Network Dept.

Verizon Wireless
20 Alexander Drive
Wallingford, Connecticut 06492

November 16, 2000

Honorable John Zulick,
First Selectman
Knowlton Memorial town Hall
25 Pompey Hollow Road
Ashford, Connecticut 06278

Dear Mr. Zulick:

This letter is to inform you that Cellco Partnership d/b/a Verizon Wireless plans to install antennas and associated equipment at the existing tower facility located at 20 Seles Road, Ashford, Connecticut. I am enclosing a copy of Verizon Wireless's tower sharing application to the Connecticut Siting Council.

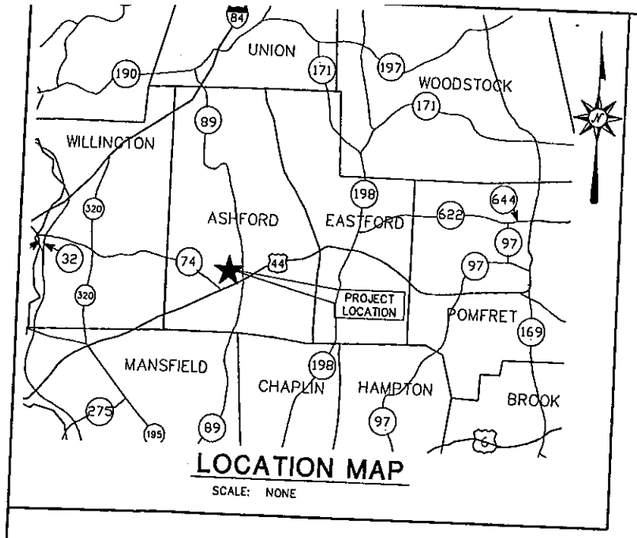
The application fully sets forth the Company's proposal. However, if you have any questions or require further information on our plans or the Siting Council's procedures, please contact me at (203) 294-8519 or Mr. Joel Rinebold, Executive Director of the Connecticut Siting Council at (860) 827-2935.

Sincerely,

Sandy M. Carter

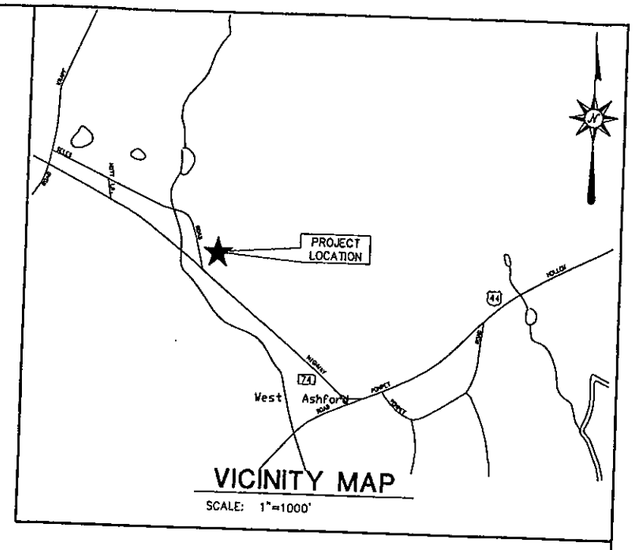
Sandy M. Carter
Manager- Regulatory
Verizon Wireless

Enclosure



SITING COUNCIL SUBMISSION

ASHFORD WEST TELECOMMUNICATION FACILITY



20 SELES ROAD
ASHFORD, CONNECTICUT 06278

PREPARED FOR:

CELLCO PARTNERSHIP DBA VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492

CONTENTS

	TITLE SHEET
SC-1	SITE PLAN AND ELEVATION

PREPARED BY:

BL Companies

ARCHITECTURE ENGINEERING PLANNING LANDSCAPE ARCHITECTURE
LAND SURVEYING ENVIRONMENTAL SCIENCES ANALYTICAL SERVICES

355 RESEARCH PARKWAY
MERIDEN, CONNECTICUT 06450
(203) 630-1406
(203) 630-2615 Fax

STATE OF CONNECTICUT
ROBERT A. LANDINO
No. 15248
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

DATES

ISSUE DATE: NOVEMBER 15, 2000
REVISION:

CAD FILE: CVC75401

FRED A. NUDD CORPORATION

1743 ROUTE 104, BOX 577
ONTARIO, NY 14519
(315) 524-2531 FAX (315) 524-4249
www.nuddtowers.com

Analysis of
193 ' Guyed Tower

MODEL #: G42WPAR

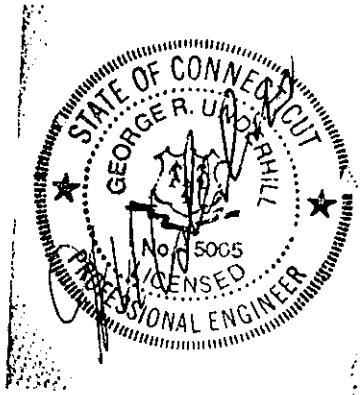
PROJECT #: 6111A

LOCATION: Ashford, CT

for

CDT
Box 363
17 Ridgewood Dr.
Marlborough, CT 06447

July, 2000



FRED A. NUDD CORPORATION
1743 ROUTE 104, BOX 577
ONTARIO, NY 14519
(315) 524 -2531 FAX (315) 524-4249
www.nuddtowers.com

July 31, 2000

Bob Francis
CDT
PO Box 363
17 Ridgewood Drive
Marlborough, CT 06447

Bob,

We have completed the analysis of your Ashford tower and have found it adequate within the scope of this analysis to support the proposed antenna loading. The analysis was performed using 85 mph wind speed with 1/2" radial ice per EIA/TIA 222-F recommended standard.

The tower we analyzed is a 180' Nudd G42 guyed tower consisting of pipe legs and angle bracing. Tower sections are all-welded with a face dimension of 3'-6". Foundation capacities were predicated on original design criteria.

The antenna loading used in the analysis consisted of the configuration shown on drawing #00-6111A-1. The results of the analysis showed with the addition of the 10' section and new guy cable, all tower & foundation elements were loaded within allowable limits.

If you have any questions concerning this analysis, please contact me.

Sincerely,

FRED A. NUDD CORPORATION

Patrick Botimer
Engineer

PRIMARY ASSUMPTIONS USED IN THE ANALYSIS

1. Allowable steel stresses are defined by AISC-ASD 9th Edition.
2. All tower members adequately galvanized to prevent corrosion of steel members.
3. All proposed antenna mounts are modeled as Nudd manufactured.
4. No residual stresses due to incorrect tower erection.
5. All bolts are appropriately tightened providing the necessary connection continuity.
6. All welds conform to the requirements of AWS D1.1.
7. We have assumed an allowable wind speed of 85 mph per EIA/TIA 222-F standard for analysis purposes.
8. The acceptability of the analyzed antenna loading is the responsibility of CDT to confirm with the other carriers.
9. Any deviation from the analyzed antenna loading will require a tower analysis for verification of structural integrity.
10. This analysis has been commissioned by Bob Francis of CDT who has provided information about the proposed antennas and location.

SYNOPSIS OF TOWER ANALYSIS

1. Wind loading conditions considered:
   75% wind load with concurrent 1/2" ice.
   100% wind with no ice.

Worst wind load case is wind with ice.

2. Maximum Leg Load: 66% loaded

3. Tower Bracing: 73% loaded

4. Foundations: 90% loaded

5. Guy Cables: 91% loaded

TOWER N CONDITIONS
This has been designed to conform to the requirments of ANS.. ..A/TIA 222-F recommended standard for 85 mph wind speed with 1/2" radial ice.
Worst case load condition is wind with ice with load reduction.
Allowable steel stresses per AISC ASD 9th Edition
Allowable concrete stresses per ACI 318-89.

MATERIAL SPECIFICATIONS
Tower Legs: ASTM A500-C, Fy > 58 ksi.
All other Steel: ASTM A36, Fy > 36 ksi
Hardware: ASTM A325 Hot Dipped Galvanized Bolts with Anco Nuts.
Galvanizing: ASTM A123
Guy Anchor Shaft: ASTM A36M, Fy > 48 ksi

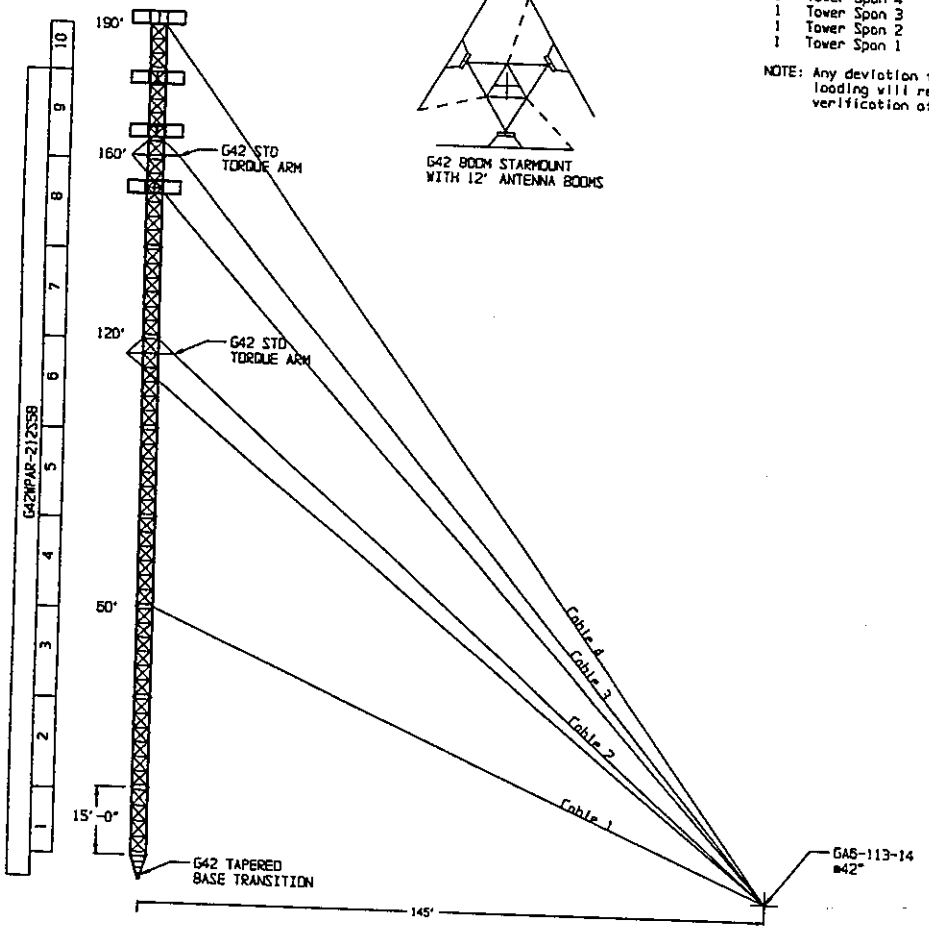
**RESULTS OF MAST ANALYSIS: PASS
**RESULTS OF FOUNDATION ANALYSIS: PASS

TOWER LOADING CONDITIONS

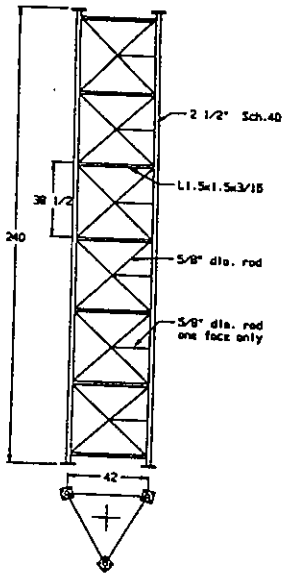
QTY	Antenna	Elevation	Windload	Deadload	
3	12' Cellular Boom	191	290	170	
12	ALP 9011	191	116	20	Verizon Wireless
3	8' Cellular Boom	178	226	130	
9	ALP 9011	178	114	20	Nextel
3	12' Cellular Boom	165	278	170	
9	ALP 9011	165	112	20	Sprint PCS
1	G42 Torque Arm	160	527	262	
3	12' Cellular Boom	155	273	170	
12	ALP 9011	155	110	20	
1	G42 Torque Arm	120	485	262	SNET - Future

QTY	Type	Elevation Start	Elevation Stop	#/ft Windload	#/ft Deadload
1	Tower Span 4	160	190	249.0	57.8
1	Tower Span 3	120	160	233.7	57.8
1	Tower Span 2	60	120	205.3	57.8
1	Tower Span 1	0	60	154.4	63.9

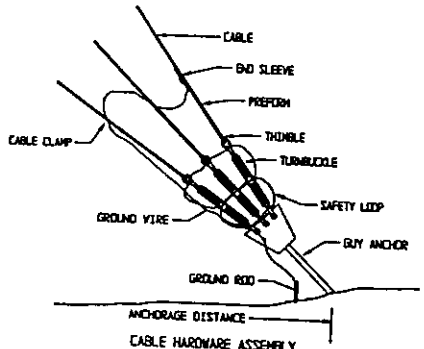
NOTE: Any deviation from the proposed design antenna loading will require a tower analysis for verification of structural integrity.



G42 BOOM STARMOUNT WITH 12' ANTENNA BOOMS



G42WPAR TOWER SECTION



CABLE HARDWARE ASSEMBLY
NOTE: Install cable hardware per manufacturer's specifications.

GUY CABLE SCHEDULE

CABLE:	QTY/Type	Length	Ti	Turnbuckle	Preform	Thmbl	Endslve	Shckl
Cable 4:	*1 @ 9/16x7 EHS	239'	5250#	7/8"x12" J-J	9/16" BG	5/8"	65267	3/4"
Cable 3:	2 @ 5/8x7 EHS	218'	6380#	1"x18" J-J	5/8" BG	3/4"	65268	3/4"
Cable 2:	2 @ 9/16x7 EHS	188'	5250#	7/8"x12" J-J	9/16" BG	5/8"	65267	3/4"
Cable 1:	1 @ 9/16x7 EHS	157'	5250#	7/8"x12" J-J	9/16" BG	5/8"	65267	3/4"

NOTE: Cable lengths assume anchors at elevation 0'.
Bulk cable lengths assume 20' tails.
Cable lengths and anchor layout must compensate for site topography.
*New Cable

FRED A. NUDD CORPORATION
Route 104-Ontario, New York 14519-315/524-2531
SCALE: N/S
DATE: 7/28/00
DRAWN BY: PCB
190' G42WPAR TOWER
CDT
ASHFORD, CT
DRAWING NUMBER: 00-6111A-1

7/28/00
3:15:07 PM
CDT
Ashford, NY
Project #: 6111A

GUY CABLE DATA ft, lbf

	Elev	Horiz	Length	Angle	Wind Length	Total Length	Cable Type
Cable 4:	190	145	240	52.79	419	719	EHS
Cable 3:	160	145	217	47.99	728	1300	EHS
Cable 2:	120	145	189	39.84	589	1133	EHS
Cable 1:	60	145	157	22.81	200	472	EHS

CABLE LOADS -lbf

	Shear	Download	Cable Load	Cable Size	%Loaded
Cable 4:	7478	11375	14281	1 - 9/16x7	81.6
Cable 3:	16061	20592	27713	2 - 5/8x7	65.4
Cable 2:	13176	12696	19816	2 - 9/16x7	56.6
Cable 1:	12801	6218	16036	1 - 9/16x7	91.6

Cable Safety Factor:2.00
Shear at 0': 3481 lbf
Shear on Guy Anchors: 493 lbf
ACCUMULATED DOWN LOADS

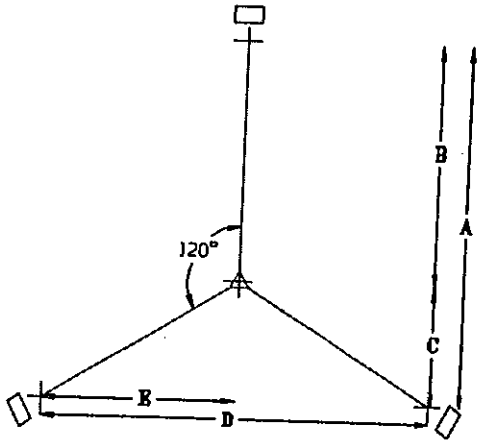
Elevation	Down load (lbf)
193	0
191	750
190	12607
175	14044
160	37512
140	39417
120	54292
90	56025
60	64293
30	66209
0	68125

GUY ANCHOR REACTIONS

Anchor Radius (ft):	145
Vertical Reaction (lbf):	50882
Horizontal Reaction (lbf):	57177
Resultant (lbf):	76538
Horizontal Angle (°):	41.66

TOWER PLOT DIMENSIONS

A=	218 ft
B=	145 ft
C=	73 ft
D=	251 ft
E=	126 ft



TOWER PLOT PLAN

7/28/00
3:15:17 PM
CDT
Ashford, NY
Project #: 6111A

MOMENT DISTRIBUTION OUTPUT

Beam Configuration:
5 Spans

SPAN	FEMB	FEMT	VB	VT	dfB	dfT
1	-46309	46308	4630	4630	1.0000	0.5000
2	-61877	61876	6187	6672	0.5000	0.4000
3	-32333	39335	4941	7068	0.6000	0.4286
4	-29966	27314	5948	5064	0.5714	1.0000
5	-2265	0	2264	0	0.0000	0.0000

10 Iterations

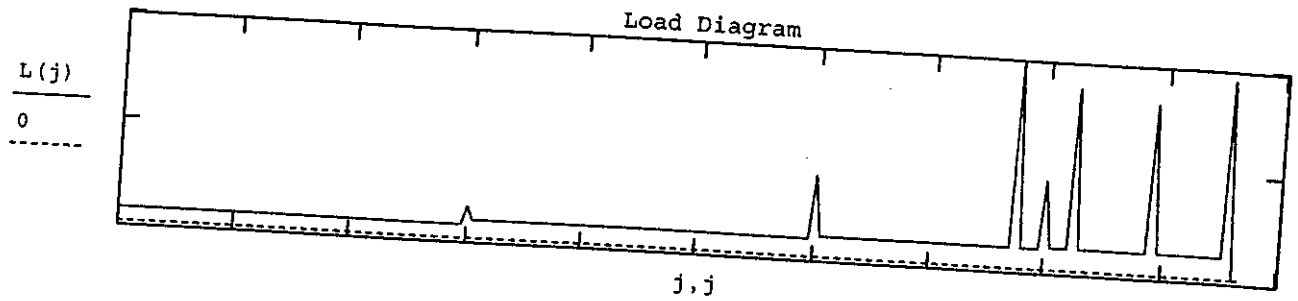
SPAN #	DISTRIBUTED MOMENTS (ft-lb) MOM B	MOM T	SHEARS (lb) VB	VT	REACTIONS (lb)
1	0	68993	3481	5781	3481
2	-68993	48584	6528	6333	12309
3	-48584	36045	5255	6755	11588
4	-36045	2265	7075	3938	13830
5	-2265	0	2265	0	6203
					0

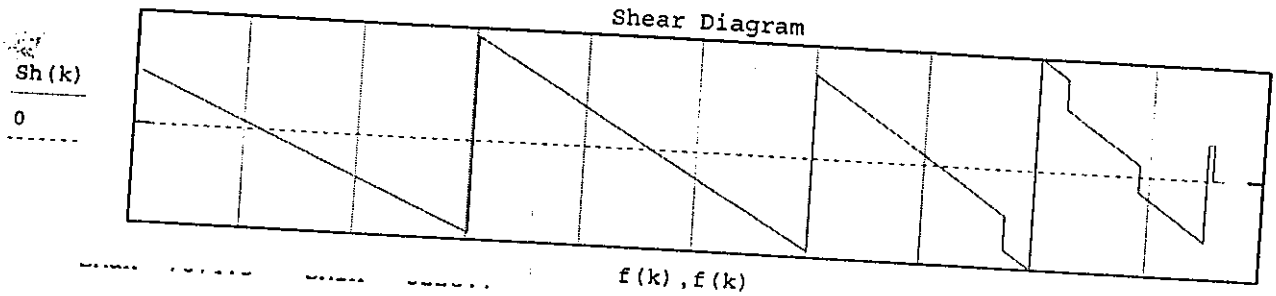
Project: CDT
Location: Ashford, CT
Date: 7/00

