

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA		1975	1	3
PROJECT NUMBER				
RS-3141(C)--61-24				

STATE OF IOWA
STATE HIGHWAY COMMISSION

PLANS OF PROPOSED IMPROVEMENT
ON THE

FARM TO MARKET SYSTEM

CRAWFORD COUNTY

PROJECT NO. RS-3141(C)--61-24
DESIGN FOR 243'-0" X 30'-0" PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE

SCALES: AS NOTED

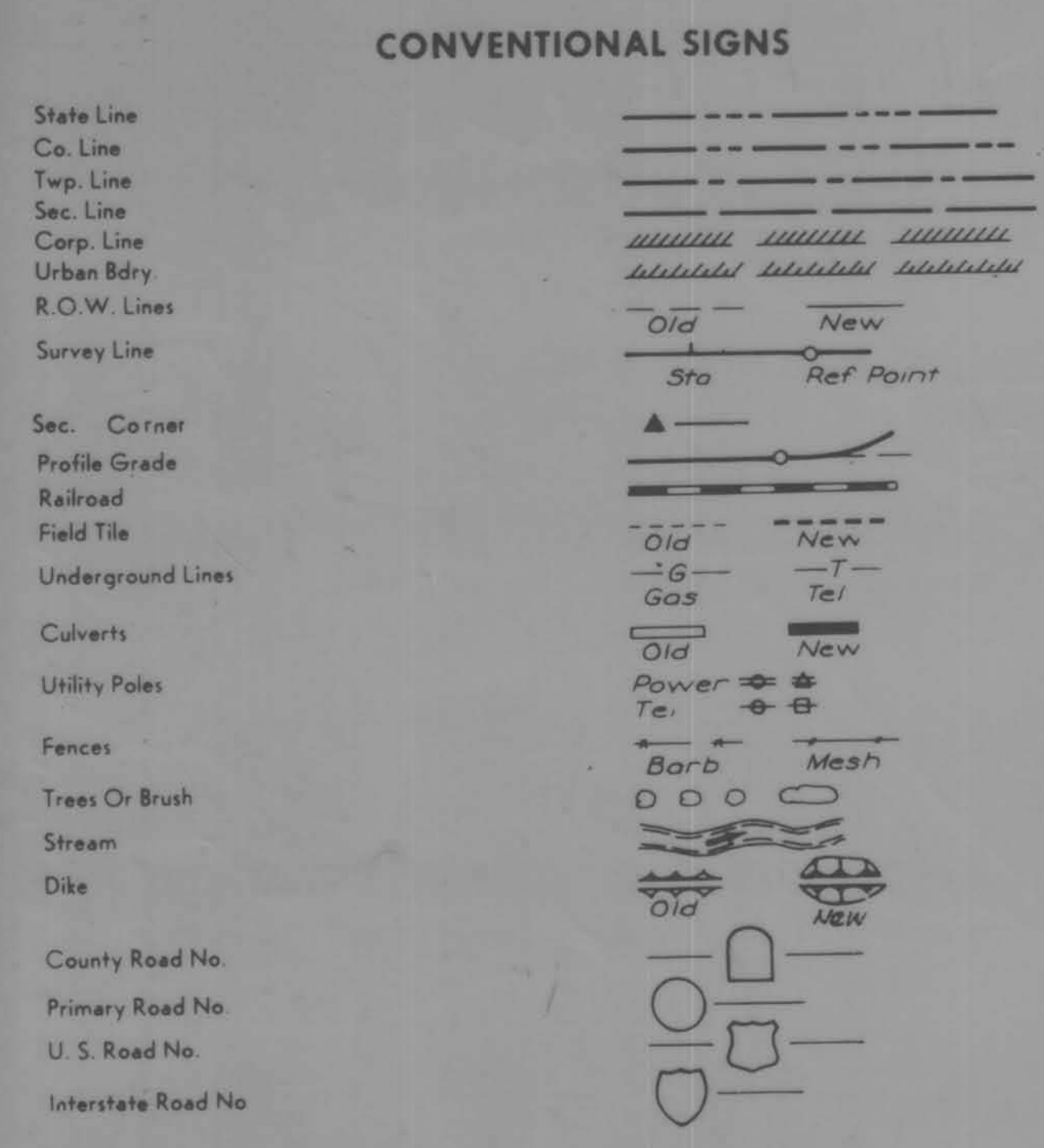
INDEX OF SHEETS

SHEET NO.	ITEM
1	TITLE PAGE, INCLUDING ESTIMATE OF QUANTITIES, LOCATION MAP, CONVENTIONAL SIGNS, MILEAGE SUMMARY.
2	PLAN AND PROFILE SUMMARY
3	DETAILS

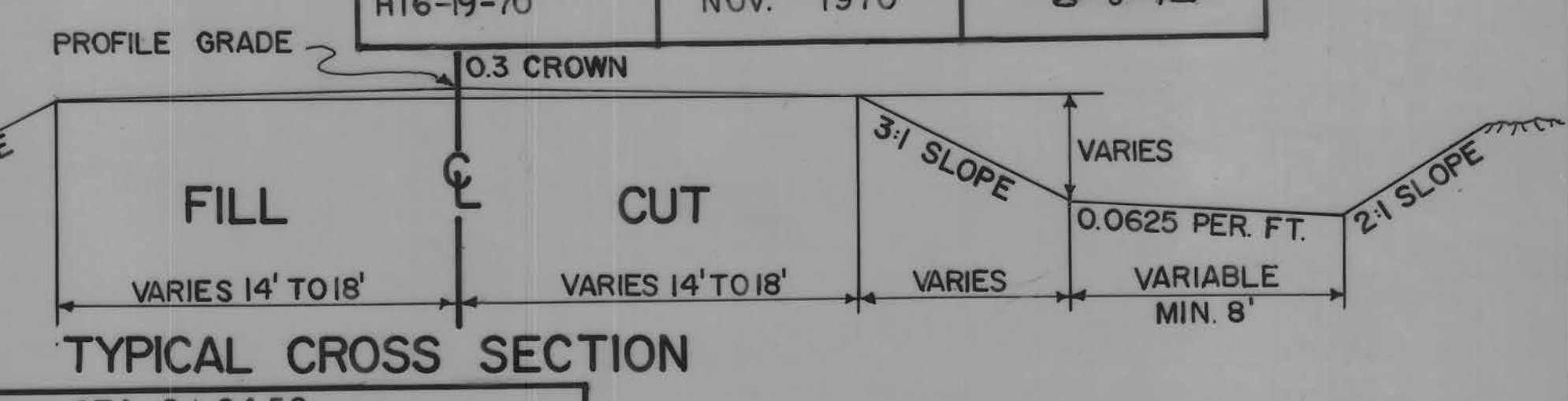
MILEAGE SUMMARY

246'-0" = 0.04659 MI.

