

CRAWFORD COUNTY

80' x 24' BRIDGE PROJECT NO. LB 27-28W

LETTING DATE June 7, 2005

TRAFFIC CONTROL PLAN

PROJECT TRAFFIC CONTROL PLAN

THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT SPECIFICATIONS.

TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130'

IOWA DEPARTMENT OF TRANSPORTATION

Project Development Division
PLANS OF PROPOSED IMPROVEMENT ON THE
LOCAL SECONDARY SYSTEM
CRAWFORD COUNTY

80' x 24' BRIDGE

The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, series of 2001, plus current Supplemental Specifications and Special Provisions shall apply to construction work on this project.

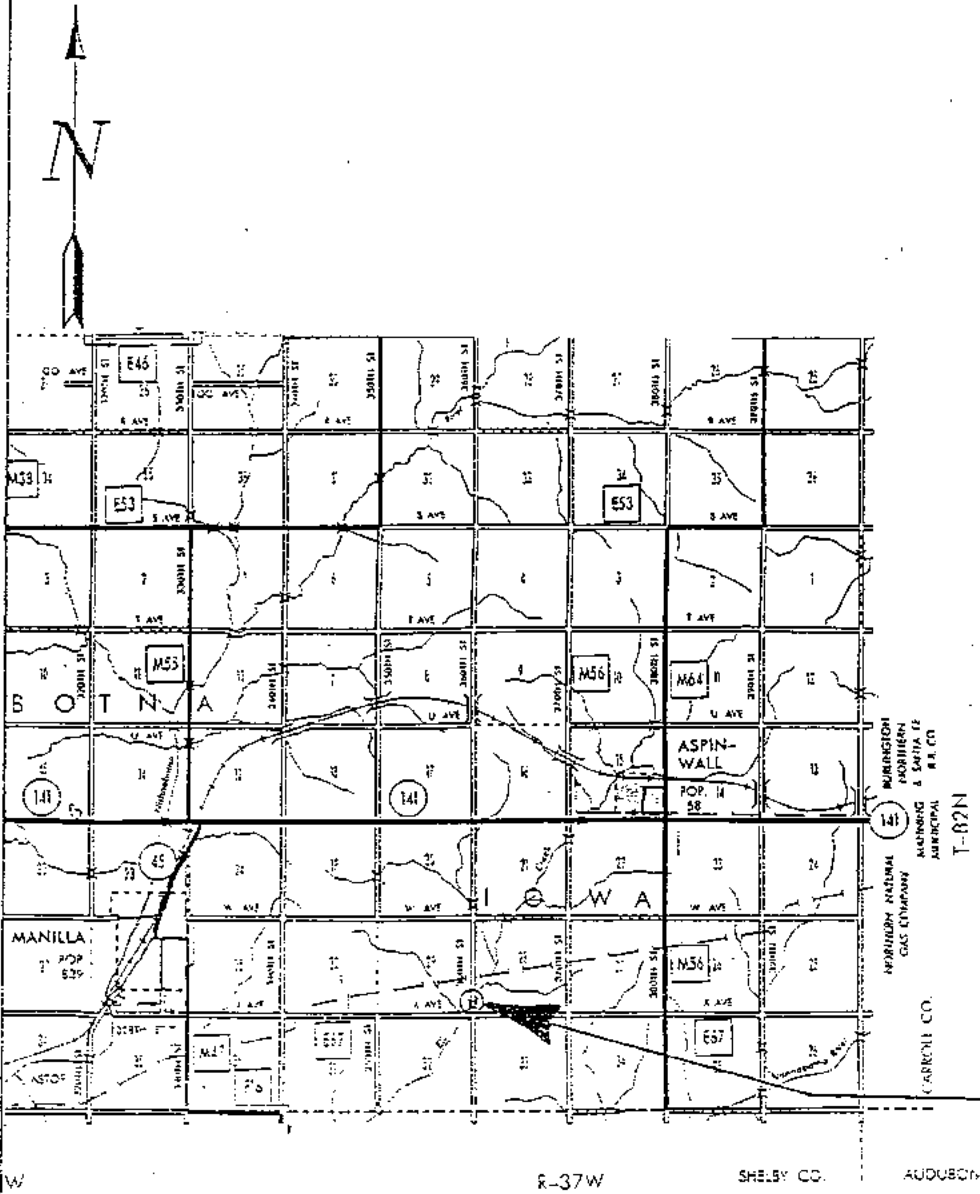
F.H.W.A. NO. 126270

PROJECT NO. LB 27-28W

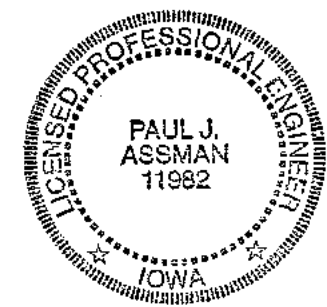
INDEX OF SHEETS	
No.	Description
1	TITLE SHEET, LOCATION MAP, TRAFFIC CONTROL
2	ESTIMATE OF QUANTITIES, GENERAL NOTES
3	GENERAL DETAILS
4	BRIDGE PLAN AND ELEVATION
5	SITUATION PLAN

MILEAGE SUMMARY			
Div.	Location	Lin. Ft.	Miles

ROAD STANDARD PLANS					
THE FOLLOWING STANDARD PLANS SHALL BE CONSIDERED APPLICABLE TO CONSTRUCTION WORK ON THIS PROJECT					
IDENTIFICATION	DATE	IDENTIFICATION	DATE	IDENTIFICATION	DATE
RS-27	10-28-97				



LOCATION MAP



APPROVED

Robert Lohman

Steve Kleiman

M. Dean Hargens

Mark Saylor

John P. Rowley

APPROVED BOARD OF SUPERVISORS

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER

UNDER THE LAWS OF THE STATE OF IOWA

Paul J. Assman 6/24/05
PAUL J. ASSMAN DATE

126270

ESTIMATE OF QUANTITIES : LB 27-28W			