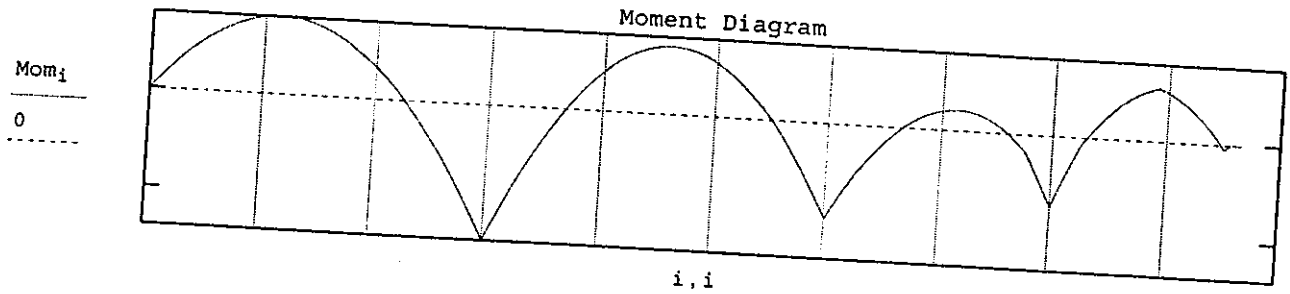
Maximum_Download = 68125.3

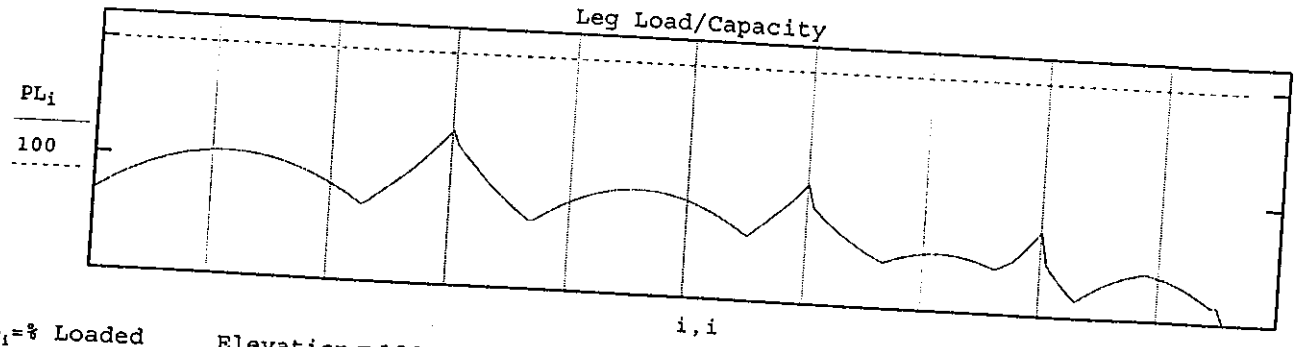
Maximum_Load = 2367.8

Top := 200 ft High









PL_i=% Loaded

Mom_i=Moment

Elevation ≡ 180

Moment = 24665.3

DownLoad = 13185.2

Leg_Load = 12532.5

$Percent\_Loaded_1$ = 18.7 %

max(PL) = 66.8

Check Girts at Guy Pulls:

Steel Properties:

$E := 29 \cdot 10^6 \cdot psi$

$Fy_{girt} := 36000 \cdot psi$

$Fy_{diag} := 36000 \cdot psi$

Tensile capacity of (1) L1.5x1.5x3/16:

$Area := \left[1.5^2 - (1.5 - .1875)^2 - .4375 \cdot .1875\right] \cdot in^2$

$Capacity := .6 \cdot Fy_{girt} \cdot \frac{4}{3} \cdot Area \cdot 1 \cdot bars$

$Capacity = 12825\,lbf$

Maximum Single cable shear is 12800 lb, resolved into each brace.

$$Percent\_Loaded_2 := \frac{\frac{12800 \cdot lbf}{2 \cdot girt \cdot \cos(30 \cdot deg)}}{Capacity}$$

$Percent\_Loaded_2 = 57.6\,\%$

Check compression capacity of girts against maximum shear:

$l := (42 - 2.875) \cdot in$ $\quad Area := \left[1.5^2 - (1.5 - .1875)^2\right] \cdot in^2$

$r := .293 \cdot in$ $\quad$ L1.5x1.5x.1875"

$K := .70$ $\quad$ All welded

$Area = 0.527\,in^2$

$$klr := \frac{K \cdot l}{r} \qquad Cc := \sqrt{\frac{2 \cdot \pi^2 \cdot E}{Fy_{girt}}}$$

$klr = 93.5$

$Cc = 126.1$

$$Fa(klr, Cc, Fy) := \frac{\left[1 - \frac{\left(\frac{klr}{Cc}\right)^2}{2}\right] \cdot Fy}{\frac{5}{3} + \frac{3}{8} \cdot \frac{klr}{Cc} - \left(\frac{klr}{2 \cdot Cc}\right)^3} \cdot (klr < Cc) + \frac{12 \cdot \pi^2 \cdot E}{23 \cdot klr^2} \cdot (klr \geq Cc)$$

$Fa1 := Fa(klr, Cc, Fy_{girt})$

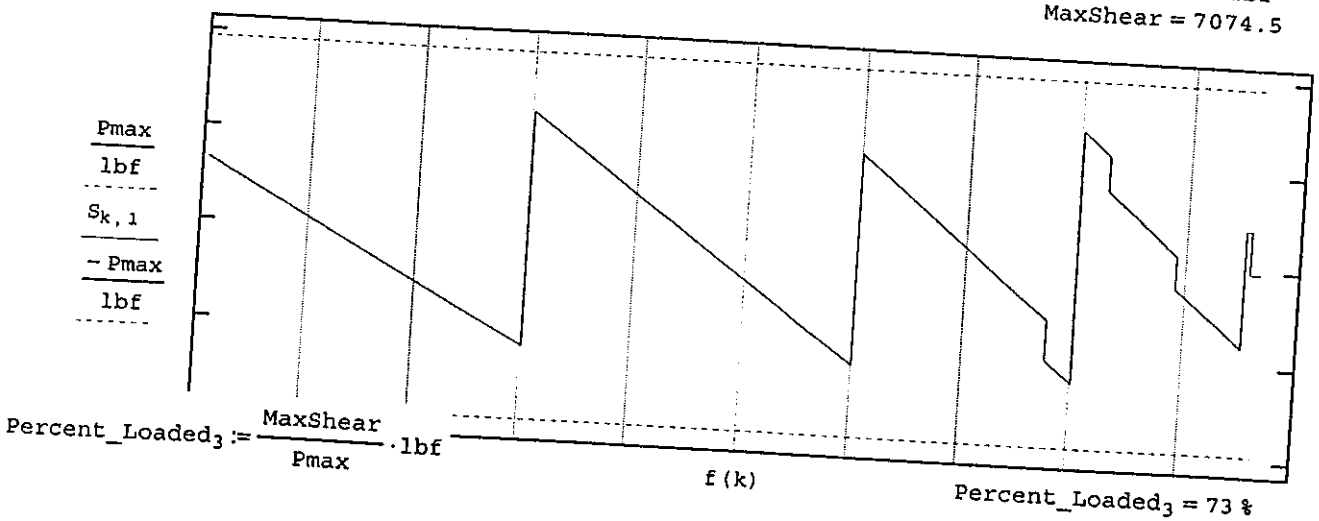
$Fa1 = 13787.4\,psi$

Maximum allowable compression load:

$$Pmax := Fa1 \cdot \frac{4}{3} \cdot Area$$

$Pmax = 9694.3\,lbf$

$MaxShear = 7074.5$



$$Percent\_Loaded_3 := \frac{MaxShear}{Pmax} \cdot lbf$$

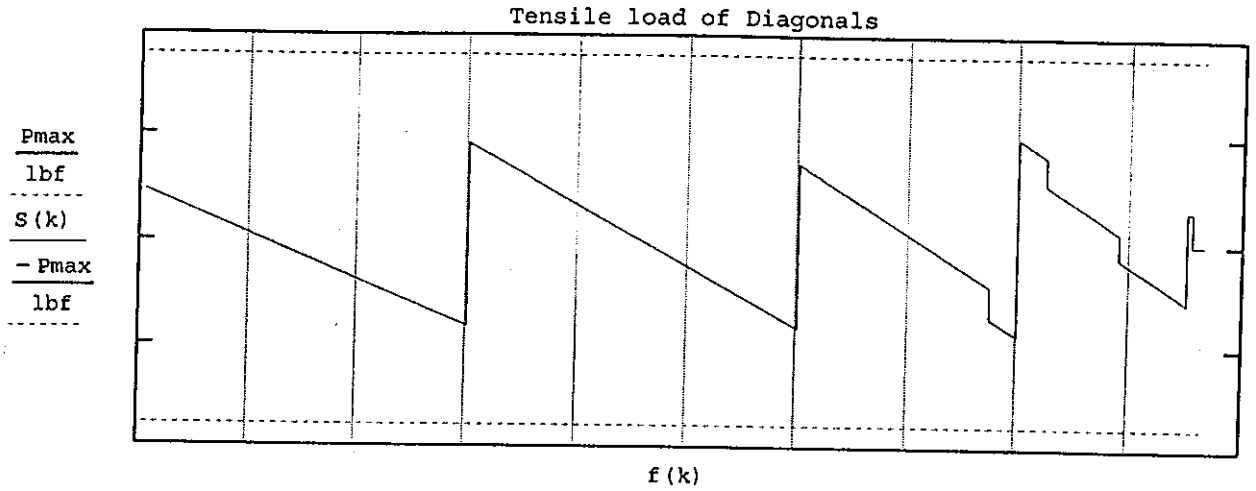
$Percent\_Loaded_3 = 73\,\%$

Check tension capacity of diagonals:

$$S(k) := \frac{Sh(k)}{2 \cdot braces \cdot \cos(45 \cdot deg)}$$

$$Pmax := \frac{\pi}{4} \cdot \left(\frac{5}{8} \cdot in\right)^2 \cdot .6 \cdot Fy_{diag} \cdot \frac{4}{3}$$

$$Pmax = 8835.7\,lbf$$



Bracing:
Use 5/8" diagonals throughout tower,
3/4" at guypull panels.
Use L1.5x1.5x.1875" Horizontals.
Legs: 2-1/2" pipe

All allowable stresses per
American Institute of Steel Construction 9th edition and
Electronics Industry Association 222-F recommended standard.

INNER GUY ANCHOR DESIGN CALCULATIONS

Customer: CDT
Project: Ashford, NY
7/28/00 3:39 PM

REACTIONS:

Vertical	50.9 kips
Horizontal	57.2 kips
Resultant	76.5 kips
Hor. Angle	41.7 °
Submerged?	0 No
Water Depth:	0 ft

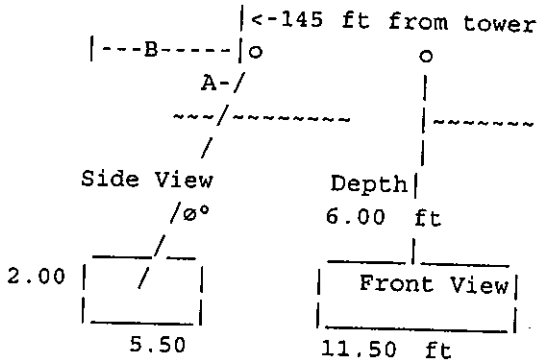
CONCRETE WEIGHT:

Block Volume	4.7 cu yds
Block Wt	19.0 kips

SOIL FRUSTUM WEIGHT:

Frustum:	30 °
Block:	38.0 kips
Edges:	35.3 kips
Corners:	9.6 kips
Total Wt:	82.9 kips
Excavatn:	506 cuft

Soil Wt:	100.0 lb/ft^3
Soil Gs:	2.65
Subm Soil Wt	62.3 lb/ft^3
H.Bearing	400.0 psf/ft
Rebar Fy:	60.0 ksi
Conc. Wt:	150.0 lb/ft^3
Conc f`c:	3.0 ksi



HORIZONTAL CAPACITY: EIA 7.1.2

Load @ 7 ft
Load: 64400 lb

Check anchor shaft embedment? OK

Design Loads:	Uplift	Horizontal	
Capacity:*	50.88	57.18	kips
% Loaded:	56.62	64.40	kips
	90%	89%	OK

* EIA 7.2.4

Concrete Volume: 14.1 cu yds

GUY ANCHOR ROD:

Resultant	76.54 kips
Hole QTY	6 holes
# of rods	1
Fy	48000 psi
Min. Area	1.993 in²/bar
Min. Dia.	1.593 in
Act. Area	2.405 in²/bar
Act. Dia.	1.75 in, 82.9% Loaded
Anchor ID:	GA6-115-12

ANCHOR ROD LENGTH:

Minimum:	13.28 ft
Maximum:	15.04 ft
Recommend:	14.00 ft
Actual:	12 ft

BLOCK REINFORCEMENT: Cover: 6 in

	Vertical	Horizontal		
Factored Loads:	66.1	74.3	kips	EIA 3.1.13
Factored Moment:	1267.8	1424.7	kip-inch	
Minimum As:	1.590	0.530	in²	ACI 10.5.1
Minimum Qty:	9	3	Bar #:	
Actual Qty:	9	4	4	
Actual As:	1.767	0.785	in²	OK

ANCHOR DIMENSIONS:

Length	11'- 6"
Width	5'- 6"
Height	2'- 0"
Depth	6'- 0"
OADepth	8'- 0"
Dim. A:	7'- 0"
Dim. B:	12'- 6"
ø:	41°

REBAR DIMENSIONS:

RBL:	121"	
RBH:	12"	
RBW:	56"	
Bent OAL:	68"	
QTY Long:	14	Bars ea
QTY Bent:	14	Bars ea
Rebar Wt.	164	lb ea

MASTER CHECK: OK

Anchor design per ACI 318-89, ANSI/EIA 222-F, AISC ASD 9th Edition

SQUARE FOOTING AND PIER DESIGN

Customer: CDT
Project: Ashford, NY
7/28/00 3:39 PM

Dead Load	20	kips
Wind Load	55	kips
Live Load	0	kips

ASSUMED DIMENSIONS:

Width	5.50	ft OK
Thickness	1.00	ft
Pier OD	2.00	ft
Sqr Pier	0	
Rnd Pier	1	
Depth	4.00	ft
Cover	3	inches
Bar #	4	0.5
Eff.Depth	8.500	inches

f'c:	3000	psi
Fy:	60000	psi
Soil:	4000	psf net bearing capacity
Pier Area:	452	inch²
Ht. above Grade:	3	inches

G42W10x49 Base Transition ID

CALCULATIONS:

Minimum Width:	4.330	ft	62% loaded
Ultimate Load:	43.0	kips	ACI 9.2.2
Ultimate Stress	1421	psf	(factored)

CHECK SHEAR

Two Way Action: Assumes ßc=1

Vu:	34799	lbs
Vc:	161619	lbs
	21.53%	

<= OK =>

One Way Action Load Area: 5.729 ft²

Vu:	8141	lbs
Vc:	52236	lbs
	15.59%	

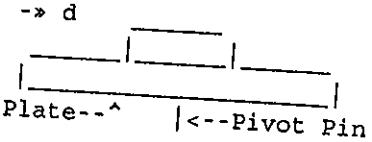
LOAD TRANSFER Pier Capacity/Pu ACI 15.8

@ Pad/Pier interface 5% OK - Dowels not required.

Pivot Pin Bearing Stress: ACI 10.15.1

Minimum Area	12	inch²
Minimum plate OD	3.92	inchø, 3.47" ea. side square
Distance "d" to edge	0.5	inch
Minimum Plate Thickness:	0.2230	inch

-» d



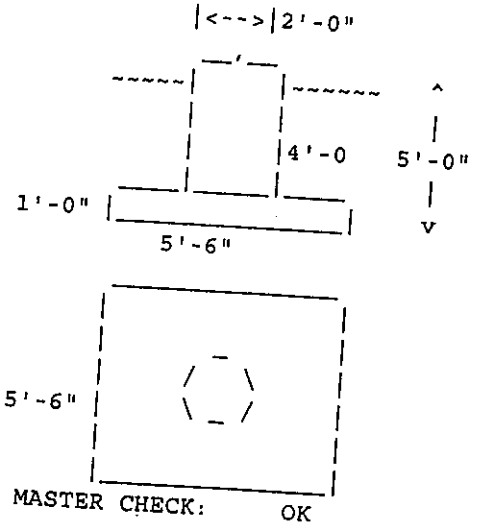
MINIMUM PIER REINFORCING ACI 15.8.2.1, 7.10.5

.5% Req.		2.262	inch²
8 Bars of #	5	2.454	inch² Steel Area:
Bar Lngth:	54 inch		OK
Pier Tie bar #:	3		

10 " tie bar spacing

PAD BENDING MOMENT REINFORCEMENT

Mn:	13297	ft-lbs
Ratio:	0.000561	ACI 10.5.1
Steel:	0.315	inch²
Bar #:	5	
Req'd QTY:	2	
Act'l QTY:	5	OK
Act. Stl:	1.534	inch²
Act. d:	8.500	inches
Ldb:	11.25	inches OK



at Bars:
0 @ 13.50" spacing
84 lb

Concrete:
1.6 cuyd
6422.5 lb

oncrete Per ACI 318-89, ANSI/EIA 222-F, AISC ASD 9th Edition

TOWER LOADS

Point Loads

QTY	Antenna	Elevation (ft)	Windload (lb)	Deadload (lb)	
3	12' Cellular Boom	191	290	170	
12	ALP 9011	191	116	20	Verizon Wirelss
3	8' Cellular Boom	178	226	130	
9	ALP 9011	178	114	20	Nextel
3	12' Cellular Boom	165	278	170	
9	ALP 9011	165	112	20	Sprint PCS
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3	12' Cellular Boom	155	273	170	
12	ALP 9011	155	110	20	SNET - Future
1	G42 Torque Arm	120	485	262	

Uniform Loads

QTY	Type	Elevation Start	Elevation Stop	#/ft Windload	#/ft Deadload
1	Tower Span 4	160	190	249.0	57.8
1	Tower Span 3	120	160	233.7	57.8
1	Tower Span 2	60	120	206.3	57.8
1	Tower Span 1	0	60	154.4	63.9

*TRIANGULAR TOWER SECTION DATA

Guyed Tower
Wind Angle 0,60,90 90 °
Elevation of Foundation: 1 ft
Wind Speed 85 mph
Gh 1.12 EIA 2.3.4
Wind Pres. 20.6 psf EIA 2.3.3
Radial Ice 0.5 inch
EIA 2.3.15 Wind/Ice Reductn? Yes
ANSI/EIA Overstress Factor: Yes

	OD,L1	ID,L2	wall
LEGS			
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap: 0 in
Galvanizing? Yes
WaveGuide hole reduction? Yes

ITEM	DL	WL
Ladder:	100	10
Misc.	159	0
Total lbf:	259	10

Client: CDT
Project: Ashford, NY
7/28/00 3:46 PM
Span: 1
Elev@Top 40 feet
Elev@Base 20 feet
Tower Ht. 193 feet
Top Face 42.00 inches 3.50
Bot Face 42.00 inches 3.50
Taper/Se 0.00 in.
Ave Face 42.00 inches
Length 240 inches
FL.to BR 6 inches
Panel 6 panels
Panel 38.00 inches
Br/Panel 2 |x|
Br Lngth 54.54 inches
Horiz 7 7
Density 0.283 lb/in^3
Bracing Type: 1 |x|

SECTION GEOMETRY »
Section Ixx,Iyy » 1508 in^4
Face Vert. Angle 0.000 °
Leg Angle in face 0.000 °
Leg/Axis Angle 0.000 °
Brace Angle 42.138 °

SECTION 1 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
Total Weigh			682	336 lbs

Ag: 76 ft²
Af: 3 ft² Df: 0.850
Ar: 22 ft² Rr: 0.625
SR(e): 0.328 ft² Dr: 1.000
Cf: 2.225

Area: 16.30 ft²
Shear: 571 28.6 lbf,lbf/f
CnMoment: 5713 ft-lbf
Deadload: 1277 63.9 lbf,lbf/ft
Solid Area Windloads:
Shear: 3087 154.4 lbf,lbf/ft

	feet²
Ae 0°	16.73
Ae 45°	20.07
Ae 60°	16.16
Ae 90°	16.30

Span Length 60 ft
Span Capacity 66121 lbf/leg

Legs:
K 1.00
KL/r 40.1 OK
Fy 58000 psi
EIA 3.1.1, Cc 99.3
AISC E2 Fa 39247 psi
Max.Compresn.Force 66879 lbs

Diagonals :
K 1.00
KL/r 153.0 OK
Fy 36000 psi
Cc 126.1
EIA 3.1.1 Fa 8502 psi
Max.Compresn.Force 2608 lbs
Max.Tension.Force* 8836 lbs
*Verify Net Section on member.

Horizontals:
K 1
KL/r 133.4 OK
Cc 126.1
EIA 3.1.1 Fa 11193 psi
Max.Compresn.Force 5903 lbs

TRIANGULAR TOWER SECTION DATA

Guyed Tower
Wind Angle 0,60,90 90 °
Elevation of Foundation: 1 ft
Wind Speed 85 mph
Gh 1.12 EIA 2.3.4
Wind Pres. 27.6 psf EIA 2.3.3
Radial Ice 0.5 inch
EIA 2.3.15 Wind/Ice Reductn? Yes
ANSI/EIA Overstress Factor: Yes

LEGS	OD,L1	ID,L2	wall
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap: 0 in
Galvanizing? Yes
WaveGuide hole reduction? Yes

ITEM	DL	WL
Ladder:	100	10
Misc.	38	0
Total lbf:	138	10

Client: CDT
Project: Ashford, NY
7/28/00 3:47 PM
Span: 2
Elev@Top 100 feet
Elev@Base 80 feet
Tower Ht. 193 feet
Top Face 42.00 inches 3.50
Bot Face 42.00 inches 3.50
Taper/Se 0.00 in.
Ave Face 42.00 inches
Length 240 inches
FL.to BR 6 inches
Panel 6 panels
Panel 38.00 inches
Br/Panel 2 |x|
Br Lngth 54.54 inches
Horiz 7 7
Density 0.283 lb/in^3
Bracing Type: 1 |x|

SECTION GEOMETRY »
Section Ixx,Iyy » 1508 in^4
Face Vert. Angle 0.000 °
Leg Angle in face 0.000 °
Leg/Axis Angle 0.000 °
Brace Angle 42.138 °

SECTION 2 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
			---	---
Total Weigh			682	336 lbs

Ag: 76 ft²
Af: 3 ft² Df: 0.850
Ar: 22 ft² Rr: 0.625
SR(e): 0.328 ft² Dr: 1.000
Cf: 2.225

Area: 16.30 ft²
Shear: 760 38.0 lbf,lbf/f
CnMoment: 7600 ft-lbf
Deadload: 1156 57.8 lbf,lbf/ft
Solid Area Windloads:
Shear: 4125 206.3 lbf,lbf/ft

	feet²
Ae 0°	16.73
Ae 45°	20.07
Ae 60°	16.16
Ae 90°	16.30

Span Length 60 ft
Span Capacity 66121 lbf/leg

Legs:
Max.Compresn.Force 66879 lbs
K 1.00
KL/r 40.1 OK
Fy 58000 psi
EIA 3.1.1, Cc 99.3
AISC E2 Fa 39247 psi

Diagonals :
K 1.00
KL/r 142.2 OK
Fy 36000 psi
Cc 126.1
EIA 3.1.1 Fa 9848 psi
Max.Compresn.Force 3021 lbs
Max.Tension.Force* 8836 lbs
*Verify Net Section on member.

