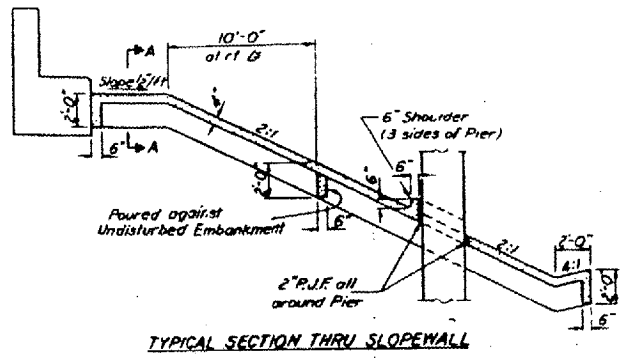
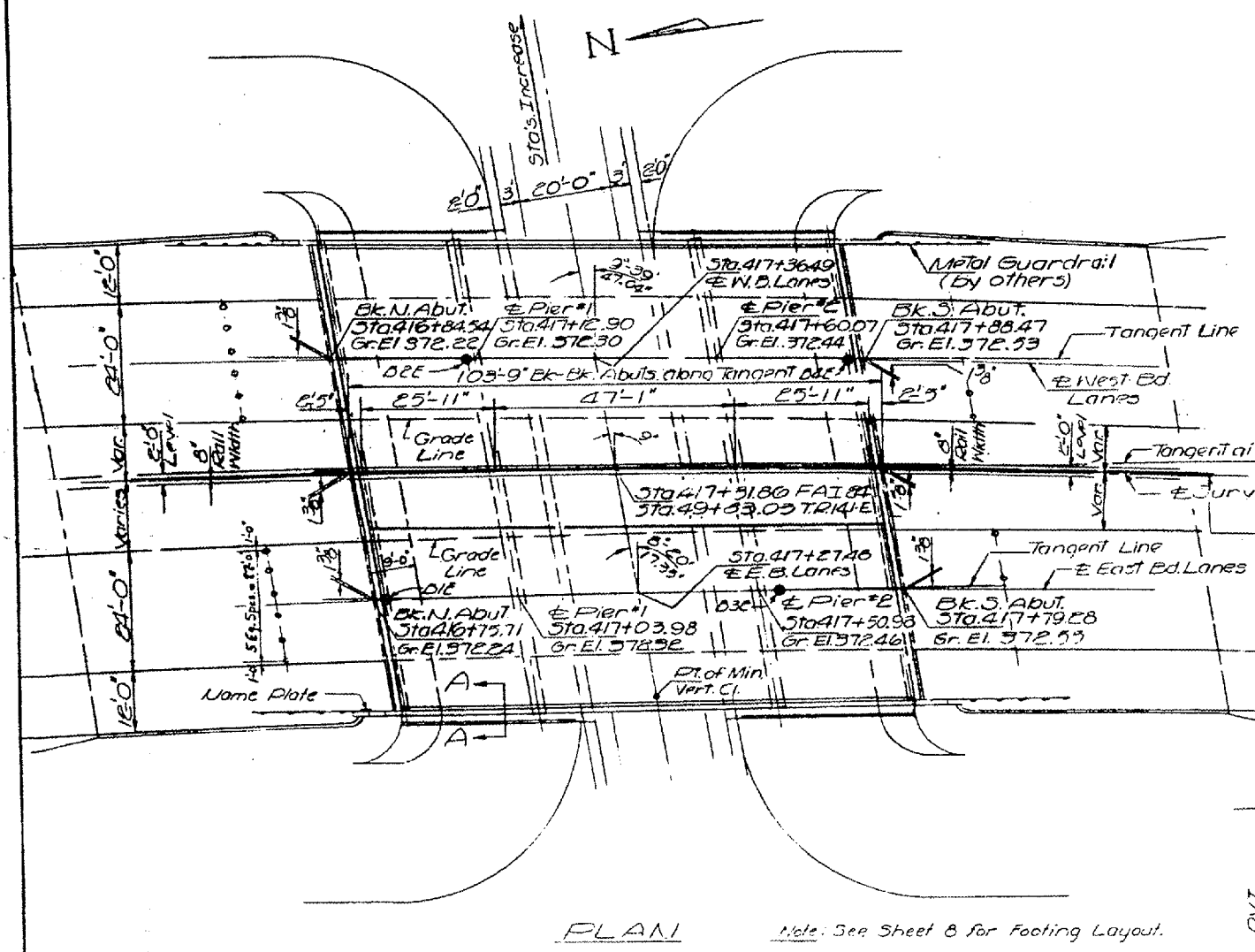
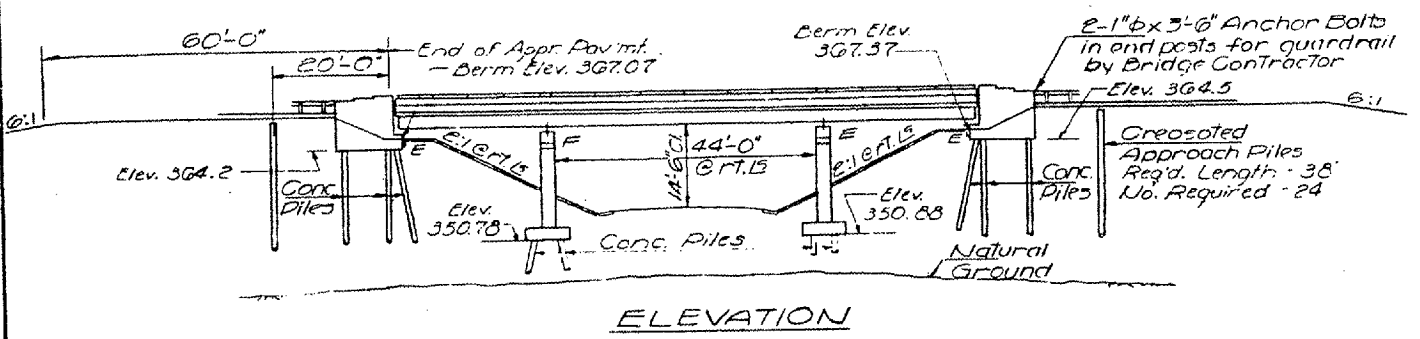