REF. NO.	DESCRIPTION	UNITS	TOTAL
1	FURNISH (1) 80' X 24' STEEL BRIDGE	LS	1
2	STRUCTURAL CONCRETE	CY	37.8
3	REINFORCING STEEL	LB	10181
4	PILES, DRIVE STEEL BEARING, HP10X42	LF	720
5	PILES, DRIVE STEEL BEARING, HP8X36	LF	80
6	PILES, FURNISH STEEL BEARING, HP10X42	LF	720
7	PILES, FURNISH STEEL BEARING, HP8X36	LF	80
8	ENGINEERING FABRIC	SY	440
9	REVTMENT, CLASS "E"	TON	376
10	SAFETY CLOSURE	EACH	4
11	TRAFFIC CONTROL	LS	1
12	MOBILIZATION	LS	1

ESTIMATE REFERENCE SECTION

DATA LISTED BELOW IS FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT CONSTITUTE A BASIS FOR ANY EXTRA WORK ORDERS.

ITEM NO.

DESCRIPTION

1 & 2	FURNISH AND ERECT AS DETAILED, INCLUDES GUARDRAIL, WINGS, ABUTMENTS AND ALL CONSTRUCTION MATERIALS AND HARDWARE.
3	C-4 STRUCTURAL CONCRETE REQUIRED. FLOOR DEPTH TO BE 7". THIS BRIDGE WILL USE STAY IN PLACE FORMS.
4	GRADE 60 REINFORCING STEEL, 2" CLEARANCE. 1'-0" OVERLAP ON ALL #4 BARS, 1'-3" OVERLAP ON ALL #5 BARS FOR LONGITUDINAL BARS. FIELD CUT END TRANSVERSE BARS.
5	CONTRACTOR TO SUBMIT ADEQUATE HAMMER INFORMATION IF WAVE EQUATION IS USED TO DETERMINE PILE BEARING.
9	FABRIC SHALL CONFORM WITH MATERIALS I.M. 4196.01C OF THE CURRENT STANDARD SPECIFICATIONS.
10	THIS ITEM SHALL CONSIST OF FURNISHING AND PLACING REVTMENT STONE, COMPLETE IN PLACE AS DETAILED. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVAL OF ALL REMNANTS OF RIP RAP STOCKPILES FROM FARM FIELDS UTILIZED BY CONTRACTOR IN THE PROJECT AREA. THIS WORK WILL BE INCLUDED IN AND CONSIDERED INCIDENTAL TO THE BID PRICE FOR THIS ITEM.

