

STATE OF ARKANSAS
STATE HIGHWAY DEPARTMENT

FISCAL YEAR	JOB NO.	SHEET NO.	TOTAL SHEETS
1929	1011	1	12
PLAN OF CURRENT R. RAND. CO. RT. 67 DR. 1407			

PLAN OF PROPOSED BRIDGE
OVER
CURRENT RIVER
RANDOLPH COUNTY

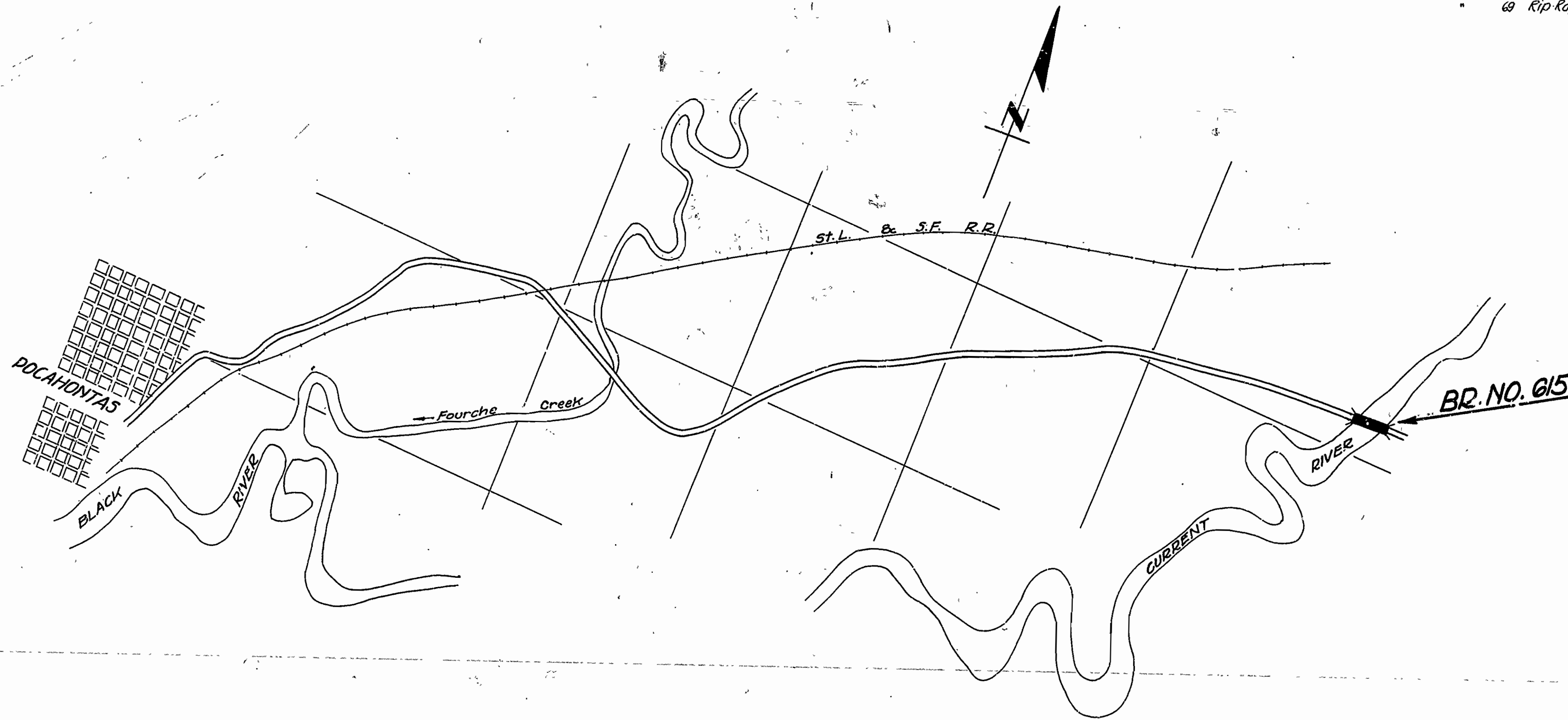
INDEX OF SHEETS

Sh. No. 1	Drwg. No. 1407	Title Sheet - Job No. 1011
2	1408	Layout Bridge No. 615
3	1409	Details Of 234'-0" Swing Span
4	1410	Details Of 234'-0" Swing Span
5	1411	Details Of Center Girder, Center Wedges & End Wedges For 234'-0" Swing Span
6	1412	Details Of Machinery For 234'-0" Swing Span
7	1413	Details Of Traffic Gales & Turning Radius Devices
8	1094	Standard Plan 90'-0" Low Truss Span - 20'-0" Clear Roadway
9	1414	Details Of 31'-0" R.C.D. Girder Approach span
10	1415	Details Of Pier No. 2
11	1416	Details Of Piers 1 & 3
12	1417	Details Of End Bents No. 1 & Pier 4

ROUTE 67 SEC. 21
JOB No. 1011
FEDERAL AID PROJECT No.

QUANTITIES

Item No.	Description	Quantity	Unit
17	Borrow	450	Cu. Yds.
18	Dry Excavation For Structures	425	Cu. Yds.
19	Wet	996	Cu. Yds.
22	Treated Bridge Timber	35,502	M. Ft. B.M.
34	Class "S" Concrete	157,60	Cu. Yds.
34	Class "A" Concrete	587,47	Cu. Yds.
35	Reinforcing Steel	75,458	Lbs.
36	Structural Steel In Trusses	447,700	Lbs.
66	Untreated Timber Piling	4597	Lin. Ft.
74	Concrete Railing For Structures	70.5	Cu. Yds.
32	Sand Fill For Piyot Pier	50	Cu. Yds.
32	Seal Concrete (Class "A")	267.37	Cu. Yds.
58	Bituminous Wearing Surface (Lime Rock Asphalt - Cold Mix)	523.77	Sq. Yds.
58	Machinery	35,000	Lbs.
69	Rip-Rap	250	Sq. Yds.



LAYOUT
Scale: 1"=200'

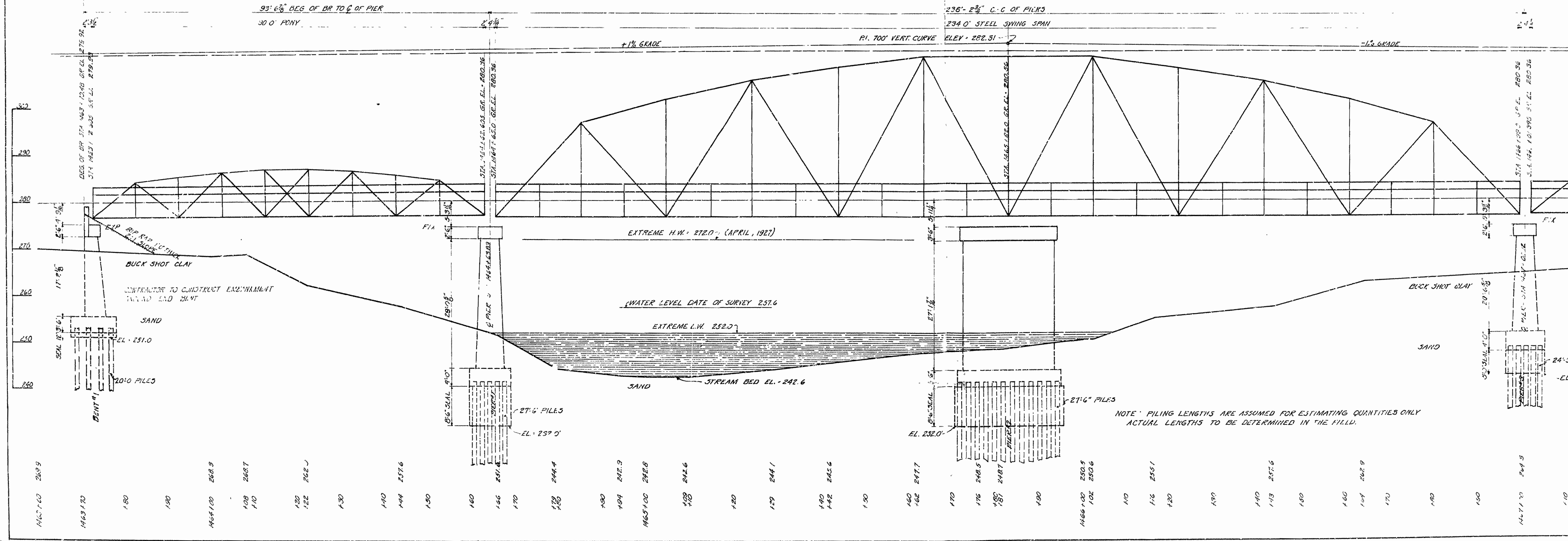
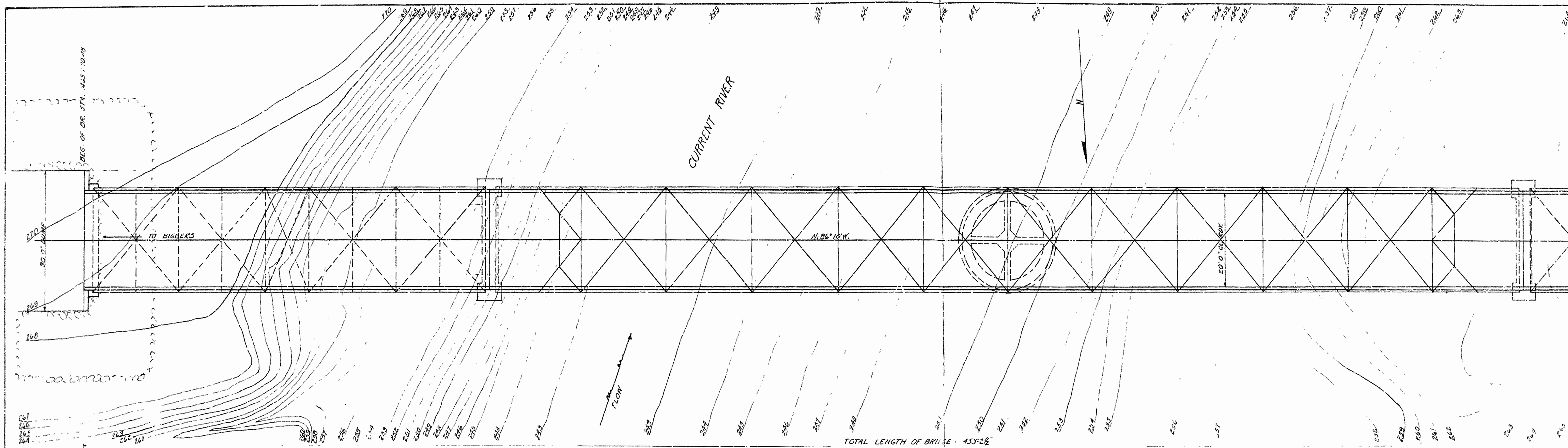
GROSS LENGTH OF PROJECT - 453.21' - .0858 M.
NET LENGTH OF PROJECT - 453.21' - .0858 MI.

APPROVED
COMMISSIONER STATE LANDS, HIGHWAYS AND IMPROVEMENTS
APPROVED
STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER - U.S. BUREAU OF PUBLIC ROADS
RECOMMENDED FOR APPROVAL
CHIEF ENGINEER - U.S. BUREAU OF PUBLIC ROADS
APPROVED
DIRECTOR - U.S. BUREAU OF PUBLIC ROADS

M. B. Davis
BRIDGE ENGINEER

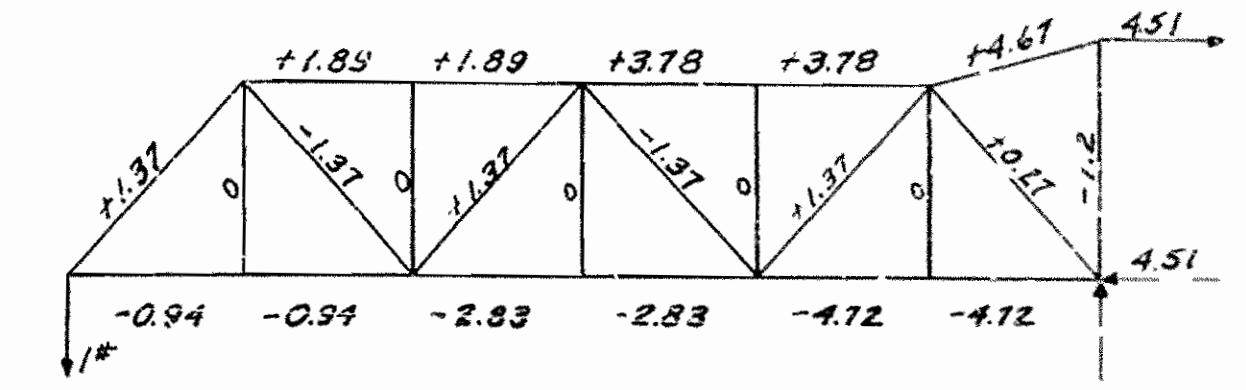
BRIDGE NO. 615

DRAWING NO. 1407

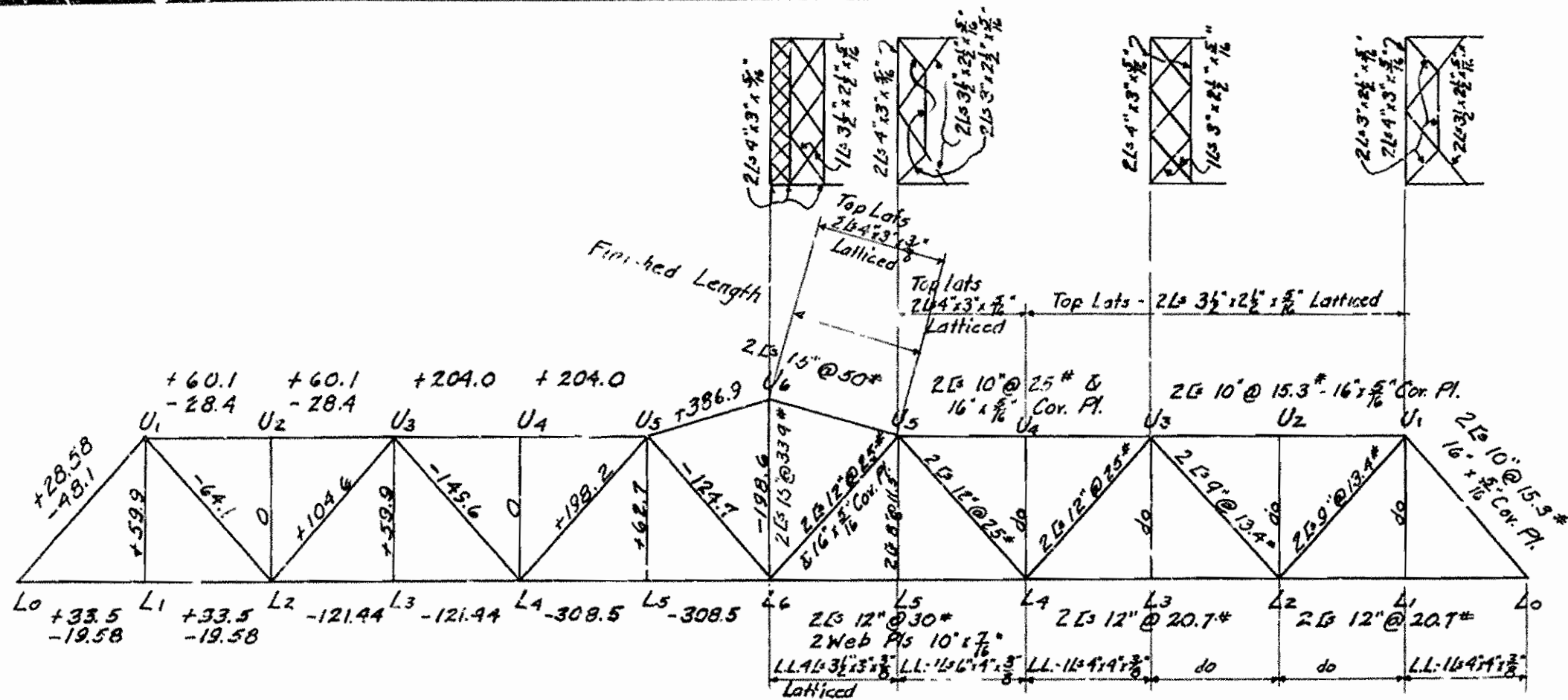


TABULATION OF UNIT STRESSES - CASE IV

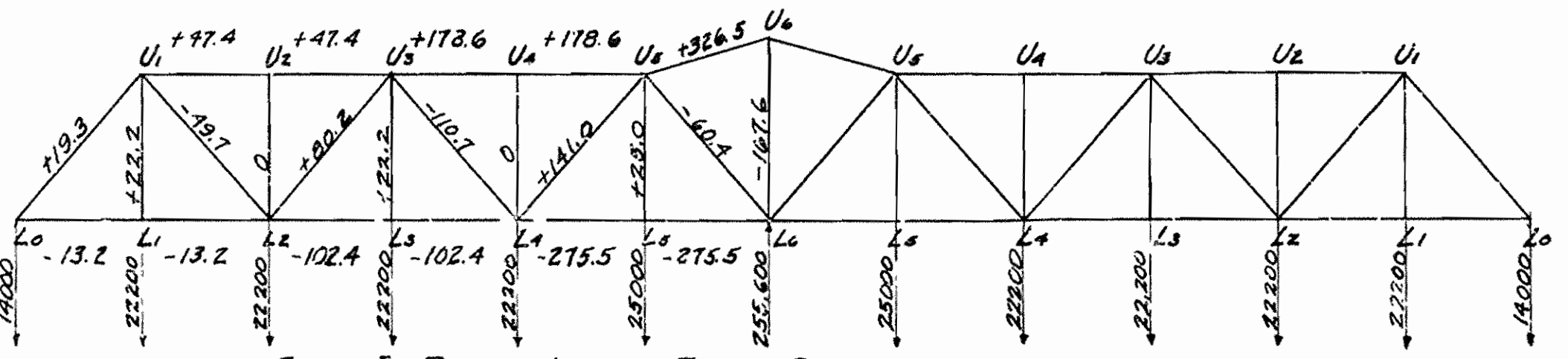
Table with columns for Member, Case I+, Case I-, Case II+, Case II-, Case III+, Case III-, Case IV+, Case IV-, Case I+ Case III-, Case I- Case III+, Case II+ Case III-, Case II- Case III+, Case I+ Case III+, Case I- Case III-, Case II+ Case III+, Case II- Case III-, Max Stress, Min Stress. Rows include members like L1L2, L2L3, L3L4, L4L5, L5L6, U1U2, U2U3, U3U4, U4U5, U5U6, L1U1, L2U2, L3U3, L4U4, L5U5, L6U6.



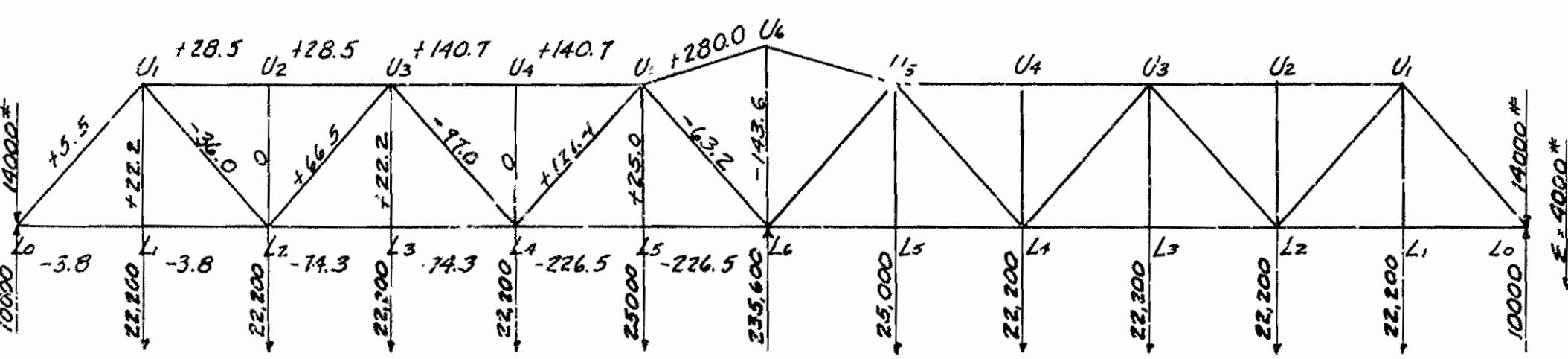
1" LOAD APPLIED AT LO



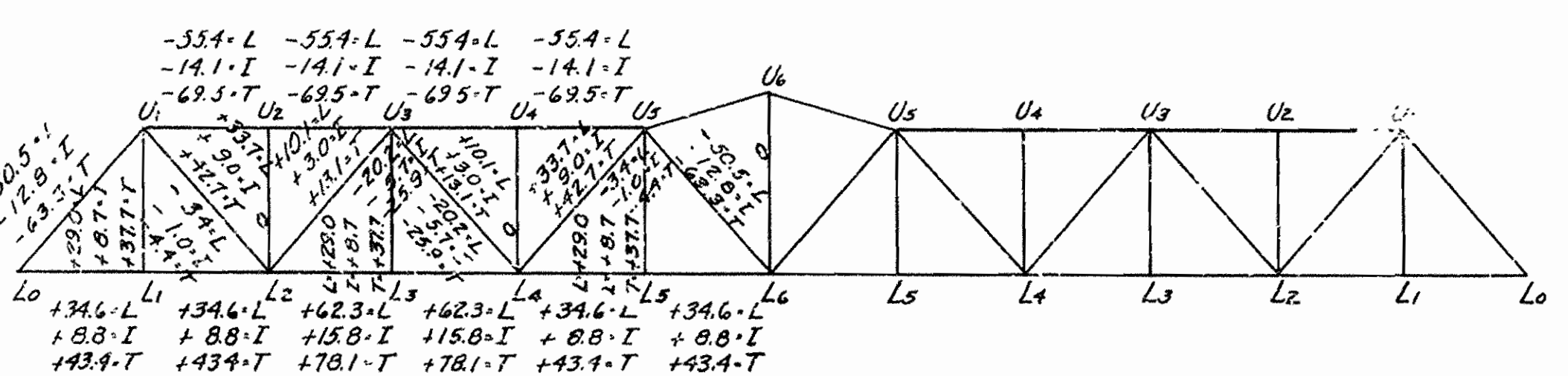
MAXIMUM DESIGN STRESSES - SELECTION OF MEMBERS



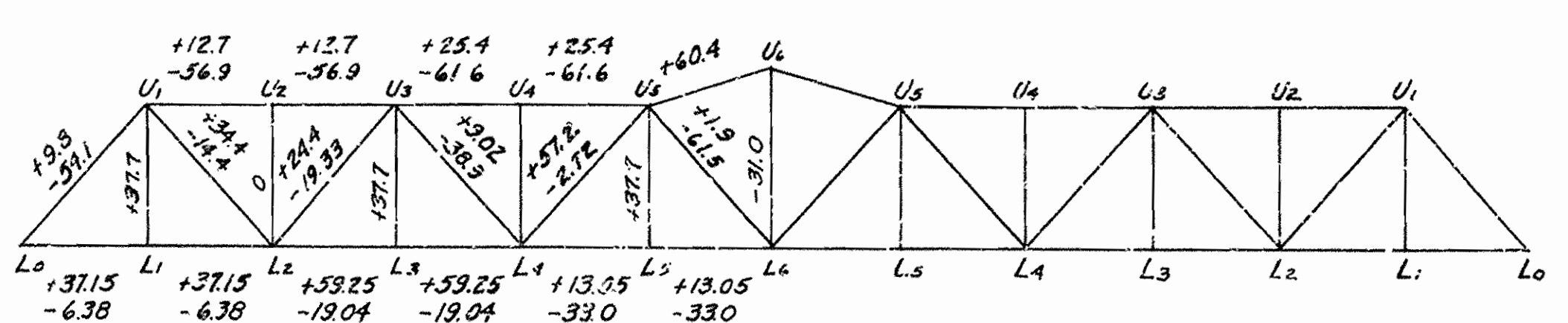
CASE I, DEAD LOAD-SPAN OPEN



CASE II- DEAD LOAD-PARTIAL END REACTION



CASE III; LIVE LOAD STRESSES-SIMPLE SPAN



CASE IV- VARIABLE LIVE LOADS-CONTINUOUS SPAN

SPAN CLOSED WITH END WEDGES DRIVEN

NOTE: MAXIMUM & MINIMUM STRESSES AS NOTED INCLUDE IMPACT

SUMMARY OF STRESSES-MAXIMUM & MINIMUM

Table with columns for Member, Case I+, Case I-, Case II+, Case II-, Case III+, Case III-, Case IV+, Case IV-, Case I+ Case III-, Case I- Case III+, Case II+ Case III-, Case II- Case III+, Case I+ Case III+, Case I- Case III-, Case II+ Case III+, Case II- Case III-, Max Stress, Min Stress. Rows include members like L1L2, L2L3, L3L4, L4L5, L5L6, U1U2, U2U3, U3U4, U4U5, U5U6, L1U1, L2U2, L3U3, L4U4, L5U5, L6U6.