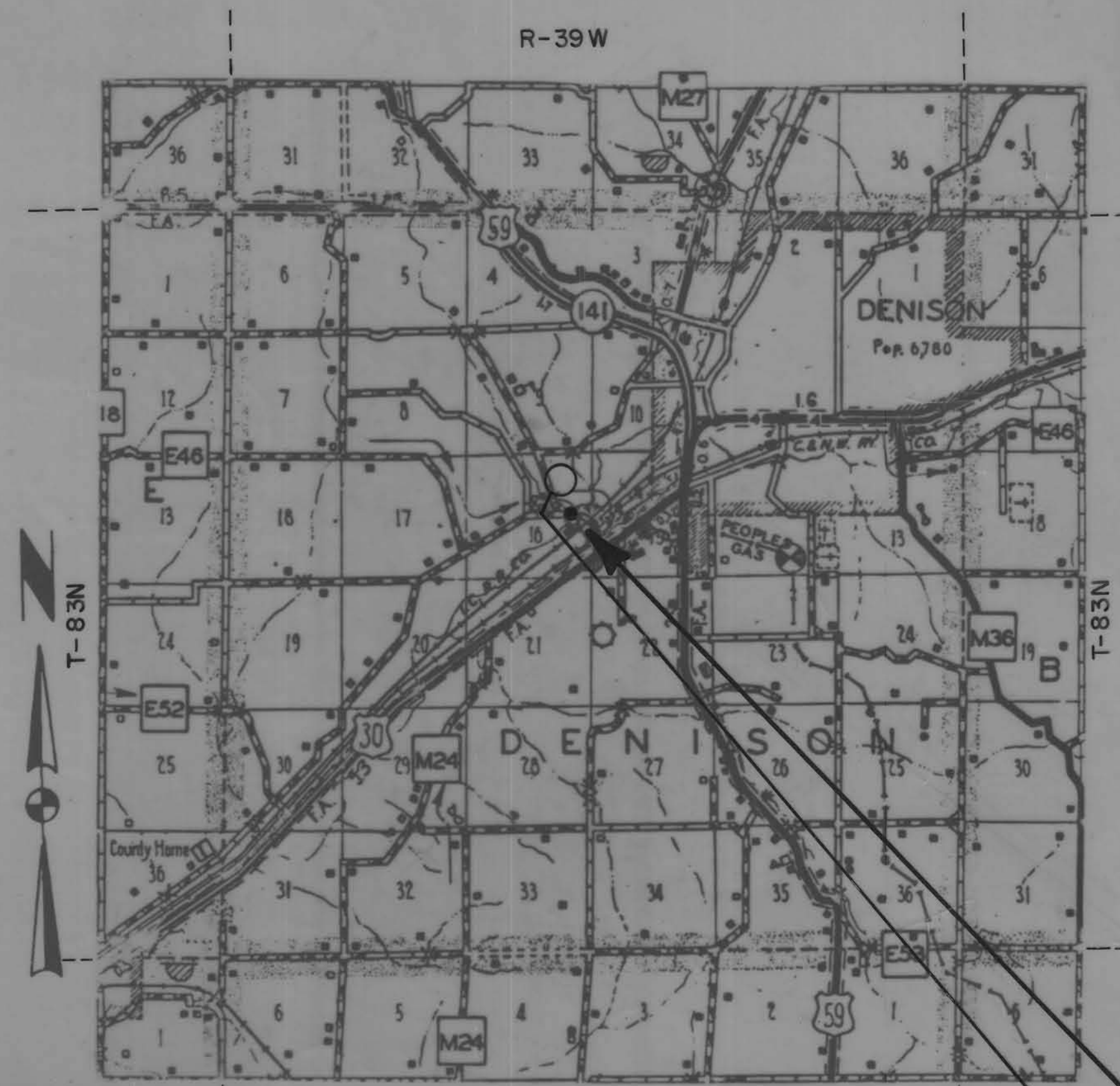
IOWA STATE HIGHWAY COMMISSION STANDARDS REQUIRED (MAY BE OBTAINED @ STOREROOM)		
STANDARD	DATE ISSUED	LATEST REVISION
H16-70	JUNE 1969	7-27-72
H16-1-70	JUNE 1969	4-3-73
H16-2-70	JUNE 1969	6-8-72
H16-3-70	JUNE 1969	4-3-73
H16-10-70	JUNE 1969	JUNE 1969
H16-11-70	JUNE 1969	3-6-74
H16-16-70	NOV. 1970	NOV. 1970
H16-19-70	NOV. 1970	6-8-72



THE IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR CONSTRUCTION WORK, SERIES OF 1972 SHALL APPLY TO WORK ON THIS PROJECT, PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.



