

STATE	FED. ROAD DIST. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
IOWA	8	1976	1	2
PROJECT NUMBER				
L77-4				
R.O.W. PROJECT NUMBER				

IOWA  
DEPARTMENT OF TRANSPORTATION

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

SECONDARY ROAD SYSTEM

CRAWFORD COUNTY

38'-0" x 24'-0" I-BEAM BRIDGE

PROJECT NO. L77-4

SCALES: AS NOTED

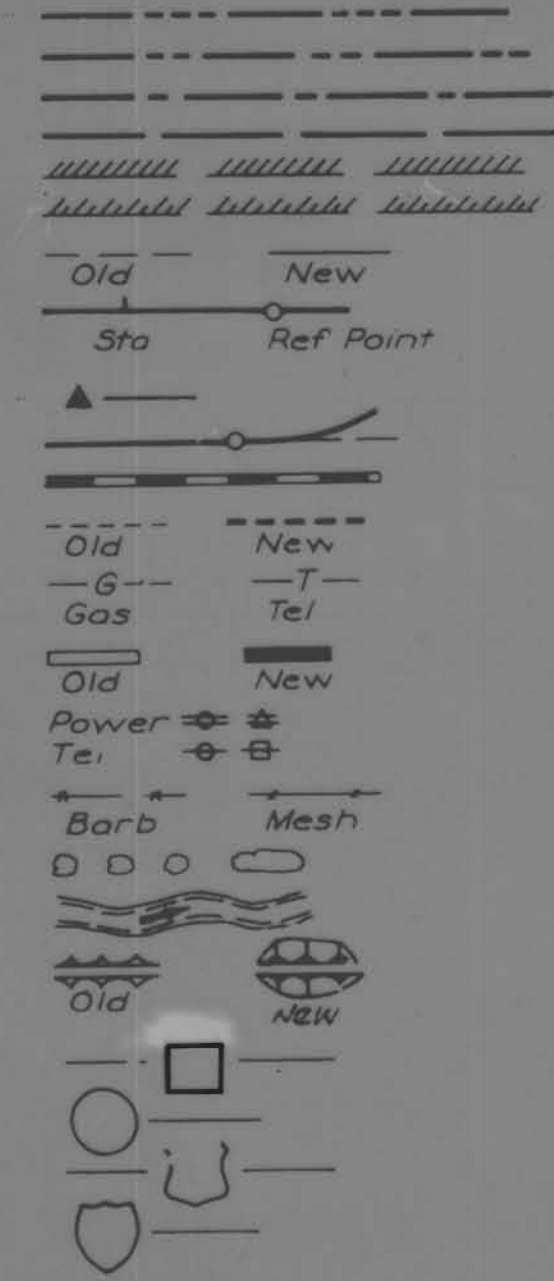
IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS SERIES 1972 PLUS CURRENT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS OF THE IOWA DEPARTMENT OF TRANSPORTATION--HIGHWAY DIVISION SHALL APPLY TO WORK ON THIS PROJECT.

INDEX OF SHEETS	
SHEET NO.	ITEM
1	TITLE SHEET, ESTIMATE OF QUANTITIES, MILEAGE SUMMARY, LOCATION MAP, AND CONVENTIONAL SIGNS.
2	PLAN AND PROFILE, DESIGN DETAILS

MILEAGE SUMMARY  
40'-6" = 0.00767 mi.

- State Line
- Co. Line
- Twp. Line
- Sec. Line
- Corp. Line
- Urban Bdry.
- R.O.W. Lines
- Survey Line
- Sec. Corner
- Profile Grade
- Railroad
- Field Tile
- Underground Lines
- Culverts
- Utility Poles
- Fenc. s
- Trees Or Brush
- Stream
- Dike
- County Road No
- Primary Road No.
- U. S. Road No
- Interstate Road No

