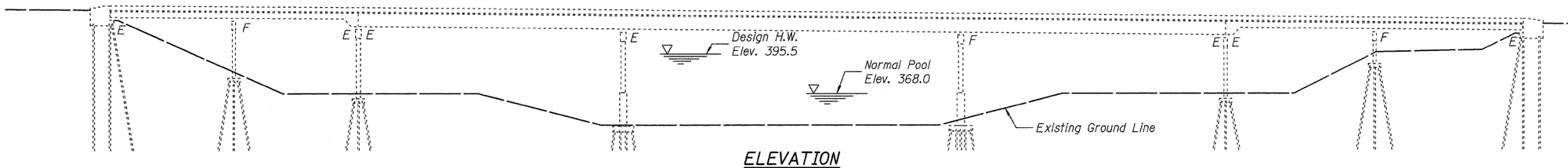
EXISTING STRUCTURE: S.N. 079-0036, originally constructed in 1971 as SBI Route 3 Sec. 73B-1 at Station 793+80.00, using 48" and 108" welded steel I-girders with 8½" concrete deck, 7 spans, 969'-11" back-back abutments, 46'-0" out-out width, open pile bent abutments on steel bearing piles, wall/hammerhead piers with footings on steel bearing piles.

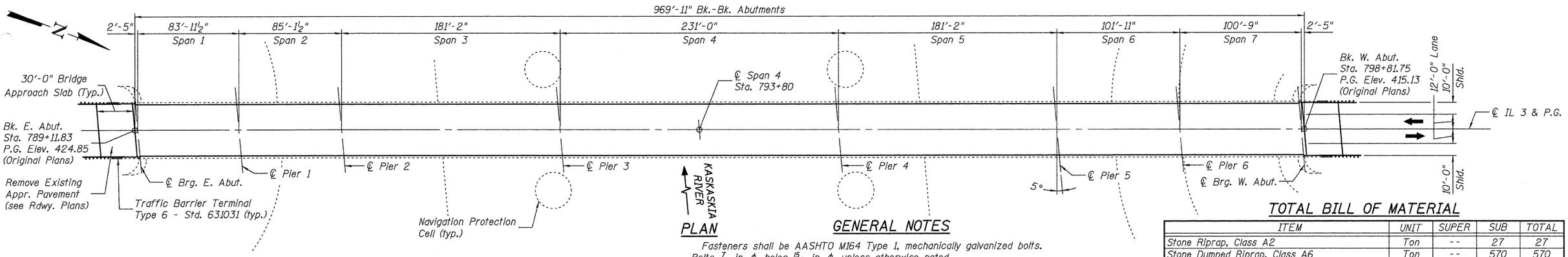
Staged construction shall be used to maintain one lane of traffic.

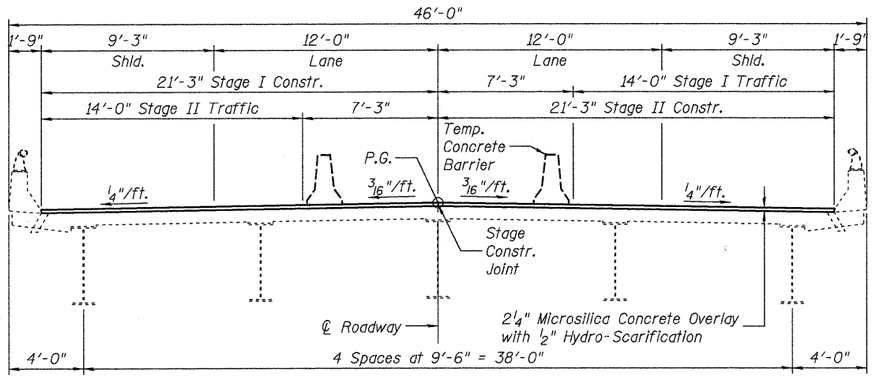
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

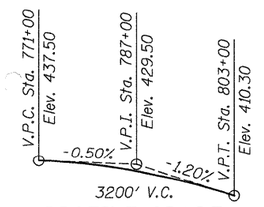


ELEVATION





CROSS SECTION
(Looking North-West)



PROFILE GRADE
(from original 1970 plans)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (TJD)
ENGINEER OF BRIDGES AND STRUCTURES

Note:
Engineer's stamp below applies to Sheets 1-19 of 22.