|         |    |     |          |
|---------|----|-----|----------|
| DATE    | BY | NO. | REVISION |
| 2-24-63 | MS | 3   |          |

MASSAC 7L 30 14 SHEETS

B.M. #32 Bot Spike in 12" Sasafra  
 400' Lt. of Station 419 Elev. 342.24

STATE OF ILLINOIS  
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
 DIVISION OF HIGHWAYS



**CURVE DATA**  
 N.B.L. P.I. Sta. 406+8074  
 E.B.L. P.I. Sta. 409+3672  
 E.P.I. Sta. 408+0873  
 $\Delta = 15^\circ 29' 39''$   
 $D = 0^\circ 30'$   
 $R = 11,479.16'$   
 $L = 3,098.84'$   
 $T = 1,558.93'$   
 $E = 105.35'$   
 $J.E. = 0.0151$

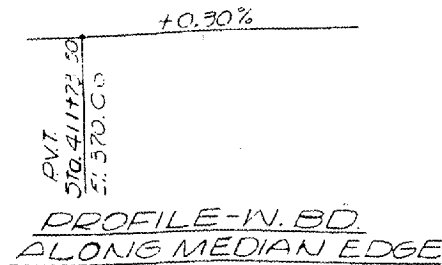
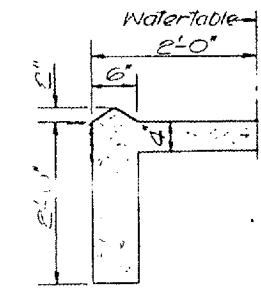
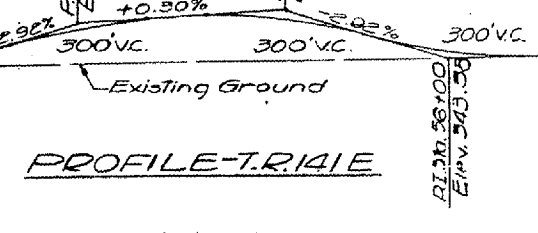
**TOTAL BILL OF MATERIAL**

