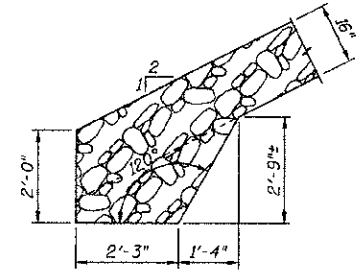
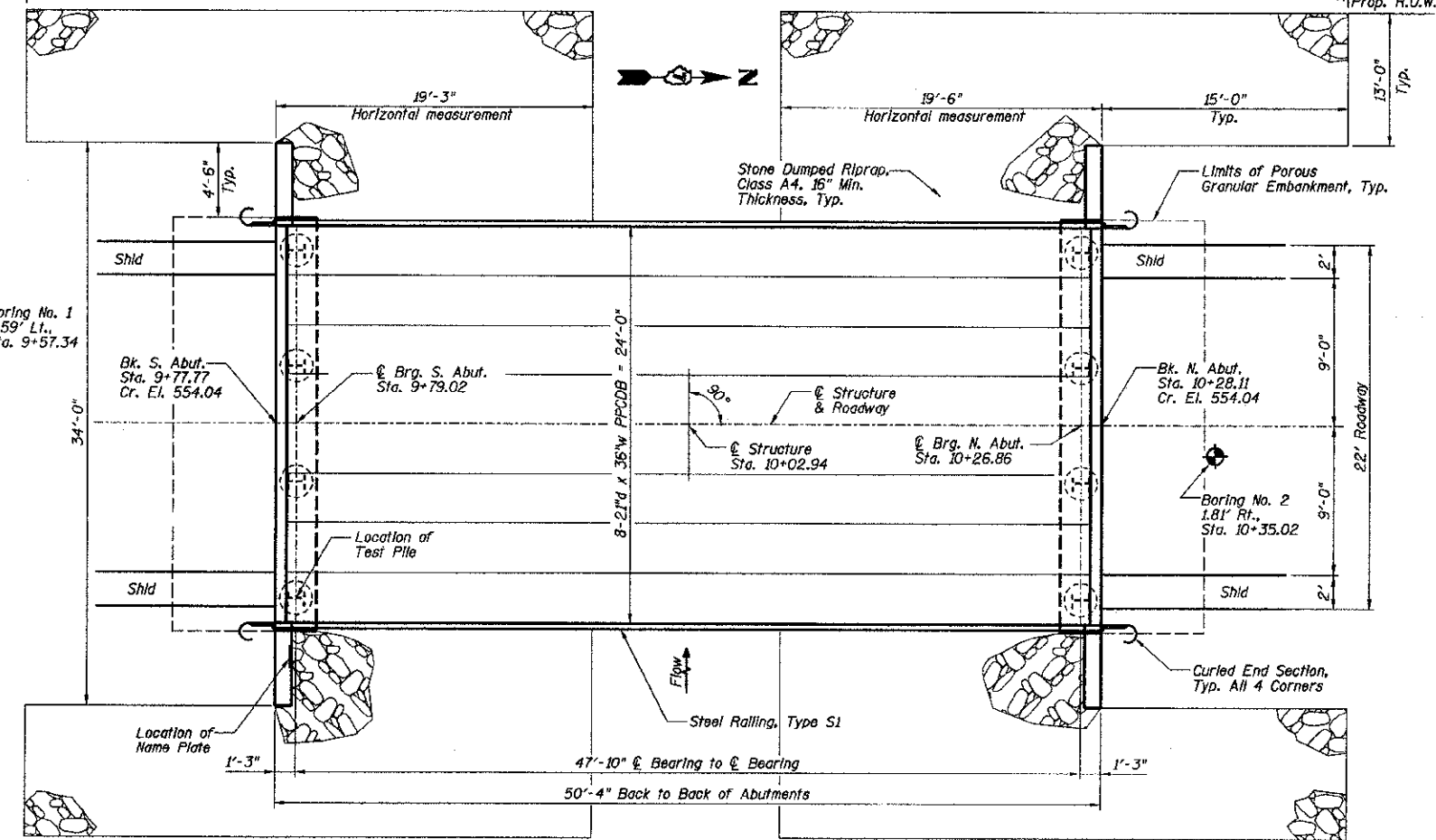
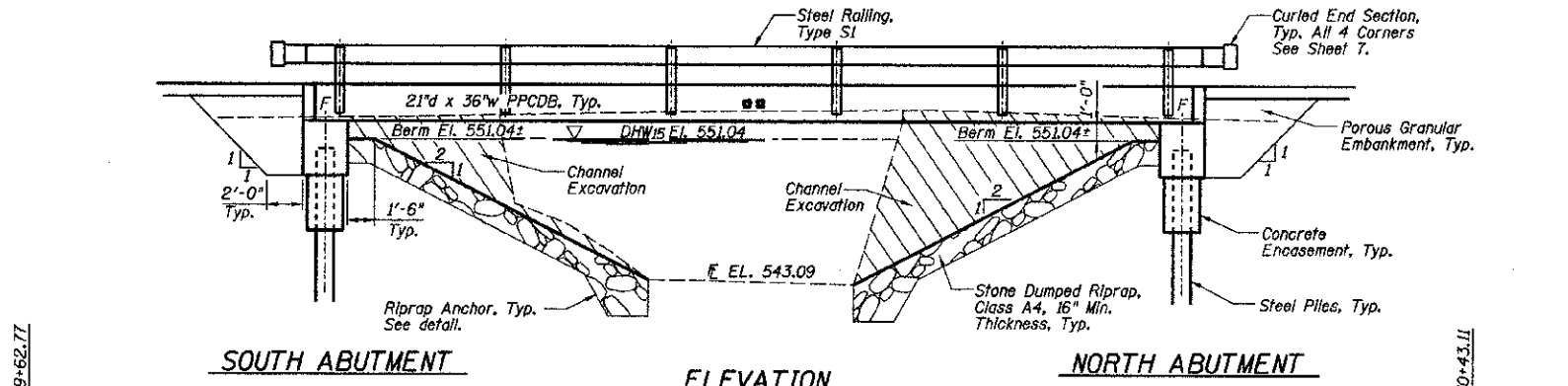


