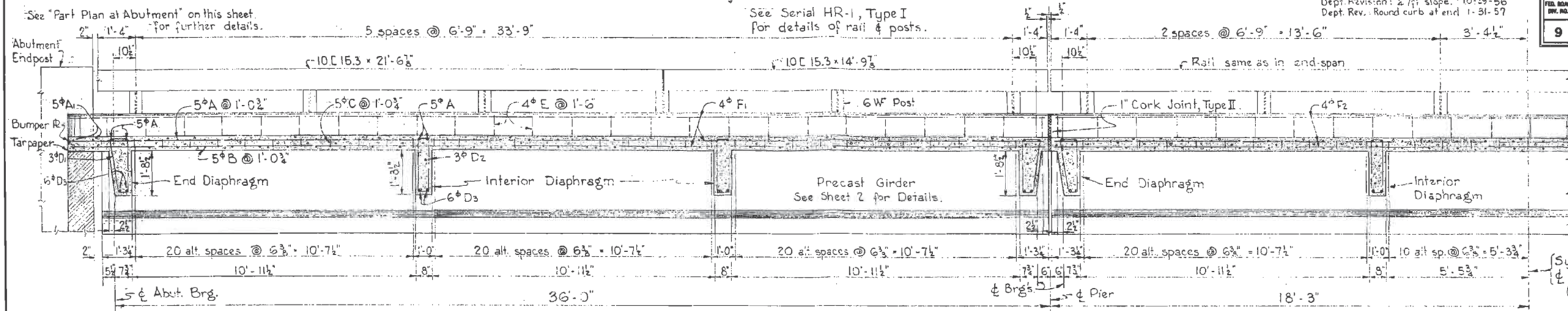


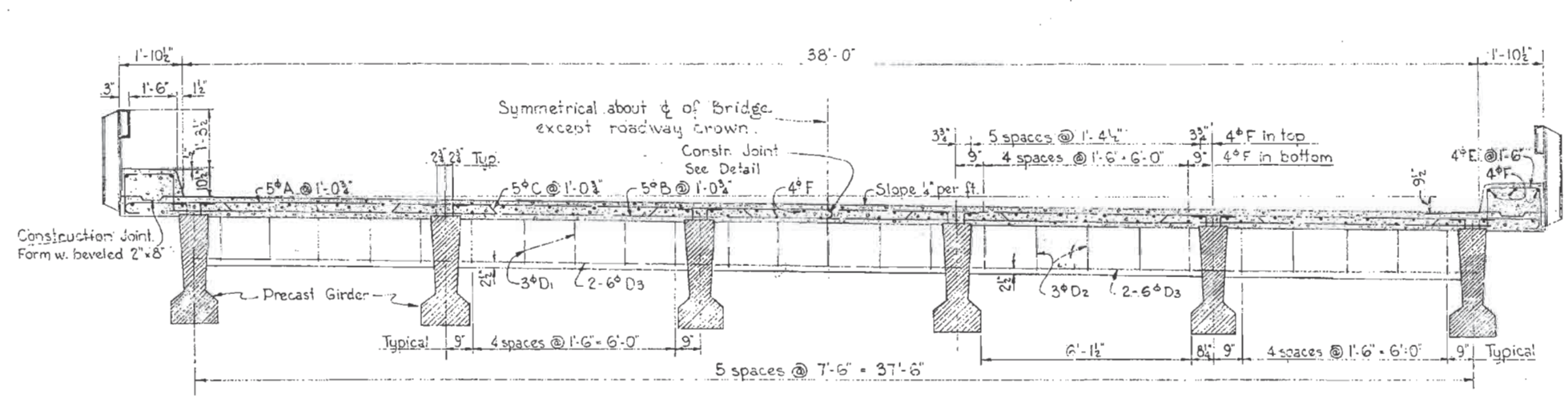
FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	NEW MEXICO		4	11



NOTE:-  
 4°E-bars may be placed immediately after slab finishing operations and before concrete has attained initial set.

