BENCHMARK "A"

Chisled "X" on South End of West Handrail of Structure No. 067-0011.
Elevation = 420.32

EXISTING STRUCTURE:

Structure No. 067-0011 built in 1915 and widened in 1923 as F.A.U. ROUTE 9296, Section 65BR single-span, reinforced concrete slab bridge on closed abutments, on spread footings and 31° skew 22'-0" back-to-back of abutments, 32'-0" out to out deck.

Road shall be closed to traffic and rerouted during construction.

No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

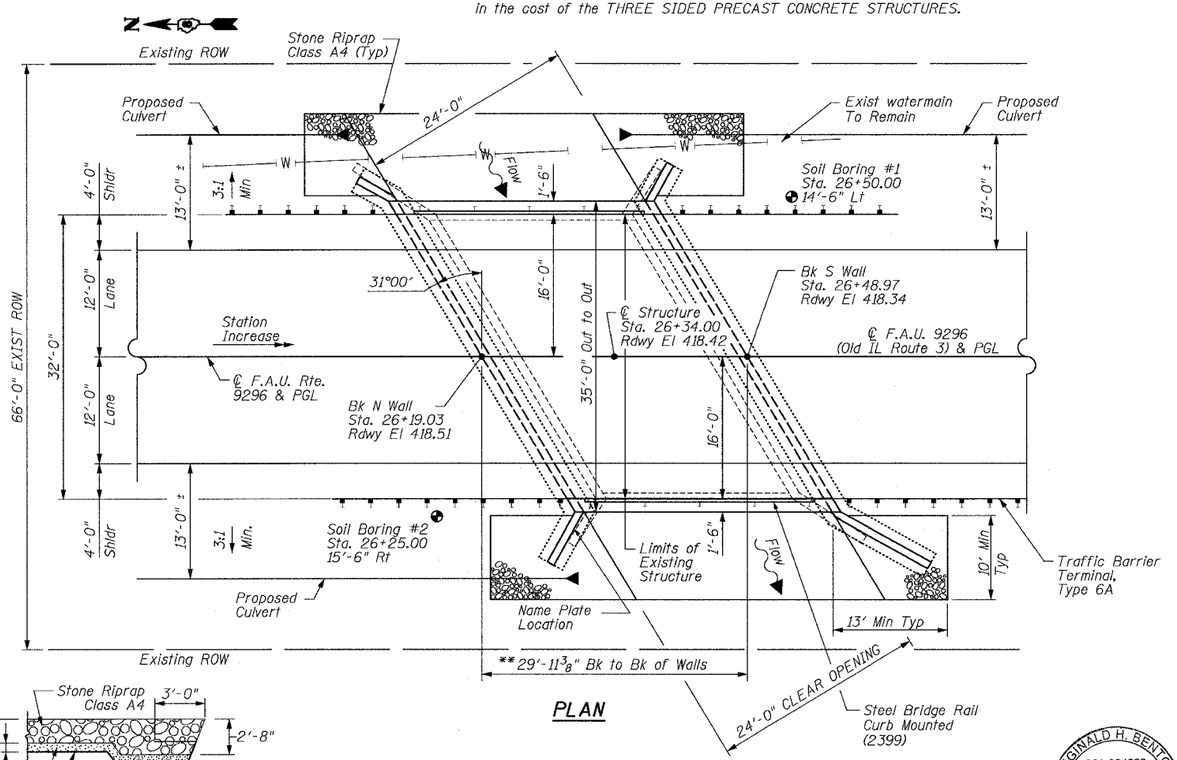
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 9296	65BR	MONROE	22	9
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
5 SHEETS

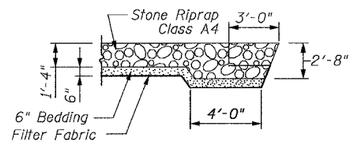
CONTRACT NO. 76387

General Notes

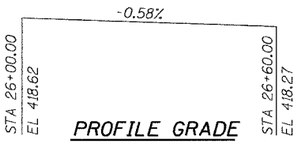
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
2. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
3. The Contractor shall drive 1 test pile to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
4. Excavation behind the existing abutment walls shall be done before removing the existing superstructure. The cost of excavation and backfill required to install the new structure shall be included in the cost of the THREE SIDED PRECAST CONCRETE STRUCTURES.
5. The headwall of the precast structure shall be designed to resist the applied lateral rail loads in accordance with the 2002 AASHTO.
6. All lateral loads applied to the wingwall shall be resisted by deadmen provided by the supplier of the three sided structure. The cost of the deadmen shall be included in the cost of Precast Concrete Substructure.
7. The Contractor shall construct the new structure inside the existing Right-of-Way limits.



