



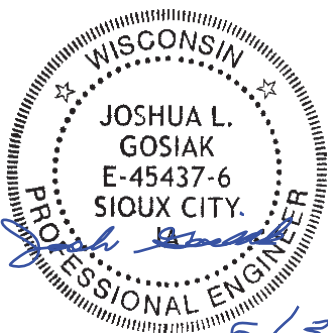
Structural Design Report
285' S3TL Series HD1 Self-Supporting Tower
Site: Fennimore GF1, WI

Prepared for: RACOM CORPORATION
by: Sabre IndustriesTM

Job Number: 501140

May 3, 2022

Tower Profile.....	1-2
Foundation Design Summary.....	3
Maximum Leg Loads.....	4
Maximum Diagonal Loads.....	5
Maximum Foundation Loads.....	6
Calculations.....	7-28



Digitally Signed By Joshua
Gosiak
DN: c=US, st=Texas,
l=Alvarado, o=SABRE
INDUSTRIES, INC., cn=Joshua
Gosiak,
email=jlgosiak@sabreindustries
.com Date: 2022.05.03 12:30:25

Legs	8.625 OD X .500		5.563 OD X .375		A	B	C	2.375 OD X .154	
Diagonals	L 4 X 4 X 1/4		L 3 1/2 X 3 1/2 X 1/4		L 3 X 3 X 1/4	E	L 2 X 2 X 1/8		
Horizontals	NONE		D		L 2 1/2 X 2 1/2 X 3/16	E	L 2 X 2 X 1/8		
Brace Bolts	(2) 5/8"		(1) 3/4"		(1) 5/8"				
Top Face Width	25'	23'	21'	19'	17'	15'	13'	11'	7'
Panel Count/Height	12 @ 10'		9 @ 6.6667'		21 @ 5'				
Section Weight	5400	5253	5013	4654	4518	4195	3130	2684	2196

Designed Appurtenance Loading

Elev	Description	Tx-Line
285	(1) SD214-SF2P4SNM	(1) 7/8"
275	3ft Sidearm	
260.62	(1) DB224A	(1) 7/8"
260	(2) SD214-SF2P4SNM	(2) 7/8"
250	(2) 3ft Sidearms	
250	3ft Sidearm	

Elev	Description	Tx-Line
225	3V-Boom - 12ft Face - 3ft Standoff	
225	(12) 8' x 20" x 8" panel	(12) 1 5/8"
225	(9) RRU (1' x 1' x 1')	
215	3V-Boom - 12ft Face - 3ft Standoff	
215	(12) 8' x 20" x 8" panel	(12) 1 5/8"
215	(9) RRU (1' x 1' x 1')	

Material List

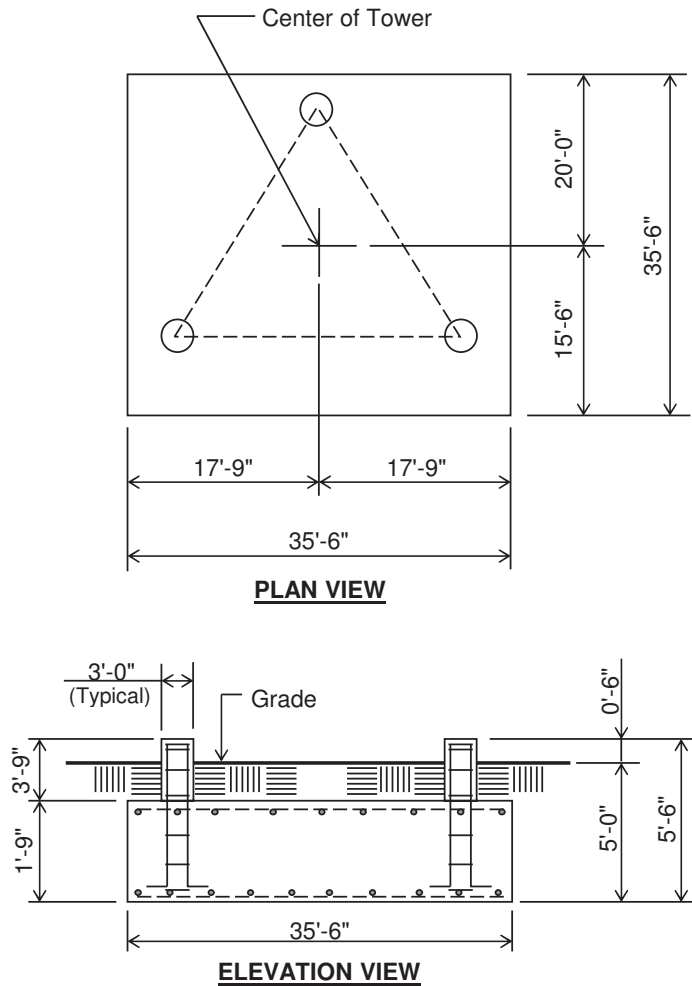
Display	Value
A	4.000 OD X .318
B	3.500 OD X .216
C	2.375 OD X .218
D	L 3 X 3 X 3/16

Display	Value
E	L 2 X 2 X 3/16
F	L 2 X 2 X 1/8
G	246

 <p>Sabre Industries 7101 Southbridge Drive P.O. Box 658 Sioux City, IA 51102-0658 Phone: (712) 258-6690 Fax: (712) 279-0814</p> <p><small>Information contained herein is the sole property of Sabre Communications Corporation, constitutes a trade secret as defined by Iowa Code Ch. 550 and shall not be reproduced, copied or used in whole or part for any purpose whatsoever without the prior written consent of Sabre Communications Corporation.</small></p>	Job: 501140
	Customer: RACOM CORPORATION
	Site Name: Fennimore GF1, WI
	Description: 285' S3TL
	Date: 5/3/2022 By: JLG

Customer: RACOM CORPORATION
Site: Fennimore GF1, WI

285 ft. Model S3TL Series HD1 Self Supporting Tower



(84.6 cu. yds.)
(1 REQD.; NOT TO SCALE)

CAUTION: Center of
tower is not in center
of slab.

Notes:

- 1) Concrete shall have a minimum 28-day compressive strength of 4,500 psi, in accordance with ACI 318-11.
- 2) Rebar to conform to ASTM specification A615 Grade 60.
- 3) All rebar to have a minimum of 3" concrete cover.
- 4) All exposed concrete corners to be chamfered 3/4".
- 5) The foundation design is based on the geotechnical report by Edge, Project# 31987, dated 4/5/2022.
- 6) See the geotechnical report for compaction requirements, if specified.
- 7) The foundation is based on the following factored loads:
Factored download (kips) = 69.09
Factored overturn (kip-ft) = 11,397.15
Factored shear (kips) = 77.05
- 8) 3.25' of soil cover is required over the entire area of the foundation slab.
- 9) The bottom anchor bolt template shall be positioned as closely as possible to the bottom of the anchor bolts.

Rebar Schedule per Mat and per Pier	
Pier	(16) #9 vertical rebar w/ hooks at bottom w/ #4 rebar ties, two (2) within top 5" of pier then 12" C/C
Mat	(70) #9 horizontal rebar evenly spaced each way top and bottom. (280 total)
Anchor Bolts per Leg	
(6) 1.25" dia. x 63" F1554-105 on a 12.75" B.C. w/ 8" max. projection above concrete.	