B.M.: BM#9: Chiseled Square in center of west side of 4'x4' box culvert ±0.5 mi. South of Lick Creek, ±11' West of EOP, Elev. 523.88'
BM#10: Chiseled Square on Southwest abut. wingwall of SN 031-0016 on IL 267 over Lick Creek, Elev. 524.94'

Traffic: Traffic shall be maintained during construction by Staged Construction.

Existing Structure: SN 031-0016, 3-span Reinforced concrete slab on wide flange steel beams. Reinforced concrete piers. Reinforced concrete abutments. Built as F.A.I. 64 Sec. 3-B-F-D Sta. 385+40.00 in 1938. Deck replacement and existing wide flange beams made composite 194'-5" long x 32'-6" wide as F.A.Rte. 164 Sec. 3BY-1 Sta. 385+40.00 in 1969. Deck Overlay & Joint/Bearing Replacement as F.A.Rte. 10 Sec. 3BI-1 in 1987.

Salvage: None.

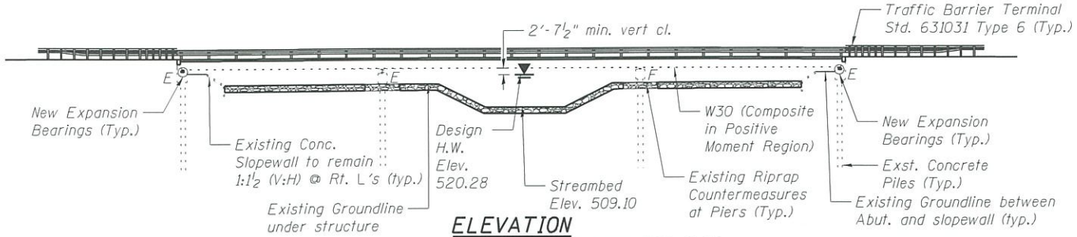
DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)				Item 113
	S. Abut. (Bent 1)	Pier 1 (Bent 2)	Pier 2 (Bent 3)	N. Abut. (Bent 4)	
Q100	516.79	502.15	503.08	516.79	5
Q200	516.79	500.74	501.66	516.79	
Design	516.79	502.15	503.08	516.79	

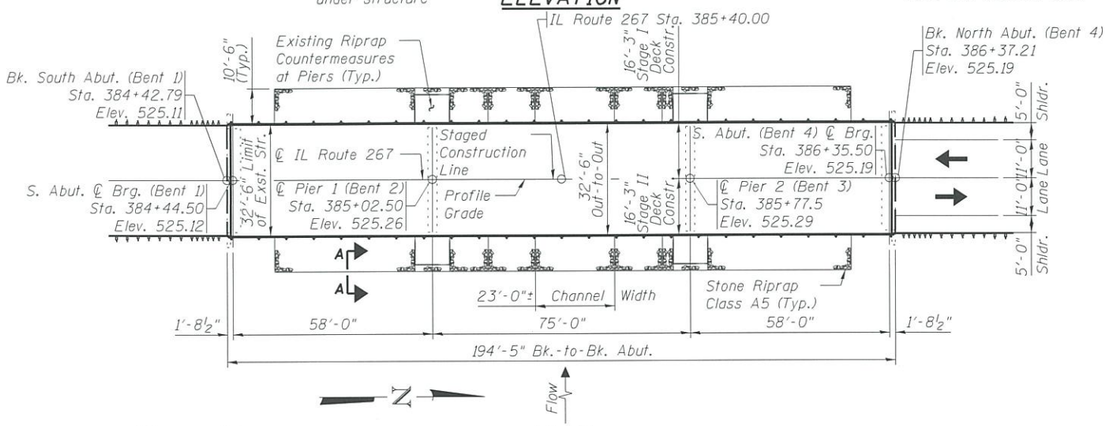
SCOPE OF WORK

1) Pre-Stage Deck Repair, with temporary shoring and cribbing at abutments for Stage I Traffic. Repairs refined in Final Plans.
2) Remove and replace concrete deck and steel railing.
3) Remove and replace deteriorated diaphragms & all end diaphragms.
4) Remove all end bearings.
5) Repair all beam ends by adding galvanized angle bearing stiffeners.
6) Repair deteriorated parts of concrete substructures.
7) Clean Abut. & Pier seats.
8) Clean and paint beam ends within 5 ft. of expansion joints and exterior surface and bottom flange of fascia beams.
9) Install Class A5 riprap from toe of slopewall to toe of slopewall and 10 ft. both upstream and downstream of the superstructure in accordance with Hydraulic Statement in the Bridge Condition Report.