CONVENTIONAL SIGNS

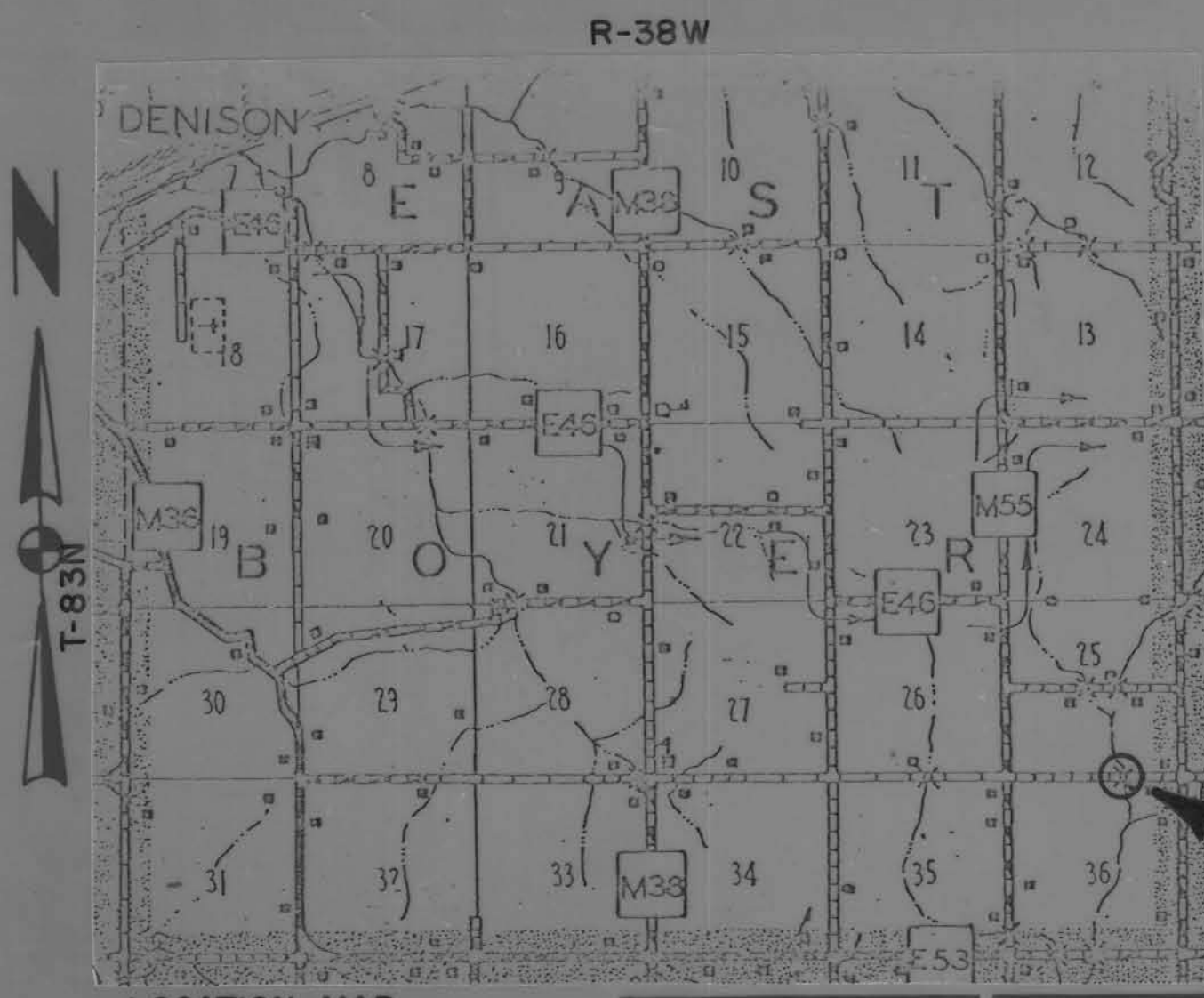


LETTING DATE

BRIDGE

PROJECT NO. L77-4		STA.33+05.0		
SEC. 25-36		EAST BOYER TOWNSHIP		
38'-0" x 24'-0" I-BEAM BRIDGE				
IN LETTING OF	ESTIMATE OF QUANTITIES			
	NO.	ITEM	ABUTMENTS	TOTALS
	1	STRUCTURAL CONCRETE CLASS "C"	18.8 CU.YDS.	18.8 CU.YDS.
	2	REINFORCING STEEL	2487 LBS.	2487 LBS.
	3	STRUCTURAL STEEL		23,536 LBS.
	4	STEEL HANDRAIL		81.0 FT.
	5	CREOSOTED PILING 12 @ 35' <i>void</i>	420 L.F.	420 L.F.
	6	CREOSOTED WING PILING 8 @ 20'	160 L.F.	160 L.F.
	7	CREOSOTED LUMBER	2304 FBM	5904 FBM
	8	EXCAV. CLASS 10 CHANNEL		35 CU.YDS.
	9	EXCAV. CLASS 20	135 CU.YDS.	135 CU.YDS.
10	REMOVALS		LUMP SUM	

CRAWFORD COUNTY  
PROJECT NO. L77-4



NOTE: CRAWFORD COUNTY TO FURNISH ALL MATERIALS EXCEPT STRUCTURAL CONCRETE AND REINFORCING STEEL. STRUCTURAL STEEL DOES NOT INCLUDE HARDWARE. (CRAWFORD COUNTY TO CONSTRUCT AND FURNISH ALL MATERIALS FOR DEADMEN.)

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. USABLE MATERIAL SHALL BECOME THE PROPERTY OF CRAWFORD COUNTY.

STA. 33+05.0  $\phi$  BRIDGE  
38'-0" x 24'-0" I-BEAM BRIDGE

- APPROVED
- Don H. Jensen*
  - LeRoy a. Hansohn*
  - Louis J. Mullbrown*
  - Martin Spiegel*
  - Charles J. Smith*
- BOARD OF SUPERVISORS

DISTRICT LOCAL SYSTEMS ENGINEER  
IOWA DEPT. OF TRANSPORTATION  
HIGHWAY DIVISION

APPROVED *Thomas E. DeWitte* DATE 1-14-77

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 Delight* Jan 4, 1977  
IOWA REGISTRATION NUMBER 5798 DATE

DEPARTMENT OF TRANSPORTATION  
IOWA  
Highway Division

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
DEPUTY CHIEF ENGINEER

*Done By Boyer Valley Constr. Co  
Denison, Iowa  
And Crawford County  
April-May 1977*

