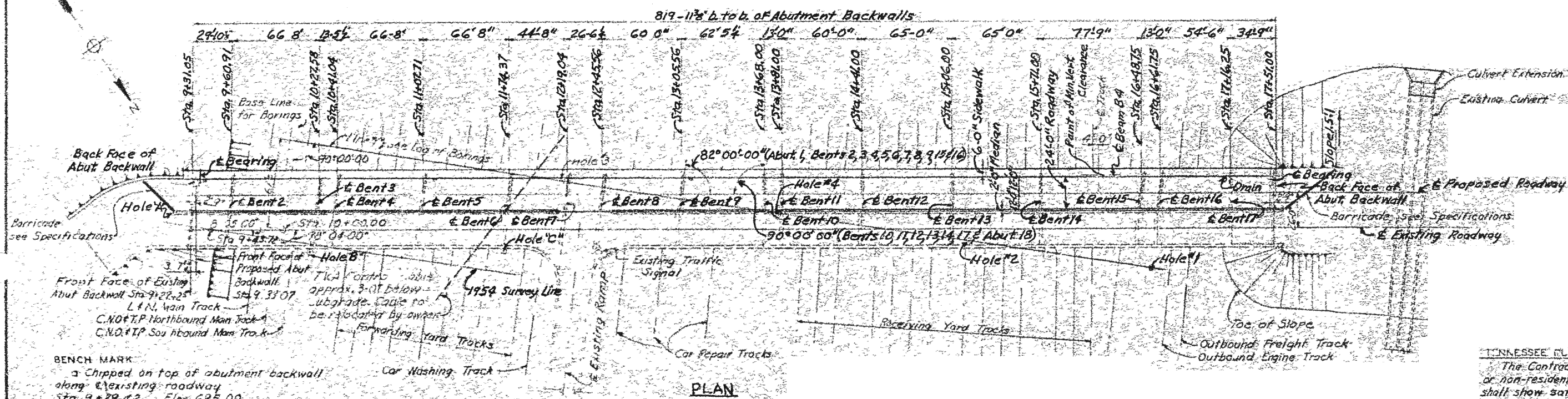


INDEX OF DRAWINGS

- 1 GENERAL PLAN AND ELEVATION
- 2 ABUTMENTS 1 AND 18
- 3 BENTS 5, 6, 9, 12, 13, 14 AND 17
- 4 BENT 2 AND TOWER BENTS 3-4 AND 15-16
- 5 TOWER BENTS 7-8
- 6 TOWER BENTS 10-11
- 7 ANCHOR BOLT PLAN AND LOG OF BORINGS
- 8 FRAMING PLAN SPANS 1 THRU 11
- 9 FRAMING PLAN SPANS 12 THRU 17
- 10 SIDEWALK BRACKETS
- 11 EXPANSION DEVICES
- 12 EXPANSION DEVICES AND BEARINGS
- 13 DRAINS AND SPIRALS
- 14 SLAB
- 15 SIDEWALK AND MEDIAN
- 16 HANDRAIL
- 17 CULVERT EXTENSION
- 18 TYPICAL BAR TYPES AND HOOK DIMENSIONS
- 19 BAR LIST



GENERAL NOTES

SPECIFICATIONS: The Standard Specifications for Materials and Construction of the Southern Railway System dated January, 1953; the Standard Specifications for Road and Bridge Construction of the Tennessee Department of Highways and Public Works, dated July, 1951 including latest revisions, and Addenda to the Specifications.

DESIGN: In accordance with AASHTO Standard Specifications for Highway Bridges, 1953 Edition.
Live Load: H20-S16-44

DESIGN UNIT STRESSES:
Concrete (Class A) $f_c = 1,250$ p.s.i., $n=10$
Reinforcing Steel $f_s = 20,000$ p.s.i.
Structural Steel $f_s = 18,000$ p.s.i.

PILE DESIGN LOADS: Maximum computed load on piles is limited to the following:

	12" O.D. Pipe Tons per pile	14" O.D. Pipe Tons per pile
Vertical Forces	64	85
Vertical plus Horizontal Forces	80	106

ROADWAY WEARING SURFACE: The roadway slab as detailed includes a 2" wearing surface poured monolithically with the slab. No additional allowance has been made for future wearing surface.

CONCRETE: All concrete shall be Class A with minimum compressive strength of 3,750 p.s.i. and of 28 days except that 3,500 p.s.i. concrete in 28 days can be used for piling pile shafts. Maximum slump Class A concrete shall be 5" that for 3,500 p.s.i. concrete 4". Minimum size of coarse aggregate shall be 1/2" for roadway slabs, sidewalks and medians and 1/4" for other concrete exposed edges of concrete shall be banded 1/2" unless noted.

REINFORCEMENT: All reinforcing bars shall be intermediate or rail steel grade. All bars shall have surface deformations conforming to A.S.T.M. Designation A-305 except the plain bars which connect to the Clinch Anchors. Dimensions to reinforcing bars on drawings are to E of bars, except where the clear distance is noted from the face of concrete. Bars shall be lapped a minimum of 30 diameters at splices unless otherwise shown.

WELDING: All welding shall be in accordance with the American Welding Society Standard Specifications for Welded Highway and Railway Bridges, 1956 Edition. Qualification of welding operators will be required.

PILING: All piles shall be concrete filled pipe piles of the size indicated on the drawing, and shall be driven to refusal in rock. See Specifications.
The estimated total quantity of piling is approximate only and is based on the borings and the pile driving record for the existing East Riverside Drive Bridge. The lengths for ordering piles will be determined by the Engineer.

EMBANKMENT: Embankment at the abutments shall be placed prior to driving of piling. See Specifications.

EXISTING UTILITIES: The Contractor shall exercise care to prevent damage to any utilities which may be encountered during construction. If utilities conflicting with the proposed construction will be removed or relocated by their respective owners. See Specifications.

Note: Do not scale this drawing. Follow dimensions.

ESTIMATED QUANTITIES

Item	Unit	Quantity
Dry Common Excavation	Cu. Yd.	155
Common Culvert Excavation	Cu. Yd.	35
Furnish 12" O.D. Pipe for Piling	Lin. Ft.	8,235
Furnish 14" O.D. Pipe for Piling	Lin. Ft.	1,500
Drive and Fill 12" O.D. Pipe Piling	Lin. Ft.	2,145
Drive and Fill 14" O.D. Pipe Piling	Lin. Ft.	1,435
Class A Concrete in Culvert Extension	Cu. Yd.	50
Class A Concrete in Substructure	Cu. Yd.	243
Class A Concrete in Superstructure	Cu. Yd.	580
Reinforcing Steel	Lb.	157,180
Structural Carbon Steel	Lb.	12,240
Structural Low Alloy Steel	Lb.	7,240
Roadway Drains	Lb.	600
8" Wrought Iron Downspouts	Lin. Ft.	17
6" Wrought Iron Downspouts	Lin. Ft.	100
Removal, Altering and Erecting Existing Materials	Comp. Sum.	1
West Approach Grading (Unclassified)	Cu. Yd.	25,800
West Approach Water Application Multi-Run Canal	Ac. Sq.	16

BRIDGE NO. 33035560003
EAST BOUND LANES
RIGHT LANE BRIDGE
SD-83-101

REVISIONS

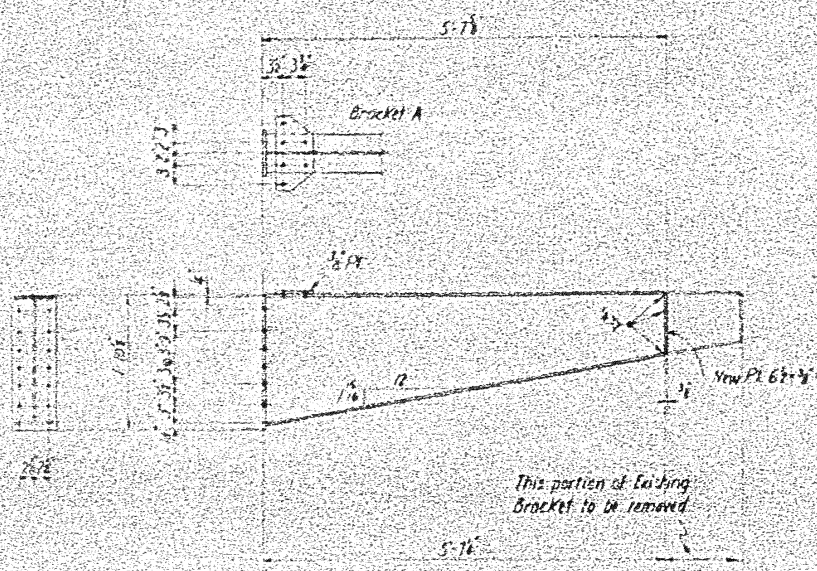
NO.	DATE	BY	DESCRIPTION
1			

SOUTHERN RAILWAY SYSTEM
 WESTERN LINES
 THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO.
 OFFICE OF CHIEF ENGINEER, N. O. & S.
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE
CITICO YARD, CHATTANOOGA, TENN.
GENERAL PLAN AND ELEVATION
 Sheet No. 1 of 2

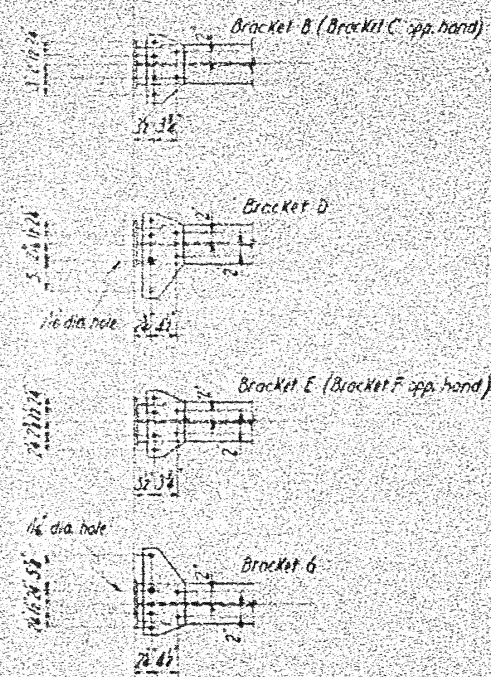
DESIGNED BY: *CR Hunt*
 VICE PRESIDENT
 REGISTERED ENGINEER
 STATE OF TENNESSEE
 LICENSE NO. 1798

PREPARED BY: *STERNBERG & HARRIS, INC.*
 ENGINEERS-ARCHITECTS
 ST. LOUIS, MO.

NOTE: BRIDGE BUILT REVERSE OF CURRENT ROUTE DIRECTION

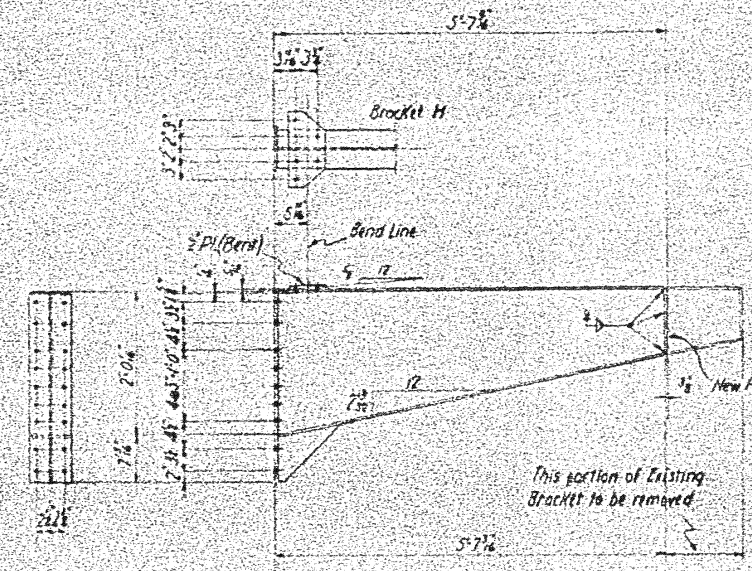


ELEVATION

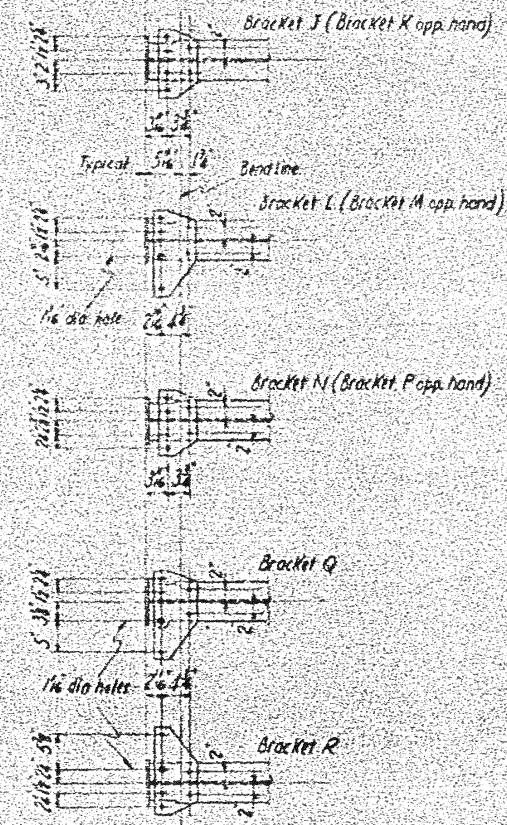


BRACKETS A THRU G

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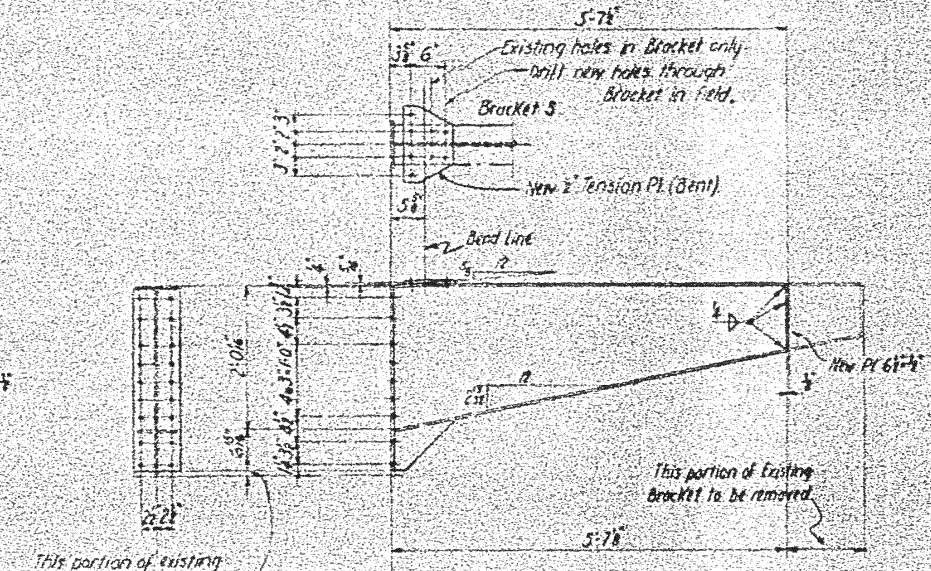