TABLE FOR COMPUTATIONS FOR END POINT DEFLECTION

Table with columns for Member, Length L", Area A", Stress P", PL/A, U1# of L0, PUL/A, PL/EA, Stress P", PUL/A, PL/A, PL/EA. Rows include members like L1L2, L2L3, L3L4, L4L5, L5L6, U1U2, U2U3, U3U4, U4U5, U5U6, L1U1, L2U2, L3U3, L4U4, L5U5, L6U6.

DESIGN DATA FOR SWING SPAN

226' 0" C.T.O.C. OVER CURRENT RIVER BETWEEN CORNING & POGAHONTAS, RANDOLPH CO., ARK. ROUTE U.S. 67 SEC.

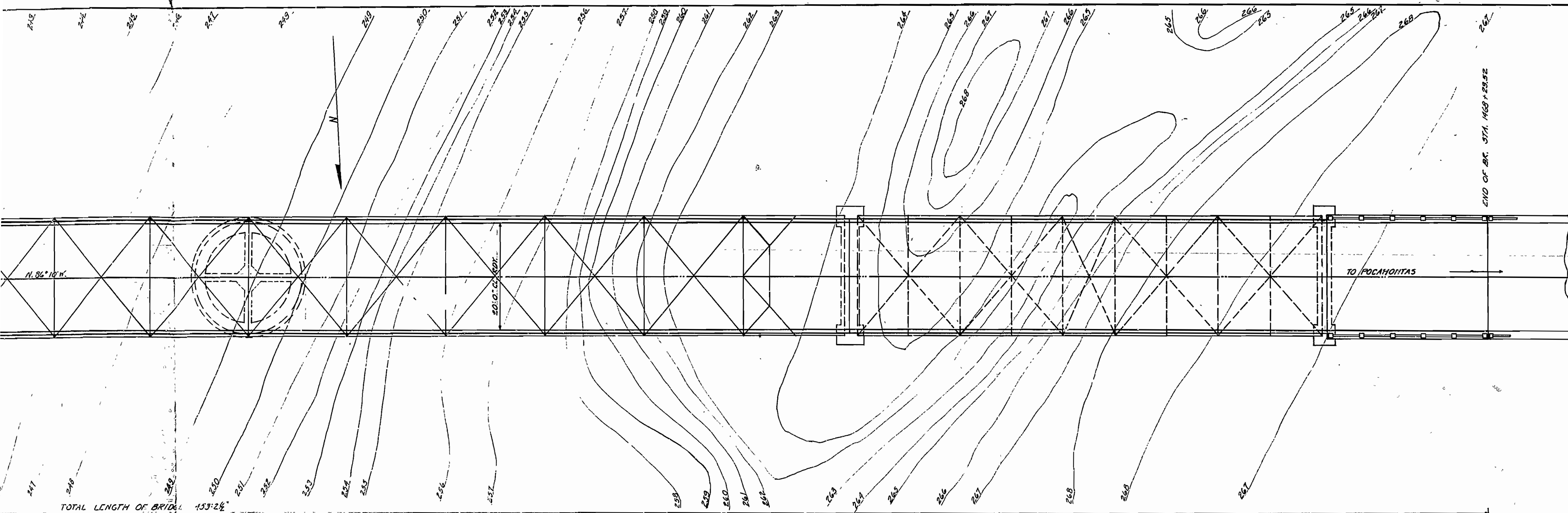
ARKANSAS STATE HIGHWAY DEPARTMENT LITTLE ROCK, ARK.

Drawn By G.W.N. Date: Traced By G.W.N. Date: Checked By: Date: Scale: in. ft.

BRIDGE NO. 615 DRAWING NO.

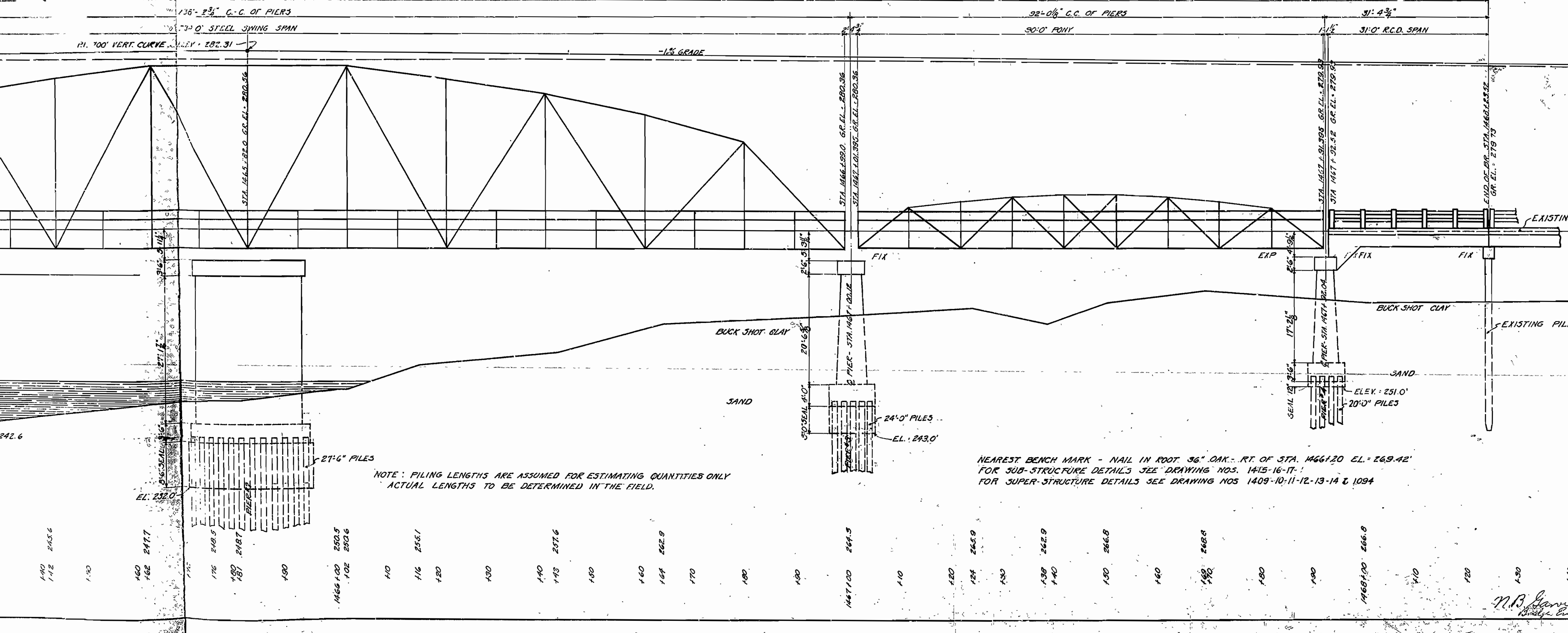
Σ = 82,992 82,992 = 27664' Σ = 66,737.5 66,737.5 = 2,2246'

LAY. Prop. Br. Current. R.R. S. & T. D. R. #174		
TOTAL YEAR	JOB NO.	SHEET NO.
1929	1011	2



QUANTITIES

Item No 17	Borrow	150
Item No 13	Dry Excavation For Structures	425
13	Wet Excavation For Structures	996
52	Treated Bridge Timber	35,502
54	Class 'S' Concrete	157.60
54	Class 'A' Concrete	387.47
55	Reinforcing Steel	75,158
56	Structural Steel In Trusses	441,700
66	Untreated Timber Piling	4,597
74	Concrete Filling For Structures	70.5
3P	Sand Fill For Pivotal Pier	50
3P	Seal Concrete (Class 'A')	267.37
5P	Bituminous Wearing Surface (Lime Rock Asphalt Cold Mix)	523.71
3P	Machinery	35,000
69	Rip Rap	250



NOTE: PILING LENGTHS ARE ASSUMED FOR ESTIMATING QUANTITIES ONLY
ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD.

NEAREST BENCH MARK - NAIL IN ROOT 36" OAK - RT. OF STA. 1466+20 EL. = 269.42'
FOR SUB-STRUCTURE DETAILS SEE DRAWING NOS. 1415-16-17.
FOR SUPER-STRUCTURE DETAILS SEE DRAWING NOS 1409-10-11-12-13-14 & 1094

**LAYOUT OF
PROPOSED BRIDGE OVER CURRENT ROAD
ON ROAD BETWEEN POCANONTAS & CORNING, RANDOLPH CO.**

**ROUTE U.S.67 SEC. 21
ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.**

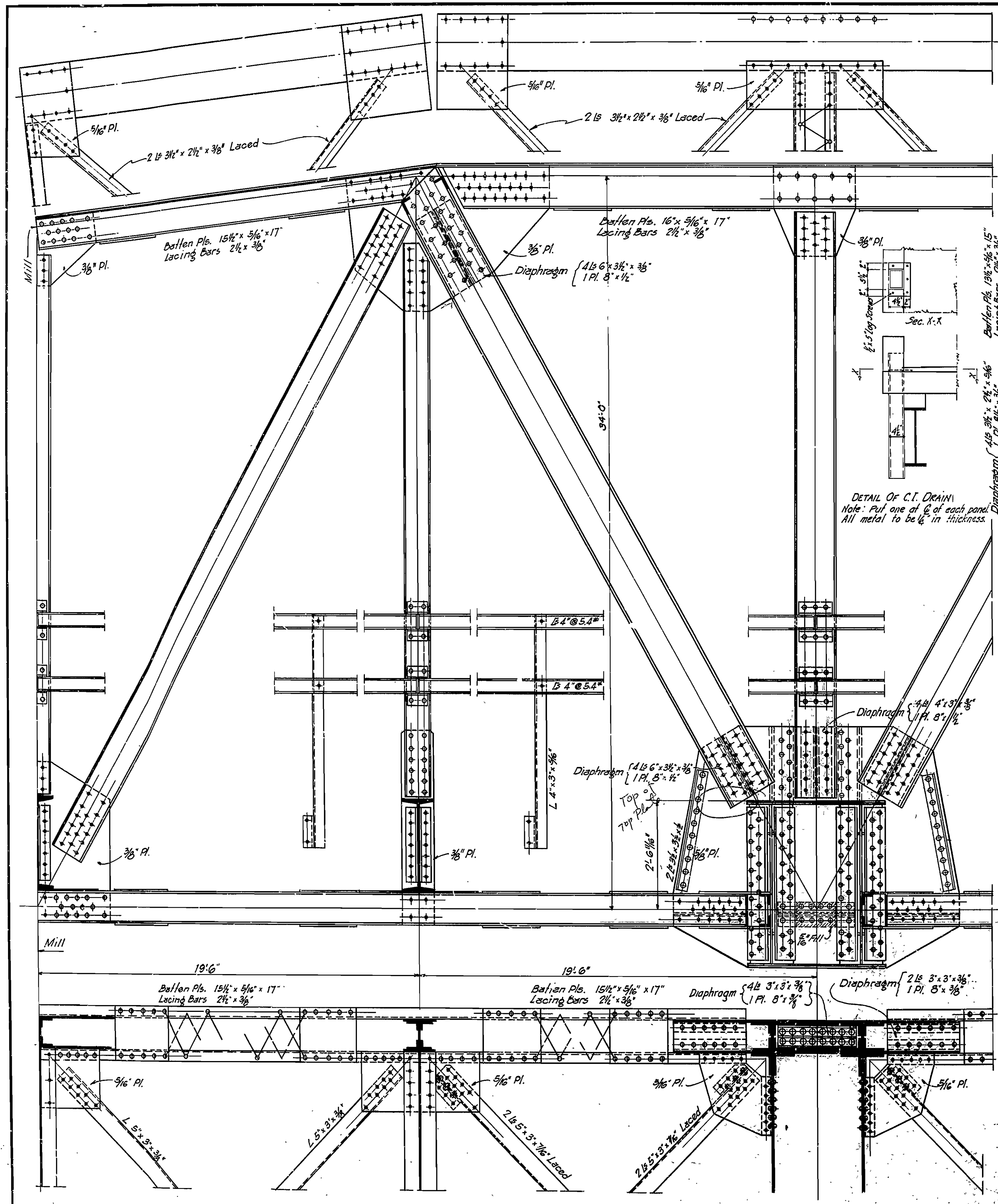
DRAWN BY: [Signature] DATE: 1-2-29
TRACED BY: [Signature] DATE: 2-1-29
CHECKED BY: [Signature] DATE: []

BRIDGE NO. 615 DRAWING NO.

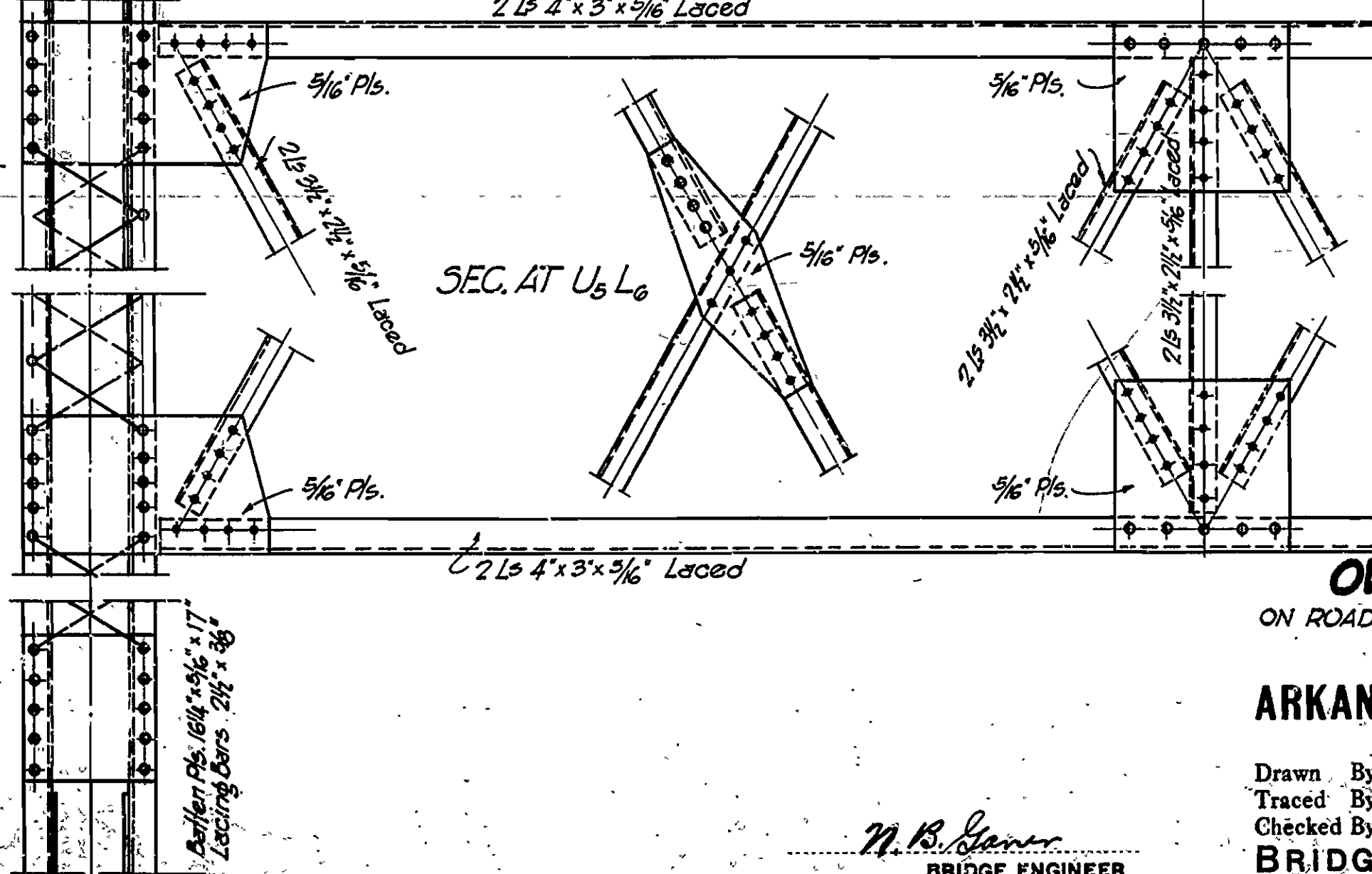
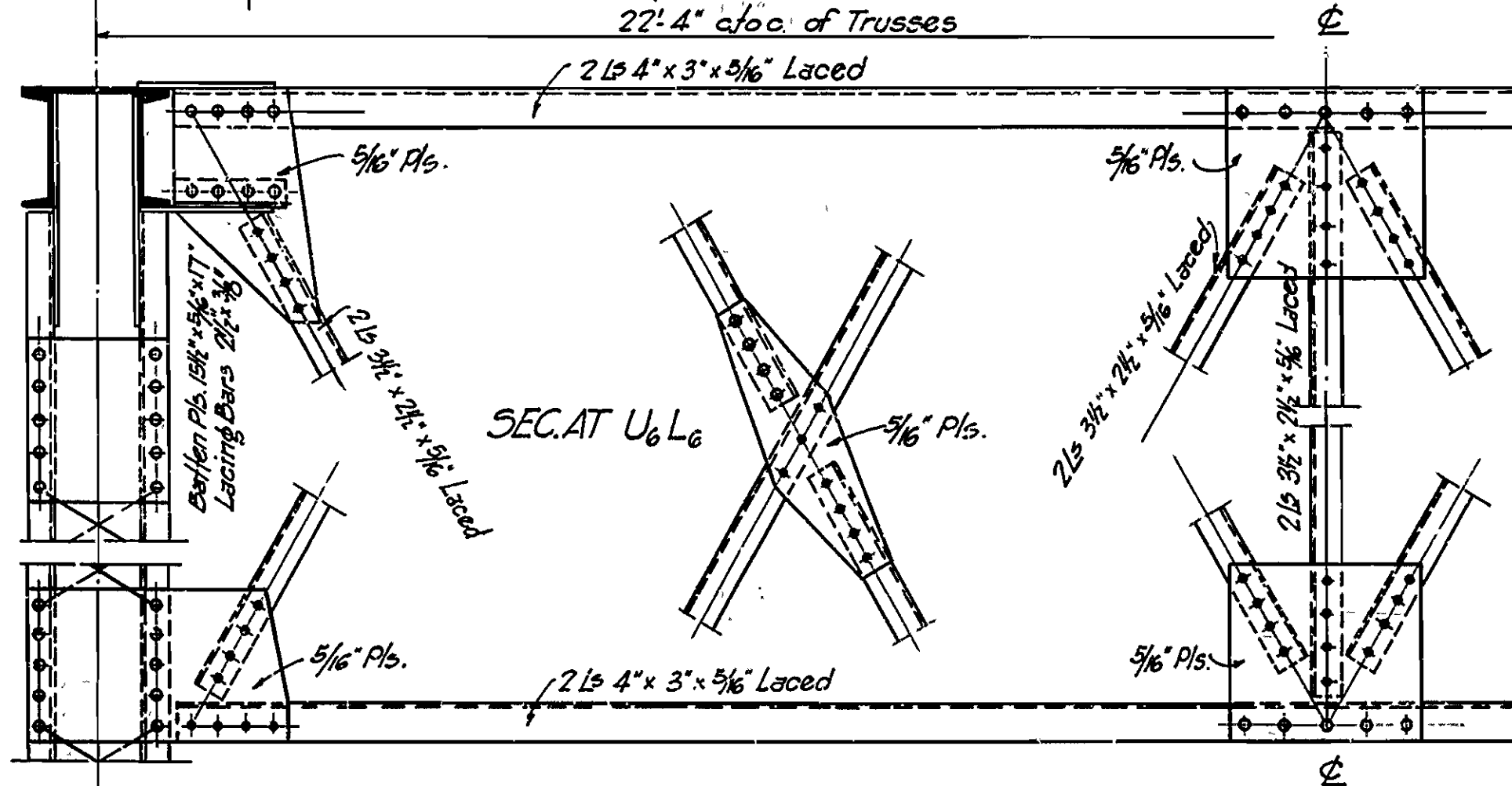
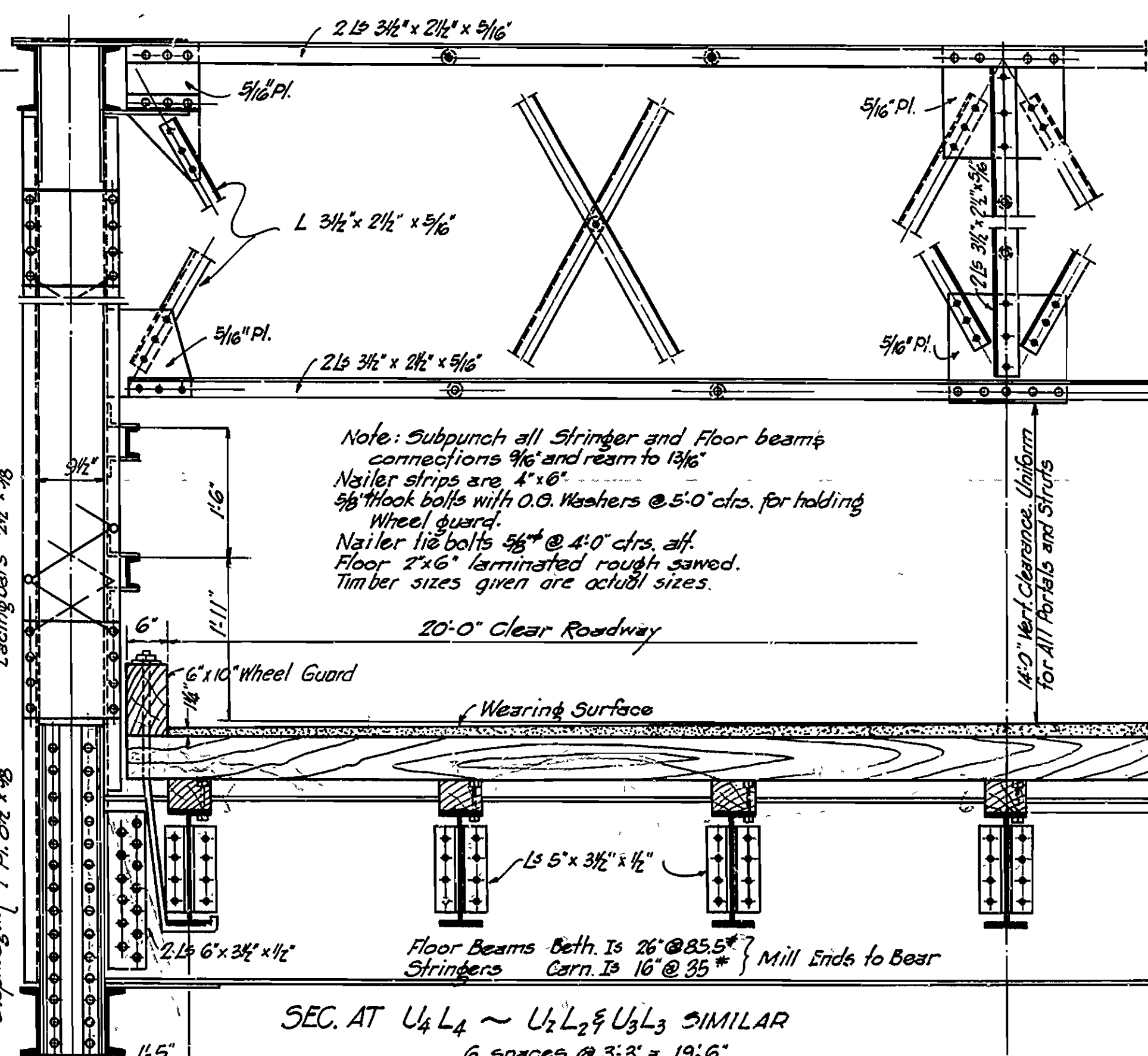
M.B. Jones
Civil Engineer

FISCAL YEAR	Job No	SHEET	TOTAL SHEETS
1929	1011	4	12

DETS. 234' SWING SPAN C.C. & W. 1910



DETAIL OF C.I. DRAIN
 Note: Put one of @ of each panel.
 All metal to be 1/4" in thickness.



