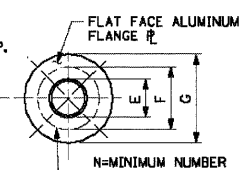
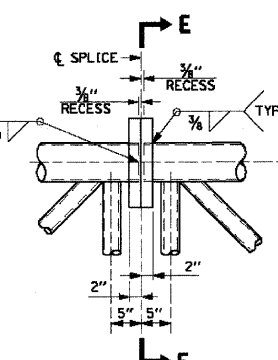
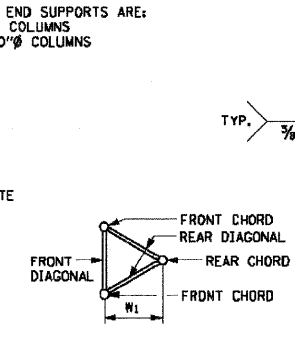
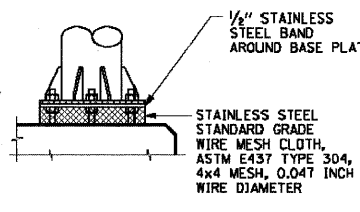
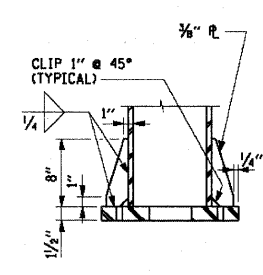
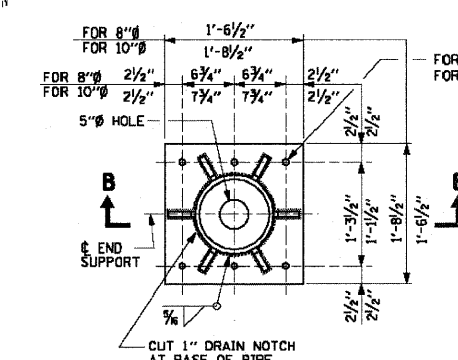
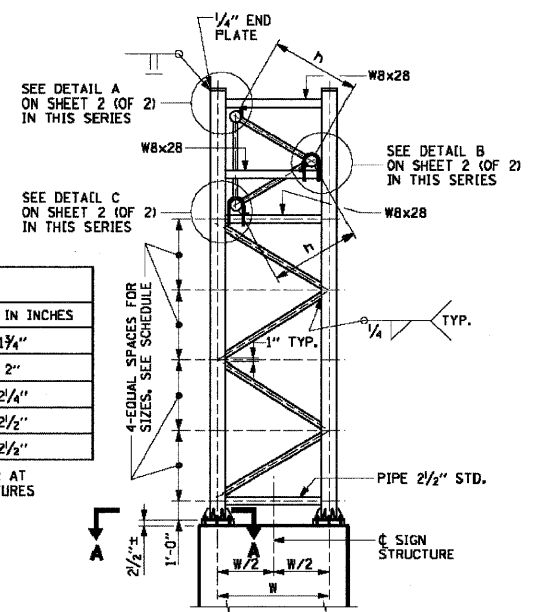


| CAMBER       |                  |
|--------------|------------------|
| SPAN IN FEET | CAMBER IN INCHES |
| 60 THRU 70   | 1 3/4"           |
| 71 THRU 80   | 2"               |
| 81 THRU 100  | 2 1/4"           |
| 101 THRU 110 | 2 1/2"           |
| 111 THRU 120 | 2 3/4"           |

PROVIDE THE ABOVE CAMBER AT MIDDLE OF SPAN OF STRUCTURES



| TABLE A            |        |         |    |
|--------------------|--------|---------|----|
| CHORD SIZE E       | F      | G       | N  |
| 3 1/2" & 3 3/4"    | 8 1/2" | 11 1/2" | 6  |
| 4 1/4", 4 3/4", 5" | 9 1/4" | 12 1/4" | 8  |
| 6" & 6 1/2"        | 11"    | 14"     | 10 |

N=MINIMUM NUMBER OF BOLTS

BOLT CIRCLE FOR 1 1/2" HOLES AND 1/2" STAINLESS STEEL (S.S.) BOLTS WITH HEX LOCKNUTS & S.S. WASHERS UNDER HEAD & NUT. FOR E, F, G & N, SEE TABLE A. REQUIRED MIN. BOLT TENSION IS 12,500\*. 1/2" STUDS SHALL BE SUBSTITUTED WHEN DIAGONALS INTERFERE WITH BOLT LOCATION.

