

IOWA
DEPARTMENT OF TRANSPORTATION

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

FARM TO MARKET SYSTEM
CRAWFORD COUNTY

87'-6" x 30'-0" CONTINUOUS CONCRETE SLAB BRIDGE
30° SKEW

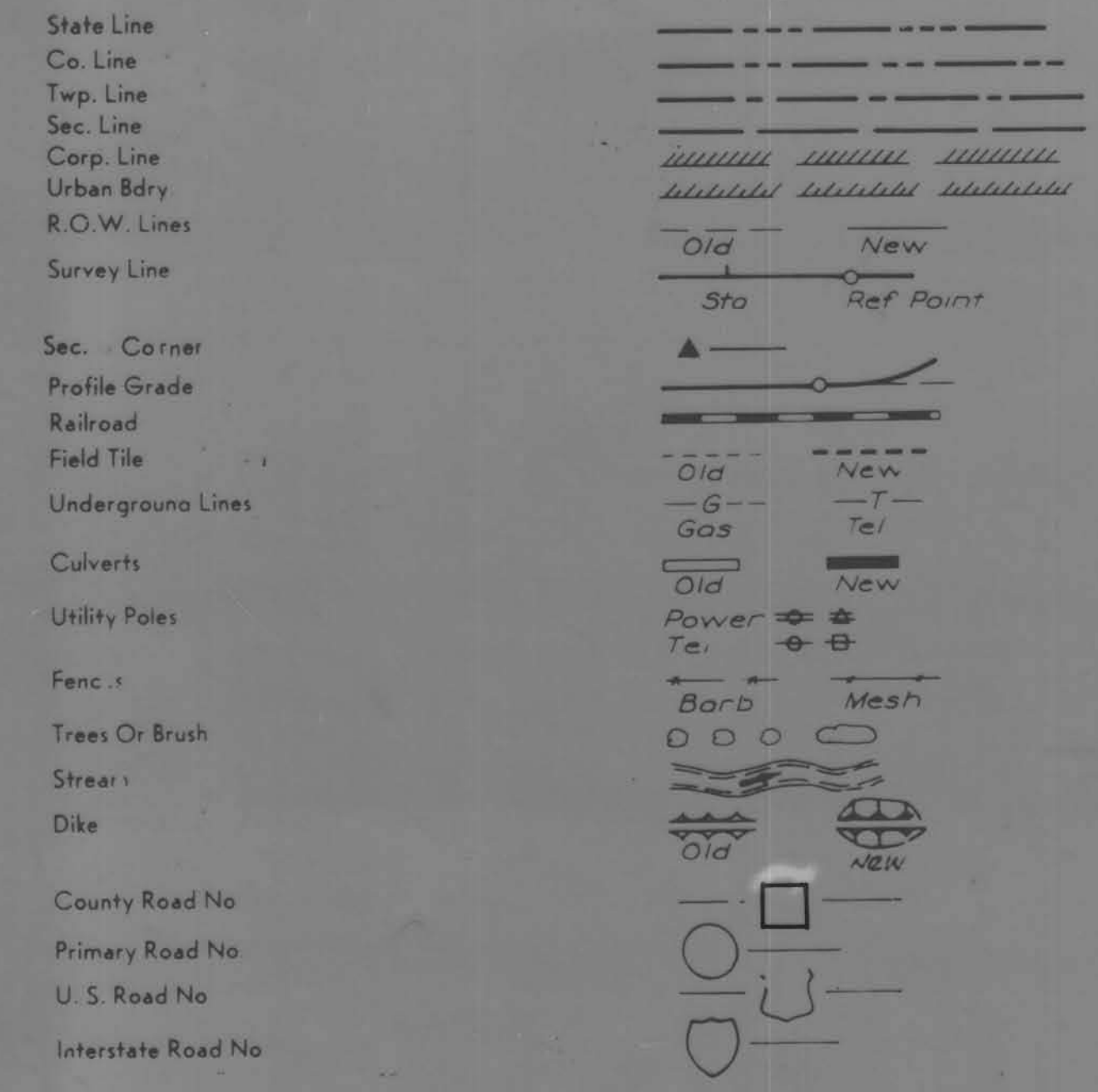
PROJECT NO. BRS-3210(3)--60-24

SCALES: AS NOTED

THE STANDARD SPECIFICATIONS, SERIES OF 1977,
OF THE IOWA DEPARTMENT OF TRANSPORTATION,
SHALL APPLY TO CONSTRUCTION WORK ON THIS PROJECT

PLUS CURRENT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS

CONVENTIONAL SIGNS



INDEX OF SHEETS	
NO.	DESCRIPTION
1	TITLE SHEET, INCLUDING ESTIMATE OF QUANTITIES, CONVENTIONAL SIGNS, MILEAGE SUMMARY, LOCATION MAP, REMOVALS, AND LIST OF STANDARDS.
2	BRIDGE DETAILS AND DESIGN CRITERIA

