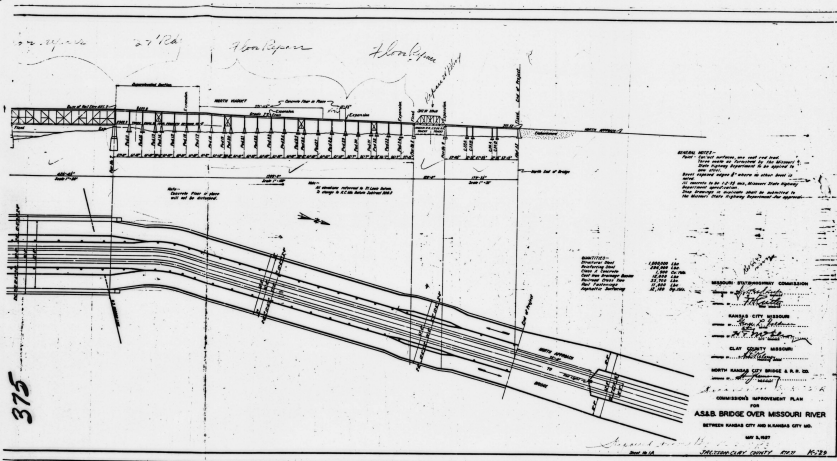




GENERAL NOTES:
 Four 12' x 12' piers, one end pier and three main piers, are shown in the Missouri State Highway Department's plan as shown in plan view.
 The bridge is to be built on the right bank of the river.
 The bridge is to be built on the right bank of the river.
 The bridge is to be built on the right bank of the river.

QUANTITIES:

Structural Steel	1,000,000 Lbs.
Reinforcing Steel	250,000 Lbs.
Concrete	1,000,000 Cu. Yds.
Gravel	1,000,000 Cu. Yds.
Asphalt	1,000,000 Sq. Yds.
Paint	1,000,000 Gal.
Electricity	1,000,000 Kwh.

MISSOURI STATE HIGHWAY COMMISSION

KANSAS CITY, MISSOURI

CLAY COUNTY, MISSOURI

NORTH KANSAS CITY BRIDGE & R.R. CO.

MISSOURI STATE HIGHWAY COMMISSION

FOR

AS&S BRIDGE OVER MISSOURI RIVER

BETWEEN KANSAS CITY AND KANSAS CITY MO.

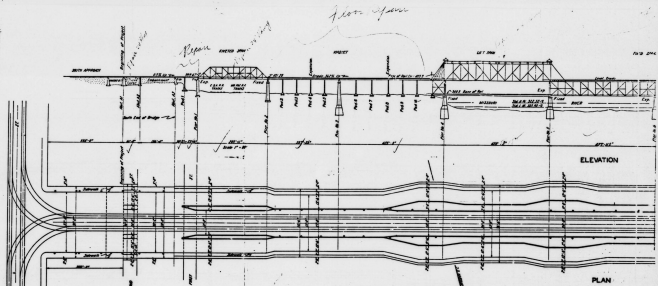
NO. 1,001

CLAY COUNTY, MISSOURI

375

8

374

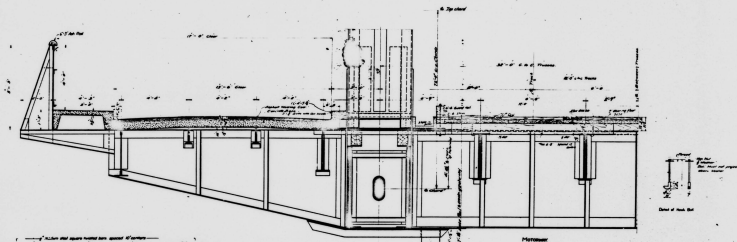


JACKSON COUNTY
NO. 11

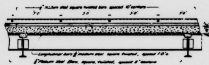
1917

1917

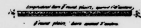
HAER No. MO-2-34



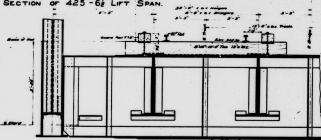
CROSS SECTION OF 425'-6 $\frac{1}{2}$ ' LIFT SPAN.



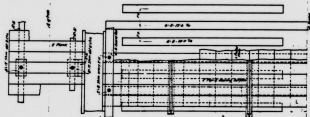
Longitudinal Section of Roadway



Longitudinal Section of Subjects



CROSS SECTION OF LIFTING DECK OF 420'-6" LIFT BRAN.



PLAN OF FLOORING FOR MOTOTRANS

BRIDGE OVER THE MISSOURI RIVER

AT KANSAS CITY, MO.

U D D & T. R. R. CO.

STONE ART, 1994

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100

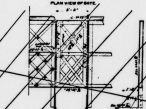
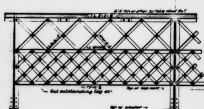
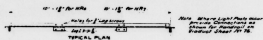
— 144 —

0000-0000-0000-0000

[illegible]

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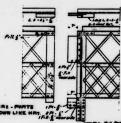
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PLAN AT END OF BRIDGE

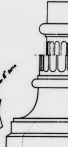
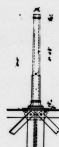
DETAIL OF HAND RAIL, 1961

Scale 1" = 10'



TYPICAL DETAILS FOR BRIDGE OF LIGHT POINTS

Scale 1" = 10'



DETAIL OF LIGHT POINT

Scale 1" = 10'



BRIDGE OVER THE MISSOURI RIVER

AT KANSAS CITY, MO.

U.S.B.T.R.C.O.

SHEET 1 OF 11

LIGHT POINTS

Scale 1" = 10'

U.S.B.T.R.C.O.

SHEET 1 OF 11

LIGHT POINTS

Scale 1" = 10'

U.S.B.T.R.C.O.

SHEET 1 OF 11

LIGHT POINTS

Scale 1" = 10'

U.S.B.T.R.C.O.

SHEET 1 OF 11

LIGHT POINTS

Scale 1" = 10'

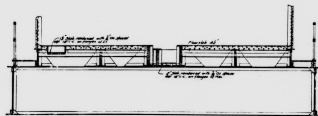
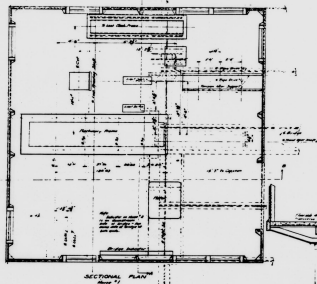
U.S.B.T.R.C.O.

