

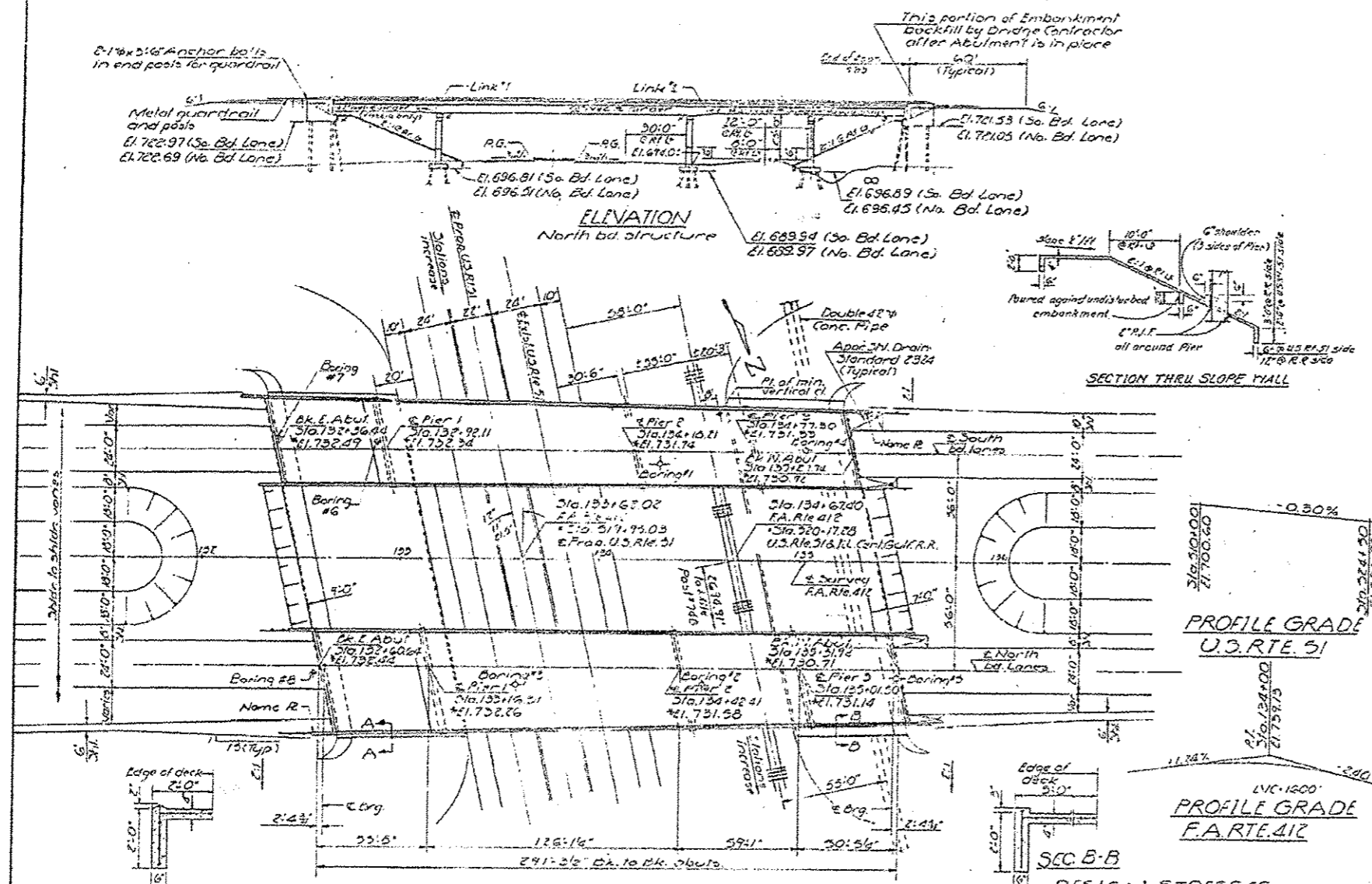
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
412	53-20	MACON	95	36

SMH-G E1.691.83 Critical Square on North-east corner of concrete pier... East side of U.S. Rte 51 approximately 350 ft. North of centerline.

GENERAL NOTES

Reinforcing steel shall be high strength deformed bars...
 Calculated weight of structural steel...
 Full welding of construction necessities will not be permitted...
 Concrete piles of abutments shall be driven to holes...
 The basic seal system shall be used for slope and field painting of structural steel...
 Protective coat shall not be applied to surfaces to which waterproofing membrane system is applied...
 Units of waterproofing membrane system shall be 6' beyond end of deck...
 Reinforcement bars shall be lapped 24 diameters unless otherwise shown.

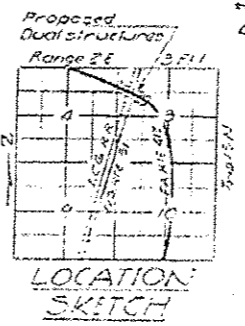


TOTAL BILL OF MATERIAL

Item	Quantity	Unit	Total
Structural Excavation	170	cu yd	170
Protective Coat	472	sq ft	472
Waterproofing Membrane System	2906	sq ft	2906
Structural Steel	1255	lb	1255
Reinforcement Bars	62700	lb	62700
Concrete Piles	9619	cu ft	9619
Cast Piles (Concrete)	2	cu ft	2
Slope Wall (2)	2962	sq ft	2962
Formed Joint Series (1)	94	sq ft	94
Name Plate	2	sq ft	2
Structural Steel	8	lb	8
Steel Sheet Piling	3915	sq ft	3915
Steel Sheet Piling	6650	sq ft	16472
Structural Steel (2)	101	sq ft	101
Waterproofing Membrane System	92	sq ft	92

DESIGN STRESSES

Piers - $f_c = 3500$ psi
 $f_y = 60,000$ psi
 $n = 8.5$
 $f_c = 1200$ psi - Deck slab
 $f_c = 1400$ psi - Curb, parapet, sub.
 $f_y = 20,000$ psi - Reinf.
 $f_y = 20,000$ - 21,000 psi - Struck
 $f_y = 14,000$ - 14,000 psi - Grade 50
 $f_y = 70$ psi - Fastenings
 $n = 10$
 Allow 25% for rust in S.S.
 Design Specifications
 AASHTO 1975 & 1981
 (72-1100-1001)



DESIGNED	Sumit Desai
CHECKED	J. G. (Name)
DRAWN	J. G. (Name)
CHECKED	J. G. (Name)

EXAMINED	J. G. (Name)
PASSED	J. G. (Name)
APPROVED	J. G. (Name)

STATION 133+62.06
 BUILT BY
 STATE OF ILLINOIS
 F.A. RTE 412 SEC. 53-20-NVB
 P.A. PROJ. 53-20-NVB
 LOADING HS 20

NAME PLATE
 (See Sht. 21-5)

EXIST. PROFILE
 TOP OF EAST RAIL
 ILL. CENTRAL GULF RR