Bench Mark: USGS reference mark on S.W. wingwall of structure 049-0055 (Elev. 228.867)

Existing Structure:
S.N. 049-0056, three span 29.58m Back to Back abutments.
15.748m Out to Out, R.C. slab bridge on closed abutments.
Built as IL Route 173, Section 134B-BR at Sta. 860+77 (English) in 1931. The contractor shall remove the existing structure and replace it with a two span steel girder composite superstructure on integral abutments. The road shall be kept open to traffic at all times utilizing stage construction.

Note: All dimensions in millimeters (mm) except as noted.

No salvage

* Bottom of abutment shall be stepped. Elevation value is an average.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

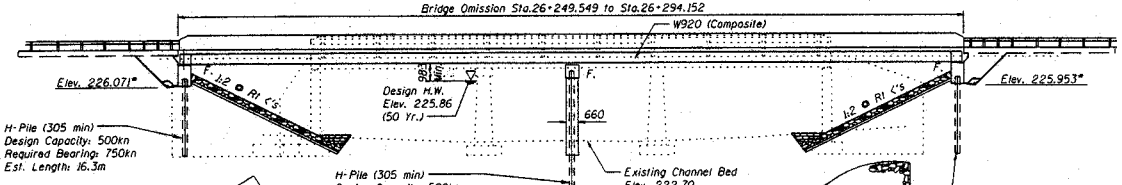
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. / F.A.P. 303	134B-BR-2	LAKE		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
2 SHEETS

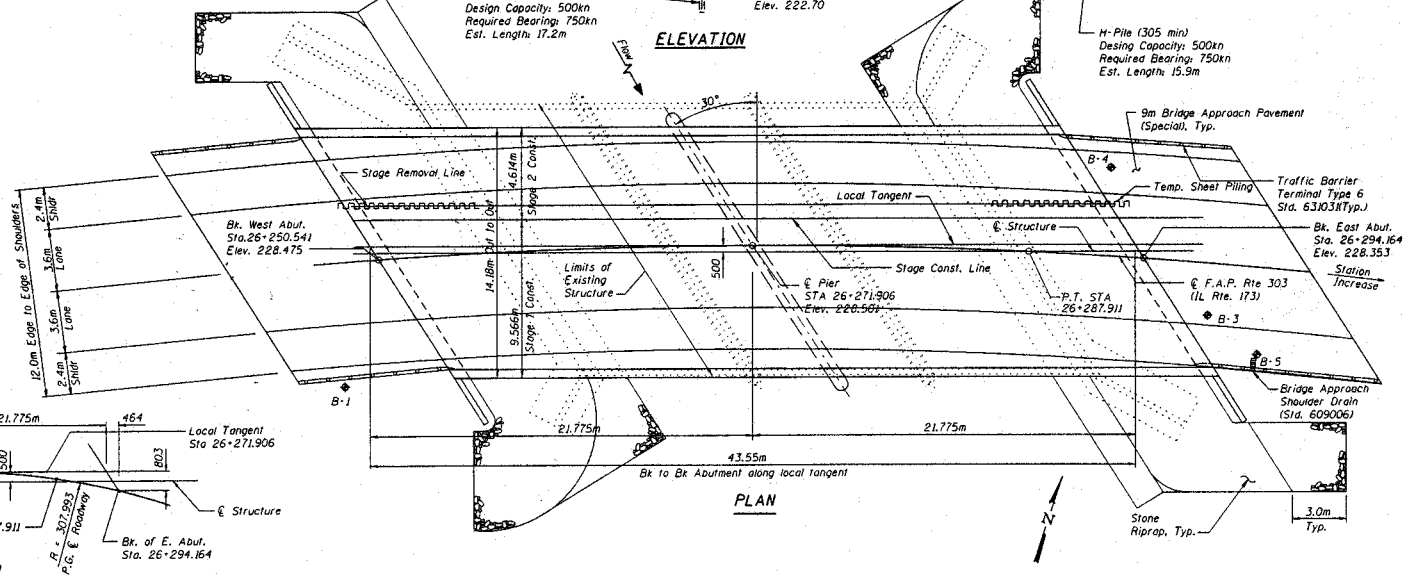
APPROVED

APR 21 2003

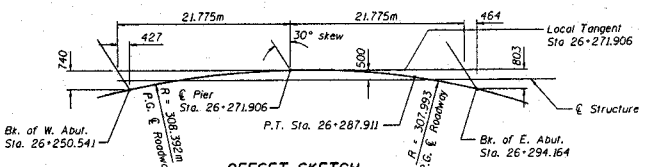
AS A BASIS FOR PREPARATION OF DETAILED PLANS



ELEVATION



PLAN



OFFSET SKETCH

HORIZONTAL CURVE DATA-1

Δ= 20° 20' 01"
T= 55.304m
R= 308.392m
L= 109.443m
E= 4.920m
S.E.= 0.054
P.C. STA= 26+178.468
P.T. STA= 26+287.911
P.I. STA= 26+233.772

HORIZONTAL CURVE DATA-2

Δ= 18° 59' 40"
T= 51.525m
R= 307.993m
L= 102.100m
E= 4.280
S.E.= 0.054
P.C. STA= 26+287.911
P.T. STA= 26+390.011
P.I. STA= 26+339.436

DESIGNED	RGT	
CHECKED	LLP	
DRAWN	DJS	
CHECKED	RGT	

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EXAMINED
ENGINEER OF BRIDGE DESIGN
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

HIGHWAY CLASSIFICATION

FAP Rte. 303 IL Rte. 173
Class: Principal Arterial
ADT: 10,400 (1996); 14,040 (2016)
DHV: 1040 (1996)
Design Speed: 65 km/hr
Posted Speed: 65 km/hr

LOADING MS18

Allow 2.4 kN/m² for future wearing surface.