SHEET 1 OF 11

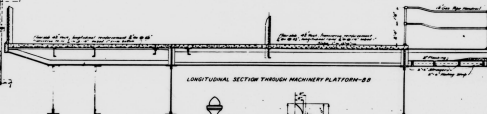
LIGHT POINTS

BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. B. & T. R. R. CO.
DESIGNED BY LEFF BRAN.
ANCHORAGE AND SHOE AT SOUTH OR FIXED END

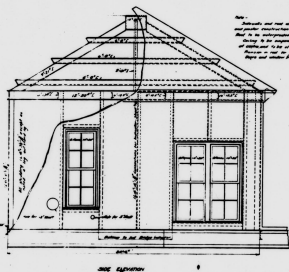
4/5



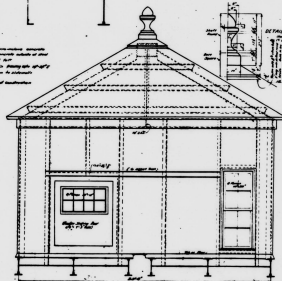
TRANSVERSE SECTION THROUGH MACHINERY PLATFORM - AA



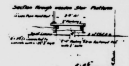
LONGITUDINAL SECTION THROUGH MACHINERY PLATFORM - BB



FRONT ELEVATION



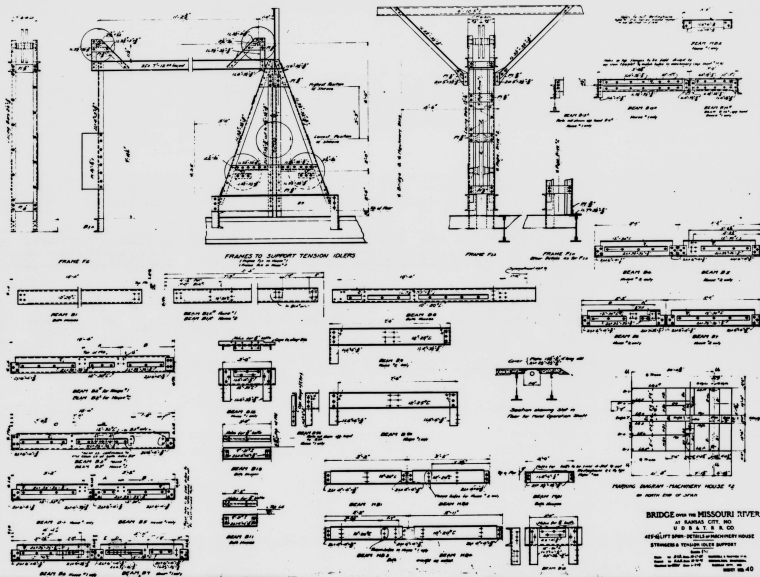
FRONT ELEVATION



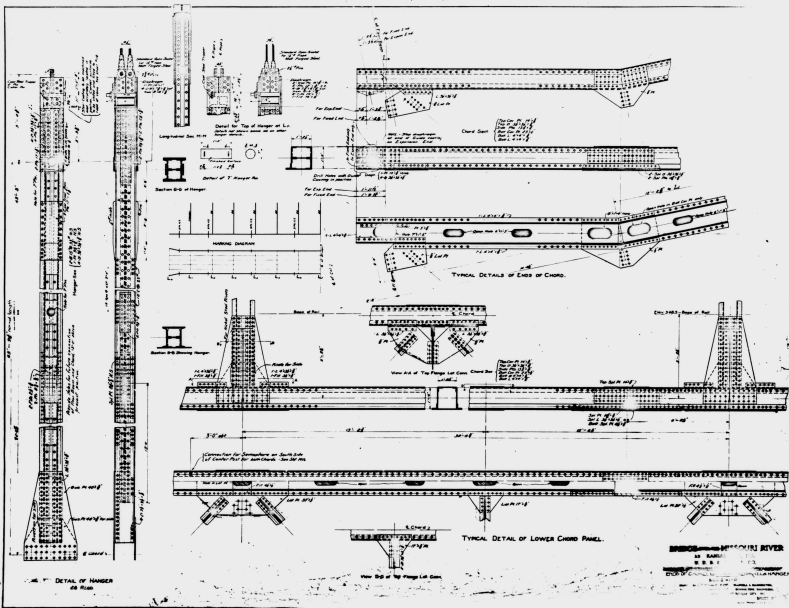
BRIDGE OVER THE MISSOURI
AT KANSAS CITY, MO.
DESIGNED BY
425 WEST 10TH - ILLINOIS MACHINERY HOUSE
CHICAGO, ILL.
1907

660

12-TO



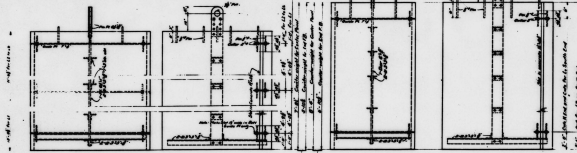
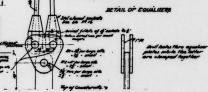
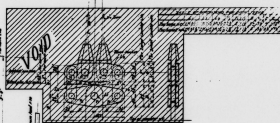
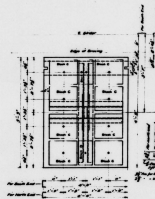
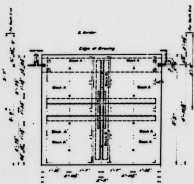
421



660

12 TO

422



Section for Counterweight Deck,
Span No. 10-11



Spanning Bridge - A
Spanning Bridge - B
Spanning Bridge - C
Spanning Bridge - D
Spanning Bridge - E
Spanning Bridge - F
Spanning Bridge - G
Spanning Bridge - H
Spanning Bridge - I
Spanning Bridge - J
Spanning Bridge - K
Spanning Bridge - L
Spanning Bridge - M
Spanning Bridge - N
Spanning Bridge - O
Spanning Bridge - P
Spanning Bridge - Q
Spanning Bridge - R
Spanning Bridge - S
Spanning Bridge - T
Spanning Bridge - U
Spanning Bridge - V
Spanning Bridge - W
Spanning Bridge - X
Spanning Bridge - Y
Spanning Bridge - Z

Spanning Bridge - C
Spanning Bridge - D
Spanning Bridge - E
Spanning Bridge - F
Spanning Bridge - G
Spanning Bridge - H
Spanning Bridge - I
Spanning Bridge - J
Spanning Bridge - K
Spanning Bridge - L
Spanning Bridge - M
Spanning Bridge - N
Spanning Bridge - O
Spanning Bridge - P
Spanning Bridge - Q
Spanning Bridge - R
Spanning Bridge - S
Spanning Bridge - T
Spanning Bridge - U
Spanning Bridge - V
Spanning Bridge - W
Spanning Bridge - X
Spanning Bridge - Y
Spanning Bridge - Z