GENERAL NOTES

UTILITY COMPANIES WHOSE FACILITIES ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE BRIDGE CONTRACTOR OF THE START DATE.

CONTRACTOR SHALL NOTIFY ONE-CALL (1-800-292-8989) FOR UTILITY LOCATES PRIOR TO COMMENCING WORK.

EXISTING BRIDGE REMOVAL, CHANNEL EXCAVATION, CLASS 10 EXCAVATION, ROADWAY AND BORROW AND TILE CONSTRUCTION BY CRAWFORD COUNTY WORKFORCES. CONTRACTOR TO NOTIFY CRAWFORD COUNTY 30 WORKING DAYS PRIOR TO CONTRACTORS CONSTRUCTION STARTING DATE TO EXPEDITE THIS WORK.

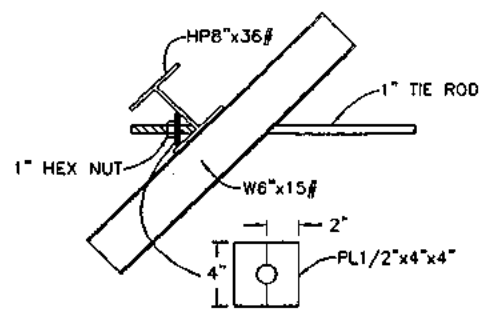
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO INDIVIDUAL PROPERTIES DURING CONSTRUCTION.

SEEDING, FERTILIZING, AND MULCHING TO BE DONE BY CRAWFORD COUNTY.

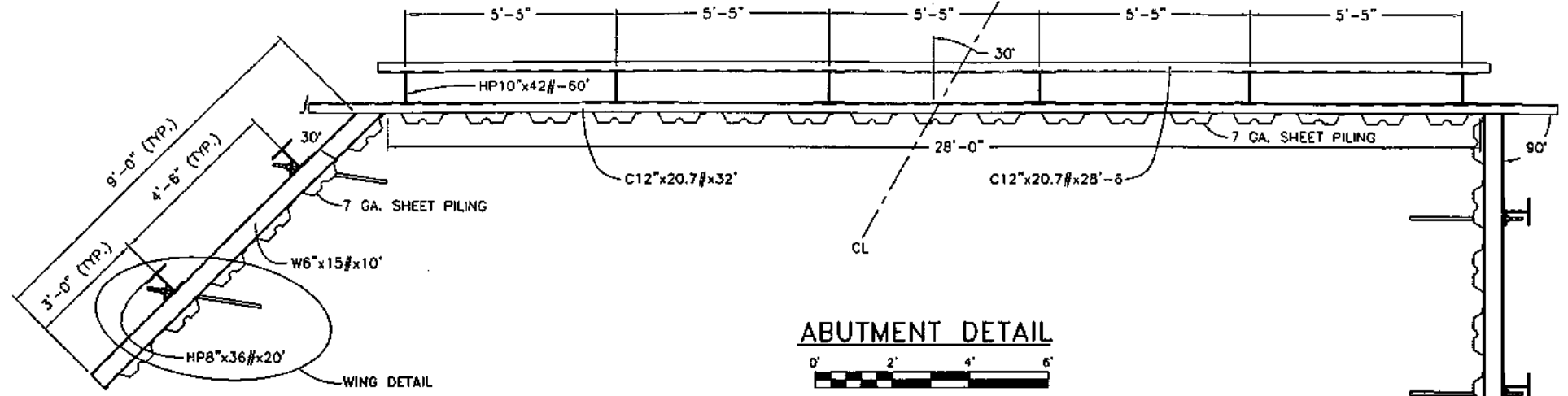
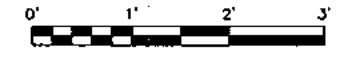
GIRDERS SHOULD BE PROVIDED WITH 2" CAMBER UP.

