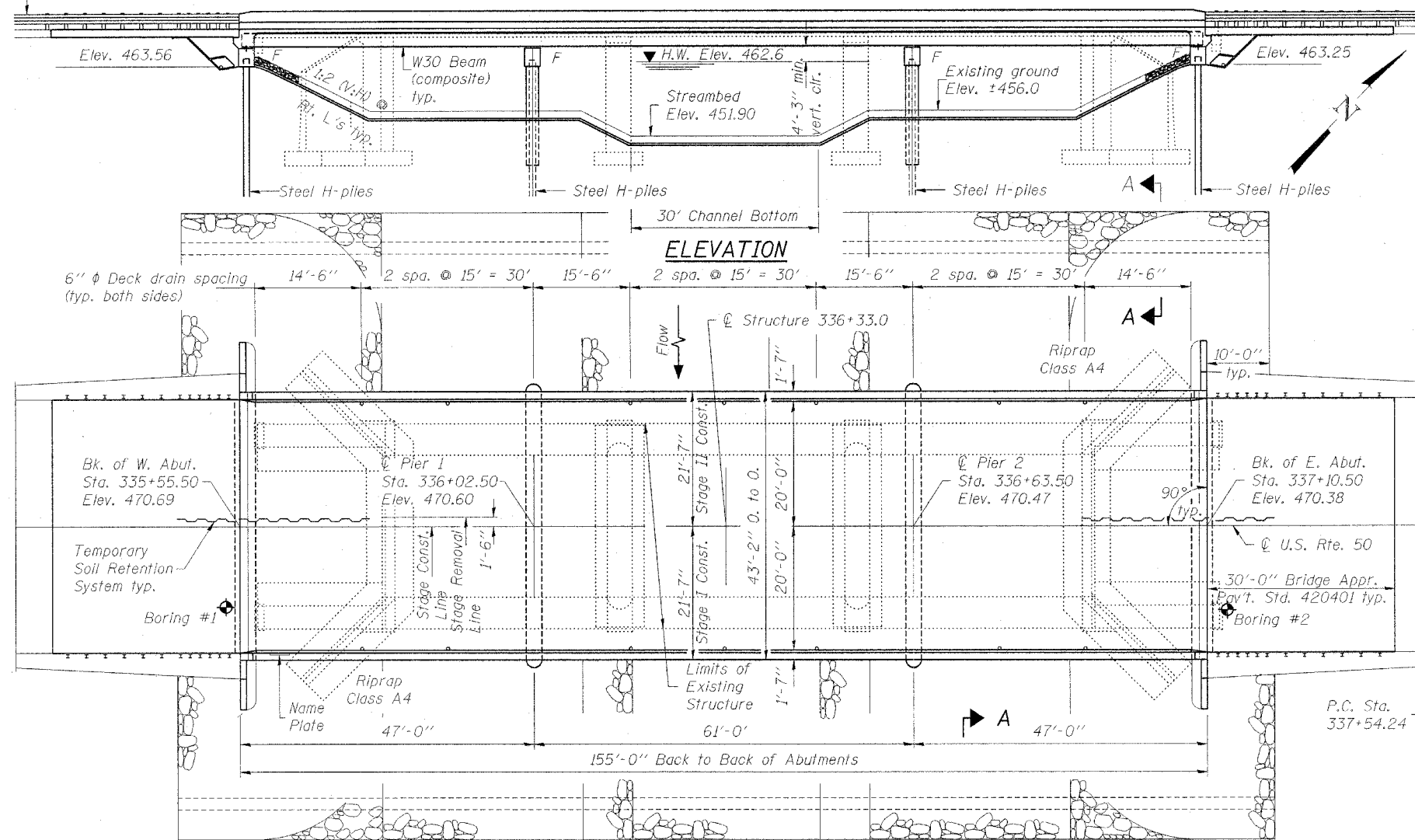


Bench Mark: Chiseled "H" on top of box culvert, 29' Lt. of Station 347+71, Elevation 465.70.

Existing Structure: S.N. 061-0040 Built 1923 as S.B.I. Rt. 12 Sec. 13B at Station 719+00 as a three simple span 114'-0" Bk.-Bk. abutments, supported on timber piles. Bridge widening, and superstructure replacement with PPC deck beams in 1970. Existing bridge to be removed and replaced. Traffic maintained utilizing stage construction.

No salvage.

Traffic Barrier Terminal Std. 631031 Type 6 typ.

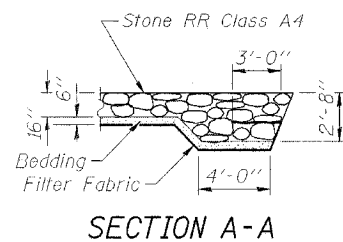
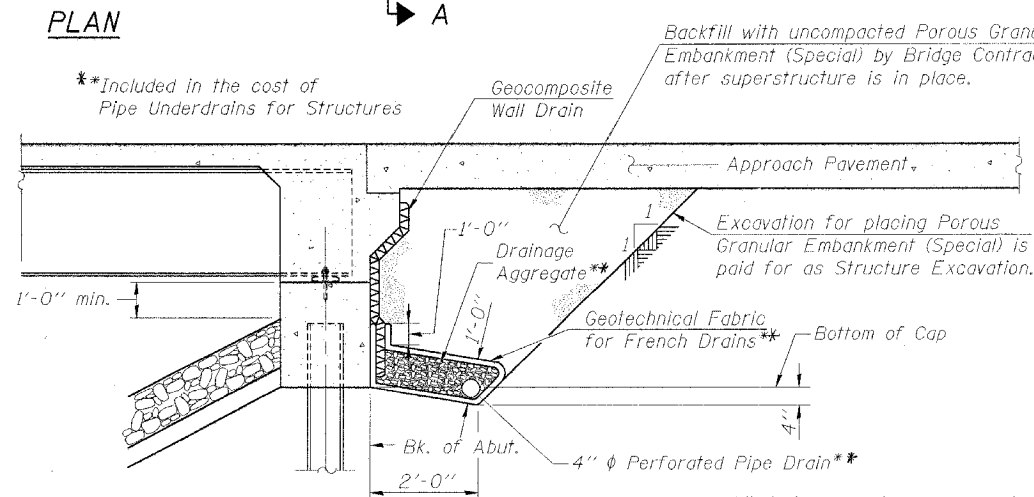