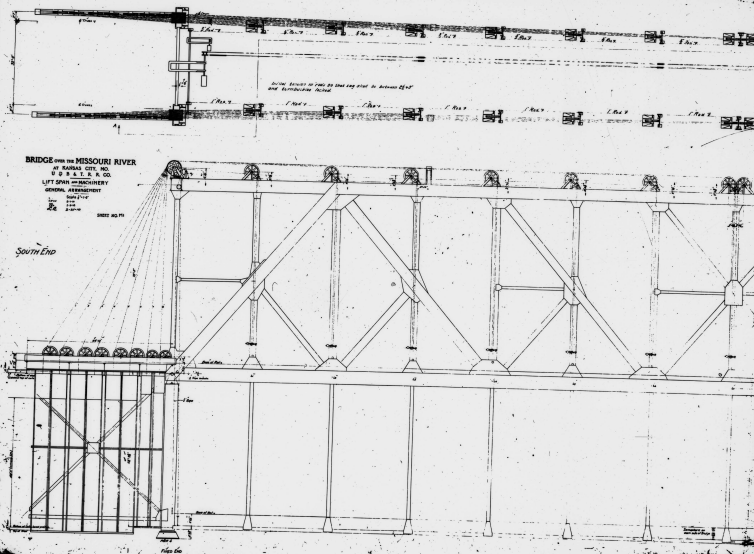
Notes: Required L&C 4-10-5
Minimum L&C 4-10-5
Spanning Bridge - A
Spanning Bridge - B
Spanning Bridge - C
Spanning Bridge - D
Spanning Bridge - E
Spanning Bridge - F
Spanning Bridge - G
Spanning Bridge - H
Spanning Bridge - I
Spanning Bridge - J
Spanning Bridge - K
Spanning Bridge - L
Spanning Bridge - M
Spanning Bridge - N
Spanning Bridge - O
Spanning Bridge - P
Spanning Bridge - Q
Spanning Bridge - R
Spanning Bridge - S
Spanning Bridge - T
Spanning Bridge - U
Spanning Bridge - V
Spanning Bridge - W
Spanning Bridge - X
Spanning Bridge - Y
Spanning Bridge - Z

Spanning Bridge - A	Spanning Bridge - B	Spanning Bridge - C	Spanning Bridge - D	Spanning Bridge - E	Spanning Bridge - F	Spanning Bridge - G	Spanning Bridge - H	Spanning Bridge - I	Spanning Bridge - J	Spanning Bridge - K	Spanning Bridge - L	Spanning Bridge - M	Spanning Bridge - N	Spanning Bridge - O	Spanning Bridge - P	Spanning Bridge - Q	Spanning Bridge - R	Spanning Bridge - S	Spanning Bridge - T	Spanning Bridge - U	Spanning Bridge - V	Spanning Bridge - W	Spanning Bridge - X	Spanning Bridge - Y	Spanning Bridge - Z

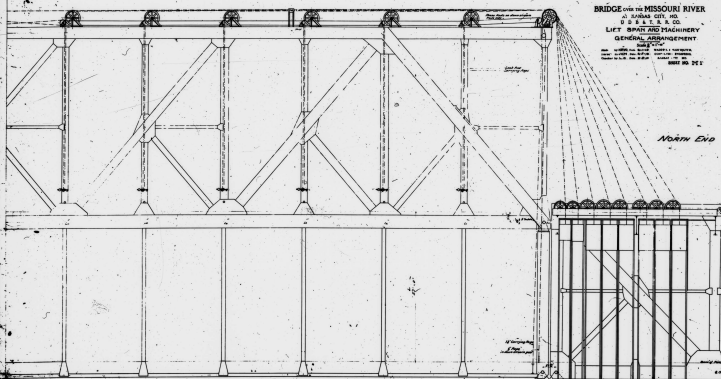
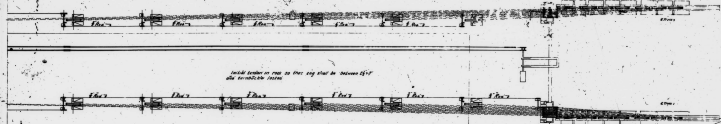
BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. A. T. S. A. CO.
418-11 LIFT SPAN
DETAILS OF CONNECTION BRIDGE

Spanning Bridge - A
Spanning Bridge - B
Spanning Bridge - C
Spanning Bridge - D
Spanning Bridge - E
Spanning Bridge - F
Spanning Bridge - G
Spanning Bridge - H
Spanning Bridge - I
Spanning Bridge - J
Spanning Bridge - K
Spanning Bridge - L
Spanning Bridge - M
Spanning Bridge - N
Spanning Bridge - O
Spanning Bridge - P
Spanning Bridge - Q
Spanning Bridge - R
Spanning Bridge - S
Spanning Bridge - T
Spanning Bridge - U
Spanning Bridge - V
Spanning Bridge - W
Spanning Bridge - X
Spanning Bridge - Y
Spanning Bridge - Z

HAER No. MO 2-55



HAER No. MO-2-56



BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
O. S. & A. CO.
LIFT SPAN AND MACHINERY
GENERAL ARRANGEMENT
SCALE
PLAN
SECTION
ELEVATION
DETAIL
SHOWN ON PAGE 10

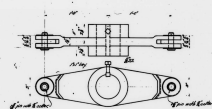
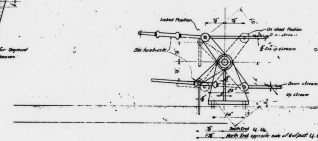
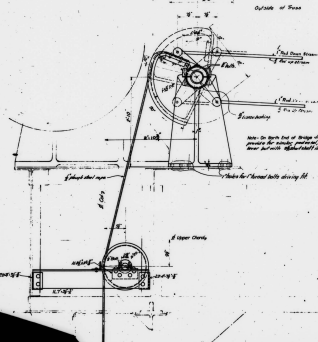
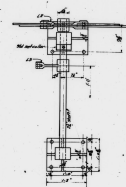
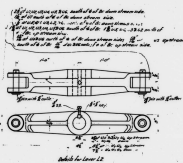
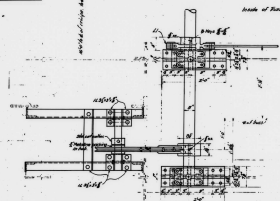
NORTH END

SECTION A-A, Looking Up Stream

BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
O. S. & A. CO.

