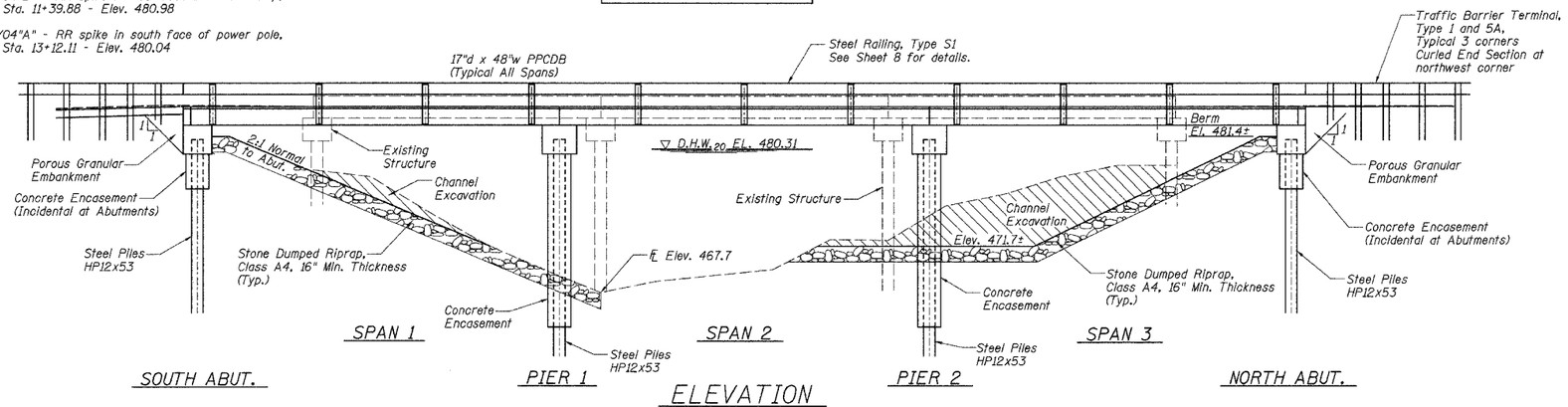
TBM 09/10/04"C" - RR spike in east face of power pole.
27.21' Lt., Sta. 9+61.82 - Elev. 480.87

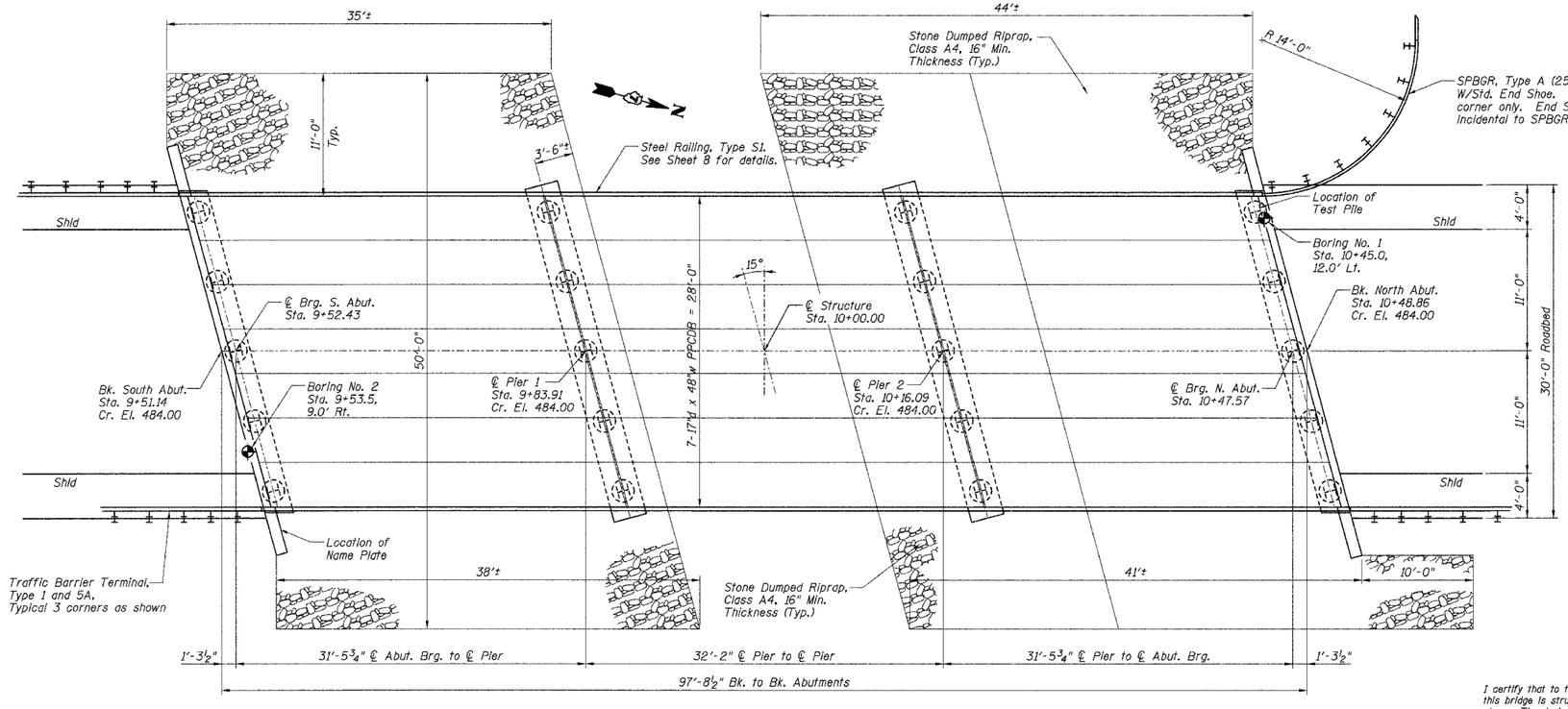
TBM 09/10/04"B" - RR spike in west face boxelder clump.
35.50' Rt., Sta. 11+39.88 - Elev. 480.98

