

Bench Mark: F-291, NGS Monument on east abutment of S.N. 039-0013, 22' left of Sta. 339+04, Elev. 373.18.

Existing Structure: S.N. 039-0013 was originally built in 1954 along F.A. 14, Section 12-1B-2, 1F-2 and reconstructed in 1980 as F.A.P. 107, Section 12-1B-2. The back to back abutment length is 417'-0" and the out-to-out deck width is 33'-8". The structure consists of a three span continuous steel plate girder superstructure horizontally curved supported on pile stub abutments and solid wall piers. Structure to be removed and replaced.

Traffic Control: Traffic will be maintained by providing a temporary crossover from the existing eastbound roadway to the existing westbound structure for Stage I. Upon completion of the new eastbound structure, traffic will be maintained with a temporary crossover from the existing westbound roadway to the eastbound structure for Stage II.

Salvage: None

Notes:

- ① Light poles not shown for clarity.
- ② Measured radially.
- ③ For Section A-A, see sheet 2 of 53.
- ④ DS-11 Drainage Scuppers to be located on the south side only at each end of the structure.
- ⑤ For light pole locations, pole heights, and anchor bolt patterns, see Lighting Plan Details.
- ⑥ Slope 1:2 (V:H) at right angles to abutment along face of wingwalls, typical.
- ⑦ After removal of existing west median drain pipe, drainage to be accommodated by Contractor until completion of final median grading.
- ⑧ Permanent Ground Anchor and Tie Rod, typical.

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (AASHTO M 270 Grade 50W)
 $f_y = 50,000$ psi (AASHTO M 270 Grade 50)
 $f_y = 150,000$ psi (AASHTO M 275 Grade 150)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 3
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.35g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.82g
 Soil Site Class = D

