242

FISCAL YEAR		SHEET No	TOTAL SHEETS

2 Lb 3"x3"x5/16"
2 Lb 4"x3"x5/16"
2 Lb 4"x3"x5/16"
2 Lb 4"x3"x5/16"
2 Lb 3"x3"x5/16"
All Plates 5/16"
11'-6 1/2"
℄ of Structure
Top Laterals: 2 Lb 3"x3"x5/16"
Single Lacing 2 1/2"x5/16"
End Tie Pl. 8"x5/16"x1'-0"
5/16" Pl.
5/16" Pl.
The open side of Top Chord and End Post to have End Stay Pls. 18"x3/8"x1'-3"
Double Lacing 2 1/2"x3/8", about 45° to the axis of the members.
3/8" Pl.
3/8" Pl.
12"
2'-1"
3/8" Pl.
21'-0"
3'-6"
14'-0"
3'-6"
3/16"
14'-0"
6"
6"
Clearance Diagram
L 6"x3 1/2"x3/8"
L 3 1/2"x3 1/2"x3/8"
7/8" Bolt with square nuts.
1 1/8" Hole for Bolt Support
3/8" Pl.
Detail Showing Lateral Support
3/8" Pl.
1/2"
3/8" Pl.
Stay Pls. 12"x5/16" spaced about 3'-0"
3/8" Pl.
7 ⌴ 9.6
7 ⌴ 9.8
L 3 1/2"x3 1/2"x3/8"
5/16" Pl.
14'-1"
Crown of Roadway
Crown of Roadway
15/16" Pl.
3/8" Pl.
1/2" Fill
2 Pls. 18"x3/8"
4 Pls. 9"x3/8"
Total for one Splice
2 Pls. 18"x3/8"
4 Pls. 9"x3/8"
Total for one Splice
Hole for 4"Φ Pin
9 1/2" Minimum Clearance
4'-10"
2'-8 1/2"
1'-5"
End Panel Laterals: L 5"x3 1/2"x5/8" Long leg vertical.
Int. Panels: L 4"x3"x5/8"
Bottom Chord Stay Pls 18"x3/8"x1'-3"
3/8" Pl.
3/8" Pl.
3/8" Pl.
3/8" Pl.
9 CB 48
9 1/2"
27 CB 112
6"
1'
1'-5"
1:1
1:1
1'-5"
2'-2"
Bore for 4"Φ Pin
1C"
2 1/2"
1'-6"
11 1/2"
1/2"
1/2"
2 1/2"
1'-5"
2'-2"
Cast Steel Shoe, Fixed End.
1 3/4"Φ Holes for 1 1/2"Φ Anchor Bolts.
Cast Steel Rocker, Expansion End.
1 3/4"Φ Holes in Bottom Casting. Slotted Holes as shown in Top Casting.
11/16"x1 3/4" Slotted Hole for 3/4"Φ Top 2" Bolts spaced about 2'-0"
Pl 13"x3/8"
Pl 4"x3/8"
3/4"Φ Bolt.
L 5"x3 1/2"x3/8"
9 1/2"
EXPANSION DEVICE
Steel Span to Concrete Approach.
Pl 3 1/2"x1/4"
Weld
Strap 2"x1/4"
Abt 9"
1'-2 1/2"
EXPANSION DEVICE
Between Two Steel Spans.
Unit Stresses
Concrete = 750# per sq.in.
Reinforcing Steel = 16,000# " " "
Structural Steel = 16,000# " " "
Live Load = H15 Loading
6000
14'-0"
Total Axle Loads
24,000
6'-0"
Std. Hex. Nut
7/8" Washer
7/8" Hole
2 1/4"
1 1/2" Anchor Bolt
23'-0 1/2"
Fix.
Exp.
1/8"
1/8"
1/8"
1/8"
140'-0"
Anchor Bolt Plan
ESTIMATED QUANTITIES
Concrete, Class "S" 75.2 Cu. Yds.
Reinforcing Steel 11,700 Lbs.
