

Bench Mark: Brass disc at top of northeast corner of bridge parapet wall, Elev. 906.674.

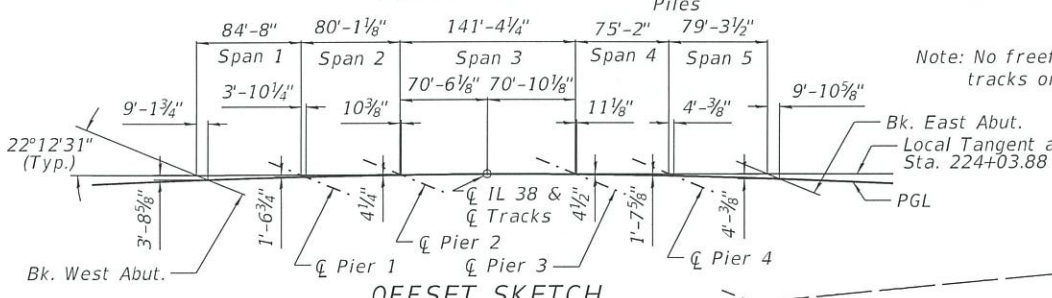
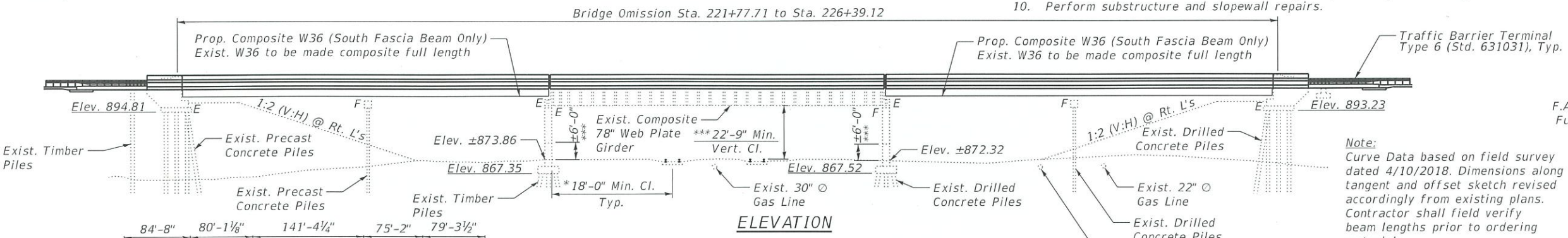
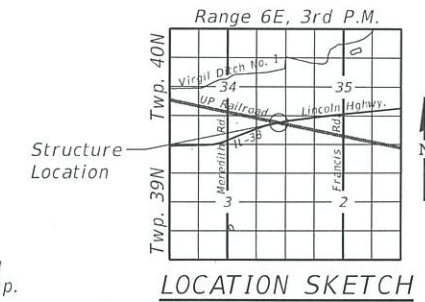
Existing Structure: S.N. 045-0009 was originally constructed in 1964 under Contract 23330, Section 5VB. The structure is a five span bridge, consisting of two-span continuous rolled wide-flange beams for Spans 1-2 and 4-5, and single span plate girders for the middle span. The existing structure measures 462'-0" back-to-back of abutments along the tangent and 35'-8" out-to-out deck. The piers and abutments are skewed at approximately 67° angle.

One lane of traffic will be maintained utilizing stage construction.

No salvage.

SCOPE OF WORK

1. Remove and replace existing deck, hatch blocks and approach slabs.
2. Modify wingwalls to accommodate widened approach slab.
3. Remove and replace south fascia beam and bearings in Spans 1-2 and 4-5.
4. Make existing girders composite in Spans 1-2 and 4-5.
5. Remove and replace end diaphragms at the abutments and Piers 2 & 3.
6. Miscellaneous steel repairs as required.
7. Remove and replace expansion joints at the abutments and Piers 2 & 3.
8. Remove and replace expansion bearings for Span 3 plate girders at Pier 2.
9. Clean and paint structural steel at the joints, including the bearings.
10. Perform substructure and slopewall repairs.



APPROVED
JUL 25 2018
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

Note:
 Curve Data based on field survey dated 4/10/2018. Dimensions along tangent and offset sketch revised accordingly from existing plans. Contractor shall field verify beam lengths prior to ordering materials.