WEATHERING STEEL SHALL BE USED FOR THE SUPERSTRUCTURE, BEAMS, AND DIAPHRAGMS. REMAINDER OF THE STEEL SHALL BE PAINTED, INCLUDING RAILING.

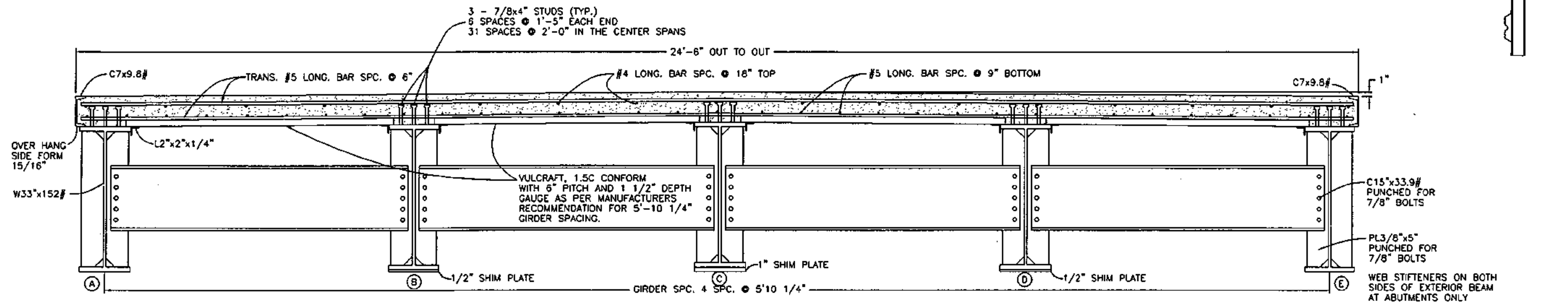
STAY IN PLACE FORMS SHALL BE VULCRAFT, 1.5C CONFORM WITH 6" PITCH AND 1 1/2" DEPTH, GAUGE AS PER RECOMMENDATION OF MANUFACTURER FOR 5'-10 1/4" GIRDER SPACING OR THE EQUIVALENT. THE DECKING SHOULD BE PLACED SO THAT THE LARGER CORRUGATIONS ARE FILLED WITH CONCRETE.



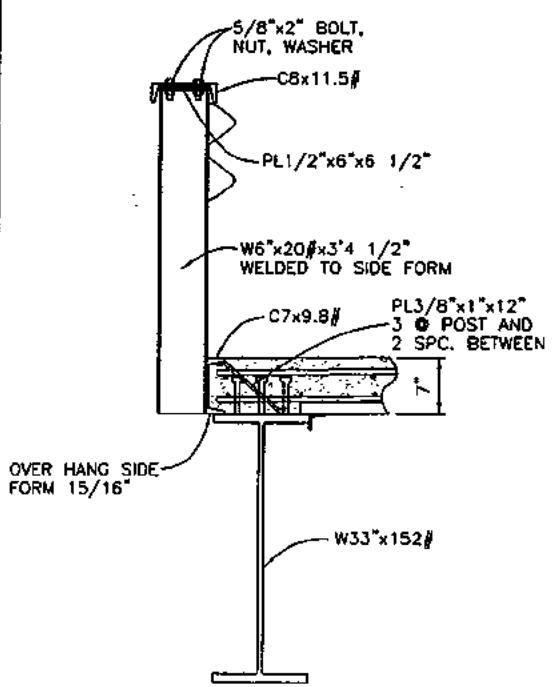
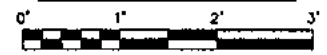
WING DETAIL



