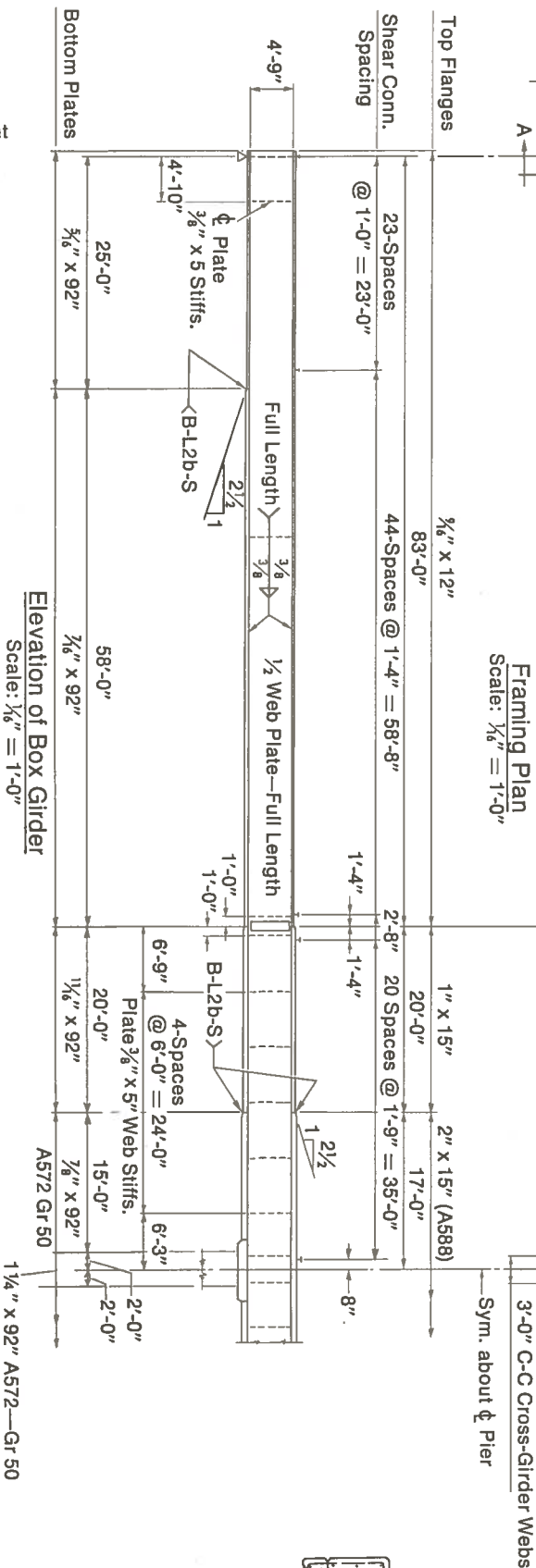
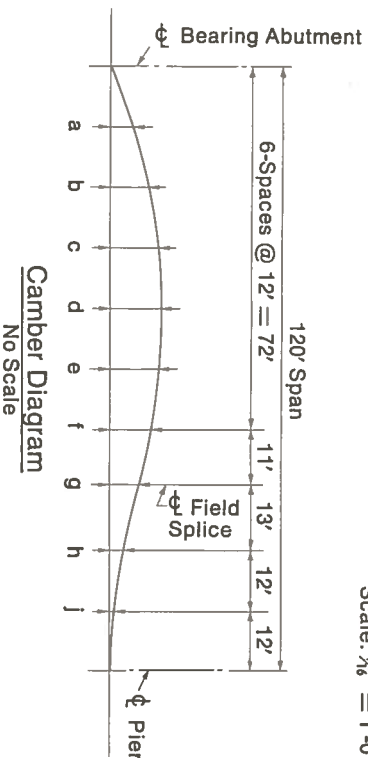


Typical Cross Section
Scale: 1/8" = 1'-0"



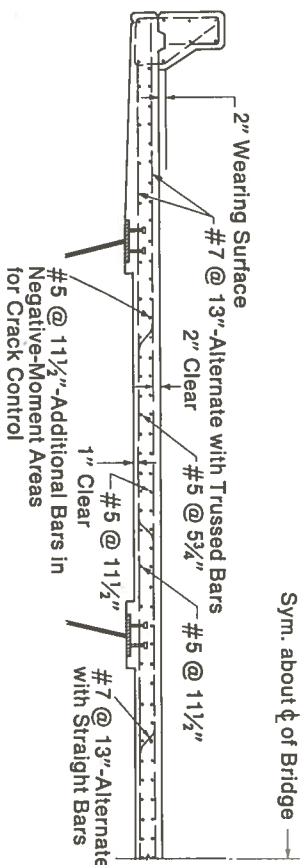
Framing Plan
Scale: 1/8" = 1'-0"



Camber Diagram
No Scale

CAMBER TABLE										
Camber	Ordinates, In.									
	a	b	c	d	e	f	g	h	i	j
Dead Load of Steelwork	3/16	5/16	3/8	7/16	7/16	5/16	3/16	1/8	0	
Dead Load of Concrete	1 3/16	1 3/4	2 1/4	2 3/8	2 3/16	1 3/4	1 1/4	9/16	3/16	
Total Dead Load	1 7/16	2 1/16	2 5/8	2 3/4	2 5/8	2 1/16	1 7/16	1 1/16	3/16	

Deck Reinforcement Details
Scale: 1/4" = 1'-0"

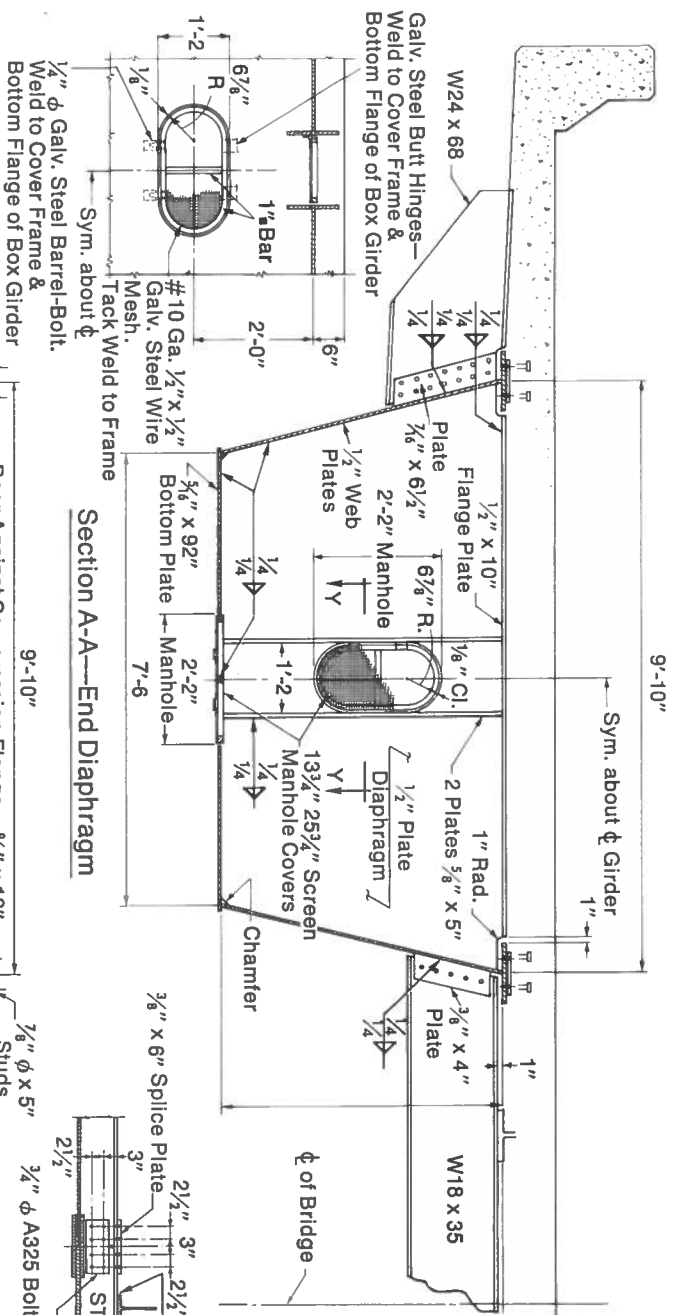


Note:
All structural steel ASTM A36, except as noted.
All fasteners designated as H. S. Bolts shall be 7/8" ϕ ASTM A325.
Fabricated Structural Steel Weights⁽¹⁾:

Weight of Box Girders = 238,800 lb.⁽²⁾
Weights per sq ft of deck area (O. to O. slab) = 23.8 lb per sq ft⁽²⁾
Weight of Cross Girder & Pier Shaft (Alternate I) = 28,700 lb⁽³⁾
Weight of Cross Girder (Alternate II) = 12,800 lb⁽³⁾

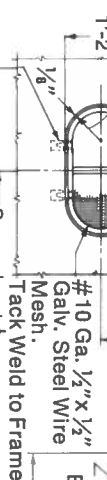
⁽¹⁾Weight does not include bearing shoes, railing or studs.
⁽²⁾Weight includes all box girder material, end diaphragms between boxes, outriggers, and one web and flange of cross girder within box girder at center pier.
⁽³⁾Weight includes all girder material not included by note⁽²⁾.

Box Girder Design Example
Two-Span Rigid Frame Bridge
Framing Plan



Section A-A—End Diaphragm

Galv. Steel Butt Hinges—
Weld to Cover Frame &
Bottom Flange of Box Girder



1" Bar

6 7/8" R

1/4" Mesh

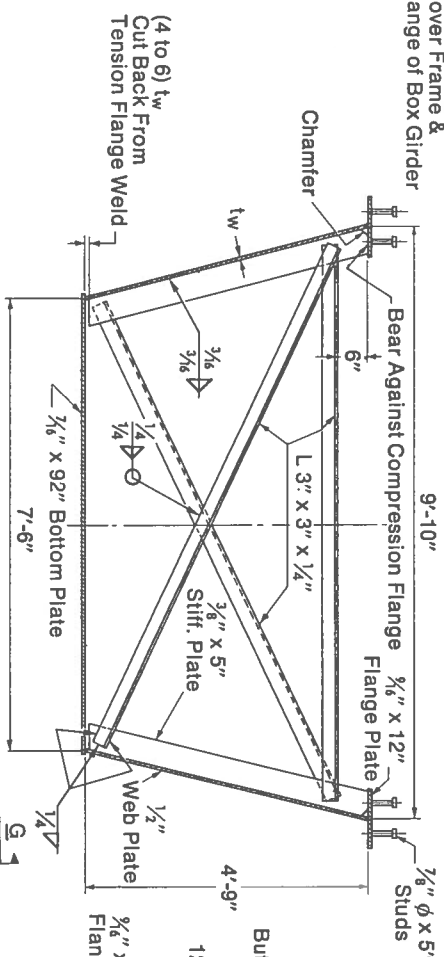
Tack Weld to Frame

Sym. about centerline

1/4" φ Galv. Steel Barrel-Bolt

Weld to Cover Frame &

Bottom Flange of Box Girder



Section B-B—Cross Frame

(4 to 6) t_w
Cut Back From
Tension Flange Weld

3/8" x 92" Bottom Plate

3/8" x 5" Stiff. Plate

1/2" Web Plate

1/4" Stiffener

3/8" x 3" x 1/4" L

Chamfer

6"

9'-10"

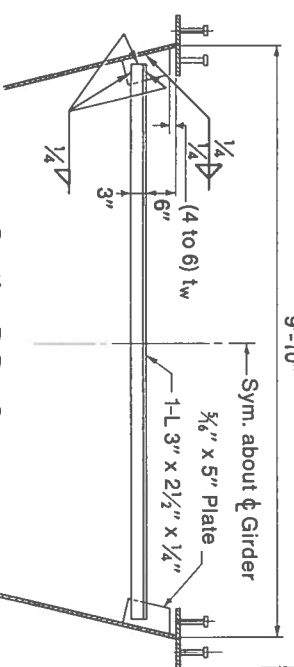
Sym. about centerline

3/8" x 5" Plate

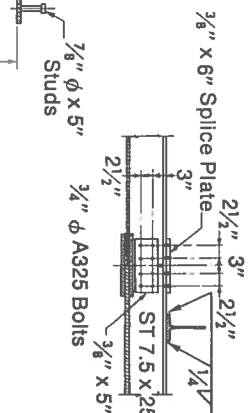
1-L 3" x 2 1/2" x 1/4"

3"

1/4"



Section D-D—Strut



3/8" x 6" Splice Plate

2 1/2" x 3" x 2 1/2"

3/8" x 5" Splice Plate

3/8" x 5" A325 Bolts

2 1/2"

3"

ST 7.5 x 25

1/4"

2 1/2"

3"

3/8" x 6" Splice Plate

2 1/2" x 3" x 2 1/2"

3/8" x 5" Splice Plate

3/8" x 5" A325 Bolts

2 1/2"

3"

ST 7.5 x 25

1/4"

2 1/2"

3"

3/8" x 6" Splice Plate

2 1/2" x 3" x 2 1/2"

3/8" x 5" Splice Plate

3/8" x 5" A325 Bolts

2 1/2"

3"

ST 7.5 x 25

1/4"

2 1/2"

3"

3/8" x 6" Splice Plate

2 1/2" x 3" x 2 1/2"

3/8" x 5" Splice Plate

3/8" x 5" A325 Bolts

2 1/2"

3"

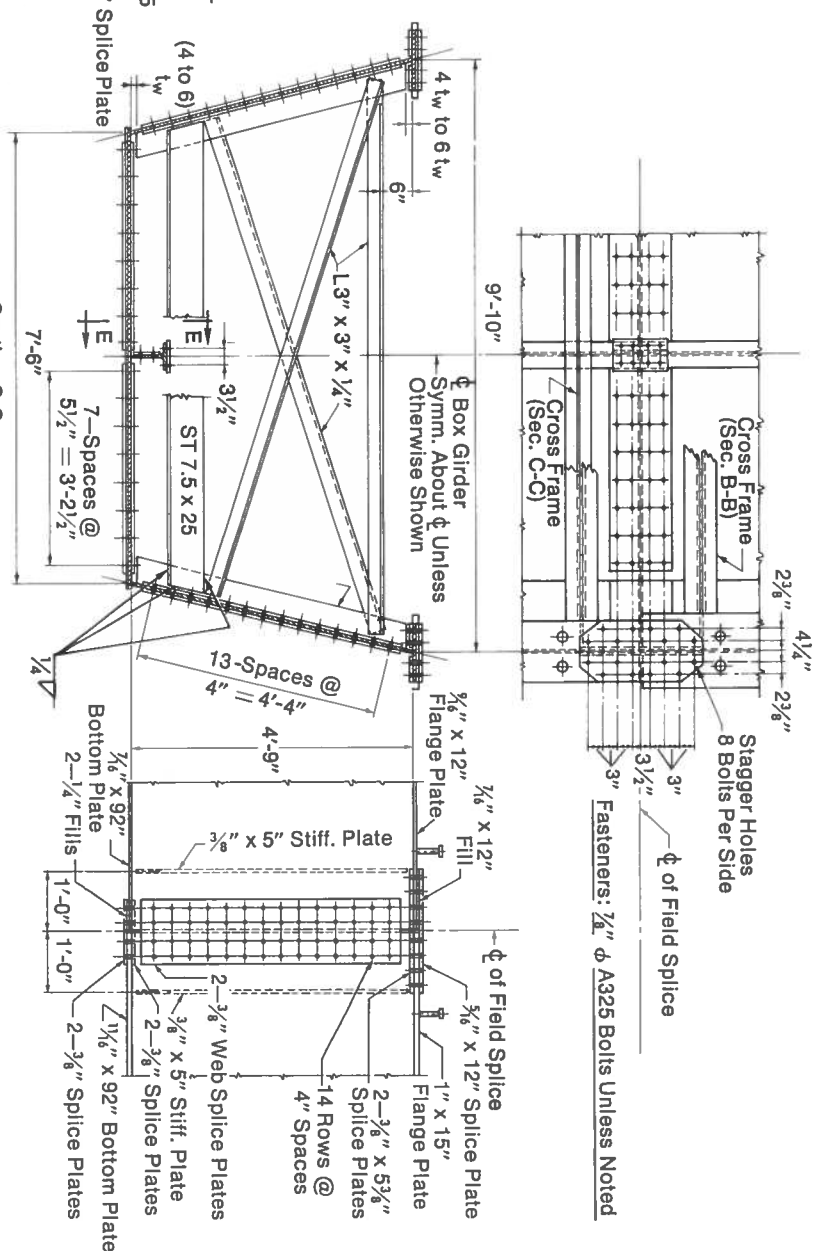
ST 7.5 x 25

1/4"

