

GENERAL NOTES & SPECIFICATIONS

1. GOVERNING CODES:

SOUTH FLORIDA BUILDING CODE (ASCE 7-98) 120 MPH, EXP. C
SOUTHERN STANDARD BUILDING CODE 138 MPH
UNIFORM BUILDING CODE, 1997 124 MPH, EXP. C

2. DESIGN LOADS:

DEAD LOAD 6 LBS. PER SQ. FT.
WIND LOAD 66.0 LBS. PER SQ. FT.

3. RESTRICTIONS:

A. THE DESIGN LOADS ABOVE ARE BASED ON A HEIGHT ABOVE GROUND OF 25 FEET MAXIMUM.

4. LIMITATIONS:

THE DESIGN AND CONSTRUCTION OF THE SIGN SHOWN HEREON CONFORMS TO THE ABOVE GOVERNING CODES WHEN INSTALLED AS SPECIFIED ON THIS DRAWING. NO OTHER WARRANTY IS EXPRESSED OR IMPLIED. ANY ALTERATIONS OF THIS DRAWING WILL VOID THE SHEET. THIS SHEET IS VALID ONLY IF SIGNED IN INK BY THE ENGINEER. THE METHOD OF ATTACHMENT TO SUPPORTS (POLES, WALLS, ETC.) IS NOT A PART OF THIS WORK AND MUST BE DESIGNED AND DETAILED BY OTHERS.

5. MATERIALS:

A. ALUMINUM - ALLOY 6061-T6 OR 6005-T5
BOYS - 6061-T6 OR 6005-T5
SIGN PANELS - TO BE UNDERWRITERS LABORATORY APPROVED. USE ONLY APPROVED PLASTICS.
PLATES & ANGLES - A36
PIPE - ASTM A500, GRADE B
TUBE - ASTM A500, GRADE B
B. PROVIDE FOR ISOLATION OF DISSIMILAR MATERIALS.

6. WORKMANSHIP:

ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE GOVERNING CODE (LATEST EDITION) AND THE LOCAL BUILDING OFFICIAL. WELDING SHALL CONFORM TO ALL APPLICABLE CODES. CERTIFIED WELDERS ARE REQUIRED.

7. WELD SPECIFICATIONS:

STEEL WELDING
ALL WELDING SHOULD BE PERFORMED BY CERTIFIED WELDERS. WELDS USING E70 ELECTRODES OR WIRES AND AWS APPROVED SYSTEMS AND PROCEDURES ARE ACCEPTABLE. PROVIDE PERIODIC SPECIAL INSPECTION FOR FIELD WELDING IN ACCORDANCE WITH UBC SECTION 1701.5.

ALUMINUM WELDING
ALL WELDING SHALL BE DONE IN ACCORDANCE WITH LATEST EDITION OF THE AMERICAN WELDING SOCIETY D1.2 STRUCTURAL WELDING CODE ALUMINUM.

4' x 16' SIGN

WIND:

W = 66 x 4' x 0.5 = 132 LB/FT
M = 132 x (16/2/8) = 4225 FT LB
f = 4225 x 12 / 5,028 = 10083 PSI < 15300 PSI O.K.

GRAVITY:

LOWER FRAME:
W = 6 x 4' / 2 = 12 LB/FT
M = 12 x (8) / 2/8 = 384 FT LB = 4608 INCH-LB
f (FLO) = 4608 / 0.630 IN³ = 7314 PSI O.K.
f (WEB) = 4608 / 1.945 IN³ = 2398 PSI O.K.

COMBINED STRESS:

10083 / 19000 + 7314 / 28000 = 0.79 < 1.33

CONNECTIONS:

MOMENT AT CORNER

W = 66 x (4' / 2) = 132 LB / FT
M = 132 x (16 / 2) (48" - 6.5") = 43830 LB-IN

BOLTS AT FRAME:

T = 43830 LB IN / 2 x 6.7" = 3270 LB

BOLTS AT POLE

USE 4 - 5/8" Ø S.S. BOLTS

M = 66 x (16' / 2) x 4' x 0.5 x 12" = 12672 LB-IN
P(T) = 12672 / 5" = 2534 LB
P(V) = 66 x 16' x 4' x 0.5 x 0.5 = 1096 LB

CHECK ATTACHMENT ANGLE

USE 2 - 5/8" S.S. BOLTS

CANTILEVER BENDING MOMENT

M = 66 x (4' / 2) x 4' x 12" = 6336 LB-IN
S = 0.625" x (7')² / 6 = 51 IN³

BENDING STRESS:

f(b) = 6336 LB IN / 51 IN³ = 1240 PSI O.K.