MILEAGE SUMMARY			
DIV.	LOCATION	LIN. FT.	MILES
2	BRIDGE STA. 264+88.0	90.9584	0.0172

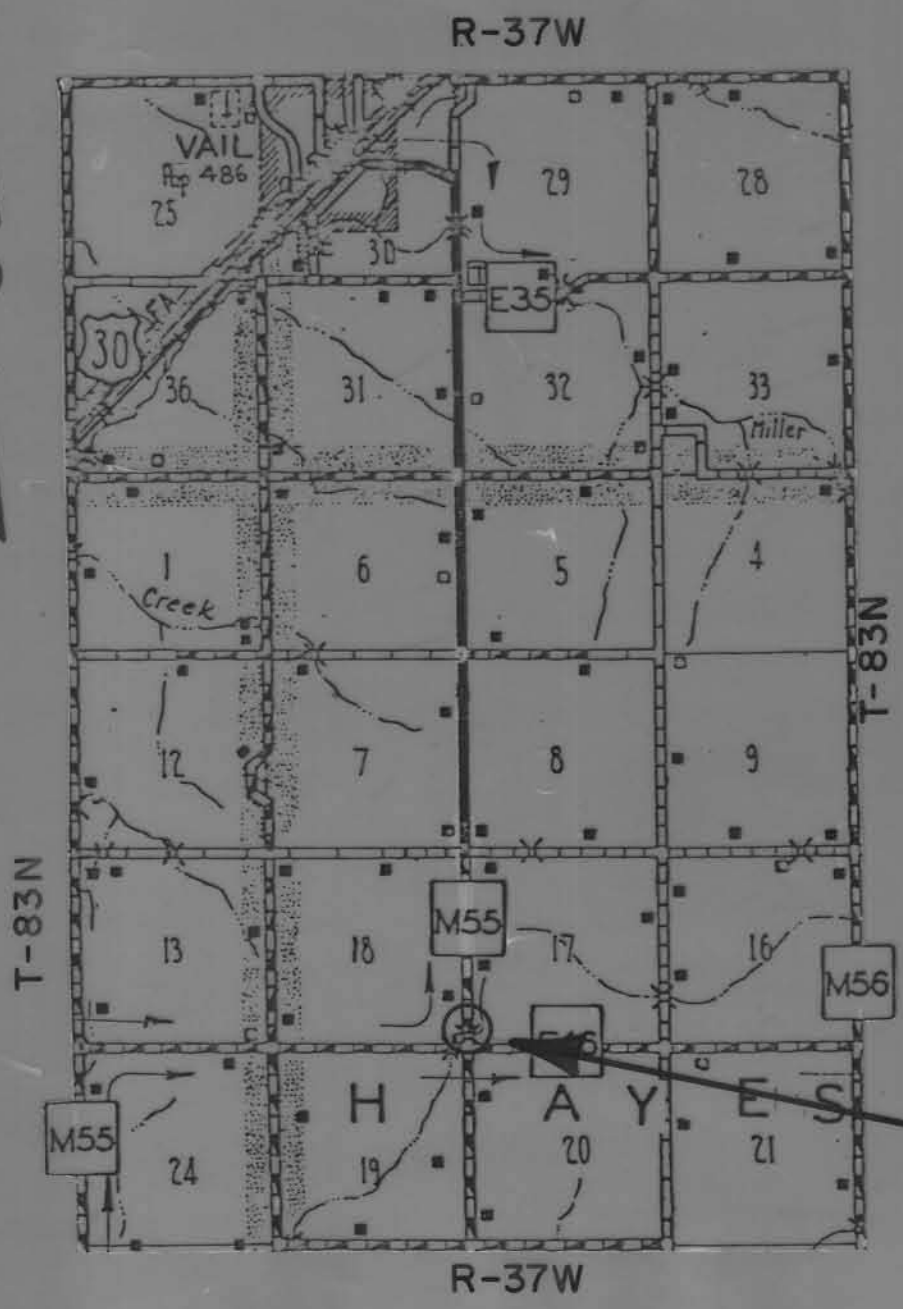
REMOVALS	
38' X 16' I-BEAM BRIDGE	

STANDARD PLANS					
The following Standard Plans shall be considered applicable to construction work on this project (MAY BE OBTAINED AT BRIDGE DESIGN SERVICES)					
STD.	ISSUED DATE	LATEST REV. DATE			
J30C-79	7-9-79				
J30C-2, 8, 11					
13, 22-79	7-9-79	2-4-80			
J30C-6, 7, 16, 19	7-9-79				
PIOA	6-59	11-28-79			

DESIGN NO. 680		FARM TO MARKET		STA. 264+88.0	
CRAWFORD COUNTY		T-83N R-37W		30° SKEW	
SECTIONS 17-18		HAYES TWP.			
DESIGN FOR					
87'-6" x 30'-0" CONTINUOUS CONCRETE SLAB BRIDGE					
ESTIMATED QUANTITIES					
ITEM NO.	ITEM	UNIT	SUPER-STRUCTURE	ABUTMENTS	TOTAL
1	CONCRETE, STRUCTURAL	CU. YDS.	162.7	24.8	187.5
2	STEEL, REINFORCING	LBS.	24,617	3198	27,815
3	RAIL, CONCRETE BARRIER	LIN. FT.	197.9	—	197.9
4	PILING, P10A TYPE 4, 16" (14 @ 50')	LIN. FT.	700	—	700
5	PILING, CREOSOTED (12 @ 45')	LIN. FT.	—	540	540
