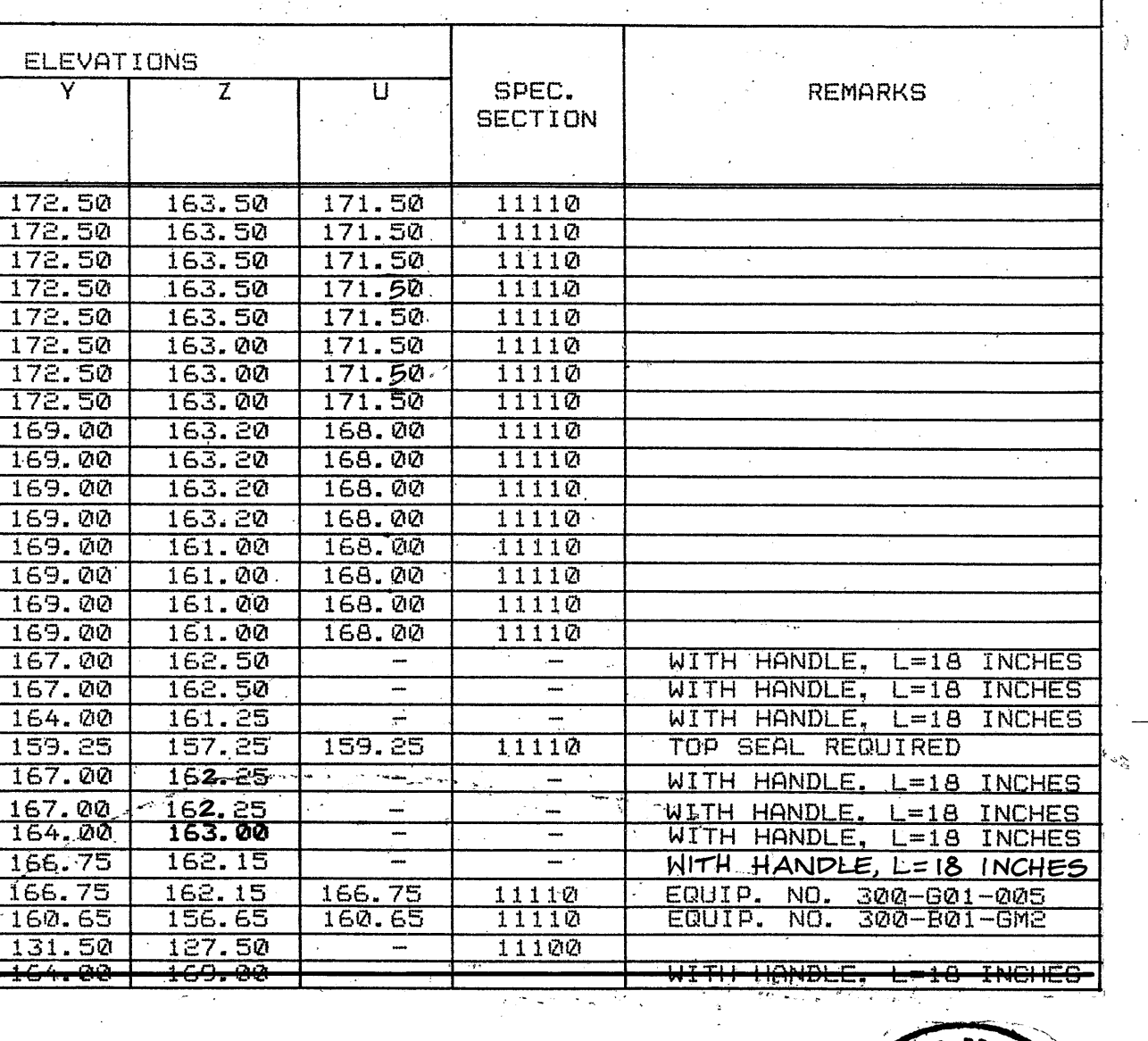
SECTION 



TYPE F (SEE NOTE 9)
SECTION 5
S6 NTS

10. SEE SPECIFICATION SECTION 11110 FOR REQUIREMENTS FOR DIFFERENT TYPE C SLIDE GATES AND OPERATORS. GATE SHOWN IS TYPE A AS SPECIFIED IN 11110-1.01 B.

* CHANGE REQUEST 20 ADDED CENTER SUPPORT



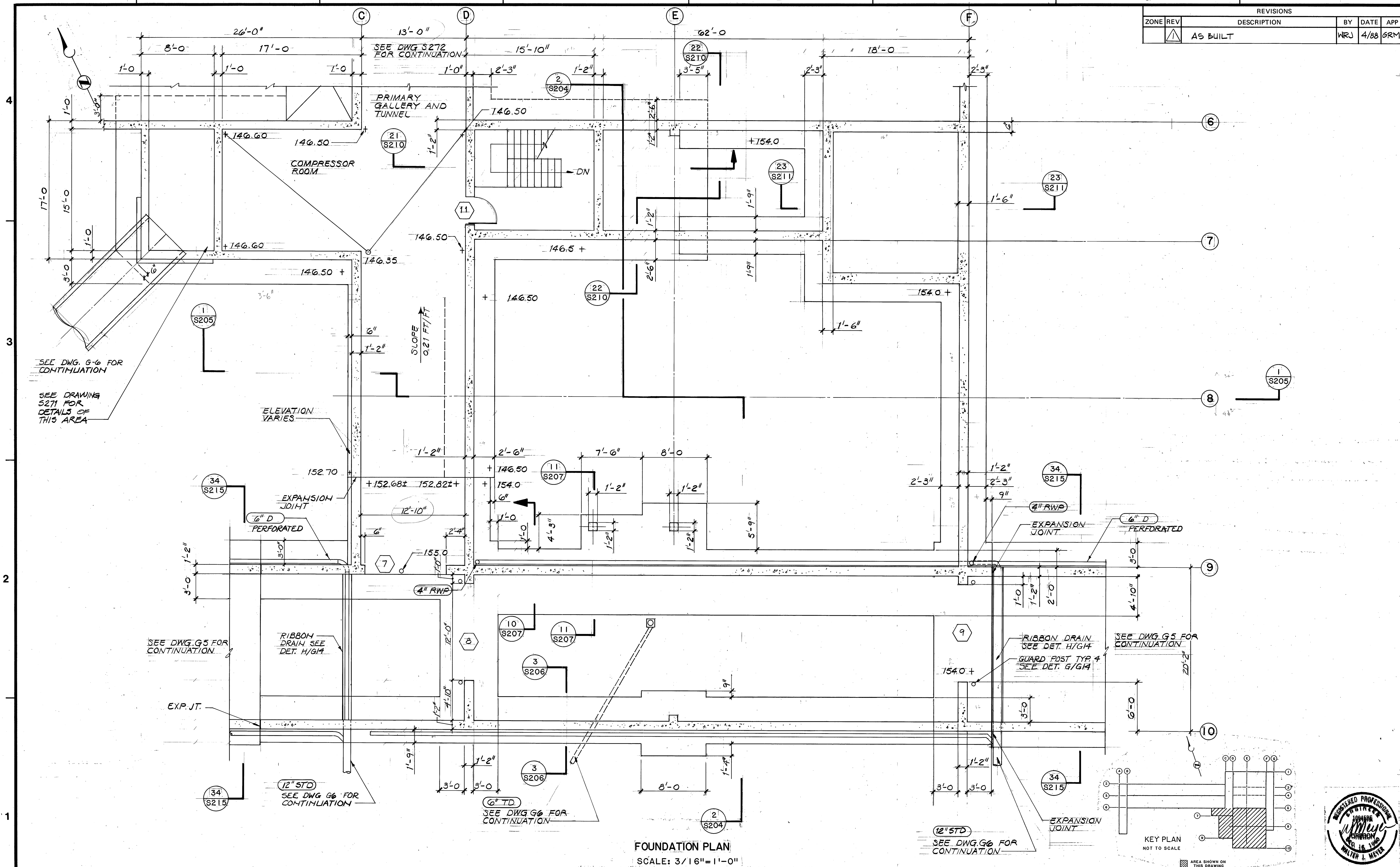
DETAIL

C
S6
NTS

DRAWING NUMBER
S6
34 OF 137

CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88



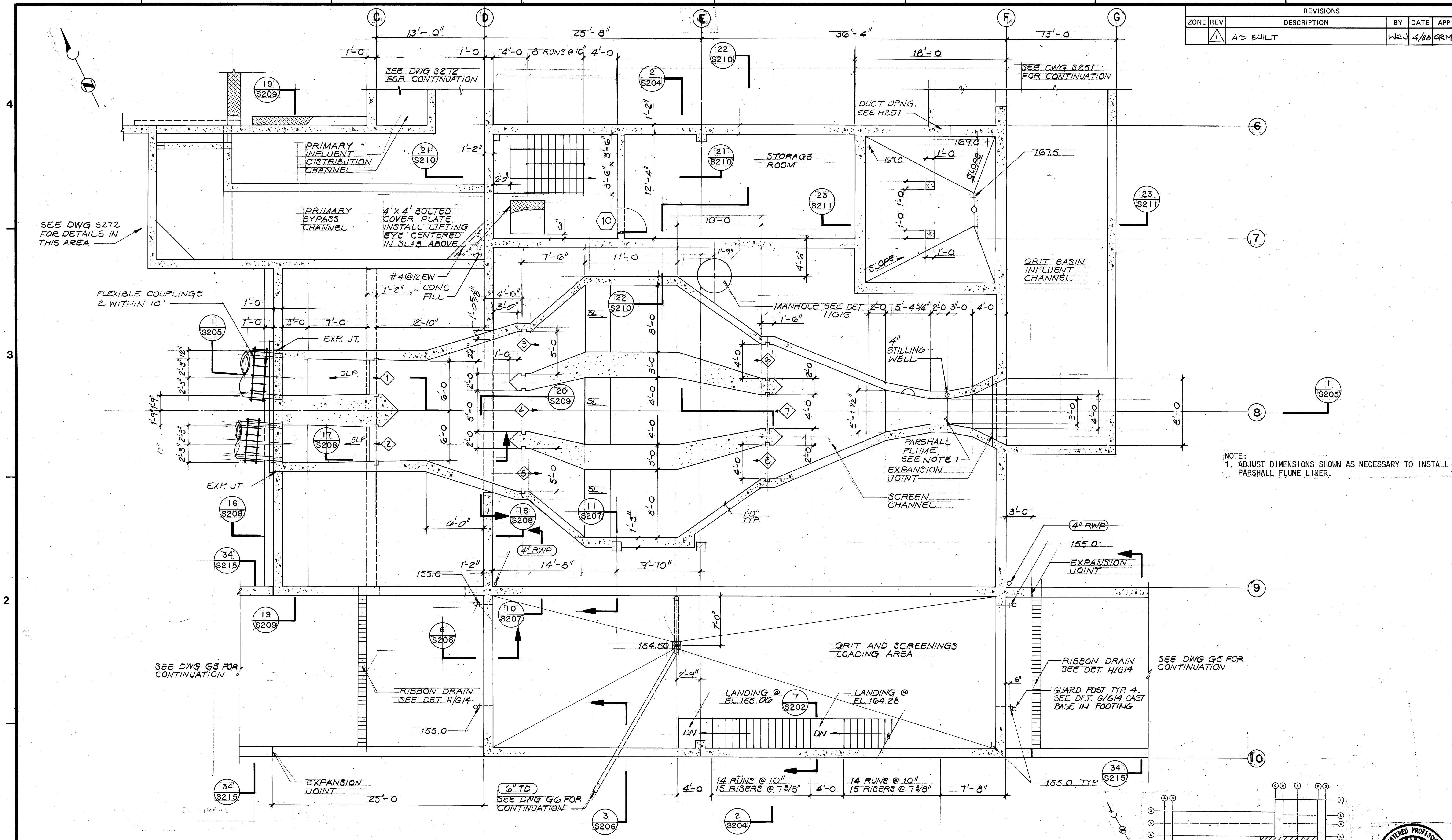
FOUNDATION PLAN
SCALE: 3/16" = 1'-0"

BC BROWN AND CALDWELL CONSULTING ENGINEERS OREGON EUGENE	FILE <u>2048</u>	DESIGNED <u>GRM</u>	SUBMITTED <u>[Signature]</u>	DATE <u>4/16/85</u>	USA Unified Sewerage Agency of Washington County	ROCK CREEK ADVANCED WASTEWATER TREATMENT PLANT PRIMARY EXPANSION	HEADWORKS BUILDING FOUNDATION PLAN	THIS LINE IS 1 INCH WHEN DRAWING IS FULL SIZE. IF NOT 1 INCH, SCALE ACCORDINGLY.	DRAWING NUMBER S201	SHEET <u>35</u> OF <u>137</u>	D
	DATE <u>JUNE 85</u>	CHECKED <u>WTJ</u>	APPROVED <u>[Signature]</u>	DATE <u>4/30/85</u>							
	DRAWN <u>TYS</u>	CHECKED	APPROVED	DATE							



CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88 GRM



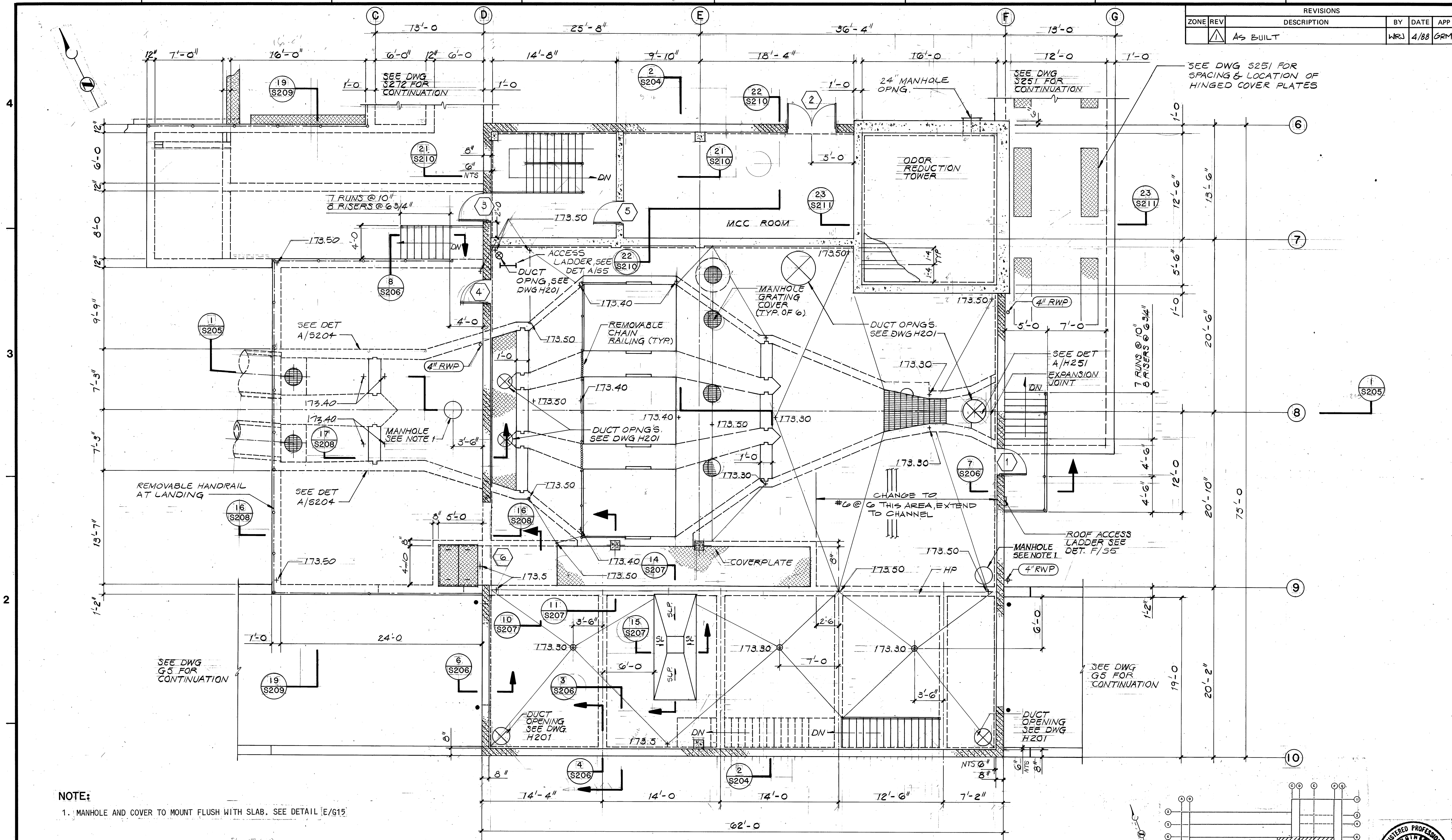
PLAN AT ELEVATION 168.0
SCALE: 3/16" = 1'-0"

	BROWN AND CALDWELL	FILE 2048	DESIGNED GRM	SUBMITTED <i>W. Meyer</i>	DATE 4/3/85		ROCK CREEK ADVANCED WASTEWATER TREATMENT PLANT PRIMARY EXPANSION	HEADWORKS BUILDING PLAN AT ELEVATION 168.0	THIS LINE IS 1 INCH WHEN DRAWING IS FULL SIZE. IF NOT 1 INCH, SCALE ACCORDINGLY.	DRAWING NUMBER S202 SHEET 36 OF 137	D
	CONSULTING ENGINEERS	DATE JUNE 85	CHECKED WTU	APPROVED <i>San P. Novis</i>	DATE 4/3/85						
	EUGENE, OREGON	DRAWN TYS	CHECKED	APPROVED	DATE						

1090

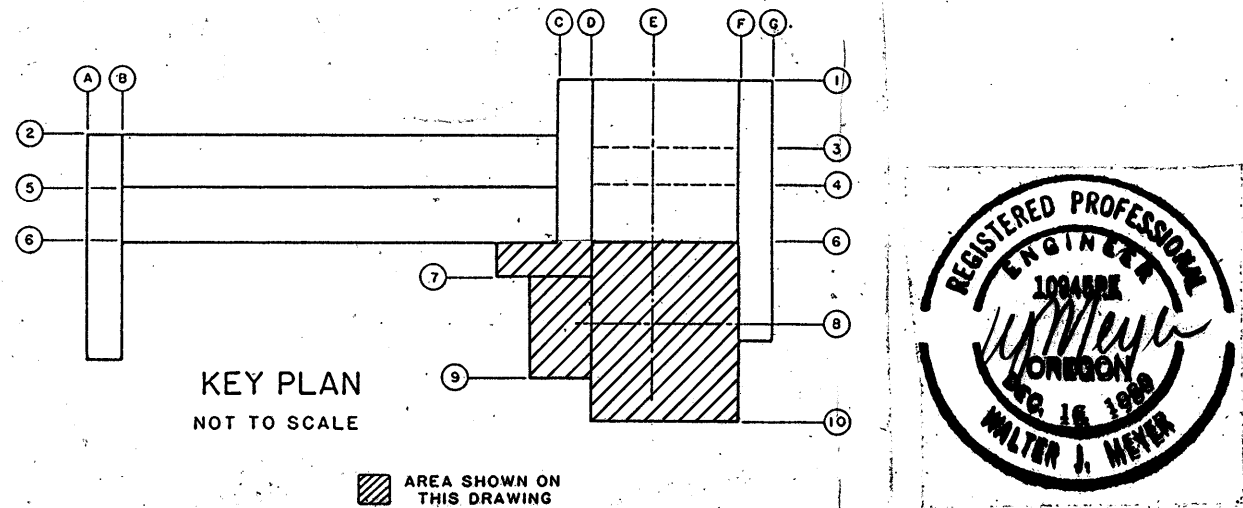
CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88



NOTE:
1. MANHOLE AND COVER TO MOUNT FLUSH WITH SLAB. SEE DETAIL E/G15

PLAN AT ELEVATION 174.0
SCALE: 3/16"=1'-0"



BC BROWN AND CALDWELL CONSULTING ENGINEERS EUGENE OREGON	FILE 2048	DESIGNED GRM	SUBMITTED <i>[Signature]</i>	DATE 4/3/85	USA United Sewerage Agency of Washington County	ROCK CREEK ADVANCED WASTEWATER TREATMENT PLANT PRIMARY EXPANSION	HEADWORKS BUILDING PLAN AT ELEVATION 174.0	THIS LINE IS 1 INCH WHEN DRAWING IS FULL SIZE. IF NOT 1 INCH, SCALE ACCORDINGLY.	DRAWING NUMBER S203	SHEET 37 OF 137
	DATE JUNE 85	CHECKED WTV	APPROVED <i>[Signature]</i>	DATE 4/3/85						
	DRAWN TYS	CHECKED	APPROVED	DATE						

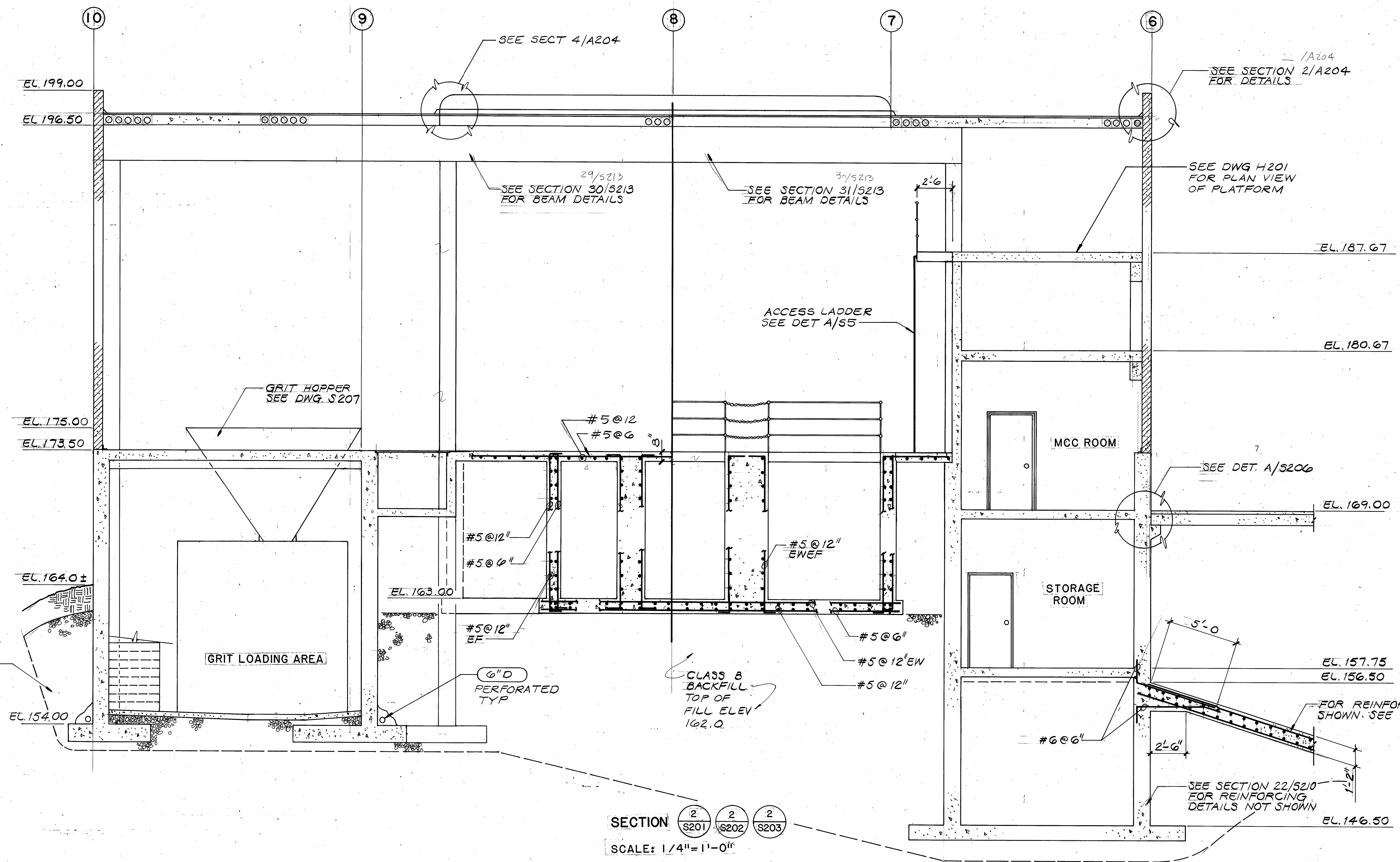


CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88

4
3
2
1

4
3
2
1



BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE OREGON

FILE 2048
DATE JUNE 85
DRAWN TYS

DESIGNED GRM
CHECKED WTV
CHECKED

SUBMITTED 6/3/85
APPROVED Dan P. Norris
DATE 6/3/85

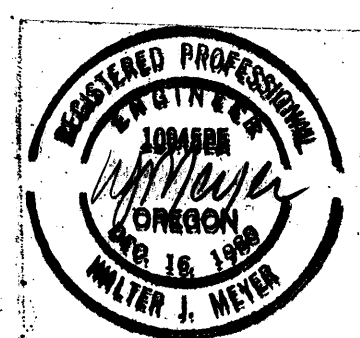


ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

HEADWORKS BUILDING
SECTION

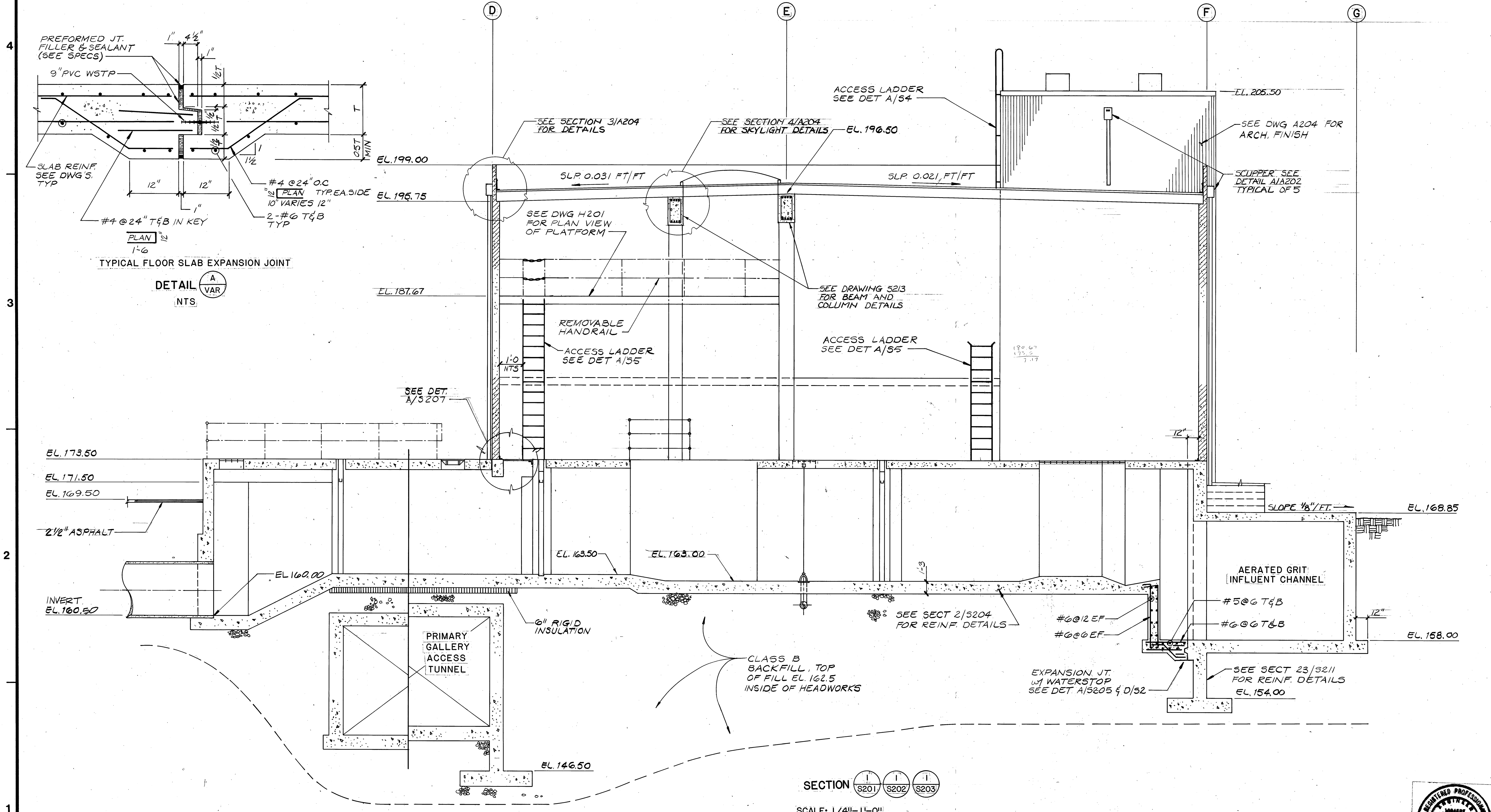
THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S204
SHEET 38 OF 137



CONTROL NO.