SHEAR STRESS:

f(s) = 6336 LB IN / 0.3 x 7' x (0.625")² = 7724 PSI

ALLOWABLE SHEAR STRESS:

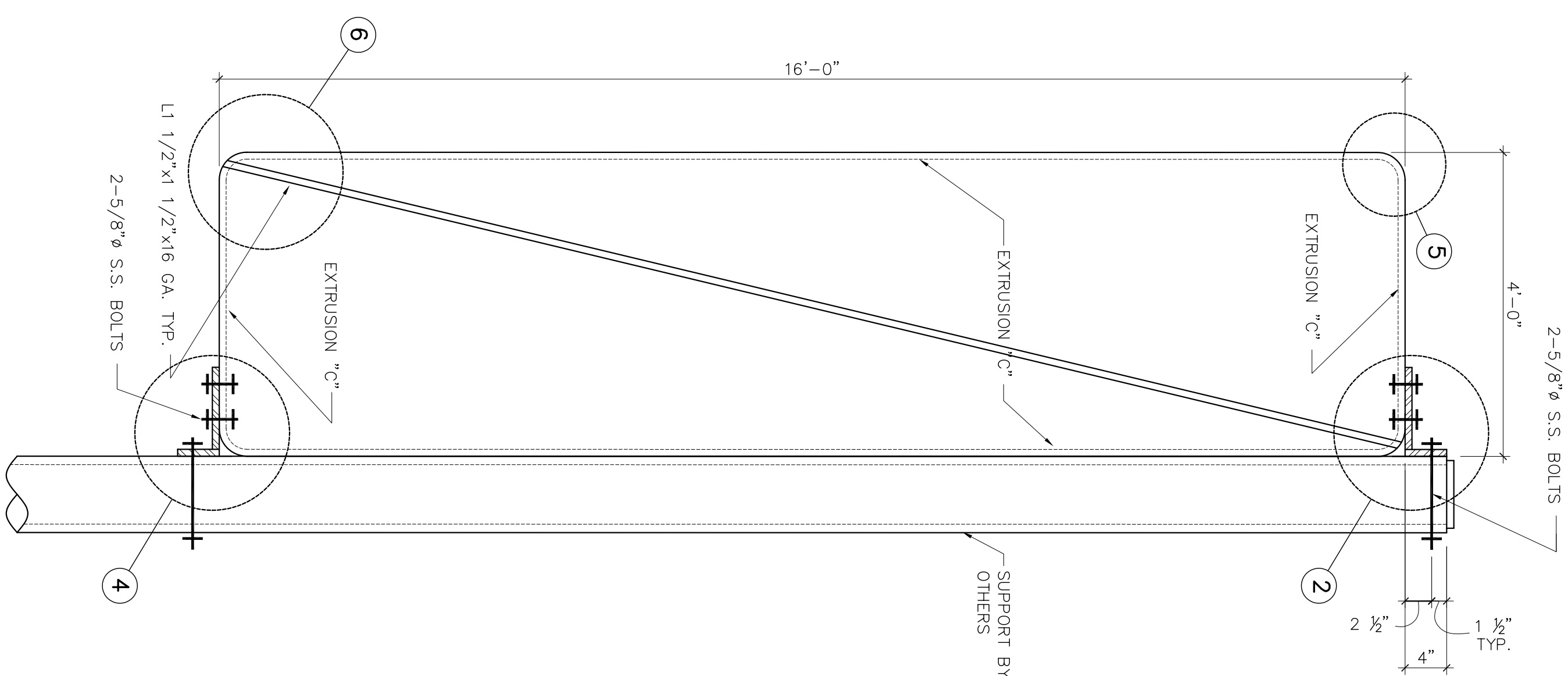
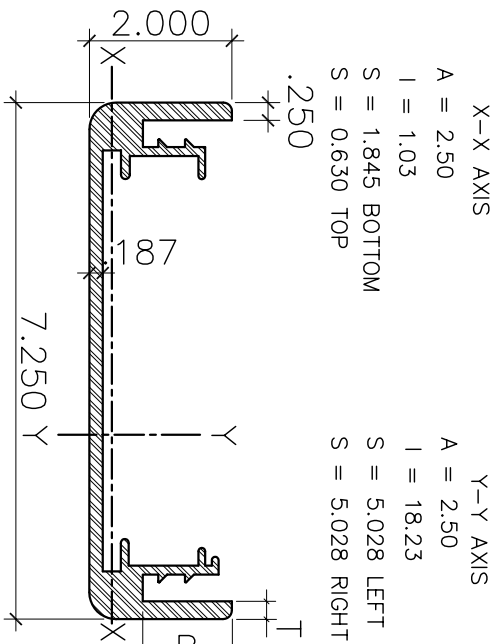
f(s) = 6500 PSI x 1.33 = 11300 PSI > 7724 PSI O.K.