Symmetrical about  $\phi$  of Bridge (except handrail)

HALF LONGITUDINAL SECTION



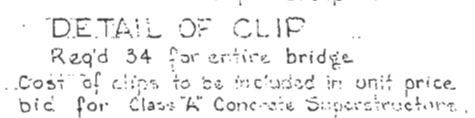
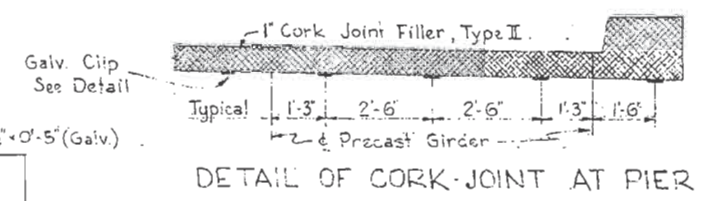
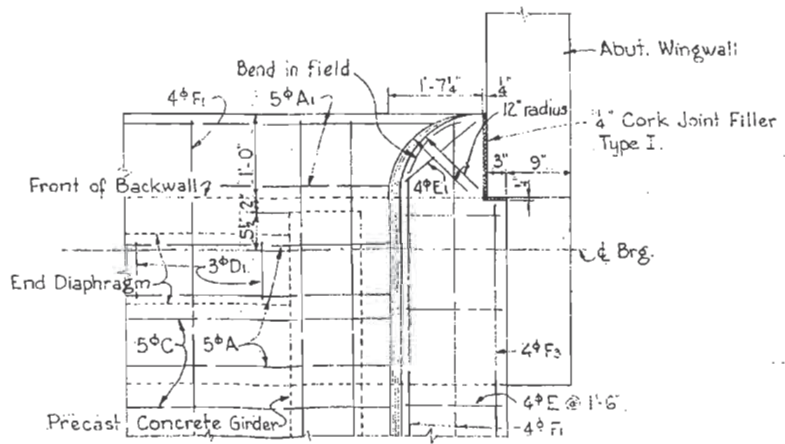
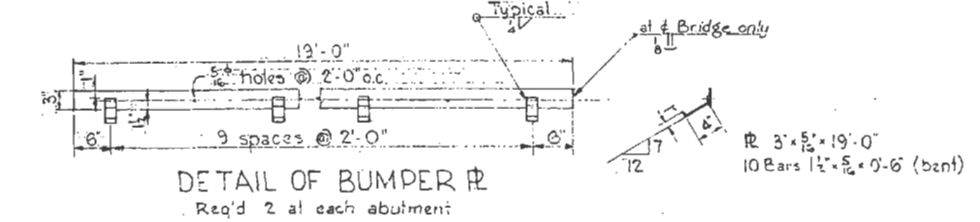
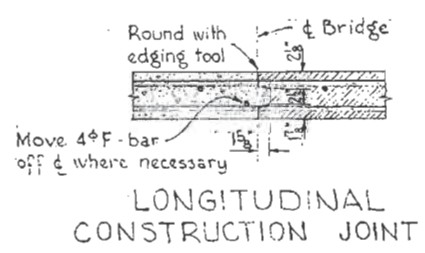
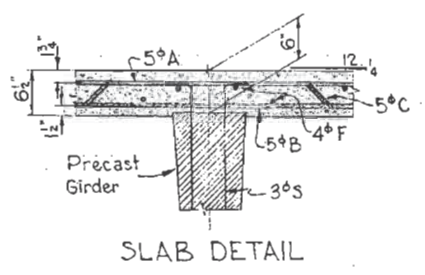
HALF SECTION SHOWING END DIAPHRAGMS