CURVE DATA
 P.I. Sta. = 218+16.16
 $\Delta = 16^\circ 03' 00''$ (RT)
 $D = 0^\circ 50' 11''$
 $R = 6,850.83'$
 $T = 965.87'$
 $L = 1919.08'$
 $E = 67.75'$
 $SE = 2\%$
 P.C. Sta. = 208+50.29
 P.T. Sta. = 227+69.38

HIGHWAY CLASSIFICATION
 F.A.P. Rte. 567 - IL Rte. 38 (Lincoln Highway)
 Functional Class: Minor Arterial (Non-Urban)
 ADT: 8,950 (2017); 10,272 (2032)
 ADTT: 6% (2017)
 DHV: 895 (2017); 1,028 (2032)
 Design Speed: 55 m.p.h.
 Posted Speed: 55 m.p.h.
 Two-Way Traffic
 Directional Distribution: 50%/50%

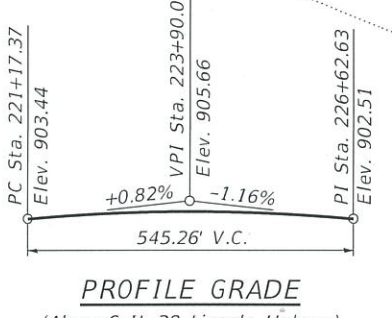
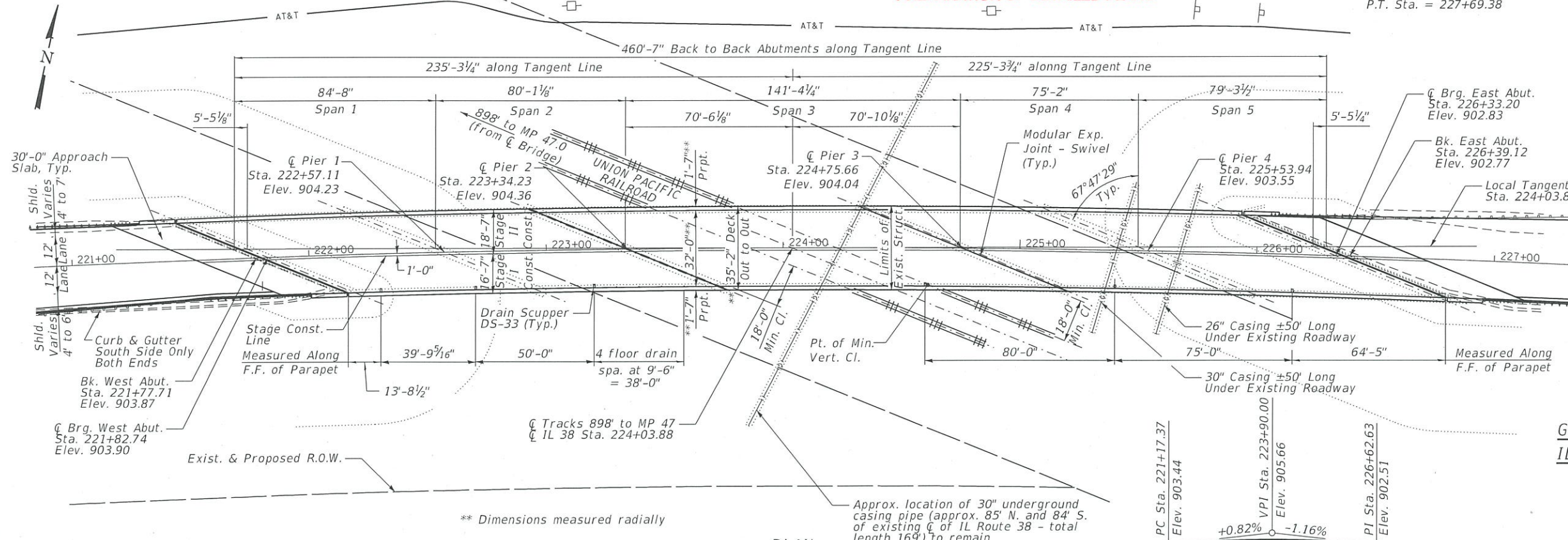
LOADING HS20-44
 Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA
 Seismic Performance Category (SPC) = A
 Horizontal Bedrock Acceleration Coefficient (A) = 0.035g
 Site Coefficient (S) = 1.0

DESIGN SPECIFICATIONS
 2002 AASHTO Standard Specifications for Highway Bridges, (17th Edition)

