

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 94/90 | * | COOK | 598 | 335 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") (2)

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: 80 M.P.H. WIND VELOCITY PLUS 30% GUST FACTOR
WIND LOADING: 35 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.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)

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

MATERIALS: 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 (M183, M223 Gr. 50).

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

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: All threaded rod conforming to ASTM A307, 3/4" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- Bracket spacing $g \leq 6'-0"$ max. Spacing shall be uniform if possible but may vary $\pm 6"$ to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (c_w , d_w) unless otherwise specified.
- For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.

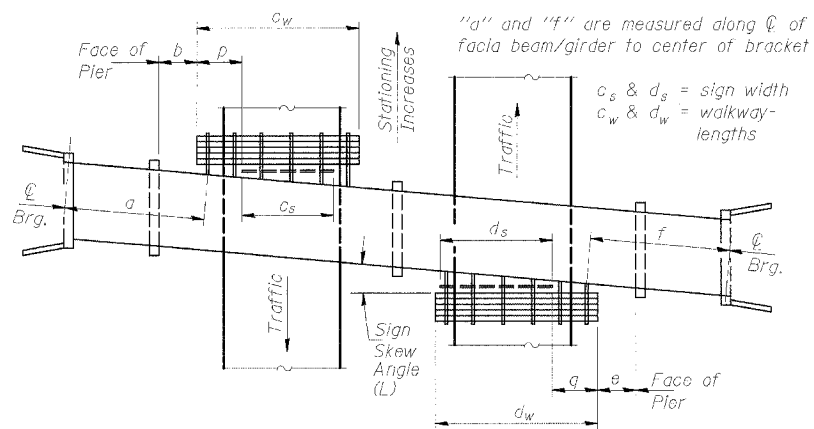
| NUMBER | REVISION | DATE |
|--------|------------|---------|
| △ | ADDENDUM 1 | 8/21/05 |
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TOTAL BILL of MATERIAL

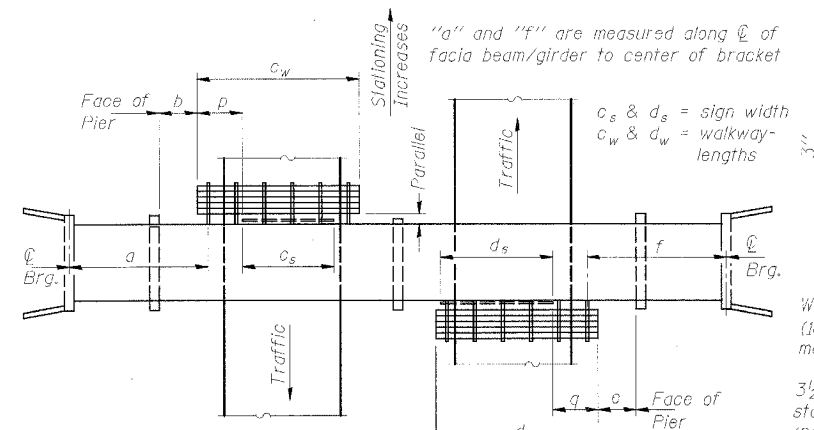
SGN-38

| | | |
|--|------|----|
| ③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED | Foot | 52 |
|--|------|----|

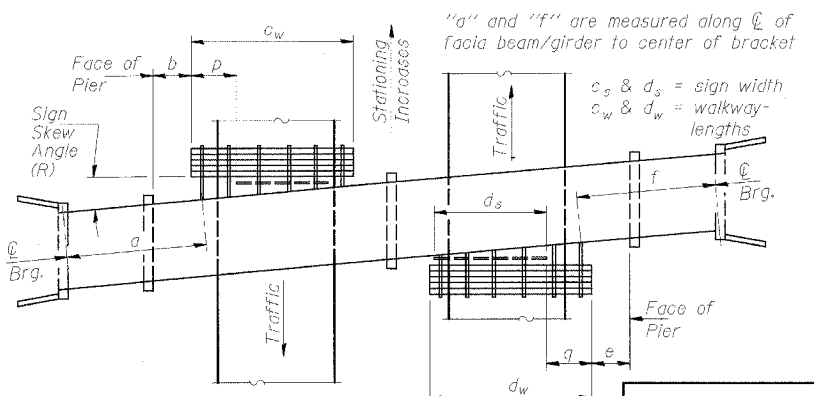
BRIDGE MOUNT SIGN STRUCTURES
GENERAL PLAN AND ELEVATION
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31ST STREET TO 71ST STREET
SB EXPRESS LANE RECONSTRUCTION
OVERHEAD SIGN STRUCTURES CANTILEVER



