

CONTRACT NO.: 98881
 ROUTE: VARIOUS
 COUNTY: VARIOUS
 SECTION: D-9 CONTRACT
 MAINTENANCE 05-7
 SHEET NO.: 14 OF 31

HEET NO. 1
 21 SHEET

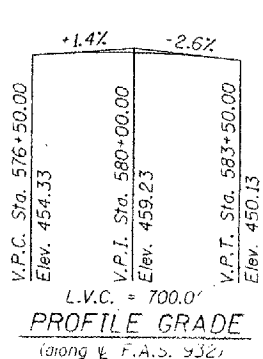
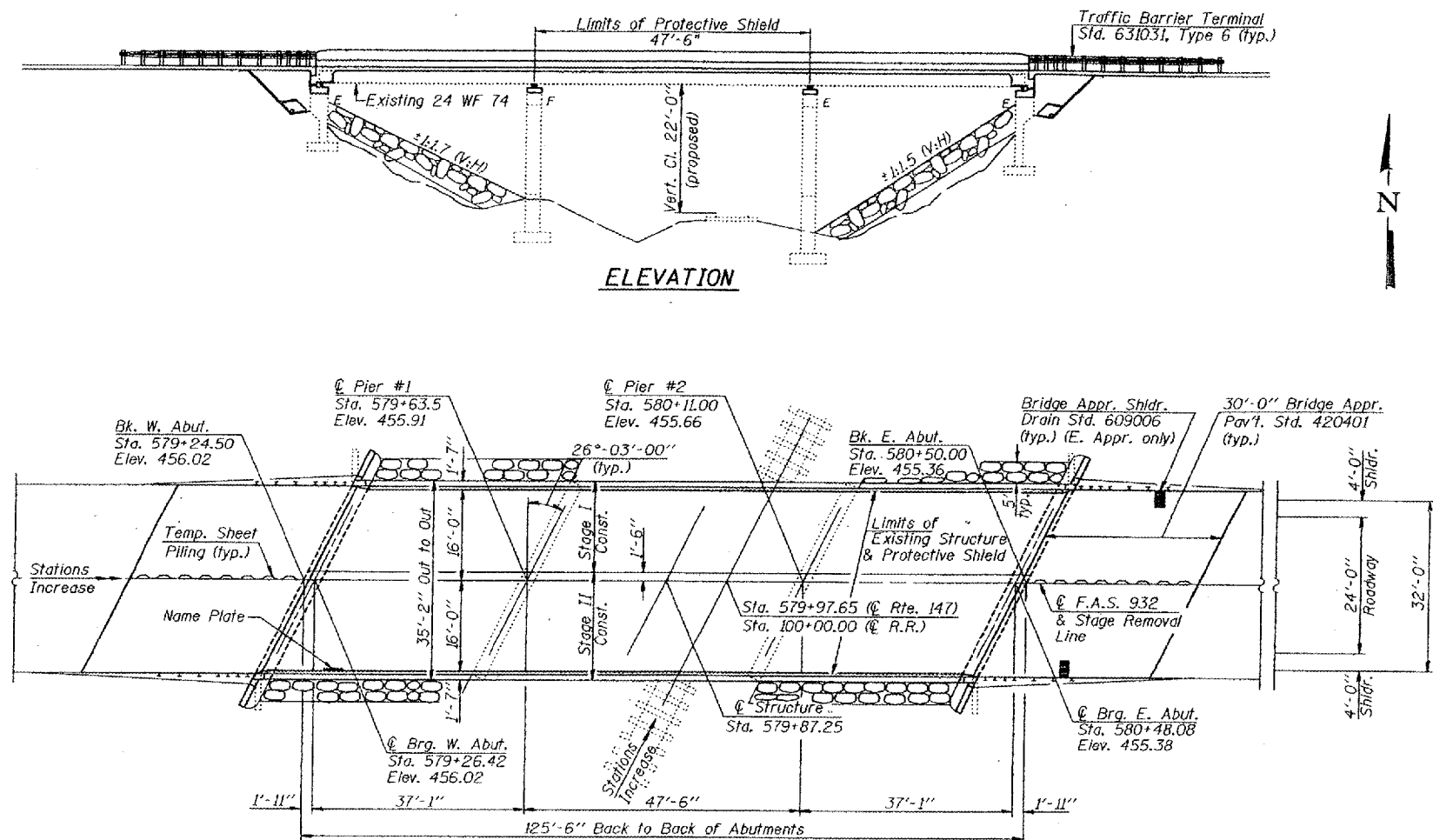
Bench Mark: Square cut on S.W. wingwall of S.N. 076-0021 Elev. 455.20