| Item                         | Unit     | Super  | Sub    | Total   |
|------------------------------|----------|--------|--------|---------|
| Class X Concrete             | Cu. Yds. | 287.5  | 412.9  | 700.4   |
| Protective Coat              | Sq. Yds. | 1100   |        | 1100    |
| Structural Steel             | Lump Sum | 0.26   |        | 0.26    |
| Aluminum Railing             | Lin. Ft. | 201    |        | 201     |
| Reinforcement Bars           | Lbs.     | 73 980 | 43 100 | 117 040 |
| Creosoted Piles (20' to 36') | Lin. Ft. |        | 912    | 912     |
| Concrete Piles               | Lin. Ft. |        | 5600   | 5600    |
| Test Piles (Concrete)        | Each     |        | 4      | 4       |
| Name Plates                  | Each     | 1      |        | 1       |
| Slope Wall 4"                | Sq. Yds. |        | 1010   | 1010    |
| Stud Shear Connectors        | Each     | 1638   |        | 1638    |
| Preformed Joint Beater       | Lin. Ft. | 196    |        | 196     |

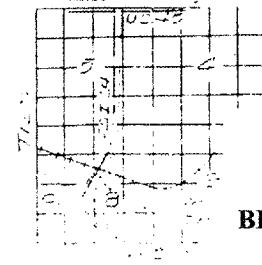
\* CALCULATED WEIGHT OF STRUCTURAL STEEL = 165,450 Lbs.

**GENERAL NOTES**

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.  
 Field connections shall be bolted using high strength bolts. Bolts  $\frac{3}{4}$ " $\phi$ , open holes  $\frac{1}{8}$ " $\phi$ , unless otherwise noted.  
 Diaphragm connections may be adapted to shop welding subject to approval by the Engineer.  
 Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.  
 Anchor bolts shall be set before riveting diaphragms over supports.  
 Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq. ft.  
 Concrete piles shall be driven in holes precored through the embankment in accordance with Article 513.09(c) of the Standard Specifications.  
 The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments and piers.  
 The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.  
 This Contractor shall drive 4 Concrete test piles in permanent locations as directed by the Engineer, one each at the N. Abut. (N.D. Lanes), S. Abut. (S.D. Lanes), Pier 1 (E.D. Lanes) and Pier 2 (W.D. Lanes) before construction of the remainder of piles.  
 Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of paint. See Special Provisions for field paint.  
 A finishing machine as specified in Article 503.16(c) will be required for the two 24 foot lanes. A vibrating screed and hand methods or other methods approved by the Engineer will be permitted for the remaining portions of the deck.



**DESIGN STRESSES**  
 $F_c = 1200 \text{ psi} - \text{Deck Slab}$   
 $F_c = 1400 \text{ psi} - \text{Gurb. Piers, Abut.}$   
 $F_c = 20,000 \text{ psi} - \text{Steel}$   
 $F_c = 30,000 \text{ psi} - \text{Steel}$   
 $n = 15$   
 Allowable Stress = 20,000 psi



**GENERAL PLAN & ELEVATION**

FOR INFORMATION ONLY:

BRIDGE NO. 7 STRUCTURE 064-0034

DESIGNED: [Signature]  
 CHECKED: George H. [Signature]  
 DRAWN: [Signature]  
 CHECKED: George H. [Signature]

EXAMINED: [Signature]  
 PASSED: [Signature]  
 APPROVED: Richard H. [Signature]

FEB 6 1963

STATION 417+31.86  
 STATE OF ILLINOIS  
 DIVISION OF HIGHWAYS  
 NAME PLATE