REVISIONS					
ZONE	REV	DESCRIPTION	BY	DATE	APP
	1	AS BUILT	WRJ	4/88	GRM



SECTION S201 S202 S203

SCALE: 1/4\"/>

BC BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE OREGON

FILE 2048
DATE JUNE 85
DRAWN TYS

DESIGNED GRM
CHECKED WTJ
CHECKED

SUBMITTED [Signature]
APPROVED [Signature]
APPROVED

USA
United Sewerage Agency
of Washington County

ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

HEADWORKS BUILDING
SECTION

THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

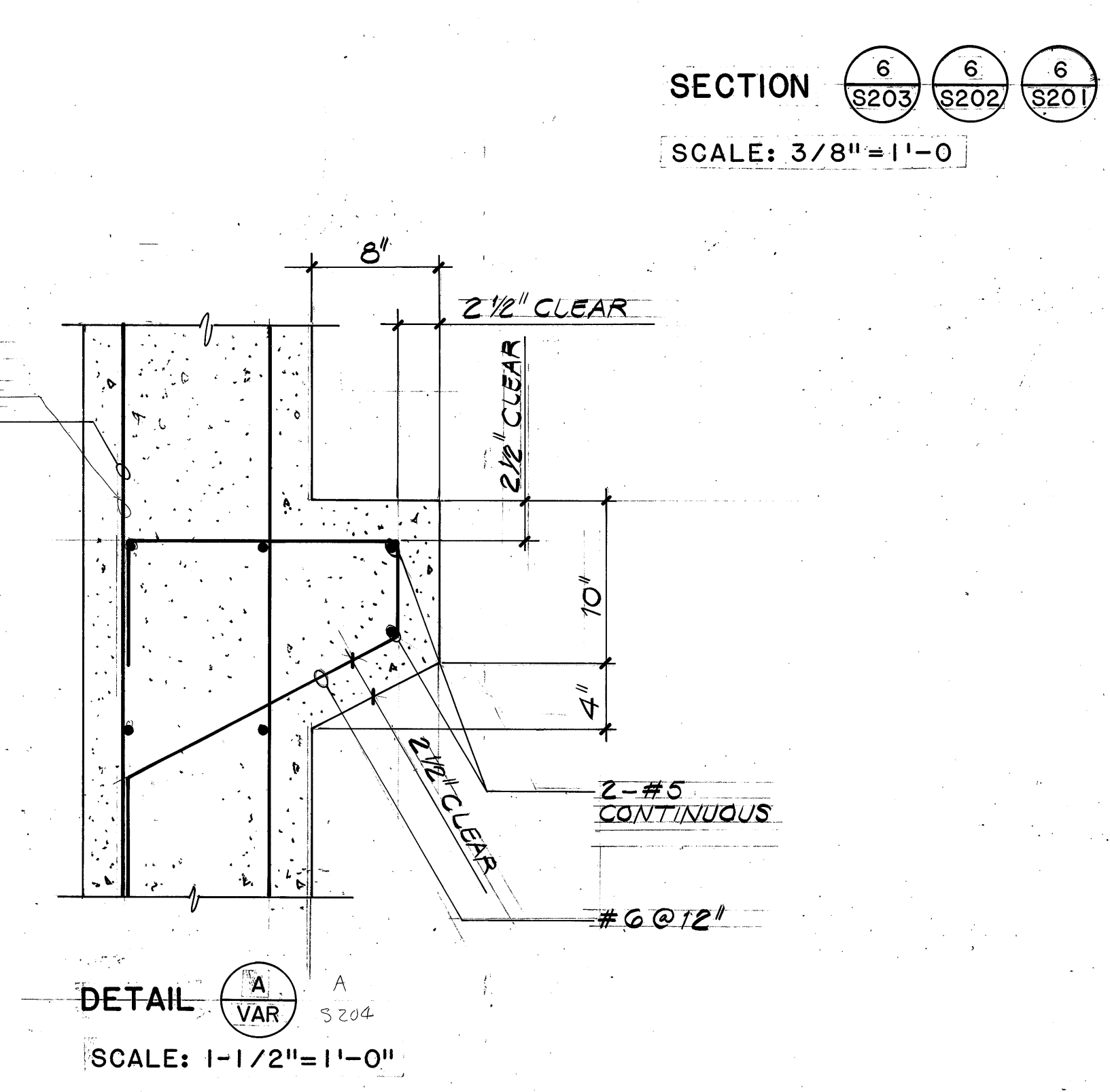
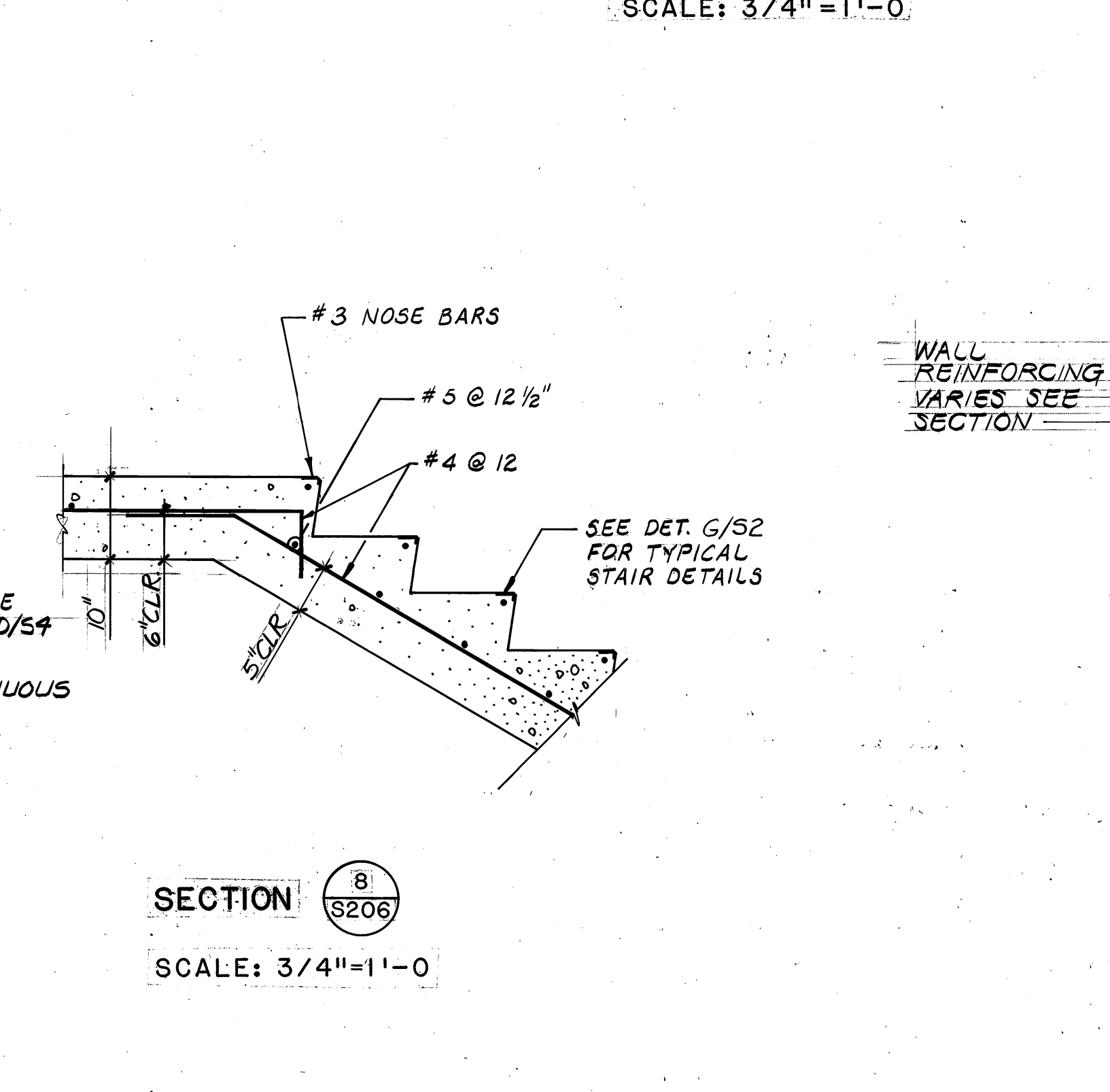
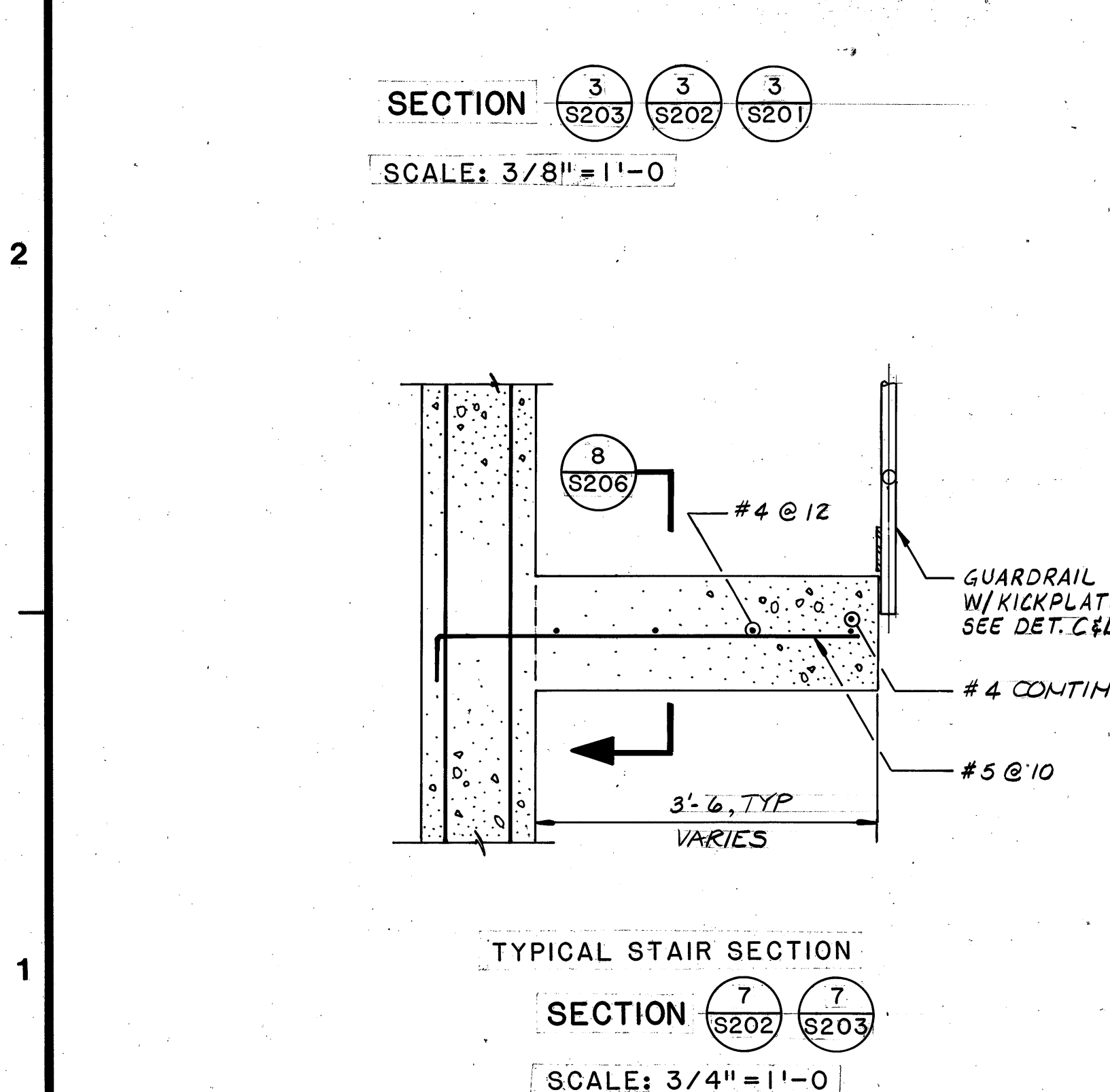
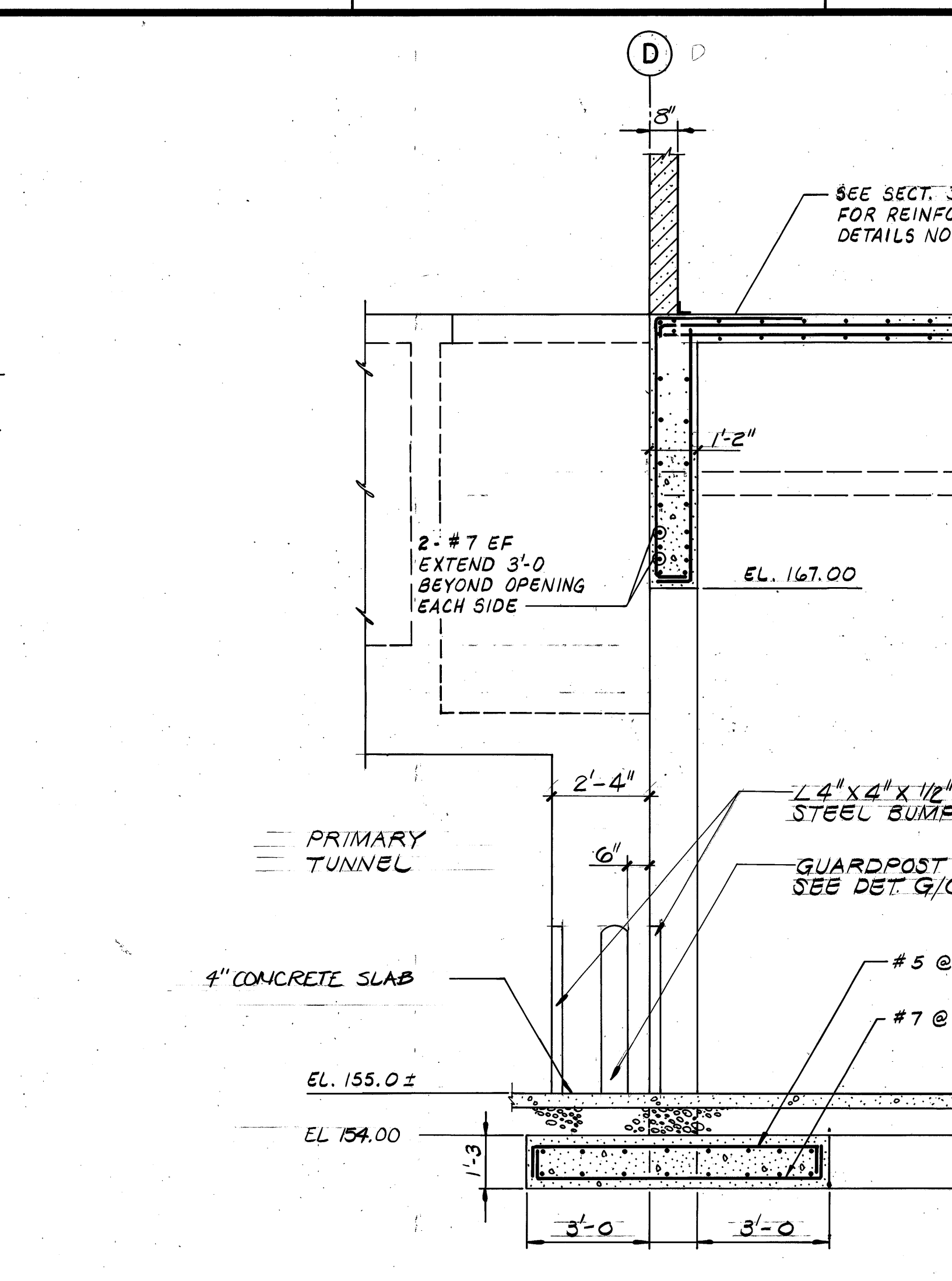
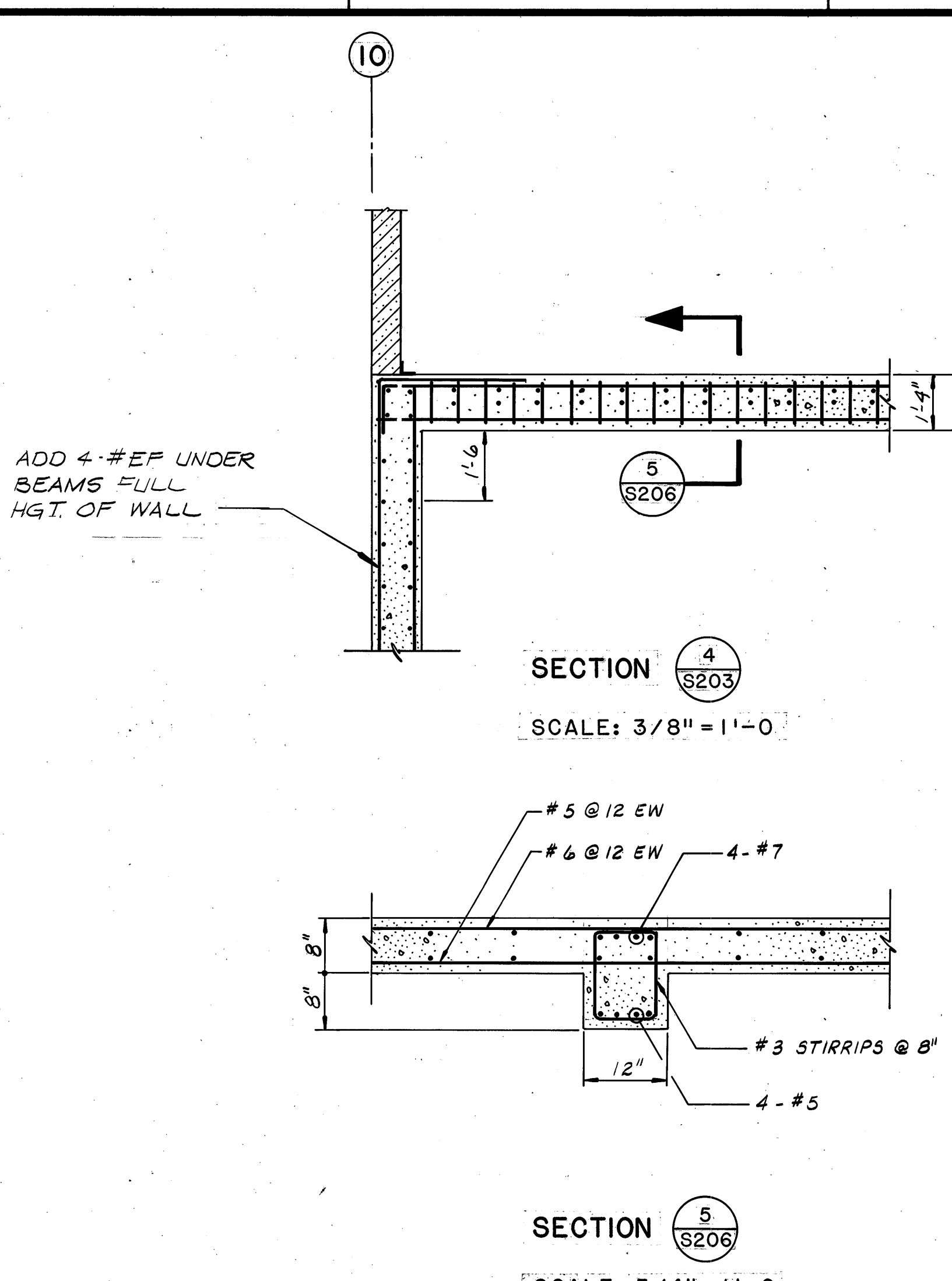
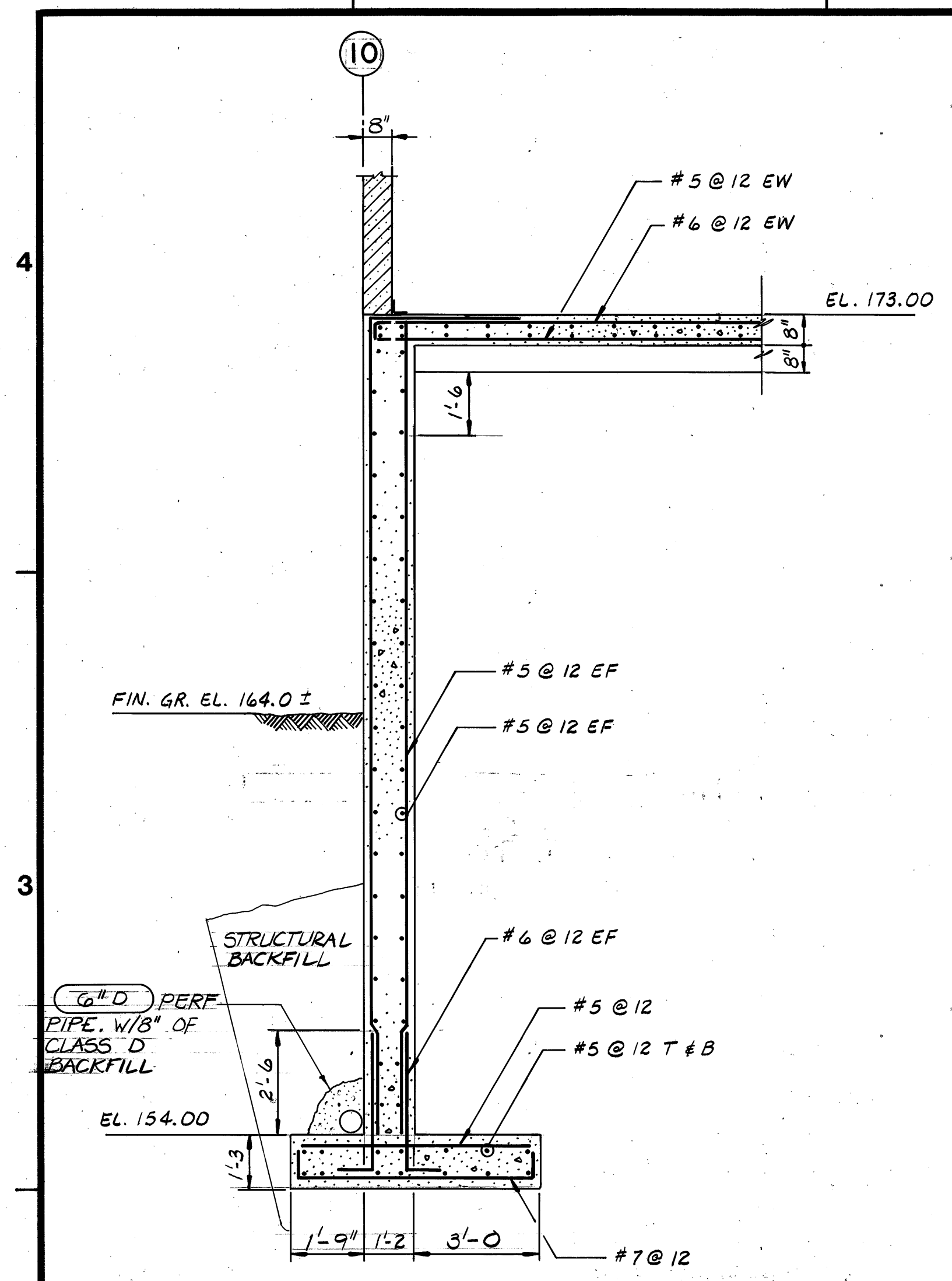


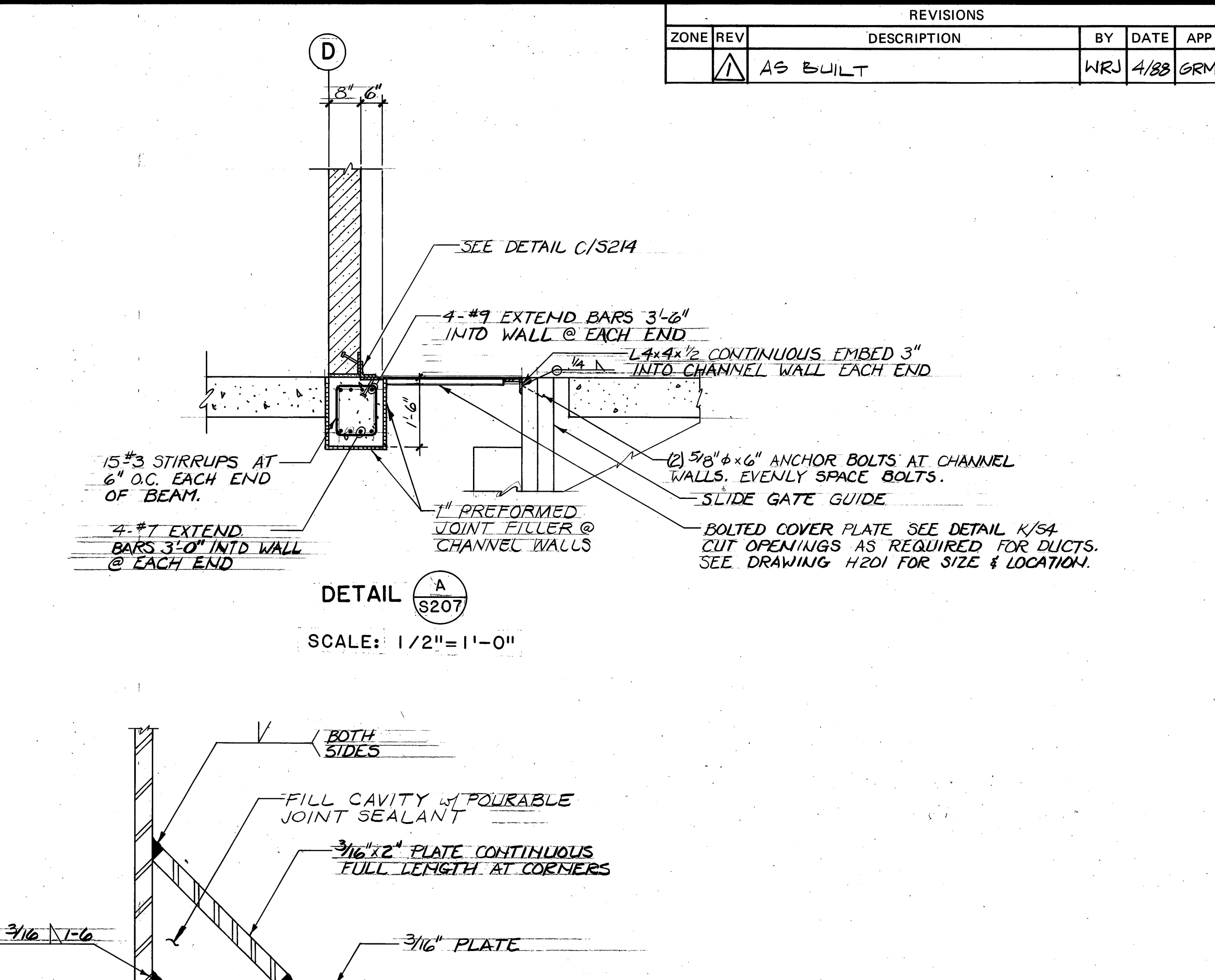
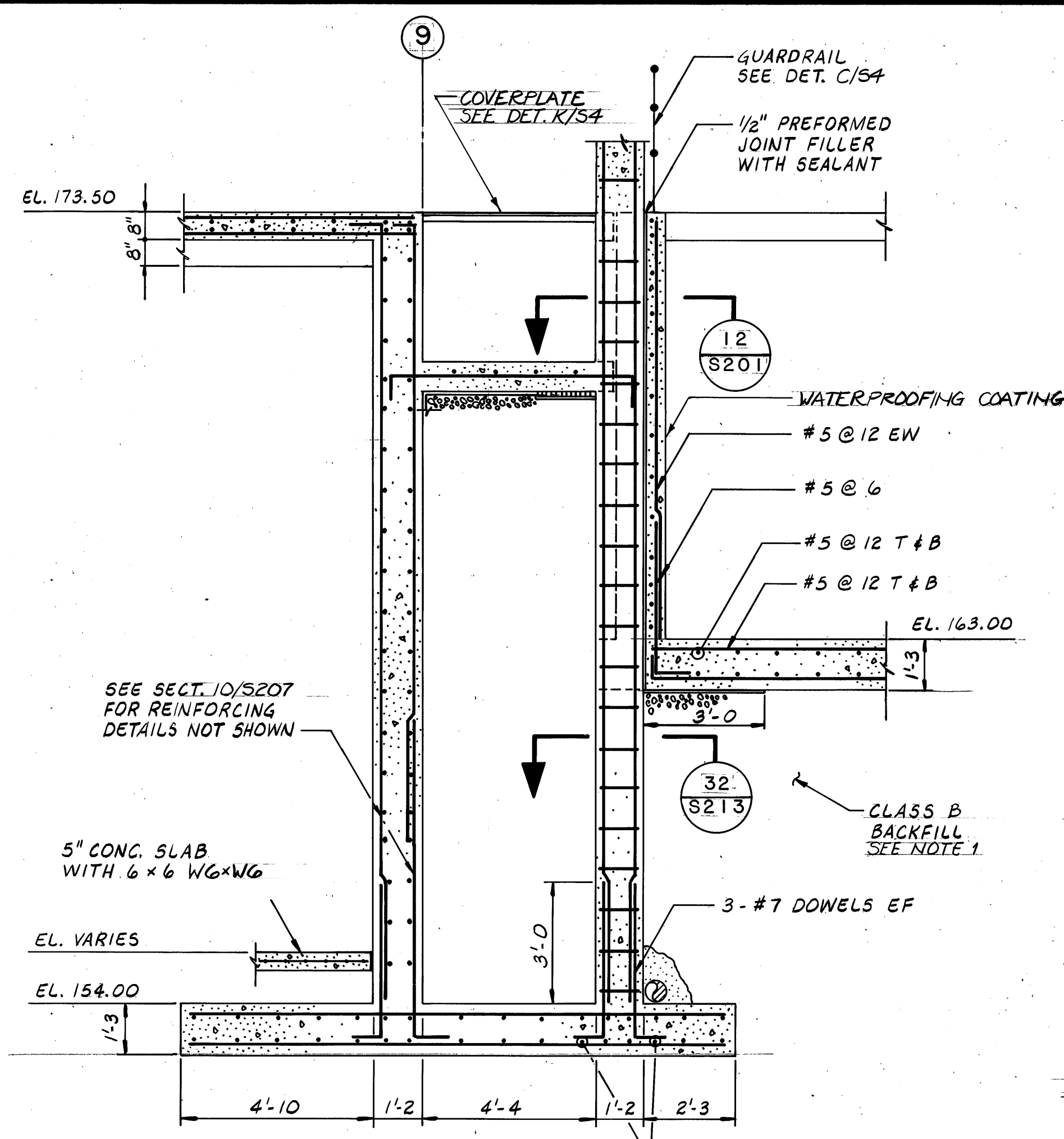
DRAWING NUMBER
S205
SHEET 39 OF 137

1090

CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88





- SECTION 10/S201 10/S202 10/S203

SCALE: 3/8" = 1'-0"

SECTION 11/S201 11/S202 11/S203

SCALE: 3/8" = 1'-0"

SECTION 12/S207

SCALE: 3/4" = 1'-0"

SEE SECT. 1/S204 FOR REINFORCING DETAILS NOT SHOWN

12"

8"

#5 @ 12 EW

12" TYP

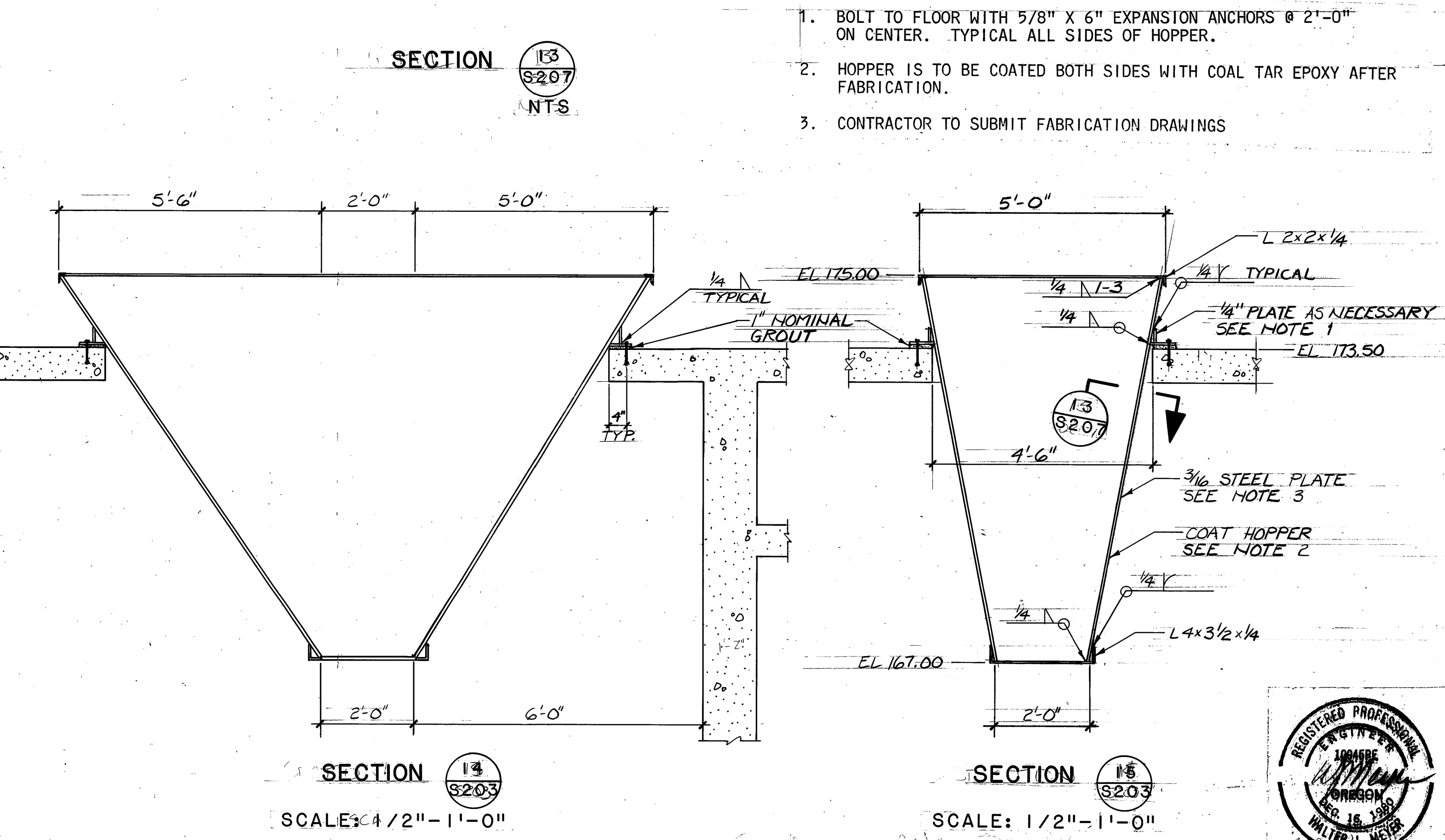
SEE SECT. 32/S213 FOR REINFORCING DETAILS

1'-3

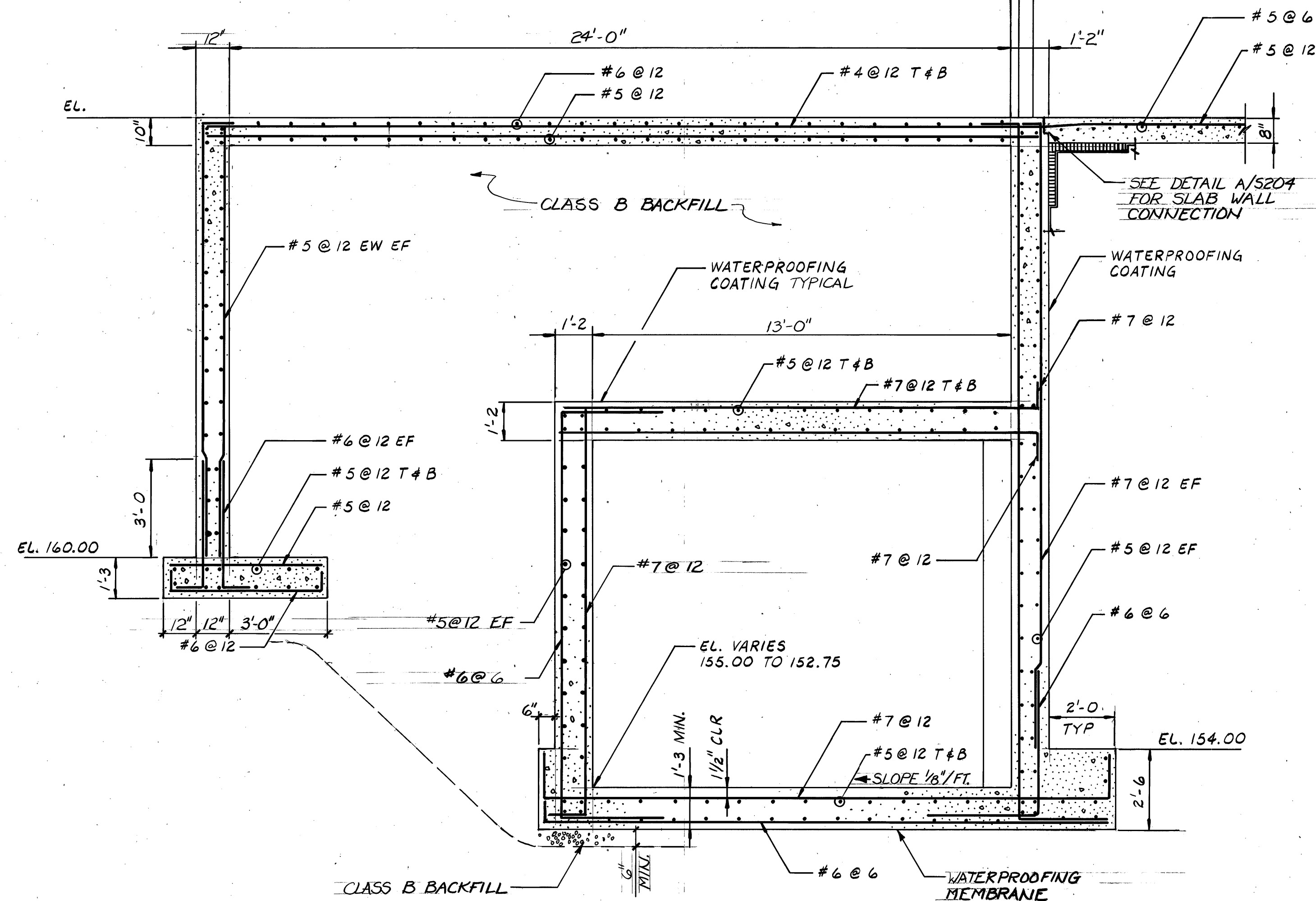
WATERPROOFING COATING

1/2" PREFORMED JOINT FILLER WITH SEALANT

9'-10

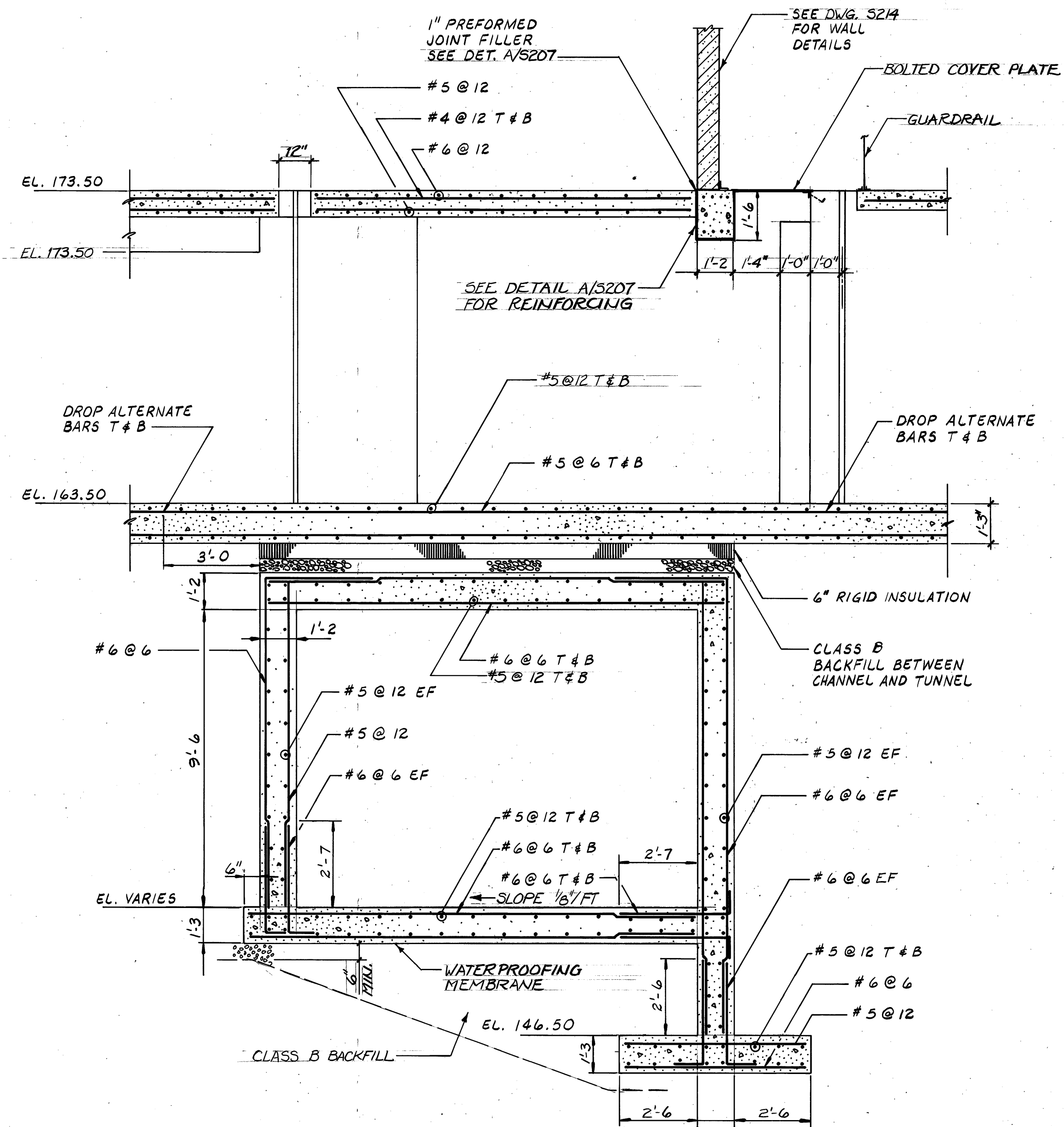


REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	△	AS BUILT	WRJ	4/88



SECTION 16 S201 16 S202 16 S203

SCALE: 3/8" = 1'-0"

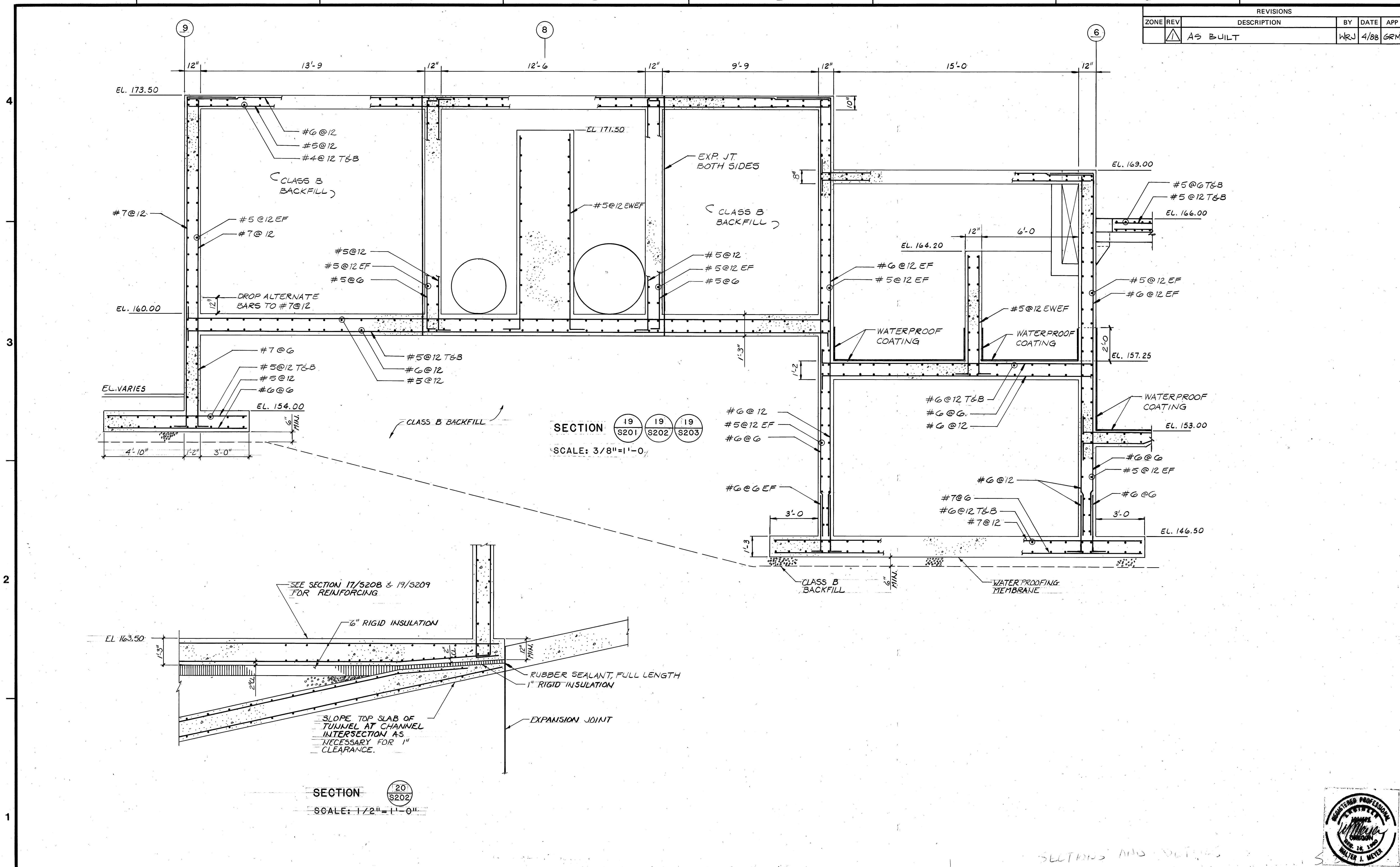


SECTION 17 S201 17 S202 17 S203

SCALE: 3/8" = 1'-0"

CONTROL NO.