NOTE:  
DIAGONALS FOR STEEL END SUPPORTS ARE:  
2" STD. PIPE FOR 8" Ø COLUMNS  
2 1/2" STD. PIPE FOR 10" Ø COLUMNS

**SIGN STRUCTURE SCHEDULE**

| TRUSS NO. | DIMENSIONS |        |        |        |                |            |                       | ALUMINUM TRUSS                |                 |                                |                 | STEEL END SUPPORT     |                          |                          | FOUNDATION TYPE |
|-----------|------------|--------|--------|--------|----------------|------------|-----------------------|-------------------------------|-----------------|--------------------------------|-----------------|-----------------------|--------------------------|--------------------------|-----------------|
|           | SPAN L     | P      | N      | h      | w <sub>1</sub> | w          | DL (TRUSS) DEFLECTION | MIDDLE SEGMENT OR END SEGMENT |                 | PIPE COLUMN (NOMINAL DIAMETER) |                 | H OR H <sub>1</sub>   | FOUNDATION TYPE          |                          |                 |
|           |            |        |        |        |                |            |                       | FRONT                         | REAR            | FRONT                          | REAR            |                       |                          | H OR H <sub>1</sub>      |                 |
| T-60      | 60'-0"     | 6'-8"  | 2'-8"  | 3'-4"  | 2'-10 3/8"     | 4'-4 1/2"  | 1 3/8"                | 3 1/2" Ø x 1/4"               | 3 3/4" Ø x 1/4" | 2" Ø x 3/8"                    | 2" Ø x 3/8"     | 8" STD. (28.55*/FT.)  | 10" STD. (40.48*/FT.)    | 10" STD. (40.48*/FT.)    | 80              |
| T-65      | 65'-0"     | 7'-4"  | 2'-6"  | 3'-8"  | 3'-2 1/8"      | 4'-8"      | 1 3/8"                | 3 1/2" Ø x 1/4"               | 3 3/4" Ø x 1/4" | 2" Ø x 3/8"                    | 2" Ø x 3/8"     | 10" STD. (40.48*/FT.) | 10" STD. (40.48*/FT.)    | 10" STD. (40.48*/FT.)    | 80              |
| T-70      | 70'-0"     | 8'-0"  | 2'-4"  | 4'-0"  | 3'-5 5/8"      | 5'-0"      | 1 1/8"                | 3 3/4" Ø x 1/4"               | 3 3/4" Ø x 1/4" | 2" Ø x 3/8"                    | 2" Ø x 3/8"     | 10" STD. (40.48*/FT.) | 10" STD. (40.48*/FT.)    | 10" STD. (40.48*/FT.)    | 80              |
| T-75      | 75'-0"     | 8'-6"  | 2'-10" | 4'-3"  | 3'-8 1/4"      | 5'-3"      | 1 3/8"                | 4 1/4" Ø x 1/4"               | 4 3/4" Ø x 1/4" | 2" Ø x 3/8"                    | 2" Ø x 3/8"     | 10" STD. (40.48*/FT.) | 10" STD. (40.48*/FT.)    | 10" STD. (40.48*/FT.)    | 80              |
| T-80      | 80'-0"     | 9'-0"  | 3'-4"  | 4'-6"  | 3'-10 3/4"     | 5'-6"      | 2"                    | 4 3/4" Ø x 3/8"               | 5" Ø x 1/4"     | 2 1/4" Ø x 3/8"                | 2" Ø x 3/8"     | 10" STD. (40.48*/FT.) | 10" STD. (40.48*/FT.)    | 10" X.S. (54.74*/FT.)    | 80              |
| T-85      | 85'-0"     | 9'-6"  | 3'-10" | 4'-9"  | 4'-1 3/8"      | 5'-9"      | 2 1/8"                | 5" Ø x 1/4"                   | 5" Ø x 3/8"     | 2 1/4" Ø x 3/8"                | 2 1/4" Ø x 3/8" | 10" STD. (40.48*/FT.) | 10" STD. (40.48*/FT.)    | 10" X.S. (54.74*/FT.)    | 100             |
| T-90      | 90'-0"     | 10'-0" | 4'-4"  | 5'-0"  | 4'-4"          | 5'-11 1/2" | 2 1/8"                | 5" Ø x 3/8"                   | 5" Ø x 3/8"     | 2 1/2" Ø x 3/8"                | 2 1/4" Ø x 3/8" | 10" STD. (40.48*/FT.) | 10" STD. (40.48*/FT.)    | 10" X.S. (54.74*/FT.)    | 100             |
| T-95      | 95'-0"     | 10'-6" | 4'-10" | 5'-3"  | 4'-6 5/8"      | 6'-2"      | 2 3/8"                | 5" Ø x 3/8"                   | 5" Ø x 3/8"     | 2 1/2" Ø x 3/8"                | 2 1/2" Ø x 3/8" | 10" STD. (40.48*/FT.) | 10" X.S. (54.74*/FT.)    | 10" X.S. (54.74*/FT.)    | 100             |
| T-100     | 100'-0"    | 11'-4" | 4'-0"  | 5'-8"  | 4'-10 3/8"     | 6'-7 1/2"  | 2 1/4"                | 6" Ø x 1/4"                   | 6" Ø x 1/4"     | 2 3/4" Ø x 3/8"                | 2 1/2" Ø x 3/8" | 10" STD. (40.48*/FT.) | 10" X.S. (54.74*/FT.)    | 10" X.S. (54.74*/FT.)    | 100             |
| T-105     | 105'-0"    | 12'-0" | 3'-10" | 6'-0"  | 5'-2 3/4"      | 6'-11"     | 2 3/8"                | 6" Ø x 3/8"                   | 6" Ø x 3/8"     | 3" Ø x 3/8"                    | 2 3/4" Ø x 3/8" | 10" X.S. (54.74*/FT.) | 10" X.S. (54.74*/FT.)    | 10" X.S. (54.74*/FT.)    | 120             |
| T-110     | 110'-0"    | 12'-6" | 4'-4"  | 6'-3"  | 5'-5"          | 7'-1 1/2"  | 2 3/8"                | 6" Ø x 3/8"                   | 6" Ø x 3/8"     | 3" Ø x 3/8"                    | 2 3/4" Ø x 3/8" | 10" X.S. (54.74*/FT.) | 10" X.S. (54.74*/FT.)    | 10" X.S. (54.74*/FT.)    | 120             |
| T-115     | 115'-0"    | 13'-0" | 4'-10" | 6'-6"  | 5'-7 3/4"      | 7'-4 1/2"  | 2 1/8"                | 6 1/2" Ø x 3/8"               | 6" Ø x 3/8"     | 3 1/4" Ø x 1/4"                | 3" Ø x 3/8"     | 10" X.S. (54.74*/FT.) | 10" X.S. (54.74*/FT.)    | 10" X.X.S. (104.13*/FT.) | 120             |
| T-120     | 120'-0"    | 13'-8" | 4'-8"  | 6'-10" | 5'-11"         | 7'-8"      | 2 3/8"                | 6 1/2" Ø x 3/8"               | 6 1/2" Ø x 3/8" | 3 1/2" Ø x 3/8"                | 3" Ø x 3/8"     | 10" X.S. (54.74*/FT.) | 10" X.X.S. (104.13*/FT.) | 10" X.X.S. (104.13*/FT.) | 120             |