DESIGN STRESSES
FIELD UNITS (Existing)
 $f'_c = 3,500$ psi
 $f_y = 40,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270 Grade 36)

DESIGN STRESSES
FIELD UNITS (Proposed)
 $f'_c = 4,000$ psi (Superstructure)
 $f'_c = 3,500$ psi (Substructure)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)

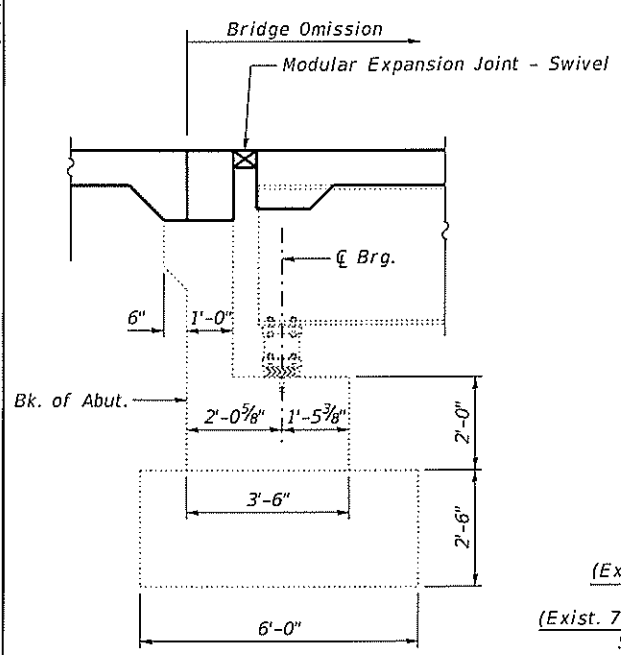
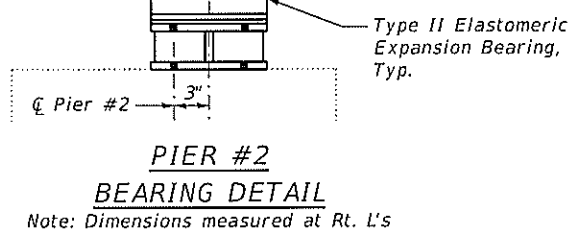
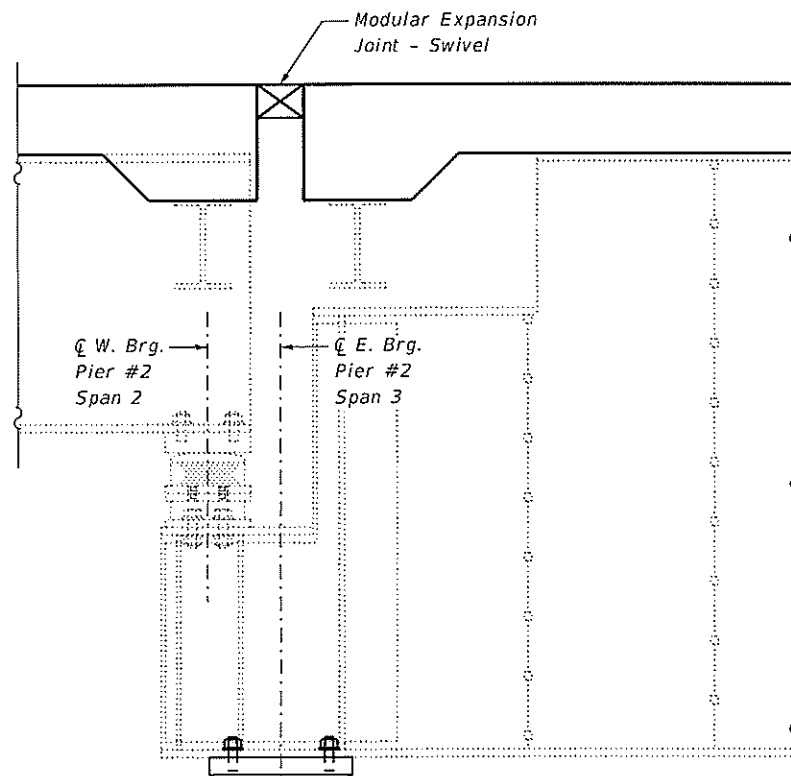


GENERAL PLAN AND ELEVATION
IL 38 (LINCOLN HIGHWAY) OVER
UNION PACIFIC RAILROAD
F.A.P. RTE. 567
SECTION 5VB-BR
KANE COUNTY
STATION 224+03.88
STRUCTURE NO. 045-0009