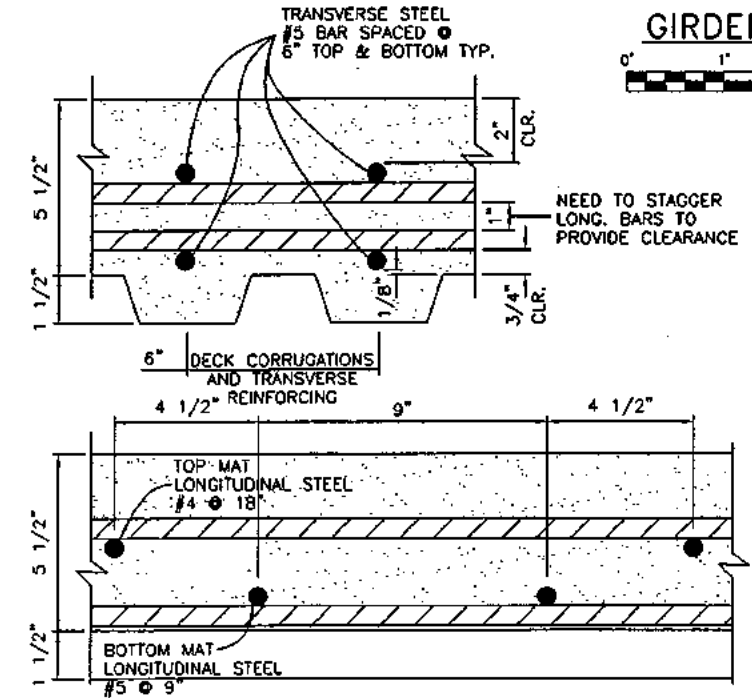
ABUTMENT DETAIL



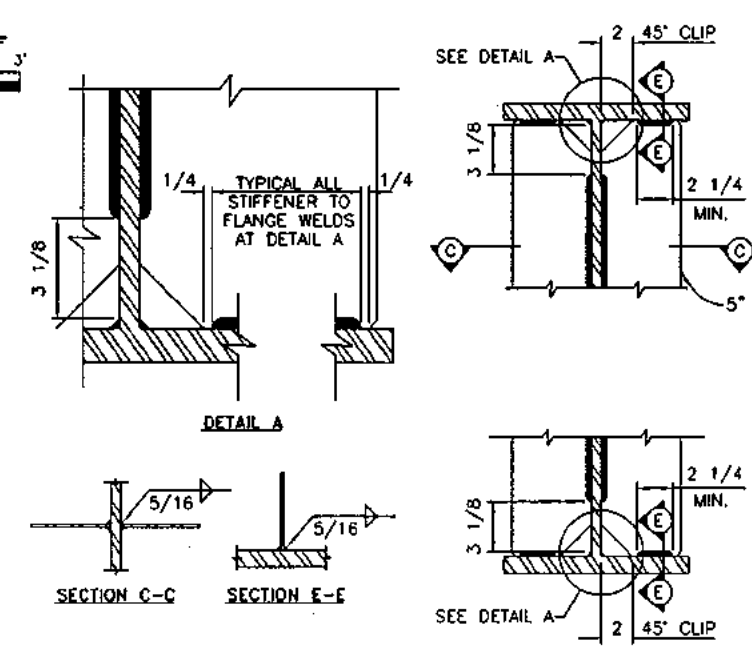
GIRDER DETAIL



GUARDRAIL DETAIL