ELEVATION

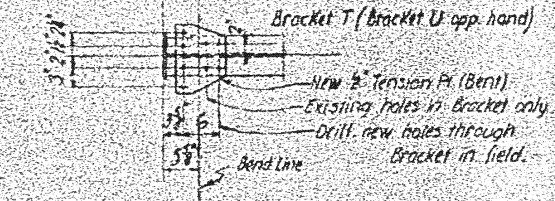


BRACKETS H J THRU N AND P Q & R

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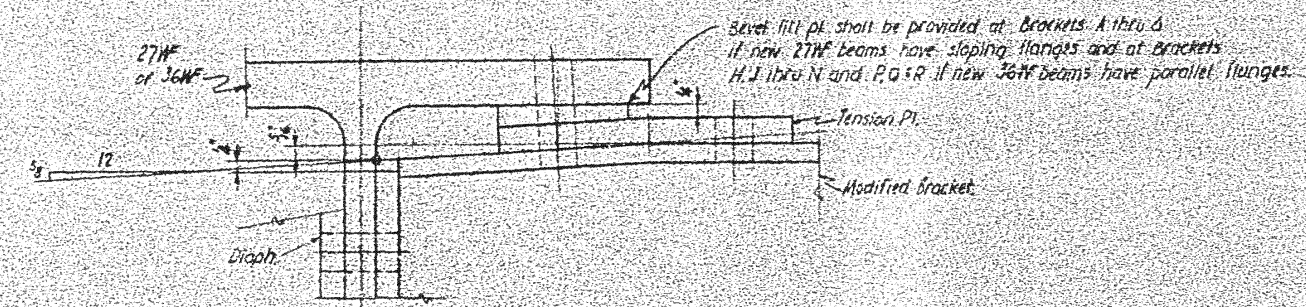


ELEVATION

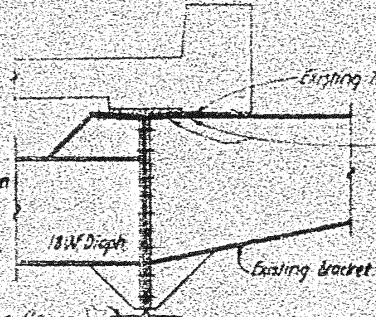


BRACKETS S, T & U

All brackets are the same except for hole spacing in Tension Plates as shown above.



TYPICAL BRACKET CONN. TO TOP FLANGE OF W BEAM.



EXISTING CONNECTION OF BRACKET TO 36" BEAM

Existing connection of bracket to 27" beam similar.

Sparks of existing bolts are to be cut off where necessary to allow removal of bracket and tension plate.

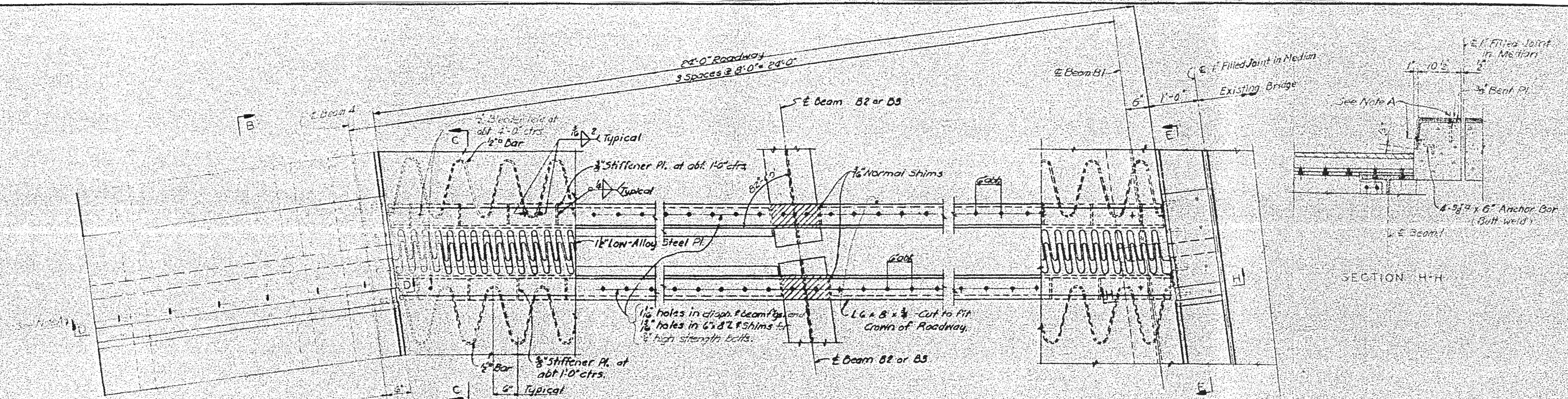
Note: Existing brackets to be removed, modified as shown in details above and reused in proposed new structure. Existing tension plates to be reused, except for brackets S, T & U where new plates are to be provided.

NOTES

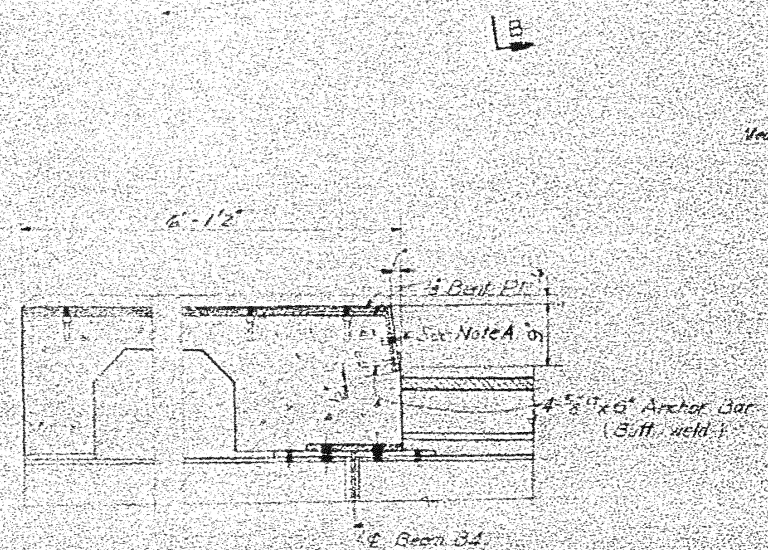
For location of Brackets see Sheets B & C. Hole spacing was taken from original shop drawings and should be verified in field before fabrication. All existing connections are made with 4" high strength bolts. All holes are 1/2" dia except where otherwise noted. See Structural Steel Notes on Sheet B.

DATE	BY	DESCRIPTION
		REVISIONS
SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, N. O. & T.		
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.		
SIDEWALK BRACKETS		
PREPARED BY OVERBRIDGE & PARCEL, INC. ENGINEERS-ARCHITECTS ST. LOUIS, MO.		

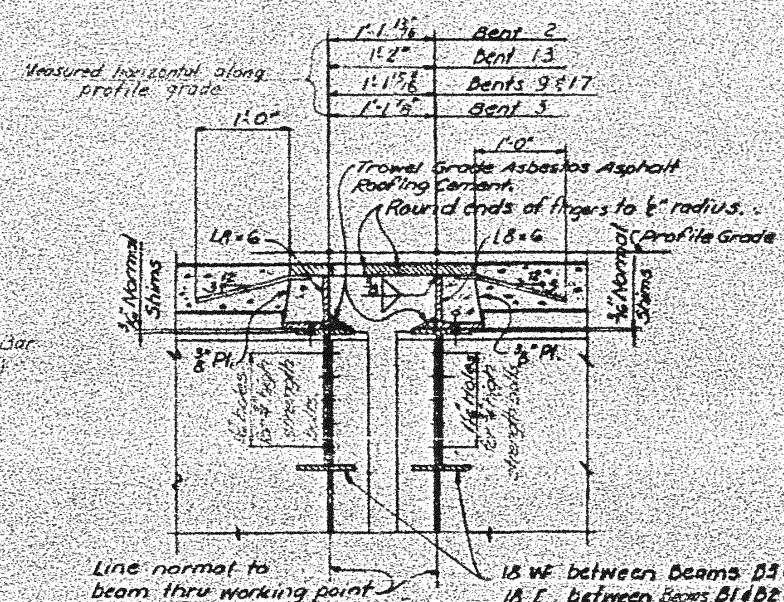
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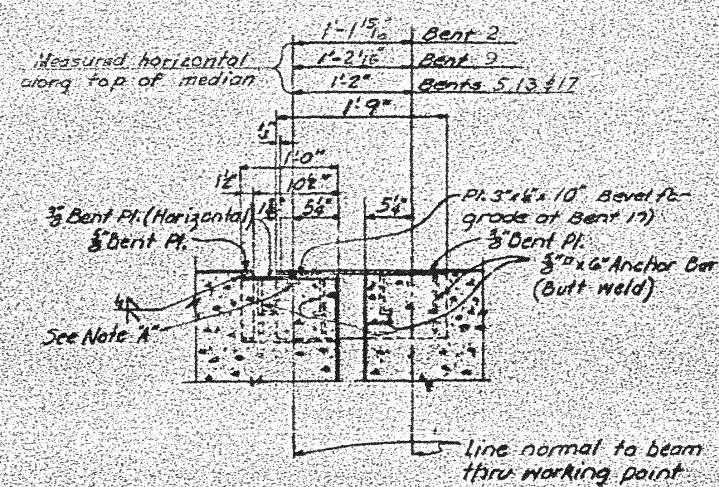
PART PLAN OF EXPANSION DEVICE AT BENTS 2, 5 & 9



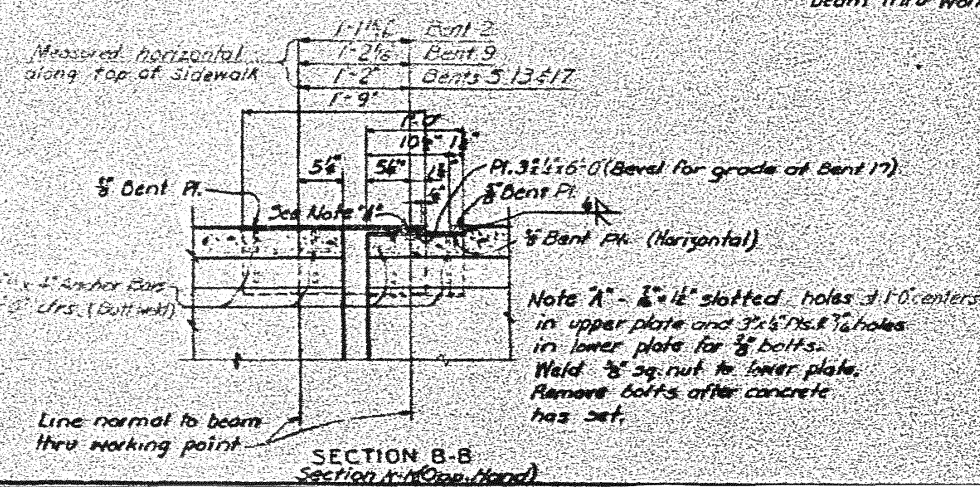
SECTION D-D



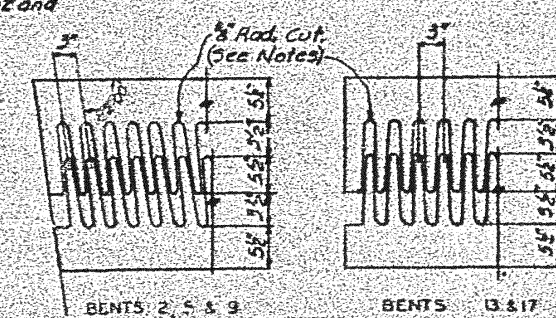
SECTION C-C



SECTION E-E
Section J-J (Opp. Hand)



SECTION B-B
Section K-K (Opp. Hand)



CUTTING DETAILS OF FINGER PLATES

NOTES

Expansion joints are shown in normal position at a temperature of 60°F.

