

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. 1
693	(2)BR-3)BR	McLean	23	7 SHEETS
FED. ROAD DIST. NO. 7	ILL. PROJ.	FED. AID PROJECT		

Benchmark: B.M. #4824-1 Chiseled "□" on Top of Southwest Wingwall -16.33' Lt., Sta. 1532+46.43, Elevation 823.922.

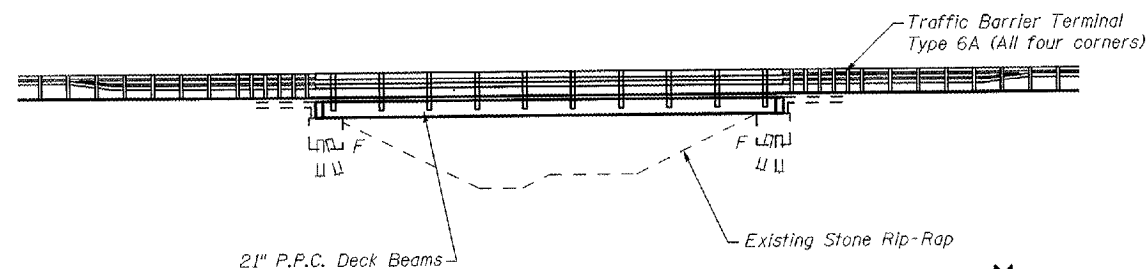
Existing Structure: S.N. 057-0191. Built as F.A. Rte. 693, Section 2)BR-3 at Sta. 1532+21 in 1985. The existing Superstructure shall be removed and replaced.

Traffic is to be detoured.

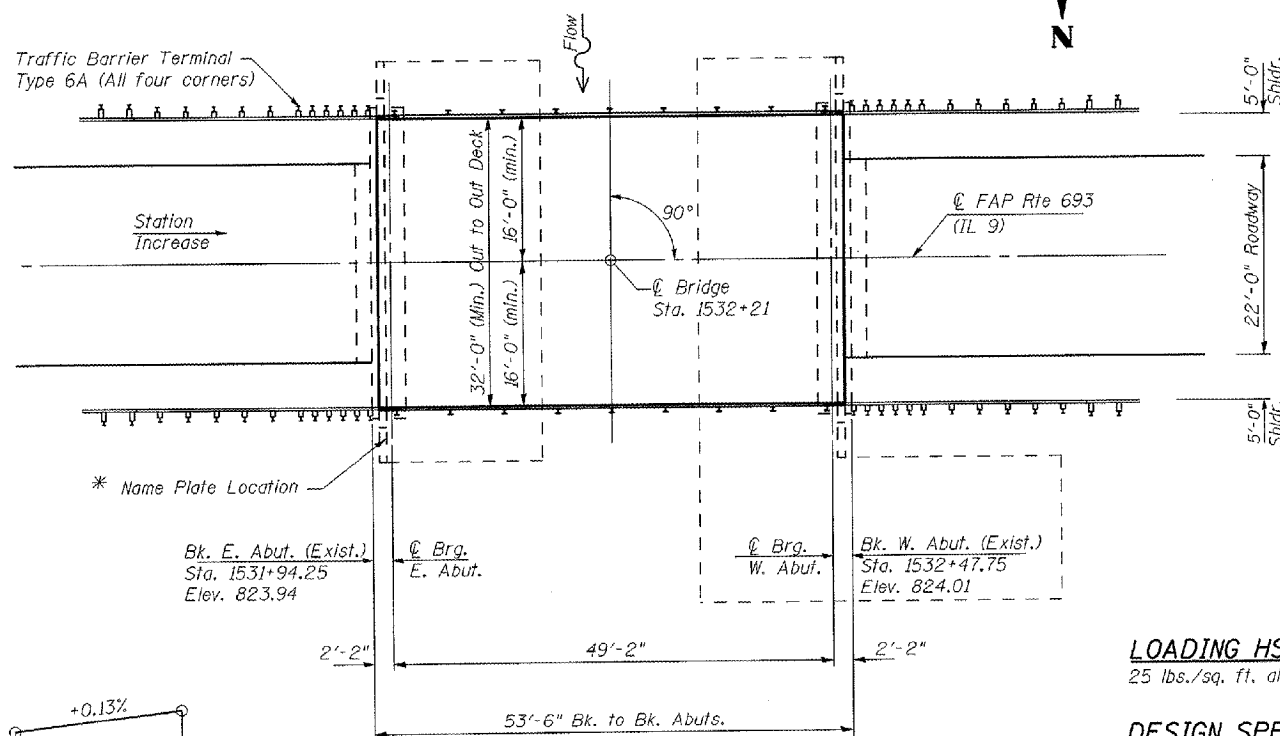
No salvage.