6	EXCAVATION, CLASS 10 CHANNEL	CU. YDS.	—	—	311
7	EXCAVATION, CLASS 20	CU. YDS.	—	55	55
8	EXCAVATION, CLASS 10 RDWY AND BORROW	CU. YDS.	—	—	725
9	EXCAVATION, CLASS 20, RDWY PIPE CULVERT	CU. YDS.	—	—	14
10	CULVERT, CORR. METAL, RDWY 24" DIA.	LIN. FT.	—	—	52
11	REMOVAL OF EXISTING STRUCTURE	LUMPSUM	—	—	L.S.
12	STEEL REINFORCING, EPOXY	LBS.	22,095	—	22,095
13	PREBORED HOLES	L.F.	—	96	96

- ITEM NO. 1 CLASS "C" CONCRETE (24.8 CU.YDS.) FOR ABUTMENTS. CLASS "D" CONCRETE (162.7 CU.YDS.) FOR SUPERSTRUCTURE.
- 8 USE CLASS 10 CHANNEL EXCAVATION (311 CU.YDS.) AND BORROW 414 CU.YDS. AT LOCATION SHOWN ON PLANS, FOR CONSTRUCTION OF WING DIKES, INCLUDES 20% SHRINK FACTOR.
- 9 FOR WING DIKE PIPE CULVERT.
- 10 FOR WING DIKE
- NOTE: USE EPOXY COATED RE-BARS IN THOSE AREAS OF THE BRIDGE WHICH ARE MOST SUSCEPTIBLE TO SALT DAMAGE. (SEE STANDARD J30C-8-79)
- 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 OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES.