TBM 1 - RR spike in power pole,
20.13' Rt. of Sta. 8+27.38 - Elev. 554.31

TBM 2 - RR spike in power pole,
17.95' Rt. of Sta. 11+89.33 - Elev. 552.97

Existing Structure: Single span bridge with concrete deck on steel beams on closed concrete abutments. To be removed. 22' L. x 15' W. No skew. No salvage.



RIPRAP ANCHOR DETAIL

**FLAT CREEK
BUILT 201 BY
FAYETTE COUNTY
SEC. 10-20128-00-BR
LOADING HL-93
STRUCTURE NO. 026-3453**

NAME PLATE
(See State Standard 515001 for details)

LOADING HL-93
50#/sq. ft. included in dead load for future wearing surface.

DESIGN SPECIFICATIONS
2010 AASHTO LRFD
Bridge Design Specifications

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

PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 2
Soil Site Classification = D
 $S_{01} = 0.244$ $S_{ps} = 0.558$

I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	TOTAL
Channel Excavation	Cu Yd	180
Porous Granular Embankment	Ton	66
Stone Dumped Riprap, Class A4	Ton	290
Removal of Existing Structures	Each	1
Concrete Structures	Cu Yd	19.6
Concrete Encasement	Cu Yd	2.8
PPCDB (21" Depth)	Sq Ft	1176
Reinforcement Bars	Pound	3380
Steel Railing, Type S1	Foot	100
Furnishing Steel Piles HP12x53	Foot	315
Driving Piles	Foot	315
Test Pile Steel HP12x53	Each	1
Pile Shoes	Each	8
Name Plates	Each	1
Terminal Marker - Direct Applied	Each	4

GENERAL NOTES

The Contractor is hereby advised that very stiff soils may be encountered prior to the location of anticipated nominal required bearing. See the soil borings for further information.

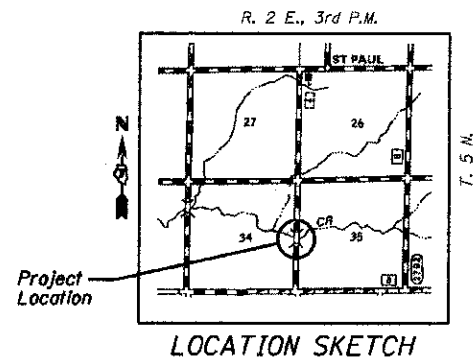
Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the ROW line. If the Engineer deems the material satisfactory, it may be used to construct the roadway embankment.

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

See Specifications for Soil Borings.

Do not scale these drawings.

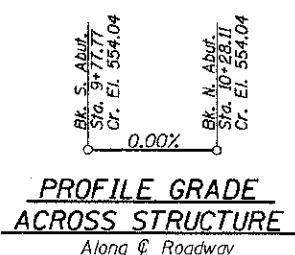
The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.



WATERWAY DATA

Drainage Area = 2.33 Sq. Mi. Low Grade Elev. 551.55 @ Sta. 10+00

Flood Yr.	Freq.	Q	Opening	Natural	Head - Ft.	Headwater El.
		C.F.S.	Sq. Ft.	H.W.E.	Exist. Prop.	Exist. Prop.
Design	15	760	140	210	551.04	0.59 0.02 551.63 551.06
Base	100	1300	141	255	552.12	0.48 0.40 552.60 552.52
Max. Calc.	500	1760	141	255	552.77	0.26 0.66 553.03 553.43



RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS FREEBURG, ILLINOIS
ILLINOIS DESIGN FIRM LICENSE NO. 184-000287

DESIGNED - BLT	REVISED -
DRAWN - JN	REVISED -
CHECKED - GLH	REVISED -
DATE - 05/18/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
STRUCTURE NO. 026-3453**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 352	10-20128-00-BR	FAYETTE	10	4
CONTRACT NO. 95692				



Gary L. Hahn
Gary L. Hahn
05-18-2012
Date of Signing
11-30-2012
Date of License Expiration