Horizontals:
K 1
KL/r 133.4 OK
Cc 126.1
EIA 3.1.1 Fa 11193 psi
Max.Compresn.Force 5903 lbs

TRIANGULAR TOWER SECTION DATA

Guyed Tower
Wind Angle 0,60,90 90 °
Elevation of Foundation: 1 ft
Wind Speed 85 mph
Gh 1.12 EIA 2.3.4
Wind Pres. 31.3 psf EIA 2.3.3
Radial Ice 0.5 inch
EIA 2.3.15 Wind/Ice Reductn? Yes
ANSI/EIA Overstress Factor: Yes

LEGS	OD,L1	ID,L2	wall
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap: 0 in
Galvanizing? Yes
WaveGuide hole reduction? Yes

ITEM	DL	WL
Ladder:	100	10
Misc.	38	0
Total lbf:	138	10

Client: CDT
Project: Ashford, NY
7/28/00 3:47 PM
Span: 3
Elev@Top 150 feet
Elev@Base 130 feet
Tower Ht. 193 feet
Top Face 42.00 inches 3.50
Bot Face 42.00 inches 3.50
Taper/Se 0.00 in.
Ave Face 42.00 inches
Length 240 inches
FL.to BR 6 inches
Panel 6 panels
Panel 38.00 inches
Br/Panel 2 |x|
Br Lngth 54.54 inches
Horiz 7 7
Density 0.283 lb/in^3
Bracing Type: 1 |x|

SECTION GEOMETRY »
Section Ixx,Iyy » 1508 in^4
Face Vert. Angle 0.000 °
Leg Angle in face 0.000 °
Leg/Axis Angle 0.000 °
Brace Angle 42.138 °

SECTION 3 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
			---	---
		Total Weigh	682	336 lbs

Ag: 76 ft²
Af: 3 ft² Df: 0.850
Ar: 22 ft² Rr: 0.625
SR(e): 0.328 ft² Dr: 1.000
Cf: 2.225

Area: 16.30 ft²
Shear: 860 43.0 lbf,lbf/f
CnMoment: 8599 ft-lbf
Deadload: 1156 57.8 lbf,lbf/ft
Solid Area Windloads:
Shear: 4675 233.7 lbf,lbf/ft

	feet²
Ae 0°	16.73
Ae 45°	20.07
Ae 60°	16.16
Ae 90°	16.30

Span Length 40 ft
Span Capacity 71530 lbf/leg

Legs: EIA 3.1.1, AISC E2
K 1.00
KL/r 40.1 OK
Fy 58000 psi
Cc 99.3
Fa 39247 psi
Max.Compresn.Force 66879 lbs

Diagonals :
K 1.00
KL/r 142.2 OK
Fy 36000 psi
Cc 126.1
EIA 3.1.1 Fa 9848 psi
Max.Compresn.Force 3021 lbs
Max.Tension.Force* 8836 lbs
*Verify Net Section on member.

Horizontals: EIA 3.1.1
K 1
KL/r 133.4 OK
Cc 126.1
Fa 11193 psi
Max.Compresn.Force 5903 lbs

TRIANGULAR TOWER SECTION DATA

Guyed Tower
Wind Angle 0,60,90 90 °
Elevation of Foundation: 1 ft
Wind Speed 85 mph
Gh 1.12 EIA 2.3.4
Wind Pres. 33.3 psf EIA 2.3.3
Radial Ice 0.5 inch
EIA 2.3.15 Wind/Ice Reductn? Yes
ANSI/EIA Overstress Factor: Yes

LEGS	OD,L1	ID,L2	wall
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap: 0 in
Galvanizing? Yes
WaveGuide hole reduction? Yes

ITEM	DL	WL
Ladder:	100	10
Misc.	38	0
Total lbf:	138	10

Client: CDT
Project: Ashford, NY
7/28/00 3:47 PM
Span: 4
Elev@Top 185 feet
Elev@Base 165 feet
Tower Ht. 193 feet
Top Face 42.00 inches 3.50
Bot Face 42.00 inches 3.50
Taper/Se 0.00 in.
Ave Face 42.00 inches
Length 240 inches
FL.to BR 6 inches
Panel 6 panels
Panel 38.00 inches
Br/Panel 2 |x|
Br Lngth 54.54 inches
Horiz 7 7
Density 0.283 lb/in^3
Bracing Type: 1 |x|

SECTION GEOMETRY »
Section Ixx,Iyy » 1508 in^4
Face Vert. Angle 0.000 °
Leg Angle in face 0.000 °
Leg/Axis Angle 0.000 °
Brace Angle 42.138 °

SECTION 4 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
			---	---
		Total Weigh	682	336 lbs

Ag: 76 ft²
Af: 3 ft² Df: 0.850
Ar: 22 ft² Rr: 0.625
SR(e): 0.328 ft² Dr: 1.000
Cf: 2.225

Area: 16.30 ft²
Shear: 916 45.8 lbf,lbf/f
CnMoment: 9155 ft-lbf
Deadload: 1156 57.8 lbf,lbf/ft
Solid Area Windloads:
Shear: 4981 249.0 lbf,lbf/ft

	feet²
Ae 0°	16.73
Ae 45°	20.07
Ae 60°	16.16
Ae 90°	16.30

Span Length 30 ft
Span Capacity 73853 lbf/leg

Legs: EIA 3.1.1, AISC E2
K 1.00
KL/r 40.1 OK
Fy 58000 psi
Cc 99.3
Fa 39247 psi
Max.Compresn.Force 66879 lbs

Diagonals :
K 1.00
KL/r 142.2 OK
Fy 36000 psi
Cc 126.1
EIA 3.1.1 Fa 9848 psi
Max.Compresn.Force 3021 lbs
Max.Tension.Force* 8836 lbs
*Verify Net Section on member.

Horizontals:
K 1
KL/r 133.4 OK
Cc 126.1
EIA 3.1.1 Fa 11193 psi
Max.Compresn.Force 5903 lbs

TRIANGULAR TOWER SECTION DATA

Guyed Tower
Wind Angle 0,60,90 90 °
Elevation of Foundation: 1 ft
Wind Speed 85 mph
Gh 1.12 EIA 2.3.4
Wind Pres. 34.2 psf EIA 2.3.3
Radial Ice 0.5 inch
EIA 2.3.15 Wind/Ice Reductn? Yes
ANSI/EIA Overstress Factor: Yes

	OD,L1	ID,L2	wall
LEGS			
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap: 0 in
Galvanizing? Yes
WaveGuide hole reduction? Yes

ITEM	DL	WL
Ladder:	100	10
Misc.	38	0
Total lbf:	138	10

Client: CDT
Project: Ashford, NY
7/28/00 3:47 PM
Span: 5
Elev@Top 201 feet
Elev@Base 181.5 feet
Tower Ht. 193 feet
Top Face 42.00 inches 3.50
Bot Face 42.00 inches 3.50
Taper/Se 0.00 in.
Ave Face 42.00 inches
Length 240 inches
FL.to BR 6 inches
Panel 6 panels
Panel 38.00 inches
Br/Panel 2 |x|
Br Lngth 54.54 inches
Horiz 7 7
Density 0.283 lb/in^3
Bracing Type: 1 |x|

SECTION GEOMETRY »
Section Ixx,Iyy » 1508 in^4
Face Vert. Angle 0.000 °
Leg Angle in face 0.000 °
Leg/Axis Angle 0.000 °
Brace Angle 42.138 °

SECTION 5 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
Total Weigh			682	336 lbs

Ag: 76 ft²
Af: 3 ft² Df: 0.850
Ar: 22 ft² Rr: 0.625
SR(e): 0.328 ft² Dr: 1.000
Cf: 2.225

Area: 16.30 ft²
Shear: 939 46.9 lbf,lbf/f
CnMoment: 9390 ft-lbf
Deadload: 1156 57.8 lbf,lbf/ft
Solid Area Windloads:
Shear: 5110 255.5 lbf,lbf/ft

	feet²
Ae 0°	16.73
Ae 45°	20.07
Ae 60°	16.16
Ae 90°	16.30

Span Length 6 ft
Span Capacity 78255 lbf/leg

Legs: EIA 3.1.1, AISC E2
K 1.00
KL/r 40.1 OK
Fy 58000 psi
Cc 99.3
Fa 39247 psi
Max.Compresn.Force 66879 lbs

Diagonals :
K 1.00
KL/r 142.2 OK
Fy 36000 psi
Cc 126.1
EIA 3.1.1 Fa 9848 psi
Max.Compresn.Force 3021 lbs
Max.Tension.Force* 8836 lbs
*Verify Net Section on member.

Horizontals:
K 1
KL/r 133.4 OK
Cc 126.1
EIA 3.1.1 Fa 11193 psi
Max.Compresn.Force 5903 lbs

Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
0	0	68125	22708	66121	66121	34.3
1	3404	68061	23810	66121	66121	36.0
2	6653	67998	24861	66121	66121	37.6
3	9748	67934	25861	66121	66121	39.1
4	12689	67870	26810	66121	66121	40.5
5	15475	67806	27708	66121	66121	41.9
6	18107	67742	28555	66121	66121	43.2
7	20585	67678	29351	66121	66121	44.4
8	22908	67614	30096	66121	66121	45.5
9	25077	67551	30790	66121	66121	46.6
10	27092	67487	31433	66121	66121	47.5
11	28952	67423	32026	66121	66121	48.4
12	30658	67359	32567	66121	66121	49.3
13	32209	67295	33058	66121	66121	50.0
14	33606	67231	33498	66121	66121	50.7
15	34849	67167	33886	66121	66121	51.2
16	35937	67103	34224	66121	66121	51.8
17	36871	67040	34511	66121	66121	52.2
18	37651	66976	34747	66121	66121	52.6
19	38276	66912	34932	66121	66121	52.8
20	38747	66848	35066	66121	66121	53.0
21	39064	66784	35149	66121	66121	53.2
22	39226	66720	35181	66121	66121	53.2
23	39234	66656	35163	66121	66121	53.2
24	39087	66593	35093	66121	66121	53.1
25	38786	66529	34972	66121	66121	52.9
26	38331	66465	34801	66121	66121	52.6
27	37721	66401	34578	66121	66121	52.3
28	36957	66337	34305	66121	66121	51.9
29	36039	66273	33981	66121	66121	51.4
30	34966	66209	33606	66121	66121	50.8
31	33739	66145	33180	66121	66121	50.2
32	32358	66082	32703	66121	66121	49.5
33	30822	66018	32175	66121	66121	48.7
34	29132	65954	31596	66121	66121	47.8
35	27287	65890	30966	66121	66121	46.8
36	25288	65826	30285	66121	66121	45.8
37	23135	65762	29553	66121	66121	44.7
38	20828	65698	28771	66121	66121	43.5
39	18366	65635	27937	66121	66121	42.3
40	15749	65571	27053	66121	66121	40.9
41	12979	65507	26117	66121	66121	39.5
42	10054	65443	25131	66121	66121	38.0
43	6974	65379	24094	66121	66121	36.4
44	3740	65315	23006	66121	66121	34.8
45	352	65251	21867	66121	66121	33.1
46	-3190	65187	22782	66121	66121	34.5
47	-6887	65124	23980	66121	66121	36.3
48	-10738	65060	25229	66121	66121	38.2
49	-14744	64996	26530	66121	66121	40.1

Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
50	-18904	64932	27881	66121	66121	42.2
51	-23218	64868	29283	66121	66121	44.3
52	-27687	64804	30736	66121	66121	46.5
53	-32310	64740	32240	66121	66121	48.8
54	-37087	64677	33794	66121	66121	51.1
55	-42019	64613	35400	66121	66121	53.5
56	-47105	64549	37057	66121	66121	56.0
57	-52346	64485	38765	66121	66121	58.6
58	-57740	64421	40523	66121	66121	61.3
59	-63290	64357	42333	66121	66121	64.0
60	-68993	64293	44193	66121	66121	66.8
61	-62569	57701	39876	66121	66121	60.3
62	-56350	57643	37805	66121	66121	57.2
63	-50338	57585	35802	66121	66121	54.1
64	-44532	57527	33868	66121	66121	51.2
65	-38932	57469	32001	66121	66121	48.4
66	-33539	57412	30202	66121	66121	45.7
67	-28352	57354	28472	66121	66121	43.1
68	-23371	57296	26809	66121	66121	40.5
69	-18596	57238	25215	66121	66121	38.1
70	-14028	57181	23688	66121	66121	35.8
71	-9666	57123	22230	66121	66121	33.6
72	-5510	57065	20839	66121	66121	31.5
73	-1560	57007	19517	66121	66121	29.5
74	2183	56949	19703	66121	66121	29.8
75	5720	56892	20851	66121	66121	31.5
76	9051	56834	21931	66121	66121	33.2
77	12176	56776	22942	66121	66121	34.7
78	15094	56718	23886	66121	66121	36.1
79	17806	56661	24761	66121	66121	37.4
80	20312	56603	25569	66121	66121	38.7
81	22612	56545	26308	66121	66121	39.8
82	24705	56487	26980	66121	66121	40.8
83	26592	56429	27583	66121	66121	41.7
84	28273	56372	28118	66121	66121	42.5
85	29748	56314	28585	66121	66121	43.2
86	31016	56256	28985	66121	66121	43.8
87	32078	56198	29316	66121	66121	44.3
88	32934	56141	29579	66121	66121	44.7
89	33583	56083	29774	66121	66121	45.0
90	34026	56025	29901	66121	66121	45.2
91	34264	55967	29960	66121	66121	45.3
92	34294	55909	29951	66121	66121	45.3
93	34119	55852	29874	66121	66121	45.2
94	33737	55794	29728	66121	66121	45.0
95	33149	55736	29515	66121	66121	44.6
96	32355	55678	29234	66121	66121	44.2
97	31354	55621	28884	66121	66121	43.7
98	30148	55563	28467	66121	66121	43.1
99	28735	55505	27982	66121	66121	42.3

Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
100	27115	55447	27428	66121	66121	41.5
101	25290	55389	26807	66121	66121	40.5
102	23258	55332	26117	66121	66121	39.5
103	21020	55274	25359	66121	66121	38.4
104	18576	55216	24534	66121	66121	37.1
105	15925	55158	23640	66121	66121	35.8
106	13068	55101	22678	66121	66121	34.3
107	10005	55043	21649	66121	66121	32.7
108	6736	54985	20551	66121	66121	31.1
109	3260	54927	19385	66121	66121	29.3
110	-421	54869	18429	66121	66121	27.9
111	-4309	54812	19692	66121	66121	29.8
112	-8404	54754	21024	66121	66121	31.8
113	-12704	54696	22423	66121	66121	33.9
114	-17211	54638	23891	66121	66121	36.1
115	-21924	54581	25427	66121	66121	38.5
116	-26844	54523	27030	66121	66121	40.9
117	-31969	54465	28702	66121	66121	43.4
118	-37301	54407	30442	66121	66121	46.0
119	-42839	54349	32250	66121	66121	48.8
120	-48584	54292	34126	66121	66121	51.6
121	-43445	40515	27838	66879	66879	41.6
122	-38541	40457	26201	66879	66879	39.2
123	-33870	40400	24641	66879	66879	36.8
124	-29433	40342	23158	66879	66879	34.6
125	-25230	40284	21752	66879	66879	32.5
126	-21260	40226	20423	66879	66879	30.5
127	-17525	40169	19171	66879	66879	28.7
128	-14023	40111	17997	66879	66879	26.9
129	-10754	40053	16899	66879	66879	25.3
130	-7720	39995	15879	66879	66879	23.7
131	-4919	39937	14935	66879	66879	22.3
132	-2352	39880	14069	66879	66879	21.0
133	-19	39822	13280	66879	66879	19.9
134	2081	39764	13941	66879	66879	20.8
135	3947	39706	14538	66879	66879	21.7
136	5579	39649	15057	66879	66879	22.5
137	6977	39591	15499	66879	66879	23.2
138	8142	39533	15864	66879	66879	23.7
139	9073	39475	16152	66879	66879	24.2
140	9770	39417	16362	66879	66879	24.5
141	10233	39360	16496	66879	66879	24.7
142	10463	39302	16552	66879	66879	24.7
143	10459	39244	16532	66879	66879	24.7
144	10221	39186	16434	66879	66879	24.6
145	9749	39129	16259	66879	66879	24.3
146	9044	39071	16007	66879	66879	23.9
147	8105	39013	15678	66879	66879	23.4
148	6932	38955	15272	66879	66879	22.8
149	5525	38897	14789	66879	66879	22.1

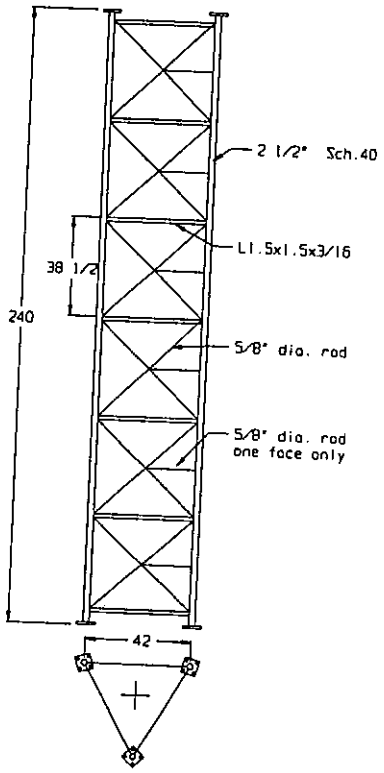
Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
150	3885	38840	14228	66879	66879	21.3
151	2011	38782	13591	66879	66879	20.3
152	-97	38724	12940	66879	66879	19.3
153	-2439	38666	13693	66879	66879	20.5
154	-5014	38609	14524	66879	66879	21.7
155	-7823	38551	15431	66879	66879	23.1
156	-13000	37743	16870	66879	66879	25.2
157	-18411	37685	18636	66879	66879	27.9
158	-24055	37627	20479	66879	66879	30.6
159	-29933	37570	22399	66879	66879	33.5
160	-36045	37512	24396	66879	66879	36.5
161	-29095	15543	14780	66879	66879	22.1
162	-22394	15485	12550	66879	66879	18.8
163	-15942	15427	10402	66879	66879	15.6
164	-9739	15370	8336	66879	66879	12.5
165	-3786	15312	6353	66879	66879	9.5
166	82	14564	4882	66879	66879	7.3
167	3700	14506	6056	66879	66879	9.1
168	7069	14449	7148	66879	66879	10.7
169	10189	14391	8158	66879	66879	12.2
170	13060	14333	9086	66879	66879	13.6
171	15682	14275	9932	66879	66879	14.9
172	18055	14217	10696	66879	66879	16.0
173	20179	14160	11377	66879	66879	17.0
174	22054	14102	11976	66879	66879	17.9
175	23680	14044	12494	66879	66879	18.7
176	25056	13986	12929	66879	66879	19.3
177	26184	13929	13281	66879	66879	19.9
178	27063	13871	13552	66879	66879	20.3
179	25989	13243	12988	66879	66879	19.4
180	24665	13185	12533	66879	66879	18.7
181	23093	13127	11995	66879	66879	17.9
182	21272	13070	11374	66879	66879	17.0
183	19201	13012	10672	66879	66879	16.0
184	16882	12954	9888	66879	66879	14.8
185	14313	12896	9021	66879	66879	13.5
186	11496	12839	8072	66879	66879	12.1
187	8429	12781	7041	66879	66879	10.5
188	5114	12723	5928	66879	66879	8.9
189	1549	12665	4733	66879	66879	7.1
190	-2265	12607	4950	66879	66879	7.4
191	0	750	250	66879	66879	0.4
192	0	0	0	66879	66879	0.0
193	0	0	0	66879	66879	0.0

CONDITIONS

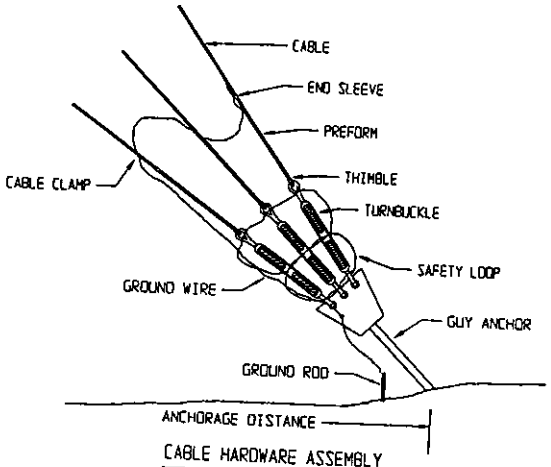
	Elevation	Windload	Deadload	
lar Boom	191	290	170	
	191	116	20	Verizon Wirelss
ar Boom	178	226	130	
	178	114	20	Nextel
lar Boom	165	278	170	
	165	112	20	Sprint PCS
e Arm	160	527	262	
lar Boom	155	273	170	
	155	110	20	SNET - Future
e Arm	120	485	262	

	Elevation		#/ft	
	Start	Stop	Windload	Deadload
n 4	160	190	249.0	57.8
n 3	120	160	233.7	57.8
n 2	60	120	206.3	57.8
n 1	0	60	154.4	63.9

ation from the proposed design antenna
will require a tower analysis for
tion of structural integrity.