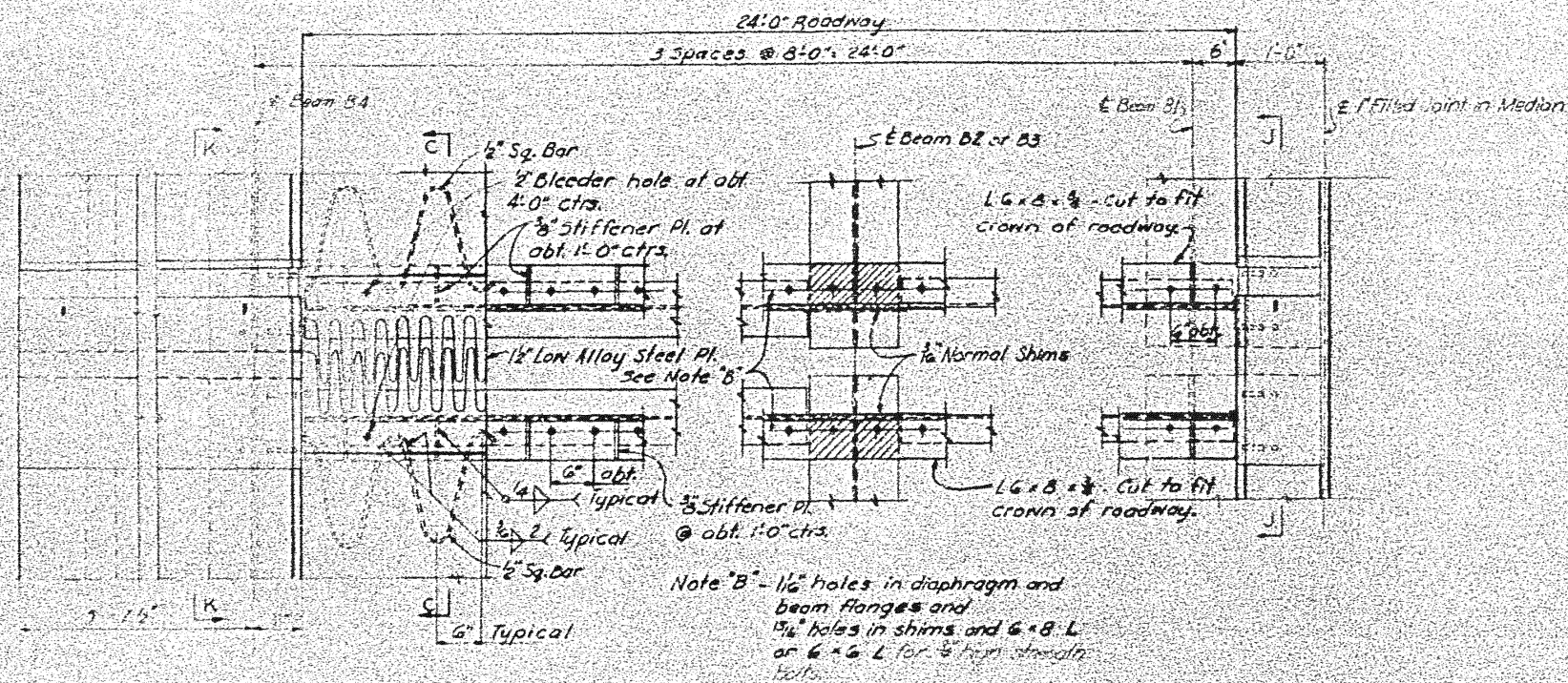
Flame cutting of the finger plate shall be as narrow as practicable and shall not exceed 4" width. A mechanical guide shall be used to guide the cutting torch. All burrs shall be ground smooth.

The Contractor shall furnish shim material where indicated on the drawing, to provide a total thickness not less than twice the dimension given as normal shims. Shims shall be such as to provide adjustment in increments of one sixteenth inch.

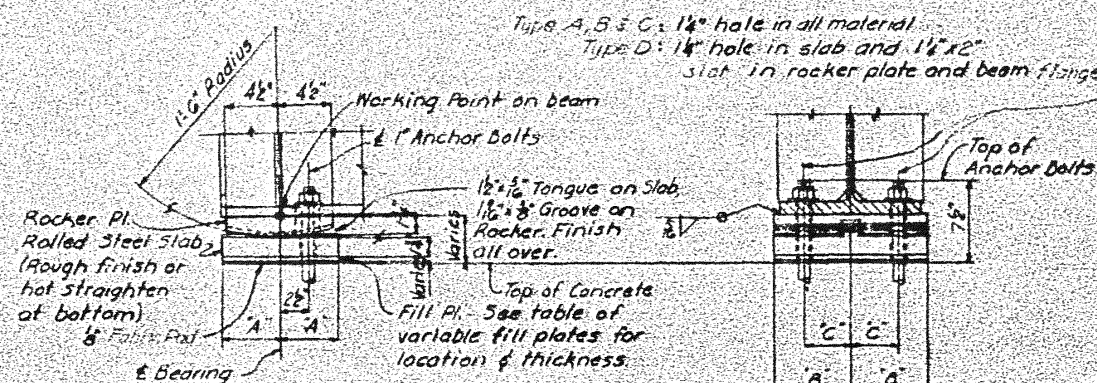
For location of Sections J-J & K-K, see Sheet 12.

DATE	BY	REVISIONS
SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, N. W. & E. CHICAGO, ILL.		
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.		
EXPANSION DEVICES		
PREPARED BY J. W. PARCEL, INC. ENGINEERS - ARCHITECTS ST. LOUIS, MO.	DATE JAN 12 1932	REVISIONS 1. 1/2" bent plate 2. 4-5/8" x 6" anchor bar 3. 1/2" beam B4

Note: Do not scale this drawing. Follow dimensions.

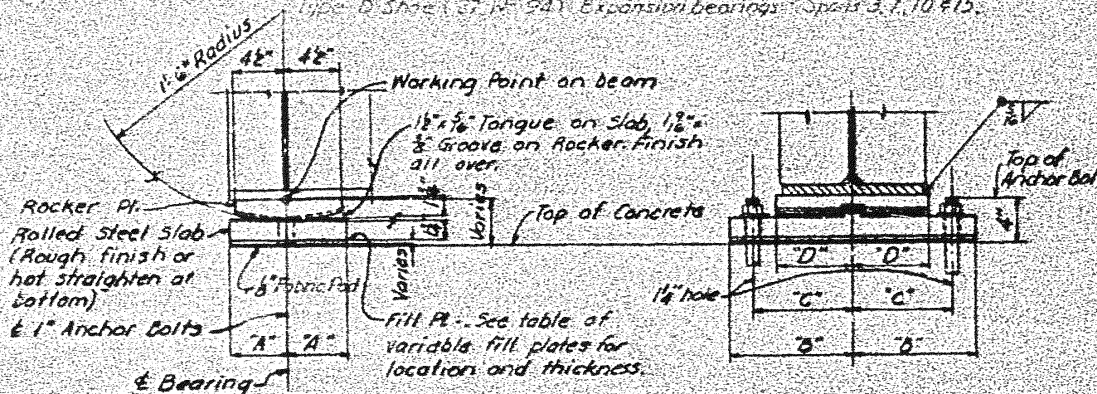


PART PLAN OF EXPANSION DEVICE AT BENTS 13 & 17



BEARING DETAILS-TYPES A, B, C AND D

Type A Shoe (26" W x 150" L) Fixed bearings—Spans 2, 4, 5, 8, 9, 11, 12, 13, 14 & 16.
Type B Shoe (36" W x 230" L) Fixed bearings—Span 14.
Type C Shoe (27" W x 94" L) Fixed bearings—Spans 1, 3, 6, 7, 10, 15 & 17.
Type D Shoe (27" W x 94" L) Expansion bearings—Spans 3, 7, 10 & 15.



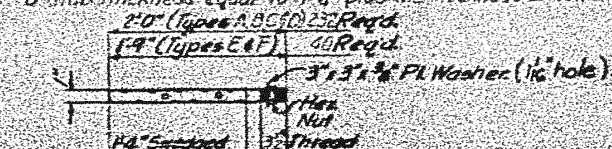
BEARING DETAILS-TYPES E AND F

Type E Shoe (36" W x 150" L) Expansion bearings—Spans 5, 9 & 13.
Type F Shoe (27" W x 94" L) Expansion bearings—Spans 1 & 17.

TABLE OF VARIABLE DIMENSIONS					
Type of Shoe	No. of Spans	"A"	"B"	"C"	"D"
A	6-6	5"	6 1/2"	4"	—
B	2	5"	9"	8"	—
C	3-2	4 1/2"	5 1/2"	2 3/4"	—
D	1-6	4 1/2"	5 1/2"	2 3/4"	—
E	1-2	5"	10 1/2"	8 1/2"	6 1/2"
F	8	4 1/2"	9 1/2"	7 1/2"	5 1/2"

TABLE OF VARIABLE FILLS FOR BEAM SPAN SHOES					
Type of Shoe	Span	Fill Thickness			
		B1	B2	B3	B4
1 thru 4	4	—	1/8"	3/16"	1/4"
5	4	—	1/8"	3/16"	1/4"
6	5	—	1/8"	3/16"	1/4"
7	6	—	1/8"	3/16"	1/4"
8	7	—	1/8"	3/16"	1/4"
9	8	—	1/8"	3/16"	1/4"
10	9	—	1/8"	3/16"	1/4"
11	10	—	1/8"	3/16"	1/4"
12	11	—	1/8"	3/16"	1/4"
13	12	—	1/8"	3/16"	1/4"
14	13	—	1/8"	3/16"	1/4"
15	14	—	1/8"	3/16"	1/4"
16	15	—	1/8"	3/16"	1/4"
17	16	—	1/8"	3/16"	1/4"

Fill plates are to be tack welded to slab.
In lieu of welded fill plates on bottom of slabs, a slab thickness equal to 1 1/4" plus the thickness of fill may be used.



ANCHOR BOLTS

NOTES

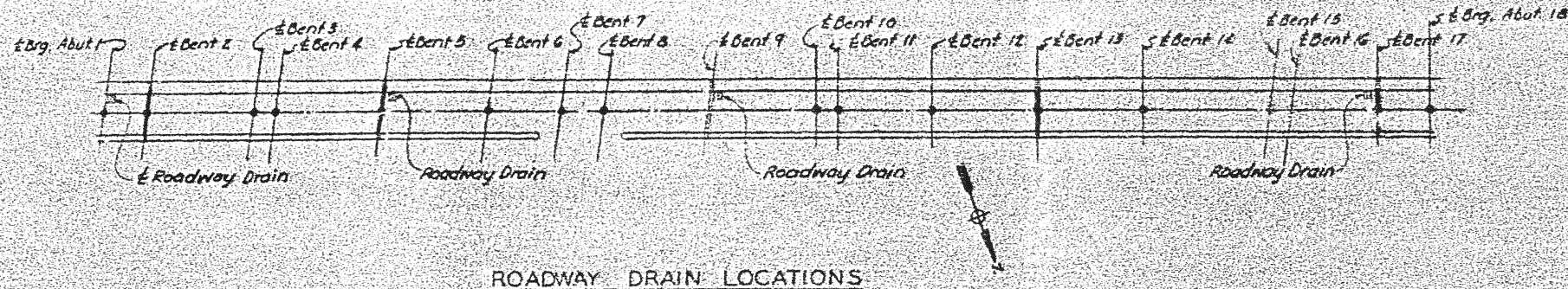
For details of 1/2" Low Alloy Steel Plate at Bents 13 & 17, see Sheet 11.
For Expansion Device notes, see Sheet 11.
For Sections C-C, J-J and K-K see Sheet 11.

Note: Do not scale this drawing, follow dimensions.

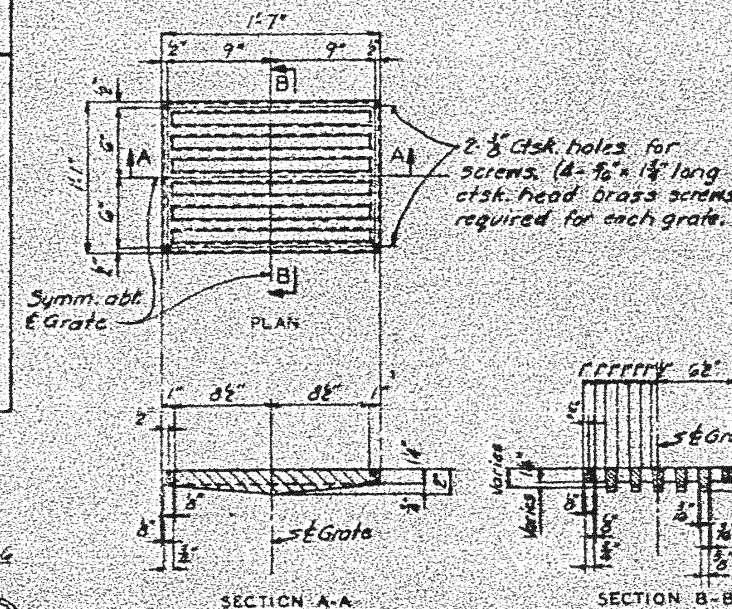
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EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.			
EXPANSION DEVICES AND BEARINGS			
PREPARED BY	DATE	SCALE	REVISIONS
ENGINEER & ARCHITECTS	1/20/35	None	1
DO NOT SCALE THIS DRAWING FOR DIMENSIONS NOT GIVEN			

TABLE OF SPIRAL SHEAR CONNECTORS									
SPANS	BEAMS	ENDS				CENTER			
		7"	6"	7"	6"	11'0"	1'0"		
1	B1, B2, B3, B4	7'1"	6"	7'9"	6"	11'0"	1'0"		
2, 4, 5	B1, B2, B3, B4	18'1"	6"	18'9"	6"	23'0"	1'0"		
3	B1, B2, B3, B4	16'3"	6"	16'11"	6"	25'0"	1'0"		
9	B1	17'9"	6"	18'5"	6"	26'0"	1'0"		
9	B2	17'2"	6"	17'10"	6"	26'0"	1'0"		
9	B3	16'8"	6"	17'4"	6"	26'0"	1'0"		
9	B4	16'1"	6"	16'9"	6"	26'0"	1'0"		
12, 13	B1, B2, B3, B4	17'9"	6"	18'5"	6"	27'0"	1'0"		
16	B1	17'8"	6"	18'4"	6"	25'0"	1'0"		
16	B2	17'2"	6"	17'10"	6"	25'0"	1'0"		
16	B3	16'7"	6"	17'3"	6"	25'0"	1'0"		
16	B4	16'0"	6"	16'8"	6"	25'0"	1'0"		
6	B1, B2, B3, B4	12'3"	6"	12'3"	6"	19'0"	1'0"		
7	B1, B2, B3, B4	7'2"	6"	7'2"	6"	11'0"	1'0"		
11	B1, B2, B3, B4	16'11"	6"	16'11"	6"	25'0"	1'0"		
14	B1	21'6"	6"	21'6"	6"	32'0"	1'0"		
14	B2	22'1"	6"	22'1"	6"	32'0"	1'0"		
14	B3	22'7"	6"	22'7"	6"	32'0"	1'0"		
14	B4	23'2"	6"	23'2"	6"	32'0"	1'0"		

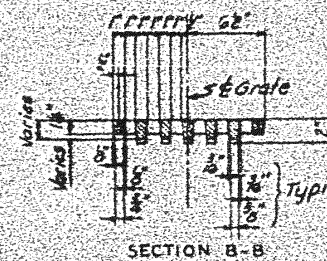
Note: Spans not listed have no spiral shear connectors.