REVISIONS					
ZONE	REV	DESCRIPTION	BY	DATE	APP
	1	AS BUILT	WRJ	4/88	GRM



BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE OREGON

FILE 2048
DATE JUNE 85
DRAWN BM

DESIGNED GRM
CHECKED WTJ
CHECKED

SUBMITTED W. Meyer
APPROVED W. Meyer
APPROVED

DATE 4/85
DATE 4/85
DATE

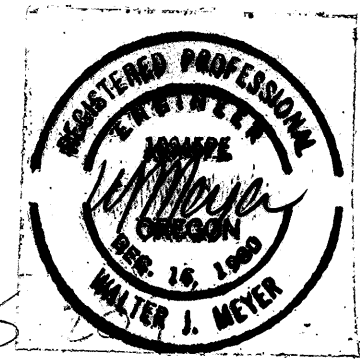
USA
Unified Sewerage Agency
of Washington County


ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

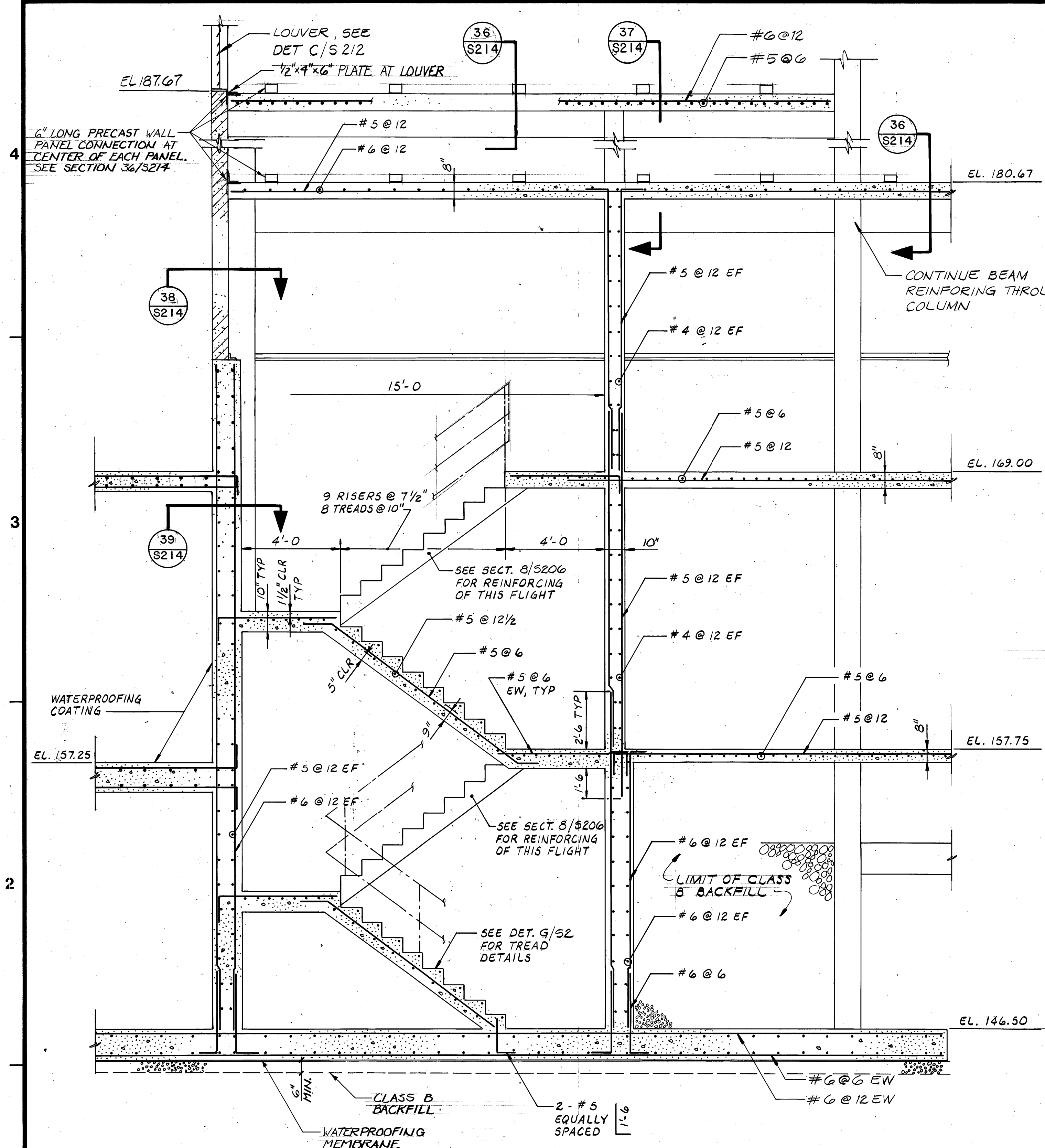
HEADWORKS BUILDING
SECTION


THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S209
SHEET 43 OF 137

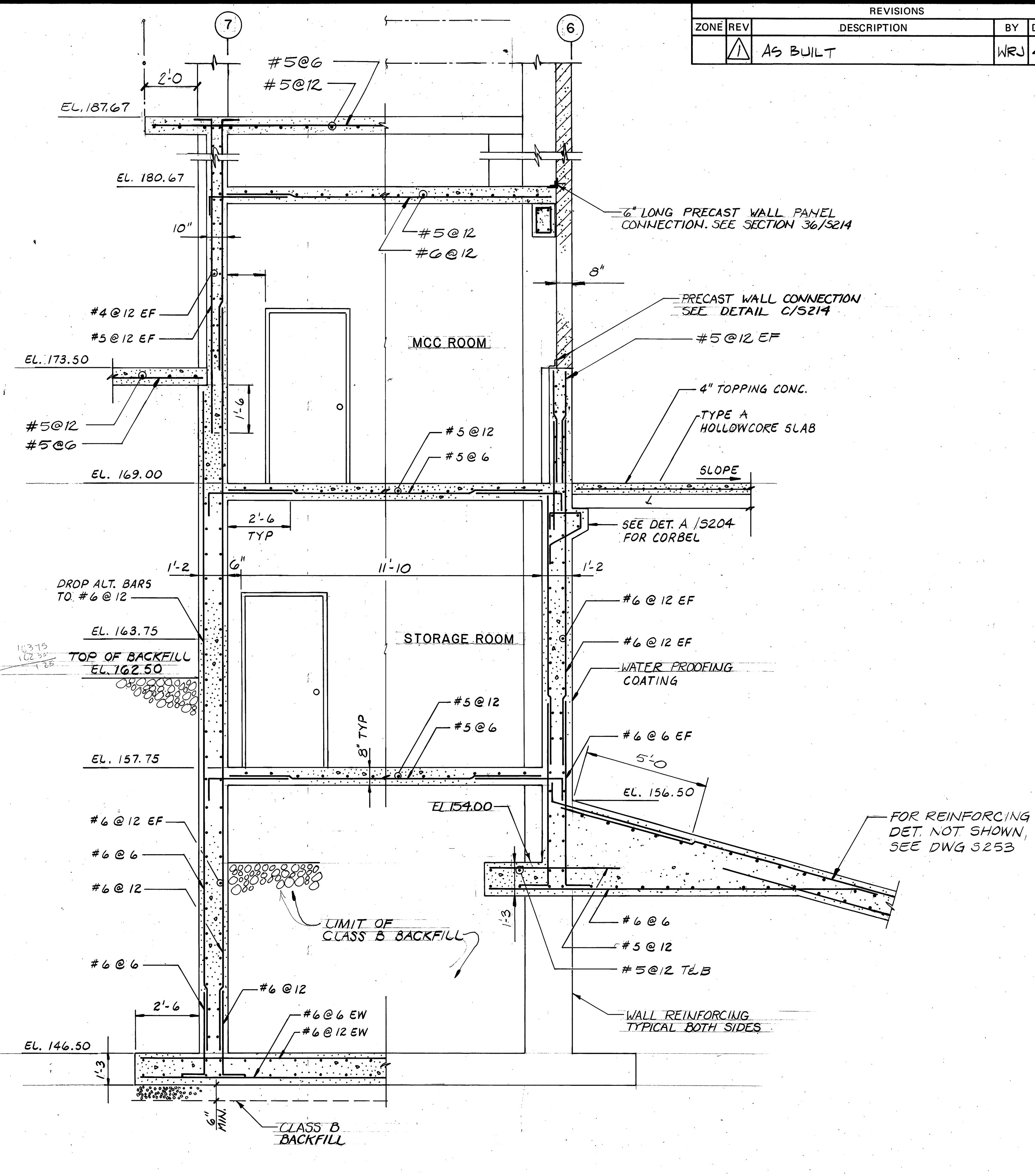





REVISIONS					
ZONE	REV	DESCRIPTION	BY	DATE	APP
		AS BUILT	WRJ	4/88	GRM



SECTION 

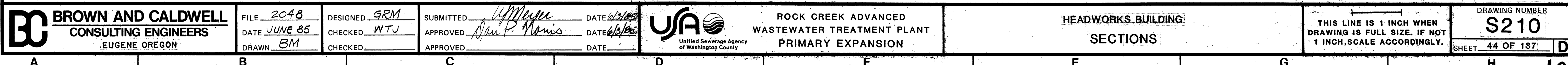
SCALE: $\frac{3}{8}'' = 1' - 0$



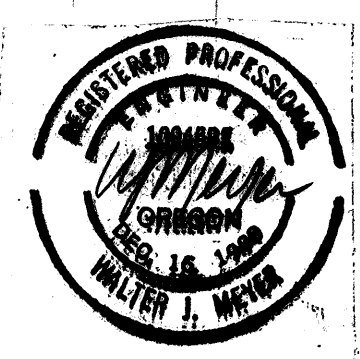
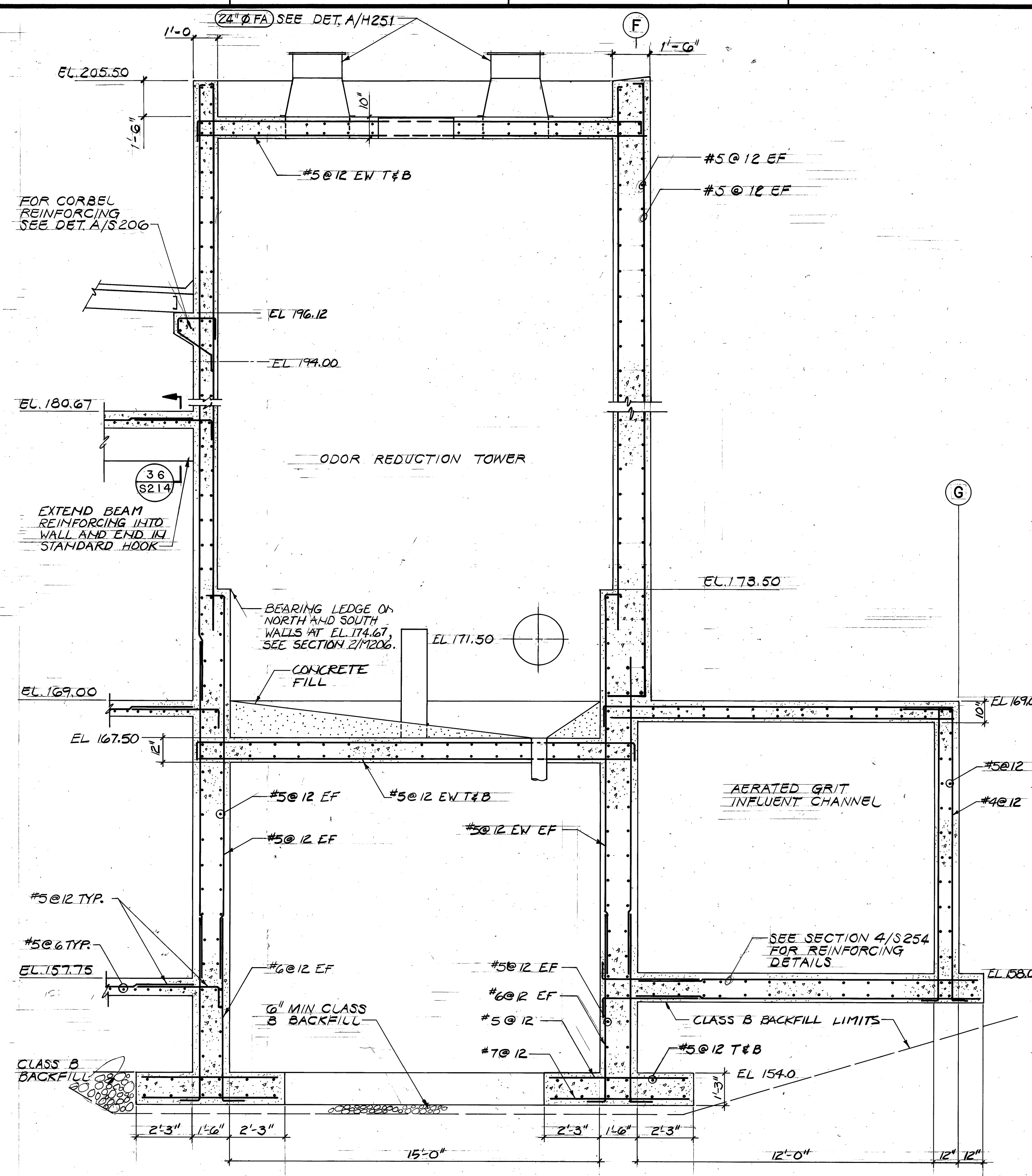
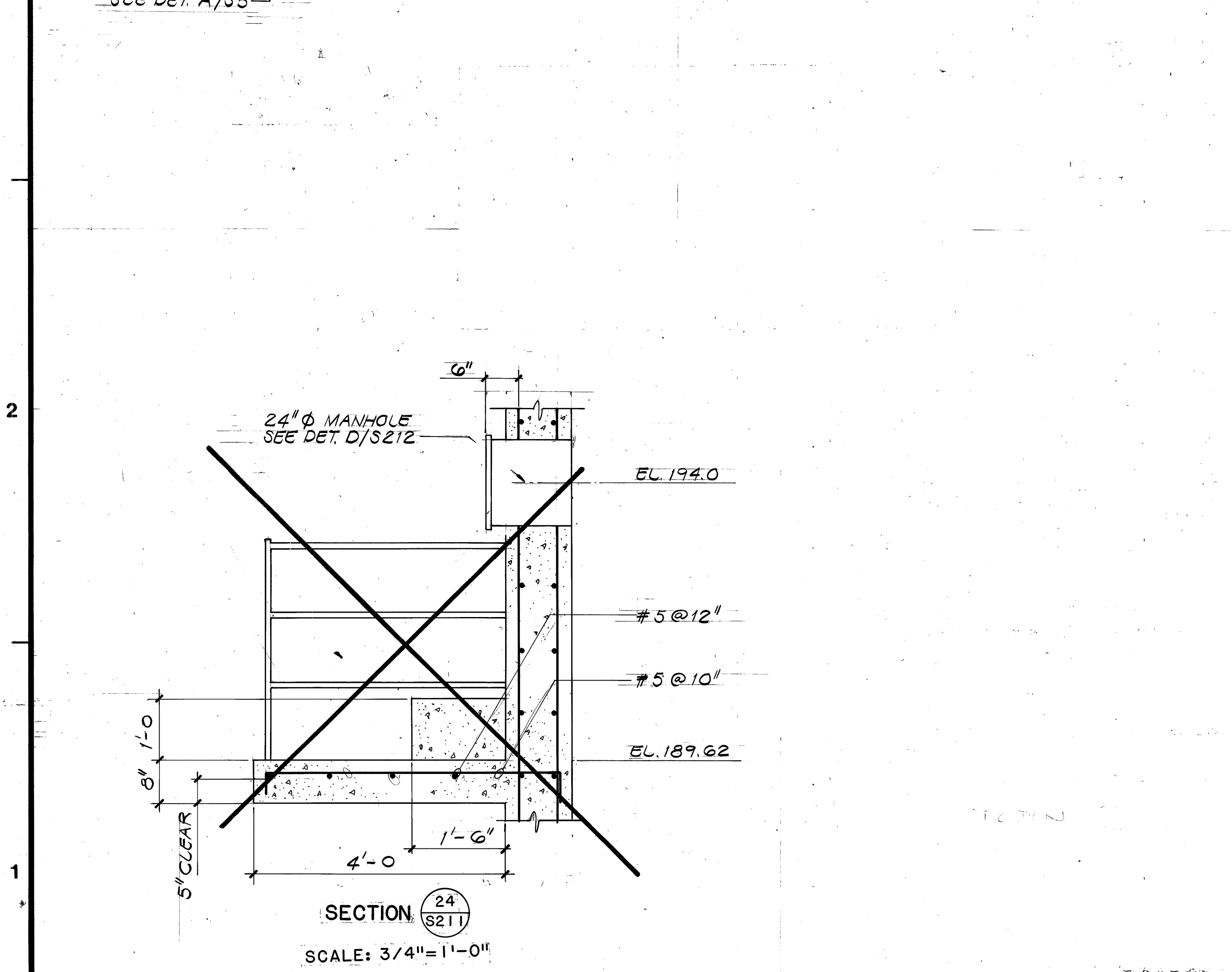
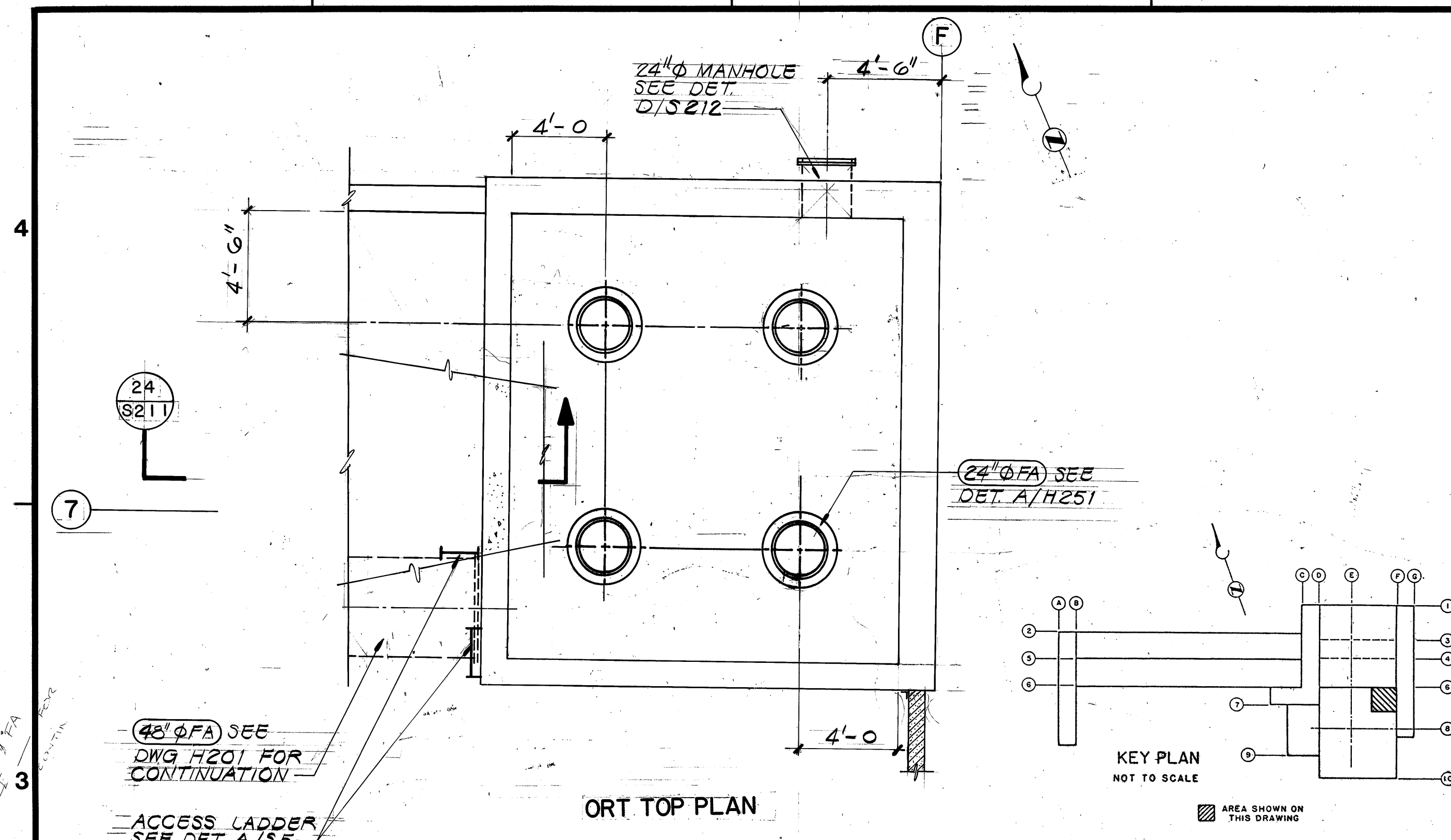
SECTION   

SCALE: 3/8" = 1'-0"

SECTIONS AND DETAILS

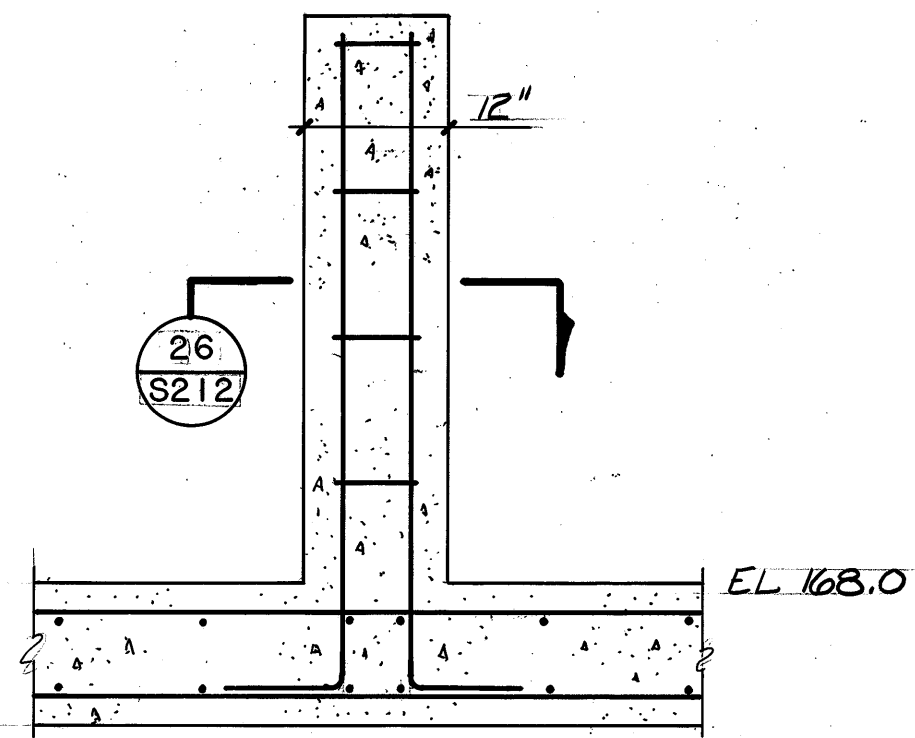


CONTROL NO.

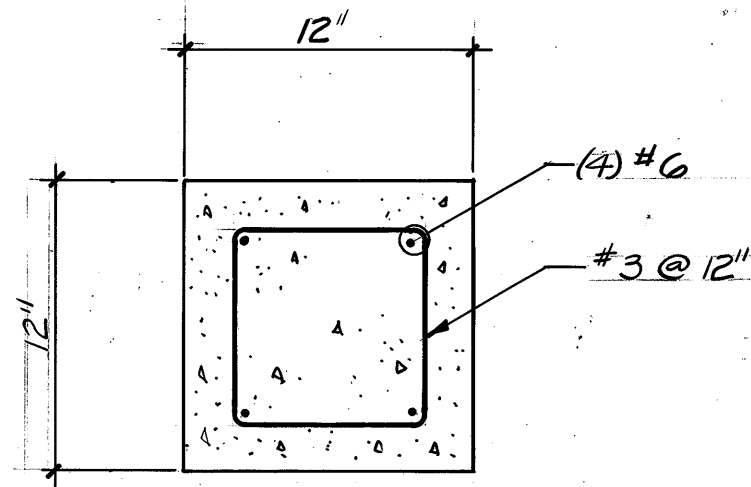


CONTROL NO.

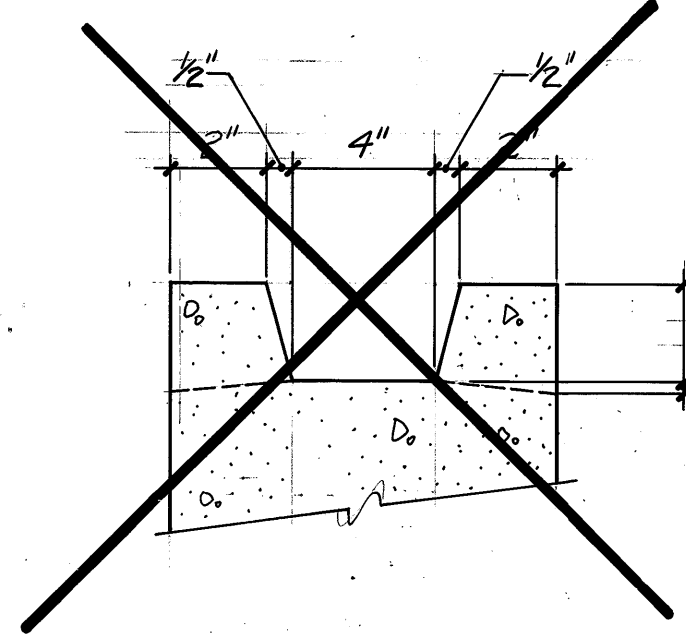
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
AS BUILT			WRJ	4/88



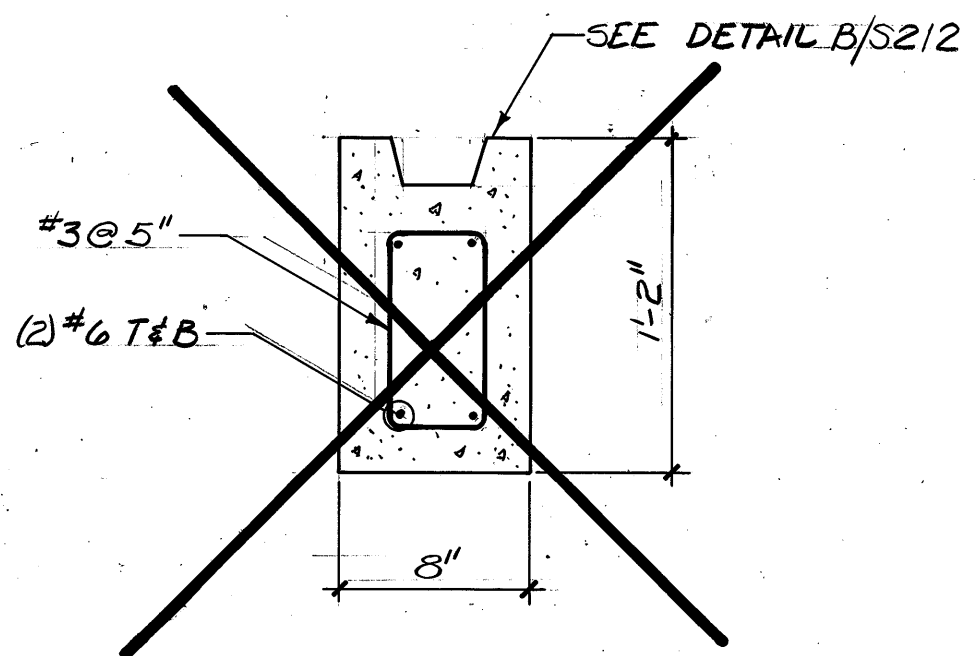
DETAIL A
SCALE: 3/4" = 1'-0"



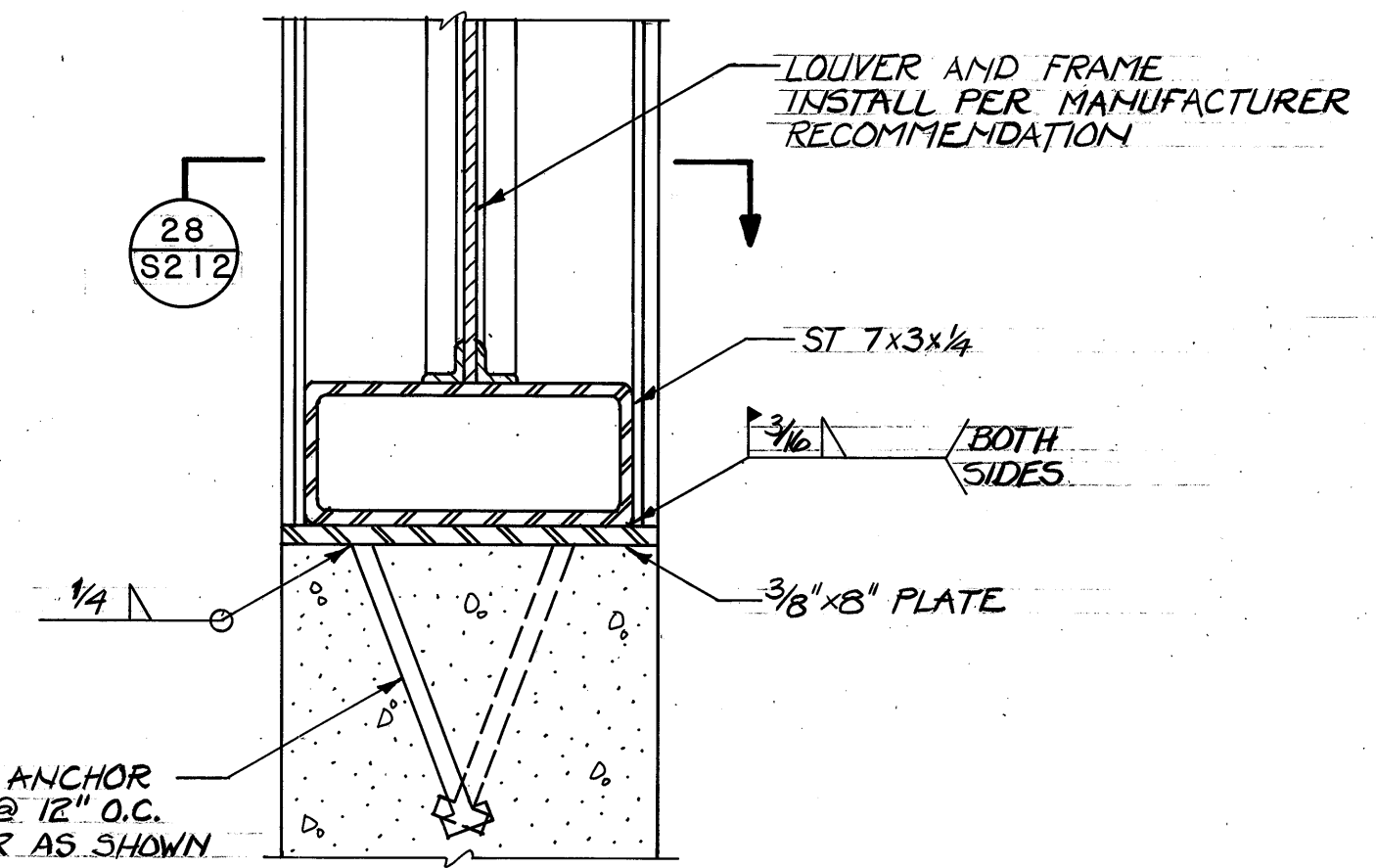
SECTION 26
SCALE: 1/2" = 1'-0"



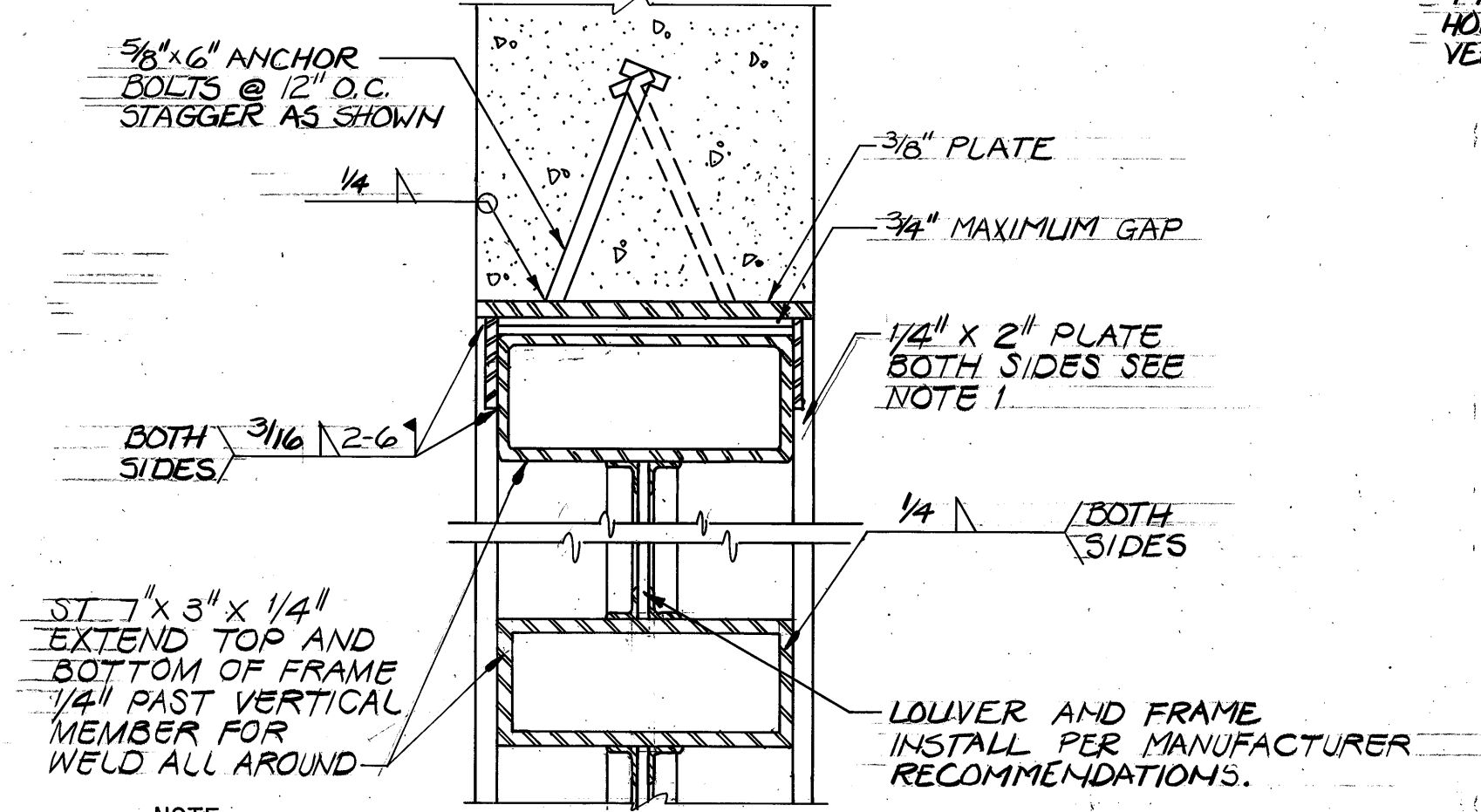
DETAIL C
SCALE: 3" = 1'-0"



