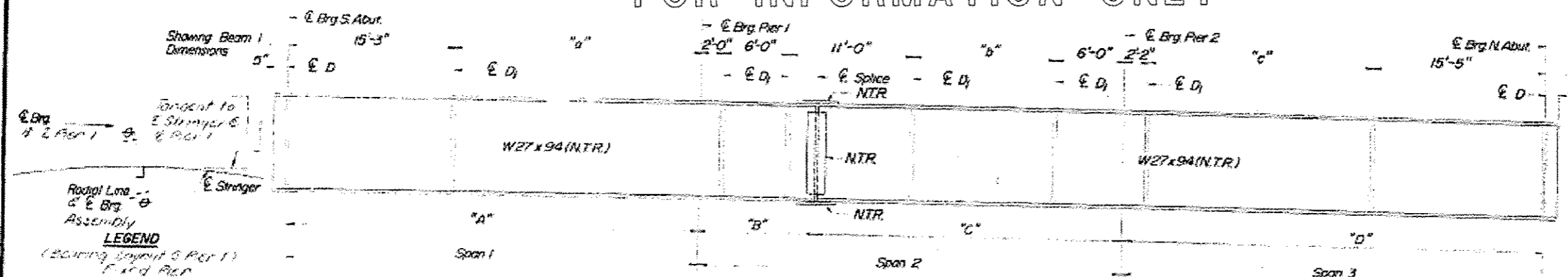


FOR INFORMATION ONLY

FA 742	OGLE	10	23
SHEET 9 16 SHEETS			



For Dimensions "a", "b", "c" and Beams 2 thru 8 Dimensions, See Sheet No. 8 of 16 Sheets.

Cost of Timber Block Posts are incidental to Structural Steel.

LEGEND
(BEARING BEYOND 5 PER 1)
FIELD PER

Notes: For bearing layout @ S. Abut, Pier 1 & N. Abut, See Sheet No. 10 of 16 Sheets

VALUE OF ϕ
(BEARING PLACEMENT)

LOC.	BK.	#1	#2	#3	#4	#5	#6	#7	#8
E. Brg. N. Abut.	1	30°04'42"	30°15'02"	30°25'20"	30°35'36"	30°45'17"	30°55'28"	31°07'06"	31°18'06"
E. Brg. S. Abut.	2	27°51'18"	28°00'30"	28°09'48"	28°19'12"	28°28'45"	28°38'21"	28°48'06"	28°57'58"
PIER 1	3	26°40'47"	26°50'18"	26°59'25"	27°09'40"	27°19'31"	27°29'29"	27°39'35"	27°49'47"
PIER 2	4	29°19'12"	29°28'45"	29°40'08"	29°49'37"	30°00'00"	30°09'24"	30°19'43"	30°30'56"

DIMENSION I

LOC.	BK.	BTWN 1 & 2	BMS 2 & 3	BTWN 3 & 4	BMS 4 & 5	BTWN 5 & 6	BMS 6 & 7	BTWN 7 & 8
E. Brg. N. Abut.	1	8'-7 1/2"	8'-7 1/2"	8'-7 1/2"	8'-8"	8'-8 1/2"	8'-8 1/2"	8'-8 1/2"
E. Brg. S. Abut.	2	8'-2 1/2"	8'-3 1/2"	8'-3 1/2"	8'-3 1/2"	8'-3 1/2"	8'-3 1/2"	8'-3 1/2"