PLAN



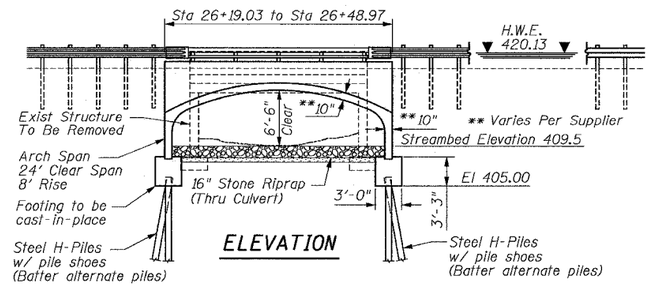
RIPRAP END TREATMENT



PROFILE GRADE

ALONG ℄ ROADWAY

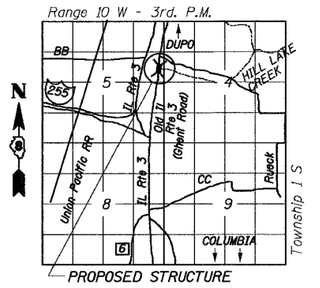
DESIGNED	- LEL
CHECKED	- REG
DRAWN	- LEL
CHECKED	-



ELEVATION

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

PRECAST UNITS
f'_c = 5,000 psi
f_y = 60,000 psi (reinforcement)
f_y = 65,000 psi (welded wire fabric)

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 11.5%g
Site Coefficient (S) = 2.0

LOADING HS20-44

Allow 50 PSF for Future Wearing Surface

REGINALD H. BENTON
081-004623
LICENSED STRUCTURAL ENGINEER
OF
JACKSONVILLE, ILLINOIS

11/20/2007
EXPIRES 11/30/2008

STATION 26+34.00
BUILT 20__ BY
STATE OF ILLINOIS
FAU ROUTE 9296
SECTION 65BR
LOADING HS20
STR. NO. 067-0041

NAME PLATE

See Std. 515001

WATERWAY INFORMATION

Drainage Area = 1.39 mi² — Low Grade Elev = 417.90 @ Sta. 29+84

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	2,513	103	130	420.13	-0.08	-0.08	420.05	420.05
Base	100	2,972	103	130	420.34	-0.07	-0.07	420.27	420.27
Overtopping	< 2	250	103	130	418.03	-0.13	-0.13	417.90	417.90
Scour	10	1,500	103	130	419.64	-0.07	-0.08	419.57	419.56

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq Yd	205
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	38.0
Reinforcement Bars	Pound	3370
Steel Railing, Type 2399	Foot	63
Furnishing Steel Piles HP 12x53	Foot	1020
Driving Piles	Foot	1020
Test Pile Steel HP 12x53	Each	1
Pile Shoes	Each	17
Name Plates	Each	1
Three Sided Precast Concrete Structures 24'x8'	Foot	41.0
Precast Concrete Substructure	L Sum	1
Filter Fabric	Sq Yd	205

SHEET INDEX

GENERAL PLAN
OLD IL ROUTE 3
OVER
HILL LAKE CREEK
F.A.U. ROUTE 9296
SECTION 65BR
MONROE COUNTY
STATION 26+34
STRUCTURE NO. 067-0041

BENTON & ASSOCIATES, INC.
Consulting Engineers / Land Surveyors
1970 West Lafayette Ave. Jacksonville, IL 62650
Phone: 217-245-4146 Fax: 217-245-4149
IL Design Firm Registration No. 184-000852
BENTON & ASSOCIATES INC