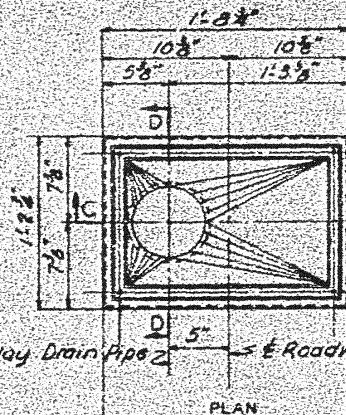
ROADWAY DRAIN LOCATIONS



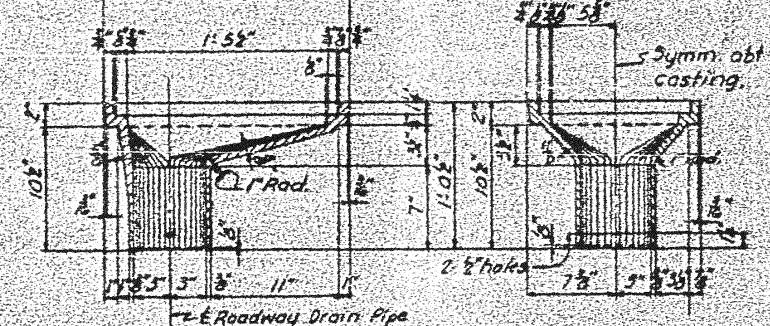
SECTION A-A



SECTION B-B

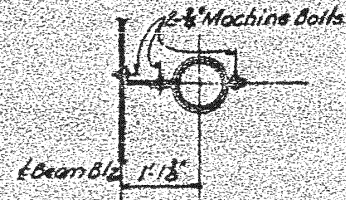


PLAN



SECTION C-C

SECTION D-D



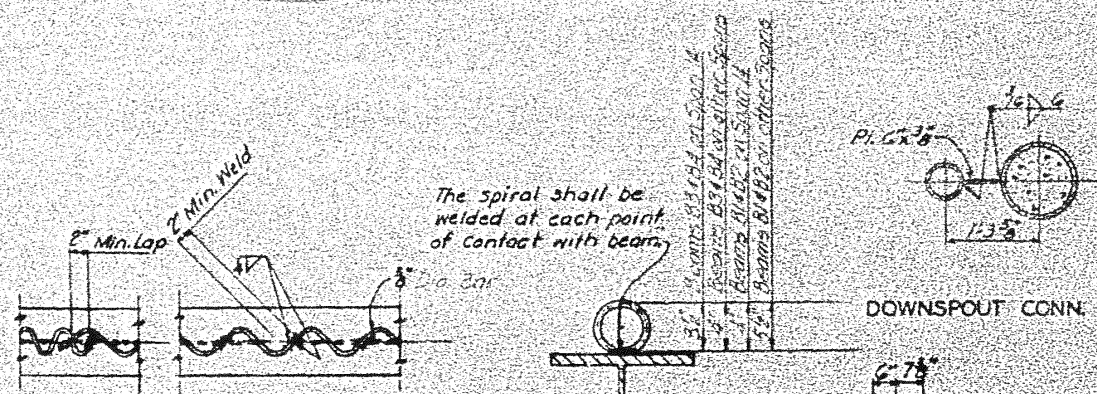
SECTION G-G

DETAILS OF GRATE
Grate to be made of Cast Steel.
(Height 50" - 4 Reqd.)

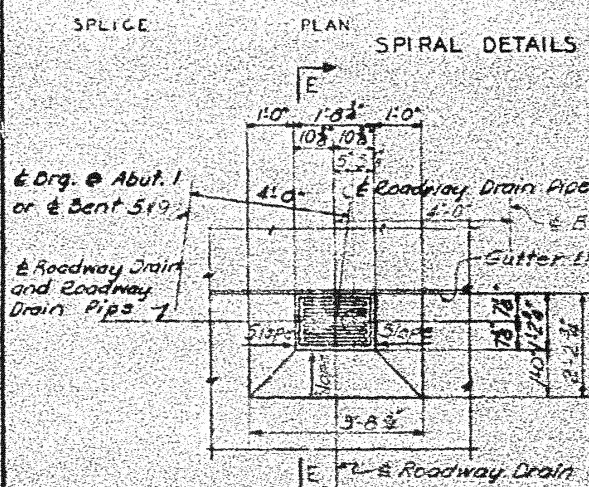
DETAILS OF CASTING
Casting to be made of Gray Iron
(Height 90" - 4 Reqd.)

NOTES

Wrought Iron pipe shall be 8" standard weight 20.55 lbs per foot & 6" standard weight 10.97 lbs per foot, in accordance with A.S.T.M. Standards, Designation A72.
Castings shall be Gray Iron castings in accordance with A.S.T.M. Standards, Designation A48.
Grates shall be made of Cast Steel in accordance with A.S.T.M. Standards, Designation A27, Grade 65-85.
Where necessary, slab reinforcing steel may be moved or bent in the field to clear drains.
Joints in 6" wrought iron pipe shall be welded with a square or bevel groove weld with complete penetration.
Spiral bars shall be structural grade plain bars conforming to A.S.T.M. Standards, Designation A15. Spiral bars shall be of the type manufactured by the Parate Manufacturing Company, North Arlington, New Jersey, or an approved equal.

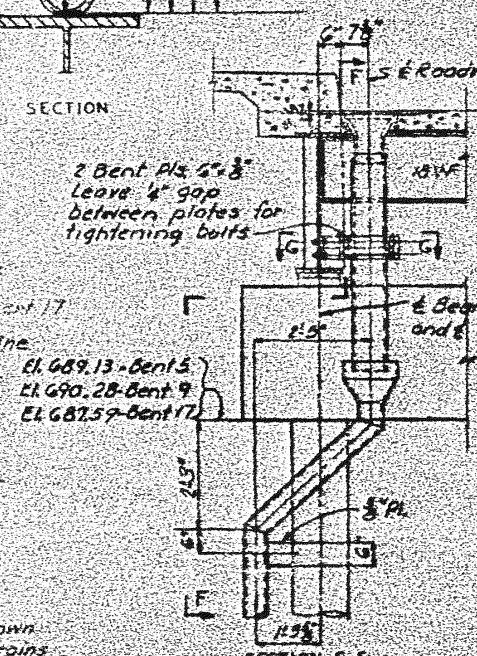


DOWNSPOUT CONN. TO PILES

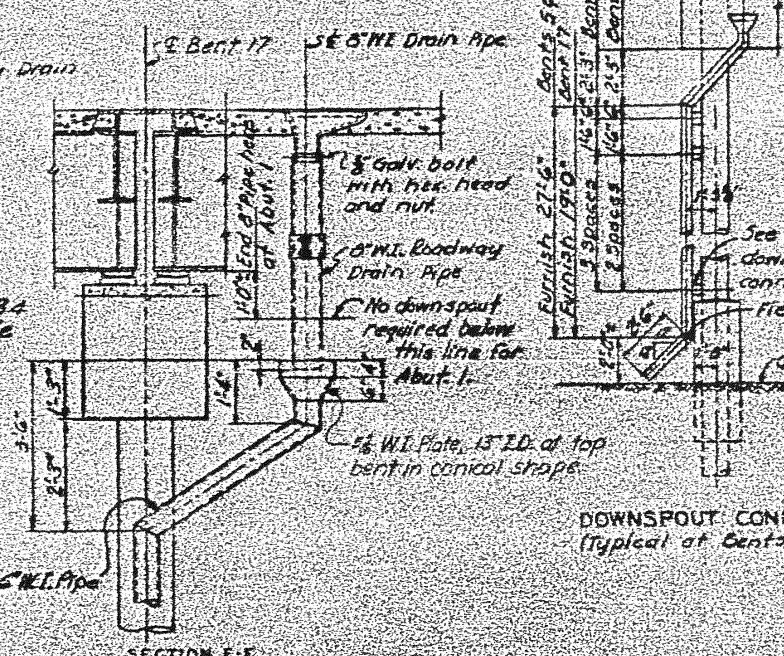


PLAN AT ROADWAY DRAIN

Note: Location of roadway drain pipe shown is for drain at Bent 17, drain pipe for drains at Abut. 1 and Bents 5 & 7 is opposite hand.



SECTION F-E

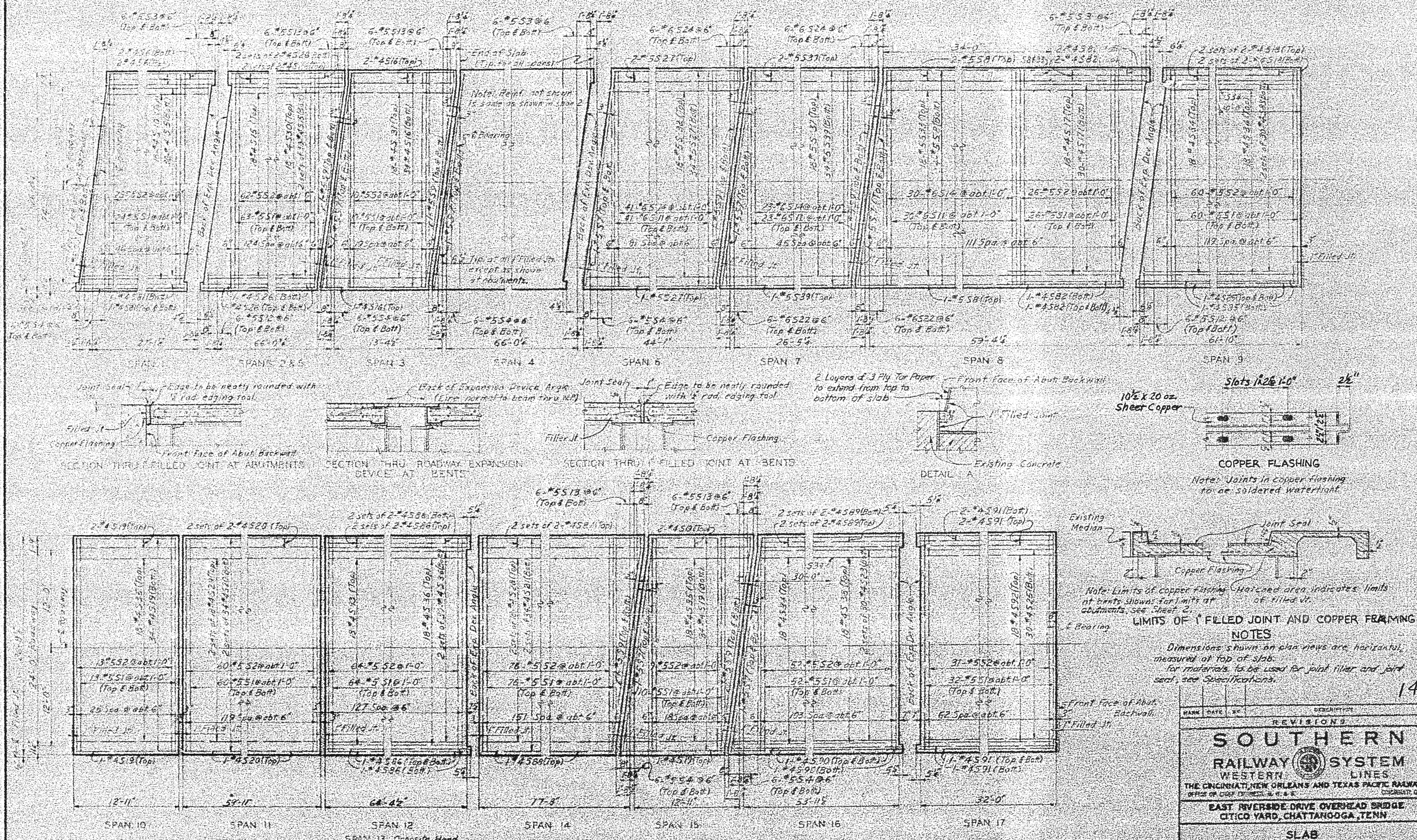


SECTION F-F

DOWNSPOUT CONNECTION
(Typical at Bents 5, 7 & 17)

Note: Do not scale this drawing. Follow dimensions.

