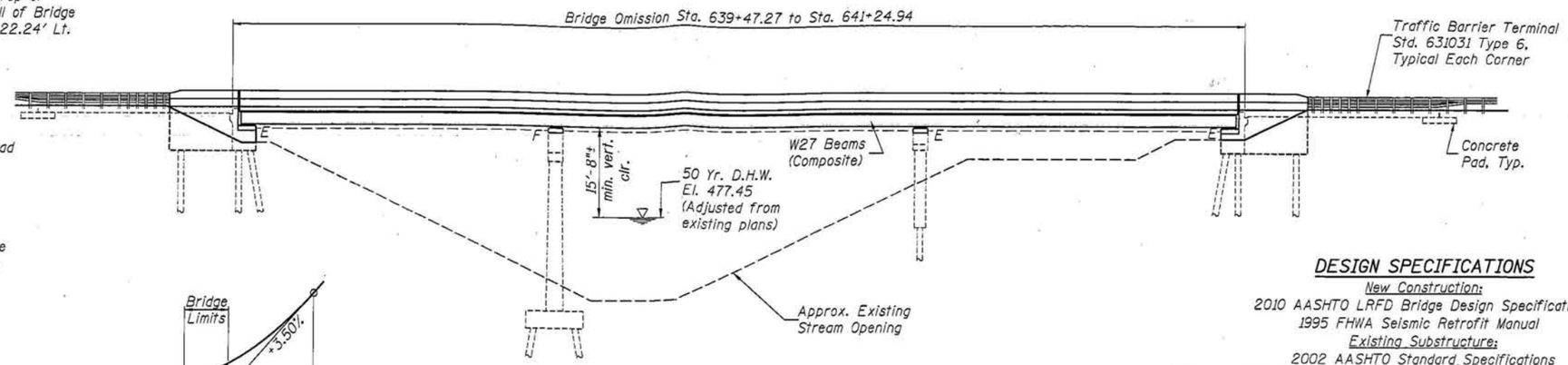
BENCHMARK: IDOT TBM 46: Chiseled Square, Top of Southeast Wingwall of Bridge Sta. 636+85.27, 22.24' Lt. El. 498.47

EXISTING STRUCTURE: S.N. 025-0081

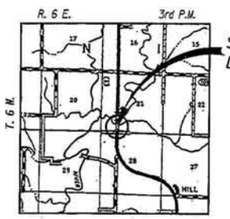
Built in 1977 as F.A. Rte. 26, Section 3BR-3 consists of a concrete deck supported by three simple spans of P.P.C. I beams on spill thru pile bent abutments and solid concrete hammerhead piers measuring 46'-0" out to out of deck and 178'-8" back to back of abutments. Superstructure to be replaced with substructure to remain.

The existing roadway will remain open to one lane of traffic during the construction period utilizing stage construction.

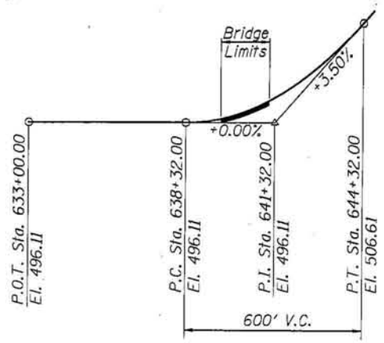
SALVAGE: No Salvage



ELEVATION



LOCATION SKETCH

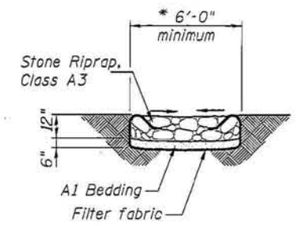


PROFILE GRADE
along construction ℄ F.A.P. 328

HIGHWAY CLASSIFICATION

F.A.P. Rte. 328 - U.S. Rte. 45

Functional Class:	Class II Other Principal Arterial
ADT:	2,900 (2009); 3,539 (2029)
ADTT:	3.9% SU; 6.4% MU
DHV:	354
Design Speed:	55 mph
Posted Speed:	55 mph
Two Way Traffic Directional Dist.:	50/50



SECTION THROUGH ROADWAY EMBANKMENT

* Provides drainage down embankment from bridge approach slab.