STA. 264+88.0 87'-6" x 30'-0" CONTINUOUS CONCRETE SLAB BRIDGE 30° SKEW
DESIGN 680



APPROVED

Louis J. Mullhauer

John H. Weis

LaRoy A. Hanselm

Om H. Jensen

BOARD OF SUPERVISORS

IOWA DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
AUTHORIZED FOR LETTING

DISTRICT LOCAL SYSTEMS ENGINEER DATE

DEPARTMENT OF TRANSPORTATION
IOWA
Highway Division

AUTHORIZED FOR LETTING
Ray Shatt 3-19-80
DEPUTY CHIEF 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 FEB 15, 1980
IOWA REGISTRATION NUMBER 5798 DATE

U.S. DEPT. TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

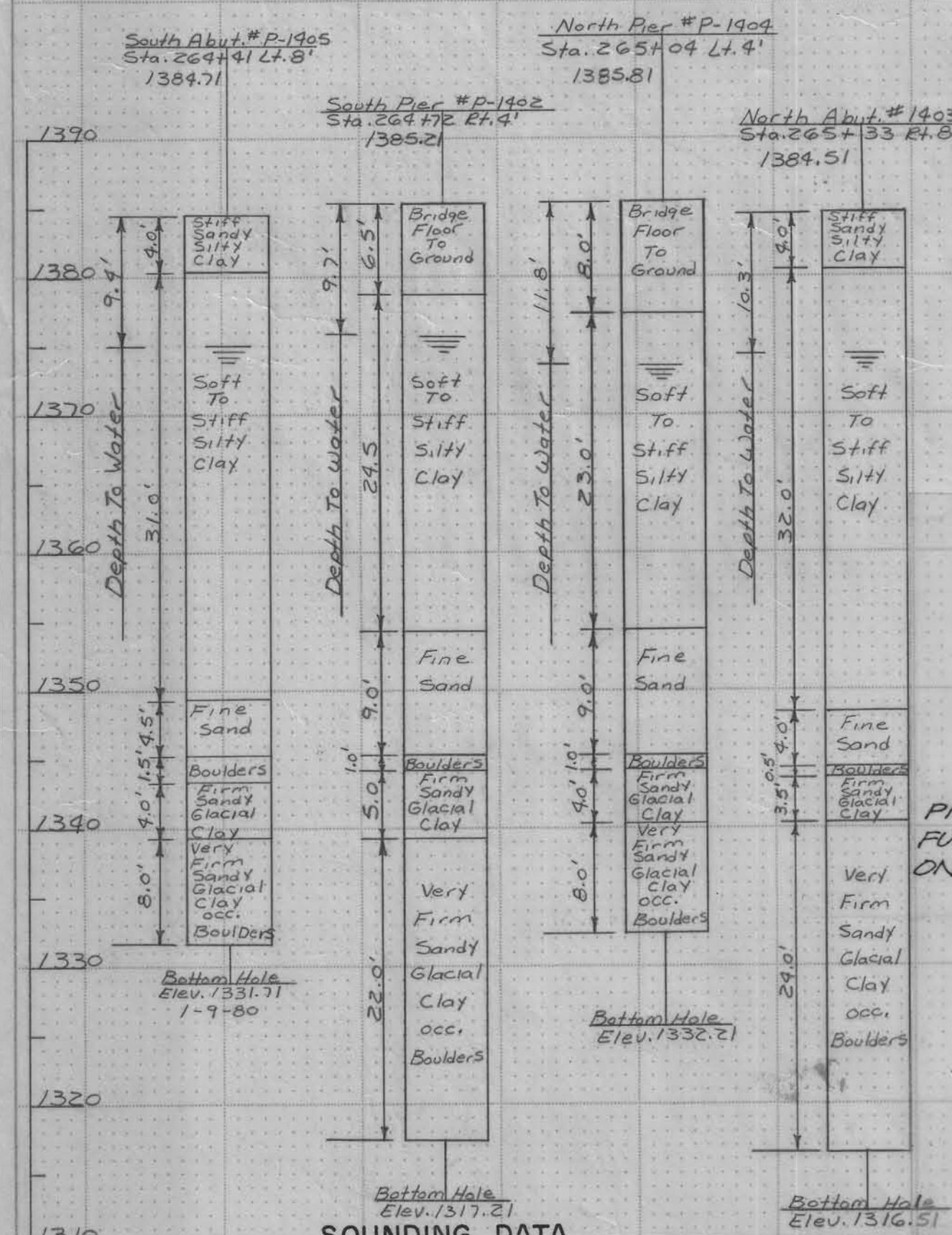
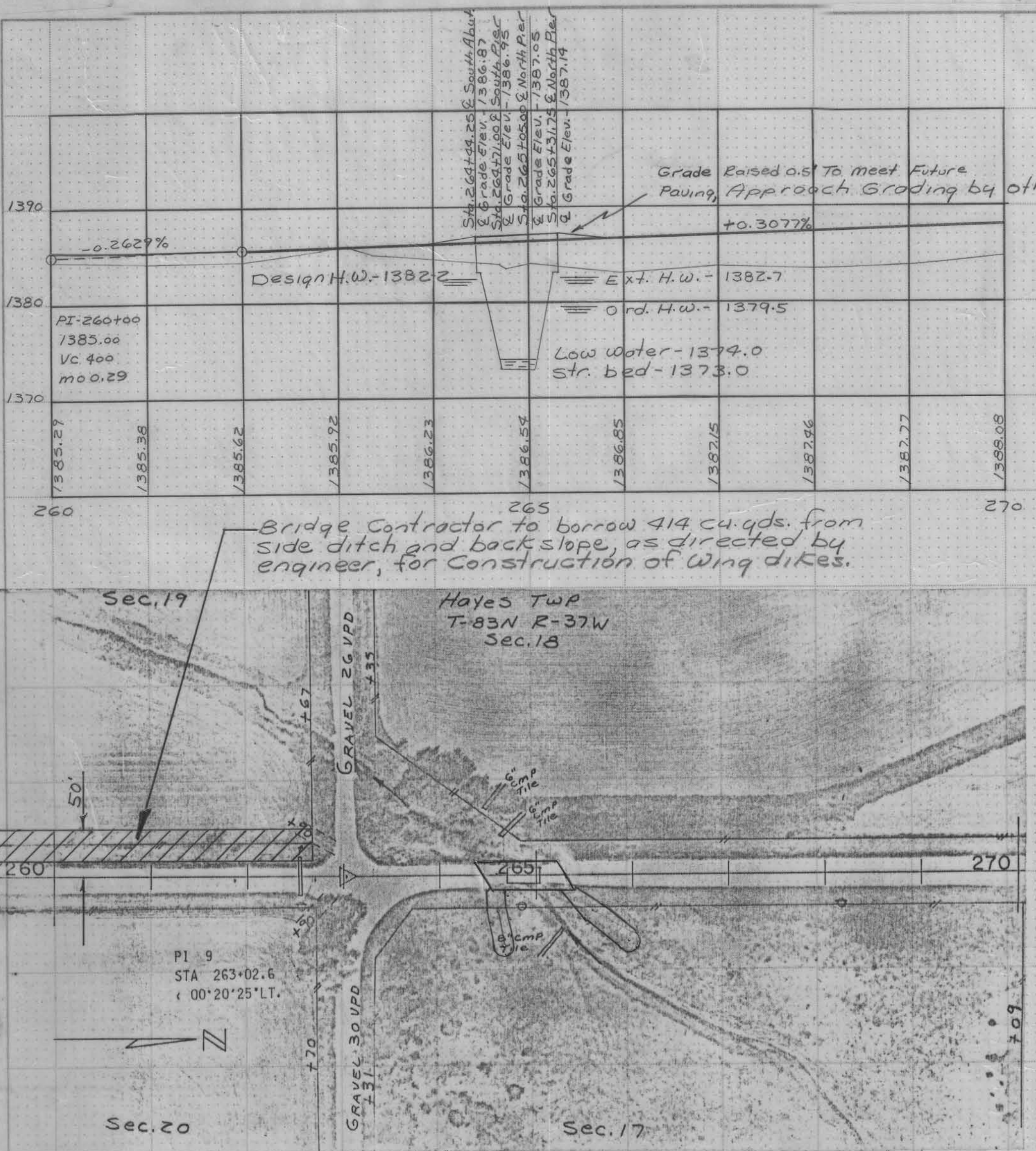
DIVISION ENGINEER DATE