SPECIFICATIONS

14'-0" Total Wheel Loads

6'-0"

Live Load
 Uniform Load = 77.28 lbs. per sq. ft. of Rdy.
 Concentrated = 2-15 Ton Trucks as shown
 Impact = 100% L + 300

Unit Stresses
 Structural Steel = 18,000# per Sq. in.

Rivets to be 3/4" in diameter.
 Rivet Holes: Subpunch both Shop & Field holes in all Main truss connections 3/16" smaller than rivet specified and ream to 1/16" larger than rivet specified, during Shop assembly.
 Members shall be matchmarked and a suitable Diagram furnished for Erection.
 All Field connections to be riveted.
 Rivet holes in tension members to be so spaced that only one hole is deducted from each angle of the point of Maximum Stress. Deduct 2 Web holes and 2 flange holes from each Channel at the point of Maximum Stress.
 Shop Paint: One coat of Red Lead and Raw Linseed Oil.
 Field Paint: Two coats of different colors as approved by the Engineer.
 Batten Plates shall be spaced not over 3'-0" ctrs. on tension members.
 Stringers and Floor Beams to be Milled to exact length.
 This drawing is general only. Shop drawings must be made in compliance with specifications, must be submitted and approved before fabrication is begun.
 Wearing Surface in accordance with Special Provisions.
 Floor Plank 2"x6" creosoted. (Laminated)
 Specifications: Arkansas State Highway Department Specifications dated May 30th, 1925 and revised, together with Special Provisions.
 Note: Measurement for payment of the 2'4" laminated decking shall be computed at One Hundred And Twenty Six (126) ft. B.M. per lin. ft. of bridge. Ends of decking to be flush.

Revised 4-20-29
 Decking Measurement, Note & Drawings
 By Note

STRINGER DATA
 D.L. Mom. = 4631 x 234 + 8 = 135,457#
 L.L. Mom. = 9750 x 234 + 4 = 570,375#
 Imp. @ 30% = 171,113#
 Total Mom. = 876,945#
 Sec. Mod. Req'd. 876,945 ÷ 18000 = 48.72
 Sec. Mod. of Carn. 18 1/2" @ 35# = 54.7#

FLOOR BEAM DATA
 D.L. Mom. = 30,234 x 266 + 8 = 1012,839#
 L.L. Mom. = 2,070,936#
 Imp. @ 30% = 621,281#
 Total Mom. = 3,705,056#
 Sec. Mod. Req'd. 3,705,056 ÷ 18000 = 205.84
 Sec. Mod. of Beth. 18 1/2" @ 85.5# = 214.26

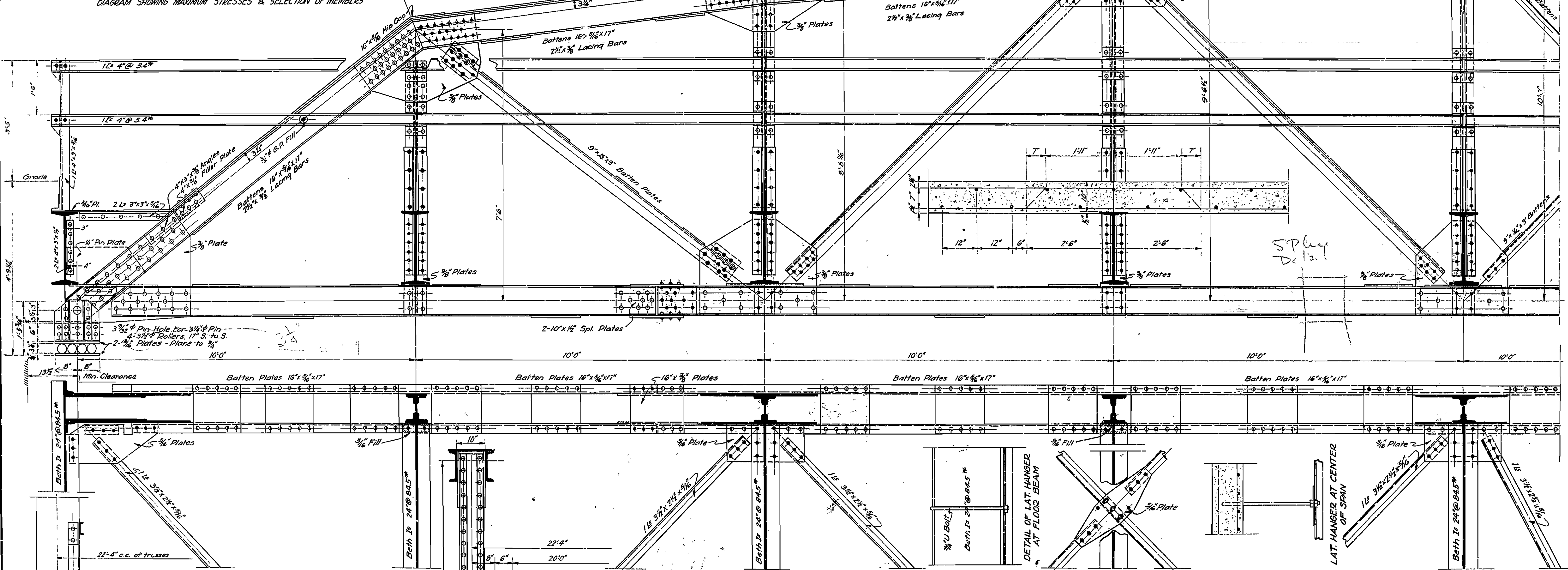
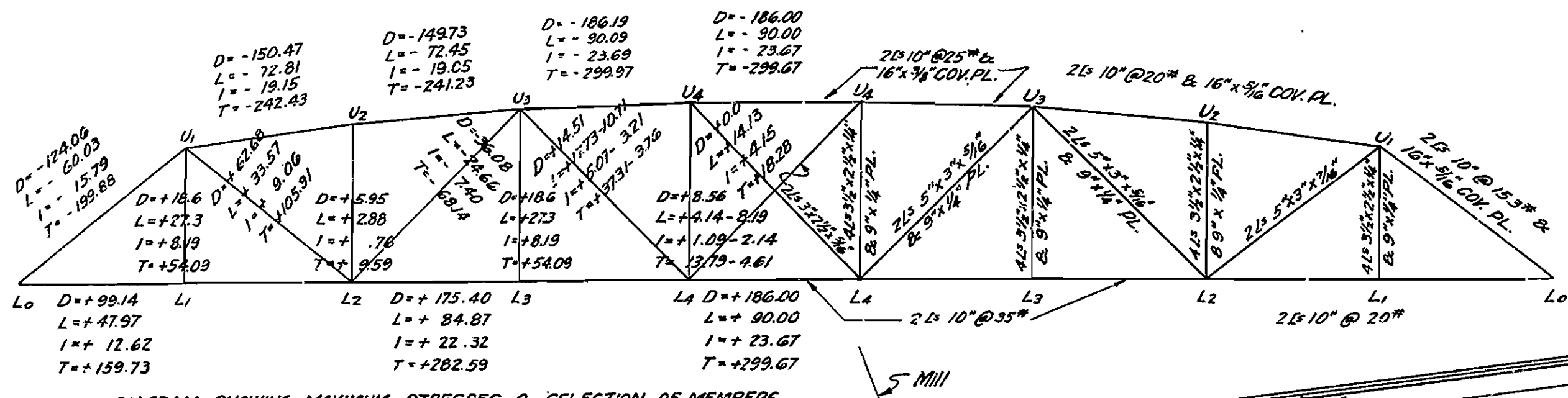
**DETAILS OF
 234'-0" SWING SPAN
 OVER CURRENT RIVER**
 ON ROAD BETWEEN DOCAHONTAS & CORNING, RANDOLPH CO., ARK.
 ROUTE 67 SEC. 21

ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.

Drawn By: N.C.E. Date: 1-22-29
 Traced By: E.A.W. Date: 2-16-29
 Checked By: _____ Date: _____
 Scale: 3/4" = 1 ft.
BRIDGE NO. 615 DRAWING NO. 1410

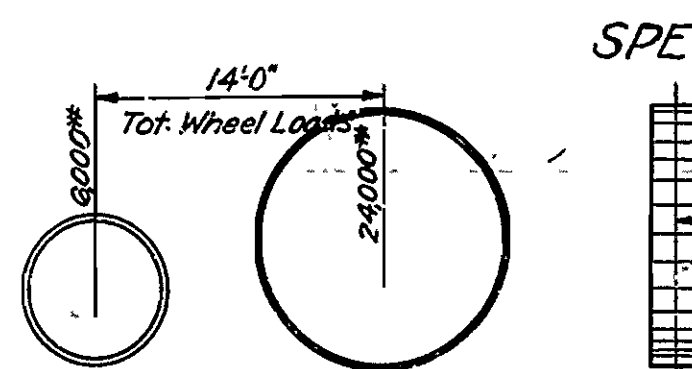
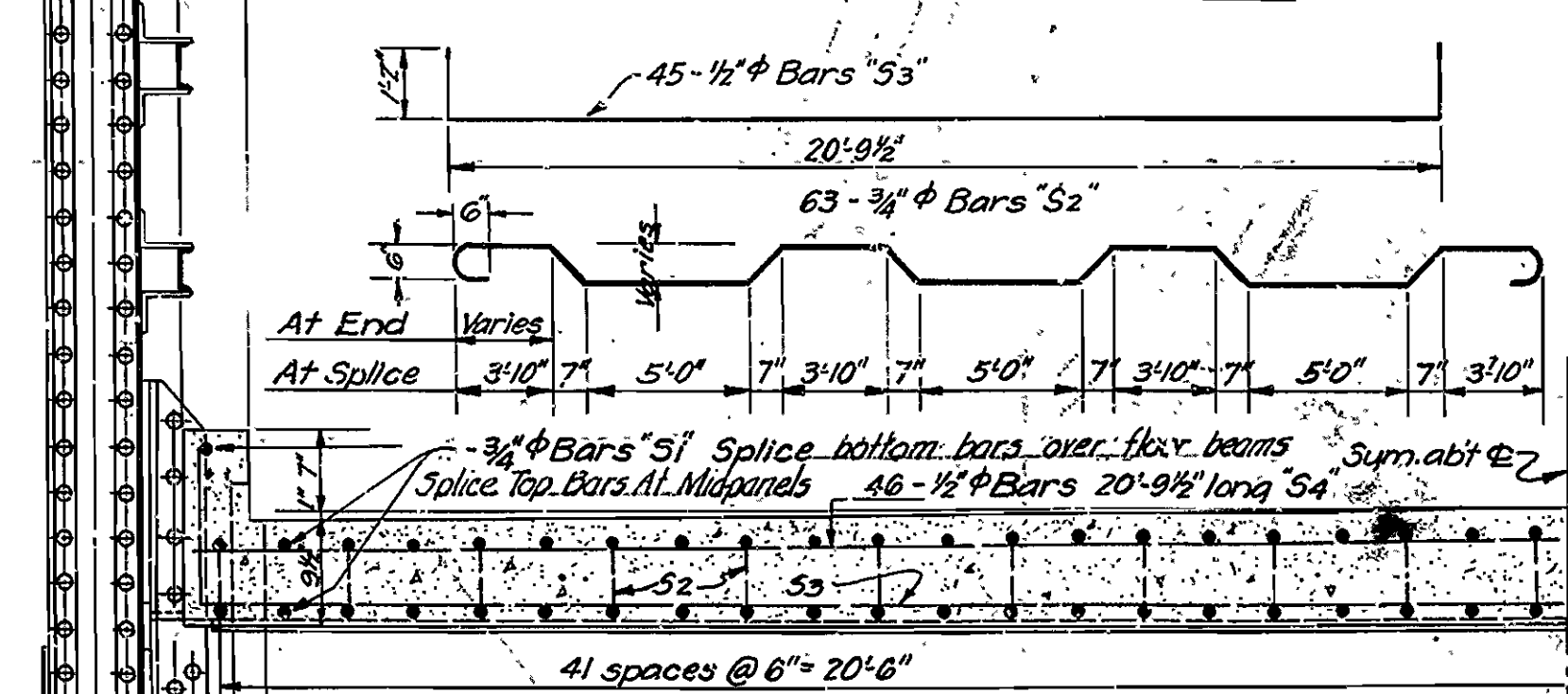
N. R. Sawyer
 BRIDGE ENGINEER

FISCAL YEAR	JOB No.	SHEET No.	TOTAL SHEETS
1920	1094	1094	1094



FLOOR BEAM DATA

DLM = 31,512 x 22.33 x 15 =	1,055,000*
L.L.M = 22,388 x 10.417 - 12,000 x 6 =	1,934,592*
IMPCT @ 30% =	580,378*
TOT. MOM. =	3,569,970*
SEC. MOD. REQ'D = 3,569,970 / 18,000 =	198.4
SEC. MOD. OF BETH IS 24 @ 84.5" =	200.5
EXP. DEVICE FOR MULT. SPANS	
WT. =	2430 LBS.
CPL. IS 13 1/2" x 20" 0"	



SPECIFICATIONS

RIVETS TO BE 3/4" DIAMETER
RIVET HOLES - SUB-PUNCH ALL HOLES IN MAIN TRUSS CONNECTIONS (SHOP & FIELD) 3/16" SMALLER THAN RIVET SPECIFIED & REAM TO 1/8" LARGER THAN SPECIFIED DURING SHOP ASSEMBLY.

MEMBERS SHALL BE MATCH MARKED AND A SUITABLE DIAGRAM FURNISHED FOR ERECTION. ALL FIELD CONNECTIONS TO BE RIVETED.

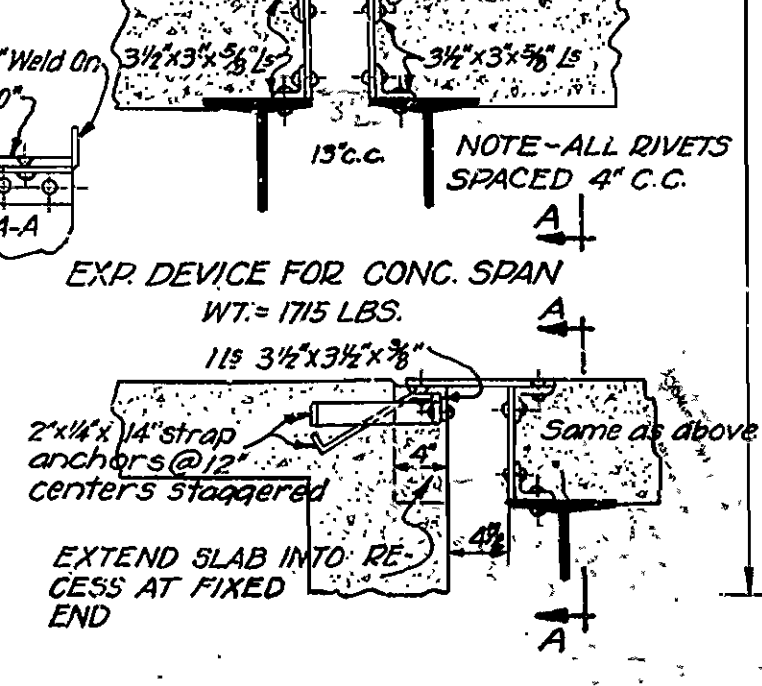
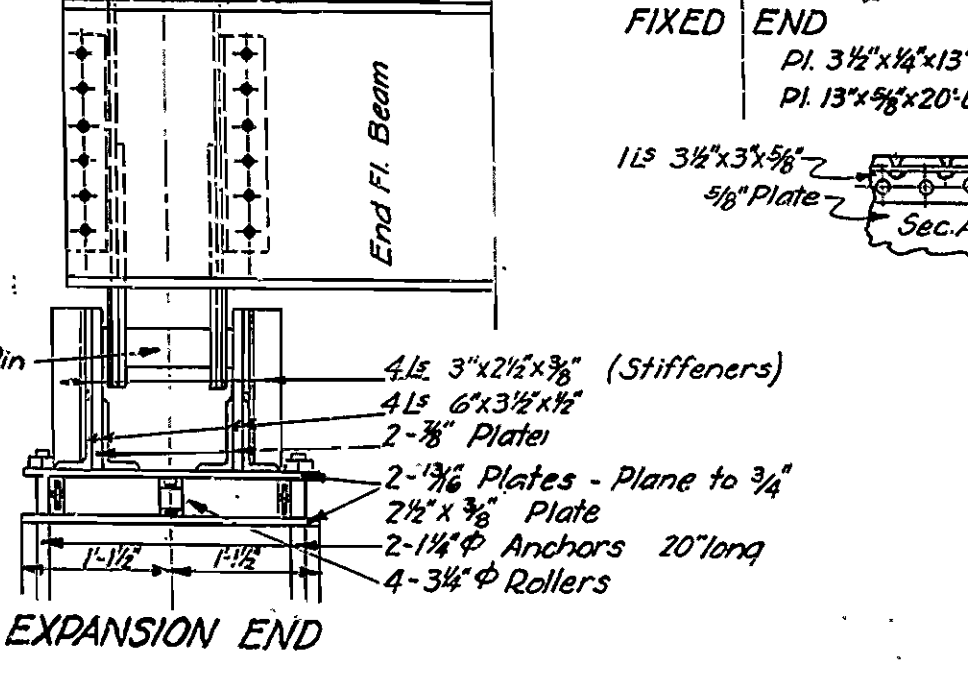
RIVET HOLES IN TENSION MEMBERS SO SPACED THAT ONLY ONE HOLE IS DEDUCTED FROM EACH ANGLE AT PT. OF MAXIMUM STRESS. DEDUCT 2 WEB HOLES & 1 FLANGE HOLE FROM EACH CHANNEL AT POINT OF MAXIMUM STRESS. SHOP PAINT ONE COAT RED LEAD & RAW LINSSEED OIL. FIELD PAINT TWO COATS OF DIFFERENT COLORS AS APPROVED BY THE ENGINEER.

BATTEN PLATES SHALL BE SPACED NOT OVER 3'-0" C.T.O.C. ON TENSION MEMBERS.

CONC. FL. SLAB - CLASS 'S' 1" EXTRA FOR WEAR.

ESTIMATED QUANTITIES

STRUCTURAL STEEL (NOT INCLUDING WEIGHT OF EXPANSION DEVICES)	69,200 LBS.
REINFORCING STEEL (OUT TO OUT OF END FLOOR BEAMS)	11,260
CLASS 'S' CONC.	61.56 CU. YDS.



HALF ELEVATION AT 1/2 OF TRUSS
Note - All Other Sections Are Similar

STANDARD PLAN
90'-0" LOW TRUSS SPAN
20'-0" CLEAR ROWY

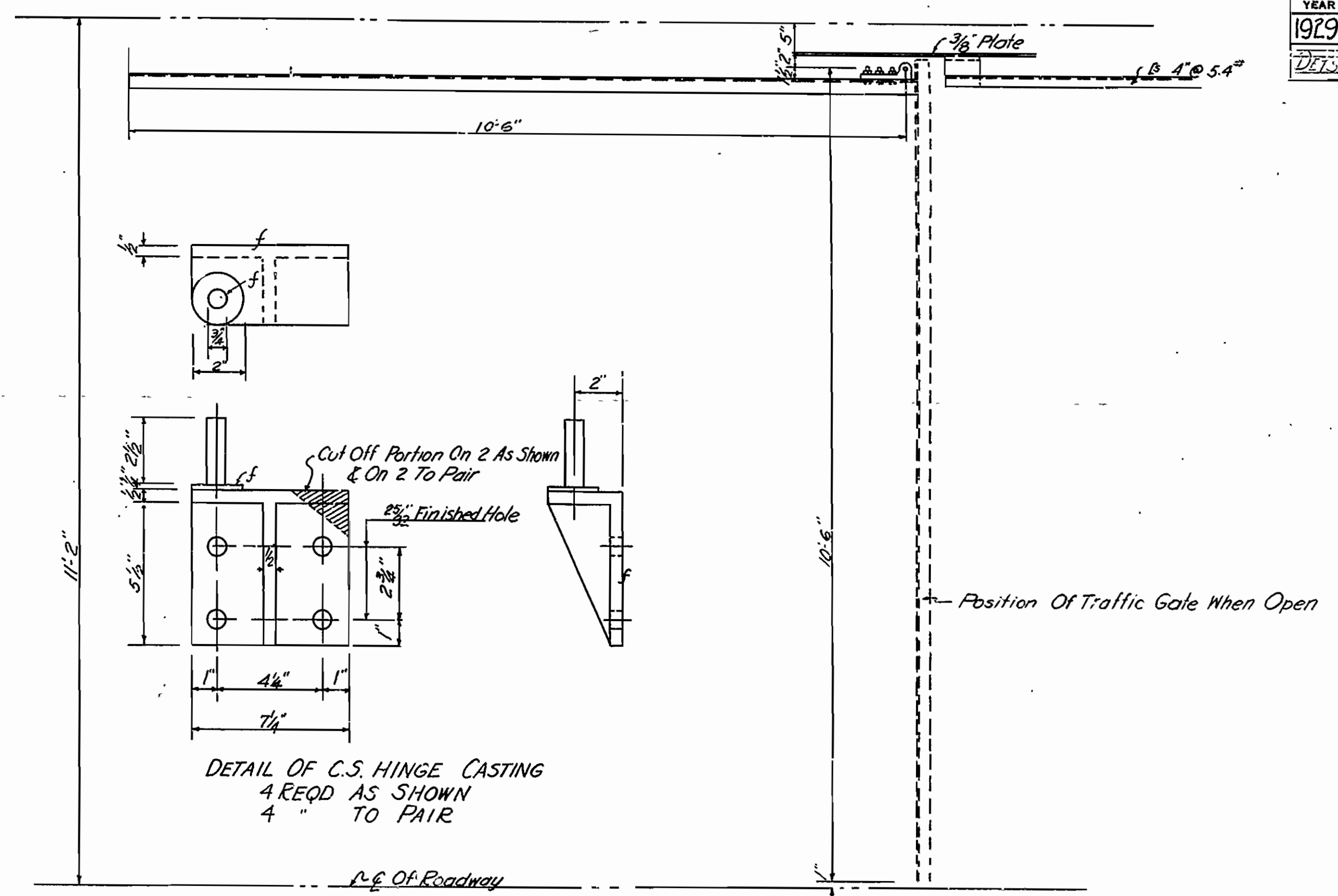
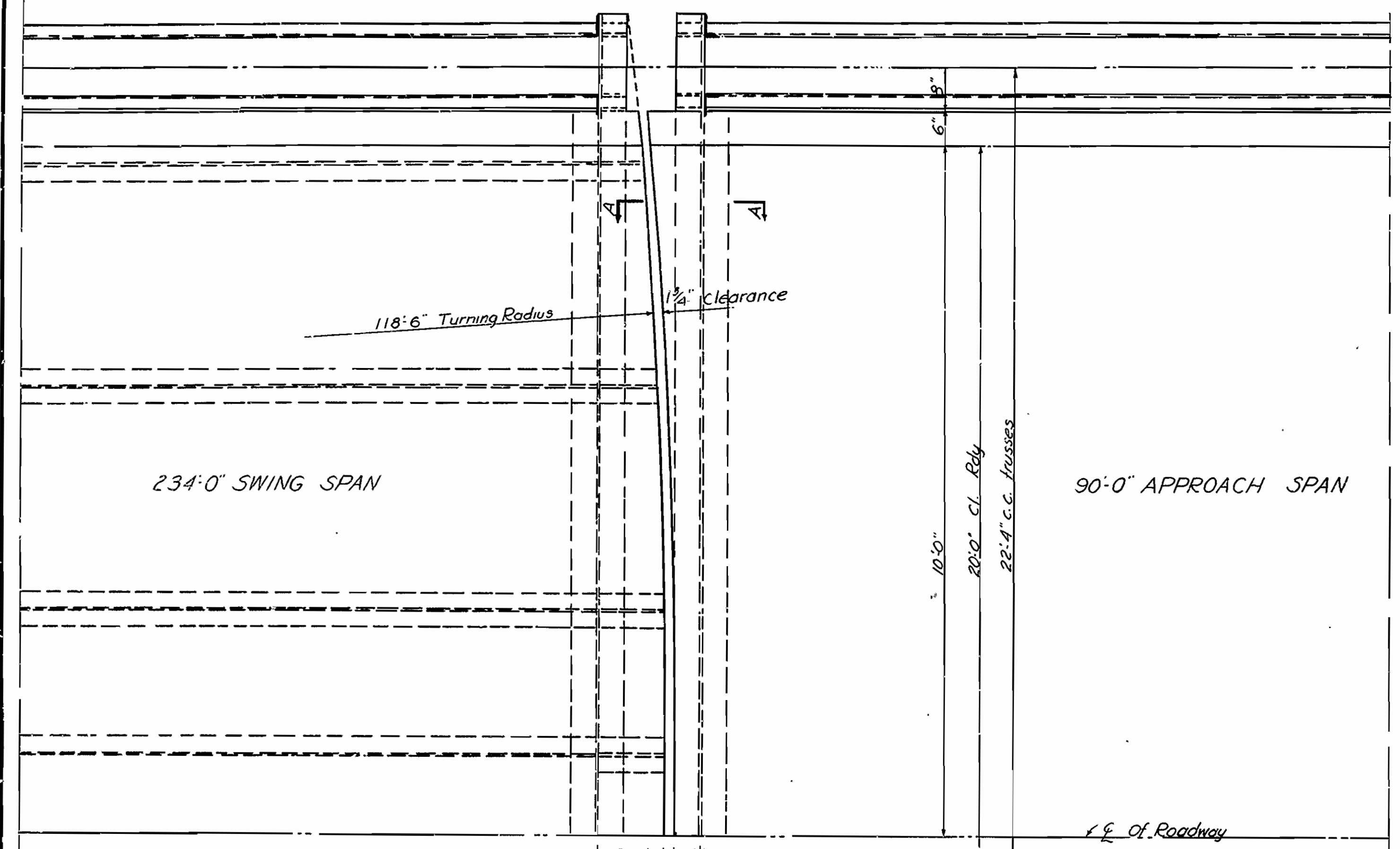
ROUTE SEC.
ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.