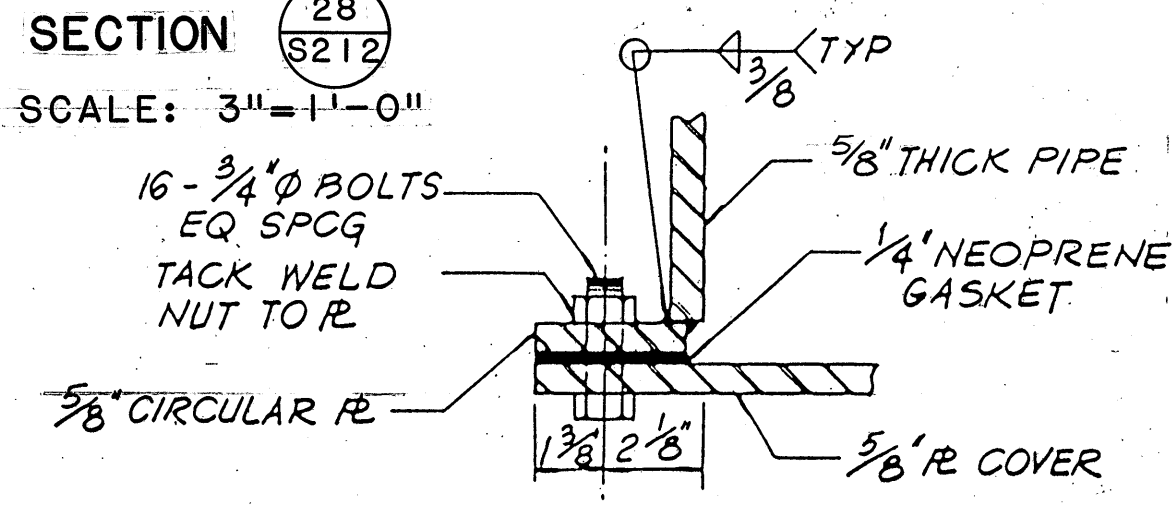
SECTION 27
SCALE: 1/2" = 1'-0"



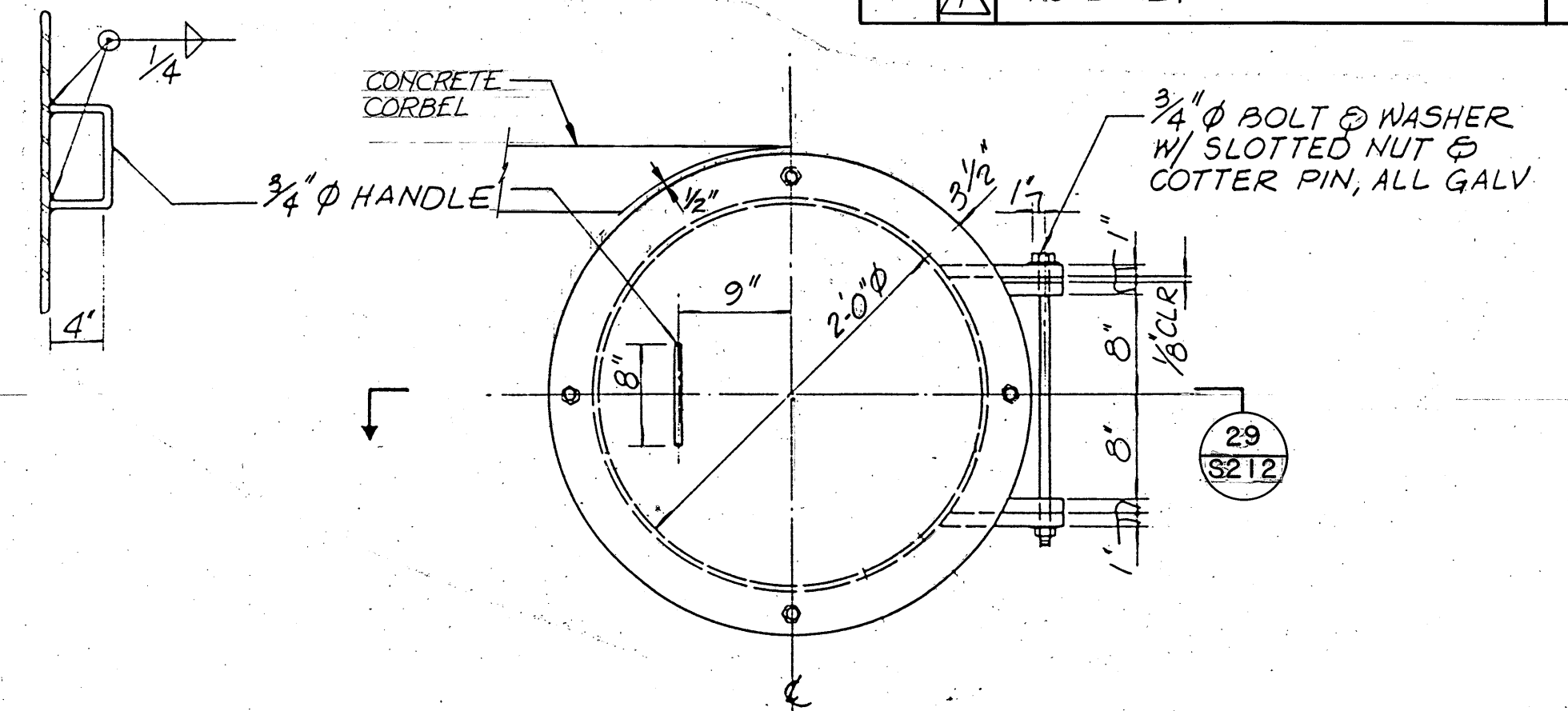
DETAIL E
SCALE: 3" = 1'-0"



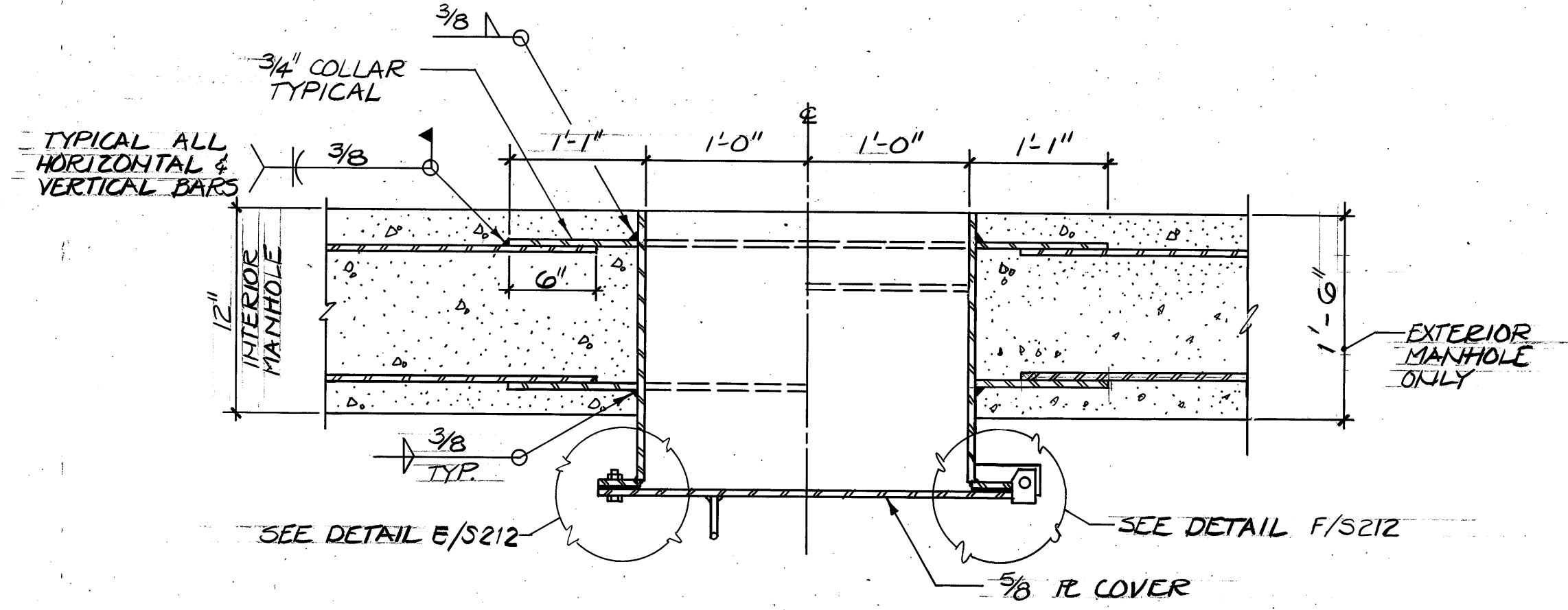
SECTION 28
SCALE: 3" = 1'-0"



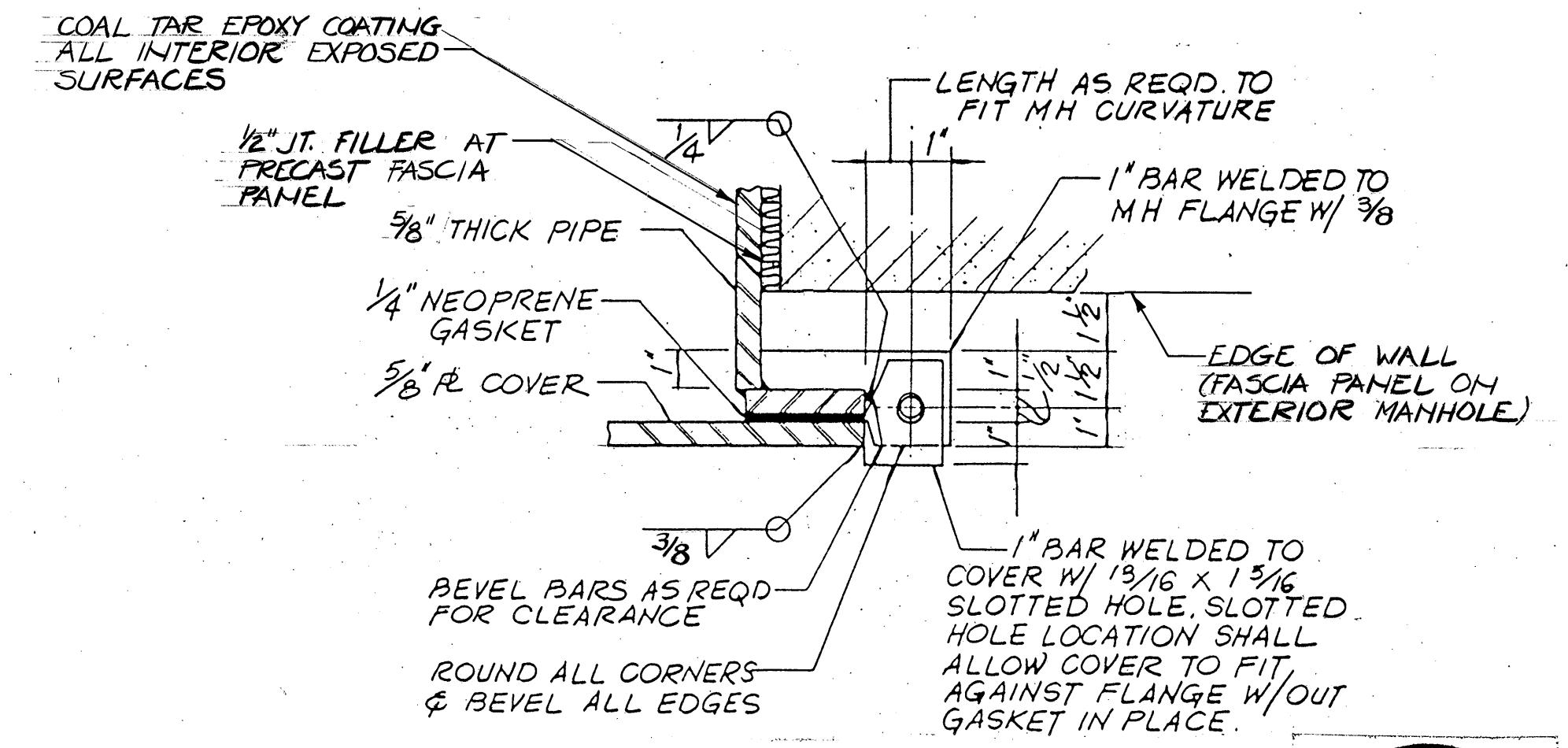
DETAIL G
SCALE: 3" = 1'-0"



DETAIL H
SCALE: 3" = 1'-0"



SECTION 29
SCALE: 3" = 1'-0"



DETAIL I
SCALE: 3" = 1'-0"

BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE, OREGON

FILE 2048
DATE JUNE 85
DRAWN JMT

DESIGNED GRM
CHECKED WTV
CHECKED

SUBMITTED [Signature]
APPROVED [Signature]
APPROVED

DATE 6/1/85
DATE 6/1/85
DATE

USA
Unified Sewerage Agency
of Washington County

ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

ODOR REDUCTION TOWER
SECTIONS AND DETAILS

THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

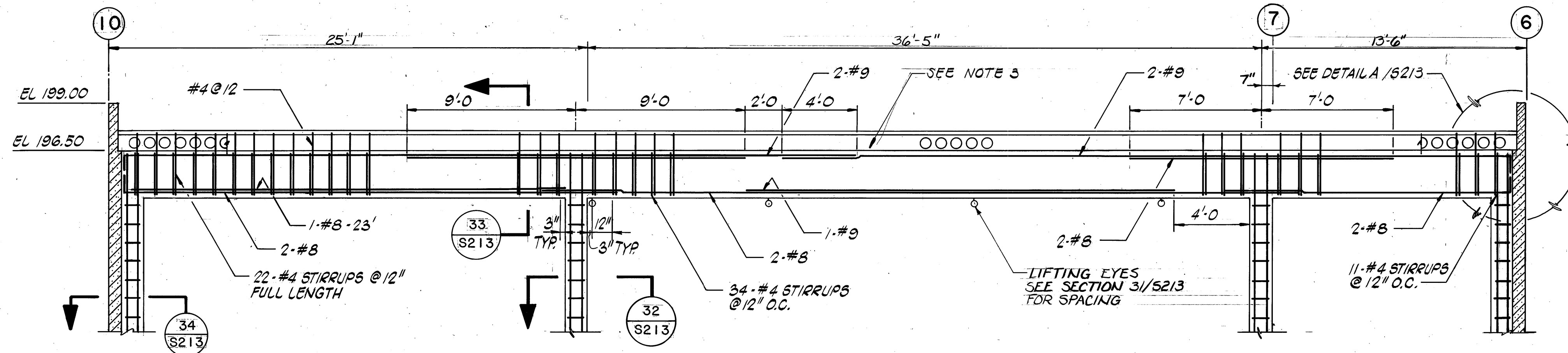
DRAWING NUMBER
S212
SHEET 46 OF 137

REGISTERED PROFESSIONAL
ENGINEER
WALTER J. MEYER
NO. 16, 1988


REVISIONS					
ZONE	REV	DESCRIPTION	BY	DATE	APP
	1	AS BUILT	WRJ	4/88	GRM

NOTES:

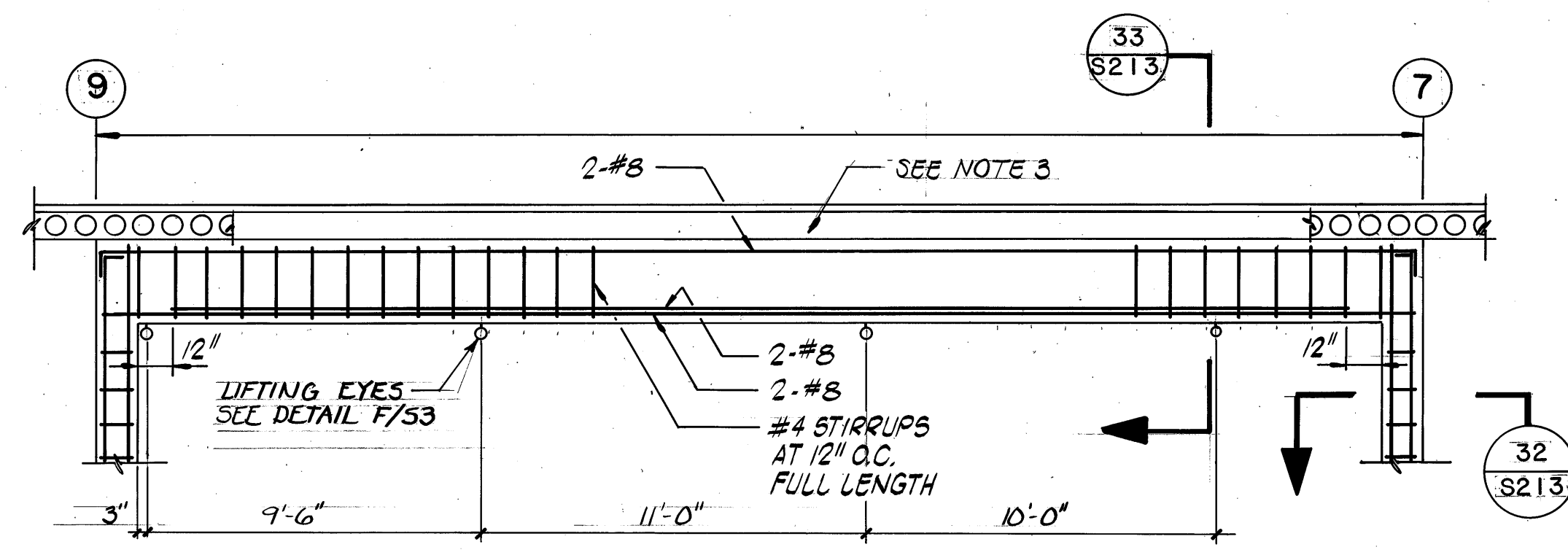
1. ALT BENDS IN BEAM, BEND INTO TOPPING CONCRETE AFTER PLACING HOLLOWCORE.
2. INCREASE THICKNESS AT BEAM TO HAVE 1" COVER OVER DOWELS.
3. SEE SECTION 4/ A204 FOR BEAM SECTION AT SKYLIGHT.
4. FOR THE NORTH COLUMN ON GRIDLINE ⑦ OF BEAM 2 CHANGE THE VERT. BARS TO G #8 EXTENDING TO ELEVATION 108.50. ADDED 3 #7 ON GRIDLINE ⑦ FACE OF COLUMN.




BEAM 1

SECTION 

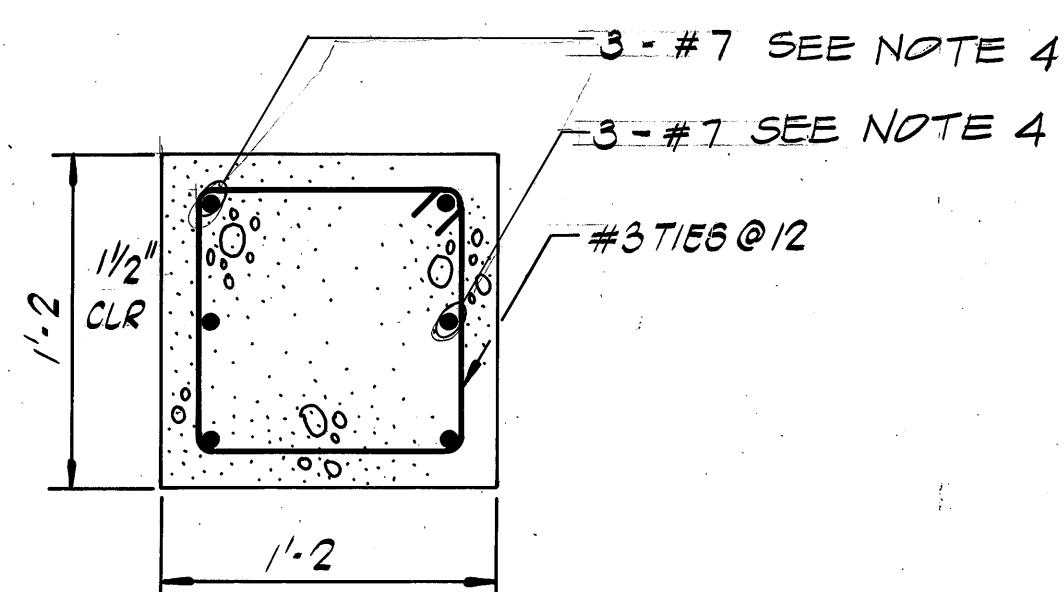
SCALE: 1/4" = 1'-0"




BEAM-2

SECTION 

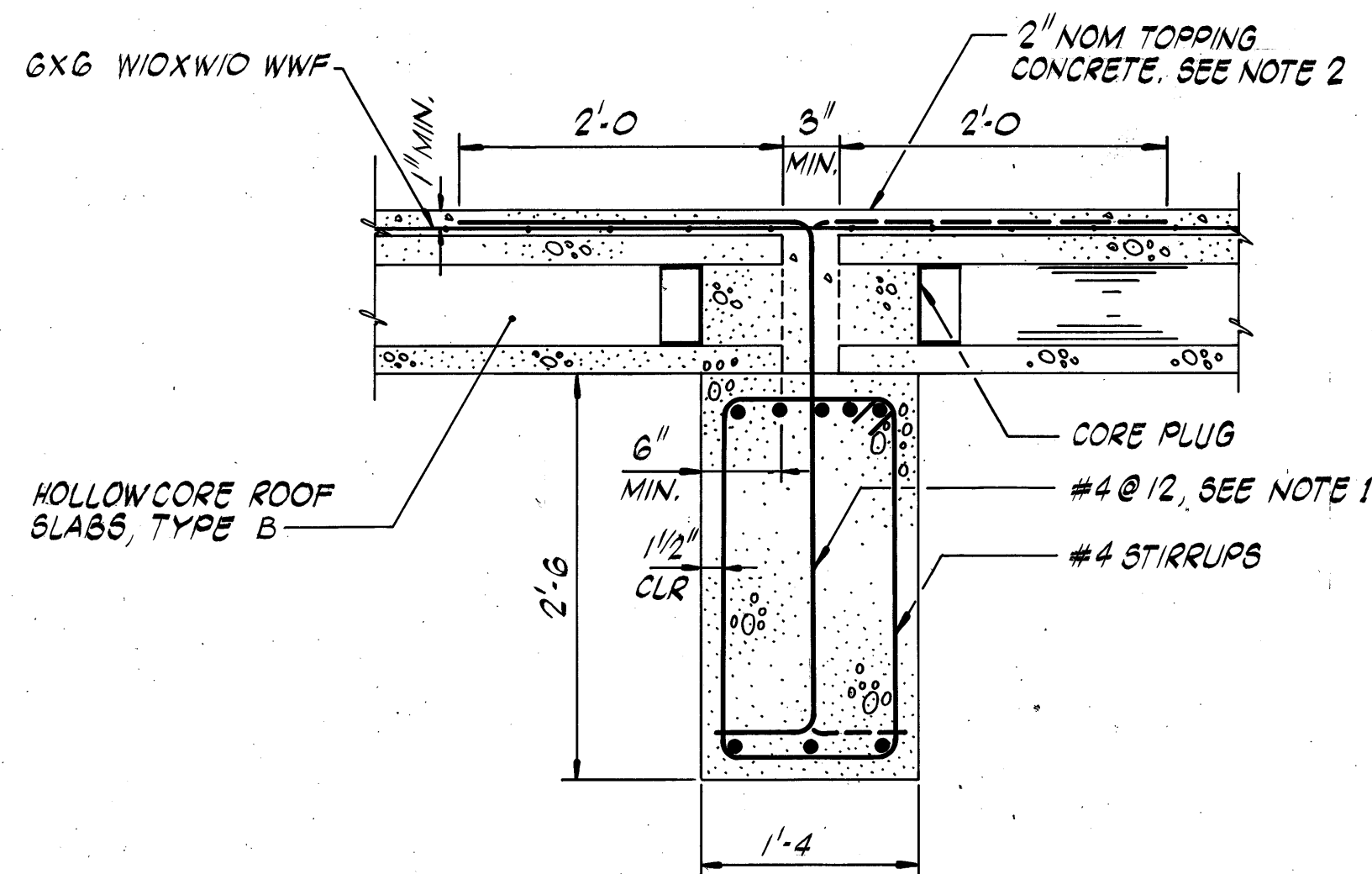
SCALE: 1/4" = 1'-0"




TYPICAL COLUMN SECTION

SECTION 

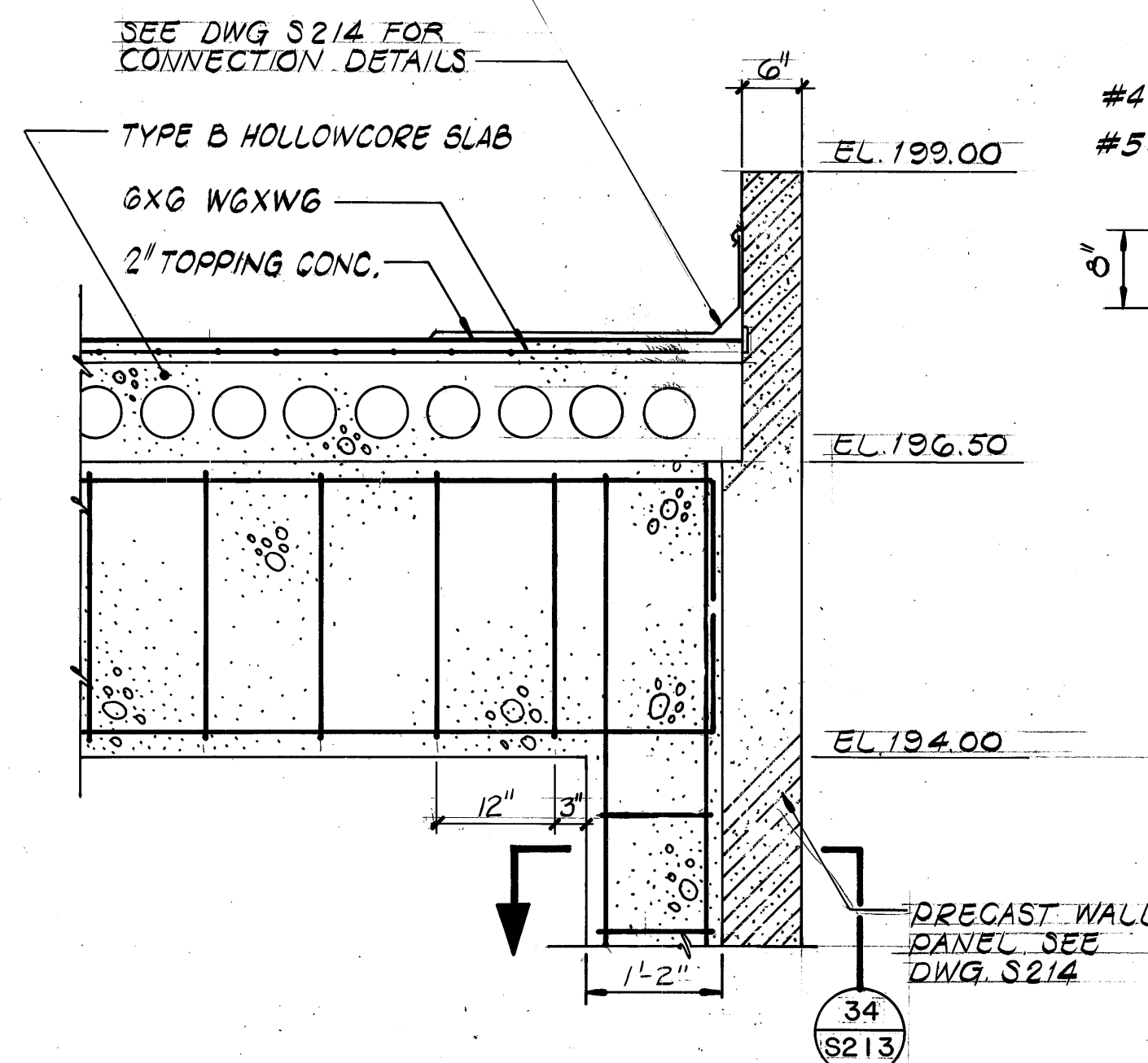
SCALE: 1 - 1/2" = 1'-0"




TYPICAL BEAM SECTION

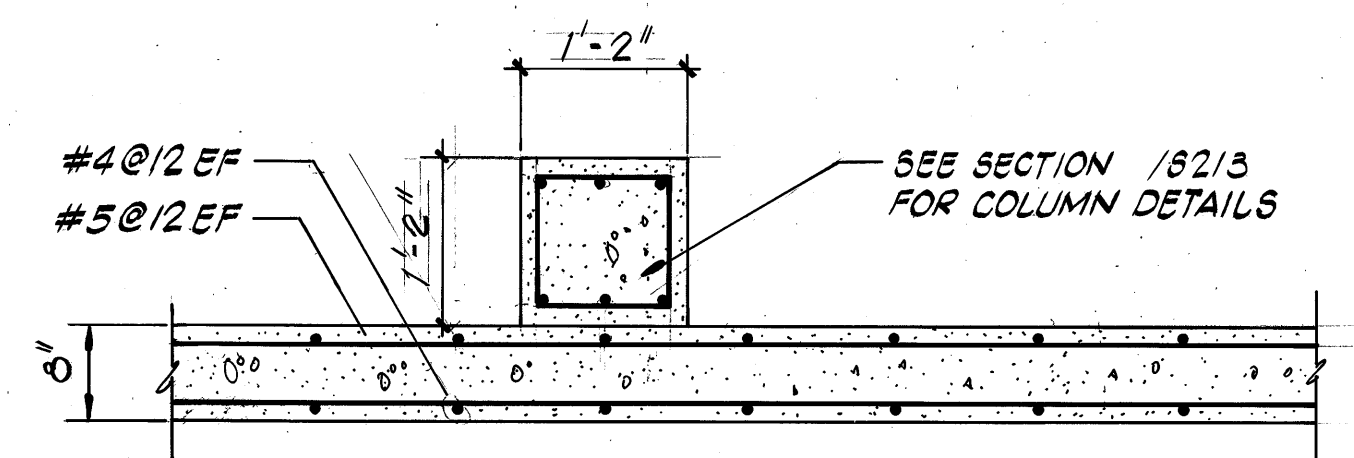
SECTION 


SCALE: 1" = 1'-0"



DETAIL 

SCALE: 3/4" = 1'-0"