13		
DATE	BY	REVISIONS
SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, N. W. & S. CHICAGO, ILL.		
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.		
DRAINS AND SPIRALS		
DESIGNED BY CHECKED BY APPROVED BY	DRAWN BY DATE SCALE	SHEET NO. TOTAL SHEETS



2 Layers of 3 Ply Tar Paper to extend from top to bottom of slab

Front Face of Abut. Back Wall

10' x 20 oz. Sheer Copper

Slots 1/2" x 1-0"

26"

COPPER FLASHING

Note: Joints in copper flashing to be soldered watertight

Existing Concrete

DETAIL A

Existing Median

Joint Seal

Copper Flashing

Note: Limits of copper flashing. Hatched area indicates limits of bent shown for limits of abutments. See Sheet 2.

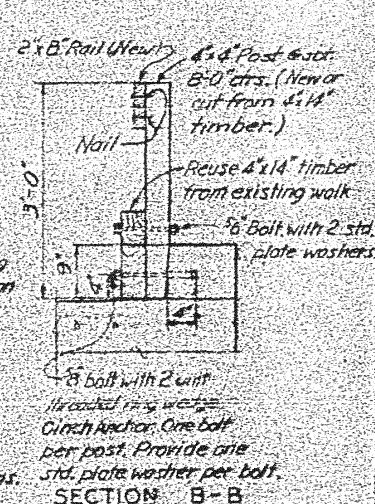
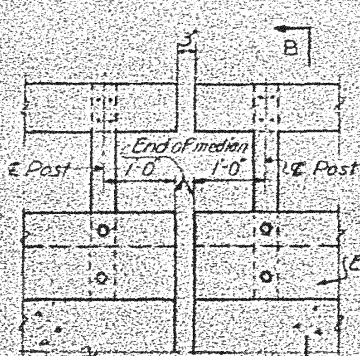
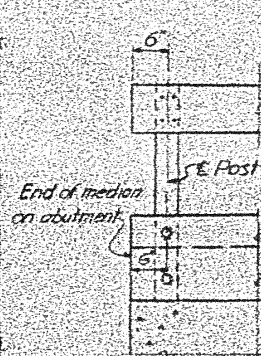
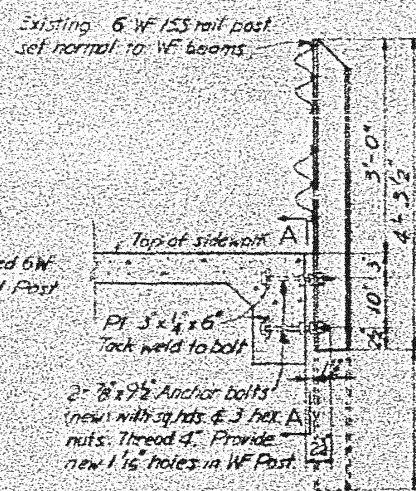
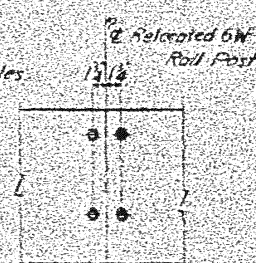
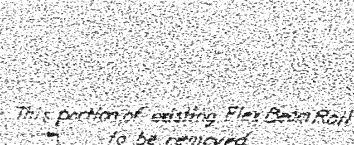
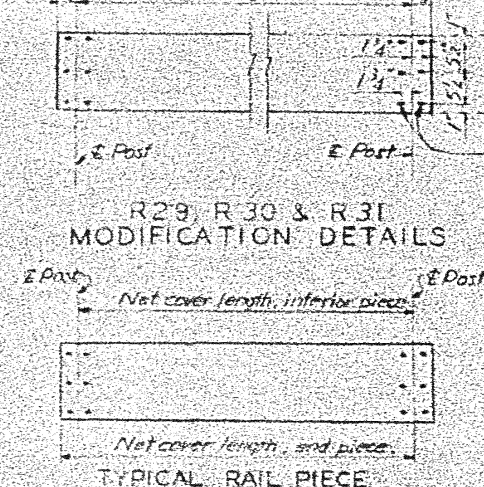
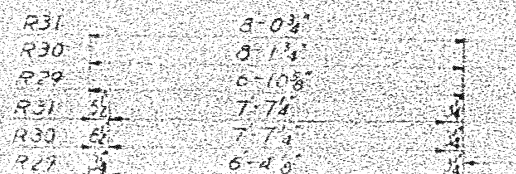
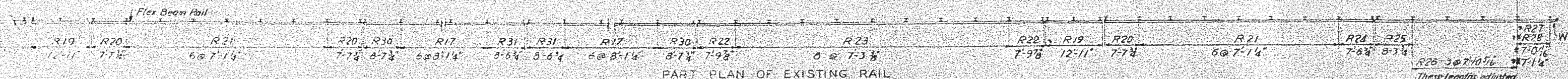
LIMITS OF FILLED JOINT AND COPPER FRAMING

NOTES

Dimensions shown on plan views are horizontal, measured at top of slab.

For materials to be used for joint filler and joint seal, see Specifications.





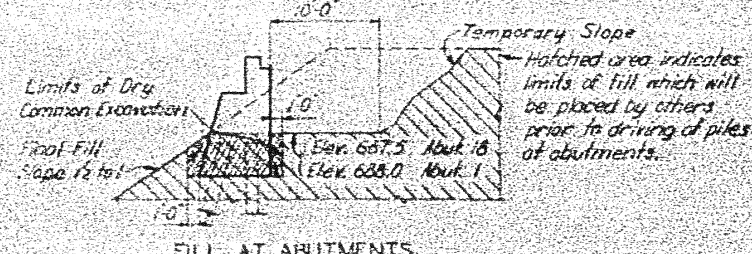
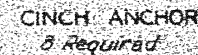
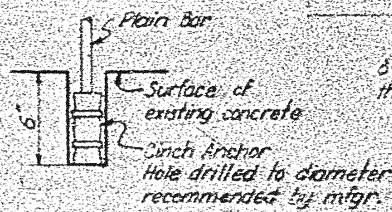
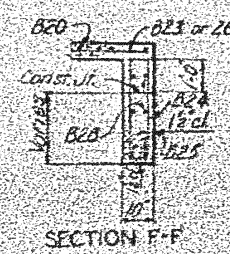
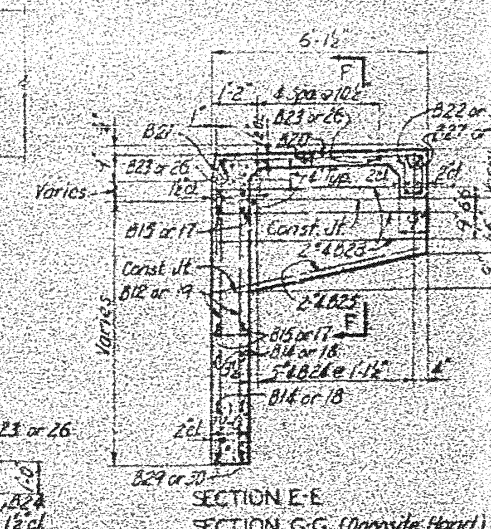
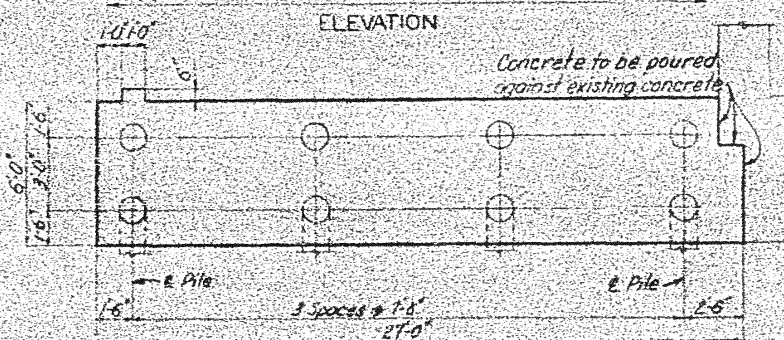
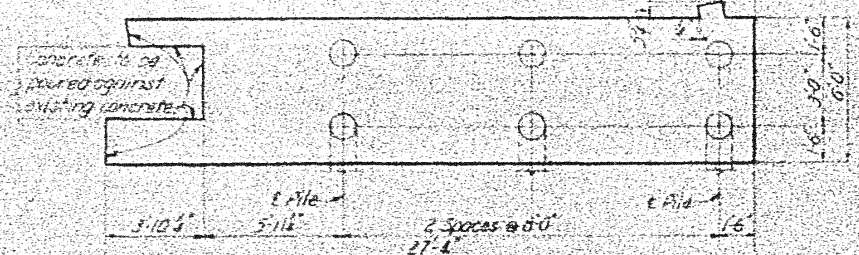
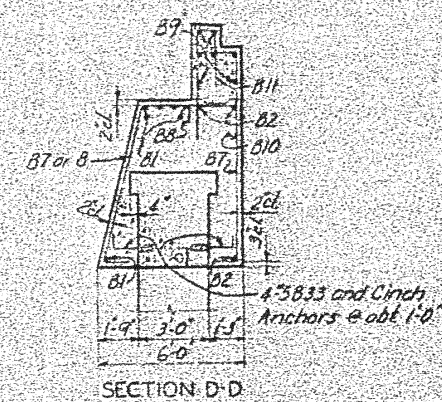
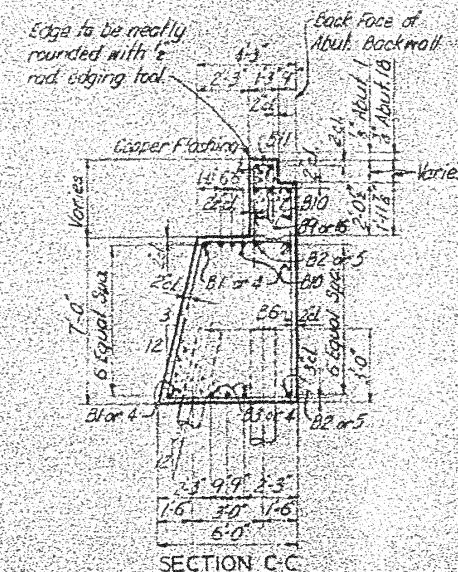
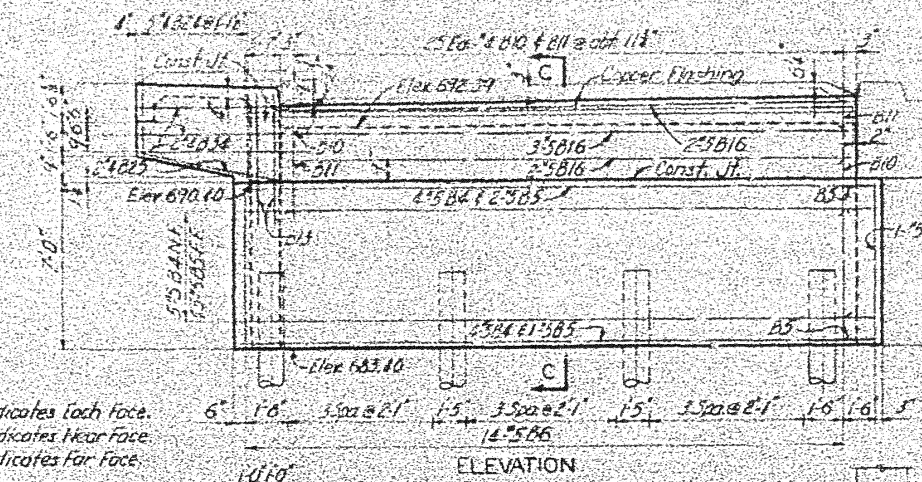
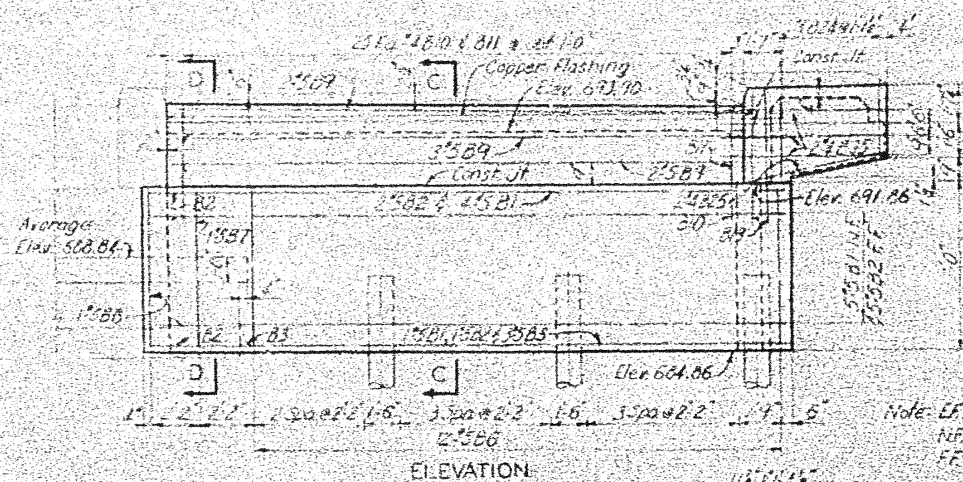
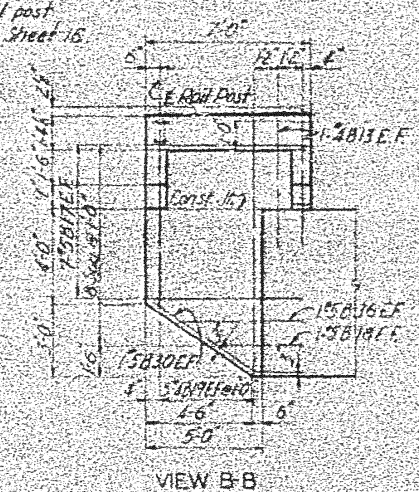
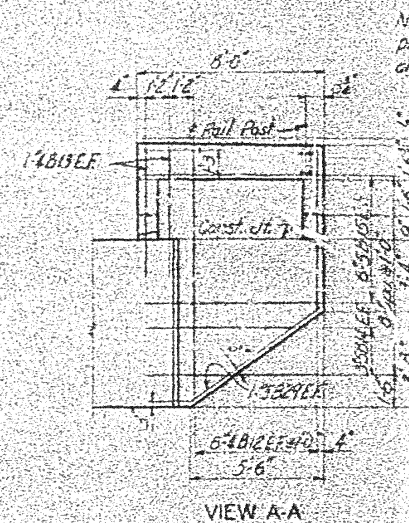
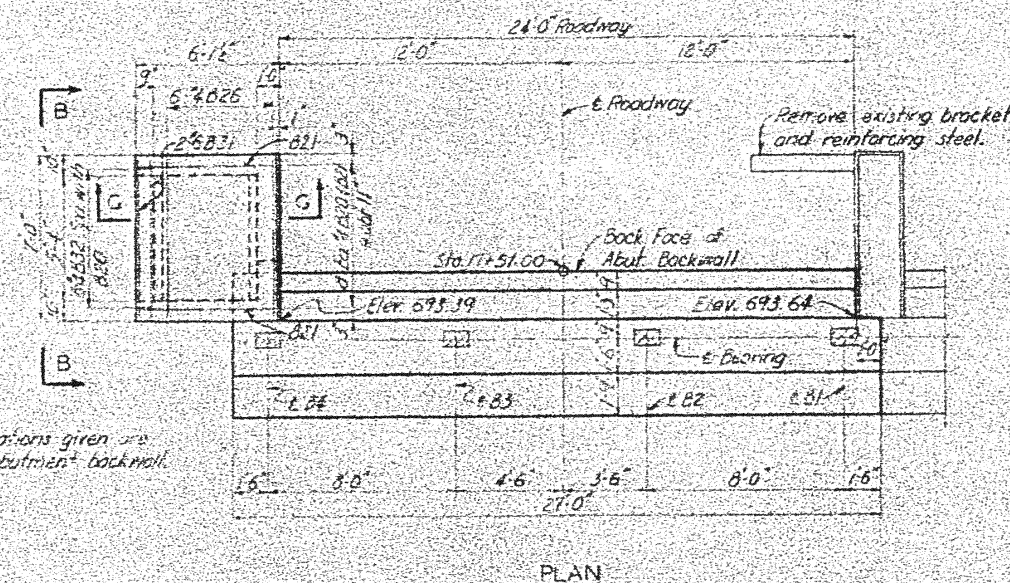
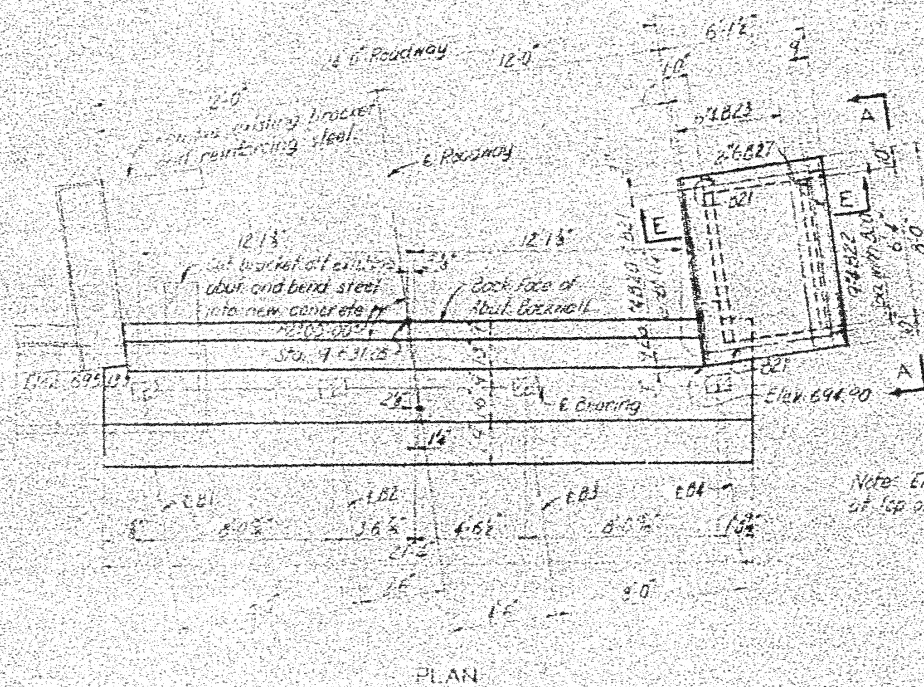
NOTES