USE WELDED ANGLE 11" x 5" x 5/8"
7" LONG

4' x 12' & 3' x 16' SIGN
O.K. BY COMPARISON WITH 4' x 16' SIGN

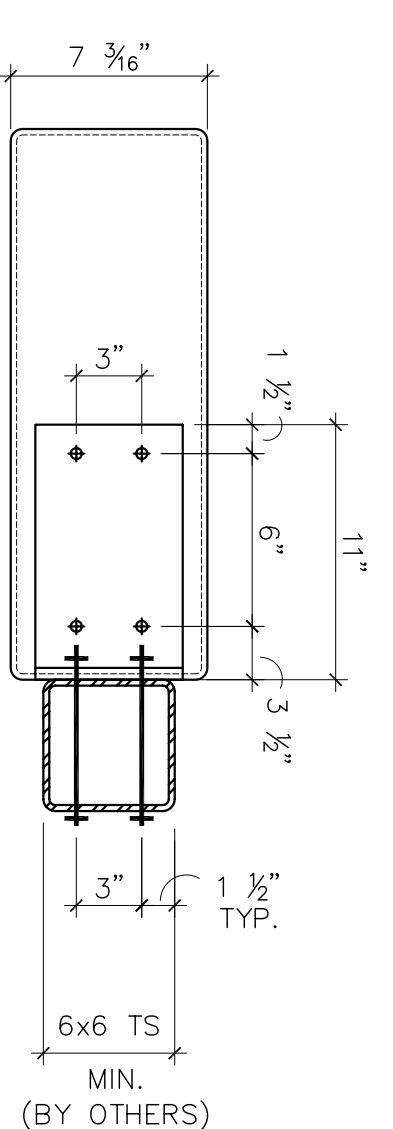
EXTRUSION "C"

SECTION PROPERTIES



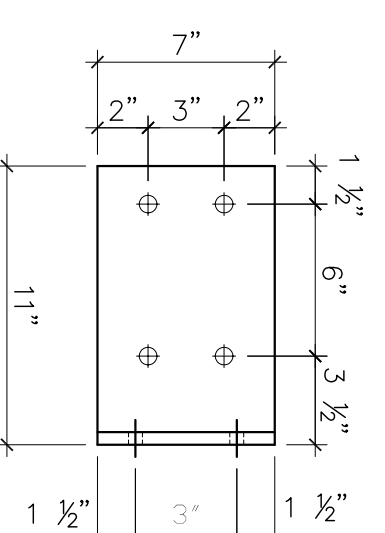
PROPERTIES SCHEDULE

SIGN SIZE	UPPER PLATE	LOWER PLATE	BOLTS (Ø)
4' x 12'	11 x 5 x 5/8" 7" LONG	11 x 5 x 5/8" 7" LONG	5/8"
3' x 16'	11 x 5 x 5/8" 7" LONG	11 x 5 x 5/8" 7" LONG	5/8"
4' x 16'	11 x 5 x 5/8" 7" LONG	11 x 5 x 5/8" 7" LONG	5/8"