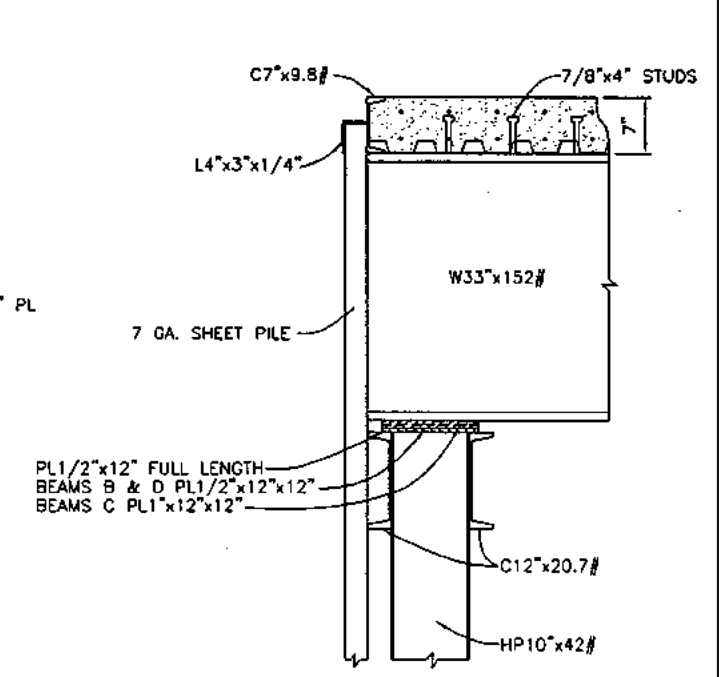


SLAB CROSS SECTIONS
NOT TO SCALE



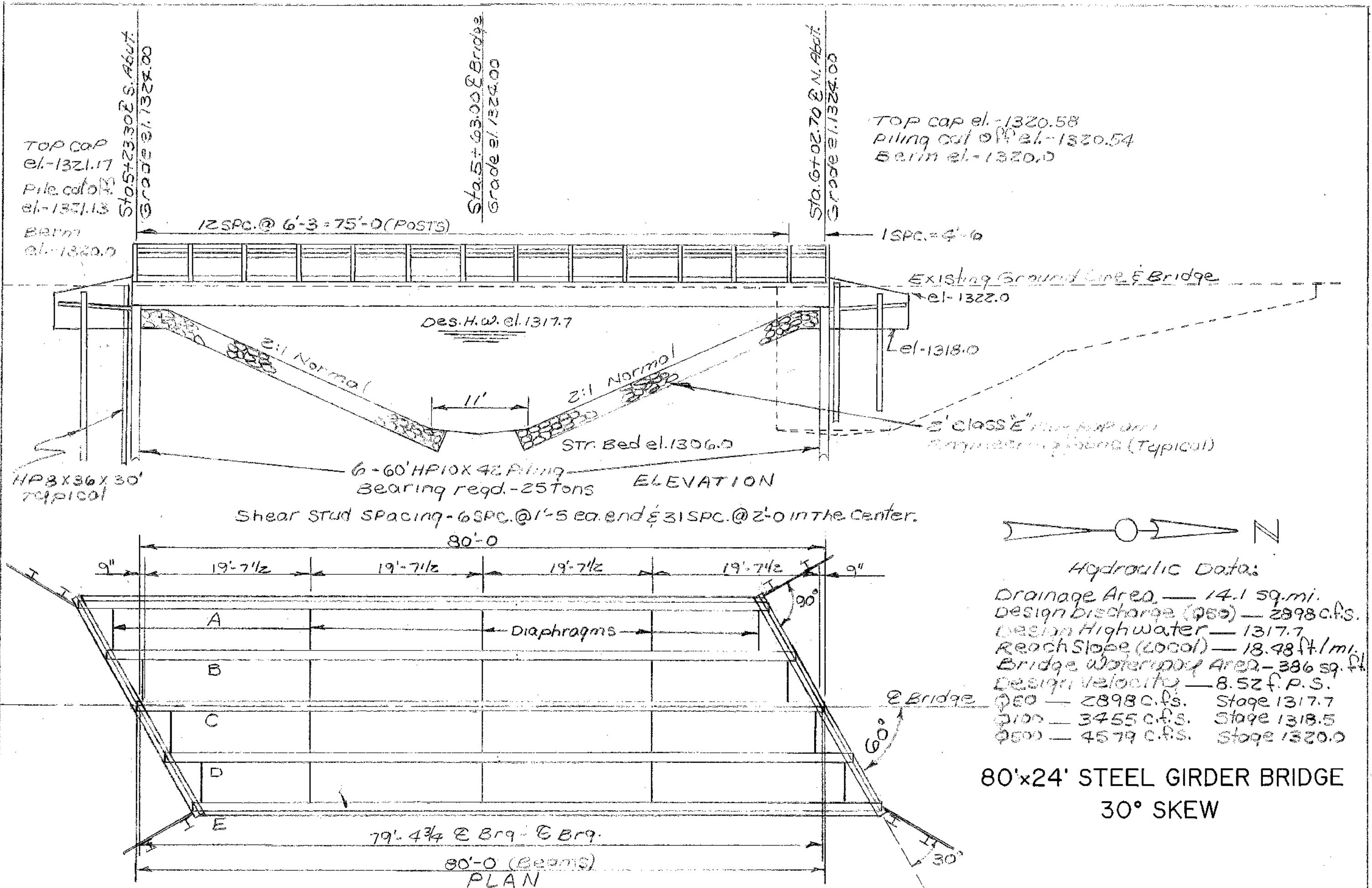
INTERMEDIATE & ABUTMENT DIAPHRAGM STIFFENER
NOT TO SCALE