STATE OF ILLINOIS
DAVID C. DEPP
081-005117
LICENSED STRUCTURAL ENGINEER

Signed: David Depp
Date: 2-15-2010
Lic. Expires: 11-30-2010

Johnson, Depp & Quisenberry CONSULTING ENGINEERS Springfield, Illinois	
DESIGNED: JDQ	DRAWN: P. Ray
CHECKED: DCD	CHECKED: DCD

LOADING HS20-44
Allow 25#/sq. ft. for proposed wearing surface

DESIGN SPECIFICATIONS
2002 AASHTO LFD Bridge Design Specs.
1995 FHWA Seismic Retrofitting Manual for Highway Bridges

DESIGN STRESSES
EXISTING STRUCTURE
fc = 1,200/1,400 psi (super/sub-structure)
fs = 20,000 psi (reinforcement)
fs = 20,000 psi (A36 structural steel)
NEW CONSTRUCTION
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (M270 Grade 36)

SEISMIC DATA
Seismic Performance Category (SPC) = C
Bedrock Acceleration Coefficient (A) = 0.13g
Site Coefficient (S) = 1.5

PLAN

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts ⅞ in. ϕ, holes ¹⁵⁄₁₆ in. ϕ, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that cannot be removed by grinding ¼ inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of ⅛ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

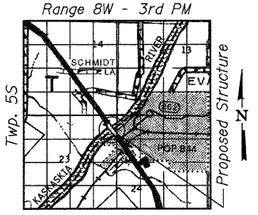
The SSPC QP-1 and QP-2 Painting Contractor Certification will be required for this Contract.

Existing and new structural steel that will be inaccessible after installation of the trough at Piers 2 & 5 shall be cleaned and painted according to the notes on sheet 9 of 22. Other existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures". All new structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Complete field painting of structural steel shall be done under a separate painting contract.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR permit number as shown in the contract plans.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A2	Ton	--	27	27
Stone Dumped Riprap, Class A6	Ton	--	570	570
Joint or Crack Filling	Pound	--	1629	1629
Concrete Removal	Cu Yd	13.4	--	13.4
Concrete Structures	Cu Yd	27.9	36.8	64.7
Concrete Superstructure	Cu Yd	143.5	--	143.5
Bridge Deck Grooving	Sq Yd	4621	--	4621
Protective Coat	Sq Yd	5555	--	5555
Floor Drain Extension	Each	12	--	12
Furnishing and Erecting Structural Steel	Pound	17810	13960	31770
Jack and Remove Existing Bearings	Each	--	35	35
Structural Steel Repair	Pound	400	--	400
Cont. & Disp. of Lead Paint Cleaning Residues	L Sum	1	--	1
Cleaning and Painting Structural Steel, Loc. 1	L Sum	1	--	1
Reinforcement Bars, Epoxy Coated	Pound	36080	7520	43600
Bar Splicers	Each	334	6	340
Preformed Joint Strip Seal	Foot	90	--	90
Fabric Reinforced Elastomeric Trough	Foot	--	96	96
Elastomeric Bearing Assembly, Type I	Each	--	30	30
Elastomeric Bearing Assembly, Type II	Each	--	10	10
Anchor Bolts, 1"	Each	--	140	140
Anchor Bolts, 1½"	Each	--	20	20
Concrete Sealer	Sq Ft	--	886	886
Plug Existing Deck Drains	Each	302	--	302
Stiffener Intersection Modification	Each	104	--	104
Structural Repair of Concrete (Depth = < 5")	Sq Ft	--	400	400
Navigation Lighting System	L Sum	1	--	1
Bridge Deck Microsilica Concrete Overlay 2¼"	Sq Yd	4526	--	4526
Bridge Deck Hydro-Scarification ½"	Sq Yd	4526	--	4526
Deck Slab Repair (Full Depth, Type II)	Sq Yd	95	--	95
Vertical Clearance Gauge	Each	--	2	2



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILLINOIS 3 OVER KASKASKIA RIVER
"PUBLIC WATER"
F.A.P. RTE. 312 SEC. 73BR-1I
RANDOLPH COUNTY
STATION 793+80
STRUCTURE NO. 079-0036

SHEET 1 OF 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	312	73BR-1I	RANDOLPH	51	24
		STA. 793+80	CONTRACT NO. 76883		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FILE: J:\JDQ\10175 IL-DBVV#4 IL 3 Kaskaskia River-FINAL\0790036-76883-00f-gplan.dgn
USER: DCD
DATE: 02/15/2010 11:35:59