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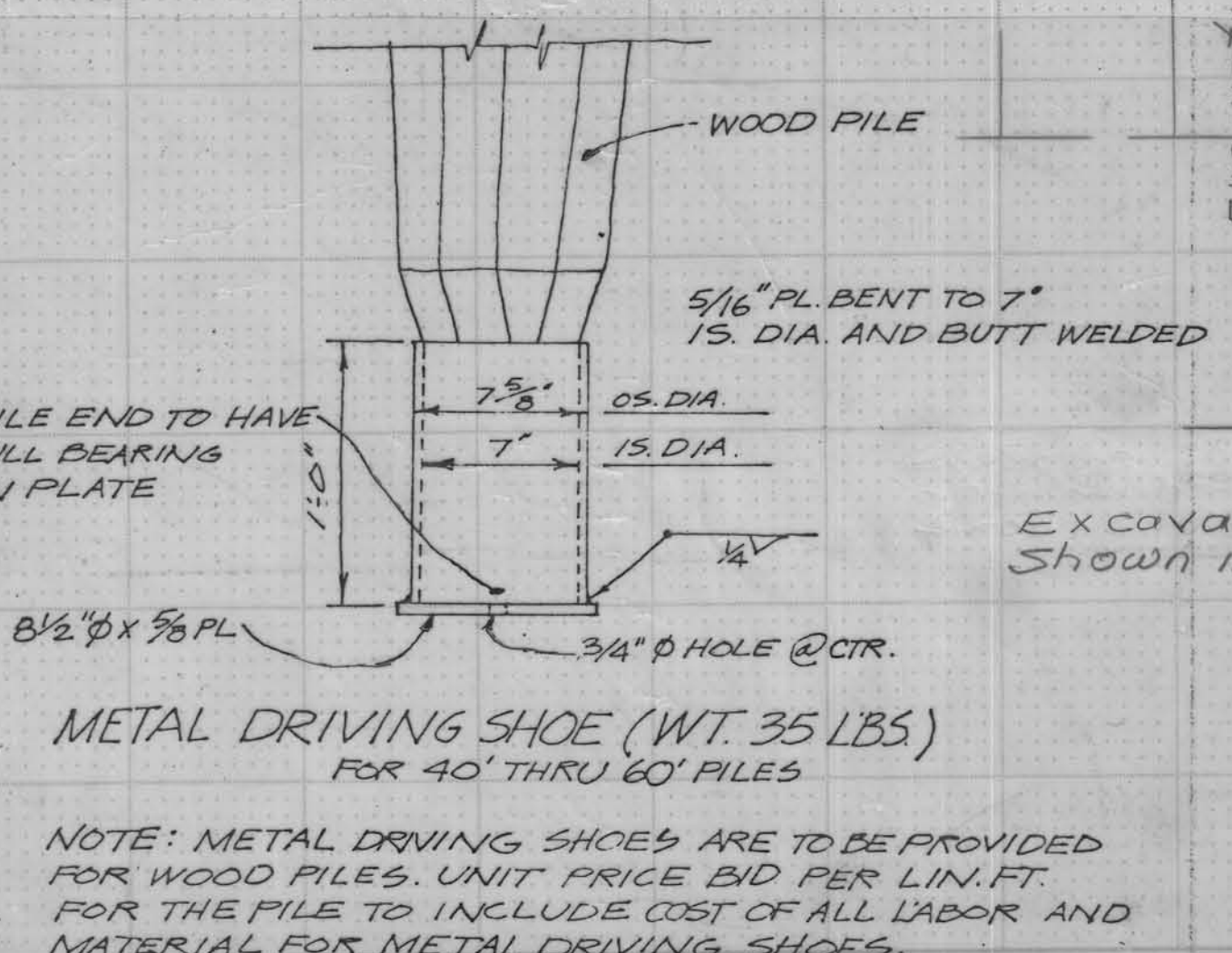
CRAWFORD COUNTY
LETTING DATE April 22, 1980