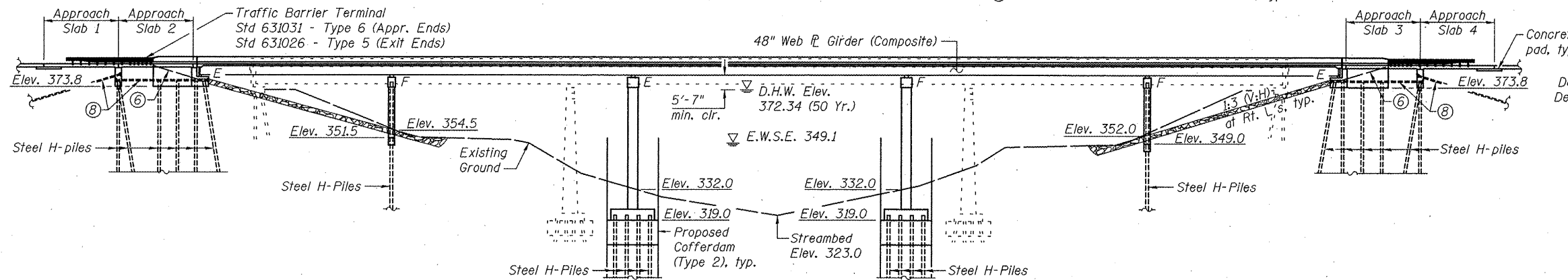
LOADING HL-93

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

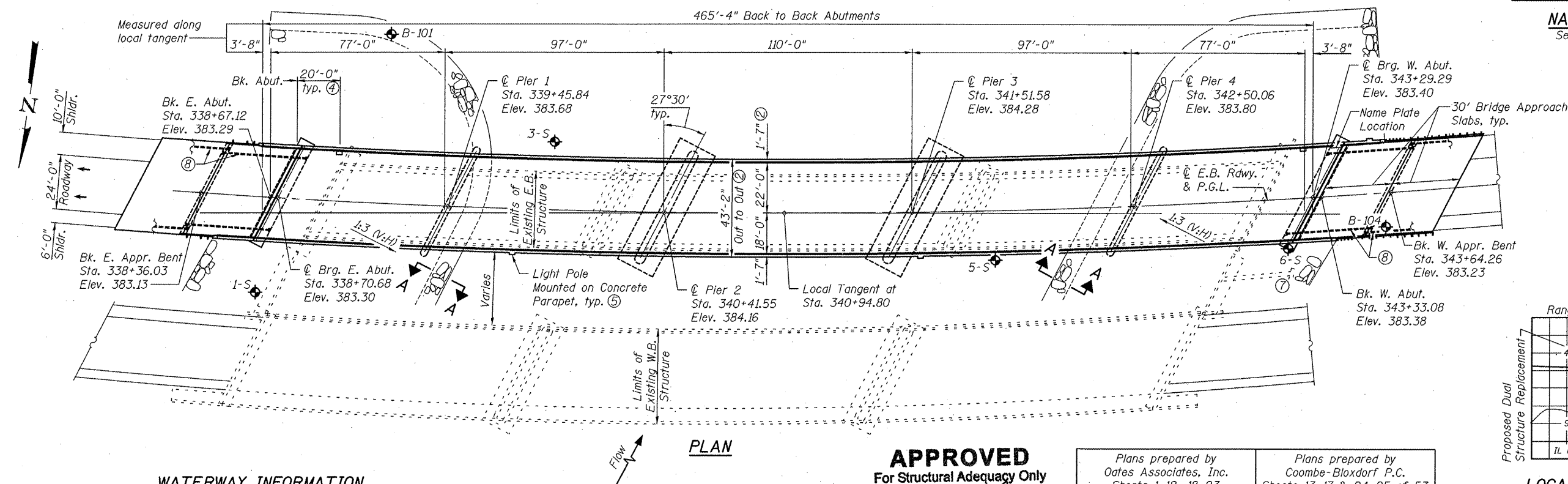
STATION 340+96.56
 BUILT 20__ BY
 STATE OF ILLINOIS
 FAP ROUTE 331 SEC (12-1)B-1
 LOADING HL-93
 STRUCTURE NO. 039-0075

NAME PLATE

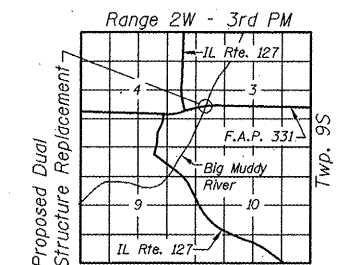
See Std. 515001



ELEVATION ①



PLAN



LOCATION SKETCH

GENERAL PLAN & ELEVATION
 IL RTE. 13 OVER BIG MUDDY RIVER
 F.A.P. RTE. 331 - SEC. (12-1)B-1
 JACKSON COUNTY
 STATION 340+96.56 (E.B.)
 STRUCTURE NO. 039-0075 (E.B.)

WATERWAY INFORMATION

Drainage Area = 2,159 Sq. Mi.		Exist. Low Grade Elev. 382.5 @ Sta. 337+50		Prop. Low Grade Elev. 382.5 @ Sta. 337+50		
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.
			Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	10	26,344	7,286 7,458	366.94 366.99	0.05 0.05	366.99 366.99
Base	50	38,509	9,259 9,562	372.34 372.42	0.08 0.07	372.42 372.41
Overtopping	100	43,714	10,054 10,601	374.84 375.07	0.23 0.14	375.07 374.98
Max. Calc.	500	55,669	10,054 11,926	378.10 378.37	0.27 0.18	378.37 378.28

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	E. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	W. Abut.
	373.8	349.1	314.8	314.8	345.0	373.8

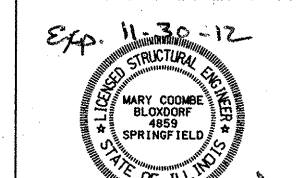
APPROVED
 For Structural Adequacy Only

Carl Perry
 Engineer of Bridges & Structures

Plans prepared by
 Oates Associates, Inc.
 Sheets 1-12, 18-23
 & 26-53 of 53
 Exp. 11-20-12



Plans prepared by
 Coombe-Bloxdorf P.C.
 Sheets 13-17 & 24-25 of 53
 Exp. 11-30-12



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 53 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(12-1)B-1	JACKSON	200	60
			CONTRACT NO. 78056	
ILLINOIS FED. AID PROJECT				

DATE ASSOCIATES
 Engineering & Architecture

USER NAME =
 PLOT SCALE =
 PLOT DATE =

DESIGNED - JAD
 CHECKED - DGL
 DRAWN - MAG
 CHECKED - DGL

REVISED -
 REVISED -
 REVISED -
 REVISED -