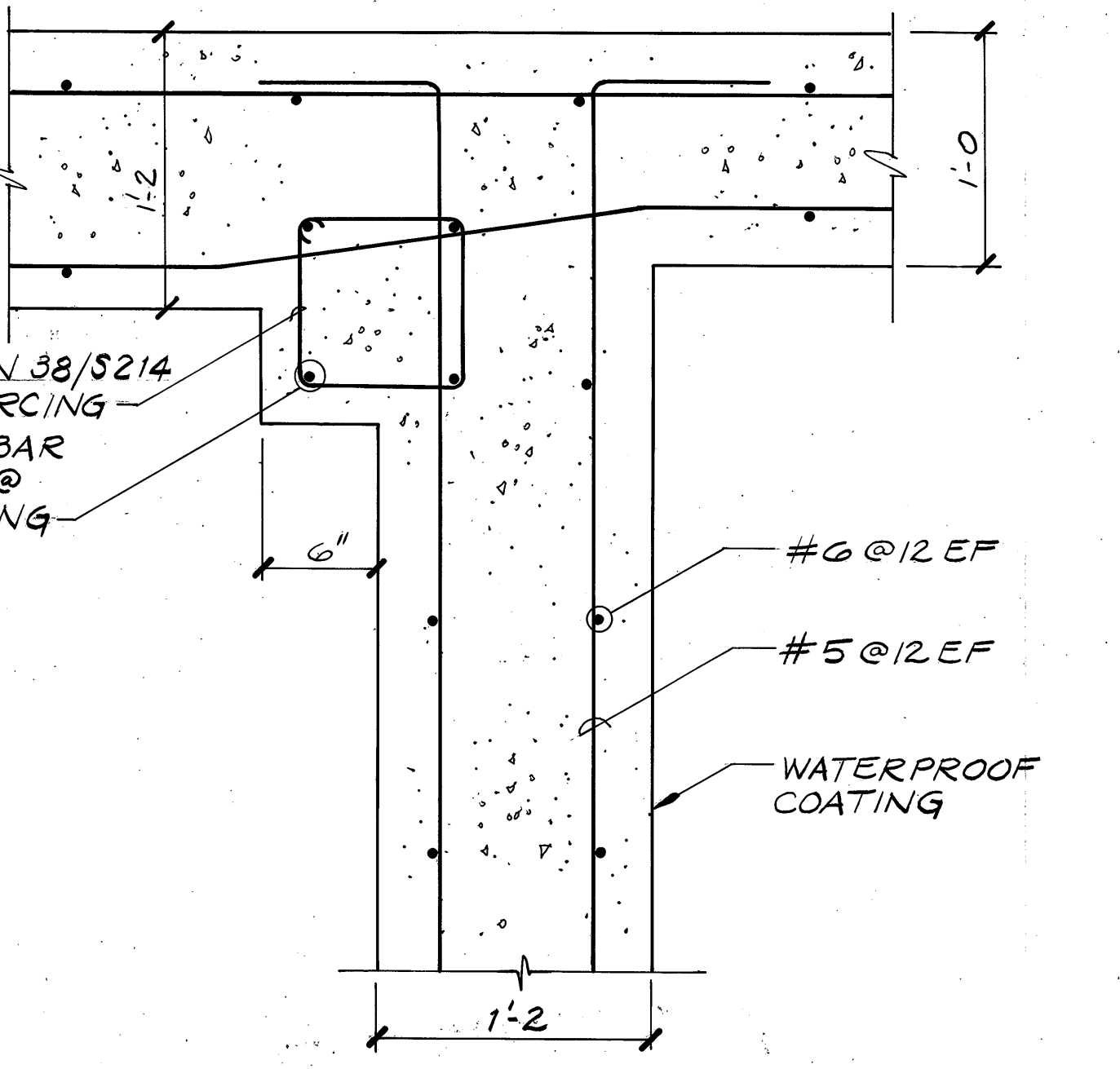
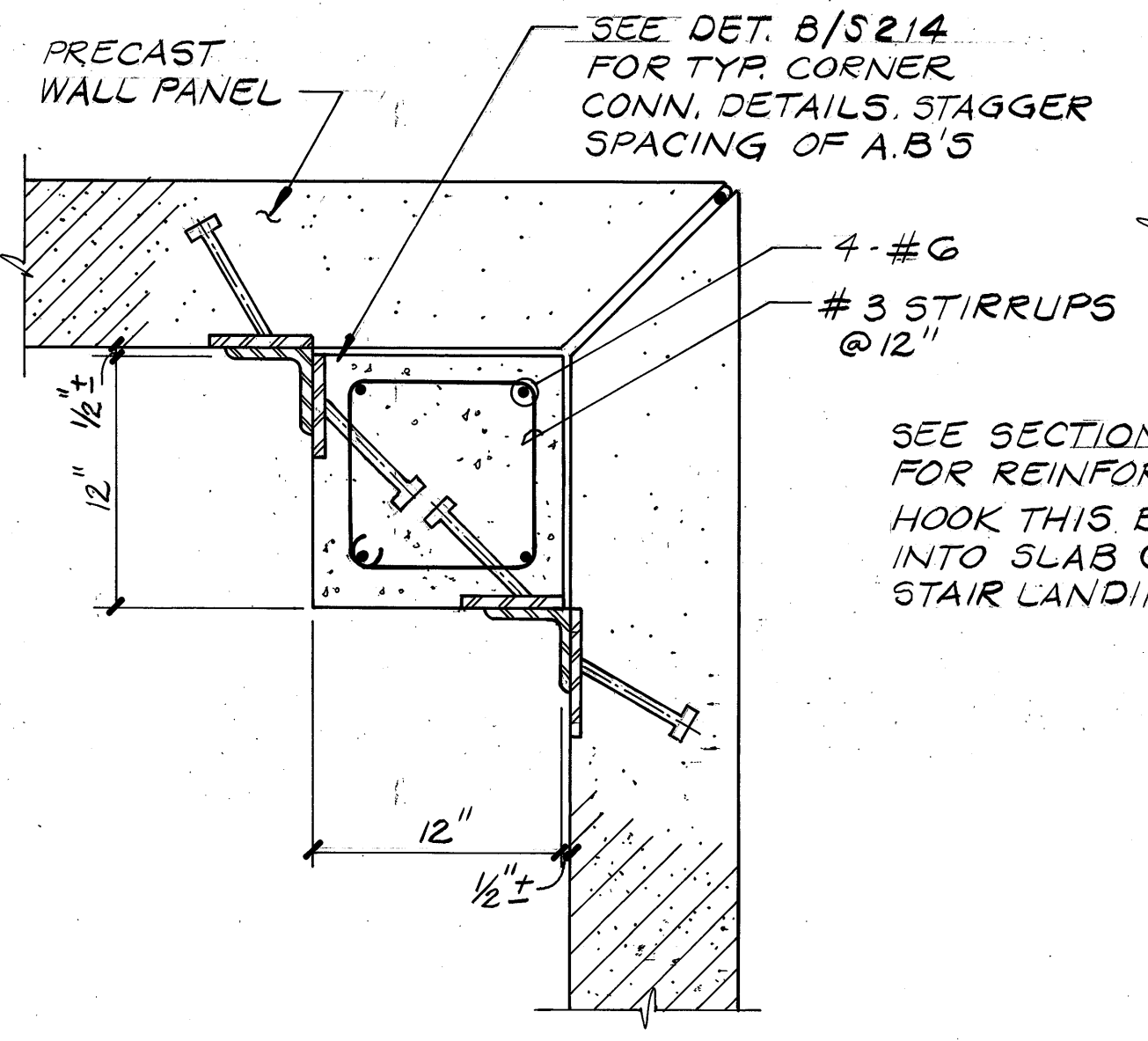
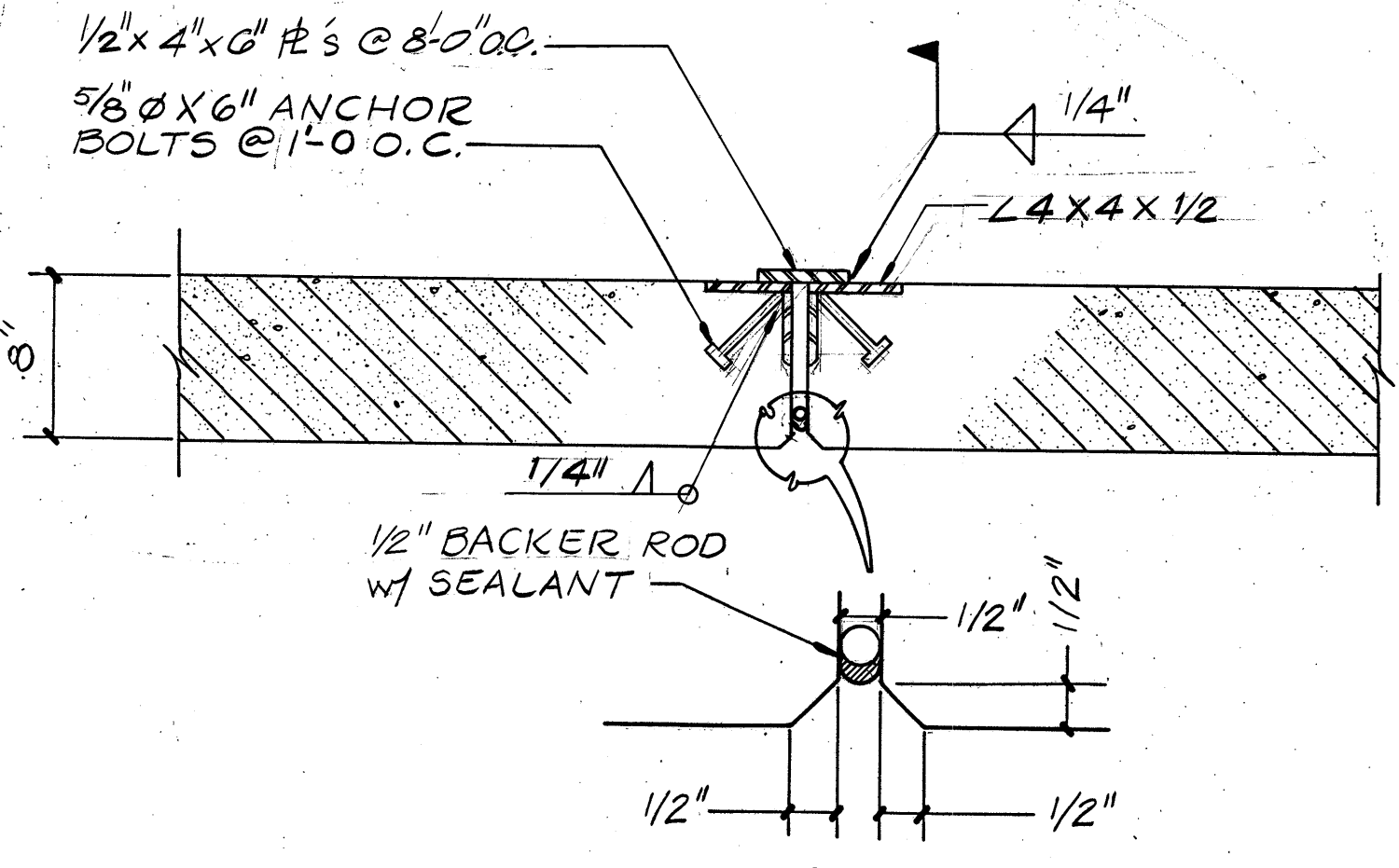
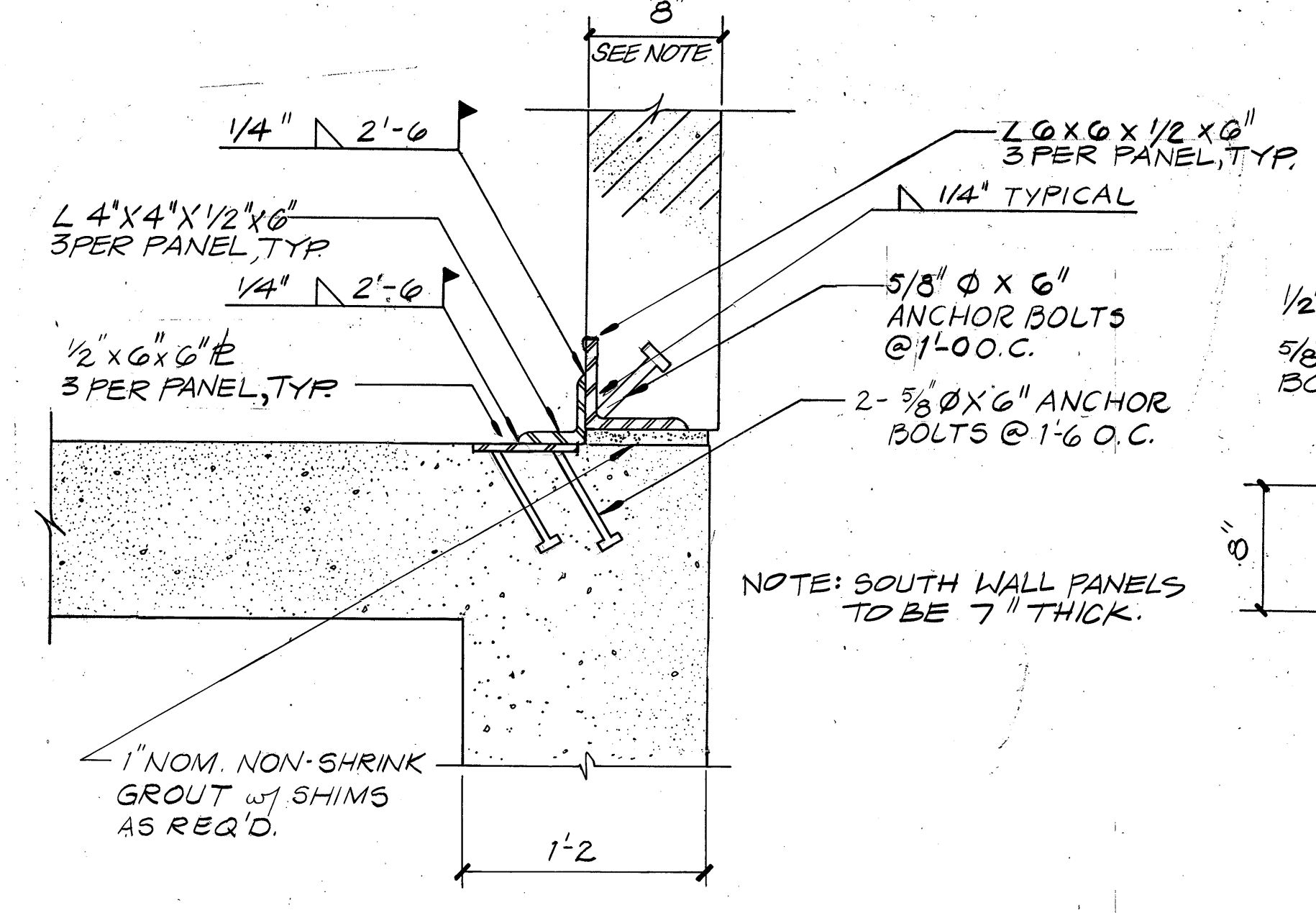
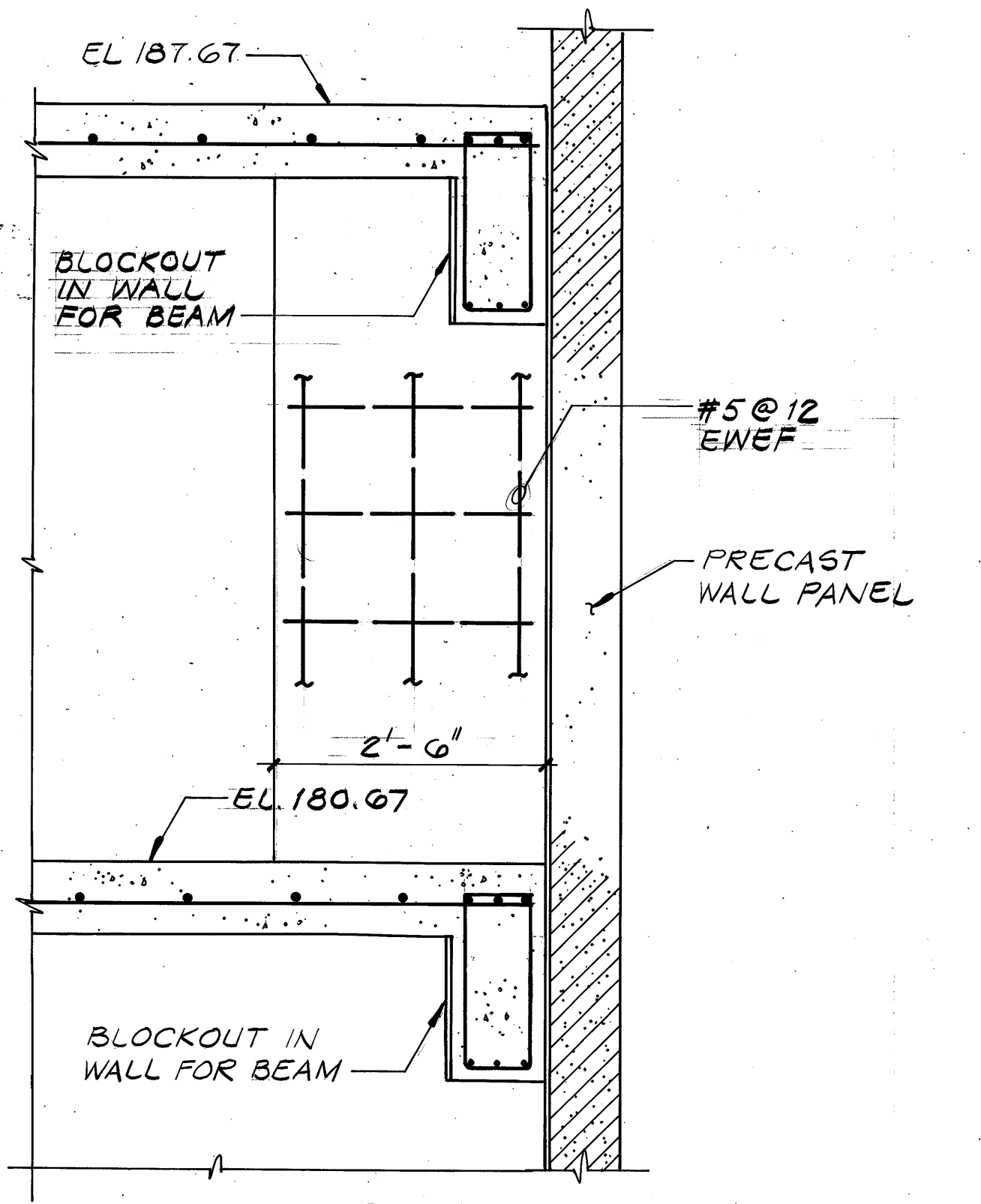
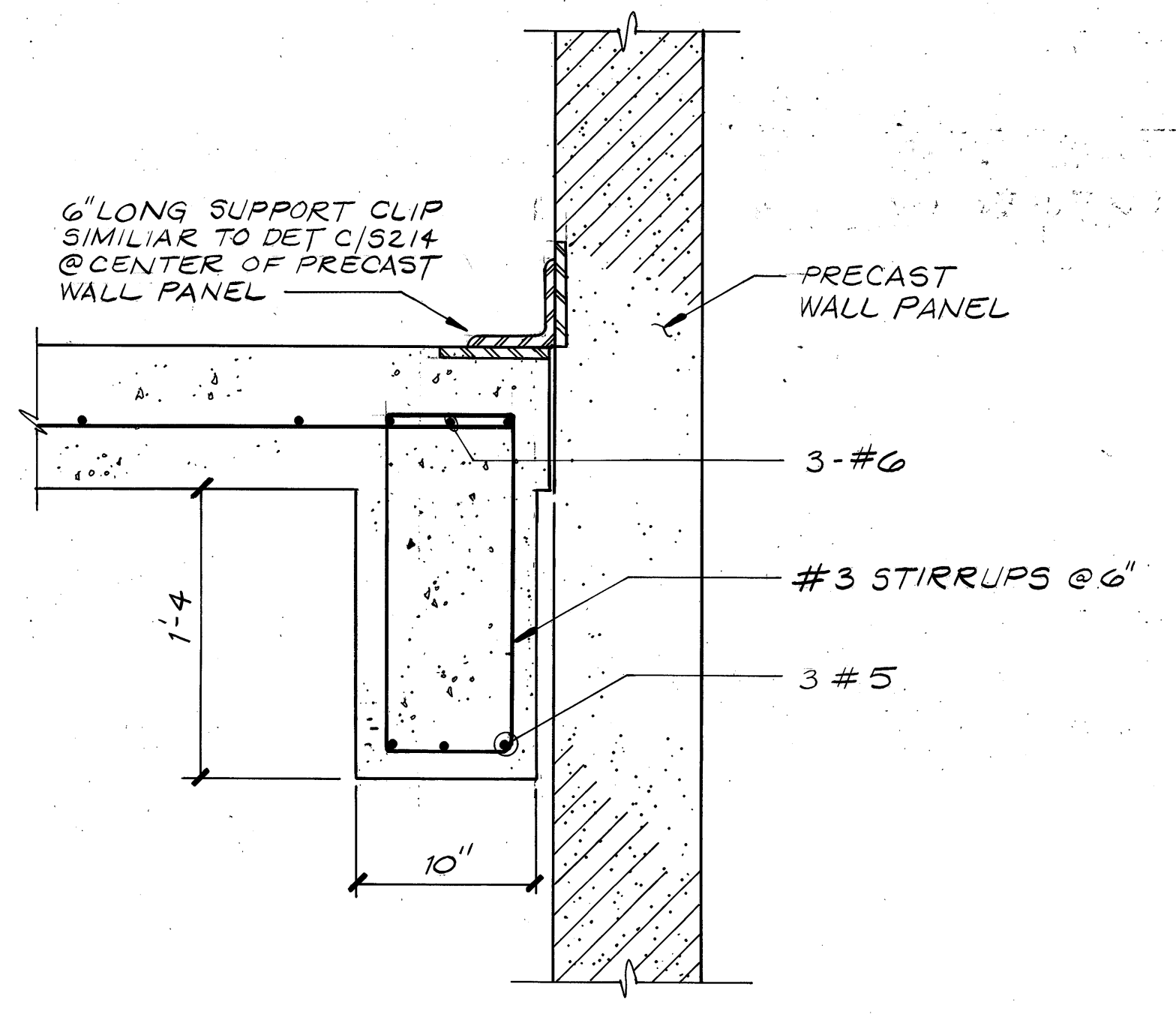
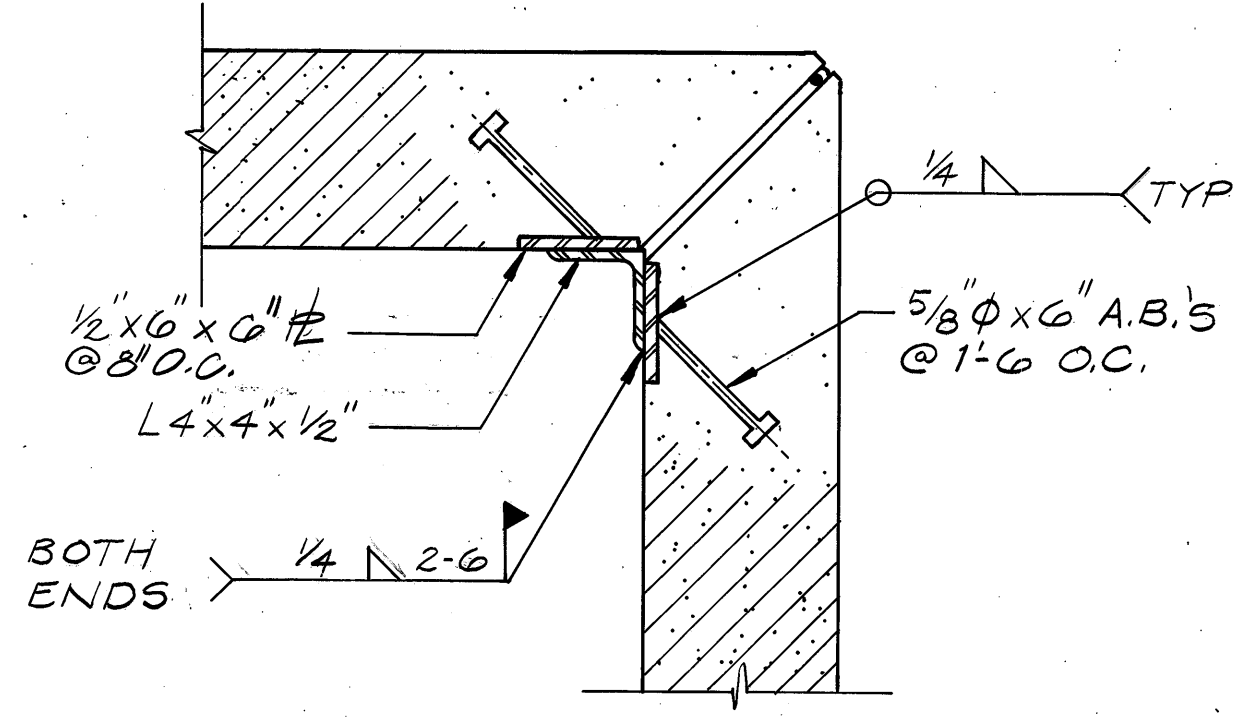
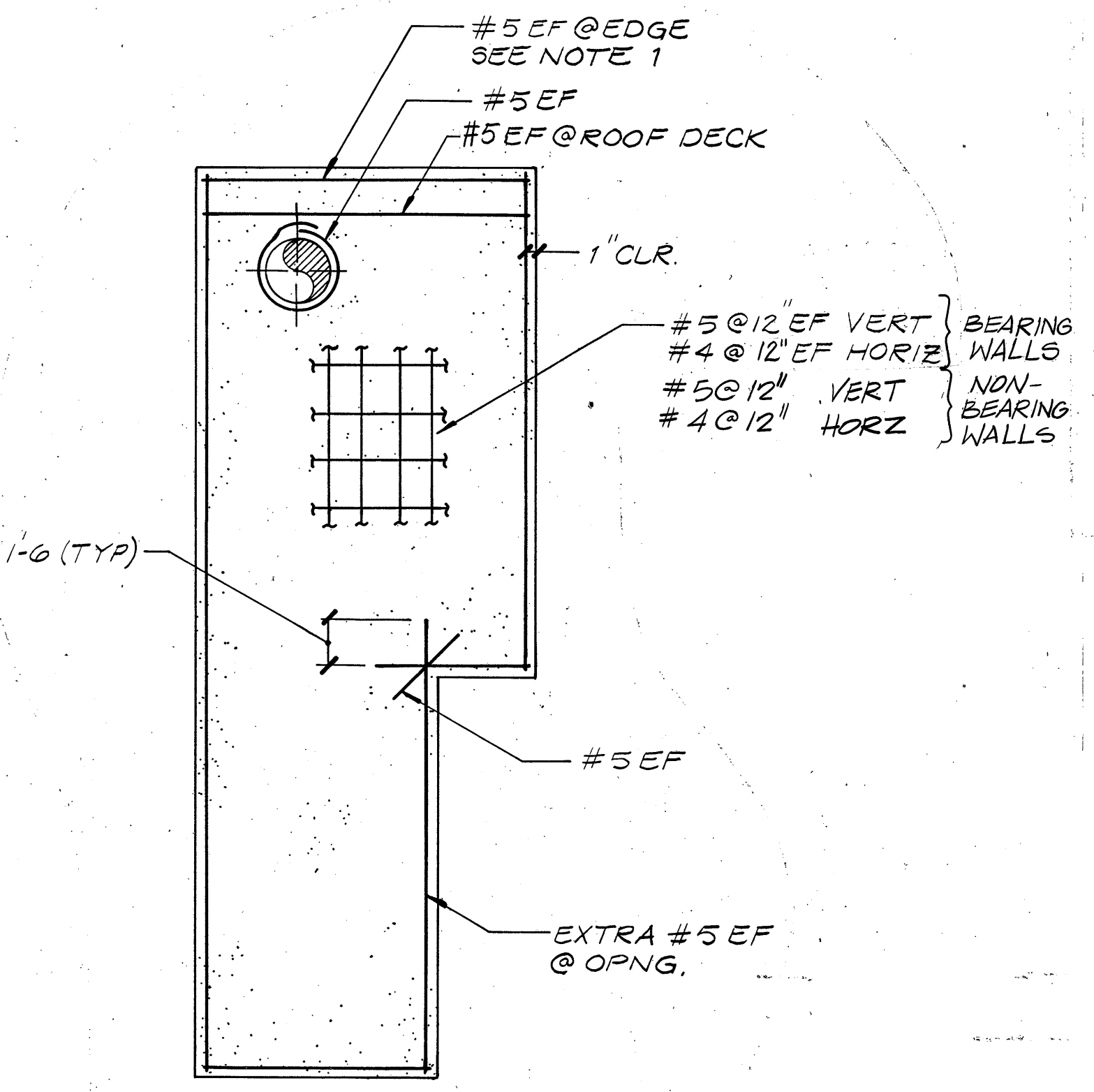
SECTION 

SCALE: 3/4" = 1'-0"

CONTROL NO.

- NOTES:
1. NO. 5 AT 12" EF FOR VERTICAL REINFORCING TO START 1 1/2" FROM EACH EDGE. ADD EXTRA NO. 5 AT 12" EF HORIZONTAL AT TOP AND BOTTOM OF PANEL 1 1/2" CLEAR FROM EDGE.
 2. SUBMIT TO CONSTRUCTION MANAGER DETAILED SHOP DRAWINGS OF PRECAST WALL PANELS INCLUDING ALL INFORMATION AS REQUIRED BY SPECIFICATIONS.
 3. REINFORCEMENT SHOWN ON DRAWINGS IS FOR IN-PLACE LOADS. ADDITIONAL REINFORCING REQUIRED FOR ERECTION AND HANDLING IS TO BE DETERMINED BY THE CONTRACTOR. SUBMIT DETAILED CALCULATIONS AND DRAWINGS SHOWING INSERT LOCATIONS, EXTRA REINFORCING AND/OR PRESTRESSING, AND ERECTION METHOD AS REQUIRED BY SPECIFICATIONS.
 4. COORDINATE AND PROVIDE ALL OPENINGS REQUIRED AS SHOWN ON DRAWINGS.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88



BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE, OREGON

FILE 2048
DATE JUNE 85
DRAWN MS

DESIGNED GRM
CHECKED WTU
CHECKED

SUBMITTED J. P. Meyer
APPROVED Dan P. Morris
APPROVED

DATE 6/3/85
DATE 6/4/85
DATE

USA
Unified Sewerage Agency
of Washington County

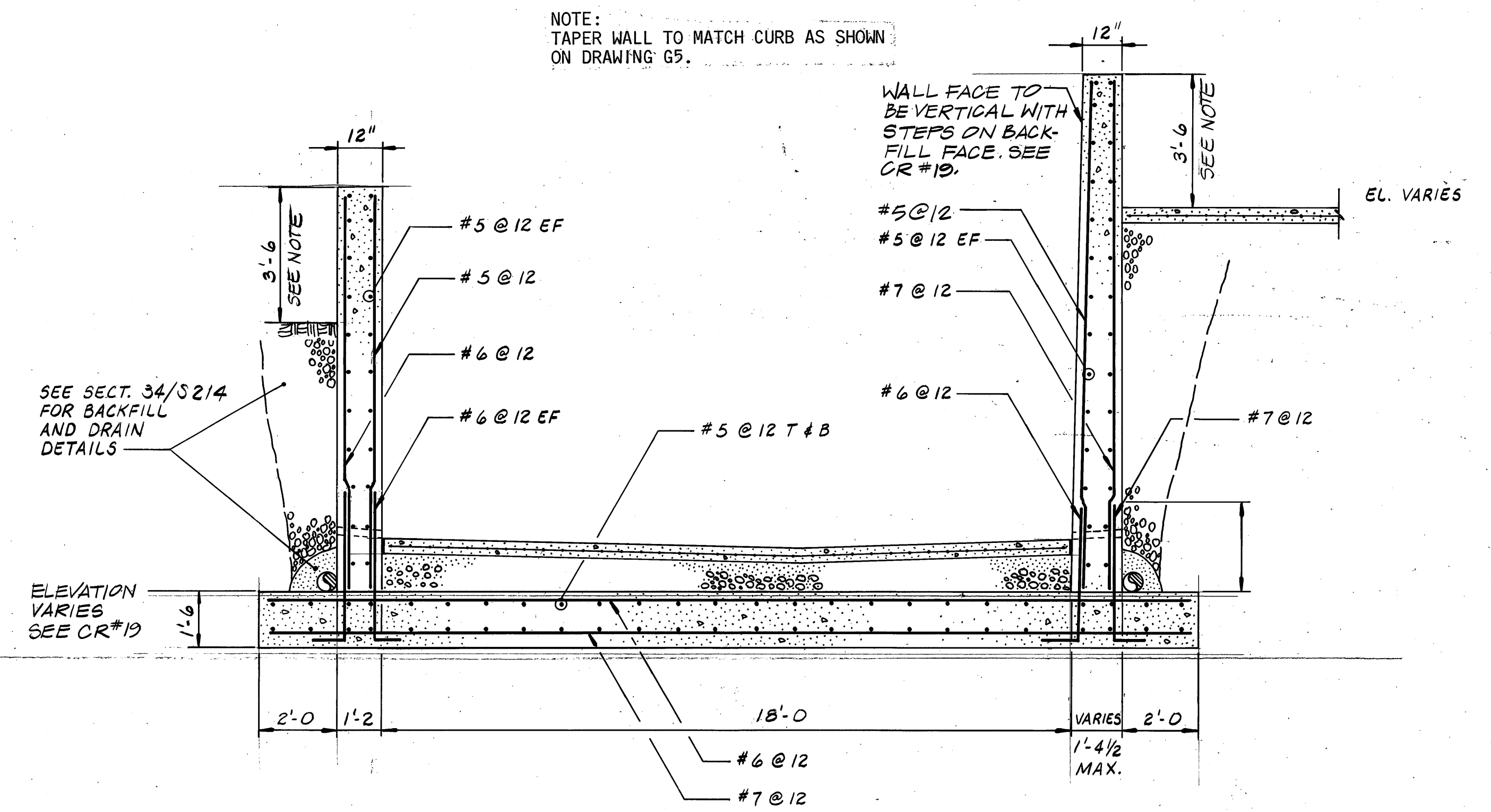
ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION


HEADWORKS BUILDING
SECTIONS AND DETAILS

THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

REGISTERED PROFESSIONAL ENGINEER
WALTER J. MEYER
EUGENE, OREGON
DEC 15, 1983

DRAWING NUMBER
S214
SHEET 48 OF 137

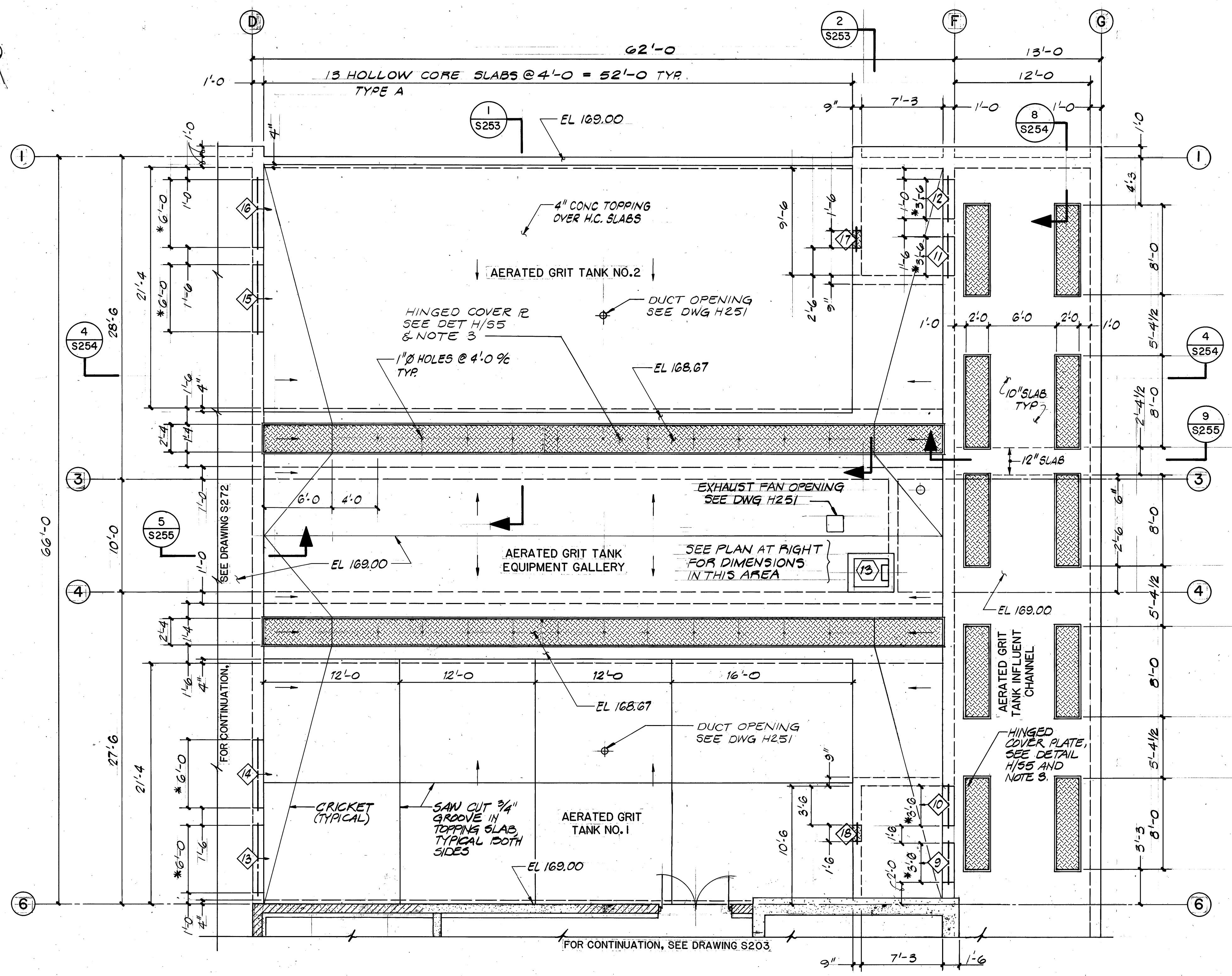


SECTION 

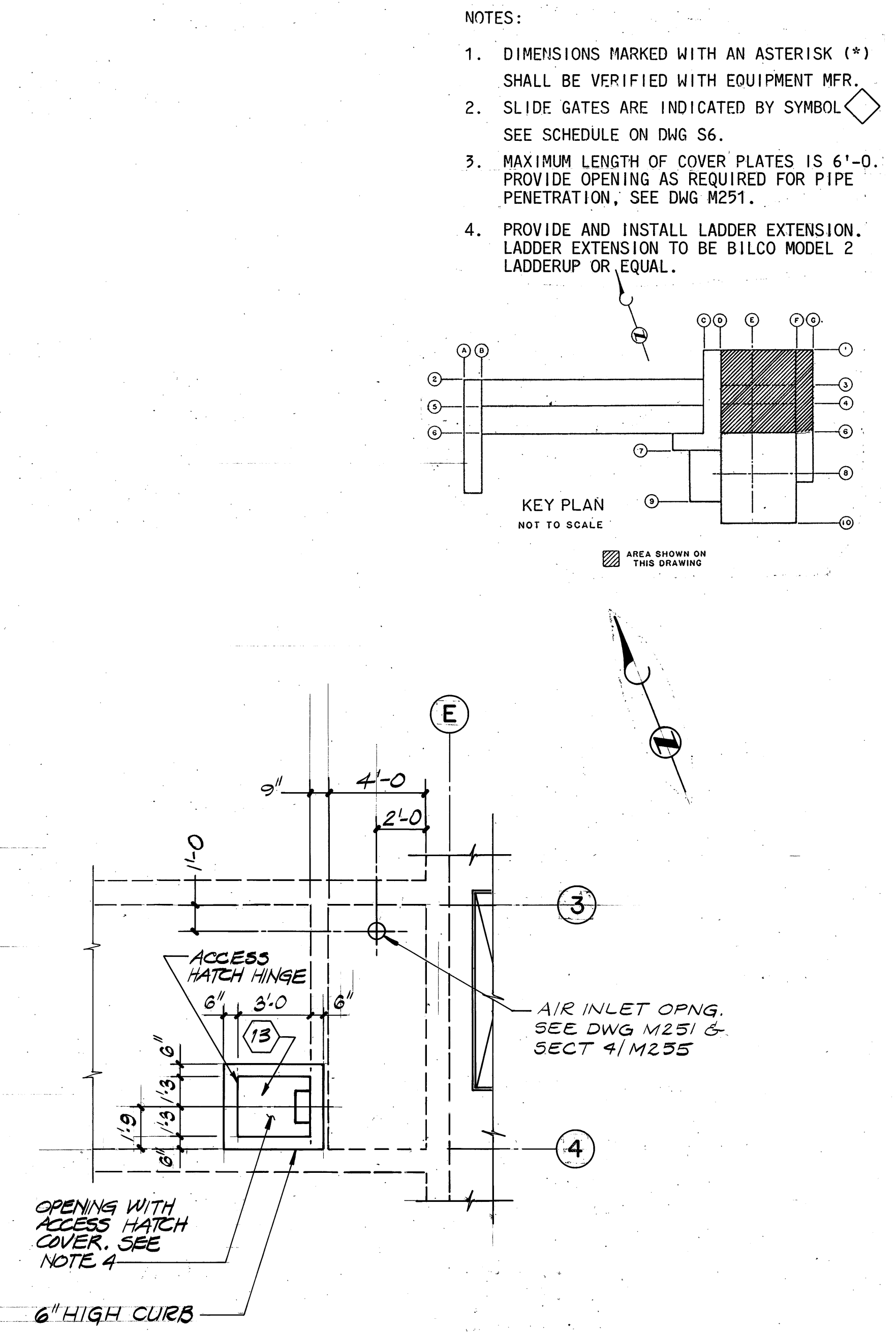
SCALE: $3/8" = 1'$

CONTROL NO.


REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88

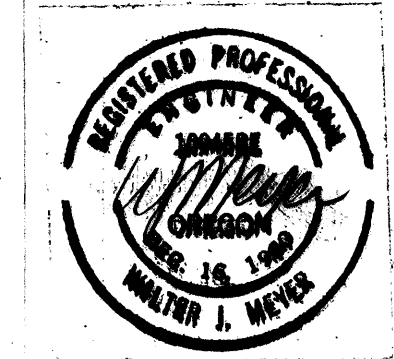
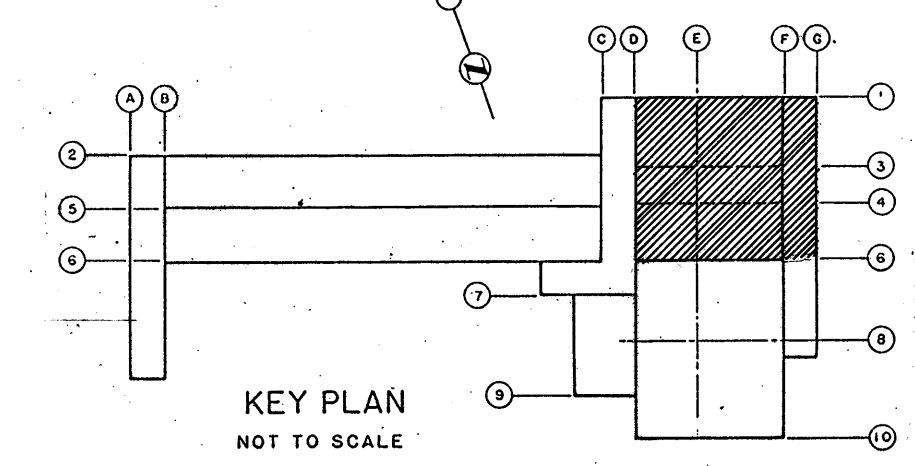


TOP PLAN
SCALE: 3/16"=1'-0"



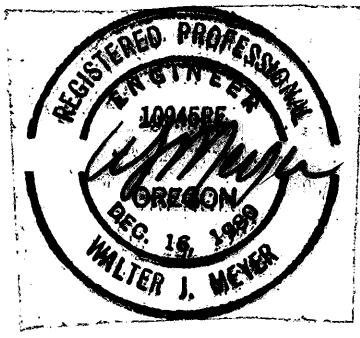
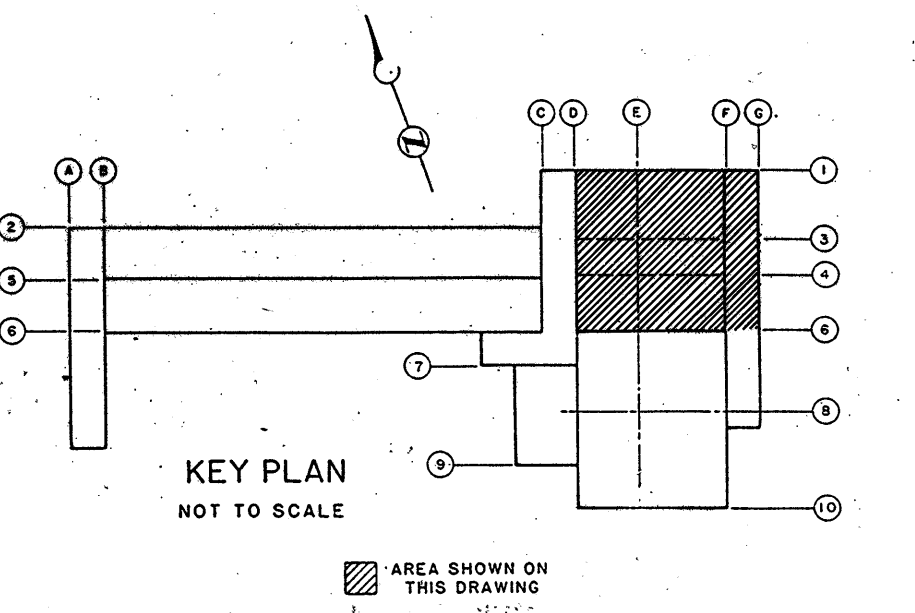
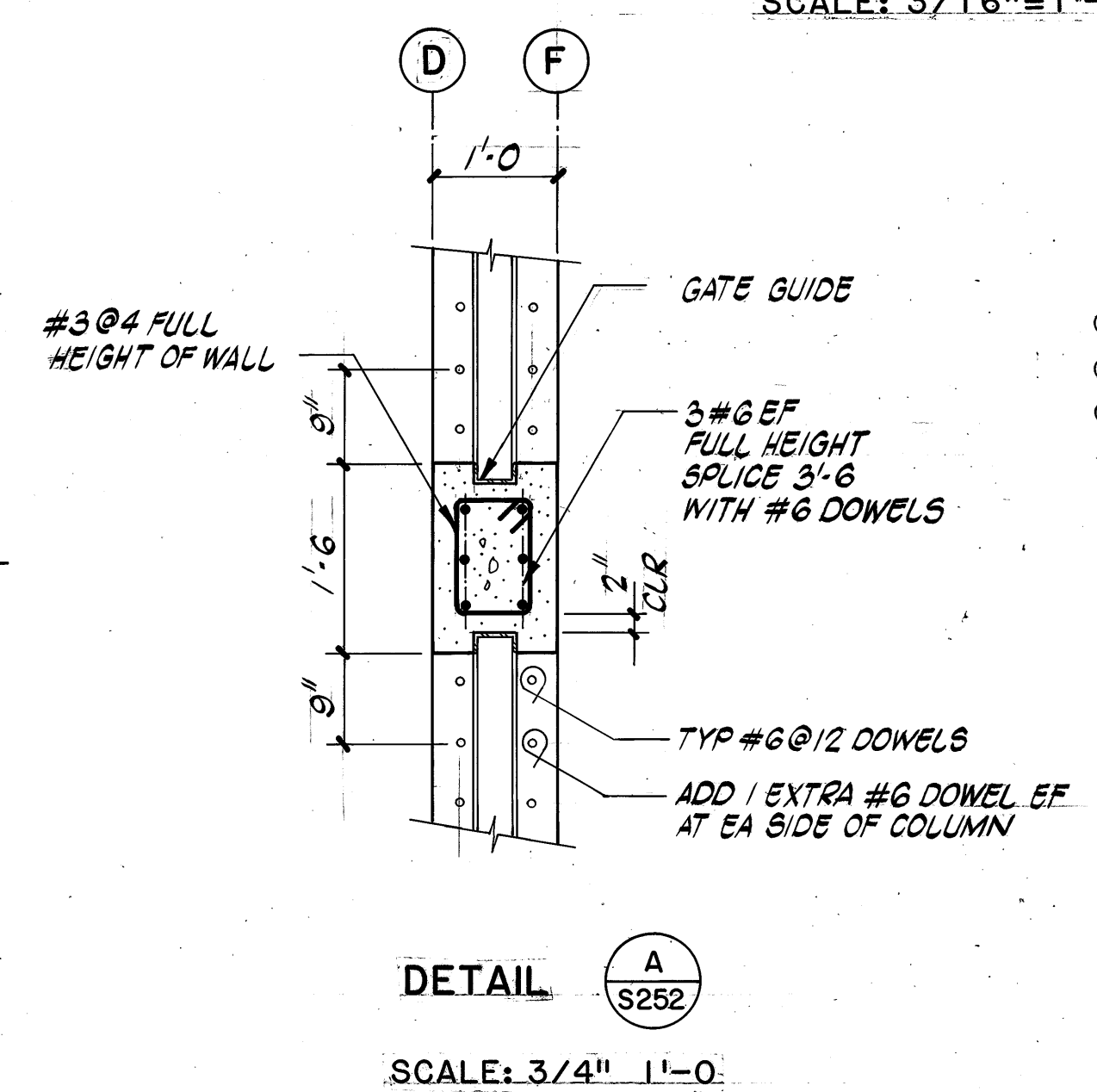
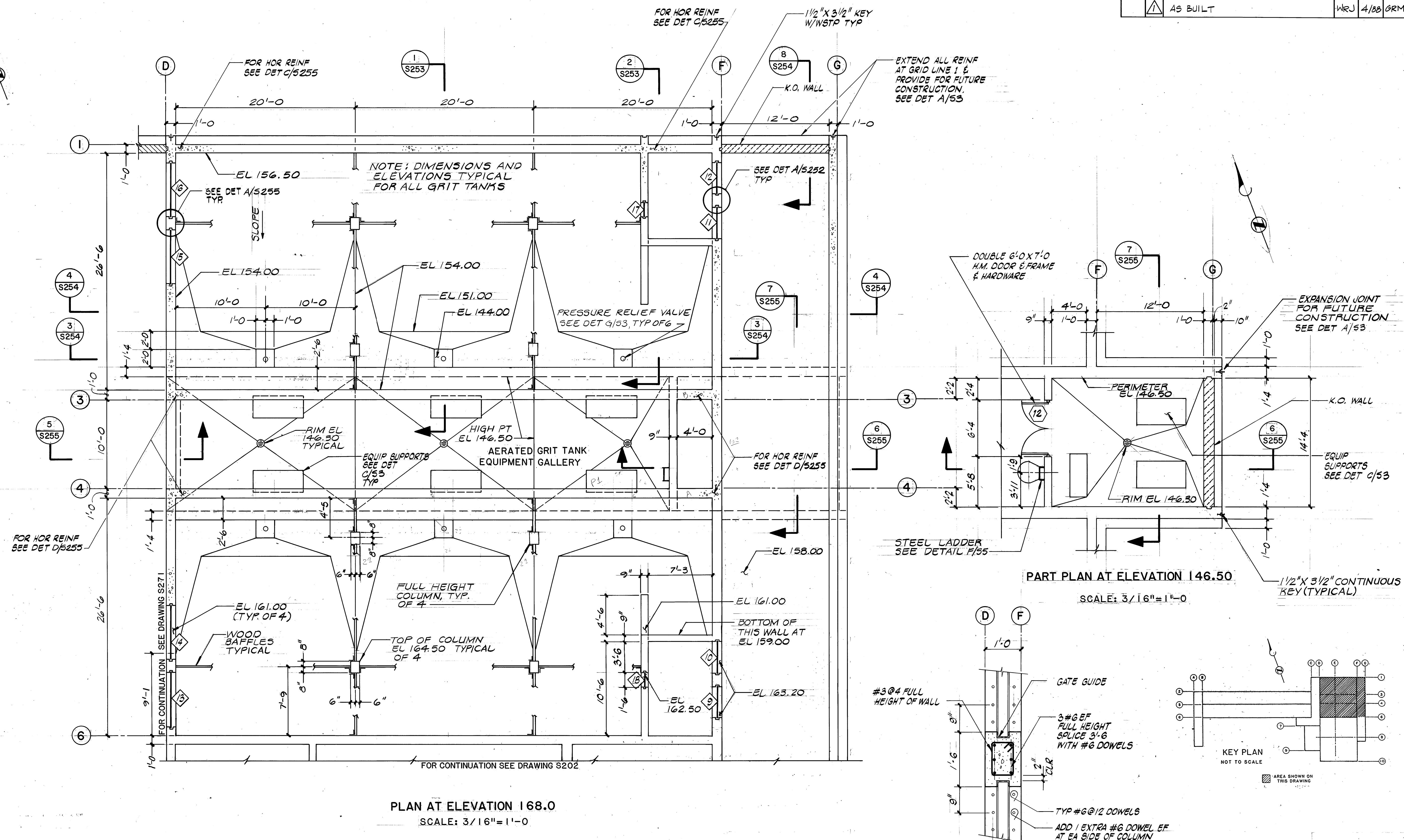
PART PLAN
SCALE: 1/4"=1'-0"

- NOTES:
1. DIMENSIONS MARKED WITH AN ASTERISK (*) SHALL BE VERIFIED WITH EQUIPMENT MFR.
 2. SLIDE GATES ARE INDICATED BY SYMBOL . SEE SCHEDULE ON DWG S6.
 3. MAXIMUM LENGTH OF COVER PLATES IS 6'-0". PROVIDE OPENING AS REQUIRED FOR PIPE PENETRATION, SEE DWG M251.
 4. PROVIDE AND INSTALL LADDER EXTENSION. LADDER EXTENSION TO BE BILCO MODEL 2 LADDERUP OR EQUAL.



CONTROL NO.

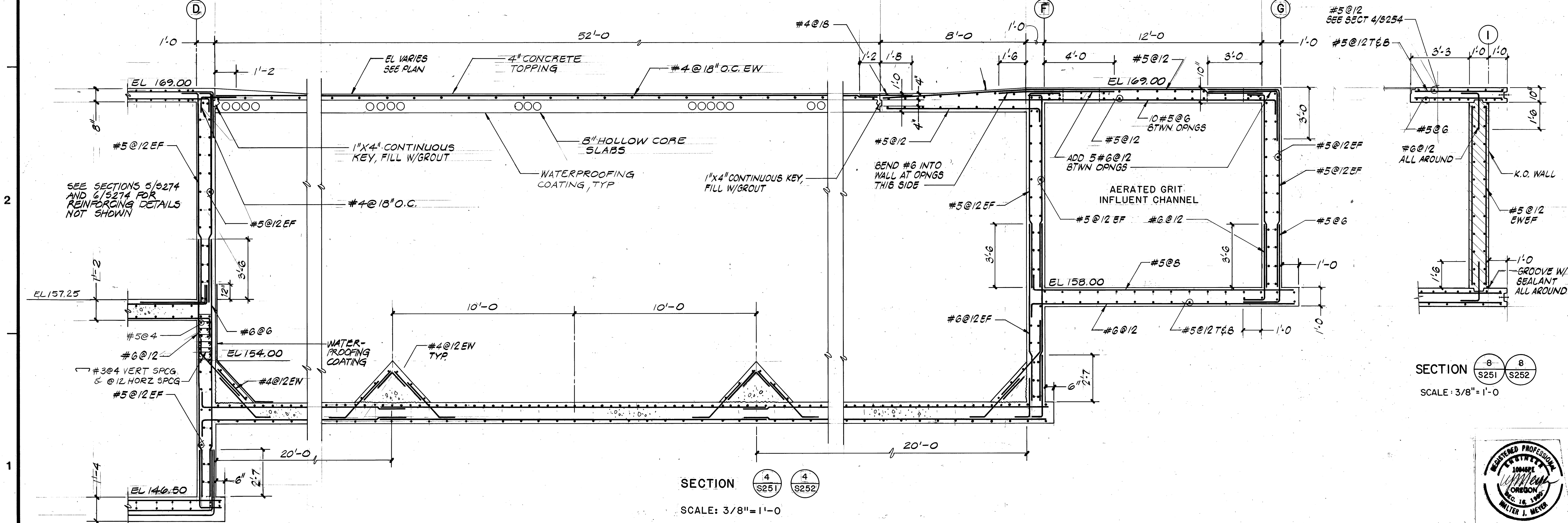
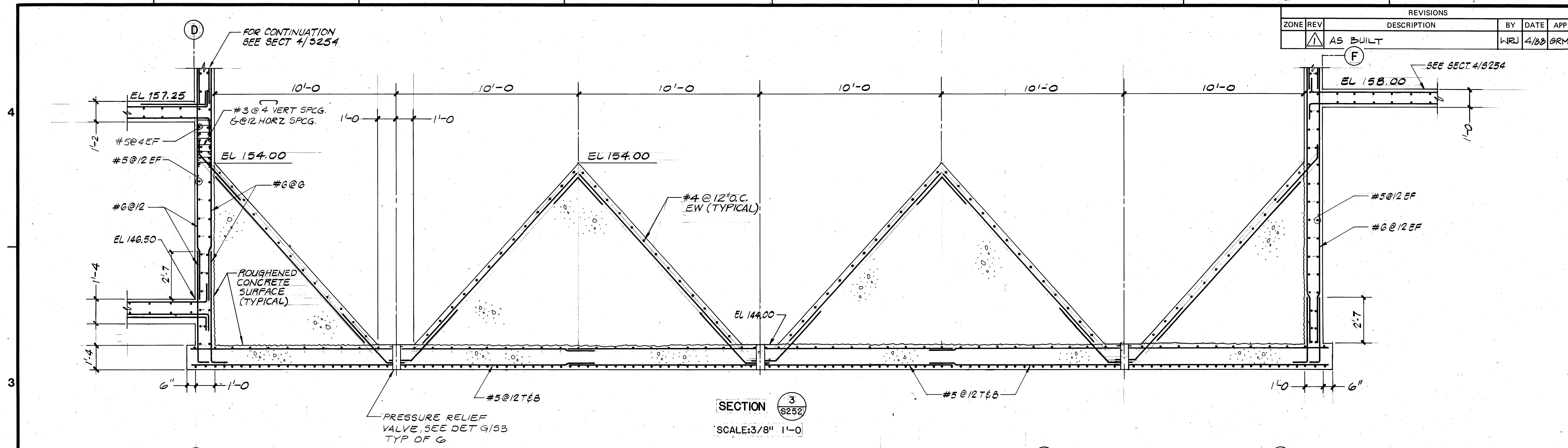
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	AS BUILT		WRJ	4/88





CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	AS BUILT		WRJ	4/88



BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE, OREGON

FILE **2048**
DATE **JUNE 85**
DRAWN **GTM**

DESIGNED **GRM**
CHECKED **WTJ**
CHECKED

SUBMITTED **[Signature]** DATE **4/85**
APPROVED **[Signature]** DATE **6/85**
APPROVED

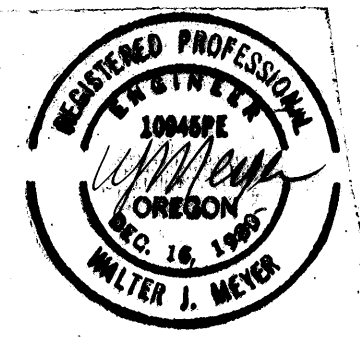
USA
United Sewerage Agency
of Washington County

ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

AERATED GRIT TANKS
SECTIONS

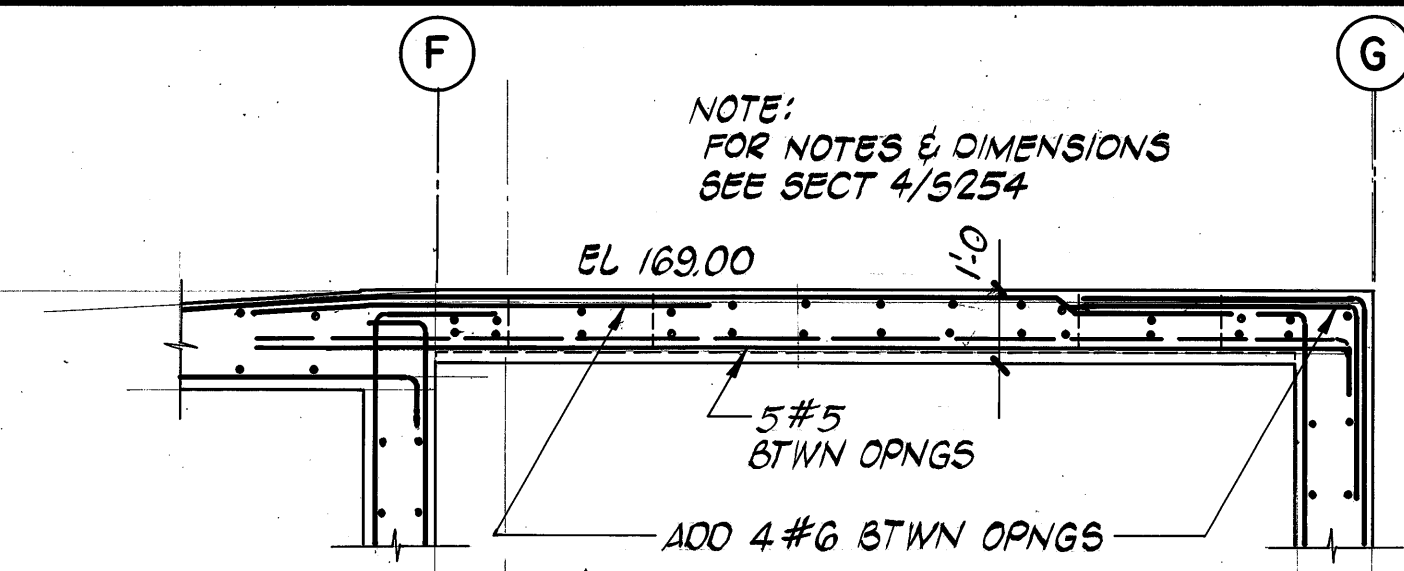
THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S254
SHEET 53 OF 137

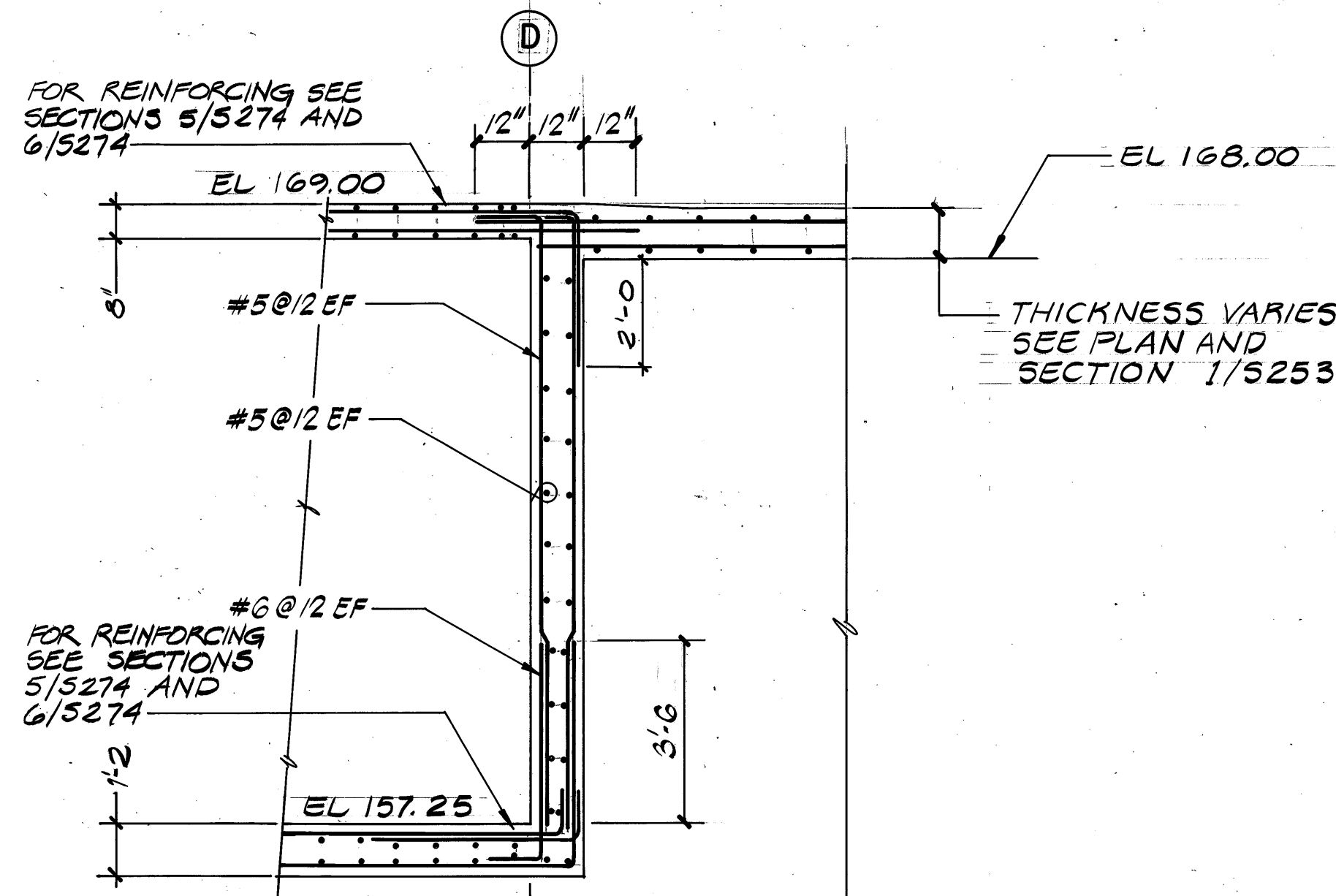


CONTROL NO.

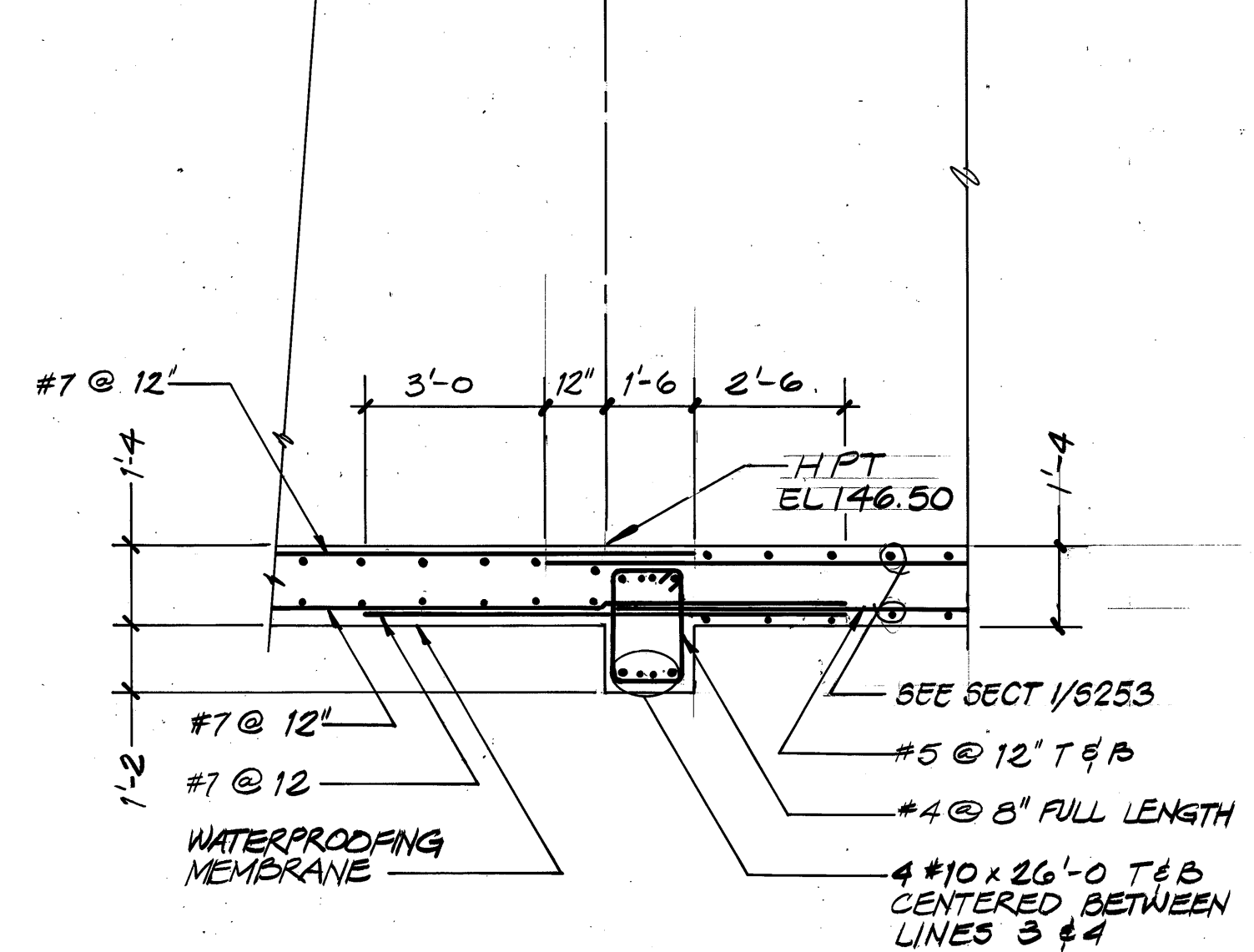
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88



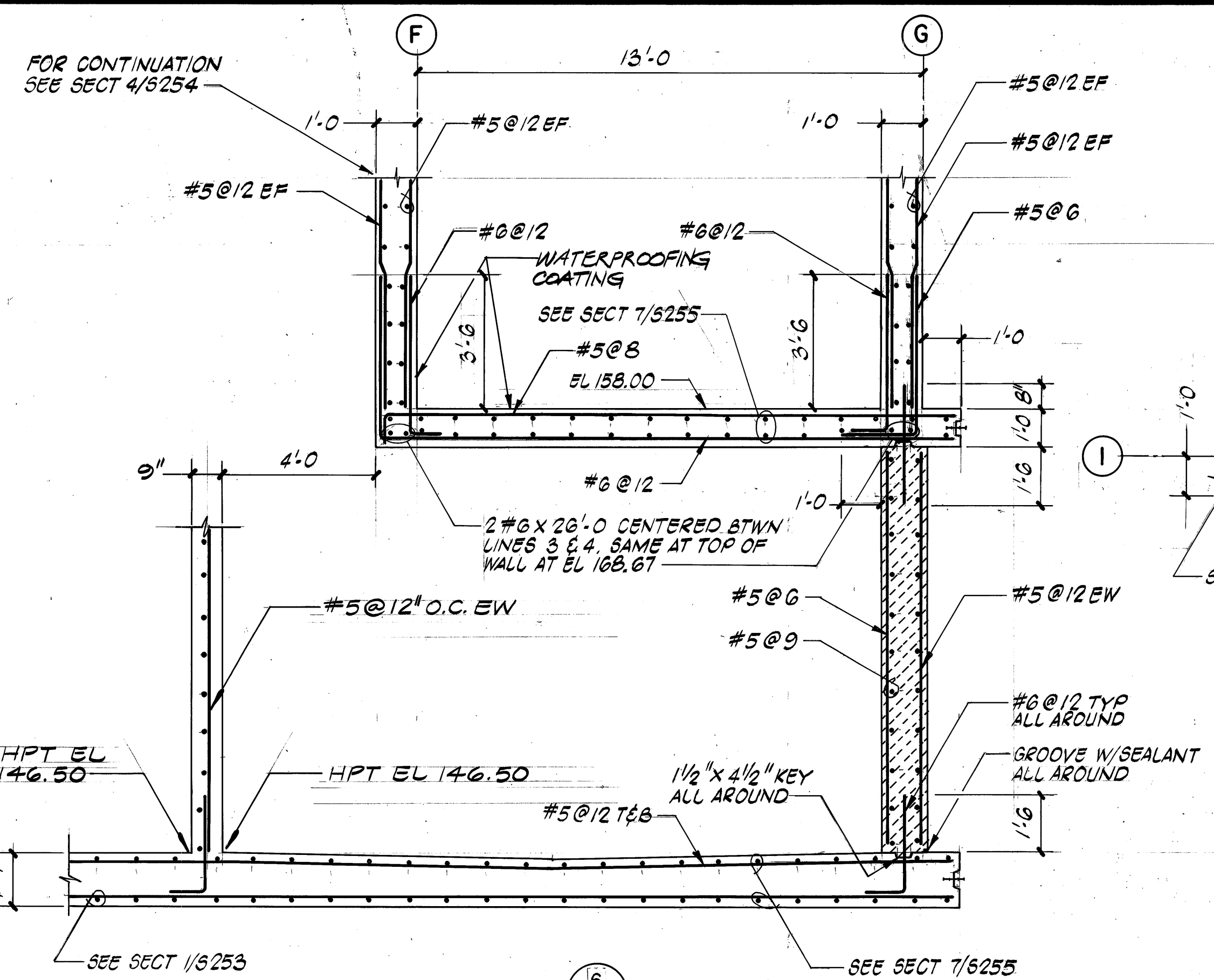
SECTION 9
S251
SCALE: 3/8" = 1'-0"



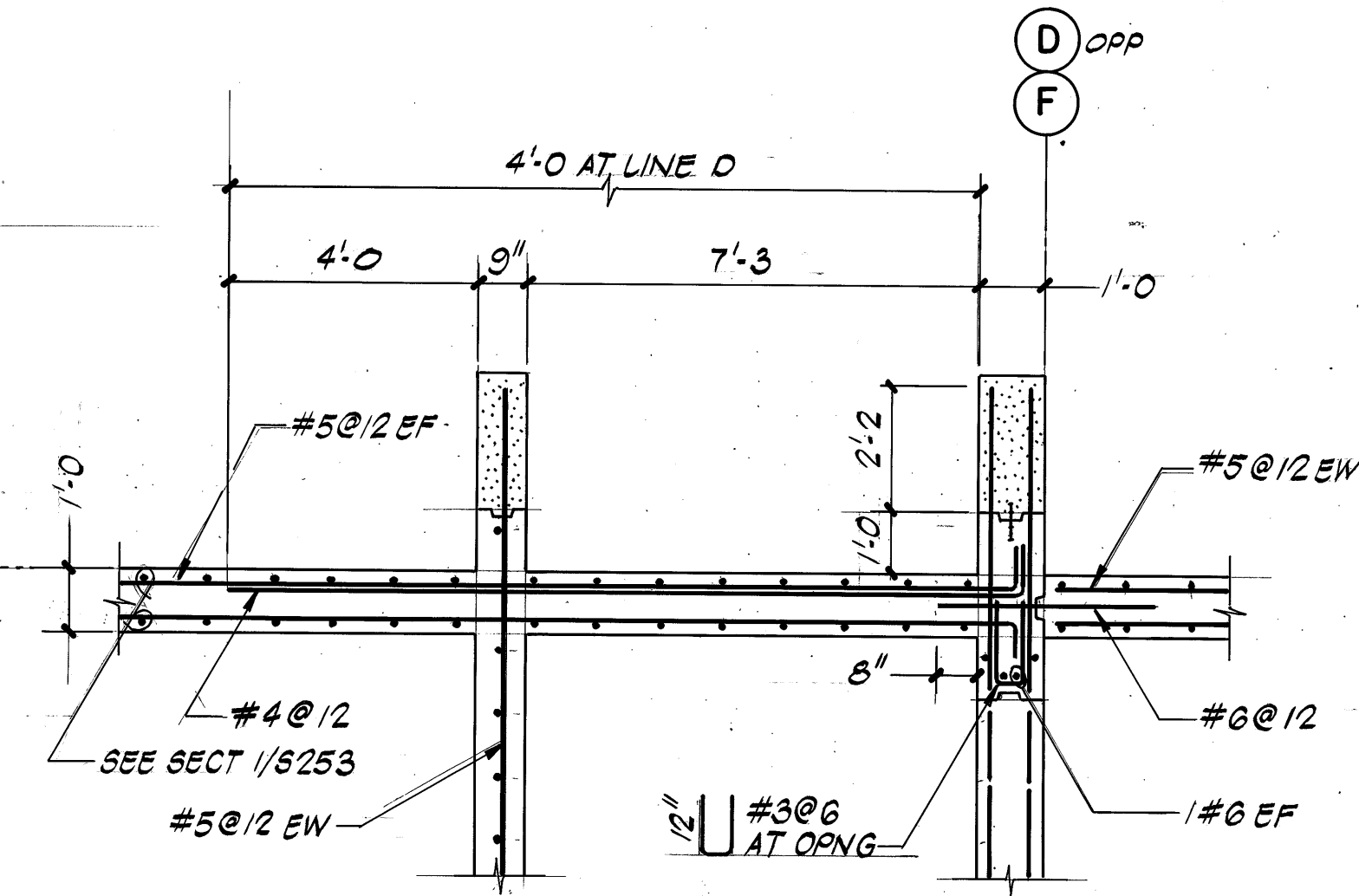
SECTION 5
S251
SCALE: 3/8" = 1'-0"