1971 TRAFFIC COUNT 37 V.P.D.

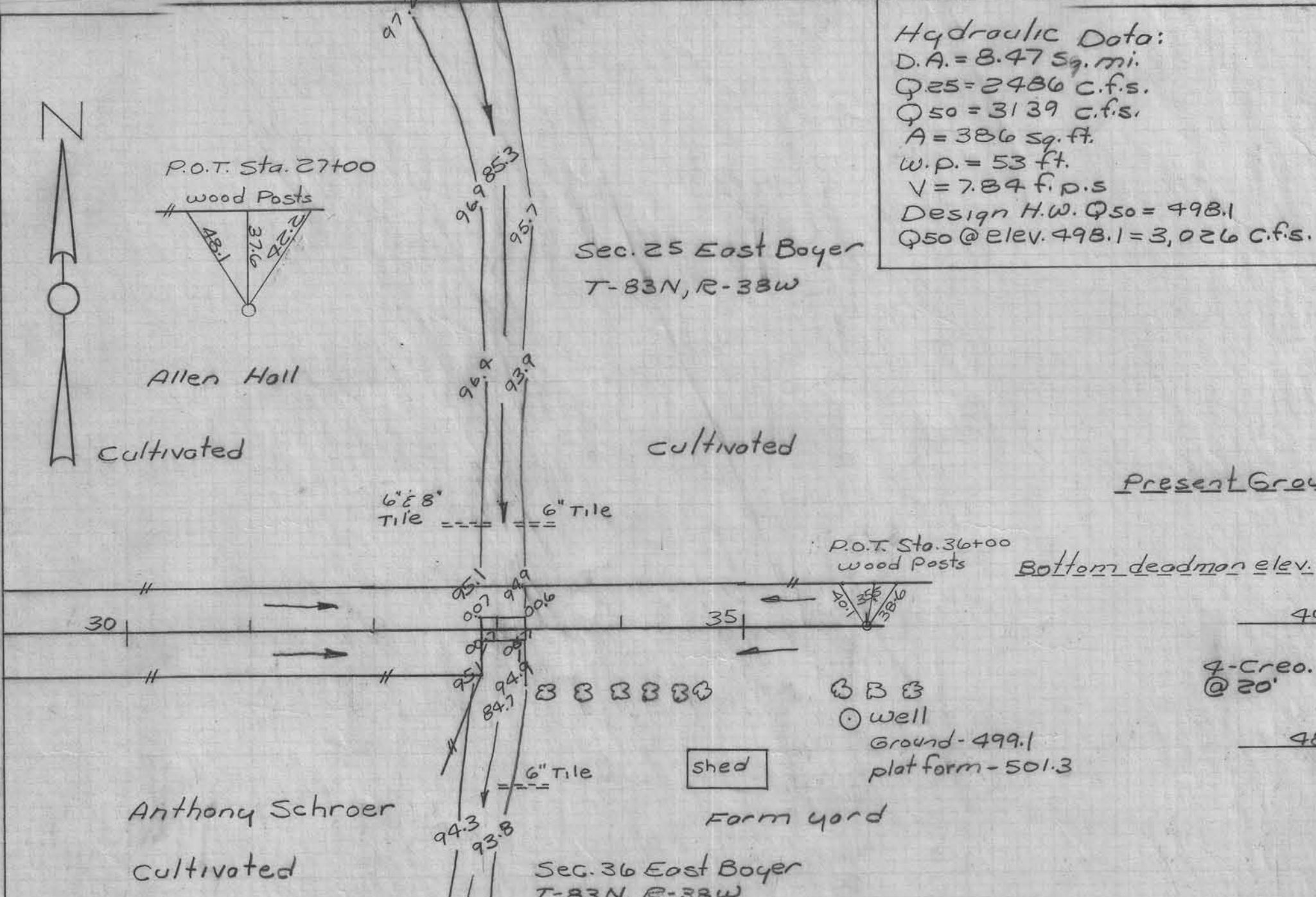
LETTING DATE:

CRAWFORD COUNTY

PROJECT NO. L77-4

SHEET NO. 1 of 2





Reinforcing Steel - Two Abutments

bar size	Length	No.	Weight
a	5 3'-9"	80	313
c	7 27'-11"	20	1141
d	5 10'-4 1/2"	24	260
e	8 7'-7"	4	81
f	7 5'-0"	16	164
g	5 4'-0"	24	100
h	7 23'-11"	4	196
i	7 4'-0"	8	65
2w	2 38'-6"	12	77
spacers	7/8 1'-10"	24	90
Total Weight (Lbs.)			2487

Structural Steel

Item	No.	Weight (Lbs)
24" x 40" WF @ 76#	7	21,280
Steelediaphragms @ 40#	12	1,720
Bearing Plates	14	536
Total Weight (Lbs.)		23,536

Two Abutments - Class C Concrete  
18.8 cu. yds.

