SULLAWAY ENGINEERING
12396 WORLD TRADE DRIVE, SUITE 312
SAN DIEGO, CA 92128
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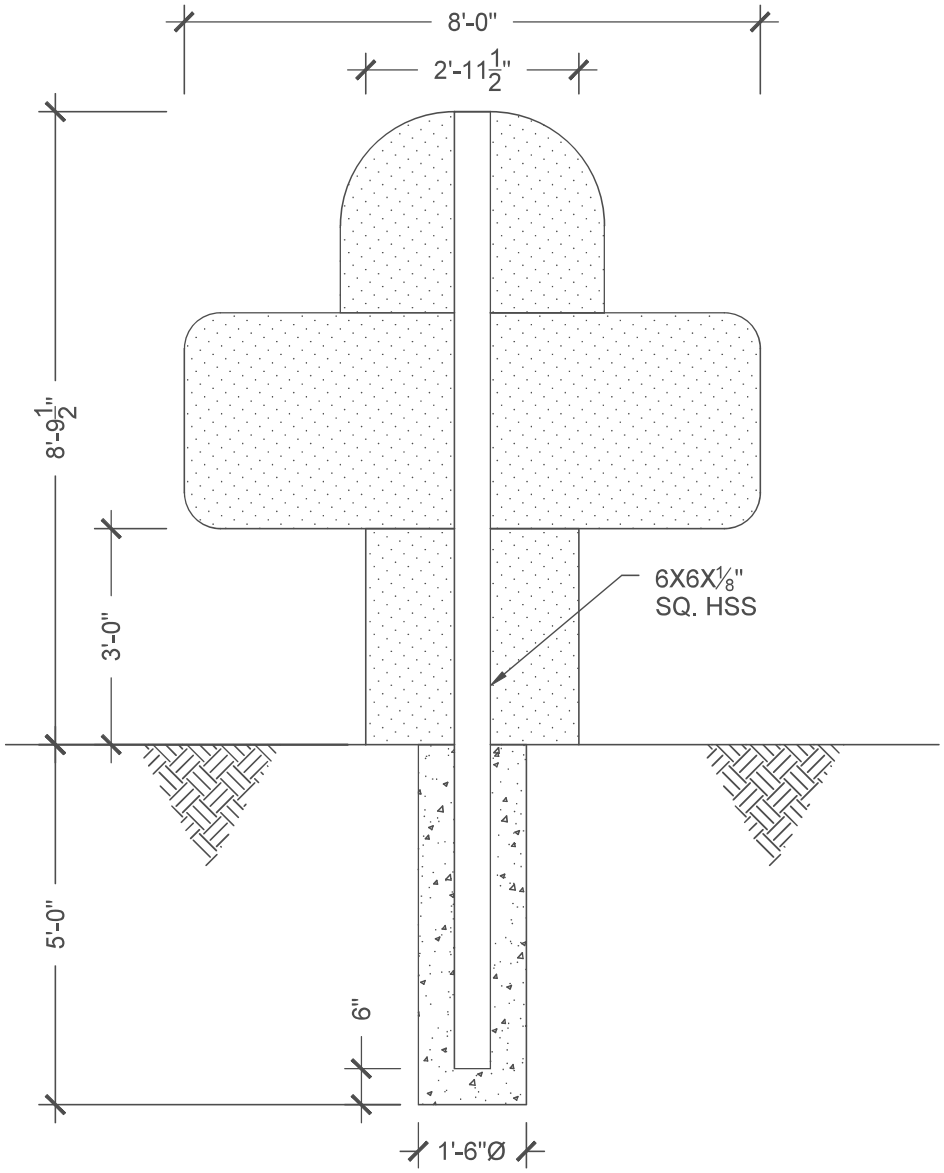
PROJECT:	SMALLS SLIDERS - LEE'S SUMMIT, 101 SOUTHWEST OLDHAM PKWY, SLD-10051, LEE'S SUMMIT, MO	DATE:	02/12/2026
PROJECT #:	55427	ENGINEER:	PD
CLIENT:	ACE SIGN COMPANY	LAST REVISED:	



1 - ELEVATION

GENERAL NOTES

1. DESIGN CODE: IBC 2018
2. DESIGN LOADS: ASCE 7-16
3. WIND VELOCITY: 110 MPH EXPOSURE C
4. CONCRETE 2500 PSI MIN.
5. SQ. HSS STEEL ASTM A500 GR.B, Fy= 46 KSI MIN.
6. PROVIDE PROTECTION AGAINST DISSIMILAR METALS USING ANTI-CORROSIVE PAINT OR NEOPRENE GASKETS.
7. LATERAL SOIL BEARING PER IBC CLASS 4 (150 PSF/FT)
8. ALL DIMENSIONS TO BE VERIFIED PRIOR TO FABRICATION.

STATE OF MISSOURI
MICHAEL F. SULLAWAY
NUMBER PE-2010022411
PROFESSIONAL ENGINEER

2/12/2026

SULLAWAY ENGINEERING

PROJECT: SMALLS SLIDERS - LEE'S SUMMIT
PROJ. NO.: 55427
CLIENT: ACE SIGN COMPANY

DATE: 2/12/2026
ENGINEER: PD

V5.5

units; pounds, feet unless noted otherwise

Applied Wind Loads; from ASCE 7-16

F= $q_z*G*C_f*A_f$ with $q_z=0.00256K_zK_{zt}K_dV^1$ (29.3.2 & 29.4)

C_f= 1.652 (Fig. 29.3-1) 1.00 0 max. height= 8.79

K_{zt}= 1.0 (26.8.2) (=1.0 unless unusual landscape) s= 5.79

K_z= from table 28.3-1 Exposure= c

K_d= 0.85 for signs (table 26.6-1)

V= 110 mph

G= 0.85 (26.9) weight= 0.431 kips

s/h= 0.659 M_{DL}= 0.00 k-ft

B/s= 1.38

Pole Loads	structure component	height at section c.g.	K_z	q_z	pressure q_z*G*C_f	A_f	shear	Wind Moment M_W
	1	1.500	0.850	22.4	31.42	8.88	279	418
	2	4.500	0.850	22.4	31.42	24.00	754	3393
	3	7.396	0.850	22.4	31.42	10.24	322	2378
					sums:	43.11	1354	6.19

(M_w) k-ft arm= 4.6

P_u= 0.52 kips M= 6.19 k-ft $M=\sqrt{M_{DL}^2+M_w^2}$

$M_u=\sqrt{1.2M_{DL}^2+1.0M_W^2}$= 6.19 k-ft

Pole Design section: tube

$M_u \le \phi M_n$ with $M_n=f_yZ$ f_y= 46 ksi ϕ= 0.9

H	M_u (k-ft)	Z req'd. (in)	Size (in)	t (in)	Z	USE
at grade	6.19	1.79	3.000	0.174	1.97	6X6X1/8" SQ HSS, ΦMn= 16.2 k-ft

Footing Design footprint: round

ω= 1.3 IBC 1605.3.2 IBC Table 1806.2, sections 1806.3.4, 1807.3.2 S= (1.3x2x)

P= 1.06 kips S1=Sxd/3 A=2.34xP/(S1xb) S= 400

S1= 663 d=0.5xA(1+(1+4.36xh/A)^0.5) IBC 1807.3.2.1

A= 2.49

footing: **1' - 6" dia.** **5' - 0" deep**