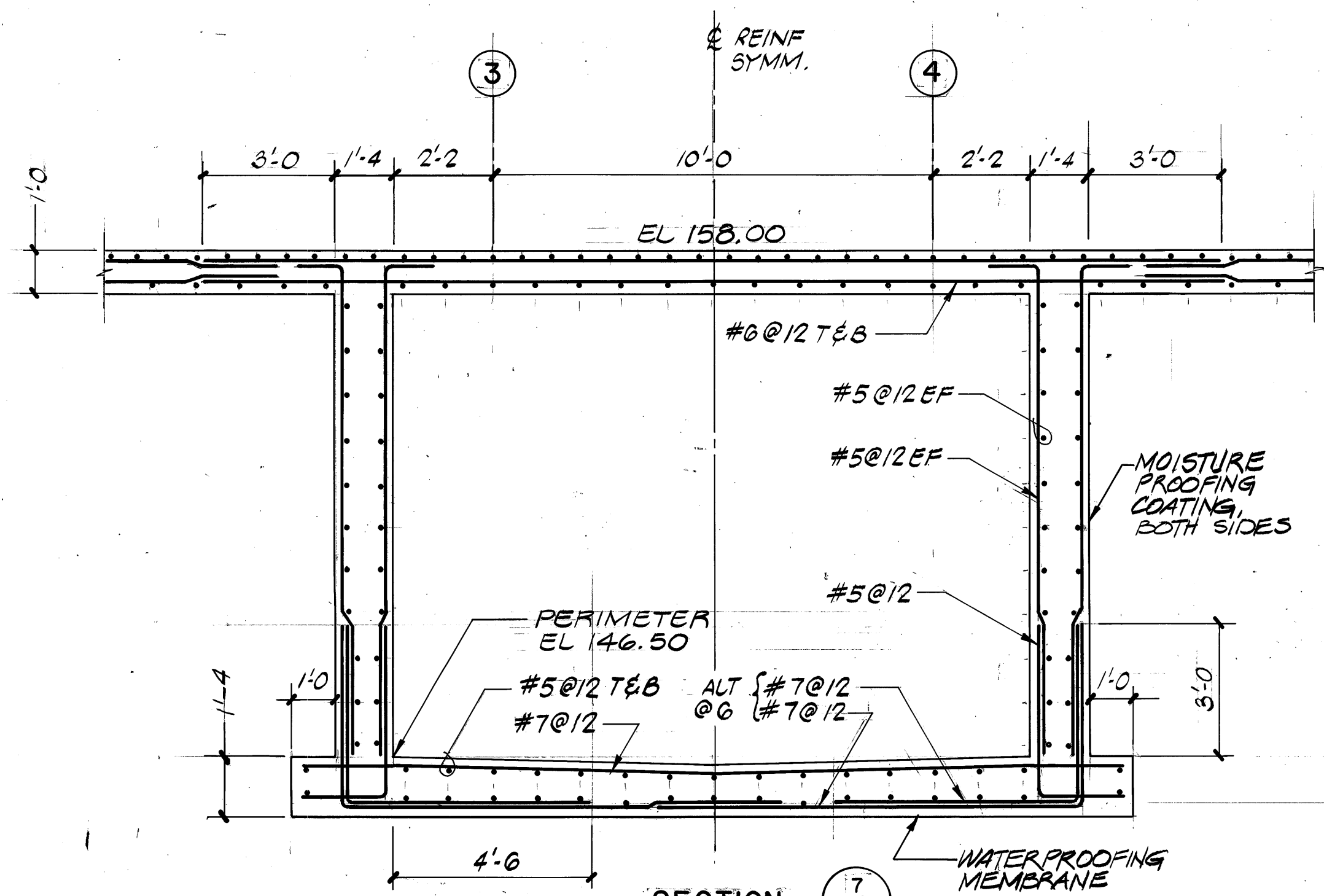
SECTION 5
S252
SCALE: 3/8" = 1'-0"



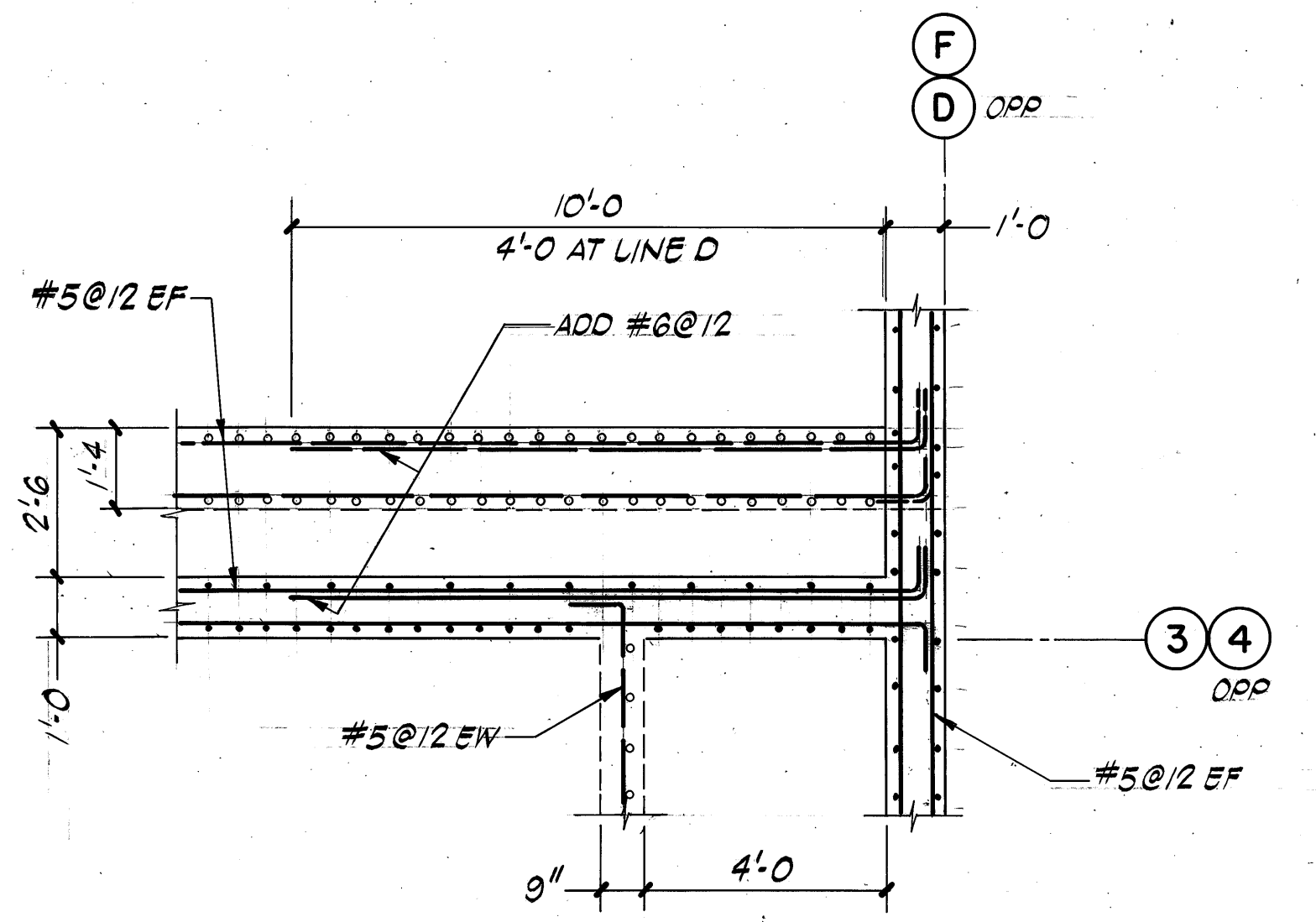
SECTION 16
S252
SCALE: 3/8" = 1'-0"



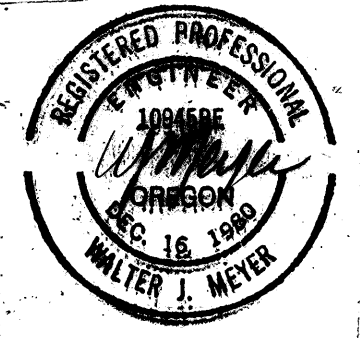
DETAIL C
S252
SCALE: 3/8" = 1'-0"



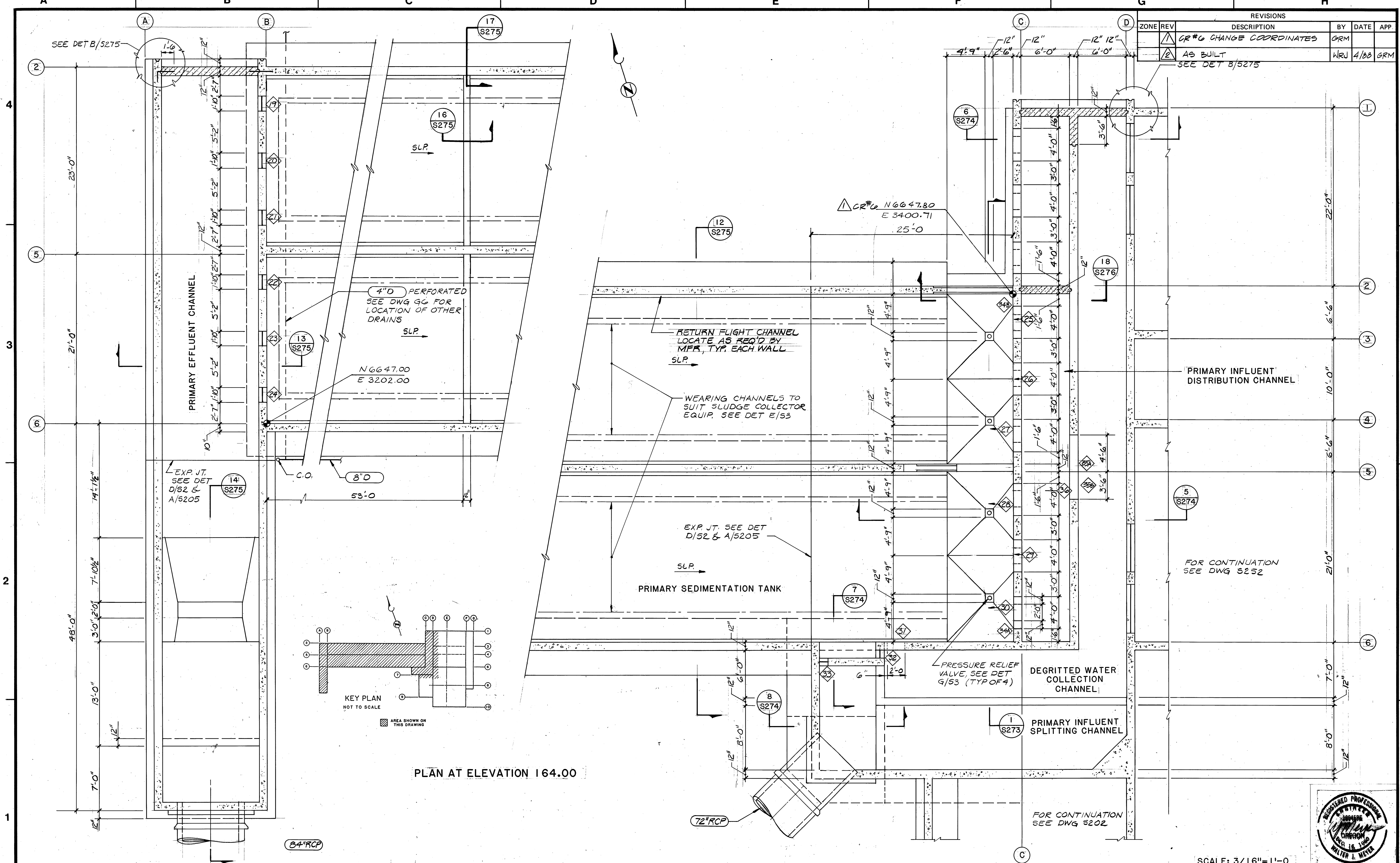
SECTION 7
S252
SCALE: 3/8" = 1'-0"



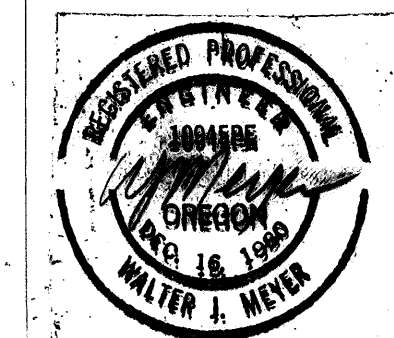
DETAIL D
S252
SCALE: 3/8" = 1'-0"



CONTROL NO.



REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	CR#6 CHANGE COORDINATES	GRM	
	2	AS BUILT	WRU	4/88



SCALE: 3/16"=1'-0"

BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE, OREGON

FILE 2048
DATE JUNE 05
DRAWN GTM

DESIGNED GRM
CHECKED WTJ
CHECKED

SUBMITTED W. Meyer
APPROVED Walter J. Meyer
APPROVED

DATE 4/3/85
DATE 6/1/85
DATE



ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

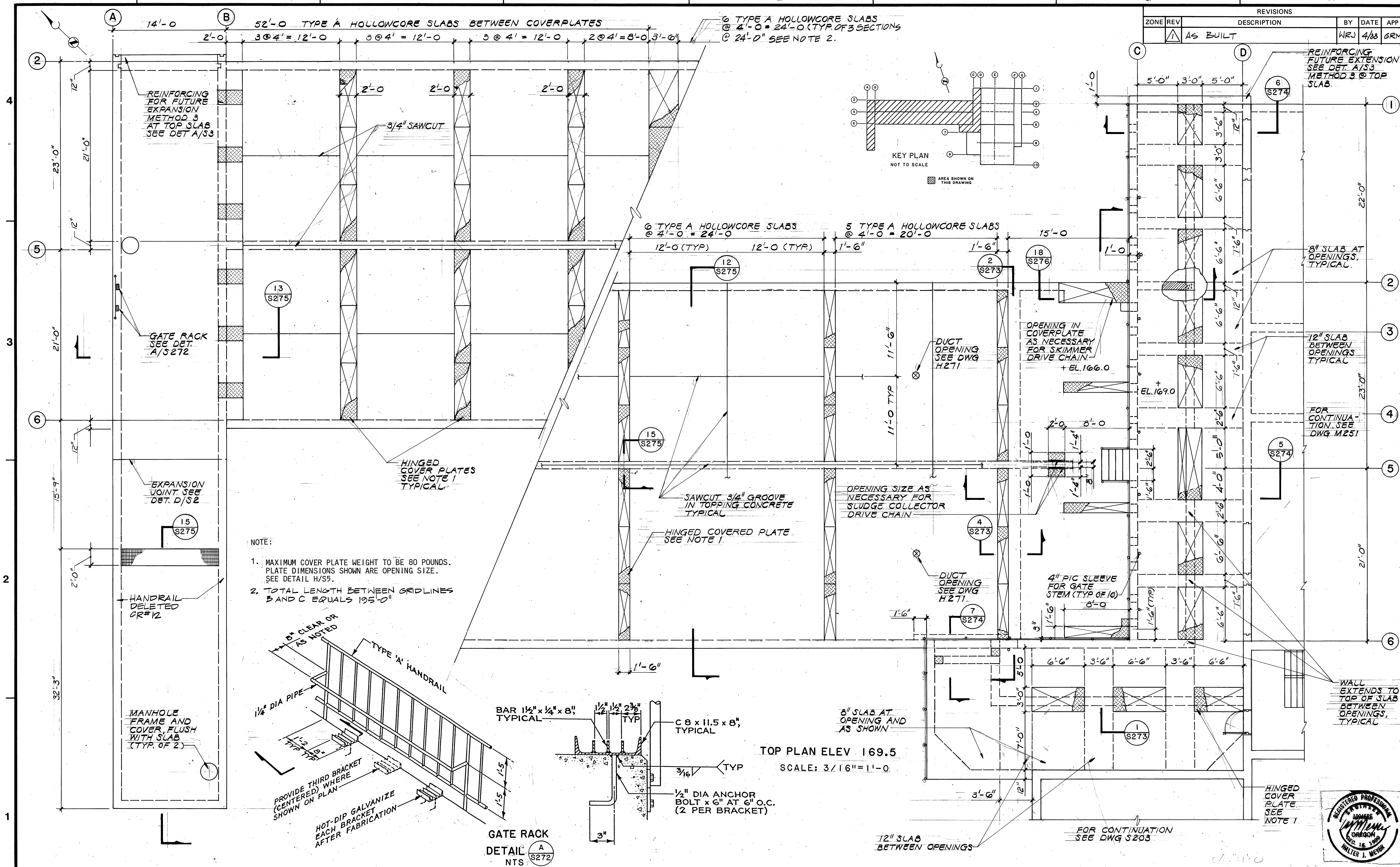
PRIMARY STRUCTURE
PLAN AT ELEVATION 164.00

THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S271
SHEET 55 OF 137

CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
AS BUILT			NRJ	4/88



BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE, OREGON

FILE **2048**
DATE **JUNE 85**
DRAWN **JMT**

DESIGNED **GRM**
CHECKED **WTJ**
CHECKED

SUBMITTED **W. J. Meyer**
APPROVED **W. J. Meyer**
APPROVED

DATE **4/3/85**
DATE **6/3/85**
DATE

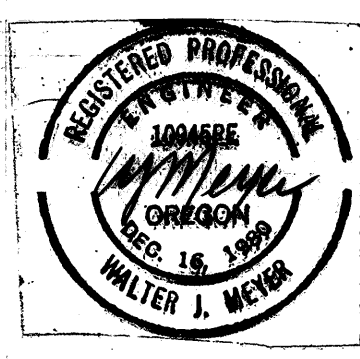


ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

PRIMARY STRUCTURE
TOP PLAN

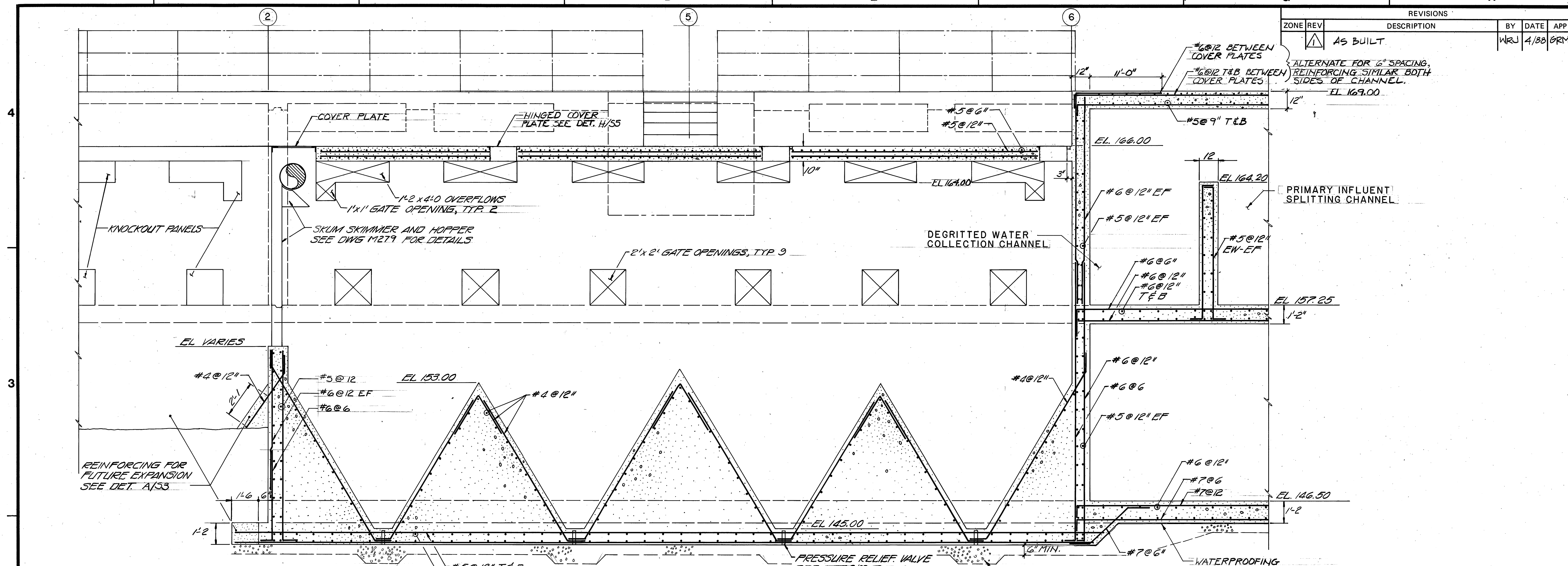
THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S272
SHEET **58 OF 137**

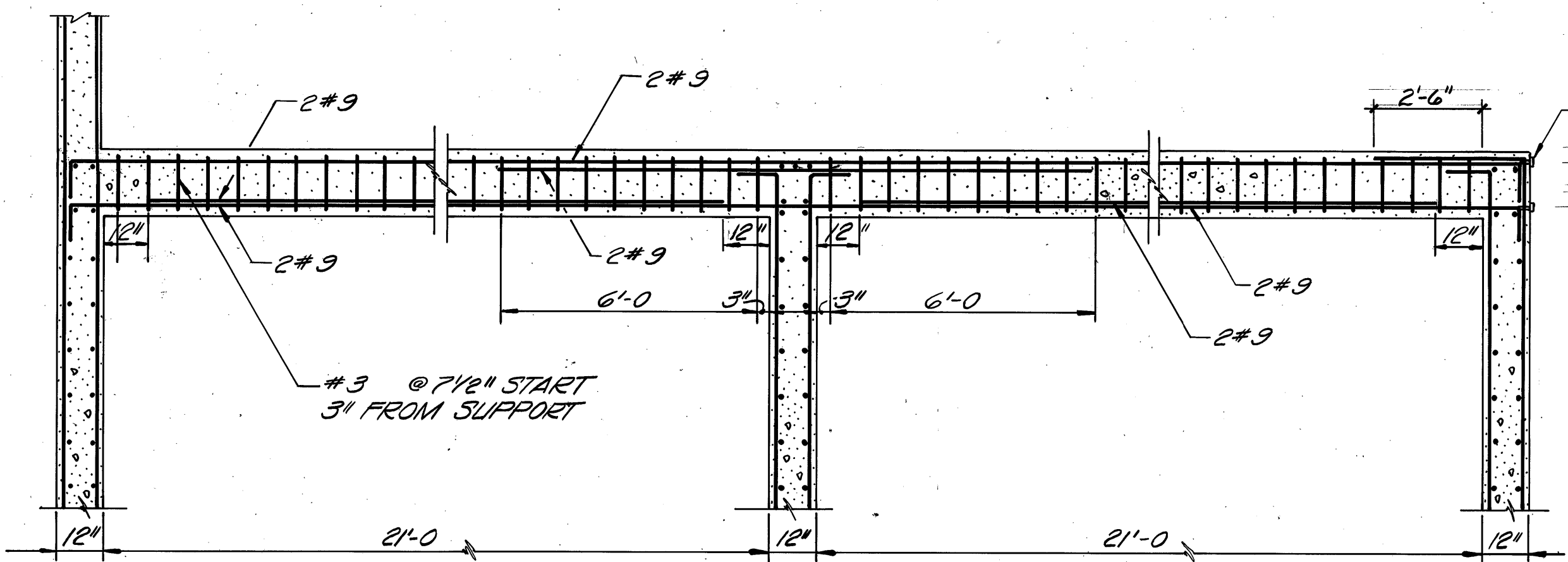


CONTROL NO.

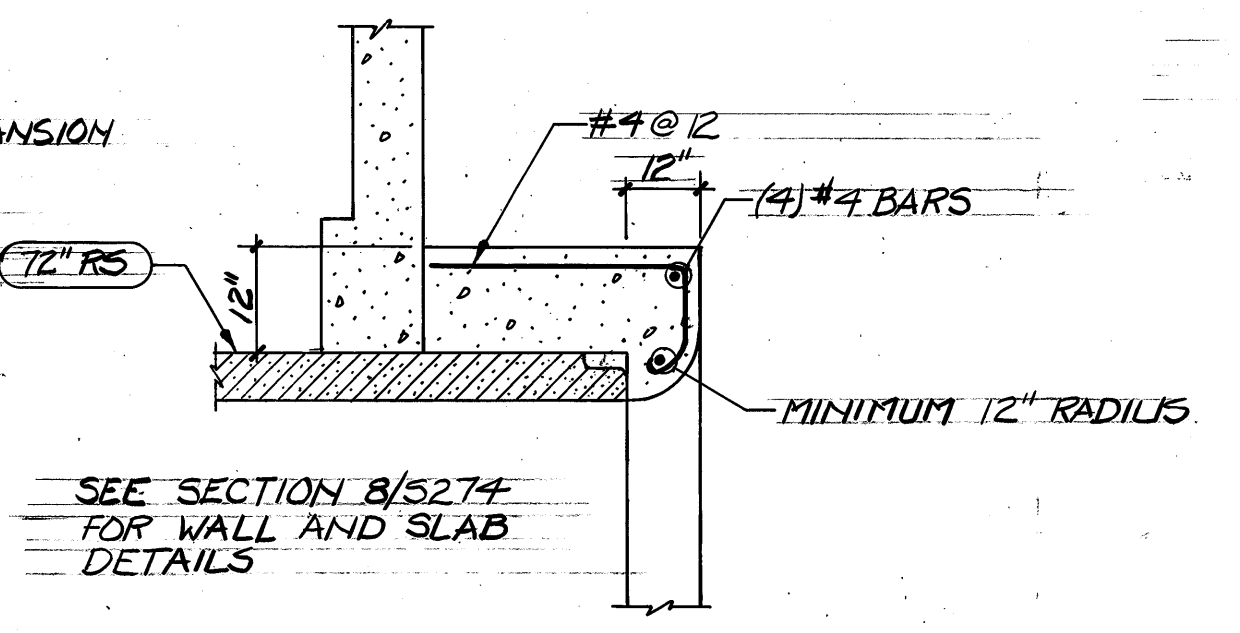
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
AS BUILT			WRJ	4/88



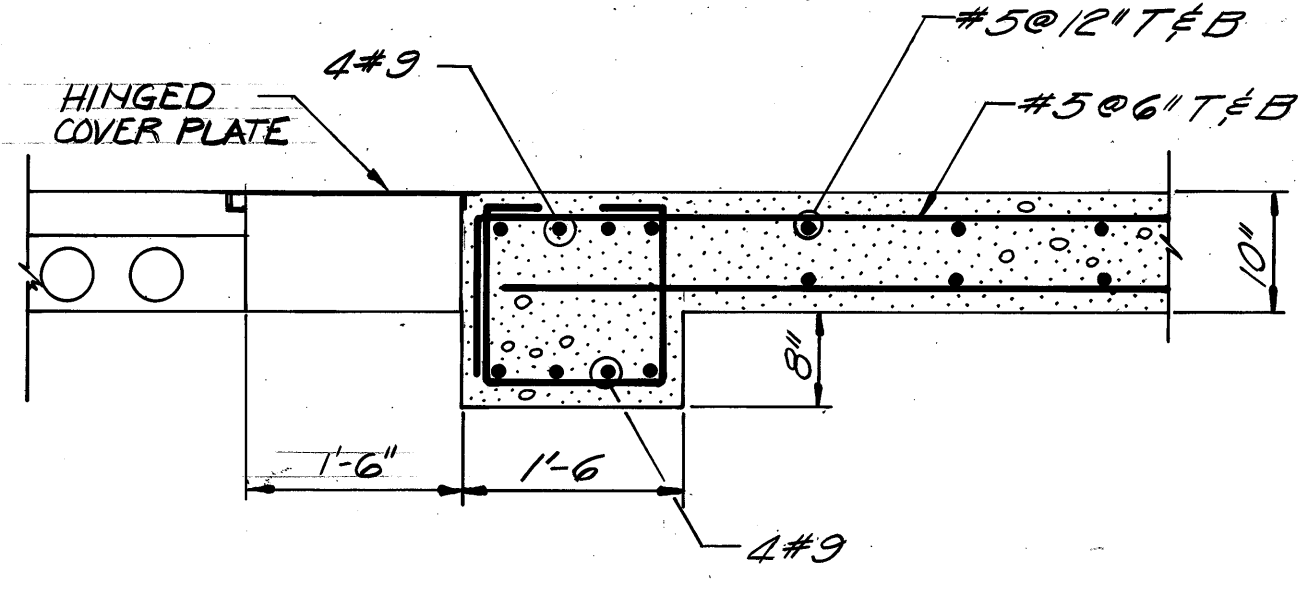
SECTION 1
SCALE: 3/8"=1'-0"



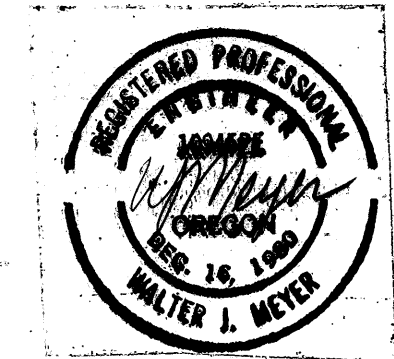
SECTION 2
SCALE: 3/8"=1'-0"



DETAIL A
NTS

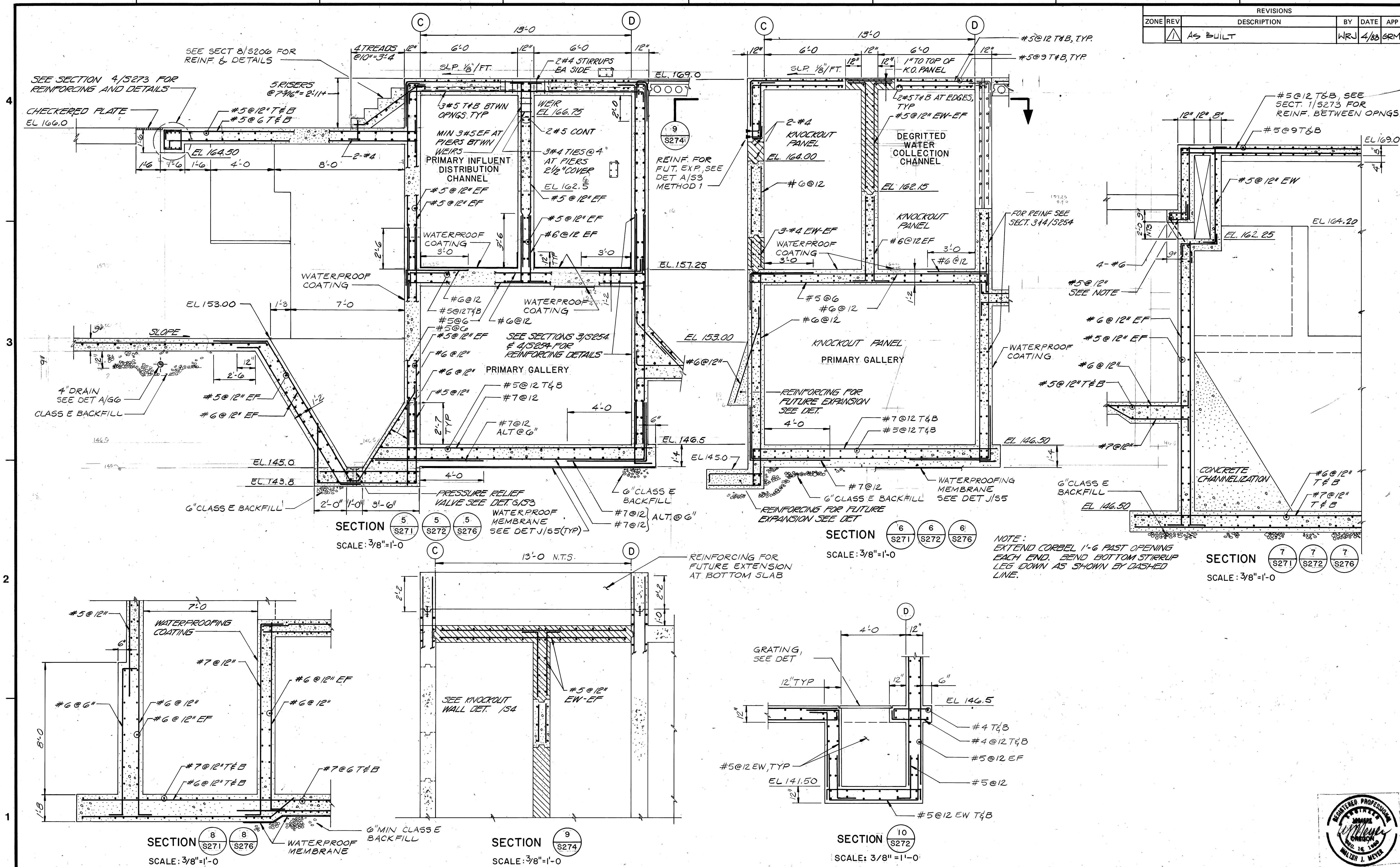


SECTION 4
SCALE: 3/4"=1'-0"



CONTROL NO.

REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	AS BUILT		WRJ	4/88



BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE OREGON

FILE 2048
DATE JUNE 85
DRAWN MS

DESIGNED GRM
CHECKED WTJ
CHECKED

SUBMITTED W. Meyer
APPROVED Sam P. Norris
APPROVED

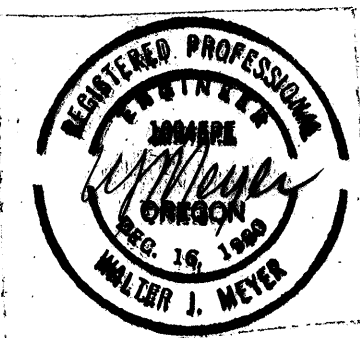
DATE 6/1/85
DATE 6/1/85
DATE

**ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION**

**PRIMARY CLARIFIER AND GALLERY
SECTIONS AND DETAILS**

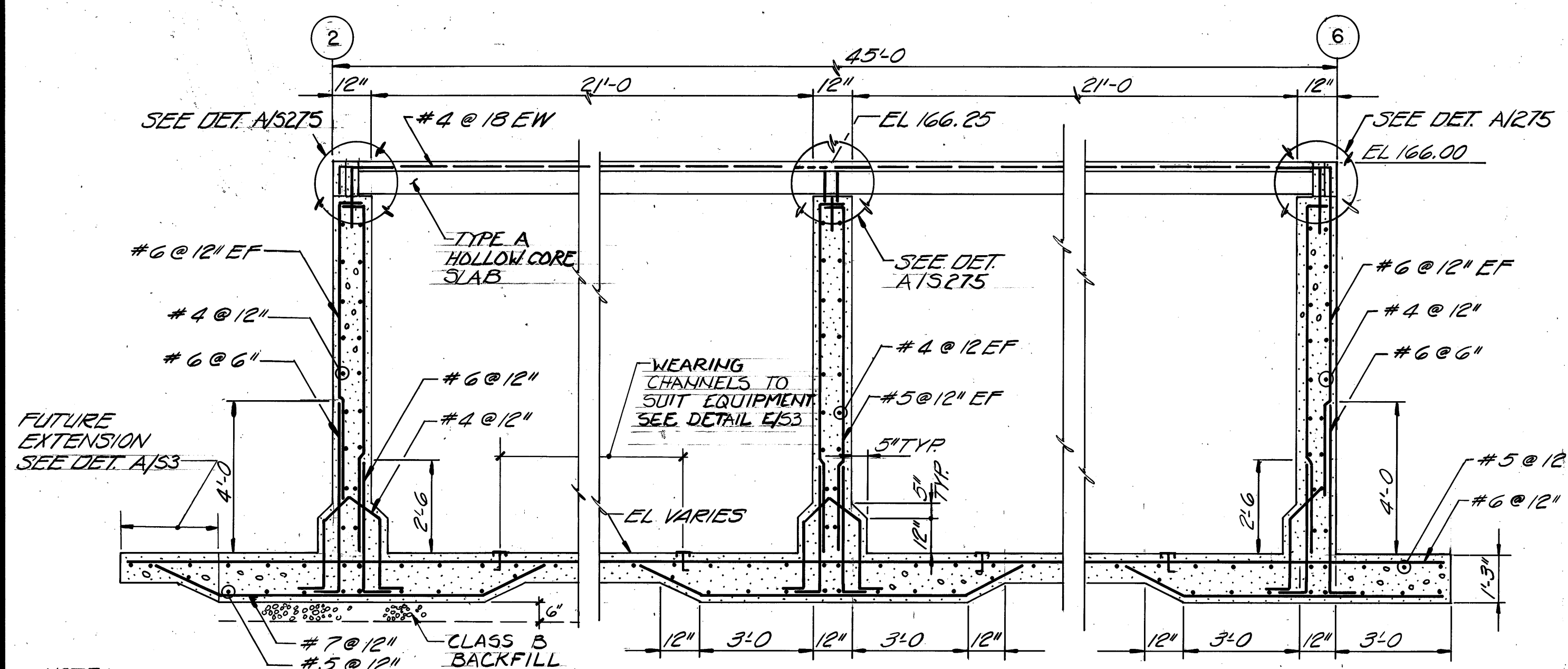
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DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S274
SHEET 58 OF 137

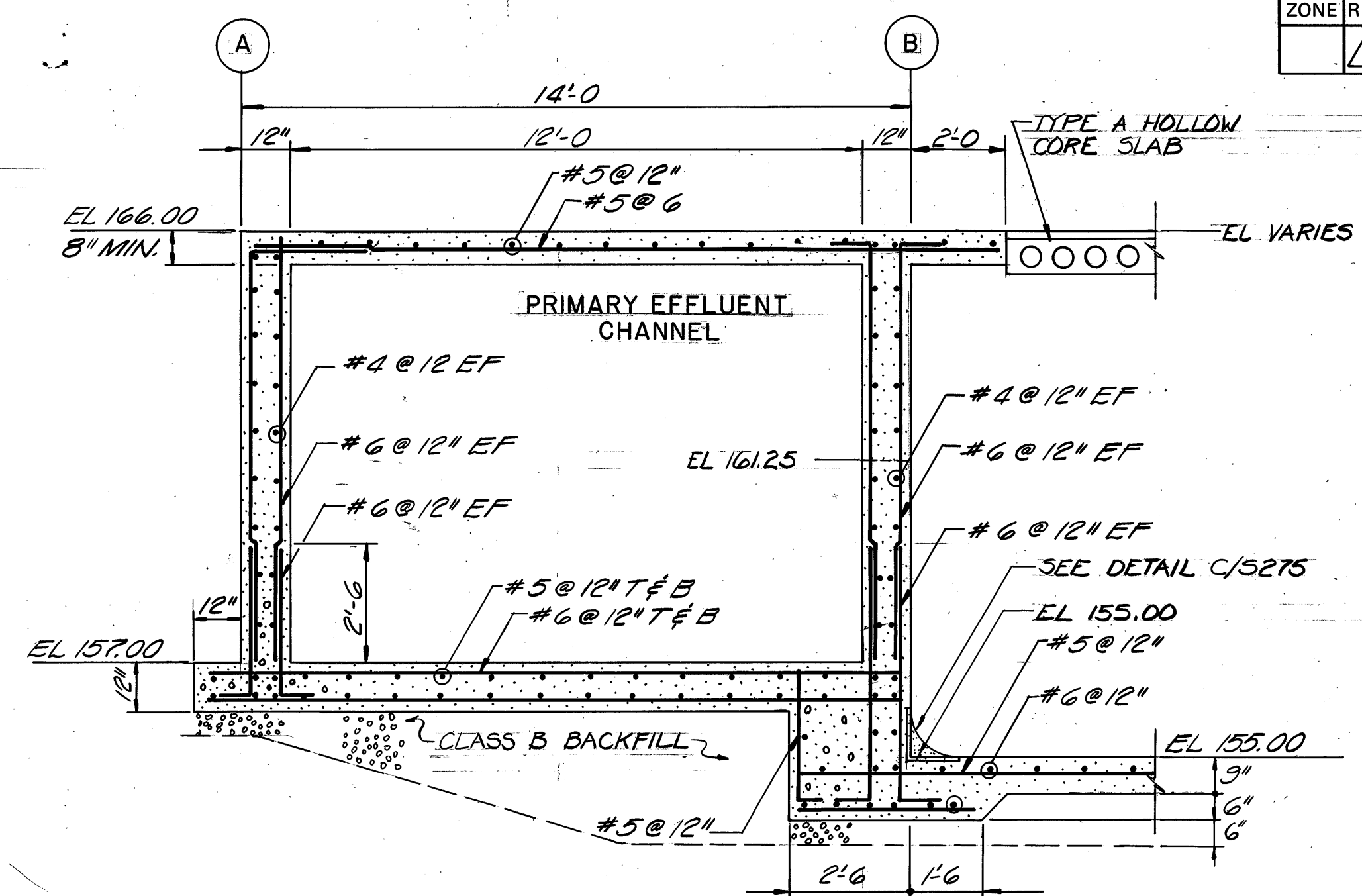


CONTROL NO.