WEB STIFFENERS ON THE OUTSIDE OF EXTERIOR BEAMS AT INTERMEDIATE LOCATIONS ARE NOT NECESSARY



ABUTMENT CAP DETAIL





TOP CAP
el.-1321.17
Pile cut off
el.-1321.13
Berm
el.-1320.0

Sta. 5+23.30 E. S. Abut.
Grade el. 1322.00

Sta. 5+63.00 E. Bridge
Grade el. 1324.00

Sta. 6+02.70 E. N. Abut.
Grade el. 1324.00

TOP CAP el.-1320.58
Piling cut off el.-1320.54
Berm el.-1320.0

12 SPC. @ 6'-3" = 75'-0" (POSTS)

1 SPC. = 6'-6"

Existing Ground Line E. Bridge
el.-1322.0

Des. H.W. el. 1317.7

2:1 Normal

2:1 Normal

STR. BED el. 1306.0

5' class "E" armor pile
arrangement (Typical)

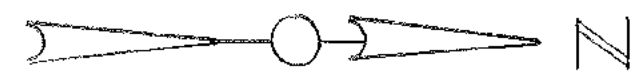
HP 8x36x30'
typical

6-60' HP 10x42 Piling
Bearing reqd. - 25 Tons

ELEVATION

Shear Stud Spacing - 6 SPC. @ 1'-5" ea. end & 31 SPC. @ 2'-0" in the center.