2 1/2"

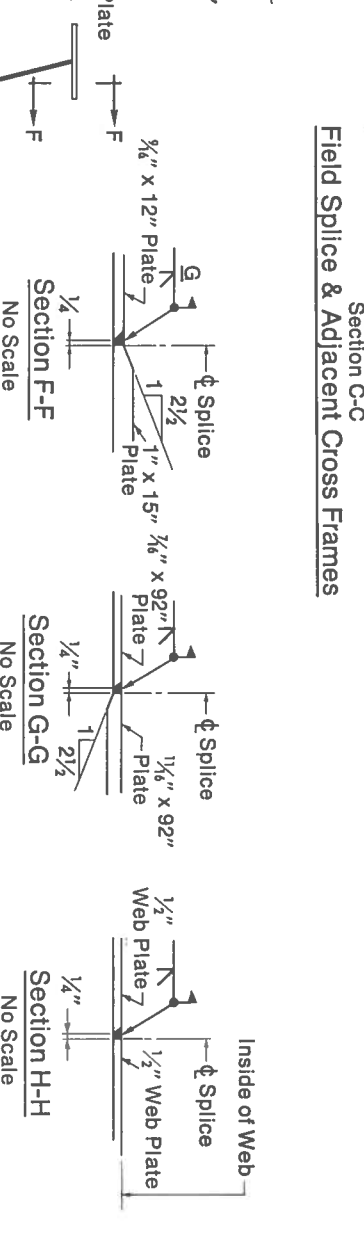
3"

3/8" x 6" Splice Plate



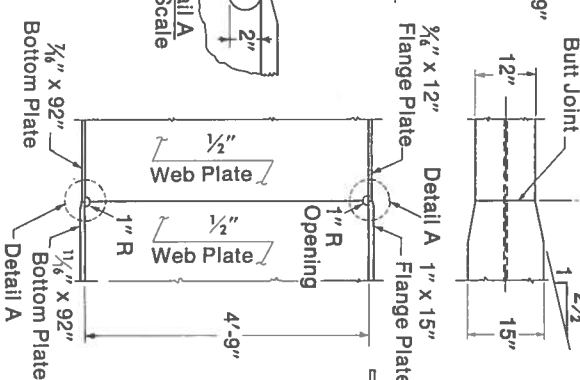
Section C-C

Field Splice & Adjacent Cross Frames



Section F-F

Field Splice



Detail A

No Scale

3/8" x 12" Flange Plate

1/2" x 15" Stiff. Plate

1/2" x 92" Bottom Plate

1" R

1/2"

1/2"

Web Plate

1/2"

Web Plate

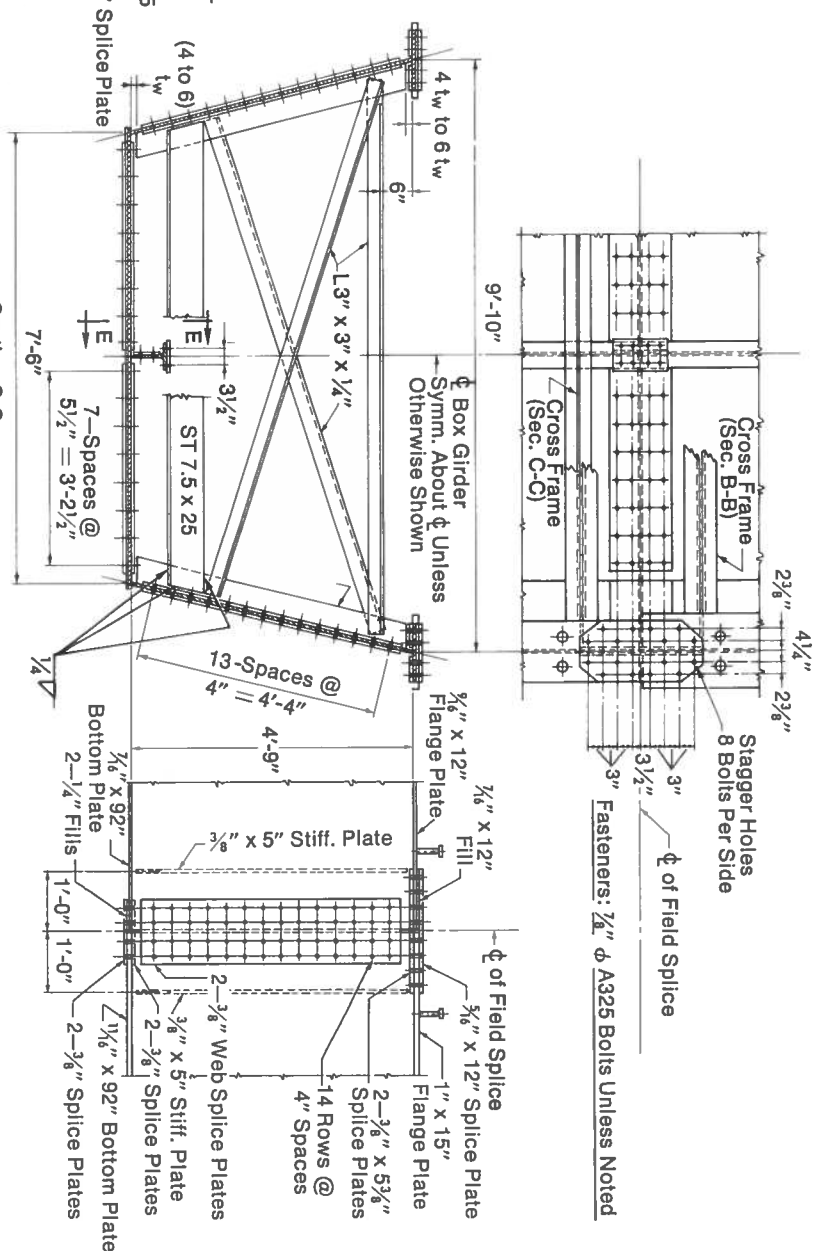
1/2"

1/2"

1/2"

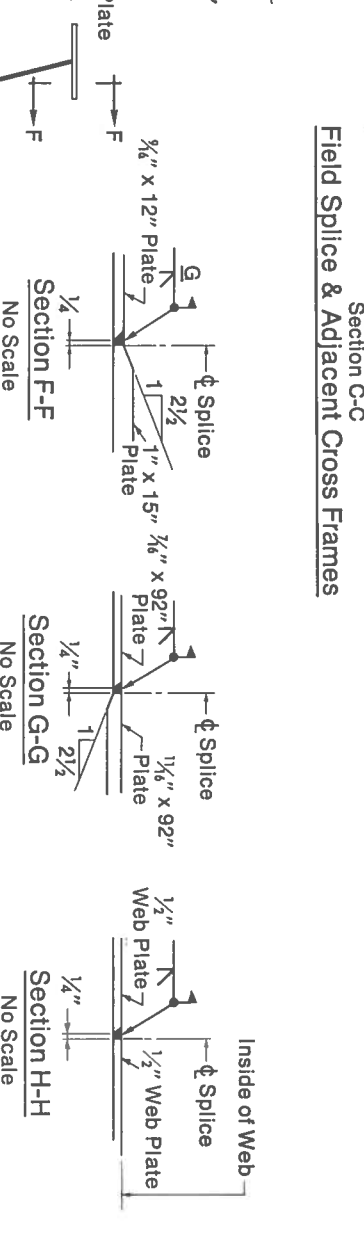
1/2"

