B.M. #1: RR Spike in Power Pole
Sta. 96+85, 40' RT.
Elev. = 580.37

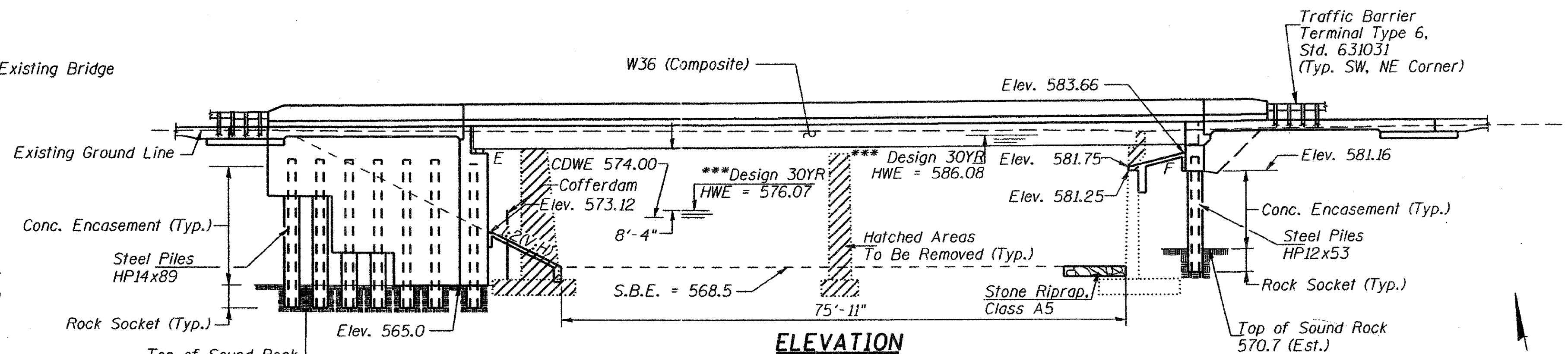
B.M. #2: Chisled "□" on S.W. Corner of Existing Bridge
Sta. 99+60, 19' RT.
Elev. = 587.24

B.M. #3: Chisled "□" on Conc. Ret. Wall
Sta. 102+81, 19' RT.
Elev. = 596.00

Existing Structure: Two span PPC deck beam with HMA overlay on closed concrete abutments supported on concrete footings. The structure is 82'-3½" back to back of abutments, 28'-4" out to out of deck with a 24'-0" driving surface, no skew. Structure Number 047-3007

Salvage: None

Road to be closed to traffic during construction.

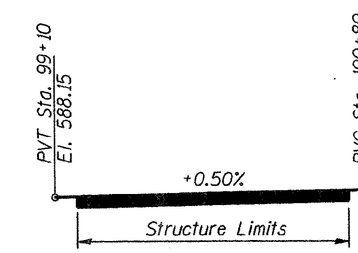


ELEVATION

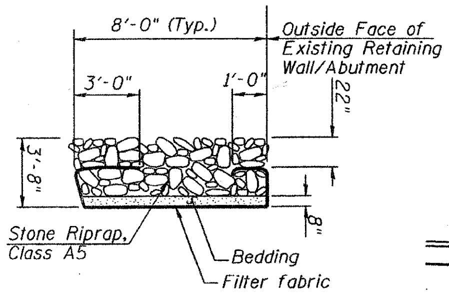
*** 586.08 Represents the approach section HWE upstream of the dam, while the 576.07 represents the HWE downstream of the dam at the upstream face of the bridge.

