

Existing Structure:
 Single-span ballasted deck plate girder bridge, 52' long and 14' wide, with 4-W36x300 steel beams supported by semi-gravity type abutments. Built as Chicago & Northwestern Railroad over Illinois Route 25 in 1974 under Section 49-SB-1. The contractor must remove the existing structure and replace it with a four span rolled beam superstructure supported on driven steel pile bents. A temporary Shoo-fly track and bridge will be constructed.

Benchmark:
 BM-19: "Aluminum Disk" set in concrete, 0.10+ mile south of Gilbert Street on east side of Illinois Route 25, 4" from split rail fence. Elevation 724.23. (NGVD 1929)

LOADING COOPER E-80
 IMPACT: Diesel Impact
 Allow Imposed Dead Load of 30" of Ballast

DESIGN SPECIFICATIONS

2011 AREMA Specifications
 Live Load Deflection: L/640
 Permanent Bridge
 Design Speed: 50 m.p.h.
 Temporary Shoo-fly Bridge
 Design Speed: 30 m.p.h.

DESIGN STRESSES

FIELD UNITS
 $f'_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Structural Steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.089g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.152g
 Soil Site Class = D

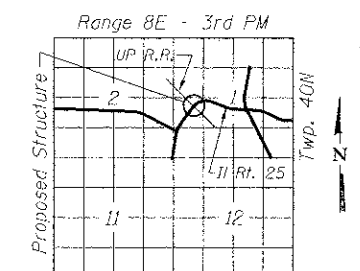
Railroad utilities may exist within UPRR right-of-way. Prior to the start of any construction or excavation, utility relocations will have to be coordinated with the UPRR.

APPROVED
 For Structural Adequacy Only
Larry R. Bellisario
 Engineer of Bridges & Structures



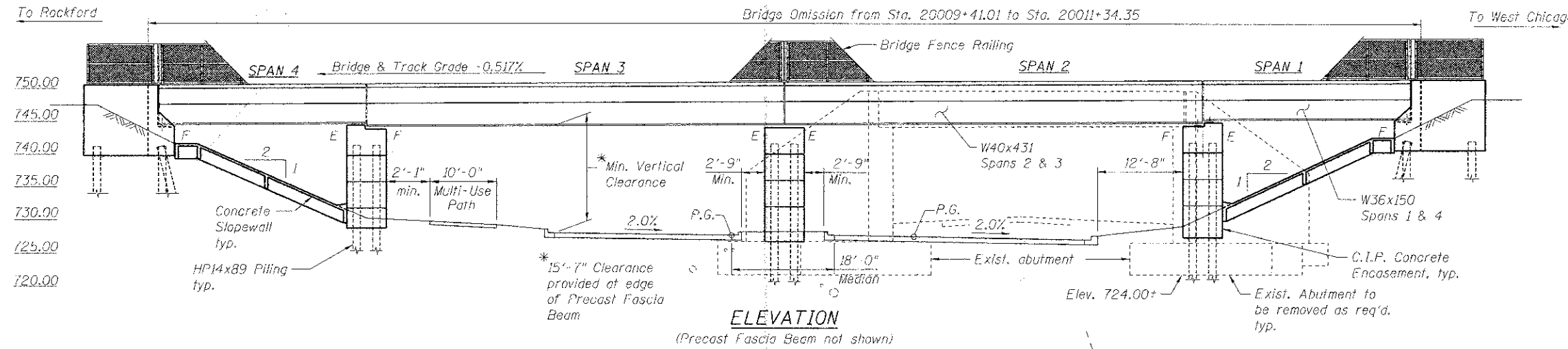
EXPIRATION DATE: 11-30-2014
 DATE: 12-14-2012

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 AREMA Manual for Railway Engineering.