1/2"



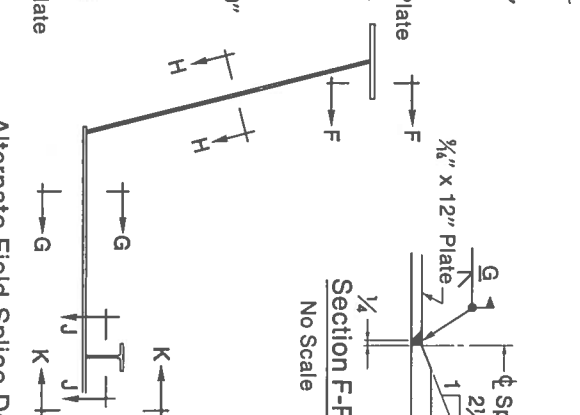
Section G-G

Field Splice



Section H-H

Field Splice



Section J-J

No Scale

3/8" x 12" Flange Plate

1/2" x 15" Stiff. Plate

1/2" x 92" Bottom Plate

1" R

1/2"

1/2"

Web Plate

1/2"

Web Plate

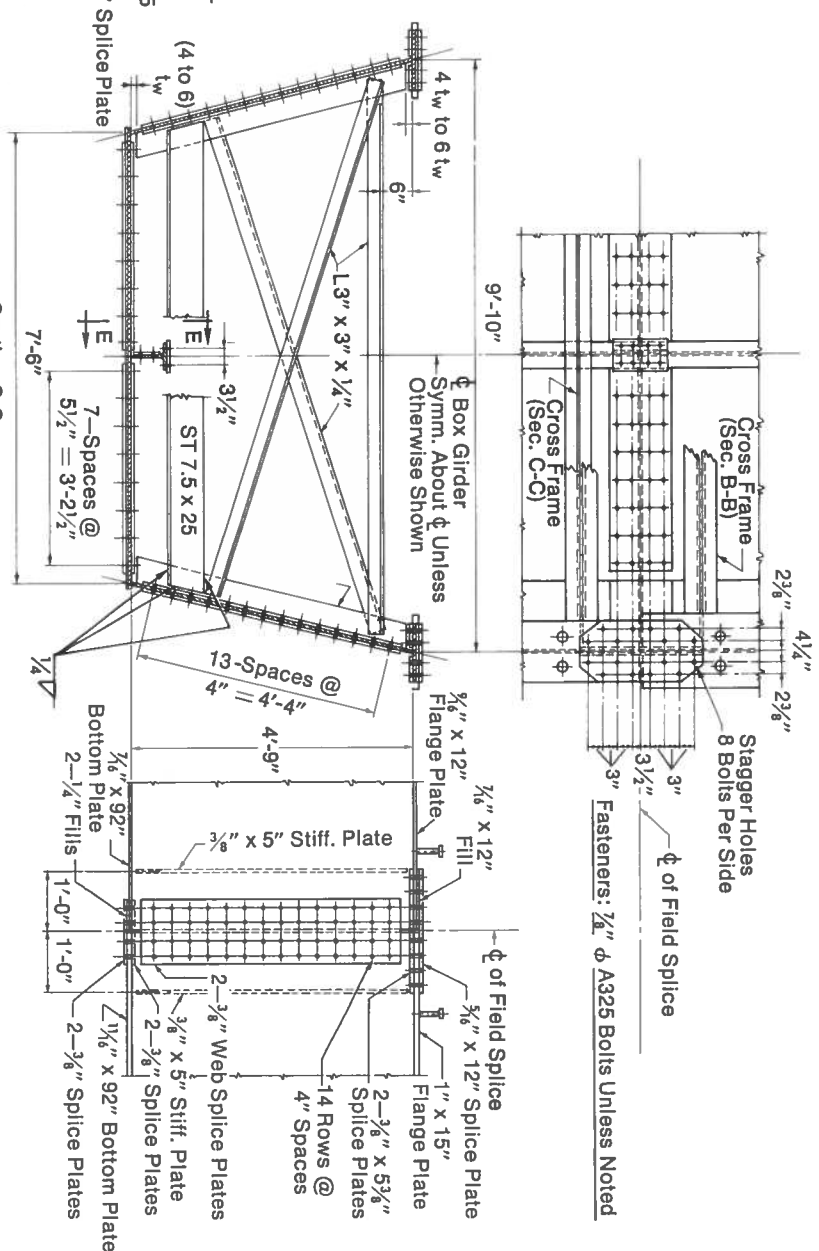
1/2"

1/2"

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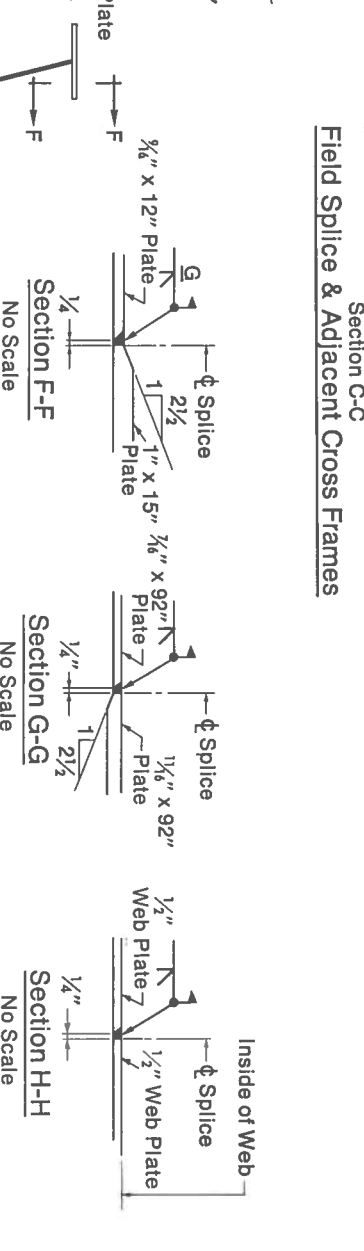
1/2"

1/2"



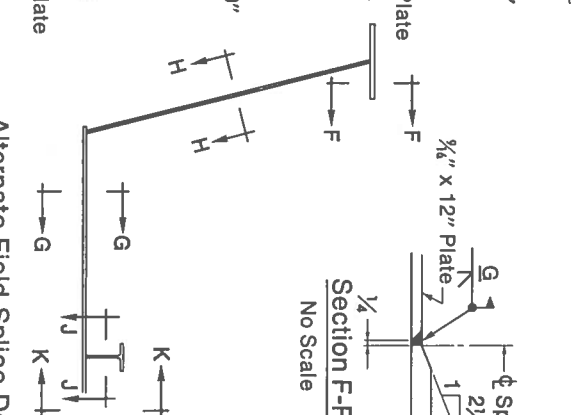
Section K-K

Field Splice



Section L-L

Field Splice



Section M-M

No Scale

3/8" x 12" Flange Plate

1/2" x 15" Stiff. Plate

1/2" x 92" Bottom Plate

1" R

1/2"

1/2"

Web Plate

1/2"