HALF SECTION SHOWING INTERIOR DIAPHRAGMS

4"	1 1/2" Radius	5°	
A	41'-0"	42'-5 1/2" lg, Req'd 114	D <sub>1</sub> 4 1/2" 5'-3 1/2" lg, Req'd 150
B	38'-6"	Req'd 94	
A <sub>1</sub>	41'-0"	4	
			4°
			E <sub>1</sub> 1'-3" 3'-6 1/2" lg, Req'd 4
			E 1'-6" 3'-9" lg, Req'd 150
6°D <sub>3</sub>	38'-0"	Req'd 24	
4°F <sub>1</sub>	37'-6"	122	
4°F <sub>2</sub>	36'-3"	65	
4°F <sub>3</sub>	36'-3"	8	
			D <sub>1</sub> 4 1/2" 5'-6 1/2" lg, Req'd 150
5°			
2'-0 3/4"	4'-9" 3/4"	2'-5" 3/4"	4'-6 1/2" 3/4"
		2'-5" 3/4"	2'-3 1/2"
C	20'-3 3/4"		
			41'-9" lg, Req'd 92

REINFORCING STEEL FOR ENTIRE BRIDGE (one bridge with 38' Roadway)

NOTE:-  
 After placing D<sub>3</sub> bars pack 1/4" holes in girders with "embo" mortar.



NOTE:- See Sheet 2 for General Notes, Design Data and Estimated Quantities.

APPROVED: \_\_\_\_\_  
 BRIDGE ENGINEER

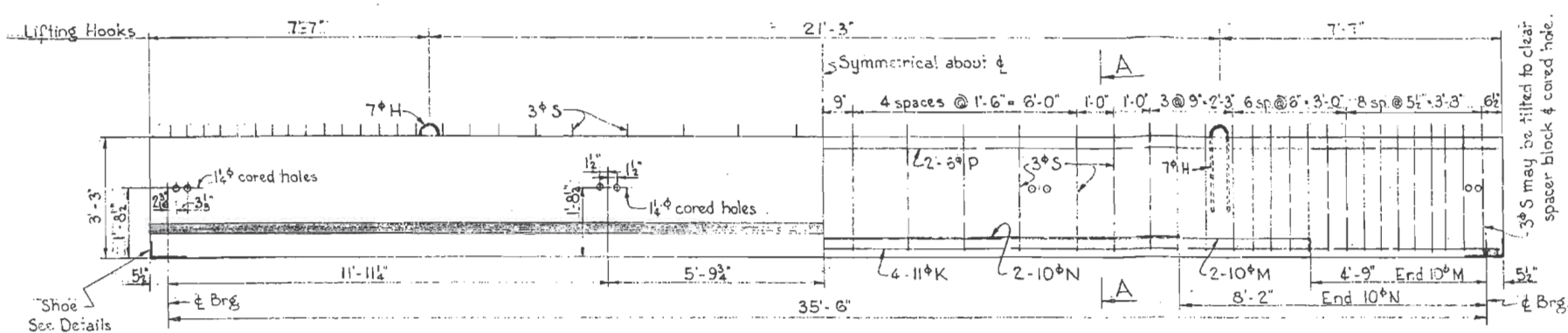
NEW MEXICO  
 STATE HIGHWAY DEPARTMENT  
 SUPERSTRUCTURE DETAILS  
 GRADE SEPARATION  
 FOR  
 INTERSTATE HIGHWAY SYSTEM  
 THREE 35'-6" SIMPLE SPANS  
 PRECAST CONCRETE GIRDERS  
 38' ROADWAY

Sheet 1 of 2  
 50-03-A

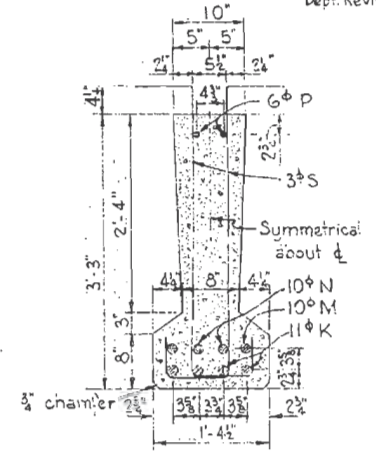
Designed by: H.T. 8-56  
 Checked by: E.S.C. 9-56  
 Detailed by: J.T. 8-56  
 Checked by: E.S.C. 9-56

Dept. Revision: Cl. A Conc. Br. Super. decrease of Note 9, Note 'A' & Note to set brgs level transv. added 1-31-57. Keeper R changed, 2-15-57.

