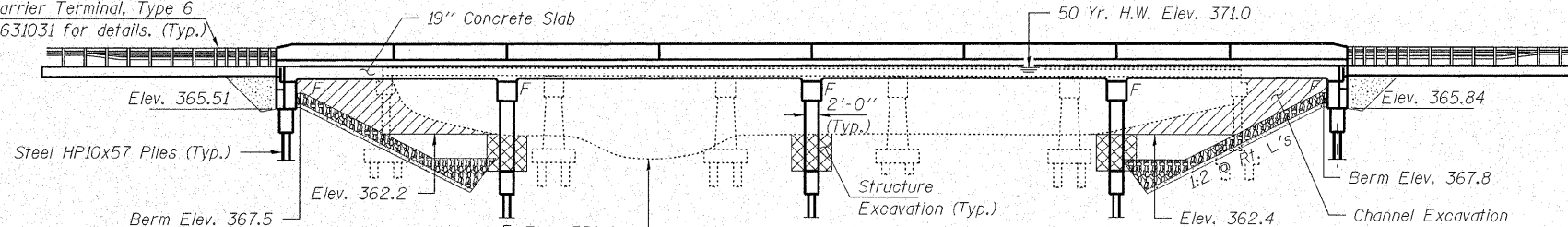


BENCHMARK: Chiseled square on top of NE hubguard of Bridge 033-0022, 7.0' Lt.: Elev. 371.36.

EXISTING STRUCTURE: SN 033-0021 was originally built in 1928. The superstructure was replaced and the substructure widened in 1976. The structure consists of 5 spans of PPC deckbeams on closed abutments and solid shaft piers supported on untreated timber piles. The structure has no skew. The approach shoulders are supported with Precast Concrete Beams. The bridge is 110'-0" bk.-bk. abuts. and 34'-8" o.-o. deck. Existing structure is to be removed and replaced. One lane of traffic will be maintained utilizing stage construction.

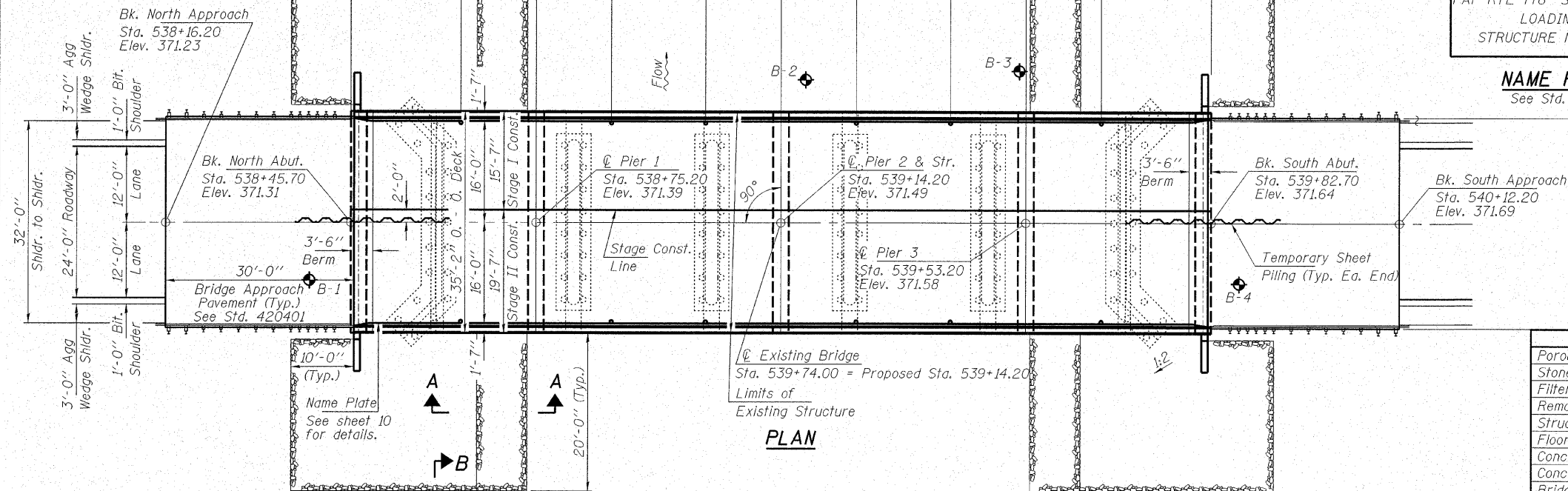
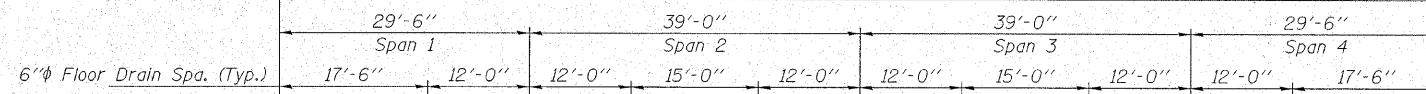
No salvage.

Traffic Barrier Terminal, Type 6
See Std. 631031 for details. (Typ.)



ELEVATION

137'-0" Bk. - Bk. Abuts.



