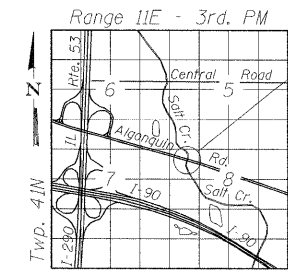


Bench Mark: "□" Cut on northwest wingwall of Illinois Route 62 (Algonquin Road) bridge over Salt Creek - elevation 700.27 feet.

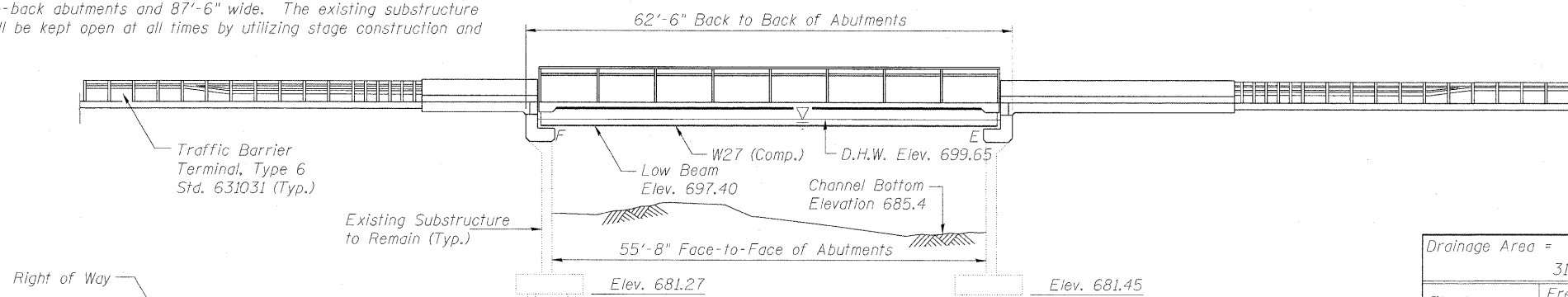
Existing Structure: S.N. 016-0581 carrying Illinois Route 62 over Salt Creek was constructed in 1971 under F.A.S. Route 157, Section-116-Y-2-BR. It consists of a single span of precast, prestressed concrete (PPC) deck beams on reinforced concrete closed abutments with a length of 61'-4" back-to-back abutments and 87'-6" wide. The existing substructure will be retained. The road shall be kept open at all times by utilizing stage construction and a temporary signal system.

Salvage: None.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



LOCATION SKETCH



WATERWAY INFORMATION

Drainage Area =		Acres		Existing Low Grade Elev. = 699.5 ft. @ Sta. 742 (RT)						
		31.08 Sq. Mi.		Proposed Low Grade Elev. = 699.5 ft. @ Sta. 742 (RT)						
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E. Exist.	Prop.	Head - Ft. Exist.	Prop.	Headwater Elev. Exist.	Prop.
	10	1080	543	578	698.16	698.16	0.12	0.08	698.28	698.24
Design	50	1742	543	578	699.65	699.65	0.40	0.30	700.05	699.95
Base	100	2085	543	578	700.21	700.21	0.48	0.41	700.69	700.62
Overtopping	>500									
Max. Calc.	500	2871	543	578	701.15	701.15	0.36	0.39	701.51	701.54

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition, with 2008 and 2009 Interims.

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

EXISTING SUBSTRUCTURE

fc = 1,000 psi
fs = 20,000 psi (Reinforcement)

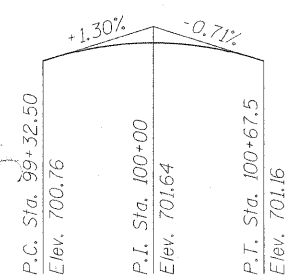
SEISMIC DATA

EXISTING SUBSTRUCTURE

Seismic Performance Zone (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 3.5
Site Coefficient (S) = 1.0