PROJECT NO. RS-3141(C)--61-24 SEC. 16		STA. 8+84.50 DENISON TOWNSHIP				
243'-0" X 30'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE						
ESTIMATE OF QUANTITIES						
ITEM NO.	ITEM	UNITS	ABUTMENTS	PIERS	SUPERSTRUCTURE	TOTALS
1	STRUCTURAL CONCRETE	C.Y.	26.7	154.0	262.9	443.6
2	REINFORCING STEEL	LBS.		22,800	66,161	88,961
3	PRETENSIONED PRESTRESSED CONCRETE BEAMS C80 @ 80'-0"	NO.			15	15
4	ALUMINUM RAILING	L.F.			493.0	493.0
5	STEEL H-PILE HP10X42	FURNISH 14 AT 75'	L.F.	1,050		1,050
		DRIVE 14 AT 75'	L.F.	1,050		1,050
6	STEEL BRG. PILE HP12X53	FURNISH 30 AT 55'	L.F.	1,650		1,650
		DRIVE 30 AT 55'	L.F.	1,650		1,650
7	EXCAV. CLASS 10 CHANNEL	C.Y.				1960
8	EXCAV. CLASS 10 ROADWAY AND BORROW	C.Y.				9338
9	EXCAV. CLASS 20	C.Y.	57			57
10	EXCAV. CLASS 21	C.Y.		192		192
11	GRANULAR BACKFILL	C.Y.	86			86
12	SUBDRAIN	L.F.	132			132
13	REMOVAL OF EXISTING STRUCTURES AS LISTED					LUMP SUM



ITEM NO. 1 THE FLOOR, CURBS, AND WING POSTS, 262.9 CU. YDS. ARE TO BE CLASS "D" CONCRETE. THE REMAINING 180.7 CU. YDS. IS TO BE CLASS "C" CONCRETE. TEMPORARY PAVING BLOCKS, 1.4 CU. YDS., MAY BE CLASS "C" OR "D" AT CONTRACTORS OPTION.

ITEM NO. 8 THE STRIPPING, SALVAGING, & RESPREADING OF 8" OF TOPSOIL ON ALL BORROW AREAS BEYOND R.O.W. SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE OF CLASS 10 ROADWAY & BORROW.

ITEM NO. 12 SUBDRAIN MAY BE DRAIN TILE OR PERFORATED PLASTIC PIPE WITH A MINIMUM NOMINAL DIAMETER OF 4" AND A MAXIMUM NOMINAL DIAMETER OF 6 INCHES.

STA. 8+84.50 @ 243'-0" X 30'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
CLASS 10 BORROW SHALL BE PROVIDED AT A SITE, LOCATED ALONG A LOCAL ROAD. NO OVERHAUL SHALL BE ALLOWED.

APPROVED

Wm. Ruess

Charles J. Smith

Eileen Seiler

Don H. Jensen

LeRoy A. Hansohn

BOARD OF SUPERVISORS

I.N.R.C. APPROVAL NO. 75-78
DATED APRIL 17, 1975

H. Dale Wright May 19, 1975
COUNTY ENGINEER DATE

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY SUPERVISION AND THAT ENGINEERING DECISIONS WITH REGARD TO THE DESIGN WERE MADE BY ME OR BY OTHER DULY REGISTERED PROFESSIONAL ENGINEERS UNDER THE LAWS OF THE STATE OF IOWA.

H. Dale Wright April 17, 1975
IOWA REGISTRATION NUMBER 5798 DATE

APPROVED

U.S. DEPT. OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

DIVISION ENGINEER DATE

APPROVED

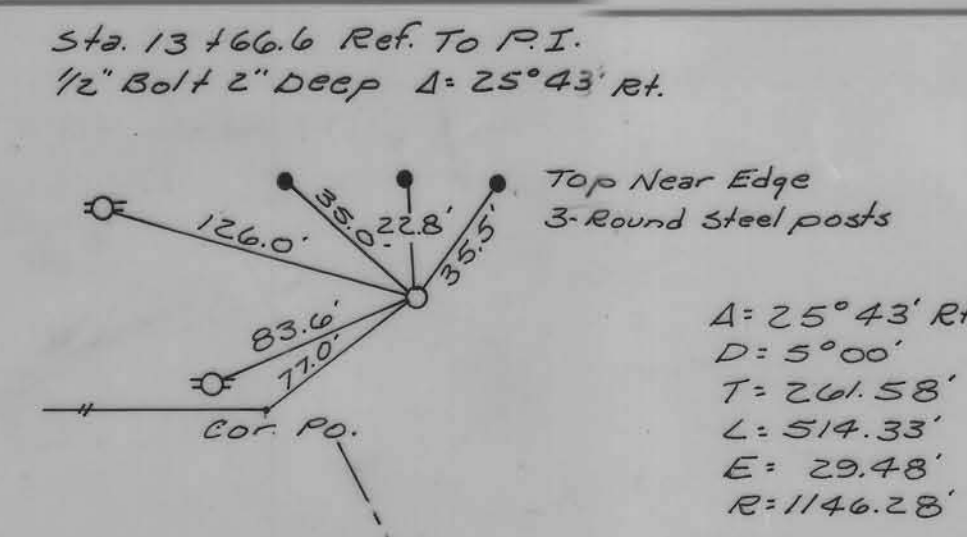
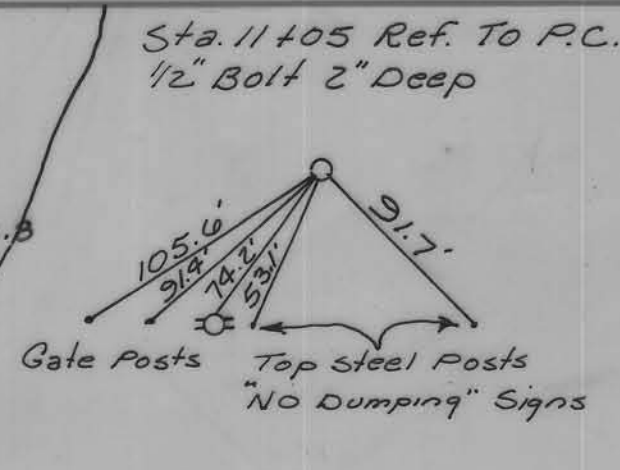
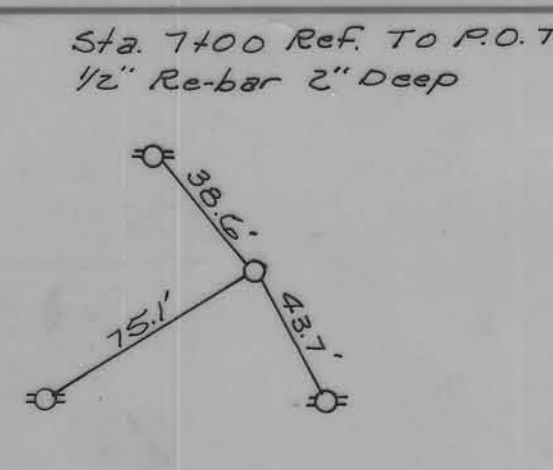
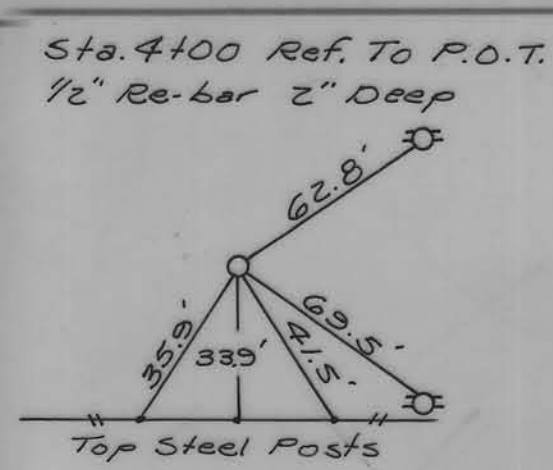
R. H. ... 5/30/75
DEPUTY CHIEF ENGINEER
IOWA HIGHWAY COMMISSION DATE