Structural Steel 156,000 "
2-12 ⌴ 25 Cov Pl 18"x3/8" U1
2-12 ⌴ 25 Cov Pl 18"x3/8" U2
2-12 ⌴ 25 Cov Pl 18"x3/8" U3
2-12 ⌴ 25 Cov Pl 18"x3/8" U4
D=-158.5 L=-63.8 I=-12.6 T=-240.9 U5
D=-149.0 L=-65.5 I=-11.9 T=-226.3 U6
D=-132.5 L=-67.0 I=-12.9 T=-213.0 U7
10CB28
20CB47
2-12 ⌴ 20.7
2-12 ⌴ 20
2-12 ⌴ 30
D=+158.5 L=+65.8 I=+12.6 T=+240.9
D=+149.0 L=+63.3 I=+11.9 T=+218.1
D=+108.0 L=+47.5 I=+8.5 T=+164.0
1 of 20'-0"=140'-0"
Structural Make-up
Design Stresses
Max. Reaction
D=126.0
L=65.4
I=12.4
T=203.8
2 Lb 4"x3"x5/16", long leg out.
L 3"x3"x5/16"
L 3"x3"x5/16"
2 Lb 4"x3"x5/16", long leg out.
5/16" Pl.
5/16" Pl.
1 1/2" Pl.
Transverse Reinforcing Steel.
5/8"Φ bars S1, spaced 12" top of Slab, ends hooked
5/8"Φ bars S2, " 12" bot " " , bent into curb.
5/8"Φ bars S3, " 12" bent over stringers.
Longitudinal Reinforcing Steel:
1/2"Φ bars spaced as shown.
10'-0"
6"
3/4" Chamfer
3"Φ Gas Pipe Drain, Center of each Panel.
1'-7"
1'-4 1/2"
1'-4 1/2"
14'-1"
2'-3 1/8"
Diaphragm
2 Lb 3 1/2"x3 1/2"x7/16"
2 Lb 3 1/2"x3 1/2"x7/16"
10 1/2"
5'-9"
2'-10 1/2"
73'-0 1/2" c to c of Trusses
All Floor Beams 27 CB 112
Outside Stringer 18 CB 47
Inside Stringer 18 CB 52
Notes
Rivets 3/4". Open holes 13/16".
All holes in truss connections to be sub-punched 3/16" and reamed to size while the truss is assembled; this applies to field as well as shop rivets.
Floor beam connections to be sub-punched 7/8" and reamed to size thru a metal template.
All field connections shall be riveted.
Shop paint: After being completely assembled and all shop work finished, all pieces shall be given one coat of red lead and raw linseed oil before shipment.
Field paint: Apply two coats of different colors as specified by the engineer.
Floor Slab: Concrete to be Class "S". One inch has been added for wear.
Intermediate floor beams shall be milled to exact length after framing angles have been riveted.
Shapes of equal or greater strength may be substituted for the shapes shown, but payment will be made in accordance with sizes given on this plan.
This drawing shows general features of design only.
Shop drawings shall be made in compliance with specifications, submitted and approved before fabrication is started.
Specifications: Ark. Standard Road & Bridge Specifications, adopted May 30, 1925 & Revised.
All dimensions shown are center to center of bars.
45°
5"
20'-10 1/2"
7/8"Φ x 22'-1 1/2", S1
45°
6"
5"
2'-11 1/8"
4"
2'-10 1/2"
4"
2'-2"
4"
2'-11 5/8"
7/8"Φ x 23'-5", S2
1'-3 3/4"
1'-1"
10 1/2"
19'-1 1/2"
10 1/2"
20'-10 1/2"
7/8"Φ x 23'-4", S3
STANDARD PLAN
140' THROUGH TRUSS SPAN
20' CLEAR ROADWAY
~~ROUTE~~ ~~SEC.~~
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
Drawn By: A. Date: 4-7-30
Traced By: BM. Date: 4-11-30
Checked By: Date:
Scale: in. = ft.
BRIDGE NO. [redacted]
DRAWING NO. 2431
M. B. Grant
BRIDGE ENGINEER
5008
5209