GENERAL NOTES

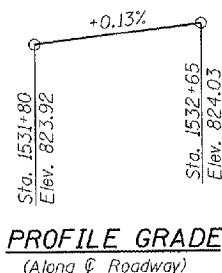
Reinforcement bars shall conform to the requirements of ASTM A 705 Grade 60 (IL Modified). See Special Provisions.
 Reinforcement bars designated (E) shall be epoxy coated.
 Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation or a change in the scope at the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
 The Contractor is advised that the existing P.P.C. Deck Beams are in a deteriorated condition with reduced load bearing capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removing and replacement of the superstructure.
 The Minimum thickness of the Concrete Overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
 No instream work will be allowed on this project.
 Repairs of abutments shall be completed prior to placement of the new beams.



ELEVATION



PLAN



PROFILE GRADE
(Along C Roadway)

The Profile Grade shows the final elevations after grinding. Up to 1/4" will be ground off the bridge slab and approach pavement.

STATION 1532+21
 BUILT 20 BY
 STATE OF ILLINOIS
 F.A.P. 693 SEC. (2)BR-3) BR
 LOADING HS20-44
 STR. NO. 057-0191

NAME PLATE
See Std. 515001

* Proposed Name Plate shall be mounted with concrete anchors adjacent to Existing Name Plate. Cost Included with Name Plates.

INDEX OF SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 SUPERSTRUCTURE
- 3 DECK BEAM DETAILS
- 4 SUPERSTRUCTURE DETAILS
- 5 STEEL RAILING, TYPE SM
- 6 EAST ABUTMENT
- 7 WEST ABUTMENT

EXISTING WATERWAY INFORMATION

Drainage Area	3.72 Sq. Miles
H.W. Elev. (50 Year)	495.4
H.W. Elev. (100 Year)	495.6
Design Discharge (50 year)	870 c.f.s.
Required Opening	195 Sq. Ft.
Existing Opening	200 Sq. Ft.
Created Head for Design Flood	0.26'
100 year Discharge	1000 c.f.s.
Created Head for 100 year Flood	0.36'

Note: Information per original 1979 design plans.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Concrete Superstructure	Cu. Yd.	4.6		4.6
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1611		1611
Reinforcement Bars, Epoxy Coated	Pound	2220	700	2920
Steel Railing, Type SM	Foot	104		104
Name Plates	Each	1		1
Epoxy Crack Injection	Foot		5	5
Structural Repair of Concrete (Depth Equal to or Less than 5")	Sq. Ft.		3	3
Concrete Removal	Cu. Yd.	3.6		3.6
Bridge Deck Grooving	Sq. Yd.	174		174
Protective Coat	Sq. Yd.	185		185
Concrete Wearing Surface, 5"	Sq. Yd.	179		179
Diamond Grinding (Bridge Section)	Sq. Yd.	265		265

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (TS)
Engineer of Bridges & Structures

LOADING HS 20-44

25 lbs./sq. ft. allowance for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications 17th Edition

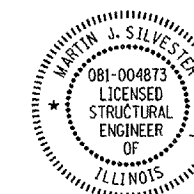
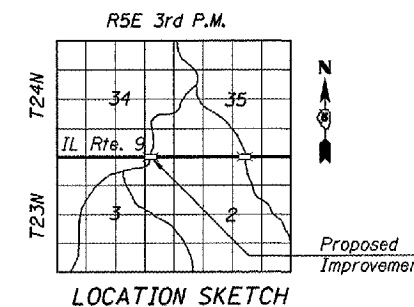
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f'_c = 5,000$ psi (Concrete Wearing Surface)
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax strands)
 $f'_{si} = 201,960$ psi (1/2" ϕ low lax strands)



M. Silvester 12-12-07
MARTIN J. SILVESTER
 STRUCTURAL ENGINEER
 LICENSE EXP. DATE 11-30-08

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN AND ELEVATION
RTE. 9 OVER BRAYS CREEK
FAP 693 SECTION (2)BR-3)BR
MCLEAN COUNTY
STA. 1532+21 STR. NO. 057-0191
 SCALE: VERT. _____ DRAWN BY RMH
 HORIZ. _____ DATE DEC 2007 CHECKED BY MJS

TUC PROJ. # 3107912-01
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