LETTING DATE: JUNE 24, 1975
CRAWFORD COUNTY PROJECT NO. RS-3141(C)--61-24 BRIDGE & GRADING

1971 TRAFFIC COUNT 184 V.P.D.

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	

DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	



Note:
It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material which is not desirable to be incorporated in the work involved on this project. No payment for over haul will be allowed for material hauled to these sites.

BEGIN CONSTRUCTION STA. 0+00

END CONSTRUCTION STA. 15+00

Removals

Sta. 8+25 E 7-Hpile Bent to be removed by Bridge Contractor to 1' below finished excavation.

Sta. 8+96 E present 28'x25'x5' Concrete pier Bridge Contractor to remove to an elev. -1136.0

Sta. 9+87 E present 24'x18' I-Beam Approach, Concrete floor, Concrete abutment & Concrete pier, to be removed by Bridge Contractor to 1' below finished excavation

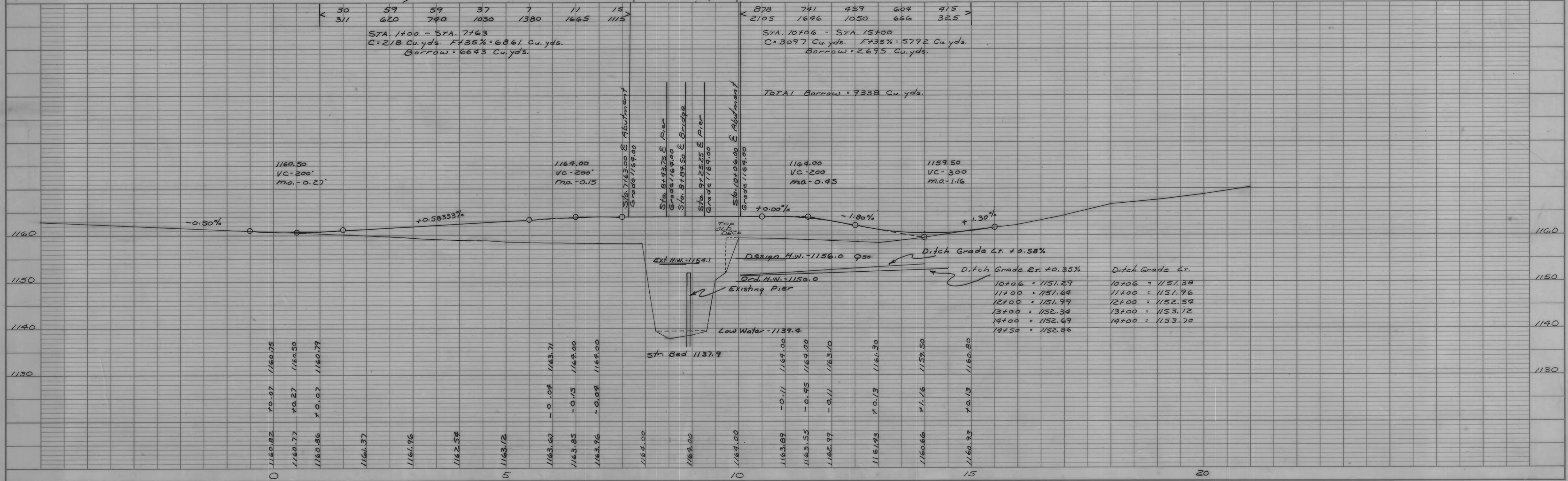
Removals to become Property of Contractor.

