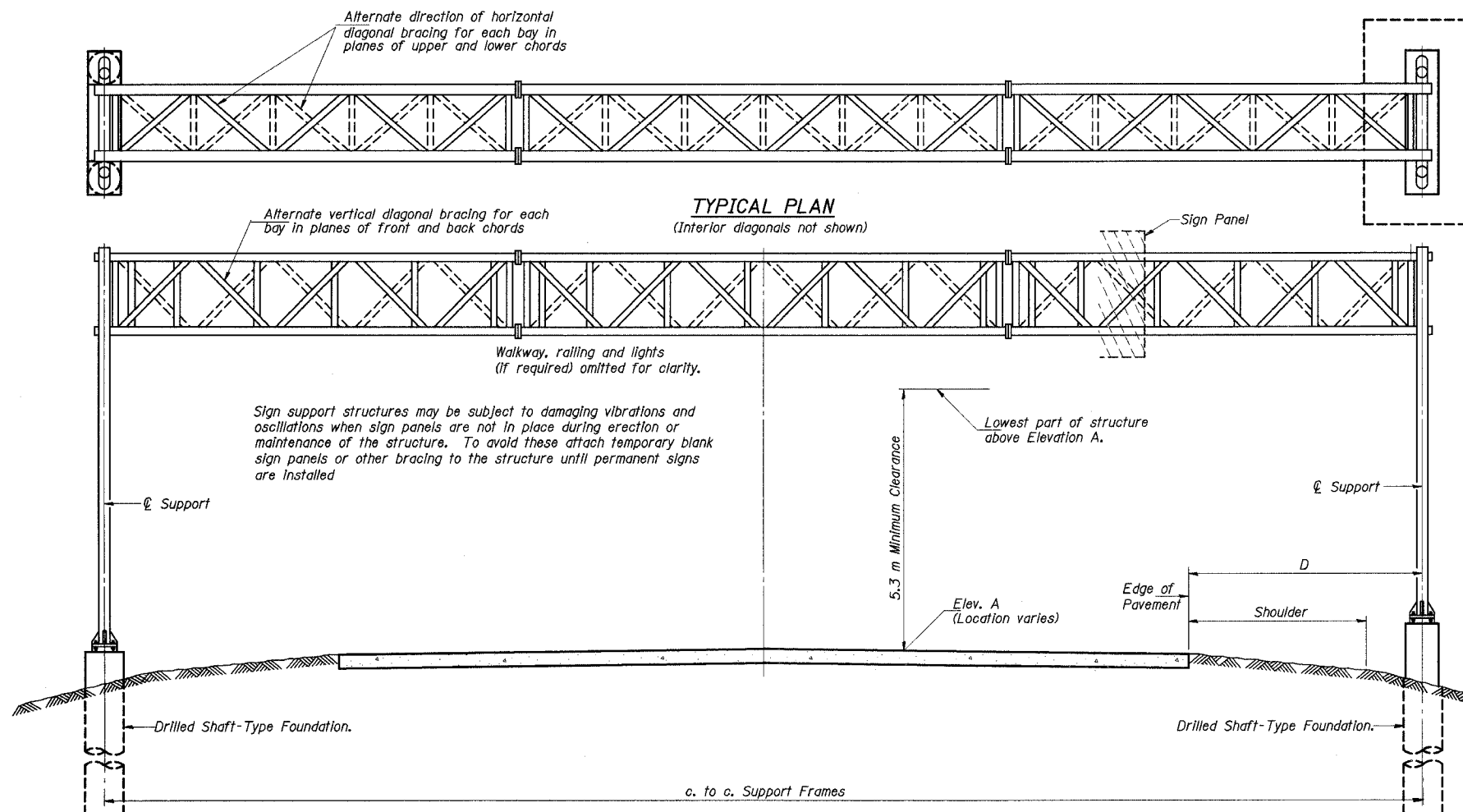


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. 80/94		COOK	870	315
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	
		(0203.1 & 0312-7087) R3	CONTRACT NO. 62108	



GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

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

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 145 km/h WIND VELOCITY
WIND LOADING: 1.44 kPa normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 2.2 kN concentrated live load.