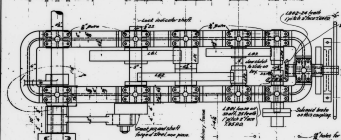
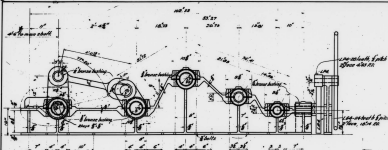
HAER No. MO-2-57

Section of Head

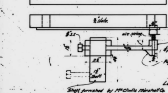
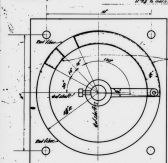


BRIDGE OF THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. R. I. & N. CO.
BRIDGE LOADING INFORMATION
DETAILS AT 1/4" SCALE
DATE OF DRAWING
BY
CHECKED BY
APPROVED BY
DATE

HAER No. MO-2-59

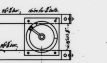


Note: All parts of engine
piston and connecting rod
are made of steel and
are heat treated to
increase strength.

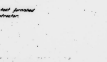


Left side view
Right side view
Top view
Bottom view

General Arrangement of Engine and
Cool Water Pumping System
Scale 1/2" = 1"

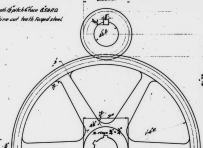


Arrangement of Pumping System
Scale 1/2" = 1"

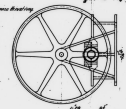


Left side view
Right side view
Top view
Bottom view

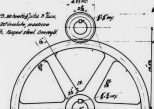
View 1/2" of shaft of pump
Scale 1/2" = 1"



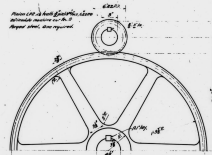
View 1/2" of shaft of pump
Scale 1/2" = 1"



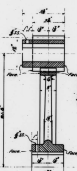
View 1/2" of shaft of pump
Scale 1/2" = 1"



View 1/2" of shaft of pump
Scale 1/2" = 1"



View 1/2" of shaft of pump
Scale 1/2" = 1"



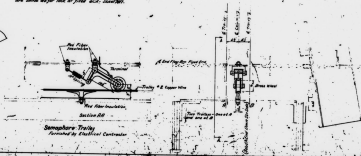
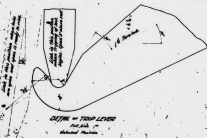
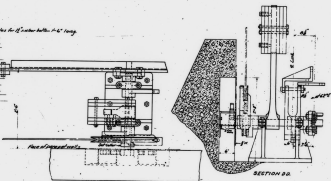
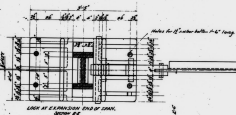
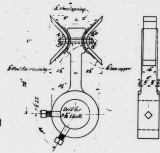
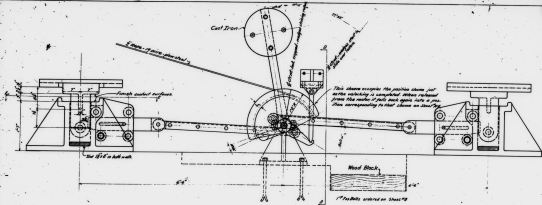
BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. R. R. & N. CO.

ENGINE LAYOUTS AND DETAILS
DETAILS OF PUMP, ENGINE AND LIFT MECHANISM

Scale 1/2" = 1"

Left side view
Right side view
Top view
Bottom view

HAER No. MO-2-62



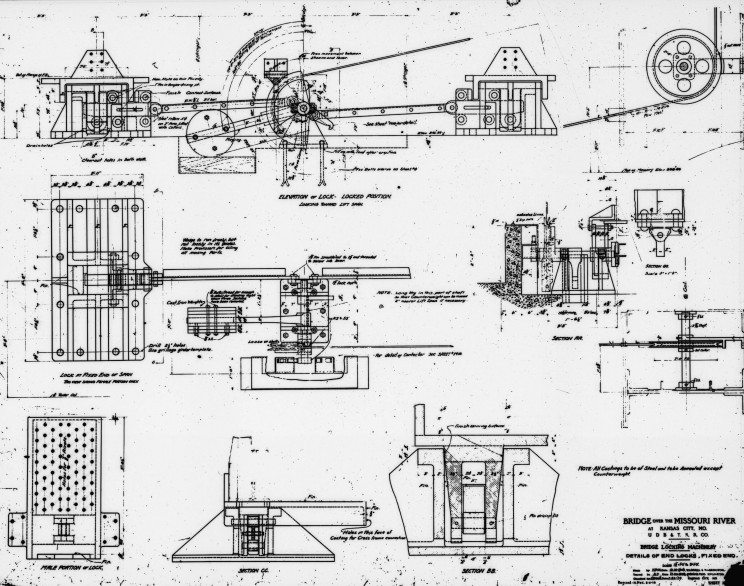
For details of brush contacts see Sheet A11111

Formed by Electrical Contractor
Shaft extension provided for by MCC/Clarke members

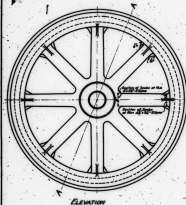
NOTE: All Castings to be of Steel and to be Annealed except

BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. N. & T. R. CO.
BRIDGE LOCKING MACHINERY
DETAILS OF EXPANSION AND LOCKS

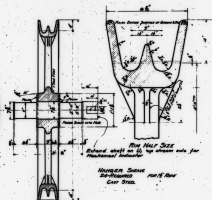
HAR. No. 2-63



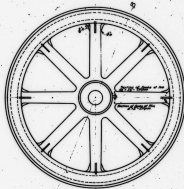
HAER No. MO-2-64



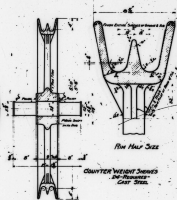
ELEVATION



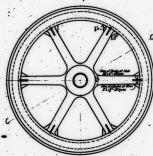
SECTION A-A



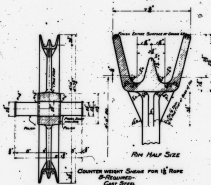
ELEVATION



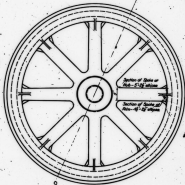
SECTION B-B



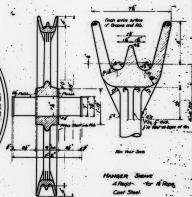
ELEVATION



SECTION C-C



ELEVATION



SECTION D-D

BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U.S.D.E. & R.R. CO.
BRIDGE ENGINEERING
DETAILS OF MEMBERS FOR 16' HALF SIZE
CARS