G42WPAR TOWER SECTION



CABLE HARDWARE ASSEMBLY

NOTE: Install cable hardware per manufacturer's specifications.

3-14

STATE OF CONNECTICUT
GEORGE R. JAMES HILL
No. 15005
LICENSED
PROFESSIONAL ENGINEER

FRED A. NUDD CORPORATION
Route 104*Ontario, New York 14519*315/524-2531

SCALE: N/S	DRAWN BY: PCB	THIS DRAWING IS THE PROPERTY OF THE FRED A. NUDD CORPORATION AND IS NOT TO BE REPRODUCED IN WHOLE OR IN PART BY ANY MEANS WITHOUT PRIOR WRITTEN PERMISSION BY THE FRED A. NUDD CORPORATION.
DATE: 7/28/00		

190' G42WPAR TOWER

CDT
ASHFORD, CT

DRAWING NUMBER: 00-6111A-1

Network Dept.

verizon wireless

Verizon Wireless
20 Alexander Drive
Wallingford, Connecticut 06492

January 15, 2001

Mr. Joel Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: Additional Information for tower sharing application for 20 Seles Road, Ashford, Ct.

Dear Mr. Rinebold:

As per our recent discussion on the above noted application, I am enclosing a letter to Mr. Gelston with supporting documentation from the tower owner, Robert Francis, of Cordless Data Transfer. I am requesting that you review the enclosed explanation and information prior to submitting it to the Chairman. If there are any questions, or if you need additional information, please contact me at (203) 294-8519. I trust that the information is sufficient and that the tower share application can be removed from the table and approved by the Council.

Thank you for your time and attention to this matter.

RECEIVED
JAN 16 2001
CONNECTICUT
SITING COUNCIL

Very truly yours,

Sandy M. Carter

Sandy M. Carter
Regulatory Manager
Verizon Wireless

Enclousre

Network Dept.

verizon wireless

Verizon Wireless
20 Alexander Drive
Wallingford, Connecticut 06492

January 15, 2001

RECEIVED
JAN 16 2001
CONNECTICUT
SITING COUNCIL

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

HAND DELIVERED

Re: Additional Information on Request by Cellco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of a Tower Facility located at 20 Seles Road, Ashford, Connecticut.

Dear Chairman Gelston:

Please be advised that on December 14, 2000, the Connecticut Siting Council tabled the above noted project TS-VER-003-001117 for additional information. After speaking with Joel Rinebold, I contacted the tower owner, Robert Francis, of Cordless Data Transfer and was given the enclosed information on this tower.

As per the tower-sharing document previously submitted, Verizon Wireless is seeking approval to co-locate on the existing tower with a rad center at approximately 192'. We will be the fourth carrier. Nextel Communications, Sprint PCS and Springwich Cellular Limited Partnership are currently located on the tower.

According to the enclosed documents, the Town of Ashford's Building Official issued a building permit to Cordless Data Transfer on June 28, 1998 for a tower and equipment building. A Certificate of Use and Occupancy was given to Cordless Data Transfer on February 16, 2000.

The tower owner had filed a FAA for the tower in June 1998 with an above ground height level of 195' and is shown on the enclosed document. In the tower design and analysis, the height of the tower is 180', but the design also included 15' whip antennas to be installed at the 180' level, bringing the overall height to 195'. Cordless Data Transfer built the tower to 180' two years ago and assumed that paging companies would come forward and utilize the 180' space for their whip antennas. As per the enclosed letter dated August 17, 2000 addressed to Mr. Stephen Lowrey, Zoning Officer in Ashford, this did not materialize. In August 2000, Cordless Data Transfer was given a building permit to add an additional ten feet on the tower, as per their blueprint, for an additional antenna mount. In the letter dated August 17, 2000, Mr. Francis submitted that the "increased height of the tower structure is in compliance with our original zoning application and is in keeping with the spirit of the desire of all concerned to allow for maximum co-location of antenna(s) on existing structures." It is apparent that the Zoning Officer and Building Official were aware of Mr. Francis's original zoning application and intent and issued him a building permit for the tower extension.

In pursing a site in Ashford, our site acquisition personnel located the tower. We performed a drive test and our engineering department approved this tower location for improved phone service in the Ashford area including portions of Route 44 and Route 89. A tower sharing

application was submitted to the Connecticut Siting Council on November 16, 2000 to mount antennas at the approximately 190' level of the tower. The tower extension was existing on this date. I had contacted the zoning officer in Ashford prior to submitting this application to the Council and was told that there were no issues or problems with Verizon Wireless co-locating on the tower. In fact, the Town encourages co-location on existing towers and that I could obtain a building permit after receiving Connecticut Siting Council approval.

Mr. Francis contends that he went forward with his original plan to build the tower to its proposed height above ground level and was not aware of any Connecticut Siting Council issues since Springwich Cellular Limited Partnership had been approved by the Council to co-locate on the tower in 1999. I would agree that the enclosed documents show his intent and that Town officials agreed and issued permits. I have also discovered that tower owners are not aware of the Connecticut Siting Council jurisdiction over their towers if a cellular carrier is approved to co-locate on their tower.

At this time, I respectfully request that the Connecticut Siting Council review the enclosed information and approve the tower sharing application for this tower. If there are any further questions, please contact me at (203) 294-8519. Mr. Francis has assured me that any future activity that may occur on this tower will be under the jurisdiction of the Connecticut Siting Council and regrets any confusion concerning this filing.

Thank you for your continued consideration of this matter.

Respectfully yours,

Sandy M. Carter

Sandy M. Carter
Regulatory Manager
Verizon Wireless

Enclosures

Cordless Data Transfer, Inc
P.O. Box 363 Marlborough, Connecticut
Telephone : (860) 295-0445
Facsimile : (860) 295-1473

January 8, 2001

Ms. Sandy M. Carter
Regulatory Manager
Verizon Wireless
20 Alexander Road
Wallingford, Connecticut 06492-2430

RE:, Ashford Permits

Dear Sandy,

Enclosed please find copies of our original Building Permit Application and Certificate of Occupancy along with a copy of the original tower design and FAA Notification and Acknowledgement.

Also enclosed is our Building Permit Application for the tower extension and a letter we gave to Mr. Lowrey justifying our request.

If there is anything else we can do, please do not hesitate to call.

Sincerely,

Cordless Data Transfer, Inc.

Robert J. Francis

TOWN OF ASHFORD

DEPARTMENT OF BUILDING INSPECTION
APPLICATION FOR BUILDING PERMIT AND PLAN EXAMINATION

TELEPHONE NO. (860) 429-8433

25 POMPEY HOLLOW ROAD ASHFORD, CONNECTICUT 06278

№ 10819

1. ~~25~~ Seles Rd. (Number / Street/Road) 39-B-2 (Assessor's Map - Block - Lot No.)
2. Raymond Baker (OWNER'S NAME) AND (ADDRESS) 429-6682 (TEL. NO.)
3. Cordless Data Transfer (APPLICANT'S NAME) AND (ADDRESS) 871-6204 (TEL. NO.)
4. Tower & Equip Bldg. (Type of Improvement)
5. N/A (Type of Heating System) N/A (Fireplace) N/A (Woodstove)
6. (No. of Bedrooms) (No. of Baths) N/A (Type of Sewage) N/A (Type of Water Supply) Fire-Rt (Principal Type of Frame)
7. Radio Comm. Site (Proposed Use of Structure)
8. THIS APPLICATION MUST BE ACCOMPANIED BY A PROPER SITE PLAN AND BUILDING PLANS AND COPIES OF THE FOLLOWING APPROVALS SHOULD BE ATTACHED IF REQUIRED:
   SEPTIC PERMIT TOWN OR STATE DRIVEWAY PERMIT
   ADDITIONAL INFORMATION MAY BE REQUIRED ON COMMERCIAL APPLICATIONS.

Construction Cost: 30K

Permit Fee: 225.00 Ck. No. 3461

THE OWNER OF THIS BUILDING AND THE UNDERSIGNED AGREE TO CONFORM TO THE CONNECTICUT STATE BUILDING CODE AND TO NOTIFY THE BUILDING OFFICIAL OF ANY CHANGES IN PLANS FOR WHICH THIS PERMIT IS REQUESTED.

Signature of Applicant — Date 6/23/98

Electrical Contractor: Michael Angelo — Address — Signature — Lic. No.

Heating/Cooling Contractor — Address — Signature — Lic. No.

Plumbing Contractor: N/A — Address — Signature — Lic. No.

Concrete Contractor: L.V. Construction — General Contractor

Approved by Wetlands — Date 24 Jun 98

Approved by Zoning — Date 24 Jun 98

Approved by Building Official — Date 6/24/98

Approved by Fire Marshal — Date

White: Building Office Yellow: Assessor Pink: File Gold: Owner

CERTIFICATE OF USE AND OCCUPANCY

ASHFORD, CONNECTICUT

This is to certify that: CORDLESS DATA TRANSFER ..... at

LOCATION		ZONE
22 SELES ROAD		R A
STREET		CARD NO.
MAP 39	BLOCK B	LOT 2

under Permit No. 10819 ..... conforms substantially to the requirements of the Building Code. Sanitation Code and the Zone Ordinance of the Town and is hereby approved for occupancy as indicated below.

Approved for occupancy ..... TOWER & EQUIPMENT BUILDING .....

.....

.....

.....

Date February 16, 2000 ..... Building Official

Notice: — If this certificate is lost or destroyed, a duplicate should be immediately obtained from the Department of Buildings.

Any change or extension of the use herein approved requires a new certificate of occupancy.

Cordless Data Transfer, Inc

P.O. Box 363 Marlborough, Connecticut

Telephone : (860) 295-0445
Facsimile : (860) 295-1473

August 17, 2000

Mr. Stephen Lowrey, CZEO
Zoning Enforcement Officer
Town of Ashford
25 Pompey Hollow Road
Ashford, Connecticut 06278

RE: 20 Seles Road Radio Tower Extension
VIA: Hand delivery

Dear Mr. Lowrey,

Pursuant to our request for zoning approval for the 10 foot extension of the above referenced radio tower, I am enclosing herewith copies of our FAA filings and structural engineering drawings, which were integral parts of our original zoning application /site plan to build this structure when it was approved in 1998.

I ask that you look on the second page of the structural analysis (the blue folder) on drawing number 98-6111-1. Under the tower loading conditions we have predicted the installation of 10 (ea.) PD 10017 antennae. At the 180 foot level on the tower. This antenna is an 800MHz or 900MHz omnidirectional whip antenna which is 15 feet long. Mounted at 180 feet on the tower it's tip would be at an elevation of 195 feet.

In addition, please review the enclosed FAA letter which was also submitted to the commission which clearly indicates our intention to have a 195 foot structure.

Two years ago when we initially constructed this tower we thought that the best use of it would be to reserve 15 feet above the main structure for omnidirectional antenna(s). As it turns out the paging companies, who use such antennae, are fairly well built out and the need is for directional antenna mounting platforms, which is what we have designed and propose.

I respectfully submit that the increased height of the tower structure is in compliance with our original zoning application and is in keeping with the spirit of the desire of all concerned to allow for maximum co-location of antenna(s) on existing structures.

Sincerely,

Cordless Data Transfer, Inc.

Robert J. Francis
President

Federal Aviation Administration
New England Region
12 New England Executive Park
Burlington, MA 01803-5299

CORDLESS DATA TRANSFER, INC
17 RIDGEWOOD DR
MARLBOROUGH, CT 06447

AERONAUTICAL STUDY
No: 98-ANE-0351-OE
Date: 06/15/98

Type Structure: ANT/TWR

This acknowledges receipt of your Notice of Proposed Construction or Alteration dated 06/10/98.

An aeronautical study will be conducted on the following location:

CITY	STATE	NAD-83 LATITUDE/LONGITUDE	MSL	AGL	AMSL
ASHFORD	CT	41-51-48.35 072-10-57.27	540	195	735

Your proposal has been assigned Aeronautical Study Number 98-ANE-0351-OE. These are NAD-83 coordinates. Please use the NAD-83 coordinates on all future correspondence. Should there be any question concerning this proposal, please feel free to contact Suzanne Dempsey of the Airspace Branch, ANE-520, New England Region
Our office telephone number is (781) 238-7520.

Thank you for participating in the Obstruction Evaluation program.

Please Type or Print on This Form

Form Approved OMB NO. 2120-0001

U.S. Department of Transportation
Federal Aviation Administration

Notice of Proposed Construction or Alteration

Failure To Provide All Requested Information May Delay Processing Of Your Notice

Aeronautical Study Number

1. Nature of Proposal

A. Type
- [x] New Construction
- [ ] Alteration *

B. Class
- [x] Permanent
- [ ] Temporary (Duration _____ months)

C. Work Schedule Dates
- Beginning 6/98
- End 9/98

* If Alteration, provide previous FAA Aeronautical Study Number, if available :

3A. Name, address, and telephone number of individual, company corporation, etc. proposing the construction or alteration. (Number, Street, City, State, and Zip Code)

Cordless Data Transfer, Inc.
17 Bridgewood Dr
Marlborough, CT 06447

(860) 871-6804
Area Code Telephone Number

3B. Name, address and telephone number of proponent's representative, if different than 3A. above.

Same

( ) _____
Area Code Telephone Number

2. Complete Description of Structure

Please describe the proposed construction or alteration.

A. For proposals involving transmitting stations, include effective radiated power (ERP) and assigned frequency. If not known, give frequency band and maximum ERP.

B. For proposals involving overhead wire, transmission lines, etc., include the size and the configuration of the wires and their supporting structures.

C. For buildings, include site orientation, dimensions, and construction materials.

D. **Optional**— Describe the type of obstruction marking and lighting system desired. The FAA will consider this in their study.

1000 watts ERP
800-900 mhz.

4. Location Of Structure

A. Coordinates (to hundredths of seconds, if known)

Latitude 0	41	51	48"
Longitude 0	72	10	59"

4D. Source for item 4A data.
- [x] USGS 7.5' Quad Chart
- [ ] Survey
- [ ] Other Specify

Indicate the reference datum.
- [x] NAD 27
- [ ] NAD 83
- [ ] Other Specify

B. Nearest City or Town and State: ASHFORD, CT

(1). Distance to 4B: 4.0 miles

(2). Direction to 4B: North

C. Nearest public or military airport, heliport, flightpark, or seaplane base: Windham, Arpt.

(1). Distance from structure to nearest point of nearest runway: 8.0 miles

(2). Direction from structure to airport: South

5. Height and Elevation (to nearest foot)

A. Elevation of ground above mean sea level: 540'

B. Height of structure including all appurtenances and lighting above ground or water: 195'

C. Overall height above mean sea level: 735'

4E. **Description of site location with respect to highways, street, airports, prominent terrain, features, existing structures, etc.** Please attach a U.S. Geological Survey Map (or equivalent) showing the construction site. If available, attach a copy of a documented site survey with the surveyor's certification.

Notice is required by Part 77 of the Federal Aviation Regulations (14 C.F.R. Part 77) pursuant to Section 1101 of the Federal Aviation Act of 1958, as amended (49 U.S.C. app. § 1501). Persons who knowingly and willfully violate the Notice requirements of Part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to Section 901(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. app § 1471(a)) as well as the fine (criminal penalty) of not more than $500 for the first offense and not more than $2,000 for subsequent offenses, pursuant to Section 902(a) of the Federal Aviation Act of 1958, as amended (49 U.S.C. app § 1472(a)).

I HEREBY CERTIFY that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to obstruction mark and/or light the structure in accordance with established marking & lighting standards as necessary.

Date	Typed or Printed Name and Title of Person Filing Notice	Signature
6/10/98	MARK LEGAULT (Vice Pres)	

FOR FAA USE ONLY — *FAA will either return this form or issue a separate acknowledgement.*

The Proposal:
- [ ] Does not require a notice to FAA.
- [ ] Is not identified as an obstruction under any standard of FAR, Part 77, Subpart C, and would not be a hazard to air navigation.
- [ ] Is identified as an obstruction under the standards of FAR, Part 77, Subpart C, but would not be a hazard to air navigation.
- [ ] Should be obstruction [ ] marked [ ] lighted per FAA Advisory Circular 70/7460-1, Chapters _____
- [ ] Obstruction marking and lighting are not necessary.

Supplemental Notice of Construction, FAA Form 7460-2, is required any time the project is abandoned, or
- [x] At least 48 hours before the start of construction.
- [ ] Within five days after the construction reaches its greatest height.

This determination expires on _____ unless
(a) extended, revised or terminated by the issuing office,
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit is made to the FCC on or before the above expiration date. In such cases the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

NOTE: Request for extension of the effective period of this determination must be postmarked or delivered to the issuing office at least 15 days prior to the expiration date.

If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that agency.

Remarks

NAD 83 Coordinates (Use these coordinates for any further correspondence with the FAA) — Latitude ° ' . " — Longitude ° ' . "

Issued in	Signature	Date

NSN: 0052-00-012-0007

TOWN OF ASHFORD
DEPARTMENT OF BUILDING INSPECTION
APPLICATION FOR BUILDING PERMIT AND PLAN EXAMINATION
TELEPHONE NO. (860) 429-8433

25 POMPEY HOLLOW ROAD — ASHFORD, CONNECTICUT 06278

1. 22 Seles Road
   Number / Street/Road
2. OWNER'S NAME: K.A.Y. BAKER AND KATHLEEN BAKER — Assessor's Map - Block - Lot No
3. APPLICANT'S NAME: CORPLESS DATA TRANSFER, INC AND — ADDRESS: Box 363 MARLBOROUGH CT 06447 — TEL NO: 860-295-0445
4. Type of Improvement: Install 10' Extension on tower per Blueprint
5. Type of Heating System
6. No. of Bedrooms — No of Baths — Fireplace — Woodstove
7. Proposed Use of Structure: Additional Memory Mount — Type of Sewage — Type of Water Supply — Principal Type of Frame
8. THIS APPLICATION MUST BE ACCOMPANIED BY A PROPER SITE PLAN AND BUILDING PLANS AND COPIES OF THE FOLLOWING APPROVALS SHOULD BE ATTACHED IF REQUIRED:
   SEPTIC PERMIT — TOWN OR STATE DRIVEWAY PERMIT
   ADDITIONAL INFORMATION MAY BE REQUIRED ON COMMERCIAL APPLICATIONS.

Construction Cost: _____

Permit Fee: 26.81 Ck. No. 1112

Surcharge .56 26.81

THE OWNER OF THIS BUILDING AND THE UNDERSIGNED AGREE TO CONFORM TO THE CONNECTICUT STATE BUILDING CODE AND TO NOTIFY THE BUILDING OFFICIAL OF ANY CHANGES IN PLANS FOR WHICH THIS PERMIT IS REQUESTED.

Signature of Applicant _____ Date 6/20/00

Electrical Contractor — Address — Signature — Lic No

Heating/Cooling Contractor — Address — Signature — Lic No

Plumbing Contractor — Address — Signature — Lic No

Concrete Contractor — General Contractor

Approved by Wetlands 30 Aug 00 Date

Approved by Zoning _____ Date

Approved by Building Official 9/21/00 Date

Approved by Fire Marshal _____ Date

White: Building Office — Yellow: Assessor — Pink: File — Gold: Owner

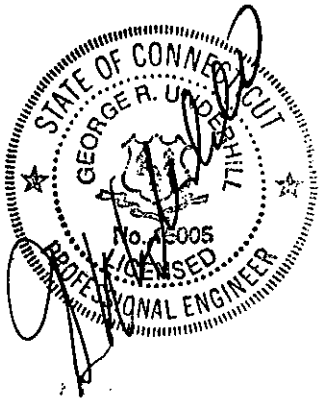
FRED A. NUDD CORPORATION
1743 ROUTE 104, BOX 577
ONTARIO, NY 14519
(315) 524 -2531 FAX (315) 524-4249
www.nuddtowers.com

Design of 180'
Guyed Tower

MODEL #: G42WPAR

PROJECT #: 6111

LOCATION: Ashford, CT



for

CDT
17 Ridgewood Drive
Marlborough, CT 06447

June, 1998

tower was designed to resist 85 mph wind speed with
radial ice per ANSI/EIA/TIA 222-F recommended standard.
Worst case load condition is wind with ice with load reduction.
Allowable steel stresses per AISC ASD 9th Edition
Allowable concrete stresses per ACI 318-89.