DESIGN SPECIFICATIONS

New Construction:
2010 AASHTO LRFD Bridge Design Specifications
1995 FHWA Seismic Retrofit Manual
Existing Substructure:
2002 AASHTO Standard Specifications

DESIGN STRESSES

FIELD UNITS (New Construction)
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (structural steel)

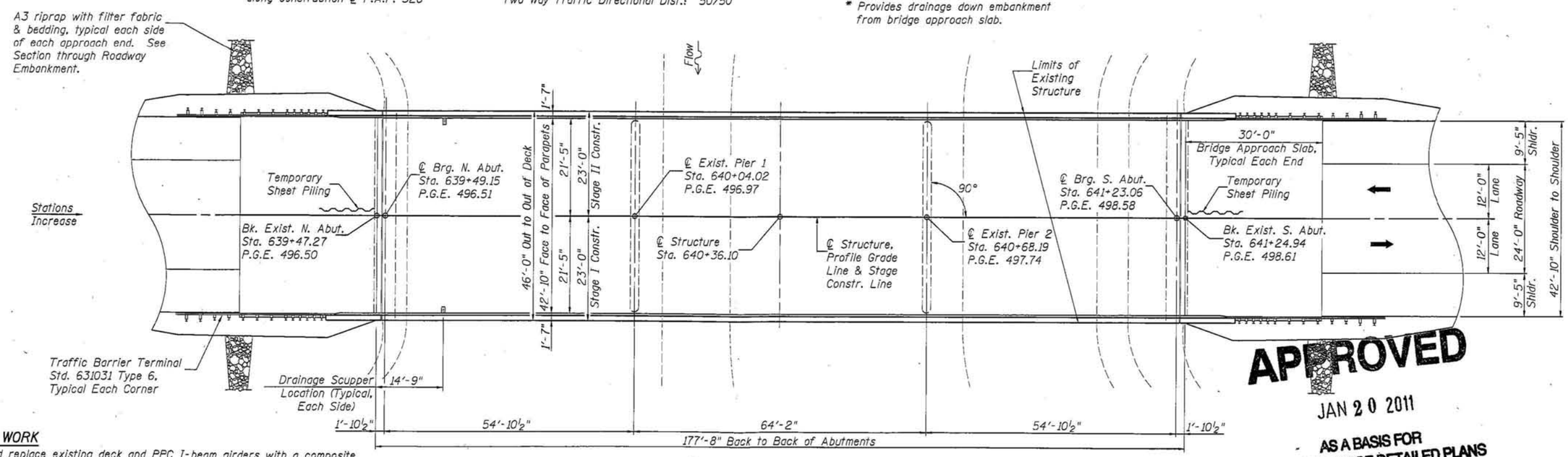
FIELD UNITS (Existing Construction)
f'c = 3,500 psi (Substructure)
fy = 40,000 psi (Reinforcement)

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.077g
Site Coefficient (S) = 1.5

LOADING HL-93 (NEW CONST.)

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



PLAN N

APPROVED
JAN 20 2011
AS A BASIS FOR PREPARATION OF DETAILED PLANS

SCOPE OF WORK

1. Remove and replace existing deck and PPC I-beam girders with a composite WF-steel girder and reinforced concrete deck superstructure.
2. Remove and replace existing fixed and expansion bearings.
3. Reconfigure concrete beam seats on abutment and pier caps as indicated on drawings.
4. Remove and replace existing backwalls and wingwalls (saving piling & pile caps) to accommodate a new Bridge Approach Slab and barrier configuration.
5. Remove existing bridge approach pavement and shoulder, as required, and replace with the new Bridge Approach Slab configuration.
6. Repair areas indicated on drawings with Structural Repair Of Concrete and Epoxy Crack Injection.

GENERAL PLAN
F.A.P. RTE. 328 (U.S. 45)
OVER RAMSEY CREEK
SECTION (2, 3, 4)RS-1
EFFINGHAM COUNTY
STATION 640+36.10
S.N. 025-0081

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		CHECKED - L.D.G.	REVISED -
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	PLOT DATE = 12/30/2010	CHECKED - B.G.H.	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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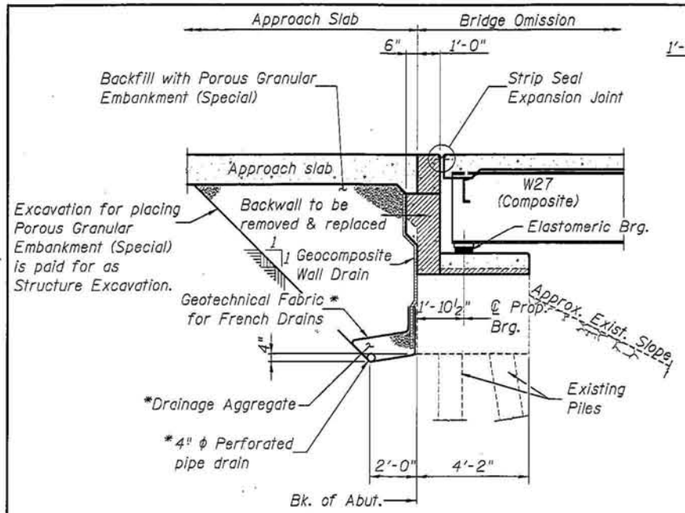
	S.N. 025-0081	CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		