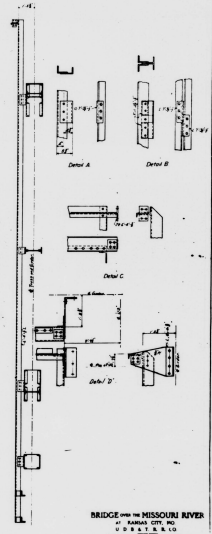
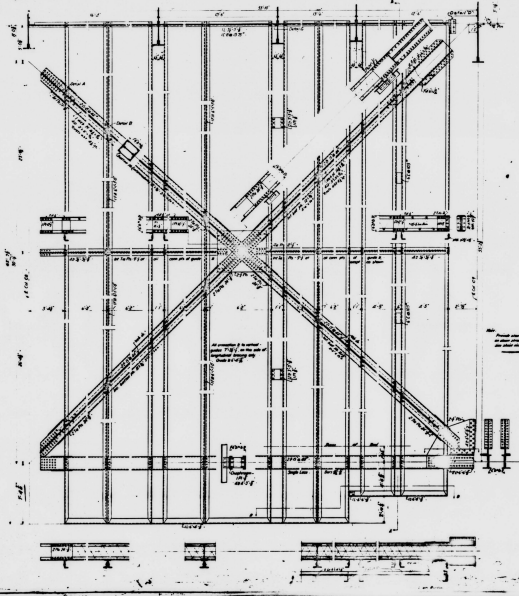
Scale: 1/4" = 1'-0"
Sheet No. 100-2-66
Drawing No. 100-2-66
Bridge No. 100-2-66

HAER No. 110-2-66

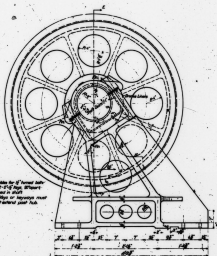
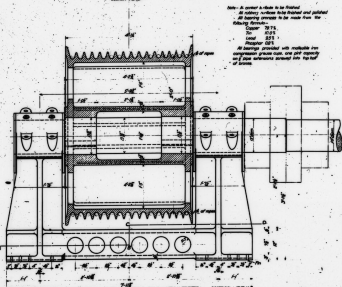
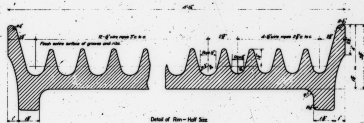
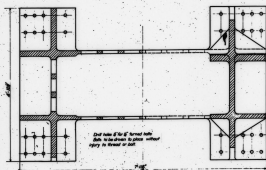
463

Sheet No. 1 of 2

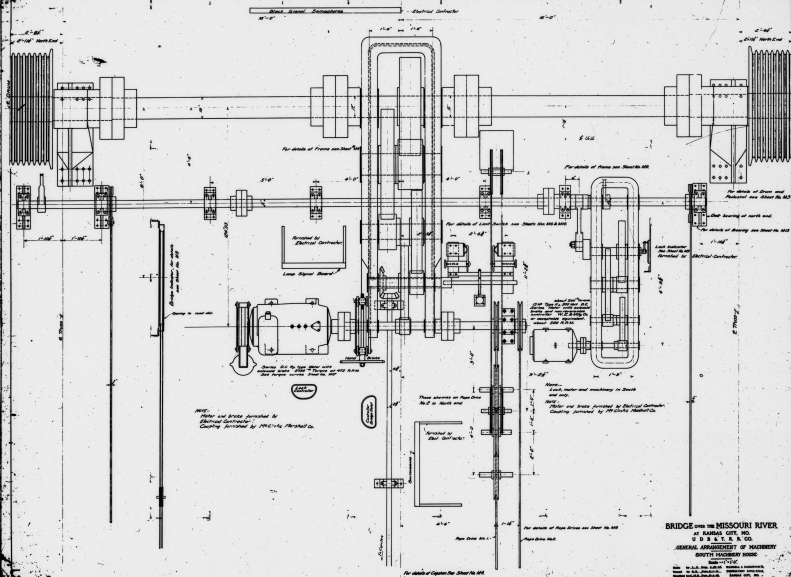
Sheet No. 2 of 2



BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. R. T. & N. O.
VIADUCT SECTION FROM 1-14
DETAILS OF LONGITUDINAL BRACING
AND CROSSING JOINTS
Scale: 1" = 10'-0"
Date: 10-10-1914
Drawn by: [Name]
Checked by: [Name]
Approved by: [Name]



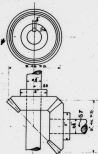
BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. & T. R. R. CO.
BRIDGE ENGINEERING DEPARTMENT
DETAILS OF MAIN GIRDS & FLOOR BEAMS
Scale 1/4" = 1'-0"



BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. & T. R. R. CO.
GENERAL ARRANGEMENT OF MACHINERY
SOUTH MACHINERY HOUSE

Date: 10-1-55, Time: 11:00 AM
 Name: J. J. Jones
 Address: 1234 Main St.
 City: New York, N.Y.
 State: N.Y.
 Zip: 10001

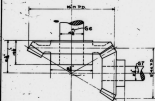
Speed - L.C. - 8-8-10



BEVEL GEAR BG3 10 TEETH 10" P.D. 1" FACE
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"

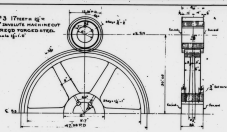


BEVEL GEAR BG1 10 TEETH 10" P.D. 1" FACE
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"

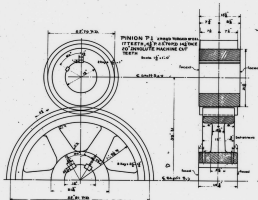


BEVEL GEAR BG2 10 TEETH 10" P.D. 1" FACE
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"

PINION P3 17 TEETH 10" P.D.
10" INVOLUTE MACHINE CUT
TEETH 2" BORE FORGED STEEL
Scale 1/4" = 1"



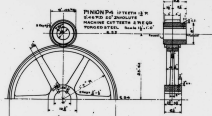
GEAR G3 10 TEETH 10" P.D. 1" FACE
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"



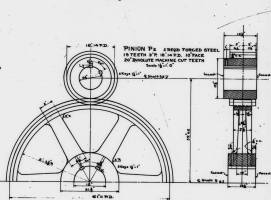
GEAR G1 10 TEETH 10" P.D.
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"