Web Plate

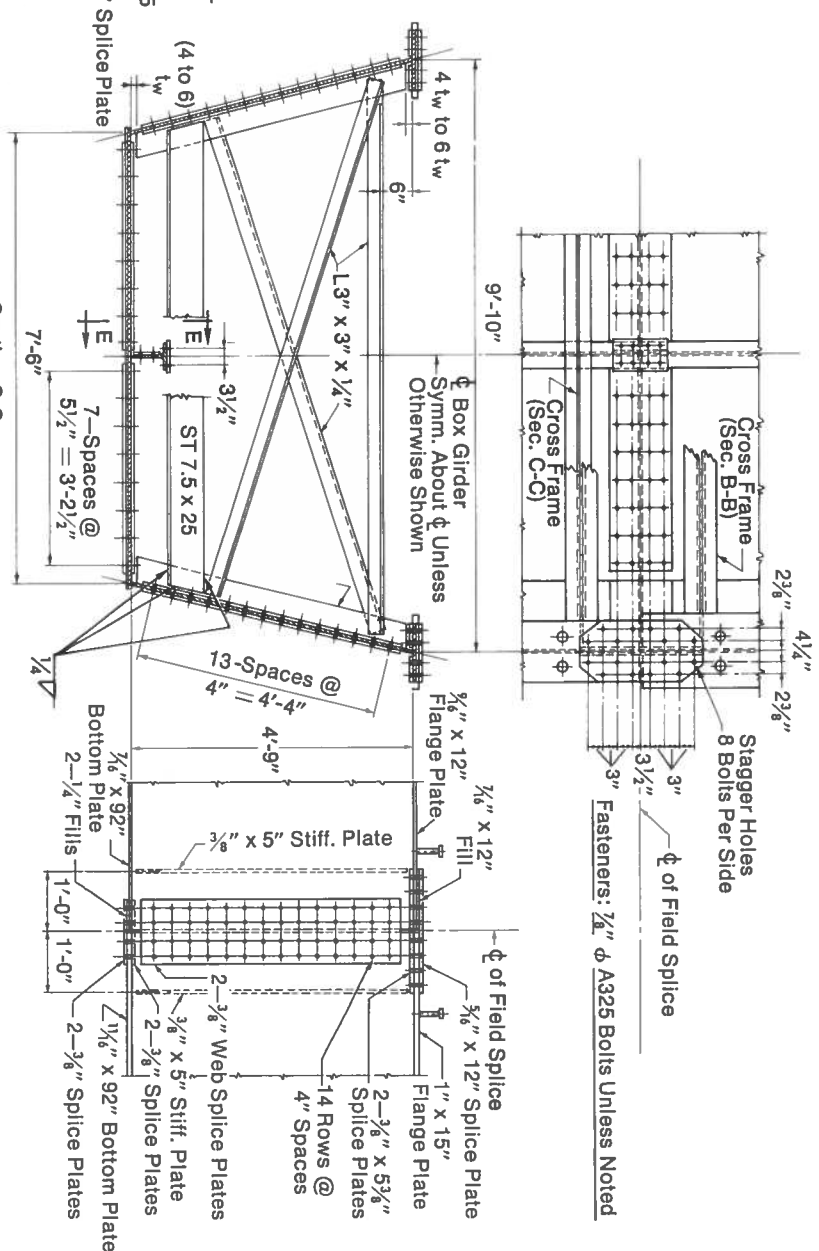
1/2"

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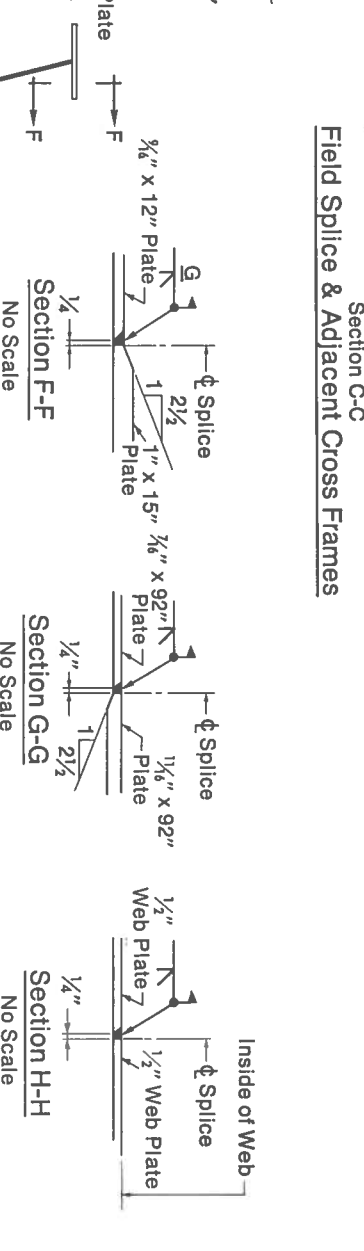
1/2"

1/2"



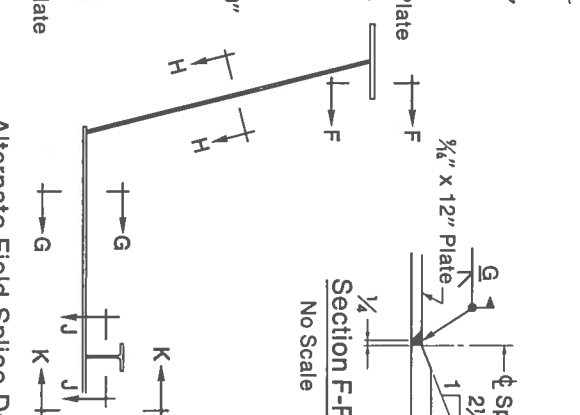
Section N-N

Field Splice



Section O-O

Field Splice



Section P-P

No Scale

3/8" x 12" Flange Plate

1/2" x 15" Stiff. Plate

1/2" x 92" Bottom Plate

1" R

1/2"

1/2"

Web Plate

1/2"

Web Plate

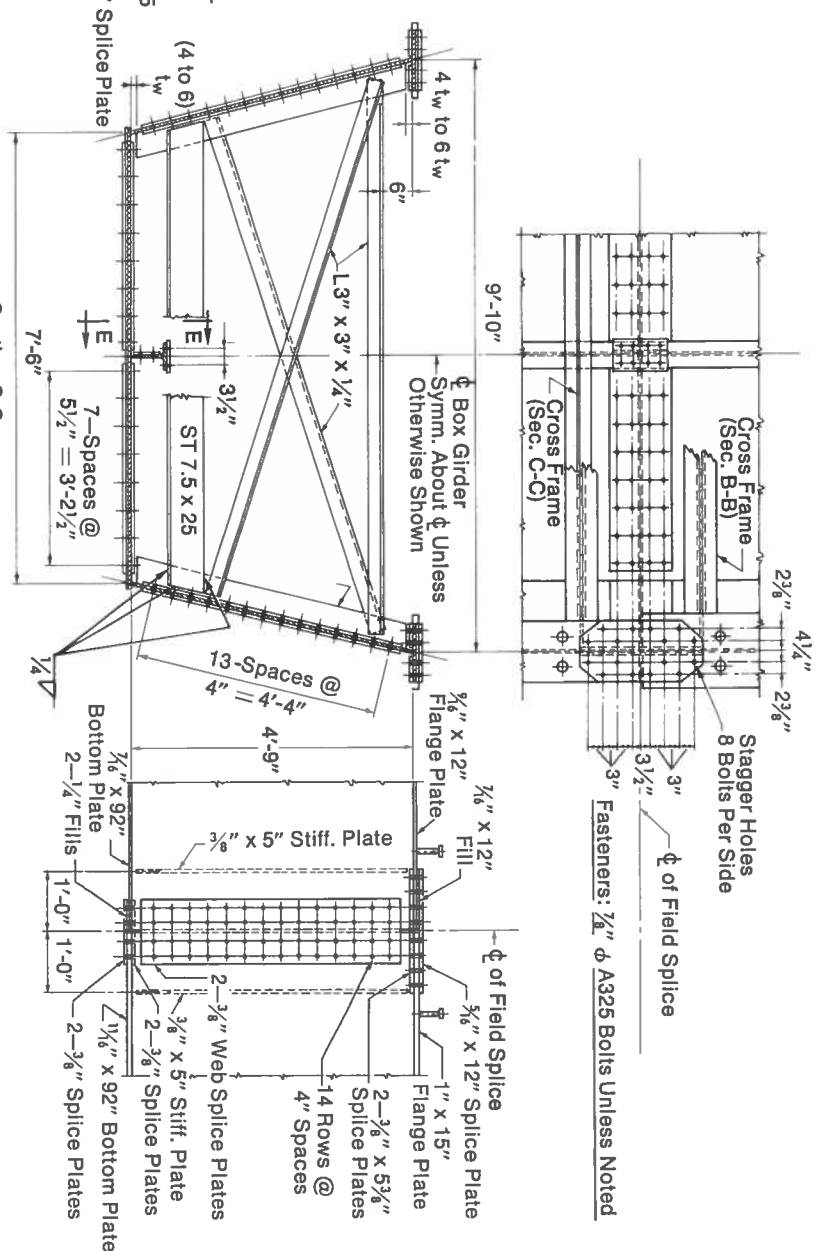
1/2"