Drawn By: NOE Date: 12-18-28
Traced By: AHK Date: 12-21-28
Checked By: _____ Date: _____
Scale: 3/8" in. = 1 ft.
BRIDGE No. _____ DRAWING No. 1094

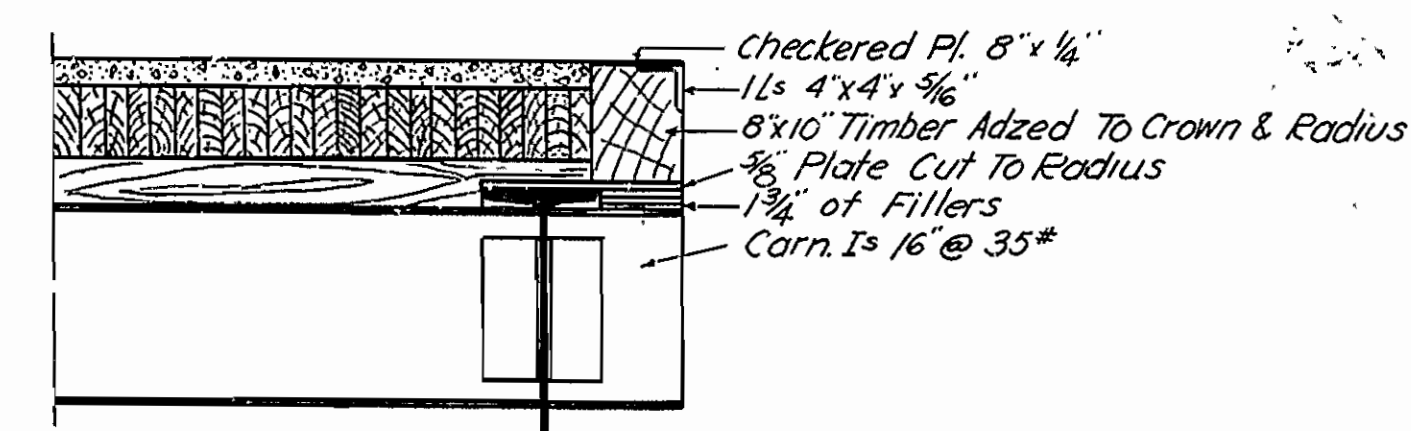
Revised 5-2-29
Splicing of 51 bars in floor slab
By Noe

N.B. Lawrence
BRIDGE ENGINEER

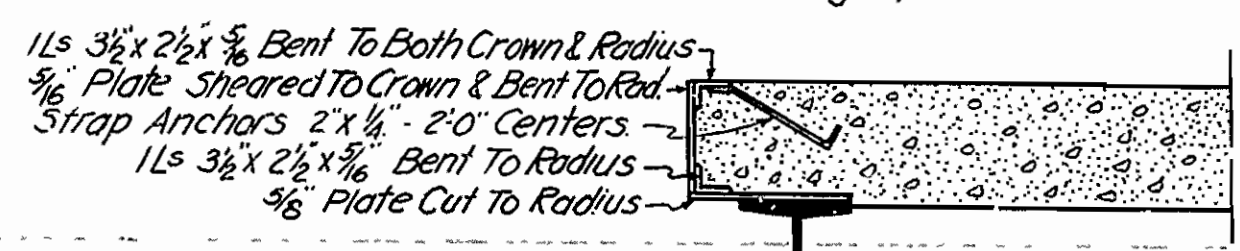
FISCAL YEAR	Job No	SHEET No.	TOTAL SHEETS
1929	1011	7	12
DET. S. RAFFERTY, Insp. R.C.S. Div. DR-7475.			



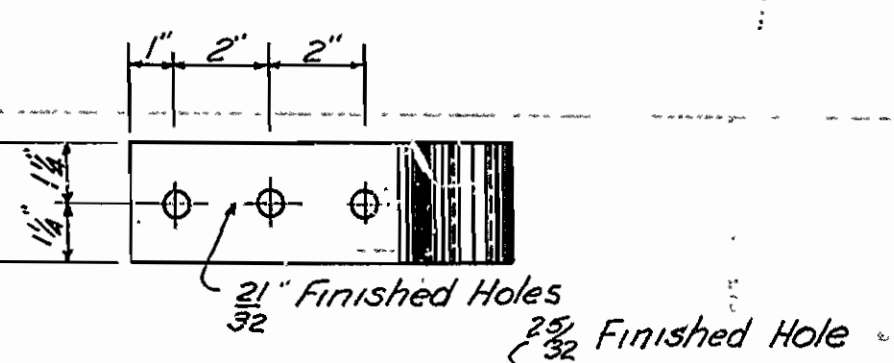
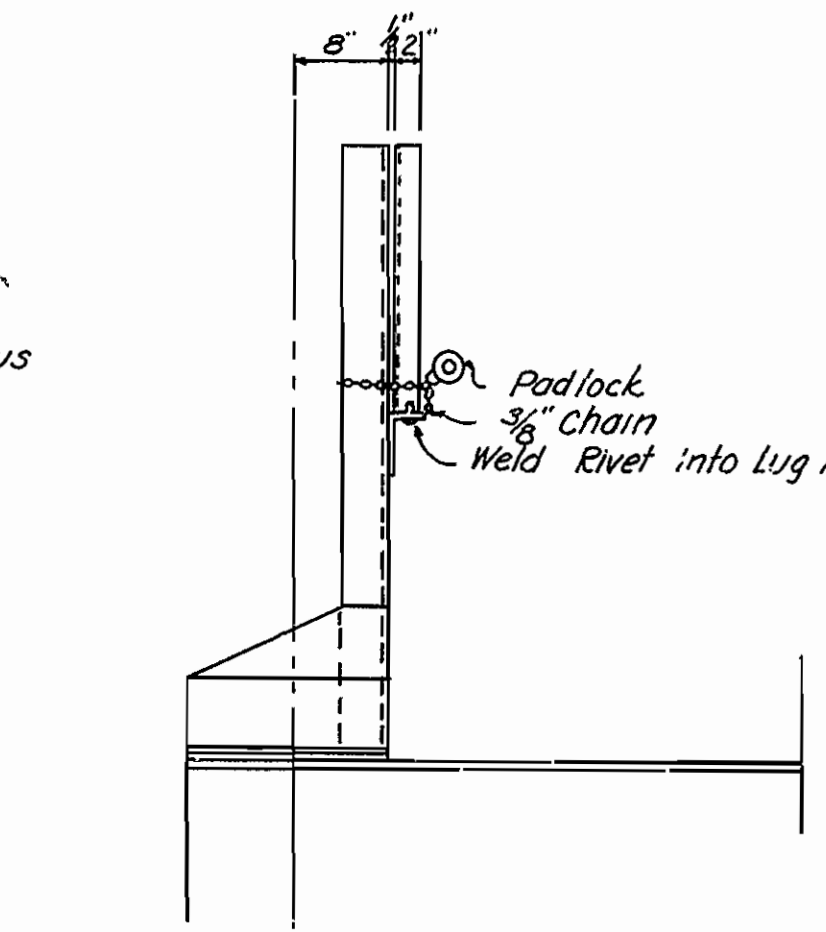
PLAN VIEW OF TRAFFIC GATE



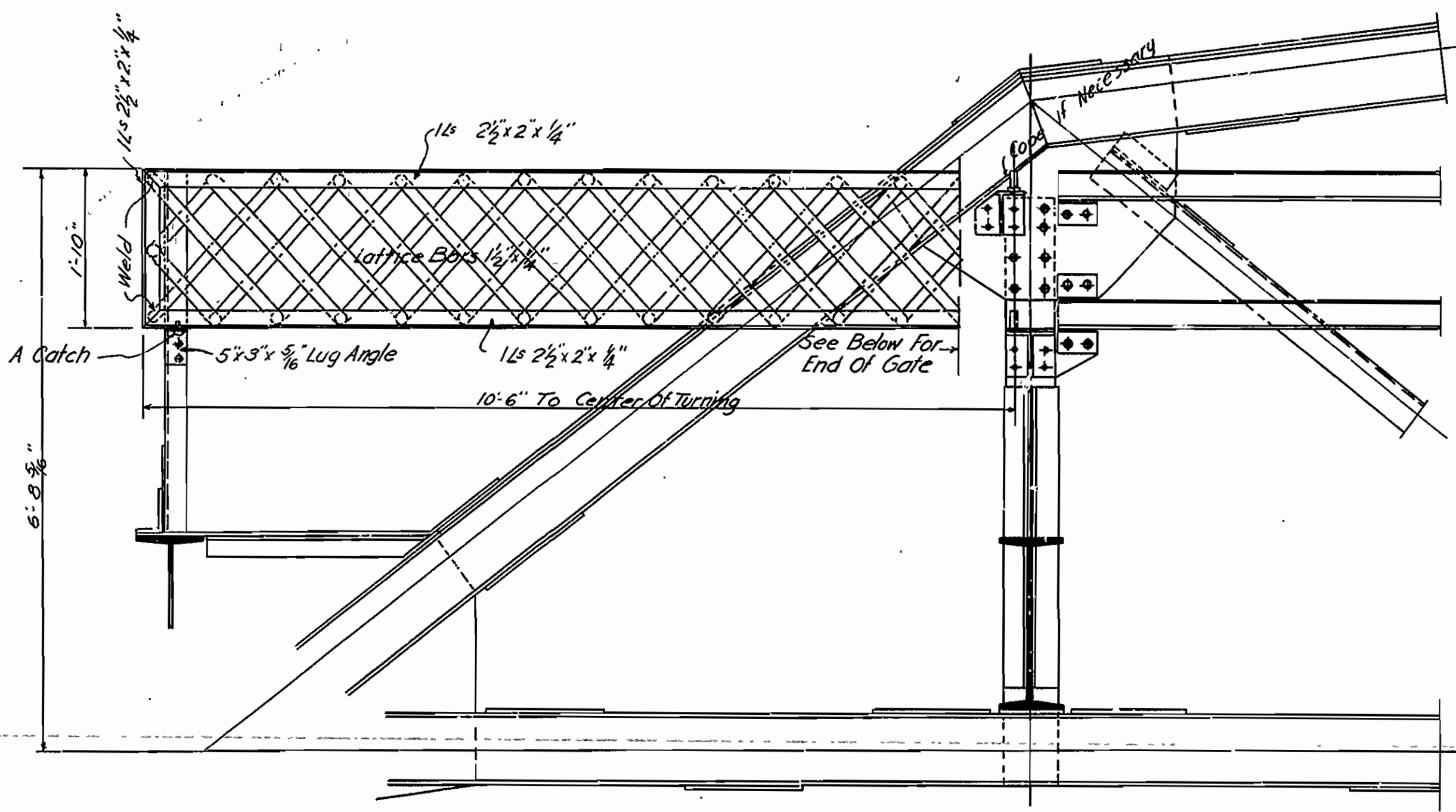
Section Along C of Bridge Showing End Details Of 234'-0" Swing Span



Section A-A Showing End Details Of 90'-0" Truss Approach Spans

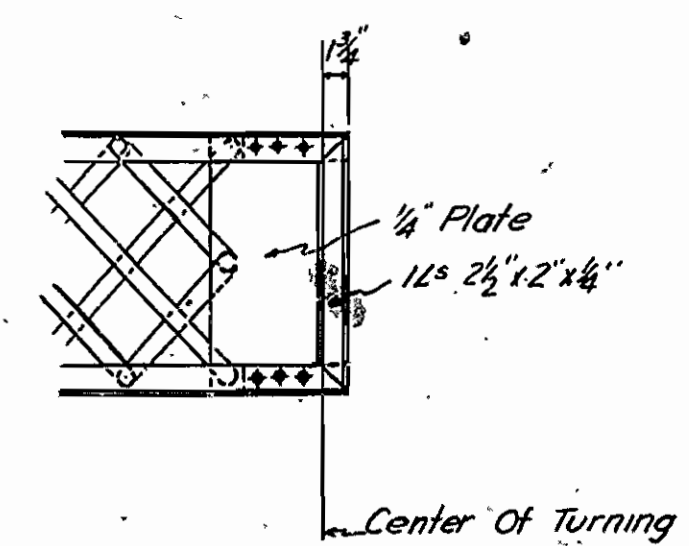


DETAIL OF C.S. HINGE STRAPS
8 REQD.



Note: Lattice Bars On Traffic Gates May Be Either Welded Or Riveted On.

DETAILS OF TRAFFIC GATE ACTING AS RAIL



DETAILS OF TRAFFIC GATES & TURNING RADIUS DEVICES FOR BRIDGE OVER CURRENT RIVER ON ROAD BETWEEN POCAHONTAS & CORNING RANDOLPH COUNTY, ARK. ROUTE 67 SEC. 21