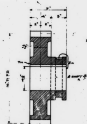
PINION P2 10 TEETH 10" P.D.
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"



GEAR G4 10 TEETH 10" P.D.
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"



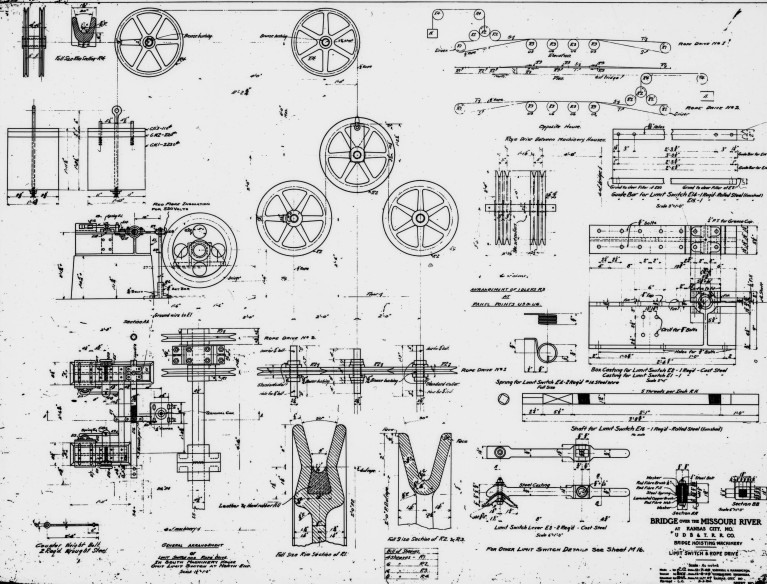
GEAR G5 10 TEETH 10" P.D.
10" INVOLUTE MACHINE CUT TEETH 1" BORE CAST STEEL
Scale 1/4" = 1"



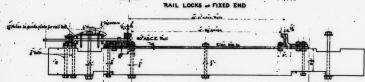
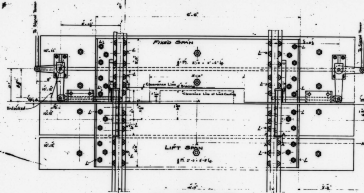
Note: All shafts bearings to be mounted
Pinion face to be mounted on both sides of gear
Rings to be cut in shaft

BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. R. & L. R. CO.
BRIDGE ENGINEERING DEPARTMENT
DESIGNED BY J. H. BROWN
Scale 1/4" = 1"

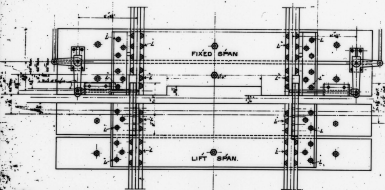
Scale 1/4" = 1"
Note: All shafts bearings to be mounted
Pinion face to be mounted on both sides of gear
Rings to be cut in shaft



HAER No. MO-2-72



SECTION A-A

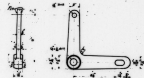


TRAIL LOCKS - EXPANSION END
Everything on lower side as at fixed end.
Scale 1/4" = 1'-0"

Notes: 1. All bolts and nuts should be of the best quality.
2. All bolts and nuts should be of the best quality.
3. All bolts and nuts should be of the best quality.



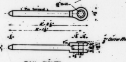
CRANE BRACKETS
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



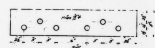
CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



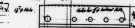
CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



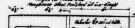
CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



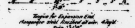
CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



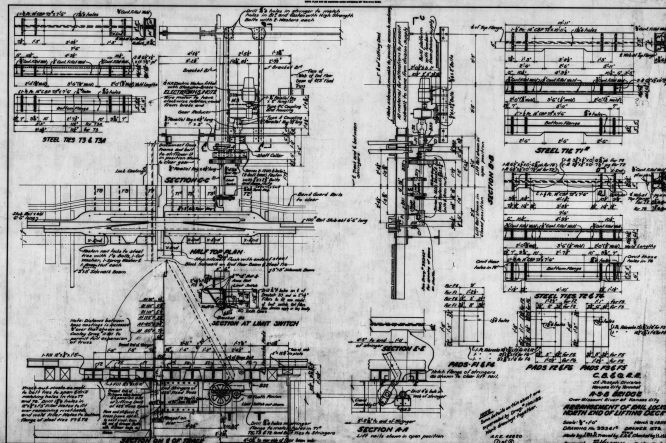
CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"



CRANE TO RAIL BOLT
MATERIAL, WEIGHT 1000 LBS.
Scale 1/2" = 1'-0"

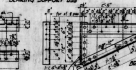
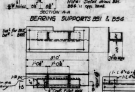
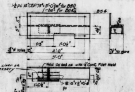
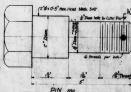
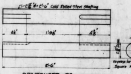
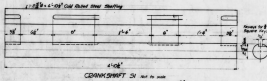
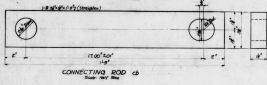
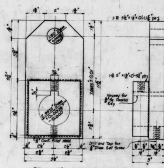
BRIDGE OVER THE MISSOURI RIVER
AT WARREN CITY, MO.
U.S. R.R. & N.O.
HEISS-LOCKER ENGINEERING
RAIL LOCKS

Notes: 1. All bolts and nuts should be of the best quality.
2. All bolts and nuts should be of the best quality.
3. All bolts and nuts should be of the best quality.



HAER No. MO-2-75

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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- BILL OF MATERIAL**
1. Crankshaft 50
 2. Connecting Rod 43
 3. Piston Pin 44
 4. Piston Pin 45
 5. Piston Pin 46
 6. Piston Pin 47
 7. Piston Pin 48
 8. Piston Pin 49
 9. Piston Pin 50
 10. Piston Pin 51
 11. Piston Pin 52
 12. Piston Pin 53
 13. Piston Pin 54
 14. Piston Pin 55
 15. Piston Pin 56
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 49. Piston Pin 90
 50. Piston Pin 91
 51. Piston Pin 92
 52. Piston Pin 93
 53. Piston Pin 94
 54. Piston Pin 95
 55. Piston Pin 96
 56. Piston Pin 97
 57. Piston Pin 98
 58. Piston Pin 99
 59. Piston Pin 100

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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NOTES