**NOTES:**

**DESIGN SPECIFICATIONS:**  
THESE STRUCTURES ARE DESIGNED TO SATISFY THE 2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, 4TH EDITION WITH 2002 AND 2003 INTERIMS. TRUSSES ARE DESIGNED FOR A NINE FOOT DEEP SIGN PANEL OVER 75% OF SPAN LENGTH, BOTH END SUPPORTS ARE DESIGNED FOR 60% OF THE TOTAL LOAD.

**LOADING:**

ORIGINAL DESIGN LOADING WAS 35 PSF ON SIGN PANELS AND 10 PSF ON GROSS AREAS DEFINED BY THE PERIMETER OF TRUSS MEMBERS NOT COVERED BY SIGN PANEL AREAS. THE AASHTO GROUP II ALLOWABLE OVERSTRESS WAS 140% (ALLOWABLE STRESS DESIGN).

**CONSTRUCTION SPECIFICATIONS:**

ALL MATERIALS, EXCEPT AS SHOWN, FABRICATION, ERECTION AND CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 733 OF THE IDOT STANDARD SPECIFICATIONS.

| ITEM  | UNIT   | TOTAL  |
|---|--------|--------|
| REMOVE CONCRETE FOUNDATION OVERHEAD                         | EACH   | 6      |
| REINFORCEMENT BARS, EPOXY COATED                            | POUNDS | 18,470 |
| STRUCTURAL STEEL SUPPORT FOR OVERHEAD SIGN STRUCTURE, SPAN  | EACH   | 4      |
| REMOVE OVERHEAD SIGN STRUCTURE END SUPPORT                  | EACH   | 4      |
| ANCHOR BOLTS, 1 1/2"  | EACH   | 72     |
| RELOCATE OVERHEAD SIGN STRUCTURE SPAN TYPE (ALUMINUM 90 FT) | EACH   | 1      |
| OVERHEAD SIGN STRUCTURE SPAN TYPE (ALUMINUM 90 FT)          | FOOT   | 90     |
| OVERHEAD SIGN STRUCTURE SPAN TYPE (ALUMINUM 105 FT)         | FOOT   | 105    |
| FOUNDATION FOR OVERHEAD SIGN STRUCTURE, SPAN TYPE           | CU.YD. | 156.6  |

\*\*FOUNDATION DESIGN NEEDS TO BE CHECKED AGAINST SOIL BORINGS

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |

**Illinois Tollway**  
Open Roads for a Faster Future

OVERHEAD SIGN STRUCTURE  
SPAN TYPE, ALUMINUM

STANDARD F1-00

APPROVED *Jeff Haly* CHIEF ENGINEER DATE 1-1-2007

| SIGN LOCATION  | TRUSS NO. | H          | H <sub>1</sub> |
|----------------|-----------|------------|----------------|
| STA: 120+90 RT | T-90      | 22'        | 27'-4 1/3"     |
| STA: 126+72 RT | T-105     | 23'-1 1/2" | 28'-11 1/6"    |
| STA: 147+40 RT | T-90      | 22'-6 3/4" | 22'-10"        |

\* RELOCATED EXISTING SIGN STRUCTURE FROM STA: 147+54 RT