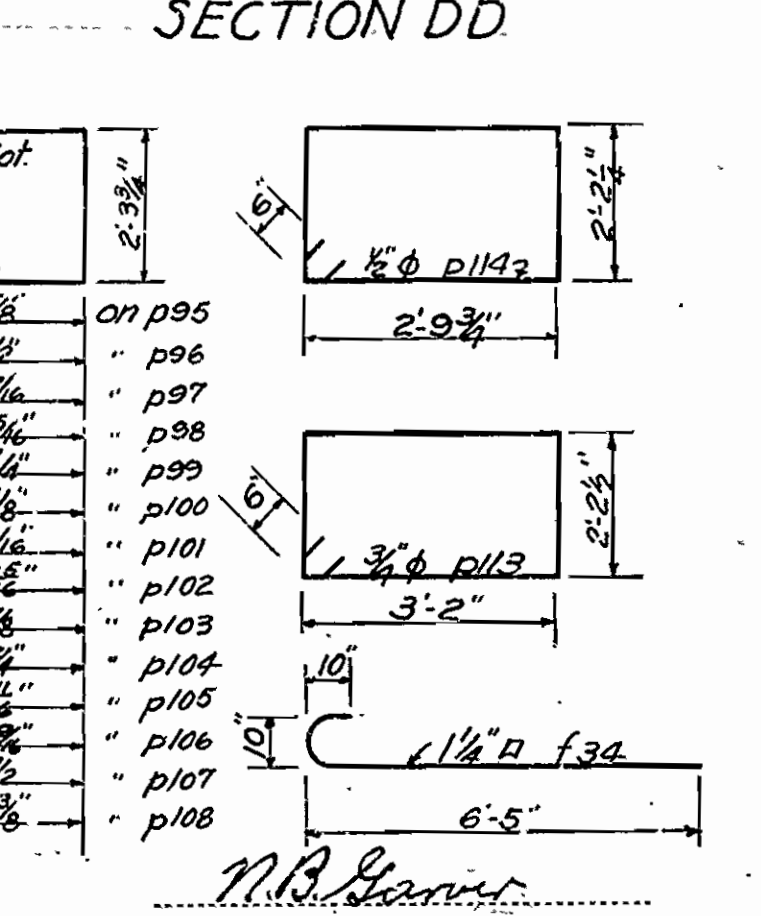
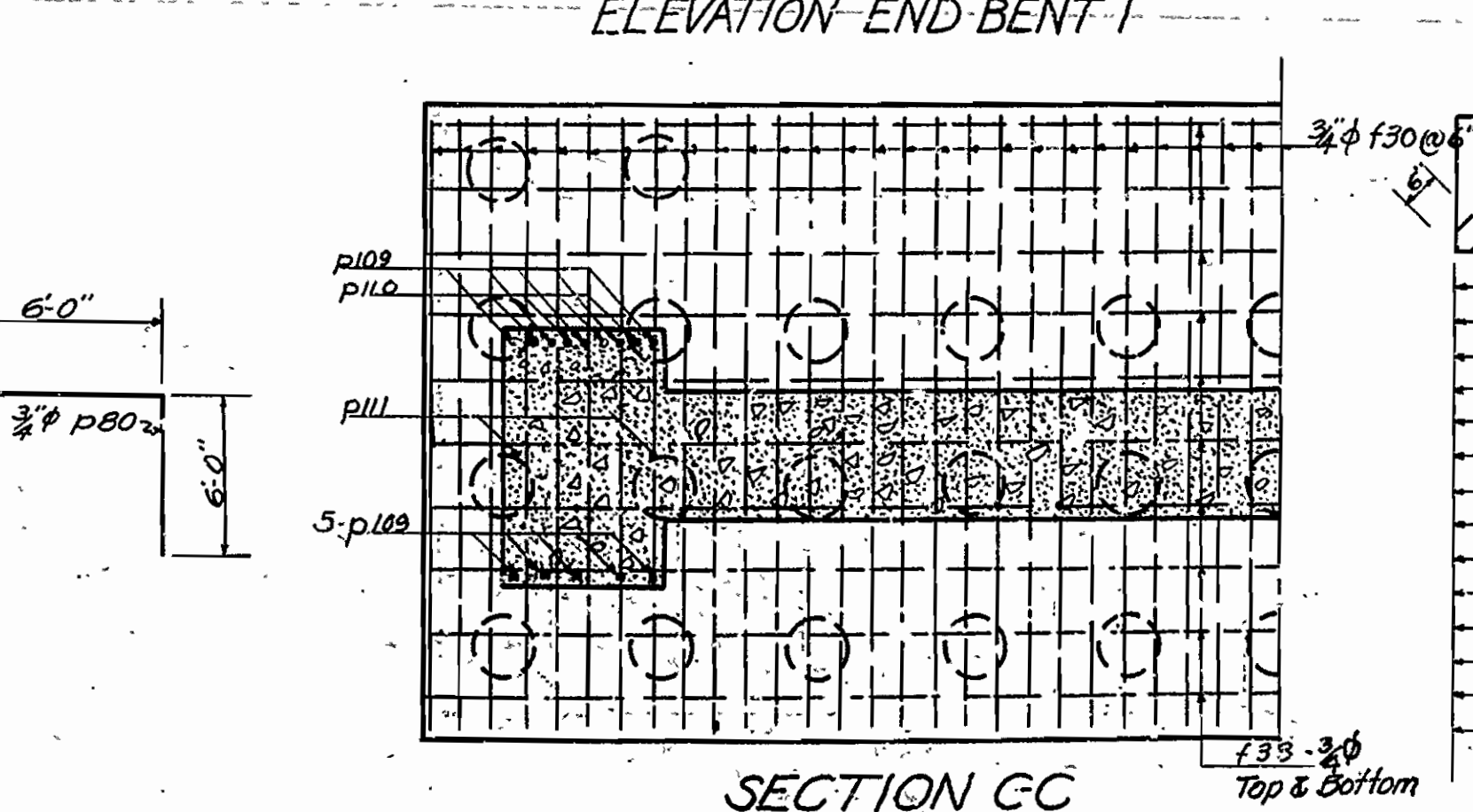
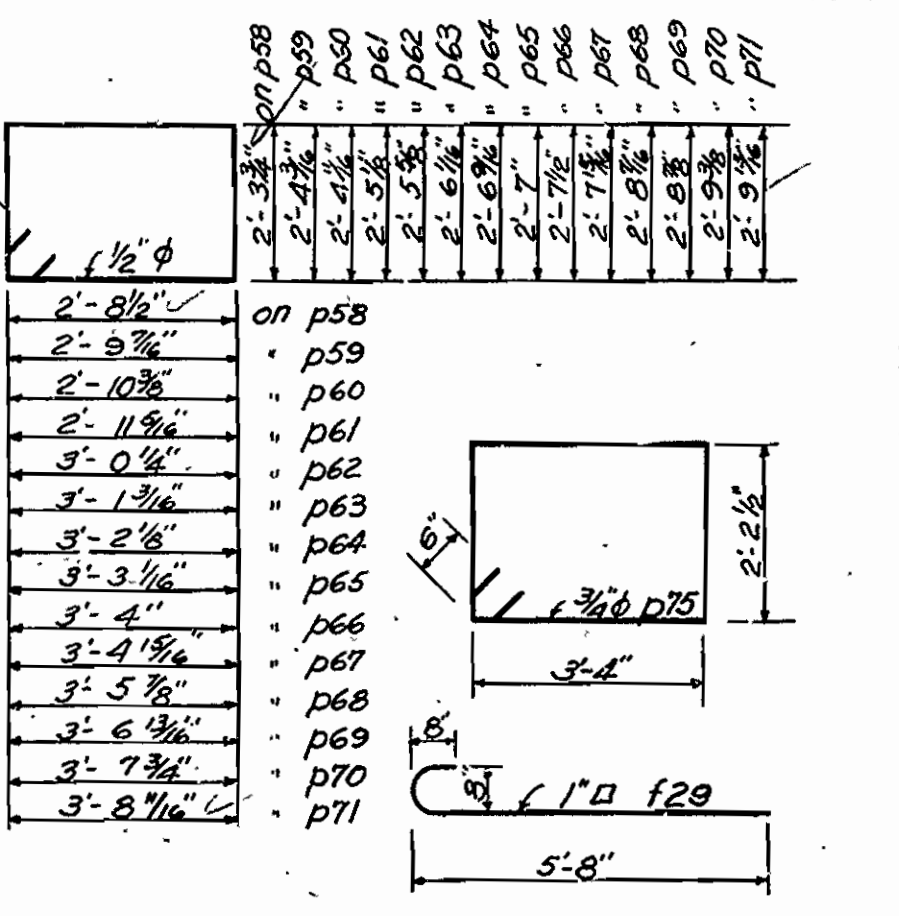
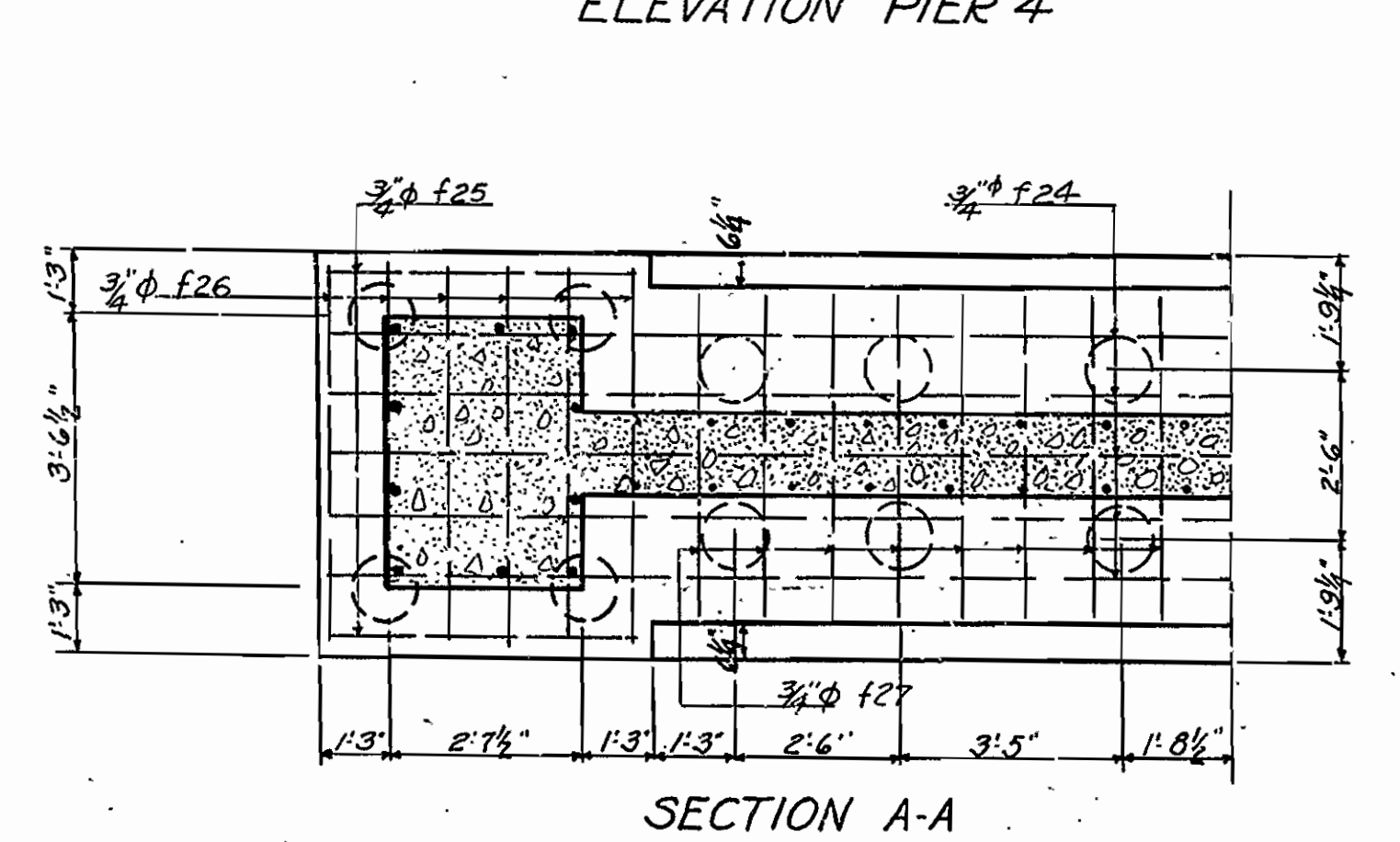
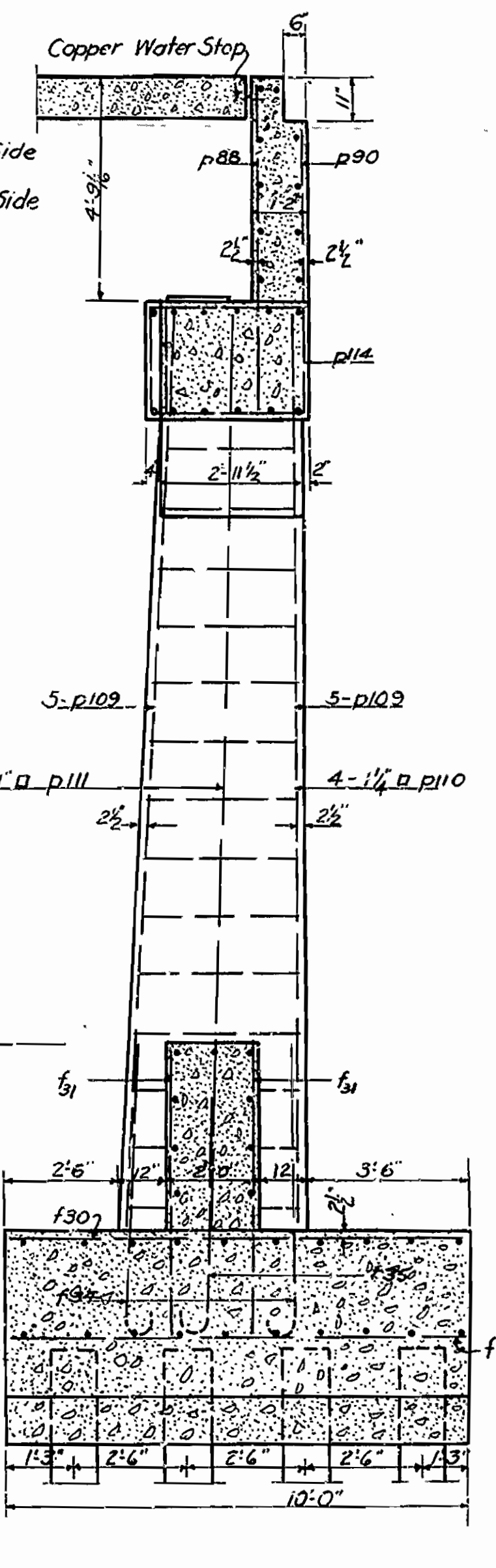
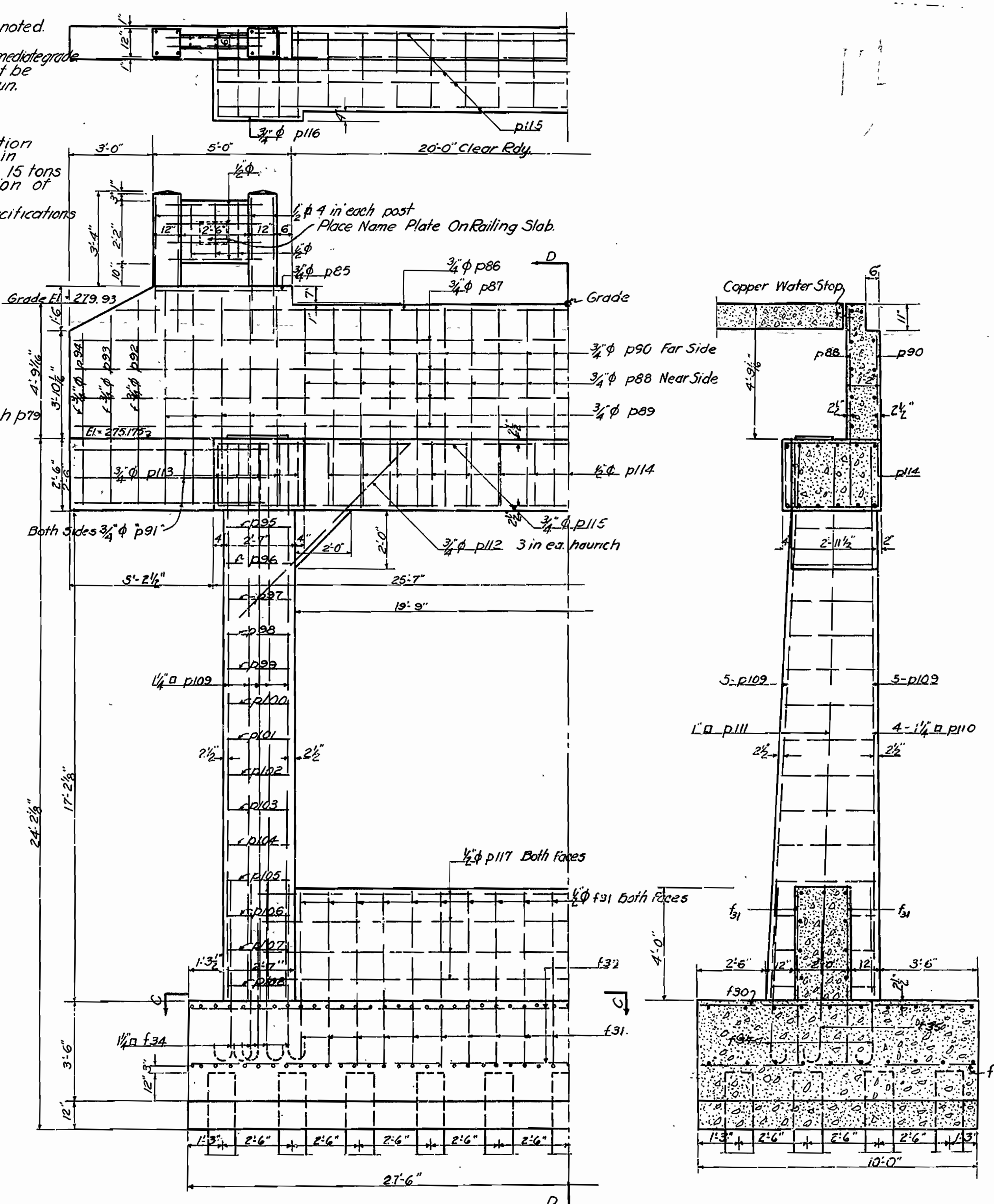
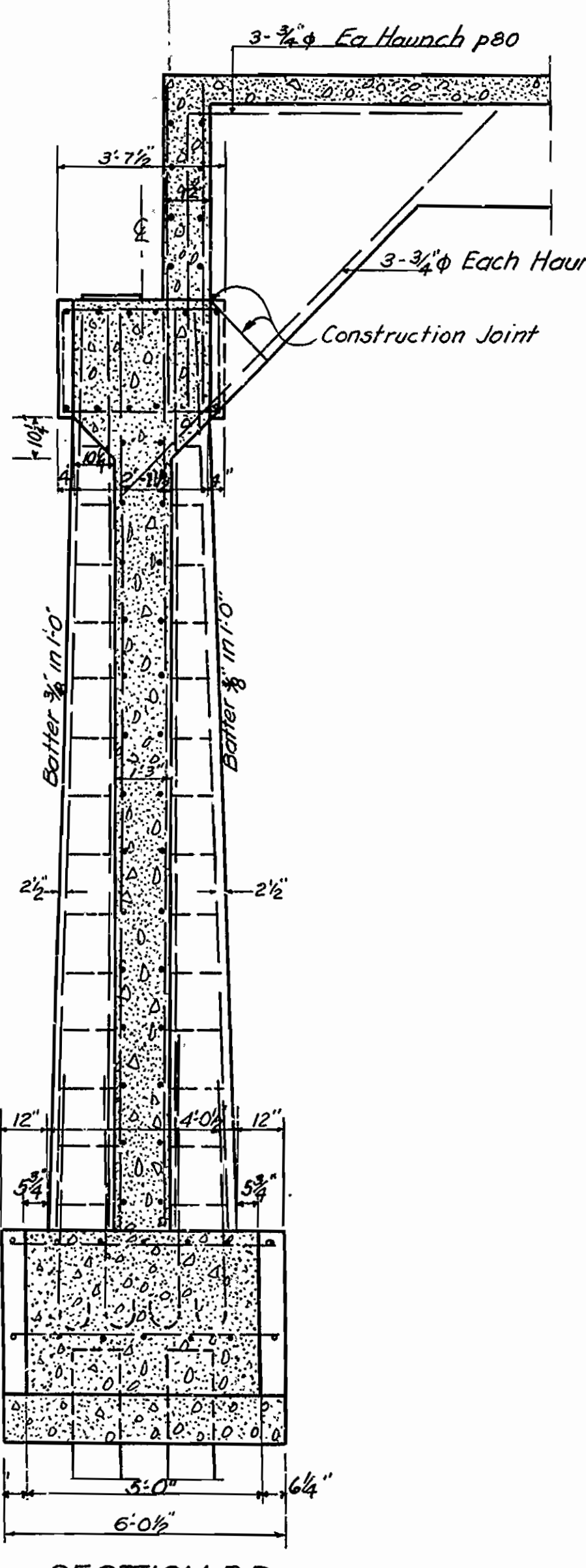
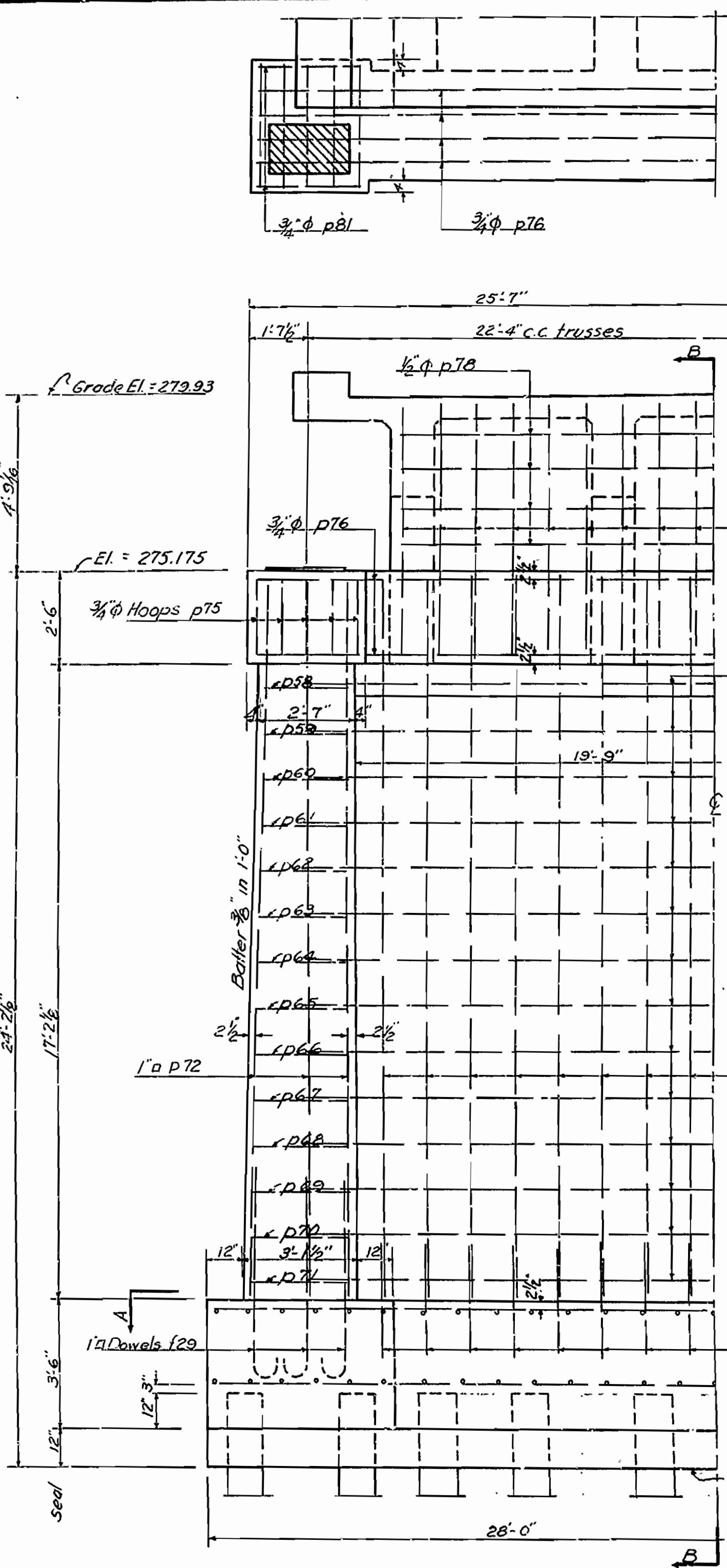
ARKANSAS STATE HIGHWAY DEPARTMENT
LITTLE ROCK, ARK.

Drawn By: Nge Date: 1-15-29
Traced By: E.O.E. Date: 2-12-29
Checked By: Date:
Scale: 3/8" = 1 ft.
BRIDGE NO. 615 DRAWING NO. 143

N.B. Garner
BRIDGE ENGINEER

FISCAL YEAR	Job No.	SHEET No.	TOTAL SHEETS
1929	1011	12	12

Notes
 All exposed corners to have 1/4 chamfer unless otherwise noted.
 Rail posts & railing to be Class 'S' concrete.
 Reinf steel to be deformed bars of structural or intermediate grade.
 Shop list and bending diagrams of reinforcing steel must be submitted by contractor before fabrication is begun.
 Water stop to be paid for as reinforcing steel.
 All concrete, except rail posts & railing to be Class 'A' concrete in seal course to be Class 'A'.
 Foundation piling to be untreated timber. A penetration of 18'-0" below bottom of seal has been used in estimating lengths of piling. Each pile to have 15 tons capacity. Piling shall have a minimum penetration of 15 feet.
 Specifications: Arkansas State Road & Bridge Specifications Adopted May 30, 1925 and revised.



Reinforcing Steel Schedule

Bar No.	Size	Length	STR. OR BR.	Location	
f24	10	27'-8"	Straight	Footings	
f25	8	4'-9 1/2"	"	"	
f26	24	5'-8 1/2"	"	"	
f27	34	4'-8"	"	"	
f28	32	3'-6"	"	"	
f29	20	6'-8"	Bent	"	
p58	2	11'-0 1/2"	"	Column Hoops	
p59	2	11'-3 1/2"	"	"	
p60	2	11'-6 1/2"	"	"	
p61	2	11'-8 1/2"	"	"	
p62	2	11'-11 1/2"	"	"	
p63	2	12'-2 1/2"	"	"	
p64	2	12'-5 3/4"	"	"	
p65	2	12'-8 1/2"	"	"	
p66	2	12'-11"	"	"	
p67	2	13'-1 1/2"	"	"	
p68	2	13'-4 1/2"	"	"	
p69	2	13'-7 1/2"	"	"	
p70	2	13'-10 1/2"	"	"	
p71	2	14'-1"	"	"	
p72	20	19'-6"	Straight	Column	
p73	32	19'-6"	"	Web	
p74	28	22'-0"	"	"	
p75	10	3/4"	12'-1"	Bent	Column Cap
p76	8	3/4"	25'-3"	Straight	"
p77	36	3/4"	6'-6"	"	Curtain Wall
p78	8	3/4"	17'-4"	"	"
p79	12	3/4"	11'-0"	"	Haunches
p80	12	3/4"	12'-0"	Bent	"
p81	8	3/4"	2'-11"	Straight	Column Caps
End Bent #1					
p85	4	3/4"	5'-0"	Straight	Curtain Wall
p86	2	3/4"	32'-6"	"	"
p87	8	3/4"	35'-8"	"	"
p88	20	3/4"	6'-8"	"	"
p89	20	3/4"	7'-4"	"	"
p90	20	3/4"	5'-9"	"	"
p91	12	3/4"	7'-0"	"	"
p92	4	3/4"	7'-2"	"	"
p93	4	3/4"	6'-8"	"	"
p94	4	3/4"	6'-2"	"	"
p95	2	3/4"	11'-0 1/2"	Bent	Column Hoops
p96	2	3/4"	11'-2 1/2"	"	"
p97	2	3/4"	11'-4 1/2"	"	"
p98	2	3/4"	11'-6 1/2"	"	"
p99	2	3/4"	11'-8"	"	"
p100	2	3/4"	11'-9 1/2"	"	"
p101	2	3/4"	11'-11 1/2"	"	"
p102	2	3/4"	12'-1 1/2"	"	"
p103	2	3/4"	12'-3 1/2"	"	"
p104	2	3/4"	12'-5"	"	"
p105	2	3/4"	12'-6 1/2"	"	"
p106	2	3/4"	12'-8 1/2"	"	"
p107	2	3/4"	12'-10 1/2"	"	"
p108	2	3/4"	13'-0 1/2"	"	"
p109	20	1/2"	19'-6"	Straight	Columns
p110	8	1/2"	10'-0"	"	"
p111	4	1"	19'-6"	"	"
p112	6	3/4"	8'-0"	"	Column Haunches
p113	10	3/4"	11'-9"	Bent	Cap
p114	15	1/2"	11'-0"	"	"
p115	10	3/4"	25'-3"	Straight	"
p116	4	3/4"	2'-11"	"	"
p117	9	1/2"	23'-0"	"	Web
f30	110	3/4"	9'-8 1/2"	"	Footings
f31	40	1/2"	5'-9"	"	"
f32	20	3/4"	27'-0"	Straight	"
f34	28	1/2"	7'-8 1/2"	Bent	"
f35	4	1"	6'-7"	"	"