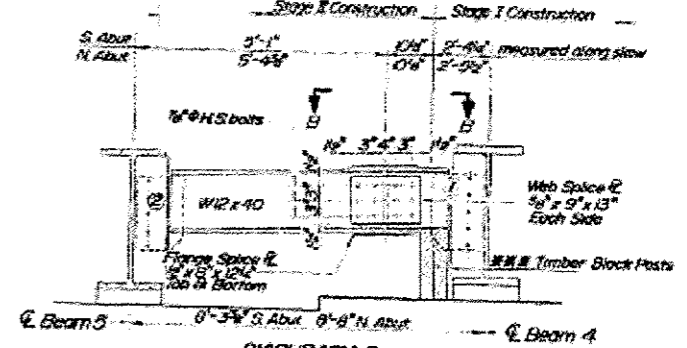
VALUE OF B

LOC.	BK.	BTWN 1 & 2	BTWN 2 & 3	BTWN 3 & 4	BTWN 4 & 5	BTWN 5 & 6	BTWN 6 & 7	BTWN 7 & 8
E. Brg. N. Abut.	1	3'-40'56"	3'-41'27"	3'-42'09"	3'-42'38"	3'-43'08"	3'-43'57"	3'-44'29"
E. Brg. S. Abut.	2	3'-23'04"	3'-23'30"	3'-24'12"	3'-24'56"	3'-25'40"	3'-26'24"	3'-27'08"

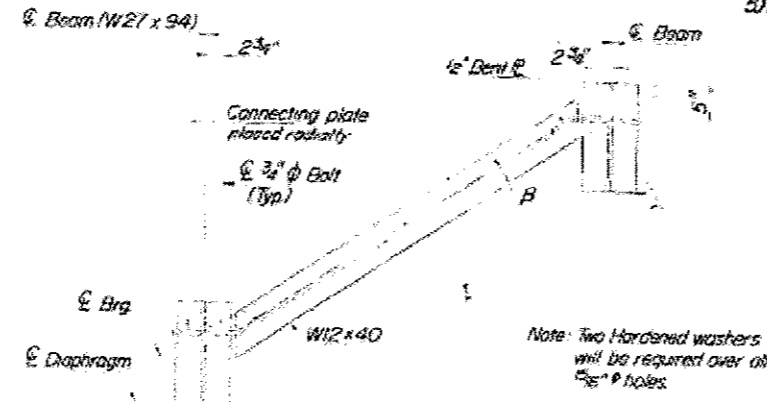
BEAM ELEVATION
For A, B, C & D and Span Dimensions
See Sheet No. 8 of 16 Sheets
Members designated N.T.R. shall conform to the Supplemental Requirements for Fibre Toughness (Zone 2)

DIAPHRAGM D₂ CONSTRUCTION SEQUENCE

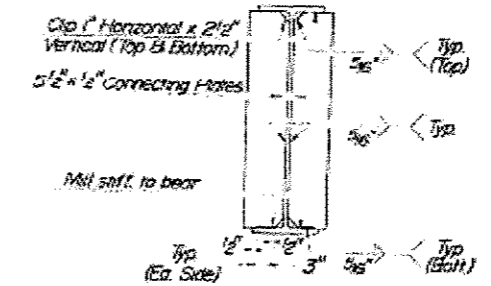
- 1) Order Diaphragm D₂ in two sections with lengths of 4'-6" @ 2'-7" S. Abut. and 5'-1" @ 2'-8" N. Abut.
- 2) Attach section (1) of Diaphragm to Beam #4 and top flange splice @ during Stage I Construction.
- 3) Place Timber Block Posts between section (1) of diaphragm and abutment bearing seat.
- 4) Attach section (2) of diaphragm to both Beam #5 and section (1) of diaphragm during Stage II Construction with splice plates.
- 5) Remove Timber Block Posts.



DIAPHRAGM D₂
2 Required (Facing South)
For details of connections to beams see Diaphragm D