TBM 09/10/04"A" - RR spike in south face of power pole.
64.29' Lt., Sta. 13+12.11 - Elev. 480.04

Note: Telephone conduit located on east side of existing bridge.



ELEVATION



PLAN

WATERWAY DATA

Drainage Area = 17.0 Sq. Mi. Low Grade Elev. 480.4 ℄ Sta. 8+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	20	3258	530	633	480.31	0.36	0.15	480.67	480.46
Base	100	4815	638	753	481.44	0.72	0.37	482.16	481.81
Max. Calc.	500	6315	683	786	482.16	1.04	0.68	483.20	482.84

SEISMIC DESIGN

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coeffecient (A) = 0.08g
Site Coefficient (S) = 1.5

DESIGN SPECIFICATIONS

AASHTO - 2002 17th Edition

LOADING HS 20-44

Allow 25#/sq. ft. for future wearing surface.

DESIGN STRESSES

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

PRECAST PRESTRESSED UNITS
f'_c = 5,000 psi
f'_{ci} = 4,000 psi
f'_s = 270,000 psi (½"ϕ strands)
f'_{si} = 189,000 psi (½"ϕ strands)

Bk. South Abut. Sta. 9+51.14 Cr. El. 484.00	℄ Pier 1 Sta. 9+83.91 Cr. El. 484.00	℄ Pier 2 Sta. 10+16.09 Cr. El. 484.00	Bk. North Abut. Sta. 10+48.86 Cr. El. 484.00
0.00%	0.00%	0.00%	
Span 1	Span 2	Span 3	

GRADE ON STRUCTURE

Existing Structure: Three span bridge with precast concrete deck slabs supported by timber pile bent abutments and timber pile piers with concrete caps. 75'-0"L. x 30'-4"W. No skew. Existing Structure No. 026-3274 (See Special Provisions).

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 272	04-18117-00-BR	FAYETTE	10	6
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		
		CONTRACT NO. 95442		

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	SUB	SUPER	TOTAL
CHANNEL EXCAVATION	CU YD	210	-	210
POROUS GRANULAR EMBANKMENT	TON	42	-	42
STONE DUMPED RIPRAP, CLASS A4	TON	425	-	425
REMOVAL OF EXISTING STRUCTURES	EACH	-	-	1
CONCRETE STRUCTURES	CU YD	35.8	-	35.8
PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	-	2688	2688
REINFORCEMENT BARS	POUND	4240	-	4240
STEEL RAILING, TYPE S1	FOOT	-	196	196
FURNISHING STEEL PILES HP 12x53	FOOT	975	-	975
DRIVING STEEL PILES	FOOT	975	-	975
TEST PILE STEEL HP12x53	EACH	1	-	1
CONCRETE ENCASEMENT	CU YD	16.5	-	16.5
NAME PLATES	EACH	1	-	1

GENERAL NOTES

See Section 502 of the Standard Specifications for Structure Excavation.

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

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.

The Contractor shall drive one (1) Steel HP12x53 Test Pile in a permanent location at the North Abutment as directed by the Engineer before ordering the remainder of the piles.

Reinforcement Bars shall conform to AASHTO M-31, M-42, or M-53, Grade 60 requirements.

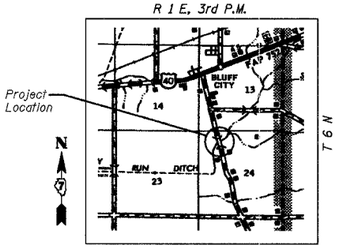
The abutment and pier bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

See Specifications for Soil Borings.

Do not scale these drawings.

SANDY RUN
BUILT 200_ BY
FAYETTE COUNTY
PROJECT NO. BROS-051(71)
SEC. 04-18117-00-BR
LOADING HS-20
STRUCTURE NO. 026-3426

NAME PLATE
(See State Standard 515001 for details)



LOCATION SKETCH

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

GARY L. HAHN
81-4853
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS

Gary L. Hahn 10-05-05

GARY L. HAHN
CENTRALIA, ILLINOIS
ILLINOIS LICENSED STRUCTURAL ENGINEER NO. 81-4853
EXPIRES NOV. 30, 2006

GENERAL PLAN AND ELEVATION
PROPOSED BRIDGE CARRYING TR 272 OVER SANDY RUN
SECTION 04-18117-00-BR
FAYETTE COUNTY, ILLINOIS

Sheet 6 of 10
Job No. 51004

10/07/2005

RHUTASEL and ASSOCIATES, INC.
CONSULTING ENGINEERS • LAND SURVEYORS
CENTRALIA, ILLINOIS FREEBURG, ILLINOIS