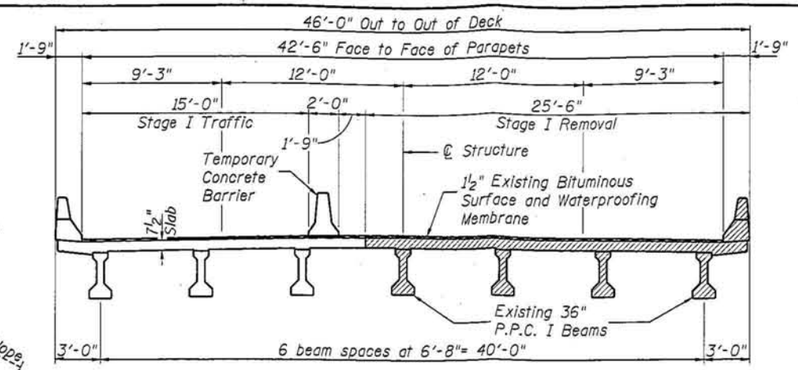


SECTION THRU PILE SUPPORTED STUB ABUTMENT

(Horiz. dim. @ Rt. L's)

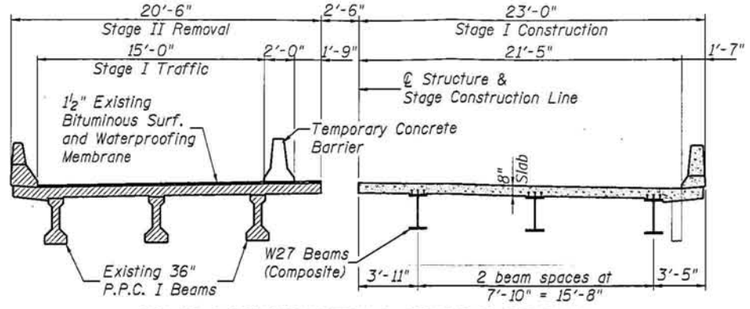
*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



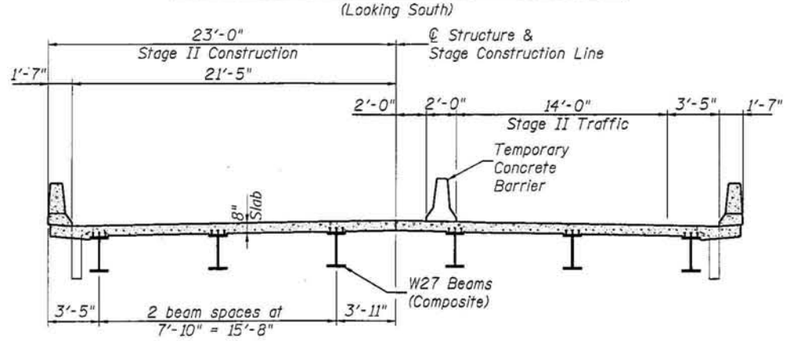
EXISTING STRUCTURE - STAGE I REMOVAL & TRAFFIC

(Looking South)



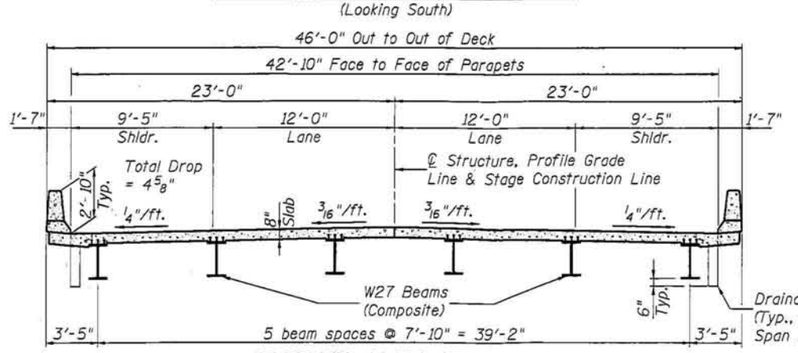
STAGE I CONSTRUCTION & STAGE II REMOVAL

(Looking South)



