EXAMPLE #1:
To determine post type: 100% panel coverage dimensions meter (U.O.N.)

The following method is for sizing of columns only. (Verfied by GT-strulr computer runs)
Use the right side to size the post, then check the left side
Panel depth = 2.54 m
Height from base plate = 8.84 m
to center of truss = 4.42 m
Span = 2.54 m
Cover plate = 0.6 m
Wind pressure = 1930 Pa
Forc e = area x pressure = \((2.54 \times 2.54) \times 1930\) Pa = 123438 N
Actual N = Mx + Mz = Wind load moment on base
= height x area of sign x wind pressure\(1930\) Pa = 1.05

(55% increase in the moment will take care of the 20% lateral wind forces, AASHTO spec. computer runs verify by GT-strulr)

N = force x height = 116574 N x 6.1 m = 1005845 N-m
Read from post type selection chart, left side corresponding to moment = 1005845 N-m
Read column XI-5, which correspond to the moment XI-5, NPS pipe 24 x 24.6 m, split 254.
Any moment bigger than 1005845 N-m, requires special column design.
Use same column size for left-hand side, the above example is using 100% panel coverage.

EXAMINE LEFT HAND SIDE COLUMN
Panel depth = 2.54 m
Height from base plate to center of truss = 8.84 m
Span = 4.42 m
Cover plate = 0.6 m
Wind pressure = 1930 Pa
Force = area x pressure = \((2.54 \times 2.54) \times 1930\) Pa = 123438 N
Actual N = Mx + Mz = Wind load moment on base
= height x area of sign x wind pressure\(1930\) Pa = 1.05

(55% increase in the moment will take care of the 20% lateral wind forces, AASHTO spec. computer runs verify by GT-strulr)

N = force x height = 103228 N x 6.1 m = 728031 N-m
Read from post type selection chart, left side corresponding to moment = 728031 N-m
Read column XI-5, which correspond to the moment XI-5, NPS pipe 24 x 24.6 m, split 254.
H owever, for both side USE COLUMN SIZE XI-5, NPS pipe 24 x 24.6 m, split 254, the larger column section of the left & right side shall govern.

EXAMPLE #2:
To determine post type: 100% panel coverage dimensions meter (U.O.N.)

The following method is for sizing of columns only. (Verfied by GT-strulr computer runs)
Use the right side to size the post, then check the left side
Panel depth = 2.54 m
Height from base plate = 8.84 m
to center of truss = 6.4 m
Span = 3.68 m
Cover plate = 0.6 m
Wind pressure = 1930 Pa
Force = area x pressure = \((2.54 \times 2.54) \times 1930\) Pa = 123438 N
Actual N = Mx + Mz = Wind load moment on base
= height x area of sign x wind pressure\(1930\) Pa = 1.05

(55% increase in the moment will take care of the 20% lateral wind forces, AASHTO spec. computer runs verify by GT-strulr)

N = force x height = 89710 N x 8.84 m = 792868 N-m
Read from post type selection chart, left side corresponding to moment = 792868 N-m
Read column XI-5, which correspond to the moment XI-5, NPS pipe 24 x 24.6 m, split 254.
However, for both side USE COLUMN SIZE XI-5, NPS pipe 24 x 24.6 m, split 254, the larger column section of the left & right side shall govern.