Cresoted Lumber

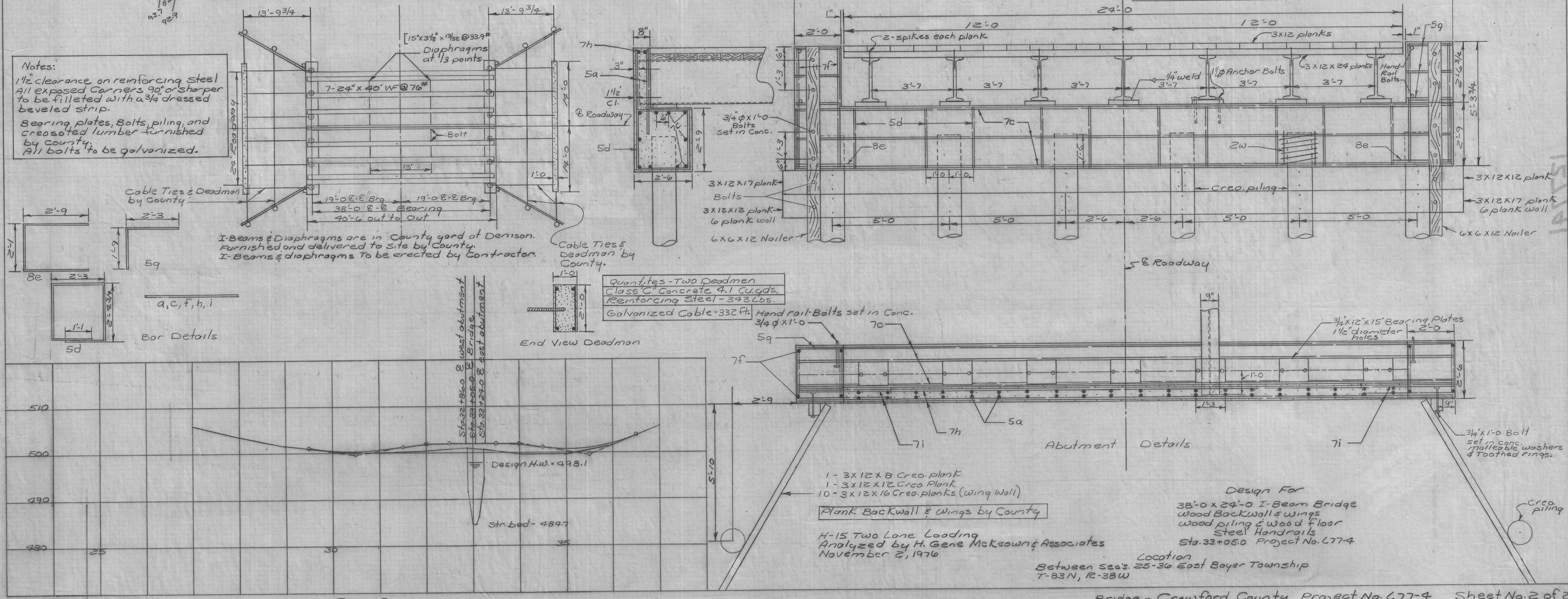
Item	No.	Linear Feet	Board Feet
Floor Plank 3x12x24	40	960	2880
Floor Plank 3x12x22	24	528	1584
Floor Plank 3x12x20	24	480	1440
Wing Plank 3x12x16	40	640	1920
Wing Plank 3x12x12	4	48	144
Wing Plank 3x12x8	4	32	96
Nailer 6x6x12	4	48	144
Total Board Feet			8208

Notes:  
 1 1/2" clearance on reinforcing steel  
 All exposed corners 90° or sharper to be filleted with a 3/4" dressed beveled strip.  
 Bearing plates, Bolts, piling, and creosoted lumber furnished by county.  
 All bolts to be galvanized.

I-Beams & Diaphragms are in County yard at Denison. Furnished and delivered to site by County.  
 I-Beams & diaphragms to be erected by Contractor.

West abutment  
 Top abutment - 499.44  
 piling cut off - 498.19  
 Bearing required - 15 Ton

East abutment  
 Top abutment - 499.44  
 piling cut off - 498.19  
 Bearing required - 15 Ton



Quantities - Two Deadmen  
 Class C Concrete 4.1 Cu. Yds.  
 Reinforcing Steel - 343 Lbs.  
 Galvanized Cable - 332 ft.

Plank Backwall & Wings by County  
 H-15 Two Lane Loading  
 Analyzed by H. Gene McKeown & Associates  
 November 2, 1976

Design For  
 38'-0" x 24'-0" I-Beam Bridge  
 Wood Backwall & Wings  
 Wood piling & Wood Floor  
 Steel Handrails  
 Sta. 33+05.0 Project No. 677-4

Location  
 Between Secs. 25-36 East Boyer Township  
 T-83N, R-38W