Post and rail shall be dismantled from the South Side of existing bridge, modified and relocated on the South Side of the proposed bridge.

Dimensions shown on "Plan of Existing Rail" were taken from shop drawing of the existing railing, and shall be verified in the field before locating anchor bolts for rail posts.

MARK	DATE	BY	DESCRIPTION
REVISIONS SOUTHERN RAILWAY SYSTEM WESTERN LINES  THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, N. W. & S. CINCINNATI, OHIO			
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.			
HANDRAIL			
<i>Amended 10.10.19</i>			
CHG. BY <i>W. C. H.</i>	<i>M. P. 335-4</i>	<i>WALLS MADE</i>	<i>NUMBER C-335-4</i>
BY <i>W. C. H.</i>	<i>VAL. ENG. 10.10.19</i>	<i>DATE 10/10/19</i>	<i>CHG. NO. 762-25</i>
DO NOT SCALE THIS DRAWING FOR DIMENSIONS NOT SHOWN			

Note: Do not scale this drawing. Follow dimensions.



Note: For spacing and projection of rail post anchor bolts see Sheet 16.

Edge to be neatly rounded with a
rod edging tool

Back Face of
Abut. Back wall

4'-3"
2'-3" 1'-3" 4"

1'-10"

Back Face of
About Backroll

NOTES

Cinch Anchors shall be two-unit threaded ring wedge type. All reinforcing bars in anchors shall be $\frac{3}{8}$ diameter plain bars with 2' thread.

Area of existing concrete to come in contact with new concrete shall be cleaned of loose material, oil or grease, and other foreign material.

For detail of copper flashing see Sheet 14.

Payment for Cinch Anchors shall be included in the price bid for other items.

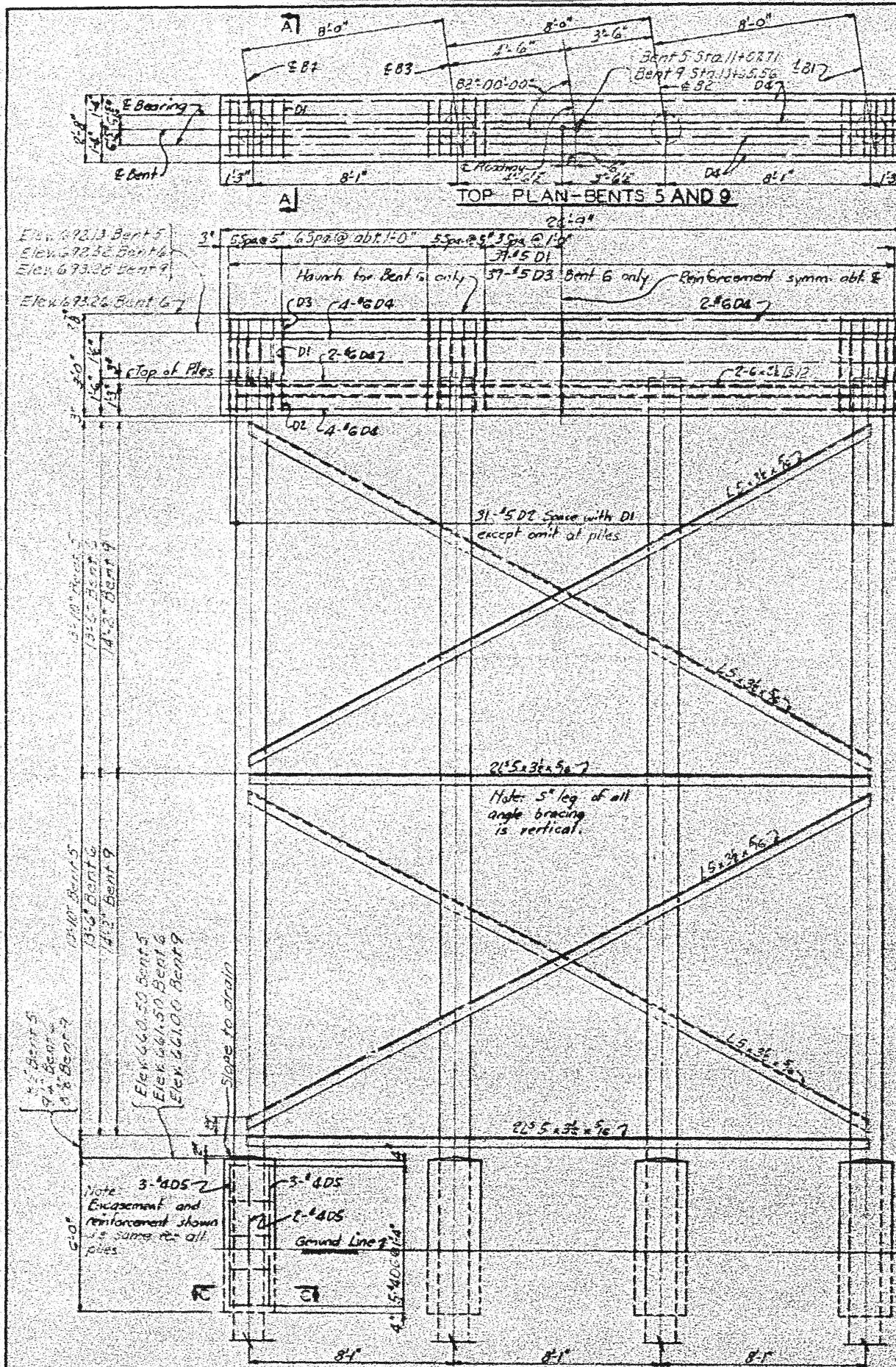
For location of anchor bolts see Sheet 7.

2

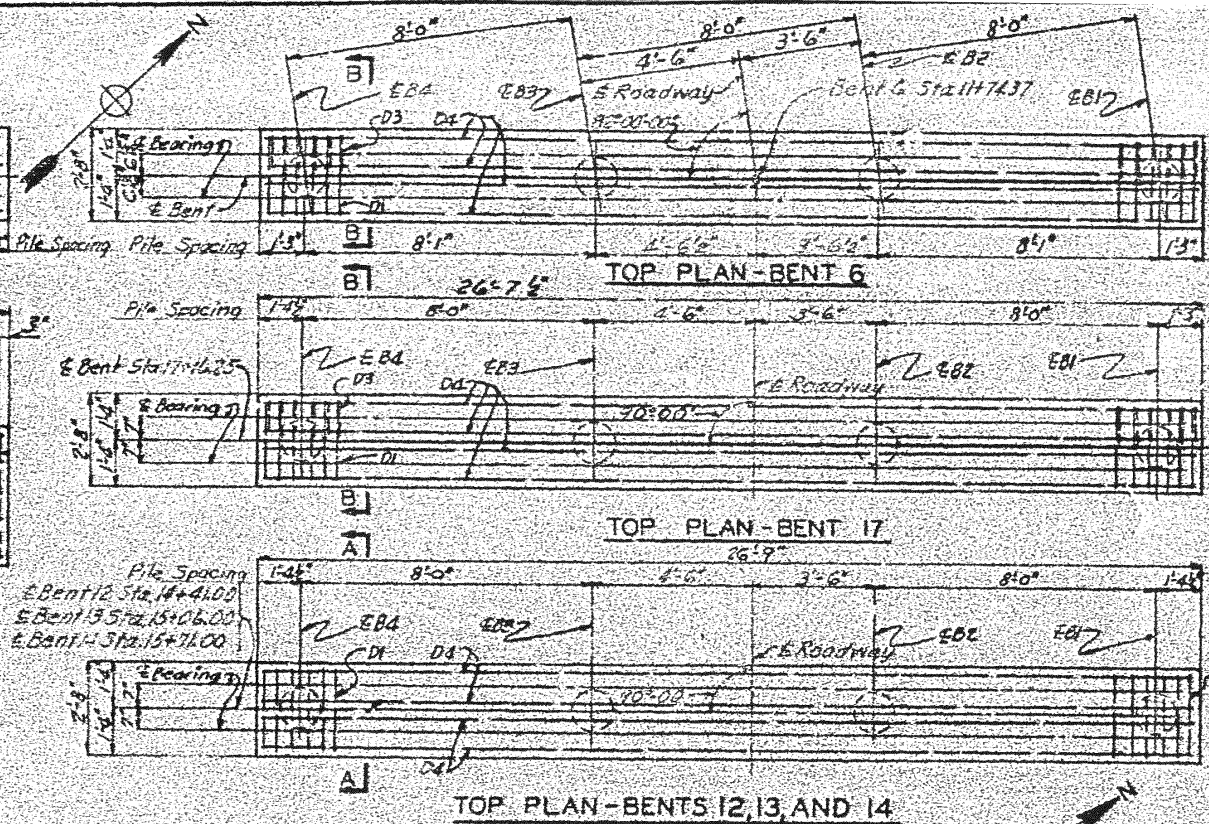
NAME	DATE	BY	DESCRIPTION
REVISIONS			
SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, 41 W. 43  SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, 41 W. 43			
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.			
ABUTMENTS 1 AND 18			
<i>March 2, 1919</i>			
FOR SCALE NO. 1	W. R. 253.1	ROAD 14116	DESIGN 5, 1918
NO. 2	VAL. ENG. 1, 1918	DATE 1/11/1918	DRAWN BY 74-1-1918
DO NOT SCALE THIS DRAWING FOR DIMENSIONS NOT GIVEN			