1. Crankshaft 50

2. Connecting Rod 43

3. Piston Pin 44

4. Piston Pin 45

5. Piston Pin 46

6. Piston Pin 47

7. Piston Pin 48

8. Piston Pin 49

9. Piston Pin 50

10. Piston Pin 51

11. Piston Pin 52

12. Piston Pin 53

13. Piston Pin 54

14. Piston Pin 55

15. Piston Pin 56

16. Piston Pin 57

17. Piston Pin 58

18. Piston Pin 59

19. Piston Pin 60

20. Piston Pin 61

21. Piston Pin 62

22. Piston Pin 63

23. Piston Pin 64

24. Piston Pin 65

25. Piston Pin 66

26. Piston Pin 67

27. Piston Pin 68

28. Piston Pin 69

29. Piston Pin 70

30. Piston Pin 71

31. Piston Pin 72

32. Piston Pin 73

33. Piston Pin 74

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39. Piston Pin 80

40. Piston Pin 81

41. Piston Pin 82

42. Piston Pin 83

43. Piston Pin 84

44. Piston Pin 85

45. Piston Pin 86

46. Piston Pin 87

47. Piston Pin 88

48. Piston Pin 89

49. Piston Pin 90

50. Piston Pin 91

51. Piston Pin 92

52. Piston Pin 93

53. Piston Pin 94

54. Piston Pin 95

55. Piston Pin 96

56. Piston Pin 97

57. Piston Pin 98

58. Piston Pin 99

59. Piston Pin 100

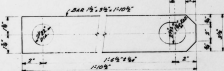
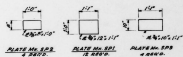
CRANK ASSEMBLY 50

CRANK ASSEMBLY 50

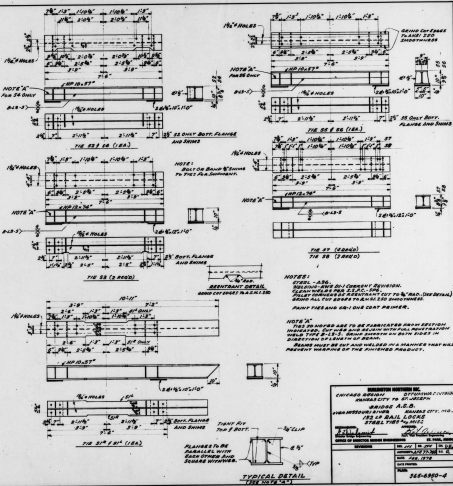
HAER No. MO-2-76

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CONNECTING ROD END VIEW
SEE FIG. 2

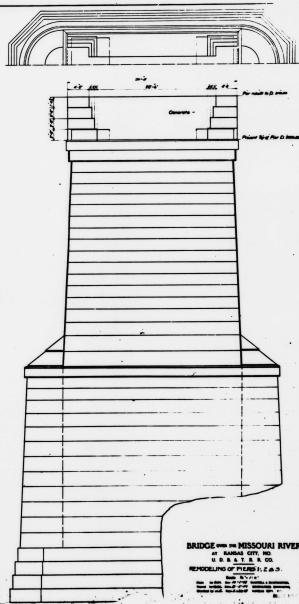
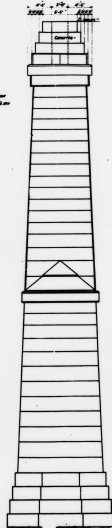
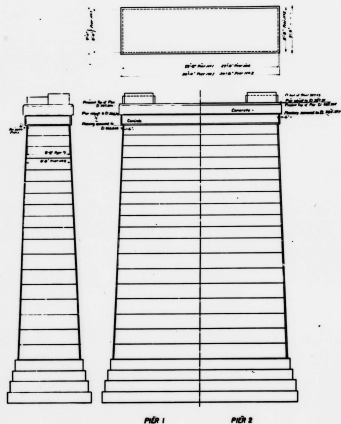


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383

660

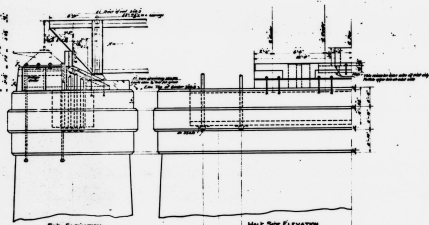
12-TO T



BRIDGE over the MISSOURI RIVER
at HAMILTON CITY, MO.
U. S. S. & T. E. CO.
REMODELING OF PIER 1, 2 & 3.

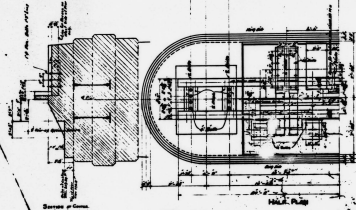
Scale: 1/4" = 1'-0"
Notes: 1. See also drawings of bridge piers and abutments.
2. See also drawings of bridge piers and abutments.
3. See also drawings of bridge piers and abutments.

385



END ELEVATION

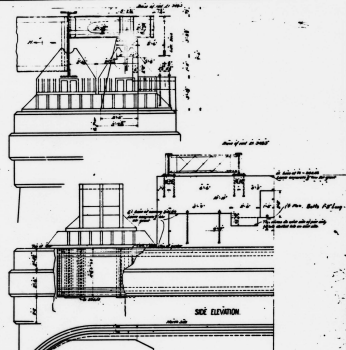
HALF SIDE ELEVATION



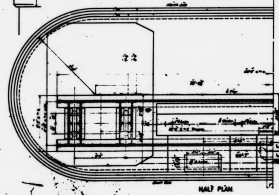
DETAIL OF CORNER

PIER NO. 4

HALF PLAN



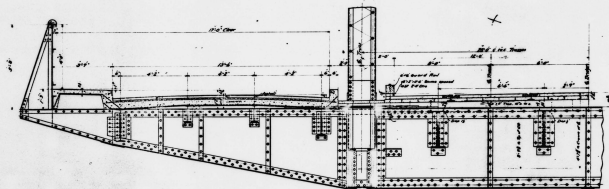
SIDE ELEVATION



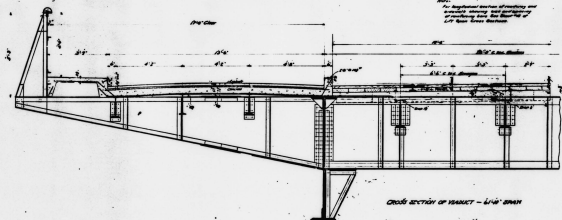
HALF PLAN

PIER NO. 5

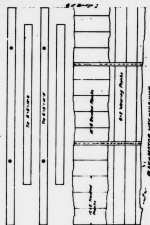
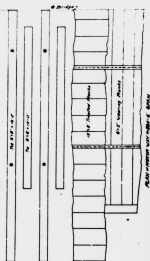
BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
KANSAS CITY, MO.
TYPE OF PIER 2-11.