WATERWAY INFORMATION

Existing Low Grade Elev. 469.3 @ Sta. 337+00
 Drainage Area = 47.90 sq. mi. Proposed Low Grade Elev. 469.3 @ Sta. 337+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	3813	711	794	462.2	1.6	1.5	463.8	463.7	
Base	50	5702	752	844	462.6	2.6	2.4	465.2	465.0	
Max. Calc.	100	6491	772	869	462.8	3.0	2.7	465.8	465.5	
	500	8357	824	932	463.3	5.0	3.4	468.3	466.7	

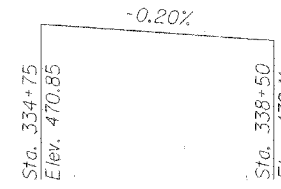
PLAN



SECTION THRU INTEGRAL ABUTMENT

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101.)

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



PROFILE GRADE
(along \hat{C} Roadway)

CURVE DATA

P.I. Sta. = 342+35.83
 Δ = 19° 07' 55"
 D = 2° 00' 18"
 R = 2857.67'
 T = 481.59'
 L = 954.22'
 E = 40.30'
 P.C. Sta. = 337+54.24
 P.T. Sta. = 347+08.46
 S.E. = match existing 0.0300'/ft
 T.R. = 40'
 S.E. Attained: Sta. 336+70.50 to Sta. 338+50*

*Match existing cross slopes at this location.

STATION 336+33.00
 BUILT BY
 STATE OF ILLINOIS
 F.A.P. RTE. 327 SEC. 13B-2
 LOADING HL-93
 STR. NO. 061-0090

NAME PLATE
See Std. 515001

LOADING HL-93

Allow 50 psf for future wearing surface

DESIGN SPECIFICATIONS

A.A.S.H.T.O. LRFD Bridge Design Specifications
 U.S., 3rd. Edition - 2004

DESIGN STRESSES

f'_c = 3,500 psi
 f_y = 60,000 psi (reinforcement)
 f_y = 50,000 psi (structural steel M270, GR50)

SEISMIC DATA

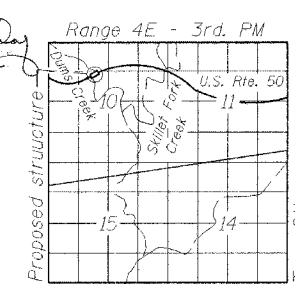
Seismic Performance Zone (SPZ) - 2
 Bedrock Acceleration Coefficient (A) - 9.0%
 Site Coefficient (S) - 1.5



Michael A. Banashek
 11-1-05
 license expires 11-30-2006
 Sheets 1 thru 5 and 11 thru 17



Marshall E. Goff
 11-1-05
 license expires 11-30-2006
 Sheets 6 thru 10



LOCATION SKETCH

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
FAP Rte. 327	13B-2	Marion	78	18	17 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #94964

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{7}{8}$ " ϕ , open holes $\frac{15}{16}$ " ϕ , unless otherwise noted.

Calculated weight of Structural Steel = 95,910 lbs M270, Gr. 50; 12,590 lbs M270, Gr. 36.

Field welding of construction accessories will not be permitted to beams.

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

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.

The Contractor shall drive one (1) steel HP 12 x 74 test pile in a permanent location at each substructure as directed by the Engineer before ordering the remainder of piles.

All Construction joints shall be bonded.

In addition to all other requirements of section 512 of the Standard Specifications, splices for steel H-piles shall develop the full capacity of the steel's cross sectional area of the pile for tension, shear and bending forces. One approved method of achieving this requirement is full penetration butt welding of the entire cross section. Other types of splices meeting the full capacity requirement may be allowed subject to the approval of the Engineer. Any proposal by the Contractor to use an alternate splice method must include adequate documentation demonstrating that the full tension, shear and bending capacities will be met. Appropriate welder qualifications will be required for the positions and processes used in splicing all piles. Nondestructive testing of completed welds will be limited to visual inspection.

The Inorganic zinc rich primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures."

If the Contractor elects to use cantilever forming brackets on the exterior beams, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06 of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Excavation behind the existing abutment wall shall be done before removing the existing superstructure. The Contractor shall saw cut the existing abutments at the stage removal line before Stage I removal.

For Index of Sheets and Total Bill of Material see Sheet 2 of 17.

GENERAL PLAN
U.S. RTE. 50 OVER
DUMS CREEK
F.A.P. RTE. 327 - SEC. 13B-2
MARION COUNTY
STATION 336+33.00
STRUCTURE NO. 061-0090

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Paul E. Allen
ENGINEER OF BRIDGES AND STRUCTURES

DESIGNED	MAB
CHECKED	PRT
DRAWN	PRT
CHECKED	MAB

HORNER & SHIFRIN, INC.
ENGINEERS ■ ARCHITECTS ■ PLANNERS