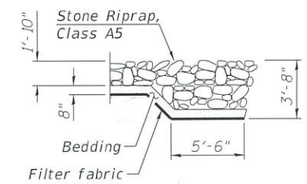
APPROVED
NOV 08 2018
AS A BASIS FOR PREPARATION OF DETAILED PLANS



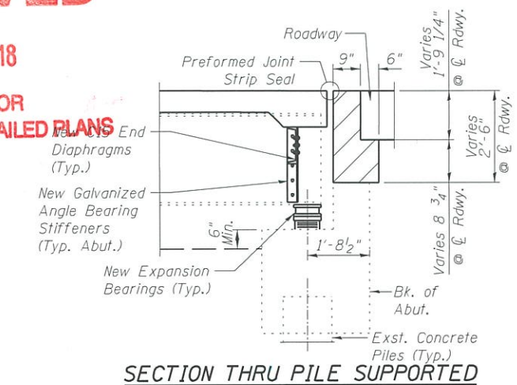
ELEVATION



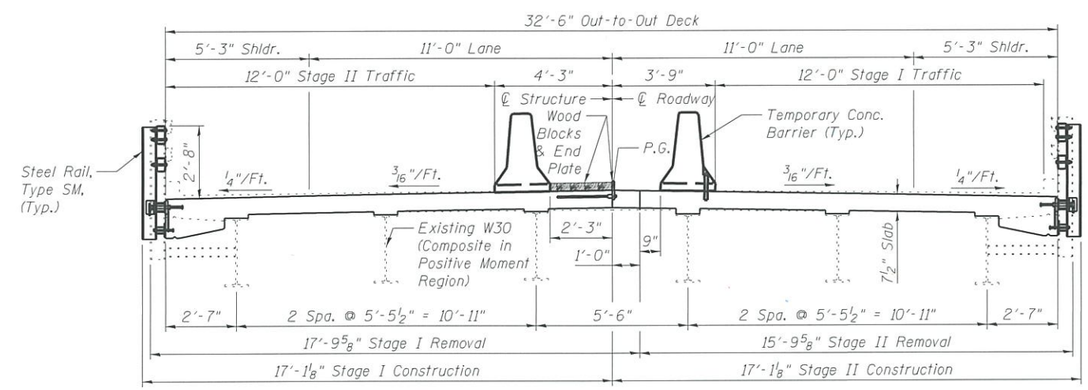
PLAN



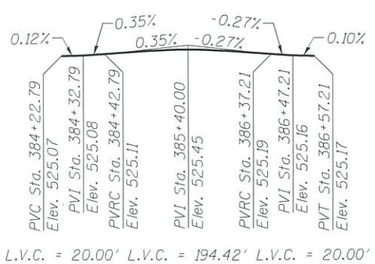
SECTION A-A



SECTION THRU PILE SUPPORTED STUB ABUTMENT
(Horiz. dim. @ Rt. L's)



CROSS SECTION
(Looking North)



PROFILE GRADE
IL ROUTE 267

WATERWAY INFORMATION

Drainage Area = 17.73 sq.mi. Low Grade Elev. 522.91 @ Sta. 381+00

Flood	Freq. Yr.	Q C.F.S.	Opening Ft² Exist.	Opening Ft² Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10								
Design	50	5778	834	834	518.61	1.67	1.67	520.28	520.28
Base	100	6682	864	864	518.78	1.94	1.94	520.72	520.72
Overtopping									
Max. Calc.	500	8869			519.24	2.57	2.57	521.81	521.81

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

LOADING HS-20-44

Future wearing surface not allowed.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = .163
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = .309
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS

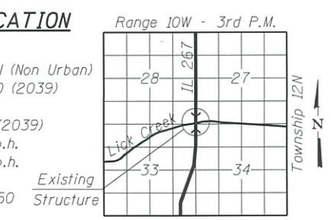
f'c = 5,000 psi (Superstructure)
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (M270 Grade 36)

FIELD UNITS (Exist. Const.)

f'c superstructure = 2,400 psi
f'c substructure = 2,400 psi
fy substructure = 40,000 psi (Reinforcement)
fy = 33,000 psi (A7). Beam Strength limited to yield strength subject to bracing req.

HIGHWAY CLASSIFICATION

IL Route 267
Functional Class: Minor Arterial (Non Urban)
ADT: 2,050 (2019); 2,250 (2039)
ADTT: 22.1%
DHV: 205 (2019); 225 (2039)
Design Speed: 60 m.p.h.
Posted Speed: 55 m.p.h.
Two-Way Traffic
Directional Dist.: 50:50



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL ROUTE 267 OVER LICK CREEK
F.A.P. RTE. 10 - SECTION 3BR-1
GREENE COUNTY
IL ROUTE 267 STA. 385+40.00
STRUCTURE NO. 031-0016

BENTON & ASSOCIATES, INC.

FILE NAME = P:\ 10e2166-25\ Design\ Plans\ TS&L\ 0310015-76K57 -001-TSL.dgn	USER NAME =	DESIGNED - MBH	REVISED - --- ---------
		CHECKED - RHB	REVISED -
	PLOT SCALE =	DRAWN - MBH	REVISED -
	PLOT DATE =	CHECKED - RHB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 031-0016
SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
10	3BR-1	GREENE	1	1
		CONTRACT NO. 76K57		

FED. ROAD DIST. NO. 8 | ILLINOIS | FED. AID PROJECT