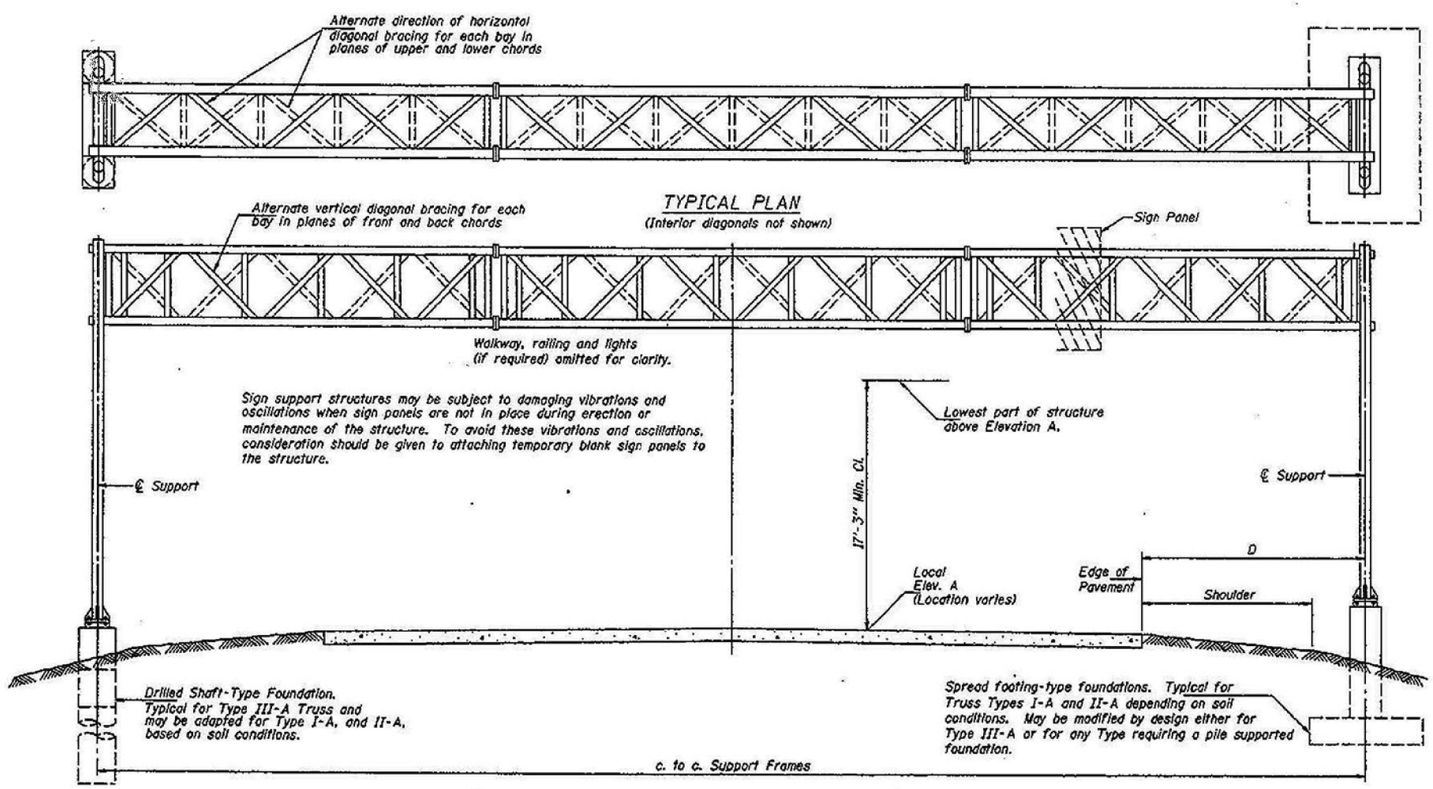
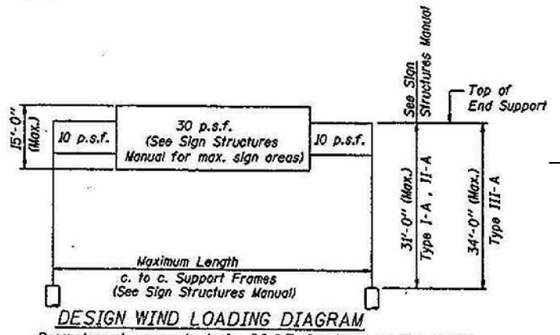
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	D4 I-74 ITS SYSTEM-1	PEORIA/ TAZEWELL	98	25
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