FINAL SURVEY PLOTTED TEMPLATE NO. 1385.00

ORIGINAL SURVEY PLOTTED TEMPLATE NO. 1385.00



Sta 264+88 & Present 38'x16' I-Beam Bridge, wood piles, steel caps, wood floor. Bridge contractor to remove. Salvage I-Beams & wood plank to remain property of Crawford County. Stockpile neatly within 300 feet of site as directed by the county engineer. Remainder of bridge to be junked.



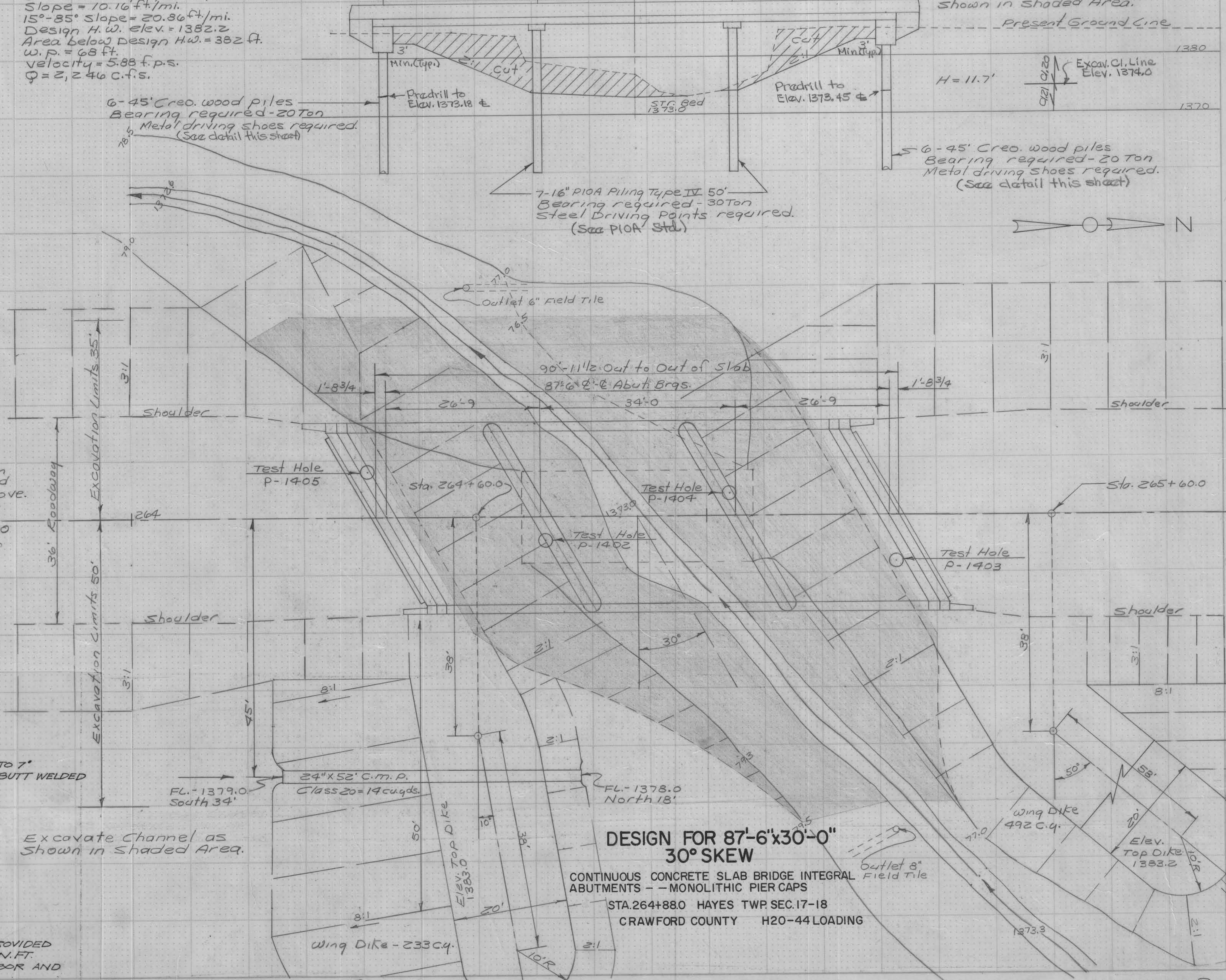
NOTE: METAL DRIVING SHOES ARE TO BE PROVIDED FOR WOOD PILES. UNIT PRICE BID PER LIN. FT. FOR THE PILE TO INCLUDE COST OF ALL LABOR AND MATERIAL FOR METAL DRIVING SHOES.