PREPARED BY
EVENRUP & ASSOCIATES, INC.
ENGINEERS - ARCHITECTS

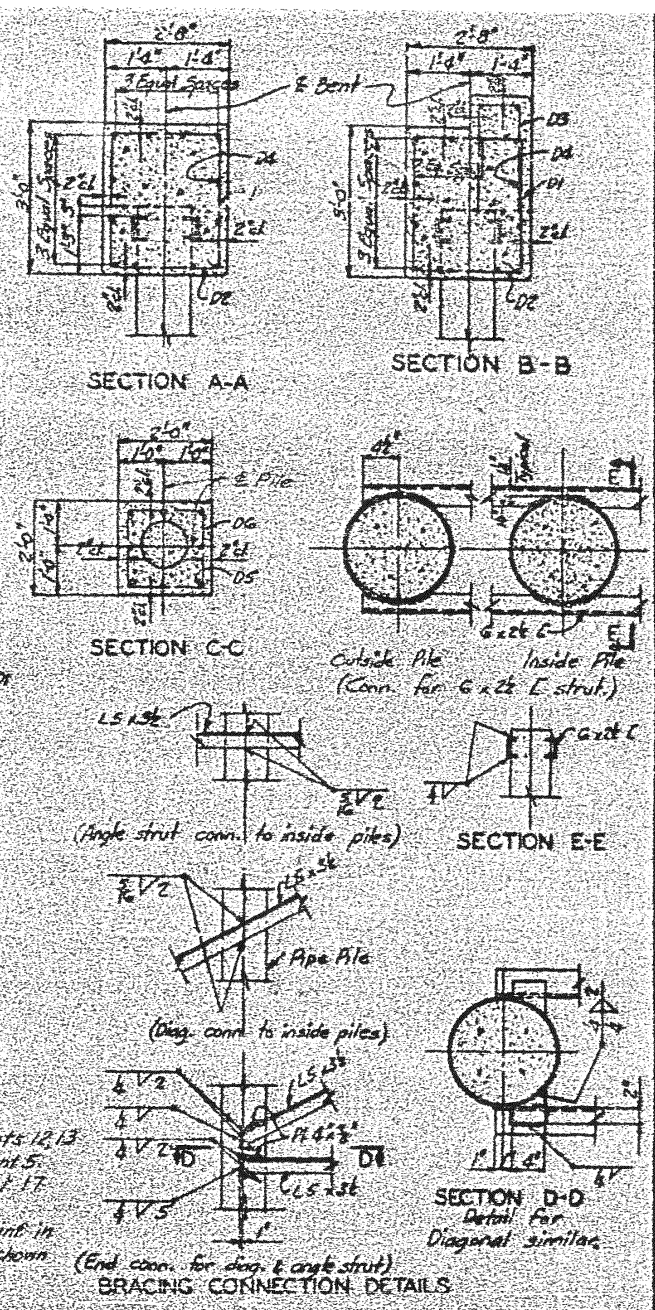
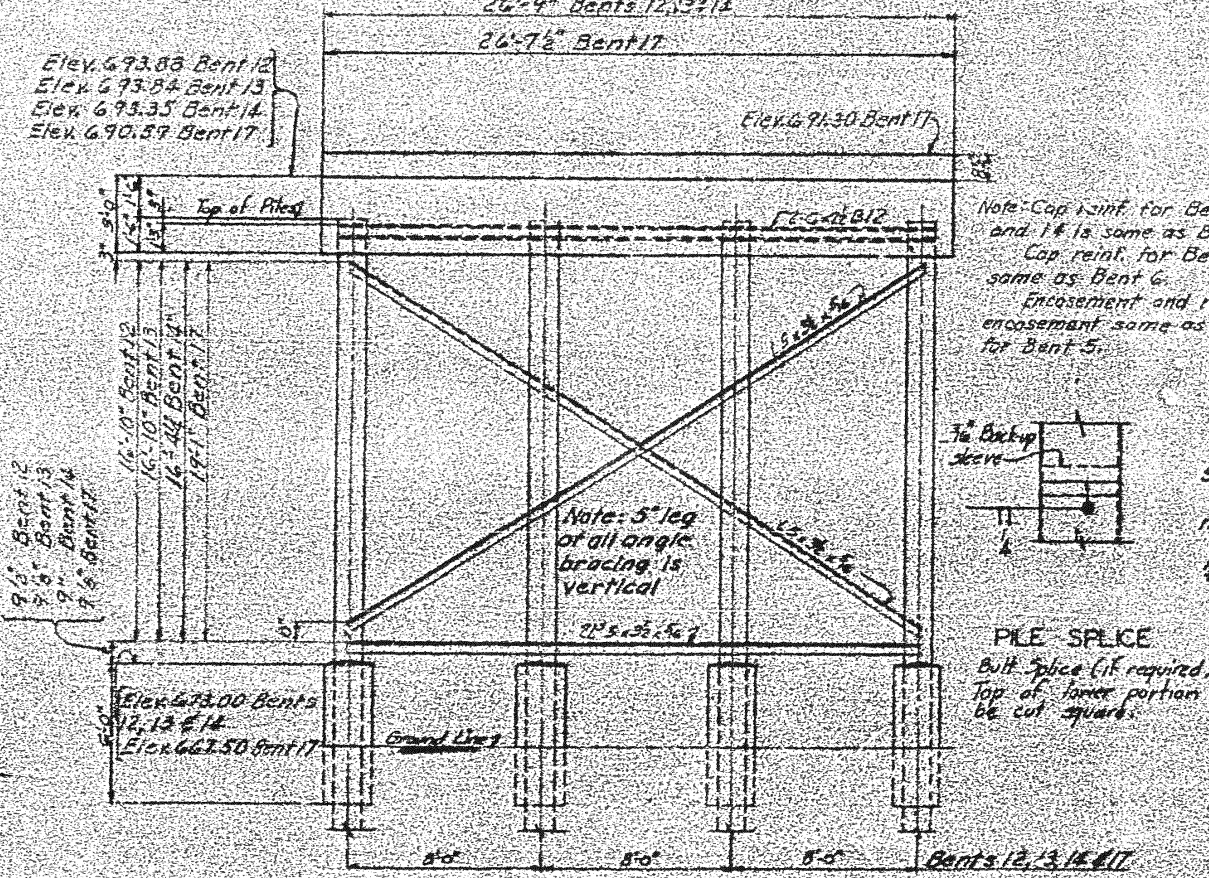
Notes: Do not scale this drawing. Follow dimensions.



ELEVATION - BENTS 5, 6, AND 9



ELEVATION - BENTS 12, 13, 14 AND 17



NOTES

Anchor Bolts to be cast in concrete cap. See Sheet 7 for location.

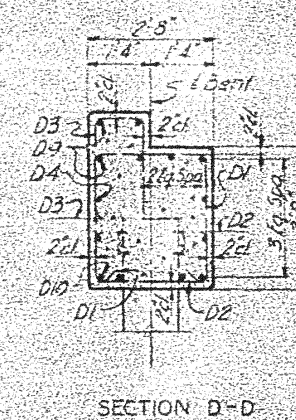
Stirrups may be shifted slightly where necessary to clear anchor bolts.

Piles are 18" O.D. Concrete Filled Pipe Piles with 1/2" steel shell thickness. See Specifications.

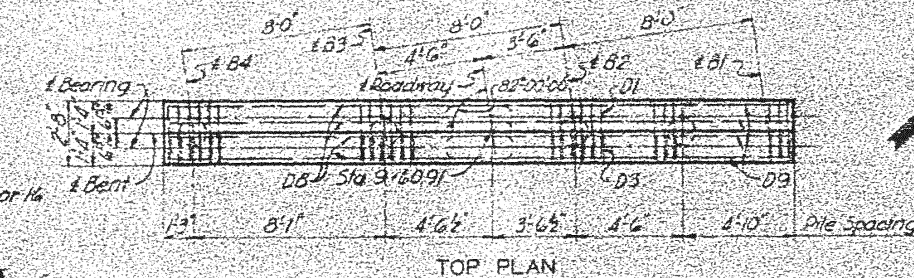
DATE	BY	DESCRIPTION
SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, ST. LOUIS, MO.		
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITGO YARD, CHATTANOOGA, TENN.		
BENTS 5, 6, 9, 12, 13, 14 AND 17		

1572
5572

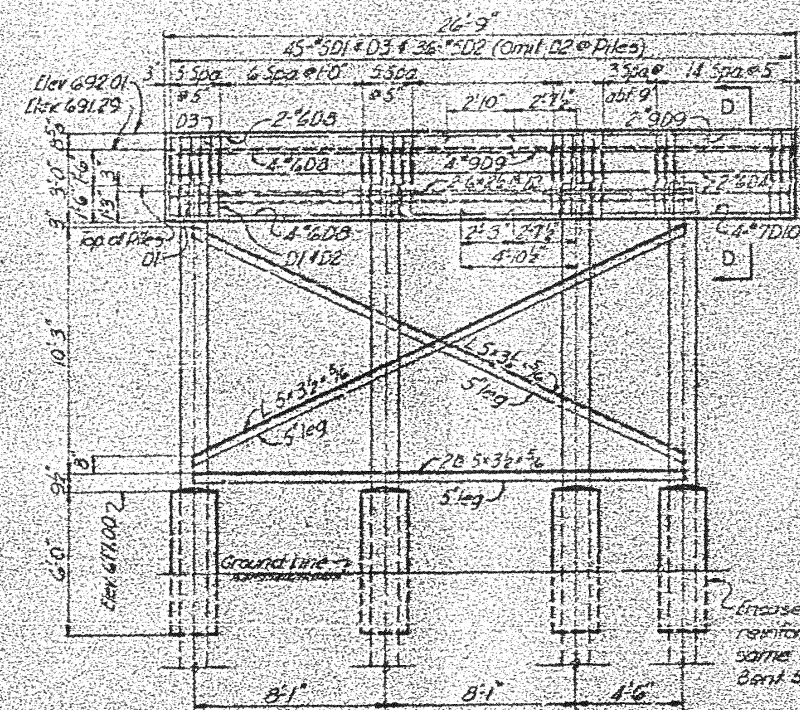
Note: Do not seek this drawing. Follow dimensions.



SECTION D-D



TOP PLAN



ELEVATION

Note: For bracing connections and channel seat connection details to concrete filled pipe piles in Bent 2, see Sheet 3.

BENT 2

NOTES

The end connections shown for BW bracing members are the minimum lengths of 4" welds required. In all cases, the length of member that is in contact with connection plates shall be welded with continuous 1/4 fillet welds.

Piles for "Over Bents 3-4 and 15-16 are to be 12 3/4" O.D. Concrete Filled Pipe Piles. Piles for Bent 2 are to be 14" O.D. Concrete Filled Pipe Piles. All pipe piles shall have a 4" steel shell thickness. See Specifications.

for details of End Closure for Concrete Filled Piles, see Sheet 6.

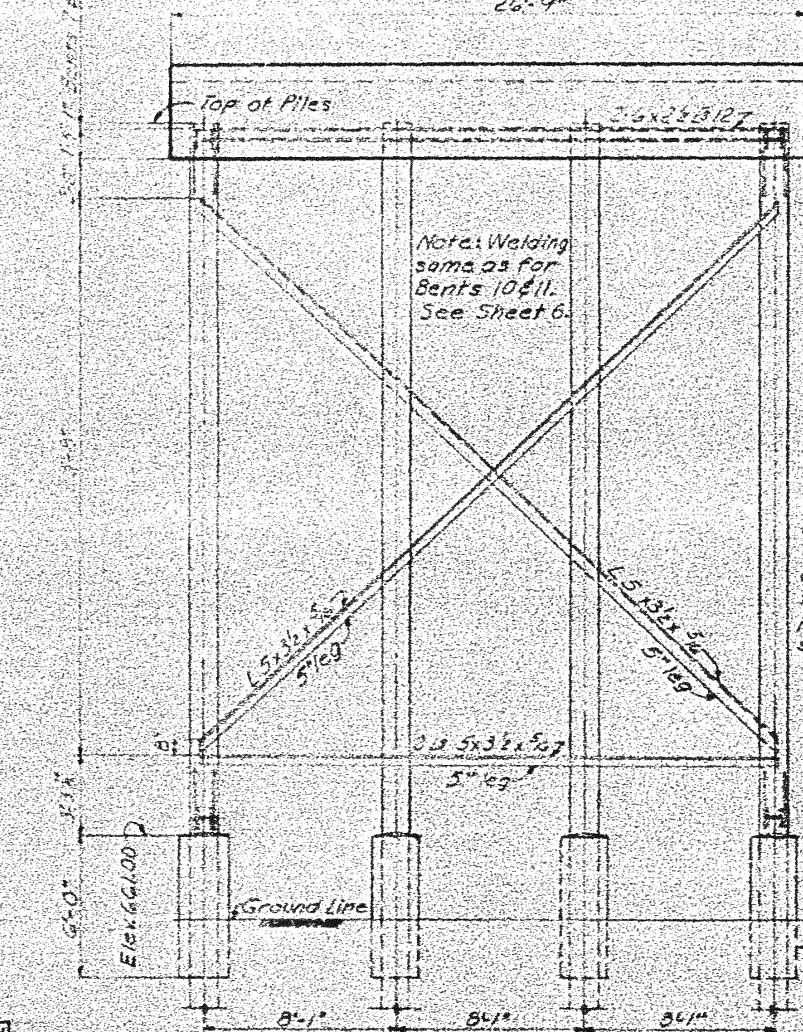
Anchor bolts to be cast in concrete cap, see Sheet 7.