1/2"

1/2"

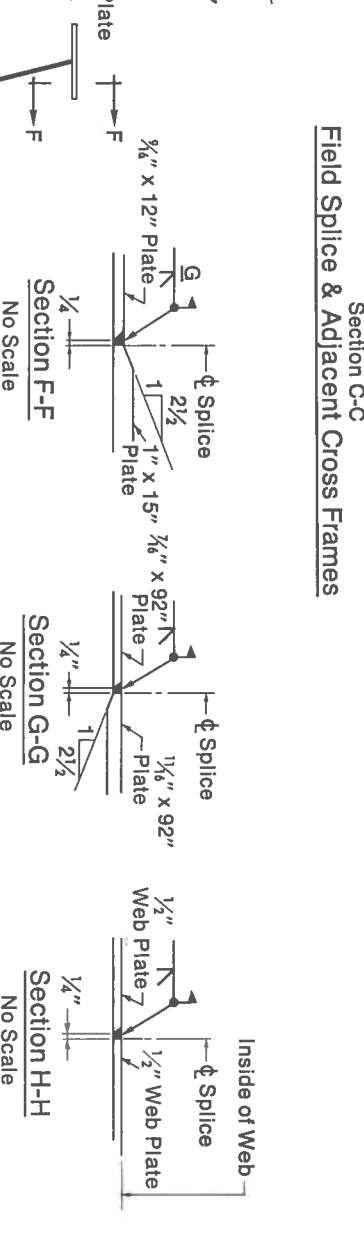
1/2"

1/2"



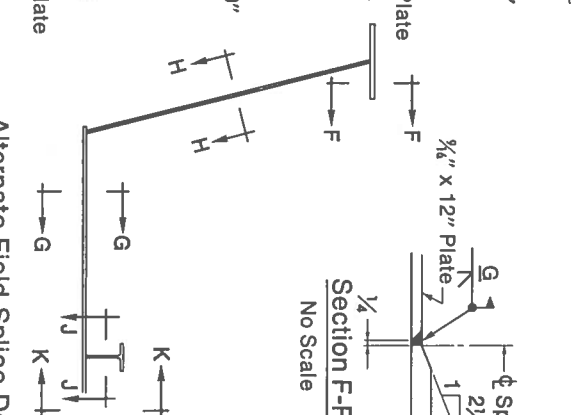
Section Q-Q

Field Splice



Section R-R

Field Splice



Section S-S

No Scale

3/8" x 12" Flange Plate

1/2" x 15" Stiff. Plate

1/2" x 92" Bottom Plate

1" R

1/2"

1/2"

Web Plate

1/2"

Web Plate

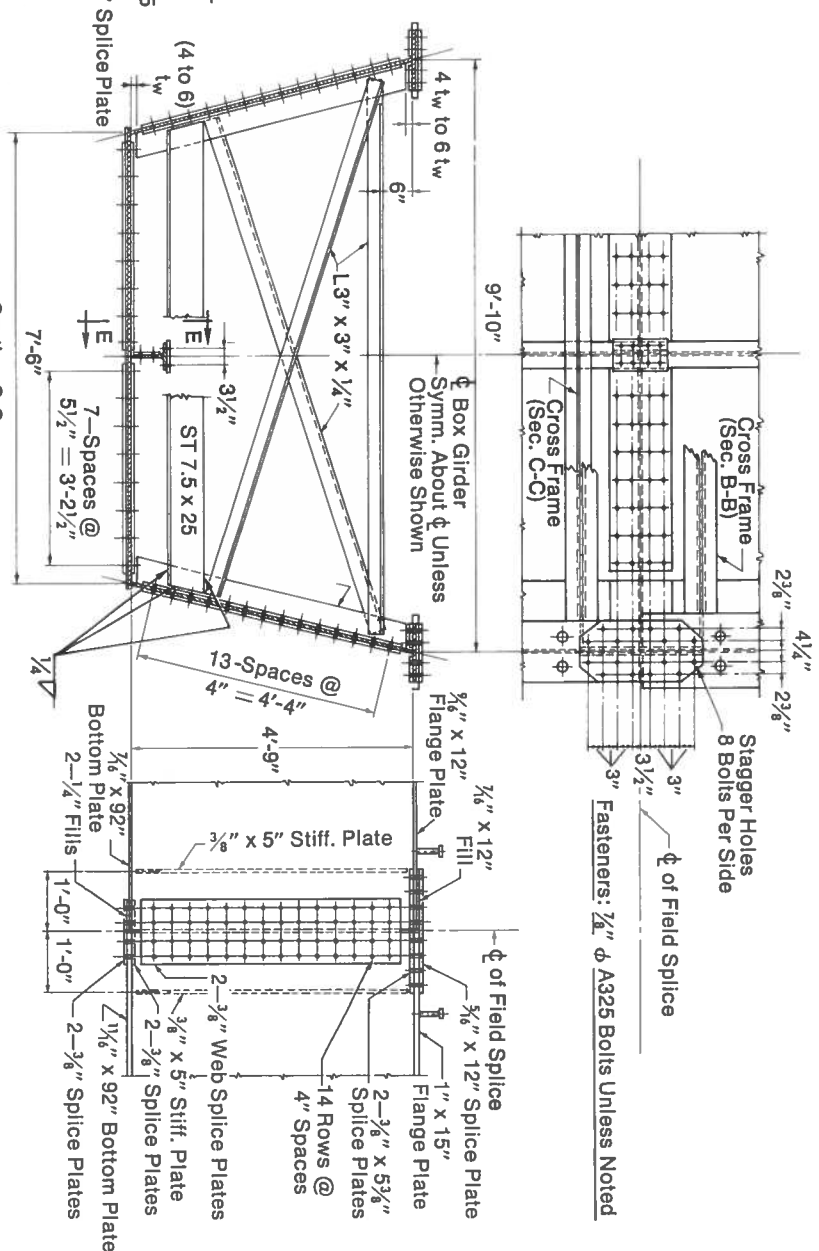
1/2"

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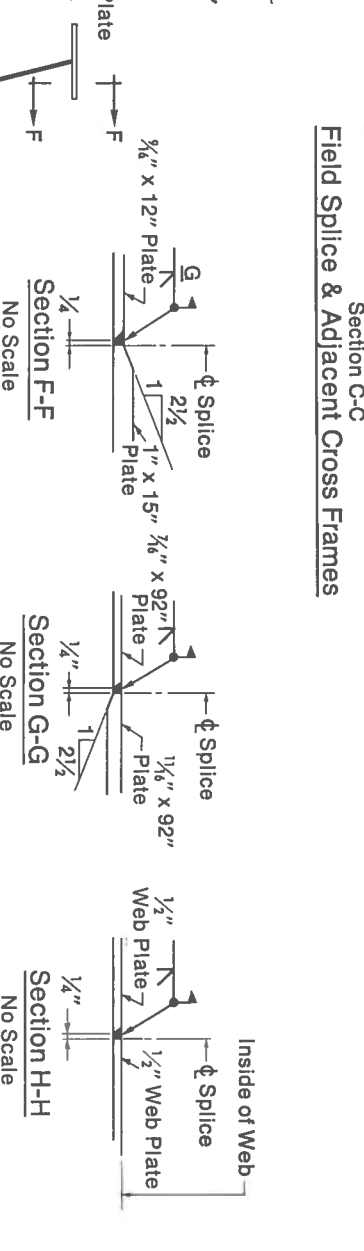
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1/2"