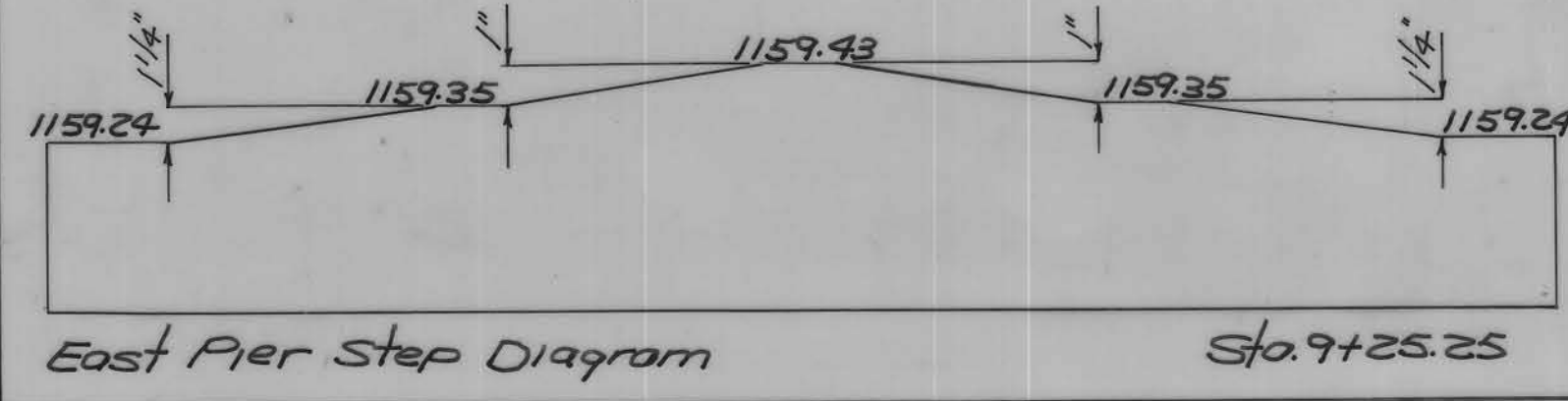
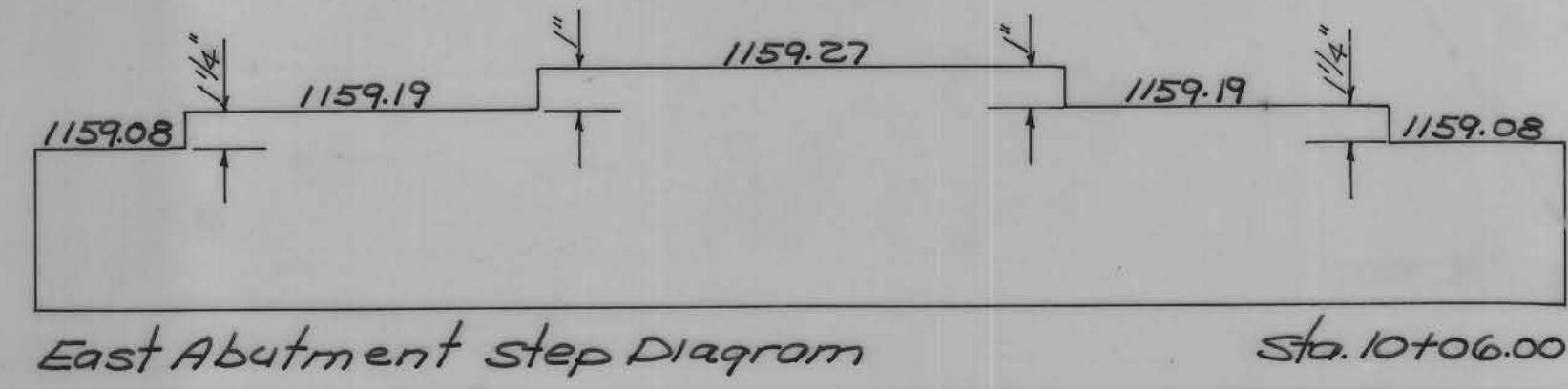
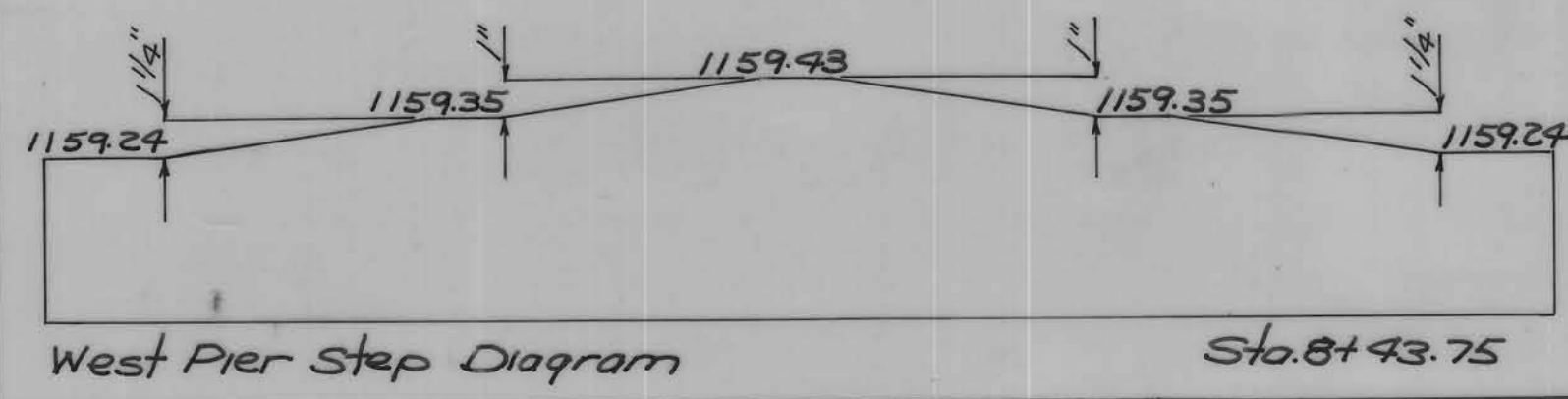
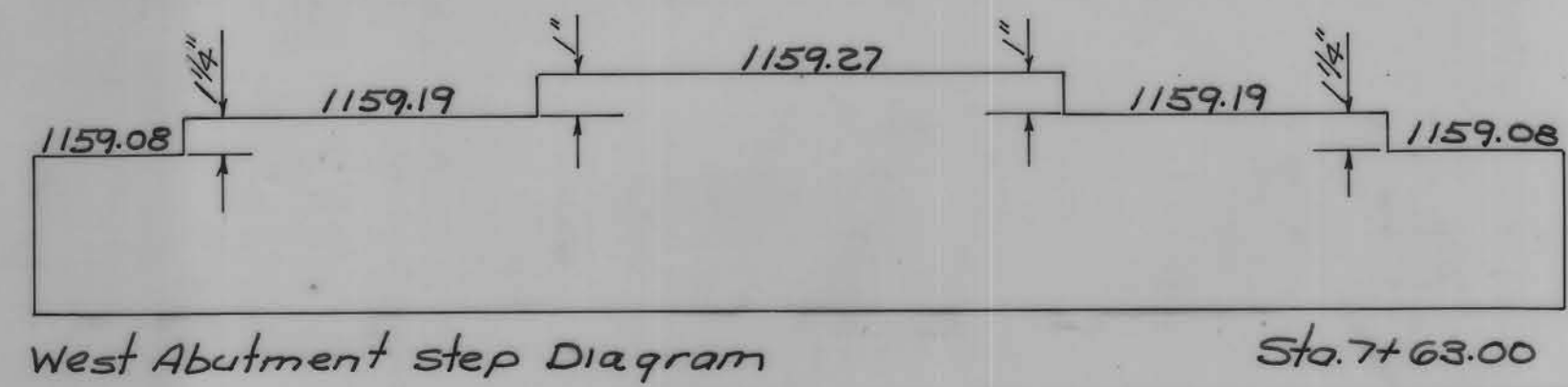
Carl H. & Nellie P. Meyer
Valley Profile