Slirups may be shifted slightly where necessary to clear anchor bolts.

MARK	DATE	BY	DESCRIPTION
REVISIONS			
SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY OFFICE OF CHIEF ENGINEER, N. W. & S. (CINCINNATI)			
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.			
BENT 2 AND TOWER BENTS 3-4 AND 15-18			
NO. 5	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 6	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 7	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 8	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 9	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 10	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 11	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 12	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 13	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 14	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 15	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 16	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 17	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 18	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 19	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 20	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 21	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 22	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 23	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 24	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 25	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 26	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
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NO. 36	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 37	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
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NO. 98	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 99	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2
NO. 100	NOV. 23, 1934	W. F. 3354	WALK / VOICE / TOWER & BENT 2

Note: Do not scale this drawing. Follow dimensions.

PREPARED BY
HYDROMAT - PAPER, INC.
ENGINEER - ARCHITECT
ST. LOUIS, MO.

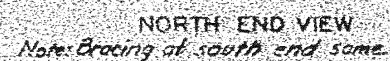


Note: Reinforcement of cap for Bent 6 is same as Bent 5, except as shown in Section C-C.

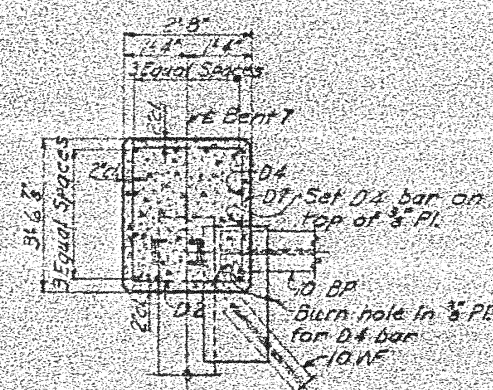
Longitudinal reinforcement and stirrup spacing for Bent 7 same as Bent 5, except as shown in Section D-D.

Note: For bracing connections and channel strut connection details to concrete pipe piles in Tower Bents, see Sheet 6.

Encasement and reinforcement same as for Bent 5.

[illegible]

SECTION C-C



SECTION D-D

NOTES

The end connections shown for 10. BF and 10. WF bracing members are the minimum lengths of 4 welds required. In all cases the length of member that is in contact with connection plates shall be welded with continuous 4 fillet weld.

For Detail of End Closure for Pipe
Piles, see Sheet 6.

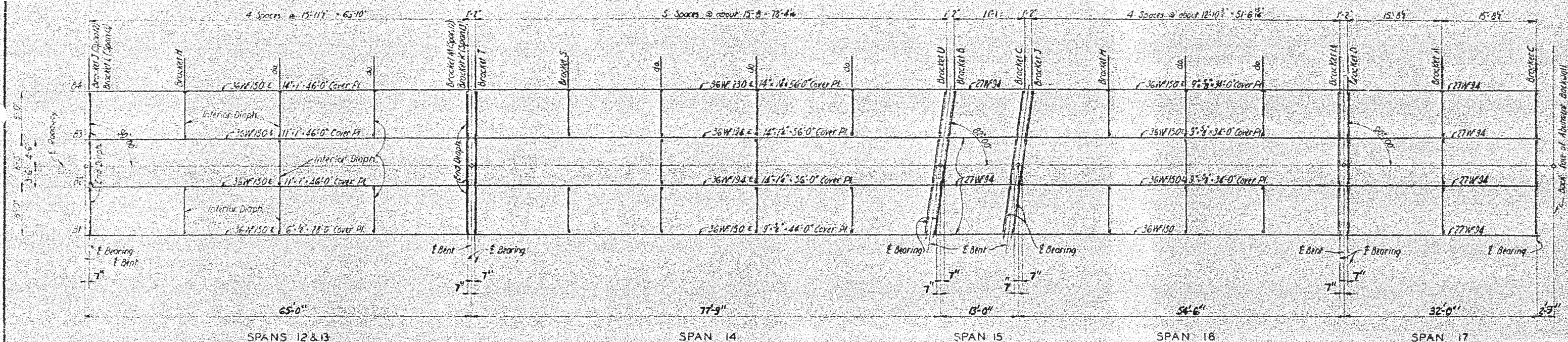
Anchor Bolts to be cast in concrete
cfr. see Sheet 7.

Stirrups may be shifted slightly where necessary to clear anchor bolts.

Pipes are 12" O.D. Concrete Filled Pipe
Pipes with 1/2" steel shell thickness. See
Specifications.

MARK	DATE	BY	DESCRIPTION
REVISIONS SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. CHIEF OF ENG'G. N. W. S. CINCINNATI, OHIO EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICUS YARD, CHATTANOOGA, TENN. TOWER BENTS 7-8			
FILE NO.	NO.	DATE	BY
332-1	332-1	1938	332-1

PREPARED BY
EVERED & PARCEL, INC.
ENGINEERS - ARCHITECTS
ST. LOUIS, MO.

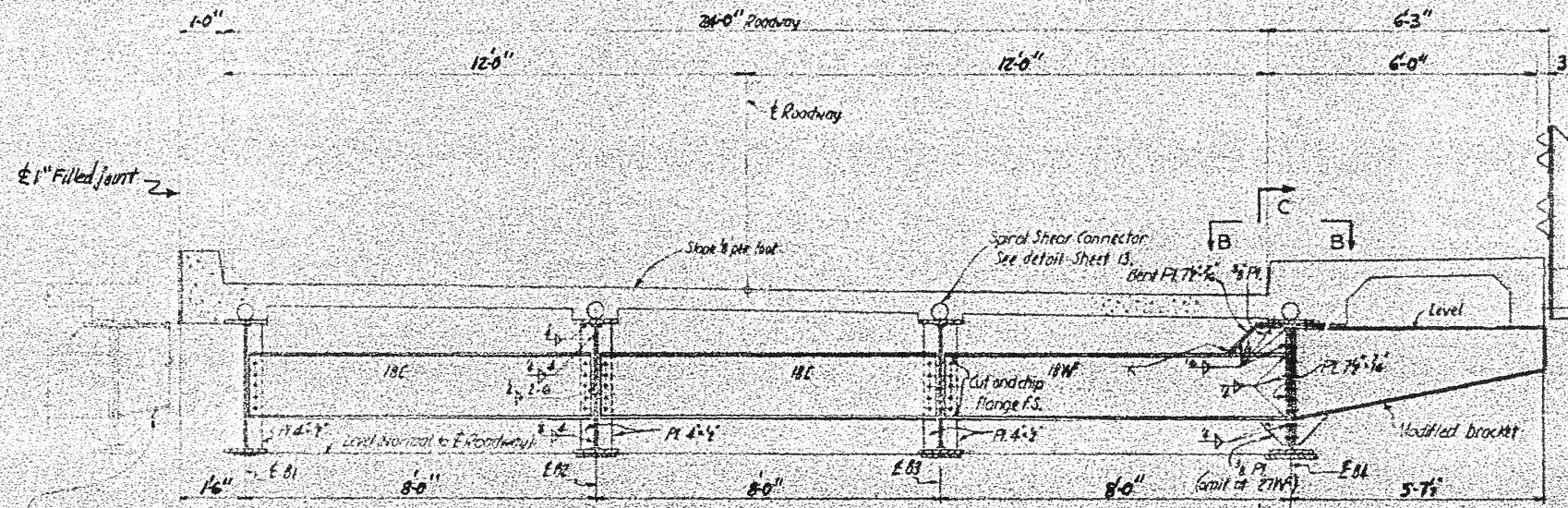


For 6" Pls.	1'-0"
For 9" Pls.	1'-3"
For 11" Pls.	1'-6"
For 14" Pls.	2'-0"

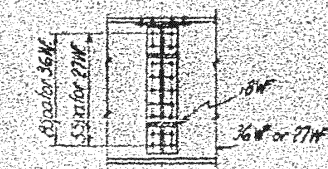
Note: Welding of cover plates wider than beam flange to be similar to details shown.



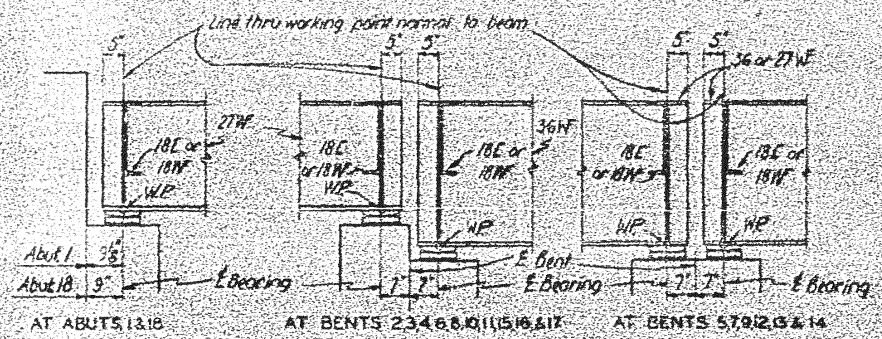
COVER PLATE WELDING



Existing posts and rails relocated as shown on Sheet 16.



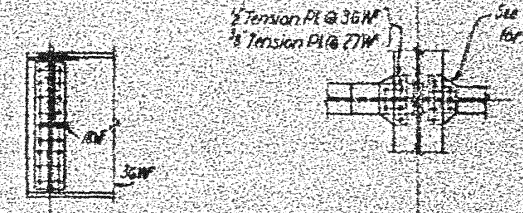
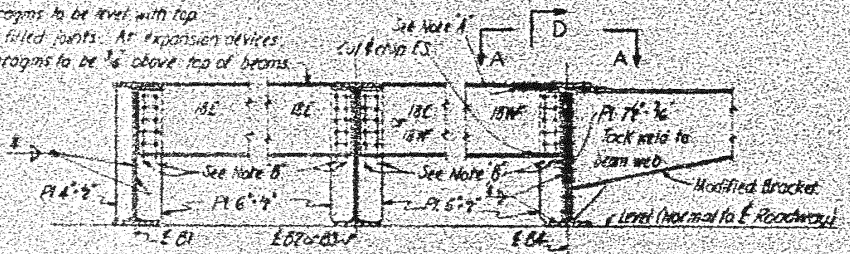
SECTION C-C
Holes to match those in existing modified bracket. See Sheet 10.



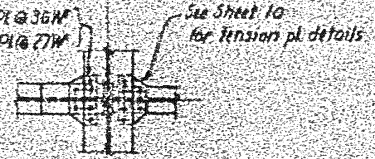
END OF BEAMS
All dimensions are along E beam.

Existing brackets and tension plates to be removed. Installation and removal except at Brackets S, T, & U, new tension plates are to be provided see Sheet 10.

Note: Top of diaphragms to be level with top of beams at filled joints. At expansion devices, top of diaphragms to be 1/8" above top of beams.



SECTION D-D
Holes to match those in existing modified bracket. See Sheet 10.



VIEW B-B
Note: Concrete not shown.

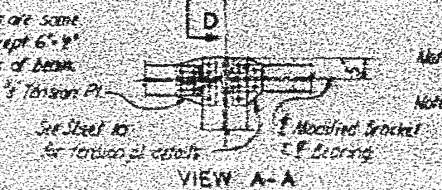
NOTES

Cover plates are to be centered on span. Cover plates are on bottom flanges only. All dimensions shown on Framing Plan are horizontal. For Bracket details see Sheet 10. See Structural Steel Notes on Sheet 8.

- Beam B1: 25"
- Beam B2: 25"
- Beam B3: 25"
- Beam B4: 3"



Note: At skewed ends details of beams are same as shown for square ends, except 6'-8" cover plates are skewed to ends of beams.



VIEW A-A

Note A: Fill Pls. as required at filled joints. Fill Pls. plus 1/8" nominal shims at expansion devices. Note B: 1/4" dia. holes except at expansion devices see Sheets 11 & 12.

Note: Do not scale this drawing. Follow dimensions.

PREPARED BY
OVERMAN & PARCEL, INC.
ENGINEERS-ARCHITECTS
ST. LOUIS, MO.

MARK	DATE	BY	DESCRIPTION
REVISIONS SOUTHERN RAILWAY SYSTEM WESTERN LINES THE CINCINNATI, NEW ORLEANS AND TEXAS PACIFIC RAILWAY CO. OFFICE OF CHIEF ENGINEER, N. O. & S. CINCINNATI, OHIO			
EAST RIVERSIDE DRIVE OVERHEAD BRIDGE CITICO YARD, CHATTANOOGA, TENN.			
FRAMING PLAN-SPANS 12 THRU 17			
DESIGNED BY	DATE	SCALE	NOTES
DRAWN BY	DATE	SCALE	NOTES
CHECKED BY	DATE	SCALE	NOTES
APPROVED BY	DATE	SCALE </td <td>NOTES</td>	NOTES