MATERIAL SPECIFICATIONS

Tower Legs:	ASTM A36 Modified, Fy > 55 ksi. See Section Schedule.
Guy Anchors:	ASTM A36 Modified, Fy > 48 ksi
All other steel:	ASTM A36, Fy > 36 ksi
Guy Cable:	Extra High Strength grade
Hardware:	A325 Hot Dipped Galvanized Bolts with Anco Nuts
Galvanizing:	ASTM A123

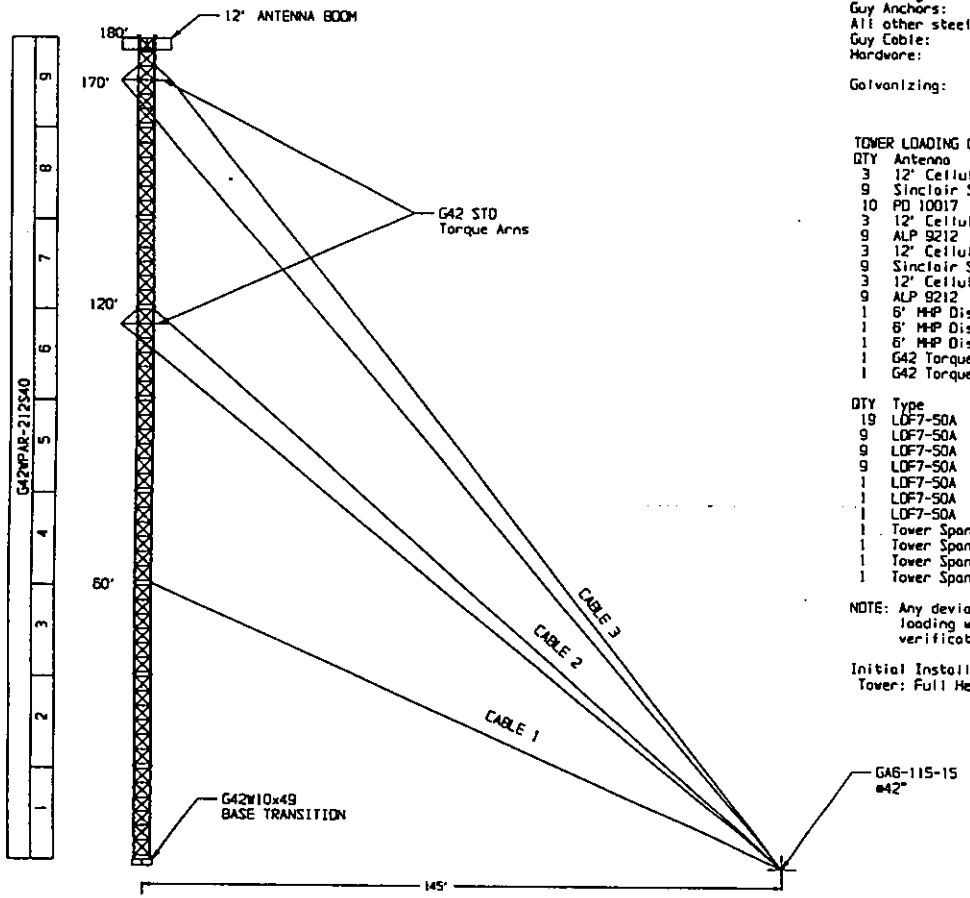
TOWER LOADING CONDITIONS

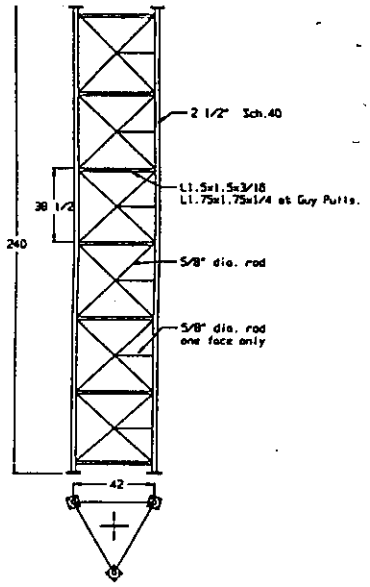
QTY	Antenna	Elevation	Windload	Deadload
3	12' Cellular Boom	178	285	170
9	Sinclair SRL 411CSR130	178	392	80
10	PD 10017	180	104	25
3	12' Cellular Boom	170	281	170
9	ALP 9212	170	124	27
3	12' Cellular Boom	160	276	170
9	Sinclair SRL 411CSR130	160	380	80
3	12' Cellular Boom	150	271	170
9	ALP 9212	150	119	27
1	6' MHP Dish	140	837	814
1	6' MHP Dish	130	819	814
1	6' MHP Dish	120	801	814
1	G42 Torque Arm	170	537	262
1	G42 Torque Arm	120	486	262

QTY	Type		Elevation Start	Stop	#/ft Windload	Deadload
19	LDF7-50A	1-5/8"	170	180	5.50	0.90
9	LDF7-50A	1-5/8"	170	170	0.00	0.90
9	LDF7-50A	1-5/8"	0	160	0.00	0.90
9	LDF7-50A	1-5/8"	0	150	0.00	0.90
1	LDF7-50A	1-5/8"	0	140	0.00	0.90
1	LDF7-50A	1-5/8"	0	130	0.00	0.90
1	LDF7-50A	1-5/8"	0	120	0.00	0.90
1	Tower Span 1		0	60	155.00	54.78
1	Tower Span 2		60	120	207.10	53.28
1	Tower Span 3		120	170	237.10	53.28
1	Tower Span 4		170	180	45.96	53.28

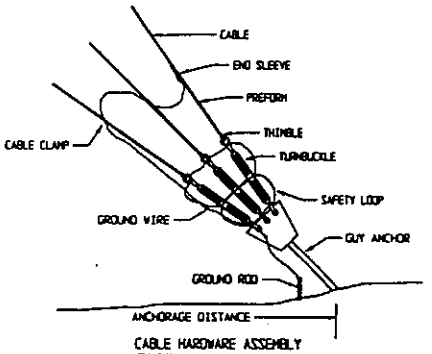
NOTE: Any deviation from the proposed design antenna loading will require a tower analysis for verification of structural integrity.

Initial Installation:
Tower: Full Height





G42WPAR TOWER SECTION



CABLE HARDWARE ASSEMBLY

NOTE: Install cable hardware per manufacturer's specifications.

INSTALLATION NOTES
1. Installation of tower must be performed by a qualified tower erector.
2. Install sections with section number on the bottom, and climbing device is aligned.
3. Install safety climb, lights, cable attachments per manufacturer's recommendations.
4. Do not lift more than 100' of assembled tower sections.
5. Install "sharp" edge of adapter plates against face of tower.
6. Plumb and tension tower and cables as erected.
7. "Ti"=Initial tension of cable.

G42 Section Weights: 785/685 +/-
Top Frame: 1000 +/-

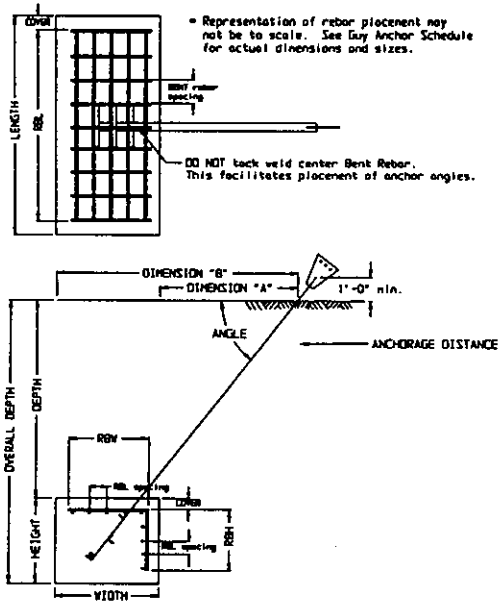
SECTION DESIGNATION:
G42WPAR-212SS5 = 2-1/2"; (212), (S)Sch.40/(EH)Sch.80, (55)ksi strength
96-47-xx = Year-(47) ksi strength-xx

GUY CABLE SCHEDULE

CABLE:	QTY/Type	Length	Ti	Turnbuckle	Preform	Thmbl	Endslve	Shckl
Cable 3:	2 @ 5/8x7 EHS	224'	4240#	1"x18" J-J	5/8" BG	3/4"	65268	3/4"
Cable 2:	2 @ 9/16x7 EHS	189'	3500#	7/8"x12" J-J	9/16" BG	5/8"	65267	3/4"
Cable 1:	1 @ 9/16x7 EHS	157'	3500#	7/8"x12" J-J	9/16" BG	5/8"	65267	3/4"

NOTE: Cable lengths assume anchors at elevation 0'.
Cable lengths and anchor layout must compensate for site topography.

FRED A. NUDD CORPORATI
Route 104-Ontario, New York 14519-315/524-
SCALE: N/S
DATE: 6/19/98
DRAWN BY: EES
180' G42WPAR TOWER
COT
Ashford, CT
98-6111-



GUY ANCHOR PLAN AND ELEVATION VIEWS

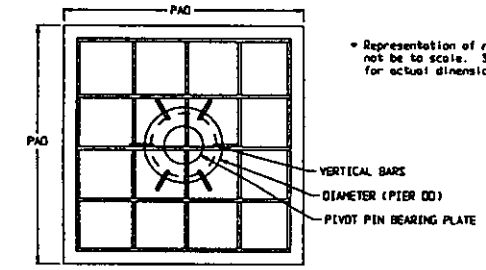
This guy anchor foundation conforms to ANSI/EIA 222-E recommended standard.

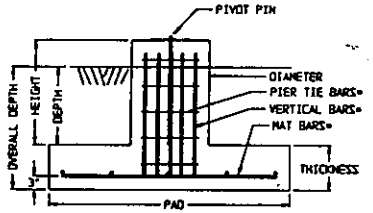
DIMENSION	INNER GUY ANCHOR	
Guy Anchor ID:	GA6-115-15	
Bar Dimensions:	1 @ 1.75" HRR Fy=48000	
Design Loads:		
Vertical:	40.1 kip	
Horizontal:	58.0 kip	
Resultant:	74.4 kip	
Safety Factor:	2.37	
Anchor Dimensions		
Anchor distance:	145 ft	
Length:	11'-6"	
Width:	5'-8"	
Height:	2'-0"	
Depth:	6'-0"	
Overall Depth:	8'-0"	
Dimension "A"	7'-0"	
Dimension "B"	12'-6"	
Angle:	41.2°	
Long Rebar RBL:	121"	12+1 pcs
RBL Vert. spacing:	4"	
RBL Horl. spacing:	7"	
Bent Rebar OAL:	68"	12+2 pcs
Bent Rebar RBH:	12"	
Bent Rebar RBV:	56"	
Bent Rebar Spacing:	11"	
Design Cover:	6"	
Rebar Size:	#4 Bar	
Concrete Volume:	3 @ 4.7 cu yds	
Total Concrete:	14.1 cu yds	

NOTE: *Install the extra one long rebar inside the botton angle of the guy anchor.
*Field tie the 2 extra bent rebar.
*Rebar QTY's for one anchor only

CONCRETE SPECIFICATIONS
1. Concrete shall have a minimum compressive strength of at least 3000 psi at 28 days. It is our recommendation that 4000 psi concrete be installed to account for any unknown installation variables that could degrade the concrete.
2. Concrete installation shall meet ACI 318-89 installation requirements for reinforced concrete.
3. All concrete shall be placed against undisturbed soil free of water and all foreign objects and materials.
4. Minimum concrete cover shall be 3" over all reinforcing bars.
5. Reinforcing bars shall be ASTM A-615 Grade 60 deformed bars.
7. Assemble bars with tie wires or weld. Welding of bars must conform to ANSI/AWS D1.4-92 specifications. Structural weld splices on bars must be inspected by a Fred A. Nudd engineer.
8. Chamfer all sharp corners of exposed concrete.

SOIL SPECIFICATIONS
1. Per customer specification soil is assumed to be EIA normal soil.
2. All foundations shall be free of free standing water as far as possible prior to pouring concrete and shall be kept thus until backfill is in place. If not possible, special pouring procedures must be followed.
3. Rock, non-cohesive, saturated or submerged soils are not to be considered as normal soil. See EIA 7.2.2.
4. Backfill shall be compacted to 100 pcf in 6" lifts using excavated material.
5. Backfill shall be placed so as to prevent accumulation of water around foundations or anchors.

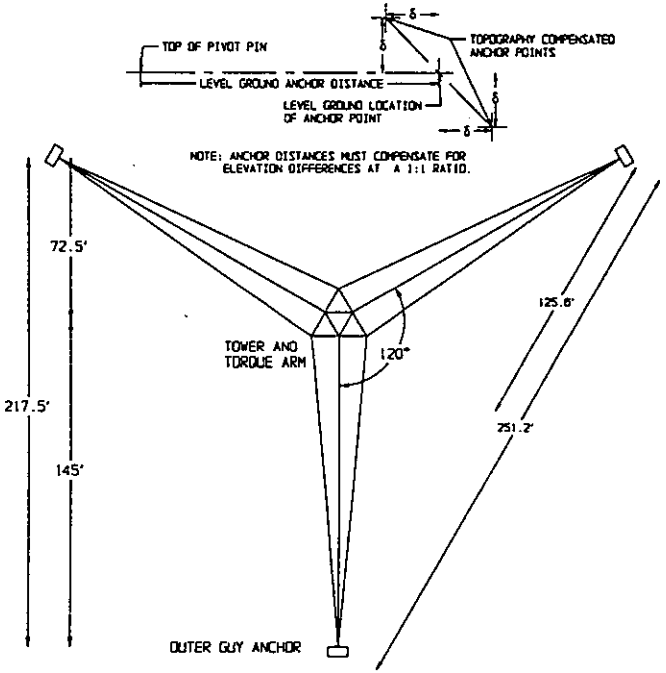




PAD & PIER PLAN & ELEVATION VIEW

PIER SPECIFICATIONS	
Diameter:	2'-0"
Pad:	5'-6"
Depth:	3'-0"
Height:	4'-0"
Thickness:	1'-6"
Overall Depth:	4'-6"
Pier Tie Bars:	#4 @ 10" c-c, 18"DIAM, 57+2" cut length
Vertical Bars:	8-#5 @ 82" OAL w. 8" bent leg.
V. Bar Spacing:	4.09"
Pad Bars:	10-#5 bars, 54" OAL, 13.50" spacing 5 bars crossed each way.

DESIGN LOADS	
Volume:	2.0 cu. yd.
Download:	71 kip
Shear:	3.602 kip



TOWER PLOT PLAN AND ANCHOR LAYOUT

FRED A. NUDD CORPORATI
Route 104-Ontario, New York 14519-315/524-
SCALE: N/S
DATE: 6/19/98
DRAWN BY: BES
FOUNDATION DETAILS
COT
Ashford, CT
98-6111-

06-19-1998
13:58:33
CDT
Ashford, CT
6111

Guy Cable Data ft, lb

	Elev	Horiz	Length	Angle	Wind Length	Total Length	Cable Type
Cable 3 :	170	145	224	49.70	1189	1345	EHS
Cable 2 :	120	145	189	39.84	938	1133	EHS
Cable 1 :	60	145	157	22.81	339	472	EHS

Cable Loads -lb

	Shear	Download	Cable Load	Cable Size	%Loaded
Cable 3 :	19864	27050	35465	2 - 5/8x7	83.64
Cable 2 :	16975	16356	25529	2 - 9/16x7	72.94
Cable 1 :	11618	5644	14555	1 - 9/16x7	83.17

Cable Safety Factor: 2
Shear at 0': 3618 lb
Shear on Guy Anchors: 351 lb

Accumulated Down Loads

Elevation	Down load (lb)
170.0	30327
145.0	34819
120.0	55328
90.0	58569
60.0	66695
30.0	68905
0.0	71116

Guy Anchor Reactions

Vertical Reaction: 49050 lbs
Horizontal Reaction: 55953 lbs
Resultant: 74408 lbs
Angle: 41.23 Degrees

Tower Plot Dimensions

A= 217.5 ft
B= 145 ft
C= 72.5 ft
D= 251.2 ft
E= 125.58 ft

MOMENT DISTRIBUTION OUTPUT - E

Beam Configuration:
4 Spans 3 Beams

SPAN	FEMB	FEMT	VB	VT	dfB	dfT
1	-46500	46500	4650	4650	1.0000	0.5000
2	-62130	62130	6213	7499	0.5000	0.4545
3	-76519	95503	8689	13450	0.5455	1.0000
4	-52946	0	6923	0	0.0000	0.0000

10 Iterations

SPAN #	DISTRIBUTED MOMENTS(ft-lb) MOM B	MOM T	SHEARS(lb) VB	VT	REACTIONS(lb)
					3618
1	0	61869	3618	5681	
					11618
2	-61870	78413	5937	7775	
					16974
3	-78414	52945	9198	12940	
					19863
4	-52946	0	6923	0	
					0

Tower Loads

Point Loads

No.	QTY	Antenna	Elevation	Windload	Deadload
1	3	12' Cellular Boom	178	285	170
2	9	Sinclair SRL 411C9R130	178	392	80
3	10	PD 10017	180	104	25
4	3	12' Cellular Boom	170	281	170
5	9	ALP 9212	170	124	27
6	3	12' Cellular Boom	160	276	170
7	9	Sinclair SRL 411C9R130	160	380	80
8	3	12' Cellular Boom	150	271	170
9	9	ALP 9212	150	119	27
10	1	6' MHP Dish	140	837	814
11	1	6' MHP Dish	130	819	814
12	1	6' MHP Dish	120	801	814
13	1	G42 Torque Arm	170	537	262
14	1	G42 Torque Arm	120	486	262

Uniform Loads

No.	QTY	Type	Start	Stop	Windload	Deadload
1	19	LDF7-50A 1-5/8"	170	180	5.50	0.90
2	9	LDF7-50A 1-5/8"	170	170	0.00	0.90
3	9	LDF7-50A 1-5/8"	0	160	0.00	0.90
4	9	LDF7-50A 1-5/8"	0	150	0.00	0.90
5	1	LDF7-50A 1-5/8"	0	140	0.00	0.90
6	1	LDF7-50A 1-5/8"	0	130	0.00	0.90
7	1	LDF7-50A 1-5/8"	0	120	0.00	0.90
8	1	Tower Span 1	0	60	155.00	54.78
9	1	Tower Span 2	60	120	207.10	53.28
10	1	Tower Span 3	120	170	237.10	53.28
11	1	Tower Span 4	170	180	45.96	53.28

Project: CDT
Location: Ashford, CT
Date: 6/19/98

$i := 0, step.. M_{last(M^{<0>}),0}$ $j := 0, 1.. L_{last(L^{<0>}),0}$

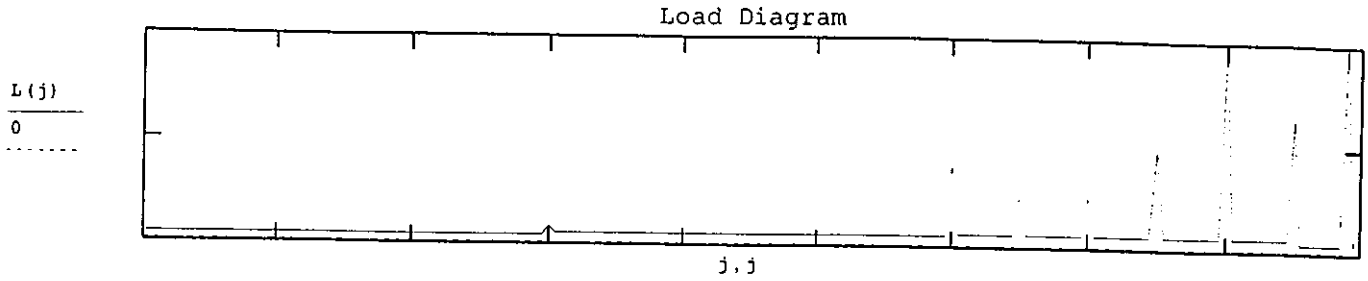
Maximum_Download := 117720

Maximum_Load = 4531.6

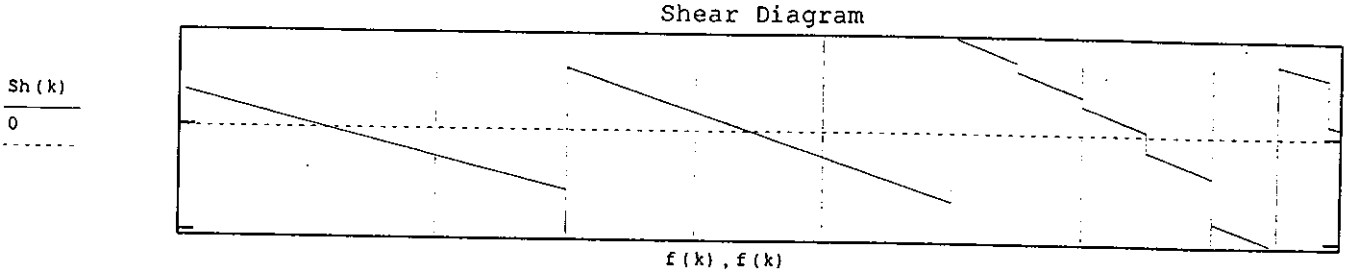
Top := 180 ft High

Lmax := Maximum_Load

Load Diagram

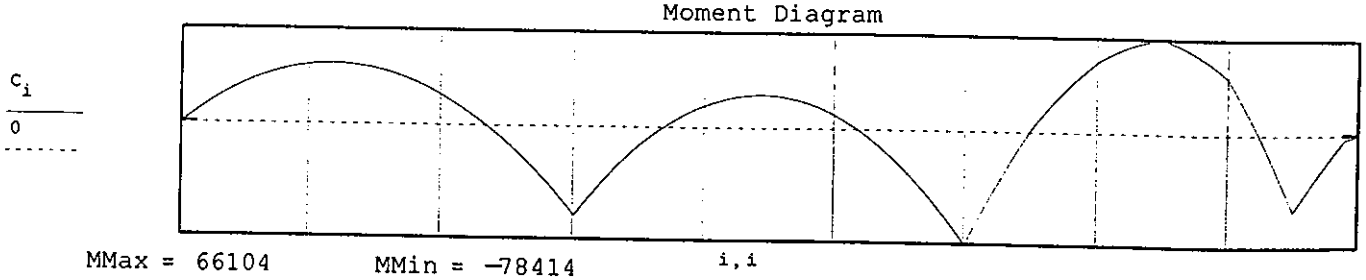


Shear Diagram



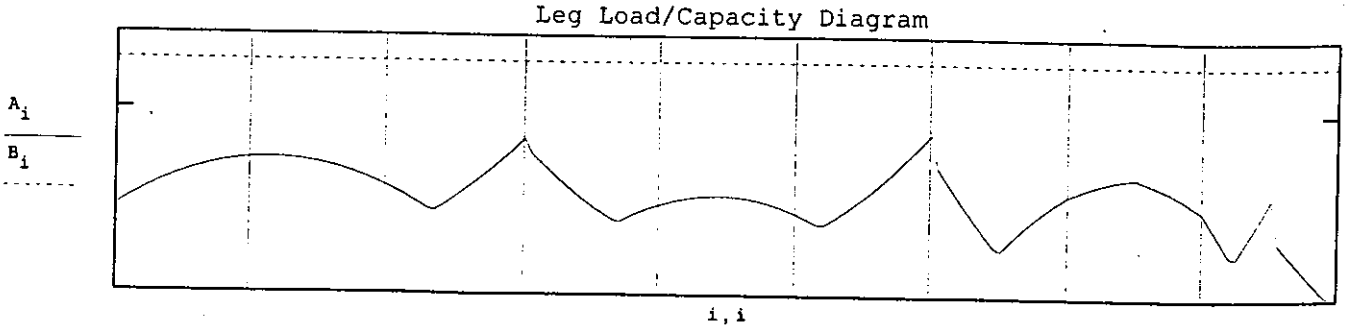
SMax = 9198.8 SMin = −10448.4

Moment Diagram



MMax = 66104 MMin = −78414

Leg Load/Capacity Diagram



A_i=Leg Load
B_i=Leg Capacity
C_i=Moment

Elevation = 120
Moment = −78414

Leg_Load = 44671
Leg_Capacity = 63828

$Percent\_Loaded_1$ = 70 %

Check Girts at Guy Pulls:

