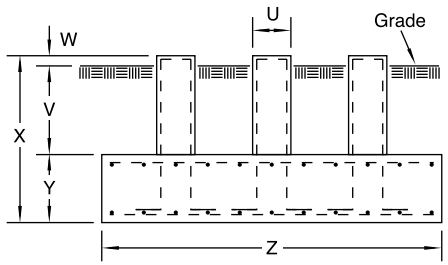
Sabre Site Solutions™ — A Division of Sabre Communications Corporation

Series VL Self-Supporting Tower
Buried Mat Foundation
For EIA Normal 4000 PSF Soil

Foundation Designator		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Diameter of Pier (ft.)	(U)	2.0	2.5	2.5	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.0	2.5
Ht. of Pier Below Grade (ft.)	(V)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	1.5	1.5	1.5	2.0	1.5	1.5	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Ht. of Pier Above Grade (ft.)	(W)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth to Bottom of Mat (ft.)	(X)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.0	3.0	3.0	3.5	3.0	3.0	3.5	3.0	3.0	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0
Thickness of Mat (ft.)	(Y)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Width of Mat (ft.)	(Z)	12.0	13.0	14.0	15.5	13.0	14.5	16.0	17.0	16.5	15.5	17.0	18.5	18.0	18.0	19.0	18.5	22.0	20.0	21.0	20.0	23.0	22.5	23.0	24.0	26.5	25.5
Vertical Rebars (Qty & Size)		(6) #7	(6) #7	(6) #7	(10) #9	(6) #7	(6) #7	(6) #7	(10) #9	(10) #9	(6) #7	(6) #7	(10) #9	(10) #9	(6) #7	(10) #9	(10) #9	(10) #9	(6) #7	(10) #9	(10) #9	(10) #9	(6) #7	(10) #9	(10) #9	(14) #10	(10) #9
Horizontal Rebars (Qty & Size)		(14) #8	(14) #8	(16) #8	(16) #8	(14) #8	(16) #8	(18) #8	(18) #8	(18) #8	(16) #8	(18) #8	(20) #8	(20) #8	(20) #8	(20) #8	(20) #8	(24) #8	(22) #8	(22) #8	(22) #8	(28) #8	(24) #8	(24) #8	(32) #8	(44) #8	(26) #8
Required Cu. Yds. Concrete		8.70	10.48	11.98	14.44	10.09	12.77	15.31	17.15	16.49	14.44	17.15	20.10	19.36	19.09	21.15	20.38	27.98	23.31	25.59	23.59	30.48	29.22	30.48	33.09	40.58	37.22

Foundation Designator	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Anchor Bolt Size (in.)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.00	0.75	0.75	0.75	1.00	0.75	0.75	1.00	0.875	0.75	0.75	1.00	0.875	0.75	0.75	0.875	0.875	0.75
Anchor Bolt Qty (3 Fnds.)	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	18	12	12	12	18	12	12	18	18	12
Diameter of Bolt Circle (in.)	5.25	6.50	6.50	6.50	5.25	6.50	6.50	6.50	8.50	6.50	6.50	6.50	8.50	6.50	6.50	8.50	9.25	6.50	6.50	8.50	9.25	6.50	6.50	9.25	9.25	6.50

Elevation View (1 required)



(Two(2) #4 ties are required within the top 5" of each pier and are spaced on 12" centers thereafter.)

Foundation Designator		AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL
Diameter of Pier (ft.)	(U)	2.5	2.5	3.0	2.5	2.5	2.5	3.0	3.0	2.5	2.5	3.0	3.0
Ht. of Pier Below Grade (ft.)	(V)	2.0	1.5	1.5	1.5	2.0	1.5	1.5	4.0	2.0	1.5	1.5	3.5
Ht. of Pier Above Grade (ft.)	(W)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Depth to Bottom of Mat (ft.)	(X)	3.5	3.0	3.0	3.0	3.5	3.0	3.0	6.0	3.5	3.0	3.0	5.5
Thickness of Mat (ft.)	(Y)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	1.5	1.5	1.5	2.0
Width of Mat (ft.)	(Z)	24.5	25.5	27.5	27.5	27.0	27.5	28.5	28.0	29.5	30.0	31.0	30.0
Vertical Rebars (Qty & Size)		(10) #9	(10) #9	(14) #10	(10) #9	(10) #9	(10) #9	(14) #10	(14) #10	(8) #7	(10) #9	(14) #10	(14) #10
Horizontal Rebars (Qty & Size)		(26) #8	(36) #8	(50) #8	(28) #8	(28) #8	(36) #8	(56) #8	(46) #9	(30) #8	(38) #8	(56) #8	(50) #9
Required Cu. Yds. Concrete		34.71	37.22	43.58	43.10	41.86	43.10	46.70	61.61	49.71	51.09	54.96	69.81

Foundation Designator	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL
Anchor Bolt Size (in.)	1.00	0.875	0.875	0.75	1.00	0.875	0.875	1.25	1.00	0.875	0.875	1.25
Anchor Bolt Qty (3 Fnds.)	12	18	18	12	12	18	18	18	12	18	18	18
Diameter of Bolt Circle (in.)	8.50	9.25	9.25	6.50	8.50	9.25	9.25	12.50	8.50	9.25	9.25	12.50

1) Concrete to conform to the requirements of ACI 318-02 and shall have a minimum 28 day compressive strength of 3,000 psi. All concrete is to be placed against undisturbed soil free of water and any foreign materials.
2) Rebar to conform to the requirements of ASTM Specification A615 Grade 60. All rebar to have a minimum of 3" concrete cover.
3) All exposed concrete corners to be chamfered ¾".
4) Foundations designed in accordance with ANSI/TIA/EIA-222-F-1996 using the following:
   - ⅓ allowable stress increase considered
   - Allowable net vertical bearing capacity = 4000 psf
   - Allowable net horizontal pressure = 400 psf/ft. depth (to a maximum of 4000 psf)
   - Soil density = 100 pcf
   - Concrete density = 150 pcf
   - Water table located below bottom of foundation
   - Frost depth less than depth to bottom of foundation
   - For uplift capacity, weight of foundation plus weight of soil enclosed within an inverted pyramid or cone whose sides form an angle of 30 degrees with the vertical.
5) A soil analysis should be performed to determine the appropriate site specific parameters to be used for design of the foundations. Foundation designs should be evaluated by a competent registered professional engineer for each particular application.