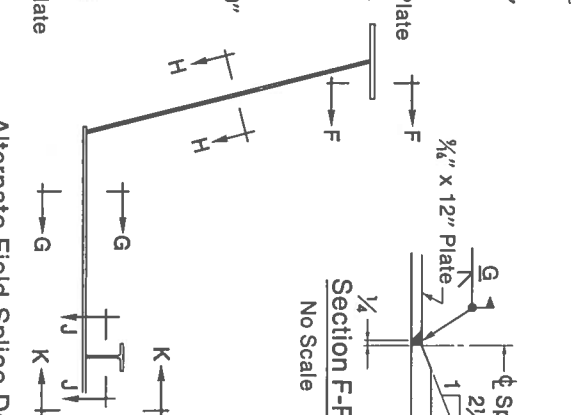
Section T-T

Field Splice



Section U-U

Field Splice



Section V-V

No Scale

3/8" x 12" Flange Plate

1/2" x 15" Stiff. Plate

1/2" x 92" Bottom Plate

1" R

1/2"

1/2"

Web Plate

1/2"

Web Plate

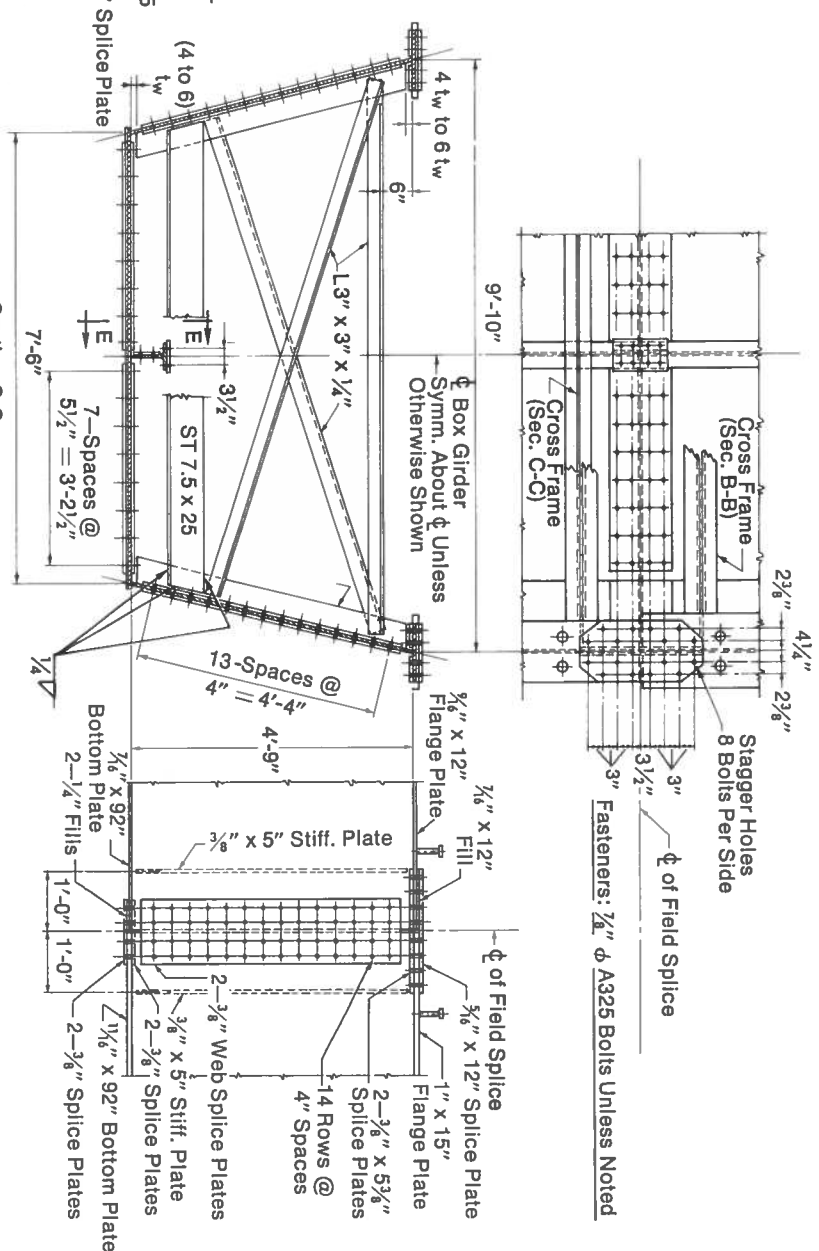
1/2"

1/2"

1/2"

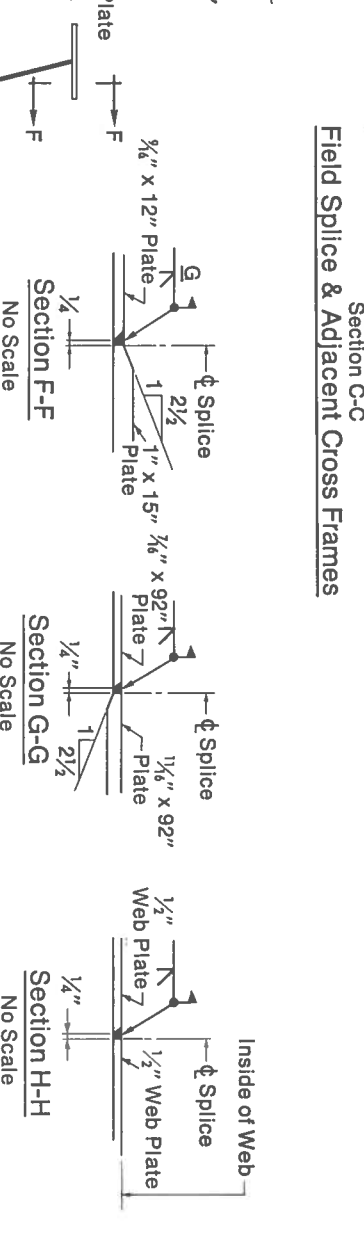
1/2"

1/2"