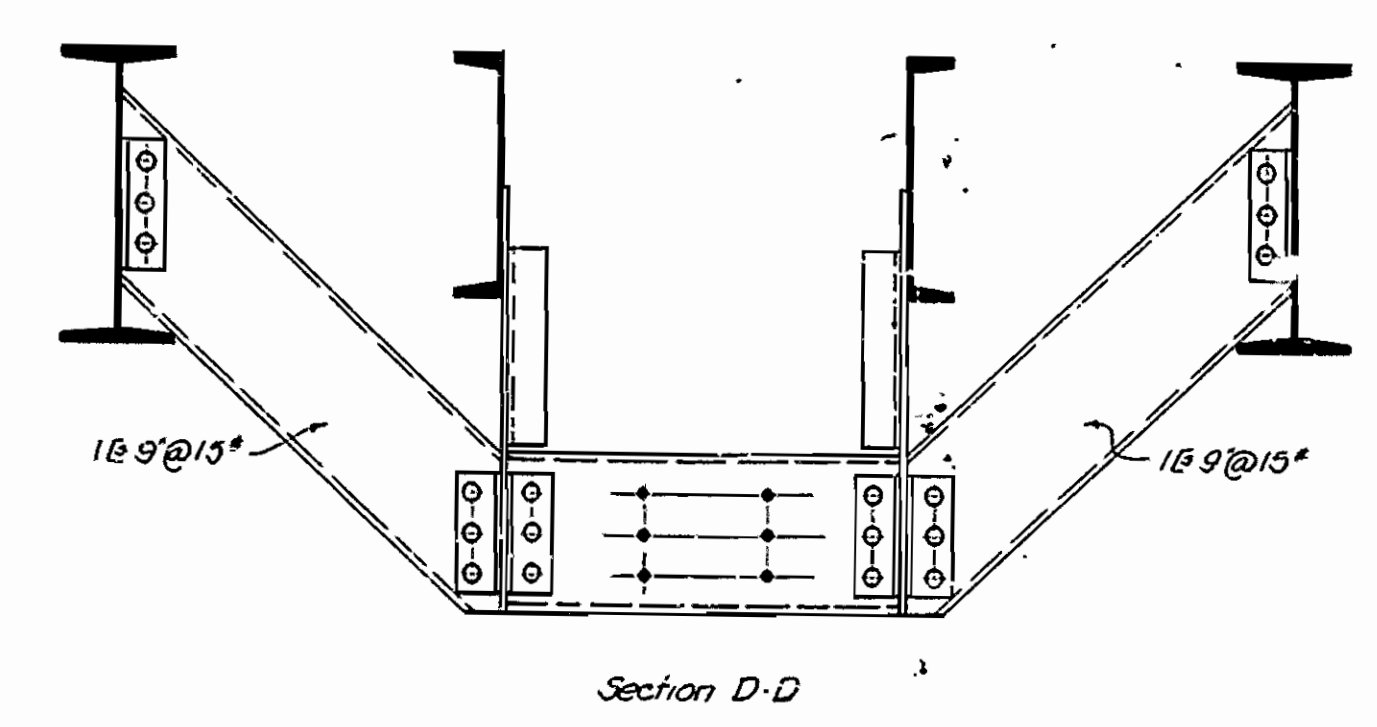
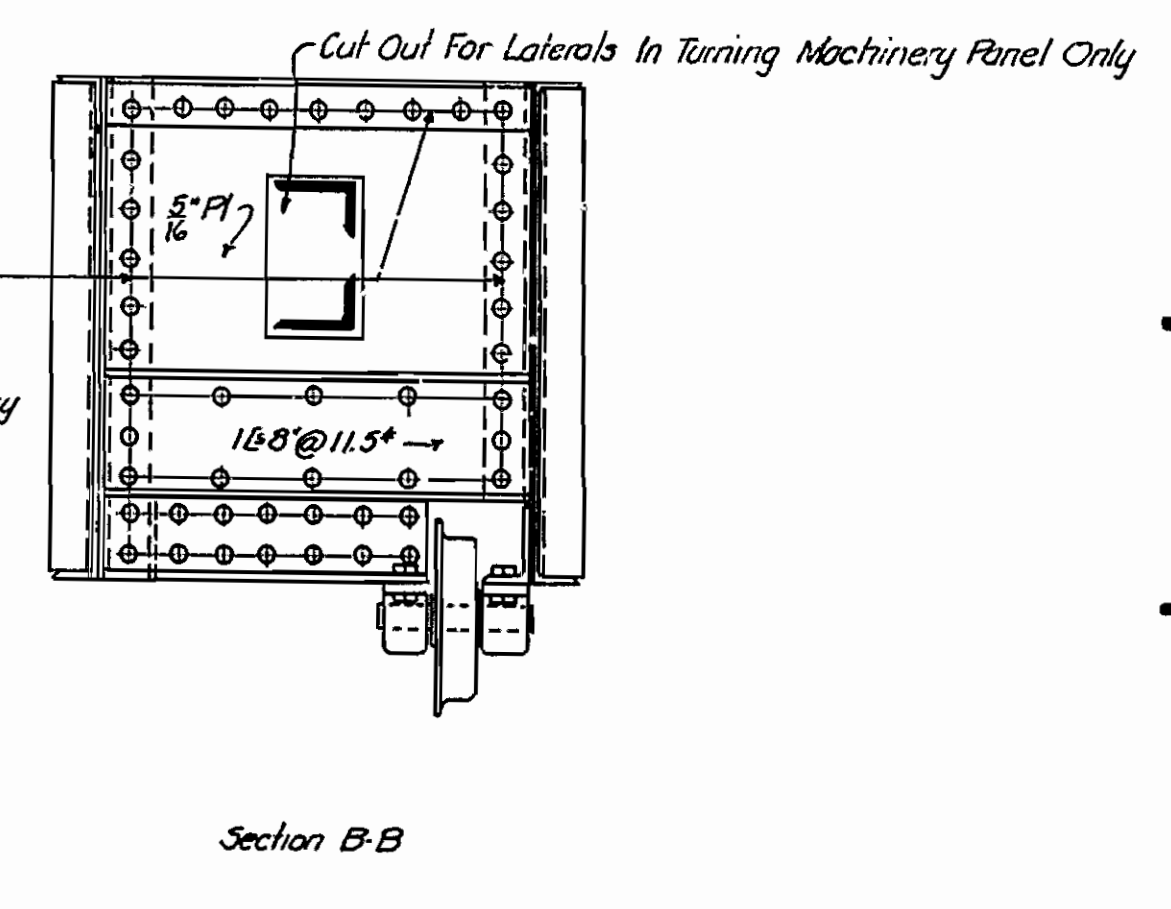
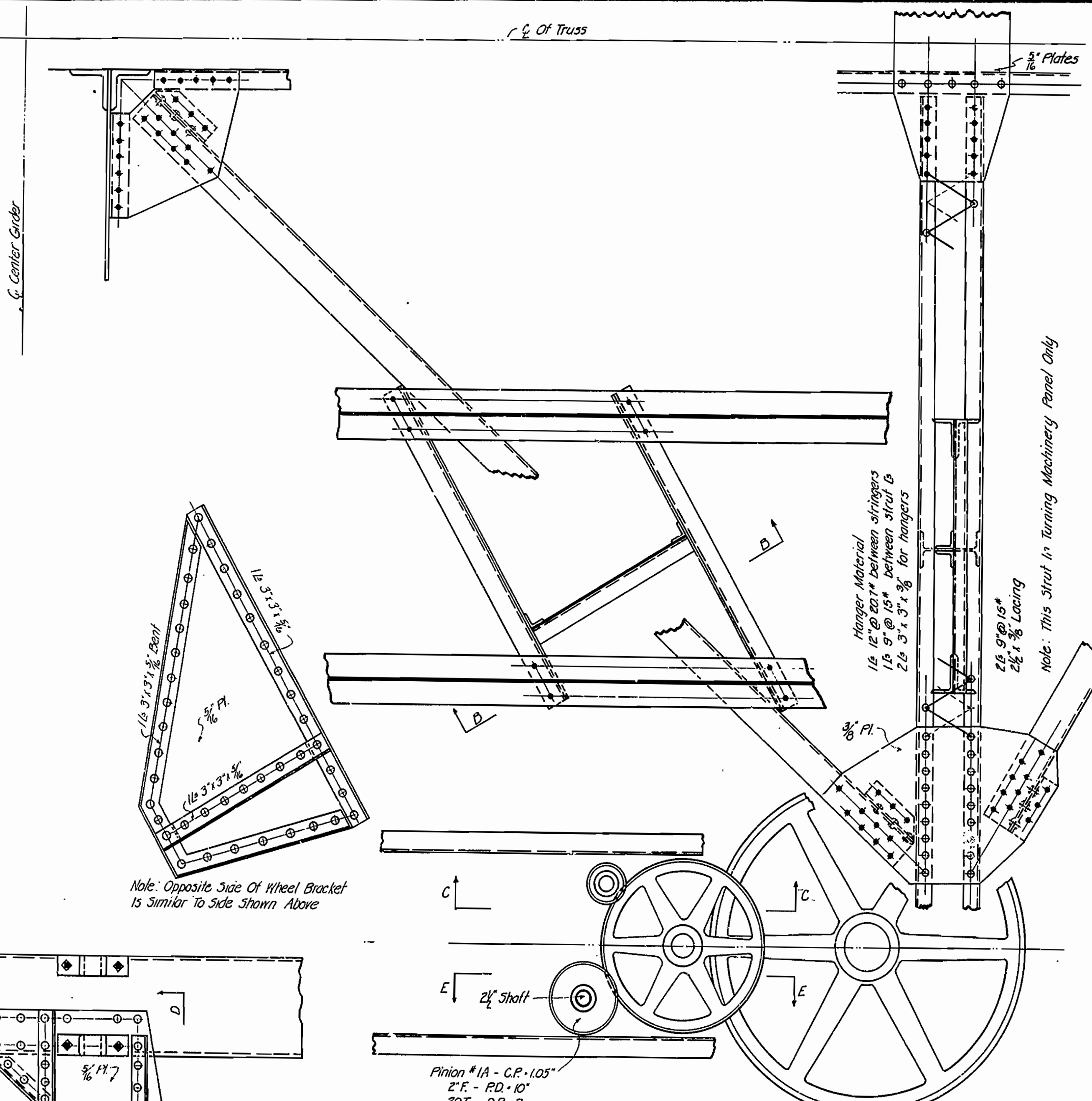
DETAILS OF END BENT NO. 1 & PIER NO. 4
 FOR BRIDGE OVER CURRENT RIVER
 ON ROAD BETWEEN CORNING & POCAHONTAS RAILROAD COUNTY
 ROUTE 67 SEC. 21

ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.

Drawn By: *Noe* Date: 2-7-29
 Traced By: *EOE* Date: 2-18-29
 Checked By: _____ Date: _____

Scale: 3/8" = 1 ft.
BRIDGE NO. 615 DRAWING NO. 1417

FISCAL YEAR	Job No.	SHEET No.	TOTAL SHEETS
1929	1011	6	12
MARCH DETAILS - 234' SWING SPAN - S.P. L.C. R. D. 1912			

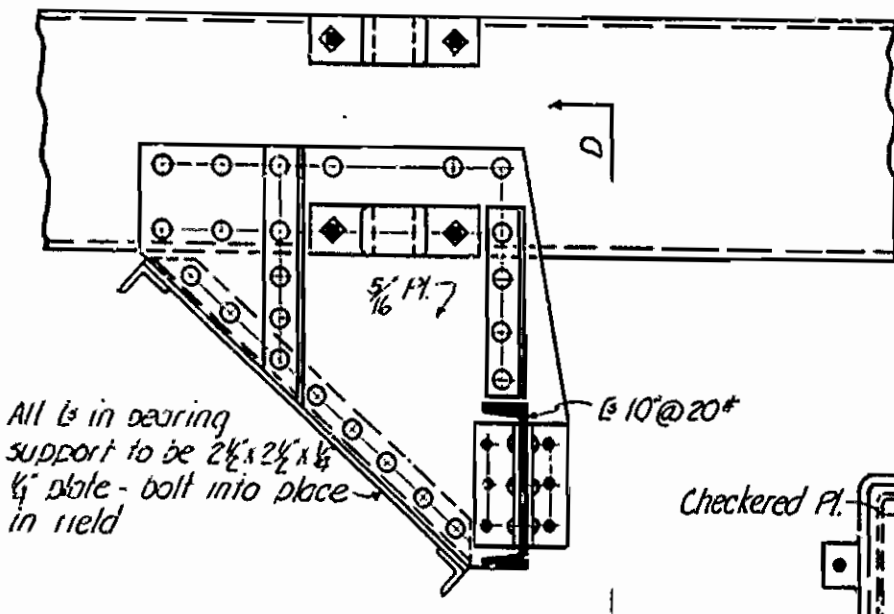


Note: Opposite Side Of Wheel Bracket Is Similar To Side Shown Above

Note: For Wheel Brackets In Panel Adjacent To Turning Machinery Panel Make This Edge Of Wheel Bracket Clear Lower Laterals.

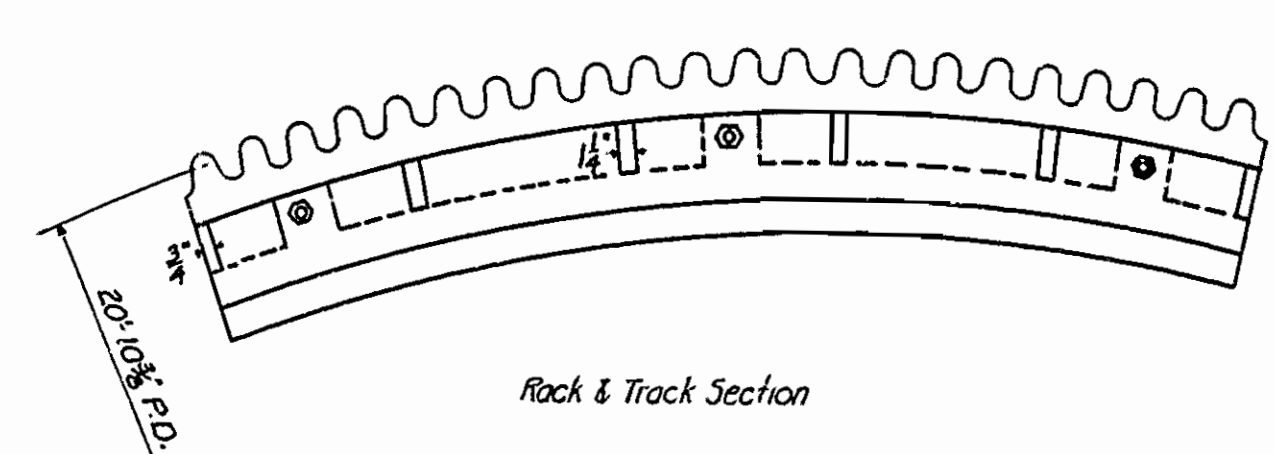
Note: This Strut In Turning Machinery Panel Only

Pinion #1A - C.P. 1.05"
2" F. - P.D. 10"
30T. - D.P. 3

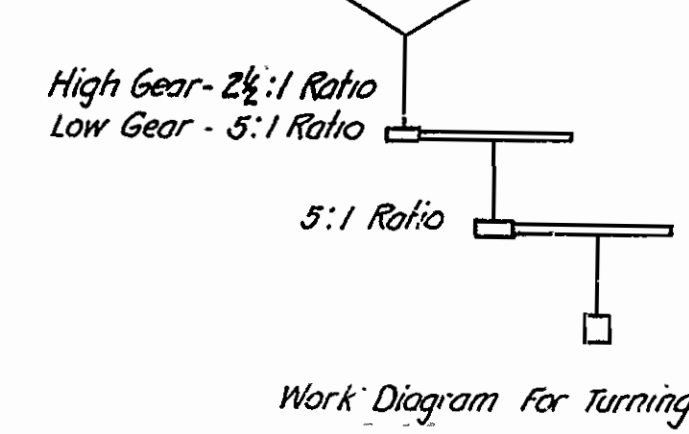


Section C-C
Note: Section E-E Similar

View A-A
Note: Put lifting ring in top which will lie flush with top when cover is in place

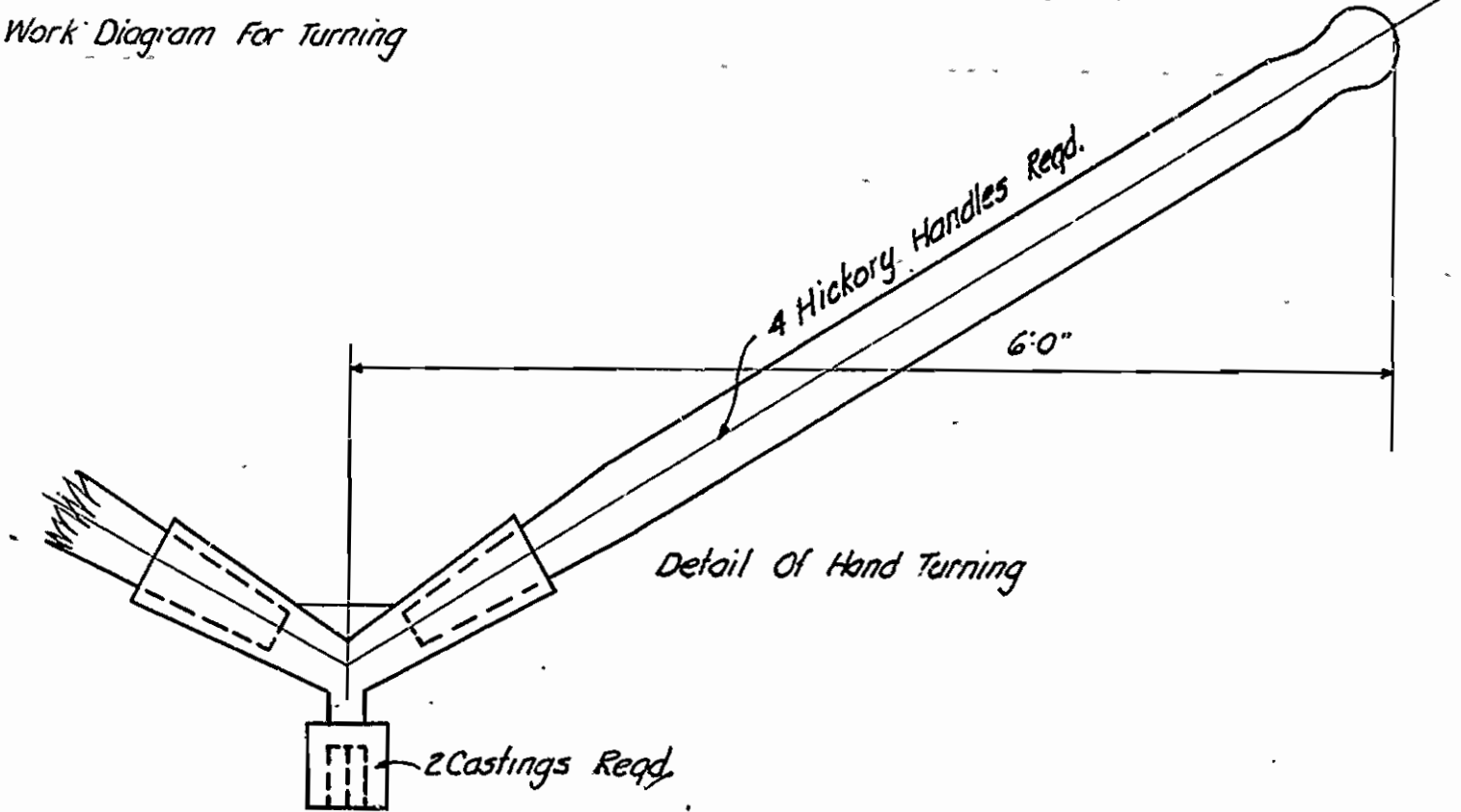
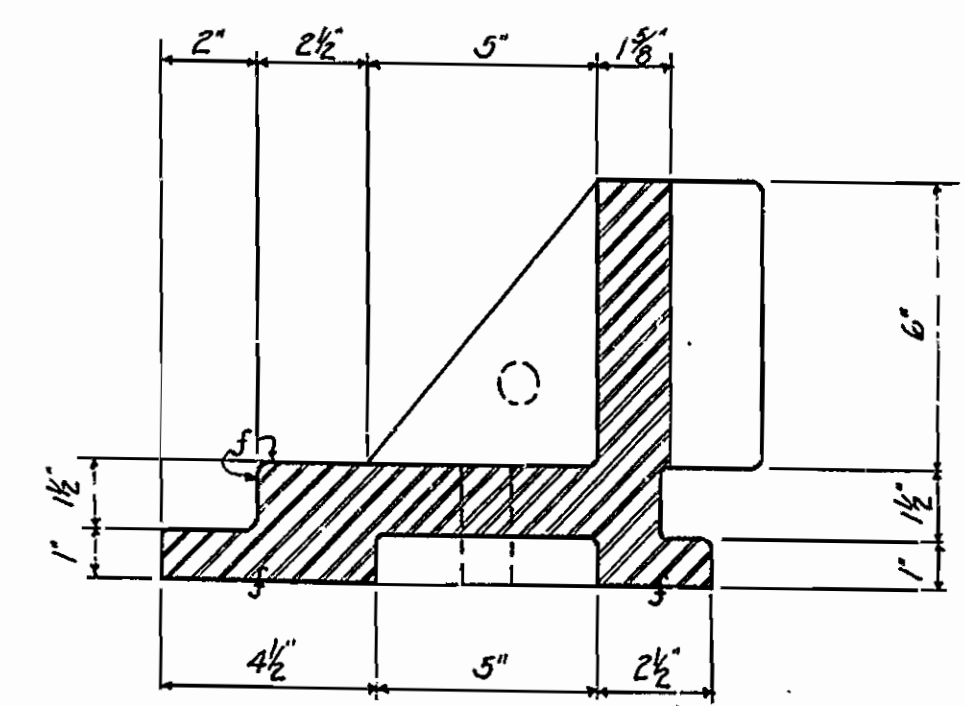
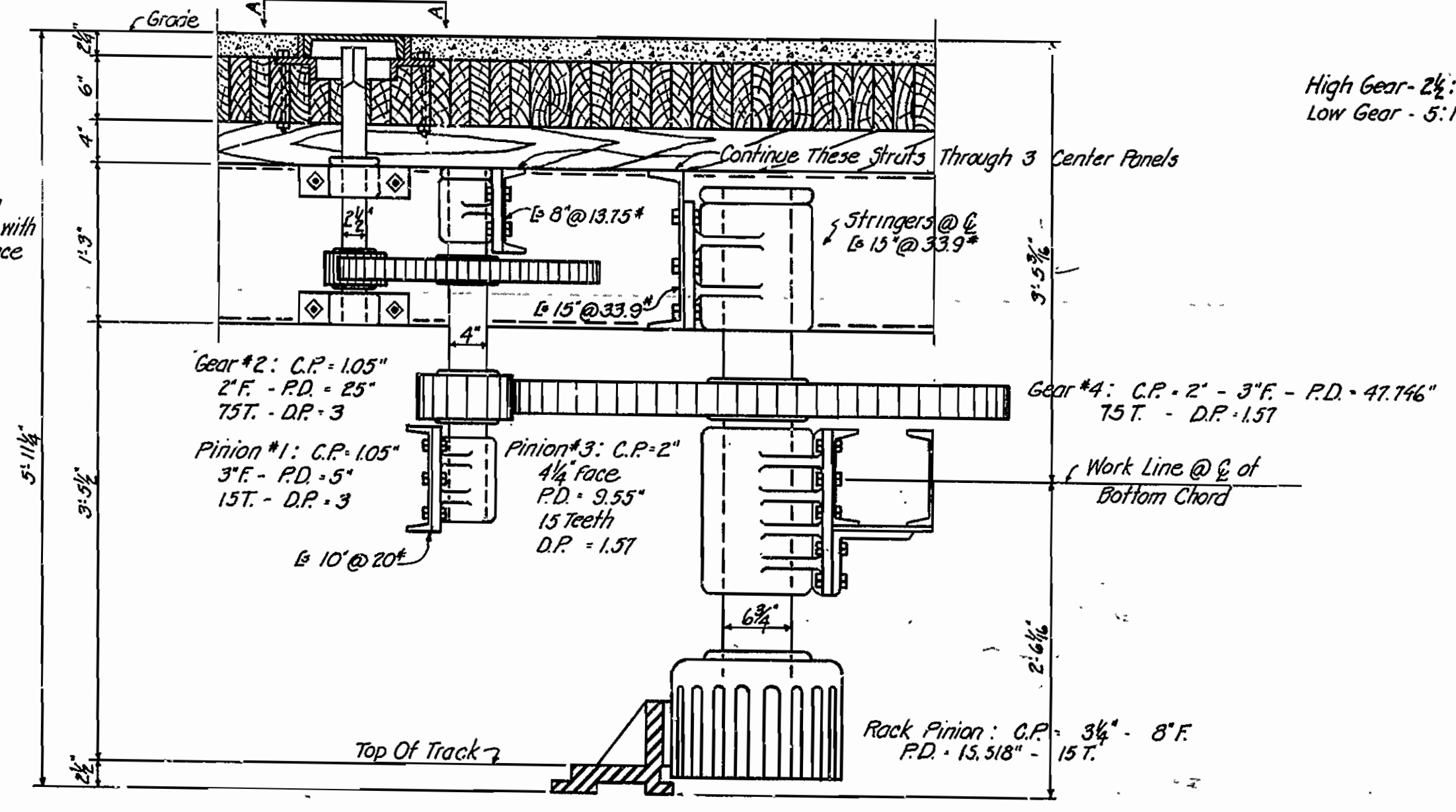


Rack & Track Section
Rack: 3 1/4\"/>



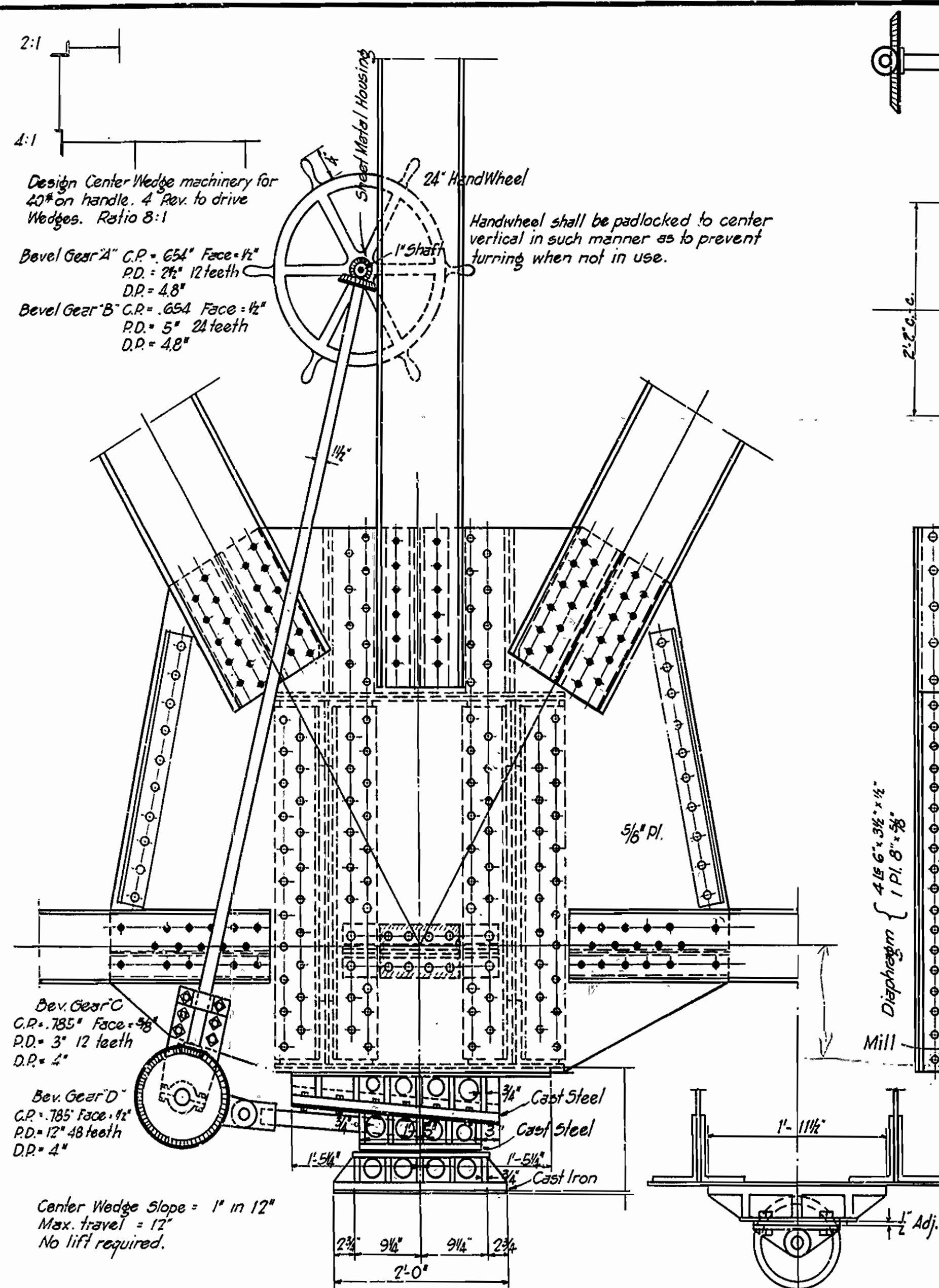
Turning machinery to be designed for 2 men exerting a force of 82# each on 6'-0\"/>