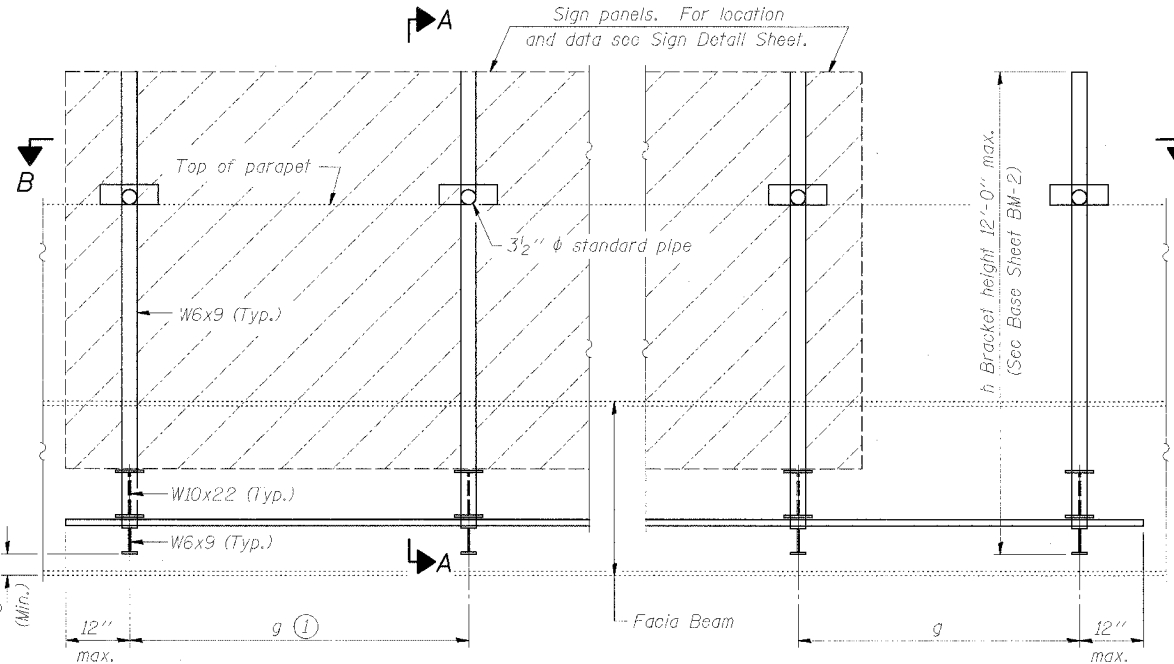
PLAN
(Left Sign Skew $> 15^\circ$)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



PLAN
(For Sign Skew $\leq 15^\circ$, all brackets constant)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)

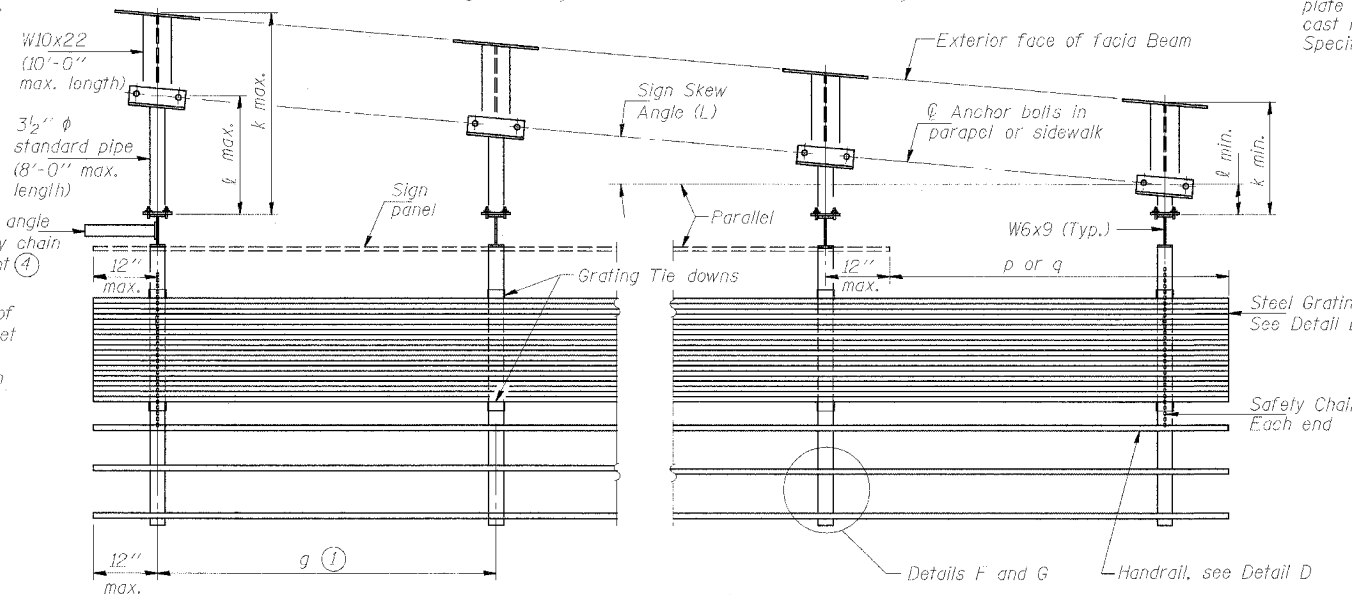


PLAN
(Right Sign Skew $> 15^\circ$)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



TYPICAL FRONT ELEVATION

(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B

(Shown: Left Sign Skew $> 15^\circ$)

| Structure Number | Sign Skew Angle (L) or (R) | Bridge Station | Bridge Structure Number | Contract Route Designation | a | b | c_s | c_w | d_s | d_w | e | f | g | No. of Brackets (Total) | p | q | Total Grating/Handrail Lengths ($c_w + d_w$) |
|------------------|----------------------------|----------------|-------------------------|----------------------------|-------|-------|-------|-------|-------|-------|---|---|-----|-------------------------|-----|---|--|
| 1B0161094R059.5 | R-0°2'25" | 1379+48.01 | 016-0189 | I-94 | 56.43 | 17.75 | 10.5 | 52.5 | - | - | - | - | 6.0 | 7 | 9.5 | - | 52.5 |

Dimensions a, b, e, f & g may vary as approved by the Engineer, see (1).
When $c_w < c_s$ and/or $d_w < d_s$, use alternate brackets without walkway supports where applicable, see (3).

| | |
|----------|-----|
| DESIGNED | MSA |
| CHECKED | AS |
| DRAWN | MD |
| CHECKED | MSA |

| | |
|----------|------------------------------------|
| EXAMINED | 20 |
| PASSED | ENGINEER OF STRUCTURAL SERVICES |
| | ENGINEER OF BRIDGES AND STRUCTURES |