Steel Properties:

$E := 29 \cdot 10^6 \cdot psi$

$Fy_{girt} := 45000 \cdot psi$

$Fy_{diag} := 45000 \cdot psi$

Tensile capacity of (1) L1.75x1.75x1/4:

$Area := \left[1.75^2 - (1.75 - .25)^2 - .375 \cdot .25 \right] \cdot in^2$

$Capacity := .6 \cdot Fy_{girt} \cdot \frac{4}{3} \cdot Area \cdot 1 \cdot bars$

Capacity = 25875 lbf

Maximum Single cable shear is 11618 lb, resolved into each brace.

$$Percent\_Loaded_2 := \frac{\frac{11618 \cdot lbf}{2 \cdot girt \cdot \cos(30 \cdot deg)}}{Capacity}$$

$Percent\_Loaded_2 = 25.9\ \%$

Check compression capacity of girts against maximum shear:

$l := (42 - 2.875) \cdot in$ $\quad Area := \left[1.5^2 - (1.5 - .1875)^2 \right] \cdot in^2$

Area = 0.527 in²

$r := .293 \cdot in$ L1.5x1.5x.1875"

$K := .70$ All welded

$$klr := \frac{K \cdot l}{r} \qquad Cc := \sqrt{\frac{2 \cdot \pi^2 \cdot E}{Fy_{girt}}}$$

klr = 93.5

Cc = 112.8

$$Fa := \frac{\left[1 - \frac{\left(\frac{klr}{Cc} \right)^2}{2} \right] \cdot Fy_{girt}}{\frac{5}{3} + \frac{3}{8} \cdot \frac{klr}{Cc} - \left(\frac{klr}{2 \cdot Cc} \right)^3} \cdot (klr < Cc) + \frac{12 \cdot \pi^2 \cdot E}{23 \cdot klr^2} \cdot (klr \geq Cc)$$

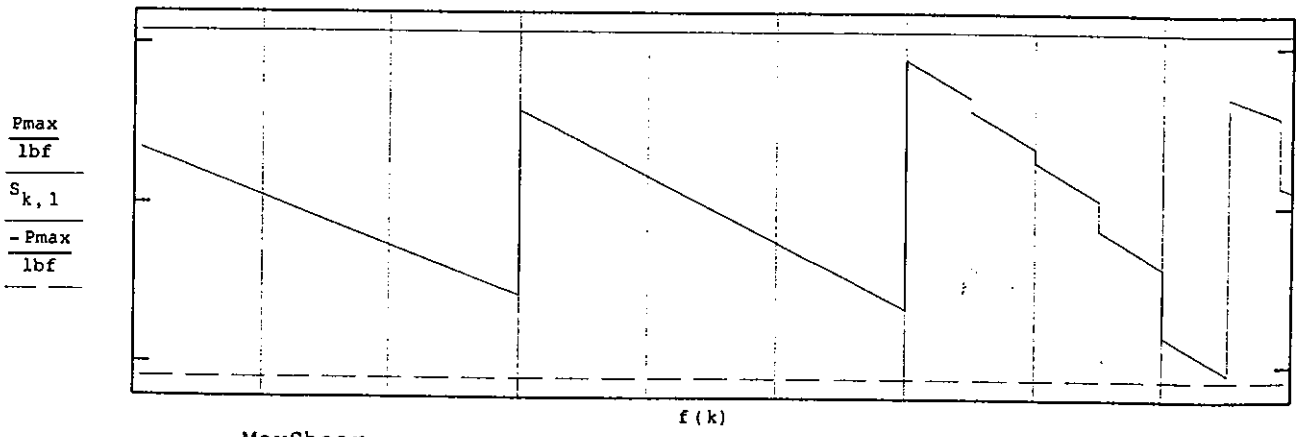
Fa = 15499.2 psi

Maximum allowable compression load:

$Pmax := Fa \cdot \frac{4}{3} \cdot Area$

Pmax = 10897.9 lbf

MaxShear = 10448.4



$$Percent\_Loaded_3 := \frac{MaxShear}{Pmax} \cdot lbf$$

$Percent\_Loaded_3 = 95.9\ \%$

Check tension capacity of diagonals:

$$S(k) := \frac{Sh(k)}{2 \cdot braces \cdot \cos(45 \cdot deg)}$$

$$Pmax := \frac{\pi}{4} \cdot \left(\frac{5}{8} \cdot in\right)^2 \cdot .6 \cdot Fy_{diag} \cdot \frac{4}{3}$$

$Pmax = 11044.7 \cdot lbf$

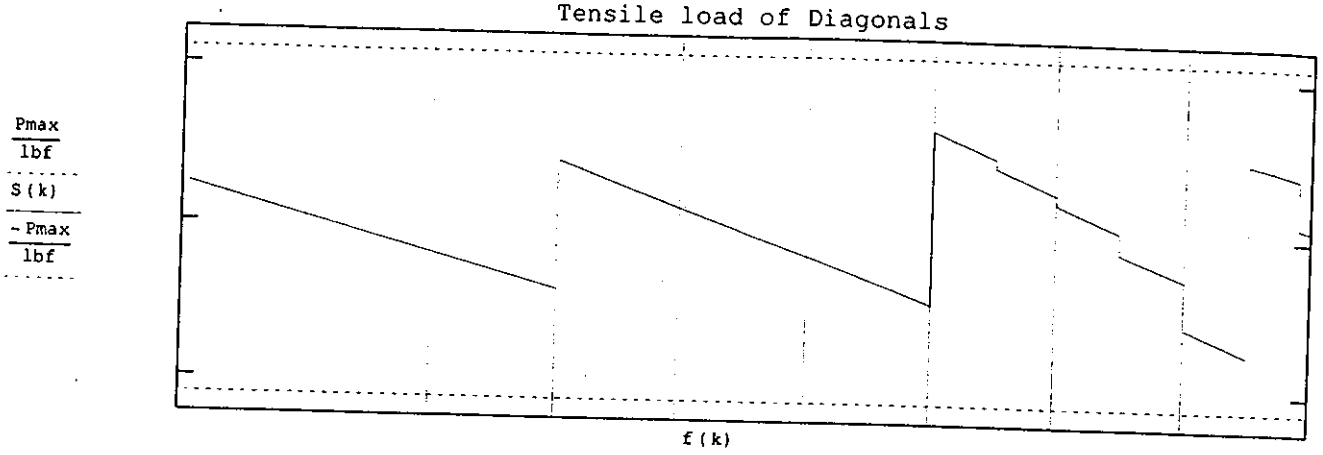
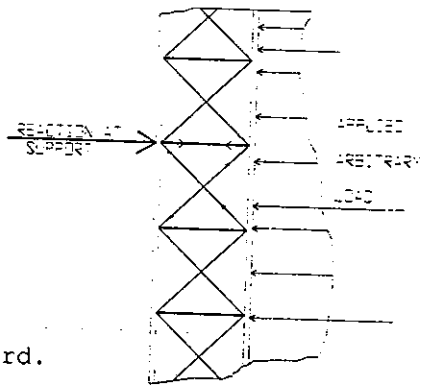


Diagram of force resolution:



Bracing:
Use 5/8" diagonals throughout tower,
Use L1.75x1.75x1/4 at guypulls,
L1.5x1.5x.1875" everywhere else.
Legs: 2-1/2" pipe

All allowable stresses per
American Institute of Steel Construction 9th edition and
Electronics Industry Association 222-E recommended standard.

Project: Ashford, CT
6/19/98 2:02 PM

REACTIONS:

Vertical	49.1 kips
Horizontal	56.0 kips
Resultant	74.4 kips
Hor. Angle	41.2 °
Submerged?	0 No
Water Depth:	0 ft

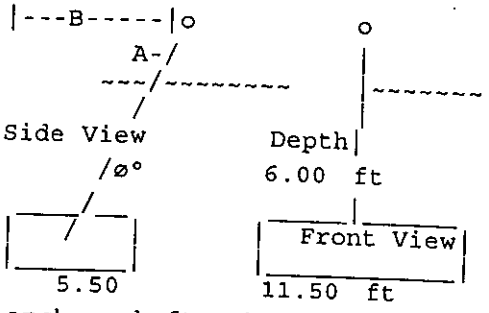
CONCRETE WEIGHT:

Block Volume	4.7 cu yds
Block Wt	19.0 kips

SOIL FRUSTUM WEIGHT:

Frustum:	30 °
Block:	38.0 kips
Edges:	35.3 kips
Corners:	9.6 kips
Total Wt:	82.9 kips
Excavatn:	506 cuft

Soil Wt:	100.0 lb/ft^3
Soil Gs:	2.65
Subm Soil Wt	62.3 lb/ft^3
H.Bearing	400.0 psf/ft
Rebar Fy:	60.0 ksi
Conc. Wt:	150.0 lb/ft^3
Conc f`c:	4.0 ksi



HORIZONTAL CAPACITY: EIA 7.1.2

Load @	7 ft
Load:	64400 lb

Check anchor shaft embedment? OK

	Uplift	Horizontal	
Design Loads:	49.05	55.95	kips
Capacity:*	56.62	64.40	kips
% Loaded:	87%	87%	OK

* EIA 7.2.4

Concrete Volume: 14.1 cu yds

GUY ANCHOR ROD:

Resultant	74.41 kips
Hole QTY	6 holes
# of rods	1
Fy	48000 psi
Min. Area	1.938 in²/bar
Min. Dia.	1.571 in
Act. Area	2.405 in²/bar
Act. Dia.	1.75 in, 80.6% Loaded
Anchor ID:	GA6-115-15

ANCHOR ROD LENGTH:

Minimum:	13.38 ft
Maximum:	15.17 ft
Recommend:	14.00 ft
Actual:	15 ft

BLOCK REINFORCEMENT: Cover: 6 in

	Vertical	Horizontal		
Factored Loads:	63.8	72.7	kips	EIA 3.1.13
Factored Moment:	1222.2	1394.2	kip-inch	
Minimum As:	1.526	0.518	in²	ACI 10.5.1
Minimum Qty:	8	3	Bar #:	
Actual Qty:	9	3	4	
Actual As:	1.767	0.589	in²	OK

ANCHOR DIMENSIONS:

Length	11'- 6"
Width	5'- 6"
Height	2'- 0"
Depth	6'- 0"
OADepth	8'- 0"
Dim. A:	7'- 0"
Dim. B:	12'- 6"
ø:	41°

REBAR DIMENSIONS:

RBL:	121"
RBH:	12"
RBW:	56"
Bent OAL:	68"
QTY Long:	13 Bars ea
QTY Bent:	14 Bars ea
Rebar Wt.	157 lb ea

MASTER CHECK: OK

Anchor design per ACI 318-89, ANSI/EIA 222-E, AISC ASD 9th Edition

SQUARE FOOTING AND PIER DESIGN

Customer: CDT
Project: Ashford, CT
6/19/98 2:02 PM

Dead Load 0.0 kips
Live Load 75 kips

G42W10x49 Base Transition ID

ASSUMED DIMENSIONS:

Width	5.50 ft OK	f'c:	3000 psi
Thickness	1.50 ft	Fy:	60000 psi
Pier OD	2.00 ft	Soil:	4000 psf bearing capacity
Sqr Pier	0		
Rnd Pier	1	Pier Area:	452 inch²
Depth	3.00 ft	Ht. above Grade	12 inches
Cover	6 inches		
Bar #	4 0.5		
Eff.Depth	11.750 inches		

CALCULATIONS: Minimum Width: 4.330 ft
Ultimate Load: 108.8 kips ACI 9.2.2
Net Load: 3598 psf (factored)

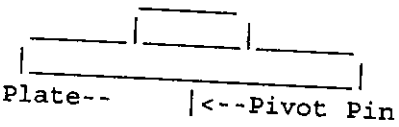
CHECK SHEAR

Two Way Action: Assumes ßc=1
Vu: 83753 lbs
Vc: 245756 lbs
34.08%

<= OK =>

One Way Action Load Area: 4.240 ft²
Vu: 15253 lbs
Vc: 72209 lbs
21.12%

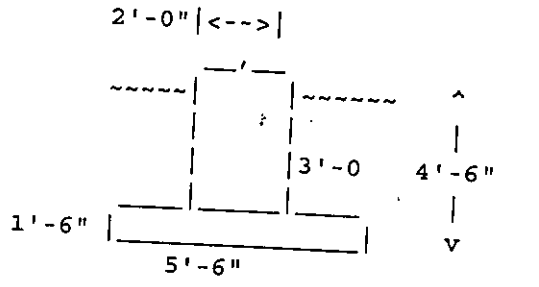
LOAD TRANSFER Pier Capacity/Pu ACI 15.8
@ Pad/Pier interfac 742% OK - Dowels not required.
Pivot Pin Bearing Stress: ACI 10.15.1
Minimum Area 30 inch²
Minimum plate OD 6.23 inchø, 5.52" ea. side square
Distance "d" to edge 0.5 inch -» d
Minimum Plate Thickness: 0.2846 inch



MINIMUM PIER REINFORCING ACI 15.8.2.1, 7.10.5
.5% Req. 2.262 inch²
8 Bars of # 5 2.454 inch² Steel Area:
Bar Lngth: 55.5 inch OK
Pier Tie bar #: 4
10 " tie bar spacing

PAD BENDING MOMENT REINFORCEMENT

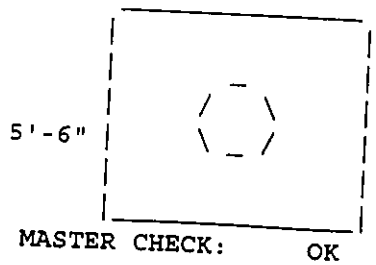
Mu: 30300 ft-lbs
Ratio: 0.000997 ACI 10.5.1
Steel: 0.773 inch²
Bar #: 5
Req'd QTY: 3
Act'l QTY: 5 OK
Act. Stl: 1.534 inch²
Act. d: 11.500 inches



Moment? OK
Ldb: 11.25 inches OK

Mat Bars:
10 @ 13.50" spacing
85 lb

Concrete:
2.0 cuyd
8220.0 lb



MASTER CHECK: OK

TRIANGULAR TOWER SECTION DATA

Guyed Tower Section

Wind Angle 0,60,90	90 °	
Elevation of Foundation:	1 ft	
Wind Speed	85 mph	
Gh	1.12	EIA 2.3.4
Wind Pres.	20.7 psf	EIA 2.3.3
Radial Ice	0.5 inch	

EIA 2.3.15 Wind/Ice Reductn? Yes

ANSI/EIA Overstress Factor: Yes

LEGS	OD,L1	ID,L2	wall
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap:	0 in
Galvanizing?	Yes
WaveGuide hole reduction?	Yes

ITEM	DL	WL
Ladder:	10	10
Misc.	68	0
Total lbf:	78	10

Client:	CDT
Project:	Eastford, CT
6/19/98	2:03 PM
Span:	1
Elev@Top	40 feet
Elev@Base	20 feet
Tower Ht.	180 feet
Top Face	42 inches 3.50
Bot Face	42 inches 3.50
Taper	0 in./sect.
Ave Face	42 inches
Length	240 inches
FL.to BR	6 inches
# Panel	6 panels
Panel	38.00 inches
Br/Panel	2 |x|
Br Lngth	54.54 inches
# Horiz	7 7
Density	0.283 lb/in^3
Bracing Type:	1 |x|

SECTION GEOMETRY »	1508 in^4
Section Ixx,Iyy »	1508 in^4
Face Vert. Angle	0.000 °
Leg Angle in face	0.000 °
Leg/Axis Angle	0.000 °
Brace Angle	42.138 °

SECTION 1 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
		Total Weig	759	336 lbs

Ag:	11010		
Af:	411	Df:	0.850
Ar:	3197	Rr:	0.625
SR(e):	0.328	Dr:	1.000
Cf:	2.225		

Area:	16.30	ft²	
Shear:	574	28.7	lbf,lbf/
CnMoment:	5736	ft-lbf	
Deadload:	1096	54.8	lbf,lbf/ft

Solid Area Windloads:

Shear:	3100	155.0	lbf,lbf/ft

	inches²	feet²
Ae 0°	2408.5	16.73
Ae 45°	2890.2	20.07
Ae 60°	2326.3	16.16
Ae 90°	2346.9	16.30

Span Length	60	ft
pan Capacity	63137	lbf/leg

Legs:	K	1.00
	KL/r	40.1 OK
	Fy	55000 psi
EIA 3.1.1, AISC E2	Cc	102.0
	Fa	37457 psi
Max.Compresn.Force		63828 lbs

Diagonals :	K	0.70
	KL/r	119.1 OK
	Fy	36000 psi
	Cc	126.1
EIA 3.1.1	Fa	13882 psi
Max.Compresn.Force		4259 lbs
Max.Tension.Force*		8836 lbs

*Verify Net Section on member.

Horizontals:	K	0.7
	KL/r	93.4 OK
	Cc	126.1
EIA 3.1.1	Fa	18401 psi
Max.Compresn.Force		8194 lbs

TRIANGULAR TOWER SECTION DATA

Guyed Tower Section
Wind Angle 0,60,90 90 °
Elevation of Foundation: 1 ft
Wind Speed 85 mph
Gh 1.12 EIA 2.3.4
Wind Pres. 27.7 psf EIA 2.3.3
Radial Ice 0.5 inch
EIA 2.3.15 Wind/Ice Reductn? Yes
ANSI/EIA Overstress Factor: Yes

LEGS	OD,L1	ID,L2	wall
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap: 0 in
Galvanizing? Yes
WaveGuide hole reduction? Yes

ITEM	DL	WL
Ladder:	10	10
Misc.	38	0
Total lbf:	48	10

Client: CDT
Project: Eastford, CT
6/19/98 2:03 PM
Span: 2
Elev@Top 100 feet
Elev@Base 80 feet
Tower Ht. 180 feet
Top Face 42 inches 3.50
Bot Face 42 inches 3.50
Taper 0 in./sect.
Ave Face 42 inches
Length 240 inches
FL.to BR 6 inches
Panel 6 panels
Panel 38.00 inches
Br/Panel 2 |x|
Br Lngth 54.54 inches
Horiz 7 7
Density 0.283 lb/in^3
Bracing Type: 1 |x|

SECTION GEOMETRY » 1508 in^4
Section Ixx,Iyy » 1508 in^4
Face Vert. Angle 0.000 °
Leg Angle in face 0.000 °
Leg/Axis Angle 0.000 °
Brace Angle 42.138 °

SECTION 2 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs.	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
Total Weig		729	336 lbs	

Ag: 11010
Af: 411 Df: 0.850
Ar: 3197 Rr: 0.625
SR(e): 0.328 Dr: 1.000
Cf: 2.225

Area: 16.30 ft²
Shear: 763 38.2 lbf,lbf/ft
CnMoment: 7631 ft-lbf
Deadload: 1066 53.3 lbf,lbf/ft
Solid Area Windloads:
Shear: 4142 207.1 lbf,lbf/ft

	inches²	feet²
Ae 0°	2408.5	16.73
Ae 45°	2890.2	20.07
Ae 60°	2326.3	16.16
Ae 90°	2346.9	16.30

Span Length 60 ft
pan Capacity 63137 lbf/leg

Legs: K 1.00
KL/r 40.1 OK
Fy 55000 psi
EIA 3.1.1, Cc 102.0
AISC E2 Fa 37457 psi
Max.Compresn.Force 63828 lbs

Diagonals : K 0.70
KL/r 119.1 OK
Fy 36000 psi
Cc 126.1
EIA 3.1.1 Fa 13882 psi
Max.Compresn.Force 4259 lbs
Max.Tension.Force* 8836 lbs
*Verify Net Section on member.