FED. ROAD DIST. NO.	STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	NEW MEXICO			



ELEVATION OF PRECAST CONCRETE GIRDER  
GIRDERS TO BE CAST WITH A 1/4 PARABOLIC CAMBER AT THE  $\epsilon$



SECTION A-A

Computed Weight of One Girder = 8.0 tons  
Computed Volume of One Girder = 106.4 cu.ft.

GIRDER NOTES

1. Cored holes may be made with removable cardboard inserts, or may be of metal tubing left in place.
2. Girders to be lifted with hooks 'H', or with slings placed between hooks and end of girder. Girders to be cast, stored and hauled in upright position.
3. Precast concrete shall attain a minimum compressive strength of 2000  $\psi$  before girders are lifted.

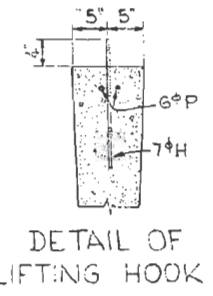
DESIGN DATA

For Precast Concrete Girders:-  
Design stresses:  $f_c = 1,600 \psi$ ;  $f_s = 20,000 \psi$ ;  $n = 8$ .

For Cast-in-place concrete:-  
Design stresses:  $f_c = 1,000 \psi$ ;  $f_s = 20,000 \psi$ ;  $n = 12$ .  
Wearing Surface: 4" monolithic; 15% allowance for future.  
Live Load: H20-S16-44 and Special Loading.  
Design according to AASHTO Specifications, 1953.

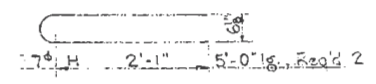
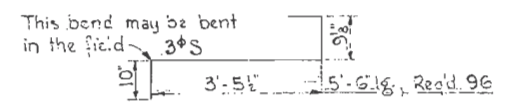
GENERAL NOTES

1. Workmanship and Materials shall conform to N.M.S.H. Department Specifications.
2. Cast-in-place concrete to be Class 'A'. Design is based on a minimum compressive strength of 2500  $\psi$  at 28 days. Chamfer all exposed edges 3/4" unless noted otherwise. Top of concrete floor to be finished as required in the specifications for Concrete Bridges.
3. Precast concrete girders to be Class 'D'. Design is based on a minimum compressive strength of 4000  $\psi$  at 28 days. No chamfer, except as shown on Section A-A.
4. Reinforcing steel to be deformed bars, intermediate grade, conforming to A.S.T.M. Spec's A-15 and A-305. All dimensions refer to  $\epsilon$  of bar.
5. Structural steel to be carbon steel conforming to A.S.T.M. Spec's A7. Shop plans must be approved by the Engineer before fabrication is begun.
6. After fabrication sole plates and masonry plates shall be straightened or finished top and bottom, thickness shown to be finished thickness.
7. Paint all structural steel members one field coat of red lead and linseed oil and two field coats of aluminum paint. Omit paint on contact surfaces and on surfaces to be embedded in the concrete. These surfaces shall be thoroughly cleaned. No shop paint required.
8. "Embeco" mortar shall be mixed in the following amounts per cubic yard: 12.6 sacks Portland Cement, Type II; 12.65 "embeco"; 1330 # sand; 70 gal water. Quantity of "embeco" mortar is included with Class 'D' concrete.
9. No increase in the computed pay weight of Structural Steel will be allowed for paint.