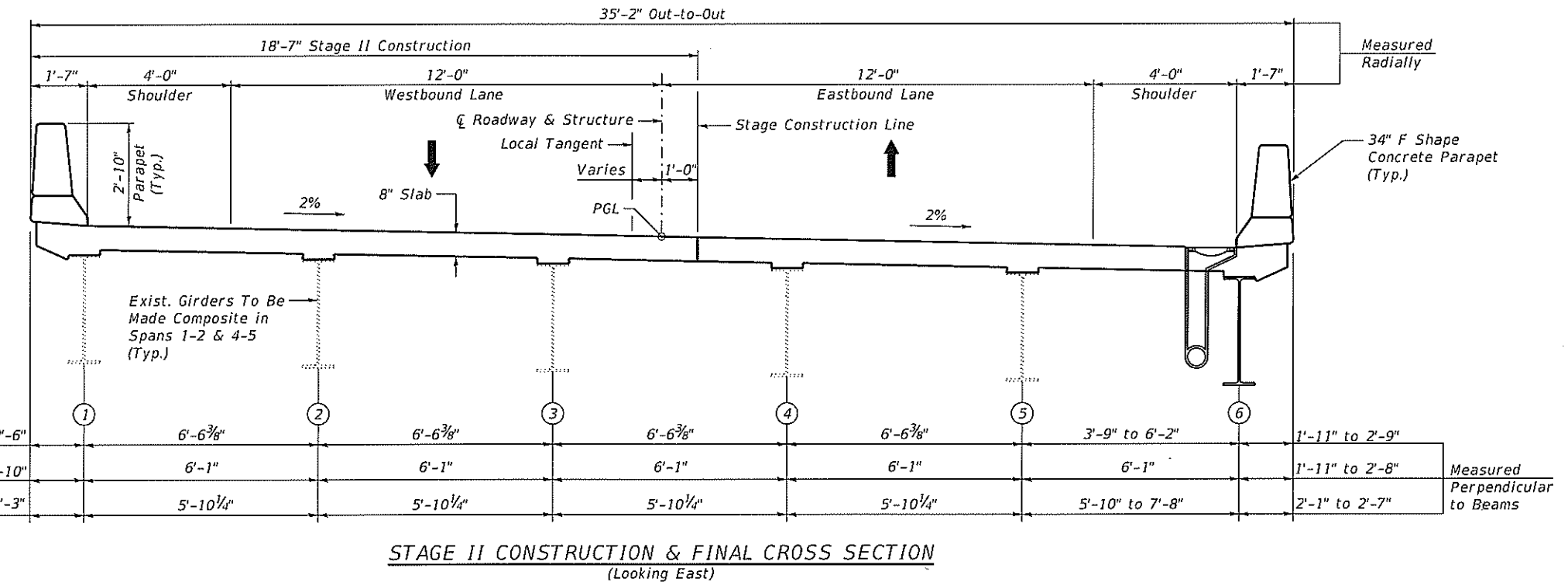
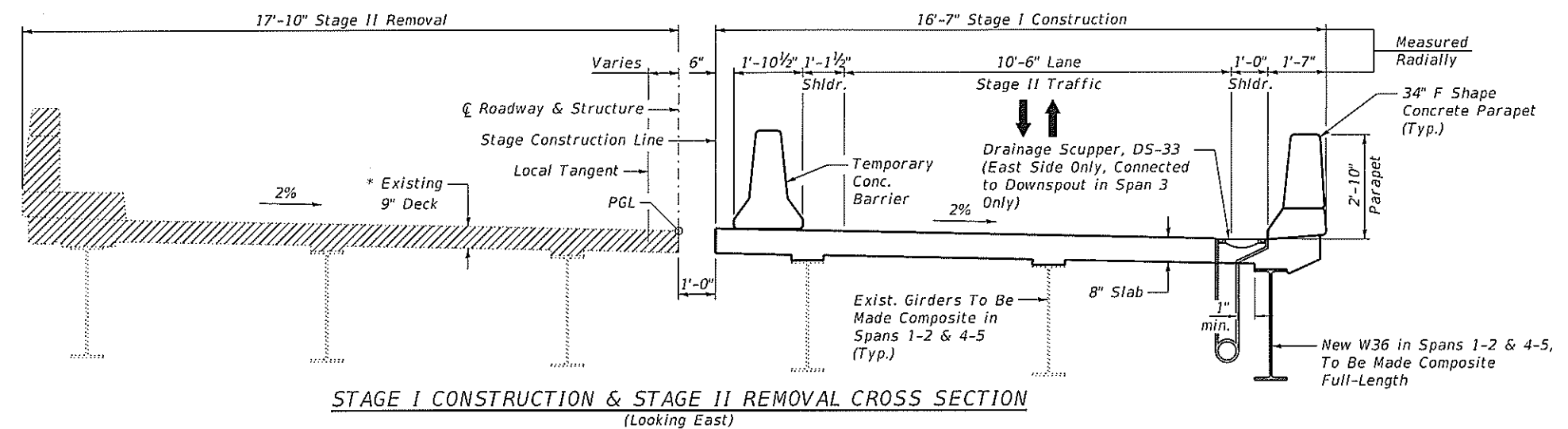
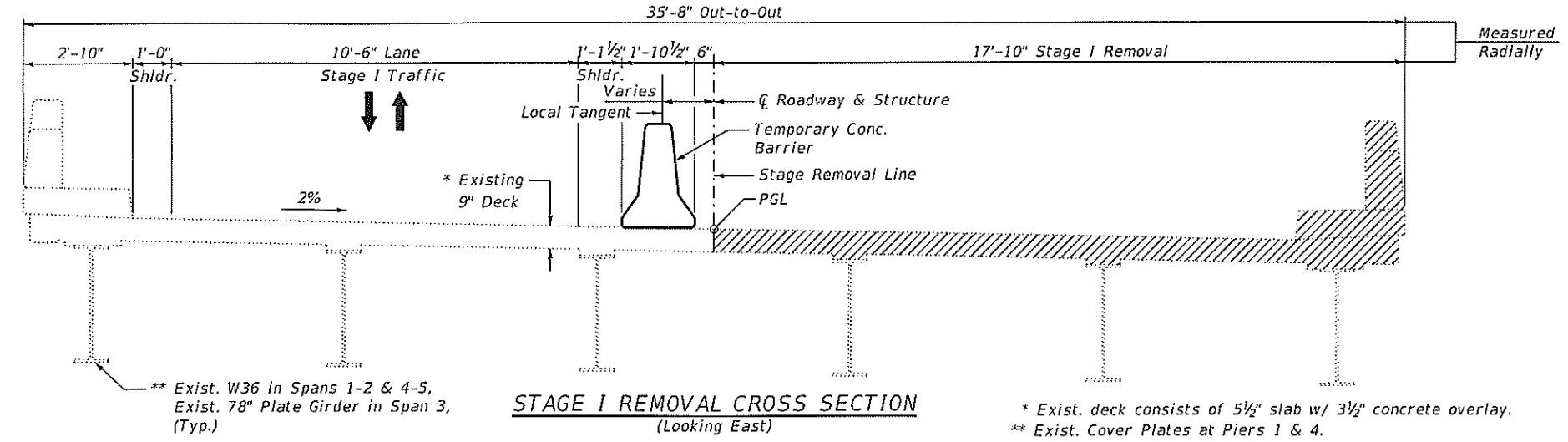
Note:
 Scupper located in Span 3 to be connected to a drainage system attached to Pier 3.

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COLLINS ENGINEERS 111 N. Main St. Chicago, IL 60610 Phone: (312) 467-8888 Fax: (312) 467-8889 www.collins-engineers.com	USER NAME =	DESIGNED - RSD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 045-0009 SHEET NO. S-1 OF S-2 SHEETS	F.A.P. RTE. = 567	SECTION = 5VB-BR	COUNTY = COOK	TOTAL SHEETS = 2	SHEET NO. = 1
	PLOT SCALE =	DRAWN - PRH	REVISED -			CONTRACT NO. 62C14	ILLINOIS FED. AID PROJECT			
	PLOT DATE = 7/23/2018	CHECKED - RSD	REVISED -							



TYPICAL SECTION THRU ABUTMENT
Note: Dimensions measured at Rt. L's



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PLOT DATE = 7/20/2018	DRAWN - PRH	REVISED -
	CHECKED - RSD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 045-0009
SHEET NO. 5-3 OF 5-... SHEETS

F.A.P. RTE. 567	SECTION 5VB-BR	COUNTY COOK	TOTAL SHEETS 2	SHEET NO. 2
CONTRACT NO. 62C14			ILLINOIS FED. AID PROJECT	