Bridge Contractor Shall Cooperate with Utilities in regards to their respective lines.

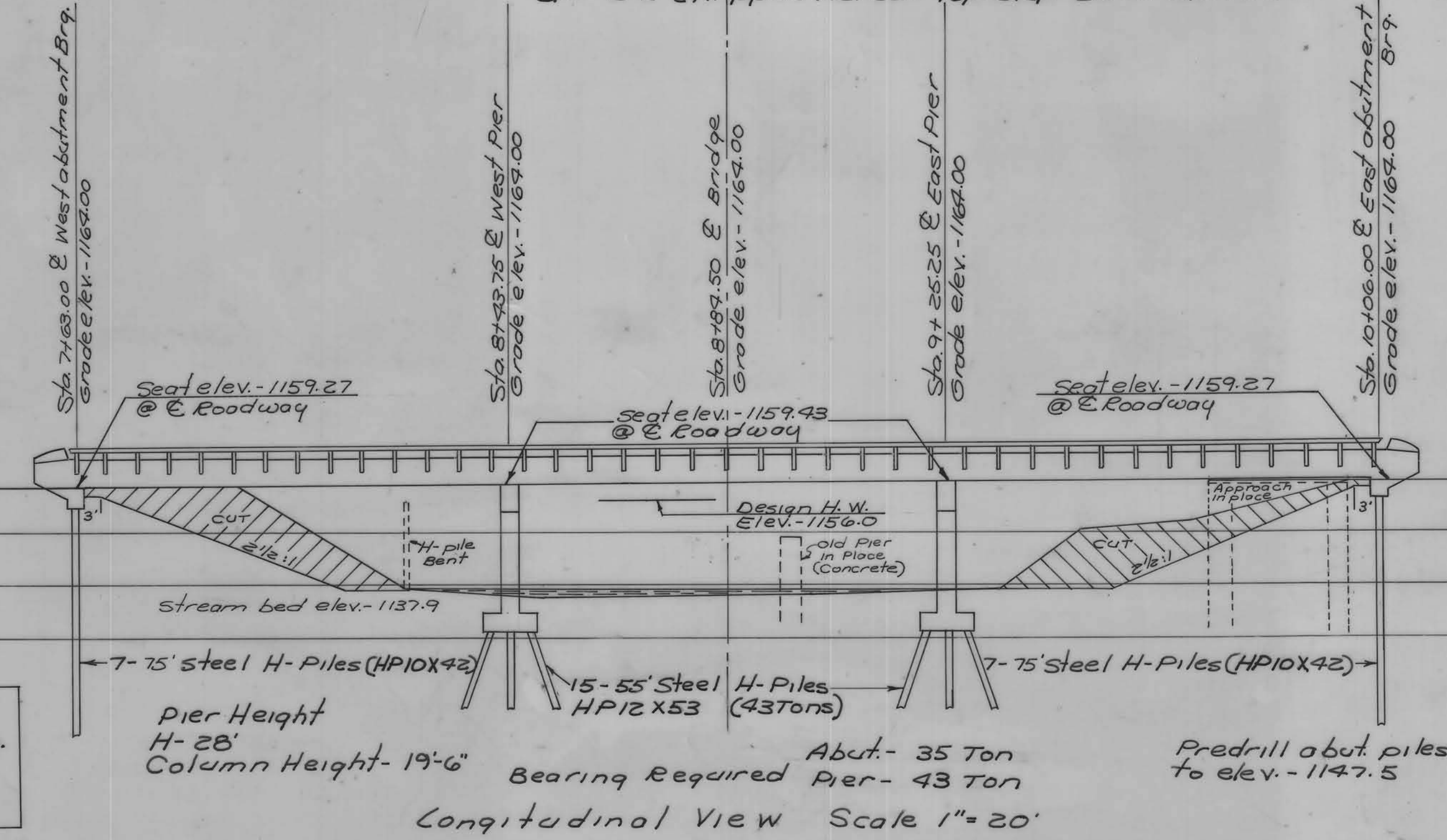
Bm #1 SPK in Power Pole 50' Lt Sta. 12+30 Elev. = 1159.38
Bm #2 "D" CHIPPED N.E. COR. TOP STEP 25' LT. STA. 19+07 ELEV. = 1160.19