DETAIL OF LIFTING HOOK

10" N	19'-3"	Reqd 2
10" M	26'-0"	2
11" K	36'-3"	4
6" P	36'-3"	2



REINFORCING STEEL FOR ONE GIRDER

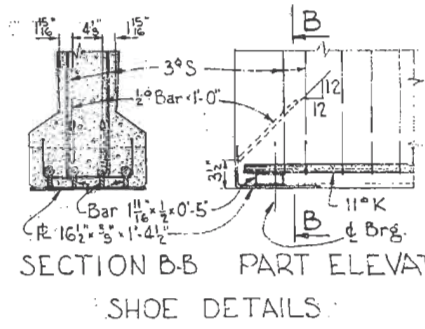
ESTIMATED SUPERSTRUCTURE QUANTITIES

Precast Girders	One Girder	Entire Bridge
Class 'D' Concrete	3.94 Cu.Yds.	70.92 Cu.Yds.
Reinforcement for Conc. Struct.	1487.67 Lbs.	26778 Lbs.

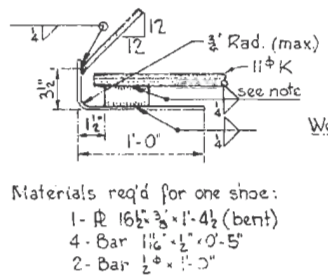
Cast-in-Place Construction:-

Class 'A' Concrete Bridge Superstructure	123.43 Cu.Yds.
Reinforcement for Concrete Structures	20,495 Lbs.
Structural Steel	11,241 Lbs.

\* Reinforcing for Precast Girders not included.

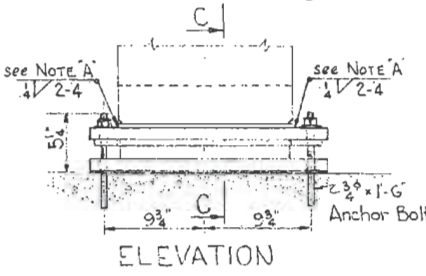


SECTION B-B PART ELEVATION  
SHOE DETAILS



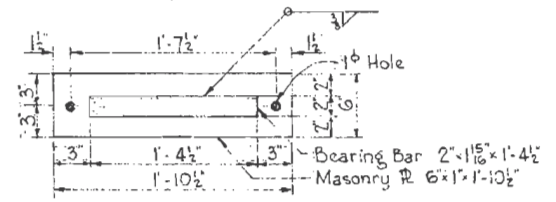
Materials req'd for one shoe:  
1-R 16 1/2" x 1-4 1/2" (bent)  
4-Bar 1 1/2" x 1-0-5"  
2-Bar 1/2" x 1-0"

Welding Note:  
Weld 5" spacer blocks to 11"K-bars before welding blocks to 3/8"R.

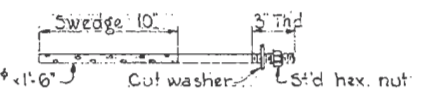


ELEVATION

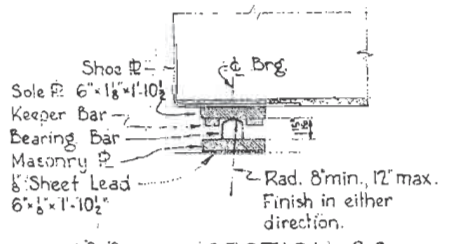
NOTE 'A' - Do not weld sole plates to girder shoes until all setting adjustments have been made and accepted by the Engineer.



MASONRY PLATE & BEARING BAR



ANCHOR BOLT DETAIL



SOLE PLATE & KEEPER BARS

Note:-  
Center sole plates on bearing bar at 68°F.  
Adjustment must be made if plates are set at other temp.  
Bearings should be carefully set level transversely to avoid excessive local pressure at side of beam bearing.

Designed by: H.T. 8-56  
Checked by: F.S.C. 9-56  
Detailed by: H.J. 9-56

APPROVED: \_\_\_\_\_  
BRIDGE ENGINEER

**NEW MEXICO**  
**STATE HIGHWAY DEPARTMENT**  
SUPERSTRUCTURE DETAILS  
GRADE SEPARATION  
FOR  
INTERSTATE HIGHWAY SYSTEM  
THREE 35'-6" SIMPLE SPANS  
PRECAST CONCRETE GIRDERS  
38' ROADWAY

Sheet 2 of 2  
50-03-A