PLAN

WATERWAY INFORMATION

Flood Frequency		Q cfs		Opening Sq. Ft.		Nat. H.W.E.		Headwater El.	
10 Yr	Design 50 Yr	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
SN 033-0050	SN 033-0051	3971	466	3971	511	876	896	369.8	0.2
SN 033-0051	SN 033-0052	466	527	381	482	409	387	366.4	0.1
SN 033-0052	Total	527	4964	414	1644	366.4	1719	366.5	0.1
Design 50 Yr	SN 033-0050	4635	4635	901	925	371.2	0.3	371.5	371.4
SN 033-0051	SN 033-0051	1242	1267	684	709	371.0	0.1	371.1	371.1
SN 033-0052	Total	1253	2269	684	2352	371.0	0.1	371.1	371.1
Base 100 Yr	SN 033-0050	5245	5298	901	925	371.9	0.6	372.5	372.5
SN 033-0051	SN 033-0051	1386	1388	684	709	371.7	0.1	371.8	371.7
SN 033-0052	Total	1399	2269	684	2352	371.7	0.1	371.8	371.7
Overtopping 50 Yr	SN 033-0050	4635	4635	901	925	371.2	0.3	371.5	371.4
SN 033-0051	SN 033-0051	1242	1267	684	709	371.0	0.1	371.1	371.1
SN 033-0052	Total	1253	2269	684	2352	371.0	0.1	371.1	371.1
Max Calc 500 Yr	SN 033-0050	4903	4988	901	925	372.1	0.5	372.6	372.6
SN 033-0051	SN 033-0051	2594	2605	684	709	372.4	0.2	372.6	372.6
SN 033-0052	Total	2619	2523	684	718	372.4	0.2	372.6	372.6

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.10g
Site Coefficient (S) = 2.0

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO & all applicable Interims.

DESIGN STRESSES

FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

DESIGN SCOUR ELEVATIONS

North Abutment	365.5
Pier 1	355.5
Pier 2	355.5
Pier 3	355.5
South Abutment	365.5

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 776	(116BR-2)B-1	HAMILTON	140	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		21 SHEETS

GENERAL NOTES

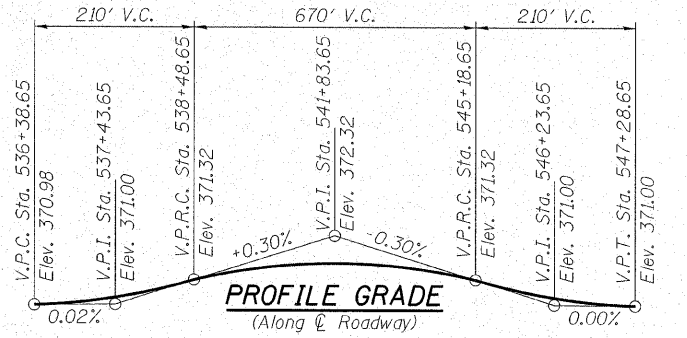
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions. Reinforcement bars designated (E) shall be epoxy coated. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer. The contractor shall drive two steel test piles to 110% of the nominal required bearing specified in production locations: one HP10x57 at the South Abutment and one HP10x57 at Pier 1, as approved by the Engineer before ordering the remainder of piles. The contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach pavement. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged. The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure. Slipforming of the parapets is not allowed.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

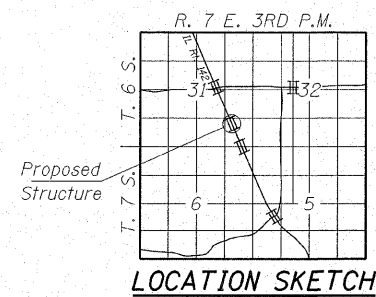
STATION 539+14.20
BUILT 200_ BY
STATE OF ILLINOIS
FAP RTE 776 SEC (116BR-2)B-1
LOADING HS20
STRUCTURE NO. 033-0051

NAME PLATE
See Std. 515001

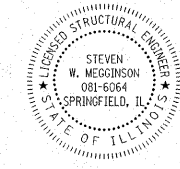


TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.			60
Stone Riprap, Class A4	Sq. Yd.			590
Filter Fabric	Sq. Yd.			590
Removal of Existing Structures No. 2	Each			1
Structure Excavation	Cu. Yd.		342	342
Floor Drains	Each	12		12
Concrete Structures	Cu. Yd.		126.6	126.6
Concrete Superstructure	Cu. Yd.	321.1		321.1
Bridge Deck Grooving	Sq. Yd.	484		484
Concrete Encasement	Cu. Yd.		12.0	12.0
Protective Coat	Sq. Yd.	606		606
Stud Shear Connectors	Each		280	280
Reinforcement Bars, Epoxy Coated	Pound	55,340	15,080	70,420
Bar Splicers	Each	239	102	341
Furnishing Steel Piles HP10x57	Foot		2,310	2,310
Driving Piles	Foot		2,310	2,310
Test Pile Steel HP10x57	Each		2	2
Temporary Sheet Piling	Sq. Ft.		592	592
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		38	38
Pipe Underdrains for Structures 4"	Foot		122	122
Underwater Structure Excavation Protection Location 3	Each		1	1
Underwater Structure Excavation Protection Location 4	Each		1	1
Underwater Structure Excavation Protection Location 5	Each		1	1
Mechanical Splice	Each		129	129



LOCATION SKETCH



Steven W. Megginson 11/14/07
ILLINOIS STRUCTURAL NO. 081-6064

Expires 11-30-08

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400
ELGIN • SPRINGFIELD
PROJECT NUMBER: 12-41-0021-1 DATE: 09/25/07
DESIGNED: S.M.S. CHECKED: S.W.M. DRAWN: D.B.

GENERAL PLAN AND ELEVATION
IL RTE. 142 OVER CONTRARY CREEK (NORTH OVERFLOW)
F.A.P. ROUTE 776 - SECTION (116BR-2)B-1
HAMILTON COUNTY
STRUCTURE NO. 033-0051 / STATION 539+14.20

PLOT DATE: 10/26/2007 FILE NAME: 0330051-78006-41021br:bridge0051.dgn