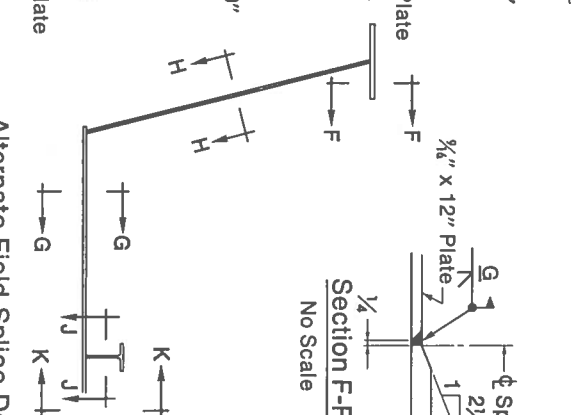
Section W-W

Field Splice



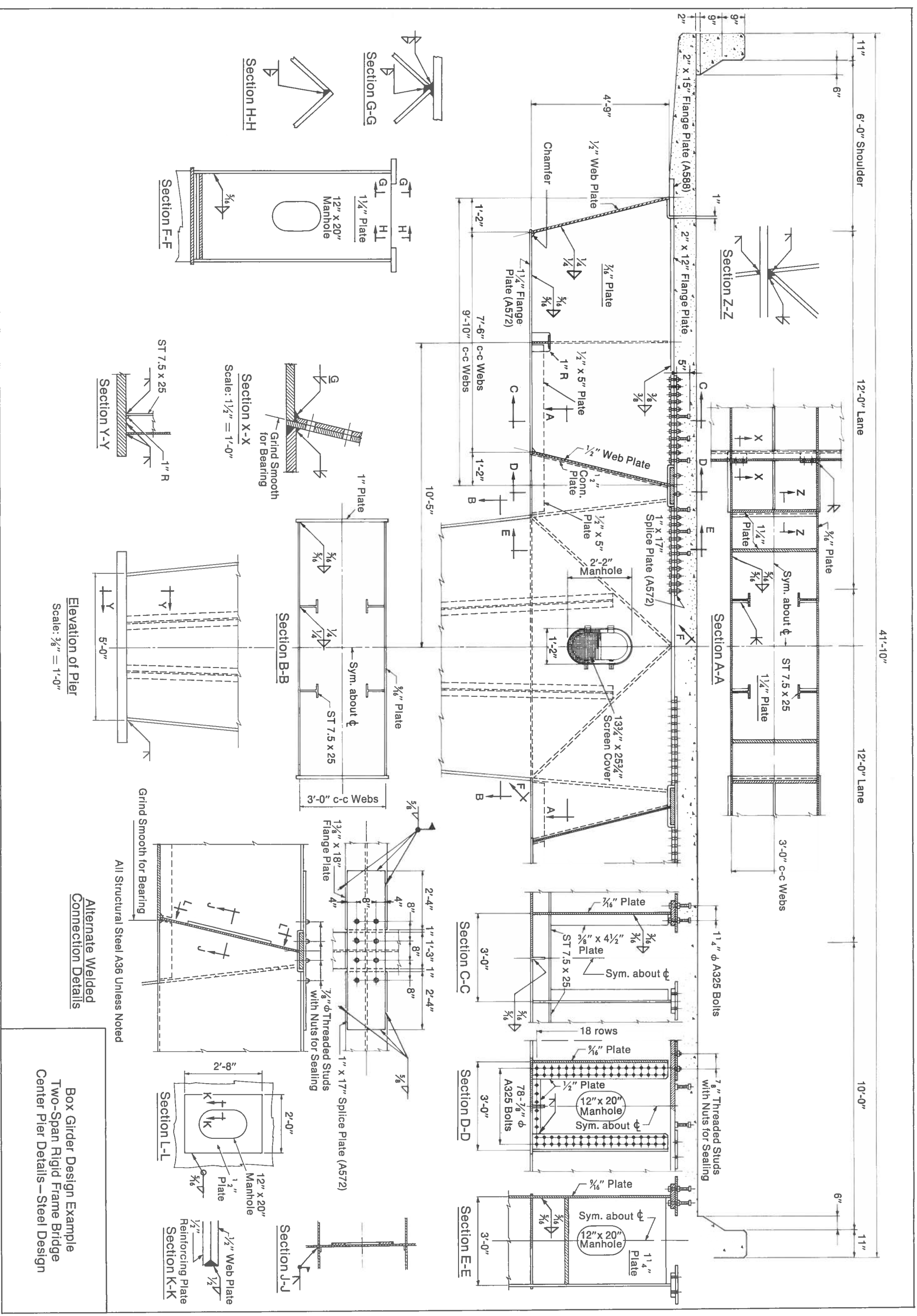
Section X-X

Field Splice

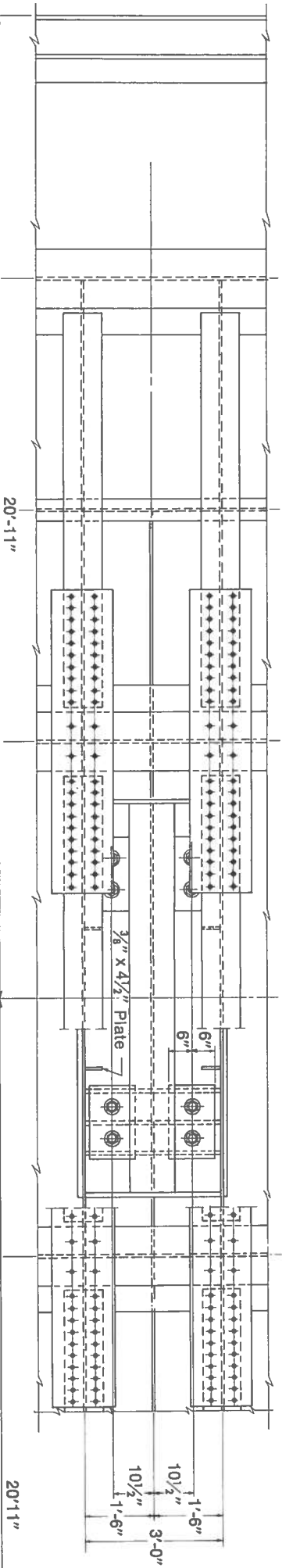


Section Y-Y

No

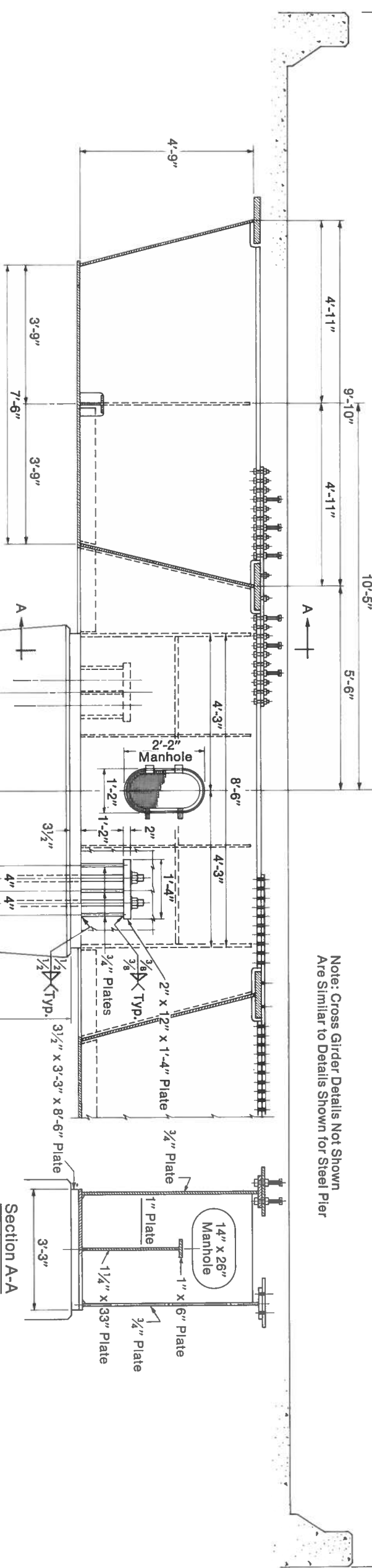


Box Girder Design Example
Two-Span Rigid Frame Bridge
Center Pier Details ~ Steel Design



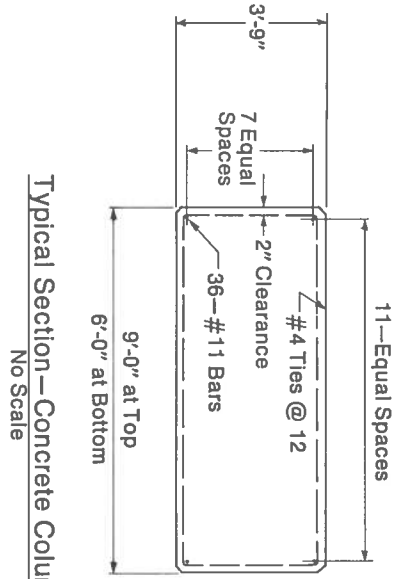
Plan

Note: Cross Girder Details Not Shown
Are Similar to Details Shown for Steel Pier



Section A-A

All Structural Steel A36 Unless Noted



Typical Section—Concrete Column
No Scale

Elevation of Pier—Alternate Design
Concrete Pier with Anchor Bolted Connections
Scale: $\frac{3}{8}" = 1'-0"$

Box Girder Design Example
Two-Span Rigid Frame Bridge
Center Pier Details—Concrete Design

