

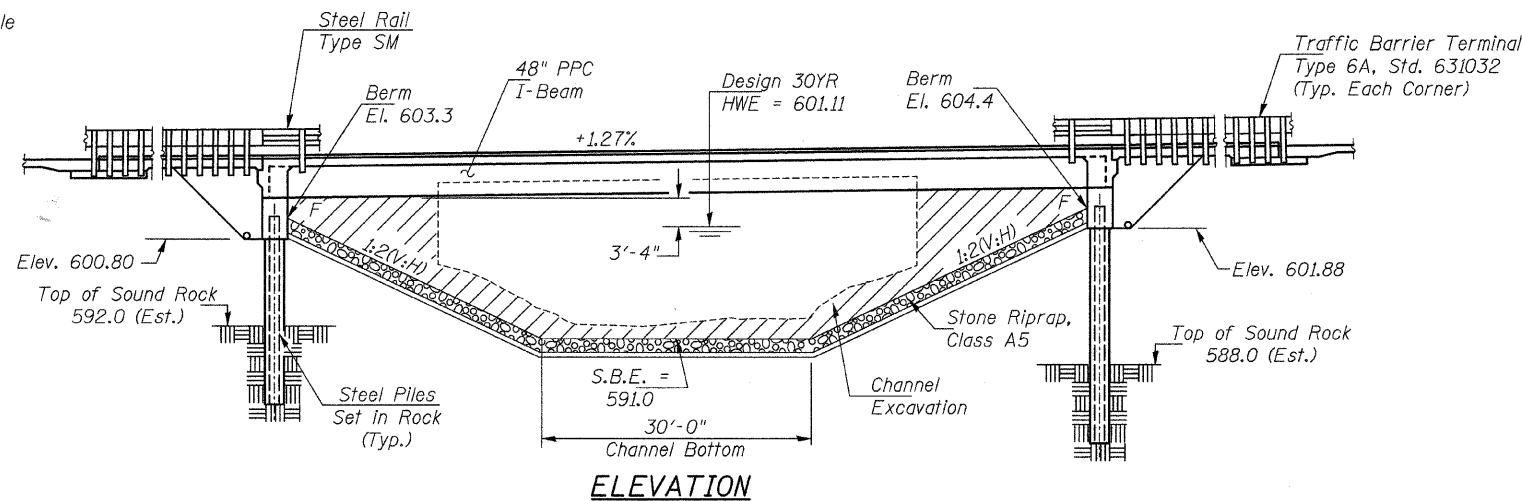
BM: Railroad Spike in Power Pole Sta. 35+30, 58' Lt. Elev. 603.36
 BM: Railroad Spike in Power Pole Sta. 44+13, 50' Rt. Elev. 617.90

Existing Structure:

Single span 21' PPC deck beam superstructure with steel rail with curb supported on concrete cap with concrete plank closed abutments on steel piles. The structure is 54'-4" back to back of abutments, 36'-0" out to out of deck, with a ±35' driving surface, and is not skewed.

Salvage: None

Road to be closed to traffic during construction.

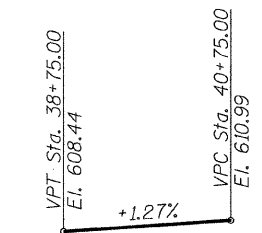
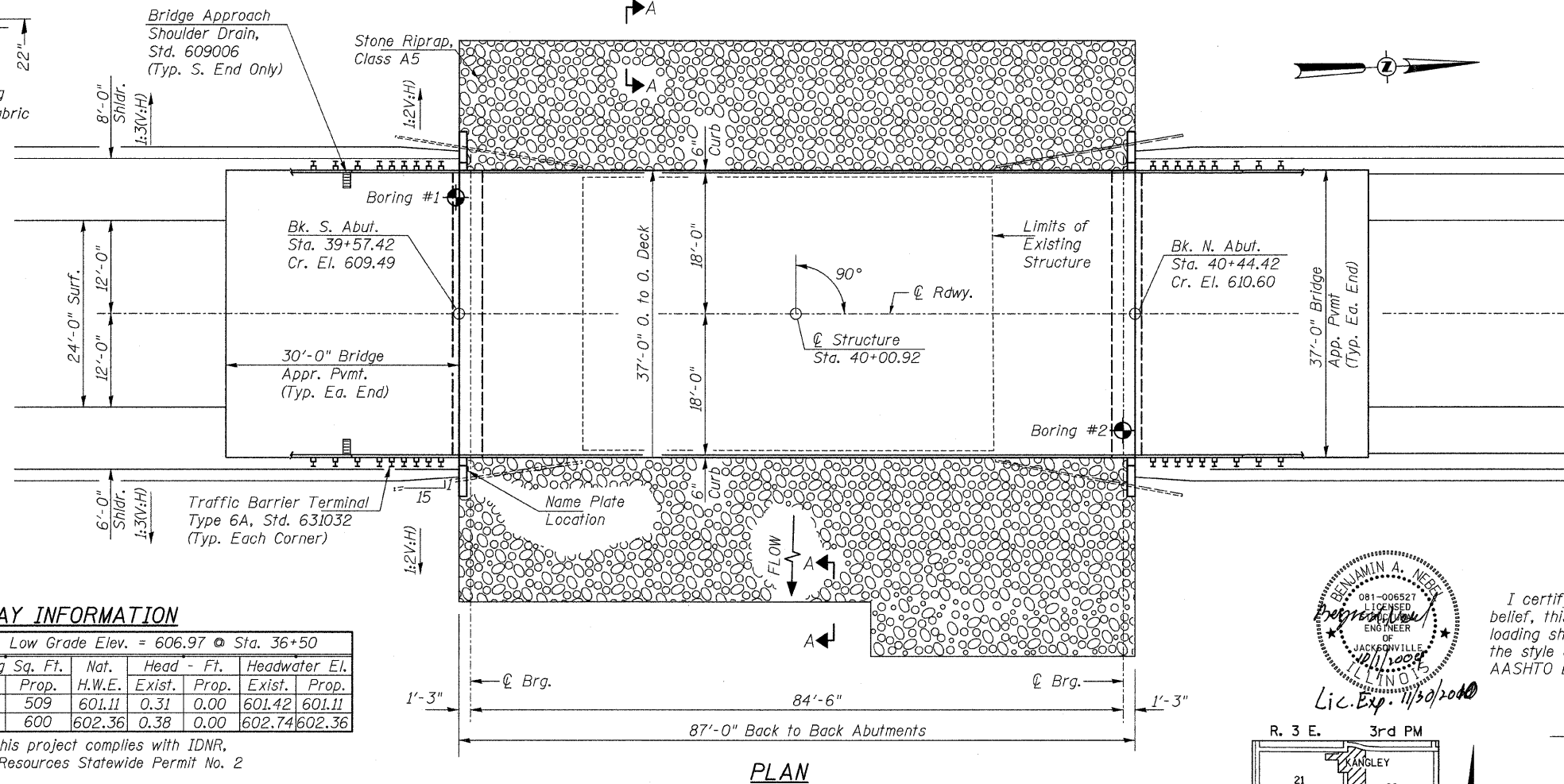
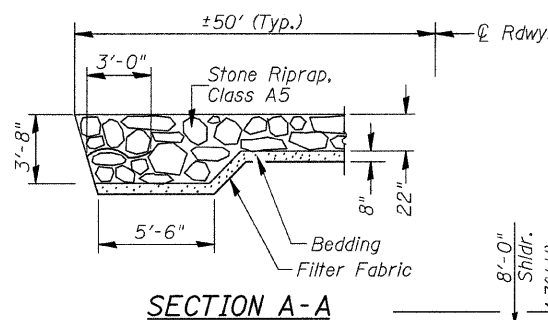