Horizontals: K 0.7
KL/r 93.4 OK
Cc 126.1
EIA 3.1.1 Fa 18401 psi
Max.Compresn.Force 8194 lbs

TRIANGULAR TOWER SECTION DATA

Guyed Tower Section

Wind Angle 0,60,90	90 °		
Elevation of Foundation:	1	ft	
Wind Speed	85	mph	
Gh	1.12	EIA 2.3.4	
Wind Pres.	31.7	psf	EIA 2.3.3
Radial Ice	0.5	inch	

EIA 2.3.15 Wind/Ice Reductn? Yes

ANSI/EIA Overstress Factor: Yes

LEGS	OD,L1	ID,L2	wall
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap:	0	in
Galvanizing?	Yes	
WaveGuide hole reduction?	Yes	

ITEM	DL	WL
Ladder:	10	10
Misc.	38	0
Total lbf:	48	10

Client:	CDT	
Project:	Eastford, CT	
6/19/98	2:03 PM	
Span:	3	
Elev@Top	155	feet
Elev@Base	135	feet
Tower Ht.	180	feet
Top Face	42	inches 3.50
Bot Face	42	inches 3.50
Taper	0	in./sect.
Ave Face	42	inches
Length	240	inches
FL.to BR	6	inches
# Panel	6	panels
Panel	38.00	inches
Br/Panel	2	|x|
Br Lngth	54.54	inches
# Horiz	7	7
Density	0.283	lb/in^3
Bracing Type:	1	|x|

SECTION GEOMETRY »	1508	in^4
Section Ixx,Iyy »	1508	in^4
Face Vert. Angle	0.000	°
Leg Angle in face	0.000	°
Leg/Axis Angle	0.000	°
Brace Angle	42.138	°

SECTION 3 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
			---	---
		Total Weig	729	336 lbs

Ag:	11010		
Af:	411	Df:	0.850
Ar:	3197	Rr:	0.625
SR(e):	0.328	Dr:	1.000
Cf:	2.225		

Area:	16.30	ft²	
Shear:	872	43.6	lbf,lbf/
CnMoment:	8720	ft-lbf	
Deadload:	1066	53.3	lbf,lbf/ft

Solid Area Windloads:

Shear:	4741	237.1	lbf,lbf/ft

	inches²	feet²
Ae 0°	2408.5	16.73
Ae 45°	2890.2	20.07
Ae 60°	2326.3	16.16
Ae 90°	2346.9	16.30

Span Length	50	ft
pan Capacity	65715	lbf/leg

Legs:	K	1.00	
	KL/r	40.1	OK
	Fy	55000	psi
EIA 3.1.1,	Cc	102.0	
AISC E2	Fa	37457	psi
Max.Compresn.Force		63828	lbs

Diagonals :	K	0.70	
	KL/r	119.1	OK
	Fy	36000	psi
	Cc	126.1	
EIA 3.1.1	Fa	13882	psi
Max.Compresn.Force		4259	lbs
Max.Tension.Force*		8836	lbs

*Verify Net Section on member.

Horizontals:	K	0.7	
	KL/r	93.4	OK
	Cc	126.1	
EIA 3.1.1	Fa	18401	psi
Max.Compresn.Force		8194	lbs

TRIANGULAR TOWER SECTION DATA

Guyed Tower Section
Wind Angle 0,60,90 90 °
Elevation of Foundation: 1 ft
Wind Speed 85 mph
Gh 1.12 EIA 2.3.4
Wind Pres. 33.4 psf EIA 2.3.3
Radial Ice 0.5 inch
EIA 2.3.15 Wind/Ice Reductn? Yes
ANSI/EIA Overstress Factor: Yes

LEGS	OD,L1	ID,L2	wall
2.5" Sch40	2.875	2.469	0.203
DIAGONALS			
5/8" Rod	0.625	0.000	0.313
HORIZONTALS			
L1.5x1.5x3	1.500	1.500	0.188

Dbl Angle Gap: 0 in
Galvanizing? Yes
WaveGuide hole reduction? Yes

ITEM	DL	WL
Ladder:	10	10
Misc.	38	0
Total lbf:	48	10

Client: CDT
Project: Eastford, CT
6/19/98 2:03 PM
Span: 4
Elev@Top 185 feet
Elev@Base 165 feet
Tower Ht. 180 feet
Top Face 42 inches 3.50
Bot Face 42 inches 3.50
Taper 0 in./sect.
Ave Face 42 inches
Length 240 inches
FL.to BR 6 inches
Panel 6 panels
Panel 38.00 inches
Br/Panel 2 |x|
Br Lngth 54.54 inches
Horiz 7 7
Density 0.283 lb/in^3
Bracing Type: 1 |x|

SECTION GEOMETRY » 1508 in^4
Section Ixx,Iyy » 1508 in^4
Face Vert. Angle 0.000 °
Leg Angle in face 0.000 °
Leg/Axis Angle 0.000 °
Brace Angle 42.138 °

SECTION 4 WIND LOAD / WEIGHT CALCULATIONS:

	Pro OD	X-Area	Weight	Ice Wt
Legs	3.875	1.704	347.2	123.7 lbs
Diagonals	1.625	0.307	170.5	112.4 lbs
Horizontals	2.500	0.527	131.6	100.0 lbs
		Total Weig	729	336 lbs

Ag: 11010
Af: 411 Df: 0.850
Ar: 3197 Rr: 0.625
SR(e): 0.328 Dr: 1.000
Cf: 2.225

Area: 16.30 ft²
Shear: 919 46.0 lbf,lbf/ft-lbf
CnMoment: 9193
Deadload: 1066 53.3 lbf,lbf/ft
Solid Area Windloads:
Shear: 5001 250.1 lbf,lbf/ft

	inches²	feet²
Ae 0°	2408.5	16.73
Ae 45°	2890.2	20.07
Ae 60°	2326.3	16.16
Ae 90°	2346.9	16.30

Span Length 20 ft
pan Capacity 72067 lbf/leg

Legs: K 1.00
KL/r 40.1 OK
Fy 55000 psi
EIA 3.1.1, Cc 102.0
AISC E2 Fa 37457 psi
Max.Compresn.Force 63828 lbs

Diagonals : K 0.70
KL/r 119.1 OK
Fy 36000 psi
Cc 126.1
EIA 3.1.1 Fa 13882 psi
Max.Compresn.Force 4259 lbs
Max.Tension.Force* 8836 lbs
*Verify Net Section on member.

Horizontals: K 0.7
KL/r 93.4 OK
Cc 126.1
EIA 3.1.1 Fa 18401 psi
Max.Compresn.Force 8194 lbs

Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
0	0	71116	23705	63828	63137	37.5
1	3541	71042	24849	63828	63137	39.3
2	6928	70968	25942	63828	63137	41.0
3	10159	70895	26983	63828	63137	42.7
4	13235	70821	27974	63828	63137	44.2
5	16157	70747	28913	63828	63137	45.7
6	18923	70674	29801	63828	63137	47.1
7	21534	70600	30638	63828	63137	48.4
8	23991	70526	31424	63828	63137	49.6
9	26292	70453	32158	63828	63137	50.8
10	28438	70379	32842	63828	63137	51.9
11	30430	70305	33474	63828	63137	52.8
12	32266	70232	34056	63828	63137	53.8
13	33948	70158	34586	63828	63137	54.6
14	35474	70084	35065	63828	63137	55.3
15	36845	70011	35493	63828	63137	56.0
16	38062	69937	35869	63828	63137	56.6
17	39123	69863	36195	63828	63137	57.1
18	40029	69790	36469	63828	63137	57.5
19	40781	69716	36693	63828	63137	57.9
20	41377	69642	36865	63828	63137	58.2
21	41818	69568	36986	63828	63137	58.3
22	42105	69495	37056	63828	63137	58.5
23	42236	69421	37075	63828	63137	58.5
24	42212	69347	37042	63828	63137	58.4
25	42034	69274	36959	63828	63137	58.3
26	41700	69200	36824	63828	63137	58.1
27	41211	69126	36638	63828	63137	57.8
28	40568	69053	36401	63828	63137	57.4
29	39769	68979	36113	63828	63137	57.0
30	38815	68905	35774	63828	63137	56.4
31	37707	68832	35384	63828	63137	55.8
32	36443	68758	34942	63828	63137	55.1
33	35024	68684	34450	63828	63137	54.4
34	33451	68611	33906	63828	63137	53.5
35	31722	68537	33311	63828	63137	52.6
36	29839	68463	32665	63828	63137	51.6
37	27800	68390	31968	63828	63137	50.5
38	25606	68316	31220	63828	63137	49.3
39	23258	68242	30420	63828	63137	48.1
40	20754	68169	29570	63828	63137	46.7
41	18095	68095	28668	63828	63137	45.3
42	15282	68021	27715	63828	63137	43.8
43	12313	67947	26711	63828	63137	42.2
44	9189	67874	25656	63828	63137	40.6
45	5911	67800	24550	63828	63137	38.9
46	2477	67726	23393	63828	63137	37.0
47	-1112	67653	22918	63828	63137	36.3
48	-4855	67579	24128	63828	63137	38.2
49	-8754	67505	25390	63828	63137	40.2

Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
50	-12808	67432	26703	63828	63137	42.2
51	-17016	67358	28067	63828	63137	44.4
52	-21380	67284	29482	63828	63137	46.6
53	-25899	67211	30948	63828	63137	48.9
54	-30572	67137	32465	63828	63137	51.2
55	-35401	67063	34034	63828	63137	53.7
56	-40385	66990	35653	63828	63137	56.2
57	-45523	66916	37324	63828	63137	58.9
58	-50817	66842	39046	63828	63137	61.6
59	-56266	66769	40819	63828	63137	64.3
60	-61869	66695	42643	63828	63137	67.2
61	-56035	60662	38708	63828	63137	61.0
62	-50409	60590	36827	63828	63137	58.0
63	-44989	60518	35015	63828	63137	55.2
64	-39777	60446	33272	63828	63137	52.5
65	-34772	60373	31596	63828	63137	49.8
66	-29973	60301	29989	63828	63137	47.3
67	-25382	60229	28450	63828	63137	44.9
68	-20998	60157	26980	63828	63137	42.6
69	-16821	60085	25578	63828	63137	40.4
70	-12852	60013	24244	63828	63137	38.3
71	-9089	59940	22979	63828	63137	36.3
72	-5533	59868	21782	63828	63137	34.5
73	-2185	59796	20653	63828	63137	32.7
74	957	59724	20224	63828	63137	32.0
75	3891	59652	21168	63828	63137	33.5
76	6618	59580	22043	63828	63137	34.9
77	9138	59507	22851	63828	63137	36.1
78	11451	59435	23590	63828	63137	37.3
79	13557	59363	24260	63828	63137	38.3
80	15456	59291	24863	63828	63137	39.3
81	17148	59219	25397	63828	63137	40.1
82	18632	59146	25863	63828	63137	40.9
83	19910	59074	26260	63828	63137	41.5
84	20980	59002	26589	63828	63137	42.0
85	21844	58930	26850	63828	63137	42.4
86	22500	58858	27042	63828	63137	42.7
87	22949	58786	27166	63828	63137	42.9
88	23191	58713	27222	63828	63137	43.0
89	23226	58641	27210	63828	63137	43.0
90	23054	58569	27129	63828	63137	42.8
91	22674	58497	26980	63828	63137	42.6
92	22088	58425	26762	63828	63137	42.3
93	21294	58352	26476	63828	63137	41.8
94	20294	58280	26122	63828	63137	41.3
95	19086	58208	25699	63828	63137	40.6
96	17671	58136	25209	63828	63137	39.8
97	16049	58064	24650	63828	63137	39.0
98	14220	57992	24022	63828	63137	38.0
99	12184	57919	23326	63828	63137	36.9

Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
100	9941	57847	22562	63828	63137	35.7
101	7491	57775	21730	63828	63137	34.4
102	4834	57703	20829	63828	63137	33.0
103	1969	57631	19860	63828	63137	31.4
104	-1103	57558	19550	63828	63137	31.0
105	-4381	57486	20608	63828	63137	32.6
106	-7867	57414	21733	63828	63137	34.4
107	-11560	57342	22928	63828	63137	36.2
108	-15460	57270	24190	63828	63137	38.2
109	-19567	57198	25521	63828	63137	40.3
110	-23881	57125	26921	63828	63137	42.5
111	-28403	57053	28388	63828	63137	44.8
112	-33131	56981	29924	63828	63137	47.2
113	-38066	56909	31528	63828	63137	49.7
114	-43209	56837	33201	63828	63137	52.3
115	-48559	56764	34942	63828	63137	55.1
116	-54115	56692	36751	63828	63137	57.9
117	-59879	56620	38628	63828	63137	60.8
118	-65850	56548	40574	63828	63137	63.9
119	-72028	56476	42588	63828	63137	67.0
120	-78414	56404	44671	63828	63137	70.3
121	-69333	38140	35587	63828	65715	55.2
122	-60490	38068	32646	63828	65715	50.6
123	-51884	37997	29783	63828	65715	46.1
124	-43515	37926	26998	63828	65715	41.7
125	-35383	37855	24292	63828	65715	37.5
126	-27488	37783	21663	63828	65715	33.4
127	-19831	37712	19113	63828	65715	29.4
128	-12410	37641	16641	63828	65715	25.5
129	-5227	37569	14248	63828	65715	21.8
130	1720	37498	13067	63828	65715	19.9
131	7610	36614	14715	63828	65715	22.5
132	13263	36543	16557	63828	65715	25.4
133	18679	36473	18320	63828	65715	28.2
134	23857	36403	20005	63828	65715	30.8
135	28799	36332	21612	63828	65715	33.3
136	33504	36262	23141	63828	65715	35.7
137	37971	36192	24591	63828	65715	38.0
138	42201	36121	25963	63828	65715	40.1
139	46195	36051	27257	63828	65715	42.2
140	49951	35980	28473	63828	65715	44.1
141	52633	35097	29063	63828	65715	45.0
142	55078	35027	29847	63828	65715	46.2
143	57286	34958	30552	63828	65715	47.3
144	59257	34888	31179	63828	65715	48.3
145	60991	34819	31728	63828	65715	49.2
146	62488	34750	32199	63828	65715	49.9
147	63748	34680	32591	63828	65715	50.5
148	64770	34611	32906	63828	65715	51.0
149	65556	34541	33142	63828	65715	51.4

Elevation	Moment	Accum. Download	Resolved Legload	Panel / Span Capacity		% Loaded
150	66104	34472	33299	63828	65715	51.7
151	64529	33657	32508	63828	65715	50.4
152	62717	33596	31890	63828	65715	49.5
153	60667	33534	31193	63828	65715	48.4
154	58381	33473	30418	63828	65715	47.2
155	55857	33412	29565	63828	65715	45.8
156	53097	33350	28634	63828	65715	44.4
157	50099	33289	27625	63828	65715	42.8
158	46864	33228	26537	63828	65715	41.1
159	43392	33166	25371	63828	65715	39.3
160	39683	33105	24127	63828	65715	37.3
161	31487	31822	20995	63828	65715	32.4
162	23054	31768	18195	63828	65715	28.0
163	14384	31715	15317	63828	65715	23.5
164	5477	31662	12361	63828	65715	18.9
165	-3668	31608	11746	63828	65715	17.9
166	-13049	31555	14823	63828	65715	22.8
167	-22668	31502	17979	63828	65715	27.7
168	-32523	31449	21213	63828	65715	32.8
169	-42616	31395	24525	63828	65715	38.0
170	-52946	31342	27915	63828	65715	43.3
171	-46098	2113	15913	63828	72067	24.8
172	-39401	2043	13680	63828	72067	21.3
173	-32854	1973	11496	63828	72067	17.9
174	-26457	1902	9363	63828	72067	14.6
175	-20211	1832	7279	63828	72067	11.3
176	-14115	1762	5244	63828	72067	8.1
177	-8170	1691	3259	63828	72067	5.0
178	-2376	1621	1324	63828	72067	2.0
179	-1113	320	474	63828	72067	0.7
180	0	250	83	63828	72067	0.1

```
Input File:E

*Tower Data File*
*Associated Data Files*
E.out
E.mom
E.mcn
*ID*
CDT
Ashford, CT
6111
*th face wind ice vo int az*
 180  42  85  0  1  1  0
*Beam Configuration*
HBHBHBHC
*Guy Data*
 3
 2  170  145  1
 2  120  145  1
 1  60  145  1
*Section Inertia*
 4
 0  60  7.270259E-02
 60  120  7.270259E-02
 120  170  7.270259E-02
 170  180  7.270259E-02
*Leg Capacity*
 3
 0  120  63828.3  63136.79
 120  170  63828.3  65715.18
 170  180  63828.3  72067.23
*Point Loads*
 14
 3 12' Cellular Boom , 178  284.82  170
 9 Sinclair SRL 411C9R130 , 178  391.8543  80
 10 PD 10017 , 180  103.7366  25
 3 12' Cellular Boom , 170  281.1024  170
 9 ALP 9212 , 170  123.5418  27
 3 12' Cellular Boom , 160  276.2752  170
 9 Sinclair SRL 411C9R130 , 160  380.0984  80
 3 12' Cellular Boom , 150  271.2275  170
 9 ALP 9212 , 150  119.2019  27
 1 6' MHP Dish , 140  836.7584  814
 1 6' MHP Dish , 130  819.2274  814
 1 6' MHP Dish , 120  800.7048  814
 1 G42 Torque Arm , 170  537.1382  262
 1 G42 Torque Arm , 120  486.258  262
*Uniform Loads*
 11
 19 LDF7-50A  1-5/8" , 170  180  5.5  .9
 9 LDF7-50A  1-5/8" , 170  170  0  .9
 9 LDF7-50A  1-5/8" , 0  160  0  .9
 9 LDF7-50A  1-5/8" , 0  150  0  .9
```

```
 1 LDF7-50A  1-5/8" , 0  140  0  .9
 1 LDF7-50A  1-5/8" , 0  130  0  .9
 1 LDF7-50A  1-5/8" , 0  120  0  .9
 1 Tower Span 1 , 0  60  155  54.78
 1 Tower Span 2 , 60  120  207.1  53.28
 1 Tower Span 3 , 120  170  237.1  53.28
 1 Tower Span 4 , 170  180  45.96  53.28
*End*
```

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

January 26, 2001

Sandy M. Carter
Verizon Wireless
20 Alexander Drive
P.O. Box 5029
Wallingford, CT 06492

RE: **TS-VER-003-001117** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 22 Seles Road, Ashford, Connecticut.

Dear Ms. Carter:

At a public meeting held January 25, 2001, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letters dated November 16, 2000, and January 15, 2001.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/FOC/laf

c: Honorable John M. Zulick, First Selectman, Town of Ashford
Planning and Zoning Department, Town of Ashford
Robert J. Francis, Cordless Data Transfer, Inc.
Ronald C. Clark, Nextel Communications
Julie M. Cashin, Esq., Hurwitz & Sagarin LLC
Peter W.van Wilgen, Springwich Cellular Limited Partnership

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Network Dept.

RECEIVED
NOV 17 2000
CONNECTICUT
SITING COUNCIL

verizon wireless

Verizon Wireless
20 Alexander Drive
Wallingford, Connecticut 06492

November 16, 2000

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

HAND DELIVERED

Re: **Request by Cellco Partnership d/b/a Verizon Wireless for an Order to Approve the Shared Use of a Tower Facility located at 20 Seles Road, Ashford, Connecticut.**

Dear Chairman Gelston:

Pursuant to Connecticut General Statutes (C.G.S.) Sec. 16-50aa, Cellco Partnership d/b/a Verizon Wireless hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared use by Verizon Wireless of an existing tower located at 20 Seles Road, Ashford, Connecticut. The property is owned by Raymond Baker and the tower is owned by Cordless Data Transfer which is located in Marlborough, Connecticut. As shown on the attached drawing and as further described below, Verizon Wireless proposes to install antennas on the existing tower and to locate an equipment shelter at the base of the tower. Verizon Wireless requests that the Council finds that the proposed shared use of the tower facility satisfy the criteria stated in C.G.S. Sec. 16-50aa, and to issue an order approving the proposed shared use.

Background

Verizon Wireless is licensed by the Federal Communications Commission to provide cellular telephone service in the Windham County New England County Metropolitan Area (NECMA), which includes the area to be served by the proposed Ashford installation.

The facility at 20 Seles Road in Ashford, consists of an approximately 190 foot AGL guyed steel tower built by Cordless Data Transfer. The guyed tower can structurally support multiple carriers and there other carriers located on the tower which are shown on the attached site plan. Verizon Wireless and Cordless Data transfer have agreed to the proposed-shared use of this tower pursuant to mutually acceptable terms and conditions. Cordless data Transfer has authorized Verizon Wireless to apply for all necessary permits, approvals and authorizations which may be required for the proposed shared use of this facility.

Verizon Wireless proposes to install twelve (12) Swedcom Model ALP-9011 antennas, approximately 43 inches in height, on a platform with their center of radiation at approximately 192 feet above ground level ("AGL"). Verizon Wireless will also install one (1) GPS antenna on the tower. Equipment associated with these antennas, as well as a 40 KW diesel-fueled emergency stand-by generator, would be located in a new approximately 12-foot x 30-foot equipment building located at the base of the tower.

C.G.S. Sec. 16-50aa provides that, upon written request for approval of a proposed shared use, "if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the Council shall issue an order approving such shared use" (C.G.S. Sec. 16-50aa(c)(1).)

Discussion

A. Technical Feasibility. The existing tower is structurally sound and capable of supporting the proposed Verizon Wireless antennas. The tower will not require any structural modification to support the proposed attachments. Verizon Wireless engineers have determined that the proposed antenna installations present minimal potential for interference to or from existing radio transmissions from this location. In addition, the applicant is unaware of any occasion where its operations have caused interference with AM, FM or television reception. The proposed-shared use of this tower therefore is technically feasible. A copy of the structural analysis is attached to this application.

B. Legal Feasibility. Under C.G.S. Sec. 16-50aa, the Council has been authorized to issue an order approving the proposed-shared use of an existing communications tower facility such as the facility at 20 Seles Road (C.G.S. Sec. 16-50aa(c)(1).) This authority complements the Council's prior-existing authority under C.G.S. Sec. 16-50p to issue orders approving the construction of new towers that are subject to the Council's jurisdiction. C.G.S. Sec. 16-50x(a) directs the Council to "give consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing tower facilities. Under the authority vested in the Council by C.G.S. Sec. 16-50aa, an order by the Council approving the shared use would permit the applicant to obtain a building permit for the proposed installations.

