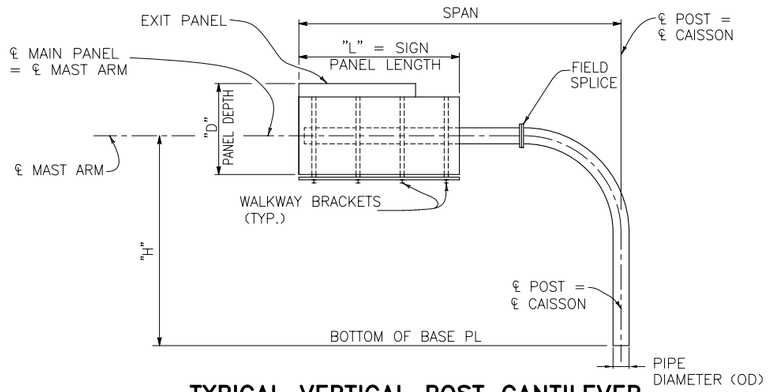
–STATIC CANTILEVER SIGN PIPE SELECTION TABLES–



TYPICAL VERTICAL POST CANTILEVER

PIPE SELECTION PROCEDURE FOR VERTICAL POST CANTILEVERS

A. COVERAGE PERCENTAGE $= \frac{\text{SIGN PANEL LENGTH}}{\text{SPAN}}$ FOR THE SPAN LENGTH USE THE SPAN FROM ONE OF THE CHARTS (25',35', ETC.), NOT THE ACTUAL SPAN.

B. PICK THE PIPE OUTSIDE DIAMETER (OD) FROM THE 0–50% OR THE 51–80% CHART. THE COVERAGE PERCENTAGE CHOSEN SHOULD BE HIGH ENOUGH TO INCLUDE ANY SIGN PANELS WHICH MAY POTENTIALLY BE PLACED ON THIS SIGN IN THE FUTURE.

C. TO DETERMINE "D" FOR THE SELECTION CHARTS ADD THE AREA OF THE EXIT PANEL, IF PRESENT, TO THE MAIN SIGN PANEL AREA. DIVIDE BY THE MAIN PANEL LENGTH TO OBTAIN "D".

D. IF NO TUBE IS SHOWN FOR A CERTAIN SPAN THIS INDICATES THAT THIS SPAN/SIGN PANEL/HEIGHT COMBINATION EXCEEDS THE LIMITS OF THIS STANDARD.

E. ON THE OVERHEAD SIGN X–SECTION SHEET INDICATE THE DIAMETER OF THE TUBE, THE HEIGHT "H" AND THE SPAN.

F. OBTAIN THE DESIGN WIND SPEED FROM THE OVERHEAD SIGN X–SECTION SHEETS IN THE ROADWAY PLANS.

80 MPH WIND

UP TO 50% COVERAGE CHART

"D" (FT.) →		10'		12'		14'	
"H" (FT.) →		H≤25	25<H≤30	H≤25	25<H≤30	H≤25	25<H≤30
SPAN≤ (FT.)	20'	12.75	14	14	14	14	16
	25	14	16	16	16	16	18
	30	16	18	18	18	18	20
	35	18	20	20	20	24	24
	40	20	24	24	24	24	24
	45	24	24	24	24		

51–80% COVERAGE CHART

"D" (FT.) →		10'		12'		14'	
"H" (FT.) →		H≤25	25<H≤30	H≤25	25<H≤30	H≤25	25<H≤30
SPAN≤ (FT.)	20'	16	16	16	18	18	20
	25	18	18	18	20	20	24
	30	20	20	20	24	24	24
	35	24	24	24	24	24	
	40	24	24				
	45						

90 MPH WIND

UP TO 50% COVERAGE CHART

"D" (FT.) →		10'		12'		14'	
"H" (FT.) →		H≤25	25<H≤30	H≤25	25<H≤30	H≤25	25<H≤30
SPAN≤ (FT.)	20'	14	14	16	16	16	18
	25	16	18	18	18	18	20
	30	18	20	20	20	24	24
	35	20	24	24	24	24	24
	40	24	24	24			
	45						

51–80% COVERAGE CHART

"D" (FT.) →		10'		12'		14'	
"H" (FT.) →		H≤25	25<H≤30	H≤25	25<H≤30	H≤25	25<H≤30
SPAN≤ (FT.)	20'	16	18	18	20	20	20
	25	20	20	20	24	24	24
	30	24	24	24	24	24	
	35	24					
	40						
	45						

100 MPH WIND

UP TO 50% COVERAGE CHART

"D" (FT.) →		10'		12'		14'	
"H" (FT.) →		H≤25	25<H≤30	H≤25	25<H≤30	H≤25	25<H≤30
SPAN≤ (FT.)	20'	16	16	16	18	18	18
	25	18	18	20	20	20	24
	30	20	24	24	24	24	24
	35	24	24	24			
	40						

51–80% COVERAGE CHART

"D" (FT.) →		10'		12'		14'	
"H" (FT.) →		H≤25	25<H≤30	H≤25	25<H≤30	H≤25	25<H≤30
SPAN≤ (FT.)	20'	18	20	20	24	24	24
	25	20	24	24	24	24	
	30	24	24				
	35						

PROCEDURE TO DETERMINE THE DESIGN WIND SPEED

80 MPH IS THE STANDARD DESIGN WIND SPEED FOR THE STATE OF COLORADO. THE STANDARD DESIGN WIND SPEED OF 80 MPH IS TO BE USED AT ALL LOCATIONS EXCEPT THE FOLLOWING:

1. USE THE 90 MPH WIND SPEED FOR LOCATIONS WITHIN 4 MILES OF EITHER SIDE OF THE BASE OF THE FOOTHILLS ALONG THE FRONT RANGE OF THE EASTERN SLOPE.

2. USE THE 100 MPH WIND SPEED FOR LOCATIONS IN BOULDER COUNTY.

IF THERE ARE QUESTIONS CONCERNING THE PROPER DESIGN WIND SPEED CONTACT THE STAFF BRIDGE BRANCH.