PROP CURVE

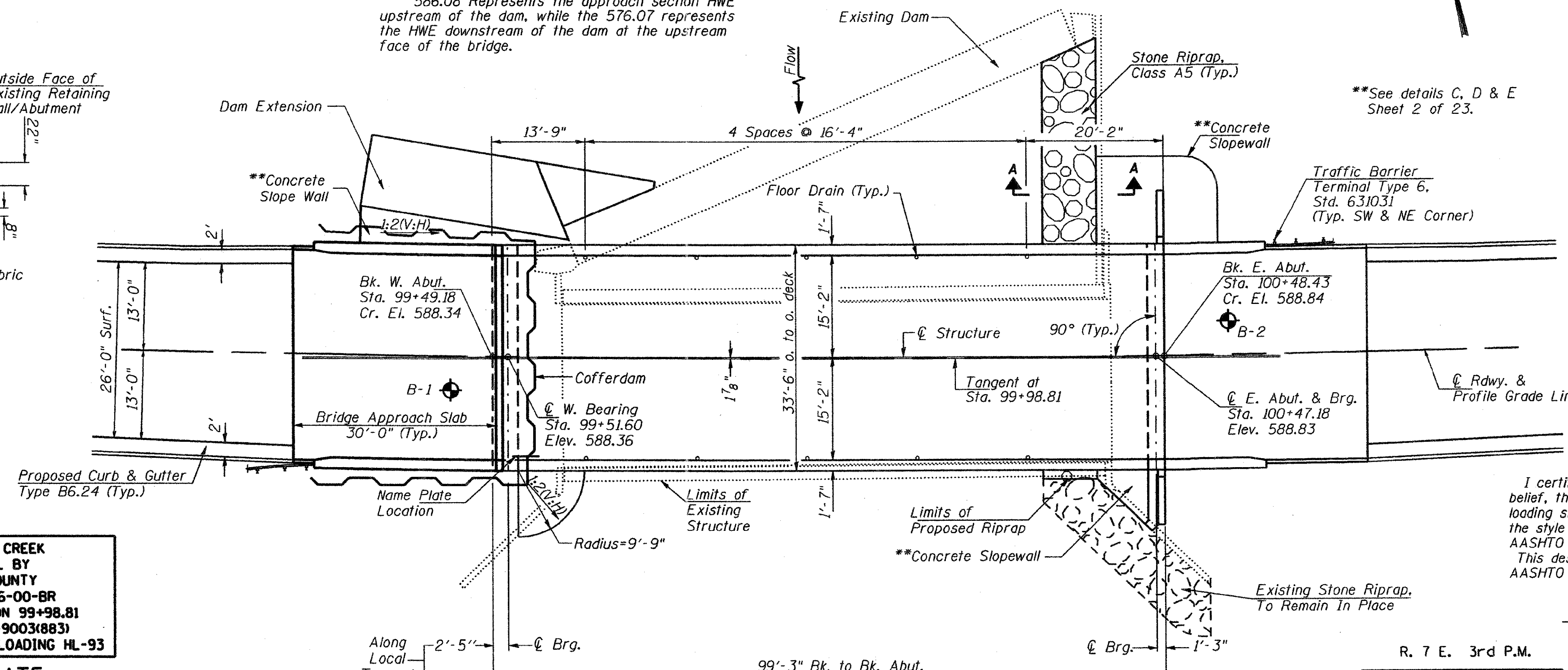
PI STA. = 99+35.29
Δ = 15° 21' 16" (LT)
D = 1° 25' 57"
R = 4,000.00'
T = 539.20'
L = 1,071.94'
E = 36.18'
e = none
P.C. STA = 93+96.09
P.T. STA = 104+68.03



PROFILE GRADE RIVER RD.



SECTION A-A



PLAN

Note: For Bill of Materials See Sheet 2 of 23

I certify that to the best of my 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 LRFD Bridge Design Specifications.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

12/14/2011
Illinois Structural No. 6527
Expires 11/30/2012

LIC EXP. 11/30/2012

BLACKBERRY CREEK BUILT 201_ BY KENDALL COUNTY SEC. 08-00036-00-BR FAU 3799 STATION 99+98.81 F.A. PROJ. BRM-9003(883) STR. NO. 047-6500 LOADING HL-93

NAME PLATE

Locate Name Plate on parapet at S.W. Corner of Bridge (See Std. 515001)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.07g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.13g
Soil Site Class = C

DESIGN SCOUR TABLE

Location	W. Abut	E. Abut
Design Scour Elevation	565.00	579.24

WATERWAY INFORMATION

Drainage Area = 73.6 Sq. Mi. Low Grade Elev. = 587.32 @ Sta. 97+42.00

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	30	2,234	511*	620*	576.07* 586.08	0.00	0.00	586.08	586.08
Base	100	2,894	555*	669*	576.65* 586.76	0.00	0.00	586.76	586.76

*Denotes calculation based on high water elevations at the upstream face of the proposed bridge.
IDNR has issued Permit No. DS2011110 for the construction of this project.

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Design Specifications
5th Edition with 2010 Interims.

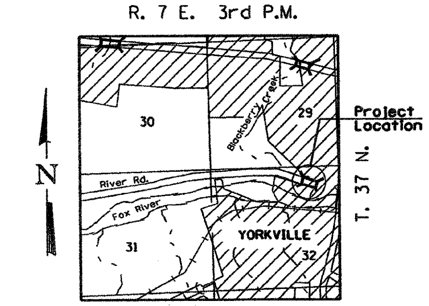
LOADING HL-93

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

DESIGN STRESSES

(FIELD UNITS)
f'c = 3,500 p.s.i.
fy = 60,000 p.s.i. (Reinforcement)
fy = 50,000 p.s.i. (Structural Steel)
(AASHTO M270 Grade 50W)

R. 7 E. 3rd P.M.



LOCATION SKETCH

GENERAL PLAN
RIVER RD. (F.A.U. 3799) OVER
BLACKBERRY CREEK
SECTION 08-00036-00-BR
KENDALL COUNTY
STATION 99+98.81
STR. NO. 047-6500

DESIGNED	NPH/CTM
CHECKED	BAN
DRAWN	NPH/RMD
CHECKED	BAN

2987B001

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FAU 3799	08-00036-00-BR	KENDALL	54	22
23 SHEETS	SN 047-6500		CONTRACT NO. 87509		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRM-9003(883)		