C. Environmental Feasibility. The proposed shared use would have a minimal environmental effect, for the following reasons:

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. The addition of the proposed antennas would not increase the height of the tower, although a portion of the antennas themselves would extend above the tower. The proposed installation would not extend the boundaries of the tower site, including the placement of the equipment building near the base of the existing tower.

2. The proposed installation would not increase the noise levels at the existing facility by six decibels or more. The only additional noise will occur during emergency use or periodic exercising of the generator.

3. Operation of the additional antennas will not increase the total radio frequency electromagnetic radiation power density, measured at the tower base to a level at or above the applicable standard. "Worst-case" exposure calculation for a point at the base of the tower in relation to the operation of Verizon Wireless's and other existing antenna arrays are as follows:

	Applicable ANSI Stnd	Calculated "Worst-Case"	Percentage of Stnd.
Verizon Wireless	0.583 mW/cm2	0.0185 mW/cm2	3.18%
Nextel	0.5673 mW/cm2	0.0098 mW/cm2	1.71%
Sprint PCS	1.000 mW/cm2	0.0161 mW/cm2	1.61%
SCLP	0.5867 mW/cm2	0.0277 mW/cm2	4.70%
		Total	11.2%

The "worst-case" exposure would be only 11.2 % of the ANSI standard, as calculated for mixed frequency sites. Power density levels from shared use of the tower facility would thus be well below applicable ANSI standards

4. The proposed installations would not require any water or sanitary facilities, or generate discharges to water bodies. Operation of the emergency back-up generator will result in limited air emissions; pursuant to R.C.S.A. Section 22a-174-3, the generator will require the issuance of a permit from the Department of Environmental Protection Bureau of Air Management. After construction is complete, the proposed installation would not generate any traffic other than periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

D. Economic Feasibility. As previously mentioned, the tower owner and the applicant have entered into a mutual agreement to share the use of the existing tower on terms agreeable to the parties, and the proposed tower sharing is thus economically feasible.

E. Public Safety Concerns. As stated above, the existing tower is structurally capable of supporting the proposed Verizon Wireless antennas. The Applicant is not aware of any other public safety concerns relative to the proposed tower sharing of the existing tower. In fact, the provision of new or improved cellular phone service in the Ashford area, including 5.5 miles of Route 44 and 3 miles of Route 89 and the surrounding area, through shared use of the tower is expected to enhance the safety and welfare of area residents and travelers. The public safety benefits of wireless service are further illustrated by the decision of local authorities elsewhere in Connecticut to provide cellular phones to residents to improve local public safety and emergency communications. The proposed-shared use of this facility would likewise improve public safety in the Ashford area.

Conclusion

For the reasons discussed above, the proposed shared use of the existing telecommunications tower facility at 20 Seles Road satisfies the criteria stated in C.G.S. Sec. 16-50aa, and advances the General Assembly's and the Council's goal of preventing the proliferation of towers in Connecticut. The Applicant therefore requests that the Council issue an order approving the proposed shared use.

Thank you for your consideration of this matter.

Pursuant to Connecticut General Statutes Sec. 16-50v and Section 16-50v-1(a) of the Regulations of Connecticut State Agencies, Verizon Wireless has enclosed a check in the amount of $500.00 for the required filing fee.

Respectfully yours,

Sandy M. Carter

Sandy M. Carter
Manager – Regulatory
Verizon Wireless

Attachments
cc: Honorable John Zulick, First Selectman

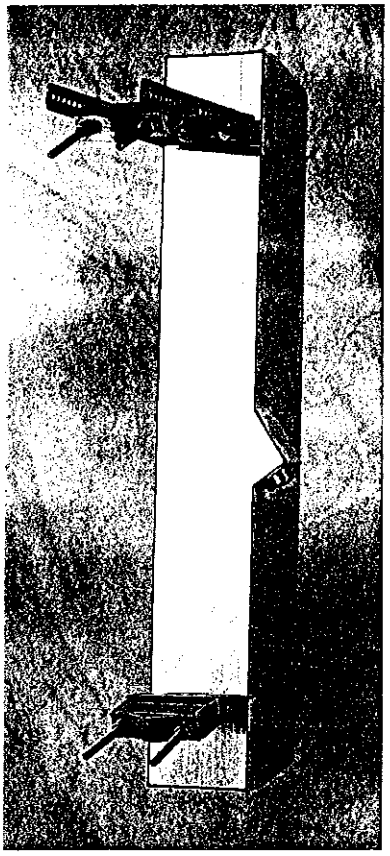
Swedcom

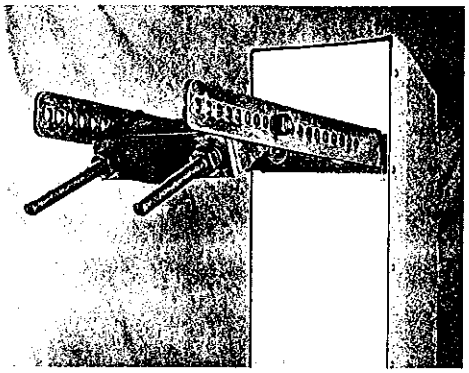
ALP-E 9011-Din

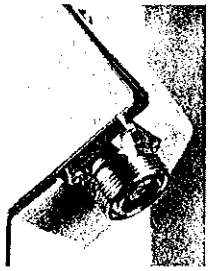
Enhanced Log-Periodic Antenna

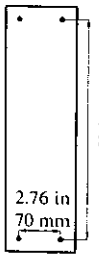
Features:

- ❑ Small Size
- ❑ Aesthetically Pleasing
- ❑ Suitable For TDMA/CDMA
- ❑ High Return Loss
- ❑ Low Intermodulation
- ❑ High FTB
- ❑ Broadbanded
- ❑ Side-lobe Suppression
- ❑ Sturdy Design
- ❑ Down-Tilt Brackets Incl.









The distance between the center of the bolts (on the back of the antenna) are shown in the drawing above.

Bolt diameter is: **3/8-16** [comes with lock nut].

Frequency Range:	**800-900 MHz**
Impedance:	**50 ohm**
Connector Type:	**7/16 Din**
Return Loss:	**20 dB**
Polarization:	**Vertical**
Gain:	**> 11 dBd**
Front To Back Ratio:	**> 30 dB**
Side-Lobe Suppression:	**18 dB**
Intermodulation (2x25W):	**IM3 > 146 dB**
	IM5 > 153 dB
	IM7/9 > 163 dB
Power Rating:	**500 W**
H-Plane (-3 dB point):	**85 - 92°**
V-Plane (-3 dB point):	**16 - 18°**
Lightning Protection:	**DC Grounded**

Overall Height:	**43 in**	**[1092 mm]**
Width:	**6.5 in**	**[165 mm]**
Depth:	**8 in**	**[203 mm]**
Weight Including Tilt-Brackets:	**20 lbs**	**[9.1 Kg]**
Rated Wind Velocity:	**113 mph**	**[180 Km/h]**
Wind Area (CxA/Side):	**2.3 sq. ft.**	**[0.22 sq.m]**
Lateral Thrust At Rated Wind Worst Case:	**112 lbs**	**[500 N]**

Radiating Elements:	**Aluminum**
Extrusion:	**Aluminum**
Radome:	**Grey PVC**
Tilt-Bracket:	**Hot Dip Galvanized Steel**
Antenna Bolts:	**Stainless Steel**

The ALP-E 9011-Din is made in U.S.A.

P. O. Box 363 Marlborough, Connecticut 06447 (860) 295-0445 FAX -1473

August 3, 2000

Ms. Sandy M. Carter
Manager Regulatory
Verizon Wireless
20 Alexander Drive
P.O. Box 5029
Wallingford, Connecticut 06492-2430

RE: Ashford Tower (20 Seles Road, Ashford, Connecticut)
VIA USPS Overnight Service

Dear Ms. Carter

Please consider this letter to be authorization to proceed with your installation of a wireless telephone facility at our tower site located at the above referenced address. I have included with this letter an original Connecticut Licensed Professional Engineer's Stamped plan of the tower which includes a structural analysis of the structure including your proposed antenna and all existing and planned for antenna on the tower as of this date.

If I may be of any further assistance please feel free to call anytime.

Yours Truly

Cordless Data Transfer, Inc.

Robert J. Francis
President

FRED A. NUDD CORPORATION

1743 ROUTE 104, BOX 577
ONTARIO, NY 14519
(315) 524 –2531 FAX (315) 524-4249

www.nuddtowers.com

July 31, 2000

Bob Francis
CDT
PO Box 363
17 Ridgewood Drive
Marlborough, CT 06447

Bob,

We have completed the analysis of your Ashford tower and have found it adequate within the scope of this analysis to support the proposed antenna loading. The analysis was performed using 85 mph wind speed with 1/2" radial ice per EIA/TIA 222-F recommended standard.

The tower we analyzed is a 180' Nudd G42 guyed tower consisting of pipe legs and angle bracing. Tower sections are all-welded with a face dimension of 3'-6". Foundation capacities were predicated on original design criteria.

The antenna loading used in the analysis consisted of the configuration shown on drawing #00-6111A-1. The results of the analysis showed with the addition of the 10' section and new guy cable, all tower & foundation elements were loaded within allowable limits.

If you have any questions concerning this analysis, please contact me.

Sincerely,

FRED A. NUDD CORPORATION

Patrick Botimer
Engineer

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

December 4, 2000

Honorable John M. Zulick
First Selectman
Town of Ashford
Knowlton Memorial Town Hall
25 Pompey Hollow Road
P O Box 38
Ashford, CT 06278

RE: **TS-VER-003-001117** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 20 Seles Road, Ashford, Connecticut.

Dear Mr. Zulick:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for December 14, 2000, at 10:00 a.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

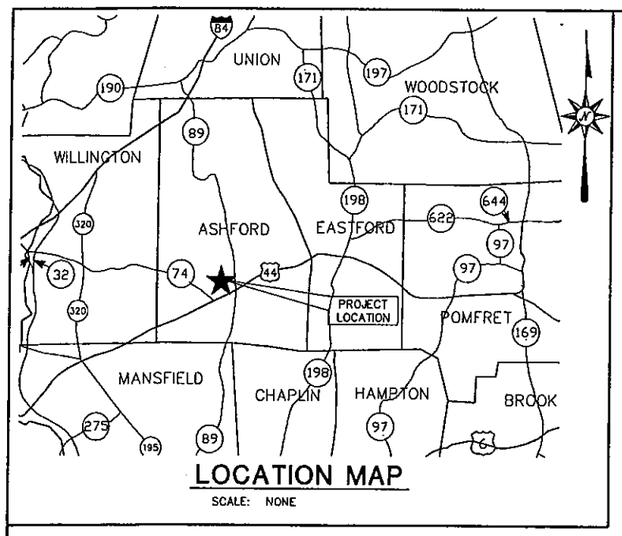
Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold
Executive Director

JMR/laf

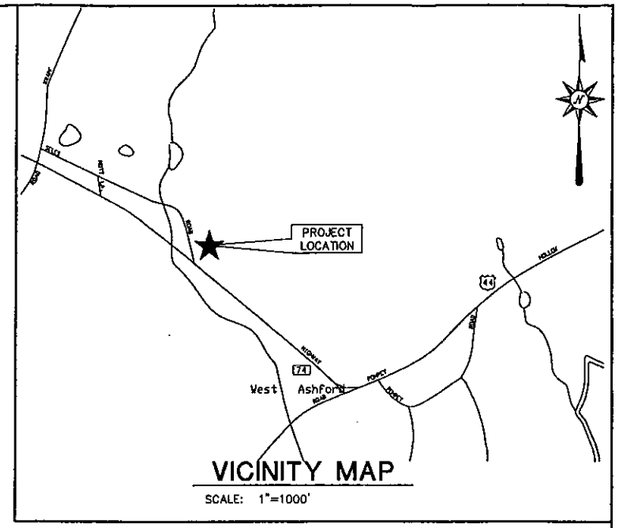
Enclosure: Notice of Tower Sharing



LOCATION MAP
SCALE: NONE

SITING COUNCIL SUBMISSION

ASHFORD WEST TELECOMMUNICATION FACILITY



VICINITY MAP
SCALE: 1"=1000'

20 SELES ROAD
ASHFORD, CONNECTICUT 06278

PREPARED FOR:

CELLCO PARTNERSHIP DBA VERIZON WIRELESS 20 ALEXANDER DRIVE WALLINGFORD, CONNECTICUT 06492

CONTENTS

	TITLE SHEET
SC-1	SITE PLAN AND ELEVATION

PREPARED BY:

BL Companies

ARCHITECTURE ENGINEERING PLANNING LANDSCAPE ARCHITECTURE
LAND SURVEYING ENVIRONMENTAL SCIENCES ANALYTICAL SERVICES

355 RESEARCH PARKWAY
MERIDEN, CONNECTICUT 06450
(203) 630-1406
(203) 630-2615 Fax

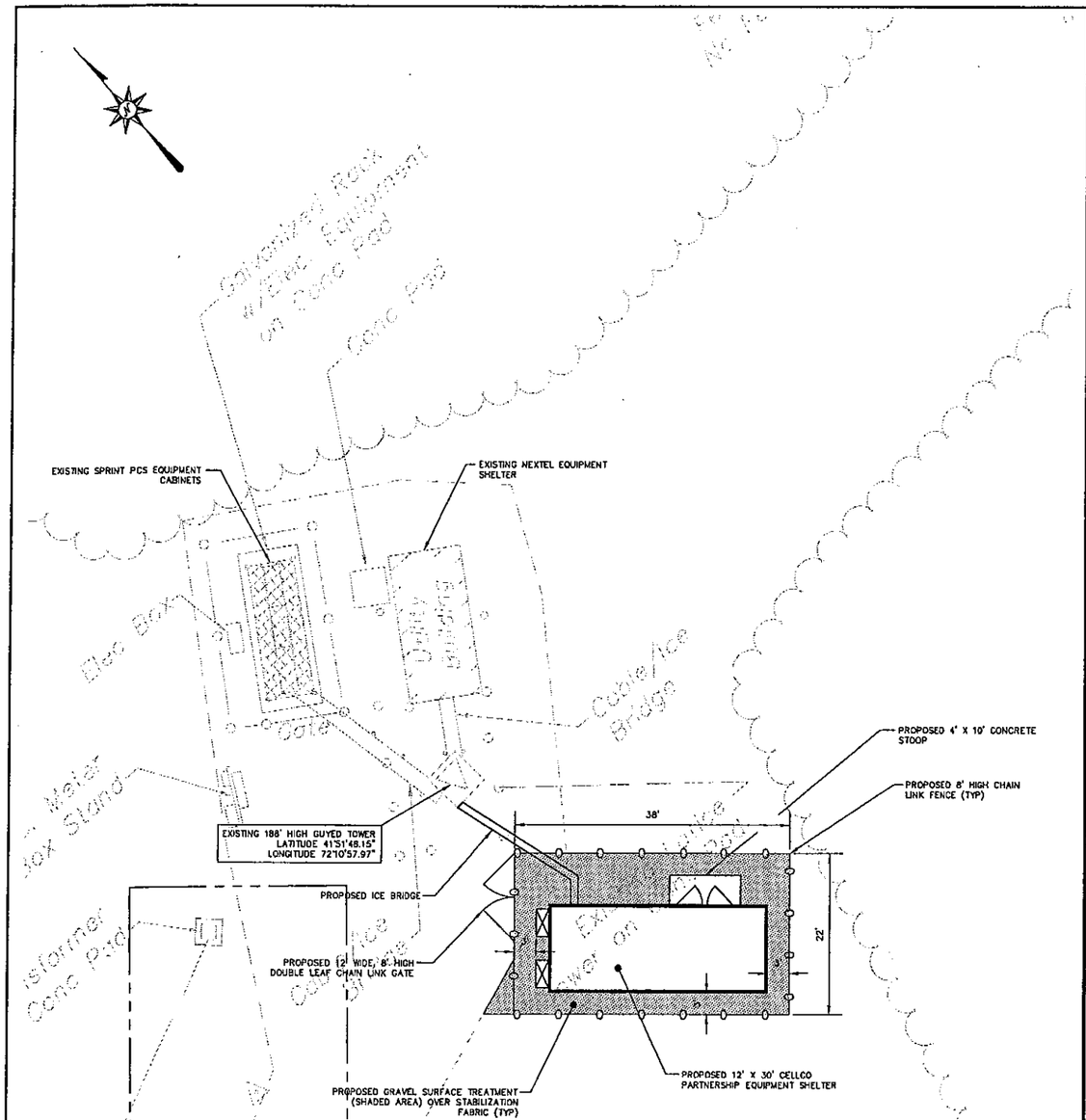
STATE OF CONNECTICUT
ROBERT A. LANFING
No. 15248
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

DATES

ISSUE DATE: NOVEMBER 15, 2000
REVISION:

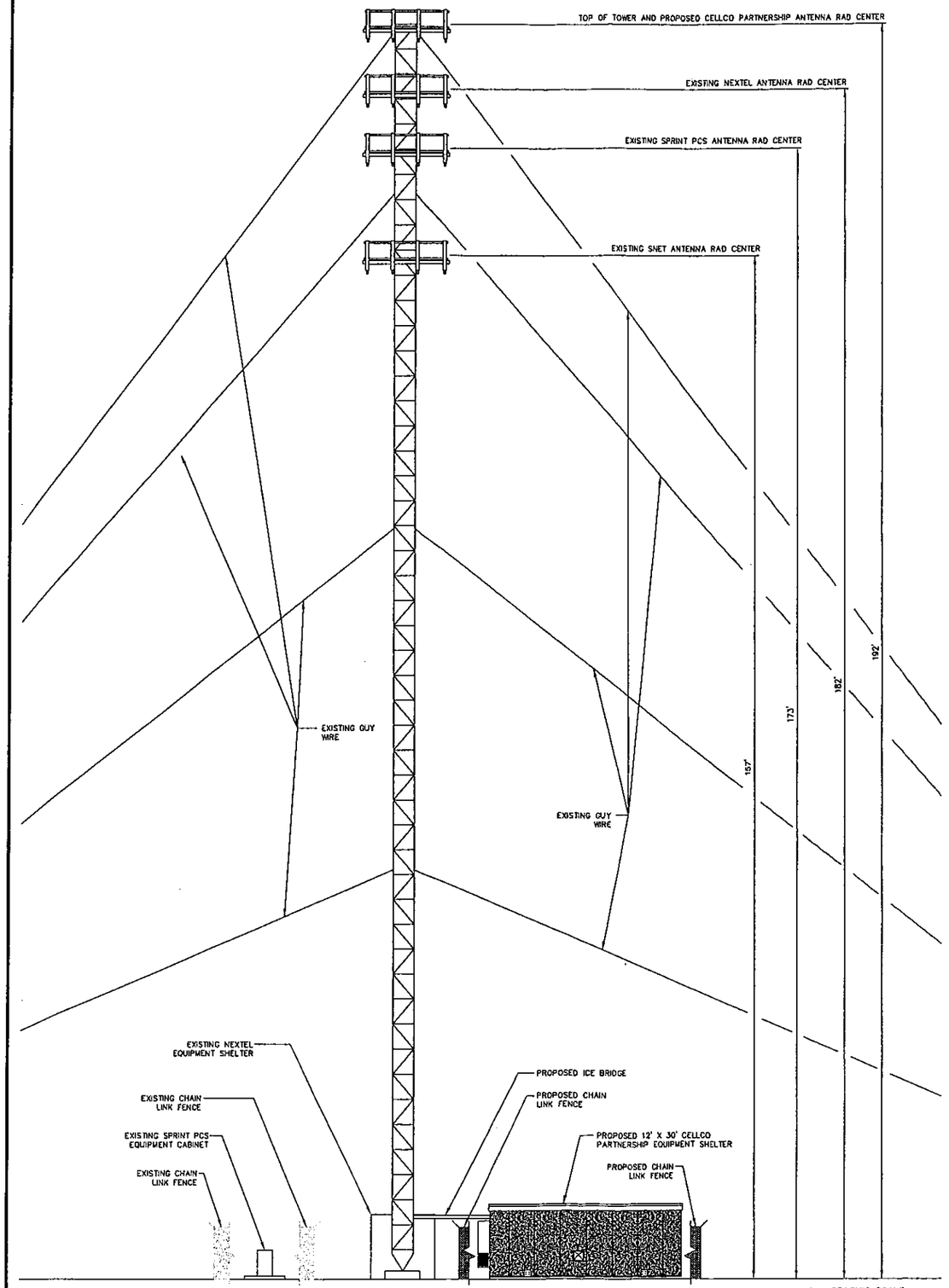
CAD FILE: CVC73401



SITE PLAN

SCALE: 1"=10'

GRAPHIC SCALE
10 5 0 10
SCALE IN FEET



TOWER ELEVATION

SCALE: 1"=10'

GRAPHIC SCALE
10 5 0 10
SCALE IN FEET

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF BL COMPANIES

BL Companies
ARCHITECTURE
ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING
ENVIRONMENTAL SCIENCES
ANALYTICAL SERVICES

355 Research Parkway
Meriden, CT 06450
(203) 630-1406
(203) 630-2615 Fax

ASHFORD WEST TELECOMMUNICATION FACILITY
20 SELES ROAD
ASHFORD, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	R.C.B.
Drawn	R.C.B.
Checked	R.C.B.
Approved	R.A.L.
Scale	AS SHOWN
Project No.	00C754
Date	11/15/00
CAD File	SC075401

Title
SITE PLAN AND TOWER ELEVATION

Sheet No.
SC-1

Xref (s): XYC75401, XCC75401, XCC75402