DENISON TOWNSHIP
T-83N R-39W
SEC. 15



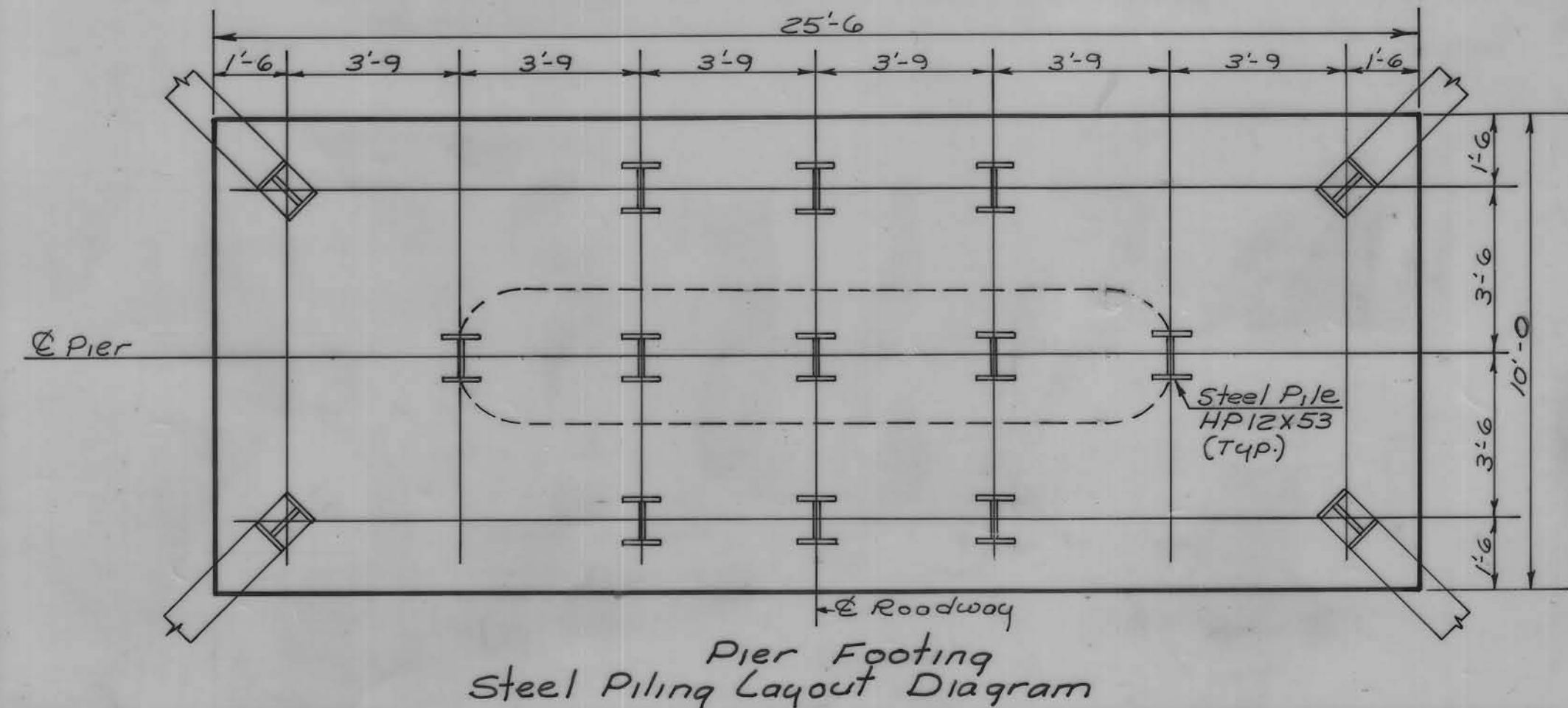
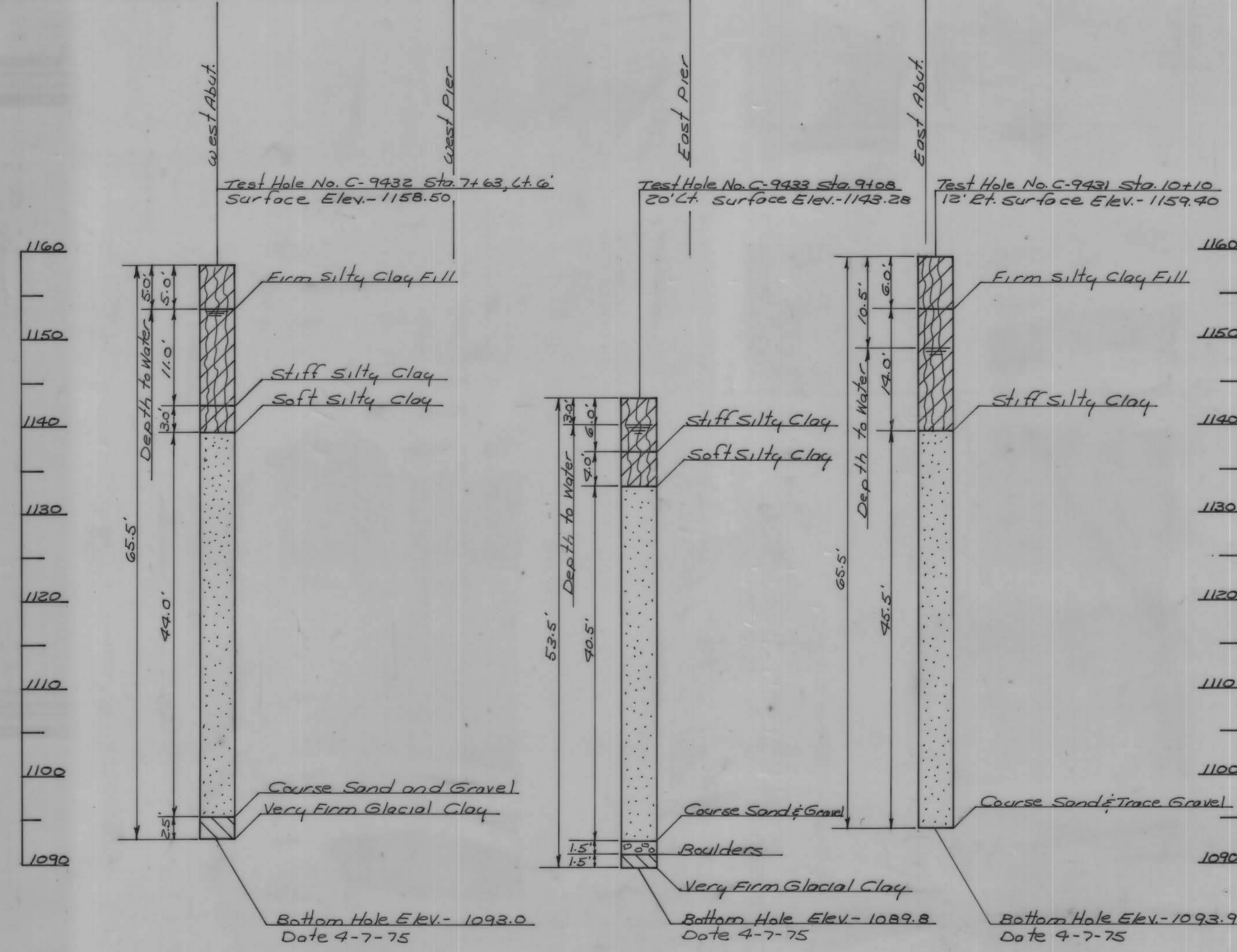