The complete center of the swing span, including turning machinery, rack and track segments, and balance wheels, shall be assembled in the shop, aligned, fitted, drilled, and the parts matchmarked & operated:-
 A' gears and rack to be of cast steel.
 All gear teeth except rack teeth to be machine cut.
 All gears to be secured to shafts with suitable keys.
 Pitch line to be scribed on both sides of all gears and on top of rack.
 All bearing boxes for turning machinery to have phosphor-bronze linings.
 All shafts under 3 1/2\"/>



MACHINERY DETAILS
 FOR 234' SWING SPAN OVER CURRENT RIVER
 ON ROAD BETWEEN POCAHONTAS & CORNING, RANDOLPH CO, ARK.
 ROUTE 67 SEC. 21
ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.
 Drawn By: Noe Date: 1-28-29
 Traced By: Noe Date: 2-21-29
 Checked By: _____ Date: _____
 Scale: 1 in. = 1 ft.
 BRIDGE NO. 615 DRAWING NO. 1412

BRIDGE ENGINEER



END VIEW OMITTING BALANCE WHEEL

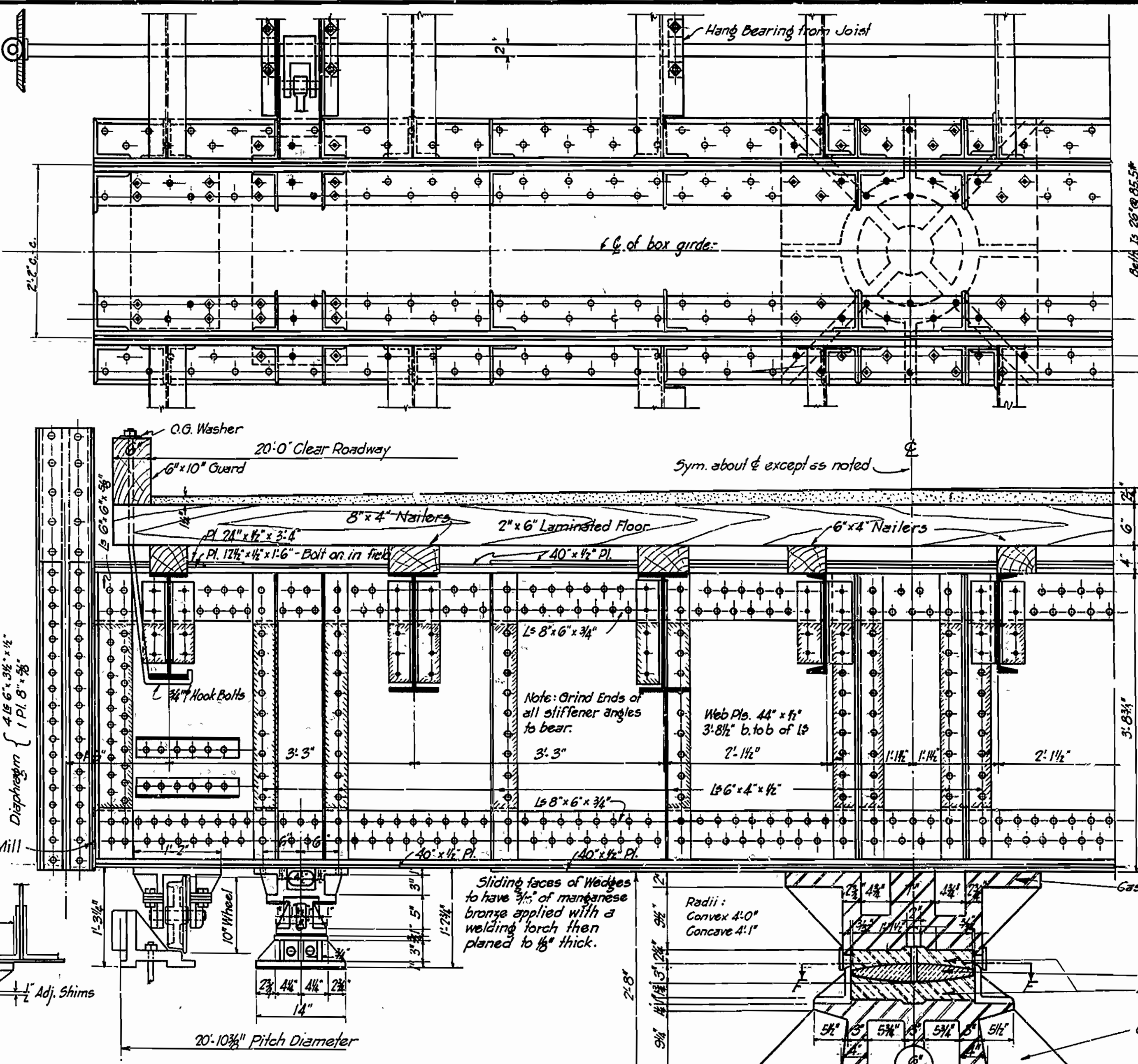
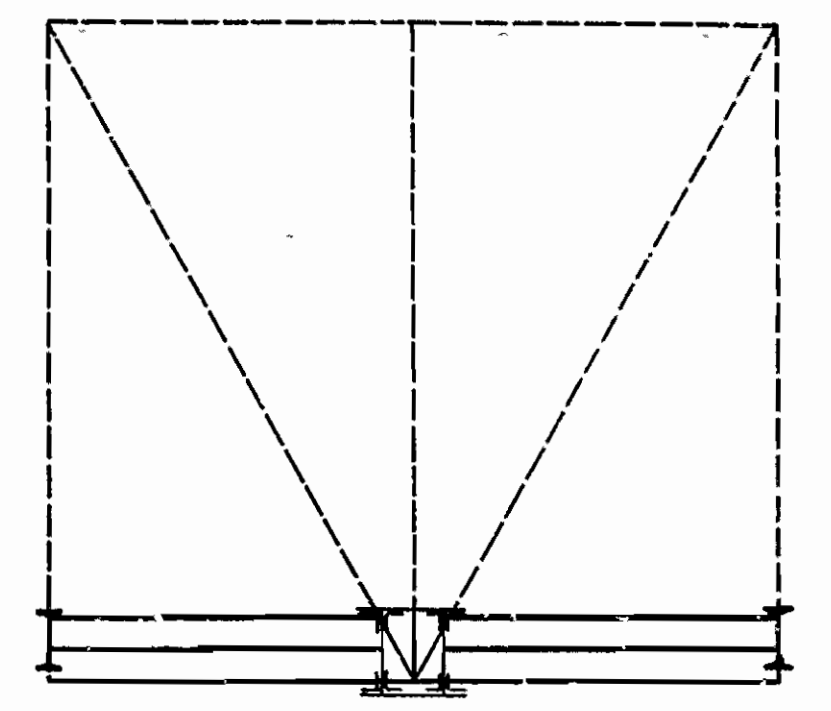
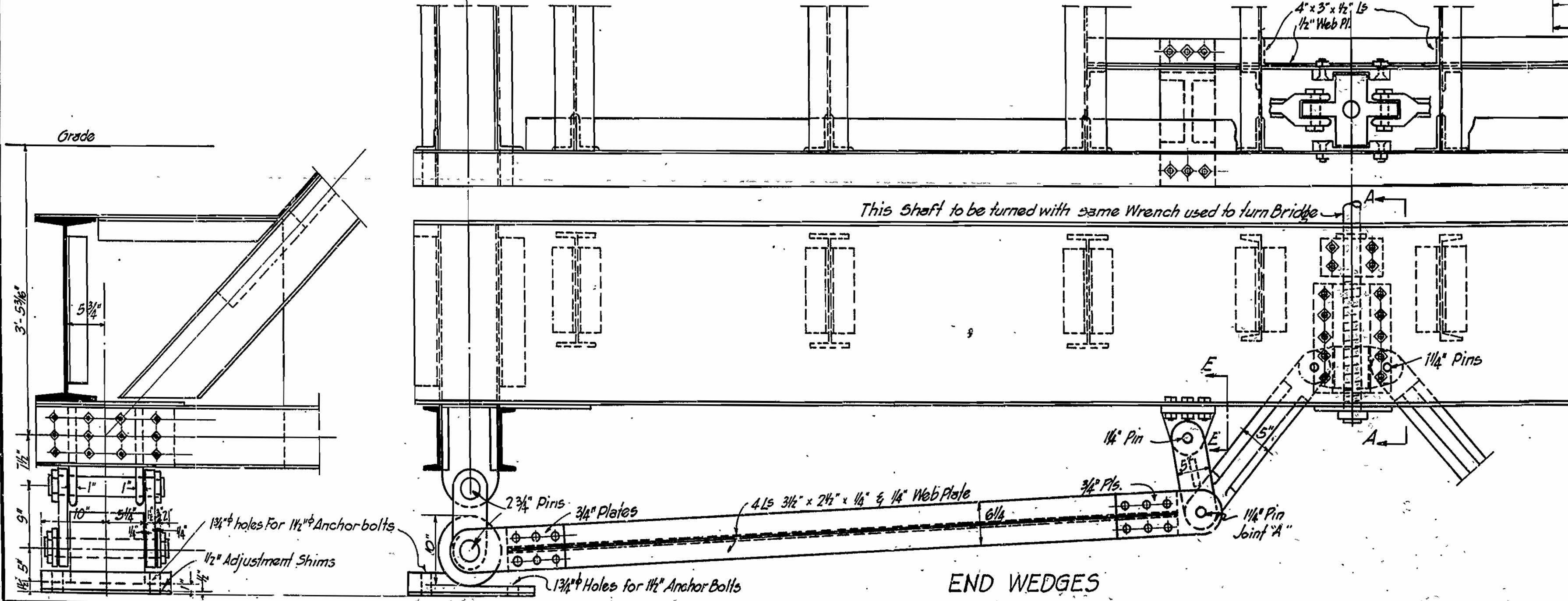


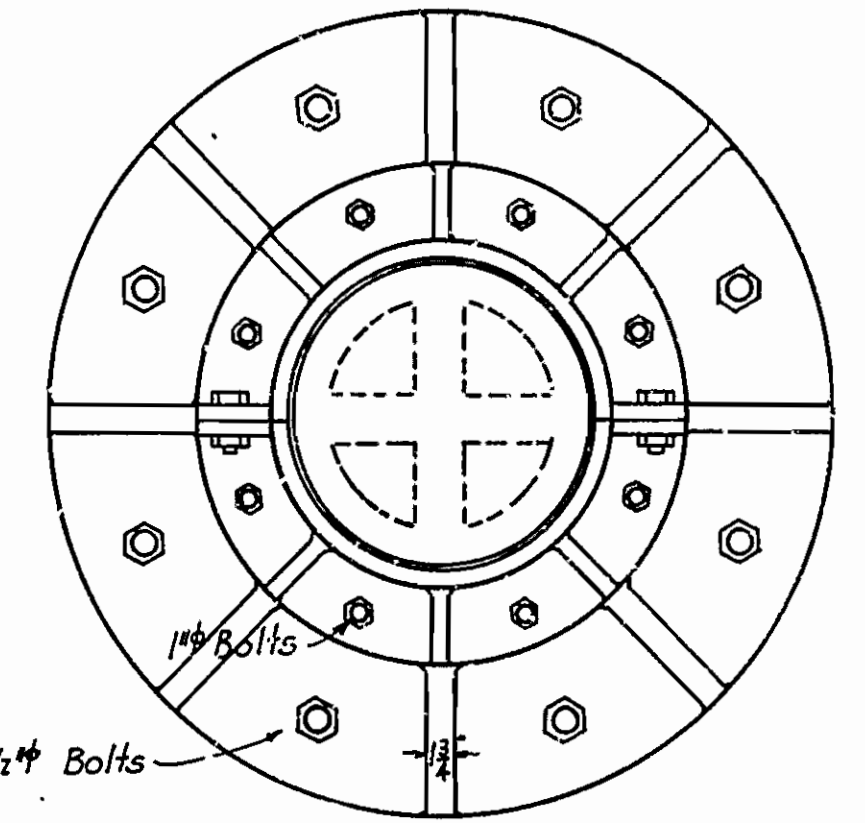
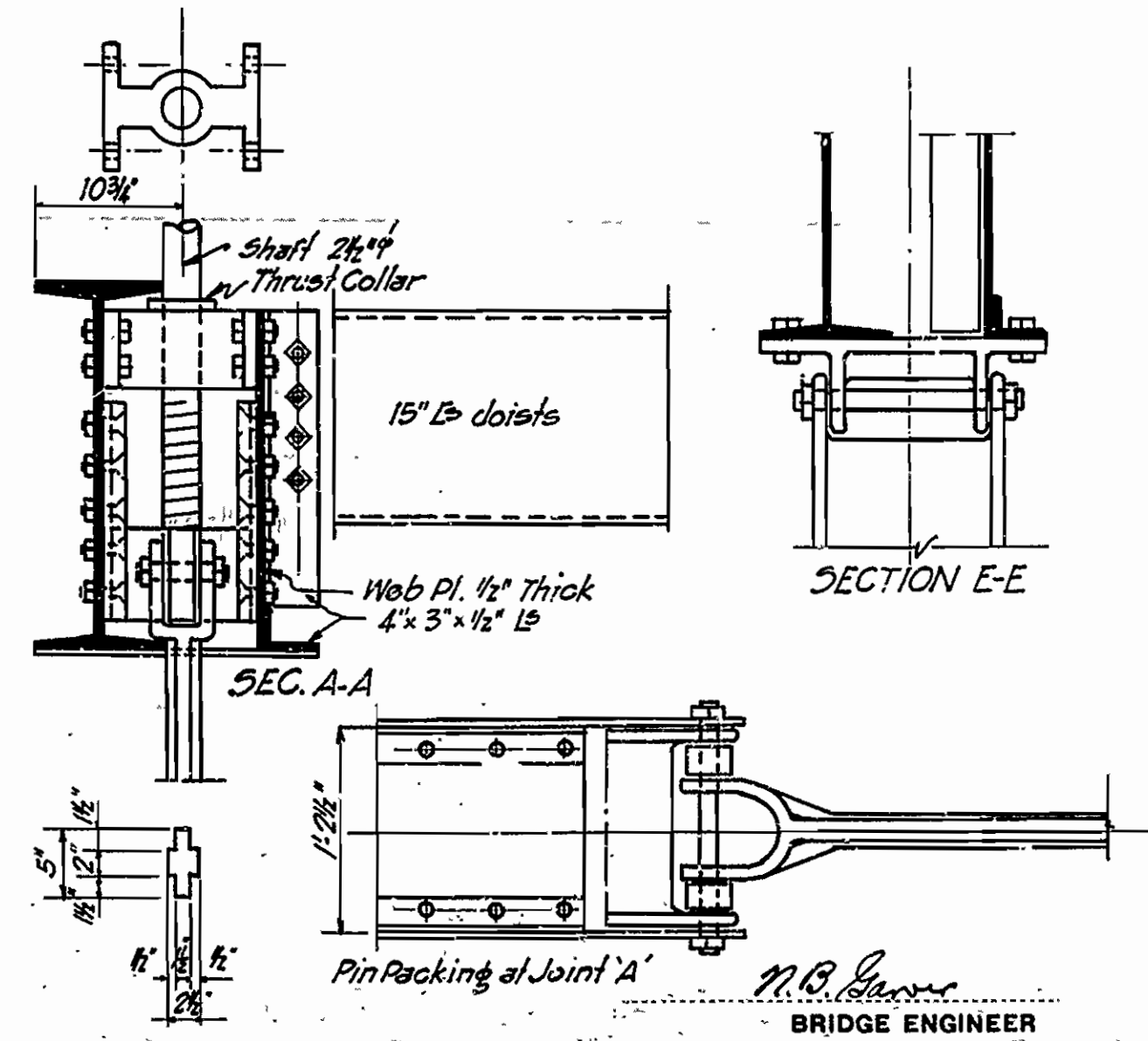
Diagram Showing Floor System Sizes for Swing Span



Assemble, ream, and match-mark two end panel floor systems & floor system of section of Bridge shown here at the time of shop inspection by the Engineer. At the same time all material covered in the Specifications under the item of Machinery shall be completely assembled on the structural steel floor system at the fabrication shop. These drawings are general only. Contractor shall check same and submit shop drawings made in compliance with Specifications. These are to be submitted and approved before fabrication is begun. At the time of shop inspection rack & track shall be assembled with the above section of floor system in order that alignment & mesh may be checked.



END WEDGES



NOTES

- All gears to be of cast steel.
- All gear teeth to be machine cut.
- All gears to be secured to shafts with suitable keys.
- Pitch line to be scribed on both sides of all gears.
- All bearing boxes in Wedge Machinery to have babbit linings.
- Provide suitable lubricating devices for all Wedge Machinery.
- All castings to be of cast steel unless otherwise noted.

DETAILS OF CENTER GIRDER & CENTER & END WEDGES 234'-0" SWING SPAN OVER CURRENT RIVER ON ROAD BETWEEN POCAHONTAS & CORNING, RANDOLPH CO. ROUTE 67 SEC. 21

ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.

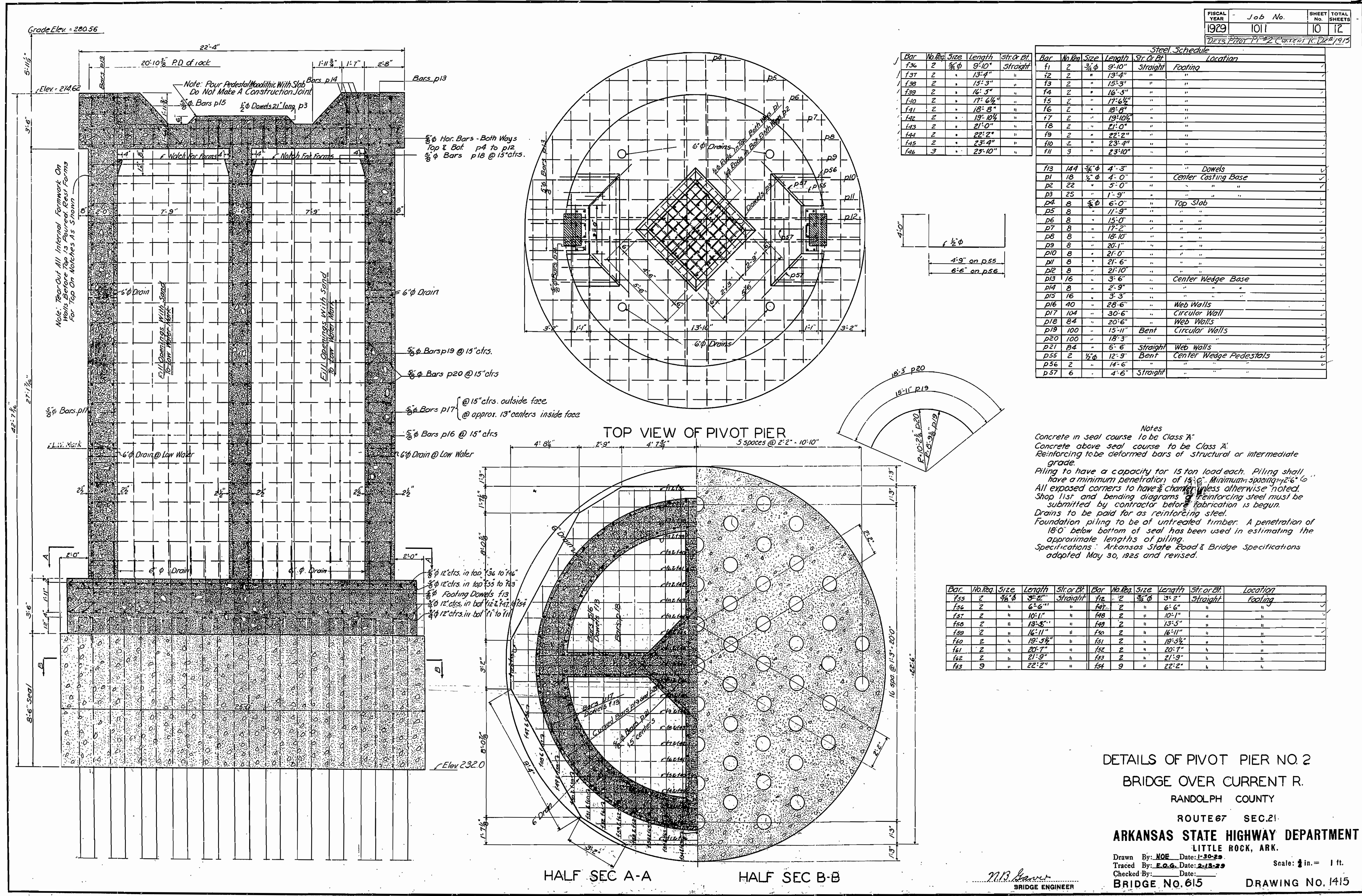
Drawn By: NOE Date: 1-23-29
 Traced By: E.A.W. Date: 2-21-29
 Checked By: _____ Date: _____

Scale: 1 in. = 1 ft.