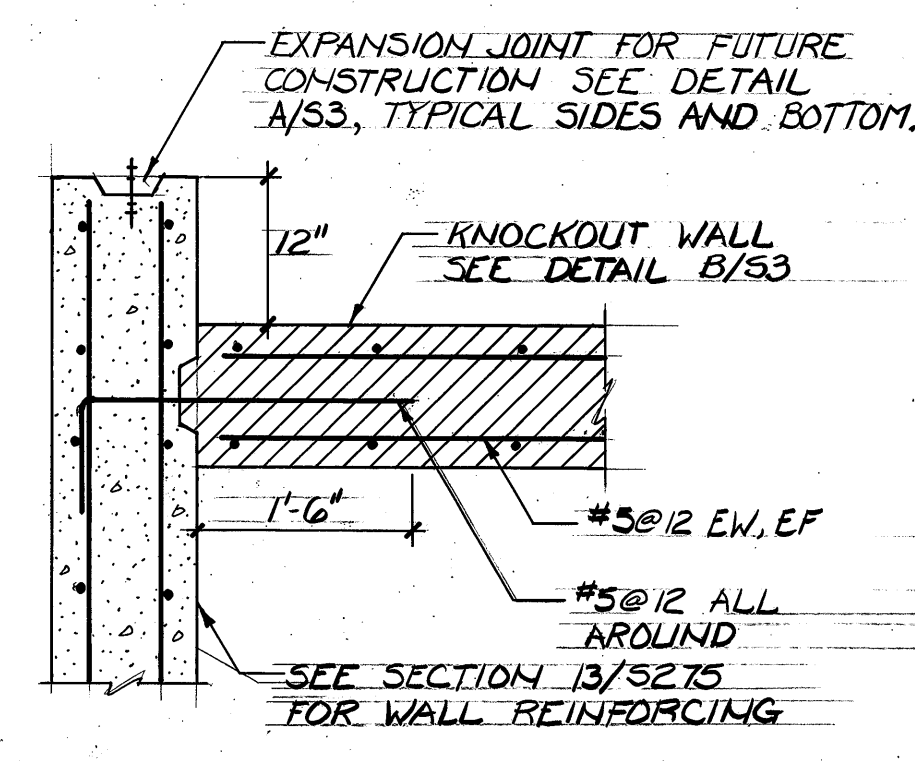
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	AS BUILT		WRJ	4/88



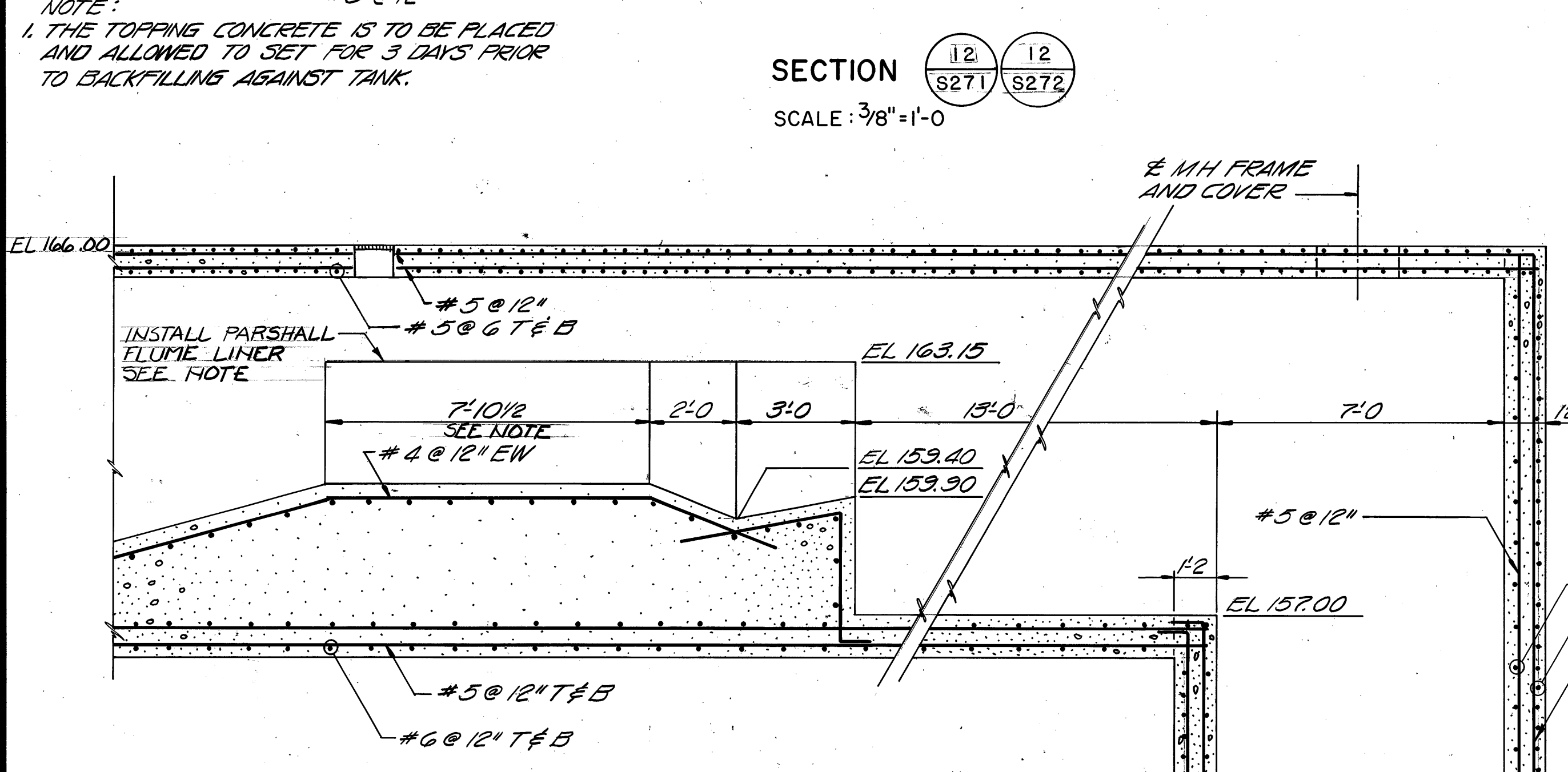
SECTION 12 S271 12 S272
SCALE: 3/8"=1'-0"



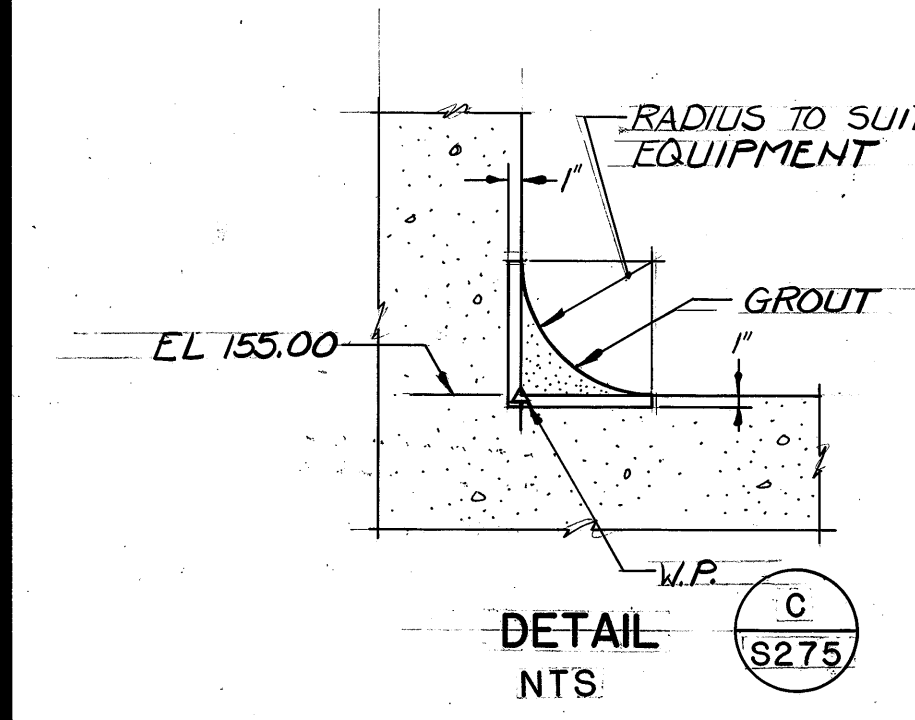
SECTION 13 S271 13 S272
SCALE: 3/8"=1'-0"



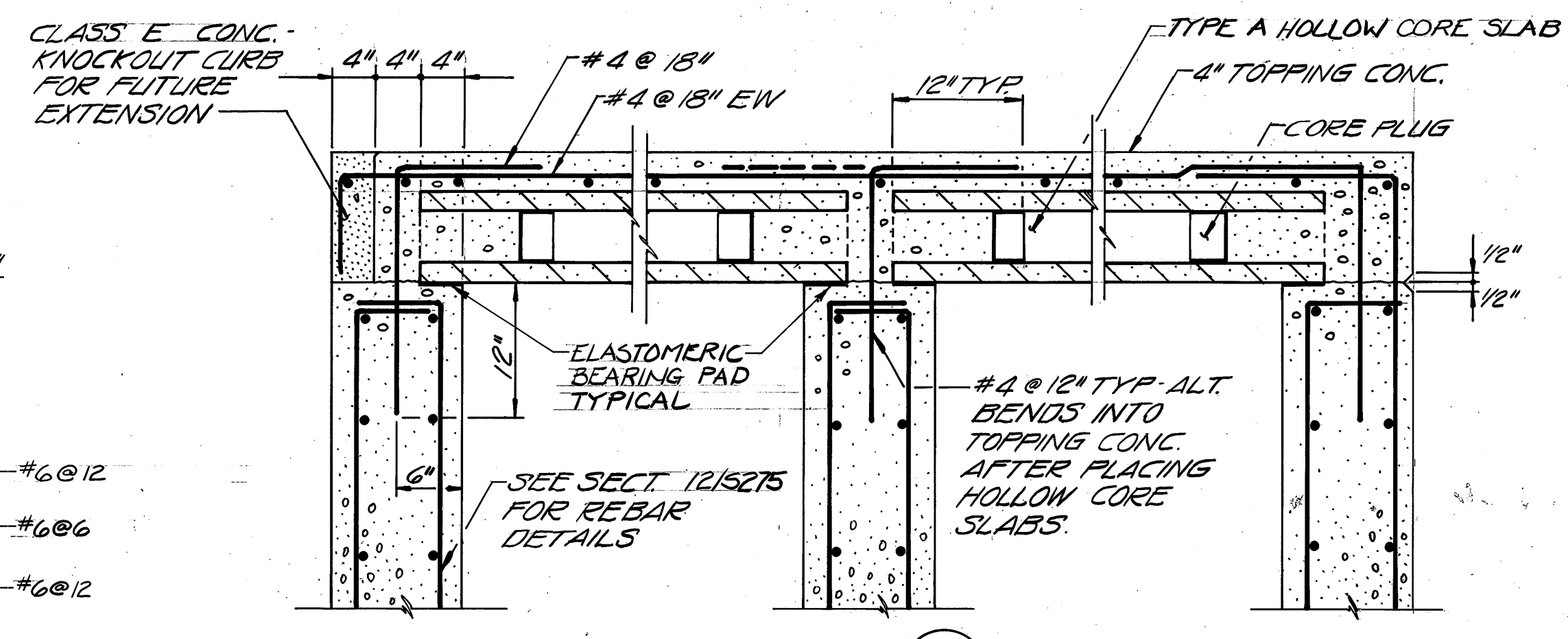
DETAIL B S275
SCALE: 3/4"=1'-0"



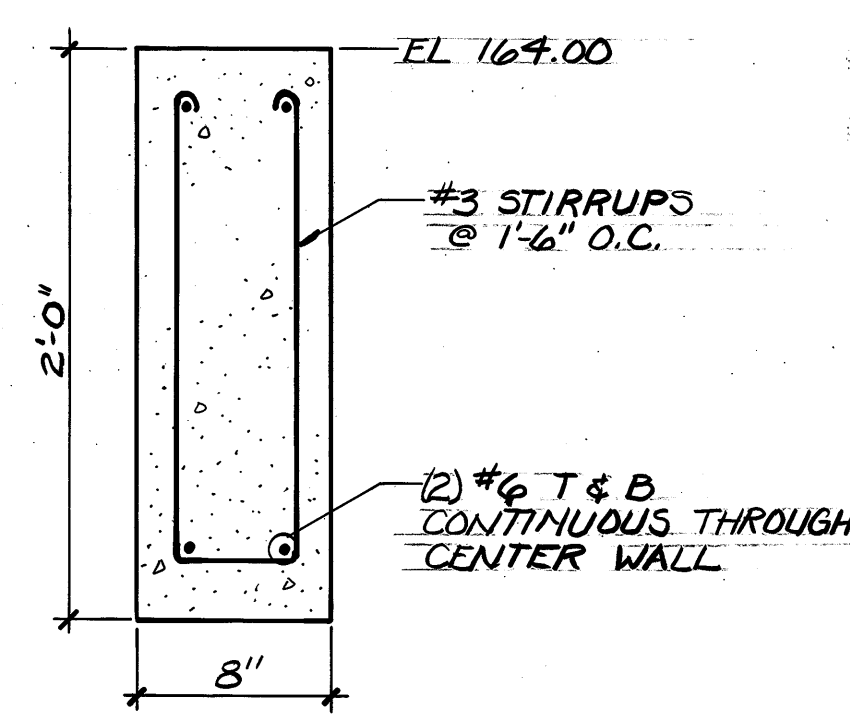
SECTION 14 S271 14 S272
SCALE: 3/8"=1'-0"



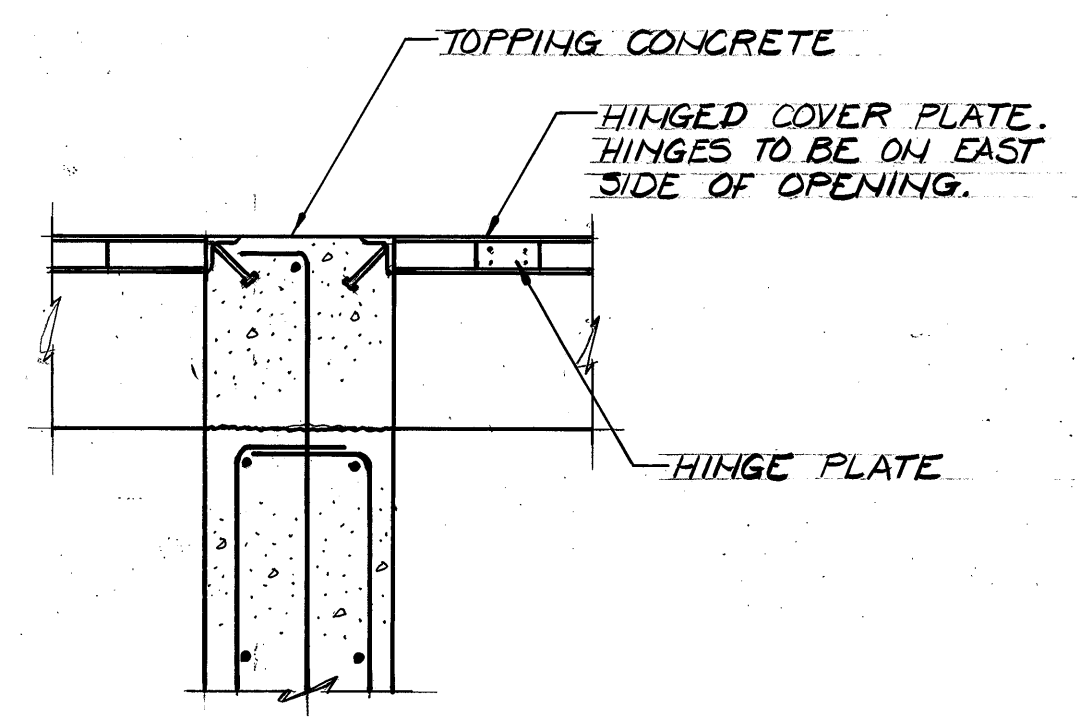
DETAIL C S275
NTS



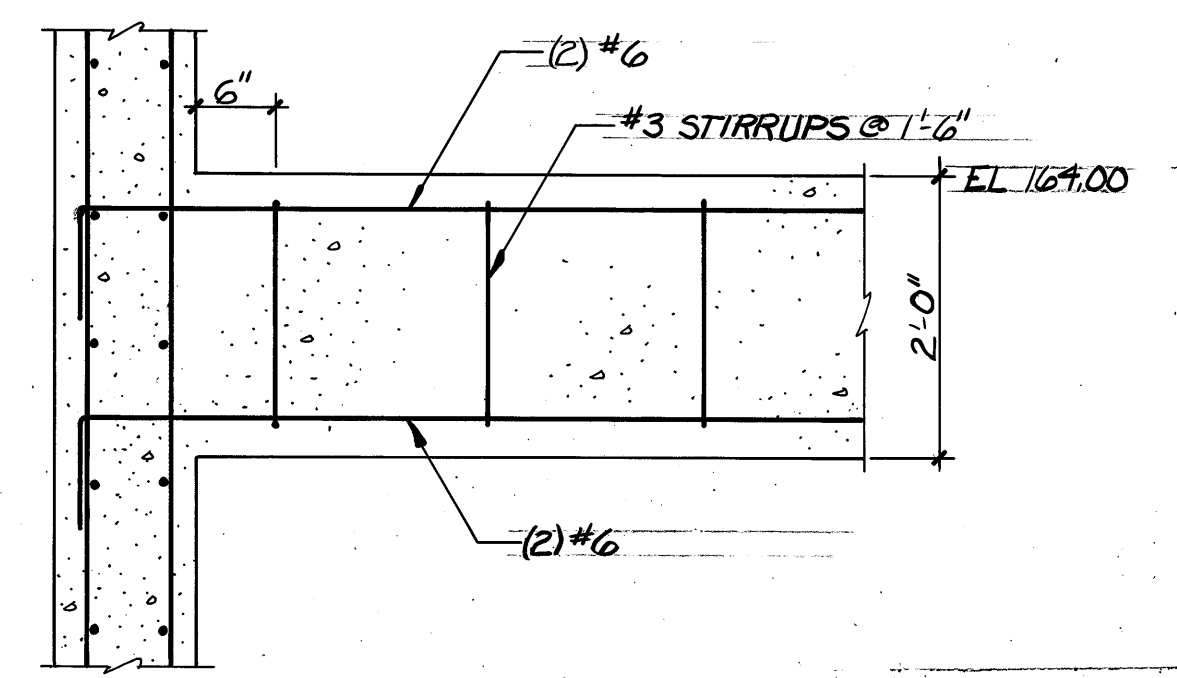
DETAIL A S275
SCALE: 1"=1'-0"



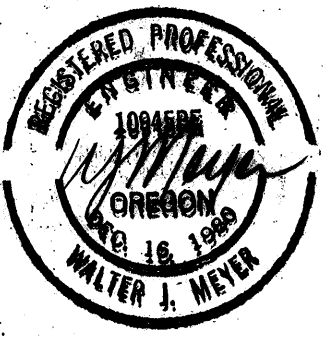
SECTION 16 S271
SCALE: 1 1/2"=1'-0"



SECTION 15 S272
SCALE: 1"=1'-0"

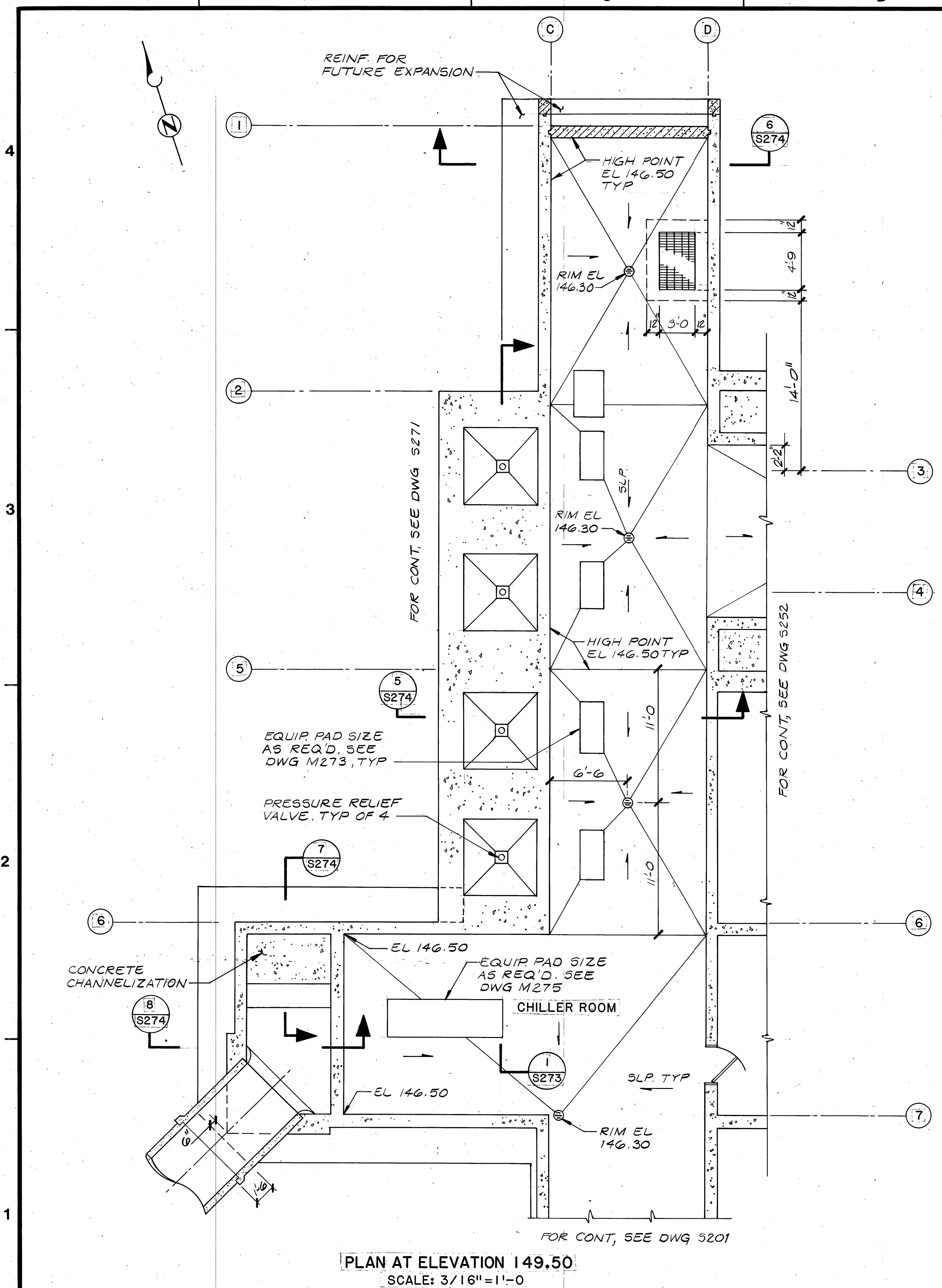


SECTION 17 S271
SCALE: 3/4"=1'-0"

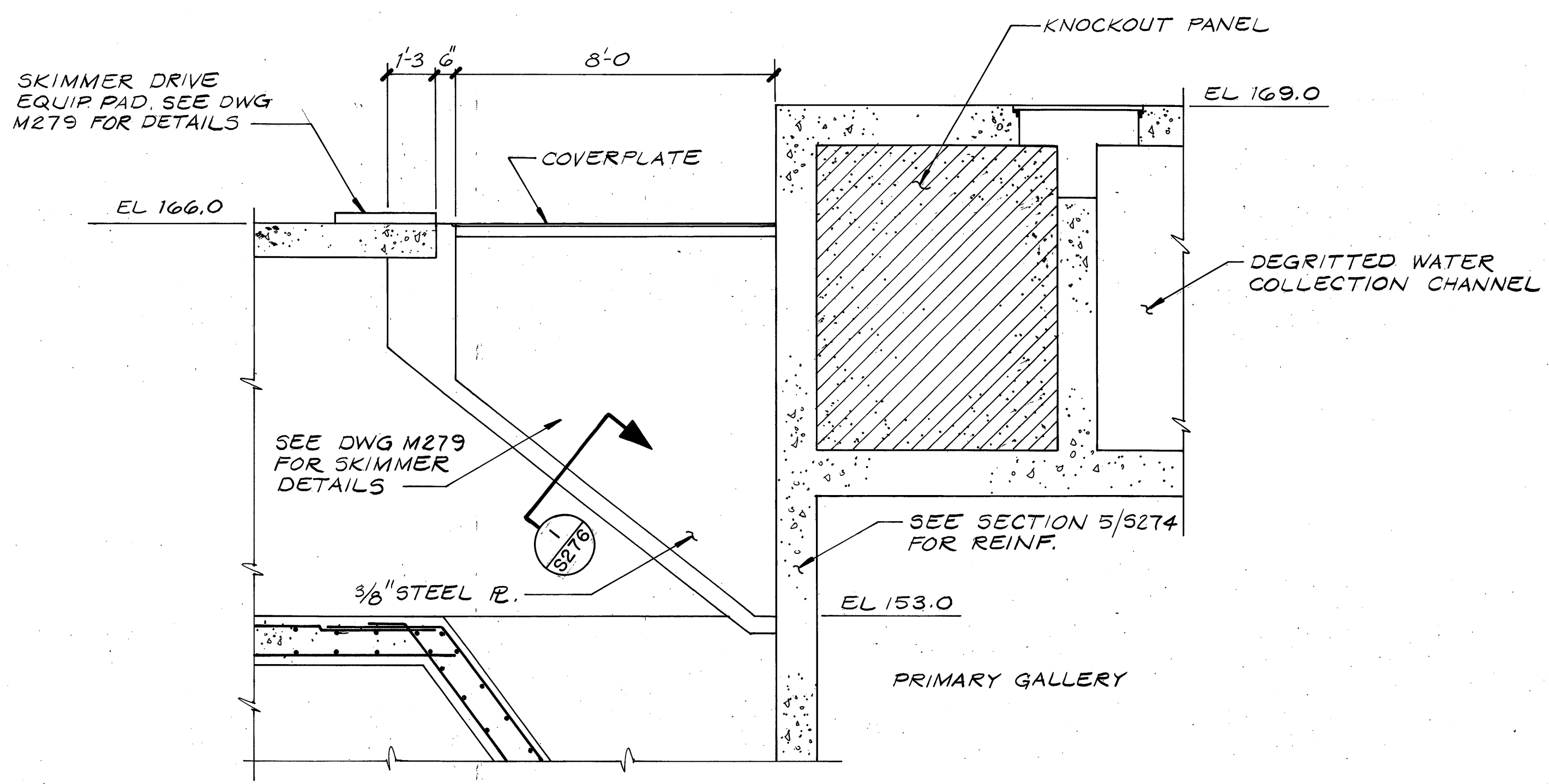


CONTROL NO.

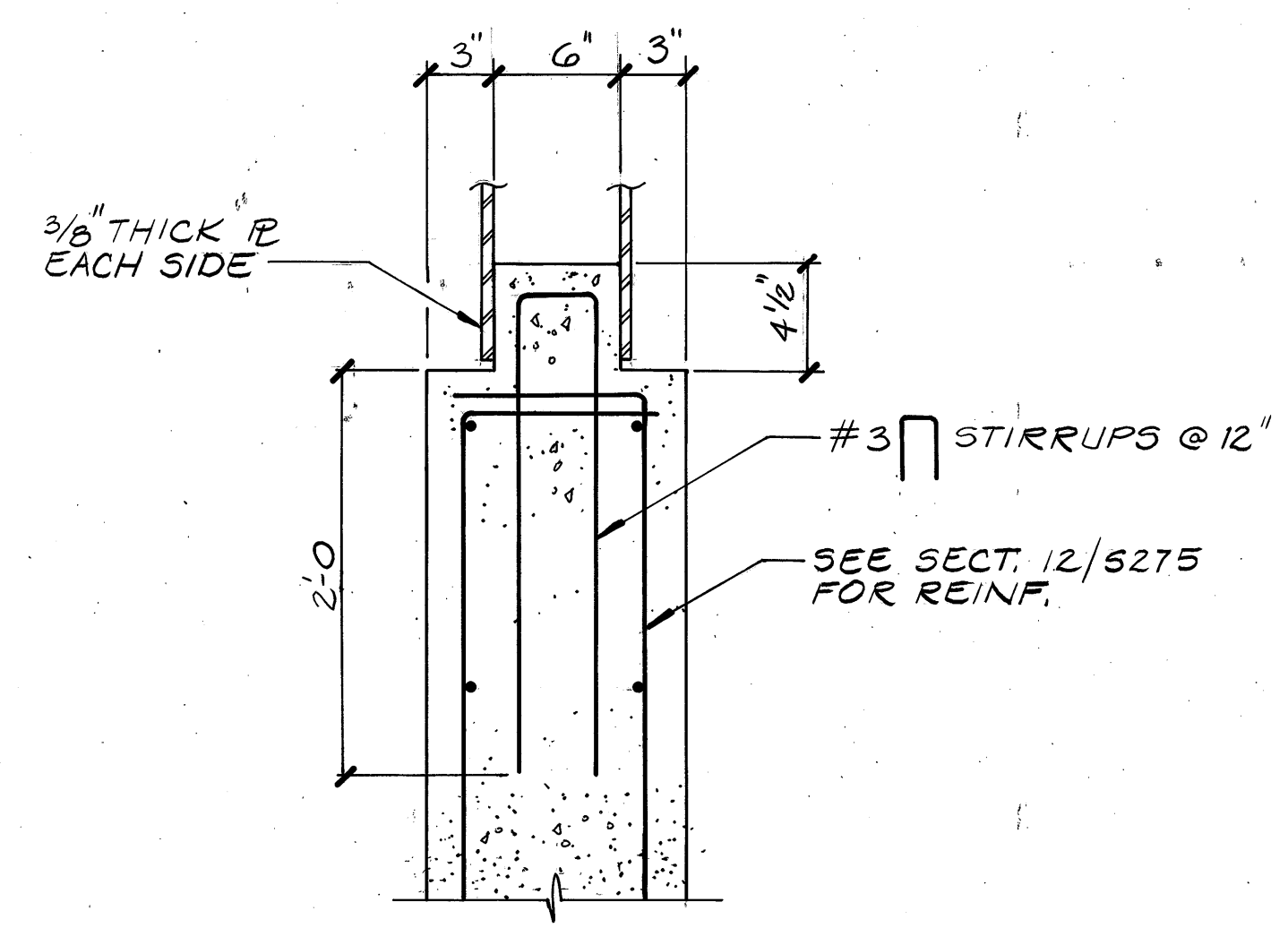
REVISIONS				
ZONE	REV	DESCRIPTION	BY	DATE
	1	AS BUILT	WRJ	4/88



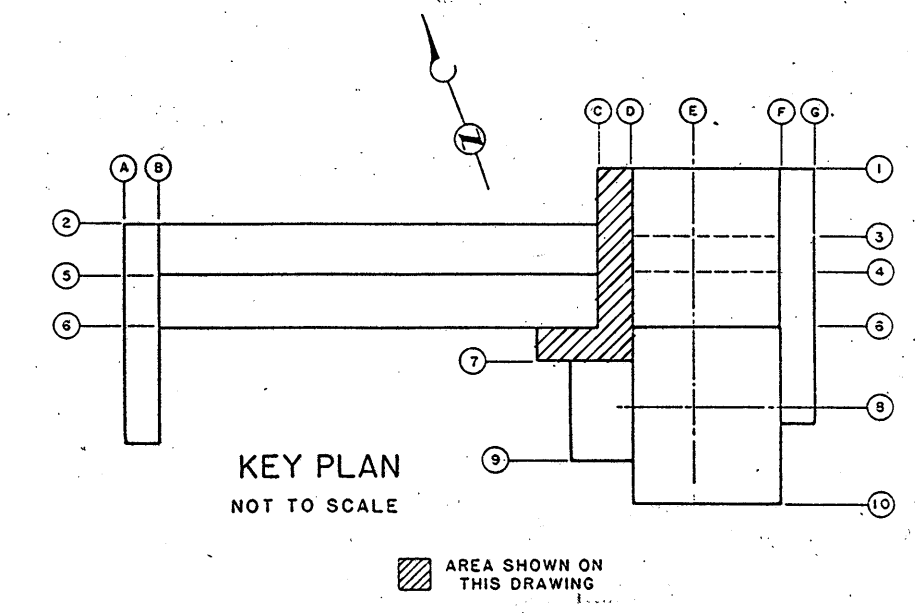
PLAN AT ELEVATION 149.50
SCALE: 3/16"=1'-0"



SECTION 18/5271 18/5272
SCALE: 3/8"=1'-0"



SECTION 1/S276
SCALE: 1 1/2"=1'-0"



BROWN AND CALDWELL
CONSULTING ENGINEERS
EUGENE OREGON

FILE 2048
DATE JUNE 85
DRAWN MDS

DESIGNED GRM
CHECKED WTJ
CHECKED

SUBMITTED *W. Meyer*
APPROVED *Sam P. Morris*
APPROVED
DATE 6/1/85
DATE 6/1/85



ROCK CREEK ADVANCED
WASTEWATER TREATMENT PLANT
PRIMARY EXPANSION

PRIMARY GALLERY PLAN AND SECTIONS

THIS LINE IS 1 INCH WHEN
DRAWING IS FULL SIZE. IF NOT
1 INCH, SCALE ACCORDINGLY.

DRAWING NUMBER
S276
SHEET 60 OF 137
D

REGISTERED PROFESSIONAL
ENGINEER
WATER & SEWER
OREGON
REG. 16, 1980
WALTER J. MEYER