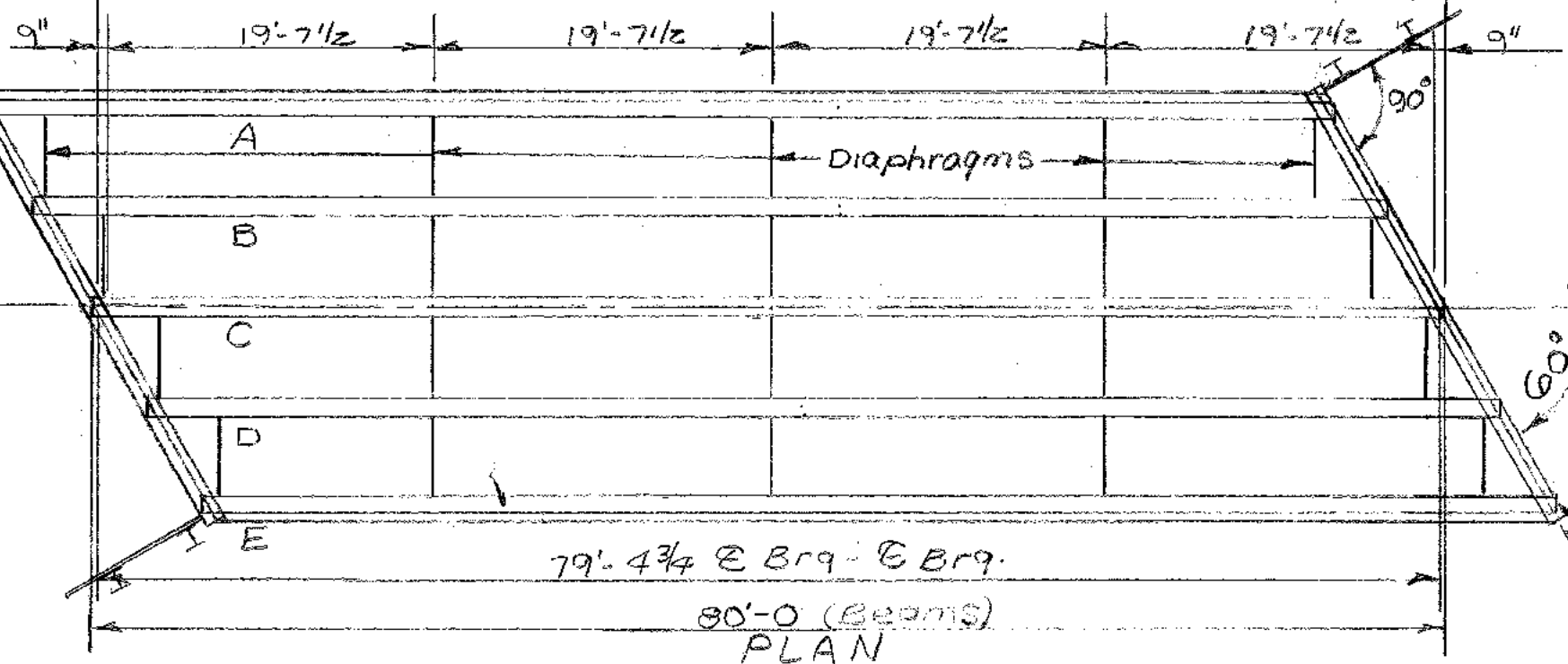
80'-0"



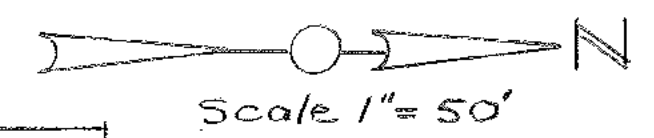
Hydraulic Data:

Drainage Area — 14.1 sq. mi.
Design Discharge (Q80) — 2898 c.f.s.
Design Highwater — 1317.7
Reach Slope (Local) — 18.48 ft/mi.
Bridge Waterway Area — 386 sq. ft.
Design Velocity — 8.52 f.p.s.
Q60 — 2898 c.f.s. Stage 1317.7
Q100 — 3455 c.f.s. Stage 1318.5
Q500 — 4579 c.f.s. Stage 1320.0

80'x24' STEEL GIRDER BRIDGE
30° SKEW



BM No. 1 SPR in fence post, NW. of bridge el. 1323.96



Holdsworth, Melvin G.
2650 Donna Reed Rd.
Denison, Ia.
Pasture

cultivated

Cattle yard

Channel Limits 120'

Channel exca. Limits 80'

Fill TO el-1317.0

Sta. 7+95.46 P.O.T. Iron Pin

Sta. 5+63.00 Proposed 80'x24' Steel Girder Bridge 30° Skew

Sta. 6+28 Proposed 60'x16' Pony Truss Bridge concrete Abutments. FHWA No. 1Z6270

Drees, James Co. 15455 280th St. Manning, Ia. str. bed

80'x24' STEEL GIRDER BRIDGE 30° SKEW

