

[illegible][illegible]

Structural drawing of a roof truss system. The drawing shows a side elevation of a truss with various members labeled with their cross-sections (e.g., 14 WF 342, 14 WF 228, 14 WF 150, 14 WF 95, 14 WF 34, 14 WF 70, 14 WF 39.8). The truss is supported by a wall on the left and a column on the right. The roof slope is indicated as 1:10. The drawing includes dimensions for the overall length (19,500" and 27,300") and the height of the truss (6'11 1/2"). The drawing is labeled "S C A L E : 8" = 1'-0".

Structural analysis diagram of a roof truss system. The diagram shows a truss with various members labeled with their sizes (e.g., 14 WF 150, 14 WF 119, 14 WF 82, 14 WF 30, 14 WF 142) and their respective weights (e.g., 140 lb/ft, 119 lb/ft, 82 lb/ft, 30 lb/ft, 142 lb/ft). The truss is supported by a fixed support at the left end (labeled 'C. TO C') and a roller support at the right end (labeled 'D.C. 14 WF 142'). The roof is subjected to a uniformly distributed load of 10.0 psf. The diagram also shows the reaction forces at the supports: a vertical reaction of 385.6 k at the left support and a vertical reaction of 330.4 k at the right support. The truss is divided into sections by vertical lines, and the reactions are labeled as follows: 385.6 k, 87.8 k, 115.6 k, 78.7 k, 111.3 k, 81.2 k, 81.3 k, and 330.4 k. The diagram is labeled '7 @ 13'0" = 91'0"' and 'd T P d C 1 S'.

SCALE: 1"=1'-0"

FIELD SPLICE

20°

TYPICAL

1/2

SHIPPING PIECE

FIELD SPLICE

20°

TYPICAL

20°

SUFFICIENT WEB LENGTH TO DEVELOP WEB FULLY

FITTING R.

S C A L E: PANEL POINTS  $\frac{1}{2}'' = 1'-0''$   
DETAILS  $1'' = 1'-0''$

14WF SECTION (SEE DETAIL)

DETAIL of I4WF SECTION

CUT FILLET

5 SPACES @ 12'-5" 12 Bolts for 7-5  
 7 do @ 8'-4 1/2 16 do 7-6  
 6 do @ 10'-5" 14 do 7-7  
 4 do @ 13'-5" 10 do 7-8

NOTE N-1:  
 THIS WELD LENGTH MAY BE REDUCED

SCALE: 1" = 1'-0"

SEE DETAIL "A"

60°

1/4"

OMIT ANGLES FOR SHOP SPLICES

SEE DETAIL "B"

USE CLIP ANGLES TO DRAW SECTIONS TOGETHER. REMOVE AFTER MAKING ROOT PASSES.

S C A L E : 1" = 1'-0"

S C A L E : 1" = 1'0

14 WF BOTTOM CHORD of TRUSS

2 P.s. 10 x 2 x 1'0 For 8WF31  
2 P.s. 8 1/2 x 2 x 1'0 For 8WF24  
2 P.s. 12 x 2 x 1'0 For H-1 & H-8 ONLY

SCALE:  $1\frac{1}{2}'' = 1'-0''$

ALL FIELD & SHOP SPLICES  
ARE SINGLE-U BUTT JOINTS,  
WEINER BOTH SIDES

SCALE:  $1\frac{1}{2}" = 1' 0"$

SCALE:  $1\frac{1}{2}'' = 1'$

2  $\Phi$ s.  $12\frac{1}{2} \times 8$   
TRUSS TG ONLY

FITTING BOLTS - 3 1/4"

|            |          |         |        |     |
|------------|----------|---------|--------|-----|
| 24 SEPT 54 | APPROVAL | CHANGES | C.S.D. |     |
| DATE       | REVISION |         | BY     | CHK |

**Lehigh Structural Steel Co.**  
**ALLENTOWN, PA.**  
 REDESIGN <sup>o</sup> TRUSSES  
 USING 14 WF SECTIONS

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 HARTFORD, CONN.

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|-----------------------------|----------------|-------------------------|
| IN CHARGE OF C.L. FREIDRICH | DATE 26 AUG 54 | CONTRACT NUMBER 11-4088 |
| DRAWN BY C.S.D.             | DATE 7-10-54   | SHEET NUMBER D-101      |
| CHECKED BY A.W.             | DATE 7-10-54   |                         |
| SCALE AS NOTED              |                |                         |