NOTE:
 For Bill of Material and General Notes, See Sheet 2 of 21.

**EGG BAG CREEK
 BUILT 20__ BY
 LASALLE COUNTY
 SEC. 10-00649-00-BR
 C.H. 29 STATION 40+00.92
 F.A. PROJ. BRS-0099(043)
 STR. NO. 050-3593 LOADING HL-93**

NAME PLATE

Locate Name Plate on Wingwall
 S.E. Corner of Bridge (See Std. 515001)



PROFILE GRADE

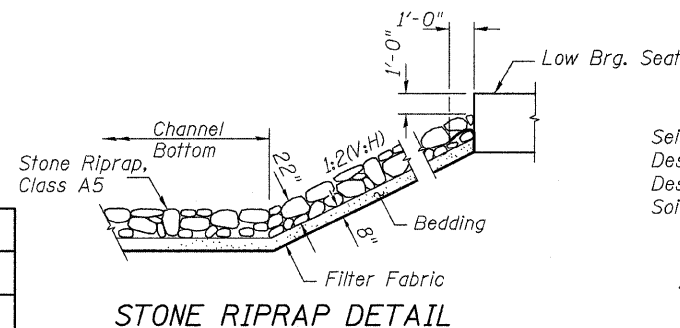
DESIGN SCOUR TABLE

Location	S. Abut	N. Abut
Design Scour Elevation	600.8	601.9

WATERWAY INFORMATION

Drainage Area = 15.71 Sq. Mi.		Low Grade Elev. = 606.97 @ Sta. 36+50							
Flood Yr.	Freq.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	30	2,202	325	509	601.11	0.31	0.00	601.42	601.11
Base	100	2,890	386	600	602.36	0.38	0.00	602.74	602.36

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2



STONE RIPRAP DETAIL

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_{D5}) = 0.13g
 Soil Site Class = C

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications
 4th Edition with Interims

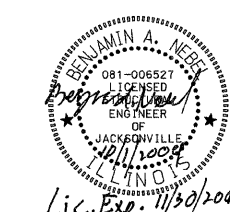
DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)

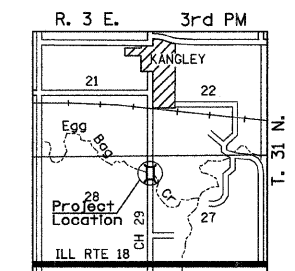
PRECAST PRESTRESSED UNITS

f'_c = 7,000 p.s.i.
 f'_{ci} = 6,000 p.s.i.
 f'_s = 270,000 p.s.i. (1/2" φ low relaxation strands)
 f'_{si} = 201,960 p.s.i. (1/2" φ low relaxation strands)



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.

Ben A. Nebra 12/1/2009
 Illinois Structural No. 6527
 Expires 11/30/2010



LOCATION SKETCH

GENERAL PLAN & ELEVATION

DESIGNED	B.A.N
CHECKED	J.O.H.
DRAWN	T.A.C.
CHECKED	B.A.N.

SHEET NO. 1	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CH 29	10-00649-00-BR	LASALLE	43	8
21 SHEETS	S.N. 050-3593		CONTRACT NO. 87430		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0099(043)			