SECTION A-A

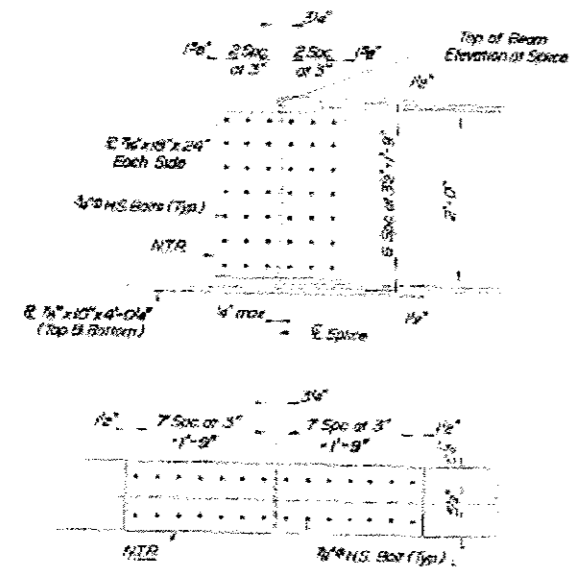


SECTION AT ABUTMENT

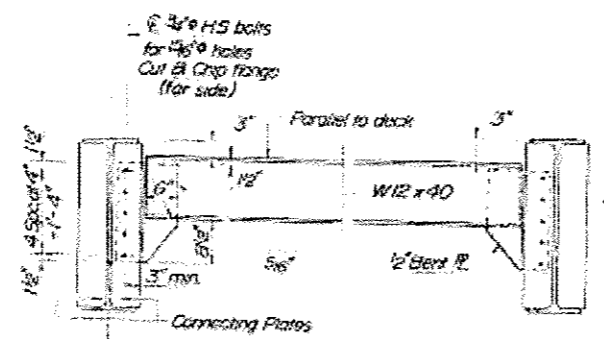
Note: Connecting Plate at Beams 1 & 8 on Inside Face of Web only.

Notes: Work this sheet with Sheet No. 11 & 12 of 16
All connecting holes for Diaphragms shall be 5/8". Two hardened washers shall be required over all oversize holes.

All stringers, flange splice plates, web splice plates - M-223, Grade 50. All Diaphragms and Connection Plates - M-103.
All connecting holes for Diaphragms shall be 5/8". Two hardened washers shall be required over all oversize holes. See Sheet No. 8 of 16 Sheets.

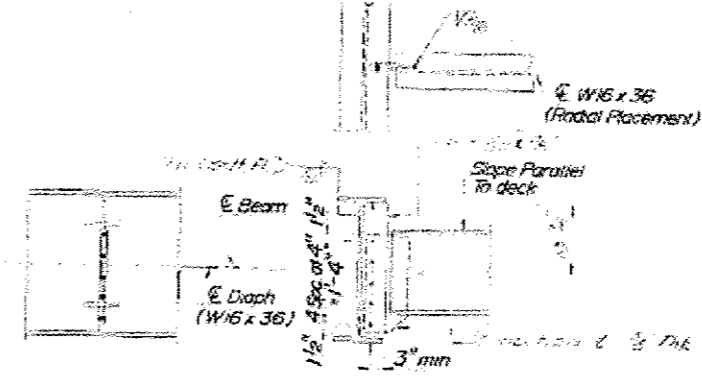


TYPICAL SPLICE DETAIL

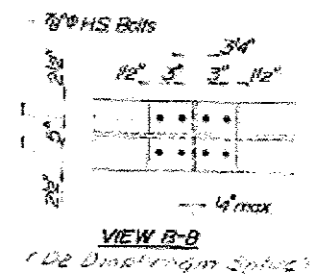


DIAPHRAGM D
(14 Required)

Note: Omit connecting plate at exterior side of exterior beam.



DIAPHRAGM D₂
(42 Required)



STRUCTURAL STEEL
L. ROUTE 2 OVER MUD CREEK
FA ROUTE 742
SECTION 37BR-3
S.N. 071-0025
OGLE COUNTY

ALLEN HENDERSON & ASSOCIATES

CONSULTING CIVIL AND STRUCTURAL ENGINEERS
SPRINGFIELD, ILL. PHONE: (217) 544-8033

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
IL 2 D2 BRIDGE PAINTING 2014-	LEE / OGLE	25	24	
				CONTRACT NO. 64J52
ILLINOIS				