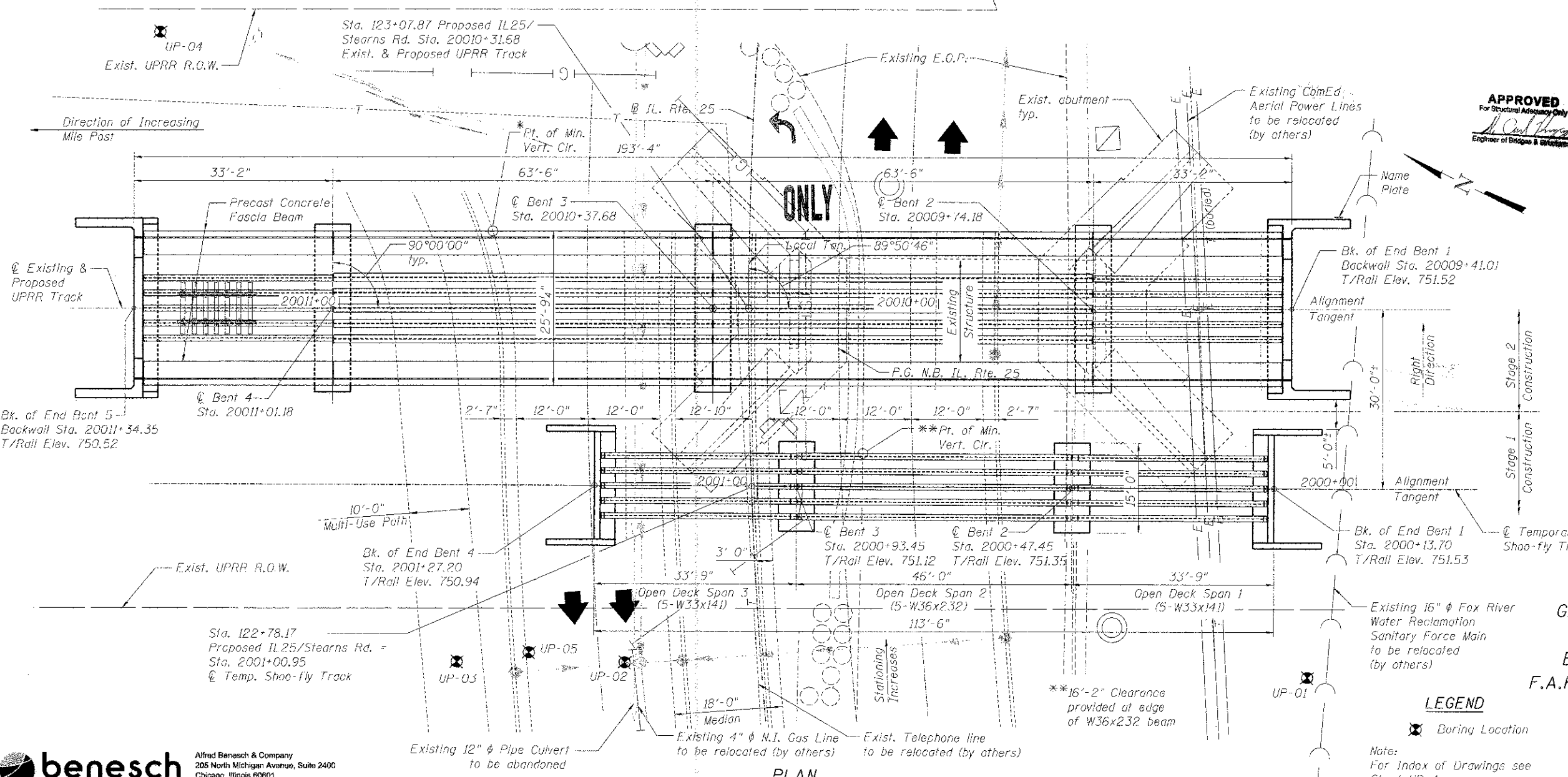
LOCATION SKETCH

GENERAL PLAN AND ELEVATION
 U.P.R.R. BRIDGE 37.71
 BELVIDERE SUBDIVISION OVER
 F.A.P. 361 ROUTE IL 25/STEARNS RD.
 SECTION 06-00214-18-RP
 KANE COUNTY
 STATION 20010+31.68
 STRUCTURE NO. 045-3168



ELEVATION

(Precast Fascia Beam not shown)



PLAN

LEGEND

⊗ Boring Location
 Note: For Index of Drawings see Sheet UP-4.

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FILE NAME =	USER NAME =	DESIGNED -	REVISED -
Permi.Br.-081.GPE.dgn	mgrimm	JLS	-
		CHECKED -	REVISED -
		LRB	-
		DRAWN -	REVISED -
		RMC	-
		CHECKED -	REVISED -
		LRB	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. UP-1 OF UP-52 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
361	06-00214-18-RP	KANE	451	261
			CONTRACT NO. 63598	
ILLINOIS FED. AID PROJECT				

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