BRIDGE NO. 615 DRAWING NO. 1411

N.B. Gibson
BRIDGE ENGINEER

FISCAL YEAR	Job No.	SHEET NO.	TOTAL SHEETS
1929	1011	10	12



Bar	No. Req.	Size	Length	Str. or Bt.
f34	2	3/8"	9'-10"	Straight
f37	2	3/8"	13'-4"	"
f38	2	3/8"	15'-3"	"
f39	2	3/8"	16'-5"	"
f40	2	3/8"	17'-6 1/2"	"
f41	2	3/8"	18'-8"	"
f42	2	3/8"	19'-10 1/2"	"
f43	2	3/8"	21'-0"	"
f44	2	3/8"	22'-2"	"
f45	2	3/8"	23'-4"	"
f46	3	3/8"	23'-10"	"

Steel Schedule						
Bar	No. Req.	Size	Length	Str. or Bt.	Location	
f1	2	3/8"	9'-10"	Straight	Footings	
f2	2	3/8"	13'-4"	"	"	
f3	2	3/8"	15'-3"	"	"	
f4	2	3/8"	16'-5"	"	"	
f5	2	3/8"	17'-6 1/2"	"	"	
f6	2	3/8"	18'-8"	"	"	
f7	2	3/8"	19'-10 1/2"	"	"	
f8	2	3/8"	21'-0"	"	"	
f9	2	3/8"	22'-2"	"	"	
f10	2	3/8"	23'-4"	"	"	
f11	3	3/8"	23'-10"	"	"	
p13	144	3/4"	4'-5"	"	Dowels	
p18	18	3/4"	4'-0"	"	Center Casting Base	
p2	22	3/4"	5'-0"	"	"	
p3	25	3/4"	7'-9"	"	"	
p4	8	3/4"	6'-0"	"	Top Slab	
p5	8	3/4"	11'-9"	"	"	
p6	8	3/4"	15'-0"	"	"	
p7	8	3/4"	17'-2"	"	"	
p8	8	3/4"	18'-10"	"	"	
p9	8	3/4"	20'-1"	"	"	
p10	8	3/4"	21'-0"	"	"	
p11	8	3/4"	21'-6"	"	"	
p12	8	3/4"	21'-10"	"	"	
p13	16	3/4"	3'-6"	"	Center Wedge Base	
p14	8	3/4"	2'-9"	"	"	
p15	16	3/4"	3'-3"	"	"	
p16	40	3/4"	28'-6"	"	Web Walls	
p17	104	3/4"	30'-6"	"	Circular Wall	
p18	84	3/4"	20'-6"	"	Web Walls	
p19	100	3/4"	15'-11"	Bent	Circular Walls	
p20	100	3/4"	18'-3"	"	"	
p21	84	3/4"	6'-6"	Straight	Web walls	
p55	2	1/2"	12'-9"	Bent	Center Wedge Pedestals	
p56	2	1/2"	14'-6"	"	"	
p57	6	1/2"	4'-6"	Straight	"	

Notes

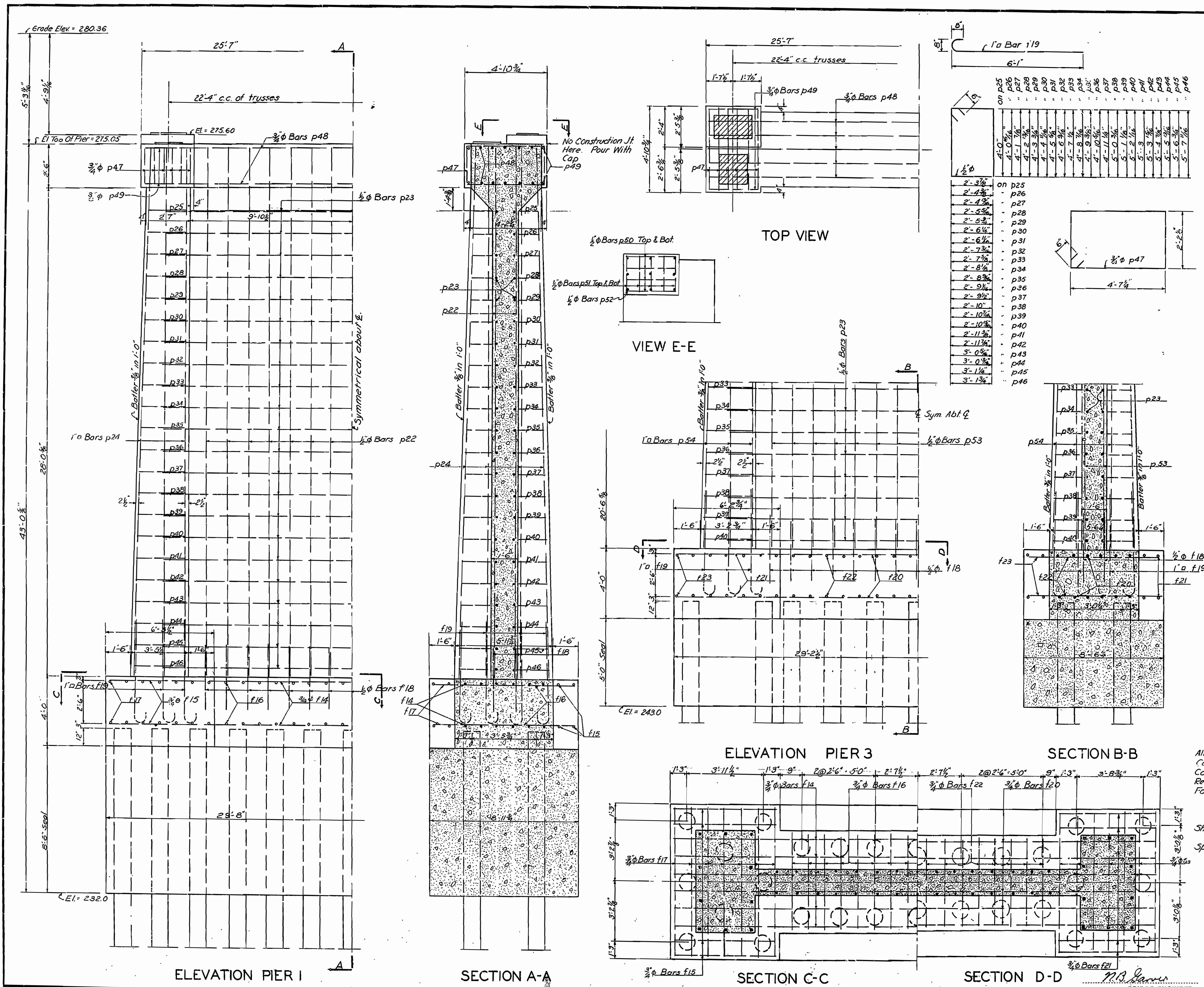
Concrete in seal course to be Class A.
 Concrete above seal course to be Class A.
 Reinforcing to be deformed bars of structural or intermediate grade.
 Piling to have a capacity for 15 ton load each. Piling shall have a minimum penetration of 18'0". Minimum spacing - 2'6".
 All exposed corners to have 3/4" chamfers unless otherwise noted.
 Shop list and bending diagrams of reinforcing steel must be submitted by contractor before fabrication is begun.
 Drains to be paid for as reinforcing steel.
 Foundation piling to be of untreated timber. A penetration of 18'0" below bottom of seal has been used in estimating the approximate lengths of piling.
 Specifications: Arkansas State Road & Bridge Specifications adopted May 30, 1925 and revised.

Bar	No. Req.	Size	Length	Str. or Bt.	Bar	No. Req.	Size	Length	Str. or Bt.	Location
f55	2	3/8"	3'-2"	Straight	f12	2	3/4"	3'-2"	Straight	Footings
f56	2	3/8"	6'-6"	"	f17	2	3/4"	6'-6"	"	"
f57	2	3/8"	10'-1"	"	f48	2	3/4"	10'-1"	"	"
f58	2	3/8"	13'-5"	"	f49	2	3/4"	13'-5"	"	"
f59	2	3/8"	16'-11"	"	f50	2	3/4"	16'-11"	"	"
f60	2	3/8"	19'-5 1/2"	"	f51	2	3/4"	19'-5 1/2"	"	"
f61	2	3/8"	20'-7"	"	f52	2	3/4"	20'-7"	"	"
f62	2	3/8"	21'-9"	"	f53	2	3/4"	21'-9"	"	"
f63	9	3/8"	22'-2"	"	f54	9	3/4"	22'-2"	"	"

DETAILS OF PIVOT PIER NO 2
BRIDGE OVER CURRENT R.
 RANDOLPH COUNTY
 ROUTE 67 SEC. 21
ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.
 Drawn By: MCE Date: 1-30-29
 Traced By: F.O.G. Date: 2-13-29
 Checked By: _____ Date: _____
BRIDGE NO. 615 **DRAWING NO. 1415**

M.B. Sawyer
 BRIDGE ENGINEER

FISCAL YEAR	Job No.	SHEET	TOTAL SHEETS
1929	1011	11	12



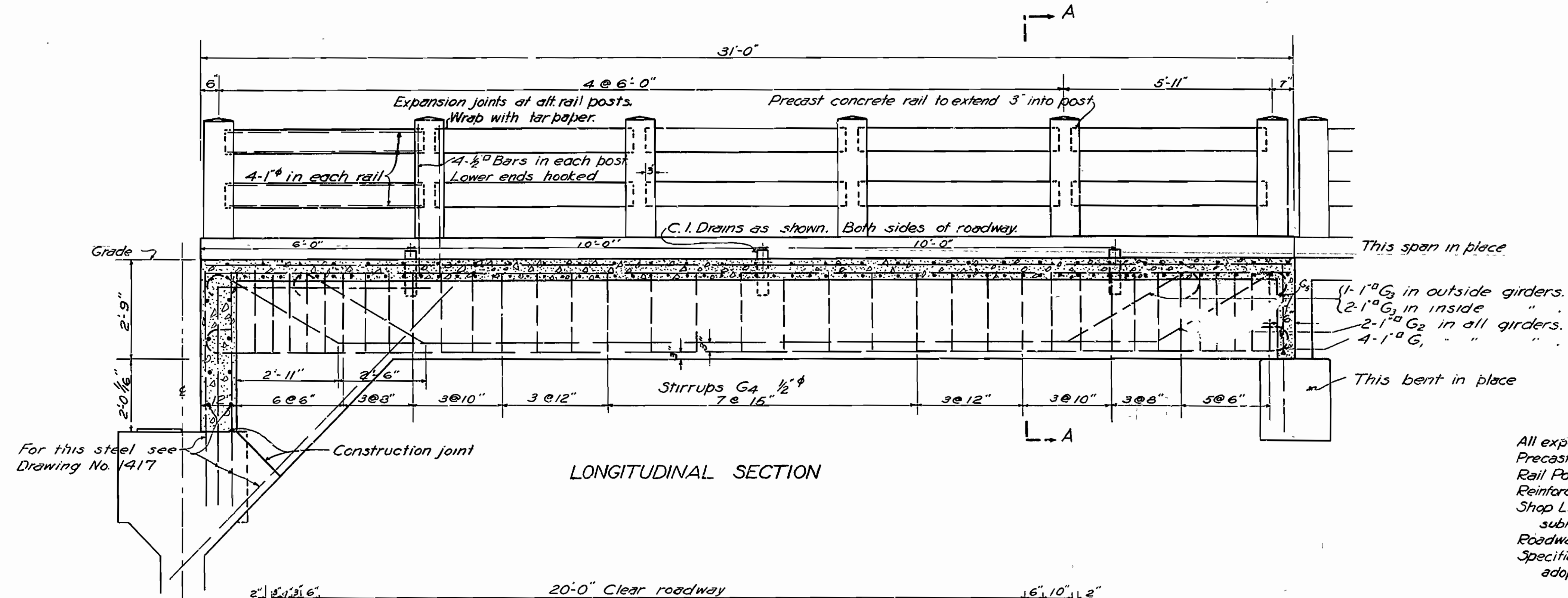
Steel Schedule

Bar	No.	Size	Length	Str or Bt	Location
f14	12	3/4"	29'-4"	Straight	Footings
f15	16	"	6'-3"	"	"
f16	32	"	5'-8"	"	"
f17	28	"	8'-8"	"	"
f18	30	1/2"	3'-4"	"	Dowels
f19	20	1"	7'-1"	Bent	"
p22	30	1/2"	30'-4"	Straight	Web Wall
p23	44	"	23'-0"	"	"
p24	20	1"	30'-4"	"	Columns
p25	2	1/2"	13'-7 1/2"	Bent	"
p26	2	"	13'-10 1/2"	"	"
p27	2	"	14'-1 1/2"	"	"
p28	2	"	14'-4 1/2"	"	"
p29	2	"	14'-7"	"	"
p30	2	"	14'-9 1/2"	"	"
p31	2	"	15'-0 1/2"	"	"
p32	2	"	15'-3 1/2"	"	"
p33	2	"	15'-6 1/2"	"	"
p34	2	"	15'-9 1/2"	"	"
p35	2	"	15'-11 1/2"	"	"
p36	2	"	16'-2 1/2"	"	"
p37	2	"	16'-5 1/2"	"	"
p38	2	"	16'-8 1/2"	"	"
p39	2	"	16'-11 1/2"	"	"
p40	2	"	17'-2"	"	"
p41	2	"	17'-4 1/2"	"	"
p42	2	"	17'-7 1/2"	"	"
p43	2	"	17'-10 1/2"	"	"
p44	2	"	18'-1 1/2"	"	"
p45	2	"	18'-4"	"	"
p46	2	"	18'-6 1/2"	"	"
p47	12	3/4"	14'-7 1/2"	"	Column Caps
p48	10	"	25'-3"	Straight	"
p49	8	"	2'-11"	"	"
p50	16	1/2"	2'-11"	"	"
p51	20	"	2'-0"	"	"
p52	18	"	1'-8"	"	"

Notes
 All exposed corners to have 3/8" chamfer unless otherwise noted.
 Concrete in seal course to be Class A.
 Concrete above seal course to be Class A.
 Reinforcing bars to be deformed bars of structural or intermediate grade.
 Foundation piling to be untreated timber. A penetration of 18'-0" below bottom of seal has been used in estimating lengths of piling. Each pile to have 15 tons capacity. Piling shall have a minimum penetration of 15'-0".
 Shop list and bending diagrams of reinforcing steel must be submitted by Contractor before fabrication is begun.
 Specifications: Ark. State Road and Bridge Specifications adopted May 25, 1925 and revised.

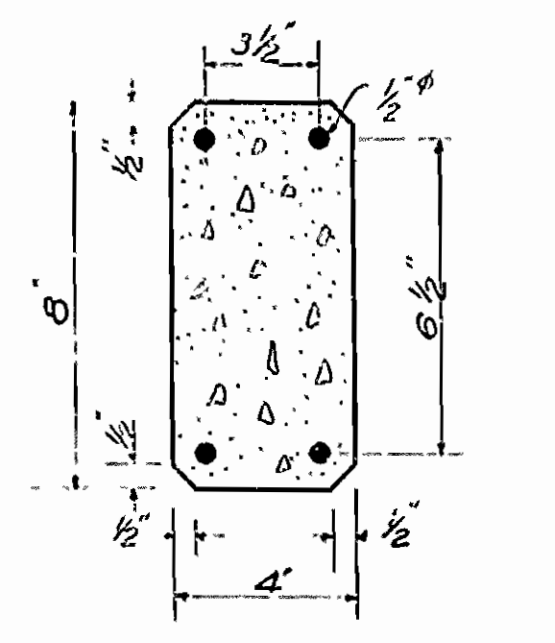
DETAILS OF PIERS 1&3
 FOR BRIDGE OVER CURRENT RIVER
 ON ROAD BETWEEN CORNING & POCAHONTAS, RAN. CO.
 ROUTE 67 SEC. 21
ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.
 Drawn By: *NOE* Date: 2-2-29
 Traced By: *E.O.S.* Date: 2-7-29
 Checked By: _____ Date: _____
BRIDGE NO. 615 **DRAWING NO. 1416**
N.B. JAMES
 BRIDGE ENGINEER

FISCAL YEAR	Job No	SHEET No.	TOTAL SHEETS
1929	1011	9	12
D.T.S. 31472 Spw. C. R. D. 1919			

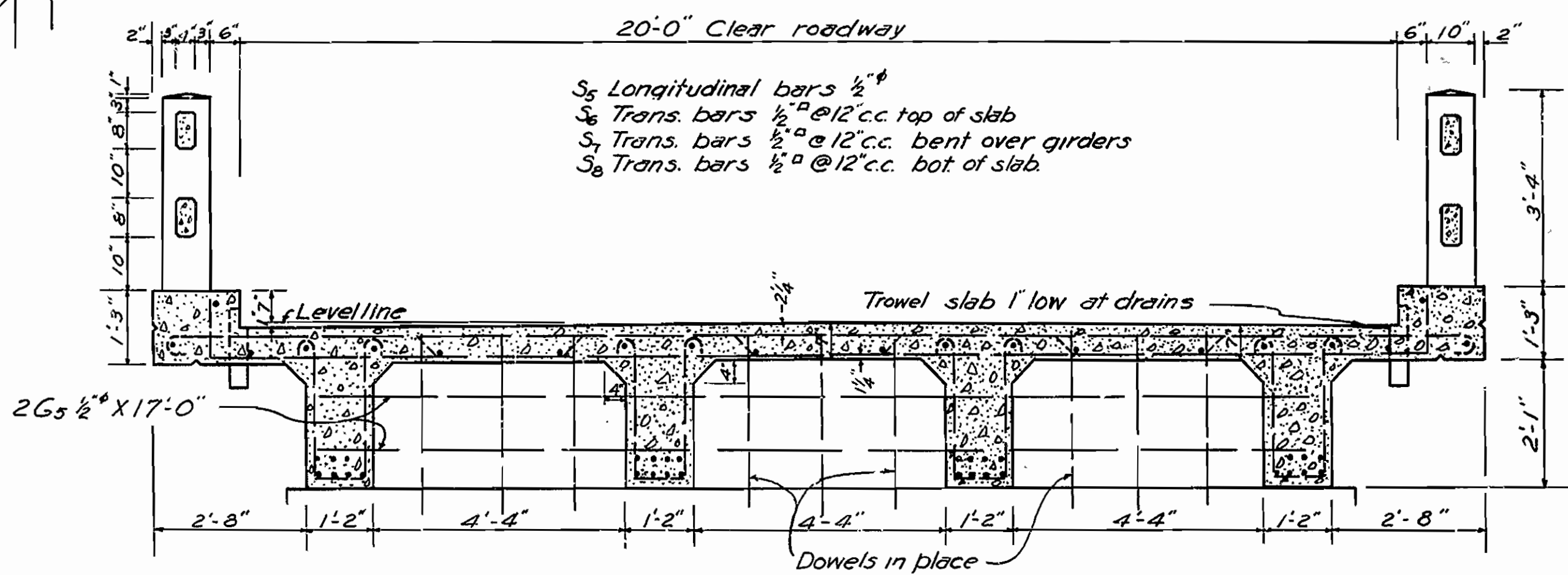


LONGITUDINAL SECTION

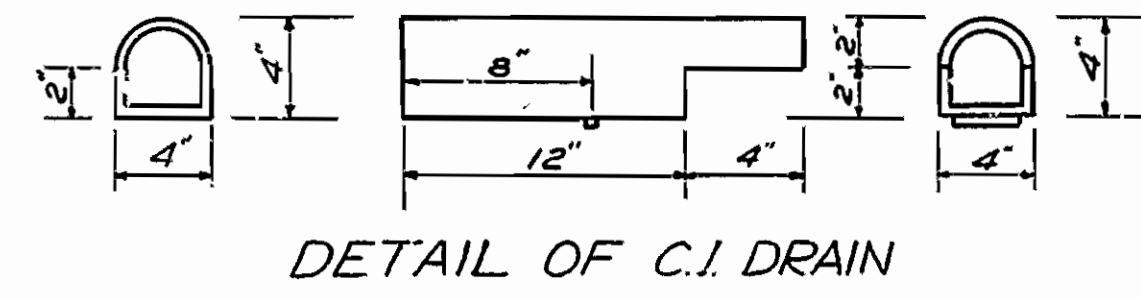
General Notes
 All exposed corners to have $\frac{3}{4}$ chamfer unless otherwise noted.
 Precast Concrete Handrails to be 1:3 Mix. Max. Agg. $\frac{3}{4}$.
 Rail Posts to be Class 'S' Concrete.
 Reinforcing Steel to be deformed bars of Structural or Int. Grade.
 Shop List and Bending Diagrams of Reinforcing Steel must be submitted by Contractor before fabrication is begun.
 Roadway Drains to be paid for at unit price bid for Reinf. Steel.
 Specifications: Ark. Standard Road and Bridge Specifications adopted May 30th, 1925 and revised.



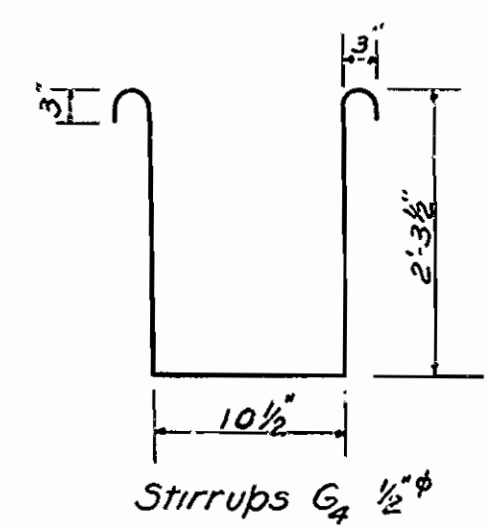
SECTION OF RAIL



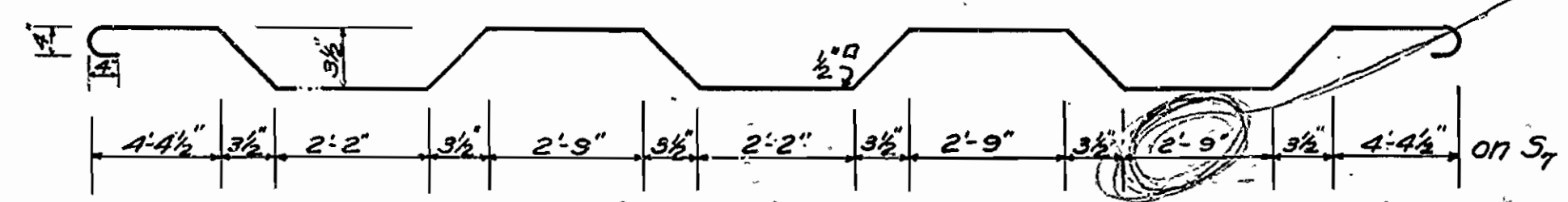
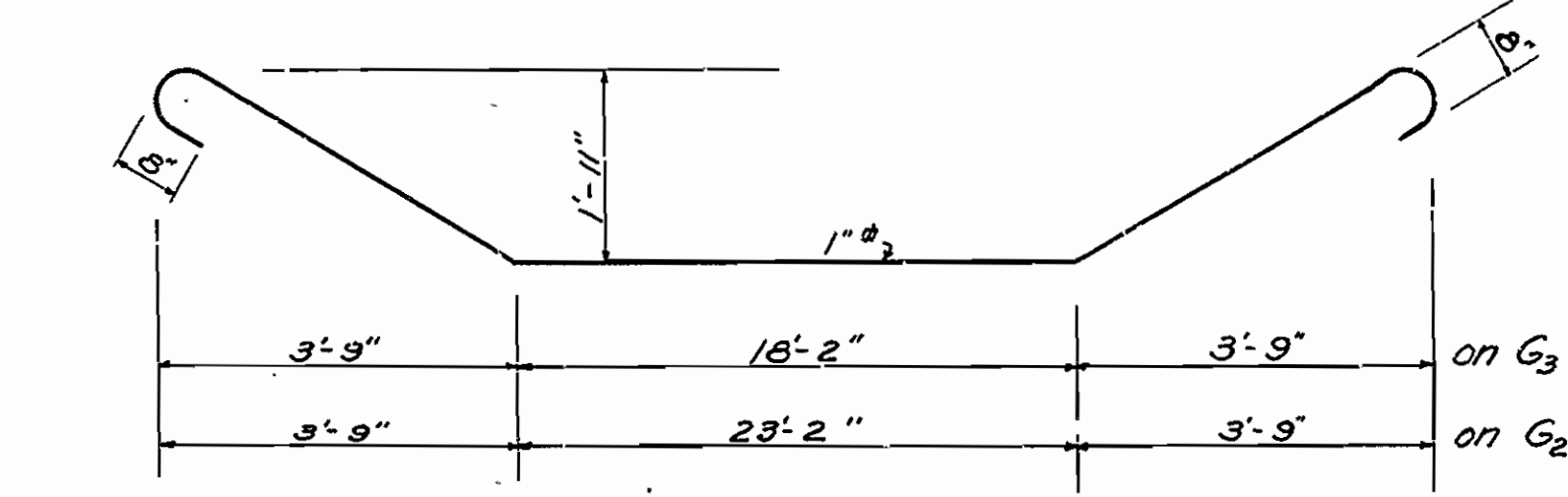
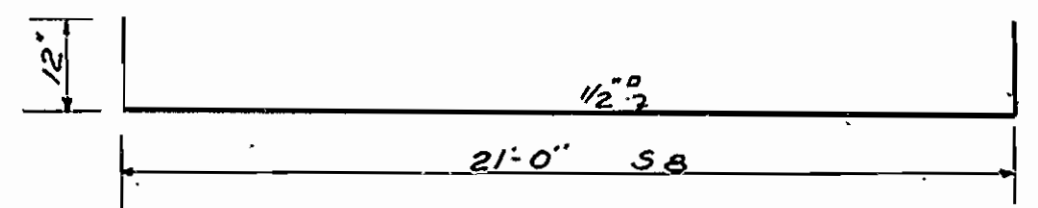
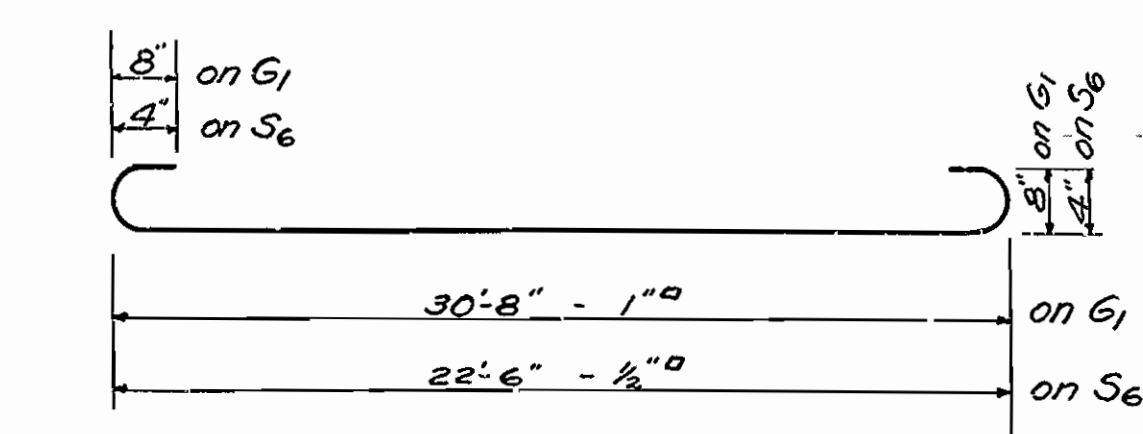
SECTION A-A



DETAIL OF C.I. DRAIN



Stirrups G4 1/2"



DETAILS OF 31'-0" APPROACH SPAN
 BRIDGE OVER CURRENT RIVER
 RANDOLPH COUNTY

ROUTE 67 SEC. 21
 ARKANSAS STATE HIGHWAY DEPARTMENT
 LITTLE ROCK, ARK.

Drawn By: *E.O.S.* Date: 2-28-29
 Traced By: *E.O.S.* Date: 3-1-29
 Checked By: _____ Date: _____
 Scale: $\frac{1}{2}$ in. = 1 ft.
 BRIDGE NO: 615 DRAWING NO: 1414

M.A. Gann
 BRIDGE ENGINEER