FOR INFORMATION ONLY





DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

TYPICAL ELEVATION
(Looking at Face of Signs**)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
4S090107 4RI01.3	495+00	IIIA	74'-0"	103.13	12'-0"	7'-10"	144.25
430T2107 4LC083.5	188+25	IIIA	85'-0"	104.19	9'-6"	7'-10"	144.25

**Looking upstation for structures with signs both sides.

NUMBER	REVISION	DATE

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE TYPE I-A (4'-0" x 4'-6")	Foot	
OVERHEAD SIGN STRUCTURE TYPE II-A (4'-6" x 5'-3")	Foot	
OVERHEAD SIGN STRUCTURE TYPE III-A (5'-0" x 7'-0")	Foot	139
OVERHEAD SIGN WALKWAY TYPE A	Foot	52.58
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	42

GENERAL NOTES

SPECIFICATIONS:

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

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: 90 M.P.H. WIND VELOCITY
WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

ALLOWABLE UNIT STRESSES:
Structural Steel - 20,000 p.s.i.
Reinforcing Steel - 20,000 p.s.i.
Class SI Concrete - 1,400 p.s.i.
Structural Aluminum - per AASHTO Specifications.
Allowable unit stresses due to wind load in combination with other forces, are increased 1.33.

MINIMUM CLEARANCE: Vertical Roadway Clearance = 17'-3" (All Obstructions)

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 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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 M270 Gr. 36, Gr. 50 or Gr. 50W* (M183, M223 Gr. 50, or M222). 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 minumum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: Unless otherwise specified, all round or heavy hex head bolts shall be stainless steel conforming to ASTM A193, Grade B8 or B8M, Class 1. Eye and U-bolts shall be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished, or an equivalent material acceptable to the Engineer. All nuts shall be stainless steel conforming to ASTM A194, Grade 8 (AISI Type 304) or Grade 8F (AISI Type 303). The nuts shall be "locknuts" with nylon or steel inserts and semifinished hexagonal heads equivalent to the finished heavy hex series of the American National Standard. All washers shall be stainless steel conforming to ASTM A240, Type 302 or 304.

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. 36 or 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" 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.

FOUNDATIONS: The contract unit price for "Concrete Foundations" or "Drilled Shaft Concrete Foundations" shall include: All necessary excavation or drilling (except in rock); backfilling with excavated material; disposal of unsuitable or surplus material; formwork; and furnishing and placing the Class SI Concrete, reinforcement bars, conduit, anchor bolts, nuts, washers and ground rods complete in place.

*If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

ITS SHEET 25 OF 98

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 74
D4 I-74 ITS SYSTEM-1
PEORIA & TAZEWELL COUNTIES

10/14/02

EDWARDS AND KELCEY

DESIGNED	TCG
CHECKED	AJN
DRAWN	ABW
CHECKED	TCG

OS-A-1 7/1/2001

CONTRACT SCI

FILE NAME = p:\i-74 & i-155 interchange\its plans\68620 - I-155 @ I-74 Interchange ITS (Final 6-12-02).dgn	USER NAME = howalder	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 89.5781 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 6/14/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING SIGN STRUCTURE AND DMS DETAILS
I-74 & WASHINGTON BLACKTOP

SCALE: NONE | SHEET NO. 27 OF XX SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-I14R;(14HB-4,14,14HVB)BR1	TAZEWELL	2433	1691
		CONTRACT NO. 68620		
	ILLINOIS	FED. AID PROJECT		