B.M.#1 Spk in Power Pole 50' Lt. Sta. 12+30 Elev. 1159.38
 B.M.# 2" Chipped NE. Cor. Top Step 25' Lt. Sta. 19+07 Elev. 1160.19

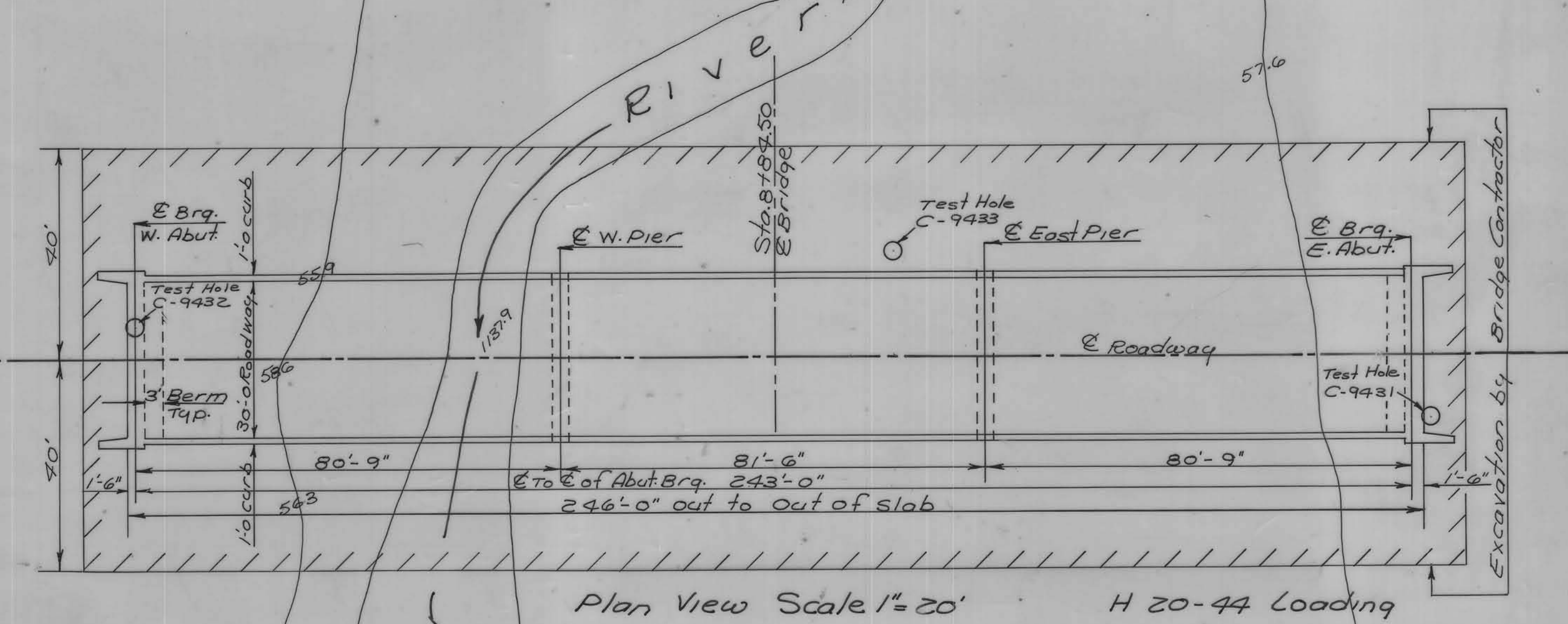


Predrill abut. piles to elev. -1147.5
 Hydraulic Data
 Design Q₅₀ - 19,131 c.f.s.
 Q₅₀ @ elev. 1156.0 = 19,394 c.f.s.
 A = 3200 sq. ft.
 V = 6.53 f.p.s.

Sta. 7+63.00 @ W. abut. Piling cut off - 1157.58, Berm - 1157.6, Bottom abutment - 1155.58
 Sta. 8+43.75 @ W. Pier Piling cut off - 1132.24, Bottom footing - 1131.24
 Sta. 9+25.25 @ E. Pier Piling cut off - 1132.24, Bottom footing - 1131.24
 Sta. 10+06.00 @ E. abut. Piling cut off - 1157.58, Berm - 1157.6, Bottom abut. - 1155.58
 Excavation Classification Line Elev. - 1139.4
 Excavate Channel as shown in shaded area.



Note:
 Steel pile footing for Piers to be like standard H16-19-70 except for number of piling, layout & bearing, which are to be as shown. Reinforcing layout and quantities (except for piles) are to be the same as for footing 10D. Batter corner piles 1:4 in direction shown.
 15-HP12X53 steel bearing piles, driven to 43 tons bearing in friction, will be required for each footing.



DESIGN FOR
 243'-0 X 30'-0 PRETENSIONED PRESTRESSED
 CONCRETE BEAM BRIDGE
 ALUMINUM HANDRAILS
 STUB ABUTMENTS AND TEE PIERS
 STA. 8 + 84.50 PROJ. NO. RS -3141(I)--61-24
 CRAWFORD COUNTY

LOCATION
 IN SEC. 16-83-39
 OVER THE BOYER RIVER