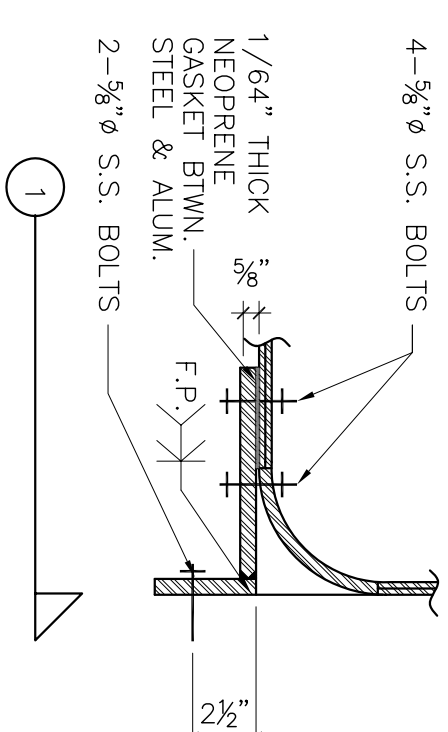
PIPE CONN. AT SIGN TOP

N.T.S. 2



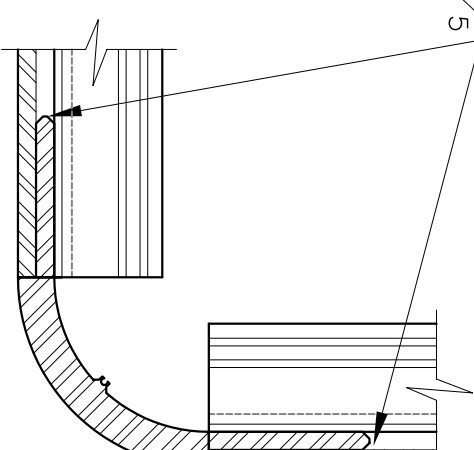
PIPE CONN. AT SIGN BOTTOM

N.T.S. 3



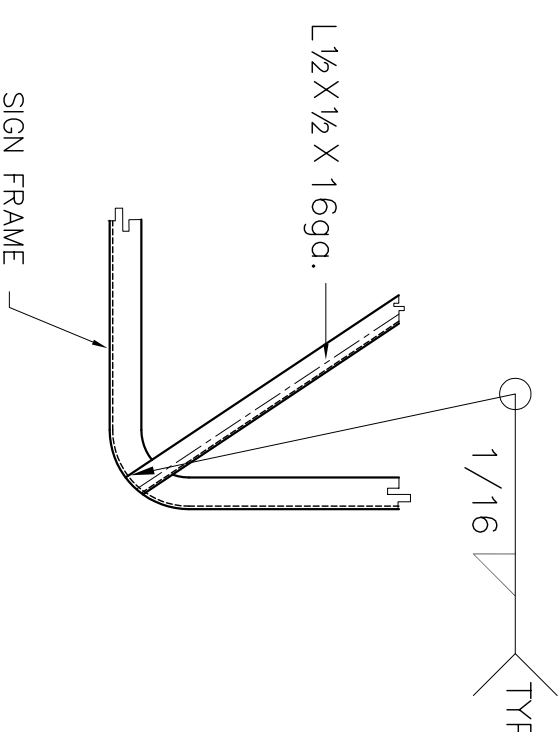
PIPE CONN. AT SIGN BOTTOM

N.T.S. 4



CORNER DETAIL

N.T.S. 5



SIGN ELEVATION

N.T.S.

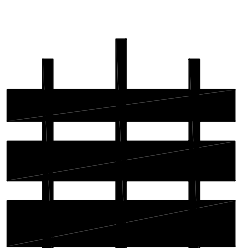
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CORNER BRACING DTL, TYP. TOP & BOT. N.T.S.

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REVISIONS/ BY DATE

STRUCTURAL TECHNOLOGY CONSULTANTS INCORPORATED
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SAN DIEGO, CA 92103



SIGNTRONIX
1445 W. SEPULVEDA BLVD, TORRANCE CA. 90509
(310) 534-7500

FLAGMOUNT
SIGN ELEVATION, EXTRUSIONS AND MISCELLANEOUS DETAILS

DATE: 05/10/01
JOB No. 489C
DESIGNED: WJN
DRAWN BY: WJN
APPROVED BY: WJN

489-FPM

SHEET 6

OF 14