Existing Structure: S.N. 076-0021; Built in 1941 as F.A. Rte. 163, Section IIVBF. Existing structure is a 3-span continuous, non-composite wide flange superstructure with a 7" R.C. deck supported on spread footing abutments and multi-column piers on spread footings on rock. The structure is 125'-6" Bk. to Bk. abutments and 32'-4" O. to O. of deck. Traffic to be maintained utilizing stage construction.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " ϕ , open holes $\frac{13}{16}$ " ϕ , unless otherwise noted. Field welding of construction accessories will not be permitted to beams. Reinforcement bars shall conform to the requirements of AASHTO M 31, M 42 or M 53 Grade 60. The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the new portion of the abutments. Anchor bolts shall be set before bolting diaphragms over supports. 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 for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearing, two $\frac{1}{8}$ " adjusting shims shall be provided for each bearing and placed as detailed. Prior to pouring the new concrete deck, all loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surface of the beams in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04. All existing construction accessories welded to the top flange over the piers between the quarter points of the beams shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any cracks that can not be removed by grinding approximately $\frac{1}{4}$ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04. Field Painting of Structural Steel shall be done under a separate Painting Contract. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project. All construction joints shall be banded. The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are all the splice plates.



TOP OF EAST RAIL ELEVATIONS

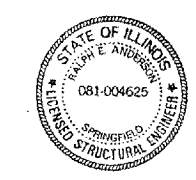
Sta. 97+83.50	Elev. 429.62
Sta. 98+83.50	Elev. 429.94
Sta. 99+83.50	Elev. 430.41
Sta. 100+16.5	Elev. 430.58
Sta. 101+16.50	Elev. 430.98
Sta. 102+16.50	Elev. 431.19

TOP OF WEST RAIL ELEVATIONS

Sta. 97+83.50	Elev. 429.56
Sta. 98+83.50	Elev. 429.89
Sta. 99+83.50	Elev. 430.34
Sta. 100+16.5	Elev. 430.51
Sta. 101+16.50	Elev. 430.91
Sta. 102+16.50	Elev. 431.16

DESIGNED: [Signature]
 CHECKED: [Signature]
 DRAWN: R. Sommer
 CHECKED: CCC/DPN

EXAMINED: [Signature]
 PASSED: [Signature]
 ENGINEER OF BRIDGES AND STRUCTURES



STATION 579+87.25
 REBUILT 20 BY
 STATE OF ILLINOIS
 F.A.S. RTE. 932 SECTION IIVB-D
 LOADING HS20
 STR. NO. 076-0021

NAME PLATE
 See Std. 515001
 Existing name plate to be relocated if directed by the Engineer. Cost included with Name Plates.

EXPIRES 11-30-2004

LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.
 DESIGN SPECIFICATIONS
 1996 AASHTO with 1997, through 2000 Interims
 1995 Seismic Retrofitting Manual for Highway Bridges
 FHWA-RD-94-052

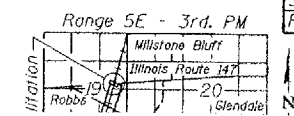
DESIGN STRESSES

NEW CONSTRUCTION
 FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 20,000$ psi (structural steel)
 $N = 10$

EXISTING CONSTRUCTION
 FIELD UNITS
 $f_c = 1,400$ psi
 $f_y = 20,000$ psi (reinforcement)
 $f_y = 20,000$ psi (structural steel)
 $N = 10$

SEISMIC DATA

Seismic Performance Category (SPC) = I
 Bedrock Acceleration Coefficient (A) = 1
 Site Coefficient (S) = 1.0



FOR INFORMATION ONLY:
 BRIDGE NO. 2 STRUCTURE 076-0021

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu. Yd.		169	169
Temporary Sheet Piling	Sq. Ft.		210.0	210.0
Concrete Structures	Cu. Yd.		23.1	23.1
Concrete Superstructure	Cu. Yd.	150.5		150.5
Name Plates	Each	1		1
Reinforcement Bars, Epoxy Coated	Pound	35670	4650	40320
Protective Coat	Sq. Yd.	546		546
Bridge Deck Grooving	Sq. Yd.	417		417
Bar Splicers	Each	394	64	458
Stud Shear Connectors	Each	1836		1836
Porous Granular Embankment	Cu. Yd.		174	174
Elastomeric Bearing Assembly, Type I	Each	12		12
Elastomeric Bearing Assembly, Type II	Each	6		6
Concrete Removal	Cu. Yd.		9.8	9.8
Furnishing & Erecting Structural Steel	Pound	2247		2247
Protective Shield	Sq. Yd.	186		186
Jacking Existing Superstructure	Each	1		1
Temporary Bridge Rail	Foot	126		126
Structural Steel Removal	Pound	6673		6673
Stone Riprap, Class A3	Sq. Yd.		417	417
Filter Fabric for use with Riprap	Sq. Yd.		417	417

GENERAL PLAN
 ILLINOIS ROUTE 147 OVER
 CANADIAN NATIONAL/IL. CENTRAL R.R.
 F.A.S. ROUTE 932 - SECTION IIVB-D
 POPE COUNTY
 STATION 579+87.25
 STRUCTURE NO. 076-0021