DESIGN STRESSES:
FIELD UNITS
f'c = 24 MPa
fy = 400 MPa (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 241 MPa, or A500 Grade B or C with a minimum yield of 319 MPa. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270M Gr. 250, Gr. 345 or Gr. 345W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 20 J. at 4° C. (Zone 2) before galvanizing.

FASTENERS FOR STEEL TRUSSES: All bolts noted as "high strength" (HS) must satisfy the requirements of AASHTO M164 (ASTM A325), ASTM A444, or an Engineer approved alternate, and must have matching lock nuts and washers. All bolts, u-bolts, eye bolts, lock nuts and washers not specified to be "high strength" must satisfy the requirements of ASTM A307 Gr B. All lock nuts must have nylon or steel inserts. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the Standard Specifications. Rotational capacity ("ROCAP") testing will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts, and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

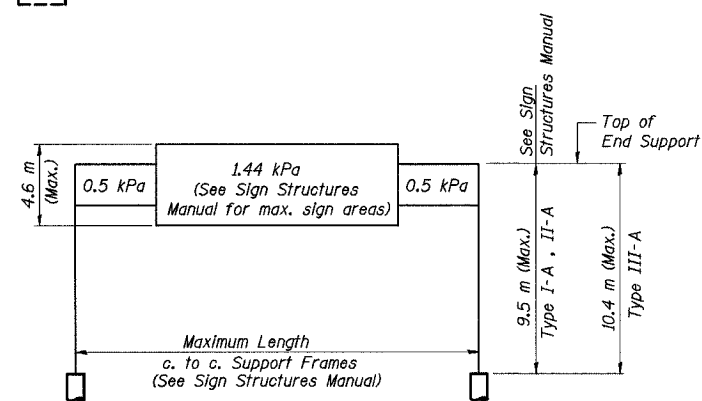
STEEL PIPE: DN indicates nominal diameter.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to AASHTO M314 Gr. 250 or 380 (36 or 55) with a minimum Charpy V-Notch (CVN) energy of 20 J at 5° C.

CONCRETE SURFACES: All concrete surfaces above an elevation 150 mm below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.



Structure Number	Station	Design Truss Type	c. to c. Supports (m)	Elev. A ** (m)	Dim. D (m)	Height of Tallest Sign (m)	Total Sign Area (m ²)
ISO161094R073.3	18+871	I-A	25.23	183.143	6.14	3.750	45.450
ISO161094R073.5	19+274	II-A	25.00	183.314	5.86	3.750	60.865
ISO161094R073.8	19+686	II-A	24.95	183.535	5.86	3.750	60.865
ISO165394R	440+757 (IL-394)	II-A	28.00	186.351	10.88	3.750	49.500

Note: all stationing is based on I - 94 unless noted otherwise.

NUMBER	REVISION	DATE

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE- SPAN, TYPE I-A (1.22M x 1.37M)	m	25.2
OVERHEAD SIGN STRUCTURE- SPAN, TYPE II-A (1.37M x 1.60M)	m	78.0
OVERHEAD SIGN STRUCTURE- SPAN, TYPE III-A (1.53M x 2.14M)*	m	-
OVERHEAD SIGN WALKWAY TYPE A	m	70.0
CONCRETE FOUNDATIONS	m	-
DRILLED SHAFT CONCRETE FOUNDATIONS	m ³	70.4

*NOTE:
This pay item refers to truss size w/Dimension a=1.52m and Dimension b=2.13m.

DESIGNED	PY
CHECKED	DD
DRAWN	LK
CHECKED	DD

OS-A-1(M) 11/1/2002

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6 (KINGERY EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL SUPPORTS

DATE: JUL 18, 2005
SCALE ---

HNTB

J:\Beauchamp\EA\24562\CADD\1\Signs\Center\ctd\9\cds\ast\0014e.dgn 08-JUL-2005 15:32