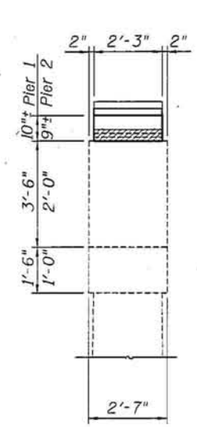
STAGE II CONSTRUCTION & TRAFFIC

(Looking South)

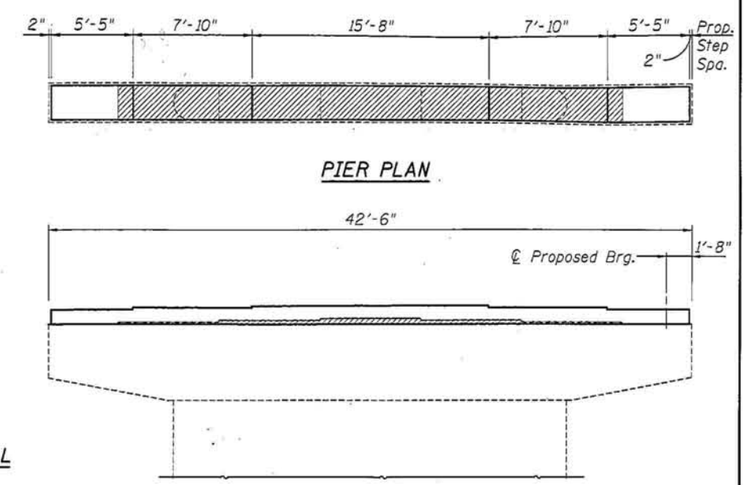


PROPOSED CROSS SECTION

(Looking South)

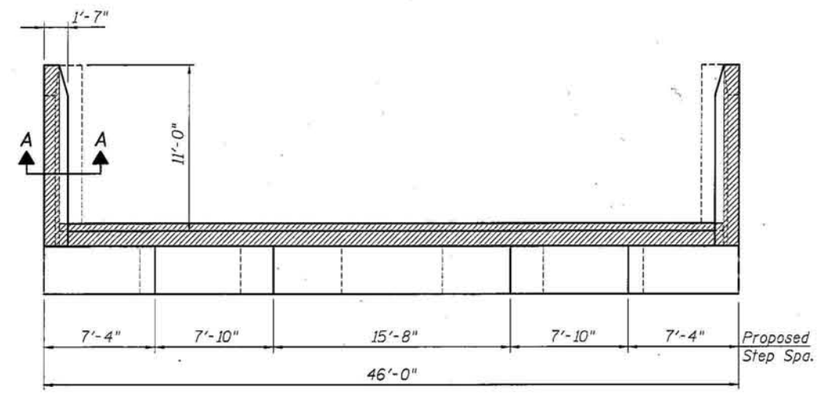


PIER PARTIAL END VIEW

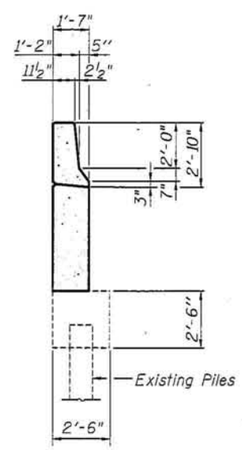


PIER PLAN

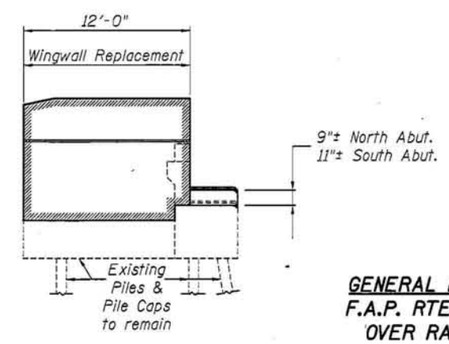
PIER PARTIAL ELEVATION



ABUTMENT PLAN



SECTION A-A (THRU PILE SUPPORTED WINGWALL)



ABUTMENT WINGWALL ELEVATION

Hatching indicates Concrete Removal

GENERAL PLAN DETAILS
F.A.P. RTE. 328 (U.S. 45)
OVER RAMSEY CREEK
SECTION (2, 3, 4)RS-1
EFFINGHAM COUNTY
STATION 640+36.10
S.N. 025-0081

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