CROSS SECTION - 204'-6" SPAN



CROSS SECTION OF SPAN - 114'-0" SPAN

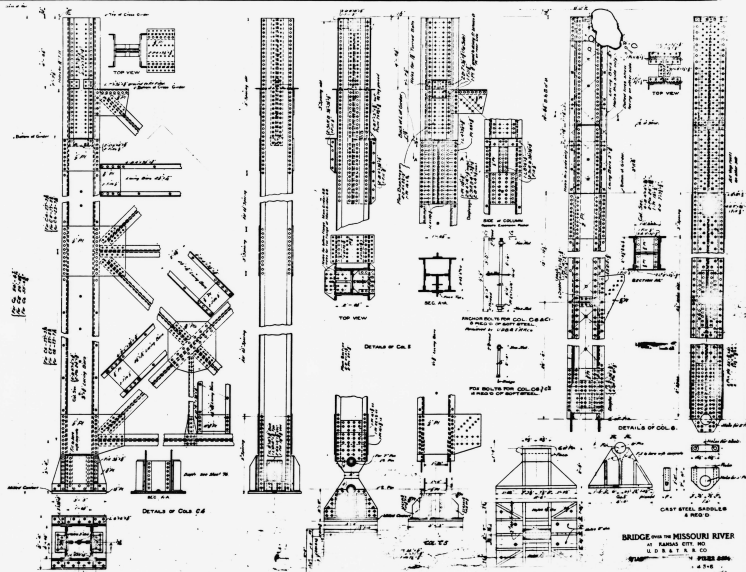


BRIDGE OVER THE MISSOURI RIVER
AT KANSAS CITY, MO.
U. S. R. I. S. S. B. CO.
DESIGNED BY
HARRIS & HARRIS
& BROS. ENGINEERS

467

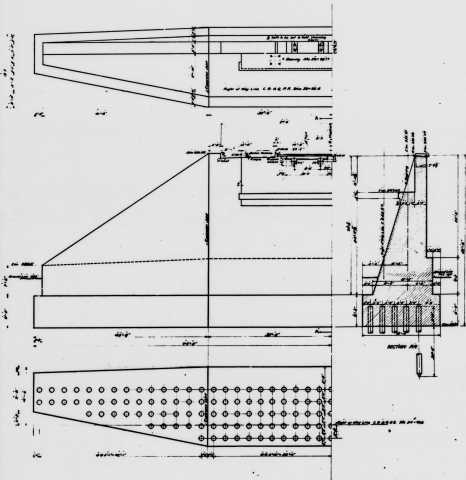
HAER 16, MO-2

461



12 TO 1

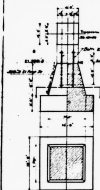
389



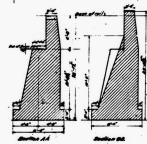
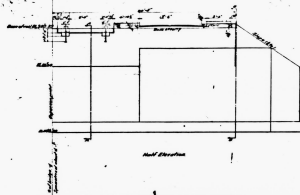
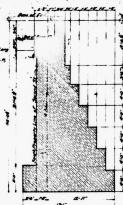
Notes:
 1. All dimensions are in feet and inches.
 2. All dimensions are to center of gravity.

BRIDGE OVER THE MISSOURI RIVER
 AT KANSAS CITY, MO.
 U. S. R. I. S. & CO.
 SUBSTRUCTURE
 DRAWING NO. 100-1001

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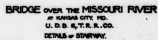


Details of Pedestal P1



DETAILS OF ABUTMENT

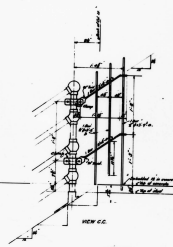
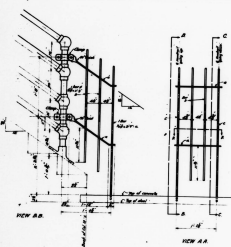
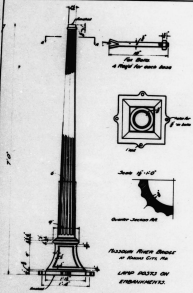
BRIDGE over the MISSOURI RIVER
at KANSAS CITY, MO.
DESIGNED BY
U.S. BUREAU OF REVENUE
DETAILS OF REVENUE, P. 1, 1900



Scale 1/4" = 1'-0"

North Arrow

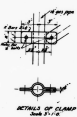
Sheet No. 37



MINIMUM REQUIREMENTS FOR THE LAMPING

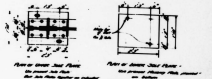
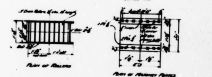
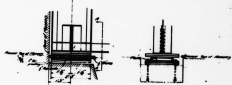
- 1. Lamp 4' x 4'
- 2. Lamp 4' x 4' x 4'
- 3. Lamp 4' x 4' x 4'
- 4. Lamp 4' x 4' x 4'
- 5. Lamp 4' x 4' x 4'
- 6. Lamp 4' x 4' x 4'

Required material for bridge lamping.



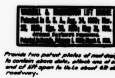
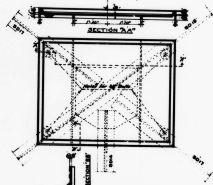
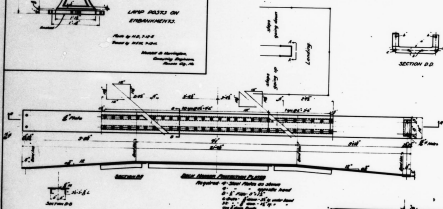
HAND RAIL FOR LANDINGS OF STAIRWAY NORTH APPROACH

Scale 1/8" = 1'-0"



JOINT APPROACH PRODUCT

Details of Hand Rail for Stairway



Provide two parallel plates of steel to be secured above deck, attach one of each end of 10' span to be in about 10' span roadway.

1910 MISSOURI RIVER BRIDGE

Built by

UNION DEPOT BRIDGE & TERMINAL S. R. CO.

F. W. PRATT, PRESIDENT

WADSWELL & HARRINGTON

Engineering Engineers

St. Louis, Mo.

Contracted for Superintendence and Design.

By CLINTON - HARRISON CONSTRUCTION CO.

Contracted by the

AMERICAN STEEL CO. ST. LOUIS, MO.

NAME PLATE

CONNECTION OF NAME PLATE TO SHAY FRAME AT No. 100' SPAN

Provide plate of each end of 10' span

BRIDGE OVER THE MISSOURI RIVER

AT SANGAM CITY, ILL.

U.S. S. R. CO.

MISSOURI RIVER BRIDGE