Bottom of footing elev's. South Abut.
Center line of Bridge - 1381.18
At exterior pile Lt. - 1380.96
At exterior pile Rt. - 1381.01
Berm elevation - 1383.0

Note: The County will supply the Contractor with the necessary bridge floor elevs.

Bottom Cap elevations South Pier
Center line of Bridge - 1384.73
At exterior pile Lt. - 1384.52
At exterior Pile Rt. - 1384.57

Hydraulic Data:
D.A. = 4.56 sq. mi.
Des. Discharge $Q_{50} = 2,521$ c.f.s.
Slope = 70.16 ft./mi.
15°-85° Slope = 20.86 ft./mi.
Design H.W. elev. = 1382.2
Area below Design H.W. = 382 ft.
W.P. = 68 ft.
Velocity = 5.88 f.p.s.
 $Q = 2,246$ c.f.s.



B.M. No. 17 Spike in fence Po. 100' E. N.W. Cor. Sec. 20-83-37 Sta. 263+02 Elev. - 1390.51

Bottom of footing elev's. North abut.
Center line of Bridge - 1381.45
At exterior pile Lt. - 1381.23
At exterior pile Rt. - 1381.28
Berm elevation - 1383.2

Bottom cap elevations North Pier
Center line of Bridge - 1384.83
At exterior pile Lt. - 1384.62
At exterior pile Rt. - 1384.67

Excavate Channel as shown in shaded Area.

6-45' Creos. wood piles Bearing required - 20 Ton Metal driving shoes required. (See detail this sheet)

DESIGN FOR 87'-6"x30'-0" 30° SKEW

CONTINUOUS CONCRETE SLAB BRIDGE INTEGRAL ABUTMENTS - MONOLITHIC PIER CAPS
STA. 264+88.0 HAYES TWP SEC. 17-18
CRAWFORD COUNTY H20-44 LOADING