DESIGN SPECIFICATIONS

AASHTO 2002

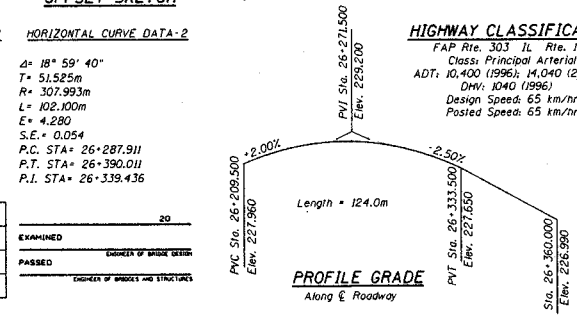
DESIGN STRESSES

FIELD UNITS

f'_c = 24 MPa
f_y = 400 MPa (reinforcement)
f_y = 250 MPa (M270M Grade 250)
f_y = 345 MPa (M270M Grade 345)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.2



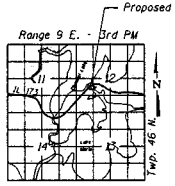
PROFILE GRADE

Along ℄ Roadway

WATERWAY INFORMATION

Drainage Area = 2256 km2 Low Grade Elev. 226.7m @ Sta. 26+287

Flood	Freq. Yr.	Q C.M.S.	Opening Sq. M Exist.	Opening Sq. M Prop.	Natural H.W.E. Exist.	Natural H.W.E. Prop.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	N/A	62.10	61.00	225.46	225.46	0.00	0.00	225.46	225.46
Design	50	N/A	71.40	73.00	225.86	225.86	0.00	0.00	225.86	225.86
Base	100	N/A	75.60	78.50	226.04	226.04	0.00	0.00	226.04	226.04
Overlopping							0.00	0.00		
Max. Calc.	500	N/A	84.90	91.20	226.44	226.44	0.00	0.00	226.44	226.44

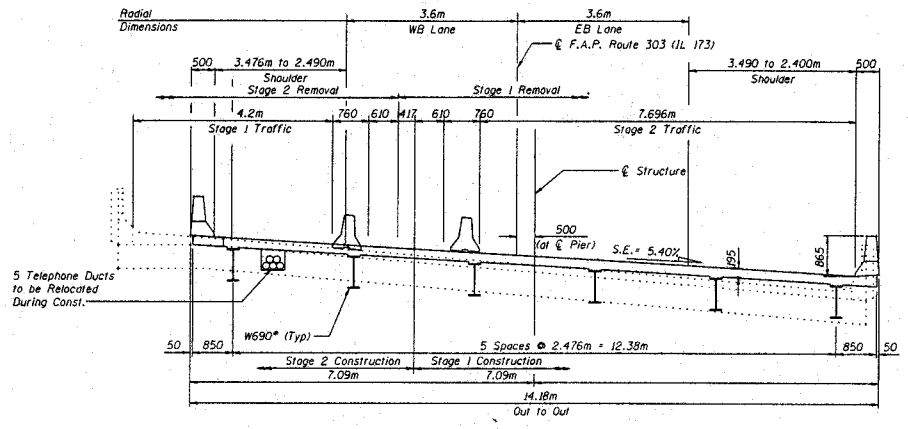


LOCATION SKETCH

GENERAL PLAN
FAP 303 IL. ROUTE 173
OVER EAST BOAT CHANNEL
SECTION 134 (B&B-2) R-1
LAKE COUNTY
STATION 26+271.906
STRUCTURE NO. 049-0198

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I.				SHEET NO. 2
F.A.P. 303		LAKE		2 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

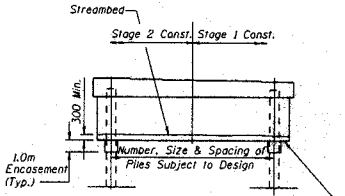


CROSS SECTION

Looking East

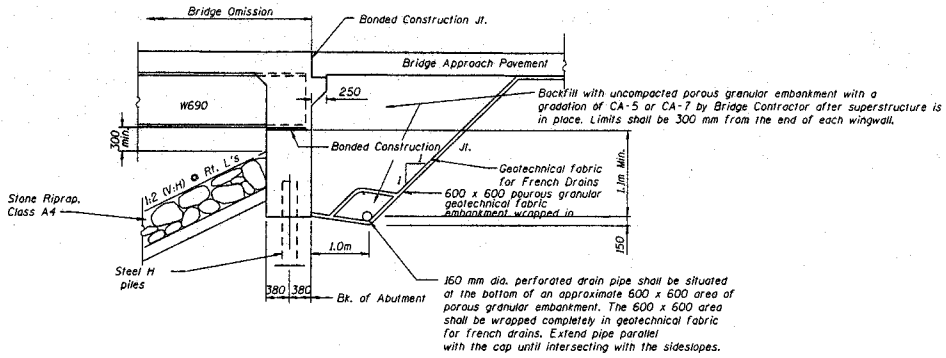
All dimensions at right angles unless noted otherwise.

* Utilize Composite Construction in positive moment areas.



PIER SKETCH

(Looking East)



SECTION THRU INTREGAL ABUTMENT

(Dimensions at right angles)

DESIGNED	RGT
CHECKED	LLP
DRAWN	DJS
CHECKED	RGT

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EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN
FAP 303 IL. ROUTE 173
OVER EAST BOAT CHANNEL
SECTION 134 (&B-2) R-1
LAKE COUNTY
STATION 26+271.906
OLD STRUCTURE NO. 049-0056
NEW STRUCTURE NO. 049-0198

3116-049-0056.dgn