CURVE DATA

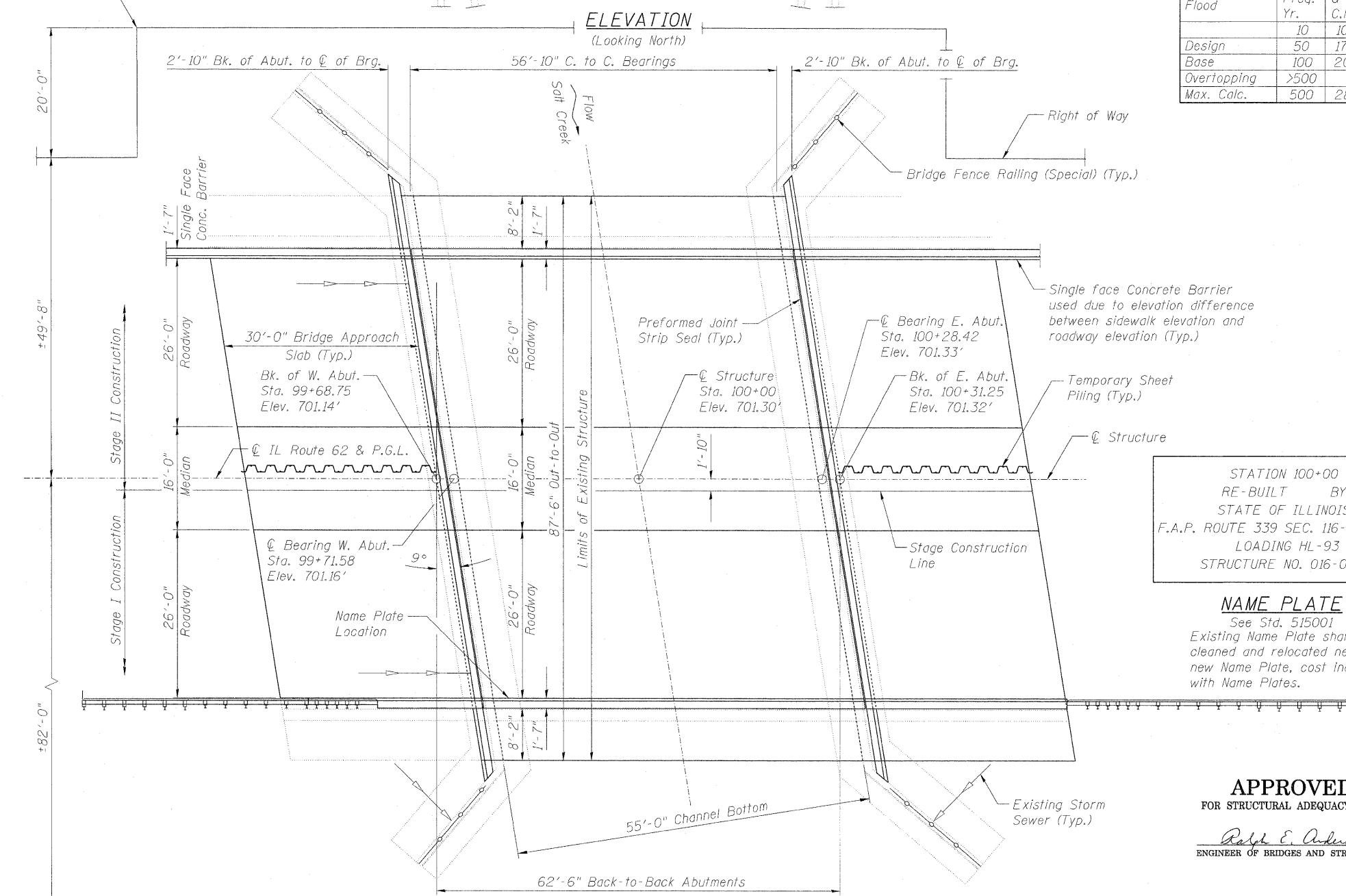
$\Delta = 4^{\circ}09'11''$ (RT)
D = 0'10'-16"
T = 1,214.00'
L = 2,426.94'
E = 22.00'
R = 33,482.28'
P.C. = Sta. 94+53.59
P.T. = Sta. 118+80.52
P.I. = Sta. 106+67.59



PROFILE GRADE

(along P.G. F.A.P. Rte. 339)
Length of curve = 135'

DESIGNED	MAH
CHECKED	JMH
DRAWN	DR
CHECKED	JMH



STATION 100+00
RE-BUILT BY
STATE OF ILLINOIS
F.A.P. ROUTE 339 SEC. 116-Y-2-BR-1
LOADING HL-93
STRUCTURE NO. 016-0581

NAME PLATE

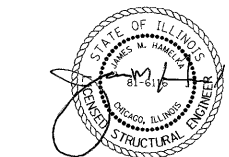
See Std. 515001
Existing Name Plate shall be cleaned and relocated next to new Name Plate, cost included with Name Plates.

APPROVED

FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 62 (ALGONQUIN ROAD)
OVER SALT CREEK
F.A.P. ROUTE 339 SEC. 116-Y-2-BR-1
COOK COUNTY
STATION 100+00
STRUCTURE NO. 016-0581



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 81-6116
EXPIRES 11-30-2010

COLLINS ENGINEERS
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

SHEET NO. S1 OF S27 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	339	116-Y-2-BR-1	COOK	74	23
CONTRACT NO. 60J00				ILLINOIS FED. AID PROJECT	